



# **AIRCRAFT CHARACTERISTICS AIRPORT AND MAINTENANCE PLANNING AC**

## **A319**

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### HIGHLIGHTS

Revision No. 30 - Jul 01/26

| LOCATIONS                                                                          | CHG<br>CODE | DESCRIPTIONS OF CHANGE                                                                           |
|------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------------------------|
| CHAPTER 1                                                                          |             |                                                                                                  |
| Section 1-2                                                                        |             |                                                                                                  |
| Subject 1-2-0                                                                      |             |                                                                                                  |
| Glossary                                                                           | R           |                                                                                                  |
| CHAPTER 2                                                                          | R           |                                                                                                  |
| Section 2-15                                                                       | N           |                                                                                                  |
| Subject 2-15-0                                                                     | N           |                                                                                                  |
| Aircraft Mooring                                                                   | N           |                                                                                                  |
| FIGURE Aircraft Mooring                                                            | N           | ILLUSTRATION ADDED                                                                               |
| CHAPTER 3                                                                          |             |                                                                                                  |
| Section 3-3                                                                        |             |                                                                                                  |
| Subject 3-3-2                                                                      |             |                                                                                                  |
| Take-Off Weight Limitation - ISA+15<br>Conditions                                  | R           | DESCRIPTION TITLE UPDATED                                                                        |
| FIGURE Take-Off Weight Limitation - ISA+15<br>Conditions - CFM56 Series Engine     | R           | REPLACED "ISA +15°C (27°F)" WITH "ISA<br>+15" IN THE ILLUSTRATION TITLE.<br>ILLUSTRATION REVISED |
| FIGURE Take-Off Weight Limitation - ISA+15<br>Conditions - IAE V2500 Series Engine | R           | REPLACED "ISA +15°C (27°F)" WITH "ISA<br>+15" IN THE ILLUSTRATION TITLE.<br>ILLUSTRATION REVISED |
| FIGURE Take-Off Weight Limitation - ISA+15<br>Conditions - Leap Engines            | R           | REPLACED "ISA +15°C (27°F)" WITH "ISA<br>+15" IN THE ILLUSTRATION TITLE.<br>ILLUSTRATION REVISED |
| CHAPTER 4                                                                          | R           |                                                                                                  |
| Section 04-08                                                                      | D           |                                                                                                  |
| CHAPTER 5                                                                          |             |                                                                                                  |
| Section 5-6                                                                        |             |                                                                                                  |
| Subject 5-6-0                                                                      |             |                                                                                                  |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| LOCATIONS                                                                                          | CHG CODE | DESCRIPTIONS OF CHANGE                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FIGURE Ground Pneumatic Power Requirements - Heating                                               | R        | REPLACED THE VALUE "(-36.4° F)" WITH "(ISA -68.4° F)" IN THE ILLUSTRATION.                                                                                                              |
| FIGURE Ground Pneumatic Power Requirements - Cooling                                               | R        | REPLACED THE VALUE "(+73.4° F)" WITH "(ISA +41.4° F)" IN THE ILLUSTRATION.                                                                                                              |
| CHAPTER 6<br>Section 6-1<br>Subject 6-1-0<br>Engine Exhaust Velocities and Temperatures            | R        | REPLACED "ISA +15K (+15°C)" WITH "ISA +15" IN THE RELATED PARAGRAPH.<br>UPDATED THE GENERAL INFORMATION RELATED TO THE BREAKAWAY IN DUAL-ENGINE TAXI AND SINGLE-ENGINE TAXI OPERATIONS. |
| Subject 6-1-1<br>FIGURE Engine Exhaust Velocities - Ground Idle Power – CFM LEAP-1A Engine         | R        | REPLACED "ISA+15K" WITH "ISA+15" IN THE NOTE.                                                                                                                                           |
| Subject 6-1-2<br>FIGURE Engine Exhaust Temperatures - Ground Idle Power – CFM LEAP-1A Engine       | R        | REPLACED "ISA +15K" WITH "ISA+15" IN THE NOTE.                                                                                                                                          |
| Subject 6-1-3<br>FIGURE Engine Exhaust Velocities - Breakaway Power 12% MTO – CFM LEAP-1A Engine   | R        | REPLACED "ISA+15K" WITH "ISA+15" IN THE NOTE.                                                                                                                                           |
| FIGURE Engine Exhaust Velocities - Breakaway Power 24% MTO – CFM LEAP-1A Engine                    | R        | REPLACED "ISA+15K" WITH "ISA+15" IN THE NOTE.                                                                                                                                           |
| Subject 6-1-4<br>FIGURE Engine Exhaust Temperatures - Breakaway Power 12% MTO - CFM LEAP-1A Engine | R        | REPLACED "ISA+15K" WITH "ISA+15" IN THE NOTE.                                                                                                                                           |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| LOCATIONS                                                                                              | CHG CODE | DESCRIPTIONS OF CHANGE                             |
|--------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------|
| FIGURE Engine Exhaust Temperatures - Breakaway Power 24% MTO - CFM LEAP-1A Engine<br><br>Subject 6-1-5 | R        | REPLACED "ISA+15K" WITH "ISA+15" IN THE NOTE.      |
| FIGURE Engine Exhaust Velocities - Takeoff Power – IAE V2500 Series Engine                             | R        | UPDATED THE ILLUSTRATION FOR THE SCALE ADJUSTMENT. |
| FIGURE Engine Exhaust Velocities - Takeoff Power – CFM LEAP-1A Engine                                  | R        | REPLACED "ISA +15K" WITH "ISA+15" IN THE NOTE.     |
| FIGURE Engine Exhaust Velocities - Takeoff Power – PW 1100G Engine<br><br>Subject 6-1-6                | R        | UPDATED THE ILLUSTRATION FOR THE SCALE ADJUSTMENT. |
| FIGURE Engine Exhaust Temperatures - Takeoff Power – IAE V2500 Series Engine                           | R        | UPDATED THE ILLUSTRATION FOR THE SCALE ADJUSTMENT. |
| FIGURE Engine Exhaust Temperatures - Takeoff Power – CFM LEAP-1A Engine                                | R        | REPLACED "ISA+15K" WITH "ISA+15" IN THE NOTE.      |
| FIGURE Engine Exhaust Temperatures - Takeoff Power – PW 1100G Engine                                   | R        | UPDATED THE ILLUSTRATION FOR THE SCALE ADJUSTMENT. |

### LIST OF EFFECTIVE CONTENT

Revision No. 30 - Jul 01/26

| CONTENT                                                   | CHG<br>CODE | LAST REVISION<br>DATE |
|-----------------------------------------------------------|-------------|-----------------------|
| CHAPTER 1                                                 |             |                       |
| Subject 1-1-0                                             |             | Jul 15/25             |
| Purpose                                                   |             |                       |
| Subject 1-2-0                                             |             |                       |
| Glossary                                                  | R           | Jul 01/26             |
| CHAPTER 2                                                 |             |                       |
| Subject 2-1-1                                             |             | Jul 15/25             |
| General Aircraft Characteristics Data                     |             |                       |
| Subject 2-2-0                                             |             | May 01/14             |
| General Aircraft Dimensions                               |             | Feb 01/18             |
| FIGURE General Aircraft Dimensions - Wing Tip Fence       |             | May 01/15             |
| FIGURE General Aircraft Dimensions                        |             |                       |
| Subject 2-3-0                                             |             | May 01/15             |
| Ground Clearances                                         |             | Jul 15/25             |
| FIGURE Ground Clearances - Wing Tip Fence                 |             | Jul 15/25             |
| FIGURE Ground Clearances - Sharklet                       |             | Jul 15/25             |
| FIGURE Ground Clearances                                  |             | May 01/15             |
| FIGURE Ground Clearances - Trailing Edge Flaps - Extended |             | May 01/15             |
| FIGURE Ground Clearances - Flap Tracks - Extended         |             |                       |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                                       | CHG<br>CODE | LAST REVISION<br>DATE |
|-----------------------------------------------------------------------------------------------|-------------|-----------------------|
| FIGURE Ground Clearances - Flap Tracks - Retracted                                            |             | May 01/15             |
| FIGURE Ground Clearances - Flap Tracks - 1 + F                                                |             | May 01/15             |
| FIGURE Ground Clearances - Aileron Down                                                       |             | May 01/15             |
| FIGURE Ground Clearances - Aileron Up                                                         |             | May 01/15             |
| FIGURE Ground Clearances - Spoilers - Extended                                                |             | May 01/15             |
| FIGURE Ground Clearances - Leading Edge Slats - Extended                                      |             | May 01/15             |
| Subject 2-4-1                                                                                 |             | May 01/16             |
| Interior Arrangements - Plan View                                                             |             | May 01/16             |
| FIGURE Interior Arrangements - Plan View - Typical Configuration - Single-Class, High Density |             | May 01/16             |
| FIGURE Interior Arrangements - Plan View - Typical Configuration - Two-Class                  |             | May 01/16             |
| Subject 2-5-0                                                                                 |             | May 01/15             |
| Interior Arrangements - Cross Section                                                         |             | May 01/15             |
| FIGURE Interior Arrangements - Cross Section - Economy Class, 6 Abreast - Wider Aisle         |             | May 01/15             |
| FIGURE Interior Arrangements - Cross Section - First-Class                                    |             | May 01/15             |
| Subject 2-6-0                                                                                 |             | May 01/15             |
| Cargo Compartments                                                                            |             | May 01/15             |
| FIGURE Cargo Compartments - Locations and Dimensions                                          |             | May 01/15             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                    | CHG<br>CODE | LAST REVISION<br>DATE |
|----------------------------------------------------------------------------|-------------|-----------------------|
| FIGURE Cargo Compartments - Loading Combinations                           |             | May 01/15             |
| Subject 2-7-0                                                              |             |                       |
| Door Clearances                                                            |             | Mar 01/22             |
| FIGURE Door Identification and Location - Door Identification              |             | Feb 01/18             |
| FIGURE Doors Clearances - Forward Passenger/Crew Doors                     |             | May 01/15             |
| FIGURE Doors Clearances - Emergency Exits                                  |             | May 01/15             |
| FIGURE Doors Clearances - Aft Passenger/Crew Doors                         |             | May 01/15             |
| FIGURE Doors Clearances - Forward Cargo Compartment Door                   |             | May 01/15             |
| FIGURE Doors Clearances - Forward Cargo Compartment Door                   |             | May 01/15             |
| FIGURE Doors Clearances - Aft Cargo Compartment Door                       |             | May 01/15             |
| FIGURE Doors Clearances - Main Landing Gear Doors                          |             | May 01/15             |
| FIGURE Doors Clearances - Radome                                           |             | May 01/15             |
| FIGURE Doors Clearances - APU and Nose Landing Gear Doors                  |             | May 01/15             |
| FIGURE Doors Clearances - Airstairs - Location                             |             | Mar 01/22             |
| FIGURE Doors Clearances - Airstairs - Dimensions                           |             | Mar 01/22             |
| FIGURE Doors Clearances - Airstairs - Location for Operating the Airstairs |             | Mar 01/22             |
| FIGURE Operation of the Airstairs                                          |             | Mar 01/22             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                          | CHG<br>CODE | LAST REVISION<br>DATE |
|------------------------------------------------------------------|-------------|-----------------------|
| Subject 2-8-0                                                    |             |                       |
| Escape Slides                                                    |             | Dec 01/18             |
| FIGURE Escape Slides - Location                                  |             | Feb 01/18             |
| FIGURE Escape Slides - Dimensions                                |             | Feb 01/18             |
| Subject 2-9-0                                                    |             |                       |
| Landing Gear                                                     |             | Mar 01/22             |
| FIGURE Landing Gear - Main Landing Gear - Twin-Wheel             |             | May 01/14             |
| FIGURE Landing Gear - Main Landing Gear Dimensions - Twin-Wheel  |             | May 01/14             |
| FIGURE Landing Gear - Nose Landing Gear of ACJ                   |             | Mar 01/22             |
| FIGURE Operation of Airstairs for ACJ                            |             | Mar 01/22             |
| FIGURE Landing Gear - Nose Landing Gear Dimensions               |             | May 01/14             |
| Landing Gear Maintenance Pits                                    |             | May 01/14             |
| FIGURE Landing Gear Maintenance Pits - Maintenance Pit Envelopes |             | May 01/14             |
| FIGURE Landing Gear Maintenance Pits - Maintenance Pit Envelopes |             | May 01/14             |
| Subject 2-10-0                                                   |             |                       |
| Exterior Lighting                                                |             | May 01/15             |
| FIGURE Exterior Lighting                                         |             | May 01/14             |
| FIGURE Exterior Lighting                                         |             | May 01/14             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                   | CHG<br>CODE | LAST REVISION<br>DATE |
|---------------------------------------------------------------------------|-------------|-----------------------|
| FIGURE Exterior Lighting                                                  |             | May 01/14             |
| FIGURE Exterior Lighting                                                  |             | May 01/14             |
| Subject 2-11-0                                                            |             |                       |
| Antennas and Probes Location                                              |             | May 01/14             |
| FIGURE Antennas and Probes - Location                                     |             | May 01/14             |
| Subject 2-12-0                                                            |             |                       |
| Auxiliary Power Unit                                                      |             | Dec 01/15             |
| FIGURE Auxiliary Power Unit - Access Doors                                |             | Dec 01/15             |
| FIGURE Auxiliary Power Unit - General Layout                              |             | Dec 01/15             |
| Engine and Nacelle                                                        |             | May 01/23             |
| FIGURE Power Plant Handling - Major Dimensions - CFM56 Series Engine      |             | May 01/14             |
| FIGURE Power Plant Handling - Major Dimensions - CFM56 Series Engine      |             | May 01/14             |
| FIGURE Power Plant Handling - Fan Cowls - CFM56 Series Engine             |             | May 01/17             |
| FIGURE Power Plant Handling - Thrust Reverser Cowls - CFM56 Series Engine |             | May 01/17             |
| FIGURE Power Plant Handling - Major Dimensions - IAE V2500 Series Engine  |             | May 01/14             |
| FIGURE Power Plant Handling - Major Dimensions - IAE V2500 Series Engine  |             | May 01/14             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                        | CHG<br>CODE | LAST REVISION<br>DATE |
|--------------------------------------------------------------------------------|-------------|-----------------------|
| FIGURE Power Plant Handling - Fan Cowls - IAE V2500 Series Engine              |             | May 01/17             |
| FIGURE Power Plant Handling - Thrust Reverser Halves - IAE V2500 Series Engine |             | May 01/17             |
| FIGURE Power Plant Handling - Major Dimensions - PW 1100G Engine               |             | May 01/17             |
| FIGURE Power Plant Handling - Fan Cowls - PW 1100G Engine                      |             | May 01/17             |
| FIGURE Power Plant Handling - Thrust Reverser Halves - PW 1100G Engine         |             | May 01/14             |
| FIGURE Power Plant Handling - Major Dimensions - CFM LEAP-1A Engine            |             | May 01/15             |
| FIGURE Power Plant Handling - Major Dimensions - CFM LEAP-1A Engine            |             | May 01/17             |
| Subject 2-13-0<br>Leveling, Symmetry and Alignment                             |             | May 01/14             |
| FIGURE Location of the Leveling Points                                         |             | May 01/14             |
| Subject 2-14-0<br>Jacking for Maintenance                                      |             | Mar 01/22             |
| FIGURE Jacking for Maintenance - Jacking Point Locations                       |             | May 01/15             |
| FIGURE Jacking for Maintenance - Forward Jacking Point                         |             | May 01/14             |
| FIGURE Jacking for Maintenance - Wing Jacking Points                           |             | May 01/14             |
| FIGURE Jacking for Maintenance - Safety Stay                                   |             | May 01/15             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                               | CHG<br>CODE | LAST REVISION<br>DATE |
|---------------------------------------------------------------------------------------|-------------|-----------------------|
| FIGURE Jacking for Maintenance - Jacking Design                                       |             | Mar 01/22             |
| FIGURE Jacking for Maintenance - Jacking Design                                       |             | May 01/23             |
| FIGURE Jacking for Maintenance - Location of Shoring Cradles                          |             | May 01/14             |
| Jacking of the Landing Gear                                                           |             | May 01/17             |
| FIGURE Jacking of the Landing Gear - MLG Jacking Point Location - Twin Wheels         |             | May 01/14             |
| FIGURE Jacking of the Landing Gear - MLG Jacking with Cantilever Jack - Twin Wheels   |             | May 01/14             |
| FIGURE Jacking of the Landing Gear - NLG Jacking - Point Location                     |             | May 01/14             |
| FIGURE Jacking of the Landing Gear - Maximum Load Capacity to Lift Each Jacking Point |             | May 01/17             |
| FIGURE Jacking of the Landing Gear - Maximum Load Capacity to Lift Each Jacking Point |             | May 01/17             |
| Subject 2-15-0                                                                        |             |                       |
| Aircraft Mooring                                                                      | N           | Jul 01/26             |
| FIGURE Aircraft Mooring                                                               | N           | Jul 01/26             |
| <u>CHAPTER 3</u>                                                                      |             |                       |
| Subject 3-1-0                                                                         |             |                       |
| General Information                                                                   |             | May 01/14             |
| Subject 3-2-1                                                                         |             |                       |
| Payload/Range - ISA Conditions                                                        |             | May 01/15             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                         | CHG<br>CODE | LAST REVISION<br>DATE |
|---------------------------------------------------------------------------------|-------------|-----------------------|
| FIGURE Payload/Range - ISA Conditions                                           |             | May 01/15             |
| FIGURE Payload/Range - ISA Conditions - Sharklet                                |             | May 01/15             |
| FIGURE Payload/Range - ISA Conditions                                           |             | May 01/15             |
| Subject 3-3-1                                                                   |             |                       |
| Take-Off Weight Limitation - ISA Conditions                                     |             | Dec 01/21             |
| FIGURE Take-Off Weight Limitation - ISA Conditions - CFM56 Series Engine        |             | May 01/14             |
| FIGURE Take-Off Weight Limitation - ISA Conditions - IAE V2500 Series Engine    |             | May 01/14             |
| FIGURE Take-Off Weight Limitation - ISA Conditions - LEAP Engines               |             | Dec 01/21             |
| Subject 3-3-2                                                                   |             |                       |
| Take-Off Weight Limitation - ISA+15 Conditions                                  | R           | Jul 01/26             |
| FIGURE Take-Off Weight Limitation - ISA+15 Conditions - CFM56 Series Engine     | R           | Jul 01/26             |
| FIGURE Take-Off Weight Limitation - ISA+15 Conditions - IAE V2500 Series Engine | R           | Jul 01/26             |
| FIGURE Take-Off Weight Limitation - ISA+15 Conditions - Leap Engines            | R           | Jul 01/26             |
| Subject 3-3-3                                                                   |             |                       |
| Aerodrome Reference Code                                                        |             | Apr 01/20             |
| Subject 3-4-1                                                                   |             |                       |
| Landing Field Length - ISA Conditions                                           |             | Dec 01/21             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                | CHG<br>CODE | LAST REVISION<br>DATE |
|------------------------------------------------------------------------|-------------|-----------------------|
| FIGURE Landing Field Length - ISA Conditions - CFM56-5A Series Engine  |             | May 01/14             |
| FIGURE Landing Field Length - ISA Conditions - IAE V2500 Series Engine |             | May 01/14             |
| FIGURE Landing Field Length - ISA Conditions - Leap Engines            |             | Dec 01/21             |
| Subject 3-5-0                                                          |             |                       |
| Final Approach Speed                                                   |             | May 01/14             |
| <u>CHAPTER 4</u>                                                       |             |                       |
| Subject 4-1-0                                                          |             |                       |
| General Information                                                    |             | May 01/14             |
| Subject 4-2-0                                                          |             |                       |
| Turning Radii                                                          |             | Dec 01/15             |
| FIGURE Turning Radii, No Slip Angle - (Sheet 1)                        |             | Dec 01/15             |
| FIGURE Turning Radii, No Slip Angle - (Sheet 2)                        |             | Dec 01/15             |
| Subject 4-3-0                                                          |             |                       |
| Minimum Turning Radii                                                  |             | Dec 01/15             |
| FIGURE Minimum Turning Radii                                           |             | May 01/14             |
| Subject 4-4-0                                                          |             |                       |
| Visibility from Cockpit in Static Position                             |             | May 01/14             |
| FIGURE Visibility from Cockpit in Static Position                      |             | Dec 01/18             |
| FIGURE Binocular Visibility Through Windows from Captain Eye Position  |             | May 01/14             |
| Subject 4-5-0                                                          |             |                       |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                | CHG<br>CODE | LAST REVISION<br>DATE |
|------------------------------------------------------------------------|-------------|-----------------------|
| Runway and Taxiway Turn Paths                                          |             | May 01/14             |
| Subject 4-5-1                                                          |             |                       |
| 135° Turn - Runway to Taxiway                                          |             | May 01/14             |
| FIGURE 135° Turn - Runway to Taxiway - Cockpit Over Centerline Method  |             | Dec 01/18             |
| FIGURE 135° Turn - Runway to Taxiway - Judgemental Oversteering Method |             | Dec 01/18             |
| Subject 4-5-2                                                          |             |                       |
| 90° Turn - Runway to Taxiway                                           |             | May 01/14             |
| FIGURE 90° Turn - Runway to Taxiway - Cockpit Over Centerline Method   |             | Dec 01/18             |
| FIGURE 90° Turn - Runway to Taxiway - Judgemental Oversteering Method  |             | Dec 01/18             |
| Subject 4-5-3                                                          |             |                       |
| 180° Turn on a Runway                                                  |             | Dec 01/18             |
| FIGURE 180° Turn on a Runway - Edge of Runway Method                   |             | Dec 01/18             |
| FIGURE 180° Turn on a Runway - Edge of Runway Method                   |             | Dec 01/18             |
| Subject 4-5-4                                                          |             |                       |
| 135° Turn - Taxiway to Taxiway                                         |             | May 01/14             |
| FIGURE 135° Turn - Taxiway to Taxiway - Cockpit Over Centerline Method |             | Dec 01/18             |
| Subject 4-5-5                                                          |             |                       |
| 90° Turn - Taxiway to Taxiway                                          |             | May 01/14             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                    | CHG<br>CODE | LAST REVISION<br>DATE |
|----------------------------------------------------------------------------|-------------|-----------------------|
| FIGURE 90° Turn - Taxiway to Taxiway - Cockpit Over Centerline Method      |             | Dec 01/18             |
| Subject 4-6-0                                                              |             |                       |
| Runway Holding Bay (Apron)                                                 |             | May 01/14             |
| FIGURE Runway Holding Bay (Apron)                                          |             | May 01/14             |
| Subject 4-7-0                                                              |             |                       |
| Minimum Line-Up Distance Corrections                                       |             | May 01/14             |
| FIGURE Minimum Line-Up Distance Corrections - 90° Turn on Runway Entry     |             | May 01/14             |
| FIGURE Minimum Line-Up Distance Corrections - 180° Turn on Runway Turn Pad |             | May 01/14             |
| FIGURE Minimum Line-Up Distance Corrections - 180° Turn on Runway Width    |             | May 01/14             |
| CHAPTER 5                                                                  |             |                       |
| Subject 5-1-1                                                              |             |                       |
| Aircraft Servicing Arrangements                                            |             | May 01/14             |
| Subject 5-1-2                                                              |             |                       |
| Typical Ramp Layout – Open Apron                                           |             | May 01/14             |
| FIGURE Typical Ramp Layout - Open Apron - Bulk Loading                     |             | May 01/14             |
| FIGURE Typical Ramp Layout - Open Apron - ULD Loading                      |             | May 01/14             |
| Subject 5-1-3                                                              |             |                       |
| Typical Ramp Layout - Gate                                                 |             | May 01/14             |
| FIGURE Typical Ramp Layout - Gate                                          |             | May 01/14             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                                           | CHG<br>CODE | LAST REVISION<br>DATE |
|---------------------------------------------------------------------------------------------------|-------------|-----------------------|
| Subject 5-2-0                                                                                     |             |                       |
| Terminal Operations - Full Servicing Turn Round Time                                              |             | Dec 01/18             |
| FIGURE Full Servicing Turn Round Time Chart                                                       |             | Dec 01/18             |
| Subject 5-3-0                                                                                     |             |                       |
| Terminal Operations - Outstation Turn Round Time                                                  |             | Dec 01/18             |
| FIGURE Outstation Turn Round Time Chart                                                           |             | Dec 01/18             |
| Subject 5-4-1                                                                                     |             |                       |
| Ground Service Connections Layout                                                                 |             | May 01/14             |
| FIGURE Ground Service Connections Layout                                                          |             | May 01/14             |
| Subject 5-4-2                                                                                     |             |                       |
| Grounding (Earthing) Points                                                                       |             | Jun 01/24             |
| FIGURE Ground Service Connections - Grounding (Earthing) Points - Landing Gear                    |             | May 01/14             |
| FIGURE Ground Service Connections - Grounding (Earthing) Points - Wing                            |             | Jun 01/24             |
| FIGURE Ground Service Connections - Grounding (Earthing) Point - Avionics Compartment Door-Frame  |             | May 01/14             |
| FIGURE Ground Service Connections - Grounding (Earthing) Point - Engine Air Intake (If Installed) |             | May 01/14             |
| Subject 5-4-3                                                                                     |             |                       |
| Hydraulic Servicing                                                                               |             | May 01/16             |
| FIGURE Ground Service Connections - Green System Ground Service Panel                             |             | May 01/16             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                          | CHG<br>CODE | LAST REVISION<br>DATE |
|----------------------------------------------------------------------------------|-------------|-----------------------|
| FIGURE Ground Service Connections - Blue System Ground Service Panel             |             | May 01/16             |
| FIGURE Ground Service Connections - Yellow System Ground Service Panel           |             | May 01/16             |
| FIGURE Ground Service Connections - RAT                                          |             | May 01/16             |
| Subject 5-4-4                                                                    |             |                       |
| Electrical System                                                                |             | May 01/15             |
| FIGURE Ground Service Connections - External Power Receptacles                   |             | May 01/14             |
| Subject 5-4-5                                                                    |             |                       |
| Oxygen System                                                                    |             | May 01/14             |
| FIGURE Ground Service Connections - Oxygen System                                |             | May 01/14             |
| Subject 5-4-6                                                                    |             |                       |
| Fuel System                                                                      |             | May 01/14             |
| FIGURE Ground Service Connections - Refuel/Defuel Control Panel                  |             | May 01/14             |
| FIGURE Ground Service Connections - Refuel/Defuel Couplings                      |             | May 01/14             |
| FIGURE Ground Service Connections - Overwing Gravity-Refuel Cap (If Installed)   |             | May 01/14             |
| FIGURE Ground Service Connections - Overpressure Protectors and NACA Vent Intake |             | May 01/14             |
| Subject 5-4-7                                                                    |             |                       |
| Pneumatic System                                                                 |             | May 01/14             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                          | CHG<br>CODE | LAST REVISION<br>DATE |
|----------------------------------------------------------------------------------|-------------|-----------------------|
| FIGURE Ground Service Connections - LP and HP Ground Connectors                  |             | May 01/14             |
| Subject 5-4-8                                                                    |             |                       |
| Oil System                                                                       |             | Dec 01/21             |
| FIGURE Ground Service Connections - Engine Oil Tank – CFM56 Series Engine        |             | May 01/14             |
| FIGURE Ground Service Connections - IDG Oil Tank – CFM56 Series Engine           |             | May 01/14             |
| FIGURE Ground Service Connections - Starter Oil Tank – CFM56 Series Engine       |             | May 01/14             |
| FIGURE Ground Service Connections - Engine Oil Tank – IAE V2500 Series Engine    |             | May 01/14             |
| FIGURE Ground Service Connections - IDG Oil Tank – IAE V2500 Series Engine       |             | May 01/14             |
| FIGURE Ground Service Connections - Starter Oil Tank – IAE V2500 Series Engine   |             | May 01/14             |
| FIGURE Ground Service Connections - APU Oil Tank                                 |             | May 01/14             |
| FIGURE Ground Service Connections - Engine Oil Tank – CFM LEAP-1A Series Engine  |             | Dec 01/21             |
| FIGURE Ground Service Connections - IDG Oil Tank – CFM LEAP-1A Series Engine     |             | Dec 01/21             |
| FIGURE Ground Service Connections - Starter Oil Tank – CFM LEAP-1A Series Engine |             | Dec 01/21             |
| Subject 5-4-9                                                                    |             |                       |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                 | CHG<br>CODE | LAST REVISION<br>DATE |
|-------------------------------------------------------------------------|-------------|-----------------------|
| Potable Water System                                                    |             | Jul 15/25             |
| FIGURE Ground Service Connections - Potable Water Ground Service Panels |             | Jul 15/25             |
| FIGURE Ground Service Connections - Potable Water Tank Location         |             | May 01/14             |
| Subject 5-4-10                                                          |             | Nov 01/19             |
| Waste Water System                                                      |             | Jul 15/25             |
| FIGURE Ground Service Connections - Waste Water Ground Service Panel    |             | Jul 15/25             |
| FIGURE Ground Service Connections - Waste Tank Location                 |             | Jun 01/24             |
| Subject 5-5-0                                                           |             | May 01/15             |
| Engine Starting Pneumatic Requirements                                  |             | Jul 01/26             |
| Subject 5-6-0                                                           |             | Jul 01/26             |
| Ground Pneumatic Power Requirements                                     |             | May 01/15             |
| FIGURE Ground Pneumatic Power Requirements - Heating                    | R           | Jul 01/26             |
| FIGURE Ground Pneumatic Power Requirements - Cooling                    | R           | Jul 01/26             |
| Subject 5-7-0                                                           |             | May 01/15             |
| Preconditioned Airflow Requirements                                     |             | May 01/16             |
| FIGURE Preconditioned Airflow Requirements                              |             | Jul 15/25             |
| Subject 5-8-0                                                           |             | Dec 01/23             |
| Ground Towing Requirements                                              |             |                       |
| FIGURE Ground Towing Requirements                                       |             |                       |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                             | CHG<br>CODE | LAST REVISION<br>DATE |
|-------------------------------------------------------------------------------------|-------------|-----------------------|
| FIGURE Ground Towing Requirements                                                   |             | Jul 15/25             |
| Subject 5-9-0                                                                       |             |                       |
| De-Icing and External Cleaning                                                      |             | May 01/14             |
| <u>CHAPTER 6</u>                                                                    |             |                       |
| Subject 6-1-0                                                                       |             |                       |
| Engine Exhaust Velocities and Temperatures                                          | R           | Jul 01/26             |
| Subject 6-1-1                                                                       |             |                       |
| Engine Exhaust Velocities Contours - Ground Idle Power                              |             | Dec 01/15             |
| FIGURE Engine Exhaust Velocities - Ground Idle Power – CFM56<br>Series Engine       |             | Jul 15/25             |
| FIGURE Engine Exhaust Velocities - Ground Idle Power – IAE V2500<br>Series Engine   |             | Jul 15/25             |
| FIGURE Engine Exhaust Velocities - Ground Idle Power – CFM LEAP-<br>1A Engine       | R           | Jul 01/26             |
| FIGURE Engine Exhaust Velocities - Ground Idle Power – PW 1100G<br>Engine           |             | Jul 15/25             |
| Subject 6-1-2                                                                       |             |                       |
| Engine Exhaust Temperatures Contours - Ground Idle Power                            |             | Dec 01/15             |
| FIGURE Engine Exhaust Temperatures - Ground Idle Power – CFM56<br>Series Engine     |             | Jul 15/25             |
| FIGURE Engine Exhaust Temperatures - Ground Idle Power – IAE<br>V2500 Series Engine |             | Jul 15/25             |
| FIGURE Engine Exhaust Temperatures - Ground Idle Power – CFM<br>LEAP-1A Engine      | R           | Jul 01/26             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                                 | CHG<br>CODE | LAST REVISION<br>DATE |
|-----------------------------------------------------------------------------------------|-------------|-----------------------|
| FIGURE Engine Exhaust Temperatures - Ground Idle Power – PW<br>1100G Engine             | R           | Jul 15/25             |
| Subject 6-1-3                                                                           |             |                       |
| Engine Exhaust Velocities Contours - Breakaway Power                                    |             | Jul 15/25             |
| FIGURE Engine Exhaust Velocities - Breakaway Power 12% MTO –<br>CFM LEAP-1A Engine      |             | Jul 01/26             |
| FIGURE Engine Exhaust Velocities - Breakaway Power 12% MTO –<br>PW 1100G Engine         | R           | Jul 15/25             |
| FIGURE Engine Exhaust Velocities - Breakaway Power 24% MTO –<br>CFM LEAP-1A Engine      |             | Jul 01/26             |
| FIGURE Engine Exhaust Velocities - Breakaway Power 24% MTO –<br>PW 1100G Engine         |             | Jul 15/25             |
| FIGURE Engine Exhaust Velocities - Breakaway Power - CFM56<br>Series Engine             |             | Jul 15/25             |
| FIGURE Engine Exhaust Velocities - Breakaway Power 14% MTO -<br>IAE V2500 Series Engine | R           | Jul 15/25             |
| FIGURE Engine Exhaust Velocities - Breakaway Power 27% MTO -<br>IAE V2500 Series Engine |             | Jul 15/25             |
| Subject 6-1-4                                                                           |             |                       |
| Engine Exhaust Temperatures Contours - Breakaway Power                                  |             | Jul 15/25             |
| FIGURE Engine Exhaust Temperatures - Breakaway Power 12% MTO<br>- CFM LEAP-1A Engine    |             | Jul 01/26             |
| FIGURE Engine Exhaust Temperatures - Breakaway Power 12% MTO<br>- PW 1100G Engine       |             | Jul 15/25             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                                   | CHG<br>CODE | LAST REVISION<br>DATE |
|-------------------------------------------------------------------------------------------|-------------|-----------------------|
| FIGURE Engine Exhaust Temperatures - Breakaway Power 24% MTO<br>- CFM LEAP-1A Engine      | R           | Jul 01/26             |
| FIGURE Engine Exhaust Temperatures - Breakaway Power 24% MTO<br>- PW 1100G Engine         |             | Jul 15/25             |
| FIGURE Engine Exhaust Temperatures - Breakaway Power - CFM56<br>Series Engine             |             | Jul 15/25             |
| FIGURE Engine Exhaust Temperatures - Breakaway Power 14% MTO<br>- IAE V2500 Series Engine |             | Jul 15/25             |
| FIGURE Engine Exhaust Temperature - Breakaway Power 27% MTO -<br>IAE V2500 Series Engine  |             | Jul 15/25             |
| Subject 6-1-5                                                                             |             |                       |
| Engine Exhaust Velocities Contours - Takeoff Power                                        |             | Dec 01/15             |
| FIGURE Engine Exhaust Velocities - Takeoff Power – CFM56 Series<br>Engine                 |             | Dec 01/15             |
| FIGURE Engine Exhaust Velocities - Takeoff Power – IAE V2500<br>Series Engine             | R           | Jul 01/26             |
| FIGURE Engine Exhaust Velocities - Takeoff Power – CFM LEAP-1A<br>Engine                  | R           | Jul 01/26             |
| FIGURE Engine Exhaust Velocities - Takeoff Power – PW 1100G<br>Engine                     | R           | Jul 01/26             |
| Subject 6-1-6                                                                             |             |                       |
| Engine Exhaust Temperatures Contours - Takeoff Power                                      |             | Dec 01/15             |
| FIGURE Engine Exhaust Temperatures - Takeoff Power – CFM56<br>Series Engine               |             | Dec 01/15             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                      | CHG<br>CODE | LAST REVISION<br>DATE |
|------------------------------------------------------------------------------|-------------|-----------------------|
| FIGURE Engine Exhaust Temperatures - Takeoff Power – IAE V2500 Series Engine | R           | Jul 01/26             |
| FIGURE Engine Exhaust Temperatures - Takeoff Power – CFM LEAP-1A Engine      | R           | Jul 01/26             |
| FIGURE Engine Exhaust Temperatures - Takeoff Power – PW 1100G Engine         | R           | Jul 01/26             |
| Subject 6-3-0                                                                |             |                       |
| Danger Areas of Engines                                                      |             | Dec 01/18             |
| Subject 6-3-1                                                                |             |                       |
| Ground Idle Power                                                            |             | Dec 01/15             |
| FIGURE Danger Areas of the Engines - CFM56 Series Engine                     |             | Dec 01/18             |
| FIGURE Danger Areas of the Engines - IAE V2500 Series Engine                 |             | Dec 01/18             |
| FIGURE Danger Areas of the Engines - CFM LEAP-1A Engine                      |             | Dec 01/18             |
| FIGURE Danger Areas of the Engines - PW 1100G Engine                         |             | Dec 01/18             |
| Subject 6-3-2                                                                |             |                       |
| Breakaway Power                                                              |             | Feb 01/18             |
| FIGURE Danger Areas of the Engines - CFM56 Series Engine                     |             | Nov 01/19             |
| FIGURE Danger Areas of the Engines - IAE V2500 Series Engine                 |             | Nov 01/19             |
| FIGURE Danger Areas of the Engines - CFM LEAP-1A Engine                      |             | Nov 01/19             |
| FIGURE Danger Areas of the Engines - PW 1100G Engine                         |             | Nov 01/19             |
| Subject 6-3-3                                                                |             |                       |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                           | CHG<br>CODE | LAST REVISION<br>DATE |
|-------------------------------------------------------------------|-------------|-----------------------|
| Take Off Power                                                    |             | Feb 01/18             |
| FIGURE Danger Areas of the Engines - CFM56 Series Engine          |             | Dec 01/18             |
| FIGURE Danger Areas of the Engines - IAE V2500 Series Engine      |             | Dec 01/18             |
| FIGURE Danger Areas of the Engines - CFM LEAP-1A Engine           |             | Dec 01/18             |
| FIGURE Danger Areas of the Engines - PW 1100G Engine              |             | Dec 01/18             |
| Subject 6-4-1                                                     |             |                       |
| APU - APIC & GARRETT                                              |             | May 01/14             |
| FIGURE Exhaust Velocities and Temperatures - APU – APIC & GARRETT |             | May 01/14             |
| <u>CHAPTER 7</u>                                                  |             |                       |
| Subject 7-1-0                                                     |             |                       |
| General Information                                               |             | Mar 01/22             |
| Subject 7-2-0                                                     |             |                       |
| Landing Gear Footprint                                            |             | Mar 01/22             |
| FIGURE Landing Gear Footprint                                     |             | Mar 01/22             |
| FIGURE Landing Gear Footprint                                     |             | May 01/23             |
| FIGURE Landing Gear Footprint for ACJ319NEO                       |             | May 01/23             |
| Subject 7-3-0                                                     |             |                       |
| Maximum Pavement Loads                                            |             | Mar 01/22             |
| FIGURE Maximum Pavement Loads for A319-100 and ACJ319-100         |             | Mar 01/22             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                                             | CHG<br>CODE | LAST REVISION<br>DATE |
|-------------------------------------------------------------------------------------|-------------|-----------------------|
| FIGURE Maximum Pavement Loads for ACF319NEO. - Maximum Pavement Loads for ACF319NEO |             | May 01/23             |
| Subject 7-4-0                                                                       |             |                       |
| Landing Gear Loading on Pavement                                                    |             | Mar 01/22             |
| Subject 7-5-0                                                                       |             |                       |
| Flexible Pavement Requirements - US Army Corps of Engineers Design Method           |             | Mar 01/22             |
| Subject 7-6-0                                                                       |             |                       |
| Flexible Pavement Requirements - LCN Conversion                                     |             | Mar 01/22             |
| Subject 7-7-0                                                                       |             |                       |
| Rigid Pavement Requirements - Portland Cement Association Design Method             |             | Mar 01/22             |
| Subject 7-8-0                                                                       |             |                       |
| Rigid Pavement Requirements - LCN Conversion                                        |             | Mar 01/22             |
| Subject 7-9-0                                                                       |             |                       |
| Aircraft Classification Number - Flexible and Rigid Pavements                       |             | Mar 01/22             |
| FIGURE ACN Table for A319-100                                                       |             | Mar 01/22             |
| FIGURE ACN Table for A319NEO and ACJ319NEO - ACN Table for A319NEO                  |             | May 01/23             |
| Subject 7-10-0                                                                      |             |                       |
| ACR/PCR Reporting System - Flexible and Rigid Pavements                             |             | Mar 01/22             |
| FIGURE ACR Table for A319-100 and A319-100 CJ                                       |             | Mar 01/22             |
| FIGURE ACR Table                                                                    |             | May 01/23             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                                                        | CHG<br>CODE | LAST REVISION<br>DATE |
|----------------------------------------------------------------|-------------|-----------------------|
| FIGURE ACR Table for ACJ319NEO                                 |             | May 01/23             |
| <u>CHAPTER 8</u>                                               |             |                       |
| Subject 8-0-0                                                  |             |                       |
| Scaled Drawings                                                |             | Dec 01/15             |
| FIGURE Scaled Drawing                                          |             | Dec 01/15             |
| FIGURE Scaled Drawing                                          |             | Dec 01/15             |
| <u>CHAPTER 10</u>                                              |             |                       |
| Subject 10-0-0                                                 |             |                       |
| Aircraft Rescue and Fire Fighting                              |             | May 01/15             |
| FIGURE Front Page                                              |             | Nov 01/19             |
| FIGURE Highly Flammable and Hazardous Materials and Components |             | Nov 01/19             |
| FIGURE Batteries Location and Access                           |             | Nov 01/19             |
| FIGURE Wheel/Brake Overheat - Wheel Safety Area                |             | Nov 01/19             |
| FIGURE Composite Materials                                     |             | May 01/14             |
| FIGURE L/G Ground Lock Safety Devices                          |             | Nov 01/19             |
| FIGURE Emergency Evacuation Devices                            |             | Nov 01/19             |
| FIGURE Pax/Crew Doors                                          |             | Nov 01/19             |
| FIGURE Emergency Exit Hatch                                    |             | Nov 01/19             |
| FIGURE FWD and AFT Lower Deck Cargo Doors                      |             | Nov 01/19             |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| CONTENT                           | CHG<br>CODE | LAST REVISION<br>DATE |
|-----------------------------------|-------------|-----------------------|
| FIGURE Control Panels             |             | Nov 01/19             |
| FIGURE APU Access Door            |             | Nov 01/19             |
| FIGURE Aircraft Ground Clearances |             | Nov 01/19             |
| FIGURE Structural Break-in Points |             | Nov 01/19             |

**TABLE OF CONTENTS**

|        |                                                           |
|--------|-----------------------------------------------------------|
| 1      | SCOPE                                                     |
| 1-1-0  | Introduction                                              |
| 1-2-0  | Glossary                                                  |
| 2      | AIRCRAFT DESCRIPTION                                      |
| 2-1-1  | General Aircraft Characteristics Data                     |
| 2-2-0  | General Aircraft Dimensions                               |
| 2-3-0  | Ground Clearances                                         |
| 2-4-1  | Interior Arrangements - Plan View                         |
| 2-5-0  | Interior Arrangements - Cross Section                     |
| 2-6-0  | Cargo Compartments                                        |
| 2-7-0  | Door Clearances and Location                              |
| 2-8-0  | Escape Slides                                             |
| 2-9-0  | Landing Gear                                              |
| 2-10-0 | Exterior Lighting                                         |
| 2-11-0 | Antennas and Probes Location                              |
| 2-12-0 | Power Plant                                               |
| 2-13-0 | Leveling, Symmetry and Alignment                          |
| 2-14-0 | Jacking                                                   |
| 2-15-0 | Aircraft Mooring                                          |
| 3      | AIRCRAFT PERFORMANCE                                      |
| 3-1-0  | General Information                                       |
| 3-2-1  | Payload / Range - ISA Conditions                          |
| 3-3-1  | Take-off Weight Limitation - ISA Conditions               |
| 3-3-2  | Take-off Weight Limitation - ISA +15°C (+59°F) Conditions |
| 3-3-3  | Aerodrome Reference Code                                  |
| 3-4-1  | Landing Field Length - ISA Conditions                     |
| 3-5-0  | Final Approach Speed                                      |
| 4      | GROUND MANEUVERING                                        |
| 4-1-0  | General Information                                       |
| 4-2-0  | Turning Radii                                             |
| 4-3-0  | Minimum Turning Radii                                     |
| 4-4-0  | Visibility from Cockpit in Static Position                |
| 4-5-0  | Runway and Taxiway Turn Paths                             |

**AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING**

|        |                                                            |
|--------|------------------------------------------------------------|
| 4-5-1  | 135° Turn - Runway to Taxiway                              |
| 4-5-2  | 90° Turn - Runway to Taxiway                               |
| 4-5-3  | 180° Turn on a Runway                                      |
| 4-5-4  | 135° Turn - Taxiway to Taxiway                             |
| 4-5-5  | 90° Turn - Taxiway to Taxiway                              |
| 4-6-0  | Runway Holding Bay (Apron)                                 |
| 4-7-0  | Minimum Line-Up Distance Corrections                       |
| 5      | <b>TERMINAL SERVICING</b>                                  |
| 5-1-1  | Aircraft Servicing Arrangements                            |
| 5-1-2  | Typical Ramp Layout - Open Apron                           |
| 5-1-3  | Typical Ramp Layout - Gate                                 |
| 5-2-0  | Terminal Operations - Full Servicing Turn Round Time Chart |
| 5-3-0  | Terminal Operation - Outstation Turn Round Time Chart      |
| 5-4-1  | Ground Service Connections                                 |
| 5-4-2  | Grounding Points                                           |
| 5-4-3  | Hydraulic System                                           |
| 5-4-4  | Electrical System                                          |
| 5-4-5  | Oxygen System                                              |
| 5-4-6  | Fuel System                                                |
| 5-4-7  | Pneumatic System                                           |
| 5-4-8  | Oil System                                                 |
| 5-4-9  | Potable Water System                                       |
| 5-4-10 | Waste Water System                                         |
| 5-5-0  | Engine Starting Pneumatic Requirements                     |
| 5-6-0  | Ground Pneumatic Power Requirements                        |
| 5-7-0  | Preconditioned Airflow Requirements                        |
| 5-8-0  | Ground Towing Requirements                                 |
| 5-9-0  | De-Icing and External Cleaning                             |
| 6      | <b>OPERATING CONDITIONS</b>                                |
| 6-1-0  | Engine Exhaust Velocities and Temperatures                 |
| 6-1-1  | Engine Exhaust Velocities Contours - Ground Idle Power     |
| 6-1-2  | Engine Exhaust Temperatures Contours - Ground Idle Power   |
| 6-1-3  | Engine Exhaust Velocities Contours - Breakaway Power       |
| 6-1-4  | Engine Exhaust Temperatures Contours - Breakaway Power     |
| 6-1-5  | Engine Exhaust Velocities Contours - Takeoff Power         |
| 6-1-6  | Engine Exhaust Temperatures Contours - Takeoff Power       |
| 6-3-0  | Danger Areas of Engines                                    |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

|        |                                                                             |
|--------|-----------------------------------------------------------------------------|
| 6-3-1  | Ground Idle Power                                                           |
| 6-3-2  | Breakaway Power                                                             |
| 6-3-3  | Max Take Off Power                                                          |
| 6-4-1  | APU                                                                         |
| 7      | PAVEMENT DATA                                                               |
| 7-1-0  | General Information                                                         |
| 7-2-0  | Landing Gear Footprint                                                      |
| 7-3-0  | Maximum Pavement Loads                                                      |
| 7-4-0  | Landing Gear Loading on Pavement                                            |
| 7-5-0  | Flexible Pavement Requirements - U.S. Army Corps of Engineers Design Method |
| 7-6-0  | Flexible Pavement Requirements - LCN Conversion                             |
| 7-7-0  | Rigid Pavement Requirements - Portland Cement Association Design Method     |
| 7-8-0  | Rigid Pavement Requirements - LCN Conversion                                |
| 7-9-0  | ACN/PCN Reporting System - Flexible and Rigid Pavements                     |
| 7-10-0 | ACR/PCR Reporting System - Flexible And Rigid Pavements                     |
| 8      | SCALED DRAWINGS                                                             |
| 8-0-0  | SCALED DRAWINGS                                                             |
| 10     | AIRCRAFT RESCUE AND FIRE FIGHTING                                           |
| 10-0-0 | AIRCRAFT RESCUE AND FIRE FIGHTING                                           |

**SCOPE****1-1-0 Introduction****\*\*ON A/C A319-100 A319neo**Purpose**1. General**

The A319 AIRCRAFT CHARACTERISTICS – AIRPORT AND MAINTENANCE PLANNING (AC) manual is issued for the A319-100 series aircraft that have the wing-tip fences or sharklets, to give necessary data to the airport operators, airlines and Maintenance/Repair Organizations (MRO) for airport and maintenance facilities planning.

The A320 Family is the world's best-selling single-aisle aircraft. An A320 takes off or lands in the world each 1.5 seconds for each day, the family recorded more than 117 million cycles since the entry-into-service and records the best-in-class dispatch reliability of 99.7%.

To make sure this true market leadership, Airbus continues to invest in improvements in the A320 Family: enhancements to the aerodynamics for example the sharklet wingtip devices, upgrades to the widest passenger cabin in its class, the A320 Family neo. The latter mixes top-of-class engine efficiency offered with two new engine options: the PW1100G PurePower from Pratt&Whitney and the LEAP-1A from CFM International offered the new sharklet devices with superior aerodynamics.

The A320neo family offers a minimum of 15% fuel savings and an additional flight range of about 500 nm (926 km) and up to 20% fuel savings got through the cabin innovations and efficiency improvements. For the environment, the A320neo family is also more eco-friendly, with 5 000 t (11 023 113 lb) less CO2 emissions each year for each aircraft and almost 50% reduction in noise footprint compared to before generation aircraft.

When you fly the ACJ family member, we pride ourselves on four key intertwined DNA strands that are behind everything. We give the ultimate comfort, intercontinental freedom, pioneering technology and reliability. An ACJ is not only a plane but a home where you can experience space like no other jet, crafted ambience and artisanal quality materials you can connect with. We have selected the space and technology to let you do fine dining, pampering, movie night, working from the sky to make strategic business decisions or simply relaxing with your loved ones and guests, uncompromisingly.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

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### 1-2-0 Glossary

**\*\*ON A/C A319-100 A319neo**

#### Glossary

#### 1. List of Abbreviations

|      |                                           |
|------|-------------------------------------------|
| A/C  | Aircraft                                  |
| ACF  | Aircraft Cabin Flex                       |
| ACN  | Aircraft Classification Number            |
| ACR  | Aircraft Classification Rating            |
| ACT  | Additional Center Tank                    |
| AMM  | Aircraft Maintenance Manual               |
| APU  | Auxiliary Power Unit                      |
| B/C  | Business Class                            |
| CBR  | California Bearing Ratio                  |
| CC   | Cargo Compartment                         |
| CG   | Center of Gravity                         |
| CKPT | Cockpit                                   |
| E    | Young's Modulus                           |
| ELEC | Electric, Electrical, Electricity         |
| ESWL | Equivalent Single Wheel Load              |
| FAA  | Federal Aviation Administration           |
| F/C  | First Class                               |
| FDL  | Fuselage Datum Line                       |
| FR   | Frame                                     |
| FSTE | Full Size Trolley Equivalent              |
| FWD  | Forward                                   |
| GPU  | Ground Power Unit                         |
| GSE  | Ground Support Equipment                  |
| HYD  | Hydraulic                                 |
| ICAO | International Civil Aviation Organisation |
| IDG  | Integrated Drive Generator                |
| ISA  | International Standard Atmosphere         |
| L    | Left                                      |
| L    | Radius of relative stiffness              |
| LCN  | Load Classification Number                |
| LD   | Lower Deck                                |
| L/G  | Landing Gear                              |
| LH   | Left Hand                                 |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

|      |                                 |
|------|---------------------------------|
| LPS  | Last Pax Seating                |
| MAC  | Mean Aerodynamic Chord          |
| MAX  | Maximum                         |
| MIN  | Minimum                         |
| MLG  | Main Landing Gear               |
| NLG  | Nose Landing Gear               |
| OAT  | Outside Air Temperature         |
| OHSC | Overhead Stowage Compartment    |
| PAX  | Passenger                       |
| PBB  | Passenger Boarding Bridge       |
| PCA  | Portland Cement Association     |
| PCN  | Pavement Classification Number  |
| PCR  | Pavement Classification Rating  |
| PRM  | Passenger with Reduced Mobility |
| R    | Right                           |
| RH   | Right Hand                      |
| ULD  | Unit Load Device                |
| US   | United States                   |
| WV   | Weight Variant                  |
| Y/C  | Tourist Class                   |

### 2. Design Weight Terminology

- Maximum Design Ramp Weight (MRW):  
Maximum weight for ground maneuver (including weight of taxi and run-up fuel) as limited by aircraft strength and airworthiness requirements. It is also called Maximum Design Taxi Weight (MTW).
- Maximum Design Landing Weight (MLW):  
Maximum weight for landing as limited by aircraft strength and airworthiness requirements.
- Maximum Design Takeoff Weight (MTOW):  
Maximum weight for takeoff as limited by aircraft strength and airworthiness requirements. (This is the maximum weight at start of the take-off run).
- Maximum Design Zero Fuel Weight (MZFW):  
Maximum permissible weight of the aircraft without usable fuel.
- Maximum Seating Capacity:  
Maximum number of passengers specifically certified or anticipated for certification.
- Usable Volume:  
Usable volume available for cargo, pressurized fuselage, passenger compartment and cockpit.
- Water Volume:  
Maximum volume of cargo compartment.
- Usable Fuel:

### AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

Fuel available for aircraft propulsion.

### AIRCRAFT DESCRIPTION

#### 2-1-1 General Aircraft Characteristics Data

##### **\*\*ON A/C A319-100 A319neo**

##### General Aircraft Characteristics Data

##### **\*\*ON A/C A319-100**

- The following table gives characteristics of A319-100 models, these data are specific to each weight variant:

| Aircraft Characteristics        |              |              |              |
|---------------------------------|--------------|--------------|--------------|
|                                 | WV000        | WV001        | WV002        |
| Maximum Ramp Weight (MRW)       | 64 400 kg    | 70 400 kg    | 75 900 kg    |
| Maximum Taxi Weight (MTW)       | (141 978 lb) | (155 205 lb) | (167 331 lb) |
| Maximum Take-Off Weight (MTOW)  | 64 000 kg    | 70 000 kg    | 75 500 kg    |
|                                 | (141 096 lb) | (154 324 lb) | (166 449 lb) |
| Maximum Landing Weight (MLW)    | 61 000 kg    | 61 000 kg    | 62 500 kg    |
|                                 | (134 482 lb) | (134 482 lb) | (137 789 lb) |
| Maximum Zero Fuel Weight (MZFW) | 57 000 kg    | 57 000 kg    | 58 500 kg    |
|                                 | (125 663 lb) | (125 663 lb) | (128 970 lb) |

| Aircraft Characteristics        |              |              |              |
|---------------------------------|--------------|--------------|--------------|
|                                 | WV002<br>ACJ | WV003        | WV004        |
| Maximum Ramp Weight (MRW)       | 75 900 kg    | 68 400 kg    | 68 400 kg    |
| Maximum Taxi Weight (MTW)       | (167 331 lb) | (150 796 lb) | (150 796 lb) |
| Maximum Take-Off Weight (MTOW)  | 75 500 kg    | 68 000 kg    | 68 000 kg    |
| 52500 kg (115743 lb)            | (166 449 lb) | (149 914 lb) | (149 914 lb) |
| Maximum Landing Weight (MLW)    | 62 500 kg    | 61 000 kg    | 62 500 kg    |
|                                 | (137 789 lb) | (134 482 lb) | (137 789 lb) |
| Maximum Zero Fuel Weight (MZFW) | 58 500 kg    | 57 000 kg    | 58 500 kg    |
|                                 | (128 970 lb) | (125 663 lb) | (128 970 lb) |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| Aircraft Characteristics        |              |              |              |
|---------------------------------|--------------|--------------|--------------|
|                                 | WV005        | WV005<br>ACJ | WV006        |
| Maximum Ramp Weight (MRW)       | 70 400 kg    | 70 400 kg    | 73 900 kg    |
| Maximum Taxi Weight (MTW)       | (155 205 lb) | (155 205 lb) | (162 922 lb) |
| Maximum Take-Off Weight (MTOW)  | 70 000 kg    | 70 000 kg    | 73 500 kg    |
|                                 | (154 324 lb) | (154 324 lb) | (162 040 lb) |
| Maximum Landing Weight (MLW)    | 62 500 kg    | 62 500 kg    | 62 500 kg    |
|                                 | (137 789 lb) | (137 789 lb) | (137 789 lb) |
| Maximum Zero Fuel Weight (MZFW) | 58 500 kg    | 58 500 kg    | 58 500 kg    |
|                                 | (128 970 lb) | (128 970 lb) | (128 970 lb) |

| Aircraft Characteristics        |              |              |              |
|---------------------------------|--------------|--------------|--------------|
|                                 | WV007        | WV008        | WV009        |
| Maximum Ramp Weight (MRW)       | 75 900 kg    | 64 400 kg    | 66 400 kg    |
| Maximum Taxi Weight (MTW)       | (167 331 lb) | (141 978 lb) | (146 387 lb) |
| Maximum Take-Off Weight (MTOW)  | 75 500 kg    | 64 000 kg    | 66 000 kg    |
|                                 | (166 449 lb) | (141 096 lb) | (145 505 lb) |
| Maximum Landing Weight (MLW)    | 61 000 kg    | 62 500 kg    | 62 500 kg    |
|                                 | (134 482 lb) | (137 789 lb) | (137 789 lb) |
| Maximum Zero Fuel Weight (MZFW) | 57 000 kg    | 58 500 kg    | 58 500 kg    |
|                                 | (125 663 lb) | (128 970 lb) | (128 970 lb) |

| Aircraft Characteristics        |              |              |              |              |              |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|
|                                 | WV010<br>ACJ | WV011        | WV012        | WV013<br>ACJ | WV014<br>ACJ |
| Maximum Ramp Weight (MRW)       | 76 900 kg    | 66 400 kg    | 62 400 kg    | 75 900 kg    | 76 900 kg    |
| Maximum Taxi Weight (MTW)       | (169 535 lb) | (146 387 lb) | (137 568 lb) | (167 331 lb) | (169 535 lb) |
| Maximum Take-Off Weight (MTOW)  | 76 500 kg    | 66 000 kg    | 62 000 kg    | 75 500 kg    | 76 500 kg    |
|                                 | (168 653 lb) | (145 505 lb) | (136 686 lb) | (166 449 lb) | (168 653 lb) |
| Maximum Landing Weight (MLW)    | 62 500 kg    | 61 000 kg    | 61 000 kg    | 62 500 kg    | 62 500 kg    |
|                                 | (137 789 lb) | (134 482 lb) | (134 482 lb) | (137 789 lb) | (137 789 lb) |
| Maximum Zero Fuel Weight (MZFW) | 58 500 kg    | 57 000 kg    | 57 000 kg    | 52 000 kg    | 52 000 kg    |
|                                 | (128 970 lb) | (125 663 lb) | (125 663 lb) | (114 640 lb) | (114 640 lb) |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

### \*\*ON A/C A319neo

2. The following table gives characteristics of A319NEO and ACJA319NEO models, these data are specific to each weight variant:

| Aircraft Characteristics        |                           |                           |                           |                           |                           |
|---------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
|                                 | WV050                     | WV051                     | WV052                     | WV053                     | WV054                     |
| Maximum Ramp Weight (MRW)       | 64 400 kg<br>(141 978 lb) | 64 400 kg<br>(141 978 lb) | 70 400 kg<br>(155 205 lb) | 70 400 kg<br>(155 205 lb) | 75 900 kg<br>(167 331 lb) |
| Maximum Taxi Weight (MTW)       |                           |                           |                           |                           |                           |
| Maximum Take-Off Weight (MTOW)  | 64 000 kg<br>(141 096 lb) | 64 000 kg<br>(141 096 lb) | 70 000 kg<br>(154 323 lb) | 70 000 kg<br>(154 323 lb) | 75 500 kg<br>(166 449 lb) |
| Maximum Landing Weight (MLW)    | 62 800 kg<br>(138 450 lb) | 63 900 kg<br>(140 875 lb) | 62 800 kg<br>(138 450 lb) | 63 900 kg<br>(140 875 lb) | 62 800 kg<br>(138 450 lb) |
| Maximum Zero Fuel Weight (MZFW) | 58 800 kg<br>(129 632 lb) | 60 300 kg<br>(132 939 lb) | 58 800 kg<br>(129 632 lb) | 60 300 kg<br>(132 939 lb) | 58 800 kg<br>(129 632 lb) |

| Aircraft Characteristics        |                           |                           |                           |                           |                           |
|---------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
|                                 | WV054<br>ACJ              | WV055                     | WV055<br>ACJ              | WV110<br>ACJ              | WV111<br>ACJ              |
| Maximum Ramp Weight (MRW)       | 75 900 kg<br>(167 331 lb) | 75 900 kg<br>(167 331 lb) | 75 900 kg<br>(167 331 lb) | 77 700 kg<br>(171 299 lb) | 77 700 kg<br>(171 299 lb) |
| Maximum Taxi Weight (MTW)       |                           |                           |                           |                           |                           |
| Maximum Take-Off Weight (MTOW)  | 75 500 kg<br>(166 449 lb) | 75 500 kg<br>(166 449 lb) | 75 500 kg<br>(166 449 lb) | 77 300 kg<br>(170 417 lb) | 77 300 kg<br>(170 417 lb) |
| Maximum Landing Weight (MLW)    | 62 800 kg<br>(138 450 lb) | 63 900 kg<br>(140 875 lb) | 63 900 kg<br>(140 875 lb) | 63 900 kg<br>(140 875 lb) | 62 800 kg<br>(138 450 lb) |
| Maximum Zero Fuel Weight (MZFW) | 58 800 kg<br>(129 632 lb) | 60 300 kg<br>(132 939 lb) | 60 300 kg<br>(132 939 lb) | 60 300 kg<br>(132 939 lb) | 58 800 kg<br>(129 632 lb) |

| Aircraft Characteristics       |                           |                           |                           |                           |                           |                           |
|--------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
|                                | WV112<br>ACJ              | WV113<br>ACJ              | WV114<br>ACJ              | WV115<br>ACJ              | WV116<br>ACJ              | WV120<br>ACJ              |
| Maximum Ramp Weight (MRW)      | 77 700 kg<br>(171 299 lb) | 76 900 kg<br>(169 535 lb) | 76 900 kg<br>(169 535 lb) | 76 900 kg<br>(169 535 lb) | 75 900 kg<br>(167 331 lb) | 78 600 kg<br>(173 283 lb) |
| Maximum Taxi Weight (MTW)      |                           |                           |                           |                           |                           |                           |
| Maximum Take-Off Weight (MTOW) | 77 300 kg<br>(170 417 lb) | 76 500 kg<br>(168 654 lb) | 76 500 kg<br>(168 654 lb) | 76 500 kg<br>(168 654 lb) | 75 500 kg<br>(166 449 lb) | 78 200 kg<br>(172 401 lb) |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| Aircraft Characteristics        |                           |                           |                           |                           |                           |                           |
|---------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
|                                 | WV112<br>ACJ              | WV113<br>ACJ              | WV114<br>ACJ              | WV115<br>ACJ              | WV116<br>ACJ              | WV120<br>ACJ              |
| Maximum Landing Weight (MLW)    | 63 900 kg<br>(140 875 lb) | 63 900 kg<br>(140 875 lb) | 62 800 kg<br>(138 450 lb) | 63 900 kg<br>(140 875 lb) | 63 900 kg<br>(140 875 lb) | 63 900 kg<br>(140 875 lb) |
| Maximum Zero Fuel Weight (MZFW) | 53 800 kg<br>(118 609 lb) | 60 300 kg<br>(132 939 lb) | 58 800 kg<br>(129 632 lb) | 53 800 kg<br>(118 609 lb) | 53 800 kg<br>(118 609 lb) | 53 000 kg<br>(116 845 lb) |

### \*\*ON A/C A319-100 A319neo

3. The following table gives characteristics of A319-100 and A319neo models, these data are common to each weight variant:

| Aircraft Characteristics                             |                                 |                                                 |                               |                               |                               |                               |
|------------------------------------------------------|---------------------------------|-------------------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Standard Seating Capacity                            |                                 | 156 (Single-Class)                              |                               |                               |                               |                               |
| Usable Fuel Capacity<br>(density = 0.785 kg/l)       |                                 | A319CEO<br>CFM<br>Engine                        | A319CEO<br>IAE Engine         | ACJ3<br>19CEO                 | A319NEO                       | ACJ3<br>19NEO                 |
|                                                      | Total Wing Fuel                 | 15 959 l<br>(4 216<br>US gal)                   | 15 609 l<br>(4 123<br>US gal) | 15 609 l<br>(4 123<br>US gal) | 15 490 l<br>(4 092<br>US gal) | 15 490 l<br>(4 092<br>US gal) |
|                                                      | Center Tank Fuel                | 8 250 l<br>(2 179<br>US gal)                    | 8 250 l<br>(2 179<br>US gal)  | 8 250 l<br>(2 179<br>US gal)  | 8 250 l<br>(2 179<br>US gal)  | 8 250 l<br>(2 179<br>US gal)  |
|                                                      | ACT 1                           | X                                               | X                             | 3 121 l<br>(824<br>US gal)    | X                             | 3 121 l<br>(824<br>US gal)    |
|                                                      | ACT 2                           | X                                               | X                             | 3 121 l<br>(824<br>US gal)    | X                             | 3 121 l<br>(824<br>US gal)    |
|                                                      | ACT4 /<br>4.1 / FWD             | X                                               | X                             | 2 186 l<br>(577<br>US gal)    | X                             | 3 046 l<br>(805<br>US gal)    |
|                                                      | Maximum Total<br>Aircraft- Fuel | 24 209 l<br>(6 395<br>US gal)                   | 23 859 l<br>(6 303<br>US gal) | 32 287 l<br>(8 529<br>US gal) | 23 740 l<br>(6 271<br>US gal) | 33 028 l<br>(8 725<br>US gal) |
| Pressurized Fuselage<br>Volume (A/C non<br>equipped) |                                 | 285 m <sup>3</sup><br>(10 065 ft <sup>3</sup> ) |                               |                               |                               |                               |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| Aircraft Characteristics     |  |                                                |
|------------------------------|--|------------------------------------------------|
| Passenger Compartment Volume |  | 120 m <sup>3</sup><br>(4 238 ft <sup>3</sup> ) |
| Cockpit Volume               |  | 9 m <sup>3</sup><br>(318 ft <sup>3</sup> )     |
| Usable Volume, FWD CC        |  | 8.52 m <sup>3</sup><br>(301 ft <sup>3</sup> )  |
| Usable Volume, AFT CC        |  | 11.92 m <sup>3</sup><br>(421 ft <sup>3</sup> ) |
| Usable Volume, Bulk CC       |  | 7.22 m <sup>3</sup><br>(255 ft <sup>3</sup> )  |
| Water Volume, FWD CC         |  | 10.63 m <sup>3</sup><br>(375 ft <sup>3</sup> ) |
| Water Volume, AFT CC         |  | 13.91 m <sup>3</sup><br>(491 ft <sup>3</sup> ) |
| Water Volume, Bulk CC        |  | 7.51 m <sup>3</sup><br>(265 ft <sup>3</sup> )  |

### 2-2-0 General Aircraft Dimensions

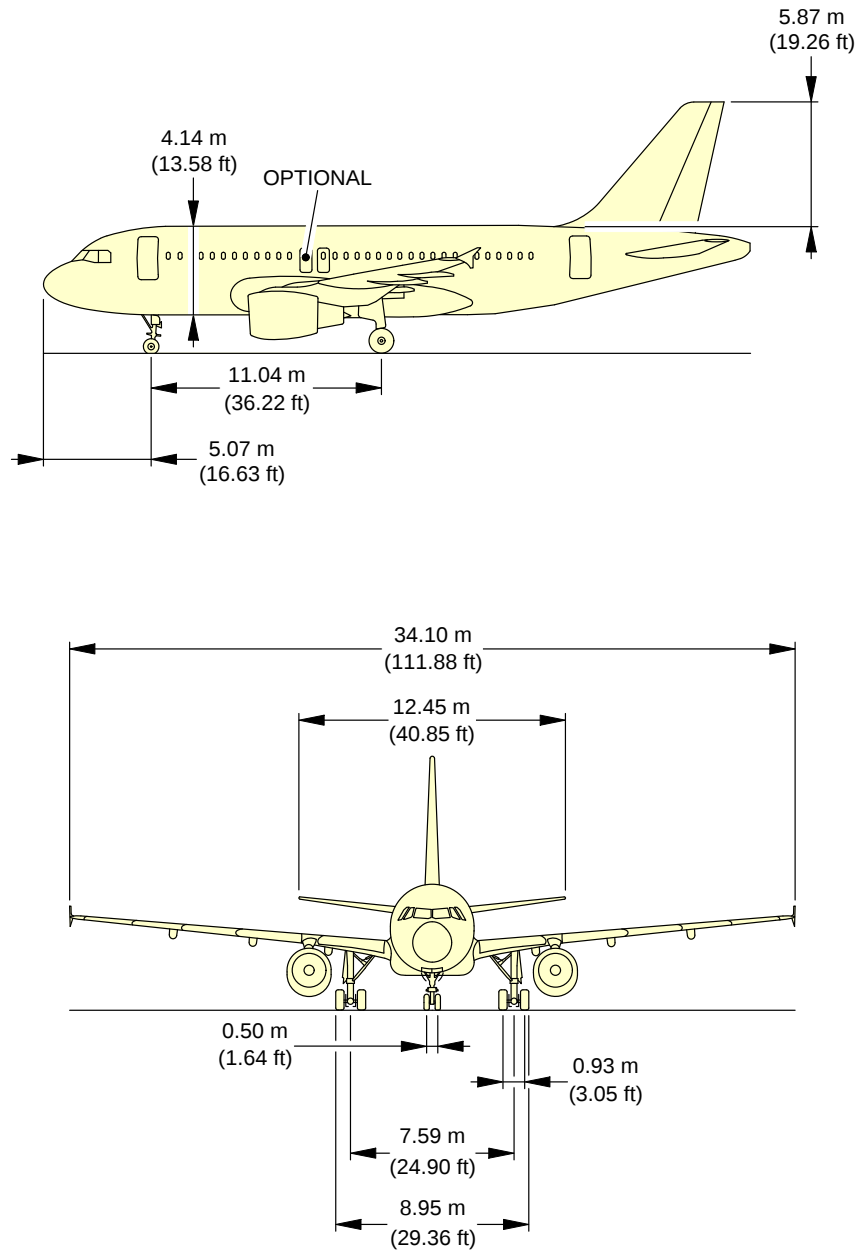
**\*\*ON A/C A319-100 A319neo**

#### General Aircraft Dimensions

1. This section provides general aircraft dimensions.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**



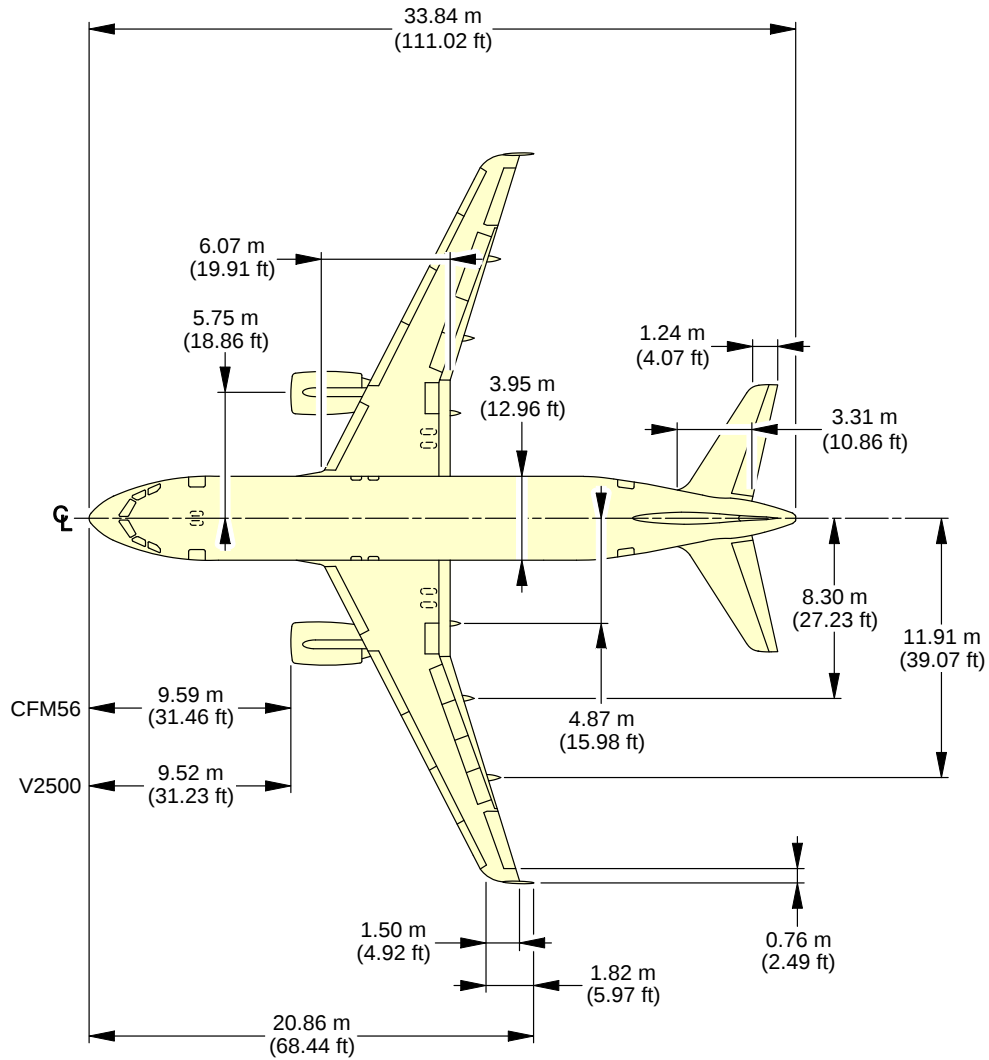
**NOTE:**  
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

N\_AC\_020200\_1\_0020101\_01\_04

General Aircraft Dimensions  
Wing Tip Fence (Sheet 1 of 4)  
FIGURE-2-2-0-991-002-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**



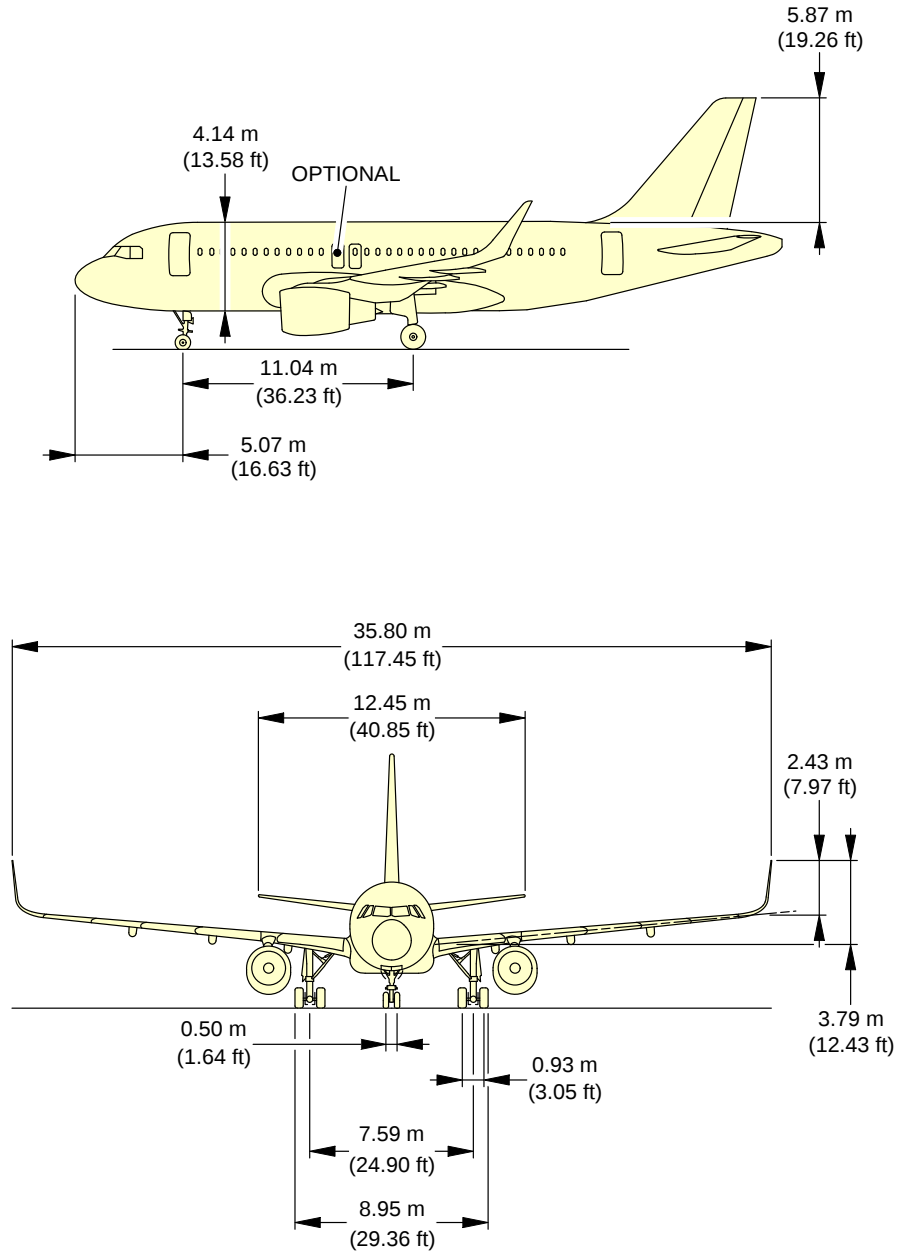
**NOTE:**  
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

N\_AC\_020200\_1\_0020103\_01\_02

General Aircraft Dimensions  
Wing Tip Fence (Sheet 2 of 4)  
FIGURE-2-2-0-991-002-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**



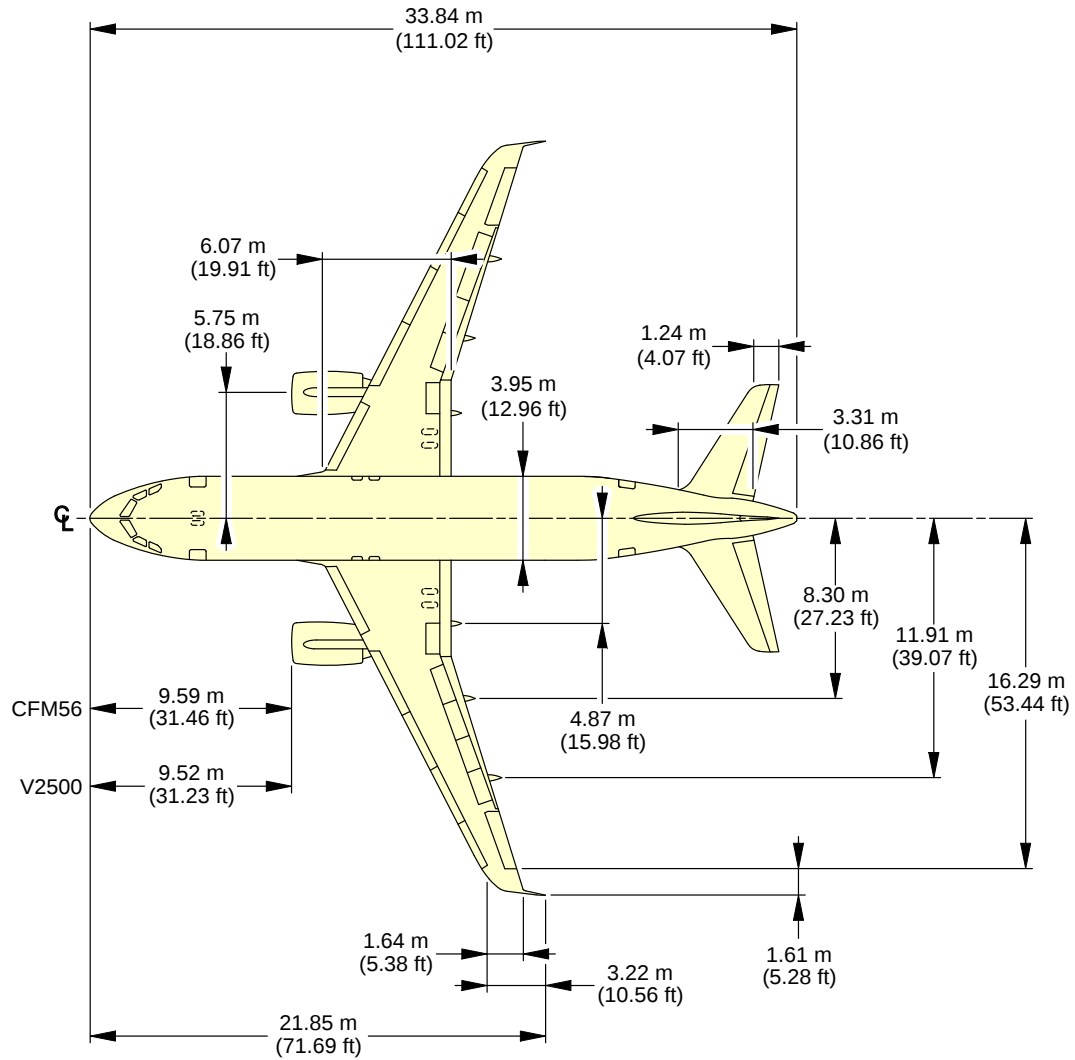
**NOTE:**  
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

N\_AC\_020200\_1\_0020102\_01\_02

General Aircraft Dimensions  
Sharklet (Sheet 3 of 4)  
FIGURE-2-2-0-991-002-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**



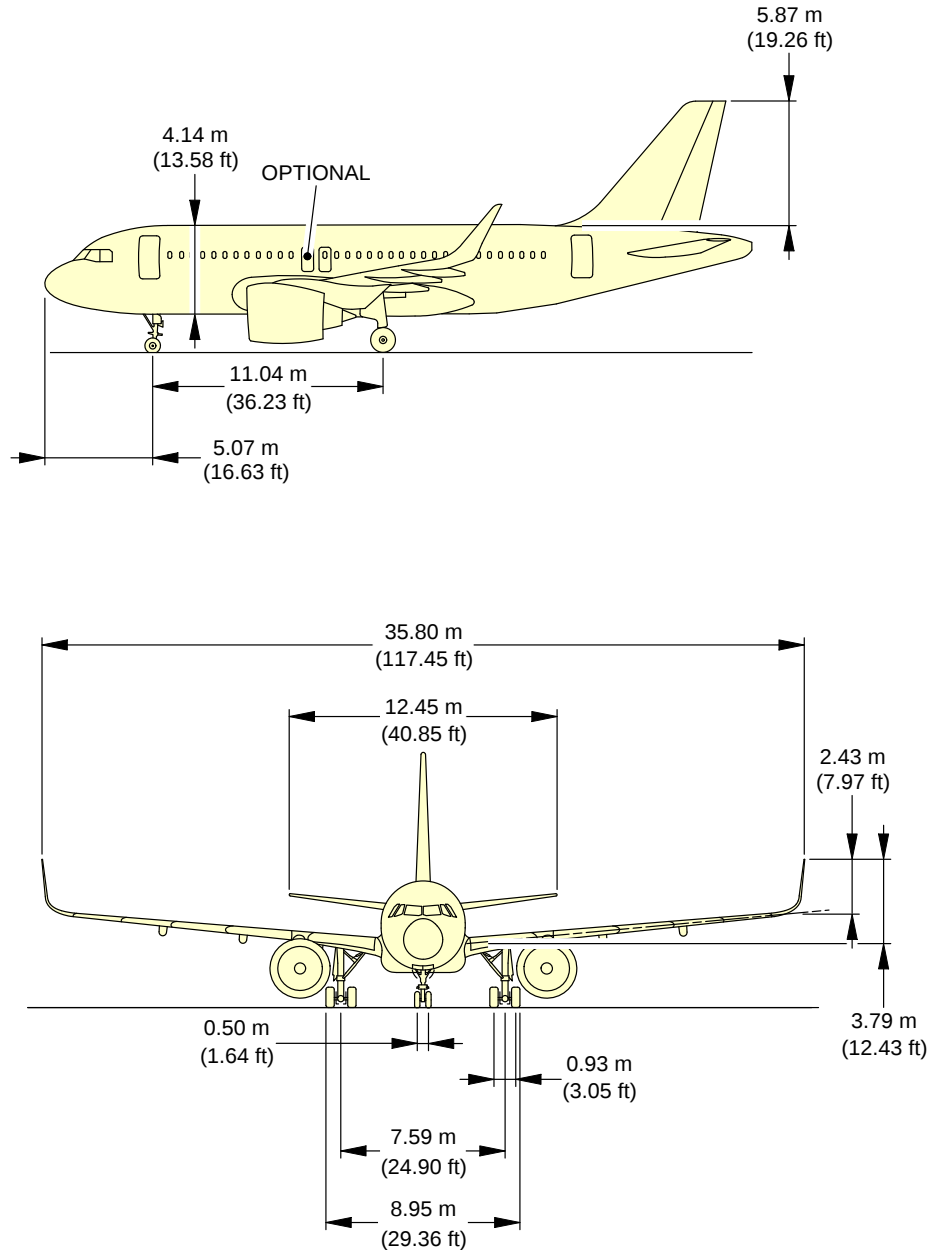
**NOTE:**  
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

N\_AC\_020200\_1\_0020104\_01\_02

General Aircraft Dimensions  
Sharklet (Sheet 4 of 4)  
FIGURE-2-2-0-991-002-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**



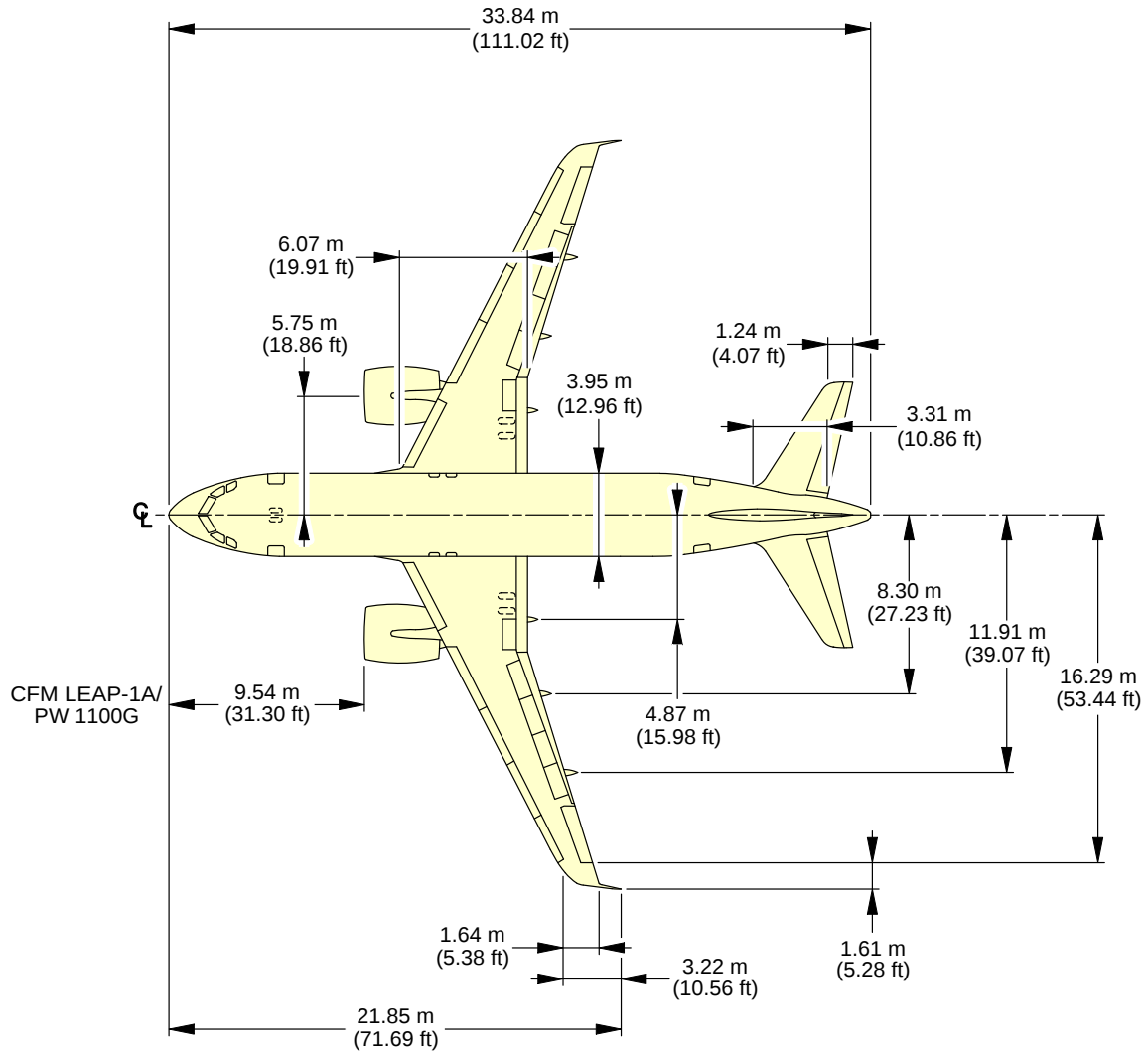
**NOTE:**  
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

N\_AC\_020200\_1\_0080101\_01\_01

General Aircraft Dimensions  
(Sheet 1 of 2)  
FIGURE-2-2-0-991-008-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**



**NOTE:**  
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

N\_AC\_020200\_1\_0080102\_01\_01

General Aircraft Dimensions  
(Sheet 2 of 2)  
FIGURE-2-2-0-991-008-A01

### 2-3-0 Ground Clearances

#### **\*\*ON A/C A319-100 A319neo**

#### Ground Clearances

1. This section provides the height of various points of the aircraft, above the ground, for different aircraft configurations.

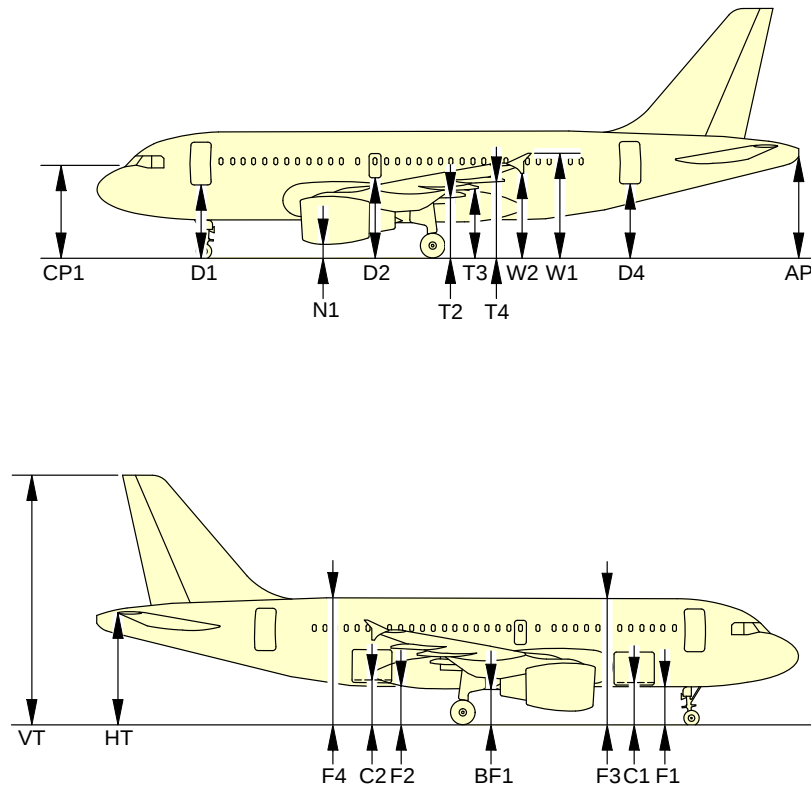
Dimensions in the tables are approximate and will vary with tire type, weight and balance and other special conditions.

The dimensions are given for:

- A light weight, for an A/C in maintenance configuration with a mid CG,
- An aircraft at Maximum Ramp Weight with a FWD CG and an AFT CG,
- Aircraft on jacks, FDL at 4.60 m (15.09 ft).

NOTE : Passenger and cargo door ground clearances are measured from the center of the door sill and from floor level.

**\*\*ON A/C A319-100**



N\_AC\_020300\_1\_0020101\_01\_08

Ground Clearances  
Wing Tip Fence (Sheet 1 of 2)  
FIGURE-2-3-0-991-002-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

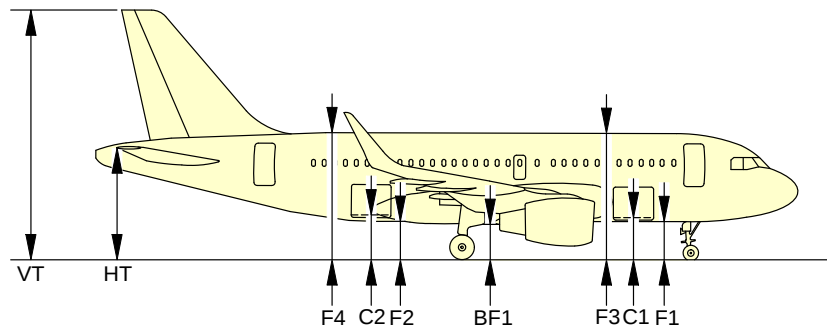
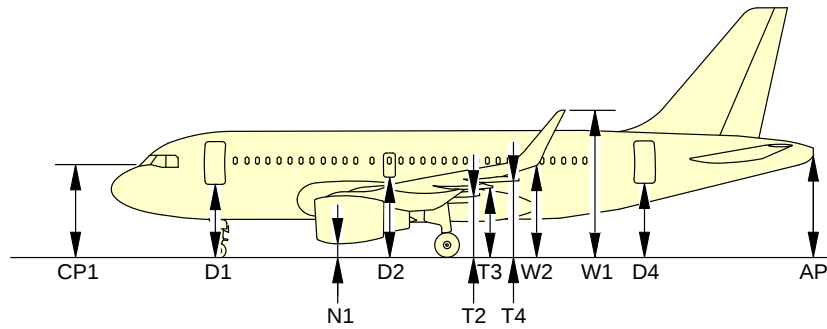
| A/C CONFIGURATION  |                             | MRW (WV0)<br>64 400 kg<br>(141 978 lb) |       |       |                 |       |       | MRW (WV8)<br>73 900 kg<br>(162 922 lb) |       |       |                 |       |       | EMPTY WEIGHT<br>FOR MAINTENANCE<br>42 000 kg<br>(92 594 lb) |       |       |       |       |  | A/C JACKED<br>FDL = 4.60 m<br>(15.09 ft) |  |
|--------------------|-----------------------------|----------------------------------------|-------|-------|-----------------|-------|-------|----------------------------------------|-------|-------|-----------------|-------|-------|-------------------------------------------------------------|-------|-------|-------|-------|--|------------------------------------------|--|
|                    |                             | FORWARD<br>CG (21%)                    |       |       | AFT CG<br>(36%) |       |       | FORWARD<br>CG (21%)                    |       |       | AFT CG<br>(36%) |       |       | CG<br>(28%)                                                 |       |       |       |       |  |                                          |  |
|                    |                             | m                                      | ft    | m     | m               | ft    | m     | m                                      | ft    | m     | m               | ft    | m     | m                                                           | ft    | m     | m     | ft    |  |                                          |  |
|                    |                             | m                                      | ft    | m     | m               | ft    | m     | m                                      | ft    | m     | m               | ft    | m     | m                                                           | ft    | m     | m     | ft    |  |                                          |  |
| PASSENGER<br>DOORS | DOOR 1                      | D1                                     | 3.39  | 11.12 | 3.45            | 11.32 | 3.38  | 11.09                                  | 3.43  | 11.25 | 3.47            | 11.38 | 3.47  | 11.38                                                       | 3.47  | 11.38 | 4.13  | 13.55 |  |                                          |  |
|                    | EMERGENCY<br>HATCH          | D2                                     | 3.90  | 12.80 | 3.91            | 12.83 | 3.88  | 12.73                                  | 3.88  | 12.73 | 3.97            | 13.02 | 3.97  | 13.02                                                       | 3.97  | 13.02 | 4.54  | 14.90 |  |                                          |  |
|                    | DOOR 2                      | D4                                     | 3.65  | 11.98 | 3.58            | 11.75 | 3.61  | 11.84                                  | 3.54  | 11.61 | 3.71            | 12.17 | 3.71  | 12.17                                                       | 3.71  | 12.17 | 4.13  | 13.55 |  |                                          |  |
|                    | FORWARD<br>CARGO DOOR       | C1                                     | 1.83  | 6.00  | 1.87            | 6.14  | 1.81  | 5.94                                   | 1.85  | 6.07  | 1.91            | 6.27  | 1.91  | 6.27                                                        | 1.91  | 6.27  | 2.53  | 8.30  |  |                                          |  |
| CARGO<br>DOORS     | AFT CARGO<br>DOOR           | C2                                     | 1.97  | 6.46  | 1.93            | 6.33  | 1.94  | 6.36                                   | 1.91  | 6.27  | 2.03            | 6.66  | 2.03  | 6.66                                                        | 2.03  | 6.66  | 2.53  | 8.30  |  |                                          |  |
|                    | PILOT VIEW                  | CP1                                    | 4.17  | 13.68 | 4.26            | 13.98 | 4.16  | 13.65                                  | 4.24  | 13.91 | 4.26            | 13.98 | 4.26  | 13.98                                                       | 4.26  | 13.98 | 4.96  | 16.27 |  |                                          |  |
| FUSELAGE           | BOTTOM FORWARD              | F1                                     | 1.75  | 5.74  | 1.78            | 5.84  | 1.73  | 5.68                                   | 1.76  | 5.77  | 1.83            | 6.00  | 1.83  | 6.00                                                        | 1.83  | 6.00  | 2.43  | 7.97  |  |                                          |  |
|                    | BOTTOM AFT                  | F2                                     | 1.87  | 6.14  | 1.84            | 6.04  | 1.84  | 6.04                                   | 1.81  | 5.94  | 1.94            | 6.36  | 1.94  | 6.36                                                        | 1.94  | 6.36  | 2.43  | 7.97  |  |                                          |  |
|                    | TOP FORWARD                 | F3                                     | 5.90  | 19.36 | 5.92            | 19.42 | 5.88  | 19.29                                  | 5.90  | 19.36 | 5.97            | 19.59 | 5.97  | 19.59                                                       | 5.97  | 19.59 | 6.58  | 21.59 |  |                                          |  |
|                    | TOP AFT                     | F4                                     | 6.02  | 19.75 | 5.98            | 19.62 | 5.99  | 19.65                                  | 5.95  | 19.52 | 6.09            | 19.98 | 6.09  | 19.98                                                       | 6.09  | 19.98 | 6.58  | 21.59 |  |                                          |  |
|                    | BELLY FAIRING               | BF1                                    | 1.66  | 5.45  | 1.64            | 5.38  | 1.63  | 5.35                                   | 1.62  | 5.31  | 1.73            | 5.68  | 1.73  | 5.68                                                        | 1.73  | 5.68  | 2.26  | 7.41  |  |                                          |  |
|                    | FLAP TRACK 2                | T2                                     | 2.66  | 8.73  | 2.64            | 8.66  | 2.63  | 8.63                                   | 2.61  | 8.56  | 2.73            | 8.96  | 2.73  | 8.96                                                        | 2.73  | 8.96  | 3.25  | 10.66 |  |                                          |  |
|                    | FLAP TRACK 3                | T3                                     | 3.09  | 10.14 | 3.07            | 10.07 | 3.06  | 10.04                                  | 3.04  | 9.97  | 3.16            | 10.37 | 3.16  | 10.37                                                       | 3.16  | 10.37 | 3.68  | 12.07 |  |                                          |  |
|                    | FLAP TRACK 4                | T4                                     | 3.43  | 11.25 | 3.41            | 11.19 | 3.41  | 11.19                                  | 3.38  | 11.09 | 3.50            | 11.48 | 3.50  | 11.48                                                       | 3.50  | 11.48 | 4.01  | 13.16 |  |                                          |  |
| WING               | WING TIP FENCE<br>TOP       | W1                                     | 4.81  | 15.78 | 4.77            | 15.65 | 4.78  | 15.68                                  | 4.74  | 15.55 | 4.87            | 15.98 | 4.87  | 15.98                                                       | 4.87  | 15.98 | 5.35  | 17.55 |  |                                          |  |
|                    | WING TIP FENCE<br>BOTTOM    | W2                                     | 3.84  | 12.60 | 3.79            | 12.43 | 3.81  | 12.50                                  | 3.77  | 12.37 | 3.90            | 12.80 | 3.90  | 12.80                                                       | 3.90  | 12.80 | 4.38  | 14.37 |  |                                          |  |
| TAILPLANE          | HORIZONTAL<br>TAIL PLANE    | HT                                     | 5.53  | 18.14 | 5.41            | 17.75 | 5.48  | 17.98                                  | 5.37  | 17.62 | 5.58            | 18.31 | 5.58  | 18.31                                                       | 5.58  | 18.31 | 5.93  | 19.46 |  |                                          |  |
|                    | APU EXHAUST                 | AP                                     | 4.82  | 15.81 | 4.69            | 15.39 | 4.78  | 15.68                                  | 4.65  | 15.26 | 4.87            | 15.98 | 4.87  | 15.98                                                       | 4.87  | 15.98 | 5.20  | 17.06 |  |                                          |  |
|                    | VERTICAL<br>TAIL PLANE      | VT                                     | 12.05 | 39.53 | 11.93           | 39.14 | 12.01 | 39.40                                  | 11.89 | 39.01 | 12.11           | 39.73 | 12.11 | 39.73                                                       | 12.11 | 39.73 | 12.45 | 40.85 |  |                                          |  |
|                    | CFM 5A NACELLE<br>LOW POINT | N1                                     | 0.59  | 1.94  | 0.60            | 1.97  | 0.57  | 1.87                                   | 0.58  | 1.90  | 0.67            | 2.20  | 0.67  | 2.20                                                        | 0.67  | 2.20  | 1.24  | 4.07  |  |                                          |  |
| ENGINE/<br>NACELLE | CFM 5B NACELLE<br>LOW POINT | N1                                     | 0.60  | 1.97  | 0.60            | 1.97  | 0.57  | 1.87                                   | 0.58  | 1.90  | 0.67            | 2.20  | 0.67  | 2.20                                                        | 0.67  | 2.20  | 1.24  | 4.07  |  |                                          |  |
|                    | V2500 NACELLE<br>LOW POINT  | N1                                     | 0.78  | 2.56  | 0.78            | 2.56  | 0.76  | 2.49                                   | 0.76  | 2.49  | 0.85            | 2.79  | 0.85  | 2.79                                                        | 0.85  | 2.79  | 1.42  | 4.66  |  |                                          |  |

**NOTE:**  
PASSENGER AND CARGO DOOR GROUND CLEARANCES ARE MEASURED FROM THE CENTER OF THE DOOR SILL AND FROM FLOOR LEVEL.

N\_AC\_020300\_1\_0020103\_01\_02

Ground Clearances  
Wing Tip Fence (Sheet 2 of 2)  
FIGURE-2-3-0-991-002-A01

**\*\*ON A/C A319-100**



N\_AC\_020300\_1\_0280101\_01\_04

Ground Clearances  
Sharklet (Sheet 1 of 2)  
FIGURE-2-3-0-991-028-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

| A/C CONFIGURATION  |                             |     | MRW(WV0)<br>64 400 kg(141 978 lb) |       |       |                 |       |       | MRW (WV6)<br>73 900 kg (162 922 lb) |       |       |                 |       |       | EMPTY<br>WEIGHT FOR<br>MAINTENANCE<br>42 000 kg<br>(92 594 lb) |    |    | A/C JACKED<br>FDL = 4.60 m<br>(15.09 ft) |  |  |
|--------------------|-----------------------------|-----|-----------------------------------|-------|-------|-----------------|-------|-------|-------------------------------------|-------|-------|-----------------|-------|-------|----------------------------------------------------------------|----|----|------------------------------------------|--|--|
|                    |                             |     | FORWARD<br>CG (21%)               |       |       | AFT CG<br>(36%) |       |       | FORWARD<br>CG (21%)                 |       |       | AFT CG<br>(36%) |       |       | CG (28%)                                                       |    |    |                                          |  |  |
|                    |                             |     | m                                 |       | ft    | m               |       | ft    | m                                   |       | ft    | m               |       | ft    | m                                                              |    | ft |                                          |  |  |
|                    |                             |     | m                                 | ft    | m     | ft              | m     | ft    | m                                   | ft    | m     | ft              | m     | ft    | m                                                              | ft |    |                                          |  |  |
| PASSENGER<br>DOORS | DOOR 1                      | D1  | 3.39                              | 11.12 | 3.45  | 11.32           | 3.38  | 11.09 | 3.43                                | 11.25 | 3.47  | 11.38           | 4.13  | 13.55 |                                                                |    |    |                                          |  |  |
|                    | EMERGENCY<br>HATCH          | D2  | 3.90                              | 12.80 | 3.91  | 12.83           | 3.88  | 12.73 | 3.88                                | 12.73 | 3.97  | 13.02           | 4.54  | 14.90 |                                                                |    |    |                                          |  |  |
|                    | DOOR 2                      | D4  | 3.65                              | 11.98 | 3.58  | 11.75           | 3.61  | 11.84 | 3.54                                | 11.61 | 3.71  | 12.17           | 4.13  | 13.55 |                                                                |    |    |                                          |  |  |
| CARGO<br>DOORS     | FORWARD<br>CARGO DOOR       | C1  | 1.83                              | 6.00  | 1.87  | 6.14            | 1.81  | 5.94  | 1.85                                | 6.07  | 1.91  | 6.27            | 2.53  | 8.30  |                                                                |    |    |                                          |  |  |
|                    | AFT CARGO<br>DOOR           | C2  | 1.97                              | 6.46  | 1.93  | 6.33            | 1.94  | 6.36  | 1.91                                | 6.27  | 2.03  | 6.66            | 2.53  | 8.30  |                                                                |    |    |                                          |  |  |
| REFERENCE<br>POINT | PILOT VIEW                  | CP1 | 4.17                              | 13.68 | 4.26  | 13.98           | 4.16  | 13.65 | 4.24                                | 13.91 | 4.26  | 13.98           | 4.96  | 16.27 |                                                                |    |    |                                          |  |  |
| FUSELAGE           | BOTTOM FORWARD              | F1  | 1.75                              | 5.74  | 1.78  | 5.84            | 1.73  | 5.68  | 1.76                                | 5.77  | 1.83  | 6.00            | 2.43  | 7.97  |                                                                |    |    |                                          |  |  |
|                    | BOTTOM AFT                  | F2  | 1.87                              | 6.14  | 1.84  | 6.04            | 1.84  | 6.04  | 1.81                                | 5.94  | 1.94  | 6.36            | 2.43  | 7.97  |                                                                |    |    |                                          |  |  |
|                    | TOP FORWARD                 | F3  | 5.90                              | 19.36 | 5.92  | 19.42           | 5.88  | 19.29 | 5.90                                | 19.36 | 5.97  | 19.59           | 6.58  | 21.59 |                                                                |    |    |                                          |  |  |
|                    | TOP AFT                     | F4  | 6.02                              | 19.75 | 5.98  | 19.62           | 5.99  | 19.65 | 5.95                                | 19.52 | 6.09  | 19.98           | 6.58  | 21.59 |                                                                |    |    |                                          |  |  |
|                    | BELLY FAIRING               | BF1 | 1.66                              | 5.45  | 1.64  | 5.38            | 1.63  | 5.35  | 1.62                                | 5.31  | 1.73  | 5.68            | 2.26  | 7.41  |                                                                |    |    |                                          |  |  |
|                    | FLAP TRACK 2                | T2  | 2.66                              | 8.73  | 2.64  | 8.66            | 2.63  | 8.63  | 2.61                                | 8.56  | 2.73  | 8.96            | 3.25  | 10.66 |                                                                |    |    |                                          |  |  |
| WING               | FLAP TRACK 3                | T3  | 3.09                              | 10.14 | 3.07  | 10.07           | 3.06  | 10.04 | 3.04                                | 9.97  | 3.16  | 10.37           | 3.68  | 12.07 |                                                                |    |    |                                          |  |  |
|                    | FLAP TRACK 4                | T4  | 3.43                              | 11.25 | 3.41  | 11.19           | 3.41  | 11.19 | 3.38                                | 11.09 | 3.50  | 11.48           | 4.01  | 13.16 |                                                                |    |    |                                          |  |  |
|                    | SHARKLET TOP                | W1  | 6.75                              | 22.15 | 6.71  | 22.01           | 6.65  | 21.82 | 6.68                                | 21.92 | 6.81  | 22.34           | 7.29  | 23.92 |                                                                |    |    |                                          |  |  |
|                    | SHARKLET<br>BOTTOM          | W2  | 4.11                              | 13.48 | 4.07  | 13.35           | 4.01  | 13.16 | 4.04                                | 13.25 | 4.15  | 13.62           | 4.65  | 15.26 |                                                                |    |    |                                          |  |  |
|                    | HORIZONTAL<br>TAIL PLANE    | HT  | 5.53                              | 18.14 | 5.41  | 17.75           | 5.48  | 17.98 | 5.37                                | 17.62 | 5.58  | 18.31           | 5.93  | 19.46 |                                                                |    |    |                                          |  |  |
| TAILPLANE          | APU EXHAUST                 | AP  | 4.82                              | 15.81 | 4.69  | 15.39           | 4.78  | 15.68 | 4.65                                | 15.26 | 4.87  | 15.98           | 5.20  | 17.06 |                                                                |    |    |                                          |  |  |
|                    | VERTICAL<br>TAIL PLANE      | VT  | 12.05                             | 39.53 | 11.93 | 39.14           | 12.01 | 39.40 | 11.89                               | 39.01 | 12.11 | 39.73           | 12.45 | 40.85 |                                                                |    |    |                                          |  |  |
| ENGINE/<br>NACELLE | CFM 5A NACELLE<br>LOW POINT | N1  | 0.59                              | 1.94  | 0.60  | 1.97            | 0.57  | 1.87  | 0.58                                | 1.90  | 0.67  | 2.20            | 1.24  | 4.07  |                                                                |    |    |                                          |  |  |
|                    | CFM 5B NACELLE<br>LOW POINT | N1  | 0.60                              | 1.97  | 0.60  | 1.97            | 0.57  | 1.87  | 0.58                                | 1.90  | 0.67  | 2.20            | 1.24  | 4.07  |                                                                |    |    |                                          |  |  |
|                    | V2500 NACELLE<br>LOW POINT  | N1  | 0.78                              | 2.56  | 0.78  | 2.56            | 0.76  | 2.49  | 0.76                                | 2.49  | 0.85  | 2.79            | 1.42  | 4.66  |                                                                |    |    |                                          |  |  |

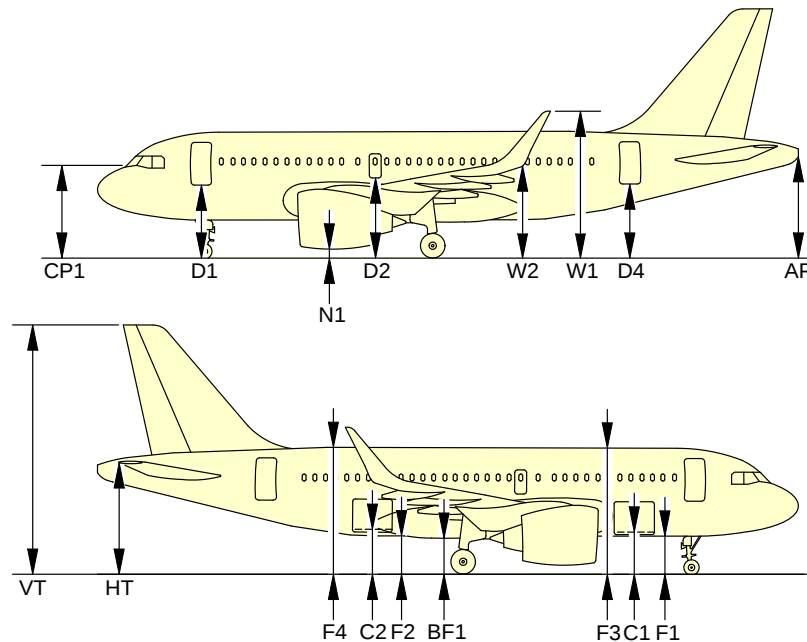
**NOTE:** PASSENGER AND CARGO DOOR GROUND CLEARANCES ARE MEASURED FROM THE CENTER OF THE DOOR SILL AND FROM FLOOR LEVEL.

N\_AC\_020300\_1\_0280103\_01\_02

Ground Clearances  
Sharklet (Sheet 2 of 2)  
FIGURE-2-3-0-991-028-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**



| A/C CONFIGURATION  |                  | MRW              |       |              |       | EMPTY WEIGHT FOR MAINTENANCE<br>41 000 kg<br>(90 390 lb) |       | A/C JACKED<br>FDL = 4.60 m (15.09 ft) |       |
|--------------------|------------------|------------------|-------|--------------|-------|----------------------------------------------------------|-------|---------------------------------------|-------|
|                    |                  | FORWARD CG (21%) |       | AFT CG (36%) |       | CG (28%)                                                 |       |                                       |       |
|                    |                  | m                | ft    | m            | ft    | m                                                        | ft    | m                                     | ft    |
| DOORS              | D1               | 3.38             | 11.09 | 3.43         | 11.25 | 3.47                                                     | 11.38 | 4.13                                  | 13.55 |
|                    | D2               | 3.88             | 12.73 | 3.88         | 12.73 | 3.97                                                     | 13.02 | 4.54                                  | 14.89 |
|                    | D4               | 3.61             | 11.84 | 3.54         | 11.61 | 3.71                                                     | 12.17 | 4.13                                  | 13.55 |
|                    | C1               | 1.99             | 6.53  | 2.03         | 6.66  | 2.09                                                     | 6.86  | 2.71                                  | 8.89  |
|                    | C2               | 2.12             | 6.96  | 2.09         | 6.86  | 2.22                                                     | 7.28  | 2.71                                  | 8.89  |
| FUSELAGE           | F1               | 1.73             | 5.68  | 1.76         | 5.77  | 1.83                                                     | 6.00  | 2.43                                  | 7.97  |
|                    | F2               | 1.84             | 6.04  | 1.81         | 5.94  | 1.94                                                     | 6.36  | 2.43                                  | 7.97  |
|                    | F3               | 5.88             | 19.29 | 5.90         | 19.36 | 5.97                                                     | 19.59 | 6.58                                  | 21.59 |
|                    | F4               | 5.99             | 19.65 | 5.95         | 19.52 | 6.09                                                     | 19.98 | 6.58                                  | 21.59 |
|                    | BF1              | 1.63             | 5.35  | 1.62         | 5.31  | 1.73                                                     | 5.68  | 2.26                                  | 7.41  |
|                    | CP1              | 4.16             | 13.65 | 4.24         | 13.91 | 4.26                                                     | 13.98 | 4.96                                  | 16.27 |
| WINGS              | W1               | 6.72             | 22.05 | 6.68         | 21.92 | 6.81                                                     | 22.34 | 7.29                                  | 23.92 |
|                    | W2               | 4.08             | 13.39 | 4.04         | 13.25 | 4.17                                                     | 13.68 | 4.65                                  | 15.26 |
| TAILPLANE          | HT               | 5.48             | 17.98 | 5.37         | 17.62 | 5.58                                                     | 18.31 | 5.93                                  | 19.46 |
|                    | AP               | 4.78             | 15.68 | 4.65         | 15.26 | 4.87                                                     | 15.98 | 5.20                                  | 17.06 |
|                    | VT               | 12.01            | 39.40 | 11.89        | 39.01 | 12.11                                                    | 39.73 | 12.45                                 | 40.85 |
| ENGINE/<br>NACELLE | N1 (CFM LEAP-1A) | 0.46             | 1.51  | 0.47         | 1.54  | 0.56                                                     | 1.84  | 1.13                                  | 3.71  |
|                    | N1 (PW 1100G)    | 0.46             | 1.51  | 0.47         | 1.54  | 0.56                                                     | 1.84  | 1.13                                  | 3.71  |

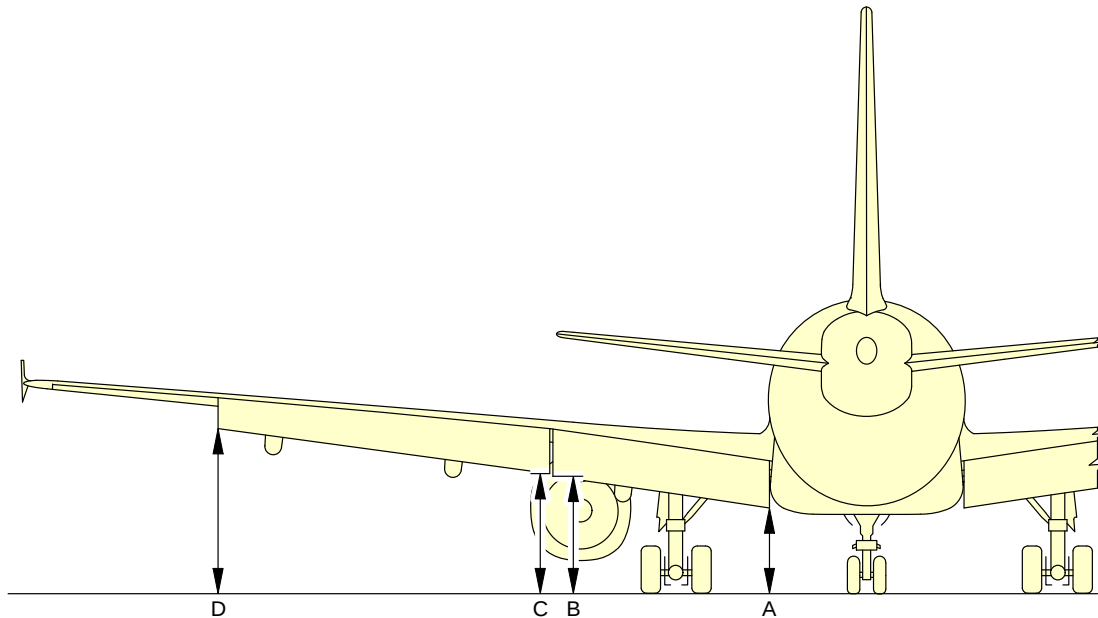
**NOTE:**

PASSENGER AND CARGO DOOR GROUND CLEARANCES ARE MEASURED FROM THE CENTER OF THE DOOR SILL AND FROM FLOOR LEVEL.

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Ground Clearances  
FIGURE-2-3-0-991-031-A01

**\*\*ON A/C A319-100 A319neo**

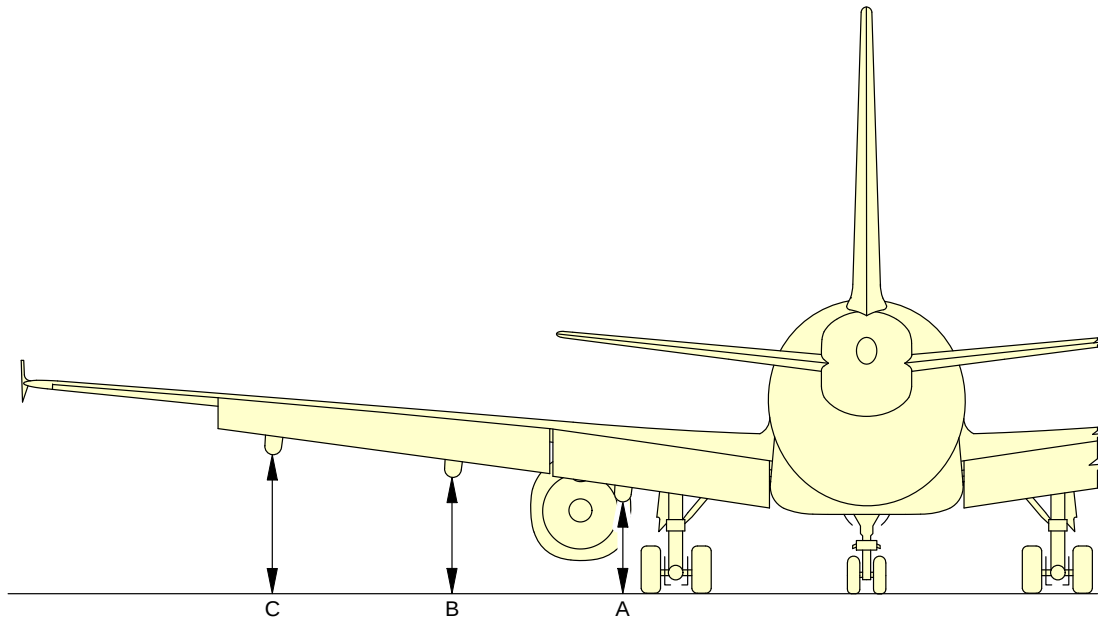


| FLAPS EXTENDED |   |                                               |       |                               |       |                               |       |
|----------------|---|-----------------------------------------------|-------|-------------------------------|-------|-------------------------------|-------|
| DESCRIPTION    |   | A/C IN MAINTENANCE<br>CONFIGURATION<br>MID CG |       | MAXIMUM RAMP<br>WEIGHT FWD CG |       | MAXIMUM RAMP<br>WEIGHT AFT CG |       |
|                |   | m                                             | ft    | m                             | ft    | m                             | ft    |
| FLAP 1 INBD    | A | 2.07                                          | 6.79  | 1.94                          | 6.36  | 1.93                          | 6.33  |
| FLAP 1 OUTBD   | B | 2.79                                          | 9.15  | 2.67                          | 8.76  | 2.65                          | 8.69  |
| FLAP 2 INBD    | C | 2.83                                          | 9.28  | 2.70                          | 8.86  | 2.69                          | 8.83  |
| FLAP 2 OUTBD   | D | 3.67                                          | 12.04 | 3.54                          | 11.61 | 3.51                          | 11.52 |

N\_AC\_020300\_1\_0110101\_01\_02

Ground Clearances  
Trailing Edge Flaps - Extended  
FIGURE-2-3-0-991-011-A01

**\*\*ON A/C A319-100 A319neo**

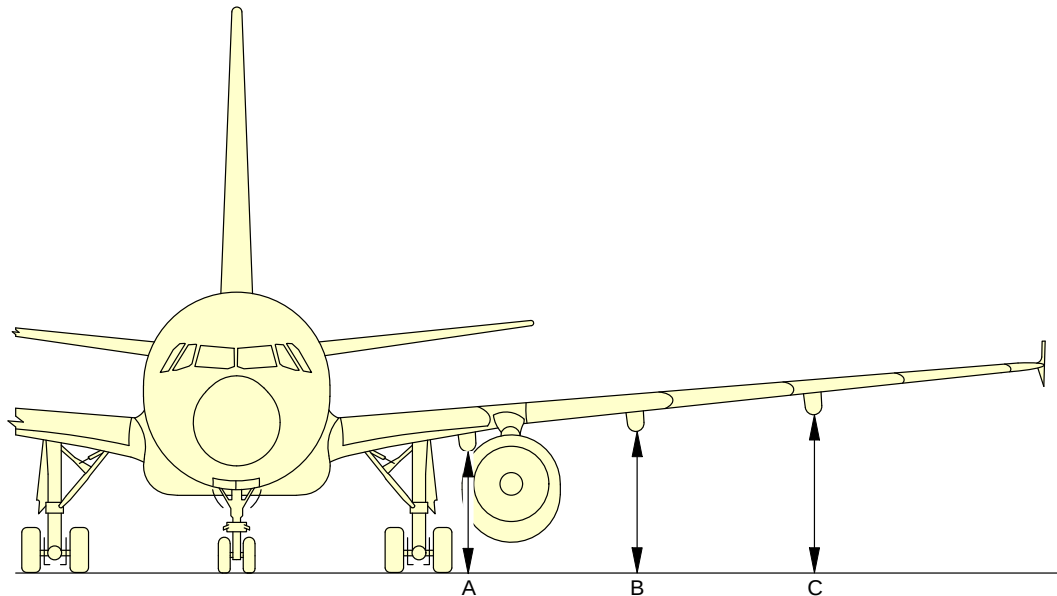


| FLAP TRACKS EXTENDED |   |                                               |       |                               |      |                               |      |
|----------------------|---|-----------------------------------------------|-------|-------------------------------|------|-------------------------------|------|
| DESCRIPTION          |   | A/C IN MAINTENANCE<br>CONFIGURATION<br>MID CG |       | MAXIMUM RAMP<br>WEIGHT FWD CG |      | MAXIMUM RAMP<br>WEIGHT AFT CG |      |
|                      |   | m                                             | ft    | m                             | ft   | m                             | ft   |
| FLAP TRACK 2         | A | 2.11                                          | 6.92  | 1.99                          | 6.53 | 1.97                          | 6.46 |
| FLAP TRACK 3         | B | 2.61                                          | 8.56  | 2.48                          | 8.14 | 2.46                          | 8.07 |
| FLAP TRACK 4         | C | 3.06                                          | 10.06 | 2.93                          | 9.61 | 2.91                          | 9.55 |

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Ground Clearances  
Flap Tracks - Extended  
FIGURE-2-3-0-991-038-A01

**\*\*ON A/C A319-100 A319neo**

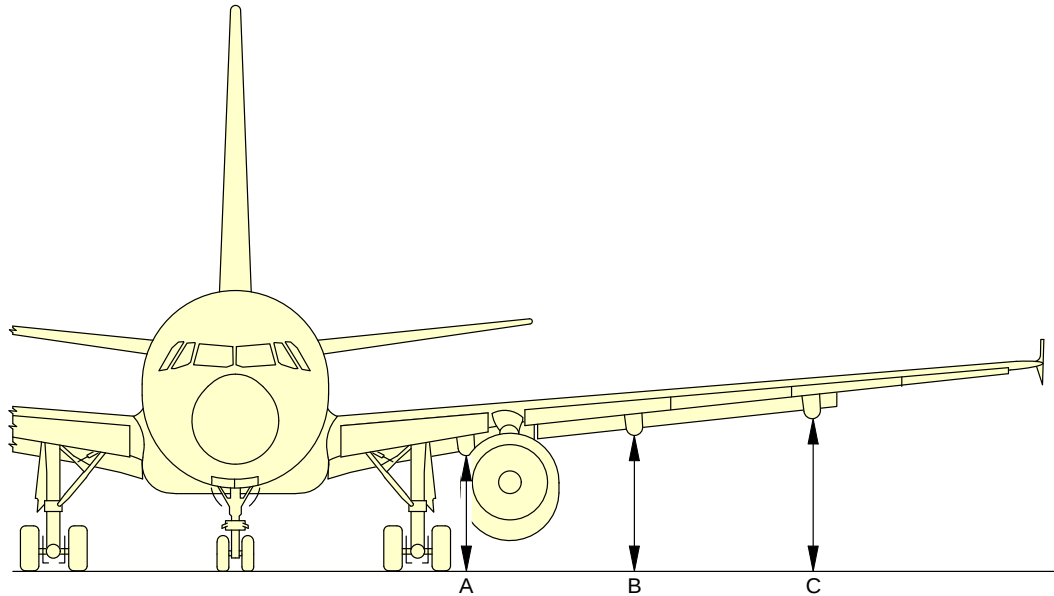


| FLAP TRACKS RETRACTED |   |                                               |       |                               |       |                               |       |
|-----------------------|---|-----------------------------------------------|-------|-------------------------------|-------|-------------------------------|-------|
| DESCRIPTION           |   | A/C IN MAINTENANCE<br>CONFIGURATION<br>MID CG |       | MAXIMUM RAMP<br>WEIGHT FWD CG |       | MAXIMUM RAMP<br>WEIGHT AFT CG |       |
|                       |   | m                                             | ft    | m                             | ft    | m                             | ft    |
| FLAP TRACK 2          | A | 2.70                                          | 8.86  | 2.60                          | 8.53  | 2.58                          | 8.46  |
| FLAP TRACK 3          | B | 3.10                                          | 10.17 | 3.00                          | 9.84  | 2.97                          | 9.74  |
| FLAP TRACK 4          | C | 3.50                                          | 11.48 | 3.39                          | 11.12 | 3.36                          | 11.02 |

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Ground Clearances  
Flap Tracks - Retracted  
FIGURE-2-3-0-991-012-A01

**\*\*ON A/C A319-100 A319neo**

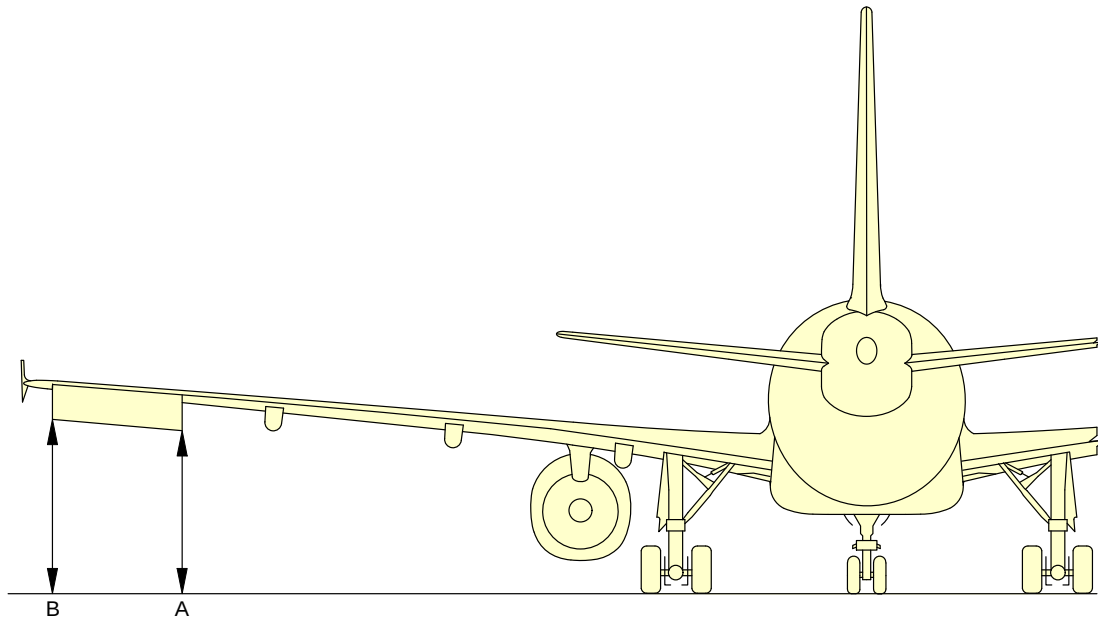


| FLAP TRACKS 1+F |   |                                               |      |                               |      |                               |      |
|-----------------|---|-----------------------------------------------|------|-------------------------------|------|-------------------------------|------|
| DESCRIPTION     |   | A/C IN MAINTENANCE<br>CONFIGURATION<br>MID CG |      | MAXIMUM RAMP<br>WEIGHT FWD CG |      | MAXIMUM RAMP<br>WEIGHT AFT CG |      |
|                 |   | m                                             | ft   | m                             | ft   | m                             | ft   |
| FLAP TRACK 2    | A | 1.95                                          | 6.40 | 1.85                          | 6.07 | 1.83                          | 6.00 |
| FLAP TRACK 3    | B | 2.31                                          | 7.58 | 2.21                          | 7.25 | 2.18                          | 7.15 |
| FLAP TRACK 4    | C | 2.89                                          | 9.48 | 2.78                          | 9.12 | 2.75                          | 9.02 |

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Ground Clearances  
Flap Tracks - 1 + F  
FIGURE-2-3-0-991-039-A01

**\*\*ON A/C A319-100 A319neo**

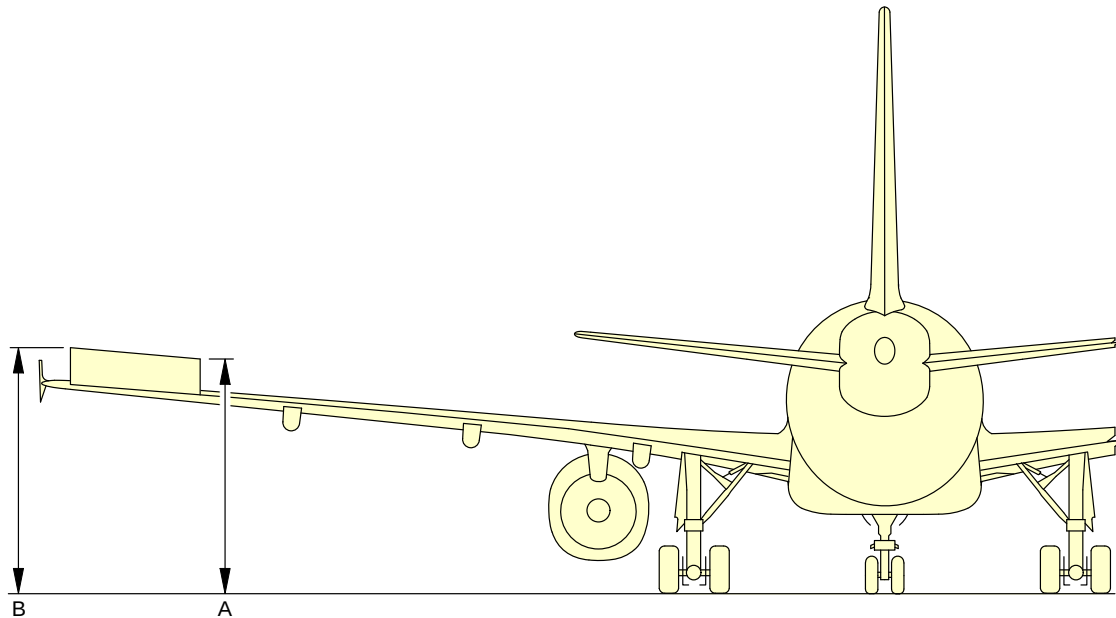


| AILERON DOWN  |   |                                               |       |                               |       |                               |       |
|---------------|---|-----------------------------------------------|-------|-------------------------------|-------|-------------------------------|-------|
| DESCRIPTION   |   | A/C IN MAINTENANCE<br>CONFIGURATION<br>MID CG |       | MAXIMUM RAMP<br>WEIGHT FWD CG |       | MAXIMUM RAMP<br>WEIGHT AFT CG |       |
|               |   | m                                             | ft    | m                             | ft    | m                             | ft    |
| AILERON INBD  | A | 3.86                                          | 12.66 | 3.73                          | 12.24 | 3.71                          | 12.17 |
| AILERON OUTBD | B | 4.20                                          | 13.78 | 4.06                          | 13.32 | 4.04                          | 13.25 |

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Ground Clearances  
Aileron Down  
FIGURE-2-3-0-991-013-A01

**\*\*ON A/C A319-100 A319neo**

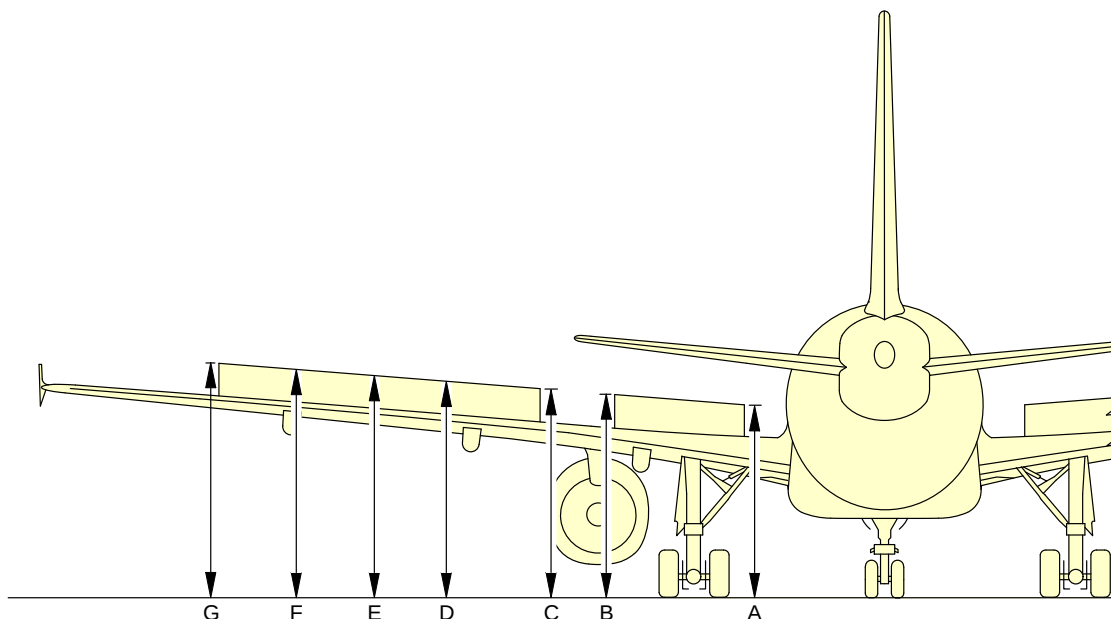


| AILERON UP    |   |                                               |       |                               |       |                               |       |
|---------------|---|-----------------------------------------------|-------|-------------------------------|-------|-------------------------------|-------|
| DESCRIPTION   |   | A/C IN MAINTENANCE<br>CONFIGURATION<br>MID CG |       | MAXIMUM RAMP<br>WEIGHT FWD CG |       | MAXIMUM RAMP<br>WEIGHT AFT CG |       |
|               |   | m                                             | ft    | m                             | ft    | m                             | ft    |
| AILERON INBD  | A | 4.38                                          | 14.37 | 4.25                          | 13.94 | 4.23                          | 13.88 |
| AILERON OUTBD | B | 4.58                                          | 15.03 | 4.44                          | 14.57 | 4.42                          | 14.50 |

N\_AC\_020300\_1\_0400101\_01\_00

Ground Clearances  
Aileron Up  
FIGURE-2-3-0-991-040-A01

**\*\*ON A/C A319-100 A319neo**



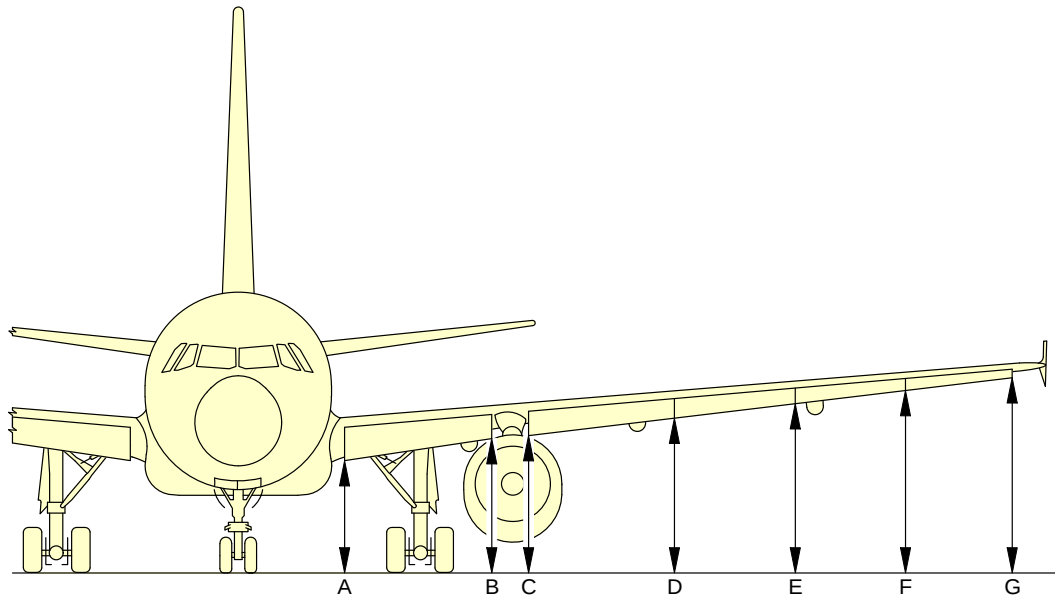
| SPOILERS EXTENDED |   |                                               |       |                               |       |                               |       |
|-------------------|---|-----------------------------------------------|-------|-------------------------------|-------|-------------------------------|-------|
| DESCRIPTION       |   | A/C IN MAINTENANCE<br>CONFIGURATION<br>MID CG |       | MAXIMUM RAMP<br>WEIGHT FWD CG |       | MAXIMUM RAMP<br>WEIGHT AFT CG |       |
|                   |   | m                                             | ft    | m                             | ft    | m                             | ft    |
| SPOILER 1 INBD    | A | 3.77                                          | 12.37 | 3.65                          | 11.98 | 3.64                          | 11.94 |
| SPOILER 1 OUTBD   | B | 4.02                                          | 13.19 | 3.91                          | 12.83 | 3.90                          | 12.80 |
| SPOILER 2 INBD    | C | 4.09                                          | 13.42 | 3.97                          | 13.02 | 3.96                          | 12.99 |
| SPOILER 2/3       | D | 4.23                                          | 13.88 | 4.11                          | 13.48 | 4.10                          | 13.10 |
| SPOILER 3/4       | E | 4.37                                          | 14.34 | 4.24                          | 13.91 | 4.23                          | 13.88 |
| SPOILER 4/5       | F | 4.49                                          | 14.73 | 4.37                          | 14.34 | 4.35                          | 14.27 |
| SPOILER 5 OUTBD   | G | 4.62                                          | 15.16 | 4.49                          | 14.73 | 4.47                          | 14.67 |

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Ground Clearances  
Spoilers - Extended  
FIGURE-2-3-0-991-014-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



| LEADING EDGE SLATS EXTENDED |   |                                         |       |                            |       |                            |       |
|-----------------------------|---|-----------------------------------------|-------|----------------------------|-------|----------------------------|-------|
| DESCRIPTION                 |   | A/C IN MAINTENANCE CONFIGURATION MID CG |       | MAXIMUM RAMP WEIGHT FWD CG |       | MAXIMUM RAMP WEIGHT AFT CG |       |
|                             |   | m                                       | ft    | m                          | ft    | m                          | ft    |
| SLAT 1 INBD                 | A | 2.57                                    | 8.43  | 2.47                       | 8.10  | 2.49                       | 8.17  |
| SLAT 1 OUTBD                | B | 2.98                                    | 9.78  | 2.88                       | 9.45  | 2.89                       | 9.48  |
| SLAT 2 INBD                 | C | 3.07                                    | 10.07 | 2.97                       | 9.74  | 2.97                       | 9.74  |
| SLAT 2/3                    | D | 3.37                                    | 11.06 | 3.26                       | 10.70 | 3.26                       | 10.70 |
| SLAT 3/4                    | E | 3.63                                    | 11.91 | 3.51                       | 11.52 | 3.51                       | 11.52 |
| SLAT 4/5                    | F | 3.88                                    | 12.73 | 3.76                       | 12.34 | 3.75                       | 12.30 |
| SLAT 5 OUTBD                | G | 4.12                                    | 13.52 | 3.99                       | 13.09 | 3.97                       | 13.02 |

N\_AC\_020300\_1\_0150101\_01\_02

Ground Clearances  
Leading Edge Slats - Extended  
FIGURE-2-3-0-991-015-A01

### 2-4-1 Interior Arrangements - Plan View

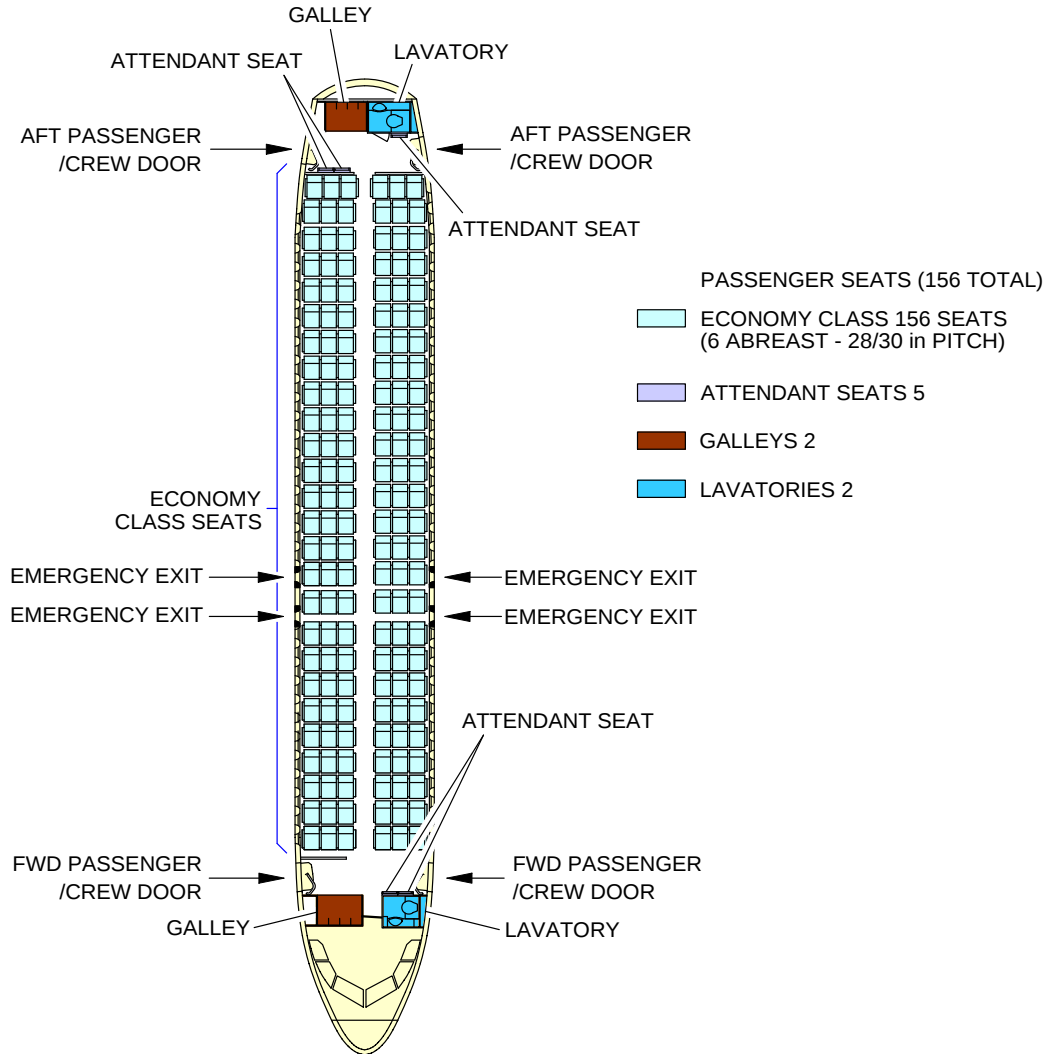
**\*\*ON A/C A319-100 A319neo**

Interior Arrangements - Plan View

1. This section provides the typical interior configuration.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**

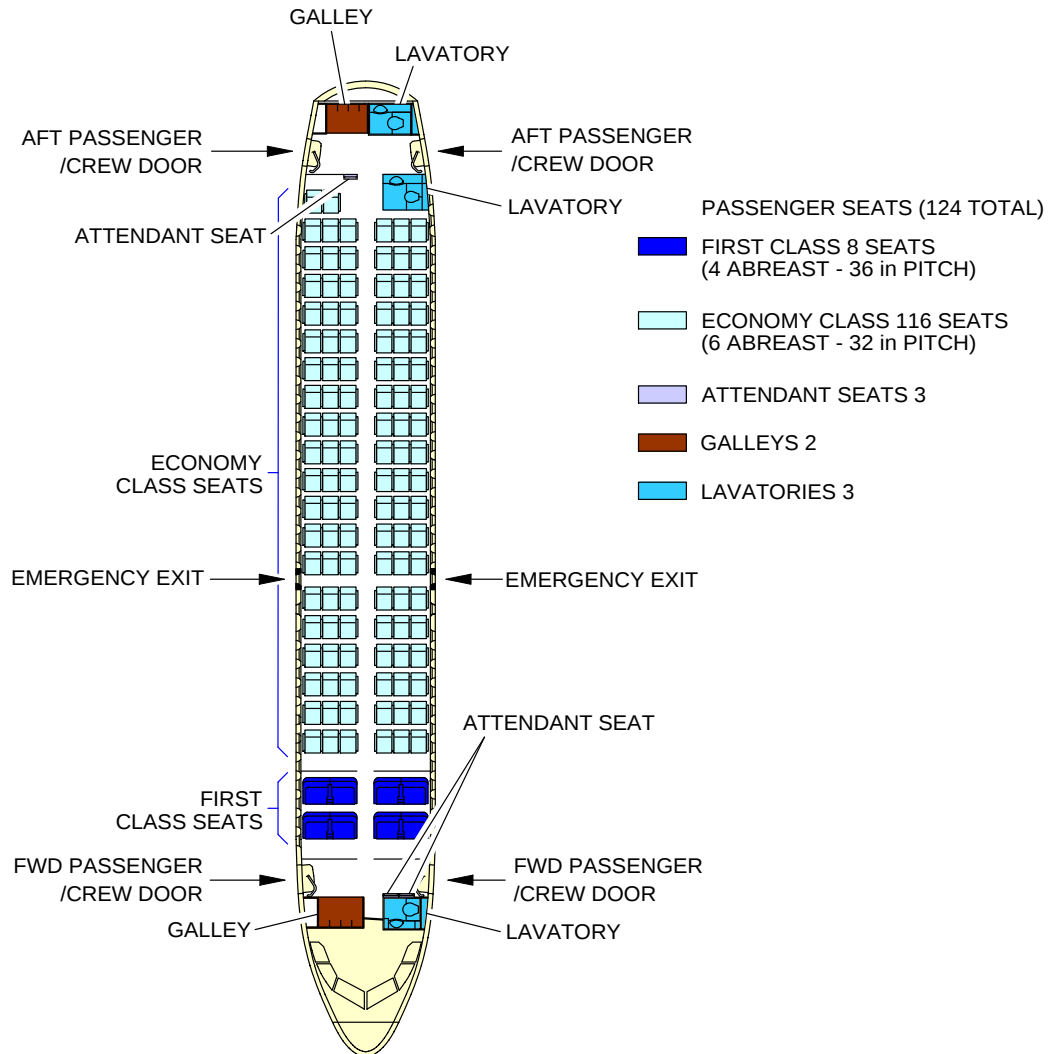


N\_AC\_020401\_1\_0020101\_01\_03

Interior Arrangements - Plan View  
 Typical Configuration - Single-Class, High Density  
 FIGURE-2-4-1-991-002-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



N\_AC\_020401\_1\_0080101\_01\_01

Interior Arrangements - Plan View  
Typical Configuration - Two-Class  
FIGURE-2-4-1-991-008-A01

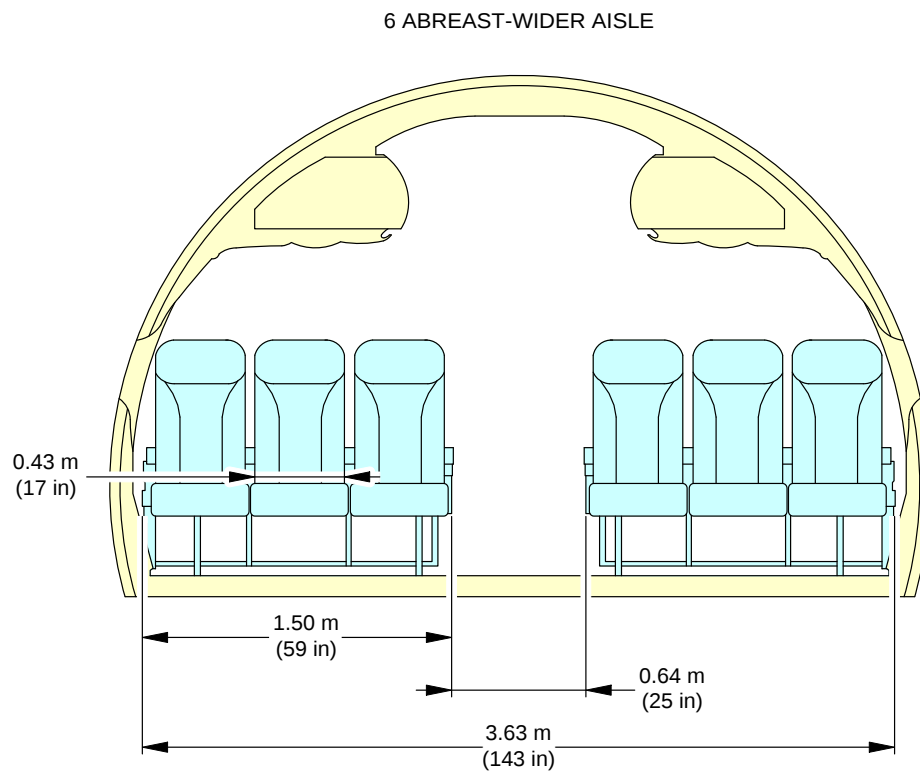
### 2-5-0 Interior Arrangements - Cross Section

**\*\*ON A/C A319-100 A319neo**

Interior Arrangements - Cross Section

1. This section provides the typical configuration.

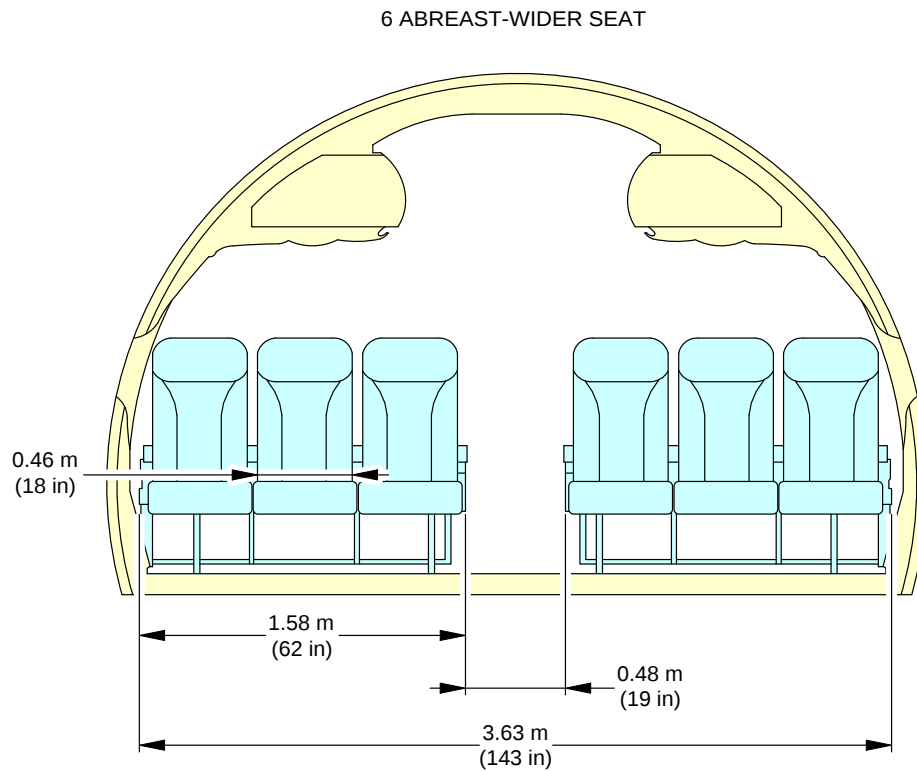
**\*\*ON A/C A319-100 A319neo**



N\_AC\_020500\_1\_0050101\_01\_01

Interior Arrangements - Cross Section  
Economy Class, 6 Abreast - Wider Aisle (Sheet 1 of 2)  
FIGURE-2-5-0-991-005-A01

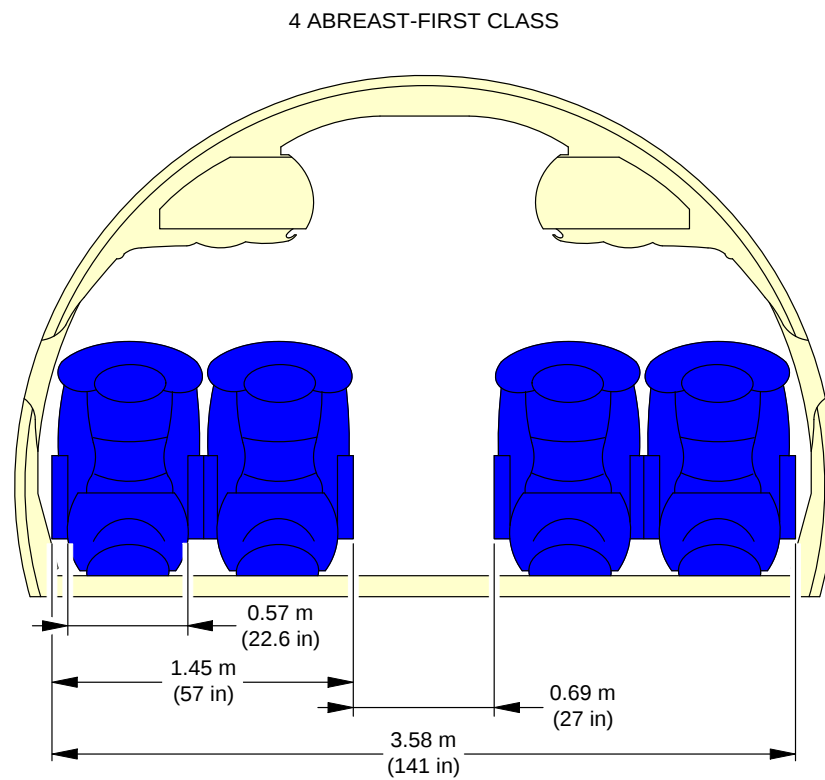
**\*\*ON A/C A319-100 A319neo**



N\_AC\_020500\_1\_0050102\_01\_03

Interior Arrangements - Cross Section  
Economy Class, 6 Abreast - Wider Seat (Sheet 2 of 2)  
FIGURE-2-5-0-991-005-A01

**\*\*ON A/C A319-100 A319neo**



N\_AC\_020500\_1\_0060101\_01\_01

Interior Arrangements - Cross Section  
First-Class  
FIGURE-2-5-0-991-006-A01

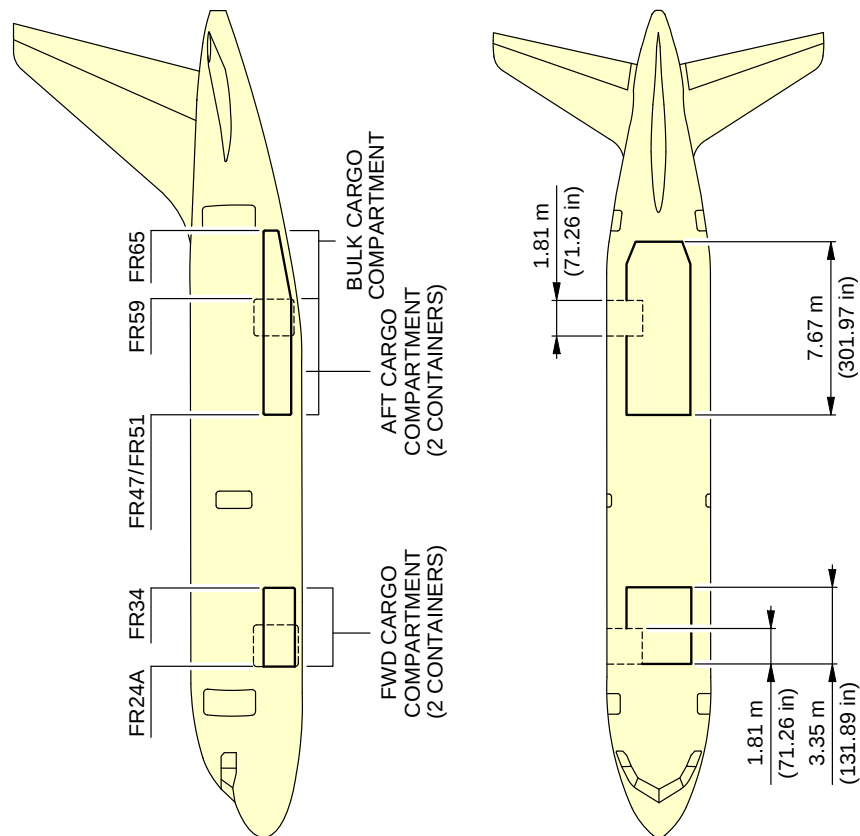
### 2-6-0 Cargo Compartments

**\*\*ON A/C A319-100 A319neo**

#### Cargo Compartments

1. This section provides the cargo compartments locations, dimensions and loading combinations.

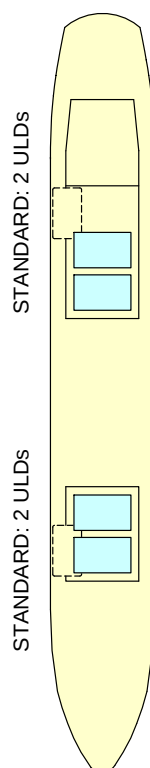
**\*\*ON A/C A319-100 A319neo**



N\_AC\_020600\_1\_0020101\_01\_00

Cargo Compartments  
Locations and Dimensions  
FIGURE-2-6-0-991-002-A01

**\*\*ON A/C A319-100 A319neo**



N\_AC\_020600\_1\_0050101\_01\_00

Cargo Compartments  
Loading Combinations  
FIGURE-2-6-0-991-005-A01

### 2-7-0 Door Clearances and Location

**\*\*ON A/C A319-100 A319neo**

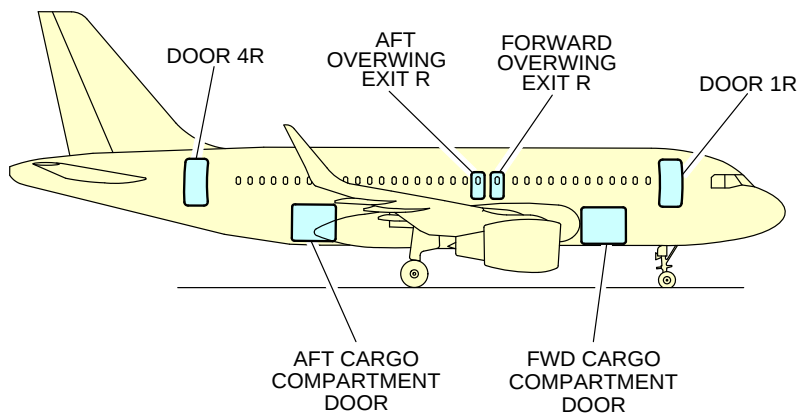
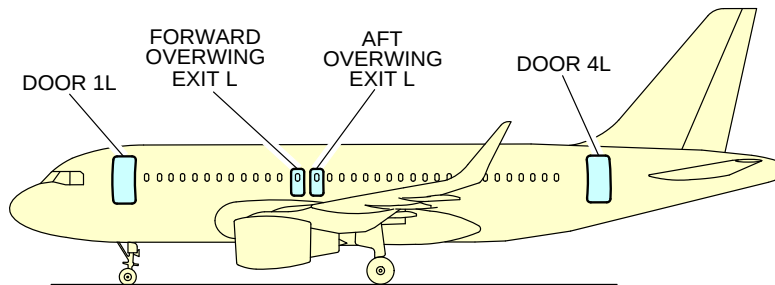
#### Door Clearances

1. This section gives door identification and location.

NOTE : Dimensions of the ground clearances are approximate and will change with tire type, weight and balance and other special conditions.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**

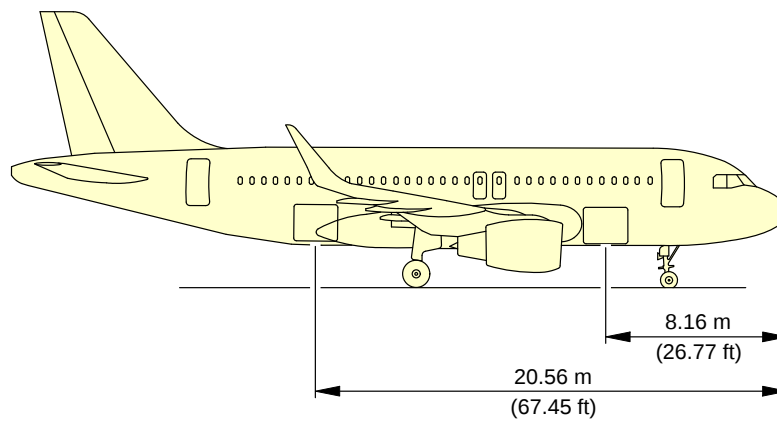
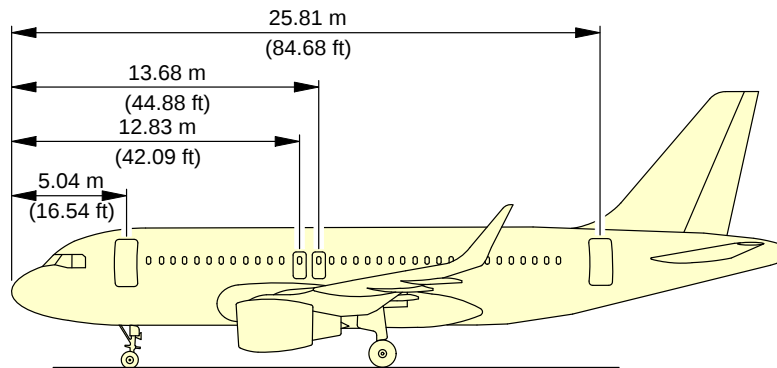


N\_AC\_020700\_1\_0020101\_01\_01

Door Identification and Location  
 Door Identification (Sheet 1 of 2)  
 FIGURE-2-7-0-991-002-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

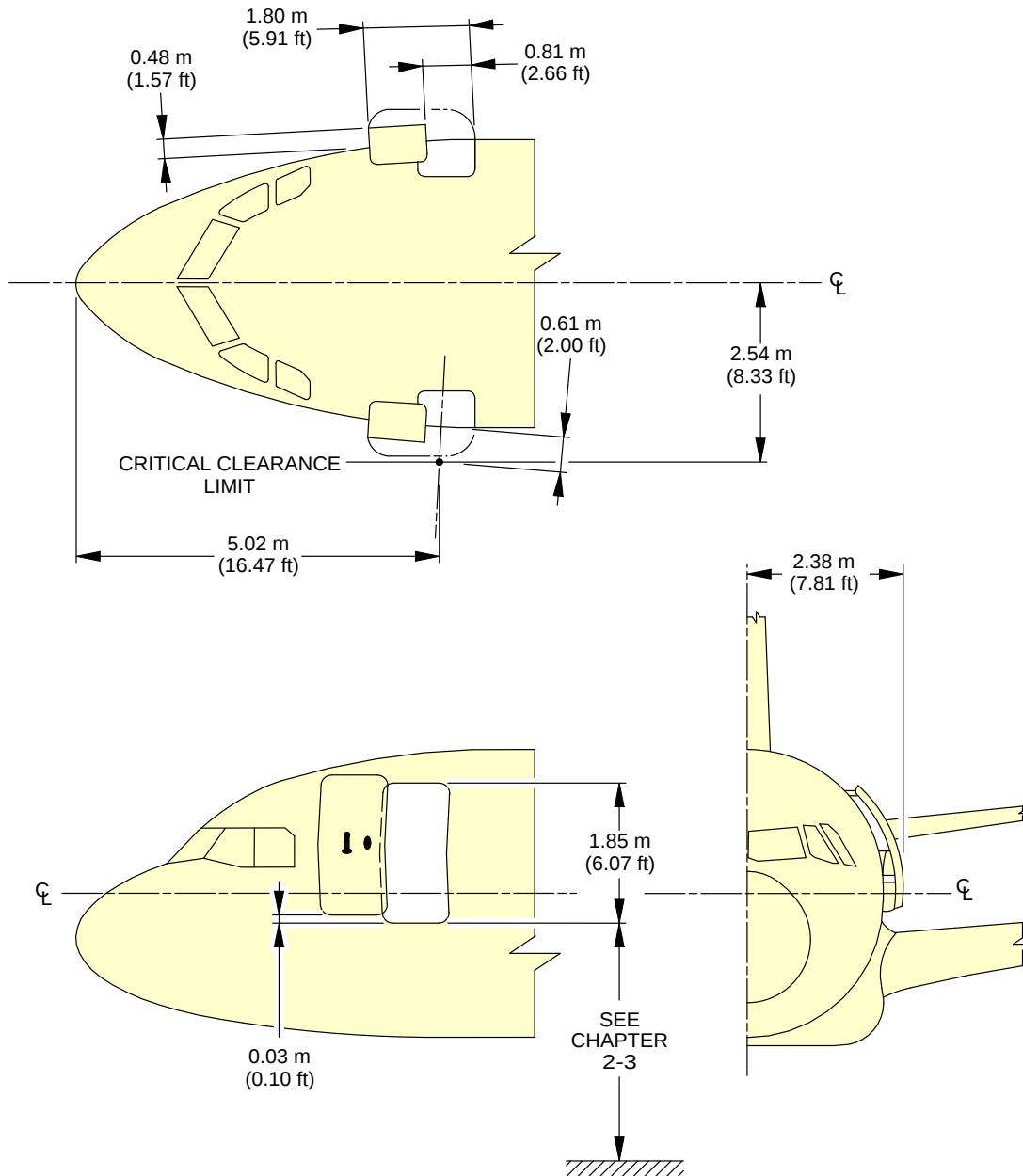
**\*\*ON A/C A319-100 A319neo**



N\_AC\_020700\_1\_0020102\_01\_00

Door Identification and Location  
 Door Location (Sheet 2 of 2)  
 FIGURE-2-7-0-991-002-A01

**\*\*ON A/C A319-100 A319neo**

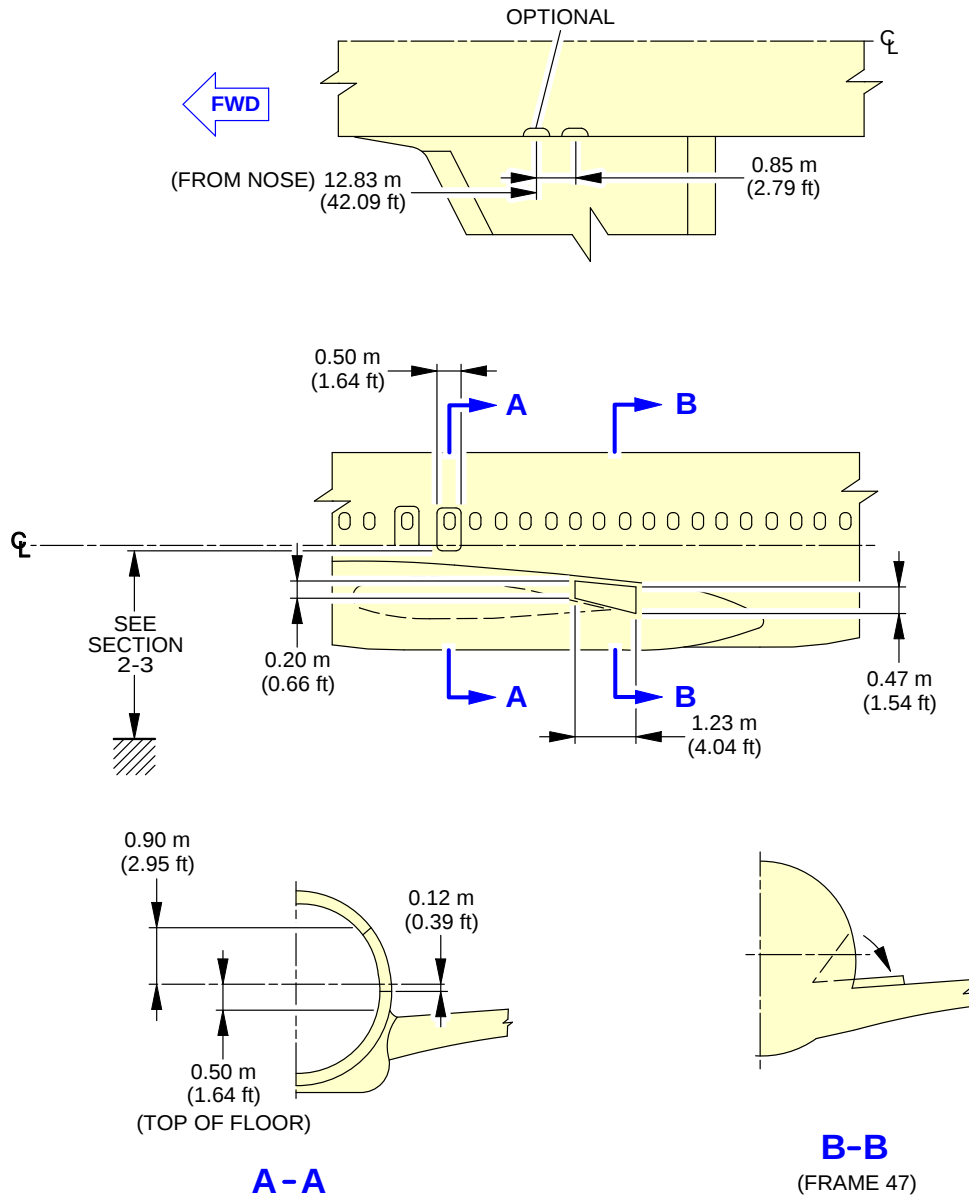


N\_AC\_020700\_1\_0130101\_01\_00

Doors Clearances  
Forward Passenger/Crew Doors  
FIGURE-2-7-0-991-013-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**

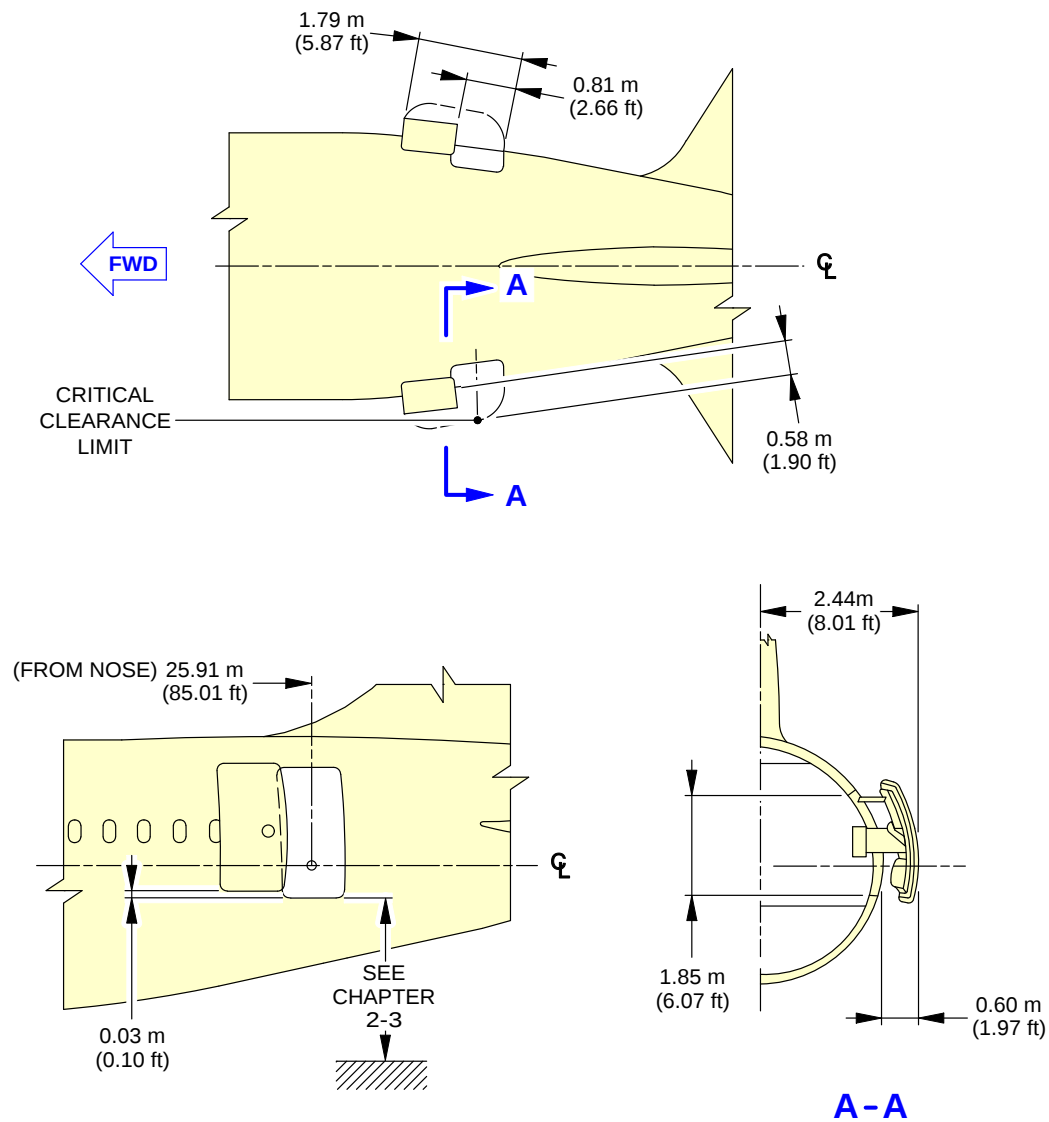


**NOTE:**  
ESCAPE SLIDE COMPARTMENT DOOR OPENS ON WING UPPER SURFACE.

N\_AC\_020700\_1\_0140101\_01\_00

Doors Clearances  
Emergency Exits  
FIGURE-2-7-0-991-014-A01

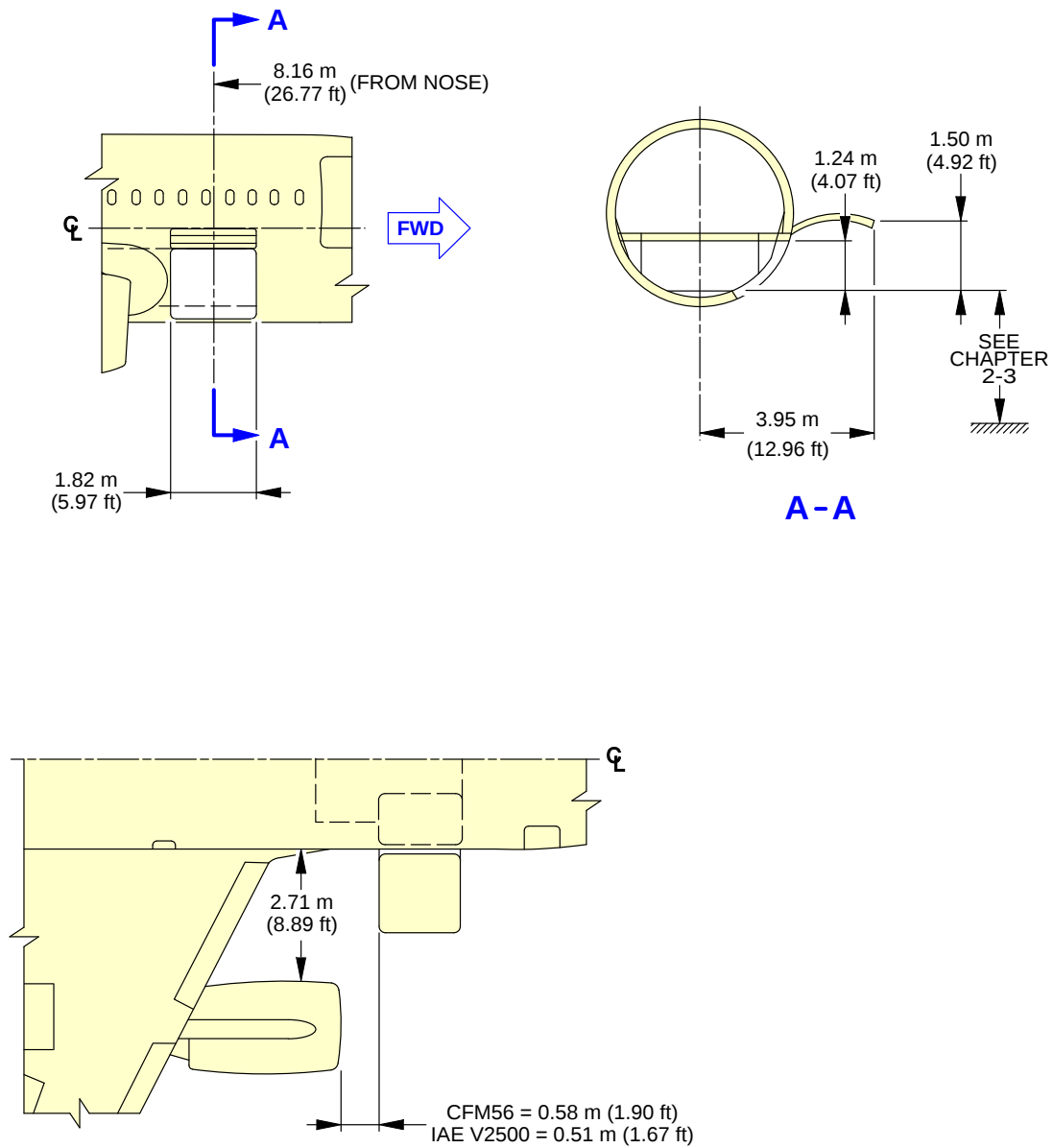
**\*\*ON A/C A319-100 A319neo**



N\_AC\_020700\_1\_0150101\_01\_00

Doors Clearances  
Aft Passenger/Crew Doors  
FIGURE-2-7-0-991-015-A01

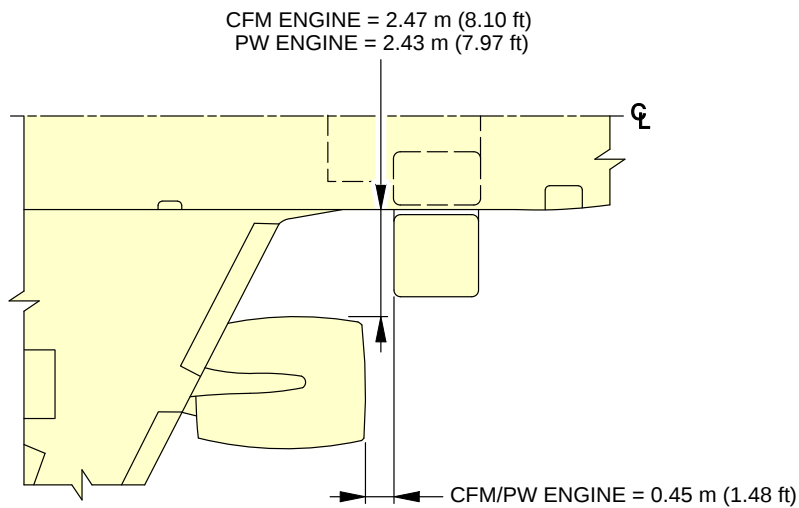
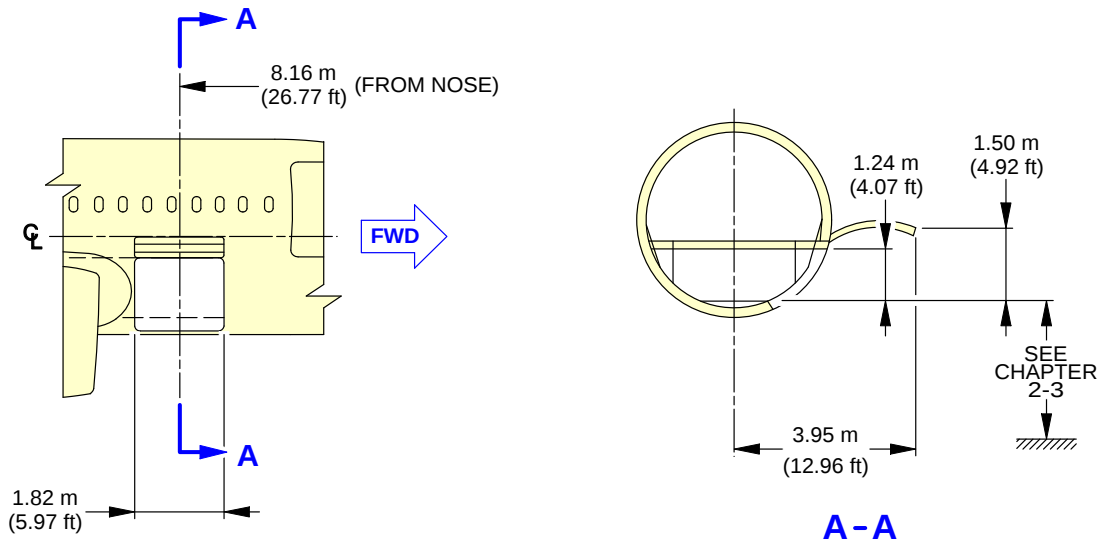
**\*\*ON A/C A319-100**



N\_AC\_020700\_1\_0160101\_01\_00

Doors Clearances  
Forward Cargo Compartment Door  
FIGURE-2-7-0-991-016-A01

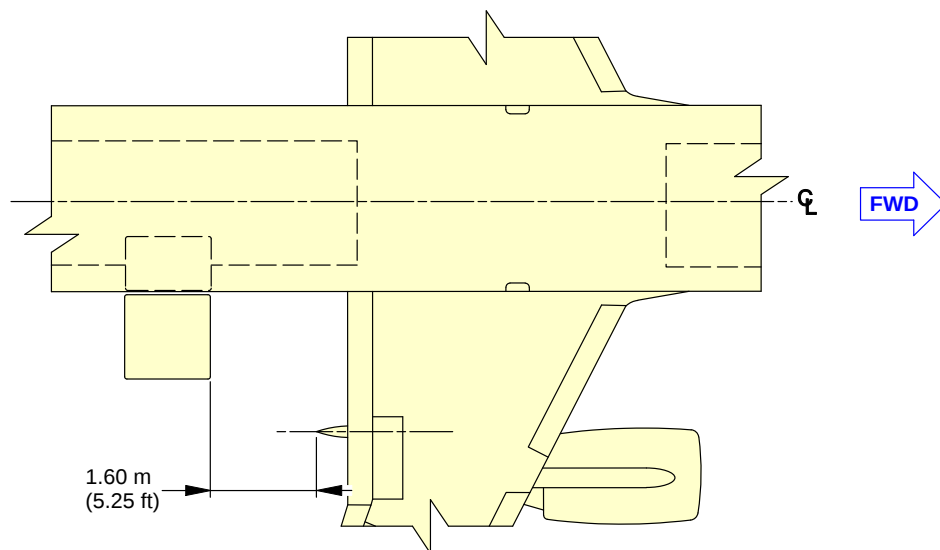
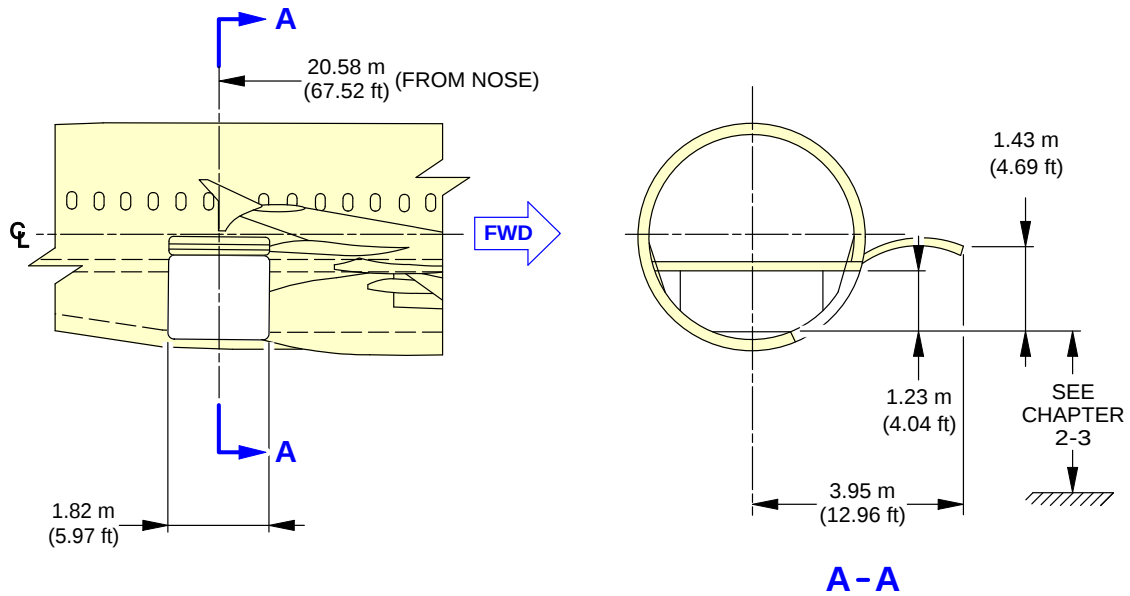
**\*\*ON A/C A319neo**



N\_AC\_020700\_1\_0170101\_01\_00

Doors Clearances  
Forward Cargo Compartment Door  
FIGURE-2-7-0-991-017-A01

**\*\*ON A/C A319-100 A319neo**

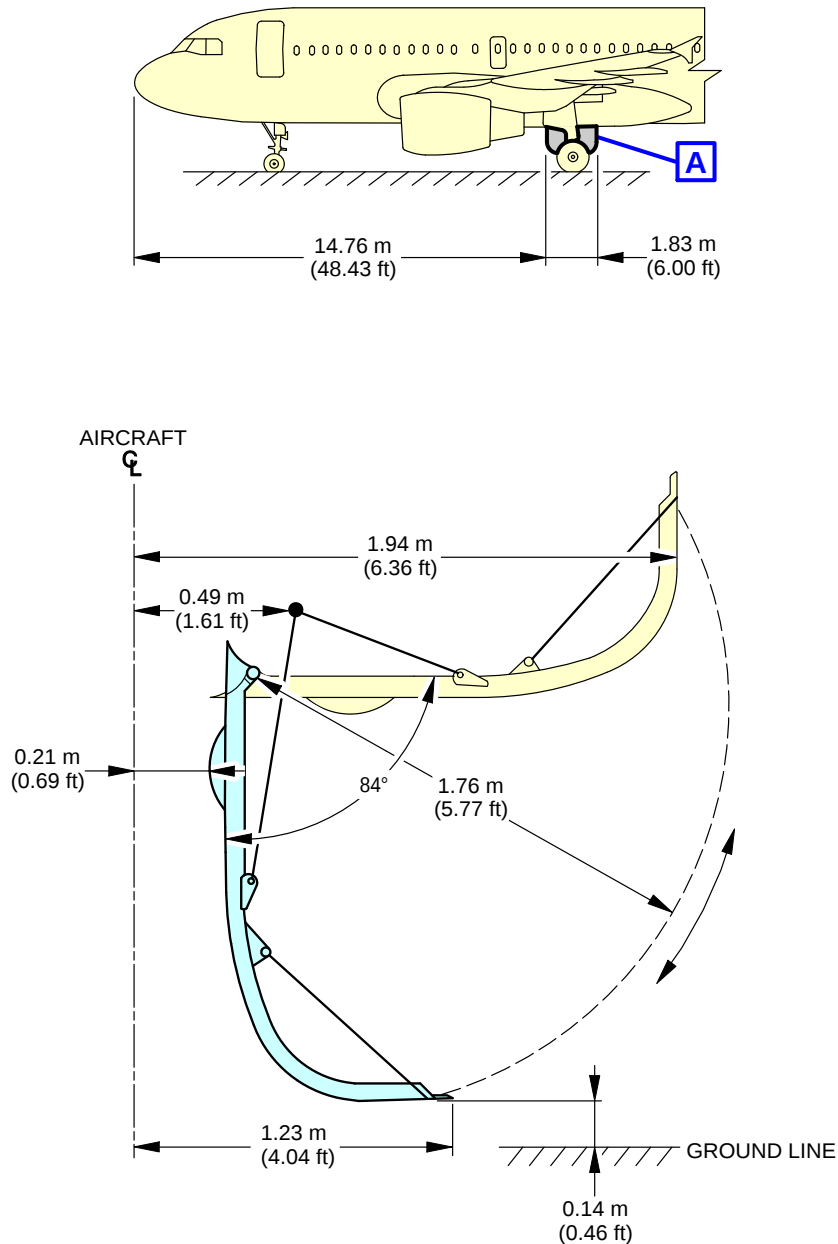


N\_AC\_020700\_1\_0180101\_01\_00

Doors Clearances  
Aft Cargo Compartment Door  
FIGURE-2-7-0-991-018-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**

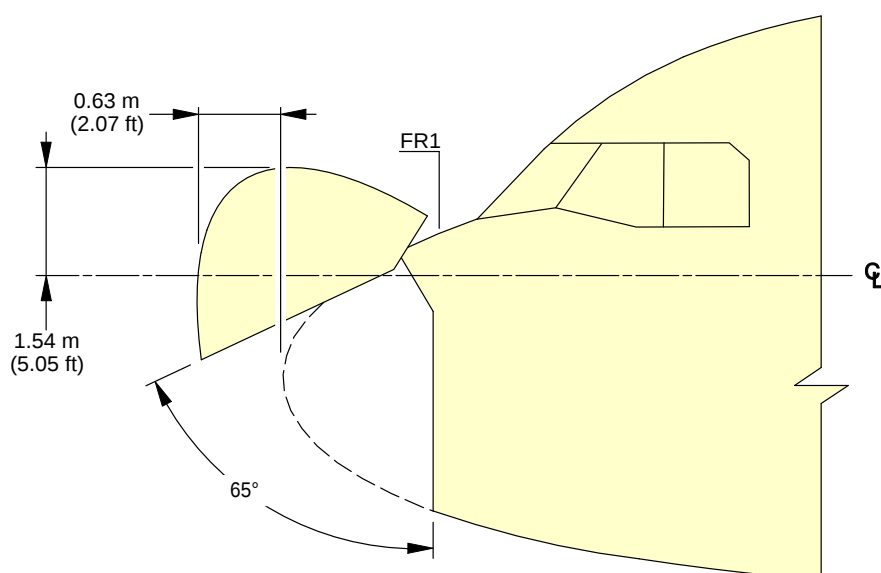


**NOTE:**  
VALUE OF CG: 25% RC.

N\_AC\_020700\_1\_0190101\_01\_00

Doors Clearances  
Main Landing Gear Doors  
FIGURE-2-7-0-991-019-A01

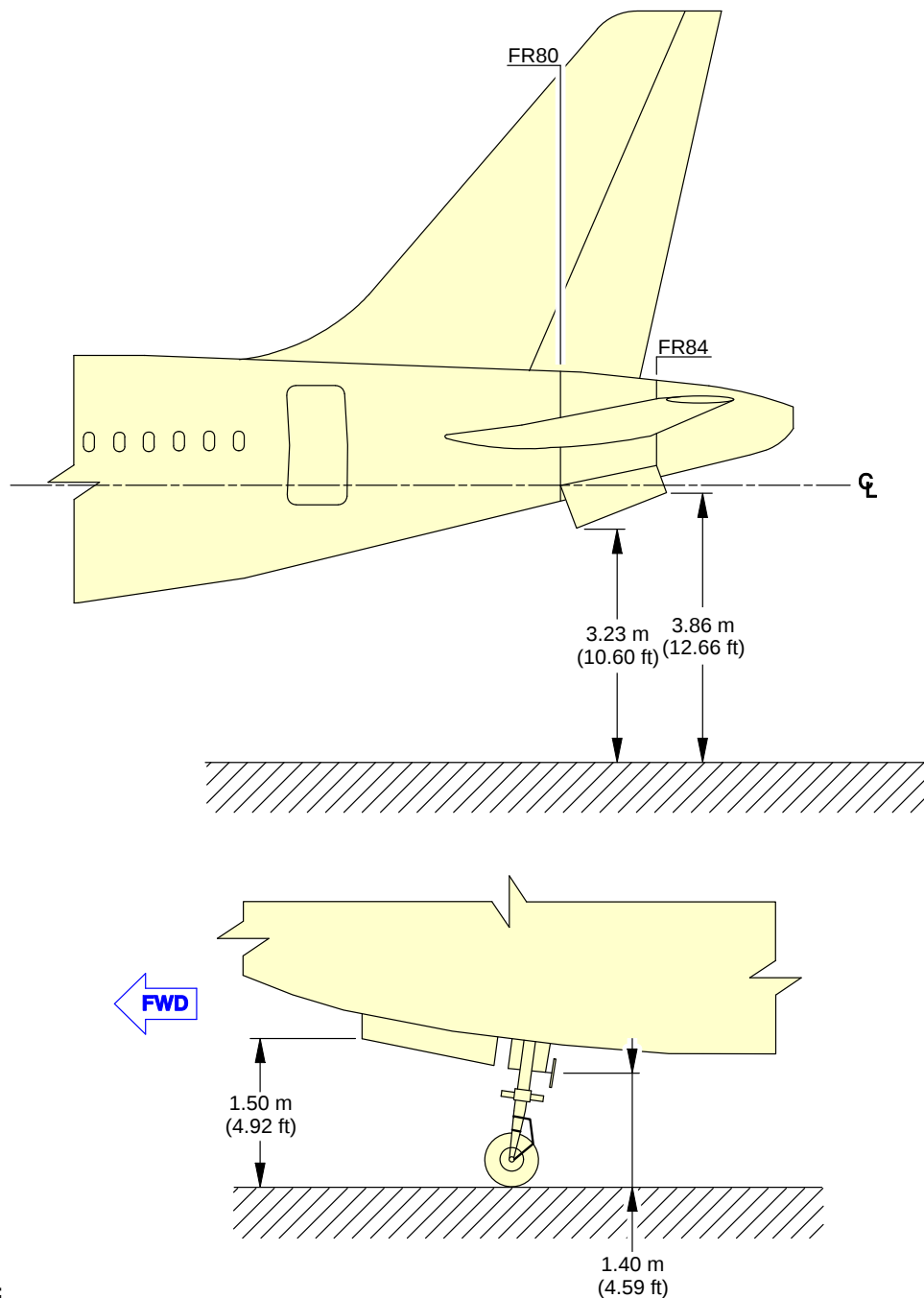
**\*\*ON A/C A319-100 A319neo**



N\_AC\_020700\_1\_0200101\_01\_00

Doors Clearances  
Radome  
FIGURE-2-7-0-991-020-A01

**\*\*ON A/C A319-100 A319neo**

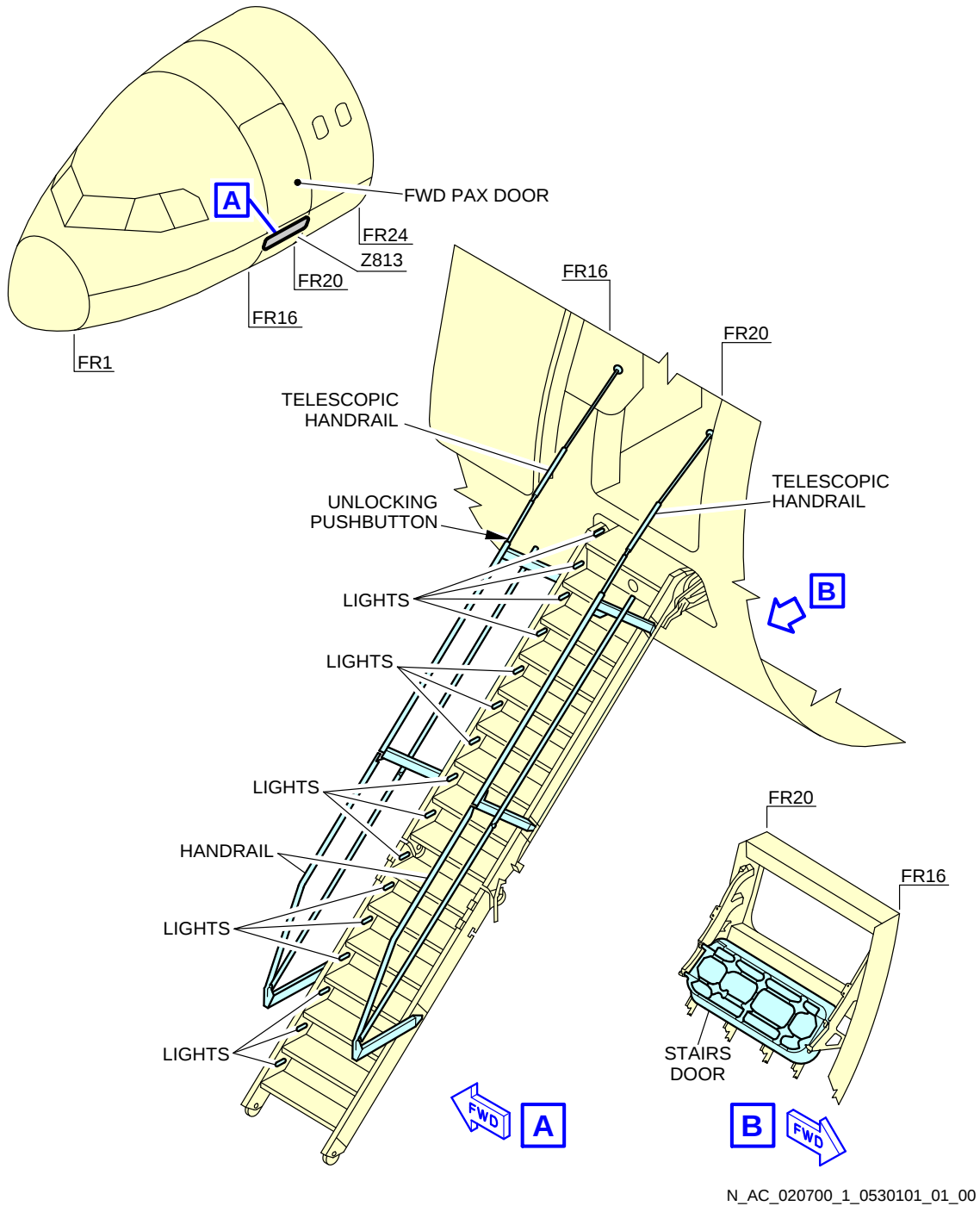


**NOTE:**  
VALUE OF CG: 25% RC.

N\_AC\_020700\_1\_0210101\_01\_00

Doors Clearances  
APU and Nose Landing Gear Doors  
FIGURE-2-7-0-991-021-A01

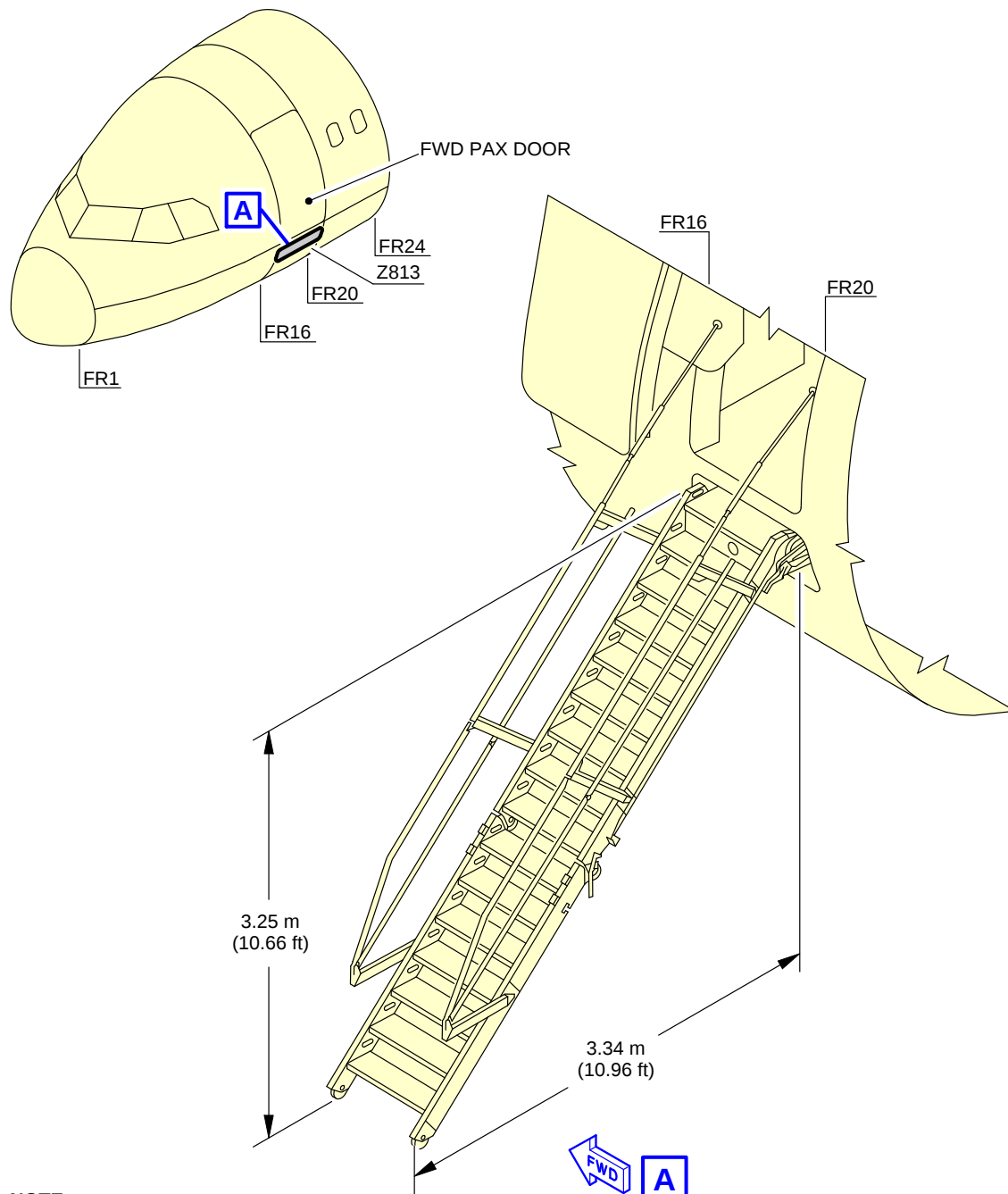
**\*\*ON A/C A319-100 A319neo**



Doors Clearances - Airstairs  
Location  
FIGURE-2-7-0-991-053-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**

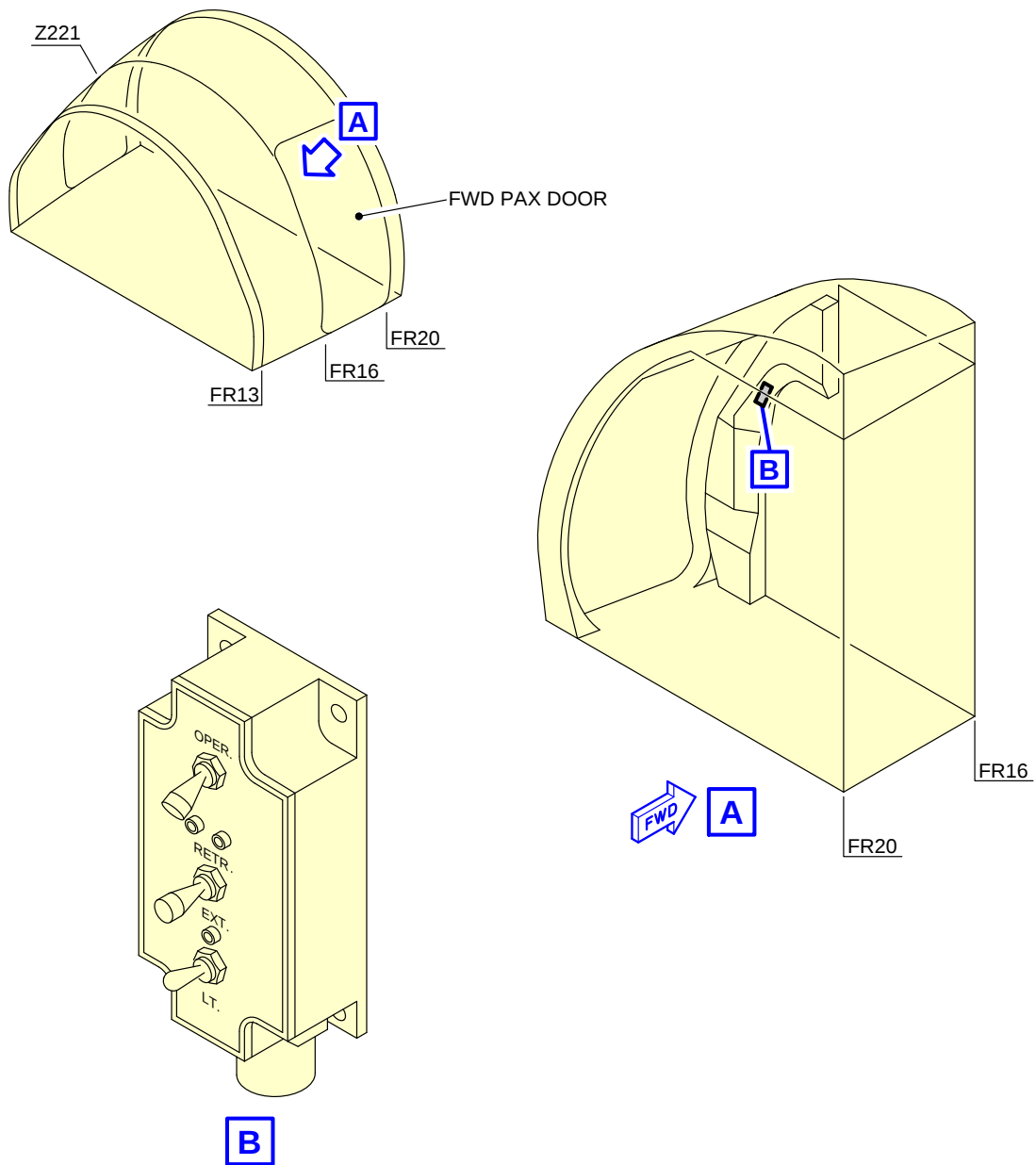


**NOTE:**  
THE VALUES GIVEN DEPEND ON THE POSITION OF CENTER OF GRAVITY (CG) AND THE AIRCRAFT WEIGHT.

N\_AC\_020700\_1\_0540101\_01\_00

Doors Clearances - Airstairs  
Dimensions  
FIGURE-2-7-0-991-054-A01

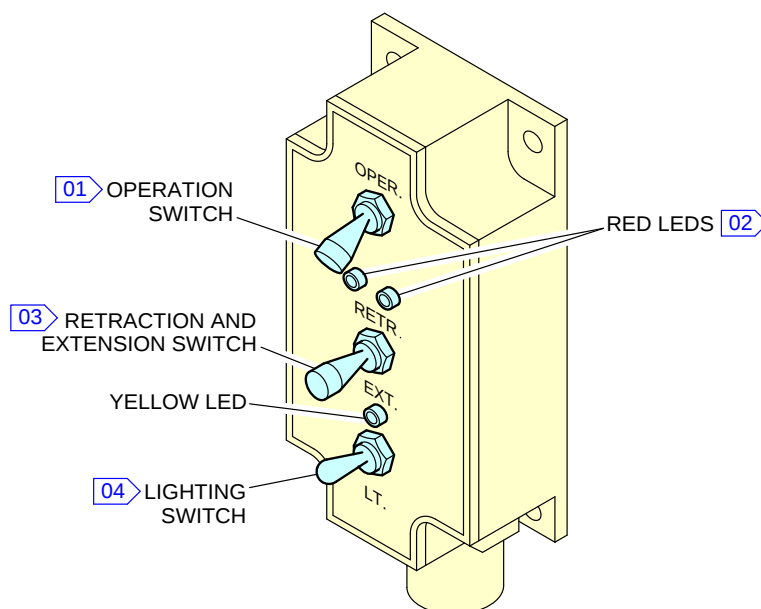
**\*\*ON A/C A319-100 A319neo**



N\_AC\_020700\_1\_0550101\_01\_00

Doors Clearances - Airstairs  
Location for Operating the Airstairs  
FIGURE-2-7-0-991-055-A01

**\*\*ON A/C A319-100 A319neo**



**NOTE:**

- 01** OPER.: WHEN THE FLIGHT CREW PUSHES THIS SWITCH TO THE OPER. POSITION AND HOLDS IT AGAINST THE SPRING, THE STAIRS WILL EXTEND OR RETRACT IF THE FLIGHT CREW ALSO HOLDS THE RETRACTION AND EXTENSION SWITCH IN THE RETR. OR EXT. POSITION.  
OFF: OPERATION OF THE STAIRS IS PREVENTED.
- 02** THE TWO RED LIGHTS ARE ON DURING THE EXTENSION AND RETRACTION.
- 03** NEUTRAL: THIS IS THE STABLE, LOCKED POSITION. OPERATION OF THE STAIRS IS PREVENTED. TO MOVE IT FROM THIS POSITION, THE FLIGHT CREW MUST PULL THE SWITCH OUT.  
RETR.: WHEN THE FLIGHT CREW HOLDS THE SWITCH IN THIS POSITION AGAINST THE SPRING, THE STAIRS RETRACT IF:  
  - THE OPERATION SWITCH IS HELD AT OPER.
  - THE TELESCOPIC HANDRAILS ARE FULLY STOWED.
- 04** UP: THE STAIR LIGHTS COMES ON ALONG WITH THE YELLOW CONTROL LIGHT, IF:  
  - THE STAIRS ARE FULLY EXTENDED, AND
  - THE POWER IS AVAILABLE FROM DC BUS 2.
 DOWN: THE STAIR LIGHTS AND THE YELLOW CONTROL LIGHT ARE OFF.

N\_AC\_020700\_1\_0600101\_01\_00

Operation of the Airstairs  
FIGURE-2-7-0-991-060-A01

**2-8-0      Escape Slides****\*\*ON A/C A319-100 A319neo**Escape Slides**1.    General**

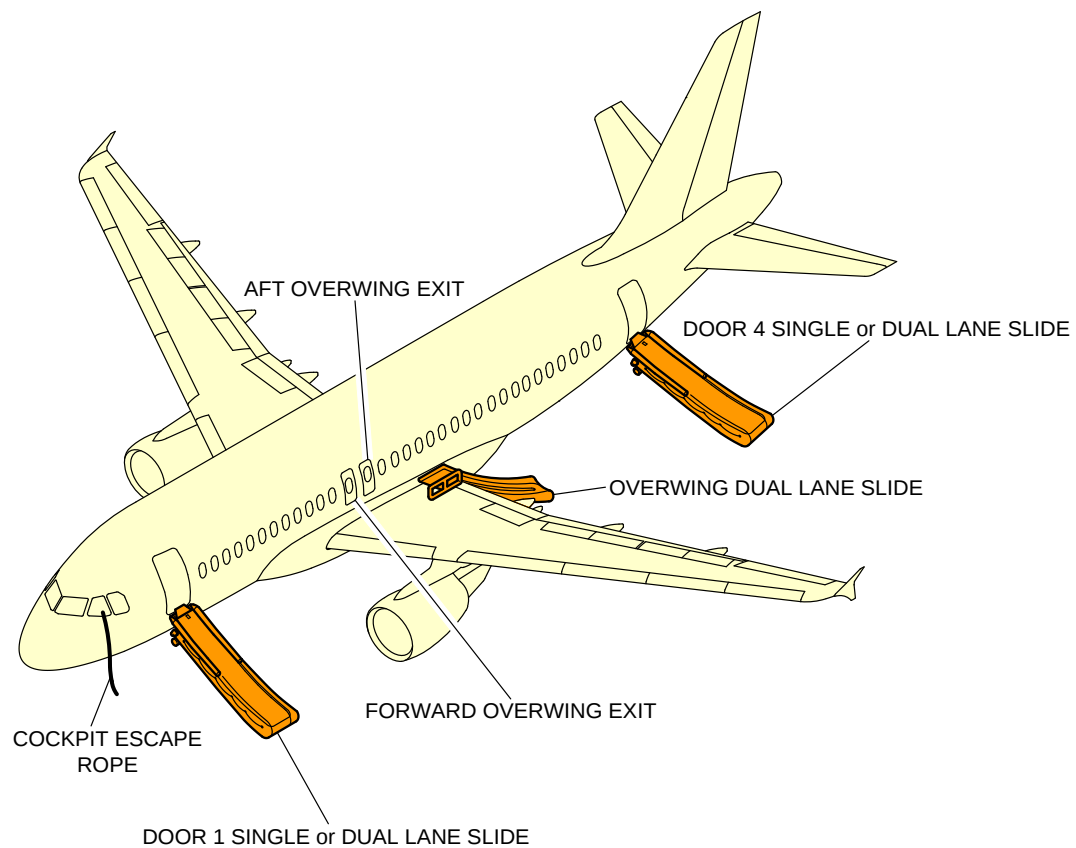
This section provides location of slides/rafts facilities and related clearances.

**2.    Location**

Slides/rafts facilities are provided at the following locations:

- One single or dual lane slide at each door 1 & 4 (total four)
- Dual lane overwing slides are installed above the wings in the left and right wing-to-fuselage fairings for off-the-wing evacuation (total 2).

**\*\*ON A/C A319-100 A319neo**

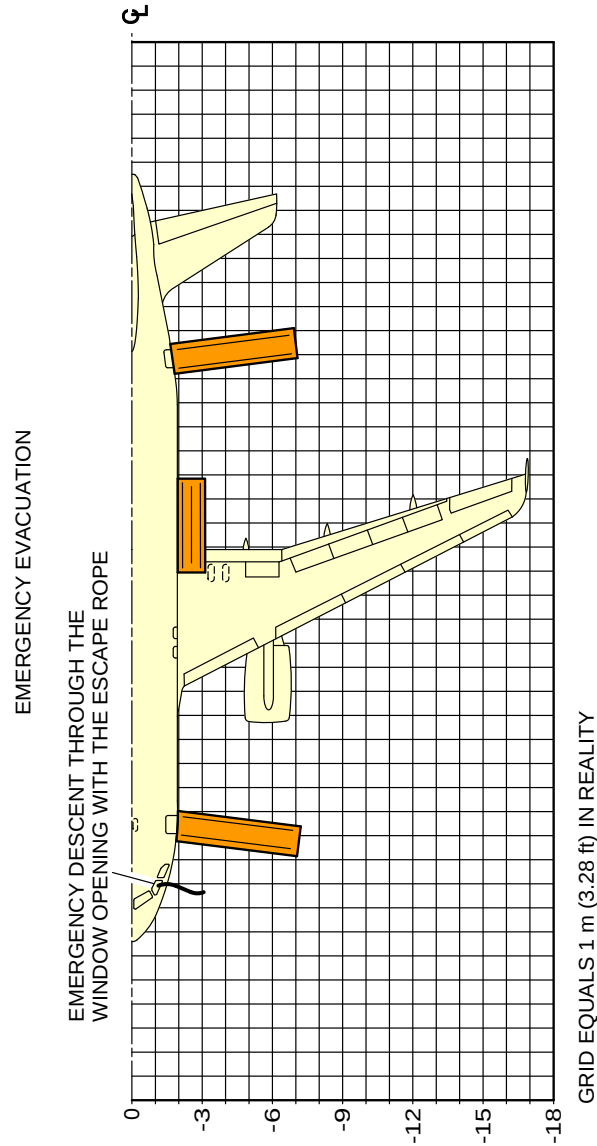


**NOTE:**  
LH SHOWN, RH SYMMETRICAL.

N\_AC\_020800\_1\_0030101\_01\_04

Escape Slides  
Location  
FIGURE-2-8-0-991-003-A01

**\*\*ON A/C A319-100 A319neo**



**NOTE:**  
 - LH SHOWN, RH SYMMETRICAL.  
 - DIMENSIONS ARE APPROXIMATE.

N\_AC\_020800\_1\_0040101\_01\_03

Escape Slides  
 Dimensions  
 FIGURE-2-8-0-991-004-A01

### 2-9-0 Landing Gear

**\*\*ON A/C A319-100 A319neo**

#### Landing Gear

##### 1. General

The landing gear is of the conventional retractable tricycle type comprising:

- Two main gears with twin-wheel,
- A twin-wheel nose gear.

The main landing gears are located under the wing and retract sideways towards the fuselage centerline.

The nose landing gear retracts forward into a fuselage compartment located between FR9 and FR20.

The landing gears and landing gear doors are operated and controlled electrically and hydraulically.

In abnormal operation, the landing gear can be extended by gravity.

For landing gear footprint and tire size, refer to 07-02-00.

##### 2. Main Landing Gear

###### A. Twin-Wheel

Each of the two main landing gear assemblies consists of a conventional two-wheel direct type with an integral shock absorber supported in the fore and aft directions by a fixed drag strut and laterally by a folding strut mechanically locked when in the DOWN position.

##### 3. Nose Landing Gear

The nose landing gear consists of a leg with a built-in shock absorber strut, carrying twin wheels with adequate shimmy damping and a folding strut mechanically locked when in the DOWN position.

##### 4. Nose Wheel Steering

**AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING**

Steering is controlled by two hand wheels in the cockpit. For steering angle controlled by the hand wheels, refer to AMM 32-51-00.

For steering angle limitation, refer to AMM 09-10-00.

A steering disconnection box is installed on the nose landing gear to allow steering deactivation for towing purposes.

**5. Landing Gear Servicing Points****A. General**

Filling of the landing-gear shock absorbers is done through MIL-PRF-6164 standard valves.

Charging of the landing-gear shock absorbers is accomplished with nitrogen through MIL-PRF-6164 standard valves.

**B. Charging Pressure**

For charging of the landing-gear shock absorbers, refer to AMM 12-14-32.

**6. Braking****A. General**

The four main wheels are equipped with carbon multidisc brakes.

The braking system is electrically controlled and hydraulically operated.

The braking system has four braking modes plus autobrake and anti-skid systems:

- Normal braking with anti-skid capability,
- Alternative braking with anti-skid capability,
- Alternative braking without anti-skid capability,
- Parking brake with full pressure application capability only.

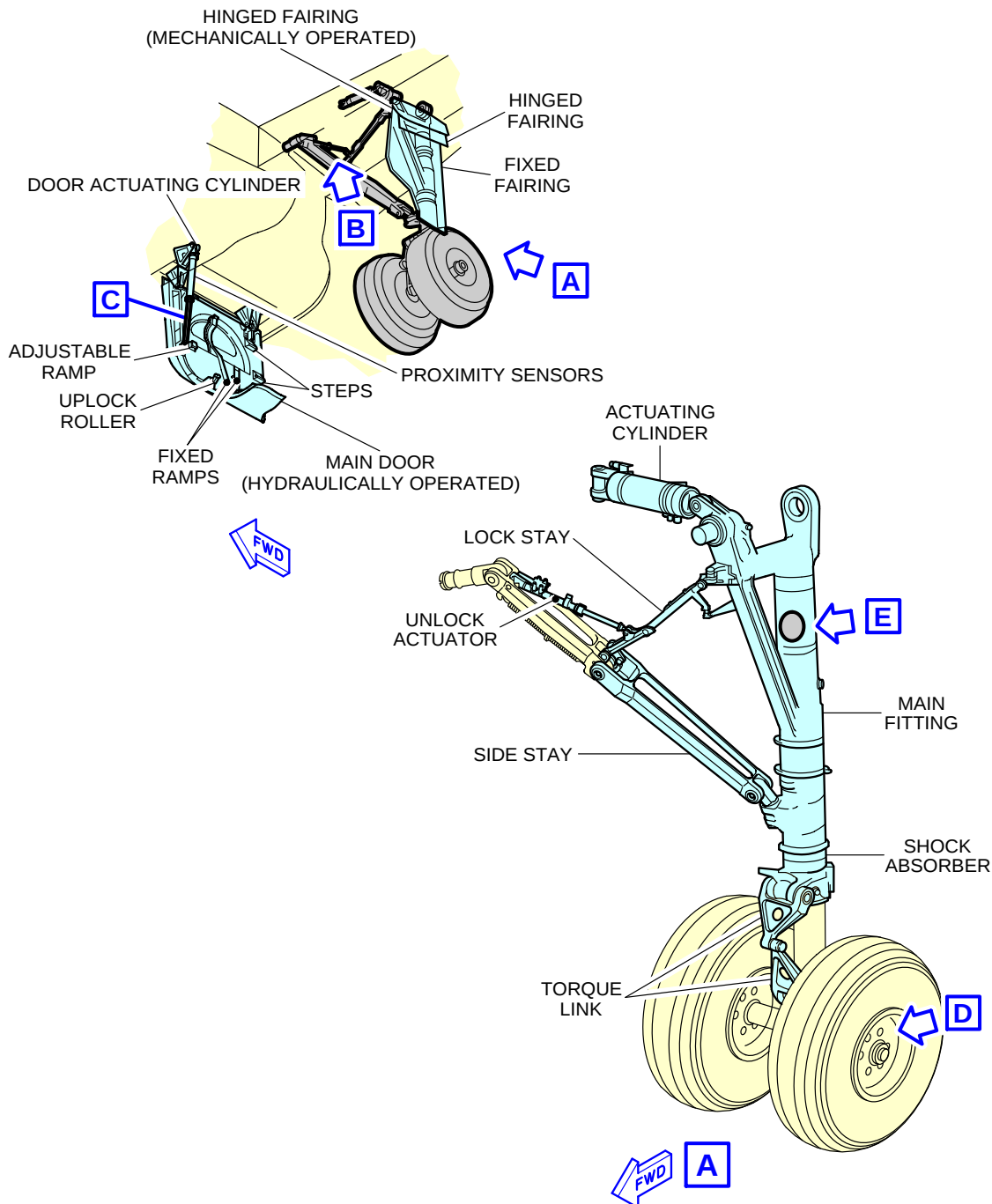
**B. In-Flight Wheel Braking**

The main gear wheels are braked automatically before the wheels enter the wheel bay.

The nose gear wheels are stopped by the wheels contacting a rubbing strip (the brake band) when the gear is in the retracted position.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**

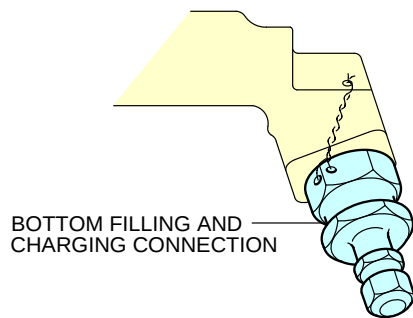
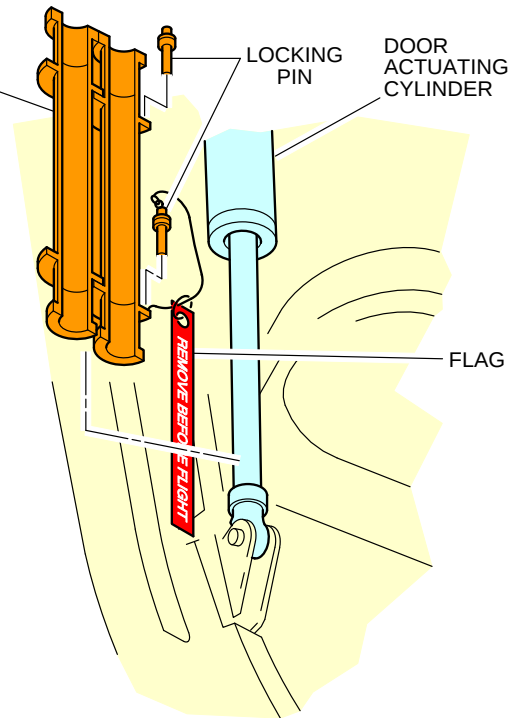
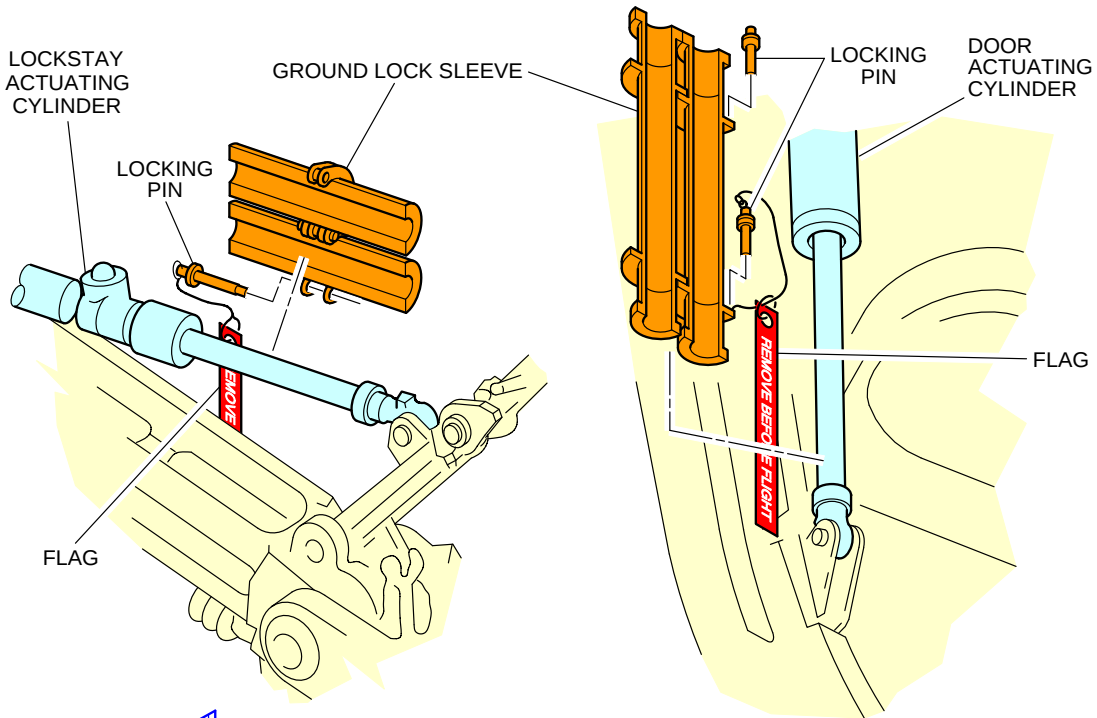


**NOTE:** MAIN DOOR SHOWN OPEN IN GROUND MAINTENANCE POSITION.

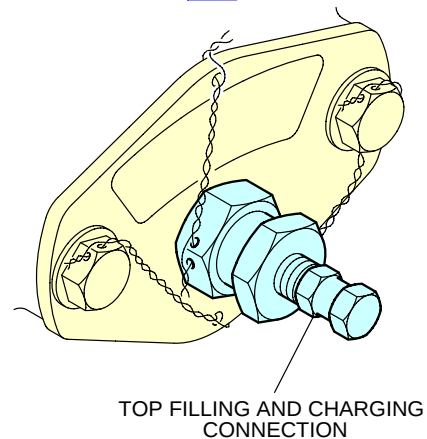
N\_AC\_020900\_1\_0060101\_01\_00

Landing Gear  
Main Landing Gear - Twin-Wheel (Sheet 1 of 2)  
FIGURE-2-9-0-991-006-A01

**\*\*ON A/C A319-100 A319neo**



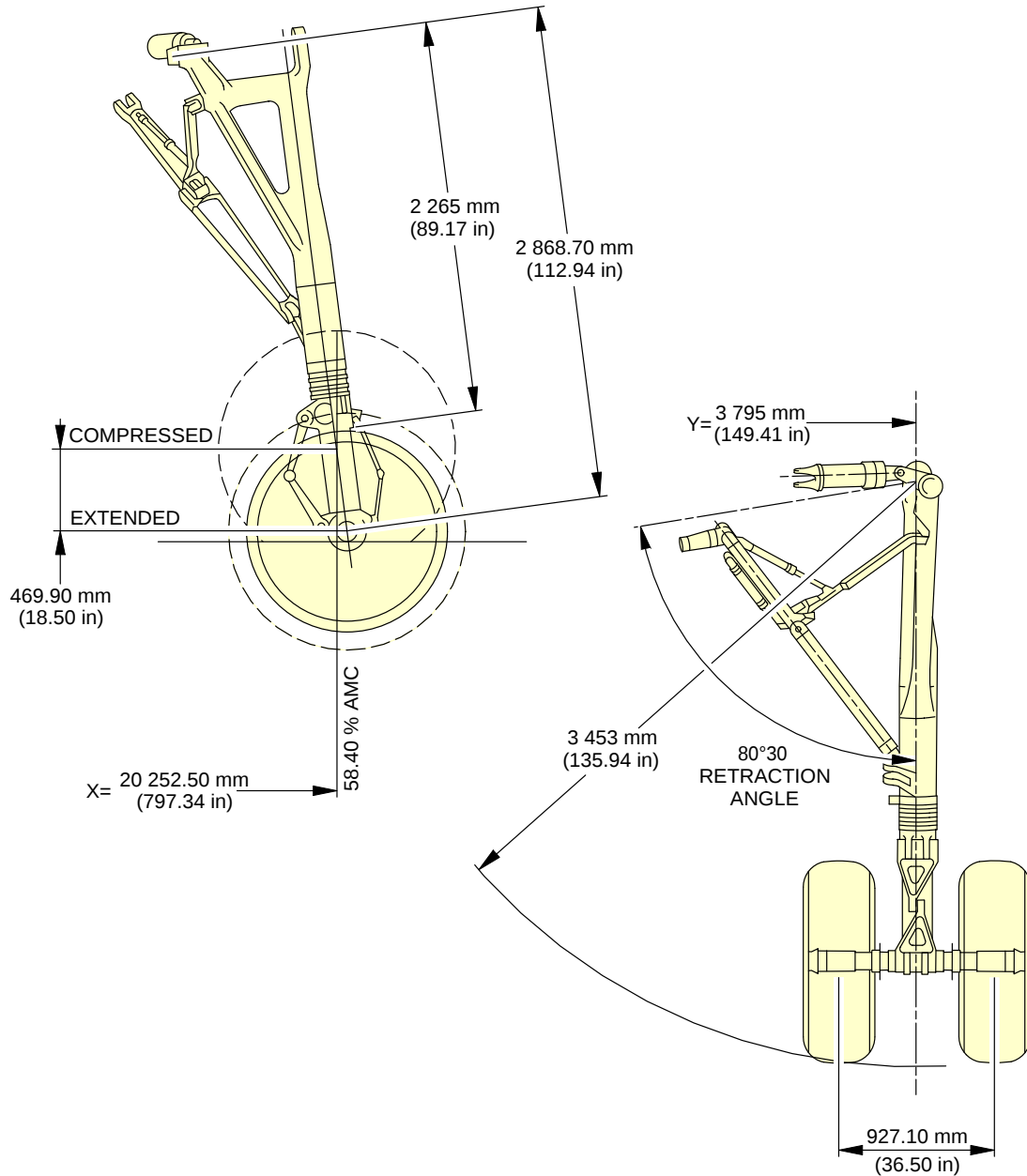
EXAMPLE



N\_AC\_020900\_1\_0060102\_01\_01

Landing Gear  
Main Landing Gear - Twin-Wheel (Sheet 2 of 2)  
FIGURE-2-9-0-991-006-A01

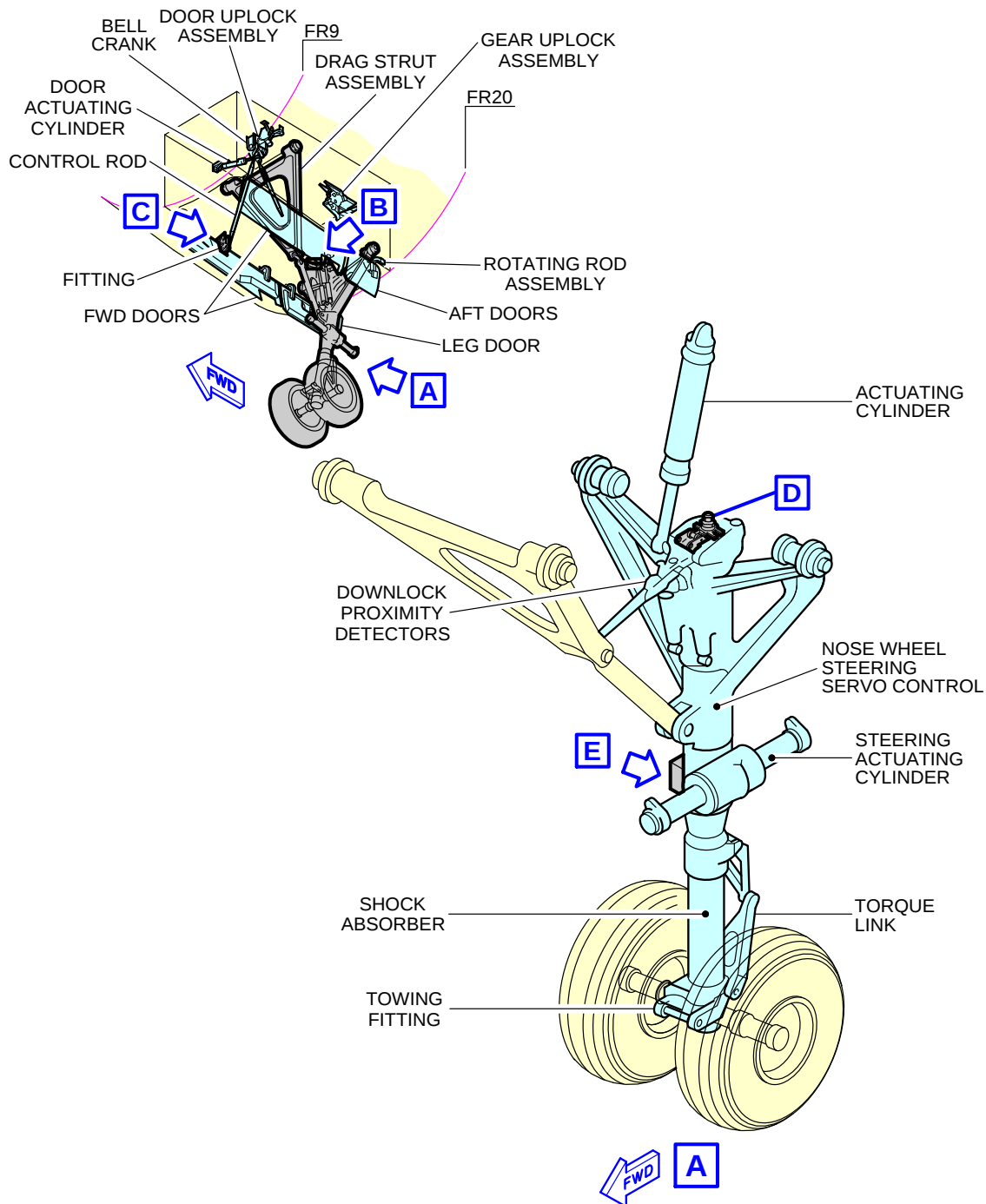
**\*\*ON A/C A319-100 A319neo**



N\_AC\_020900\_1\_0070101\_01\_00

Landing Gear  
Main Landing Gear Dimensions - Twin-Wheel  
FIGURE-2-9-0-991-007-A01

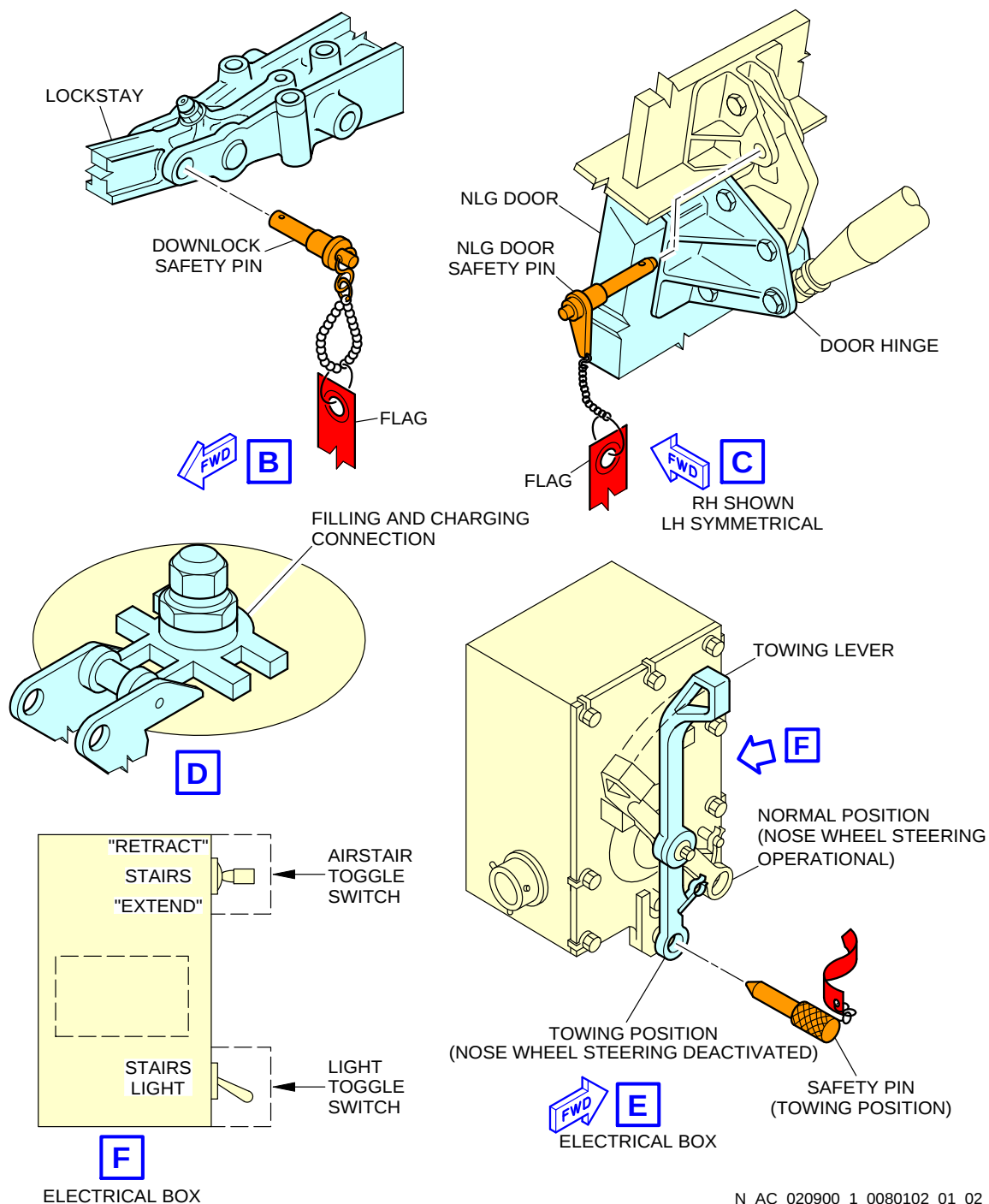
**\*\*ON A/C A319-100 A319neo**



N\_AC\_020900\_1\_0080101\_01\_00

Landing Gear  
Nose Landing Gear of ACJ (Sheet 1 of 2)  
FIGURE-2-9-0-991-008-A01

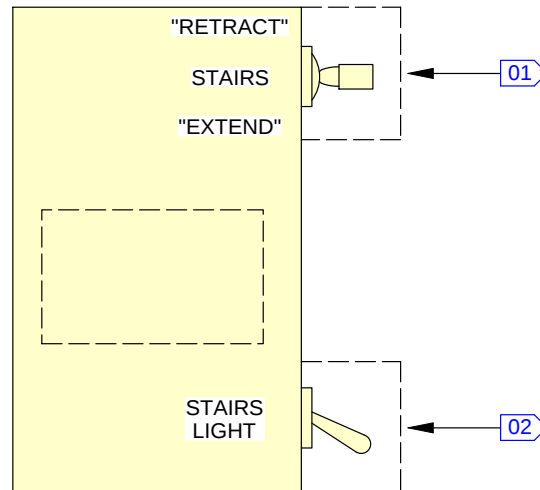
**\*\*ON A/C A319-100 A319neo**



Landing Gear  
Nose Landing Gear of ACJ (Sheet 2 of 2)  
FIGURE-2-9-0-991-008-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



**NOTE:**

**01 STAIRS SW**

NEUTRAL: THIS STABLE AND LOCKED POSITION PREVENTS OPERATION OF THE AIRSTAIRS. THE FLIGHT CREW MUST PULL THE SWITCH OUT TO MOVE IT FROM THE NEUTRAL POSITION.

RETRACT: WHEN GROUND CREW HOLDS THE SWITCH AGAINST THE SPRING IN THIS POSITION, THE AIRSTAIRS RETRACT IF THE TELESCOPIC HANDRAILS ARE FULLY STOWED.

EXTEND: WHEN GROUND CREW HOLDS THE SWITCH AGAINST THE SPRING IN THIS POSITION, THE AIRSTAIRS EXTEND.

**02 STAIRS LIGHT**

UP: STAIR LIGHTS COME ON, AS DOES THE YELLOW CONTROL LIGHT IN THE CABIN, IF:

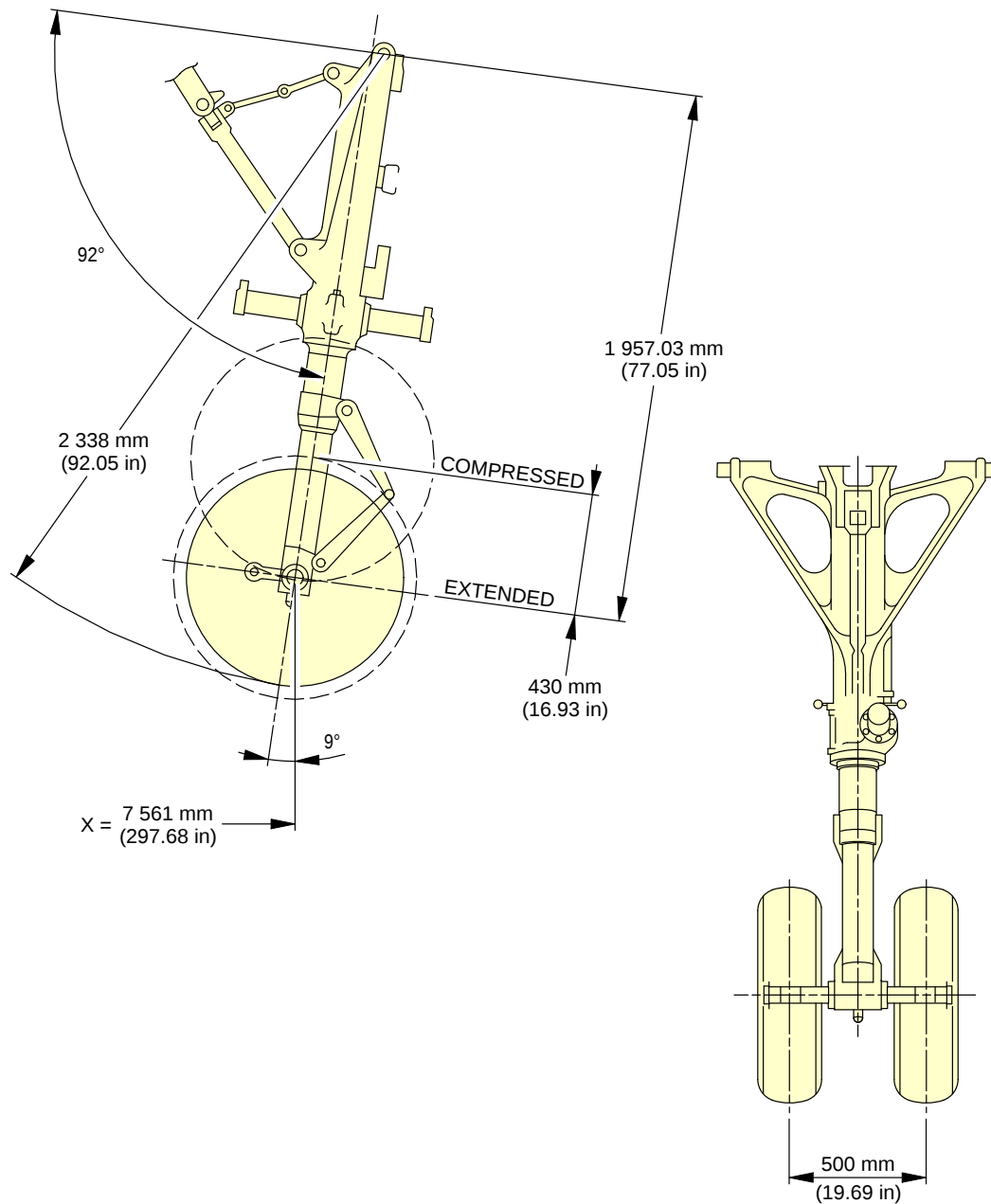
- THE STAIRS ARE FULLY EXTENDED, AND
- POWER IS AVAILABLE FROM DC BUS 2.

DOWN: STAIR LIGHTS AND YELLOW CONTROL LIGHT ARE OFF.

N\_AC\_020900\_1\_0290101\_01\_00

Operation of Airstairs for ACJ  
FIGURE-2-9-0-991-029-A01

**\*\*ON A/C A319-100 A319neo**



N\_AC\_020900\_1\_0090101\_01\_00

Landing Gear  
Nose Landing Gear Dimensions  
FIGURE-2-9-0-991-009-A01

**\*\*ON A/C A319-100 A319neo**Landing Gear Maintenance Pits

## 1. Description

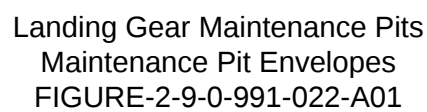
The minimum maintenance pit envelopes for the landing-gear shock absorber removal are shown in FIGURE 2-9-0-991-022-A and FIGURE 2-9-0-991-023-A.

All dimensions shown are minimum dimensions with zero clearances.

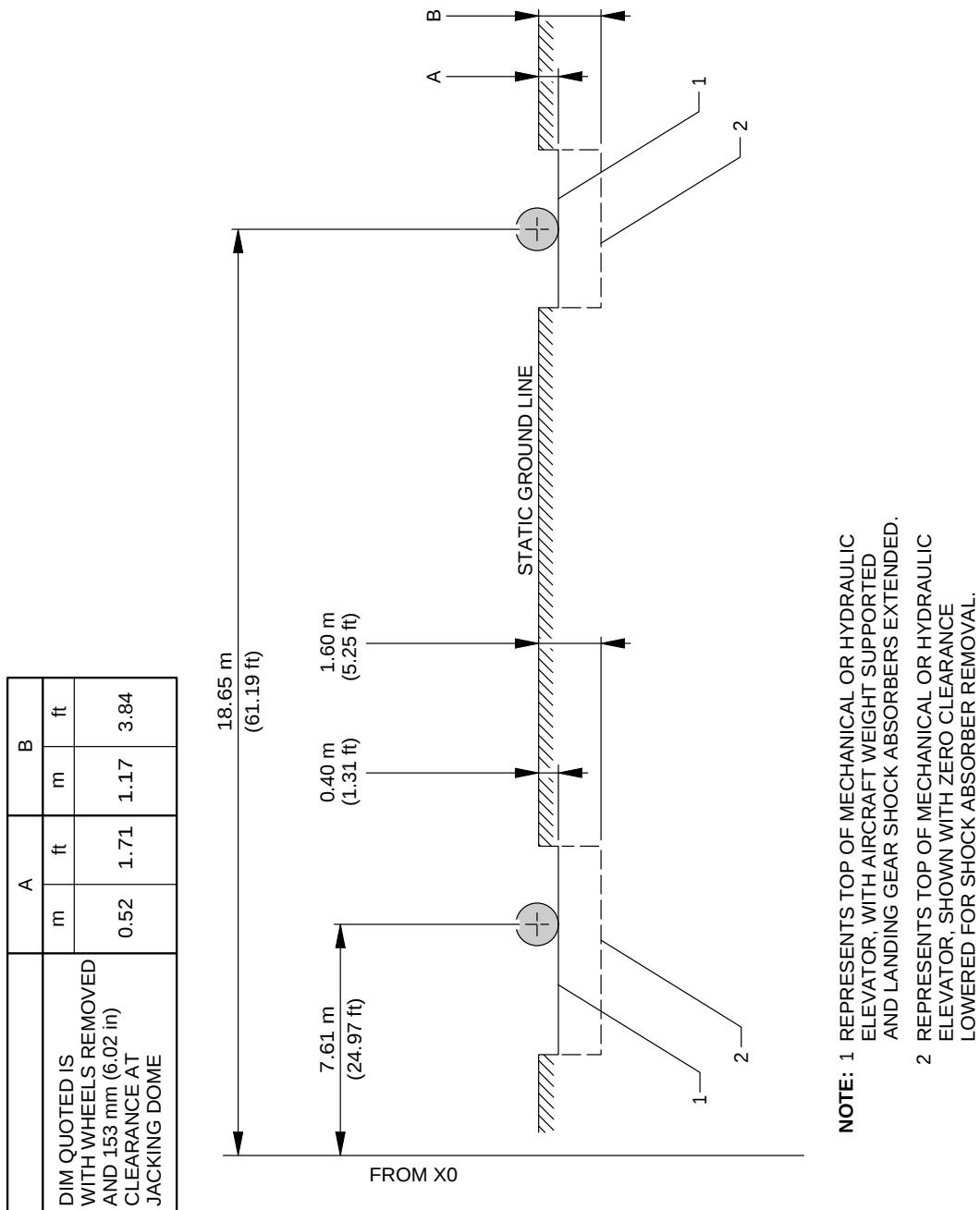
The dimensions for the pits have been determined as follows:

- The length and width of the pits allow the gear to rotate as the weight is taken off the landing gear.
- The depth of the pits allows the shock absorber to be removed when all the weight is taken off the landing gear.

Dimensions for elevators and associated mechanisms must be added to those in FIGURE 2-9-0-991-022-A and FIGURE 2-9-0-991-023-A.



**\*\*ON A/C A319-100 A319neo**



N\_AC\_020900\_1\_0230101\_01\_00

Landing Gear Maintenance Pits  
Maintenance Pit Envelopes  
FIGURE-2-9-0-991-023-A01

### 2-10-0 Exterior Lighting

**\*\*ON A/C A319-100 A319neo**

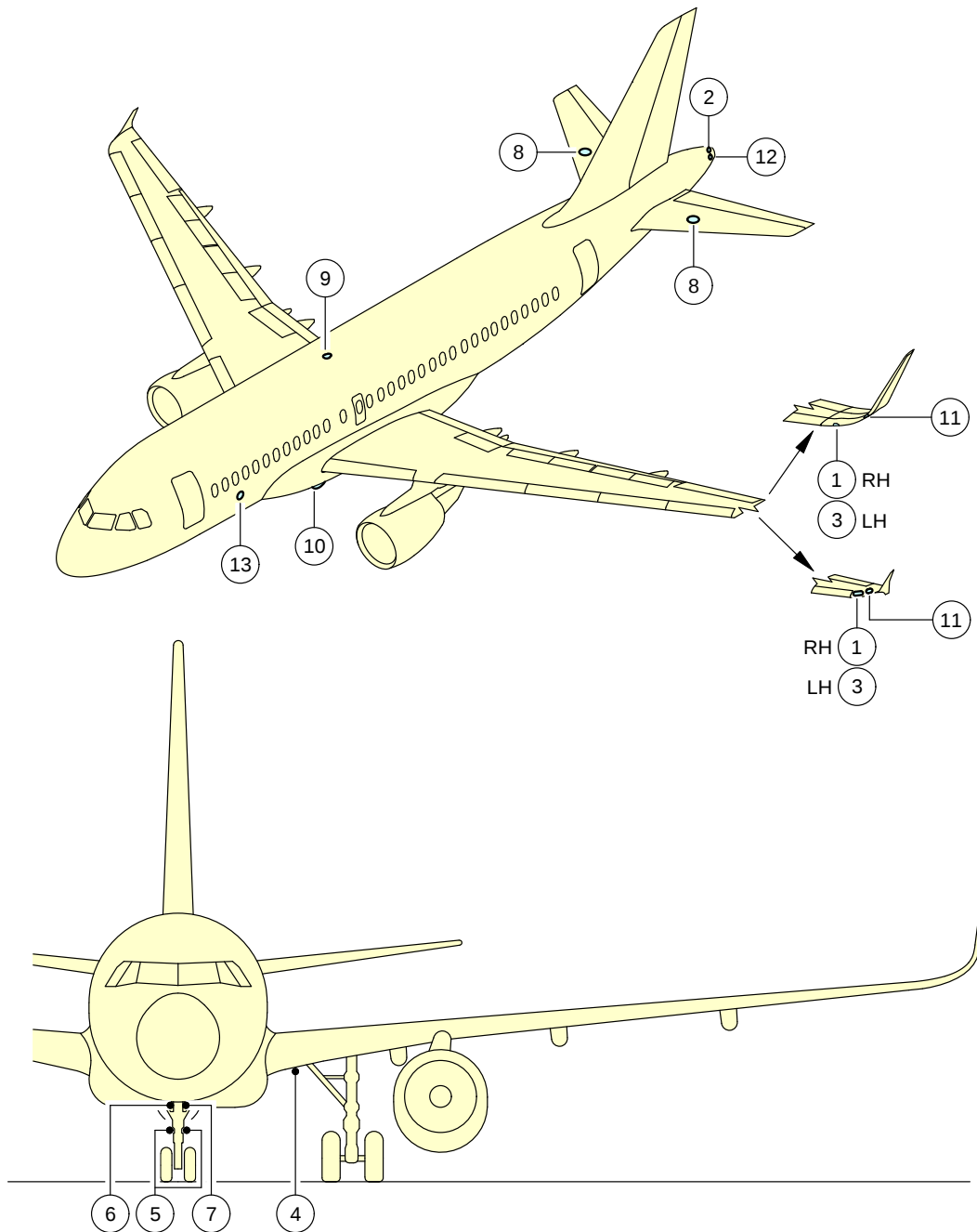
#### Exterior Lighting

#### 1. General

This section provides the location of the aircraft exterior lighting.

| EXTERIOR LIGHTING |                                           |
|-------------------|-------------------------------------------|
| ITEM              | DESCRIPTION                               |
| 1                 | RIGHT NAVIGATION LIGHT (GREEN)            |
| 2                 | TAIL NAVIGATION LIGHT (WHITE)             |
| 3                 | LEFT NAVIGATION LIGHT (RED)               |
| 4                 | RETRACTABLE LANDING LIGHT                 |
| 5                 | RUNWAY TURN OFF LIGHT                     |
| 6                 | TAXI LIGHT                                |
| 7                 | TAKE-OFF LIGHT                            |
| 8                 | LOGO LIGHT                                |
| 9                 | UPPER ANTI-COLLISION LIGHT/BEACON (RED)   |
| 10                | LOWER ANTI-COLLISION LIGHT/BEACON (RED)   |
| 11                | WING STROBE LIGHT (HIGH INTENSITY, WHITE) |
| 12                | TAIL STROBE LIGHT (HIGH INTENSITY, WHITE) |
| 13                | WING/ENGINE SCAN LIGHT                    |
| 14                | WHEEL WELL LIGHT (DOME)                   |
| 15                | CARGO COMPARTMENT FLOOD LIGHT             |

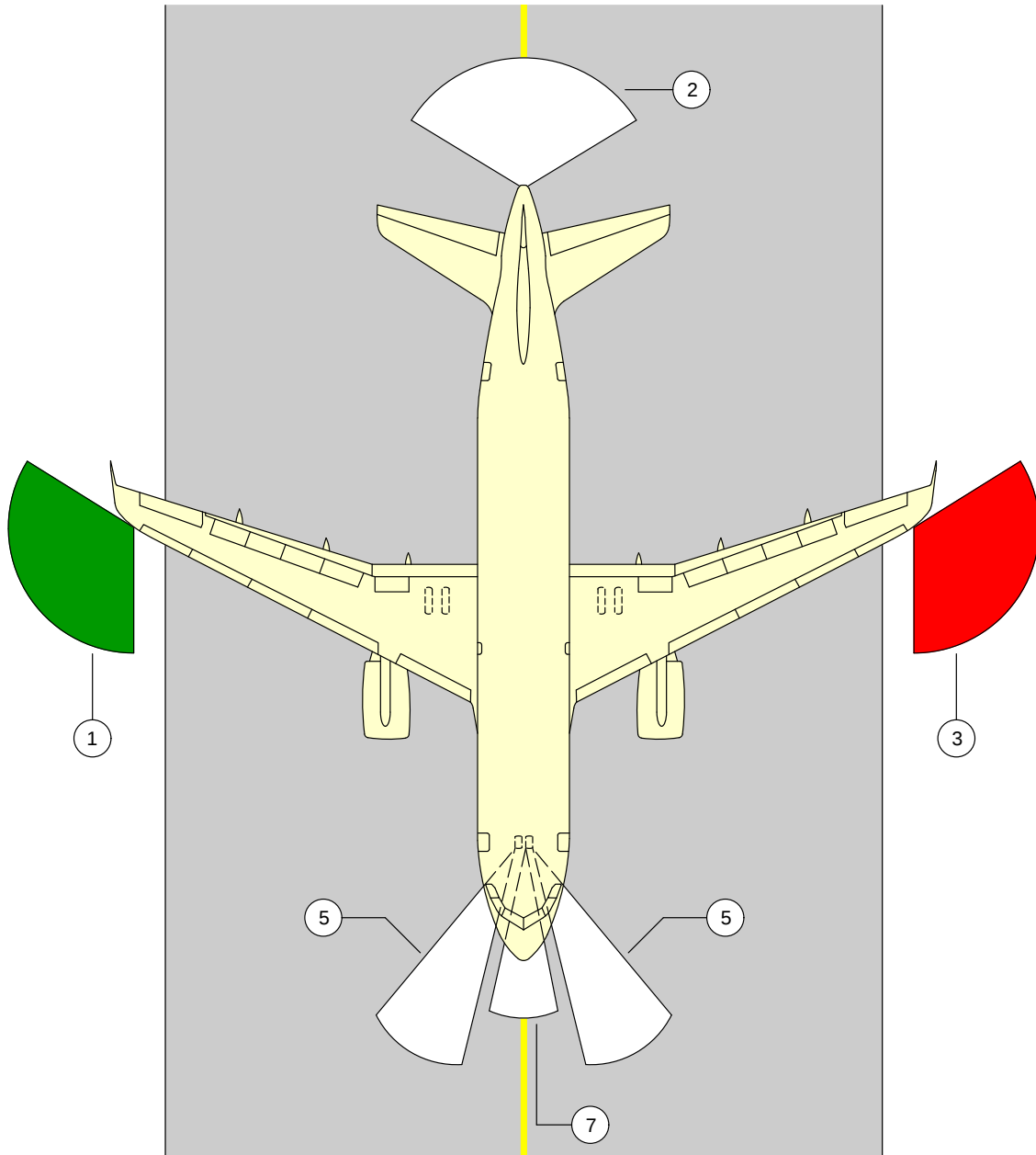
**\*\*ON A/C A319-100 A319neo**



N\_AC\_021000\_1\_0050101\_01\_00

Exterior Lighting  
FIGURE-2-10-0-991-005-A01

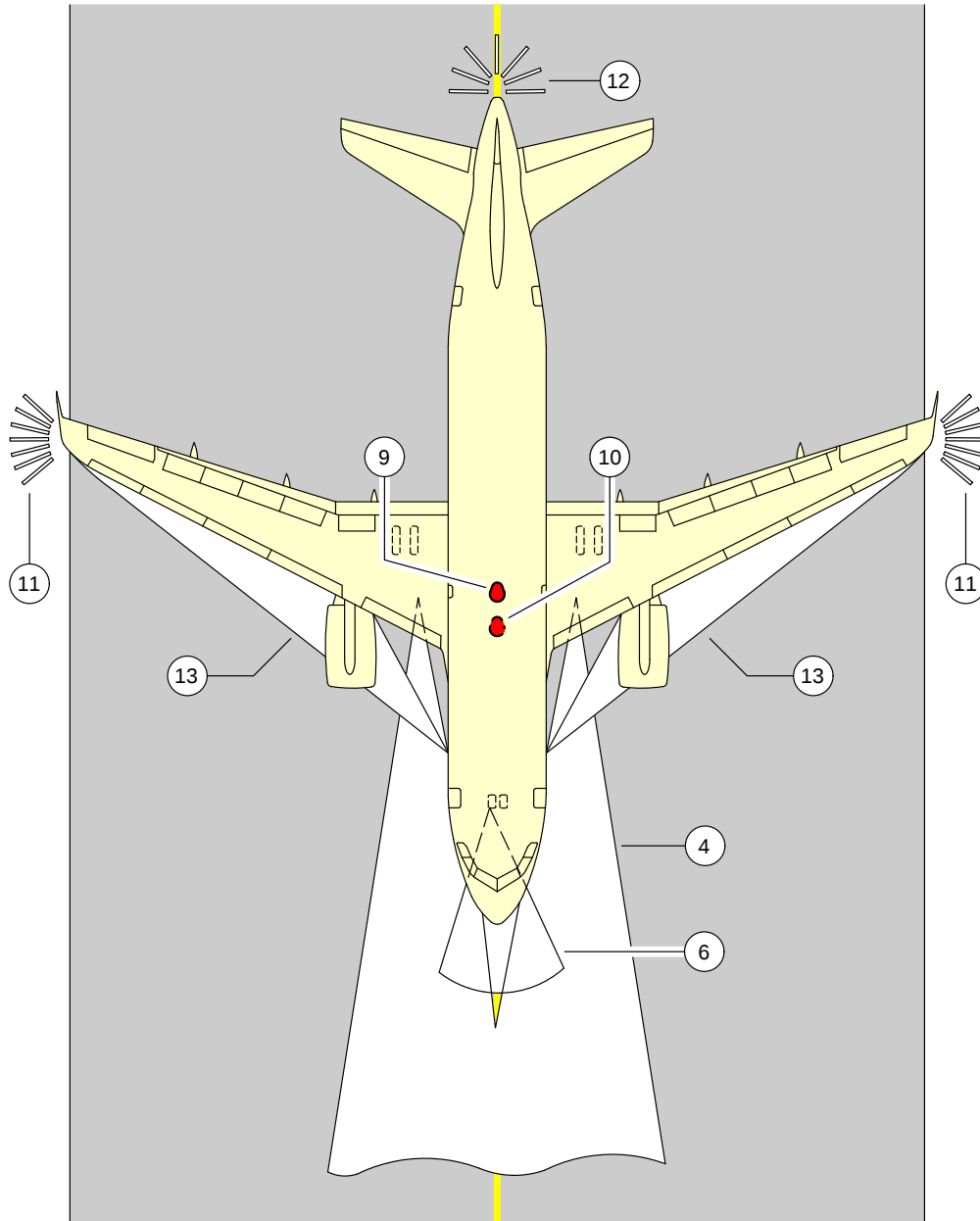
**\*\*ON A/C A319-100 A319neo**



N\_AC\_021000\_1\_0060101\_01\_00

Exterior Lighting  
FIGURE-2-10-0-991-006-A01

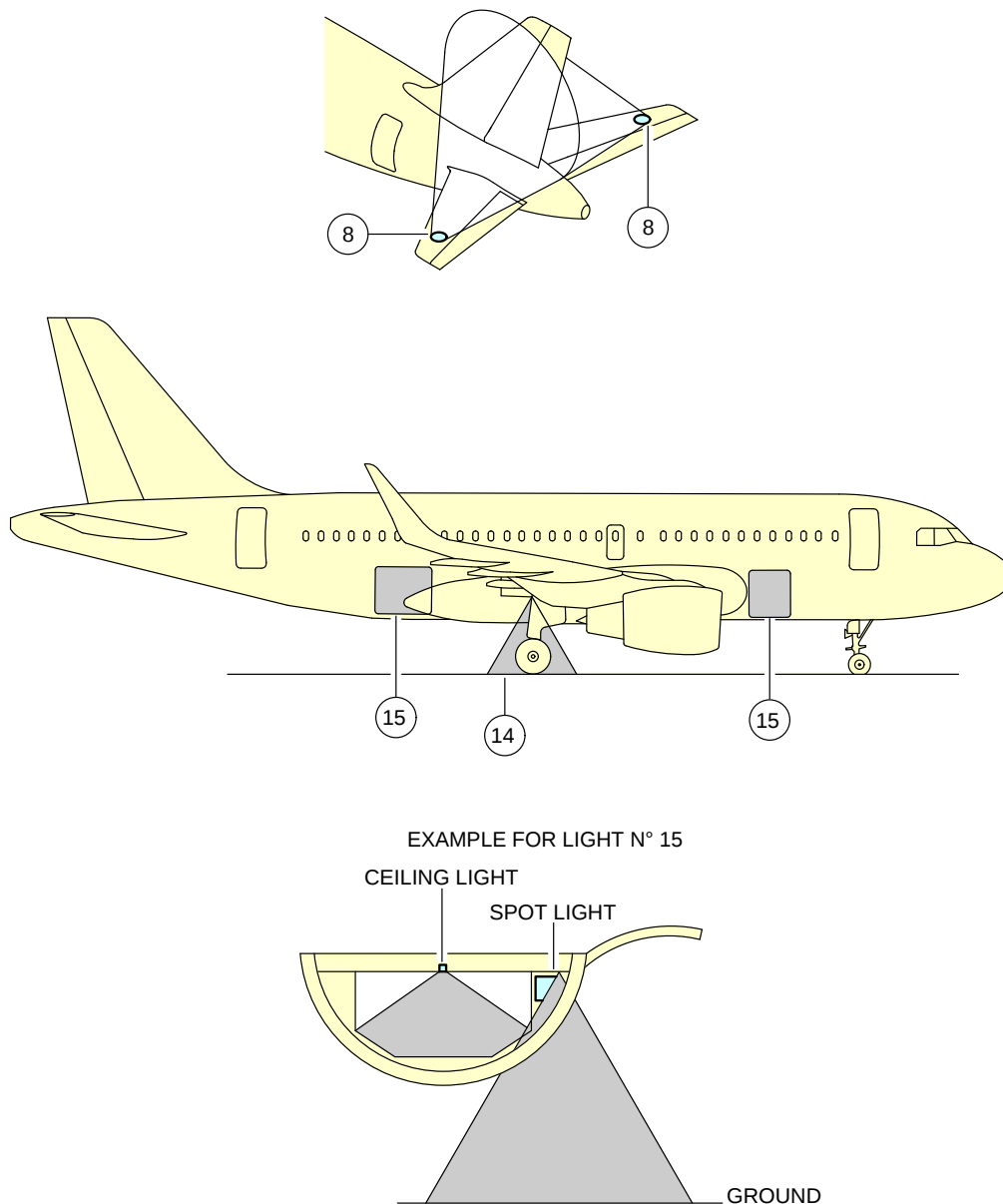
**\*\*ON A/C A319-100 A319neo**



N\_AC\_021000\_1\_0070101\_01\_00

Exterior Lighting  
FIGURE-2-10-0-991-007-A01

**\*\*ON A/C A319-100 A319neo**



N\_AC\_021000\_1\_0180101\_01\_00

Exterior Lighting  
FIGURE-2-10-0-991-018-A01

### 2-11-0 Antennas and Probes Location

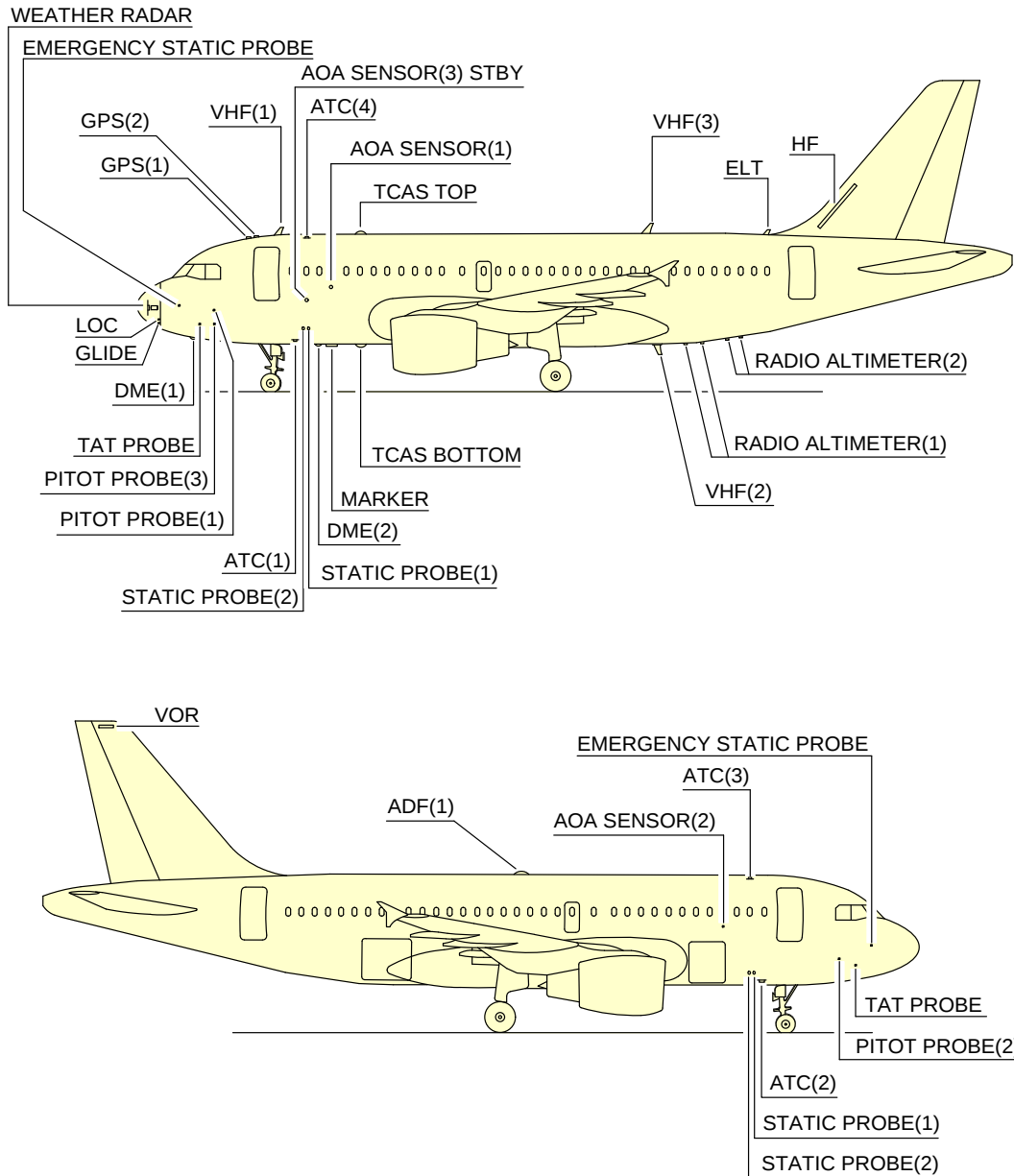
**\*\*ON A/C A319-100 A319neo**

#### Antennas and Probes Location

1. This section gives the location of antennas and probes.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



**NOTE:** DEPENDING ON AIRCRAFT CONFIGURATION

N\_AC\_021100\_1\_0020101\_01\_00

Antennas and Probes  
Location  
FIGURE-2-11-0-991-002-A01

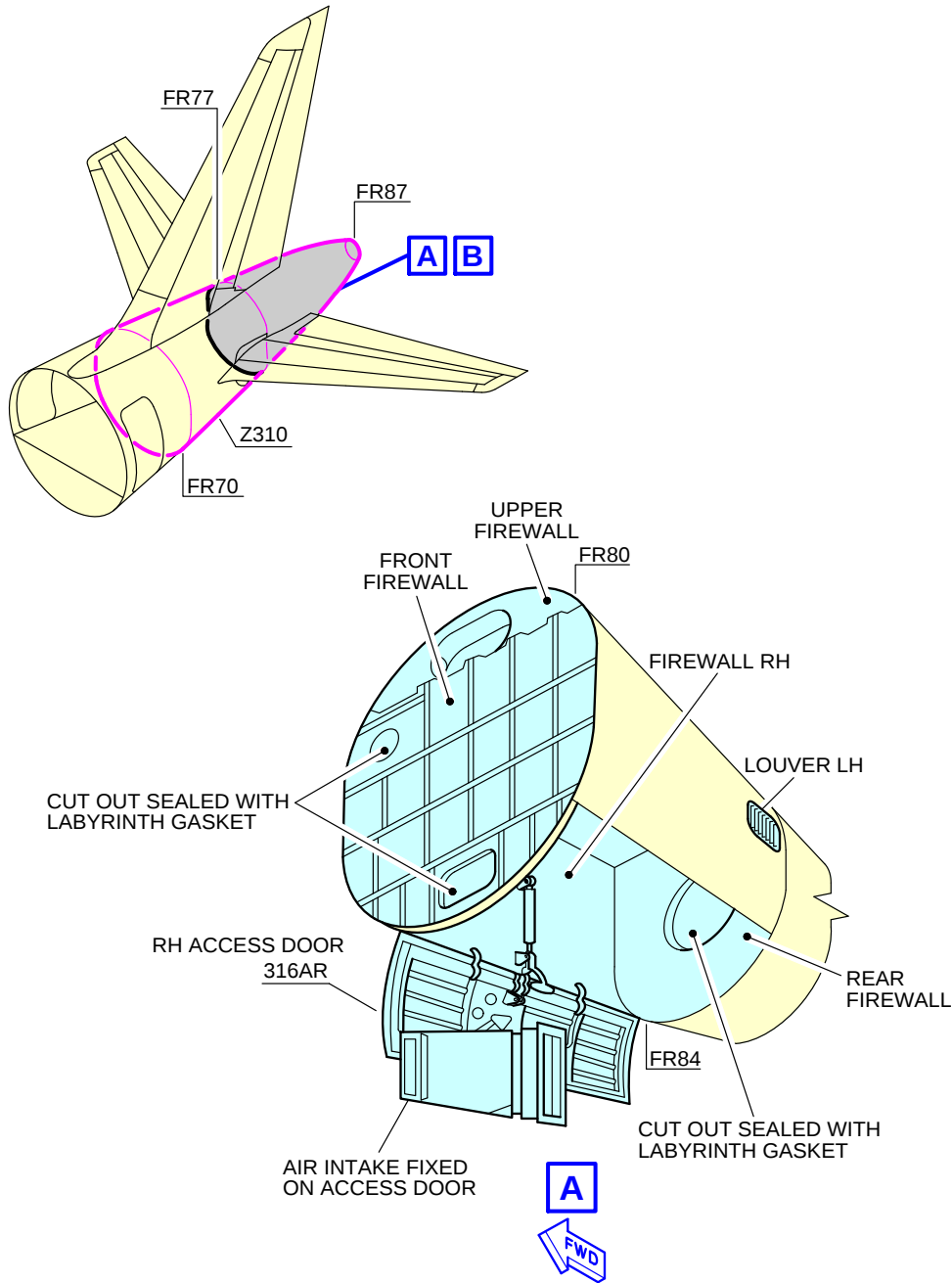
**2-12-0 Power Plant****\*\*ON A/C A319-100 A319neo**Auxiliary Power Unit**1. General**

The APU is installed at the rear part of the fuselage in the tail cone. An air intake system with a flap-type door is installed in front of the APU compartment. The exhaust gases pass overboard at the end of the fuselage cone.

**2. Controls and Indication**

The primary APU controls and indications are installed on the overhead panel, on the center pedestal and on the center instrument panel. Additionally, an external APU panel is installed on the nose landing gear to initiate an APU emergency shutdown.

**\*\*ON A/C A319-100 A319neo**



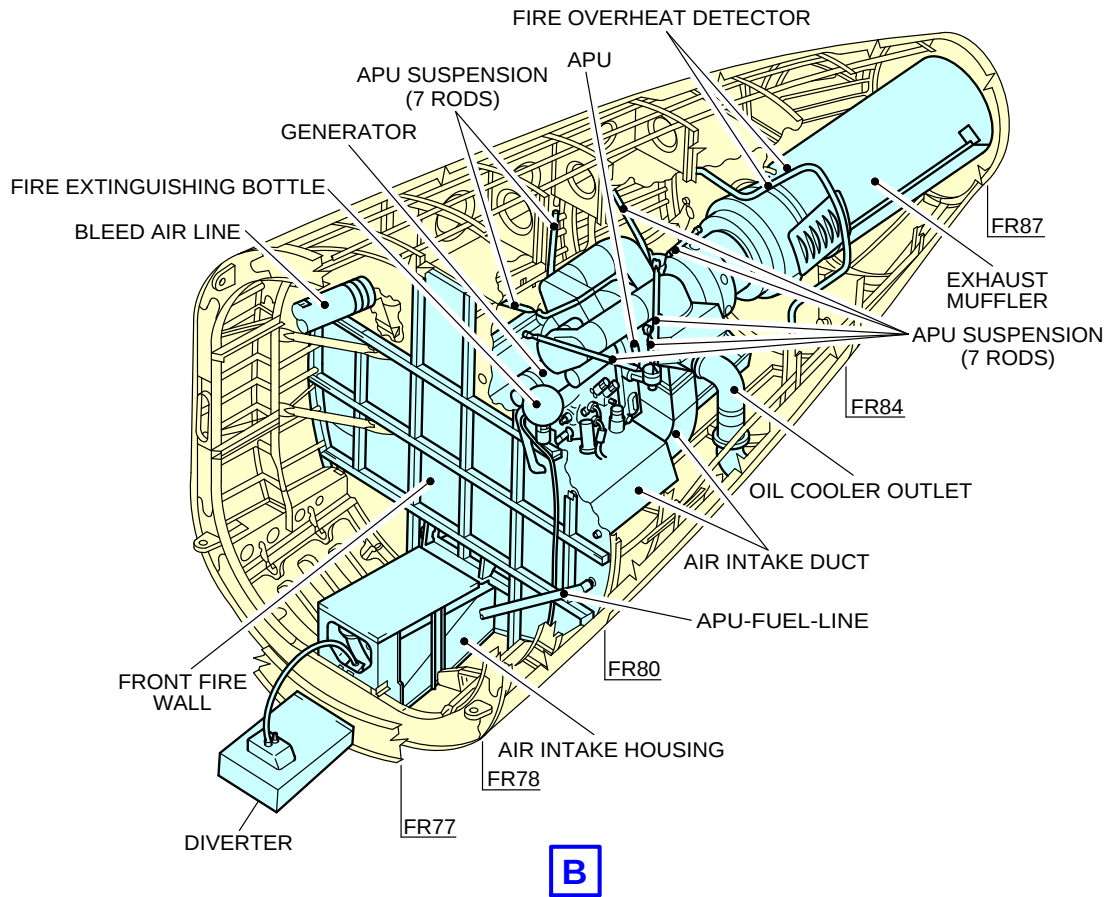
**NOTE:**

LH ACCESS DOOR 315AL NOT SHOWN FOR CLARITY.

N\_AC\_021200\_1\_0030101\_01\_01

Auxiliary Power Unit  
Access Doors  
FIGURE-2-12-0-991-003-A01

**\*\*ON A/C A319-100 A319neo**



N\_AC\_021200\_1\_0040101\_01\_01

Auxiliary Power Unit  
General Layout  
FIGURE-2-12-0-991-004-A01

### **\*\*ON A/C A319-100 A319neo**

#### Engine and Nacelle

### **\*\*ON A/C A319-100**

#### 1. Engine and Nacelle - CFM56 Engine

##### A. Engine

The aircraft has two CFM International CFM56 engines that supply power to the aircraft. The engines are turbofan engines that have:

- A high bypass ratio,
- A Full Authority Digital Engine Control (FADEC),
- A fuel system,
- An oil system,
- An air system,
- A thrust reverser system,
- An ignition system and a start system.

The engine has:

Two compressor turbine assemblies:

- The Low Pressure (LP) compressor turbine assembly,
- The High Pressure (HP) compressor turbine assembly.

Each turbine operates its associated compressor via a shaft.

- One accessory gearbox,
- One combustion chamber.

The engine operates as follows:

- (1) The LP compressor, compresses the air.
- (2) Then, the air is divided into two flows:
  - Most of the air flows out of the core engine, and provides most of the engine thrust.
  - The remaining air enters the core engine.
- (3) The HP compressor compresses the air that enters the core engine.
- (4) The fuel is added to and mixed with the compressed air of the core engine. The mixture is ignited in the combustion chamber.
- (5) The gas that results from combustion drives the HP and the LP turbines.
  - The rotation speed of the fan provides the N1 engine parameter.
  - The rotation speed of the HP rotor provides the N2 engine parameter.
  - The N1 and N2 engine parameters appear on the Engine/Warning Display (E/WD).

**AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING**

- The N1 and N2 engine parameters are current rotation speeds displayed in percentage.

The FADEC uses:

- The N1 engine parameter to compute the applicable engine thrust,
- The N1 and N2 engine parameters for engine control and monitoring.

**B. Nacelle**

The cowls enclose the periphery of the engine so as to form the engine nacelle. Each engine is housed in a nacelle suspended from a pylon attached below the wing.

The nacelle installation is designed to provide cooling and ventilation air for engine accessories mounted along the fan and core casing. The nacelle provides:

- Protection for the engine and the accessories
- Airflow around the engine during its operation
- Lighting protection
- HIRF and EMI attenuation.

**2. Engine and Nacelle - IAE V2500 Engine****A. Engine**

The aircraft has two International Aero Engines V2500 engines that supply power to the aircraft.

The engines are turbofan engines that have:

- A high bypass ratio,
- A Full Authority Digital Engine Control (FADEC),
- A fuel system,
- An oil system,
- An air system,
- A thrust reverser system,
- An ignition system and a start system.

The engine has:

Two compressor turbine assemblies:

- The Low Pressure (LP) compressor turbine assembly,
- The High Pressure (HP) compressor turbine assembly.

Each turbine operates its associated compressor via a shaft.

- One accessory gearbox,
- One combustion chamber.

The engine operates as follows:

(1) The LP compressor, compresses the air.

(2) Then, the air is divided into two flows:

- Most of the air flows out of the core engine, and provides most of the engine thrust.

**AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING**

- The remaining air enters the core engine.
  - (3) The HP compressor compresses the air that enters the core engine.
  - (4) The fuel is added to and mixed with the compressed air of the core engine. The mixture is ignited in the combustion chamber.
  - (5) The gas that results from combustion drives the HP and the LP turbines.
    - The rotation speed of the fan provides the N1 engine parameter.
    - The rotation speed of the HP rotor provides the N2 engine parameter.
    - The N1 and N2 engine parameters appear on the Engine/Warning Display (E/WD).
    - The N1 and N2 engine parameters are current rotation speeds displayed in percentage.
- The FADEC uses:
- The N1 engine parameter to compute the applicable engine thrust,
  - The N1 and N2 engine parameters for engine control and monitoring.

**B. Nacelle**

The cowls enclose the periphery of the engine so as to form the engine nacelle. Each engine is housed in a nacelle suspended from a pylon attached below the wing.

The nacelle installation is designed to provide cooling and ventilation air for engine accessories mounted along the fan and core casing. The nacelle provides:

- Protection for the engine and the accessories
- Airflow around the engine during its operation
- Lighting protection
- HIRF and EMI attenuation.

**\*\*ON A/C A319neo****3. Engine and Nacelle - CFM LEAP-1A Engine****A. Engine**

The aircraft has two CFM International LEAP-1A engines that supply power to the aircraft. The engines are turbofan engines that have:

- A high bypass ratio,
- A Full Authority Digital Engine Control (FADEC),
- A fuel system,
- An oil system,
- An air system,
- A thrust reverser system,
- An ignition system and a start system.

The engine has:

Two compressor turbine assemblies:

- The Low Pressure (LP) compressor turbine assembly,

**AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING**

- The High Pressure (HP) compressor turbine assembly.  
Each turbine operates its associated compressor via a shaft.
- One accessory gearbox,
- One combustion chamber.

The engine operates as follows:

- (1) The LP compressor, compresses the air.
  - (2) Then, the air is divided into two flows:
    - Most of the air flows out of the core engine, and provides most of the engine thrust.
    - The remaining air enters the core engine.
  - (3) The HP compressor compresses the air that enters the core engine.
  - (4) The fuel is added to and mixed with the compressed air of the core engine. The mixture is ignited in the combustion chamber.
  - (5) The gas that results from combustion drives the HP and the LP turbines.
    - The rotation speed of the fan provides the N1 engine parameter.
    - The rotation speed of the HP rotor provides the N2 engine parameter.
    - The N1 and N2 engine parameters appear on the Engine/Warning Display (E/WD).
    - The N1 and N2 engine parameters are current rotation speeds displayed in percentage.
- The FADEC uses:
- The N1 engine parameter to compute the applicable engine thrust,
  - The N1 and N2 engine parameters for engine control and monitoring.

**B. Nacelle**

The cowls enclose the periphery of the engine so as to form the engine nacelle. Each engine is housed in a nacelle suspended from a pylon attached below the wing. The nacelle installation is designed to provide cooling and ventilation air for engine accessories mounted along the fan and core casing. The nacelle provides:

- Protection for the engine and the accessories
- Airflow around the engine during its operation
- Lighting protection
- HIRF and EMI attenuation.

**4. Engine and Nacelle - PW1100G Engine**

**A. Engine**

The aircraft has two Pratt & Whitney's Pure Power PW1100G engines that supply power to the aircraft.

The engines are turbofan engines that have:

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

- A high bypass ratio,
- A Full Authority Digital Engine Control (FADEC),
- A fuel system,
- An oil system,
- An air system,
- A thrust reverser system,
- An ignition system and a start system.

The engine has:

Two compressor turbine assemblies:

- The Low Pressure (LP) compressor turbine assembly,
- The High Pressure (HP) compressor turbine assembly.

Each turbine operates its associated compressor via a shaft.

- One accessory gearbox,
- One combustion chamber.

The engine operates as follows:

- (1) The LP compressor, compresses the air.
- (2) Then, the air is divided into two flows:
  - Most of the air flows out of the core engine, and provides most of the engine thrust.
  - The remaining air enters the core engine.
- (3) The HP compressor compresses the air that enters the core engine.
- (4) The fuel is added to and mixed with the compressed air of the core engine. The mixture is ignited in the combustion chamber.
- (5) The gas that results from combustion drives the HP and the LP turbines.
  - The rotation speed of the fan provides the N1 engine parameter.
  - The rotation speed of the HP rotor provides the N2 engine parameter.
  - The N1 and N2 engine parameters appear on the Engine/Warning Display (E/WD).
  - The N1 and N2 engine parameters are current rotation speeds displayed in percentage.

The FADEC uses:

- The N1 engine parameter to compute the applicable engine thrust,
- The N1 and N2 engine parameters for engine control and monitoring.

### B. Nacelle

The cowls enclose the periphery of the engine so as to form the engine nacelle. Each engine is housed in a nacelle suspended from a pylon attached below the wing.

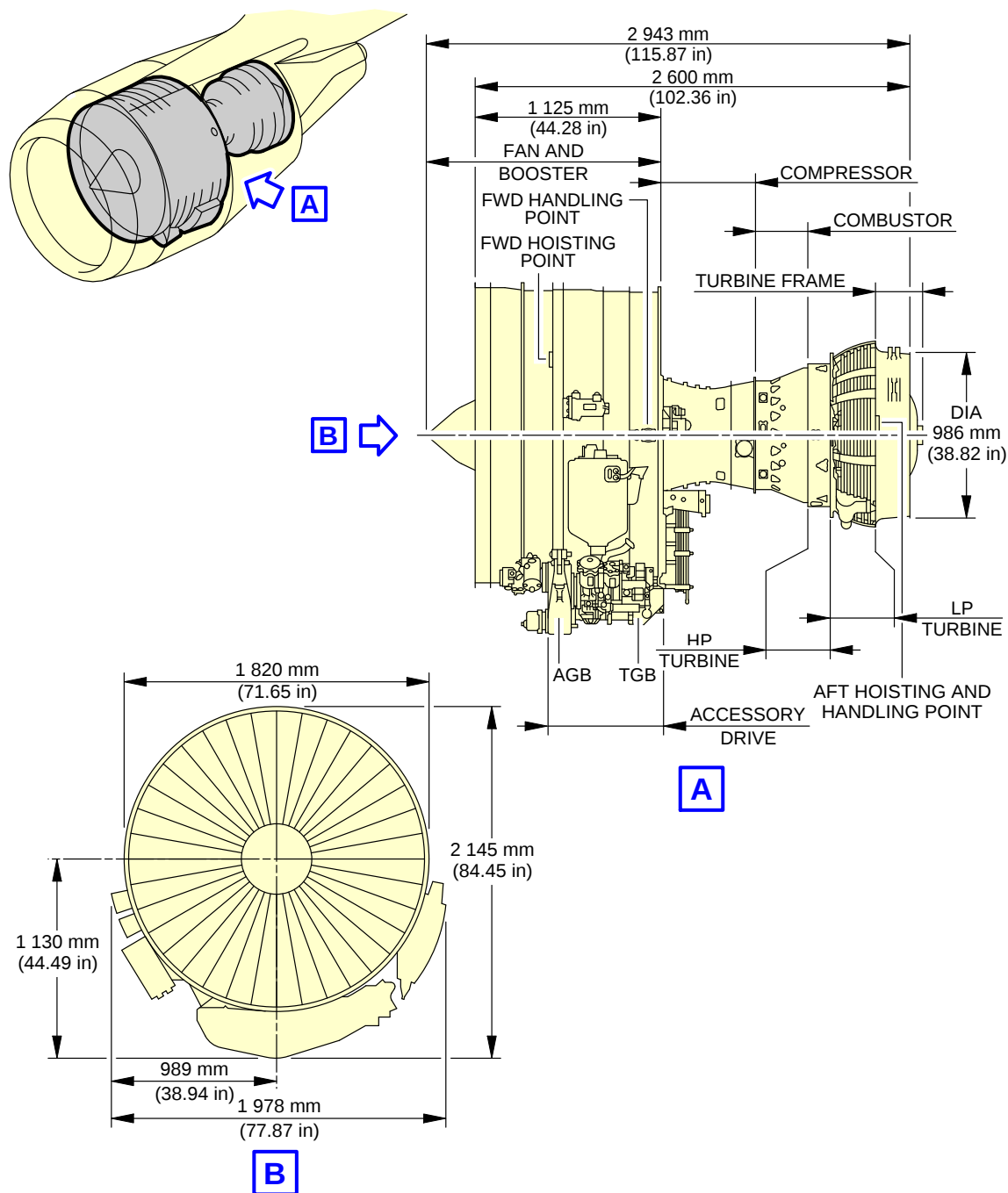
The nacelle installation is designed to provide cooling and ventilation air for engine accessories mounted along the fan and core casing. The nacelle provides:

- Protection for the engine and the accessories
- Airflow around the engine during its operation

### AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

- Lighting protection
- HIRF and EMI attenuation.

**\*\*ON A/C A319-100**

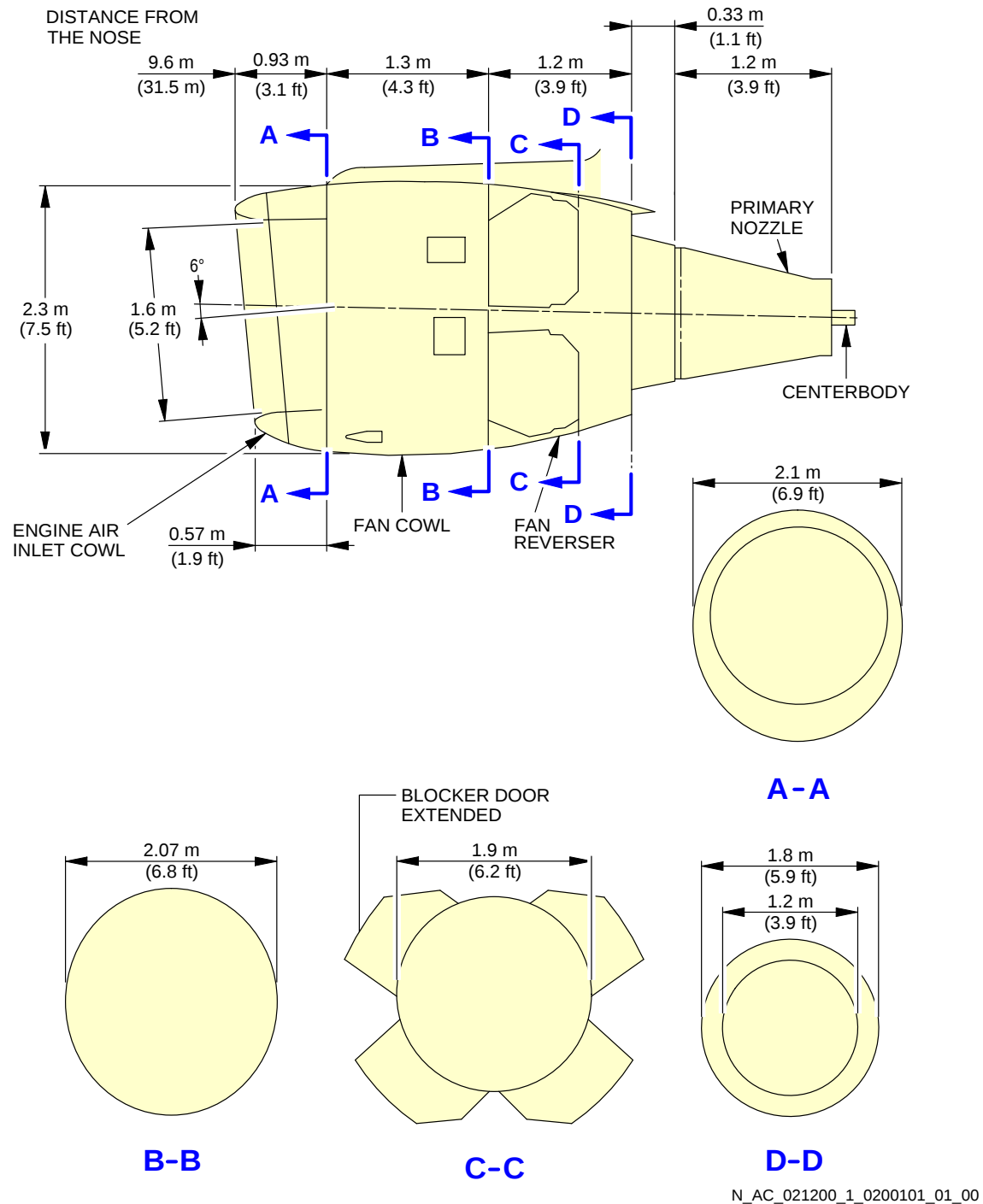


N\_AC\_021200\_1\_0190101\_01\_00

Power Plant Handling  
Major Dimensions - CFM56 Series Engine  
FIGURE-2-12-0-991-019-A01

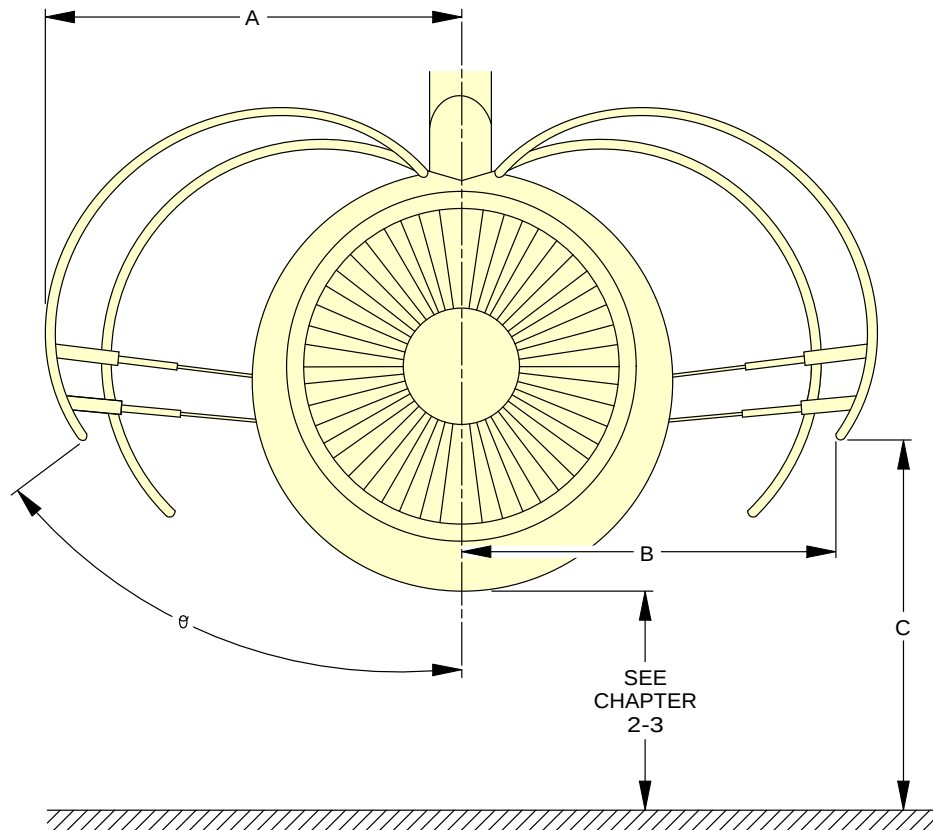
## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**



Power Plant Handling  
Major Dimensions - CFM56 Series Engine  
FIGURE-2-12-0-991-020-A01

**\*\*ON A/C A319-100**



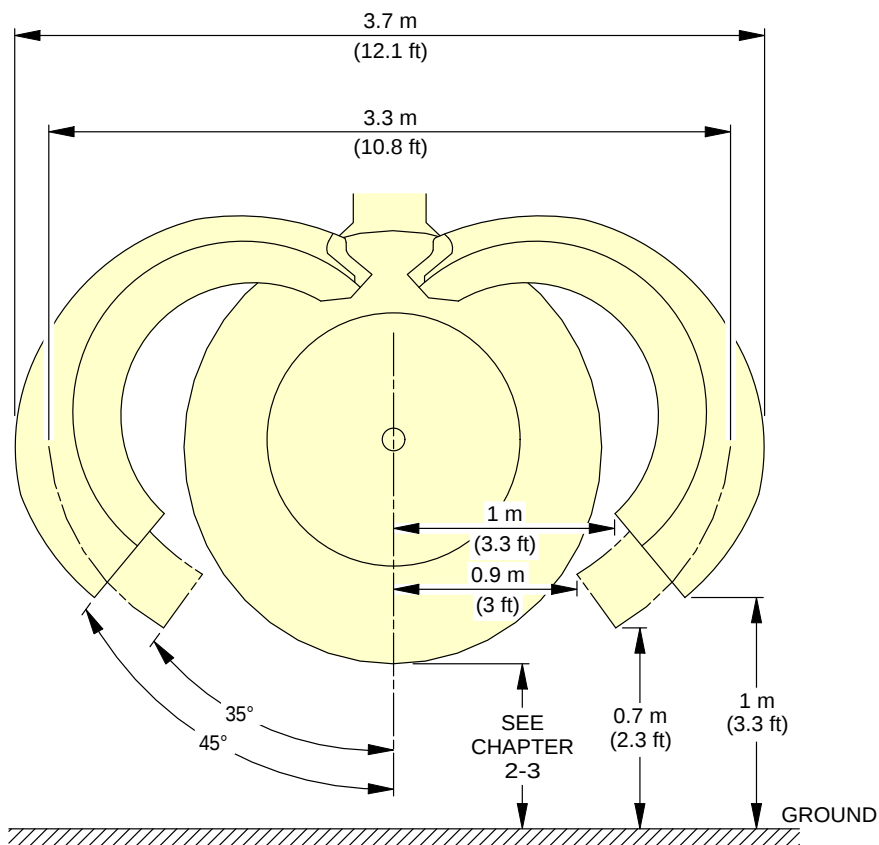
| m (ft)           | θ     | A         | B         | C         |
|------------------|-------|-----------|-----------|-----------|
| VIEW COWLING AFT | 42°27 | 1.8 (5.9) | 1.5 (4.9) | 1.3 (4.3) |
|                  | 55°15 | 2.0 (6.6) | 1.8 (5.9) | 1.7 (5.6) |
| VIEW COWLING FWD | 40°40 | 1.8 (5.9) | 1.4 (4.6) | 1.3 (4.3) |
|                  | 52°56 | 2.0 (6.6) | 1.7 (5.6) | 1.6 (5.2) |

**NOTE:** APPROXIMATE DIMENSIONS.

N\_AC\_021200\_1\_0210101\_01\_01

Power Plant Handling  
Fan Cowls - CFM56 Series Engine  
FIGURE-2-12-0-991-021-A01

**\*\*ON A/C A319-100**



**NOTE:** APPROXIMATE DIMENSIONS.

**CAUTION**

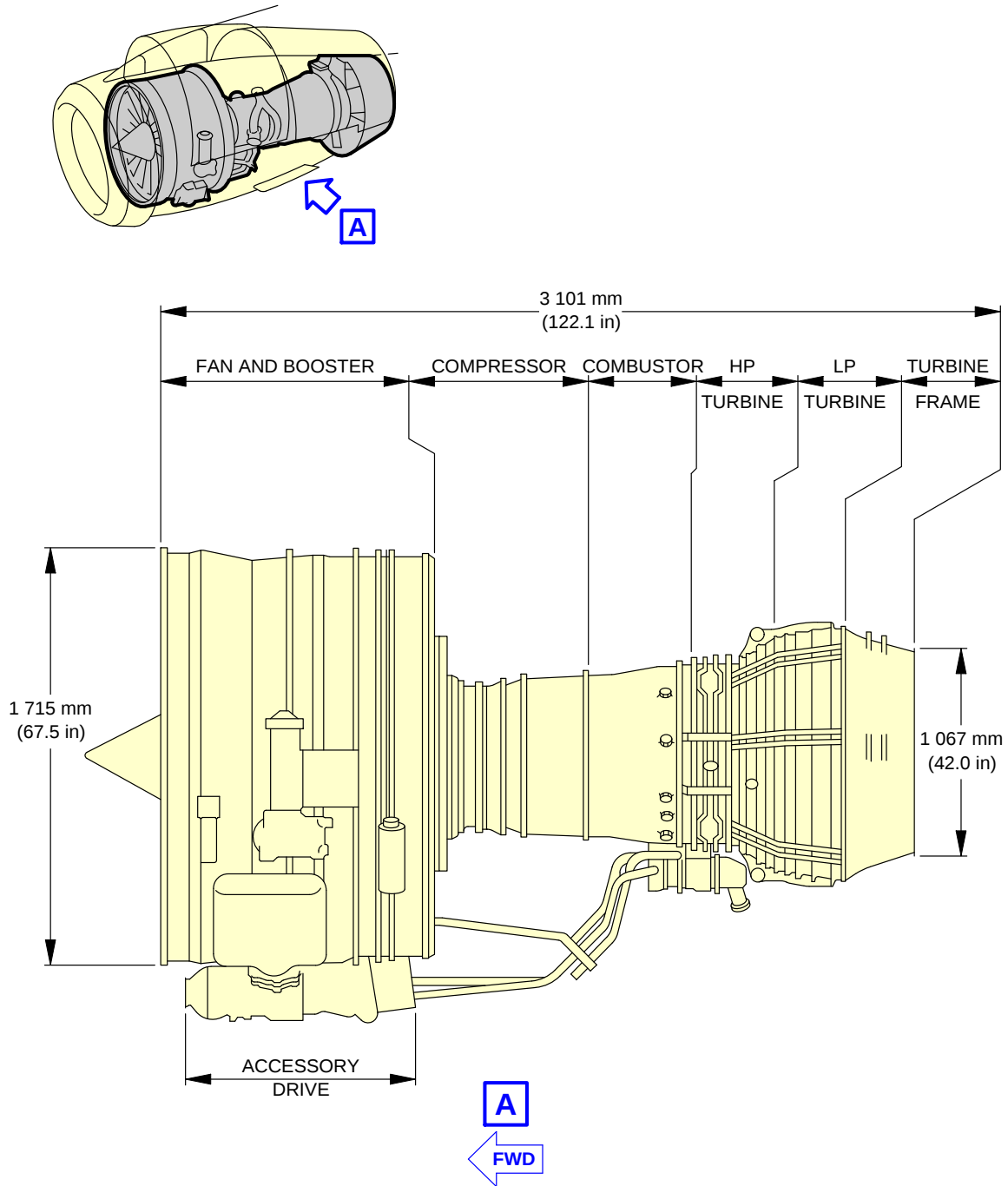
DO NOT ACTUATE SLATS:

- WITH THRUST REVERSER COWLS 45° OPEN POSITION
- WITH BLOCKER DOORS OPEN AND THRUST REVERSER COWLS AT 35° AND 45° OPEN POSITION.

N\_AC\_021200\_1\_0220101\_01\_01

Power Plant Handling  
Thrust Reverser Cowls - CFM56 Series Engine  
FIGURE-2-12-0-991-022-A01

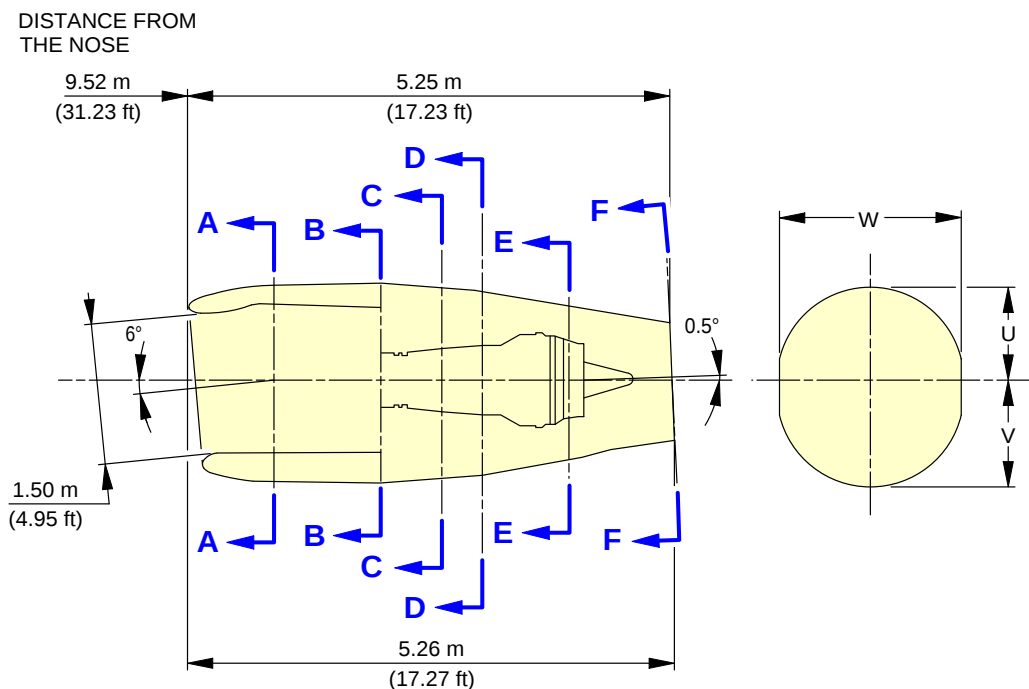
**\*\*ON A/C A319-100**



N\_AC\_021200\_1\_0230101\_01\_00

Power Plant Handling  
Major Dimensions - IAE V2500 Series Engine  
FIGURE-2-12-0-991-023-A01

**\*\*ON A/C A319-100**



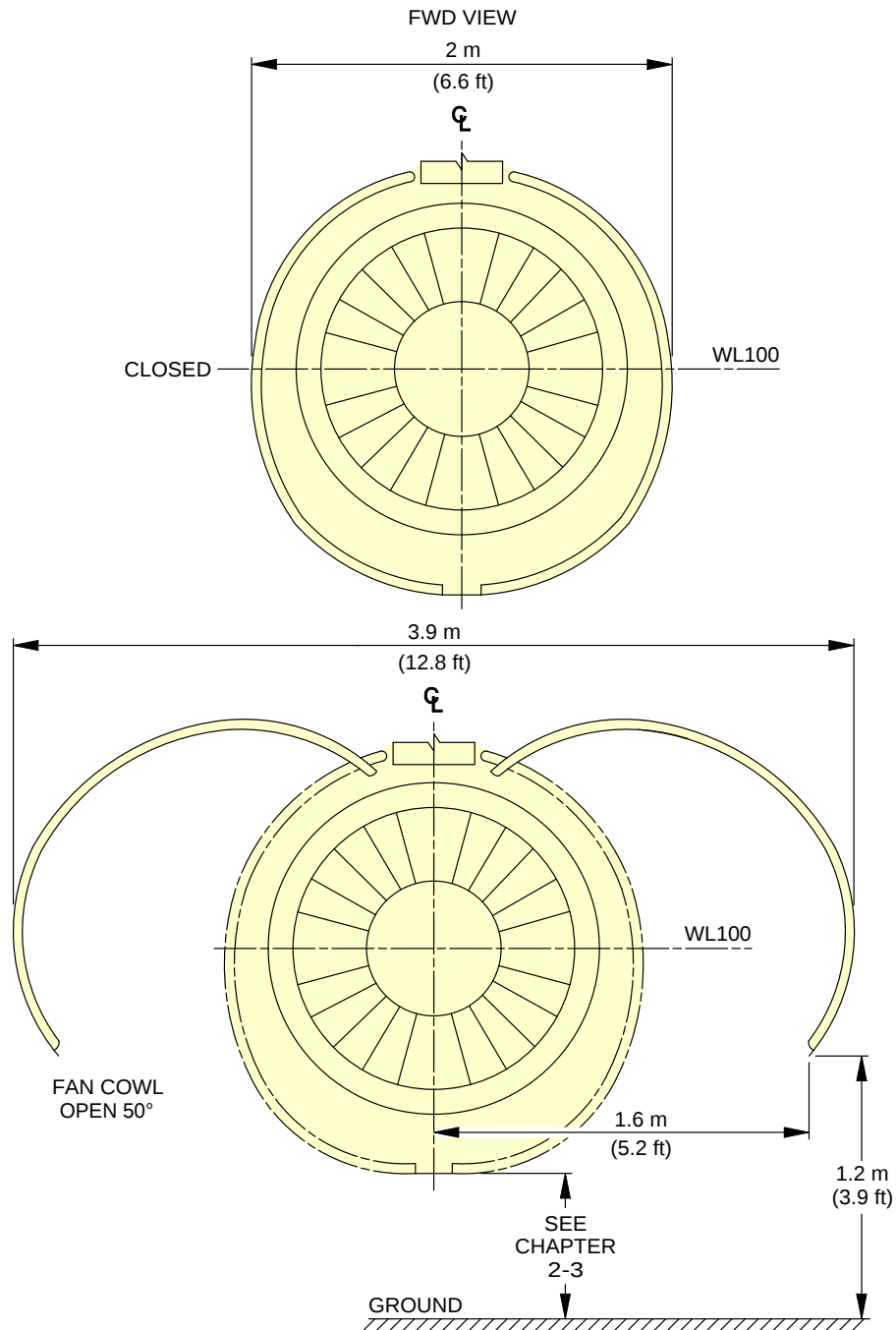
|            | W    |      | U    |      | V    |      | PPS  |       | AT COMPONENT            |
|------------|------|------|------|------|------|------|------|-------|-------------------------|
|            | m    | ft   | m    | ft   | m    | ft   | m    | ft    |                         |
| <b>A-A</b> | 2.01 | 6.58 | 0.99 | 3.25 | 1.10 | 3.63 | 1.41 | 4.62  | INLET ATTACH FLG        |
| <b>B-B</b> | 2.01 | 6.58 | 1.00 | 3.29 | 1.11 | 3.64 | 2.59 | 8.50  | TORQUE BOX "V" BLADE    |
| <b>C-C</b> | 1.98 | 6.50 | 0.97 | 3.19 | 1.07 | 3.52 | 3.26 | 10.70 | COMB. CHAMBER ENTRY FLG |
| <b>D-D</b> | 1.93 | 6.32 | 0.93 | 3.06 | 1.03 | 3.39 | 3.63 | 11.90 | COMB. CHAMBER EXIT FLG  |
| <b>E-E</b> | 1.64 | 5.38 | 0.78 | 2.57 | 0.86 | 2.83 | 4.60 | 15.10 | TEC FLG TURB. EXIT CASE |
| <b>F-F</b> | 1.24 | 4.07 | 0.60 | 1.96 | 0.64 | 2.11 | ---- | ----  | AFT END CNA             |

**NOTE:** ALL SIZES GIVEN ON THIS ILLUSTRATION ARE APPROXIMATE

N\_AC\_021200\_1\_0240101\_01\_00

Power Plant Handling  
Major Dimensions - IAE V2500 Series Engine  
FIGURE-2-12-0-991-024-A01

**\*\*ON A/C A319-100**

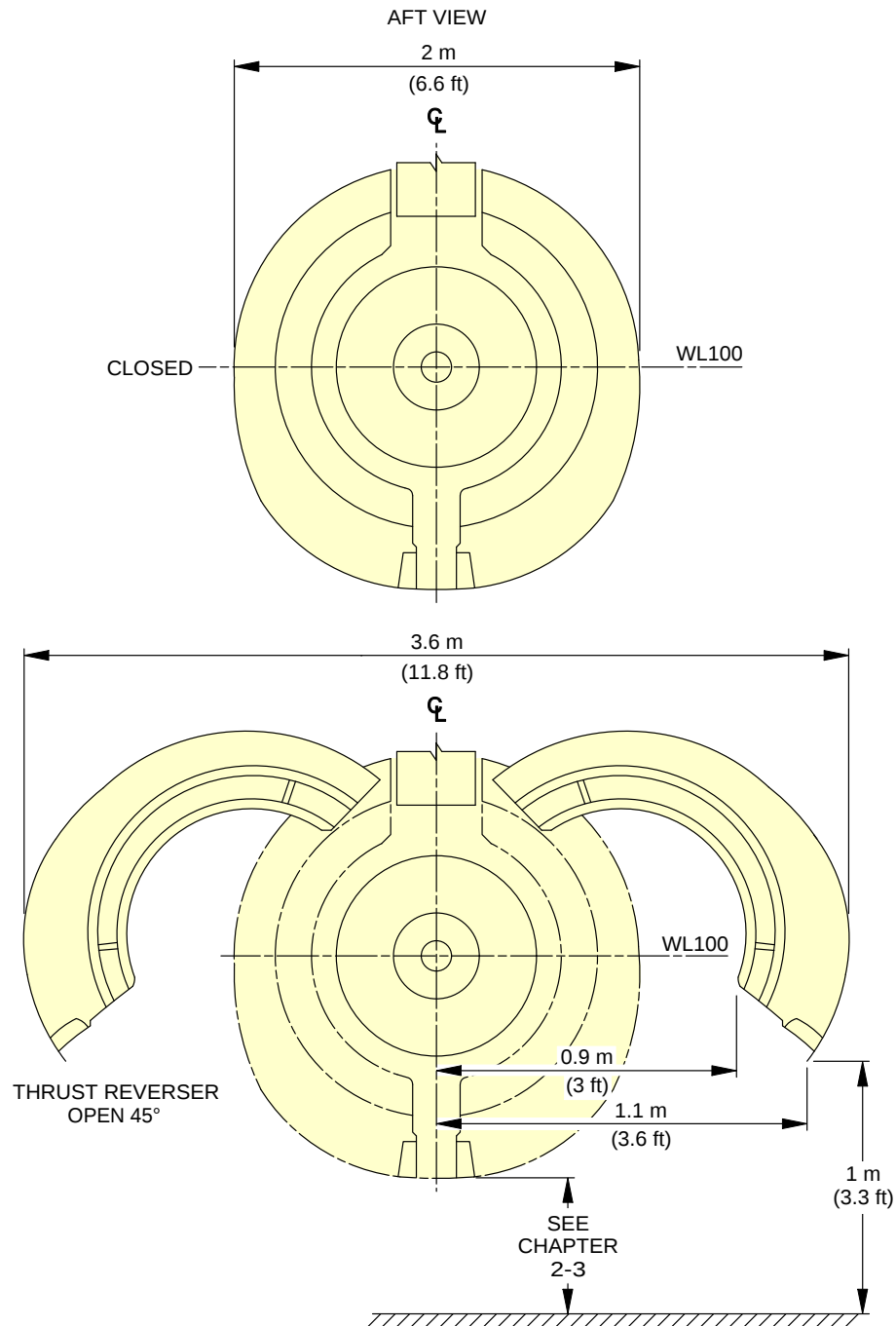


**NOTE:** APPROXIMATE DIMENSIONS.

N\_AC\_021200\_1\_0250101\_01\_01

Power Plant Handling  
 Fan Cows - IAE V2500 Series Engine  
 FIGURE-2-12-0-991-025-A01

**\*\*ON A/C A319-100**

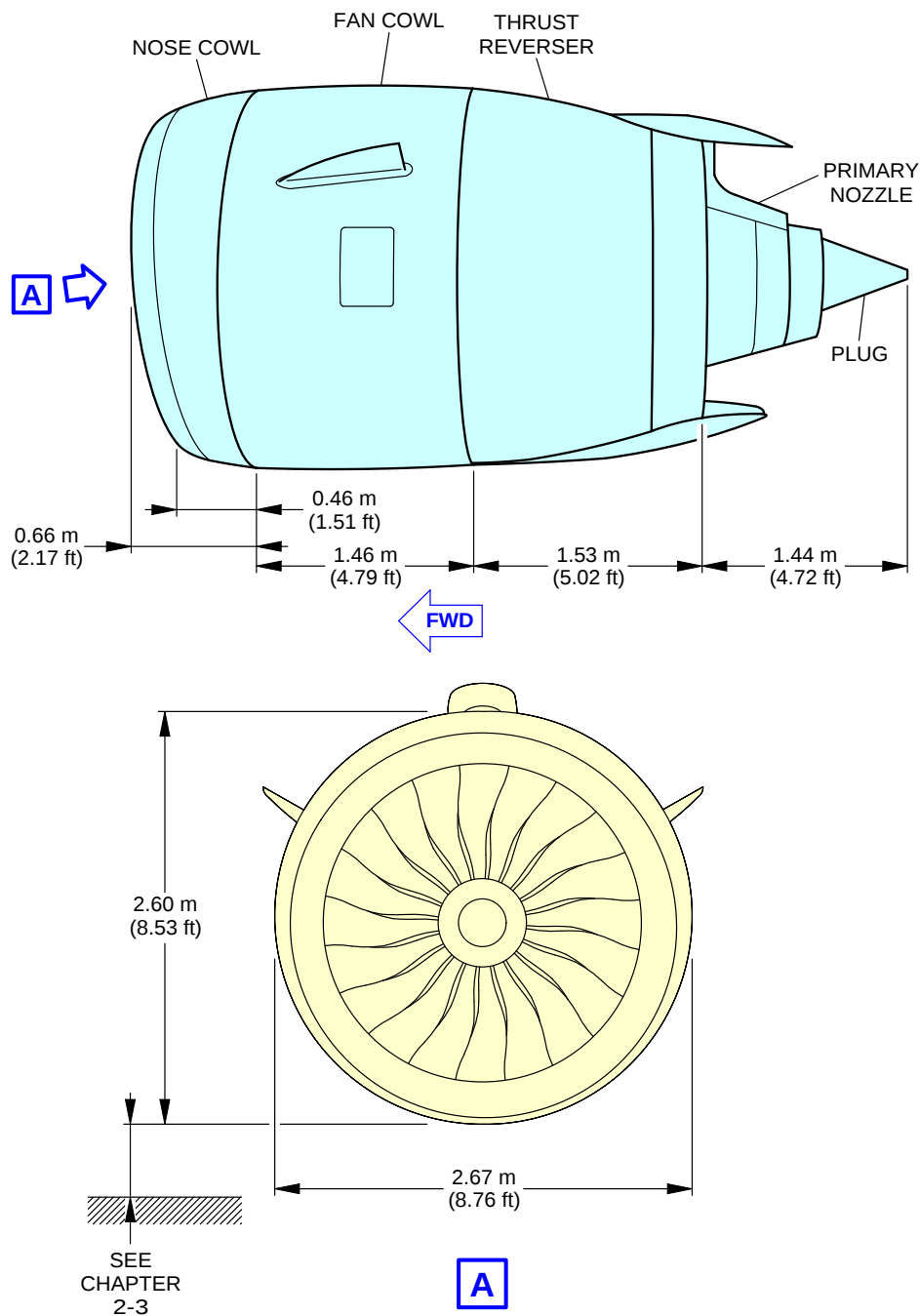


**NOTE:** APPROXIMATE DIMENSIONS.

N\_AC\_021200\_1\_0260101\_01\_01

Power Plant Handling  
Thrust Reverser Halves - IAE V2500 Series Engine  
FIGURE-2-12-0-991-026-A01

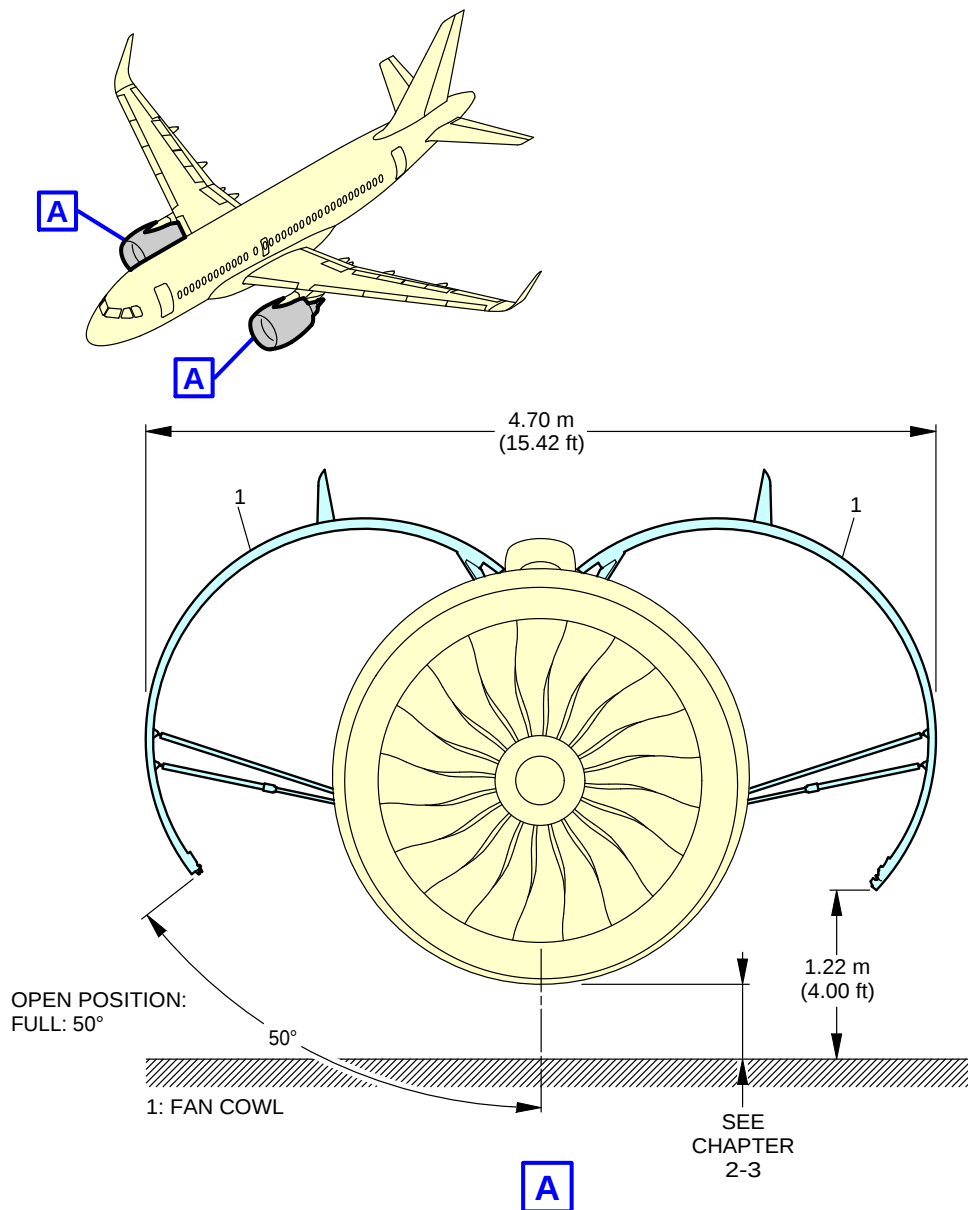
**\*\*ON A/C A319neo**



N\_AC\_021200\_1\_0430101\_01\_01

Power Plant Handling  
Major Dimensions - PW 1100G Engine  
FIGURE-2-12-0-991-043-A01

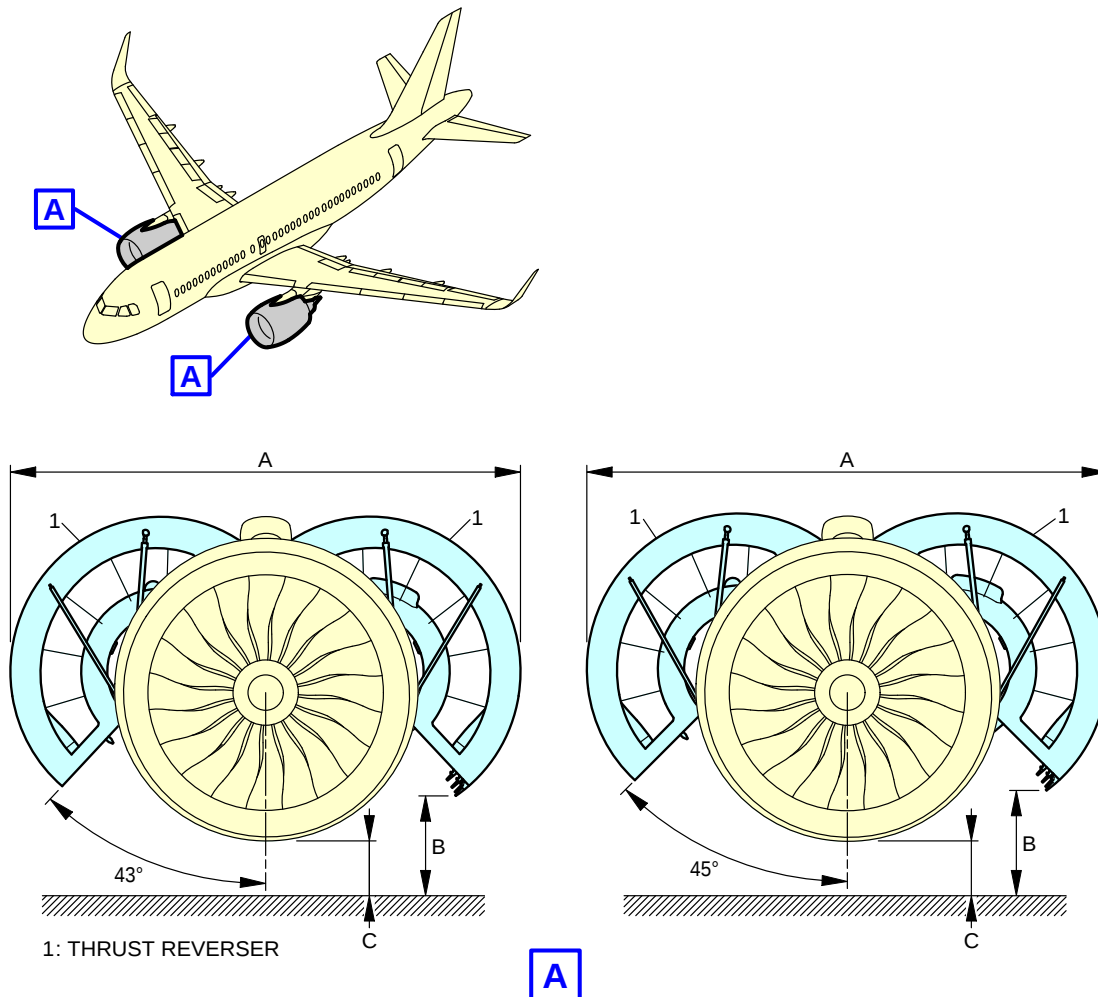
**\*\*ON A/C A319neo**



N\_AC\_021200\_1\_0440101\_01\_01

Power Plant Handling  
Fan Cowls - PW 1100G Engine  
FIGURE-2-12-0-991-044-A01

**\*\*ON A/C A319neo**



| OPEN POSITION | A                    | B                   |                     | C                       |
|---------------|----------------------|---------------------|---------------------|-------------------------|
|               |                      | MIN.                | MAX.                |                         |
| 43°           | 4.26 m<br>(13.98 ft) | 0.80 m<br>(2.62 ft) | 0.90 m<br>(2.95 ft) | SEE AC SECTION<br>2-3-0 |
| 45°           | 4.33 m<br>(14.21 ft) | 0.84 m<br>(2.76 ft) | 0.95 m<br>(3.12 ft) |                         |

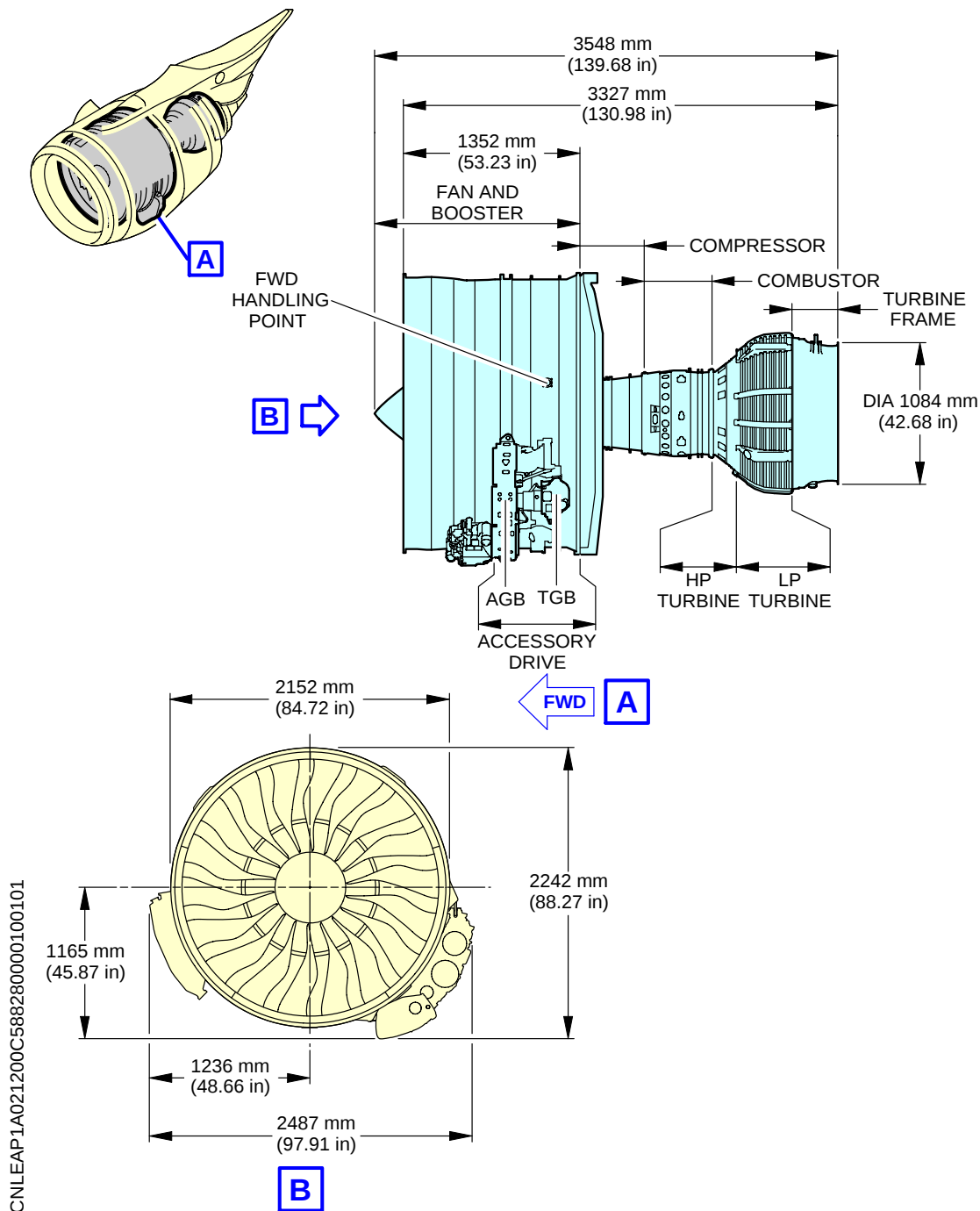
**NOTE:**

B AND C DEPENDING ON AIRCRAFT CONFIGURATION.

N\_AC\_021200\_1\_0450101\_01\_00

Power Plant Handling  
Thrust Reverser Halves - PW 1100G Engine  
FIGURE-2-12-0-991-045-A01

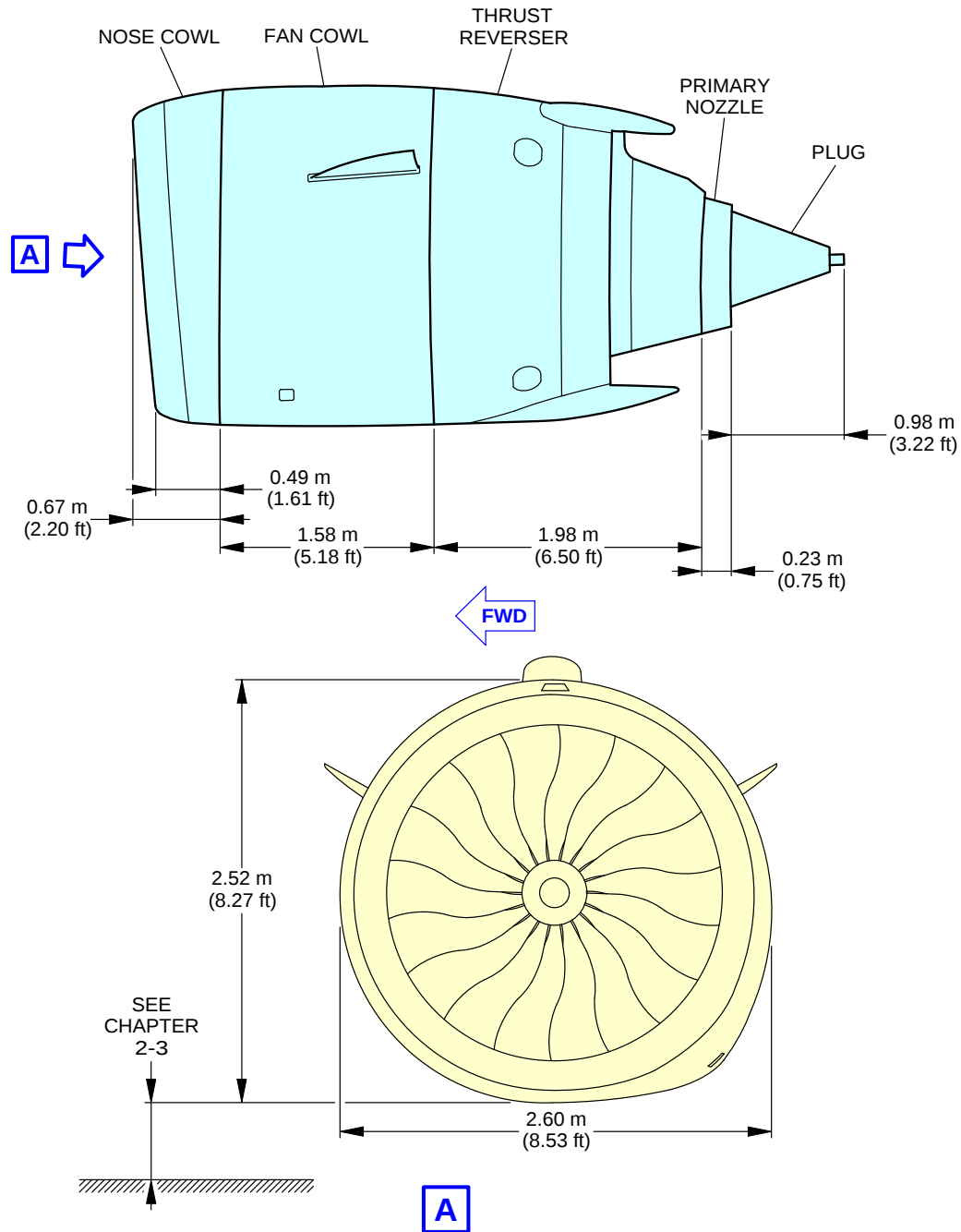
**\*\*ON A/C A319neo**



N\_AC\_021200\_1\_0520101\_01\_00

Power Plant Handling  
Major Dimensions - CFM LEAP-1A Engine  
FIGURE-2-12-0-991-052-A01

**\*\*ON A/C A319neo**



N\_AC\_021200\_1\_0530101\_01\_01

Power Plant Handling  
Major Dimensions - CFM LEAP-1A Engine  
FIGURE-2-12-0-991-053-A01

**2-13-0      Leveling, Symmetry and Alignment****\*\*ON A/C A319-100 A319neo**Leveling, Symmetry and Alignment**1.    Quick Leveling**

There are three alternative procedures to level the aircraft:

- Quick leveling procedure with Air Data/Inertial Reference Unit (ADIRU).
- Quick leveling procedure with a spirit level in the passenger compartment.
- Quick leveling procedure with a spirit level in the FWD cargo compartment.

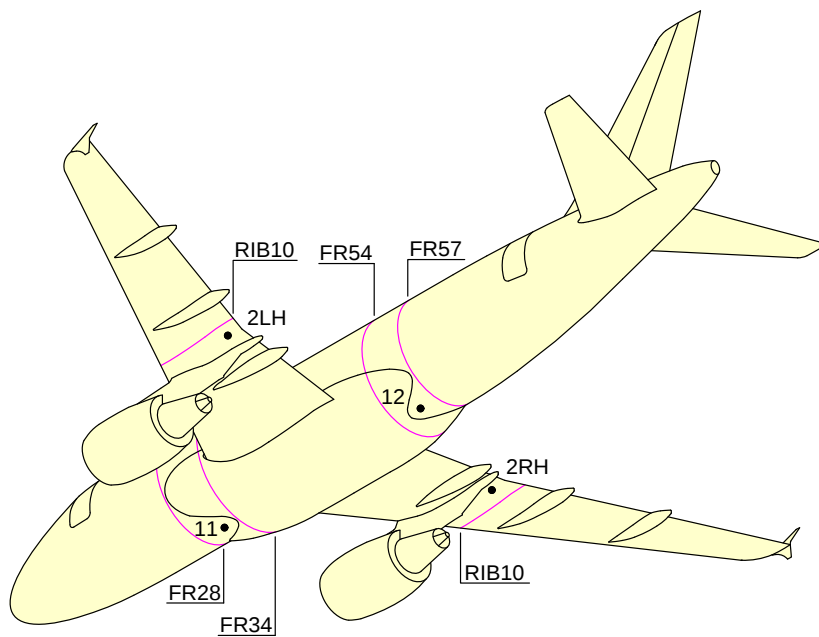
**2.    Precise Leveling**

For precise leveling, it is necessary to install sighting rods in the receptacles located under the fuselage (points 11 and 12 for longitudinal leveling) and under the wings (points 2LH and 2RH for lateral leveling) and use a sighting tube. With the aircraft on jacks, adjust the jacks until the reference marks on the sighting rods are aligned in the sighting plane (aircraft level).

**3.    Symmetry and Alignment Check**

Possible deformation of the aircraft is measured by photogrammetry.

**\*\*ON A/C A319-100 A319neo**



N\_AC\_021300\_1\_0020101\_01\_00

Location of the Leveling Points  
FIGURE-2-13-0-991-002-A01

### 2-14-0 Jacking

#### **\*\*ON A/C A319-100 A319neo**

#### Jacking for Maintenance

### 1. Aircraft Jacking Points for Maintenance

#### A. General

(1) The A319 can be jacked:

- At not more than 57 000 kg (125 663 lb),
- Within the limits of the permissible wind speed when the aircraft is not in a closed environment.

#### B. Primary Jacking Points

(1) The aircraft is provided with three primary jacking points:

- One located under the forward fuselage (FR8),
- Two located under the wings (one under each wing, located at the intersection of RIB9 and the datum of the rear spar).

(2) Three jack adapters are used as intermediary parts between the aircraft and the jacks:

- One male spherical jack adapter of 19 mm (0.75 in) radius, forming part of the aircraft structure (FR8),
  - Two wing jack pads (one attached to each wing at RIB9 with 2 bolts) for the location of the jack adaptor.
- Wing jack pads are ground equipment.

#### C. Auxiliary Jacking Points (Safety Stay)

(1) When the aircraft is on jacks, it is recommended that a safety stay be placed under the fuselage, between FR73 and FR74, to prevent tail tipping caused by accidental displacement of the center of gravity.

(2) The safety stay must not be used to lift the aircraft.

(3) A male spherical ball pad with a 19 mm (0.75 in) radius, forming part of the aircraft structure, is provided to use the safety stay.

### 2. Jacks and Safety Stay

#### A. Jack Design

(1) The maximum permitted loads given in the table in FIGURE 2-14-0-991-005-A are the maximum loads applicable on jack fittings.

**AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING**

- (2) In the fully retracted position (jack stroke at minimum), the height of the jack is such that the jack may be placed beneath the aircraft in the most adverse conditions, namely, tires deflated and shock absorbers depressurized. In addition, there must be a clearance of approximately 50 mm (1.97 in) between the aircraft jacking point and the jack upper end.
- (3) The lifting jack stroke enables the aircraft to be jacked up so that the fuselage longitudinal datum line (aircraft center line) is parallel to the ground, with a clearance of 100 mm (3.94 in) between the main landing gear wheels and the ground. This enables the landing gear extension/retraction tests to be performed.

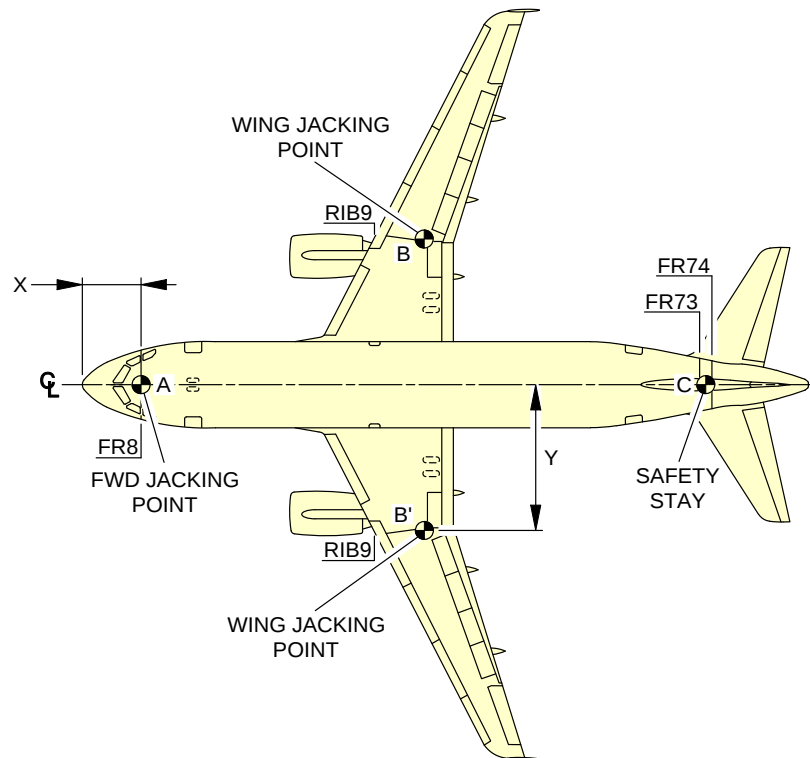
### 3. Shoring Cradles

When it is necessary to support the aircraft in order to release the loads on the structure to do modifications or major work, shoring cradles shall be placed under each wing and the fuselage as necessary.

NOTE : The aircraft must not be lifted or supported by the wings or fuselage alone without adequate support of the other.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



|                                   |    | X     |       | Y     |        | MAXIMUM<br>LOAD ELIGIBLE<br>daN |
|-----------------------------------|----|-------|-------|-------|--------|---------------------------------|
|                                   |    | m     | ft    | m     | ft     |                                 |
| FORWARD FUSELAGE<br>JACKING POINT | A  | 2.74  | 8.99  | 0     | 0      | 6 800                           |
| WING JACKING<br>POINT             | B  | 15.97 | 52.40 | 6.50  | 21.33  | 28 500                          |
|                                   | B' | 15.97 | 52.40 | -6.50 | -21.33 | 28 500                          |
| SAFETY STAY                       | C  | 28.83 | 94.59 | 0     | 0      | 2 000                           |

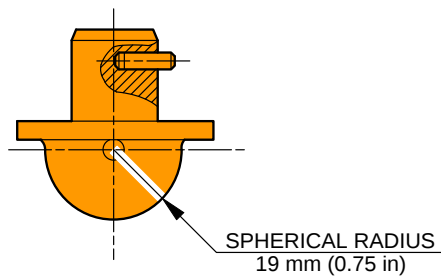
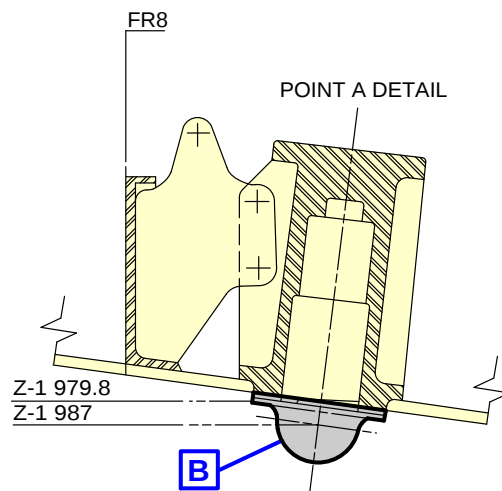
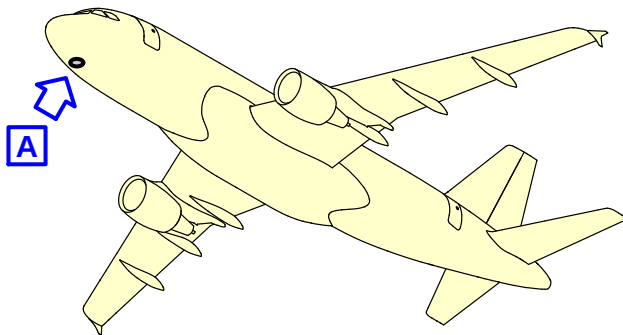
**NOTE:**

SAFETY STAY IS NOT USED FOR JACKING.

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Jacking for Maintenance  
Jacking Point Locations  
FIGURE-2-14-0-991-005-A01

**\*\*ON A/C A319-100 A319neo**



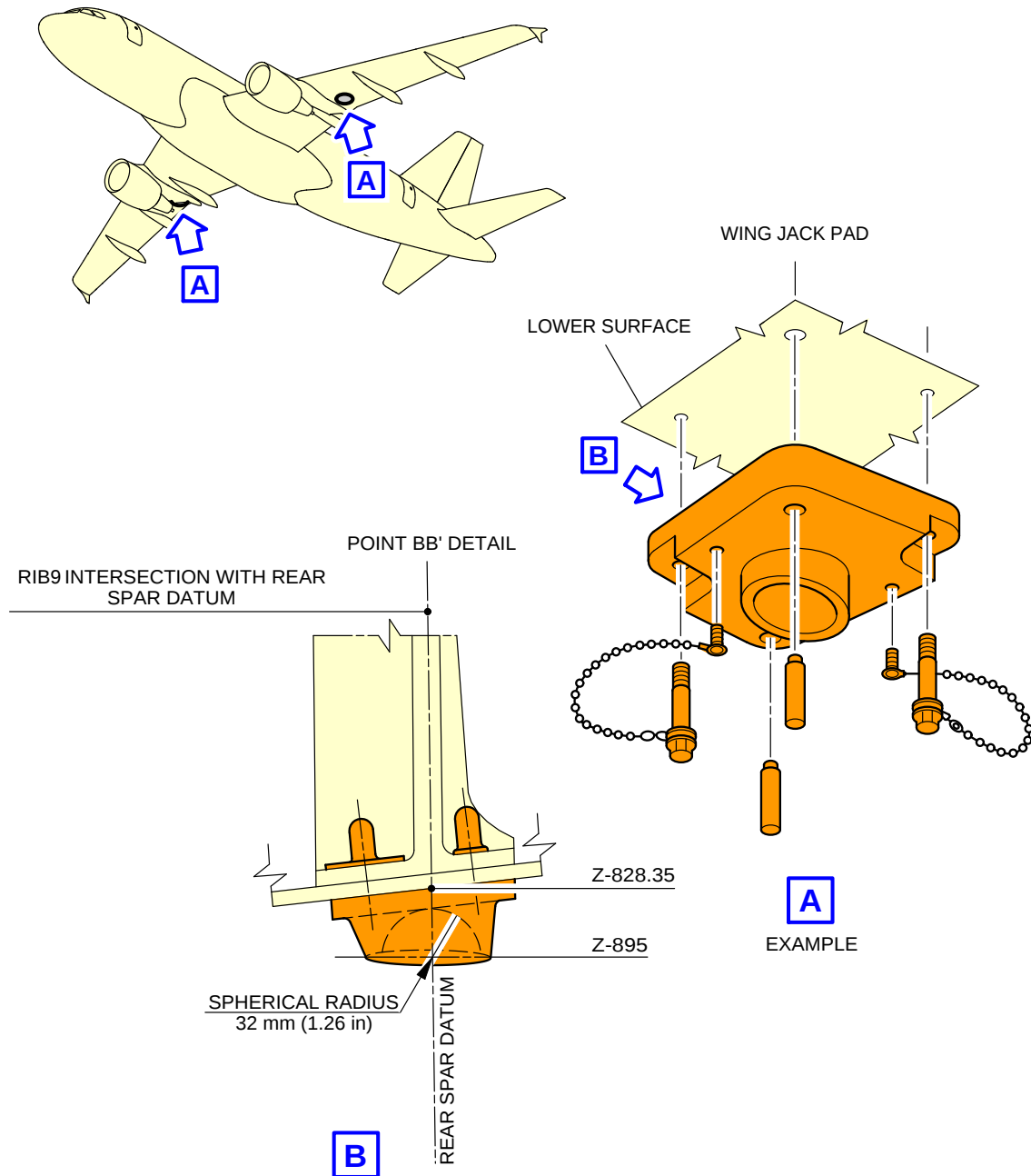
**A**

**B**

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Jacking for Maintenance  
Forward Jacking Point  
FIGURE-2-14-0-991-006-A01

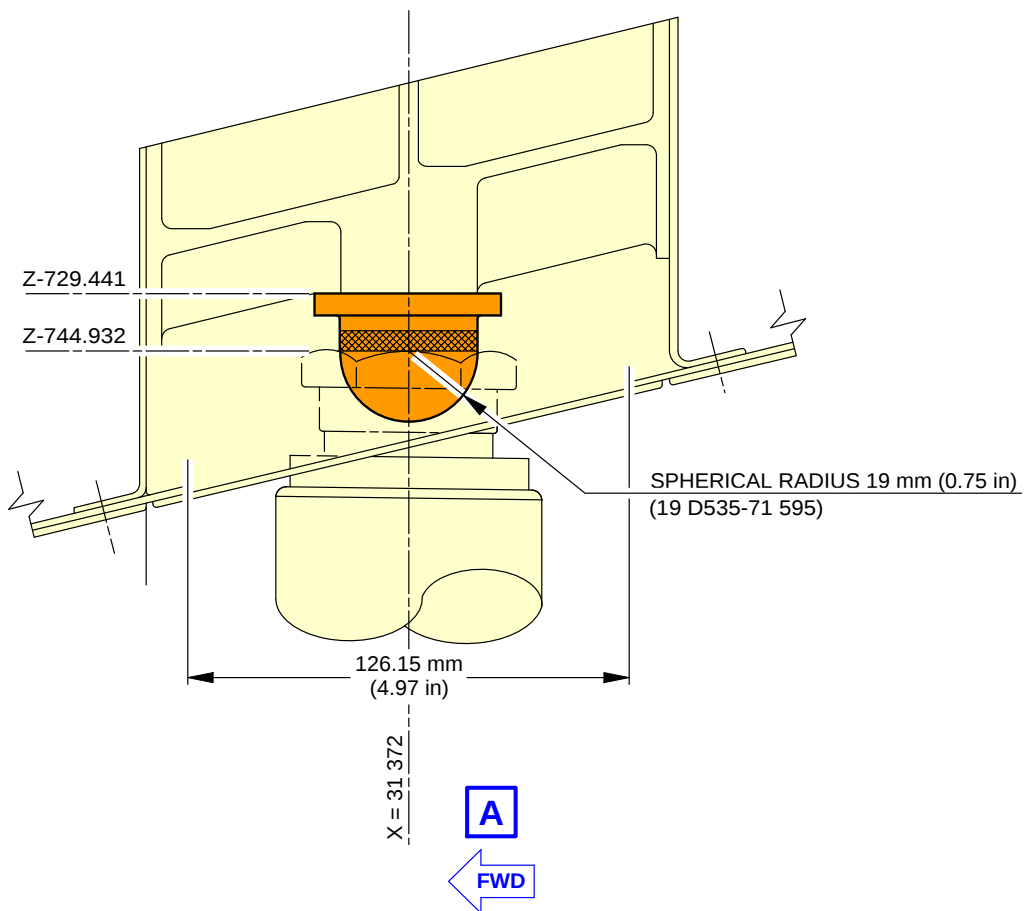
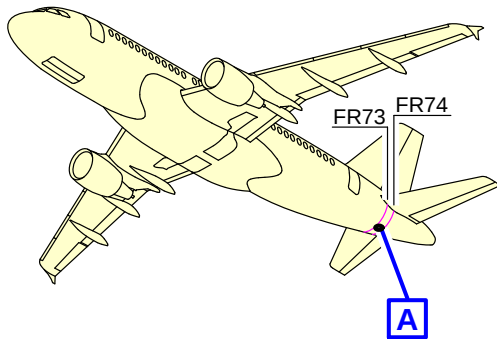
**\*\*ON A/C A319-100 A319neo**



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Jacking for Maintenance  
Wing Jacking Points  
FIGURE-2-14-0-991-007-A01

**\*\*ON A/C A319-100 A319neo**

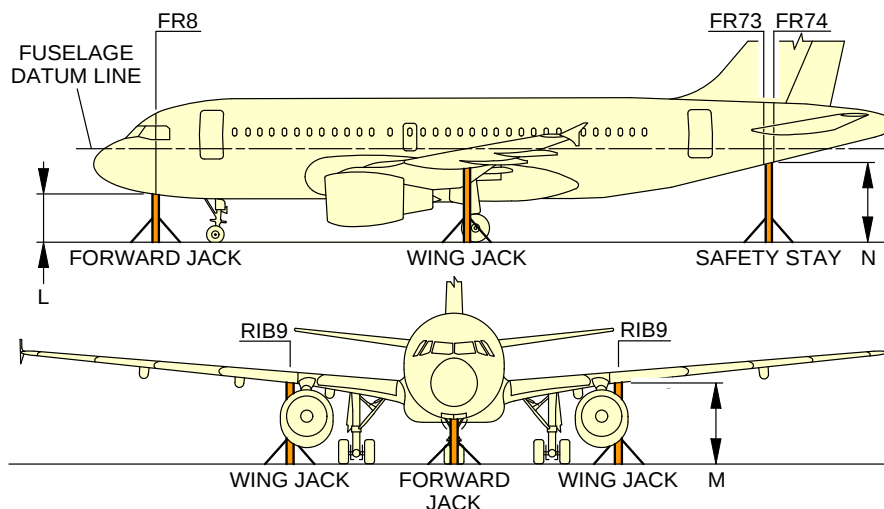


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Jacking for Maintenance  
Safety Stay  
FIGURE-2-14-0-991-008-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**



TYPICAL JACK INSTALLATION SHOWN

| CONFIGURATION                                                                                     | DESCRIPTION                                                                                                             | DISTANCE BETWEEN JACKING/SAFETY POINTS AND THE GROUND |                         |                         |
|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------|-------------------------|
|                                                                                                   |                                                                                                                         | L<br>(FORWARD JACK)                                   | M<br>(WING JACK)        | N<br>(SAFETY STAY)      |
| - AIRCRAFT ON WHEELS                                                                              | - NLG SHOCK ABSORBER DEFLATED AND NLG TIRES FLAT<br>- MLG STANDARD TIRES, WITH STANDARD SHOCK ABSORBERS                 | 1 576 mm<br>(62.05 in)                                | 3 119 mm<br>(122.80 in) | 3 672 mm<br>(144.57 in) |
|                                                                                                   | TIRES FLAT<br>SHOCK ABSORBERS DEFLATED                                                                                  | 1 659 mm<br>(65.31 in)                                | 2 736 mm<br>(107.72 in) | 2 834 mm<br>(111.57 in) |
|                                                                                                   | STANDARD TIRES<br>STANDARD SHOCK ABSORBERS                                                                              | 1 859 mm<br>(73.19 in)                                | 3 121 mm<br>(122.87 in) | 3 400 mm<br>(133.86 in) |
| - AIRCRAFT ON JACKS (FORWARD JACK AND WING JACKS)<br>- FUSELAGE DATUM LINE PARALLEL TO THE GROUND | STANDARD TIRES<br>MLG SHOCK ABSORBERS EXTENDED WITH WHEEL CLEARANCE OF 120 mm (4.72 in) FOR MLG RETRACTION OR EXTENSION | 2 554 mm<br>(100.55 in)                               | 3 655 mm<br>(143.90 in) | 3 779 mm<br>(148.78 in) |
|                                                                                                   | STANDARD TIRES<br>MLG SHOCK ABSORBERS EXTENDED WITH WHEEL CLEARANCE OF 770 mm (30.31 in) FOR REPLACEMENT OF THE MLG     | 3 204 mm<br>(126.14 in)                               | 4 305 mm<br>(169.49 in) | 4 429 mm<br>(174.37 in) |
| - AIRCRAFT ON FORWARD JACK<br>- MLG WHEELS ON THE GROUND                                          | STANDARD TIRES<br>NLG SHOCK ABSORBERS EXTENDED WITH WHEEL CLEARANCE OF 60 mm (2.36 in) FOR NLG RETRACTION OR EXTENSION  | 2 394 mm<br>(94.25 in)                                | NA                      | 2 882 mm<br>(113.46 in) |

**NOTE:**

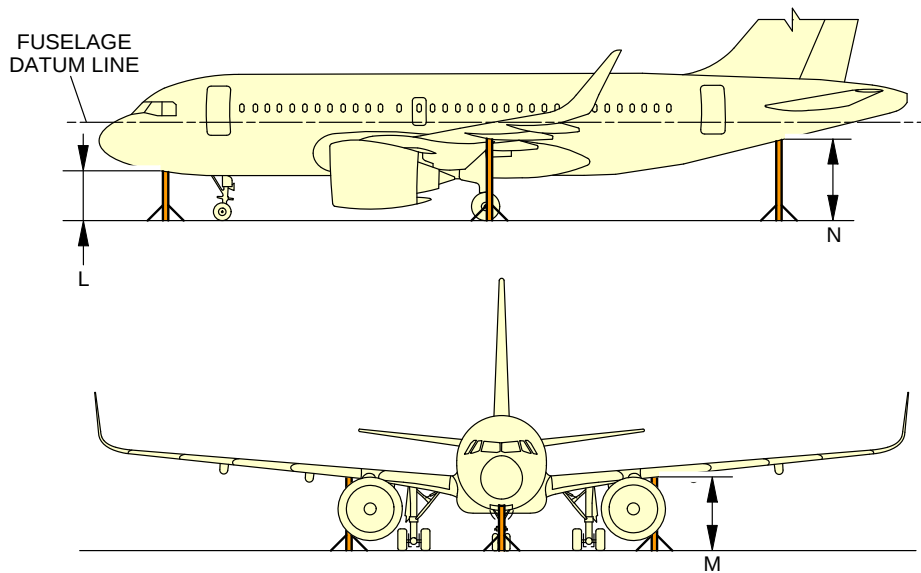
THE SAFETY STAY IS NOT USED FOR JACKING.

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Jacking for Maintenance  
Jacking Design  
FIGURE-2-14-0-991-009-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**



| CONFIGURATION                                                                                                                                                                                                                                                                                 | CG POSITION<br>(% MAC) | HEIGHT |       |                    |                     |      |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------|-------|--------------------|---------------------|------|-------|
|                                                                                                                                                                                                                                                                                               |                        | L      |       | M                  |                     | N    |       |
|                                                                                                                                                                                                                                                                                               |                        | m      | ft    | m                  | ft                  | m    | ft    |
| AIRCRAFT ON WHEELS, SHOCK-ABSORBERS DEFLATED, TIRES DEFLATED (RH)                                                                                                                                                                                                                             | 14                     | 1.90   | 6.23  | 3.31 LH<br>2.75 RH | 10.86 LH<br>9.02 RH | 3.09 | 10.14 |
|                                                                                                                                                                                                                                                                                               | 39                     | 2.04   | 6.69  | 3.28 LH<br>2.75 RH | 10.76 LH<br>9.02 RH | 2.93 | 9.61  |
| AIRCRAFT ON JACKS, FDL AT 5.21 m (17.09 ft), AIRCRAFT FUSELAGE PARALLEL TO THE GROUND, SHOCK-ABSORBERS EXTENDED, CLEARANCE OF MAIN GEAR WHEELS = 0.73 m (2.40 ft) (STANDARD TIRES <a href="#">01</a> ), CLEARANCE OF NOSE GEAR WHEELS = 0.95 m (3.12 ft) (STANDARD TIRES <a href="#">01</a> ) | N/A                    | 3.23   | 10.60 | 4.38               | 14.37               | 4.47 | 14.67 |
| AIRCRAFT ON WHEELS (STANDARD TIRES <a href="#">01</a> )<br>MAXIMUM JACKING WEIGHT = 57 000 kg (125 663 lb)                                                                                                                                                                                    | 14                     | 1.84   | 6.04  | 3.20               | 10.50               | 3.48 | 11.42 |
|                                                                                                                                                                                                                                                                                               | 39                     | 1.97   | 6.46  | 3.18               | 10.43               | 3.31 | 10.86 |
| AIRCRAFT ON WHEELS (STANDARD TIRES <a href="#">01</a> )<br>OEW = 41 625 kg (91 767 lb)                                                                                                                                                                                                        | 14                     | 1.88   | 6.17  | 3.24               | 10.63               | 3.53 | 11.58 |
|                                                                                                                                                                                                                                                                                               | 39                     | 2.03   | 6.66  | 3.23               | 10.60               | 3.36 | 11.02 |

**NOTE:**

[01](#) STANDARD TIRES: NOSE LANDING GEAR = 762 x 233.52 R15  
MAIN LANDING GEAR = 1 168.4 x 431.8 R20

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Jacking for Maintenance  
Jacking Design (Sheet 1 of 2)  
FIGURE-2-14-0-991-065-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**

| CONFIGURATION                                                                                                                                                                                                                                                                                                            | CG<br>POSITION<br>(% MAC) | HEIGHT |      |      |       |      |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------|------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                          |                           | L      |      | M    |       | N    |       |
|                                                                                                                                                                                                                                                                                                                          |                           | m      | ft   | m    | ft    | m    | ft    |
| AIRCRAFT ON WHEELS, NLG SHOCK-ABSORBER DEFLATED AND TIRES DEFLATED, MLG STANDARD SHOCK-ABSORBER (RH) (STANDARD TIRES <a href="#">01</a> )                                                                                                                                                                                | 17                        | 1.57   | 5.15 | 3.13 | 10.27 | 3.69 | 12.11 |
|                                                                                                                                                                                                                                                                                                                          | 36                        | 1.58   | 5.18 | 3.11 | 10.2  | 3.65 | 11.98 |
| AIRCRAFT ON JACKS, FDL PARALLEL TO THE GROUND AT 4.56 m (14.96 ft), SHOCK-ABSORBERS EXTENDED (STANDARD TIRES <a href="#">01</a> ), FOR MLG RETRACTION/EXTENSION OR MLG REPLACEMENT MAKE SURE CLEARANCE OF 0.95 m (3.12 ft) FROM GROUND TO BOTTOM OF MAIN FITTING OR MAKE SURE CLEARANCE OF MLG WHEELS = 0.12 m (0.39 ft) | N/A                       | 2.55   | 8.37 | 3.66 | 12.01 | 3.78 | 12.4  |
| AIRCRAFT ON JACKS, FDL PARALLEL TO THE GROUND AT 5.21 m (17.09 ft), SHOCK-ABSORBERS EXTENDED (STANDARD TIRES <a href="#">01</a> ), FOR REPLACEMENT OF MLG SHOCK-ABSORBER MAKE SURE CLEARANCE OF 1.6 m (5.25 ft) FROM GROUND TO BOTTOM OF MAIN FITTING OR MAKE SURE CLEARANCE OF MLG WHEELS = 0.77 m (2.53 ft)            | N/A                       | 3.2    | 10.5 | 4.31 | 14.14 | 4.43 | 14.53 |
| AIRCRAFT ON JACK WITH MLG WHEELS ON GROUND, NLG SHOCK-ABSORBER EXTENDED (STANDARD TIRES <a href="#">01</a> ), FOR NLG RETRACTION/EXTENSION OR REPLACEMENT OF NLG SHOCK-ABSORBER MAKE SURE CLEARANCE OF 1 m (3.28 ft) FROM GROUND TO BOTTOM OF TURNING TUBE OR MAKE SURE CLEARANCE OF NOSE GEAR WHEELS = 0.60 m (1.97 ft) | 17                        | 2.39   | 7.84 | 3.13 | 10.27 | 2.9  | 9.51  |
|                                                                                                                                                                                                                                                                                                                          | 36                        | 2.4    | 7.87 | 3.11 | 10.2  | 2.86 | 9.38  |

**NOTE:**

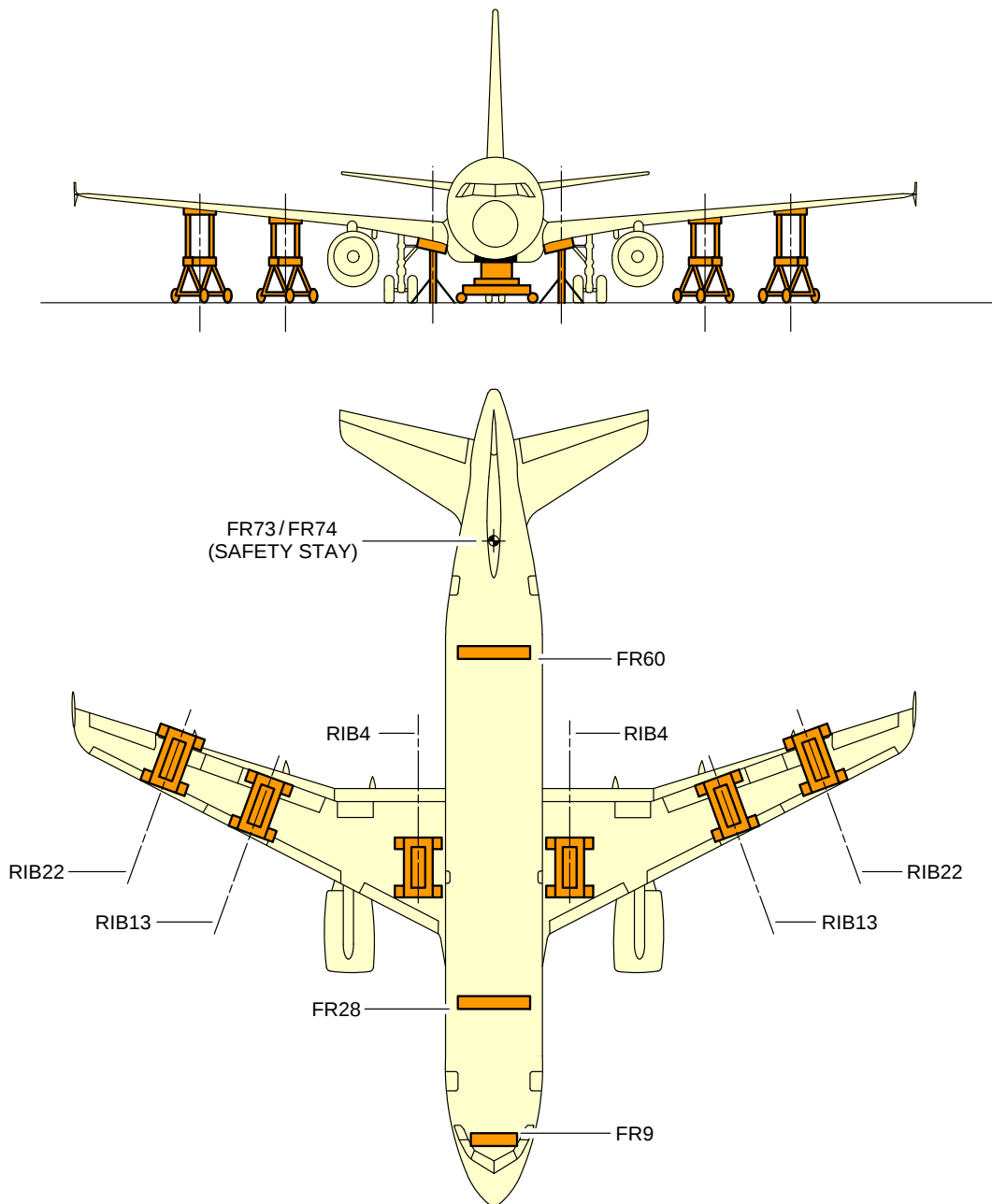
[01](#) STANDARD TIRES: NOSE LANDING GEAR = 762 x 233.52 R15  
MAIN LANDING GEAR = 1 168.4 x 431.8 R20

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Jacking for Maintenance  
Jacking Design (Sheet 2 of 2)  
FIGURE-2-14-0-991-065-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



**NOTE:** THE SHORING CRADLE MUST BE INSTALLED AT THE EXACT LOCATION OF THE FRAME.

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Jacking for Maintenance  
Location of Shoring Cradles  
FIGURE-2-14-0-991-011-A01

### **\*\*ON A/C A319-100 A319neo**

#### Jacking of the Landing Gear

##### 1. General

Landing gear jacking will be required to lift the landing gear wheels off the ground.

NOTE : You can lift the aircraft at Maximum Ramp Weight (MRW).

NOTE : The load at each jacking position is the load required to give a 25.4 mm (1 in) clearance between the ground and the tire.

### **\*\*ON A/C A319-100**

##### 2. Main Gear Jacking

The main gears are normally jacked up by placing a jack directly under the ball pad.

The ball spherical radius is 19 mm (0.75 in).

It is also possible to jack the main gear using a cantilever jack.

The reactions at each of the jacking points are shown in the table, see FIGURE 2-14-0-991-059-A.

### **\*\*ON A/C A319neo**

##### 3. Main Gear Jacking

The main gears are normally jacked up by placing a jack directly under the ball pad.

The ball spherical radius is 19 mm (0.75 in).

It is also possible to jack the main gear using a cantilever jack.

The reactions at each of the jacking points are shown in the table, see FIGURE 2-14-0-991-062-A.

**\*\*ON A/C A319-100**

## 4. Nose Gear Jacking

For nose gear jacking, a 19 mm (0.75 in) radius ball pad is fitted under the lower end of the shock-absorber sliding tube. Jacking can be accomplished either by placing a jack directly under the ball pad, or using an adapter fitting provided with an identical ball pad.

The reactions at each of the jacking points are shown in the table, see FIGURE 2-14-0-991-059-A.

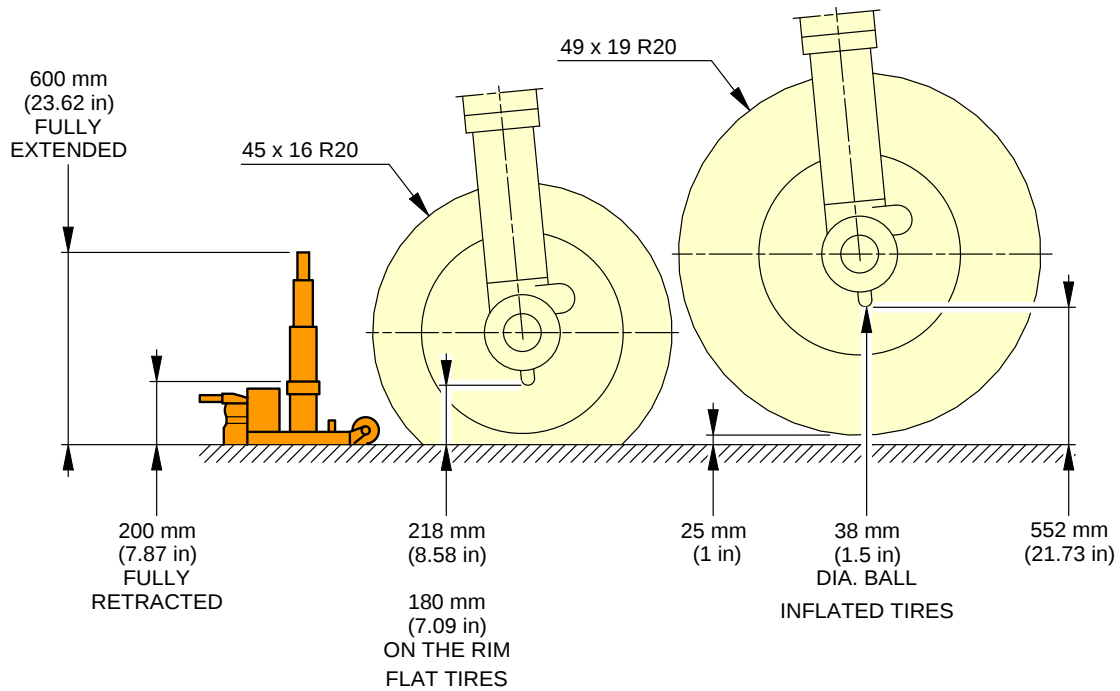
**\*\*ON A/C A319neo**

## 5. Nose Gear Jacking

For nose gear jacking, a 19 mm (0.75 in) radius ball pad is fitted under the lower end of the shock-absorber sliding tube. Jacking can be accomplished either by placing a jack directly under the ball pad, or using an adapter fitting provided with an identical ball pad.

The reactions at each of the jacking points are shown in the table, see FIGURE 2-14-0-991-062-A.

**\*\*ON A/C A319-100 A319neo**

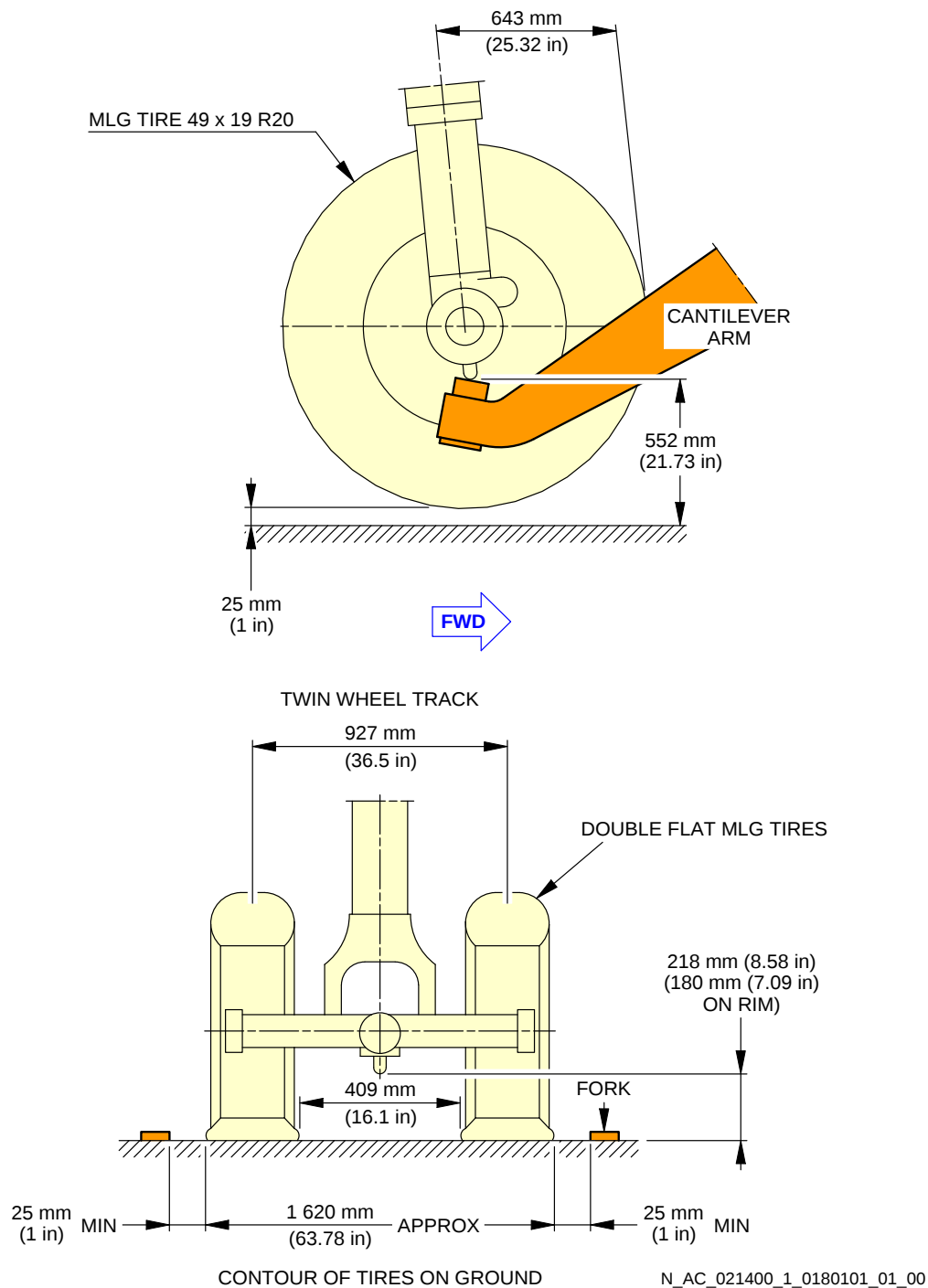


**NOTE:** TWIN WHEEL TRACK IS 927 mm (36.5 in).  
 THE FLAT TIRES VIEW SHOWS THE MINIMUM HEIGHT TO ENGAGE JACK  
 WITH 2 FLAT TIRES.  
 THE INFLATED TIRES VIEW SHOWS THE JACKING HEIGHT TO GIVE 25 mm (1 in)  
 CLEARANCE BETWEEN THE TIRE AND GROUND.

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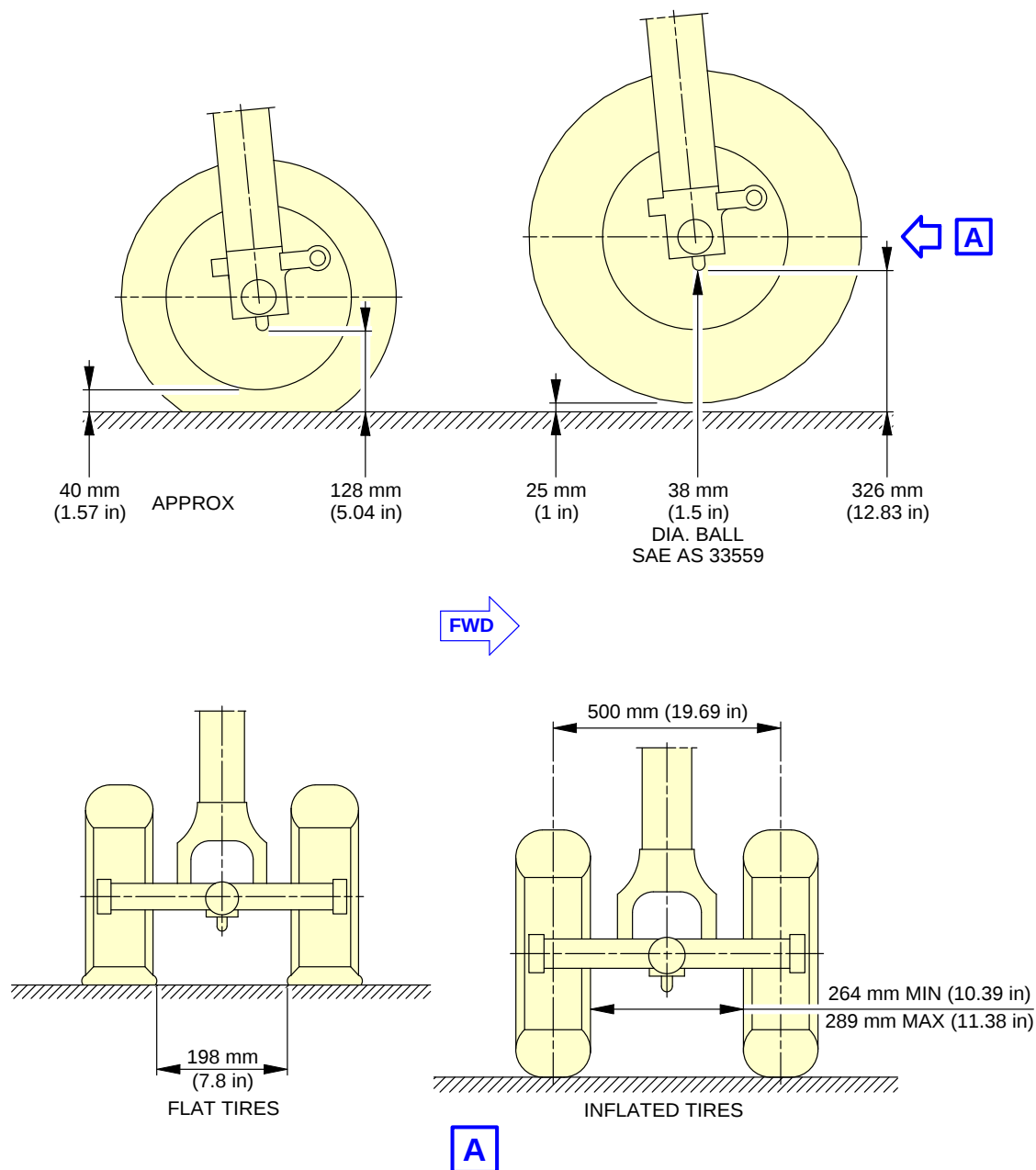
Jacking of the Landing Gear  
 MLG Jacking Point Location - Twin Wheels  
 FIGURE-2-14-0-991-017-A01

**\*\*ON A/C A319-100 A319neo**



Jacking of the Landing Gear  
MLG Jacking with Cantilever Jack - Twin Wheels  
FIGURE-2-14-0-991-018-A01

**\*\*ON A/C A319-100 A319neo**



**NOTE:** THE FLAT TIRES VIEW SHOWS THE MINIMUM HEIGHT TO ENGAGE JACK WITH 2 FLAT TIRES.  
THE INFLATED TIRES VIEW SHOWS THE JACKING HEIGHT TO GIVE 25 mm (1 in) CLEARANCE BETWEEN THE TIRE AND GROUND.

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Jacking of the Landing Gear  
NLG Jacking - Point Location  
FIGURE-2-14-0-991-021-A01

**\*\*ON A/C A319-100**

| A319-100 AND A319 CJ<br>WV010                                            |                           |
|--------------------------------------------------------------------------|---------------------------|
| MAXIMUM DESIGN TAXI WEIGHT (MTW)                                         | 76 900 kg<br>(169 535 lb) |
| MAXIMUM DESIGN TAKE-OFF WEIGHT (MTOW)                                    | 76 500 kg<br>(168 653 lb) |
| MAXIMUM LOAD VALUE TO BE APPLIED ON NLG<br>JACKING POINT                 | 11 400 kg<br>(25 133 lb)  |
| NUMBER OF JACKING POINTS ON ONE MLG                                      | 1                         |
| MAXIMUM LOAD VALUE TO BE APPLIED ON MLG<br>JACKING POINT (LEFT OR RIGHT) | 35 000 kg<br>(77 162 lb)  |

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Jacking of the Landing Gear  
Maximum Load Capacity to Lift Each Jacking Point  
FIGURE-2-14-0-991-059-A01

**\*\*ON A/C A319neo**

| A319 NEO<br>WV054 AND WV055                                              |                           |
|--------------------------------------------------------------------------|---------------------------|
| MAXIMUM DESIGN TAXI WEIGHT (MTW)                                         | 75 900 kg<br>(167 331 lb) |
| MAXIMUM DESIGN TAKE-OFF WEIGHT (MTOW)                                    | 75 500 kg<br>(166 449 lb) |
| MAXIMUM LOAD VALUE TO BE APPLIED ON NLG<br>JACKING POINT                 | 15 683 kg<br>(34 575 lb)  |
| NUMBER OF JACKING POINTS ON ONE MLG                                      | 1                         |
| MAXIMUM LOAD VALUE TO BE APPLIED ON MLG<br>JACKING POINT (LEFT OR RIGHT) | 46 177 kg<br>(101 803 lb) |

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Jacking of the Landing Gear  
Maximum Load Capacity to Lift Each Jacking Point  
FIGURE-2-14-0-991-062-A01

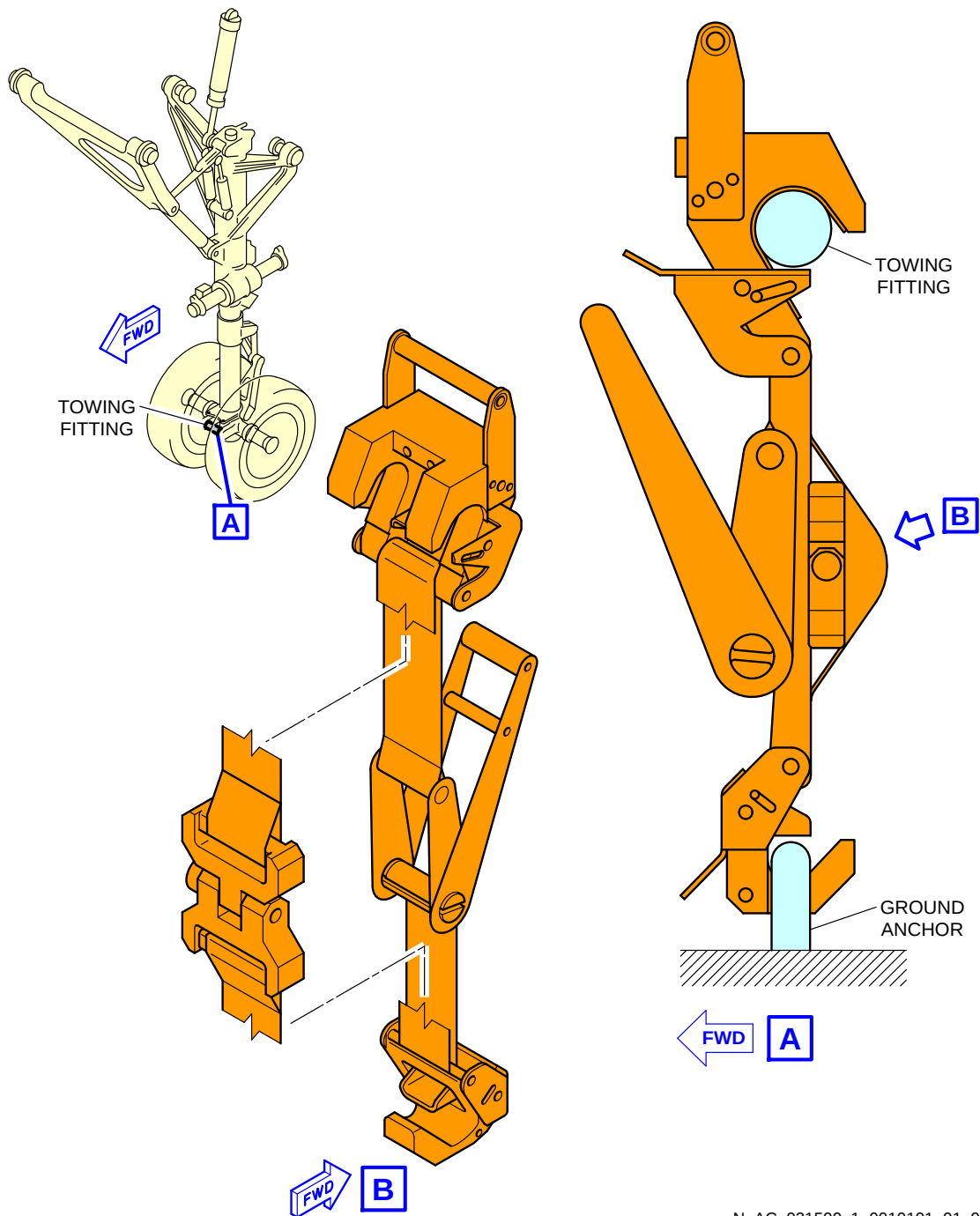
### 2-15-0 Aircraft Mooring

**\*\*ON A/C A319-100 A319neo**

Aircraft Mooring

1. This section gives the information on the aircraft mooring.

| \*\*ON A/C A319-100 A319neo



N\_AC\_021500\_1\_0010101\_01\_00

Aircraft Mooring  
2-15-0-991-001-A01

### AIRCRAFT PERFORMANCE

#### 3-1-0 General Information

**\*\*ON A/C A319-100 A319neo**

#### General Information

- Standard day temperatures for the altitudes shown are tabulated below:

| Standard Day Temperatures for the Altitudes |        |                          |      |
|---------------------------------------------|--------|--------------------------|------|
| Altitude                                    |        | Standard Day Temperature |      |
| FEET                                        | METERS | °F                       | °C   |
| 0                                           | 0      | 59.0                     | 15.0 |
| 2 000                                       | 610    | 51.9                     | 11.1 |
| 4 000                                       | 1 220  | 44.7                     | 7.1  |
| 6 000                                       | 1 830  | 37.6                     | 3.1  |
| 8 000                                       | 2 440  | 30.5                     | -0.8 |

### 3-2-1 Payload / Range - ISA Conditions

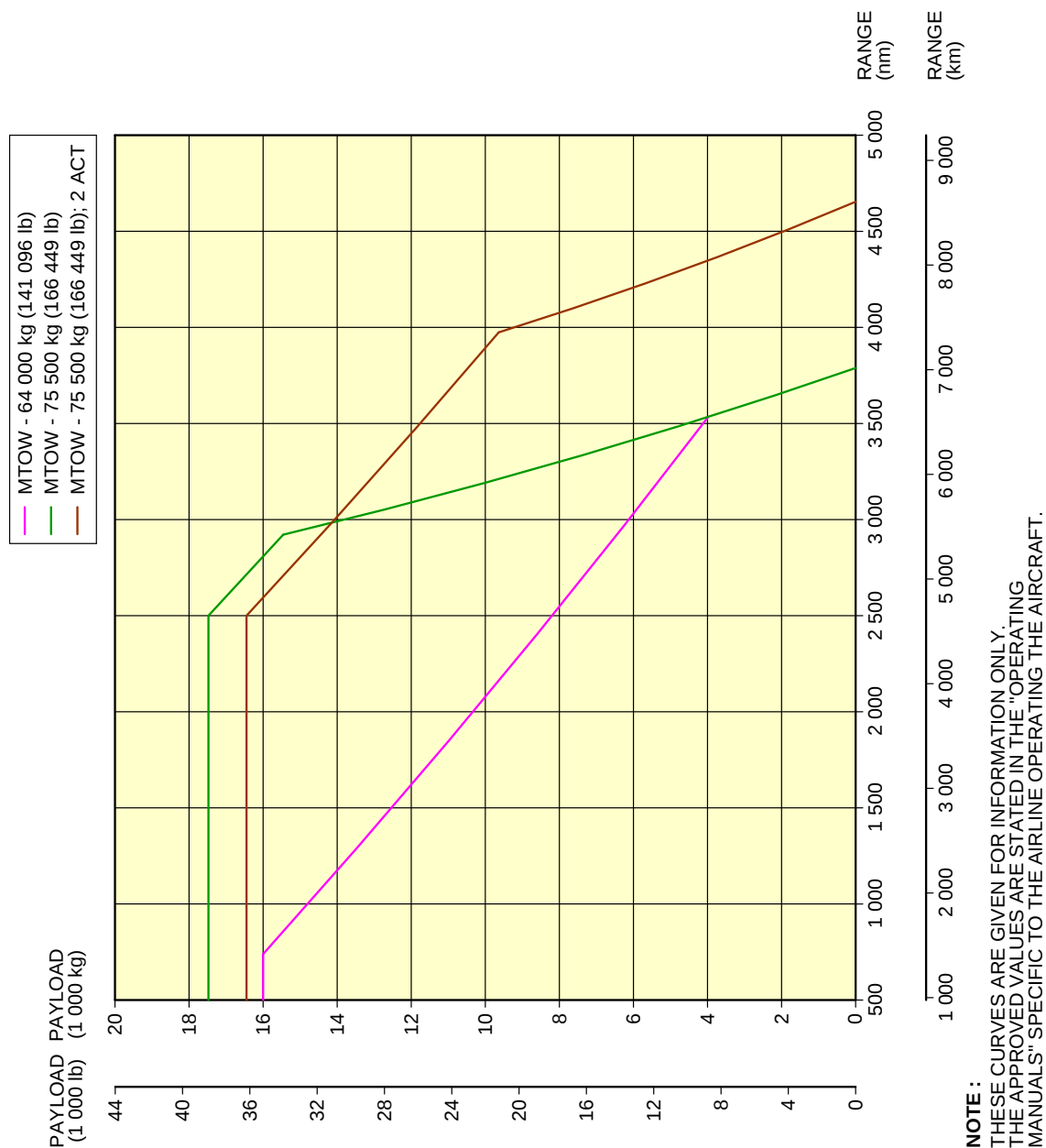
**\*\*ON A/C A319-100 A319neo**

Payload/Range - ISA Conditions

1. This section provides the payload/range at ISA conditions.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

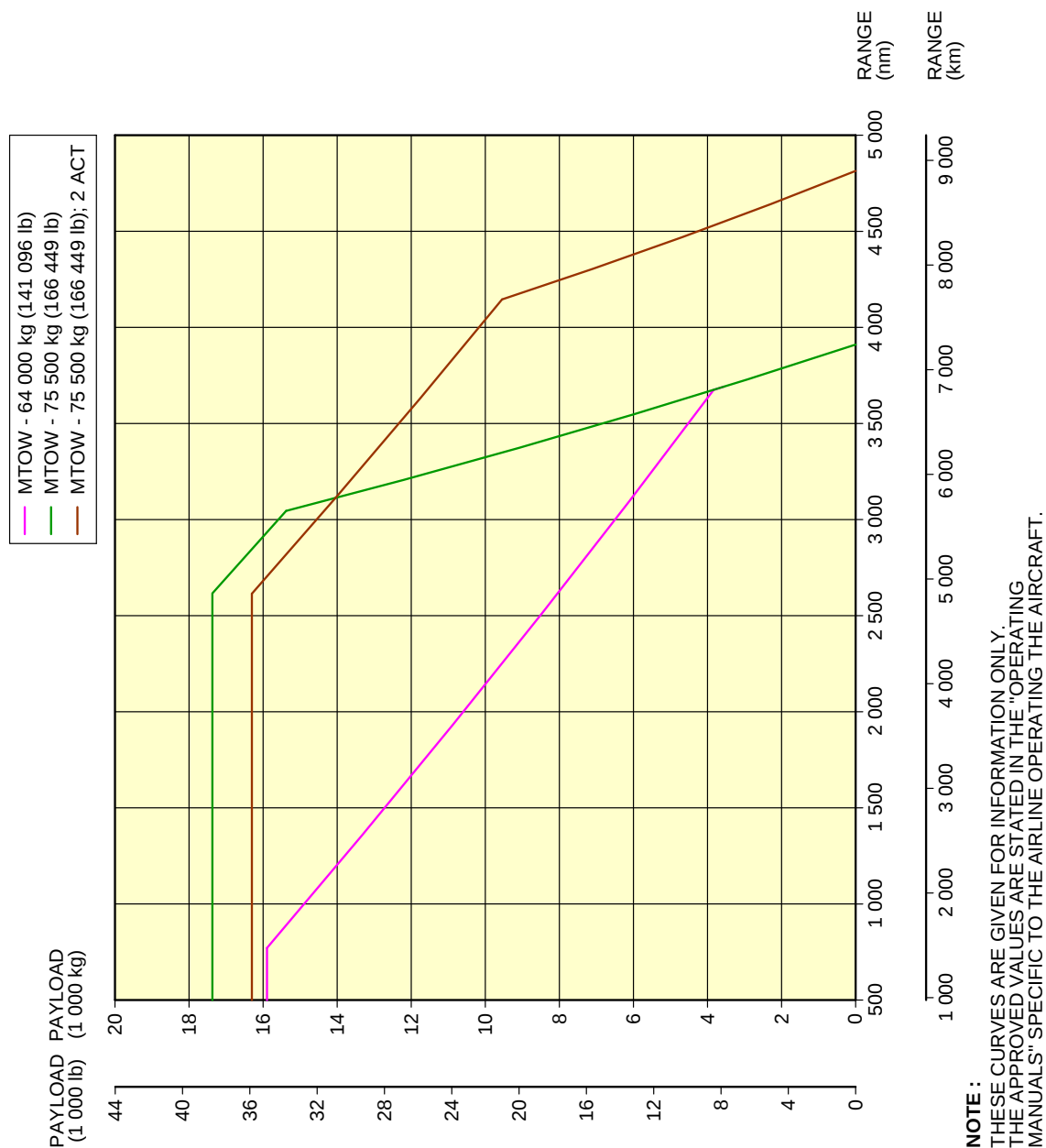


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Payload/Range - ISA Conditions  
FIGURE-3-2-1-991-013-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

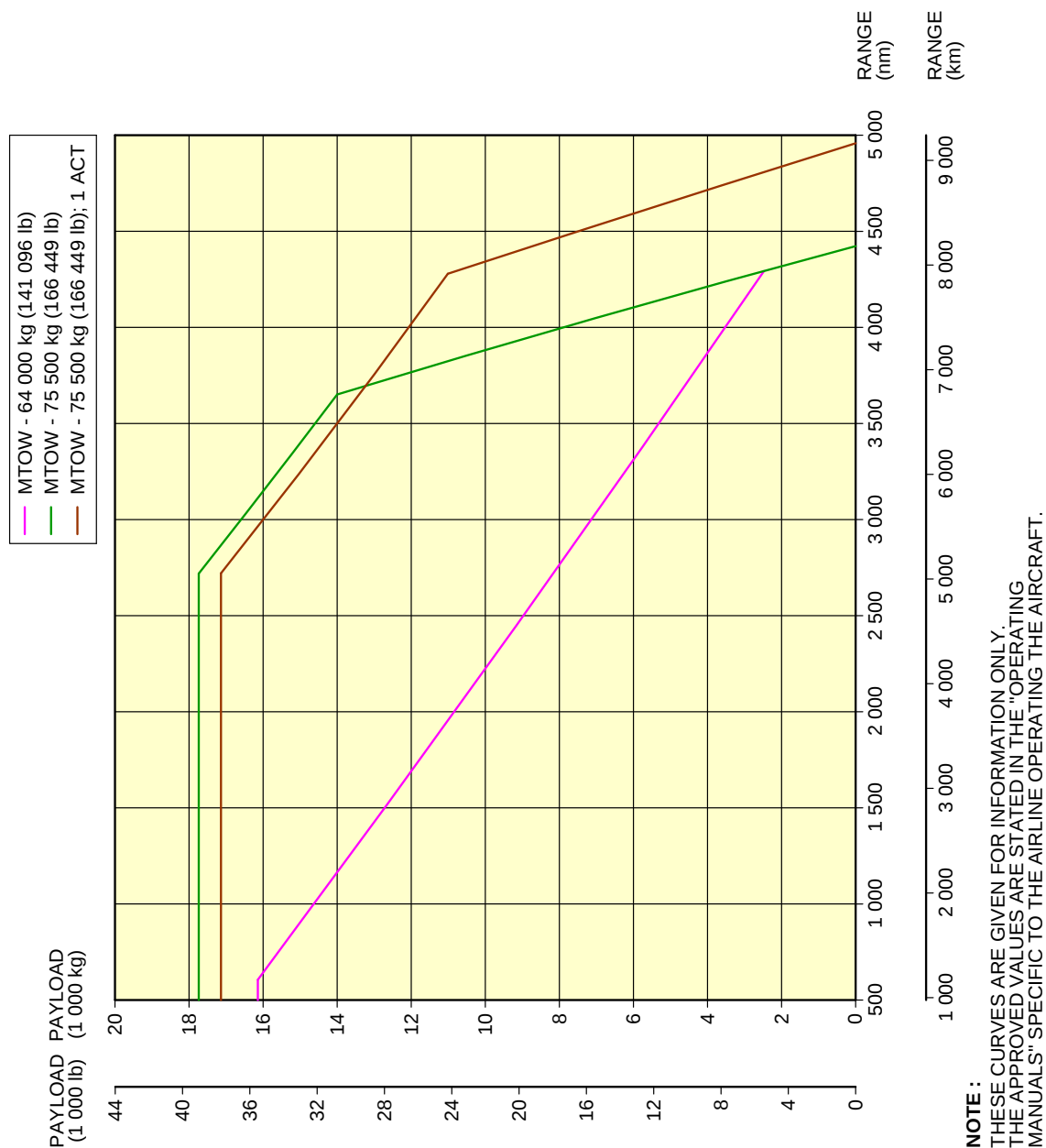


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Payload/Range - ISA Conditions  
Sharklet  
FIGURE-3-2-1-991-014-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**



N\_AC\_030201\_1\_0150101\_01\_00

Payload/Range - ISA Conditions  
FIGURE-3-2-1-991-015-A01

### 3-3-1 Take-off Weight Limitation - ISA Conditions

**\*\*ON A/C A319-100 A319neo**

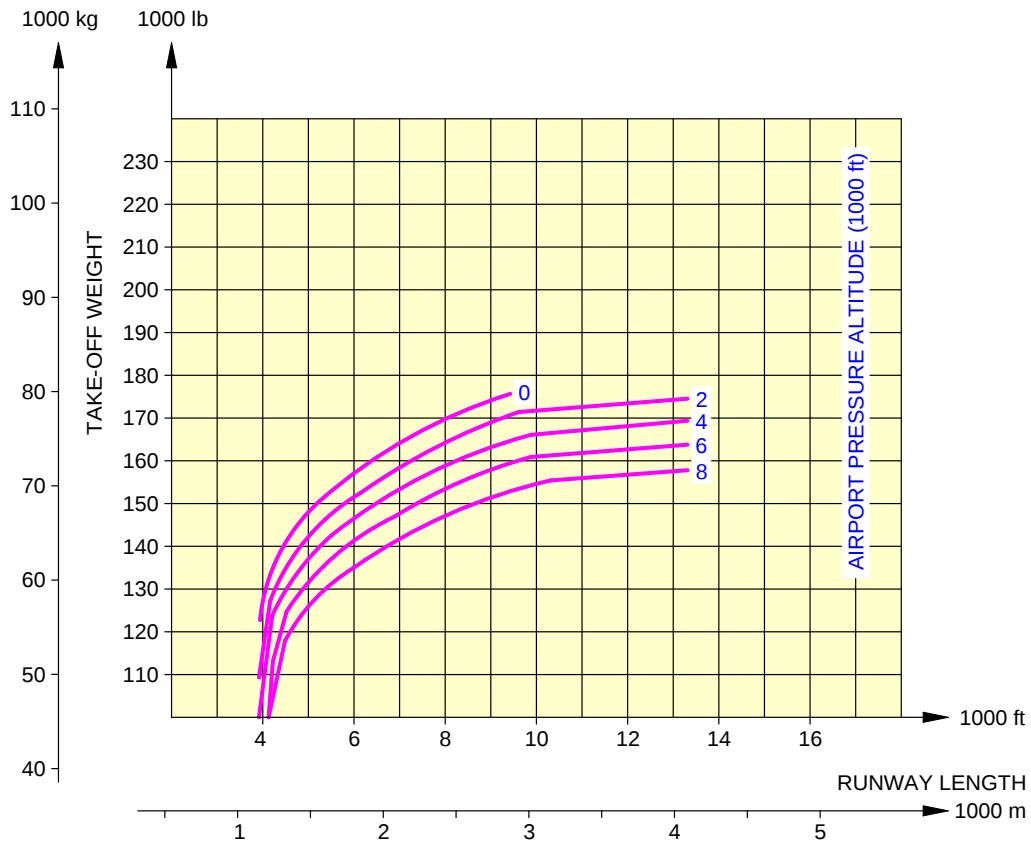
Take-Off Weight Limitation - ISA Conditions

1. This section gives the take-off weight limitation at ISA conditions.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

**NOTE:** THESE CURVES ARE GIVEN FOR INFORMATION ONLY  
THE APPROVED VALUES ARE STATED IN THE "OPERATING  
MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.



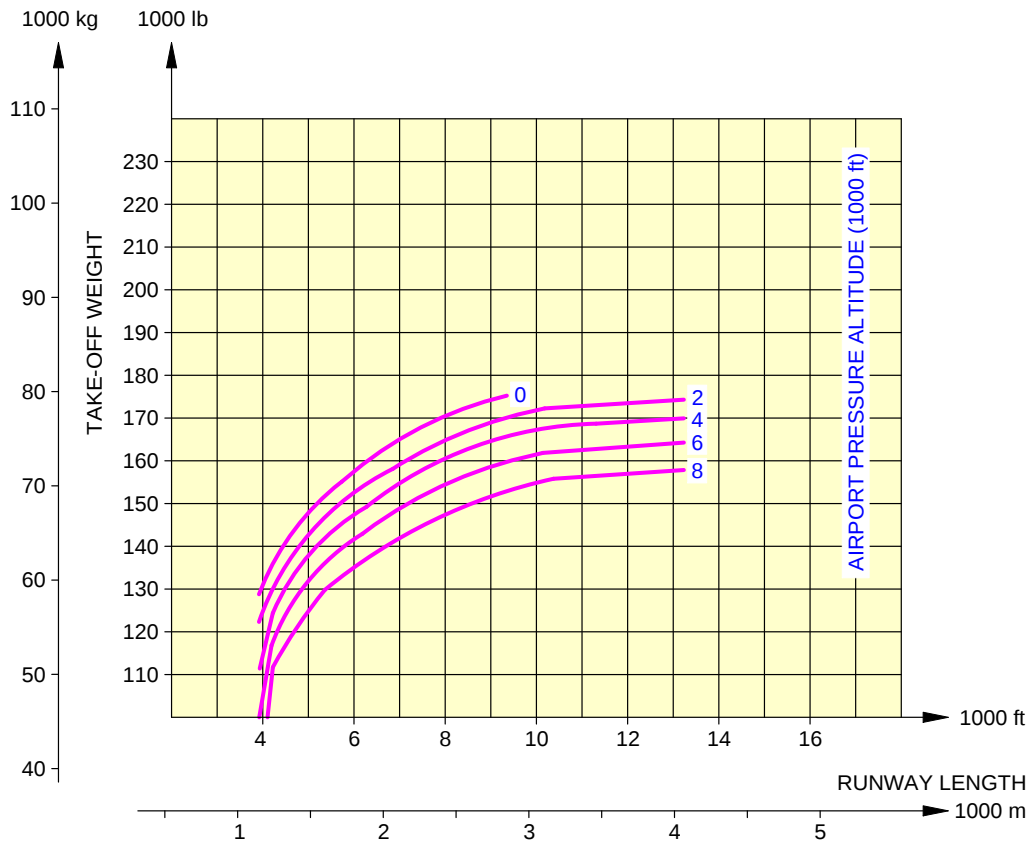
N\_AC\_030301\_1\_0030101\_01\_00

Take-Off Weight Limitation - ISA Conditions  
CFM56 Series Engine  
FIGURE-3-3-1-991-003-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

**NOTE:** THESE CURVES ARE GIVEN FOR INFORMATION ONLY  
THE APPROVED VALUES ARE STATED IN THE "OPERATING  
MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

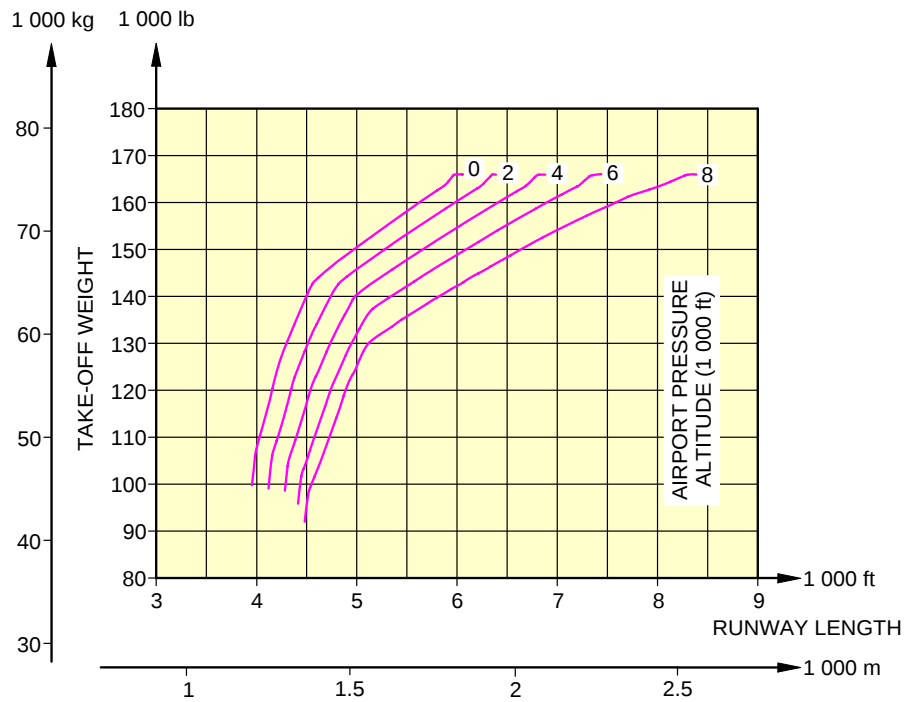


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Take-Off Weight Limitation - ISA Conditions  
IAE V2500 Series Engine  
FIGURE-3-3-1-991-004-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**



**NOTE:**  
 THESE CURVES ARE GIVEN FOR INFORMATION ONLY.  
 THE APPROVED VALUES ARE STATED IN THE "OPERATING  
 MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

N\_AC\_030301\_1\_0120101\_01\_00

Take-Off Weight Limitation - ISA Conditions  
 LEAP Engines  
 FIGURE-3-3-1-991-012-A01

### 3-3-2 Take-off Weight Limitation - ISA +15°C (+59°F) Conditions

**\*\*ON A/C A319-100 A319neo**

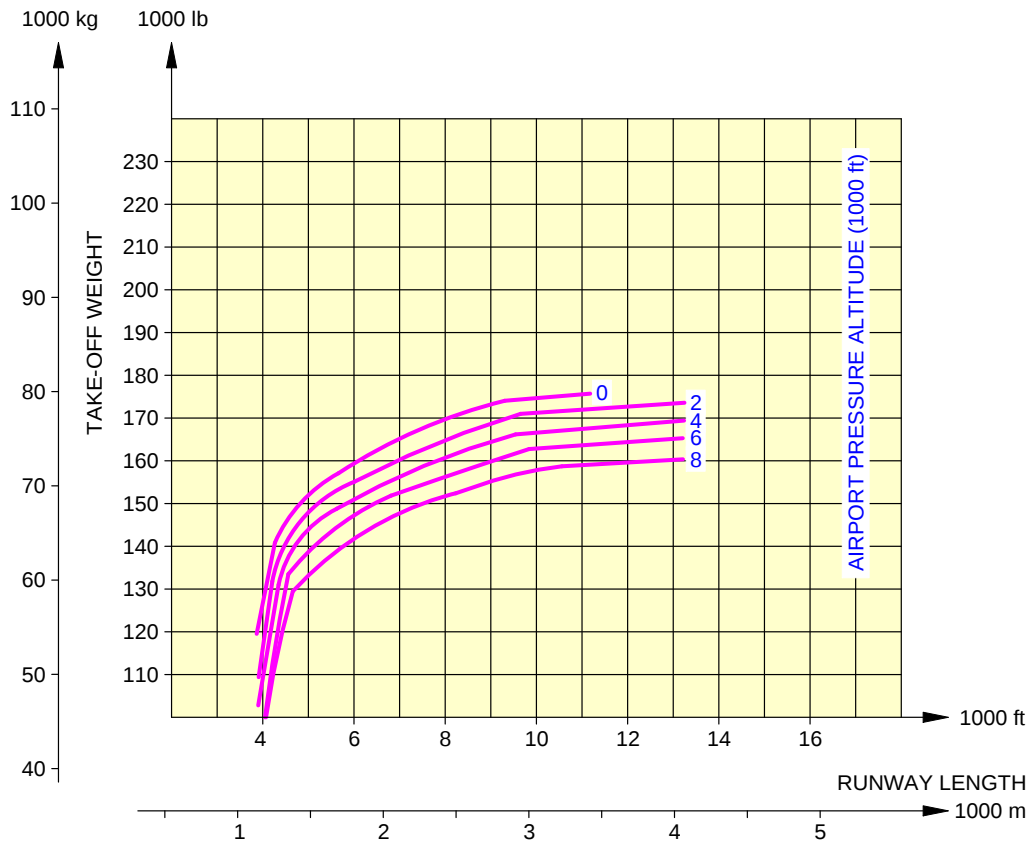
| Take-Off Weight Limitation - ISA+15 Conditions

- | 1. This section gives the take-off weight limitation at ISA+15 conditions.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

**NOTE:** THESE CURVES ARE GIVEN FOR INFORMATION ONLY  
THE APPROVED VALUES ARE STATED IN THE "OPERATING  
MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.



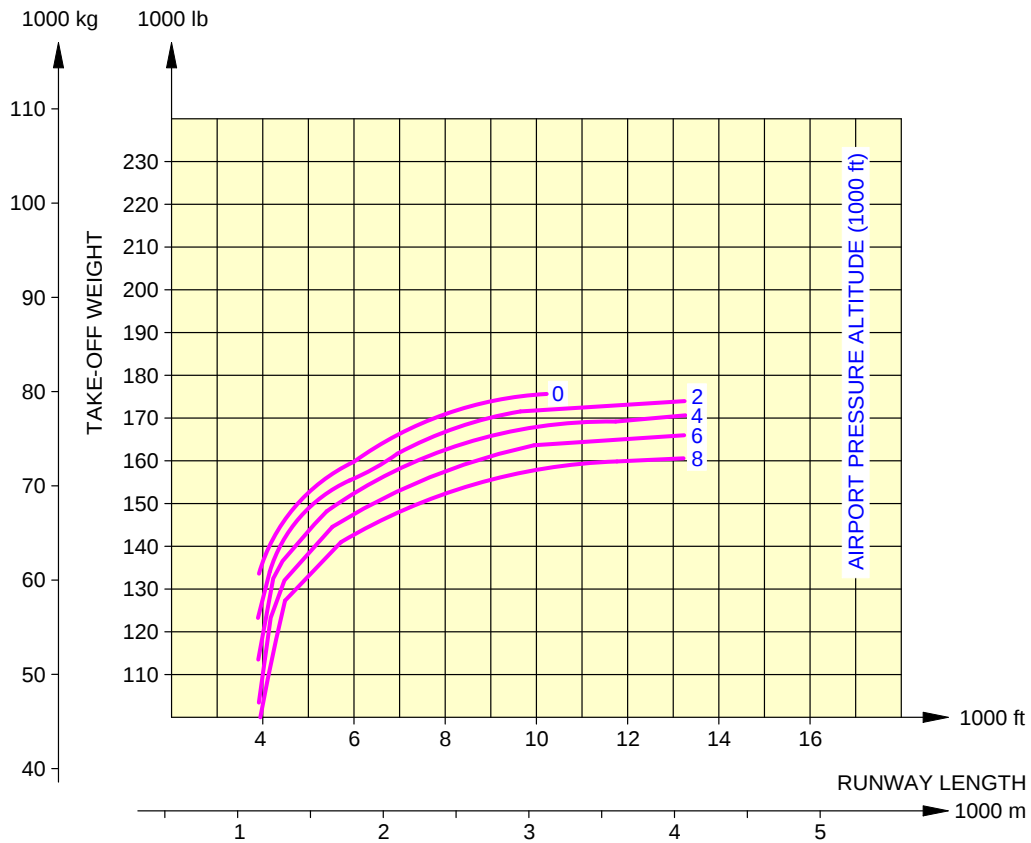
N\_AC\_030302\_1\_0030101\_01\_00

Take-Off Weight Limitation - ISA+15 Conditions  
CFM56 Series Engine  
FIGURE-3-3-2-991-003-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

**NOTE:** THESE CURVES ARE GIVEN FOR INFORMATION ONLY  
THE APPROVED VALUES ARE STATED IN THE "OPERATING  
MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

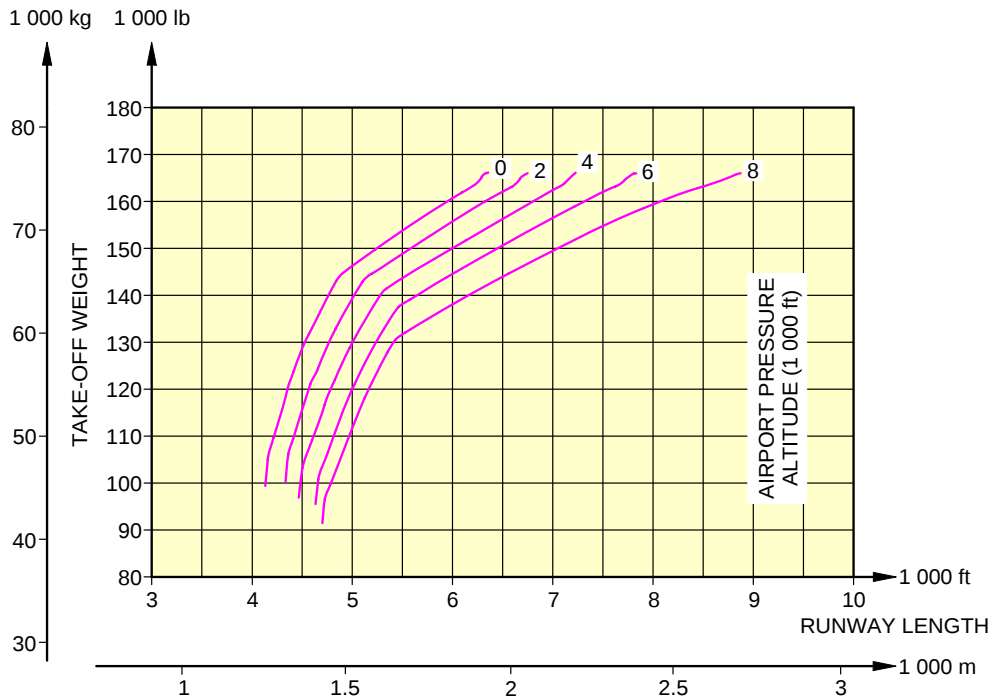


N\_AC\_030302\_1\_0040101\_01\_00

Take-Off Weight Limitation - ISA+15 Conditions  
IAE V2500 Series Engine  
FIGURE-3-3-2-991-004-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**



**NOTE:**  
THESE CURVES ARE GIVEN FOR INFORMATION ONLY.  
THE APPROVED VALUES ARE STATED IN THE "OPERATING  
MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

N\_AC\_030302\_1\_0130101\_01\_00

Take-Off Weight Limitation - ISA+15 Conditions  
Leap Engines  
FIGURE-3-3-2-991-013-A01

### 3-3-3 Aerodrome Reference Code

#### **\*\*ON A/C A319-100 A319neo**

#### Aerodrome Reference Code

#### **\*\*ON A/C A319-100**

1. The aircraft is classified as code 3C as per ICAO Aerodrome Reference Code (up to and including 75 500 kg (166 449 lb)).

#### **\*\*ON A/C A319neo**

2. The aircraft is classified as code 3C as per ICAO Aerodrome Reference Code.

### 3-4-1 Landing Field Length - ISA Conditions

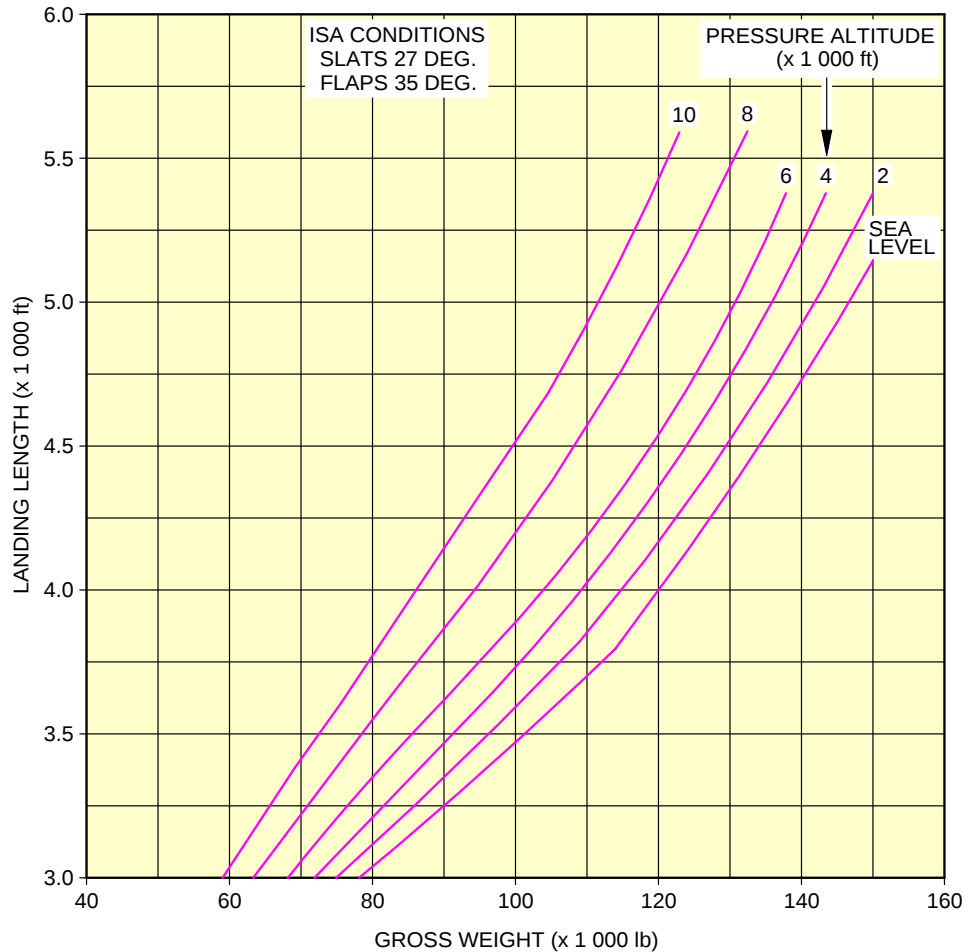
**\*\*ON A/C A319-100 A319neo**

Landing Field Length - ISA Conditions

1. This section provides the landing field length.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**



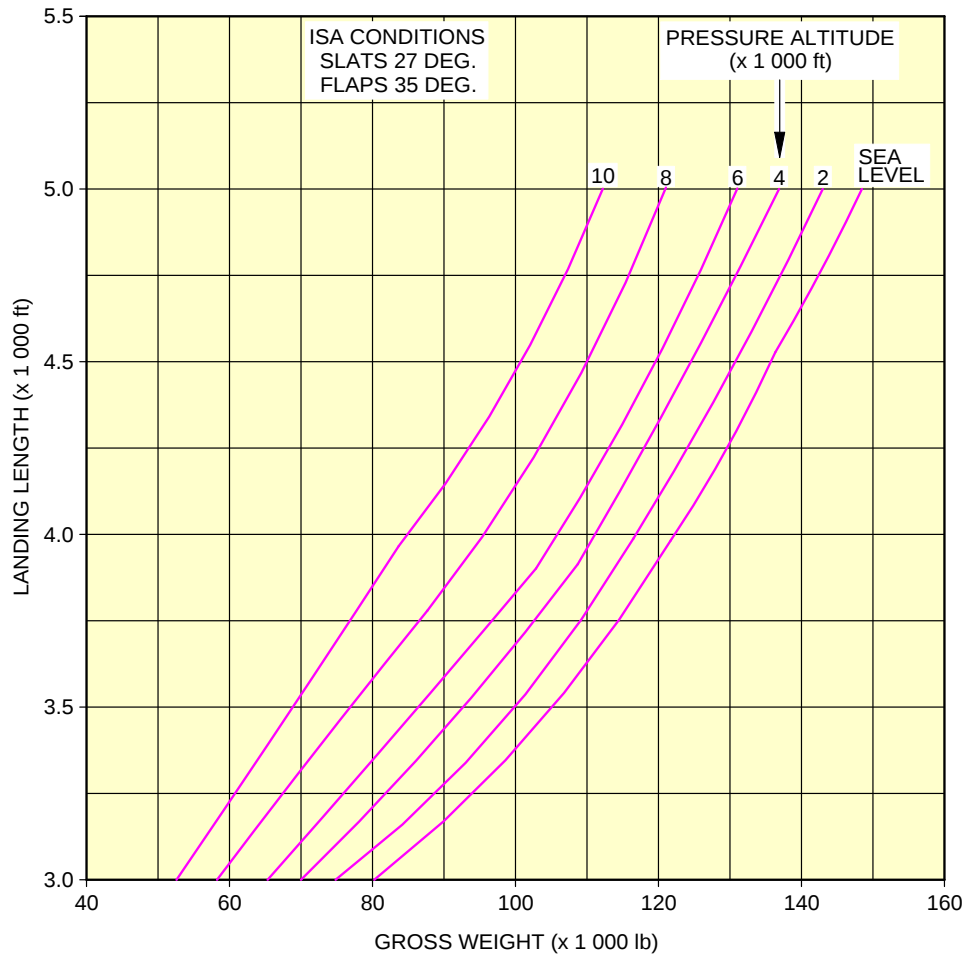
**NOTE:**  
THESE CURVES ARE GIVEN FOR INFORMATION ONLY.  
THE APPROVED VALUES ARE STATED IN THE "OPERATING  
MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

N\_AC\_030401\_1\_0030101\_01\_01

Landing Field Length - ISA Conditions  
CFM56-5A Series Engine  
FIGURE-3-4-1-991-003-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**



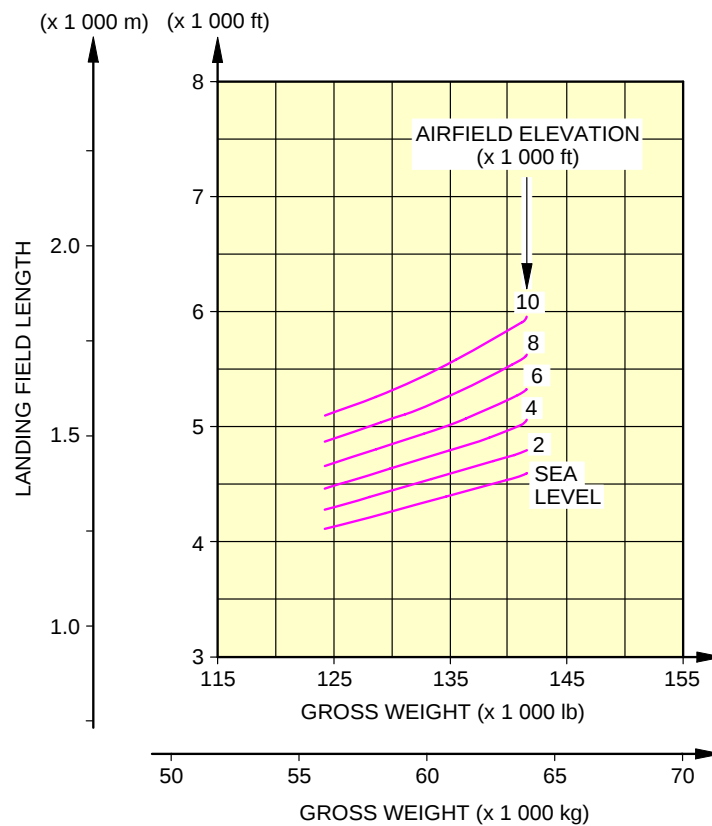
**NOTE:**  
THESE CURVES ARE GIVEN FOR INFORMATION ONLY.  
THE APPROVED VALUES ARE STATED IN THE "OPERATING  
MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

N\_AC\_030401\_1\_0040101\_01\_01

Landing Field Length - ISA Conditions  
IAE V2500 Series Engine  
FIGURE-3-4-1-991-004-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**



**NOTE:**

THESE CURVES ARE GIVEN FOR INFORMATION ONLY.  
THE APPROVED VALUES ARE STATED IN THE "OPERATING  
MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

N\_AC\_030401\_1\_0130101\_01\_00

Landing Field Length - ISA Conditions  
Leap Engines  
FIGURE-3-4-1-991-013-A01

**3-5-0 Final Approach Speed****\*\*ON A/C A319-100**Final Approach Speed

1. This section provides the final approach speed. It is defined as the indicated airspeed at threshold in the landing configuration, at the certificated maximum flap setting and Maximum Landing Weight (MLW), in standard atmospheric conditions. The approach speed is used to classify the aircraft into an Aircraft Approach Category, a grouping of aircraft based on the indicated airspeed at threshold.
2. The final approach speed is 126 kt at a MLW of 62 500 kg (137 789 lb) and classifies the aircraft into the Aircraft Approach Category C.

NOTE : This value is given for information only.

**GROUND MANEUVERING****4-1-0 General Information****\*\*ON A/C A319-100 A319neo****General Information**

1. This section provides aircraft turning capability and maneuvering characteristics.

For ease of presentation, this data has been determined from the theoretical limits imposed by the geometry of the aircraft, and where noted, provides for a normal allowance for tire slippage. As such, it reflects the turning capability of the aircraft in favorable operating circumstances. This data should only be used as a guideline for the method of determination of such parameters and for the maneuvering characteristics of this aircraft type.

In ground operating mode, varying airline practices may demand that more conservative turning procedures be adopted to avoid excessive tire wear and reduce possible maintenance problems. Airline operating techniques will vary in the level of performance, over a wide range of operating circumstances throughout the world. Variations from standard aircraft operating patterns may be necessary to satisfy physical constraints within the maneuvering area, such as adverse grades, limited area or a high risk of jet blast damage. For these reasons, ground maneuvering requirements should be coordinated with the airlines in question prior to layout planning.

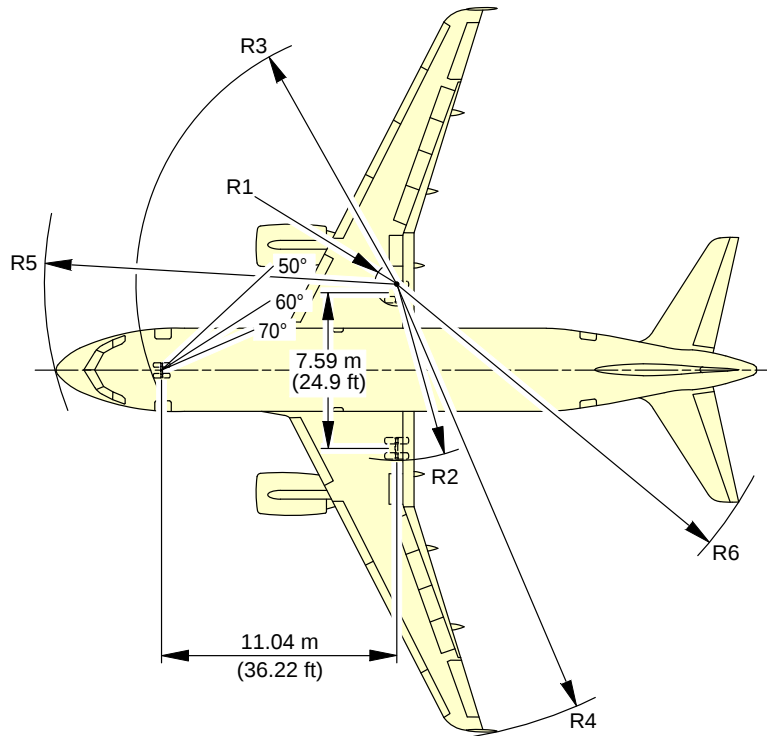
### 4-2-0 Turning Radii

**\*\*ON A/C A319-100 A319neo**

#### Turning Radii

1. This section provides the turning radii.

**\*\*ON A/C A319-100 A319neo**



**NOTE:** FOR STEERING DIMENSION TABLE SEE SHEET 2.

TURN TYPE:

1. ASYMMETRIC THRUST DIFFERENTIAL BRAKING (PIVOTTING ON ONE MAIN GEAR).
2. SYMMETRIC THRUST NO BRAKING.

N\_AC\_040200\_1\_0030101\_01\_02

Turning Radii, No Slip Angle  
(Sheet 1)

FIGURE-4-2-0-991-003-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**

| TYPE OF TURN | MAXIMUM RAMP WEIGHT  |                                | R1 RMLG |    | R2 LMLG |     | R3 NLG |     | R4 - WING     |          |     | R5 NOSE |     | R6 THS |     |
|--------------|----------------------|--------------------------------|---------|----|---------|-----|--------|-----|---------------|----------|-----|---------|-----|--------|-----|
|              | STEERING ANGLE (deg) | EFFECTIVE STEERING ANGLE (deg) | m       | ft | m       | ft  | m      | ft  | WINGTIP FENCE | SHARKLET |     | m       | ft  | m      | ft  |
| 2            | 20                   | 19.4                           | 28.2    | 92 | 35.8    | 117 | 33.5   | 110 | 48.6          | 159      | 162 | 35.2    | 116 | 41.2   | 135 |
| 2            | 25                   | 24.3                           | 21.4    | 70 | 29.0    | 95  | 27.2   | 89  | 41.8          | 137      | 140 | 29.3    | 96  | 35.1   | 115 |
| 2            | 30                   | 29.1                           | 16.7    | 55 | 24.3    | 80  | 23.0   | 76  | 37.1          | 122      | 125 | 25.6    | 84  | 31.1   | 102 |
| 2            | 35                   | 33.9                           | 13.3    | 44 | 20.9    | 69  | 20.1   | 66  | 33.7          | 111      | 113 | 23.0    | 75  | 28.3   | 93  |
| 2            | 40                   | 38.8                           | 10.6    | 35 | 18.2    | 60  | 17.9   | 59  | 31.1          | 102      | 105 | 21.2    | 69  | 26.2   | 86  |
| 2            | 45                   | 43.6                           | 8.5     | 28 | 16.1    | 53  | 16.3   | 53  | 29.0          | 95       | 98  | 19.8    | 65  | 24.6   | 81  |
| 2            | 50                   | 48.4                           | 6.7     | 22 | 14.3    | 47  | 15.0   | 49  | 27.2          | 89       | 92  | 18.9    | 62  | 23.3   | 76  |
| 2            | 55                   | 53.2                           | 5.2     | 17 | 12.7    | 42  | 14.0   | 46  | 25.7          | 84       | 87  | 18.1    | 59  | 22.3   | 73  |
| 2            | 60                   | 57.9                           | 3.8     | 13 | 11.4    | 37  | 13.2   | 43  | 24.4          | 80       | 83  | 17.5    | 58  | 21.4   | 70  |
| 2            | 65                   | 62.5                           | 2.6     | 9  | 10.2    | 34  | 12.6   | 41  | 23.2          | 76       | 79  | 17.1    | 56  | 20.7   | 68  |
| 2            | 70                   | 66.9                           | 1.6     | 5  | 9.2     | 30  | 12.2   | 40  | 22.2          | 73       | 76  | 16.8    | 55  | 20.1   | 66  |
| 2            | 75 (MAX)             | 70.3                           | 0.8     | 3  | 8.4     | 28  | 11.8   | 39  | 21.4          | 70       | 73  | 16.6    | 54  | 19.7   | 65  |
| 1            | 50                   | 48.6                           | 6.6     | 22 | 14.2    | 47  | 14.9   | 49  | 27.1          | 89       | 92  | 18.8    | 62  | 23.2   | 76  |
| 1            | 55                   | 53.5                           | 5.1     | 17 | 12.6    | 41  | 14.0   | 46  | 25.6          | 84       | 87  | 18.1    | 59  | 22.2   | 73  |
| 1            | 60                   | 58.3                           | 3.7     | 12 | 11.3    | 37  | 13.2   | 43  | 24.3          | 80       | 82  | 17.5    | 57  | 21.3   | 70  |
| 1            | 65                   | 63.1                           | 2.5     | 8  | 10.1    | 33  | 12.5   | 41  | 23.1          | 76       | 78  | 17.1    | 56  | 20.6   | 68  |
| 1            | 70                   | 67.7                           | 1.4     | 5  | 9.0     | 30  | 12.1   | 40  | 22.0          | 72       | 75  | 16.7    | 55  | 20.0   | 66  |
| 1            | 75 (MAX)             | 71.9                           | 0.5     | 2  | 8.1     | 27  | 11.7   | 38  | 21.1          | 69       | 72  | 16.5    | 54  | 19.6   | 64  |

**NOTE:** ABOVE 50°, AIRLINES MAY USE TYPE 1 OR TYPE 2 TURNS DEPENDING ON THE SITUATION.  
 TYPE 1 TURNS USE: ASYMMETRIC THRUST DURING THE WHOLE TURN; AND DIFFERENTIAL BRAKING TO INITIATE THE TURN ONLY.  
 TYPE 2 TURNS USE: SYMMETRIC THRUST DURING THE WHOLE TURN; AND NO DIFFERENTIAL BRAKING AT ALL.  
 IT IS POSSIBLE TO GET LOWER VALUES THAN THOSE FROM TYPE 1 BY APPLYING DIFFERENTIAL BRAKING DURING THE WHOLE TURN.

N\_AC\_040200\_1\_0040101\_01\_01

Turning Radii, No Slip Angle  
 (Sheet 2)  
 FIGURE-4-2-0-991-004-A01

### 4-3-0 Minimum Turning Radii

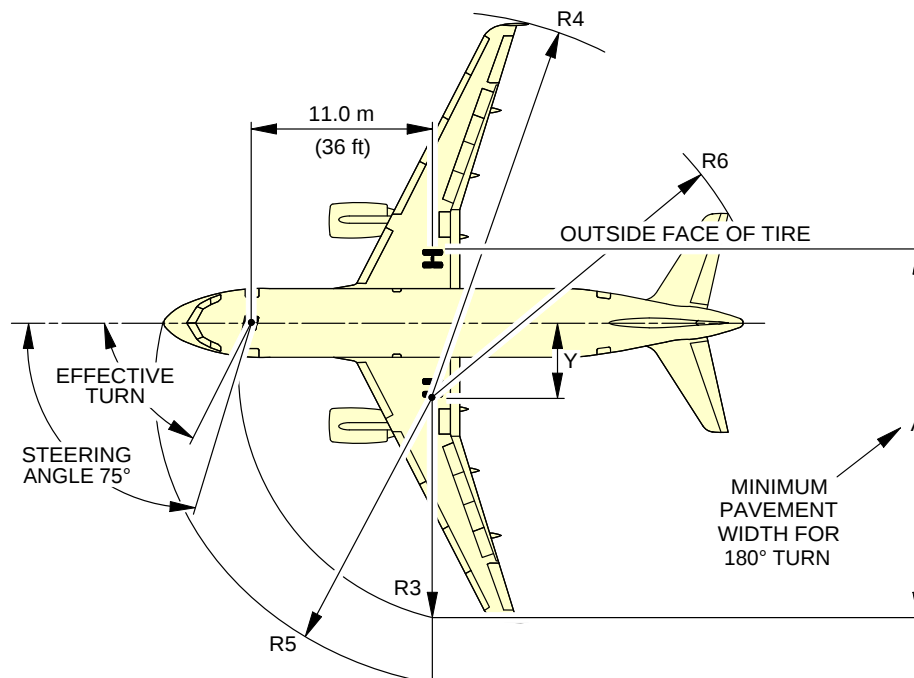
**\*\*ON A/C A319-100 A319neo**

#### Minimum Turning Radii

1. This section provides the minimum turning radii.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



**NOTE:** NOSE GEAR RADII TRACK R3, MEASURED FROM OUTSIDE FACE OF TIRE. MODEL 100 TURN DIMENSION SHOWN. THEORETICAL CENTER OF TURN FOR MINIMUM TURNING RADIUS. SLOW CONTINUOUS TURNING. APPROXIMATELY IDLE THRUST ON ALL ENGINES. NO DIFFERENTIAL BRAKING. DRY SURFACE.

| TYPE OF TURN | STEERING ANGLE (DEG) | EFFECTIVE STEERING ANGLE |    | Y   | A    | R3 NLG | R4 WING        |          | R5 NOSE | R6 THS |
|--------------|----------------------|--------------------------|----|-----|------|--------|----------------|----------|---------|--------|
|              |                      |                          |    |     |      |        | WING TIP FENCE | SHARKLET |         |        |
| 1            | 75 (MAX)             | 71.9°                    | m  | 3.6 | 20.1 | 11.7   | 21.1           | 22.0     | 16.5    | 19.6   |
|              |                      |                          | ft | 12  | 66   | 38     | 69             | 72       | 54      | 64     |
| 2            | 75 (MAX)             | 70.3°                    | m  | 3.9 | 20.5 | 11.8   | 21.4           | 22.3     | 16.6    | 19.7   |
|              |                      |                          | ft | 13  | 67   | 39     | 70             | 73       | 54      | 65     |

**NOTE:** IT IS POSSIBLE TO GET LOWER VALUES THAN THOSE FROM TYPE 1 BY APPLYING DIFFERENTIAL BRAKING DURING THE WHOLE TURN.

N\_AC\_040300\_1\_0020101\_01\_02

Minimum Turning Radii  
FIGURE-4-3-0-991-002-A01

### 4-4-0 Visibility from Cockpit in Static Position

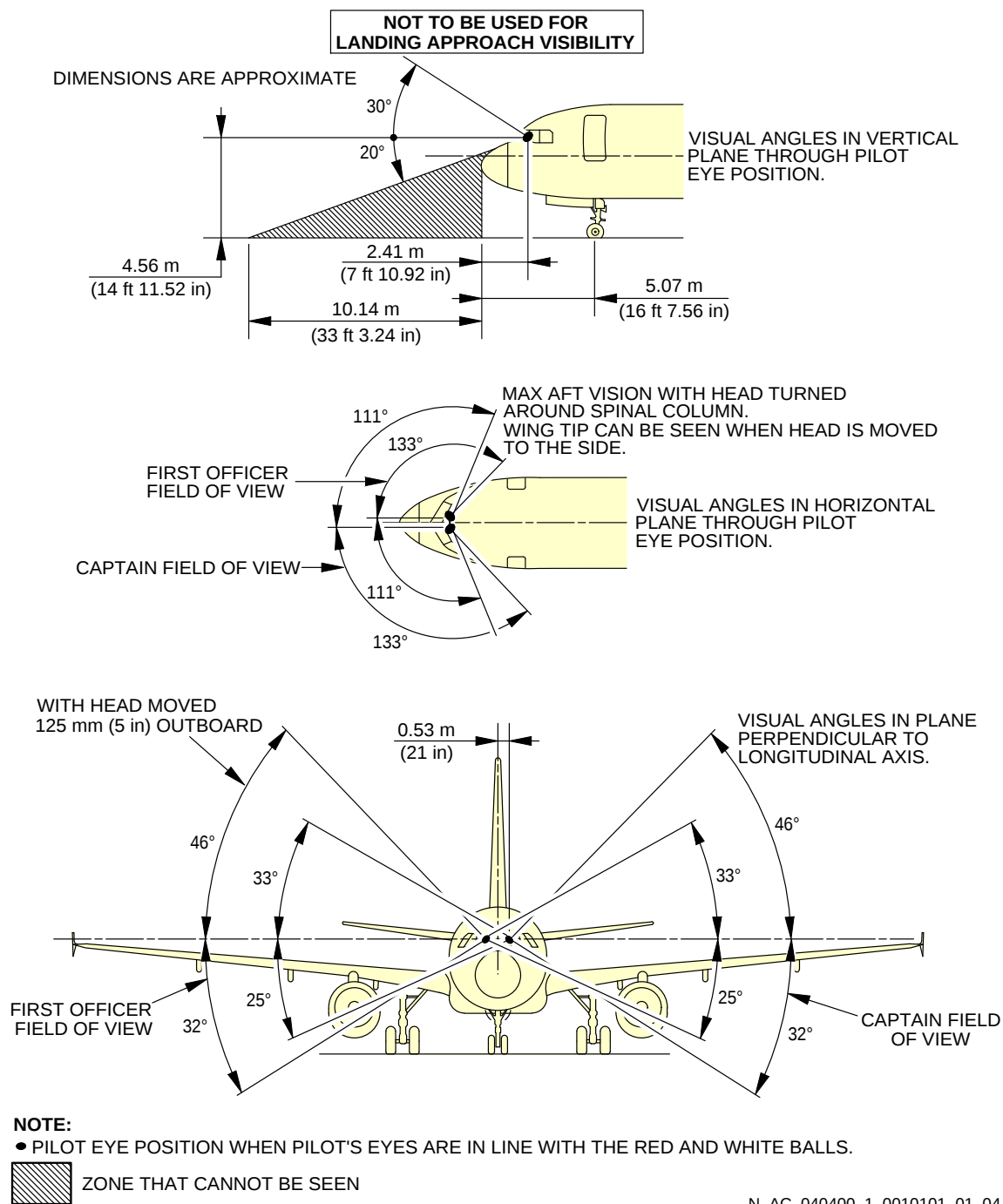
**\*\*ON A/C A319-100 A319neo**

Visibility from Cockpit in Static Position

1. This section gives the visibility from cockpit in static position.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

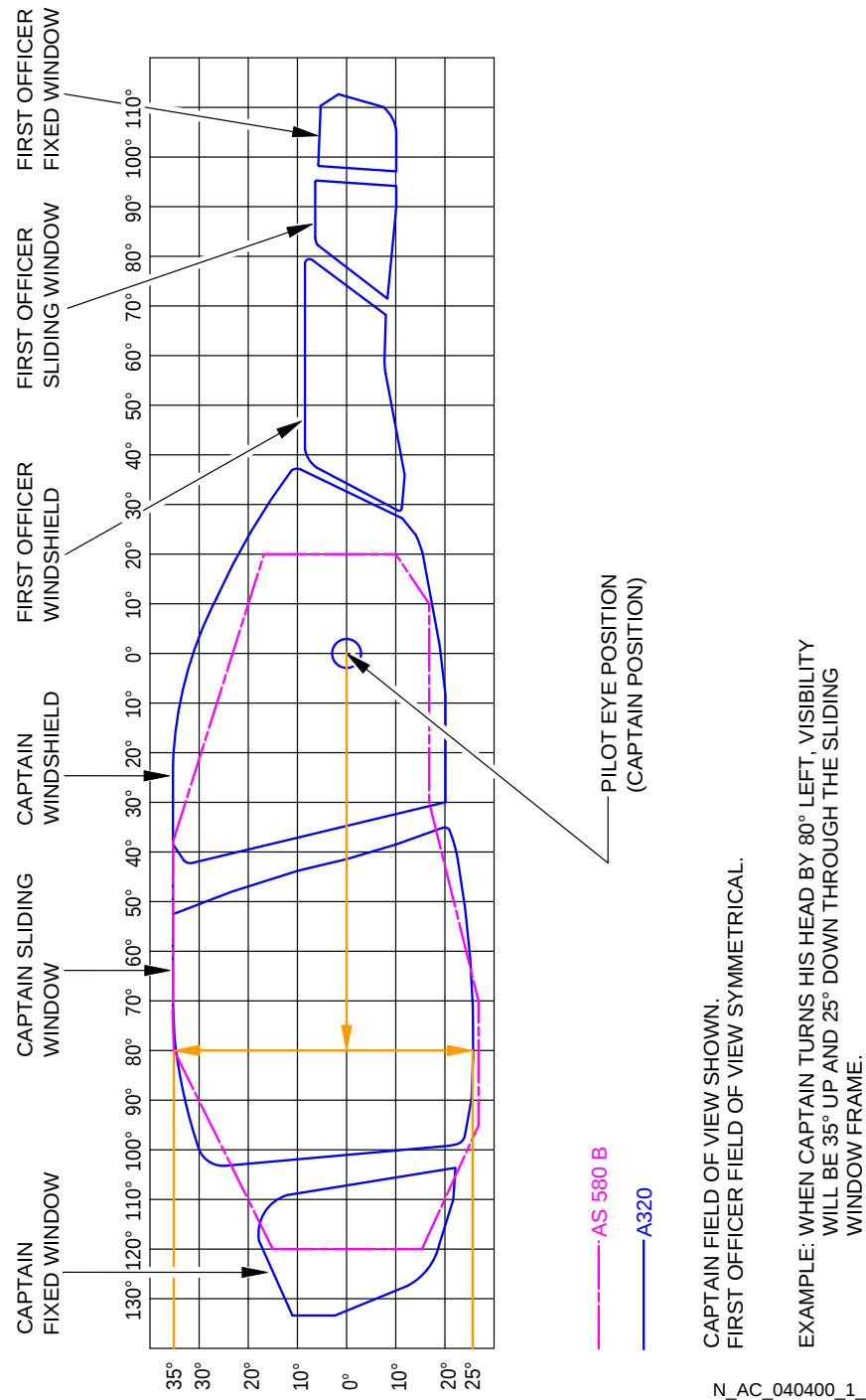
**\*\*ON A/C A319-100 A319neo**



Visibility from Cockpit in Static Position  
FIGURE-4-4-0-991-001-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



N\_AC\_040400\_1\_0050101\_01\_00

Binocular Visibility Through Windows from Captain Eye Position  
FIGURE-4-4-0-991-005-A01

### 4-5-0 Runway and Taxiway Turn Paths

**\*\*ON A/C A319-100 A319neo**

Runway and Taxiway Turn Paths

1. Runway and Taxiway Turn Paths.

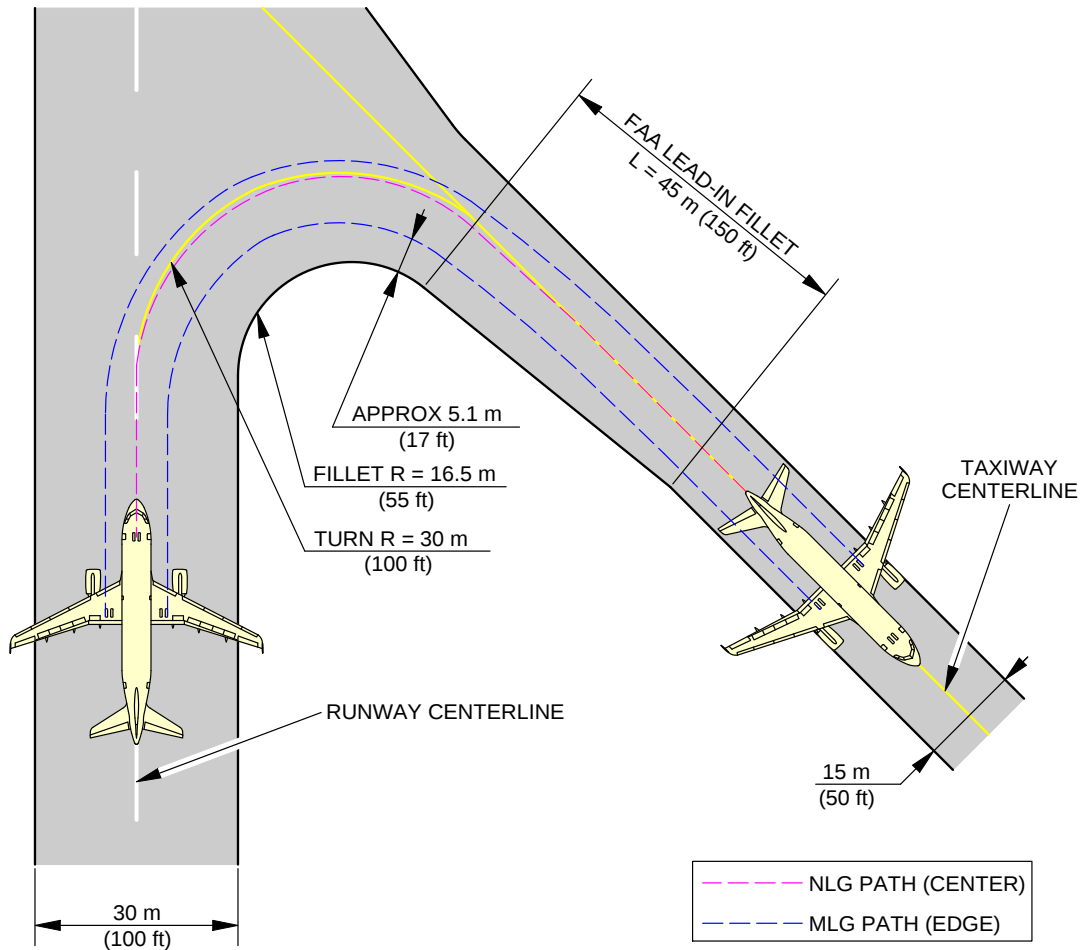
### 4-5-1 135° Turn - Runway to Taxiway

**\*\*ON A/C A319-100 A319neo**

135° Turn - Runway to Taxiway

1. This section gives the 135° turn - runway to taxiway.

**\*\*ON A/C A319-100 A319neo**

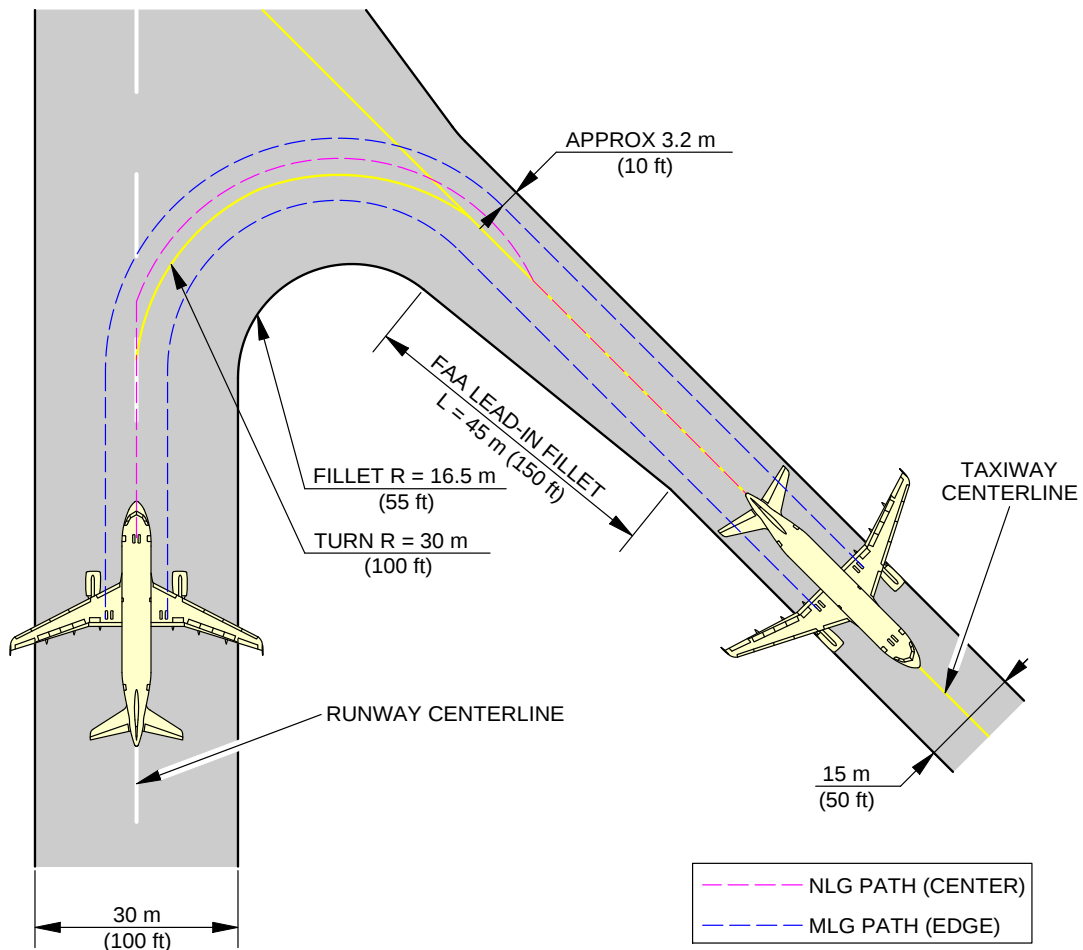


**NOTE:**  
FAA GROUP III FACILITIES.

N\_AC\_040501\_1\_0020101\_01\_03

135° Turn - Runway to Taxiway  
Cockpit Over Centerline Method  
FIGURE-4-5-1-991-002-A01

**\*\*ON A/C A319-100 A319neo**



**NOTE:**  
FAA GROUP III FACILITIES.

N\_AC\_040501\_1\_0030101\_01\_03

135° Turn - Runway to Taxiway  
Judgemental Oversteering Method  
FIGURE-4-5-1-991-003-A01

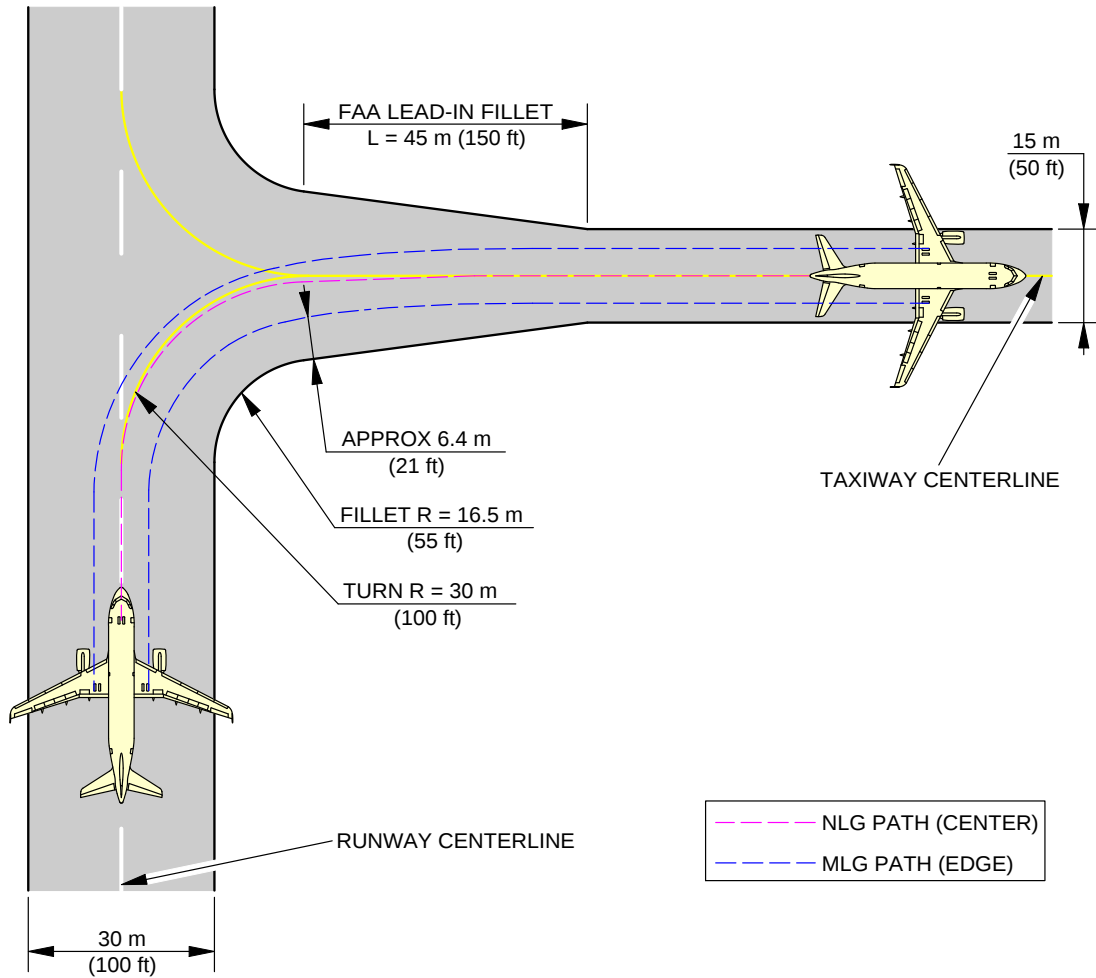
### 4-5-2 90° Turn - Runway to Taxiway

**\*\*ON A/C A319-100 A319neo**

90° Turn - Runway to Taxiway

1. This section gives the 90° turn - runway to taxiway.

**\*\*ON A/C A319-100 A319neo**



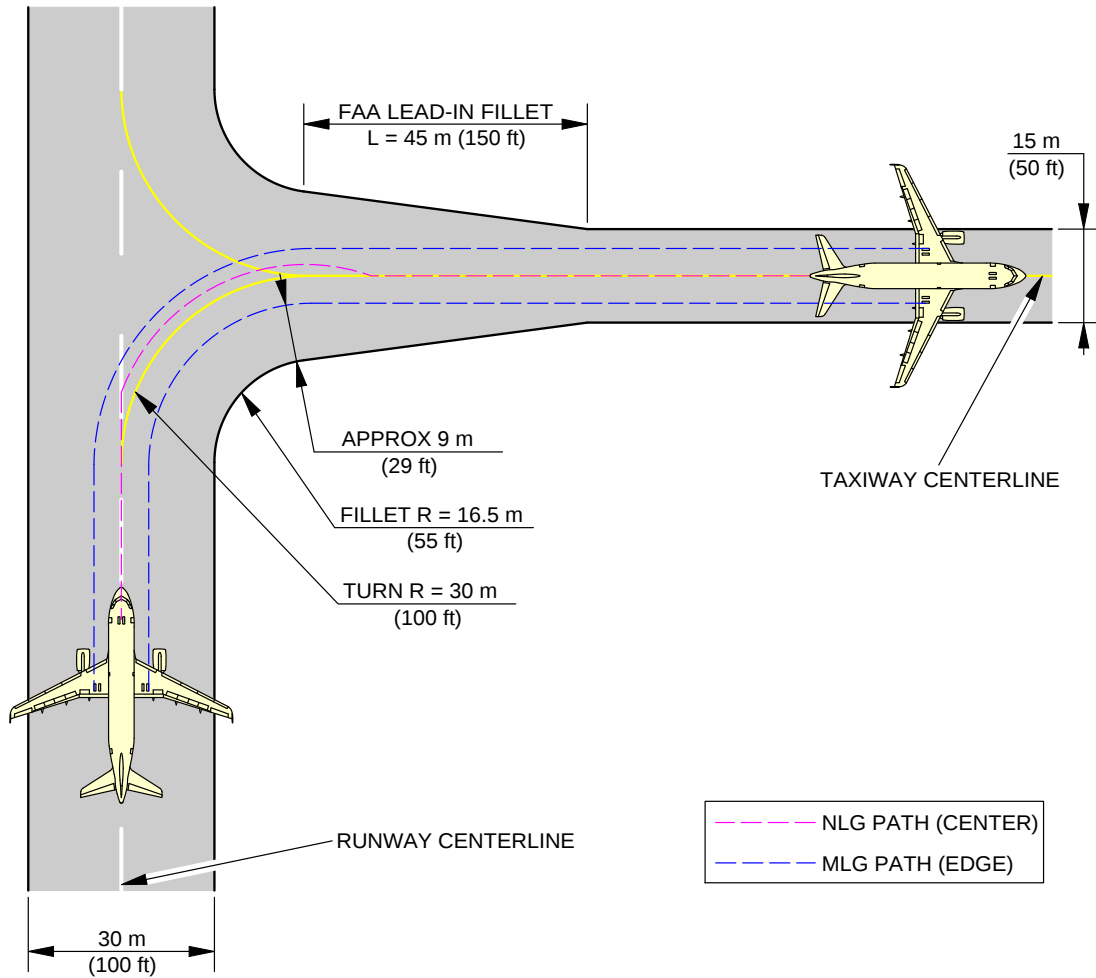
**NOTE:**  
FAA GROUP III FACILITIES.

N\_AC\_040502\_1\_0020101\_01\_02

90° Turn - Runway to Taxiway  
Cockpit Over Centerline Method  
FIGURE-4-5-2-991-002-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



**NOTE:**  
FAA GROUP III FACILITIES.

N\_AC\_040502\_1\_0030101\_01\_02

90° Turn - Runway to Taxiway  
Judgemental Oversteering Method  
FIGURE-4-5-2-991-003-A01

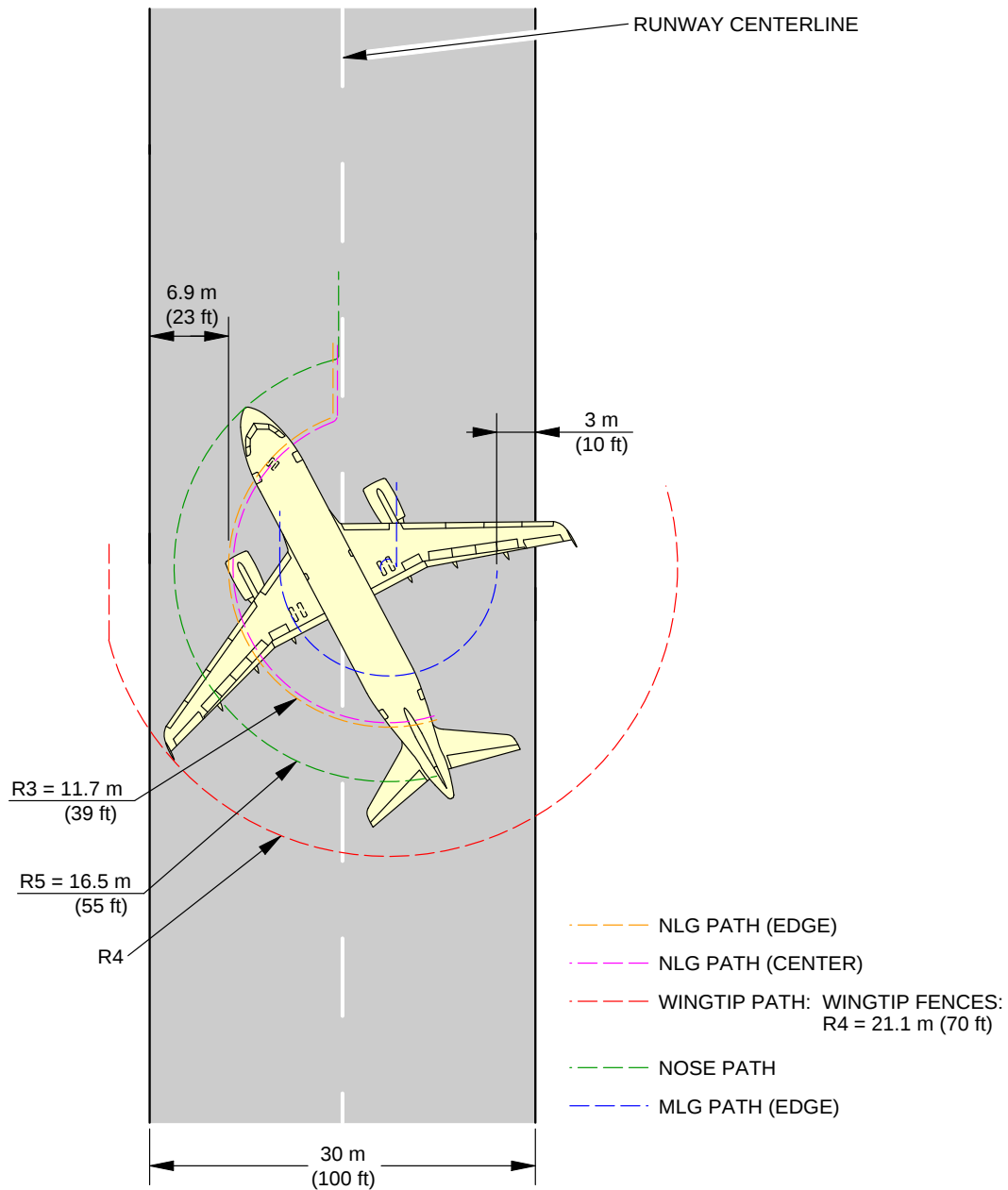
### 4-5-3 180° Turn on a Runway

**\*\*ON A/C A319-100 A319neo**

#### 180° Turn on a Runway

1. This section provides the 180° turn on a runway.

**\*\*ON A/C A319-100**



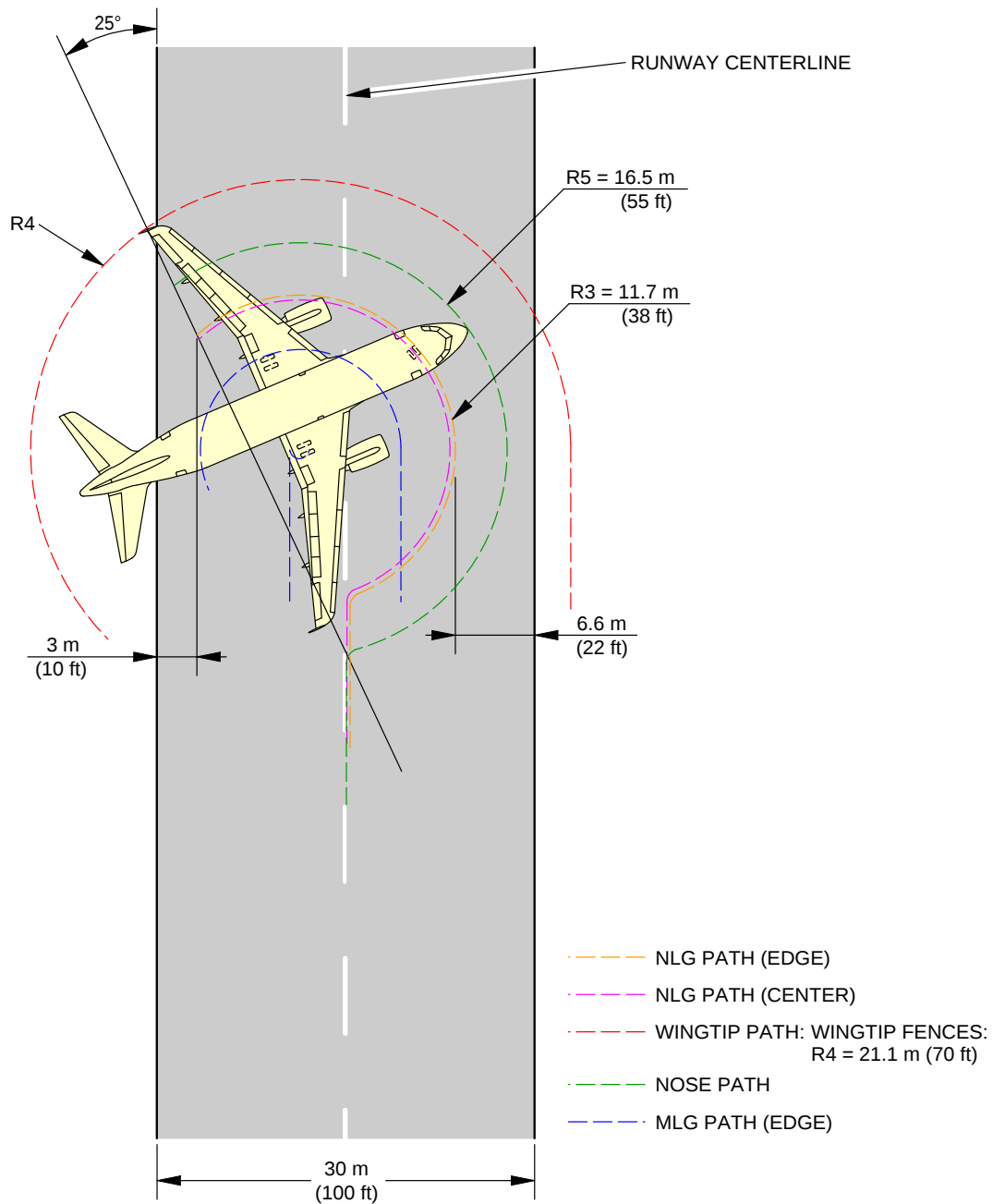
**NOTE:**  
TYPE 1 VALUES.

N\_AC\_040503\_1\_0010101\_01\_04

180° Turn on a Runway  
Edge of Runway Method (Sheet 1 of 2)  
FIGURE-4-5-3-991-001-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

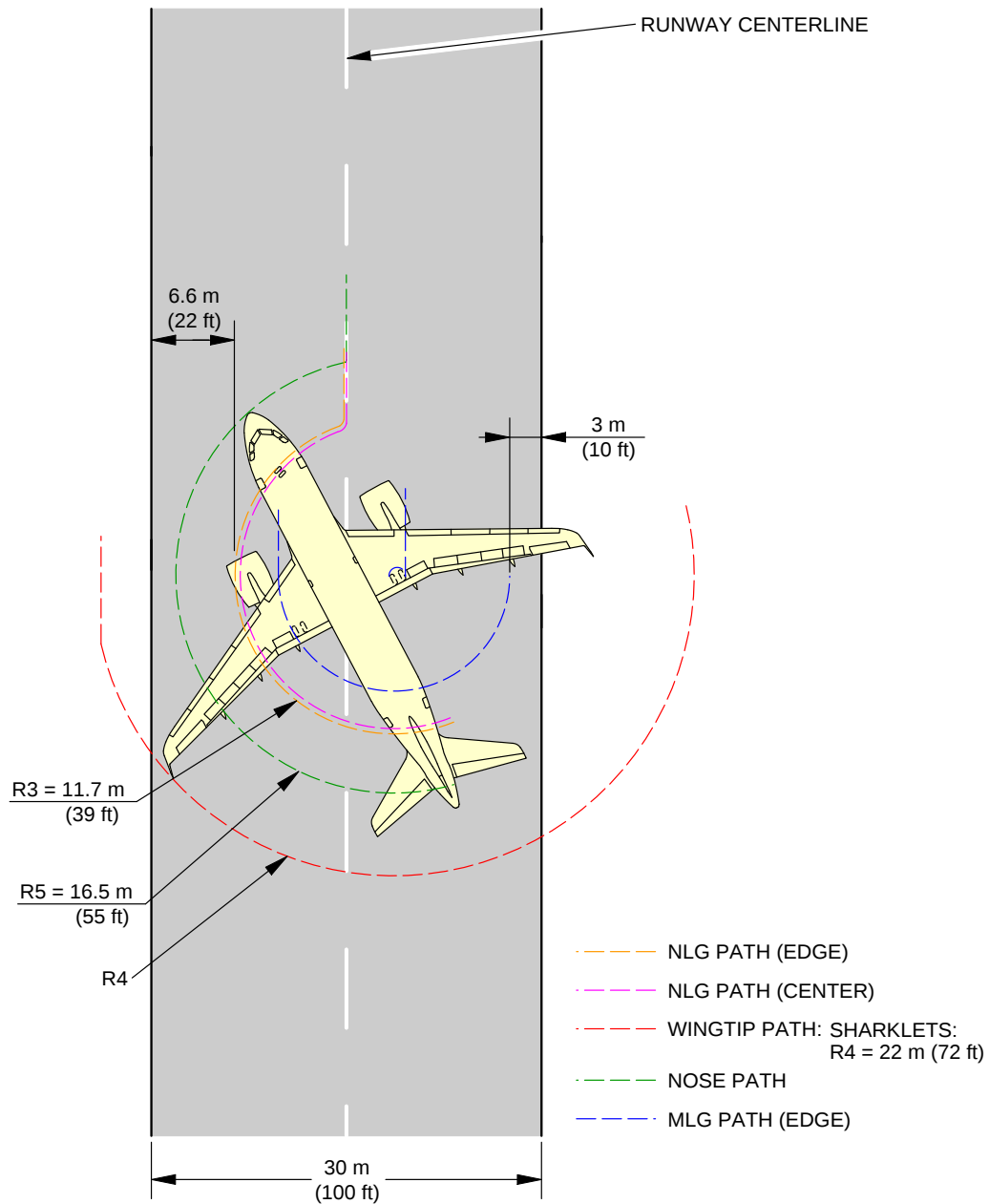


**NOTE:**  
TYPE 1 VALUES.

N\_AC\_040503\_1\_0010102\_01\_02

180° Turn on a Runway  
Center of Runway Method (Sheet 2 of 2)  
FIGURE-4-5-3-991-001-A01

**\*\*ON A/C A319neo**



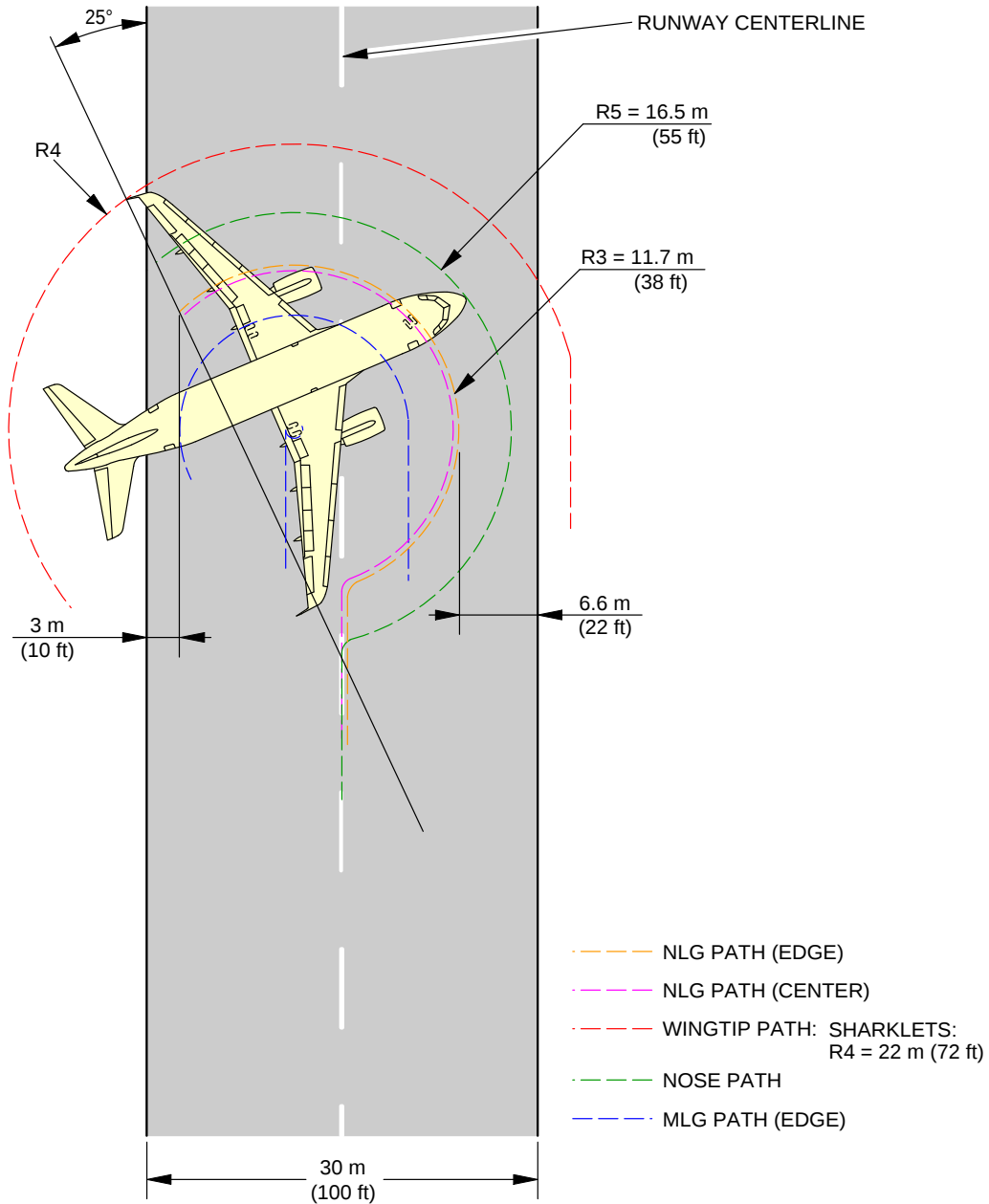
**NOTE:**  
TYPE 1 VALUES.

N\_AC\_040503\_1\_0070101\_01\_00

180° Turn on a Runway  
Edge of Runway Method (Sheet 1 of 2)  
FIGURE-4-5-3-991-007-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**



**NOTE:**  
TYPE 1 VALUES.

N\_AC\_040503\_1\_0070102\_01\_00

180° Turn on a Runway  
Center of Runway Method (Sheet 2 of 2)  
FIGURE-4-5-3-991-007-A01

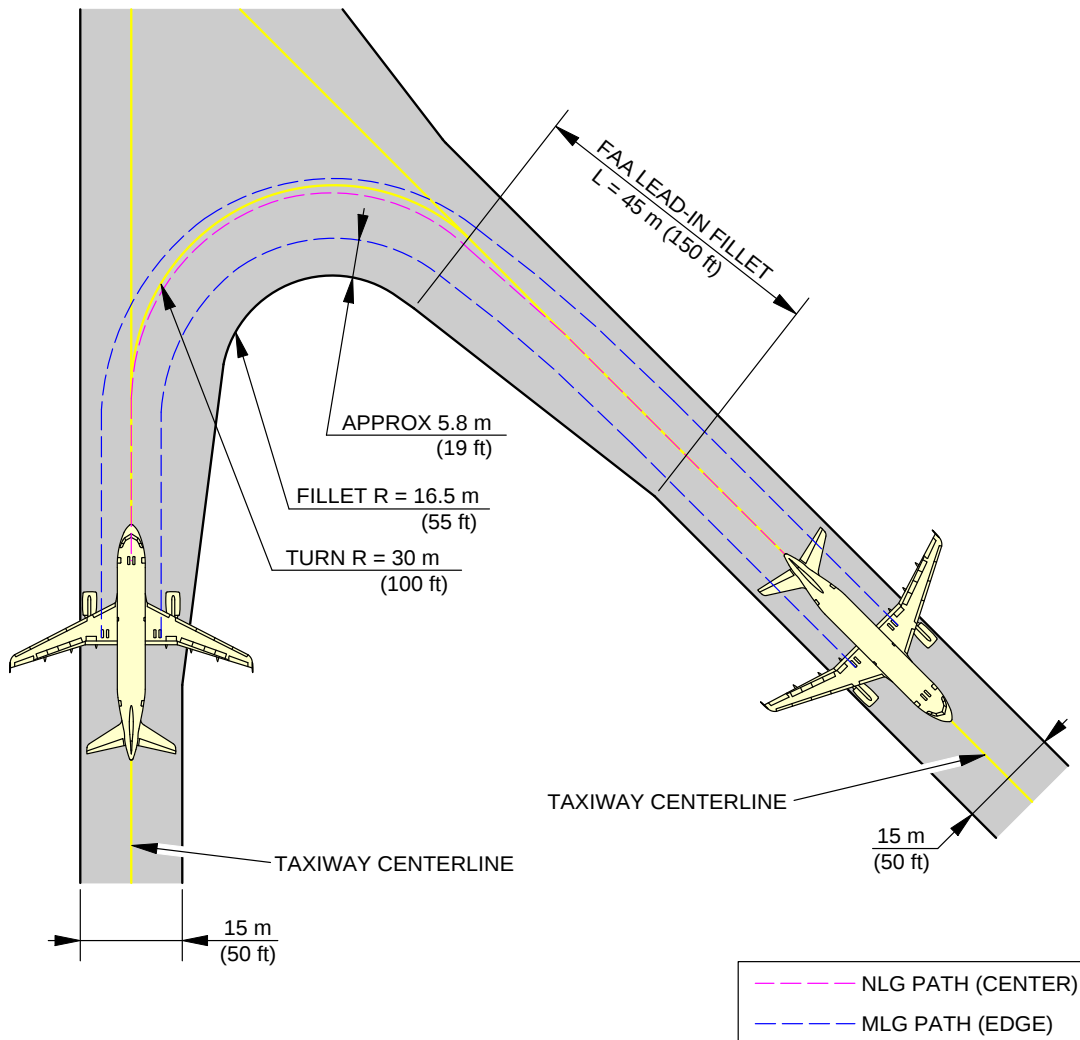
### 4-5-4 135° Turn - Taxiway to Taxiway

**\*\*ON A/C A319-100 A319neo**

135° Turn - Taxiway to Taxiway

1. This section gives the 135° turn - taxiway to taxiway.

**\*\*ON A/C A319-100 A319neo**

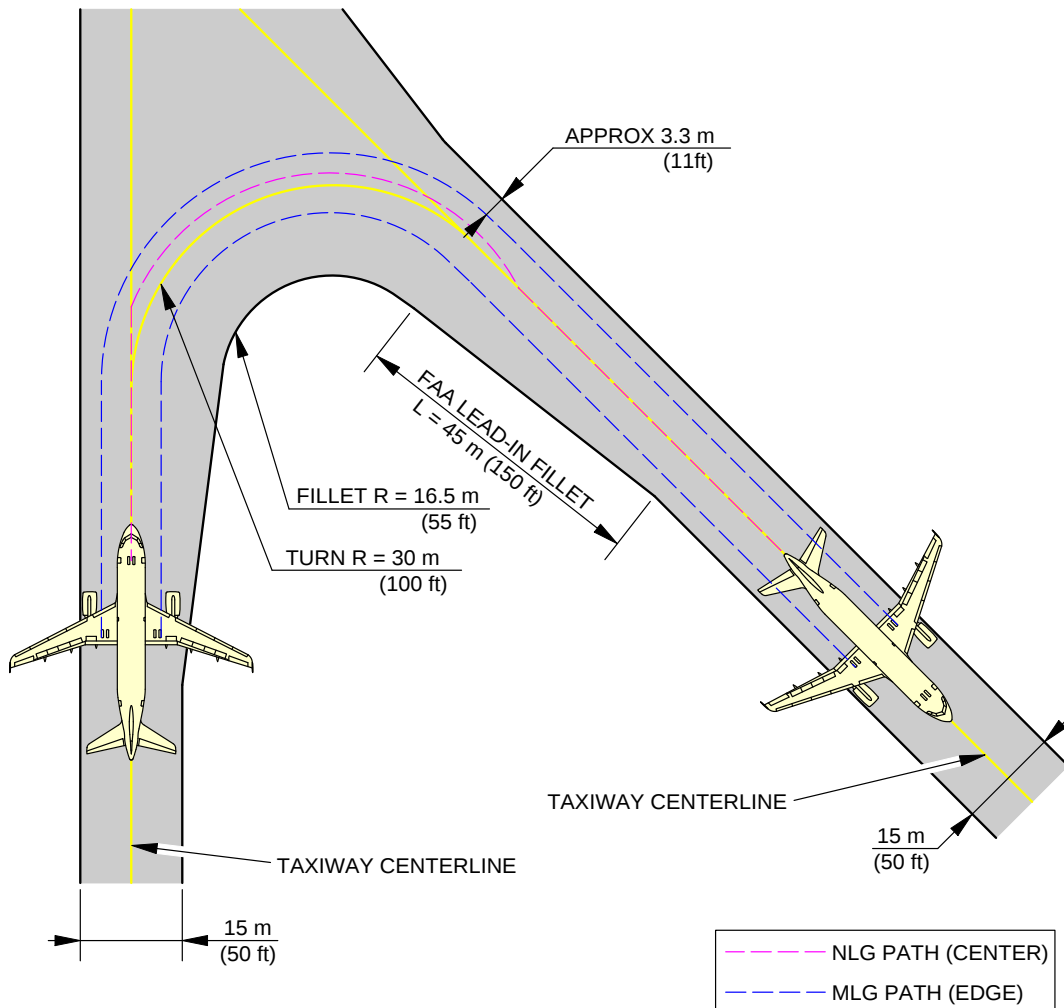


**NOTE:**  
FAA GROUP III FACILITIES.

N\_AC\_040504\_1\_0050101\_01\_01

135° Turn - Taxiway to Taxiway  
Cockpit Over Centerline Method (Sheet 1 of 2)  
FIGURE-4-5-4-991-005-A01

**\*\*ON A/C A319-100 A319neo**



**NOTE:**  
FAA GROUP III FACILITIES.

N\_AC\_040504\_1\_0050102\_01\_01

135° Turn - Taxiway to Taxiway  
Judgemental Oversteering Method (Sheet 2 of 2)  
FIGURE-4-5-4-991-005-A01

### 4-5-5 90° Turn - Taxiway to Taxiway

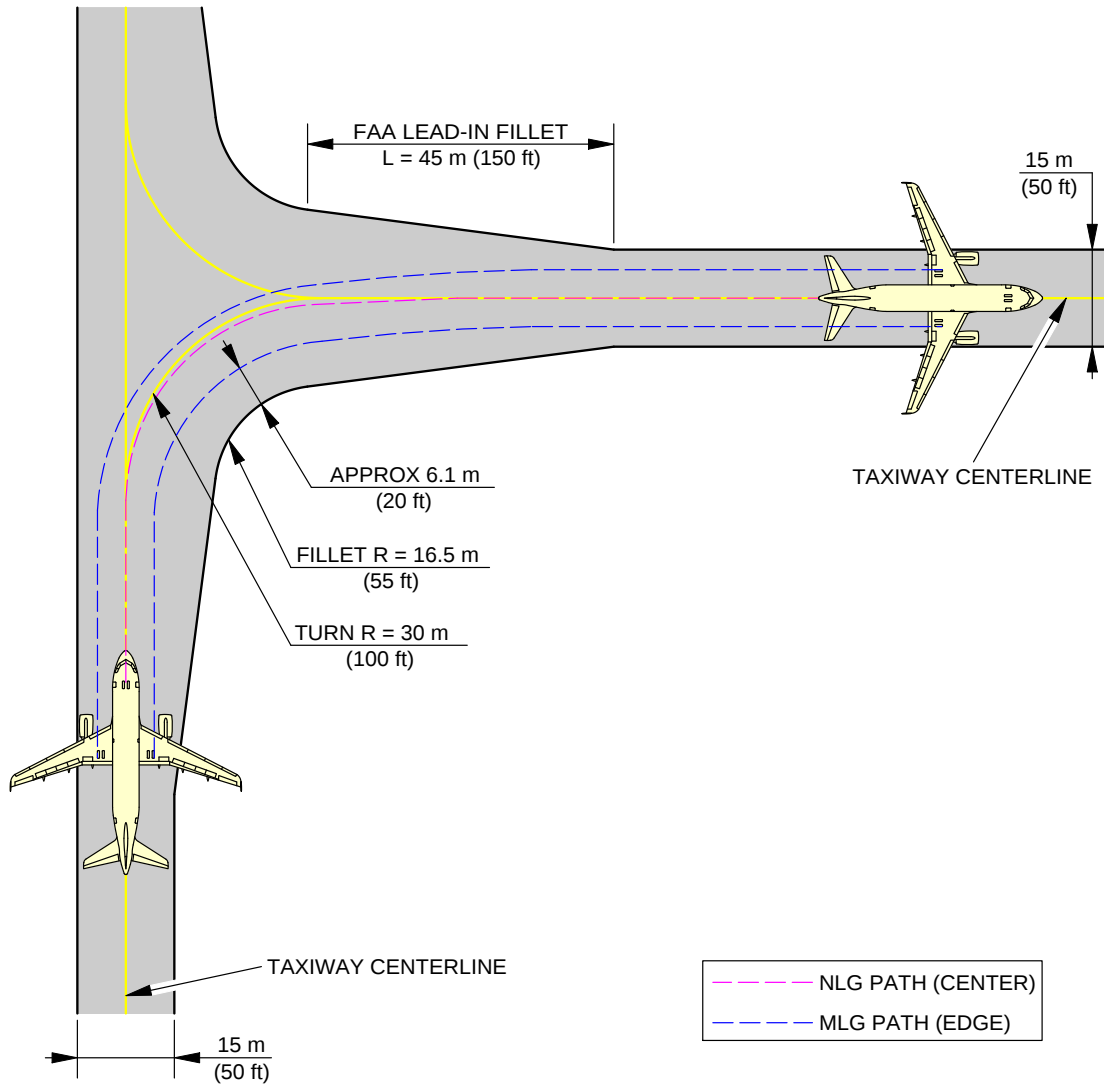
**\*\*ON A/C A319-100 A319neo**

90° Turn - Taxiway to Taxiway

1. This section gives the 90° turn - taxiway to taxiway.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



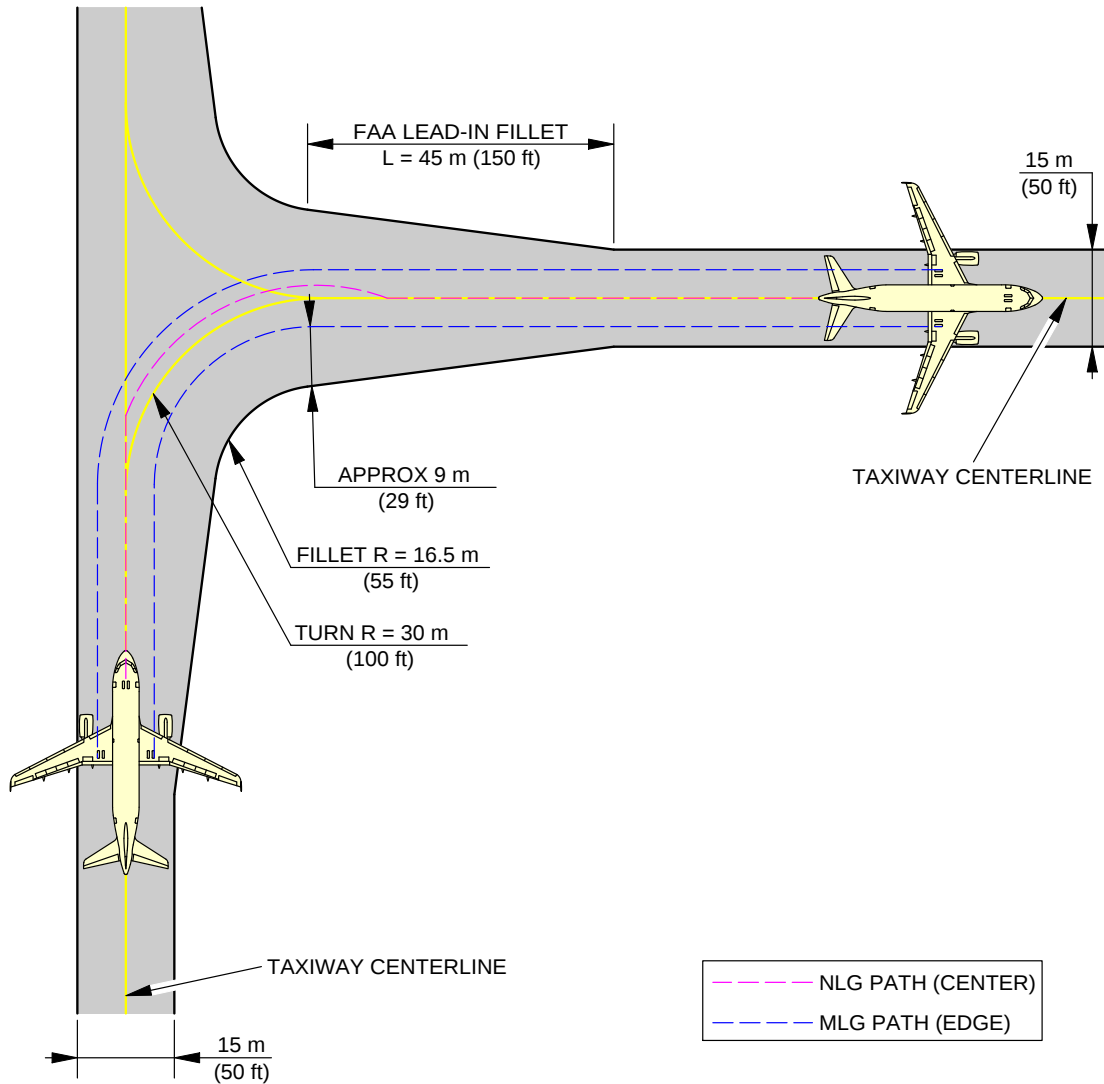
**NOTE:**  
FAA GROUP III FACILITIES.

N\_AC\_040505\_1\_0030101\_01\_01

90° Turn - Taxiway to Taxiway  
Cockpit Over Centerline Method (Sheet 1 of 2)  
FIGURE-4-5-5-991-003-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



**NOTE:**  
FAA GROUP III FACILITIES.

N\_AC\_040505\_1\_0030102\_01\_01

90° Turn - Taxiway to Taxiway  
Judgemental Oversteering Method (Sheet 2 of 2)  
FIGURE-4-5-5-991-003-A01

### 4-6-0 Runway Holding Bay (Apron)

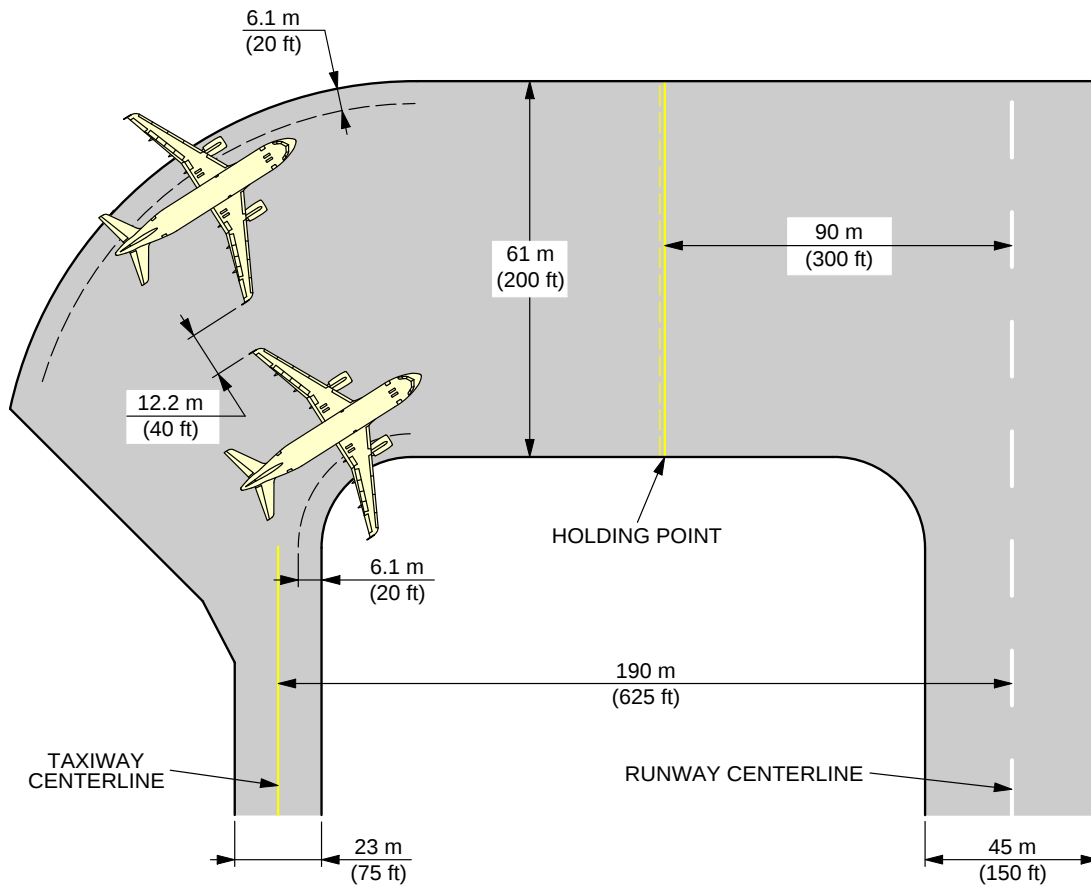
**\*\*ON A/C A319-100 A319neo**

Runway Holding Bay (Apron)

1. This section gives the runway holding bay (Apron).

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



**NOTE:** LAYOUT IN ACCORDANCE WITH THE REQUIREMENTS OF NAS 3601, CHAPTER 4, AND AN/865, CHAPTER 3.  
OUTER PARKED AIRCRAFT TURNED THRU MIN. TURN RADIUS TO PARKED POSITION.

N\_AC\_040600\_1\_0020101\_01\_02

Runway Holding Bay (Apron)  
FIGURE-4-6-0-991-002-A01

### 4-7-0 Minimum Line-Up Distance Corrections

#### **\*\*ON A/C A319-100 A319neo**

#### Minimum Line-Up Distance Corrections

1. The ground maneuvers were performed using asymmetric thrust and differential braking only to initiate the turn.

TODA: Take-Off Distance Available

ASDA: Acceleration-Stop Distance Available

2. 90° Turn on Runway Entry

This section gives the minimum line-up distance correction for a 90° turn on runway entry.

This maneuver consists in a 90° turn at minimum turn radius. It starts with the edge of the MLG at a distance of 3 m (10 ft) from the taxiway edge, and finishes with the aircraft aligned on the centerline of the runway, see FIGURE 4-7-0-991-017-A.

During the turn, all the clearances must meet the minimum value of 3 m (10 ft) for this category of aircraft as recommended in ICAO Annex 14.

3. 180° Turn on Runway Turn Pad

This section gives the minimum line-up distance correction for a 180° turn on the runway turn pad.

This maneuver consists in a 180° turn at minimum turn radius on a runway turn pad with standard ICAO geometry.

It starts with the edge of the MLG at a distance of 3 m (10 ft) from the pavement edge, and it finishes with the aircraft aligned on the centerline of the runway, see FIGURE 4-7-0-991-018-A. During the turn, all the clearances must meet the minimum value of 3 m (10 ft) for this category of aircraft as recommended in ICAO Annex 14.

4. 180° Turn on Runway Width

This section gives the minimum line-up distance correction for a 180° turn on the runway width. For this maneuver, the pavement width is considered to be the runway width, which is a frozen parameter (30 m (100 ft), 45 m (150 ft) and 60 m (200 ft)).

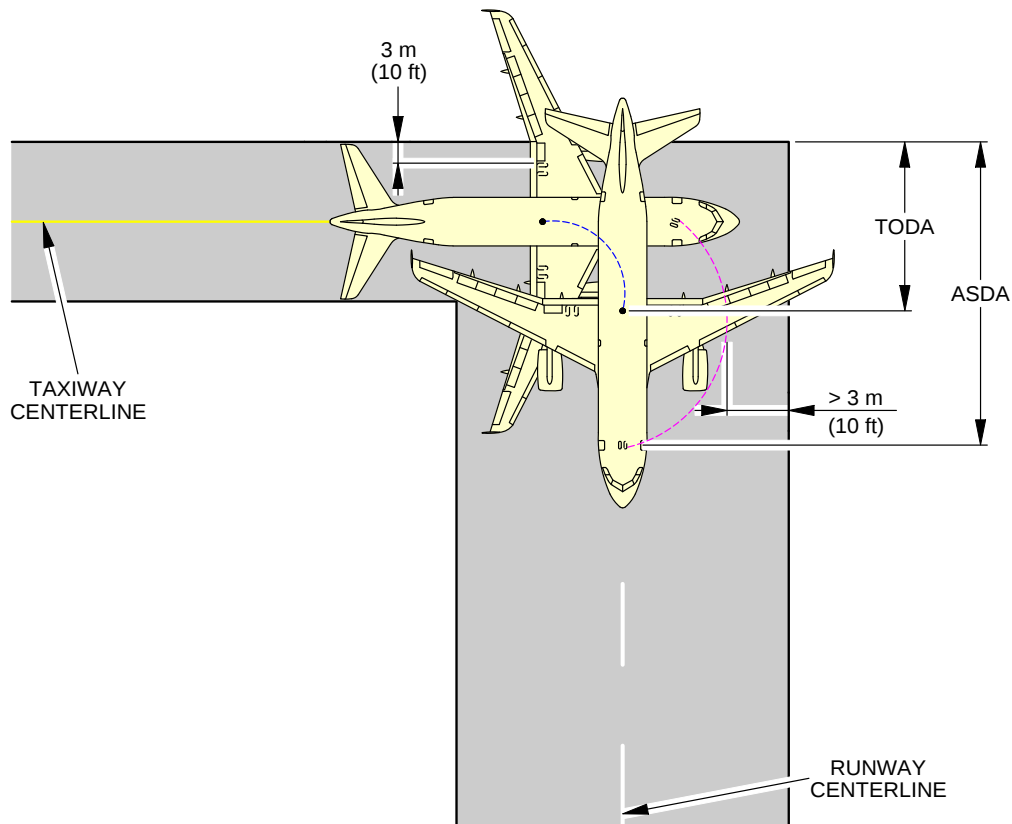
As per the standard operating procedures for the "180° turn on runway" (described in the Flight Crew Operating Manual), the aircraft is initially angled with respect to the runway centerline when starting the 180° turn, see FIGURE 4-7-0-991-019-A.

The value of this angle depends on the aircraft type and is mentioned in the FCOM.

During the turn, all the clearances must meet the minimum value of 3 m (10 ft) for this category of aircraft as recommended in ICAO Annex 14.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



--- ASDA: ACCELERATION-STOP DISTANCE AVAILABLE  
 --- TODA: TAKE-OFF DISTANCE AVAILABLE

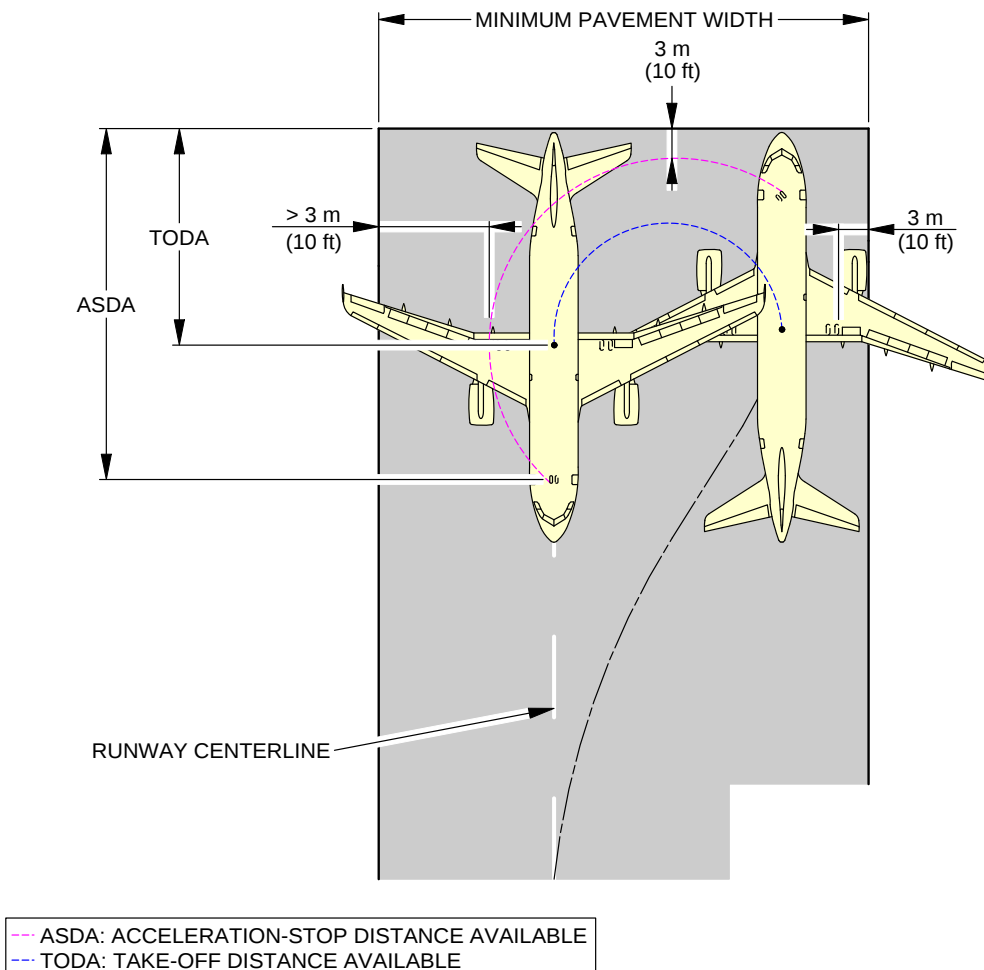
| 90° TURN ON RUNWAY ENTRY |                    |                                                       |       |         |       |
|--------------------------|--------------------|-------------------------------------------------------|-------|---------|-------|
| AIRCRAFT TYPE            | MAX STEERING ANGLE | 30 m (100 ft)/45 m (150 ft)/60 m (200 ft) WIDE RUNWAY |       |         |       |
|                          |                    | MINIMUM LINE-UP DISTANCE CORRECTION                   |       |         |       |
|                          |                    | ON TODA                                               |       | ON ASDA |       |
| A319                     | 75°                | 11.1 m                                                | 36 ft | 22.1 m  | 73 ft |

N\_AC\_040700\_1\_0170101\_01\_00

Minimum Line-Up Distance Corrections  
 90° Turn on Runway Entry  
 FIGURE-4-7-0-991-017-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**

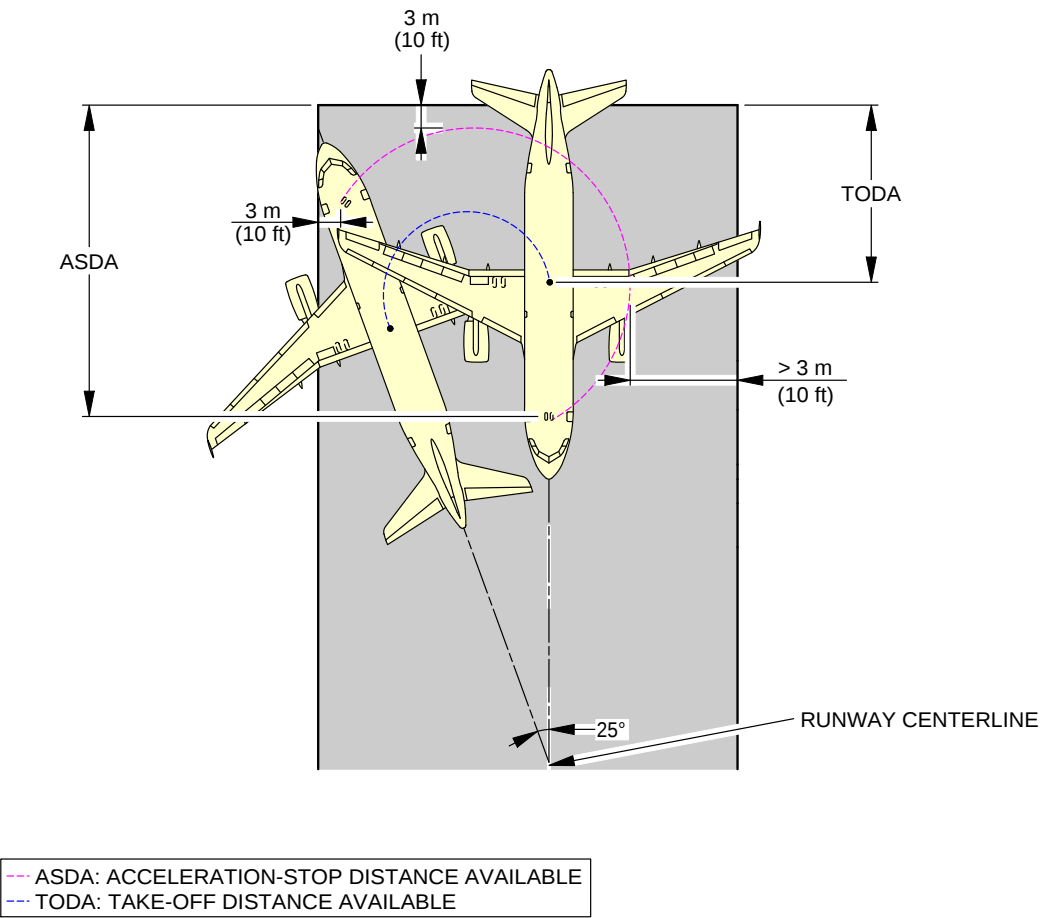


| 180° TURN ON RUNWAY TURN PAD |                    |                                                       |       |         |       |                                 |       |
|------------------------------|--------------------|-------------------------------------------------------|-------|---------|-------|---------------------------------|-------|
| AIRCRAFT TYPE                | MAX STEERING ANGLE | 30 m (100 ft)/45 m (150 ft)/60 m (200 ft) WIDE RUNWAY |       |         |       |                                 |       |
|                              |                    | MINIMUM LINE-UP DISTANCE CORRECTION                   |       |         |       | REQUIRED MINIMUM PAVEMENT WIDTH |       |
|                              |                    | ON TODA                                               |       | ON ASDA |       |                                 |       |
| A319                         | 75°                | 15.0 m                                                | 49 ft | 26.0 m  | 85 ft | 29.7 m                          | 97 ft |

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Minimum Line-Up Distance Corrections  
180° Turn on Runway Turn Pad  
FIGURE-4-7-0-991-018-A01

**\*\*ON A/C A319-100 A319neo**



| 180° TURN ON RUNWAY WIDTH |                    |                                                       |       |         |       |
|---------------------------|--------------------|-------------------------------------------------------|-------|---------|-------|
| AIRCRAFT TYPE             | MAX STEERING ANGLE | 30 m (100 ft)/45 m (150 ft)/60 m (200 ft) WIDE RUNWAY |       |         |       |
|                           |                    | MINIMUM LINE-UP DISTANCE CORRECTION                   |       |         |       |
|                           |                    | ON TODA                                               |       | ON ASDA |       |
| A319                      | 75°                | 15.0 m                                                | 49 ft | 26.0 m  | 85 ft |

N\_AC\_040700\_1\_0190101\_01\_00

Minimum Line-Up Distance Corrections  
180° Turn on Runway Width  
FIGURE-4-7-0-991-019-A01

### TERMINAL SERVICING

#### 5-1-1 Aircraft Servicing Arrangements

##### **\*\*ON A/C A319-100 A319neo**

##### Aircraft Servicing Arrangements

1. This section provides typical ramp layouts, showing the various GSE items in position during typical turn-round scenarios.

These ramp layouts show typical arrangements only. Each operator will have its own specific requirements/regulations for positioning and operation on the ramp.

This table gives the symbols used on servicing diagrams.

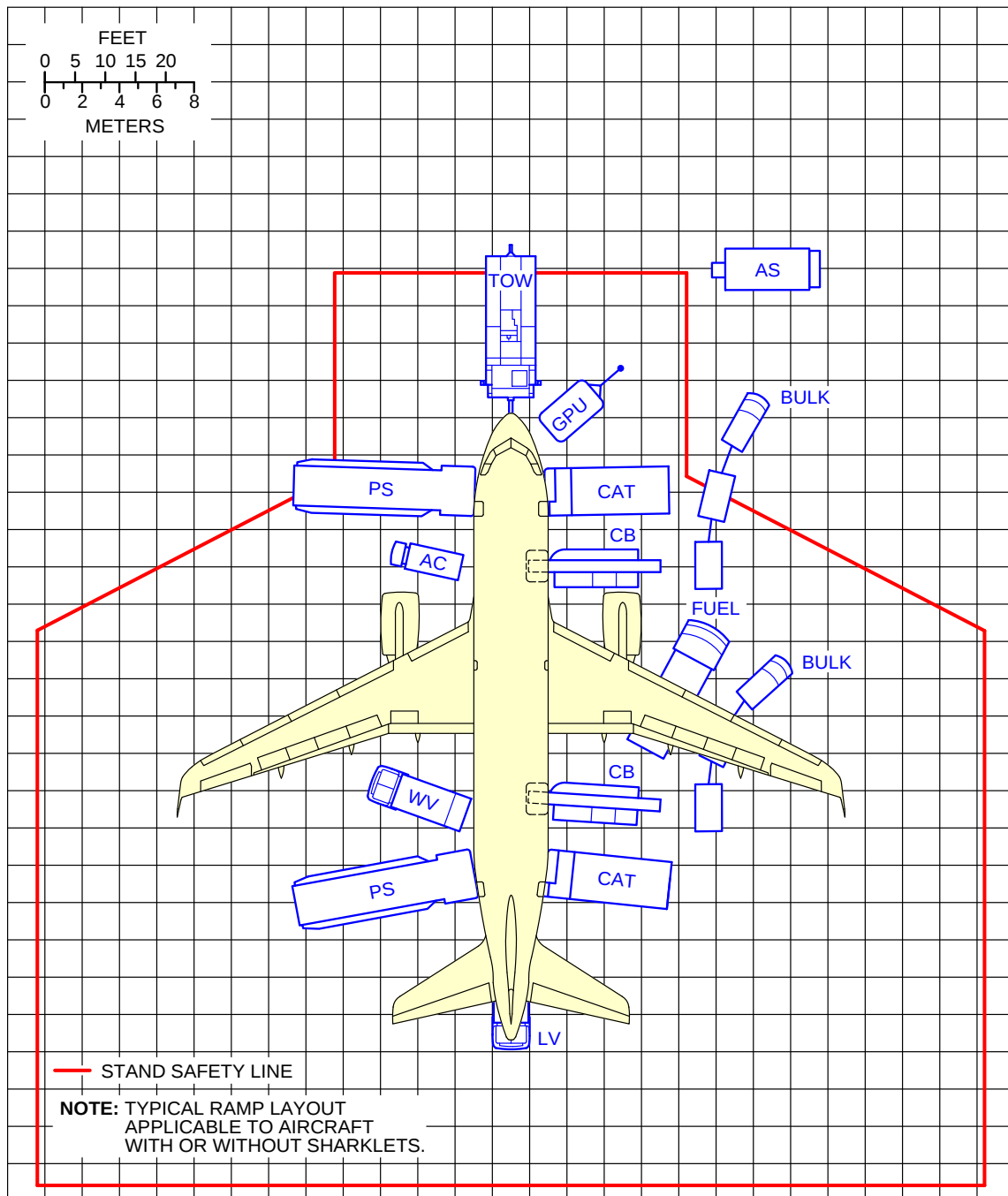
| Ground Support Equipment |                                  |
|--------------------------|----------------------------------|
| AC                       | AIR CONDITIONING UNIT            |
| AS                       | AIR START UNIT                   |
| BULK                     | BULK TRAIN                       |
| CAT                      | CATERING TRUCK                   |
| CB                       | CONVEYOR BELT                    |
| CLEAN                    | CLEANING TRUCK                   |
| FUEL                     | FUEL HYDRANT DISPENSER or TANKER |
| GPU                      | GROUND POWER UNIT                |
| LDCL                     | LOWER DECK CARGO LOADER          |
| LV                       | LAVATORY VEHICLE                 |
| PBB                      | PASSENGER BOARDING BRIDGE        |
| PS                       | PASSENGER STAIRS                 |
| TOW                      | TOW TRACTOR                      |
| ULD                      | ULD TRAIN                        |
| WV                       | POTABLE WATER VEHICLE            |

**5-1-2 Typical Ramp Layout - Open Apron****\*\*ON A/C A319-100 A319neo**Typical Ramp Layout – Open Apron

1. This section gives the typical servicing arrangement for pax version (Open Apron).

The Stand Safety Line delimits the Aircraft Safety Area (minimum distance of 7.5 m from the aircraft). No vehicle must be parked in this area before complete stop of the aircraft (wheel chocks in position on landing gears).

**\*\*ON A/C A319-100 A319neo**

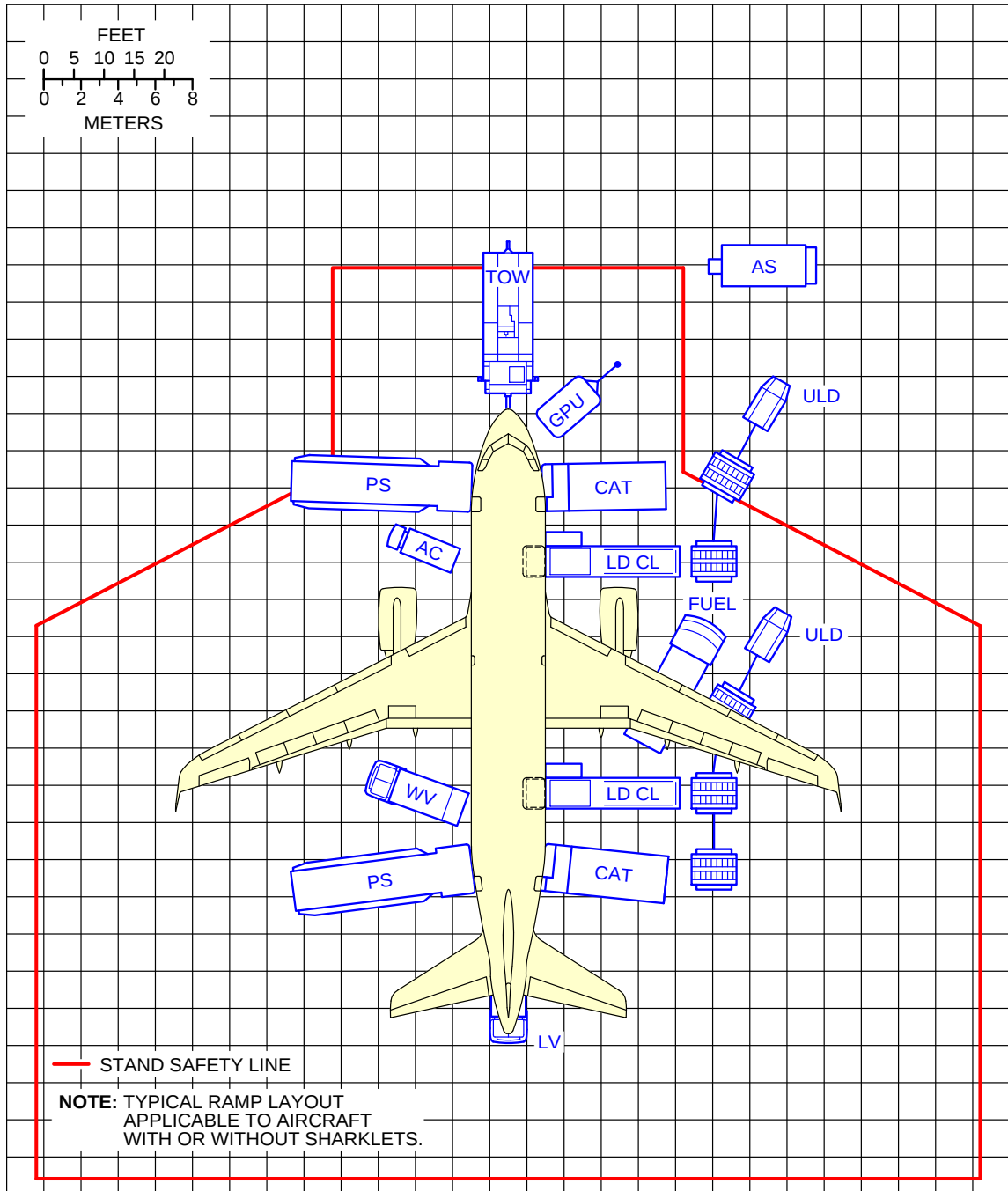


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Typical Ramp Layout  
Open Apron - Bulk Loading  
FIGURE-5-1-2-991-002-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



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Typical Ramp Layout  
Open Apron - ULD Loading  
FIGURE-5-1-2-991-008-A01

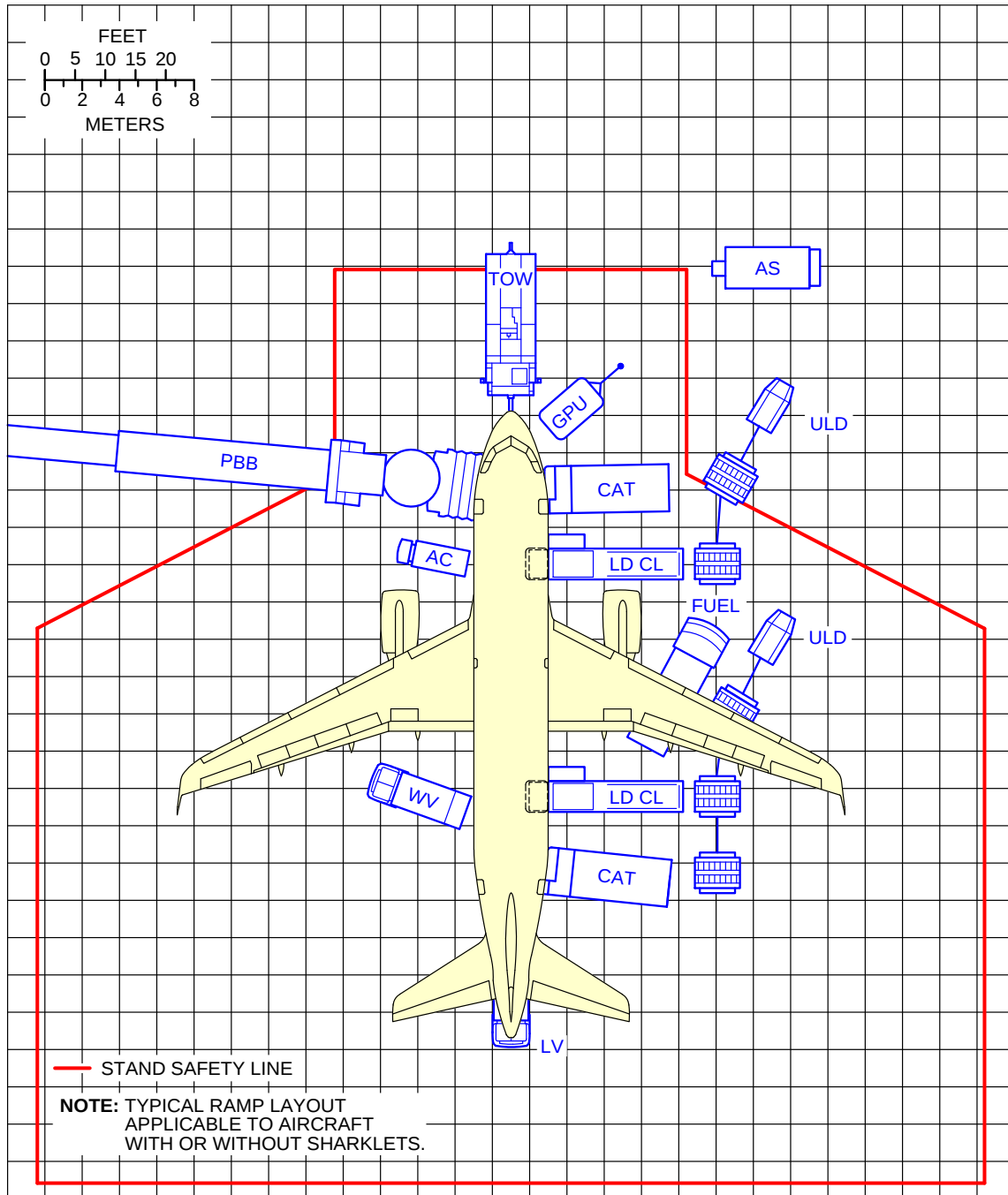
**5-1-3 Typical Ramp Layout - Gate****\*\*ON A/C A319-100 A319neo**Typical Ramp Layout - Gate

1. This section gives the typical servicing arrangement for pax version (Passenger Bridge).

The Stand Safety Line delimits the Aircraft Safety Area (minimum distance of 7.5 m from the aircraft). No vehicle must be parked in this area before complete stop of the aircraft (wheel chocks in position on landing gears).

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



N\_AC\_050103\_1\_0010101\_01\_03

Typical Ramp Layout  
Gate  
FIGURE-5-1-3-991-001-A01

**5-2-0 Terminal Operations - Full Servicing Turn Round Time Chart****\*\*ON A/C A319-100 A319neo**Terminal Operations - Full Servicing Turn Round Time

1. This section provides a typical turn round time chart showing the typical time for ramp activities during aircraft turn round.

Actual times may vary due to each operator's specific practices, resources, equipment and operating conditions.

2. Assumptions used for full servicing turn round time chart

**A. PASSENGER HANDLING**

124 pax: 8 F/C + 116 Y/C.

All passengers deplane and board the aircraft.

1 Passenger Boarding Bridge (PBB) used at door 1L.

Equipment positioning + opening door = +2 min.

Closing door + equipment removal = +1.5 min.

No Passenger with Reduced Mobility (PRM) on board.

Deplaning:

- 124 pax at door 1L
- Deplaning rate = 20 pax/min per door
- Priority deplaning for premium passengers.

Boarding:

- 124 pax at door 1L
- Boarding rate = 12 pax/min per door
- Last Pax Seating allowance (LPS) + headcounting = +2 min.

**B. CARGO**

2 cargo loaders + 1 belt loader.

Opening door + equipment positioning = +2 min.

Equipment removal + closing door = +1.5 min.

100% cargo exchange:

- FWD cargo compartment: 2 containers
- AFT cargo compartment: 2 containers
- Bulk compartment: 500 kg (1 102 lb).

**AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING**

Container unloading/loading times:

- Unloading = 1.5 min/container
- Loading = 1.5 min/container.

Bulk unloading/loading times:

- Unloading = 150 kg/min (331 lb/min)
- Loading = 120 kg/min (265 lb/min).

**C. REFUELING**

20 000 l (5 283 US gal) at 50 psig (3.45 bars-rel), one hose (right wing).

Dispenser positioning/removal + connection/disconnection times = +2.5 min.

**D. CLEANING**

Cleaning is performed in available time.

**E. CATERING**

1 catering truck for servicing galleys sequentially at doors 1R and 4R.

Equipment positioning + opening door = +2 min.

Closing door + equipment removal = +1.5 min.

Time to drive from one door to the other = +2 min.

Full Size Trolley Equivalent (FSTE) to unload and load: 8 FSTE

- 4 FSTE at door 1R
- 4 FSTE at door 4R.

Time for trolley exchange = 1.2 min per FSTE.

**F. GROUND HANDLING/GENERAL SERVICING**

Start of operations:

- Bridges/stairs:  $t_0 = 0$
- Other equipment:  $t = t_0$ .

Ground Power Unit (GPU): up to 90 kVA.

Air conditioning: one hose.

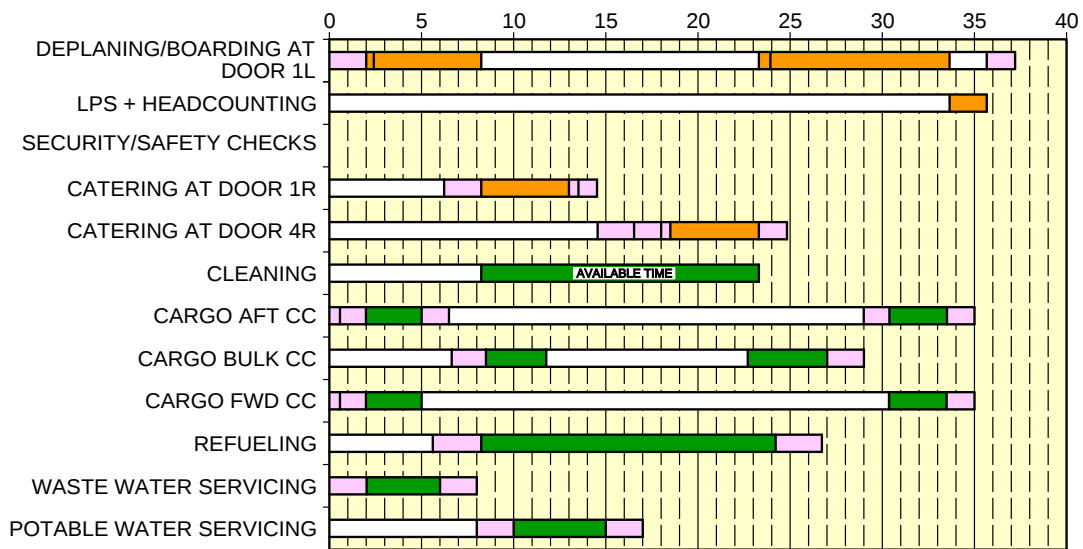
Potable water servicing: 100% uplift, 200 l (53 US gal).

Toilet servicing: draining + rinsing.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**

**TRT: 37 min**



- GSE POSITIONING/REMOVAL
- ACTIVITY
- CRITICAL PATH

N\_AC\_050200\_1\_0050101\_01\_04

Full Servicing Turn Round Time Chart  
FIGURE-5-2-0-991-005-A01

**5-3-0 Terminal Operation - Outstation Turn Round Time Chart****\*\*ON A/C A319-100 A319neo**Terminal Operations - Outstation Turn Round Time

1. This section provides a typical turn round time chart showing the typical time for ramp activities during aircraft turn round.

Actual times may vary due to each operator's specific practices, resources, equipment and operating conditions.

2. Assumptions used for outstation turn round time chart

**A. PASSENGER HANDLING**

156 pax (all Y/C).

All passengers deplane and board the aircraft.

2 stairways used at doors 1L and 4L.

Equipment positioning + opening door = +2 min.

Closing door + equipment removal = +1.5 min.

No Passenger with Reduced Mobility (PRM) on board.

Deplaning:

- 78 pax at door 1L
- 78 pax at door 4L
- Deplaning rate = 18 pax/min per door.

Boarding:

- 78 pax at door 1L
- 78 pax at door 4L
- Boarding rate = 12 pax/min per door
- Last Pax Seating allowance (LPS) + headcounting = +2 min.

**B. CARGO**

2 cargo loaders.

Opening door + equipment positioning = +2 min.

Equipment removal + closing door = +1.5 min.

100% cargo exchange:

- FWD cargo compartment: 2 containers
- AFT cargo compartment: 2 containers.

**AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING**

Container unloading/loading times:

- Unloading = 1.5 min/container
- Loading = 1.5 min/container.

**C. REFUELING**

No refueling.

**D. CLEANING**

Cleaning is performed in available time.

**E. CATERING**

One catering truck for servicing the galleys as required.

**F. GROUND HANDLING/GENERAL SERVICING**

Start of operations:

- Bridges/stairs:  $t_0 = 0$
- Other equipment:  $t = t_0$ .

Ground Power Unit (GPU): up to 90 kVA.

Air conditioning: one hose.

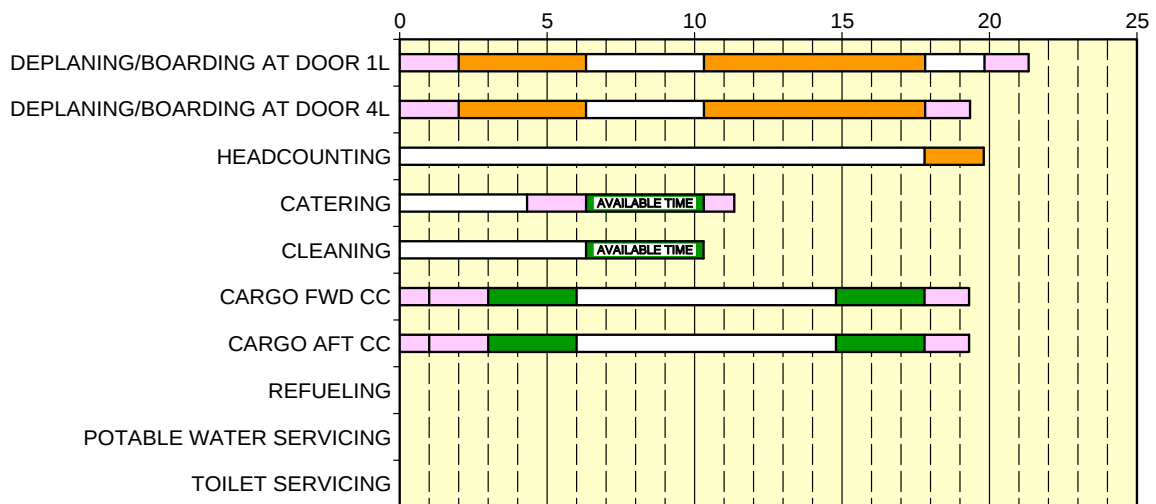
No potable water servicing.

No toilet servicing.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**

**TRT: 21 min**



GSE POSITIONING/REMOVAL  
 ACTIVITY  
 CRITICAL PATH

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Outstation Turn Round Time Chart  
FIGURE-5-3-0-991-002-A01

### 5-4-1 Ground Service Connections

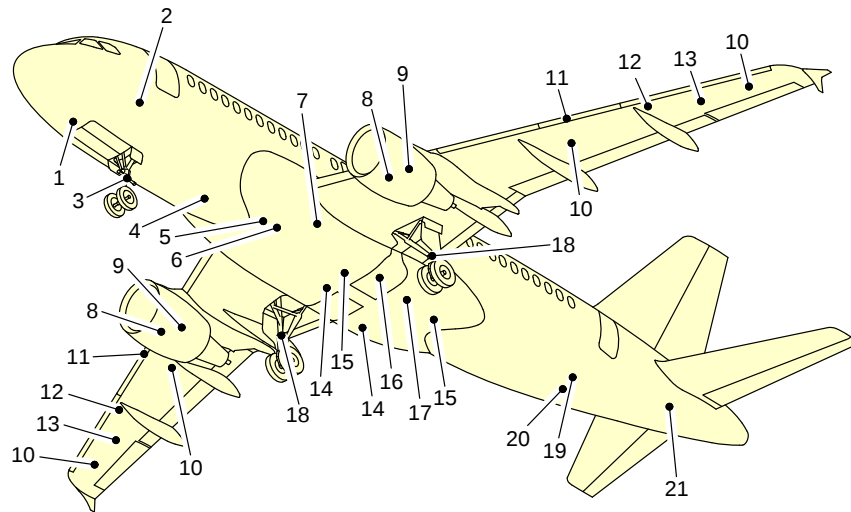
**\*\*ON A/C A319-100 A319neo**

#### Ground Service Connections Layout

1. This section provides the ground service connections layout.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



- |                                                 |                                                                             |
|-------------------------------------------------|-----------------------------------------------------------------------------|
| 1 - GROUND ELECTRICAL POWER CONNECTOR           | 12 - OVERWING REFUEL (IF INSTALLED)                                         |
| 2 - OXYGEN SYSTEM                               | 13 - NACA VENT INTAKE                                                       |
| 3 - NLG GROUNDING (EARTHING) POINT              | 14 - YELLOW HYDRAULIC-SYSTEM SERVICE PANEL                                  |
| 4 - POTABLE WATER DRAIN PANEL                   | 15 - BLUE HYDRAULIC-SYSTEM SERVICE PANEL                                    |
| 5 - LOW PRESSURE AIR PRE-CONDITIONING           | 16 - ACCUMULATOR CHARGING (GREEN SYSTEM) AND RESERVOIR DRAIN (GREEN SYSTEM) |
| 6 - HIGH PRESSURE AIR PRE-CONDITIONING          | 17 - GREEN HYDRAULIC-SYSTEM SERVICE PANEL                                   |
| 7 - REFUEL/DEFUEL INTEGRATED PANEL              | 18 - MLG GROUNDING (EARTHING) POINT                                         |
| 8 - IDG/STARTER OIL SERVICING                   | 19 - WASTE WATER SERVICE PANEL                                              |
| 9 - ENGINE OIL SERVICING                        | 20 - POTABLE WATER SERVICE PANEL                                            |
| 10 - OVERPRESSURE PROTECTOR                     | 21 - APU OIL SERVICING                                                      |
| 11 - REFUEL/DEFUEL COUPLINGS (OPTIONAL-LH WING) |                                                                             |

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Ground Service Connections Layout  
FIGURE-5-4-1-991-002-A01

### 5-4-2 Grounding Points

#### **\*\*ON A/C A319-100 A319neo**

#### Grounding (Earthing) Points

#### 1. Grounding (Earthing) Points

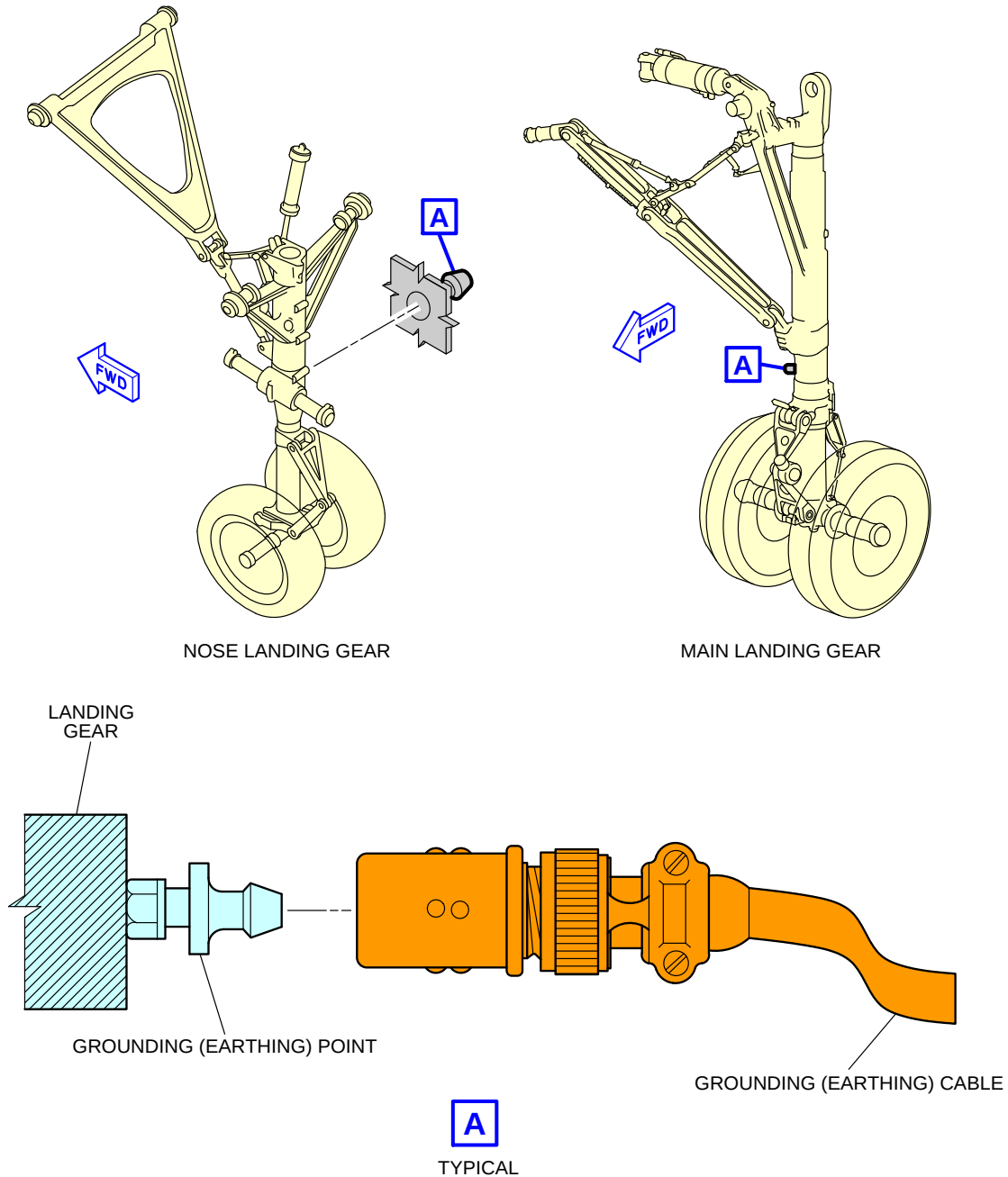
|                   | DISTANCE              |                          |                      |                               |
|-------------------|-----------------------|--------------------------|----------------------|-------------------------------|
|                   | AFT OF NOSE           | FROM AIRCRAFT CENTERLINE |                      | MEAN HEIGHT<br>FROM<br>GROUND |
|                   |                       | LH SIDE                  | RH SIDE              |                               |
| On NLG leg:       | 5.07 m<br>(16.63 ft)  | On Centerline            |                      | 0.94 m<br>(3.08 ft)           |
| On left MLG leg:  | 16.11 m<br>(52.85 ft) | 3.79 m<br>(12.43 ft)     | -                    | 1.07 m<br>(3.51 ft)           |
| On right MLG leg: | 16.11 m<br>(52.85 ft) | -                        | 3.79 m<br>(12.43 ft) | 1.07 m<br>(3.51 ft)           |

- A. The grounding (earthing) stud on each landing gear leg is designed for use with a clip-on connector (such as Appleton TGR).
- B. The grounding (earthing) studs are used to connect the aircraft to an approved ground (earth) connection on the ramp or in the hangar for:
  - Refuel/defuel operations,
  - Maintenance operations,
  - Bad weather conditions.

**NOTE :** In all other conditions, the electrostatic discharge through the tire is sufficient. If the aircraft is on jacks for retraction and extension checks or for the removal/ installation of the landing gear, the grounding (earthing) alternative points (if installed) are:

- In the hole on the avionics-compartment lateral right door-frame (on FR14),
- On the engine nacelles,
- On the wing upper surfaces.

**\*\*ON A/C A319-100 A319neo**

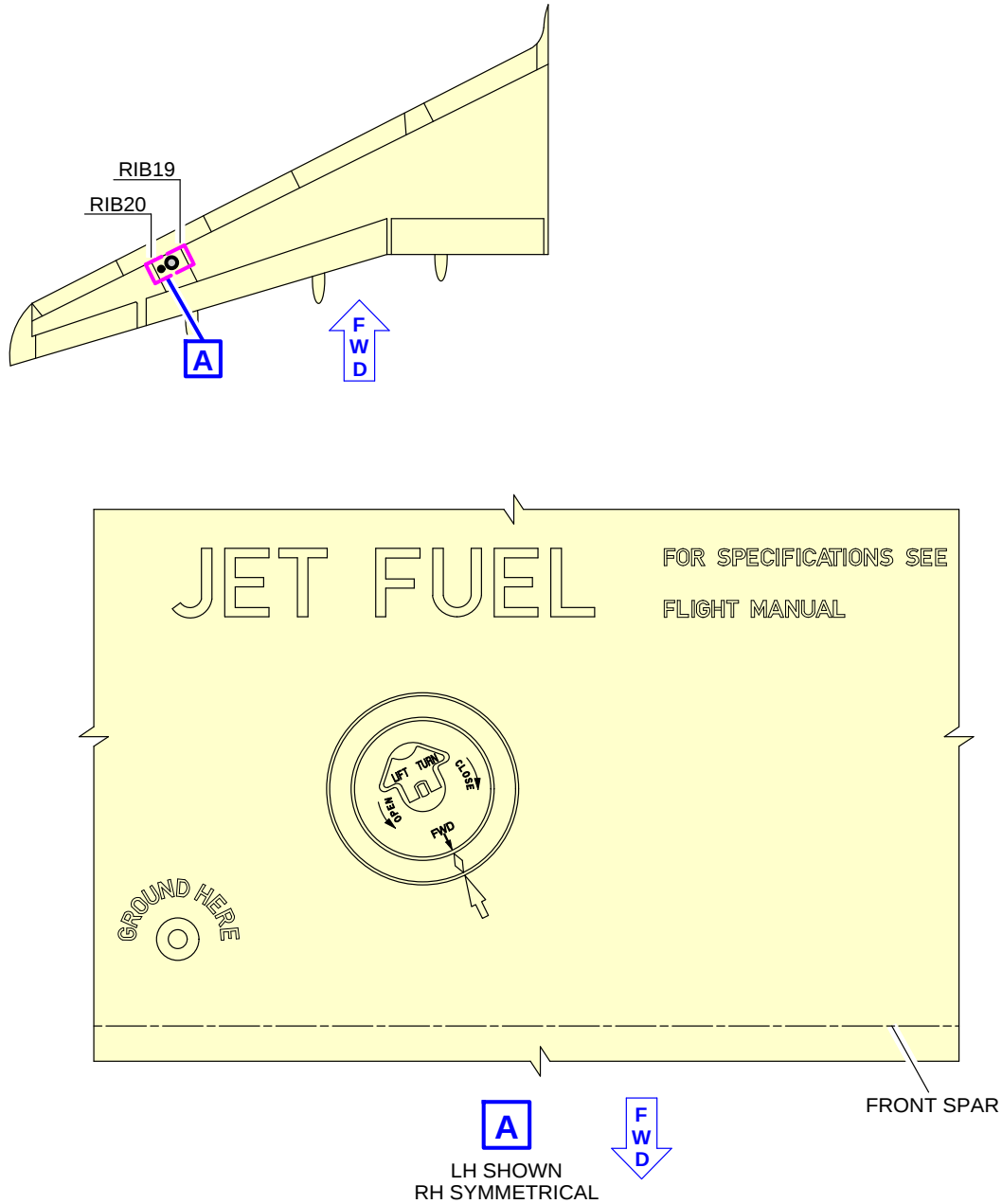


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Ground Service Connections  
Grounding (Earthing) Points - Landing Gear  
FIGURE-5-4-2-991-003-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



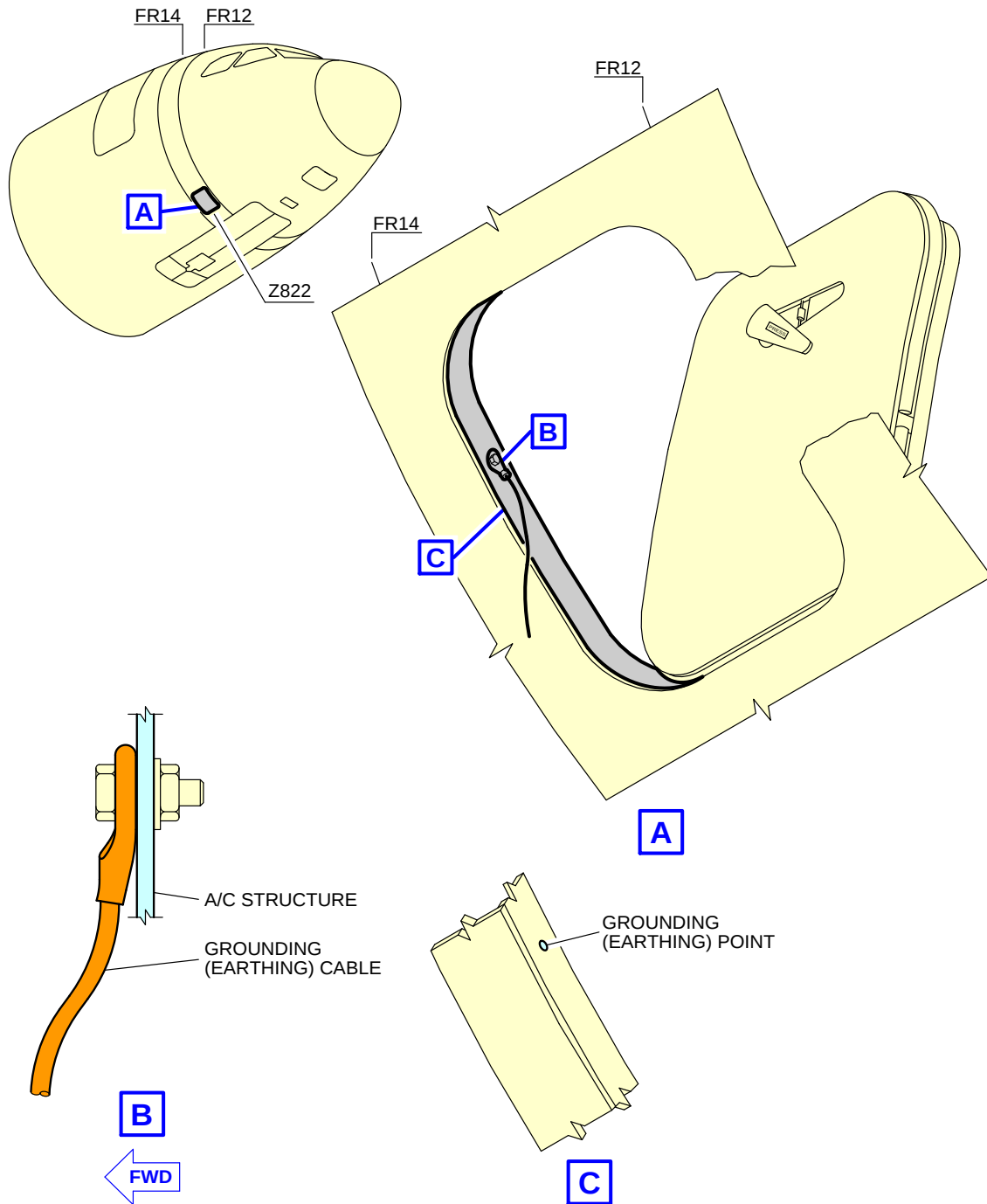
**NOTE:**

THE REFUEL POINT ON THE WING UPPER SURFACE IS NOT AVAILABLE FOR SOME AIRCRAFTS.  
THE LABEL "GROUND HERE" IS NOT AVAILABLE ON SOME AIRCRAFTS.  
BUT THE GROUNDING (EARTHING) POINT CAN BE USED FOR THE GROUNDING (EARTHING)  
OF THE AIRCRAFT.

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Ground Service Connections  
Grounding (Earthing) Points - Wing  
FIGURE-5-4-2-991-004-A01

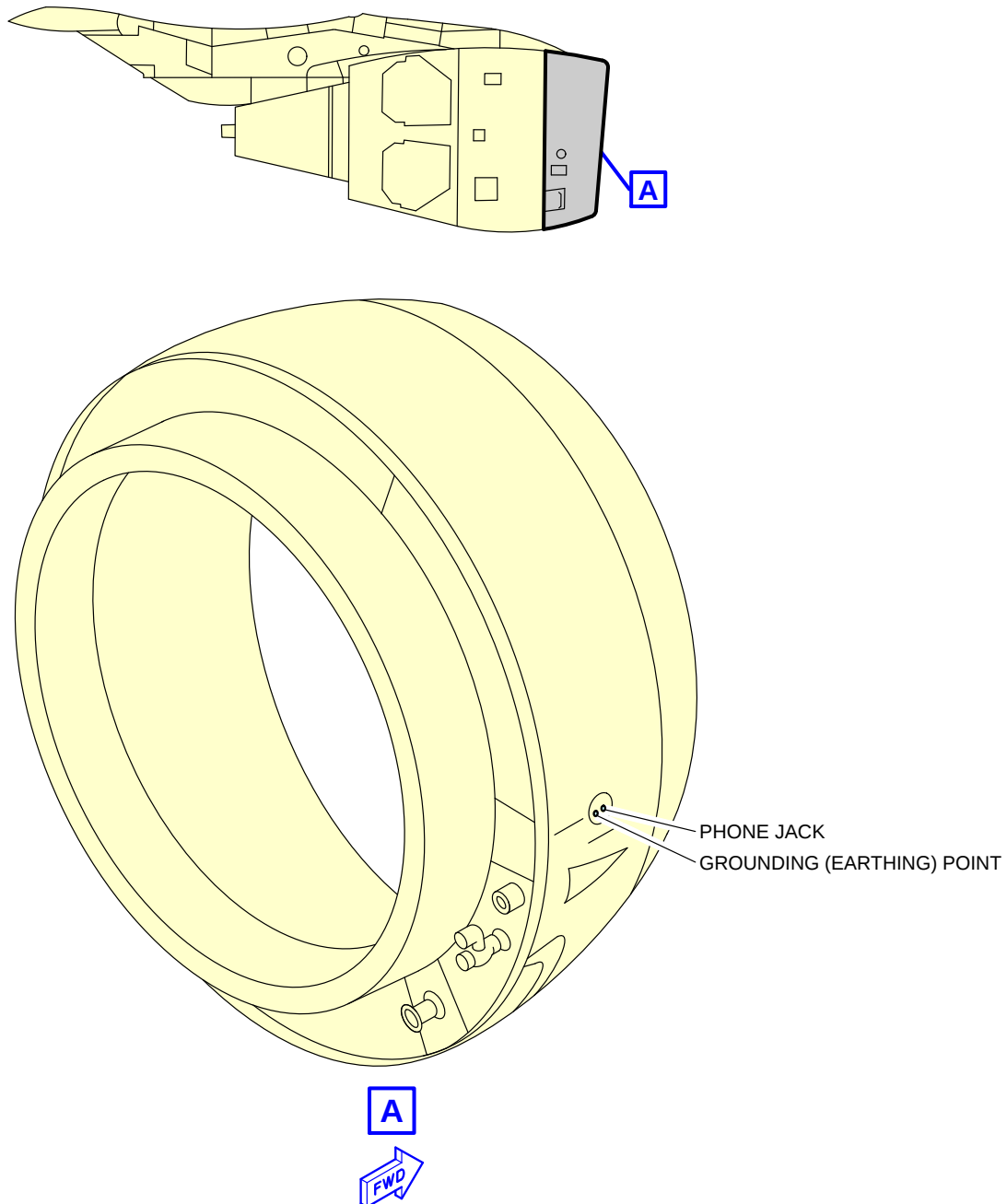
**\*\*ON A/C A319-100 A319neo**



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Ground Service Connections  
Grounding (Earthing) Point - Avionics Compartment Door-Frame  
FIGURE-5-4-2-991-012-A01

**\*\*ON A/C A319-100 A319neo**



N\_AC\_050402\_1\_0130101\_01\_00

Ground Service Connections  
Grounding (Earthing) Point - Engine Air Intake (If Installed)  
FIGURE-5-4-2-991-013-A01

### 5-4-3 Hydraulic System

**\*\*ON A/C A319-100 A319neo**

#### Hydraulic Servicing

##### 1. Access

| ACCESS                              | DISTANCE              |                          |                     |                               |
|-------------------------------------|-----------------------|--------------------------|---------------------|-------------------------------|
|                                     | AFT OF NOSE           | FROM AIRCRAFT CENTERLINE |                     | MEAN HEIGHT<br>FROM<br>GROUND |
|                                     |                       | LH SIDE                  | RH SIDE             |                               |
| Green System:<br>Access Door 197CB  | 17.57 m<br>(57.64 ft) | 1.27 m<br>(4.17 ft)      |                     | 1.76 m<br>(5.77 ft)           |
| Yellow System:<br>Access Door 198CB | 17.57 m<br>(57.64 ft) |                          | 1.27 m<br>(4.17 ft) | 1.76 m<br>(5.77 ft)           |
| Blue System:<br>Access Door 197EB   | 18.92 m<br>(60.07 ft) | 1.27 m<br>(4.17 ft)      |                     | 1.76 m<br>(5.77 ft)           |

##### 2. Reservoir Pressurization

| ACCESS            | DISTANCE              |                          |         |                               |
|-------------------|-----------------------|--------------------------|---------|-------------------------------|
|                   | AFT OF NOSE           | FROM AIRCRAFT CENTERLINE |         | MEAN HEIGHT<br>FROM<br>GROUND |
|                   |                       | LH SIDE                  | RH SIDE |                               |
| Access Door 195BB | 14.05 m<br>(46.10 ft) | 0.25 m<br>(0.82 ft)      |         | 1.74 m<br>(5.71 ft)           |

##### 3. Accumulator Charging

Four MIL-PRF-6164 connections:

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| ACCESS                                                  | DISTANCE              |                          |                     |                               |
|---------------------------------------------------------|-----------------------|--------------------------|---------------------|-------------------------------|
|                                                         | AFT OF NOSE           | FROM AIRCRAFT CENTERLINE |                     | MEAN HEIGHT<br>FROM<br>GROUND |
|                                                         |                       | LH SIDE                  | RH SIDE             |                               |
| Yellow System Accumulator:<br>Access Door 196BB         | 14.05 m<br>(46.10 ft) |                          | 0.25 m<br>(0.82 ft) | 1.74 m<br>(5.71 ft)           |
| Green System Accumulator:<br>Left MLG Door              | 15.67 m<br>(51.41 ft) | 0.25 m<br>(0.82 ft)      |                     | 3.20 m<br>(10.50 ft)          |
| Blue System Accumulator:<br>Access Door 195BB           | 14.05 m<br>(46.10 ft) | 0.25 m<br>(0.82 ft)      |                     | 1.74 m<br>(5.71 ft)           |
| Yellow System Braking Accumulator:<br>Access Door 196BB | 14.05 m<br>(46.10 ft) |                          | 0.25 m<br>(0.82 ft) | 1.74 m<br>(5.71 ft)           |

### 4. Reservoir Filling

Centralized filling capability on the Green System ground service panel:

| ACCESS            | DISTANCE              |                          |         |                               |
|-------------------|-----------------------|--------------------------|---------|-------------------------------|
|                   | AFT OF NOSE           | FROM AIRCRAFT CENTERLINE |         | MEAN HEIGHT<br>FROM<br>GROUND |
|                   |                       | LH SIDE                  | RH SIDE |                               |
| Access Door 197CB | 17.57 m<br>(57.64 ft) | 1.27 m<br>(4.17 ft)      |         | 1.76 m<br>(5.77 ft)           |

Filling: Ground pressurized supply or hand pump.

### 5. Reservoir Drain

Three 3/8 in. self-sealing connections:

| ACCESS         | DISTANCE    |                          |         |                               |
|----------------|-------------|--------------------------|---------|-------------------------------|
|                | AFT OF NOSE | FROM AIRCRAFT CENTERLINE |         | MEAN HEIGHT<br>FROM<br>GROUND |
|                |             | LH SIDE                  | RH SIDE |                               |
| Yellow System: | 14.05 m     |                          | 0.25 m  | 1.74 m                        |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| ACCESS                            | DISTANCE              |                          |           |                               |
|-----------------------------------|-----------------------|--------------------------|-----------|-------------------------------|
|                                   | AFT OF NOSE           | FROM AIRCRAFT CENTERLINE |           | MEAN HEIGHT<br>FROM<br>GROUND |
|                                   |                       | LH SIDE                  | RH SIDE   |                               |
| Access Door 196BB                 | (46.10 ft)            |                          | (0.82 ft) | (5.71 ft)                     |
| Green System:<br>Left MLG Door    | 15.67 m<br>(51.41 ft) | 0.25 m<br>(0.82 ft)      |           | 3.20 m<br>(10.50 ft)          |
| Blue System:<br>Access Door 197EB | 18.92 m<br>(62.07 ft) | 1.27 m<br>(4.17 ft)      |           | 1.76 m<br>(5.77 ft)           |

**NOTE :** The drain valve is on the Blue System ground service panel for the reservoir of the Blue hydraulic system.

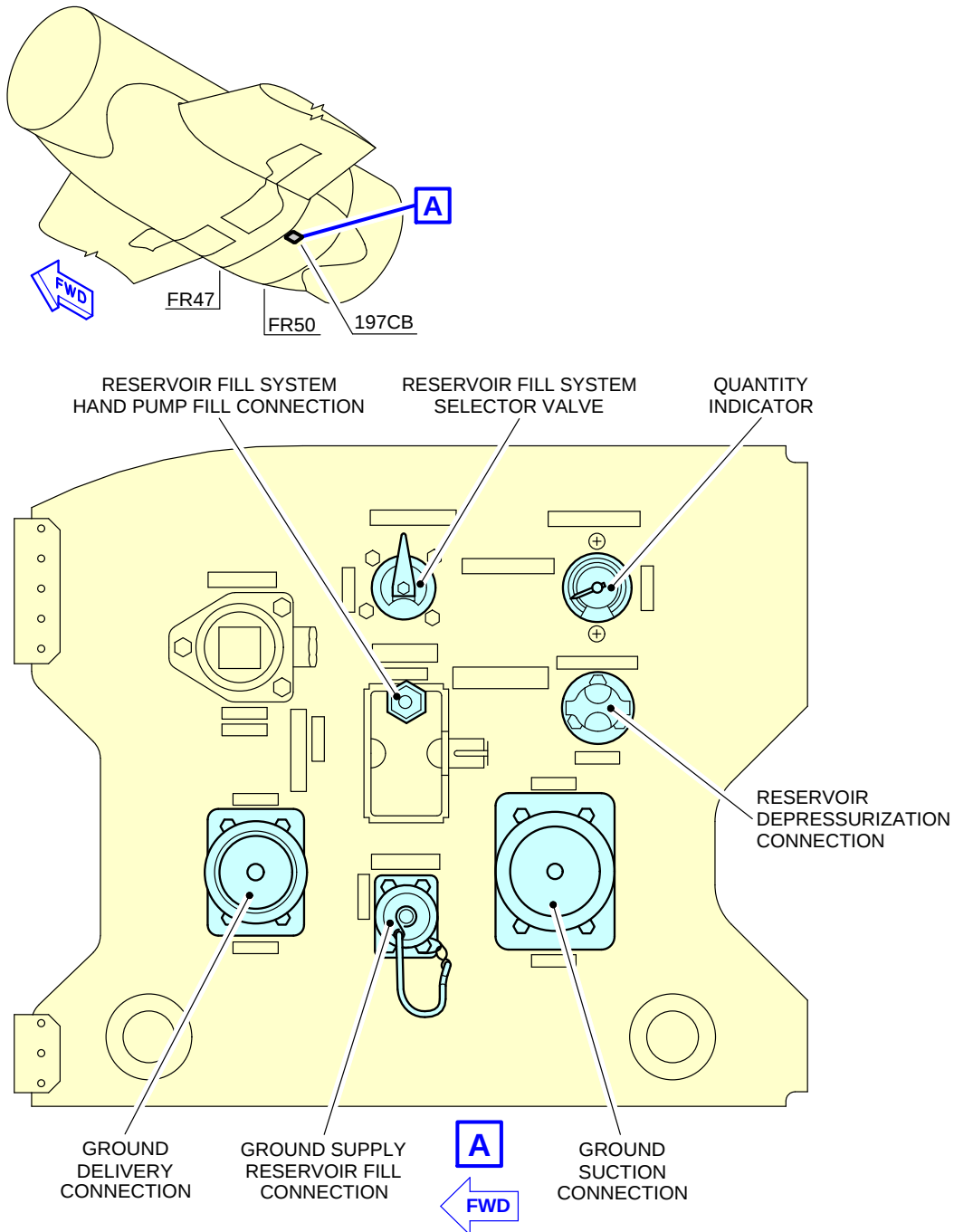
The drain valve is on the reservoir for the Green and Yellow Hydraulic Systems.

### 6. Ground Test

On each ground service panel:

- One self-sealing connector (suction).
- One self-sealing connector (delivery).

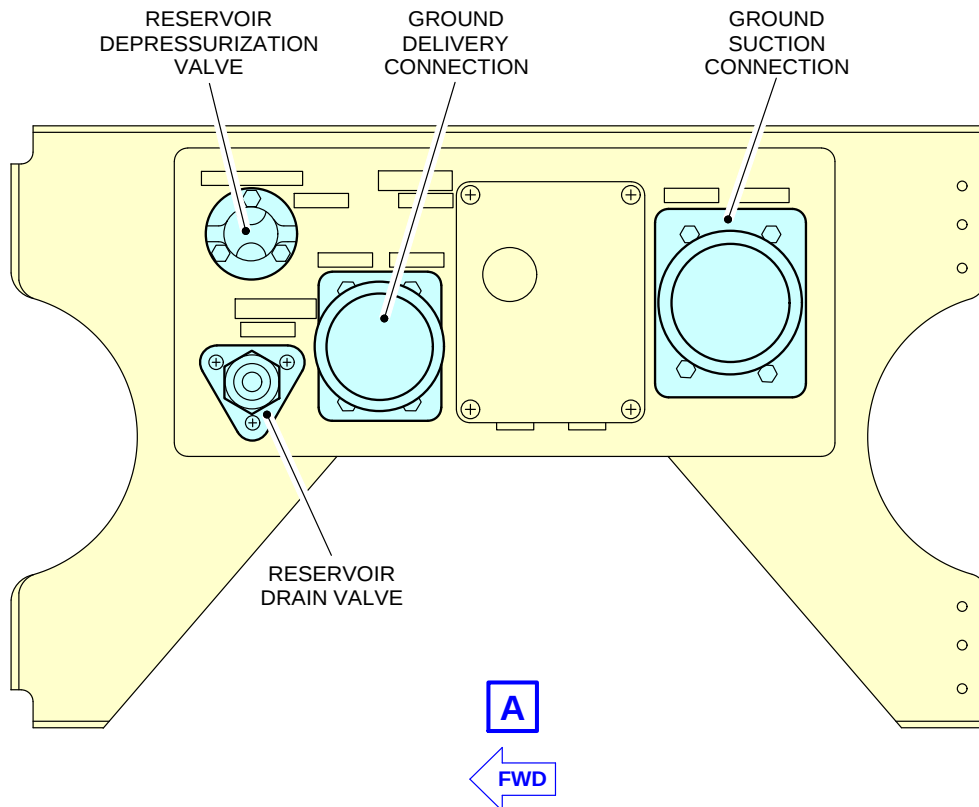
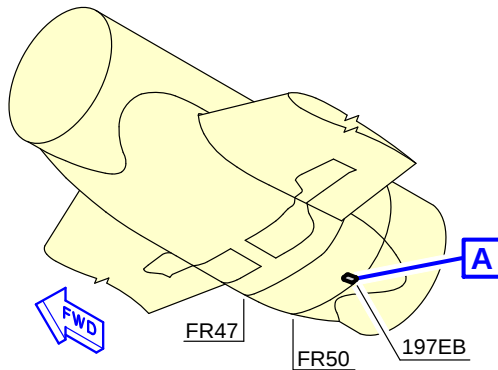
**\*\*ON A/C A319-100 A319neo**



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Ground Service Connections  
Green System Ground Service Panel  
FIGURE-5-4-3-991-004-A01

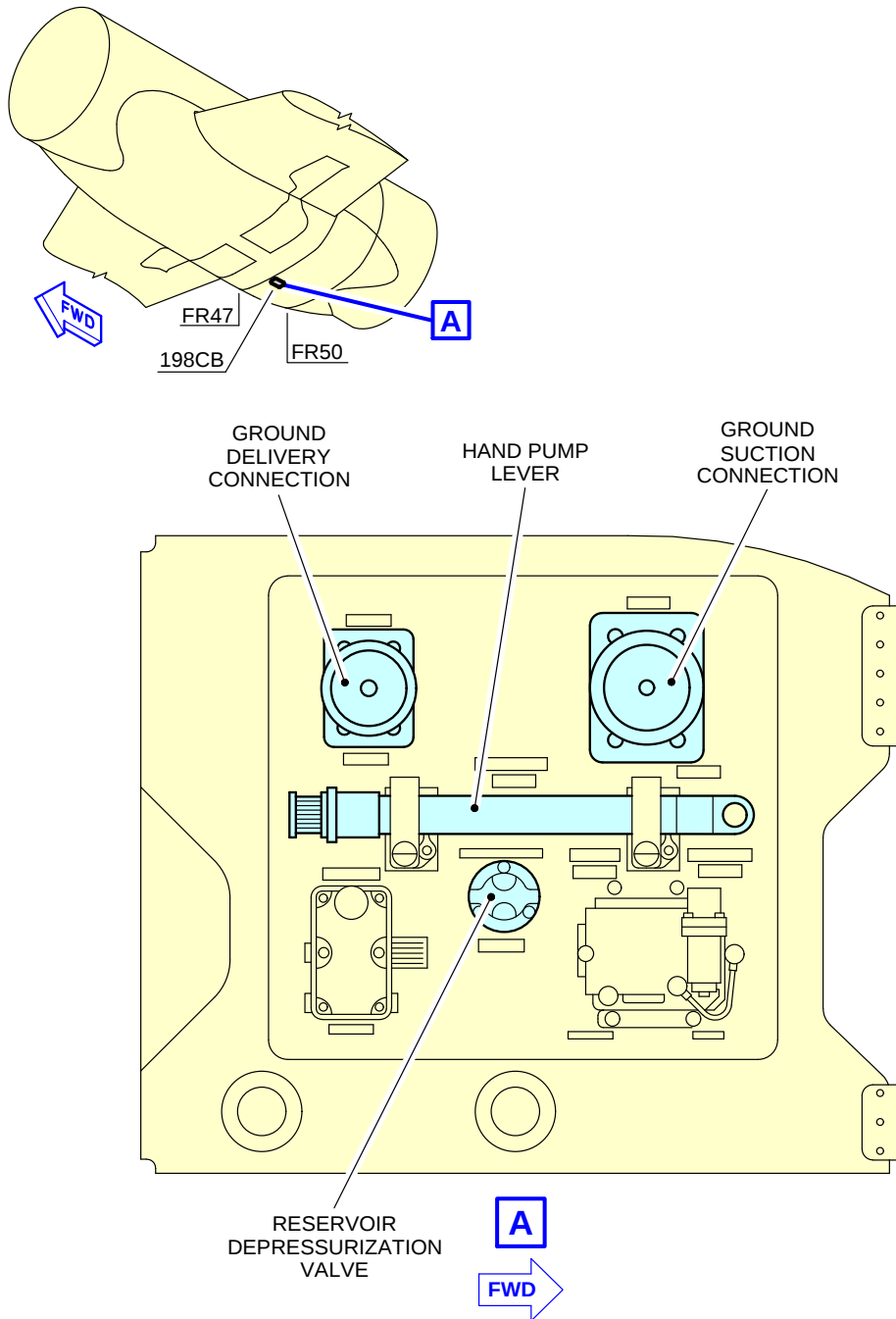
**\*\*ON A/C A319-100 A319neo**



N\_AC\_050403\_1\_0050101\_01\_01

Ground Service Connections  
Blue System Ground Service Panel  
FIGURE-5-4-3-991-005-A01

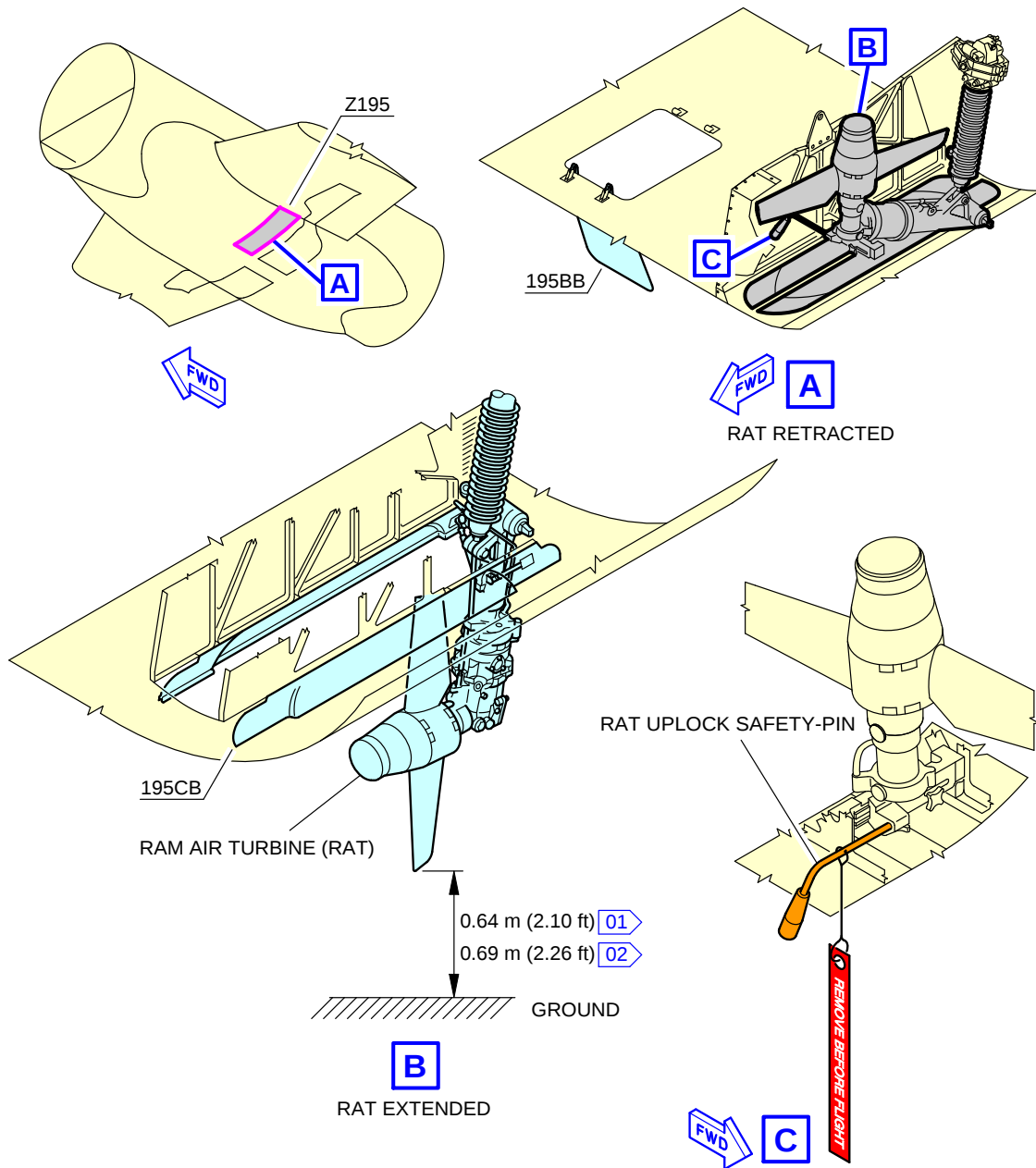
**\*\*ON A/C A319-100 A319neo**



N\_AC\_050403\_1\_0060101\_01\_01

Ground Service Connections  
Yellow System Ground Service Panel  
FIGURE-5-4-3-991-006-A01

**\*\*ON A/C A319-100 A319neo**



**NOTE:**

01 FOR A318, A319 AND A320

02 FOR A321

N\_AC\_050403\_1\_0070101\_01\_00

Ground Service Connections  
RAT  
FIGURE-5-4-3-991-007-A01

### 5-4-4 Electrical System

#### **\*\*ON A/C A319-100 A319neo**

#### Electrical System

#### 1. Electrical System

This chapter provides data related to the location of the ground service connections.

| ACCESS                                   | DISTANCE            |                          |                            |
|------------------------------------------|---------------------|--------------------------|----------------------------|
|                                          | AFT OF NOSE         | FROM AIRCRAFT CENTERLINE |                            |
|                                          |                     | LH SIDE                  | RH SIDE                    |
| A/C External Power:<br>Access Door 121AL | 2.55 m<br>(8.37 ft) | On centerline            |                            |
|                                          |                     |                          | MEAN HEIGHT<br>FROM GROUND |
|                                          |                     |                          | 2.00 m<br>(6.56 ft)        |

NOTE : Distances are approximate.

#### 2. Technical Specifications

##### A. External Power Receptacle:

- One receptacle according to MS 90362-3 (without shield MS 17845-1) – 90 kVA.

NOTE : Make sure that for connectors featuring micro switches, the connector is chamfered to properly engage in the receptacle.

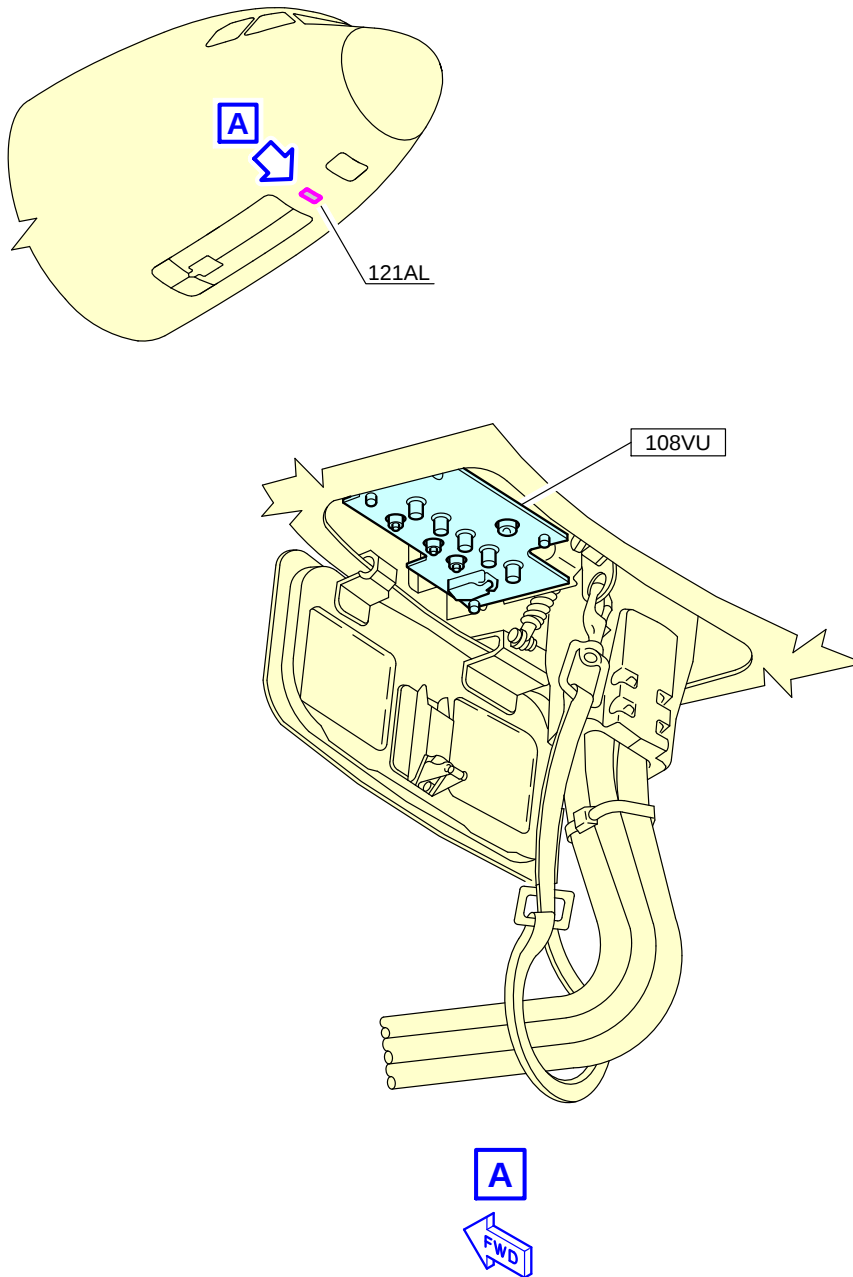
##### B. Power Supply:

- Three-phase, 115/200V, 400 Hz.

##### C. Electrical Connectors for Servicing:

- AC outlets: HUBBELL 5258
- DC outlets: HUBBELL 7472.

**\*\*ON A/C A319-100 A319neo**



N\_AC\_050404\_1\_0010101\_01\_01

Ground Service Connections  
External Power Receptacles  
FIGURE-5-4-4-991-001-A01

### 5-4-5 Oxygen System

**\*\*ON A/C A319-100 A319neo**

#### Oxygen System

#### 1. Oxygen System

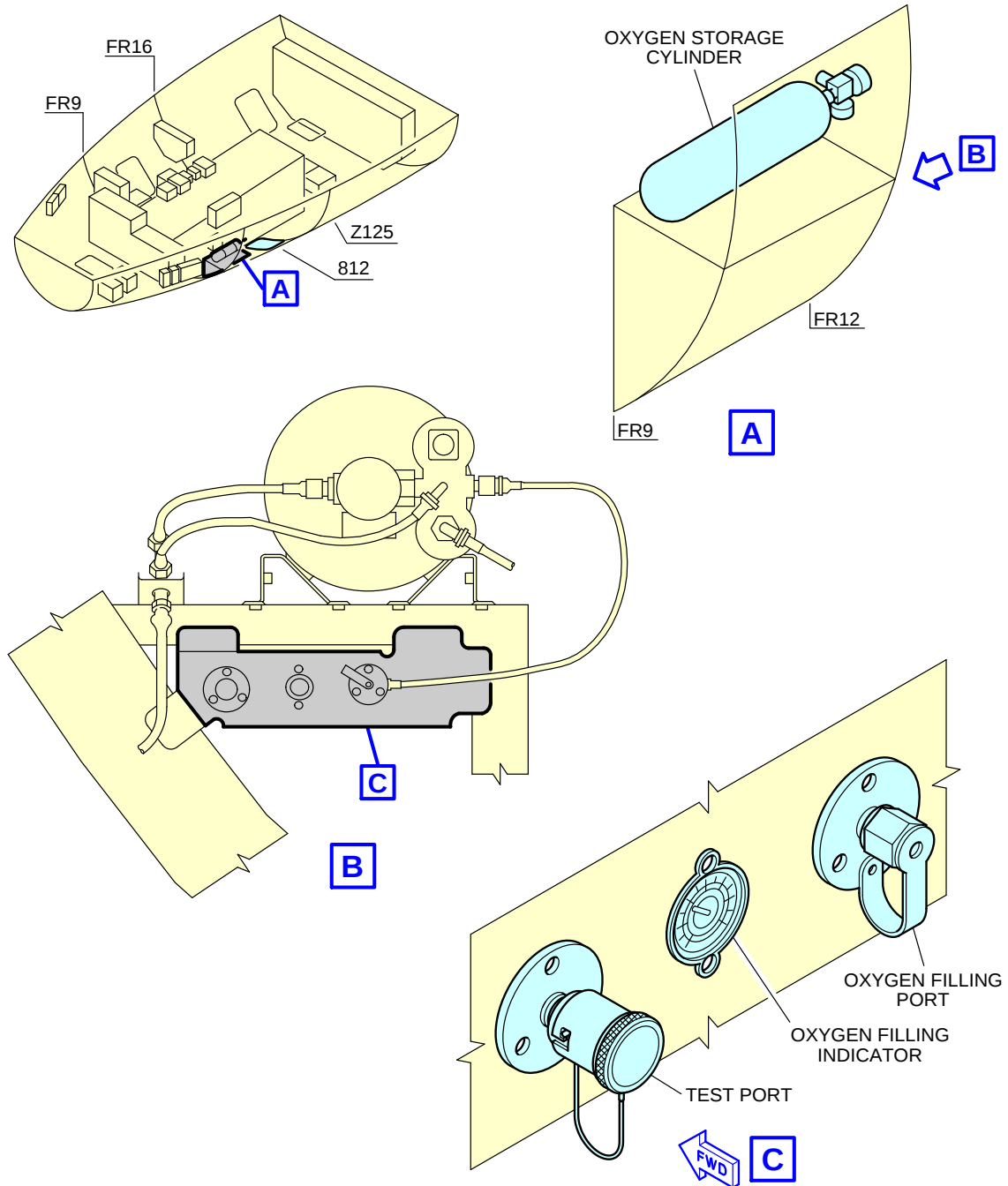
| ACCESS                                   | DISTANCE             |                          |         |                               |
|------------------------------------------|----------------------|--------------------------|---------|-------------------------------|
|                                          | AFT OF NOSE          | FROM AIRCRAFT CENTERLINE |         | MEAN HEIGHT<br>FROM<br>GROUND |
|                                          |                      | LH SIDE                  | RH SIDE |                               |
| Oxygen Replenishment:<br>Access Door 812 | 3.45 m<br>(11.32 ft) | 1.15 m<br>(3.77 ft)      | -       | 2.60 m<br>(8.53 ft)           |

#### 2. Technical Specifications

- One 3/8 in. MIL-DTL 7891 standard service connection.

NOTE : External charging in the avionics compartment.

**\*\*ON A/C A319-100 A319neo**



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Ground Service Connections  
Oxygen System  
FIGURE-5-4-5-991-001-A01

### 5-4-6 Fuel System

**\*\*ON A/C A319-100 A319neo**

#### Fuel System

##### 1. Refuel/Defuel Control Panel

| ACCESS                                            | DISTANCE             |                                   |                    |                         |
|---------------------------------------------------|----------------------|-----------------------------------|--------------------|-------------------------|
|                                                   | AFT OF NOSE          | POSITION FROM AIRCRAFT CENTERLINE |                    | MEAN HEIGHT FROM GROUND |
|                                                   |                      | LH SIDE                           | RH SIDE            |                         |
| Refuel/Defuel Integrated Panel: Access Door 192MB | 14.8 m<br>(48.56 ft) | -                                 | 1.8 m<br>(5.91 ft) | 1.8 m<br>(5.91 ft)      |

##### 2. Refuel/Defuel Connectors

| ACCESS                                                      | DISTANCE              |                                   |                      |                         |
|-------------------------------------------------------------|-----------------------|-----------------------------------|----------------------|-------------------------|
|                                                             | AFT OF NOSE           | POSITION FROM AIRCRAFT CENTERLINE |                      | MEAN HEIGHT FROM GROUND |
|                                                             |                       | LH SIDE                           | RH SIDE              |                         |
| Refuel/Defuel Coupling, Left: Access Panel 522HB (Optional) | 15.99 m<br>(52.46 ft) | 9.83 m<br>(32.25 ft)              | -                    | 3.65 m<br>(11.98 ft)    |
| Refuel/Defuel Coupling, Right: Access Panel 622HB           | 15.99 m<br>(52.46 ft) | -                                 | 9.83 m<br>(32.25 ft) | 3.65 m<br>(11.98 ft)    |
| Overwing Gravity-Refuel Cap                                 | 17.5 m<br>(57.41 ft)  | 12.4 m<br>(40.68 ft)              | 12.4 m<br>(40.68 ft) | 3.7 m<br>(12.14 ft)     |

#### A. Refuel/Defuel Couplings:

- Right wing: one standard ISO 45, 2.5 in.
- Left wing: one optional standard ISO 45, 2.5 in.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

- B. Refuel Pressure:
- Maximum pressure: 3.45 bar (50 psi).
- C. Average Flow Rate:
- 1250 l/min (330 US gal/min).

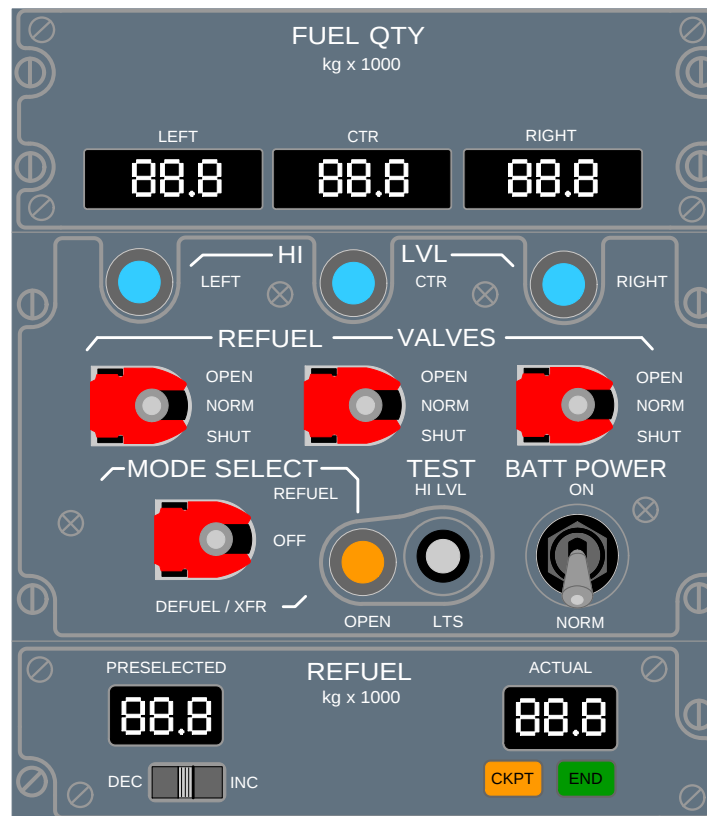
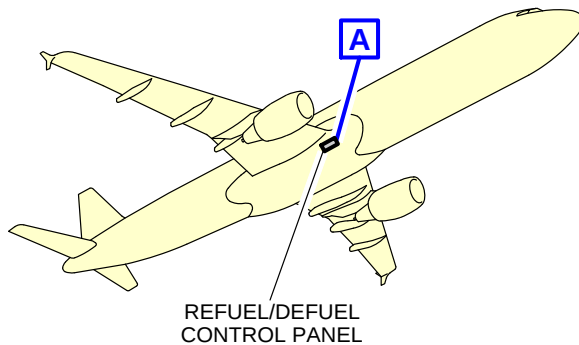
### 3. Overpressure Protectors and NACA Vent Intake

| ACCESS                                                                     | DISTANCE              |                                      |                      |                            |
|----------------------------------------------------------------------------|-----------------------|--------------------------------------|----------------------|----------------------------|
|                                                                            | AFT OF NOSE           | POSITION FROM<br>AIRCRAFT CENTERLINE |                      | MEAN HEIGHT<br>FROM GROUND |
|                                                                            |                       | LH SIDE                              | RH SIDE              |                            |
| Surge Tank<br>Overpressure-<br>Protector:<br>Access Panel<br>550CB (650CB) | 18.76 m<br>(61.55 ft) | 14.9 m<br>(48.88 ft)                 | 14.9 m<br>(48.88 ft) | 4.32 m<br>(14.17 ft)       |
| Inner Cell<br>Overpressure-<br>Protector:<br>Access Panel<br>540HB (640HB) | 17.5 m<br>(57.41 ft)  | 9.19 m<br>(30.15 ft)                 | 9.19 m<br>(30.15 ft) | 4.1 m<br>(13.45 ft)        |
| NACA Vent Intake:<br>Access Panel<br>550AB (650AB)                         | 18.2 m<br>(59.71 ft)  | 13.7 m<br>(44.95 ft)                 | 13.7 m<br>(44.95 ft) | 4.02 m<br>(13.19 ft)       |

NOTE : Distances are approximate.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



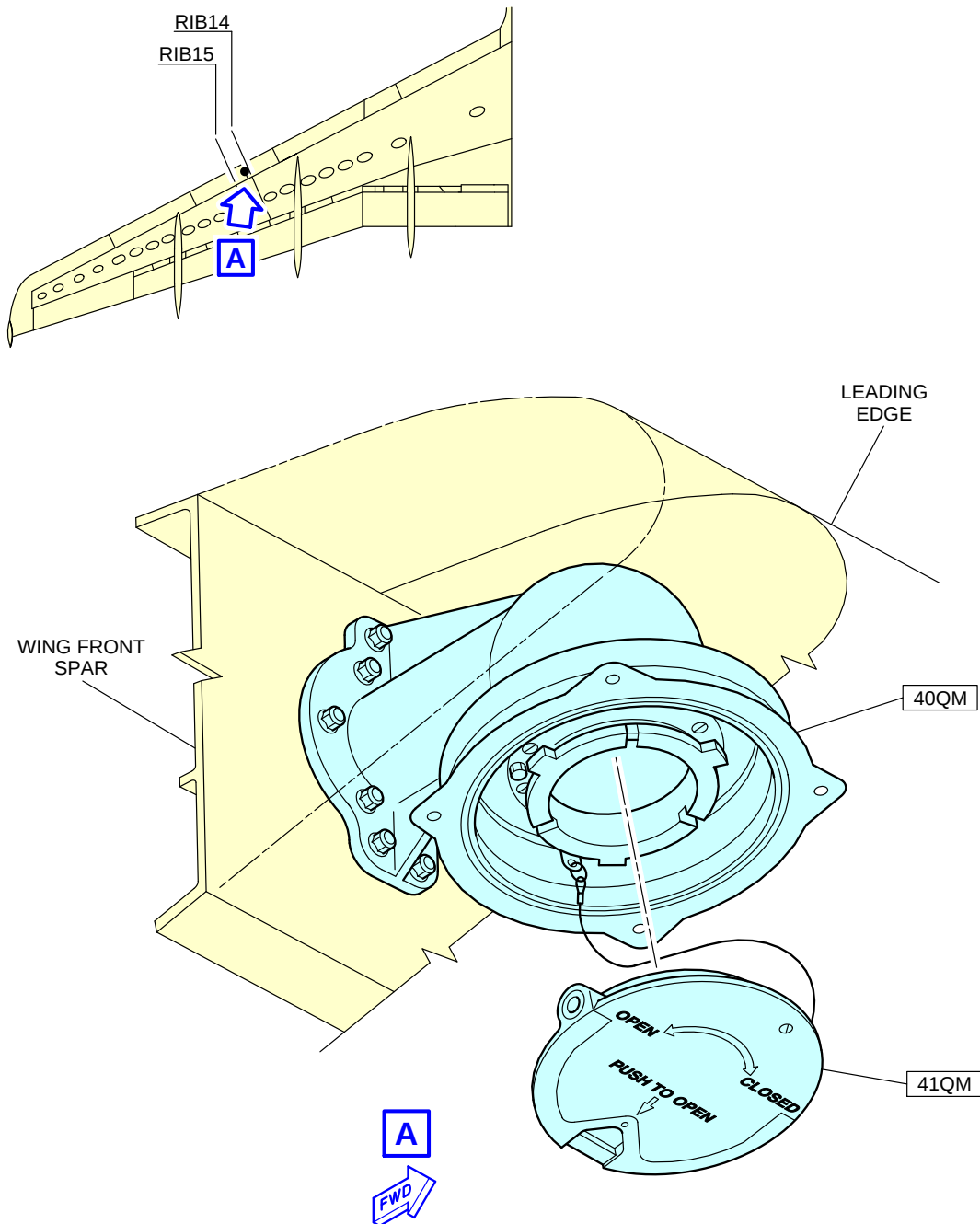
**A**

**NOTE:** STANDARD CONFIGURATION OF REFUEL/DEFUEL PANEL.

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Ground Service Connections  
Refuel/Defuel Control Panel  
FIGURE-5-4-6-991-001-A01

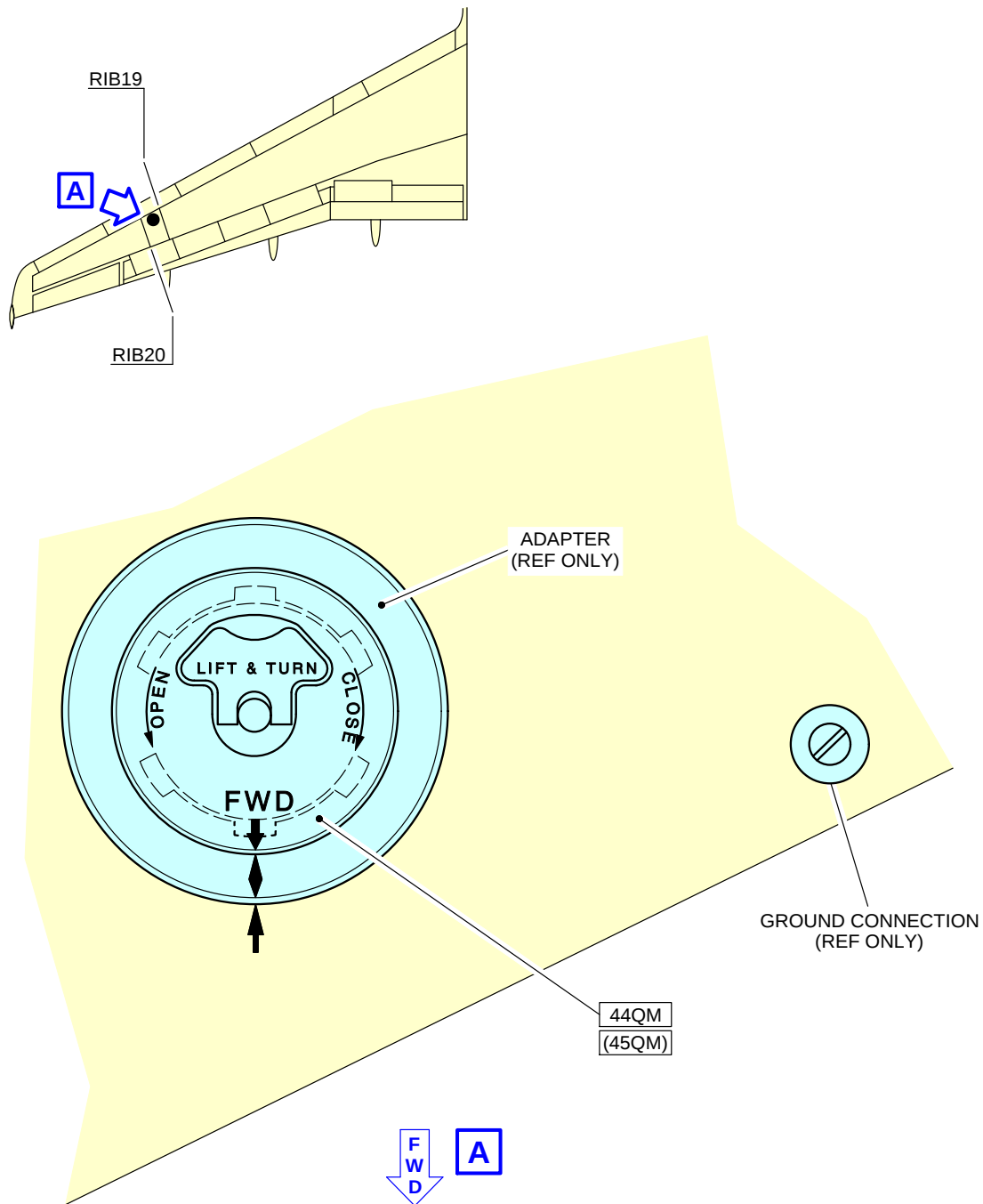
**\*\*ON A/C A319-100 A319neo**



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Ground Service Connections  
Refuel/Defuel Couplings  
FIGURE-5-4-6-991-002-A01

**\*\*ON A/C A319-100 A319neo**

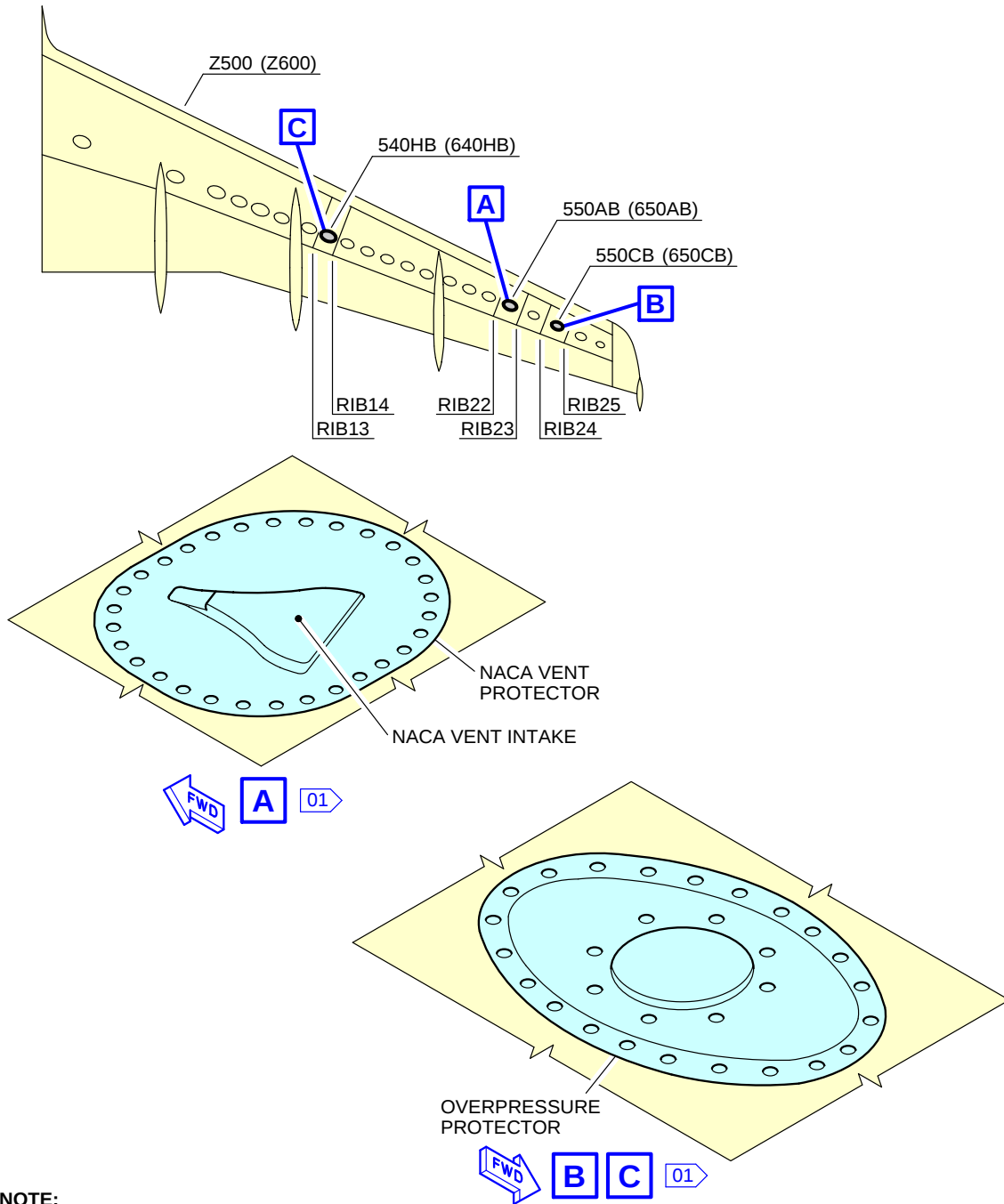


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Ground Service Connections  
Overwing Gravity-Refuel Cap (If Installed)  
FIGURE-5-4-6-991-003-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



**NOTE:**

01 LH SHOWN, RH SYMMETRICAL

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Ground Service Connections  
Overpressure Protectors and NACA Vent Intake  
FIGURE-5-4-6-991-004-A01

### 5-4-7 Pneumatic System

**\*\*ON A/C A319-100 A319neo**

#### Pneumatic System

#### 1. High Pressure Air Connector

| ACCESS                                | DISTANCE              |                          |         |                            |
|---------------------------------------|-----------------------|--------------------------|---------|----------------------------|
|                                       | AFT OF NOSE           | FROM AIRCRAFT CENTERLINE |         | MEAN HEIGHT<br>FROM GROUND |
|                                       |                       | LH SIDE                  | RH SIDE |                            |
| HP Connector:<br>Access<br>Door 191DB | 11.38 m<br>(37.34 ft) | 0.84 m<br>(2.76 ft)      | -       | 1.76 m<br>(5.77 ft)        |

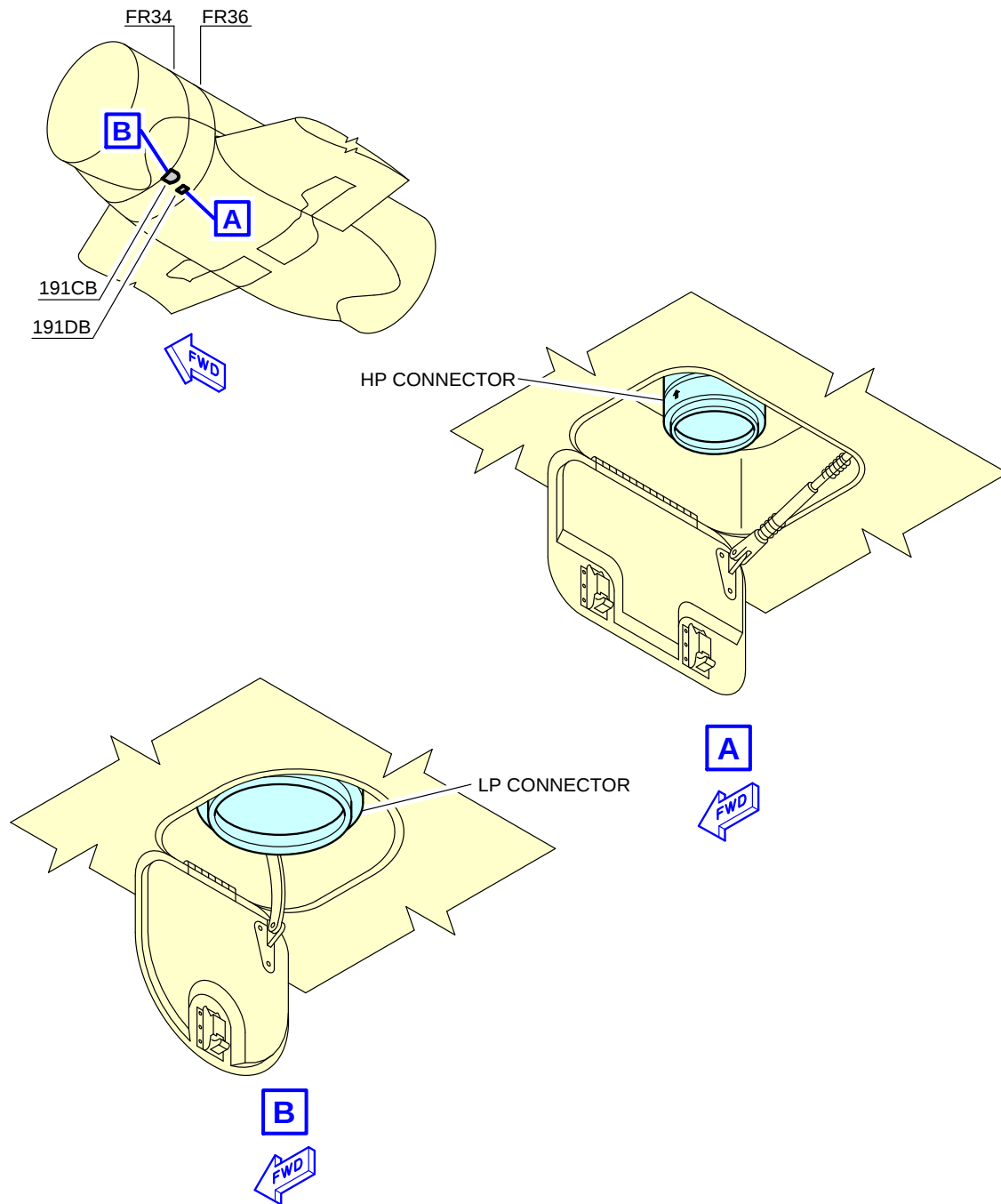
- A. Connector:
- One standard 3 in. ISO 2026 connection.

#### 2. Low Pressure Air Connector

| ACCESS                                | DISTANCE             |                          |         |                            |
|---------------------------------------|----------------------|--------------------------|---------|----------------------------|
|                                       | AFT OF NOSE          | FROM AIRCRAFT CENTERLINE |         | MEAN HEIGHT<br>FROM GROUND |
|                                       |                      | LH SIDE                  | RH SIDE |                            |
| LP Connector:<br>Access<br>Door 191CB | 10.85 m<br>(35.6 ft) | 1.11 m<br>(3.64 ft)      | -       | 1.73 m<br>(5.68 ft)        |

- A. Connector:
- One standard 8 in. SAE AS4262 connection.

**\*\*ON A/C A319-100 A319neo**



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Ground Service Connections  
LP and HP Ground Connectors  
FIGURE-5-4-7-991-001-A01

### 5-4-8 Oil System

#### \*\*ON A/C A319-100 A319neo

#### Oil System

#### \*\*ON A/C A319-100

1. Engine Oil Replenishment for CFM56 Series Engine (See FIGURE 5-4-8-991-003-A):  
One gravity filling cap and one pressure filling connection per engine.

| ACCESS                                                                    | DISTANCE              |                          |                      |                               |
|---------------------------------------------------------------------------|-----------------------|--------------------------|----------------------|-------------------------------|
|                                                                           | AFT OF NOSE           | FROM AIRCRAFT CENTERLINE |                      | MEAN HEIGHT<br>FROM<br>GROUND |
|                                                                           |                       | ENGINE 1 (LH)            | ENGINE 2 (RH)        |                               |
| Engine oil gravity-filling-cap:<br>Access door: 437BL (LH),<br>447BL (RH) | 11.56 m<br>(37.93 ft) | 6.63 m<br>(21.75 ft)     | 4.82 m<br>(15.81 ft) | 1.46 m<br>(4.79 ft)           |
| Engine oil pressure-filling-port:                                         | 11.40 m<br>(37.40 ft) | 6.49 m<br>(21.29 ft)     | 4.74 m<br>(15.55 ft) | 1.42 m<br>(4.66 ft)           |

**NOTE :** Distances are approximate.

- A. Tank capacity:
  - Full level: 19.6 l (5 US gal),
  - Usable: 9.46 l (3 US gal).
- B. Maximum delivery pressure required: 1.72 bar (25 psi).  
Maximum delivery flow required: 180 l/h (48 US gal/h).

2. IDG Oil Replenishment for CFM56 Series Engine (See FIGURE 5-4-8-991-004-A):  
One pressure filling connection per engine: OMP 2506-18 plus one connection overflow: OMP 2505-18.

| ACCESS                                                           | DISTANCE              |                          |                      |                               |
|------------------------------------------------------------------|-----------------------|--------------------------|----------------------|-------------------------------|
|                                                                  | AFT OF NOSE           | FROM AIRCRAFT CENTERLINE |                      | MEAN HEIGHT<br>FROM<br>GROUND |
|                                                                  |                       | ENGINE 1 (LH)            | ENGINE 2 (RH)        |                               |
| IDG oil-pressure-filling connection:<br>Access door: 438AR (LH), | 10.60 m<br>(34.78 ft) | 6.90 m<br>(22.64 ft)     | 5.52 m<br>(18.11 ft) | 0.68 m<br>(2.23 ft)           |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| ACCESS     | DISTANCE    |                          |               |                               |
|------------|-------------|--------------------------|---------------|-------------------------------|
|            | AFT OF NOSE | FROM AIRCRAFT CENTERLINE |               | MEAN HEIGHT<br>FROM<br>GROUND |
|            |             | ENGINE 1 (LH)            | ENGINE 2 (RH) |                               |
| 448AR (RH) |             |                          |               |                               |

**NOTE :** Distances are approximate.

A. Tank capacity: 5 l (1 US gal).

B. Delivery pressure required: 0.34 bar (5 psi) to 2.76 bar (40 psi) at the IDG inlet.

3. Starter Oil Replenishment for CFM56 Series Engine (See FIGURE 5-4-8-991-005-A):  
One gravity filling cap per engine.

| ACCESS                             | DISTANCE              |                          |                      |                               |
|------------------------------------|-----------------------|--------------------------|----------------------|-------------------------------|
|                                    | AFT OF NOSE           | FROM AIRCRAFT CENTERLINE |                      | MEAN HEIGHT<br>FROM<br>GROUND |
|                                    |                       | ENGINE 1 (LH)            | ENGINE 2 (RH)        |                               |
| Starter-oil filling<br>connection: | 11.40 m<br>(37.40 ft) | 5.30 m<br>(17.39 ft)     | 6.20 m<br>(20.34 ft) | 0.76 m<br>(2.49 ft)           |

**NOTE :** Distances are approximate.

A. Tank capacity: 0.8 l (0.21 US gal).

4. Engine Oil Replenishment for IAE V2500 Series Engine (See FIGURE 5-4-8-991-006-B):  
One gravity filling cap per engine.

| ACCESS                                                                           | DISTANCE              |                          |                      |                               |
|----------------------------------------------------------------------------------|-----------------------|--------------------------|----------------------|-------------------------------|
|                                                                                  | AFT OF NOSE           | FROM AIRCRAFT CENTERLINE |                      | MEAN HEIGHT<br>FROM<br>GROUND |
|                                                                                  |                       | ENGINE 1 (LH)            | ENGINE 2 (RH)        |                               |
| Engine oil gravity-filling-<br>cap:<br>Access door: 437BL<br>(LH),<br>447BL (RH) | 10.64 m<br>(34.91 ft) | 6.56 m<br>(21.52 ft)     | 4.92 m<br>(16.14 ft) | 1.22 m<br>(4.00 ft)           |

**NOTE :** Distances are approximate.

A. Tank capacity:

- Full level: 28 l (7 US gal),

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

- Usable: 23.50 l (6 US gal).

- IDG Oil Replenishment for IAE V2500 Series Engine (See FIGURE 5-4-8-991-007-B):  
One pressure filling connection per engine: OMP 2506-2 plus one overflow connection: OMP 2505-2.

| ACCESS                               | DISTANCE              |                          |                      |                               |
|--------------------------------------|-----------------------|--------------------------|----------------------|-------------------------------|
|                                      | AFT OF NOSE           | FROM AIRCRAFT CENTERLINE |                      | MEAN HEIGHT<br>FROM<br>GROUND |
|                                      |                       | ENGINE 1 (LH)            | ENGINE 2 (RH)        |                               |
| IDG oil-pressure-filling connection: | 11.04 m<br>(36.22 ft) | 5.30 m<br>(17.39 ft)     | 6.14 m<br>(20.14 ft) | 0.75 m<br>(2.46 ft)           |

NOTE : Distances are approximate.

- Tank capacity: 4.10 l (1 US gal).

- Starter Oil Replenishment for IAE V2500 Series Engine (See FIGURE 5-4-8-991-008-B):  
One gravity filling cap per engine.

| ACCESS                          | DISTANCE              |                          |                      |                               |
|---------------------------------|-----------------------|--------------------------|----------------------|-------------------------------|
|                                 | AFT OF NOSE           | FROM AIRCRAFT CENTERLINE |                      | MEAN HEIGHT<br>FROM<br>GROUND |
|                                 |                       | ENGINE 1 (LH)            | ENGINE 2 (RH)        |                               |
| Starter-oil filling connection: | 11.04 m<br>(36.22 ft) | 5.30 m<br>(17.39 ft)     | 6.14 m<br>(20.14 ft) | 0.75 m<br>(2.46 ft)           |

NOTE : Distances are approximate.

- Tank capacity: 0.35 l (0.09 US gal).

### **\*\*ON A/C A319neo**

- Engine Oil Replenishment for CFM LEAP-1A Series Engine (See FIGURE 5-4-8-991-010-A):  
One gravity filling cap and one pressure filling connection per engine.

| ACCESS                                                            | DISTANCE    |                          |               |                               |
|-------------------------------------------------------------------|-------------|--------------------------|---------------|-------------------------------|
|                                                                   | AFT OF NOSE | FROM AIRCRAFT CENTERLINE |               | MEAN HEIGHT<br>FROM<br>GROUND |
|                                                                   |             | ENGINE 1 (LH)            | ENGINE 2 (RH) |                               |
| Engine oil gravity-filling-cap:<br>Access doors: 438BR and 448BR. | TBD         | TBD                      | TBD           | TBD                           |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| ACCESS                                                              | DISTANCE    |                          |               |                               |
|---------------------------------------------------------------------|-------------|--------------------------|---------------|-------------------------------|
|                                                                     | AFT OF NOSE | FROM AIRCRAFT CENTERLINE |               | MEAN HEIGHT<br>FROM<br>GROUND |
|                                                                     |             | ENGINE 1 (LH)            | ENGINE 2 (RH) |                               |
| Engine oil pressure-filling-port:<br>Access doors: 438BR and 448BR. | TBD         | TBD                      | TBD           | TBD                           |

**NOTE :** Distances are approximate.

**A. Tank capacity:**

- Full level: 23.45 l (6 US gal)
- Usable: 18.7 l (5 US gal)
- Consumable level: 7.7 l (2 US gal).

**8. IDG Oil Replenishment for CFM LEAP-1A Series Engine (See FIGURE 5-4-8-991-011-A):**

| ACCESS                                                                                                   | DISTANCE    |                          |               |                               |
|----------------------------------------------------------------------------------------------------------|-------------|--------------------------|---------------|-------------------------------|
|                                                                                                          | AFT OF NOSE | FROM AIRCRAFT CENTERLINE |               | MEAN HEIGHT<br>FROM<br>GROUND |
|                                                                                                          |             | ENGINE 1 (LH)            | ENGINE 2 (RH) |                               |
| IDG oil-pressure-filling connection:<br>Access doors: 437AL (LH), 438AR (LH), 447AL (RH) and 448AR (RH). | TBD         | TBD                      | TBD           | TBD                           |

**NOTE :** Distances are approximate.

**A. IDG oil tank capacity: 5.7 l (2 US gal) (additional amount of 0.9 l (0.2 US gal) is necessary to ensure a complete filling).**

**B. Maximum servicing pressure:**

- 0.5 bar (7 psi), when "DESHONS" tool is used.
- 2.41 bar (35 psi), when other tools are used.

**9. Starter Oil Replenishment for CFM LEAP-1A Series Engine (See FIGURE 5-4-8-991-012-A):**  
One gravity filling cap per engine.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| ACCESS                                                            | DISTANCE    |                          |               |                               |
|-------------------------------------------------------------------|-------------|--------------------------|---------------|-------------------------------|
|                                                                   | AFT OF NOSE | FROM AIRCRAFT CENTERLINE |               | MEAN HEIGHT<br>FROM<br>GROUND |
|                                                                   |             | ENGINE 1 (LH)            | ENGINE 2 (RH) |                               |
| Starter-oil filling connection:<br>Access doors: 438BR and 448BR. | TBD         | TBD                      | TBD           | TBD                           |

NOTE : Distances are approximate.

A. Tank capacity: 0.5 l (0.1 US gal).

### **\*\*ON A/C A319-100 A319neo**

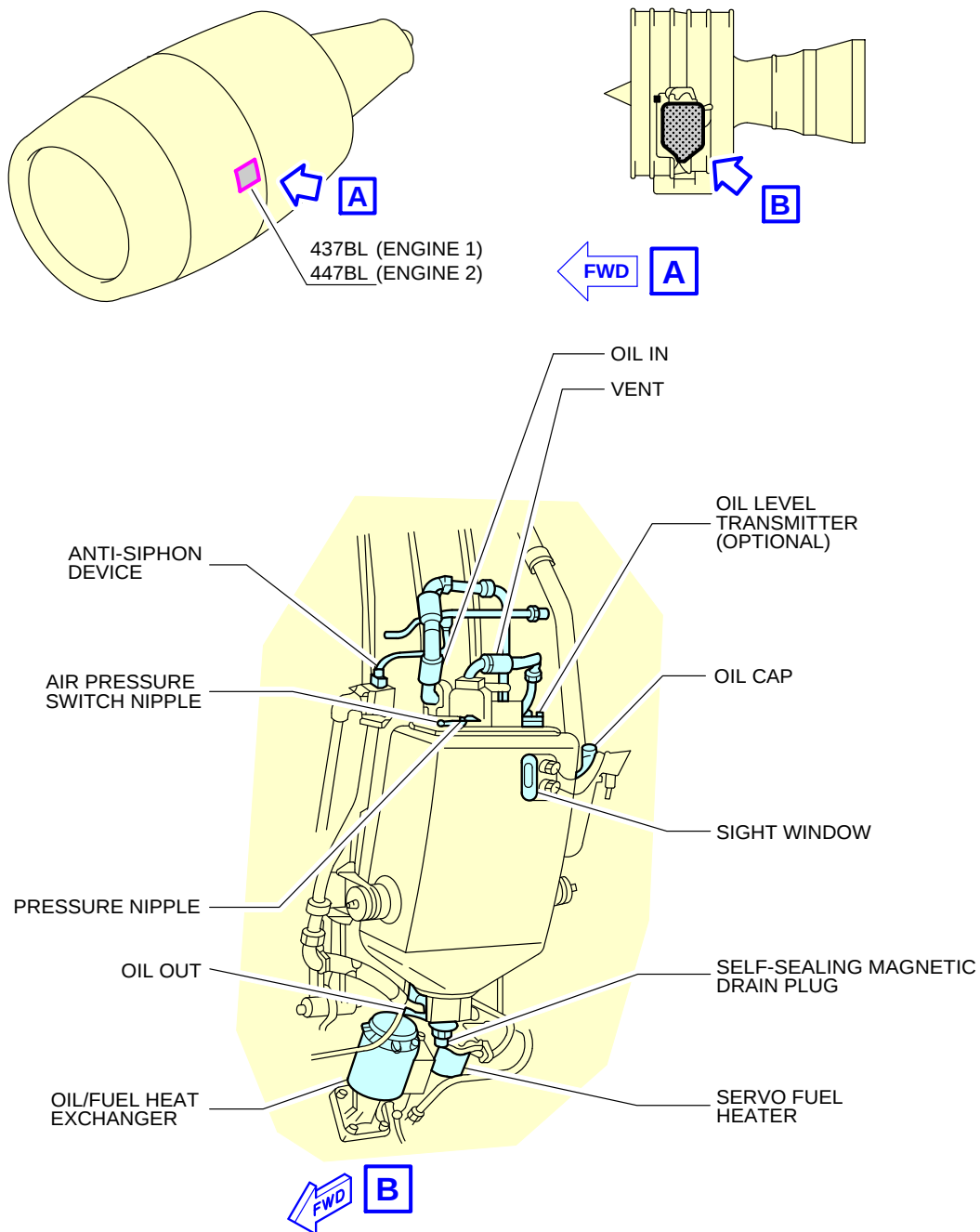
10. APU Oil System (See FIGURE 5-4-8-991-009-A):  
APU oil gravity-filling-cap.

| ACCESS      | DISTANCE               |                          |               |                               |
|-------------|------------------------|--------------------------|---------------|-------------------------------|
|             | AFT OF NOSE            | FROM AIRCRAFT CENTERLINE |               | MEAN HEIGHT<br>FROM<br>GROUND |
|             |                        | ENGINE 1 (LH)            | ENGINE 2 (RH) |                               |
| GTCP 36-300 | 31.76 m<br>(104.20 ft) | 0.30 m<br>(0.98 ft)      | -             | 4.83 m<br>(15.85 ft)          |
| APS 3200    | 31.76 m<br>(104.20 ft) | 0.30 m<br>(0.98 ft)      | -             | 4.78 m<br>(15.68 ft)          |
| 131-9       | 31.66 m<br>(103.87 ft) | 0.35 m<br>(1.15 ft)      | -             | 4.32 m<br>(14.17 ft)          |

NOTE : Distances are approximate.

- A. Tank capacity (usable):
- APU type GTCP 36-300: 6.20 l (2 US gal),
  - APU type APS 3200: 5.40 l (1 US gal),
  - APU type 131-9: 6.25 l (2 US gal).

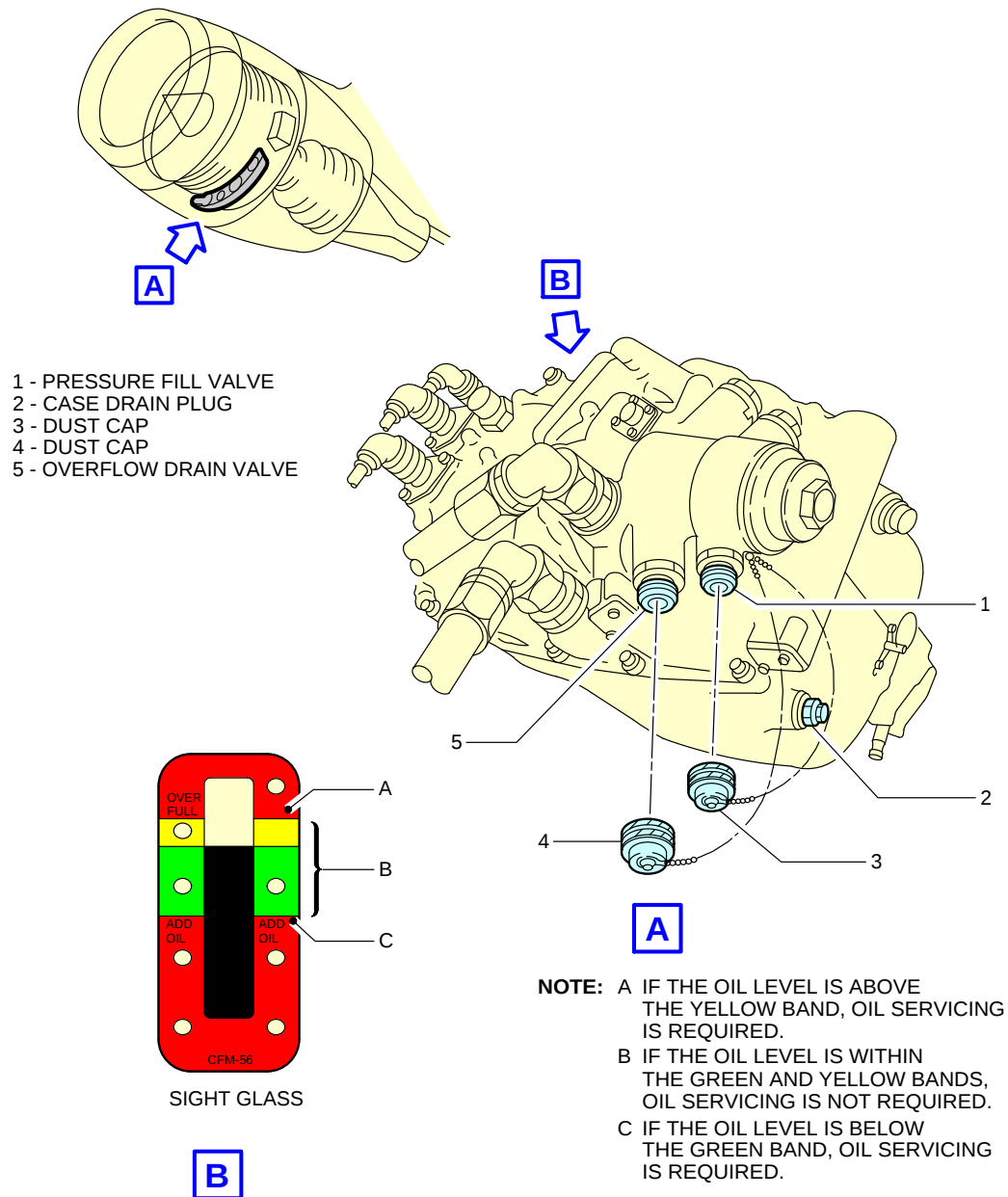
**\*\*ON A/C A319-100**



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Ground Service Connections  
Engine Oil Tank – CFM56 Series Engine  
FIGURE-5-4-8-991-003-A01

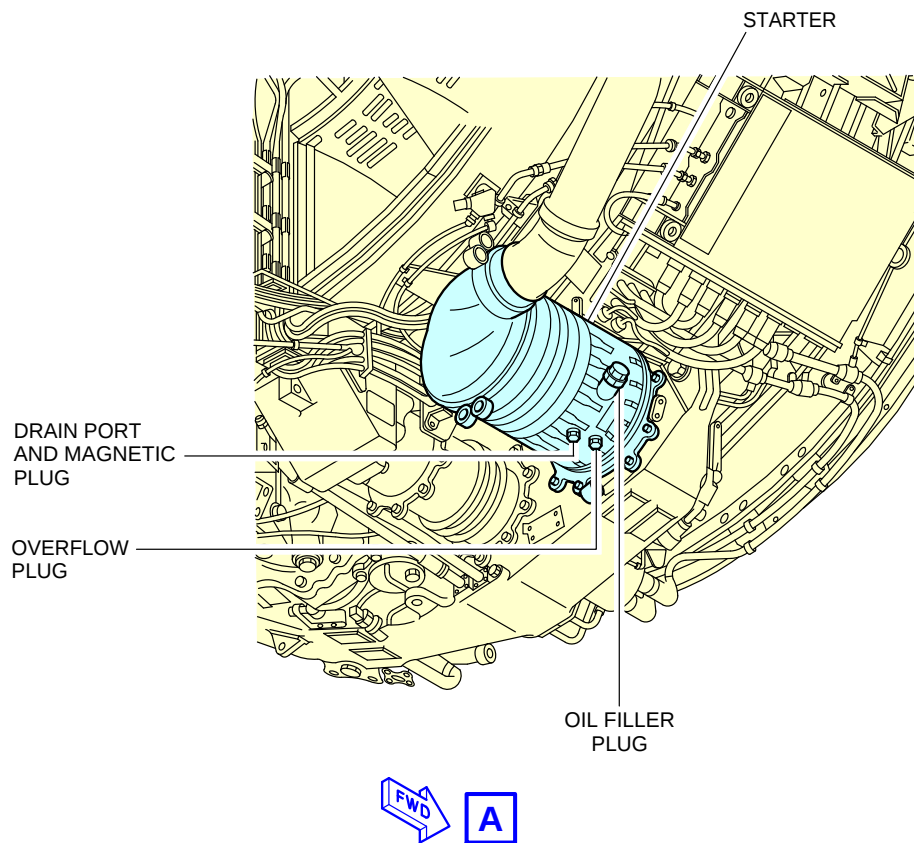
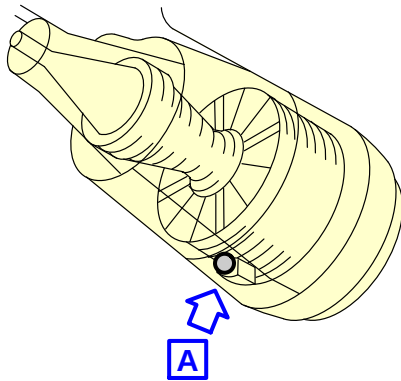
**\*\*ON A/C A319-100**



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Ground Service Connections  
IDG Oil Tank – CFM56 Series Engine  
FIGURE-5-4-8-991-004-A01

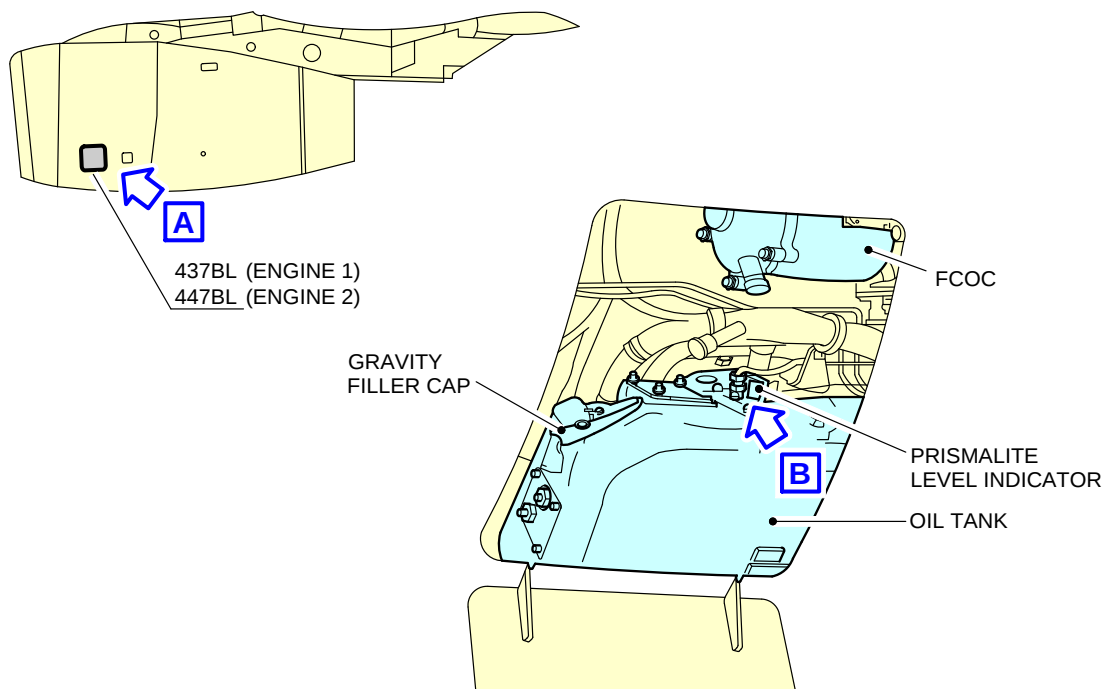
**\*\*ON A/C A319-100**



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Ground Service Connections  
Starter Oil Tank – CFM56 Series Engine  
FIGURE-5-4-8-991-005-A01

**\*\*ON A/C A319-100**

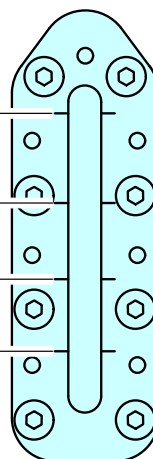


'FULL' LEVEL NOTCH  
27.3 LT  
29.0 US QTS  
6.0 IMP GAL  
(WITHIN 60 MIN FROM SHUTDOWN)

NOTCH '1'  
26 LT  
27 US QTS  
5.7 IMP GAL

NOTCH '2'  
23 LT  
24 US QTS  
5.1 IMP GAL

NOTCH '3'  
20 LT  
22 US QTS  
4.5 IMP GAL

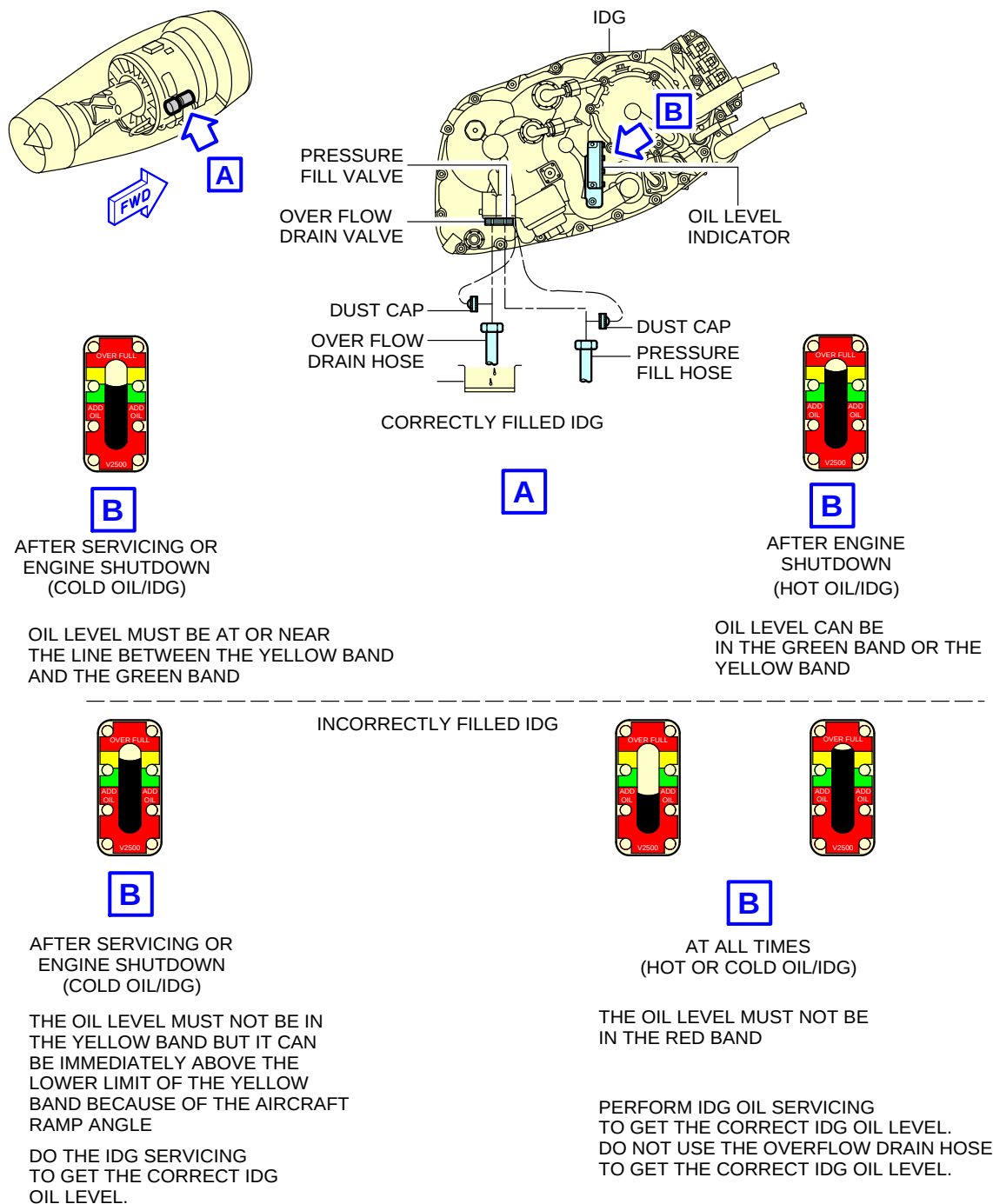


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Ground Service Connections  
Engine Oil Tank – IAE V2500 Series Engine  
FIGURE-5-4-8-991-006-B01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

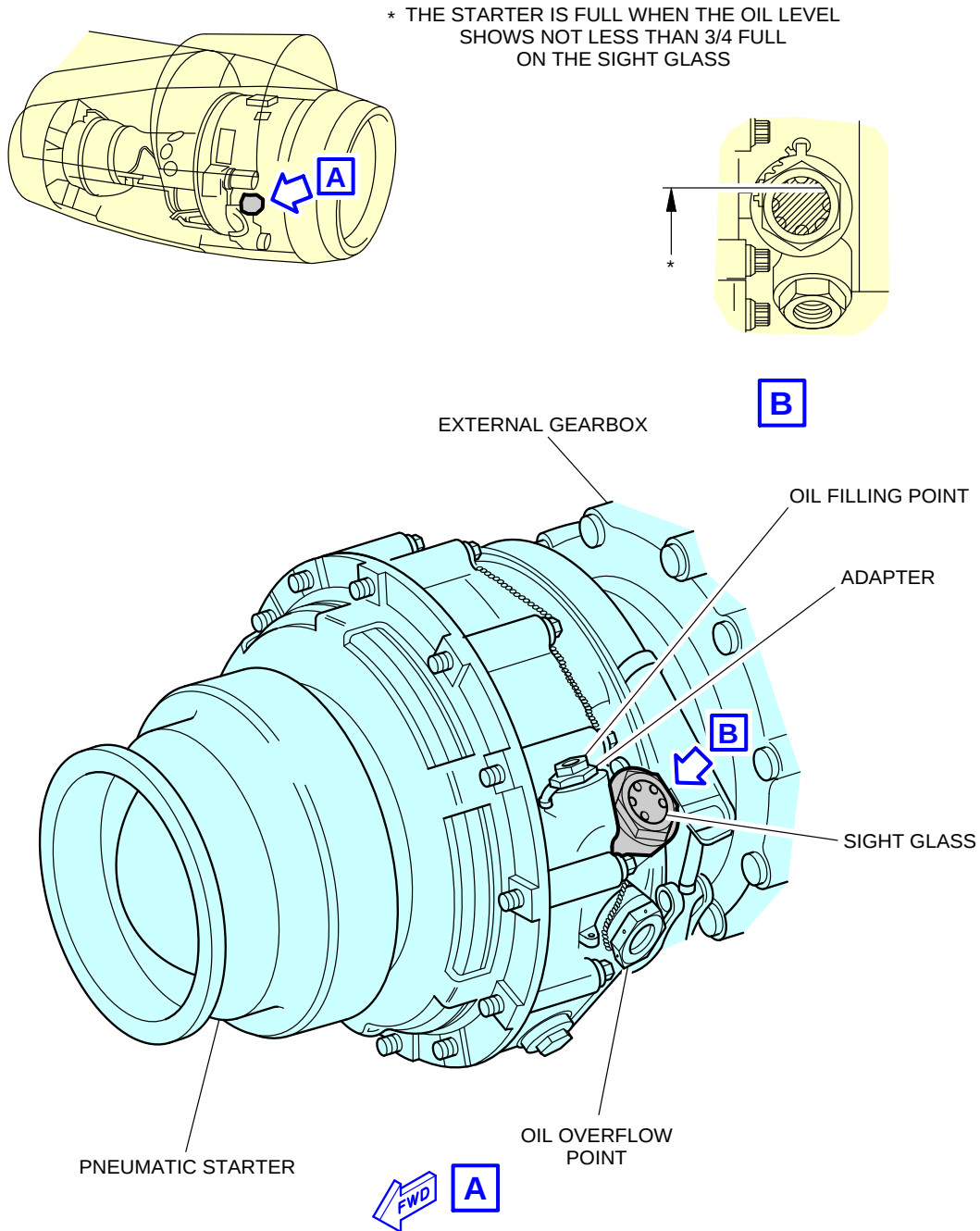
**\*\*ON A/C A319-100**



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Ground Service Connections  
IDG Oil Tank – IAE V2500 Series Engine  
FIGURE-5-4-8-991-007-B01

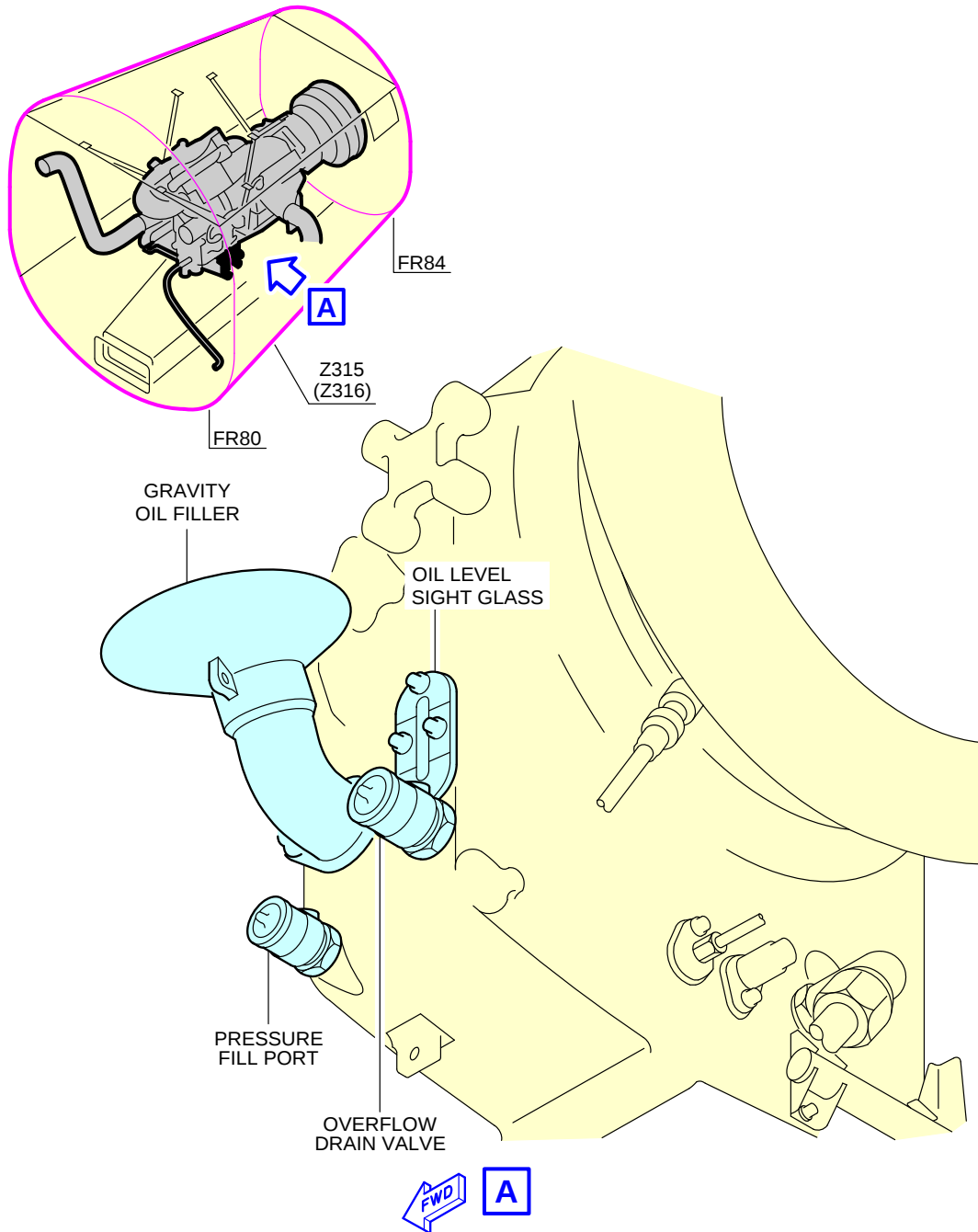
**\*\*ON A/C A319-100**



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Ground Service Connections  
 Starter Oil Tank – IAE V2500 Series Engine  
 FIGURE-5-4-8-991-008-B01

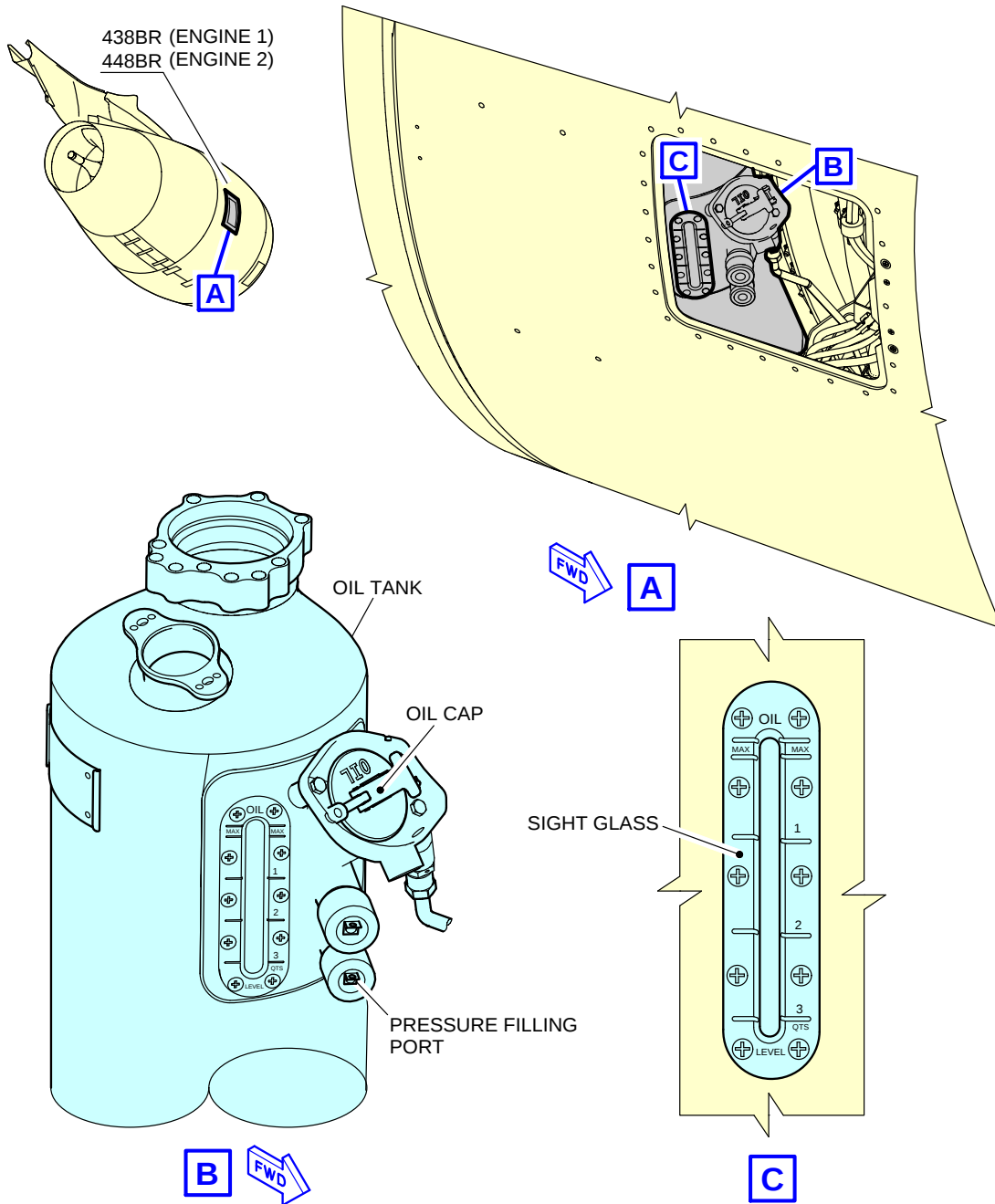
**\*\*ON A/C A319-100 A319neo**



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Ground Service Connections  
APU Oil Tank  
FIGURE-5-4-8-991-009-A01

**\*\*ON A/C A319neo**

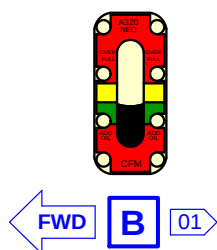
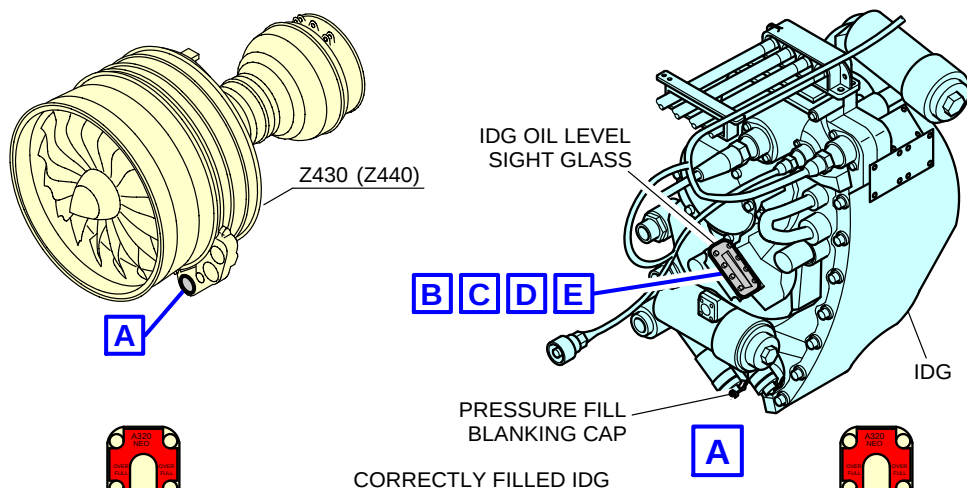


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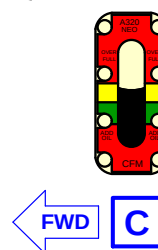
Ground Service Connections  
Engine Oil Tank – CFM LEAP-1A Series Engine  
FIGURE-5-4-8-991-010-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**

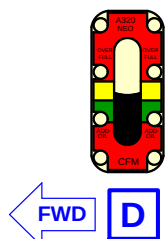


**COLD OIL CONDITION:**  
THE OIL LEVEL MUST BE AT OR NEAR  
THE LINE BETWEEN THE YELLOW BAND AND  
THE GREEN BAND WITH A TOLERANCE OF  $\pm 2$  mm.

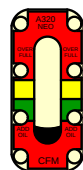


**HOT OIL CONDITION:**  
THE OIL LEVEL MUST BE  
IN THE YELLOW BAND.

INCORRECTLY FILLED IDG



**COLD OIL CONDITION:**  
THE OIL LEVEL MUST NOT BE IN  
THE YELLOW BAND.  
DO THE IDG DRAINING TO GET  
THE CORRECT IDG OIL LEVEL.



**AT ALL TIMES  
(HOT OR COLD OIL/IDG)**  
THE OIL LEVEL MUST NOT BE  
IN THE RED BAND.

IF THE OIL LEVEL IS IN THE TOP OF THE  
RED BAND, DO THE IDG DRAINING TO  
GET THE CORRECT IDG OIL LEVEL.  
IF THE OIL LEVEL IS IN THE BOTTOM OF THE  
RED BAND, DO THE IDG SERVICING TO  
GET THE CORRECT IDG OIL LEVEL.  
DO NOT USE THE OVERFLOW DRAIN HOSE  
TO GET THE CORRECT IDG OIL LEVEL.

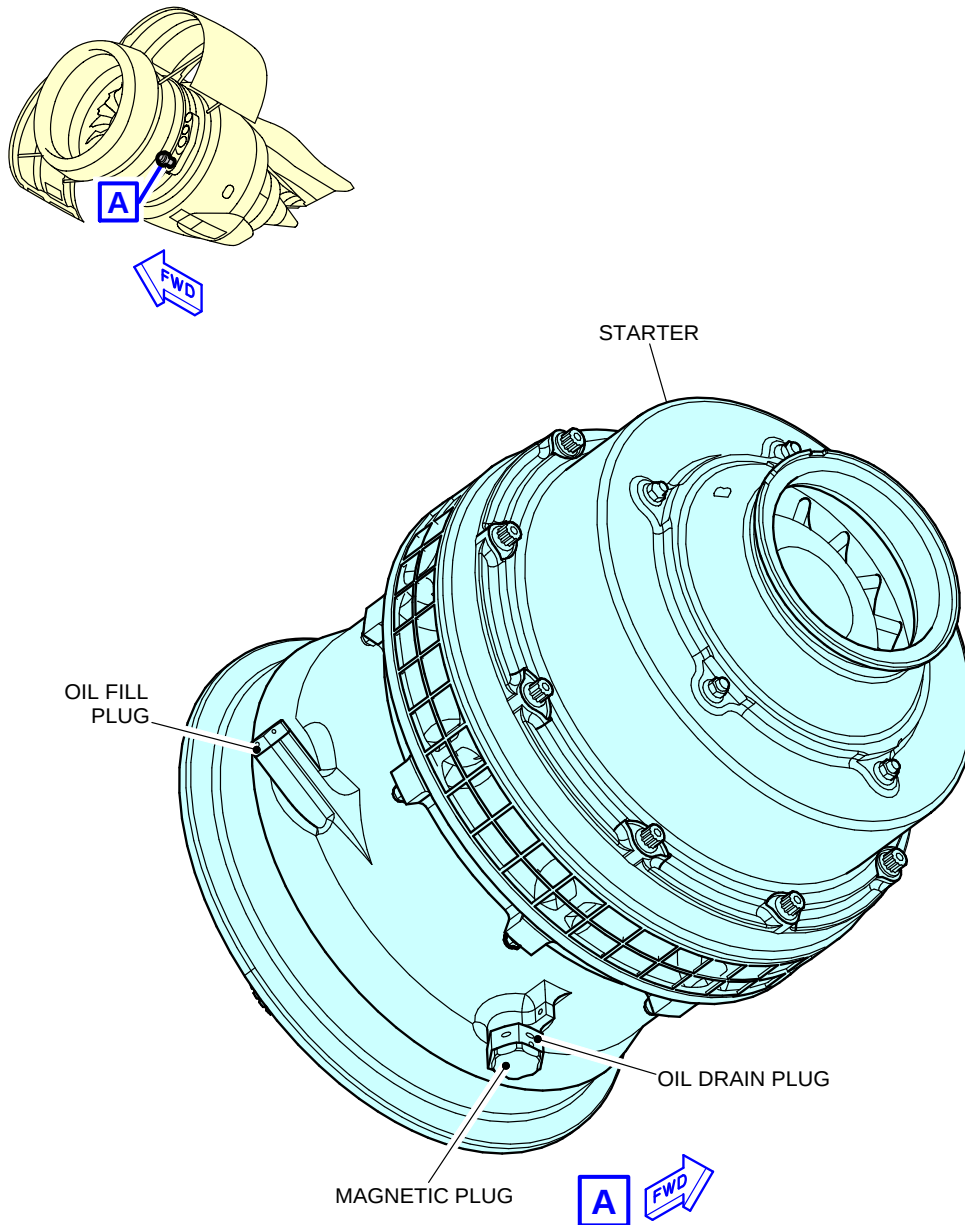
**NOTE:**

**01** IF THE OIL LEVEL IS NOT IN THE TOP OF THE  
GREEN BAND WITH A TOLERANCE OF  $\pm 2$  mm,  
IT IS RECOMMENDED TO FILL THE IDG AGAIN.

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Ground Service Connections  
IDG Oil Tank – CFM LEAP-1A Series Engine  
FIGURE-5-4-8-991-011-A01

**\*\*ON A/C A319neo**



N\_AC\_050408\_1\_0120101\_01\_00

Ground Service Connections  
 Starter Oil Tank – CFM LEAP-1A Series Engine  
 FIGURE-5-4-8-991-012-A01

### 5-4-9 Potable Water System

**\*\*ON A/C A319-100 A319neo**

#### Potable Water System

#### 1. Potable Water Ground Service Panels

| ACCESS                                         | DISTANCE             |                                   |         |                         |
|------------------------------------------------|----------------------|-----------------------------------|---------|-------------------------|
|                                                | AFT OF NOSE          | POSITION FROM AIRCRAFT CENTERLINE |         | MEAN HEIGHT FROM GROUND |
|                                                |                      | LH SIDE                           | RH SIDE |                         |
| Potable-Water Service Panel: Access Door 171AL | 27.5 m<br>(90.22 ft) | 0.3 m<br>(0.98 ft)                | -       | 2.6 m<br>(8.53 ft)      |
| Potable-Water Drain Panel: Access Door 133AL   | 11.8 m<br>(38.71 ft) | 0.15 m<br>(0.49 ft)               | -       | 1.75 m<br>(5.74 ft)     |

NOTE : Distances are approximate.

#### 2. Technical Specifications

##### A. Connectors:

- (1) On the potable-water service panel (Access Door 171AL)
  - Fill/Drain Nipple 3/4 in. (ISO 17775).
  - One ground air-pressure connector.
- (2) On the potable-water drain panel (Access Door 133AL)
  - Drain Nipple 3/4 in. (ISO 17775).

##### B. Usable capacity:

- Standard configuration - one tank: 200 l (53 US gal).
- A321NEO-XLR - one forward tank: 188 l (50 US gal).
- A321NEO-XLR - one aft tank: 200 l (53 US gal).

##### C. Filling pressure:

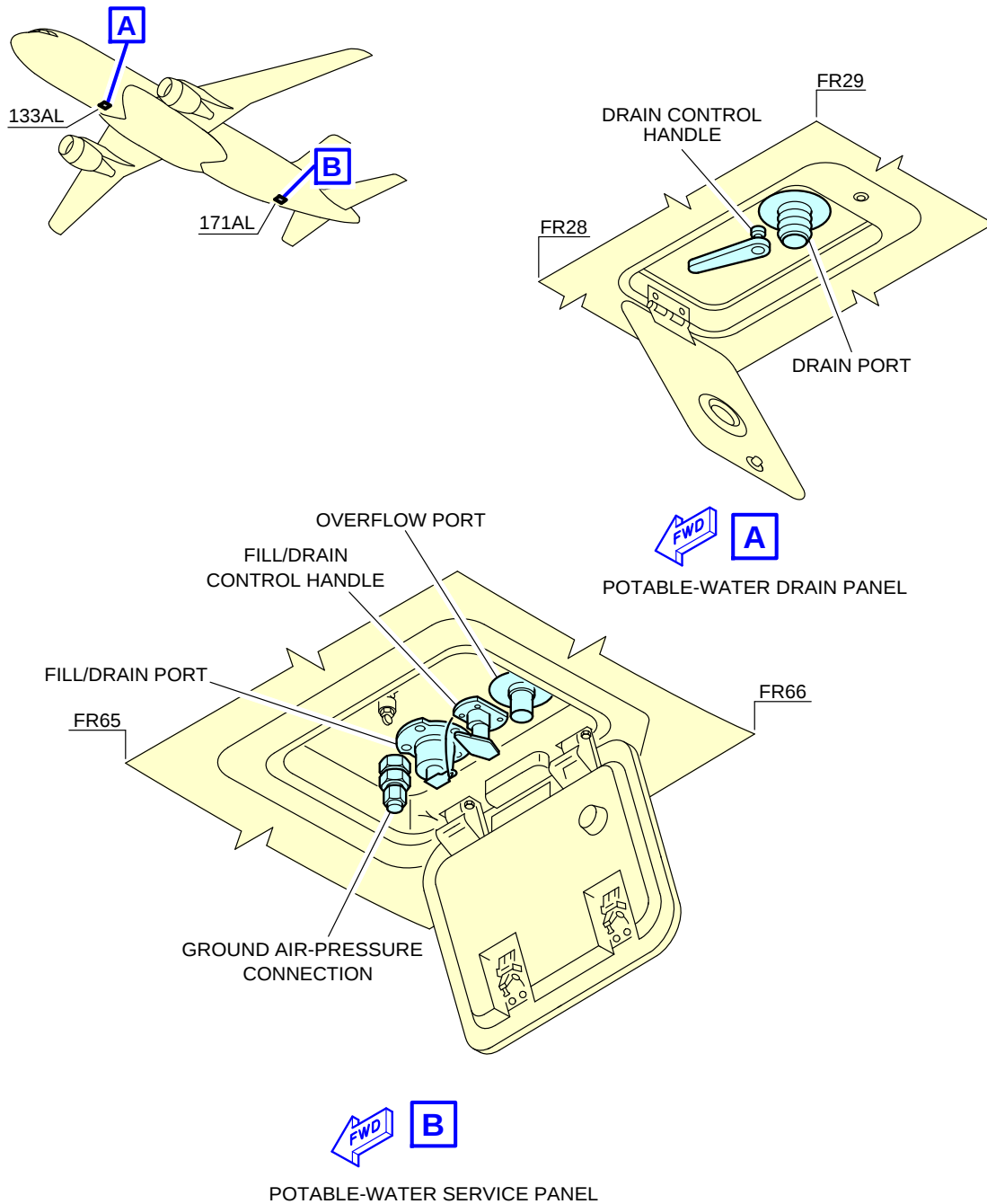
- 3.45 bar (50 psi).

##### D. Typical flow rate:

- 50 l/min (13 US gal/min).



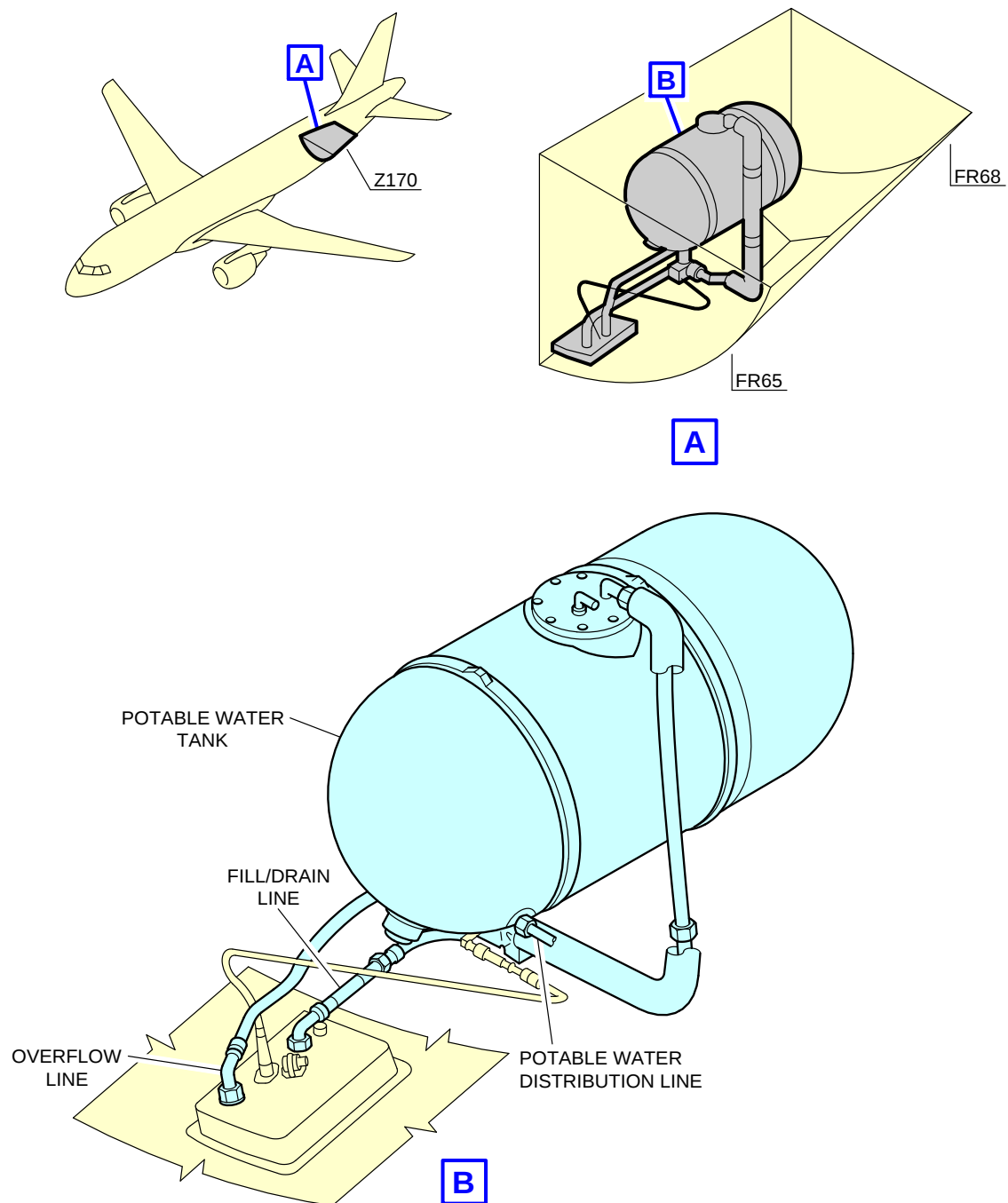
**\*\*ON A/C A319-100 A319neo**



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Ground Service Connections  
Potable Water Ground Service Panels  
FIGURE-5-4-9-991-029-A01

**\*\*ON A/C A319-100 A319neo**



N\_AC\_050409\_1\_0300101\_01\_00

Ground Service Connections  
Potable Water Tank Location  
FIGURE-5-4-9-991-030-A01

### 5-4-10 Waste Water System

**\*\*ON A/C A319-100 A319neo**

#### Waste Water System

#### 1. Waste Water System

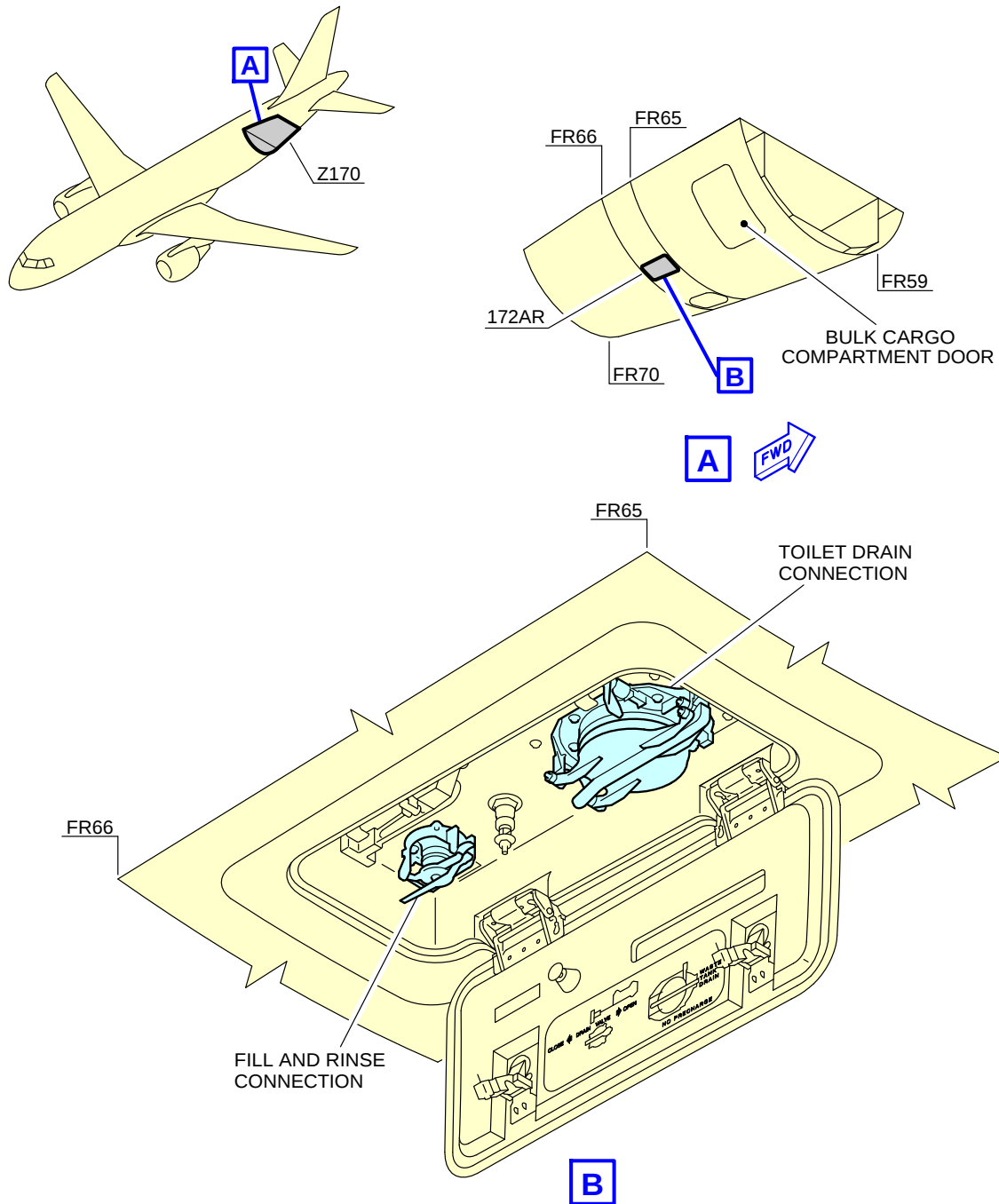
| ACCESS                                                       | DISTANCE             |                                      |                    |                            |
|--------------------------------------------------------------|----------------------|--------------------------------------|--------------------|----------------------------|
|                                                              | AFT OF NOSE          | POSITION FROM<br>AIRCRAFT CENTERLINE |                    | MEAN HEIGHT<br>FROM GROUND |
|                                                              |                      | LH SIDE                              | RH SIDE            |                            |
| Waste-Water<br>Ground Service<br>Panel:<br>Access door 172AR | 27.5 m<br>(90.22 ft) | -                                    | 0.8 m<br>(2.62 ft) | 2.8 m<br>(9.19 ft)         |

NOTE : Distances are approximate.

#### 2. Technical Specifications

- A. Connectors:
  - Draining: 4 in. (ISO 17775).
  - Flushing and filling: 1 in. (ISO 17775).
- B. Usable waste tank capacity:
  - Standard configuration - one tank: 177 l (47 US gal).
- C. Waste tank - Rinsing:
  - Operating pressure: 3.45 bar (50 psi).
- D. Waste tank - Precharge:
  - 10 l (3 US gal).

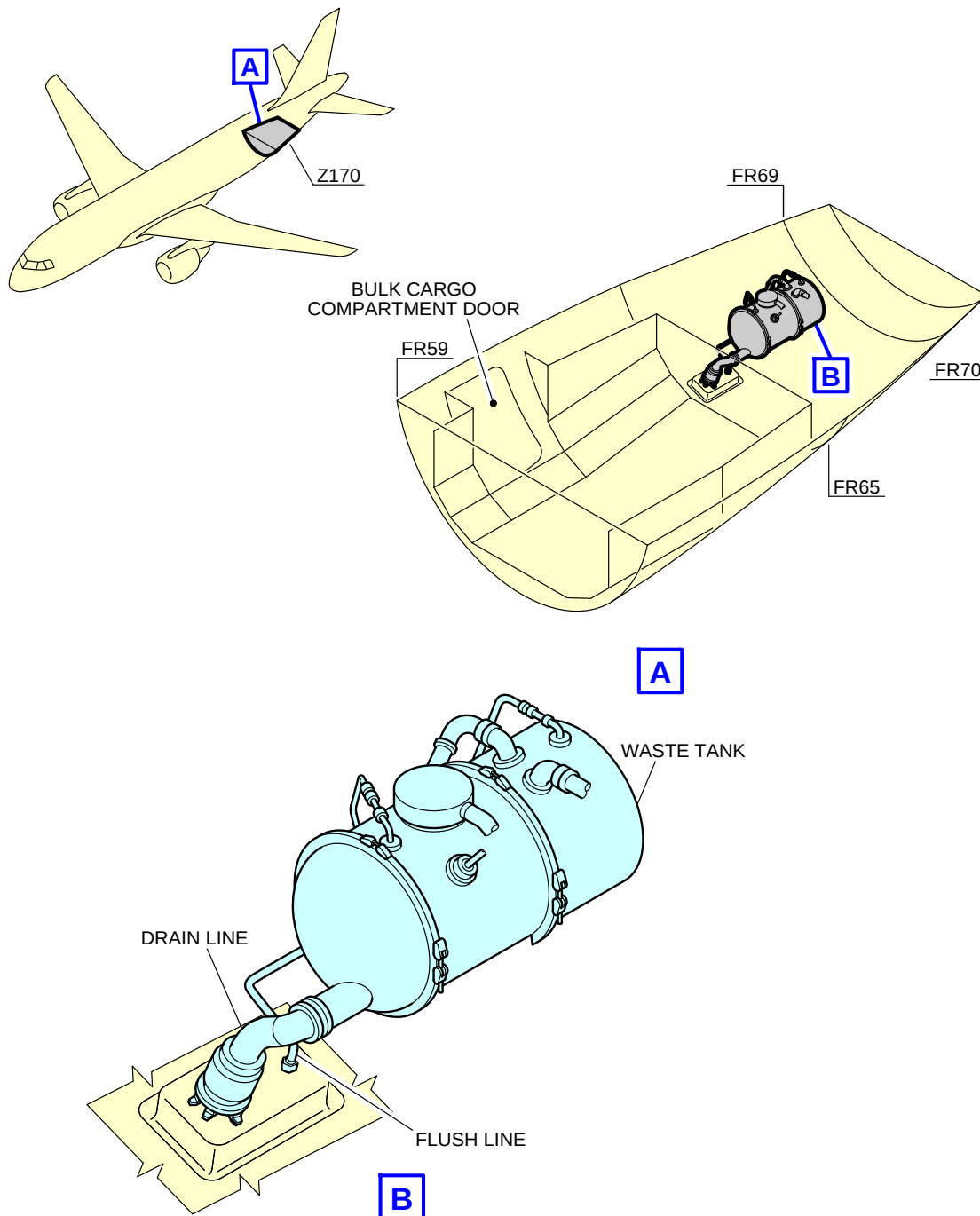
**\*\*ON A/C A319-100 A319neo**



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Ground Service Connections  
Waste Water Ground Service Panel  
FIGURE-5-4-10-991-001-A01

**\*\*ON A/C A319-100 A319neo**



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Ground Service Connections  
Waste Tank Location  
FIGURE-5-4-10-991-004-A01

### 5-5-0 Engine Starting Pneumatic Requirements

#### **\*\*ON A/C A319-100 A319neo**

#### Engine Starting Pneumatic Requirements

1. The function of this section gives the minimum air-data requirements at the aircraft.

| Abbreviation | Definition                      |
|--------------|---------------------------------|
| ASU          | Air Start Unit                  |
| HPGC         | High Pressure Ground Connection |
| OAT          | Outside Air Temperature         |

- A. The pressure at HPGC must not be more than 60 psig (75 psia) and less than 33 psig (48 psia). The temperature must be less than 220 °C (428 °F).
- B. The recommended pressure at HPGC is 40 psig (55 psia).
- C. The OAT and the ASU performances (see the technical data from the ASU manufacturer) effect the ASU output temperature.
- D. The tables provide the global requirements for the airflow start for one engine.  
If necessary, connect two ASUs in parallel which gives the same pressure (one for each HPGC) to supply the necessary airflow to the aircraft.

#### **\*\*ON A/C A319-100**

2. CFM56 Engines for an OAT between -40 °C (-40 °F) and 55 °C (131 °F) at Sea Level

| ASU Output Temperature Range      | Pressure at HPGC  | Mass Flow at HPGC   |
|-----------------------------------|-------------------|---------------------|
| 100 °C (212 °F) - 125 °C (257 °F) | 40 psig (55 psia) | 186 ppm (84 kg/min) |
| 125 °C (257 °F) - 175 °C (347 °F) | 40 psig (55 psia) | 180 ppm (82 kg/min) |
| 175 °C (347 °F) - 220 °C (428 °F) | 40 psig (55 psia) | 169 ppm (77 kg/min) |

| ASU Output Temperature Range | Pressure at HPGC  | Mass Flow at HPGC |
|------------------------------|-------------------|-------------------|
| TBD                          | 40 psig (55 psia) | TBD               |

3. IAE V2500 Engines for an OAT between -40 °C (-40 °F) and 55 °C (131 °F)

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| ASU Output Temperature Range      | Pressure at HPGC  | Mass Flow at HPGC   |
|-----------------------------------|-------------------|---------------------|
| 100 °C (212 °F) - 125 °C (257 °F) | 40 psig (55 psia) | 167 ppm (76 kg/min) |
| 125 °C (257 °F) - 175 °C (347 °F) | 40 psig (55 psia) | 162 ppm (73 kg/min) |
| 175 °C (347 °F) - 220 °C (428 °F) | 40 psig (55 psia) | 152 ppm (69 kg/min) |

| ASU Output Temperature Range | Pressure at HPGC  | Mass Flow at HPGC |
|------------------------------|-------------------|-------------------|
| TBD                          | 40 psig (55 psia) | TBD               |

### \*\*ON A/C A319neo

4. CFM Leap Engines for an OAT between -40° C (-40 °F) and 55 °C (131 °F)

| ASU Output Temperature Range      | Pressure at HPGC  | Mass Flow at HPGC   |
|-----------------------------------|-------------------|---------------------|
| 100 °C (212 °F) - 125 °C (257 °F) | 40 psig (55 psia) | 196 ppm (89 kg/min) |
| 125 °C (257 °F) - 175 °C (347 °F) | 40 psig (55 psia) | 189 ppm (86 kg/min) |
| 175 °C (347 °F) - 220 °C (428 °F) | 40 psig (55 psia) | 179 ppm (81 kg/min) |

| ASU Output Temperature Range | Pressure at HPGC  | Mass Flow at HPGC |
|------------------------------|-------------------|-------------------|
| TBD                          | 40 Psig (55 Psia) | TBD               |

5. PW1100G Engines for an OAT between -40 °C (-40 °F) and 55 °C (131 °F)

| ASU Output Temperature Range      | Pressure at HPGC  | Mass Flow at HPGC   |
|-----------------------------------|-------------------|---------------------|
| 100 °C (212 °F) - 125 °C (257 °F) | 40 psig (55 psia) | 194 ppm (88 kg/min) |
| 125 °C (257 °F) - 175 °C (347 °F) | 40 psig (55 psia) | 188 ppm (85 kg/min) |
| 175 °C (347 °F) - 220 °C (428 °F) | 40 psig (55 psia) | 177 ppm (80 kg/min) |

| ASU Output Temperature Range | Pressure at HPGC  | Mass Flow at HPGC |
|------------------------------|-------------------|-------------------|
| TBD                          | 40 psig (55 psia) | TBD               |

### 5-6-0 Ground Pneumatic Power Requirements

#### **\*\*ON A/C A319-100 A319neo**

#### Ground Pneumatic Power Requirements

##### 1. General

This section describes the required performance for the ground equipment to maintain the cabin temperature at 27 °C (80.6 °F) for the cooling or 21 °C (69.8 °F) for heating cases after boarding (Section 5.7 - steady state), and provides the time needed to cool down or heat up the aircraft cabin to the required temperature (Section 5.6 - dynamic cases with aircraft empty).

| ABBREVIATION | DEFINITION                  |
|--------------|-----------------------------|
| A/C          | Aircraft                    |
| AHM          | Aircraft Handling Manual    |
| AMM          | Aircraft Maintenance Manual |
| GC           | Ground Connection           |
| GSE          | Ground Service Equipment    |
| IFE          | In-Flight Entertainment     |
| OAT          | Outside Air Temperature     |
| PCA          | Pre-Conditioned Air         |

- A. The air flow rates and temperature requirements for the GSE, provided in Sections 5.6 and 5.7, are given at A/C ground connection.

**NOTE :** The cooling capacity of the equipment (kW) is only indicative and is not sufficient by itself to ensure the performance (outlet temperature and flow rate combinations are the requirements needed for ground power). An example of cooling capacity calculation is given in Section 5.7.

**NOTE :** The maximum air flow is driven by pressure limitation at the ground connection.

- B. For temperatures at ground connection below 2 °C (35.6 °F) (Subfreezing), the ground equipment shall be compliant with the Airbus document "Subfreezing PCA Carts - Compliance Document for Suppliers" (contact Airbus to obtain this document) defining all the requirements with which Subfreezing Pre-Conditioning Air equipment must comply to allow its use on Airbus aircraft. These requirements are in addition to the functional specifications included in the IATA AHM997.

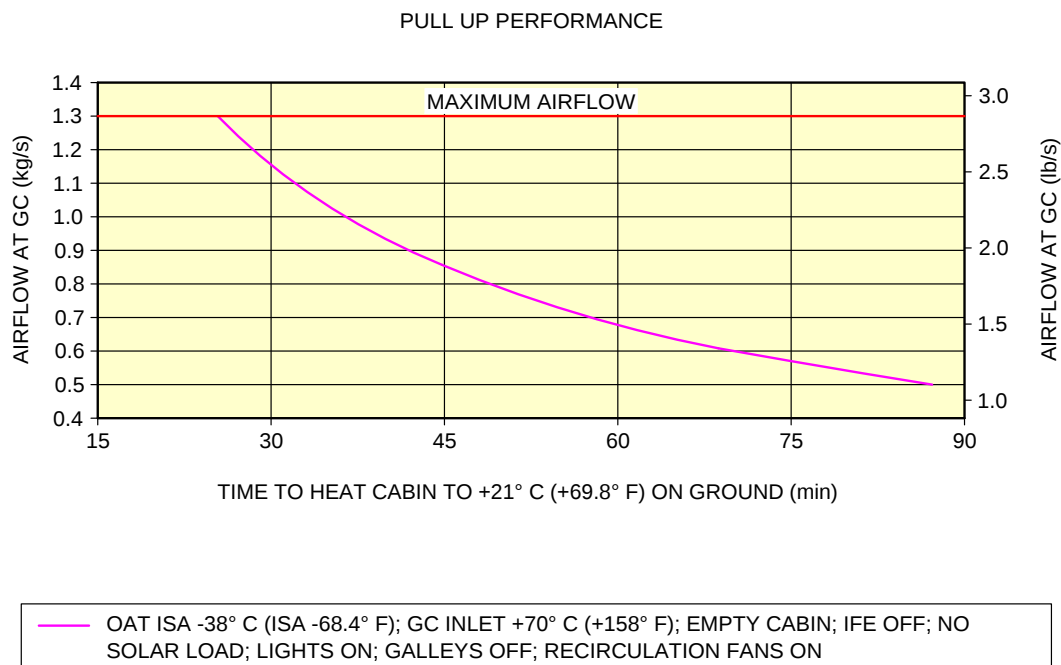
##### 2. Ground Pneumatic Power Requirements

This section provides the ground pneumatic power requirements for:

**AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING**

- Heating (pull up) the cabin, initially at OAT, up to 21 °C (69.8 °F) (see FIGURE 5-6-0-991-001-A)
- Cooling (pull down) the cabin, initially at OAT, down to 27 °C (80.6 °F) (see FIGURE 5-6-0-991-002-A).

**\*\*ON A/C A319-100 A319neo**

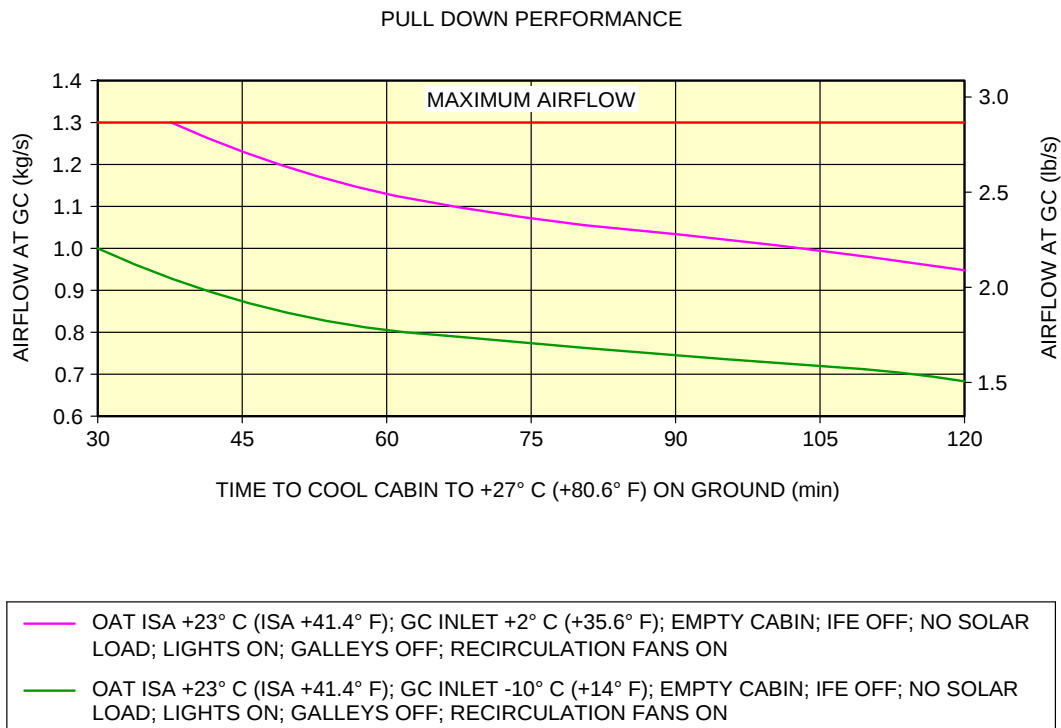


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Ground Pneumatic Power Requirements  
Heating  
FIGURE-5-6-0-991-001-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



N\_AC\_050600\_1\_0020101\_01\_01

Ground Pneumatic Power Requirements  
Cooling  
FIGURE-5-6-0-991-002-A01

**5-7-0 Preconditioned Airflow Requirements****\*\*ON A/C A319-100 A319neo**Preconditioned Airflow Requirements

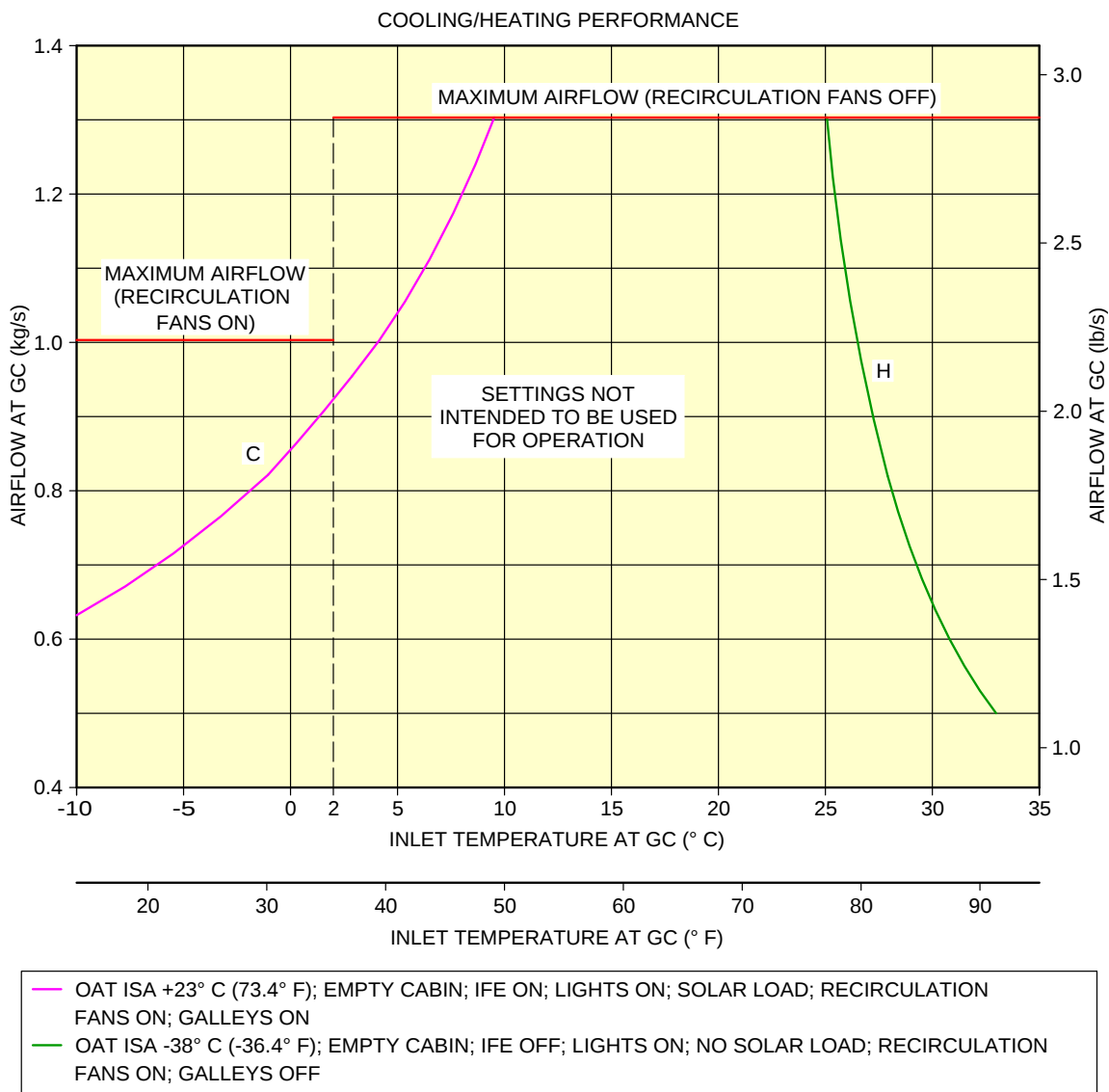
1. This section provides the preconditioned airflow rate and temperature needed to maintain the cabin temperature at 27 °C (80.6 °F) for the cooling or 21 °C (69.8 °F) for the heating cases.

These settings are not intended to be used for operation (they are not a substitute for the settings given in the AMM). They are based on theoretical simulations and give the picture of a real steady state.

The purpose of the air conditioning (cooling) operation (described in the AMM) is to maintain the cabin temperature below 27 °C (80.6 °F) during boarding (therefore it is not a steady state).

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



N\_AC\_050700\_1\_0010101\_01\_04

Preconditioned Airflow Requirements  
FIGURE-5-7-0-991-001-A01

**5-8-0 Ground Towing Requirements****\*\*ON A/C A319-100 A319neo**Ground Towing Requirements

1. This section gives information on aircraft towing.

This aircraft is designed with means for standard or towbarless towing. Information/procedures can be found for both in AMM 09.

Status on towbarless towing equipment qualification can be found in ISI 09.11.00001.

NOTE : The NLG steering deactivation pin has the same design for all Airbus programs.

One towbar fitting is installed at the front of the leg.

The main landing gears have attachment points for towing or debogging (for details, refer ARM 07).

This section shows the chart to determine the drawbar pull and tow tractor mass requirements as a function of the following physical characteristics:

- Aircraft weight,
- Number of engines at idle,
- Slope.

The chart is based on the engine type with the highest idle thrust level.

2. Towbar design guidelines

The aircraft towbar shall comply with the following standards:

- ISO 8267-1, "Aircraft - Towbar Attachment Fitting - Interface Requirements - Part 1: Main Line Aircraft",
- SAE AS 1614, "Main Line Aircraft Towbar Attach Fitting Interface",
- SAE ARP 1915, "Aircraft Towbar",
- ISO 9667, "Aircraft Ground Support Equipment - Towbar - Connection to Aircraft and Tractor",
- EN 12312-7, "Aircraft Ground Support Equipment - Specific Requirements - Part 7: Aircraft Movement Equipment",
- IATA Airport Handling Manual AHM 958, "Functional Specification for an Aircraft Towbar".

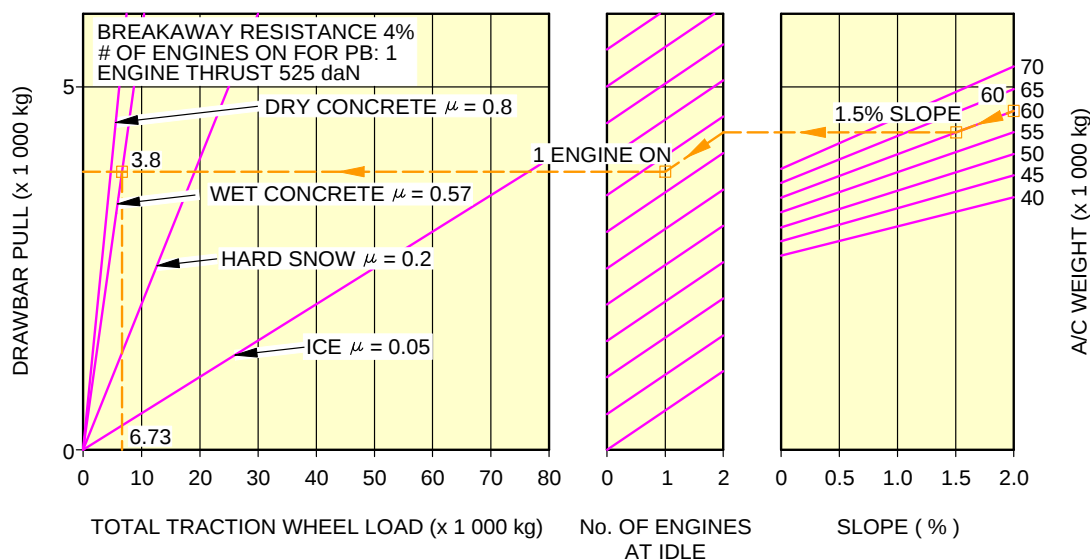
A standard type towbar is required which should be equipped with a damping system (to protect the nose gear against jerks), a rotating toweye and with towing shear pins:

- A traction shear pin calibrated at 9 425 daN (21 188 lbf),
- A torsion pin calibrated at 826 m.daN (6 092 lbf.ft).

The towing head is designed according to ISO 8267-1, cat. I.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**



EXAMPLE HOW TO DETERMINE THE TRACTION WHEEL LOAD REQUIREMENT TO TOW A A319  
AT 60 000 kg, AT 1.5% SLOPE, 1 ENGINE AT IDLE AND FOR WET TARMAC CONDITIONS:

- ON THE RIGHT HAND SIDE OF THE GRAPH, CHOOSE THE RELEVANT AIRCRAFT WEIGHT (60 000 kg),
  - FROM THIS POINT DRAW A PARALLEL LINE TO THE REQUIRED SLOPE PERCENTAGE (1.5%),
  - FROM THE POINT OBTAINED DRAW A STRAIGHT HORIZONTAL LINE UNTIL No. OF ENGINES AT IDLE = 2,
  - FROM THIS POINT DRAW A PARALLEL LINE TO THE REQUESTED No. OF ENGINES (1),
  - FROM THIS POINT DRAW A STRAIGHT HORIZONTAL LINE TO THE DRAWBAR PULL AXIS,
  - THE Y-COORDINATE OBTAINED IS THE NECESSARY DRAWBAR PULL FOR THE TRACTOR (3 800 kg),
  - SEARCH THE INTERSECTION WITH THE "WET CONCRETE" LINE.
- THE OBTAINED X-COORDINATE IS THE TOTAL TRACTION WHEEL LOAD (6 730 kg).

### NOTE:

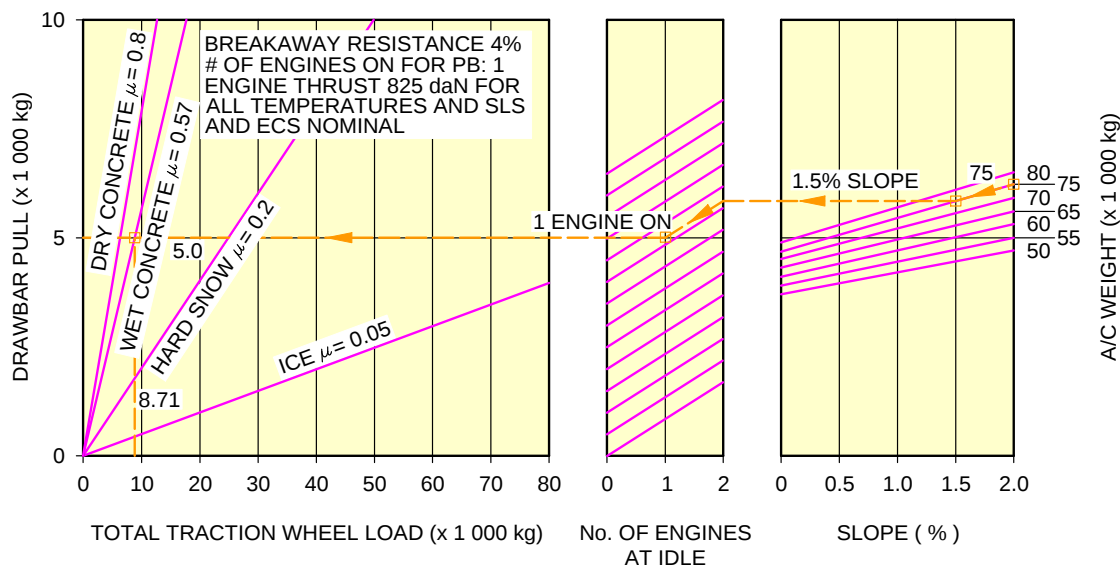
USE A TRACTOR WITH A LIMITED DRAWBAR PULL TO PREVENT LOADS ABOVE THE TOW-BAR SHEAR-PIN CAPACITY.  
FOR ALL WHEEL-DRIVEN VEHICLES, THE TOTAL TRACTION WHEEL LOAD IS THE TRACTOR WEIGHT.

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Ground Towing Requirements  
FIGURE-5-8-0-991-001-J01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**



EXAMPLE HOW TO DETERMINE THE TRACTION WHEEL LOAD REQUIREMENT TO TOW A A319 AT 75 000 kg, AT 1.5% SLOPE, 1 ENGINE AT IDLE AND FOR WET TARMAC CONDITIONS:

- ON THE RIGHT HAND SIDE OF THE GRAPH, CHOOSE THE RELEVANT AIRCRAFT WEIGHT (75 000 kg),
  - FROM THIS POINT DRAW A PARALLEL LINE TO THE REQUIRED SLOPE PERCENTAGE (1.5%),
  - FROM THE POINT OBTAINED DRAW A STRAIGHT HORIZONTAL LINE UNTIL No. OF ENGINES AT IDLE = 2,
  - FROM THIS POINT DRAW A PARALLEL LINE TO THE REQUESTED No. OF ENGINES (1),
  - FROM THIS POINT DRAW A STRAIGHT HORIZONTAL LINE TO THE DRAWBAR PULL AXIS,
  - THE Y-COORDINATE OBTAINED IS THE NECESSARY DRAWBAR PULL FOR THE TRACTOR (5 000 kg),
  - SEARCH THE INTERSECTION WITH THE "WET CONCRETE" LINE.
- THE OBTAINED X-COORDINATE IS THE TOTAL TRACTION WHEEL LOAD (8 710 kg).

### NOTE:

USE A TRACTOR WITH A LIMITED DRAWBAR PULL TO PREVENT LOADS ABOVE THE TOW-BAR SHEAR-PIN CAPACITY.  
FOR ALL WHEEL-DRIVEN VEHICLES, THE TOTAL TRACTION WHEEL LOAD IS THE TRACTOR WEIGHT.

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Ground Towing Requirements  
FIGURE-5-8-0-991-001-N01

### 5-9-0 De-Icing and External Cleaning

#### \*\*ON A/C A319-100 A319neo

#### De-Icing and External Cleaning

#### 1. De-Icing and External Cleaning on Ground

The mobile equipment for aircraft de-icing and external cleaning must be capable of reaching heights up to approximately 13 m (43 ft).

#### 2. De-Icing

| AIRCRAFT TYPE     | Wing Top Surface<br>(Both Sides) |                 | Wingtip Devices<br>(Both Inside and Outside Surfaces)<br>(Both Sides) |                 | HTP Top Surface<br>(Both Sides) |                 | VTP<br>(Both Sides) |                 |
|-------------------|----------------------------------|-----------------|-----------------------------------------------------------------------|-----------------|---------------------------------|-----------------|---------------------|-----------------|
|                   | m <sup>2</sup>                   | ft <sup>2</sup> | m <sup>2</sup>                                                        | ft <sup>2</sup> | m <sup>2</sup>                  | ft <sup>2</sup> | m <sup>2</sup>      | ft <sup>2</sup> |
| A319              | 100                              | 1 076           | 2                                                                     | 22              | 27                              | 291             | 43                  | 463             |
| A319 Sharklet/neo | 100                              | 1 076           | 10                                                                    | 108             | 27                              | 291             | 43                  | 463             |

| AIRCRAFT TYPE     | Fuselage Top Surface<br>(Top Third - 120° Arc) |                 | Nacelle and Pylon<br>(Top Third - 120° Arc)<br>(All Engines) |                 | Total De-Iced Area |                 |
|-------------------|------------------------------------------------|-----------------|--------------------------------------------------------------|-----------------|--------------------|-----------------|
|                   | m <sup>2</sup>                                 | ft <sup>2</sup> | m <sup>2</sup>                                               | ft <sup>2</sup> | m <sup>2</sup>     | ft <sup>2</sup> |
| A319              | 122                                            | 1 313           | 24                                                           | 258             | 317                | 3 412           |
| A319 Sharklet/neo | 122                                            | 1 313           | 24                                                           | 258             | 325                | 3 498           |

**NOTE :** Dimensions are approximate.

#### 3. External Cleaning

| AIRCRAFT TYPE | Wing Top Surface<br>(Both Sides) |                 | Wing Lower Surface<br>(Including Flap Track Fairing)<br>(Both Sides) |                 | Wingtip Devices<br>(Both Inside and Outside Surfaces)<br>(Both Sides) |                 |
|---------------|----------------------------------|-----------------|----------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------|-----------------|
|               | m <sup>2</sup>                   | ft <sup>2</sup> | m <sup>2</sup>                                                       | ft <sup>2</sup> | m <sup>2</sup>                                                        | ft <sup>2</sup> |
| A319          | 100                              | 1 076           | 103                                                                  | 1 109           | 2                                                                     | 22              |

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

| AIRCRAFT TYPE     | Wing Top Surface<br>(Both Sides) |                 | Wing Lower Surface<br>(Including Flap<br>Track Fairing)<br>(Both Sides) |                 | Wingtip Devices<br>(Both Inside and<br>Outside Surfaces)<br>(Both Sides) |                 |
|-------------------|----------------------------------|-----------------|-------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------|-----------------|
|                   | m <sup>2</sup>                   | ft <sup>2</sup> | m <sup>2</sup>                                                          | ft <sup>2</sup> | m <sup>2</sup>                                                           | ft <sup>2</sup> |
| A319 Sharklet/neo | 100                              | 1 076           | 103                                                                     | 1 109           | 10                                                                       | 108             |

| AIRCRAFT TYPE     | HTP Top Surface<br>(Both Sides) |                 | HTP Lower Surface<br>(Both Sides) |                 | VTP<br>(Both Sides) |                 |
|-------------------|---------------------------------|-----------------|-----------------------------------|-----------------|---------------------|-----------------|
|                   | m <sup>2</sup>                  | ft <sup>2</sup> | m <sup>2</sup>                    | ft <sup>2</sup> | m <sup>2</sup>      | ft <sup>2</sup> |
| A319              | 27                              | 291             | 27                                | 291             | 43                  | 463             |
| A319 Sharklet/neo | 27                              | 291             | 27                                | 291             | 43                  | 463             |

| AIRCRAFT TYPE     | Fuselage and<br>Belly Fairing |                 | Nacelle and Pylon<br>(All Engines) |                 | Total Cleaned Area |                 |
|-------------------|-------------------------------|-----------------|------------------------------------|-----------------|--------------------|-----------------|
|                   | m <sup>2</sup>                | ft <sup>2</sup> | m <sup>2</sup>                     | ft <sup>2</sup> | m <sup>2</sup>     | ft <sup>2</sup> |
| A319              | 374                           | 4 026           | 73                                 | 786             | 750                | 8 073           |
| A319 Sharklet/neo | 374                           | 4 026           | 73                                 | 786             | 758                | 8 159           |

NOTE : Dimensions are approximate.

### OPERATING CONDITIONS

#### 6-1-0 Engine Exhaust Velocities and Temperatures

##### **\*\*ON A/C A319-100 A319neo**

##### Engine Exhaust Velocities and Temperatures

##### **\*\*ON A/C A319-100**

##### 1. General

This section provides the estimated engine exhaust efflux velocities and temperatures contours for Ground Idle, Breakaway and Maximum Take-Off (MTO) conditions.

##### **\*\*ON A/C A319neo**

##### 2. General

This section provides the estimated engine exhaust velocity and temperature contours for MTO, for Breakaway in Dual-Engine Taxi, for Breakaway in Single-Engine Taxi (for the IAE V2500, CFM LEAP-1A, PW 1100G) and for Ground Idle conditions.

The MTO data are presented at the maximum thrust rating. The Breakaway data are presented at a rating that corresponds to the minimum thrust level necessary to start the movement of the A/C from a static position at its maximum ramp weight. The Breakaway thrusts correspond to Dual-Engine Taxi and Single-Engine Taxi Operations (the other engine is stopped for Single-Engine Taxi).

The Idle data, provided by the engine manufacturer, are calculated for operational conditions ISA+15, Sea Level, Static and no headwind. In the charts, the longitudinal distances are measured from the inboard engine core-nozzle exit section. The lateral distances are measured from the aircraft fuselage centerline.

The effects of on-wing installation are not taken into account. The effects of ground proximity are not taken into account for PW 1100G engines, but they are taken into account for the CFM LEAP-1A engines.

The velocity contours are presented at 50 ft/s (15 m/s), 100 ft/s (30 m/s) and 150 ft/s (46 m/s).

**AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING**

The temperature contours are shown at 313K (+40°C), 323K (+50°C) and 333K (+60°C). The velocity and temperature contours do not take into account possible variations affecting performance, such as ambient temperature, field elevation or failure cases leading to an abnormal bleed configuration. To evaluate the impact of these specific variables on the exhaust contours, a specific study of the airport where the aircraft is intended to operate should be carried out.

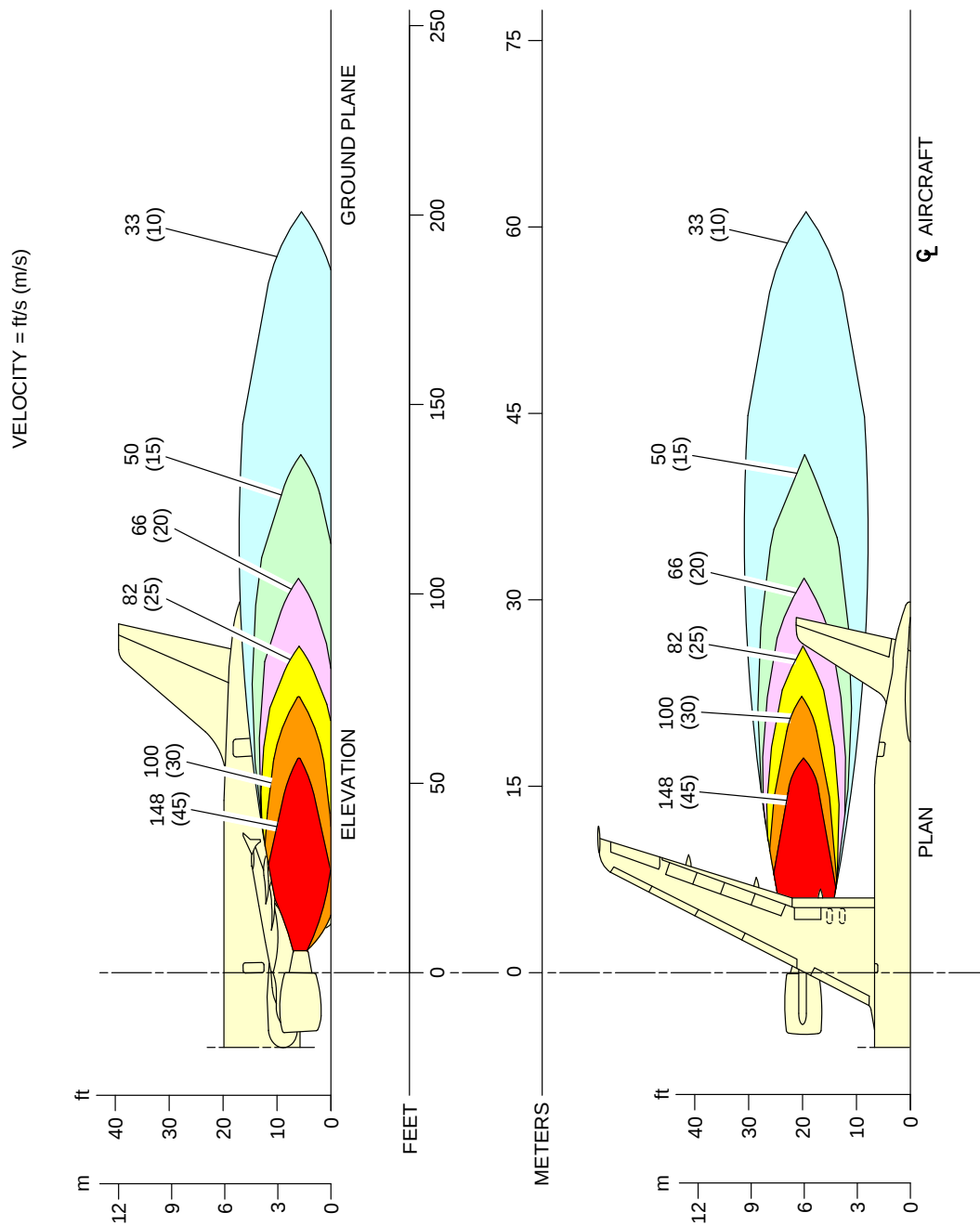
### 6-1-1 Engine Exhaust Velocities Contours - Ground Idle Power

**\*\*ON A/C A319-100 A319neo**

Engine Exhaust Velocities Contours - Ground Idle Power

1. This section provides engine exhaust velocities contours at ground idle power.

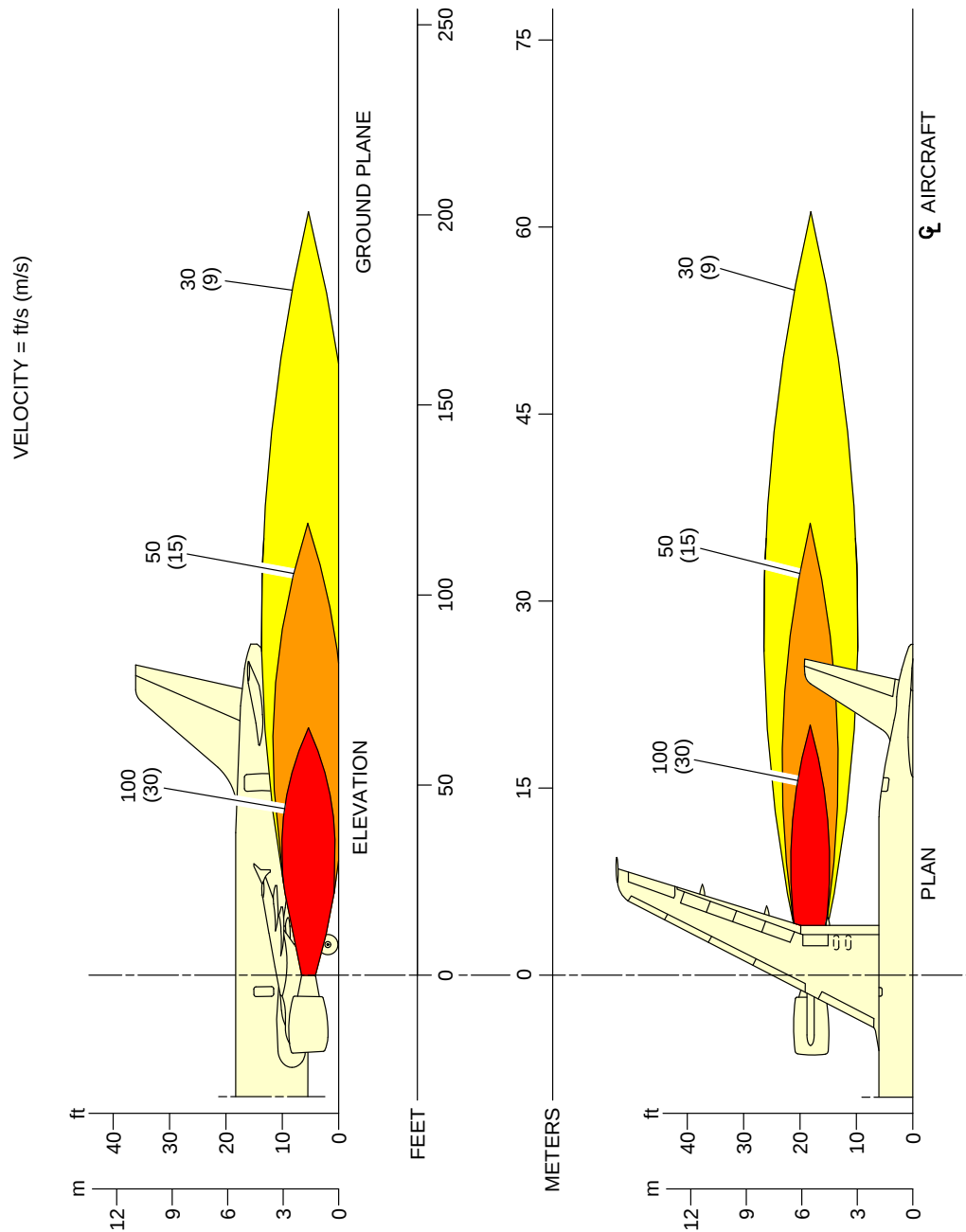
**\*\*ON A/C A319-100**



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Engine Exhaust Velocities  
Ground Idle Power – CFM56 Series Engine  
FIGURE-6-1-1-991-003-A01

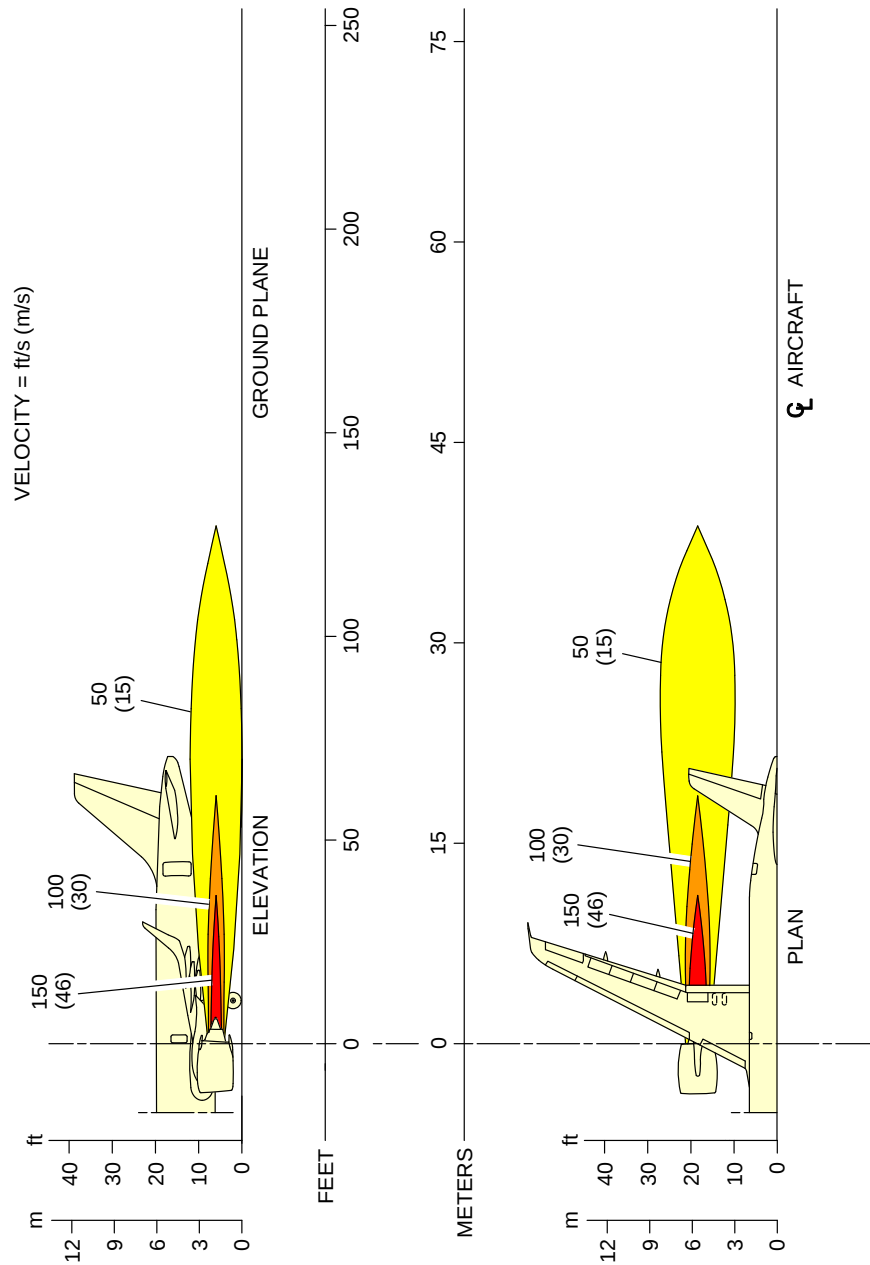
**\*\*ON A/C A319-100**



N\_AC\_060101\_1\_0040101\_01\_01

Engine Exhaust Velocities  
Ground Idle Power – IAE V2500 Series Engine  
FIGURE-6-1-1-991-004-A01

**\*\*ON A/C A319neo**

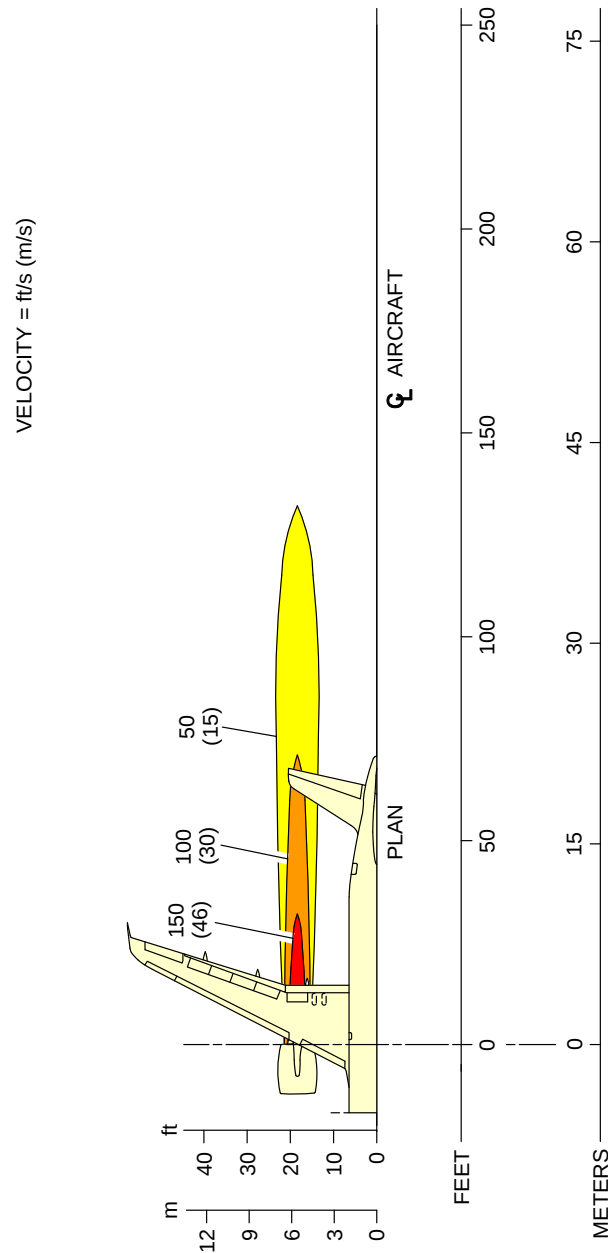


**NOTE:**  
GROUND IDLE, SEA LEVEL, ISA+15 DAY, FN = 1 591 lbf.

N\_AC\_060101\_1\_0090101\_01\_02

Engine Exhaust Velocities  
Ground Idle Power – CFM LEAP-1A Engine  
FIGURE-6-1-1-991-009-A01

**\*\*ON A/C A319neo**



N\_AC\_060101\_1\_0100101\_01\_01

Engine Exhaust Velocities  
Ground Idle Power – PW 1100G Engine  
FIGURE-6-1-1-991-010-A01

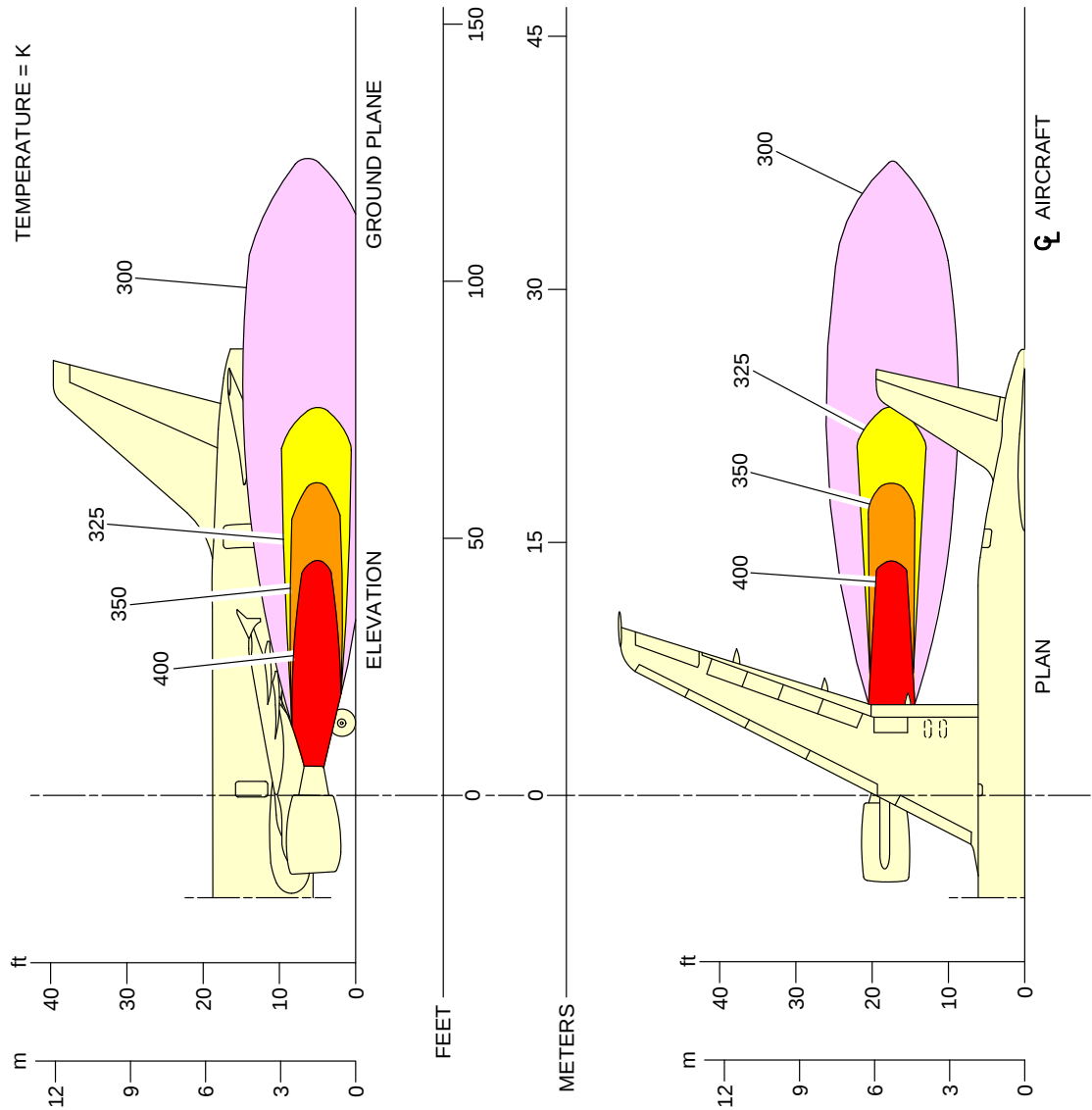
### 6-1-2 Engine Exhaust Temperatures Contours - Ground Idle Power

**\*\*ON A/C A319-100 A319neo**

Engine Exhaust Temperatures Contours - Ground Idle Power

1. This section provides engine exhaust temperatures contours at ground idle power.

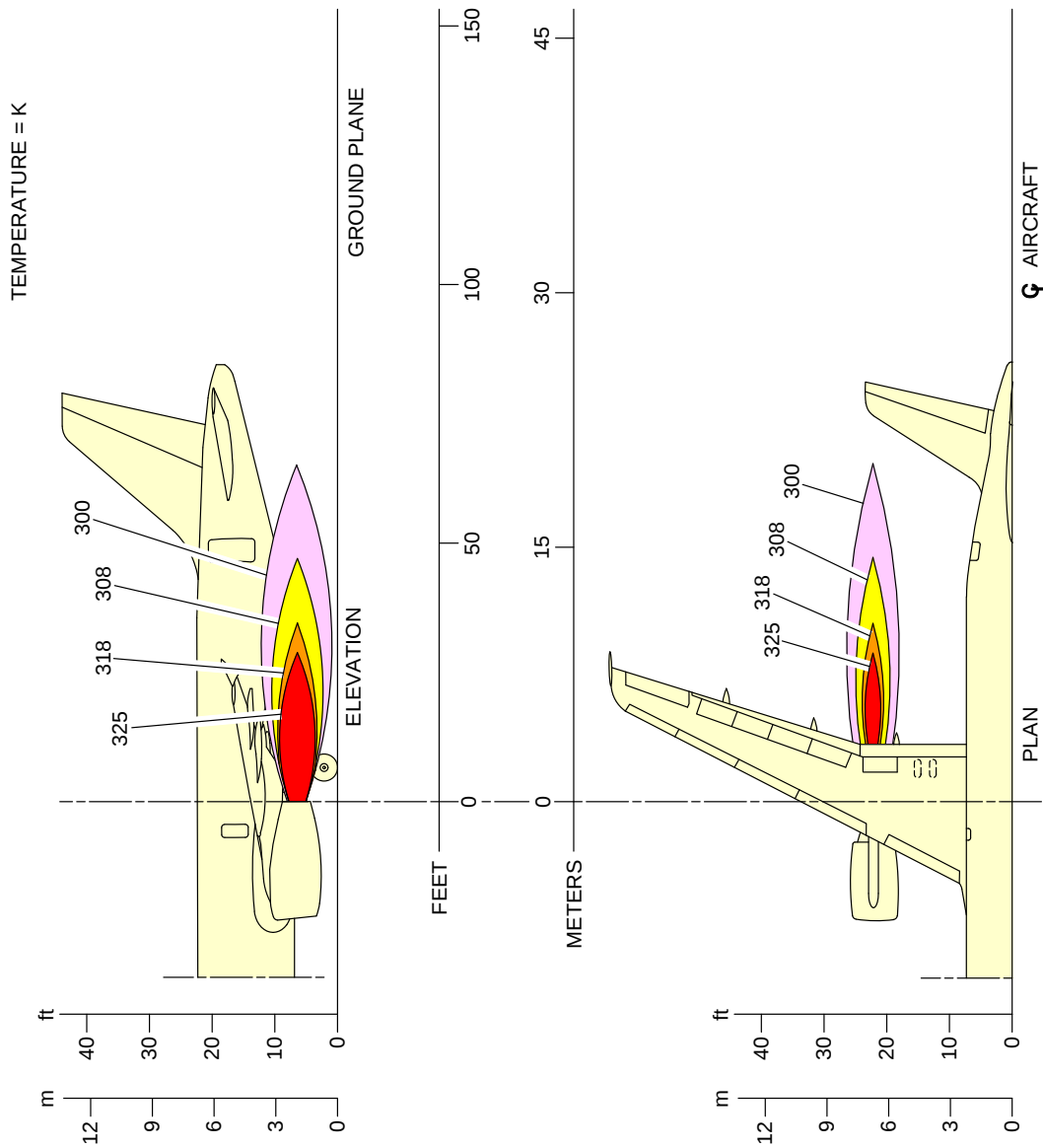
**\*\*ON A/C A319-100**



N\_AC\_060102\_1\_0030101\_01\_02

Engine Exhaust Temperatures  
Ground Idle Power – CFM56 Series Engine  
FIGURE-6-1-2-991-003-A01

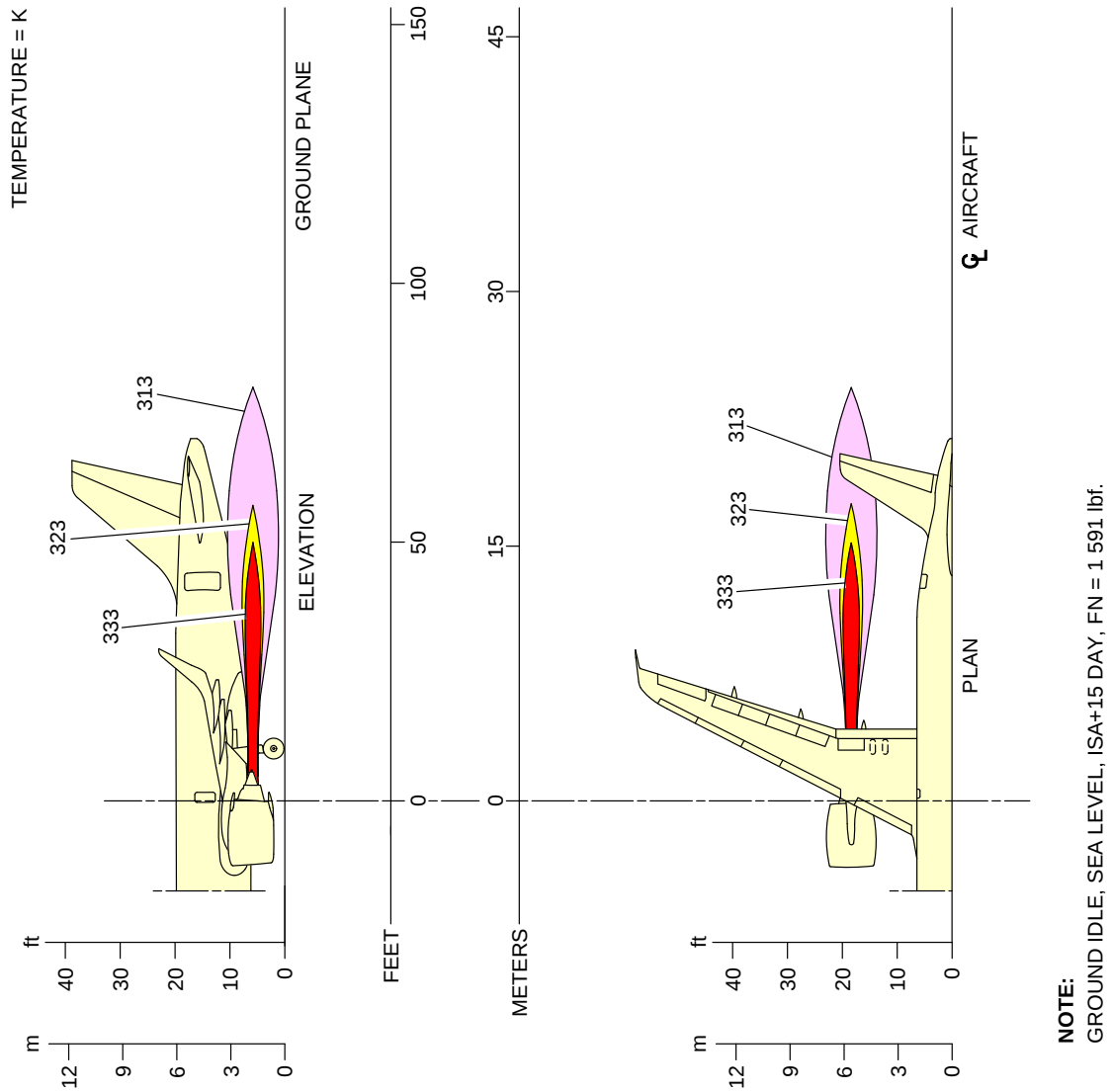
**\*\*ON A/C A319-100**



N\_AC\_060102\_1\_0040101\_01\_02

Engine Exhaust Temperatures  
Ground Idle Power – IAE V2500 Series Engine  
FIGURE-6-1-2-991-004-A01

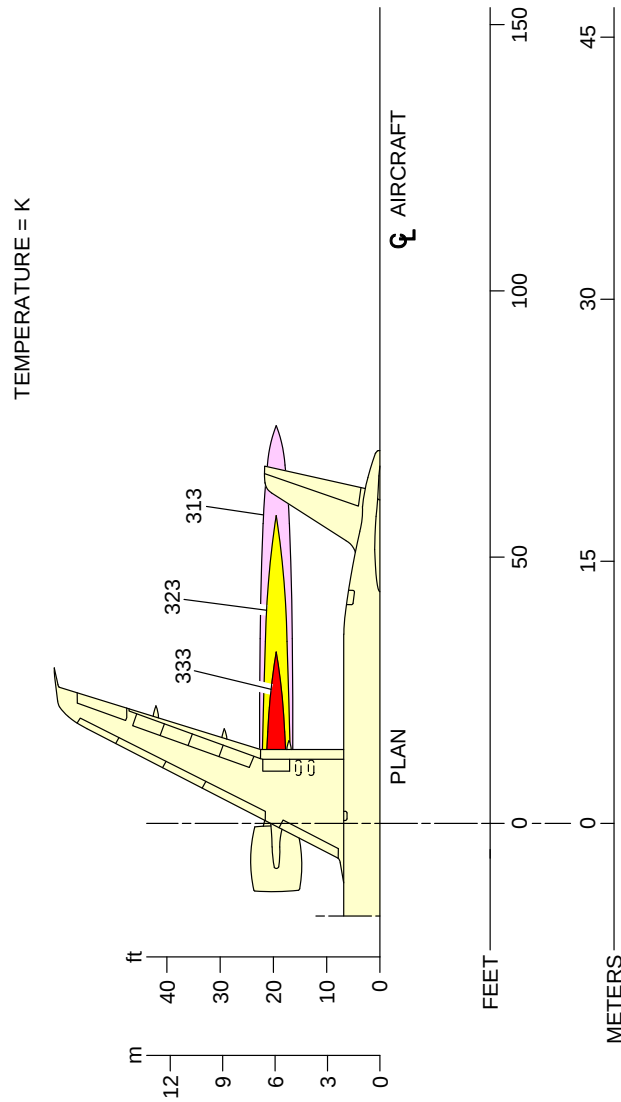
**\*\*ON A/C A319neo**



N\_AC\_060102\_1\_0090101\_01\_02

Engine Exhaust Temperatures  
Ground Idle Power – CFM LEAP-1A Engine  
FIGURE-6-1-2-991-009-A01

**\*\*ON A/C A319neo**



N\_AC\_060102\_1\_0100101\_01\_01

Engine Exhaust Temperatures  
Ground Idle Power – PW 1100G Engine  
FIGURE-6-1-2-991-010-A01

### 6-1-3 Engine Exhaust Velocities Contours - Breakaway Power

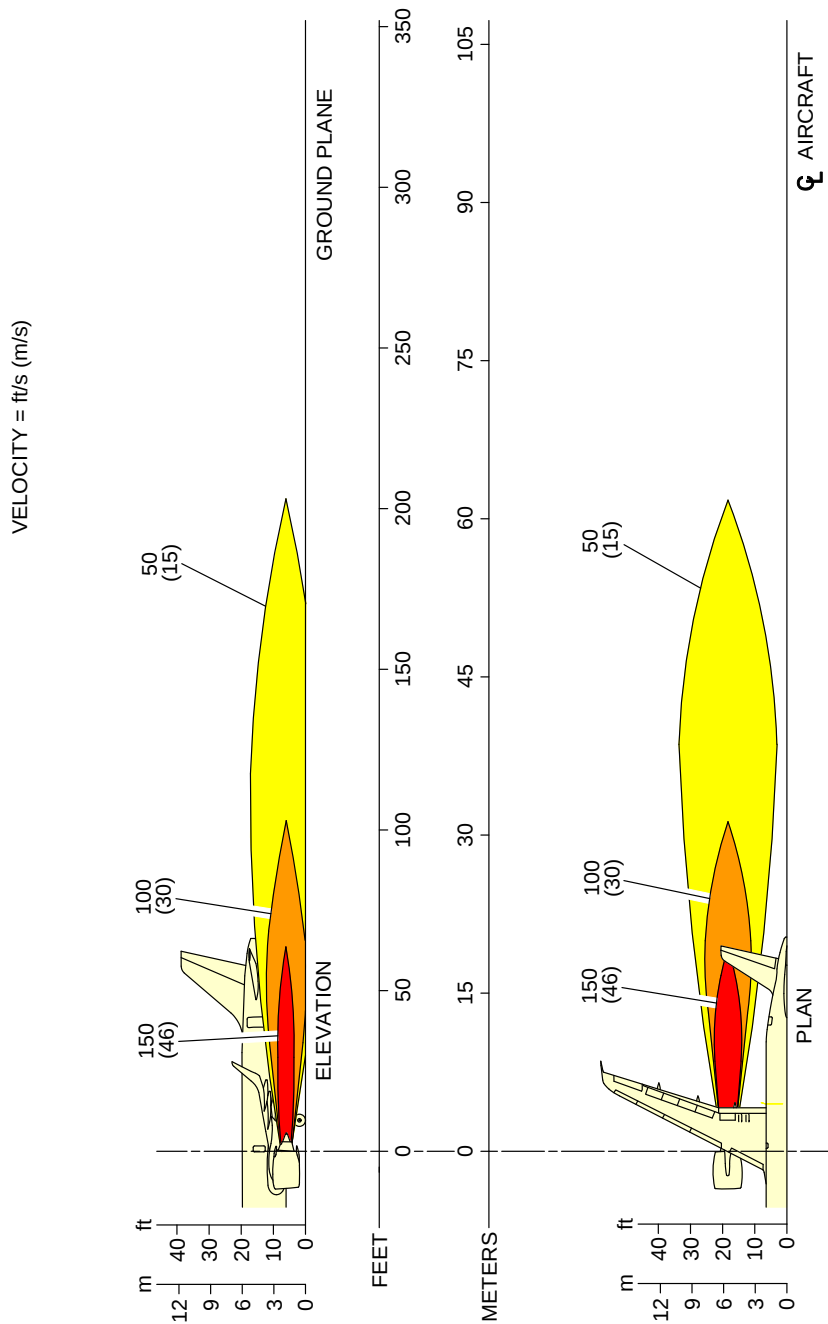
**\*\*ON A/C A319-100 A319neo**

Engine Exhaust Velocities Contours - Breakaway Power

1. This section provides engine exhaust velocities contours at breakaway power.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**

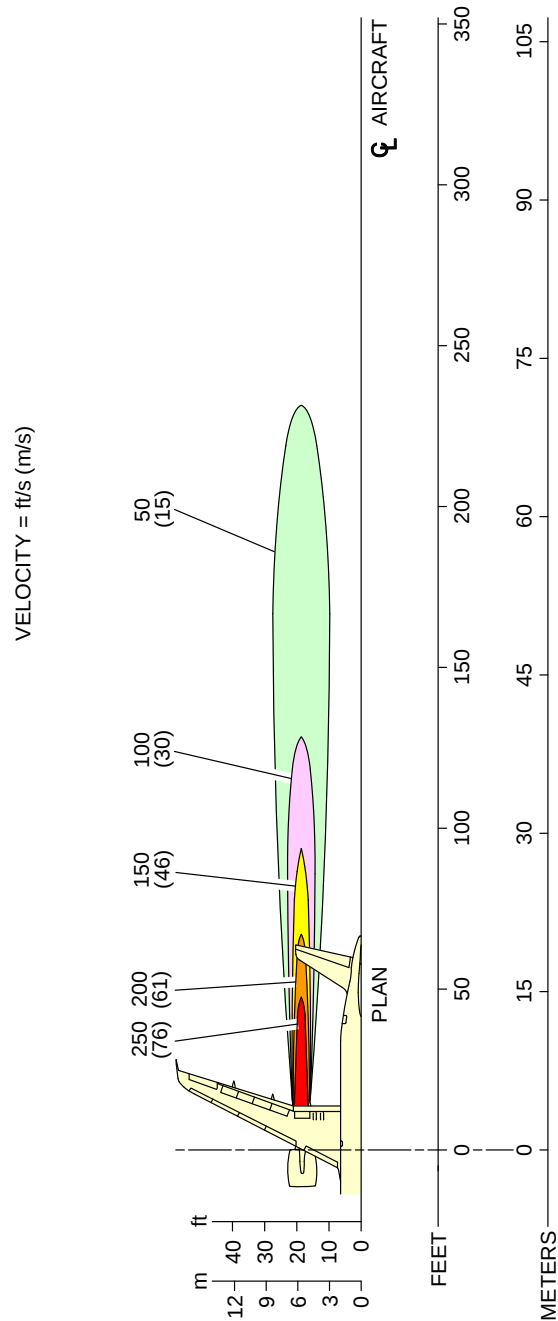


**NOTE:**  
TWO-ENGINE BREAKAWAY, SEA LEVEL, ISA+15 DAY, FN = 3 873 lbf.

N\_AC\_060103\_1\_0090101\_01\_02

Engine Exhaust Velocities  
Breakaway Power 12% MTO – CFM LEAP-1A Engine  
FIGURE-6-1-3-991-009-A01

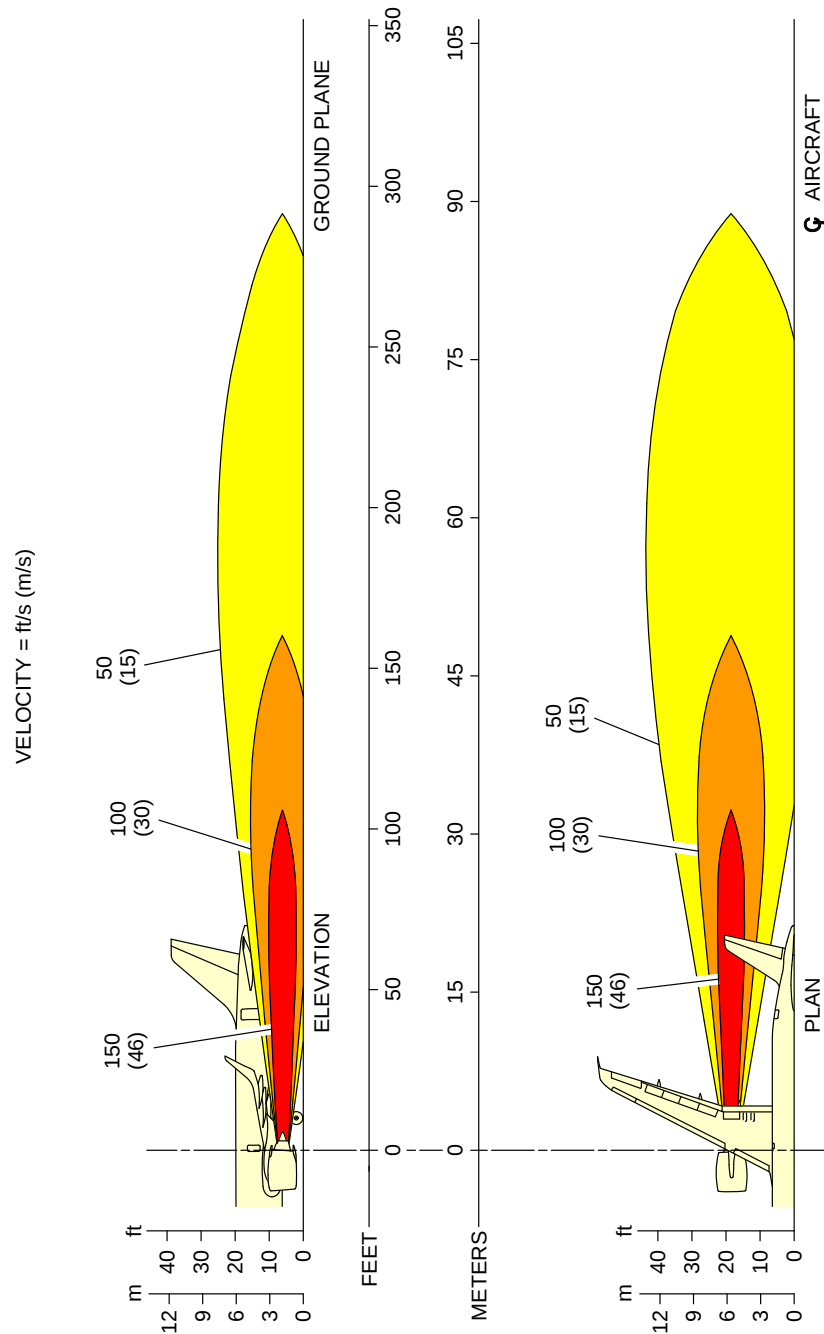
**\*\*ON A/C A319neo**



N\_AC\_060103\_1\_0100101\_01\_01

Engine Exhaust Velocities  
Breakaway Power 12% MTO – PW 1100G Engine  
FIGURE-6-1-3-991-010-A01

**\*\*ON A/C A319neo**

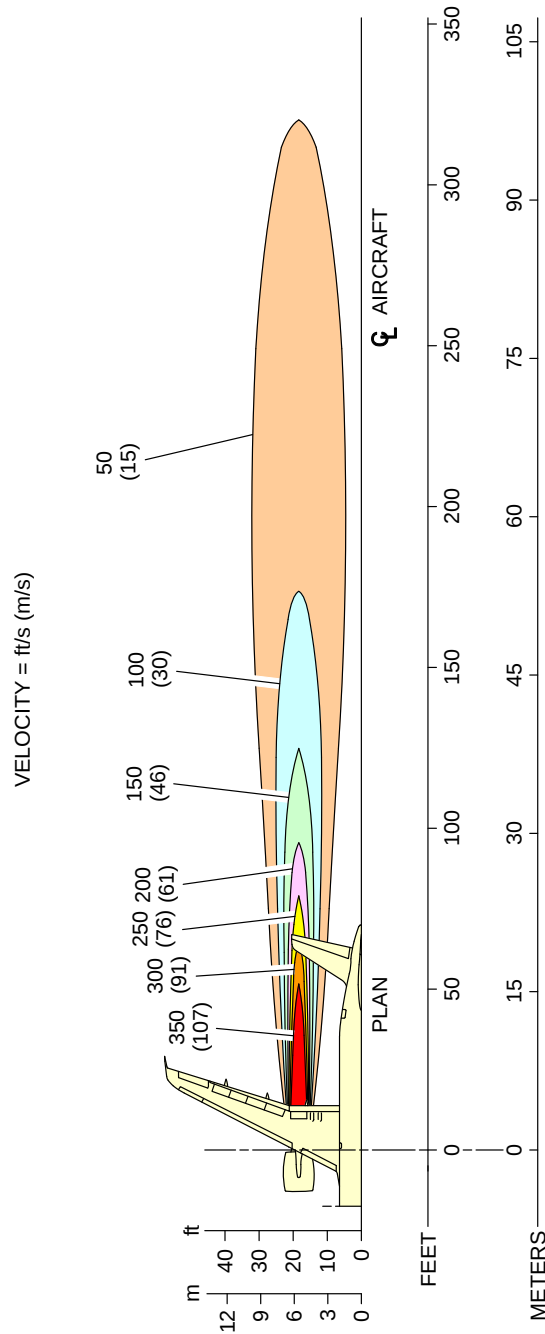


**NOTE:**  
ONE-ENGINE BREAKAWAY, SEA LEVEL, ISA+15 DAY, FN = 7 747 lbf.

N\_AC\_060103\_1\_0170101\_01\_02

Engine Exhaust Velocities  
Breakaway Power 24% MTO – CFM LEAP-1A Engine  
FIGURE-6-1-3-991-017-A01

**\*\*ON A/C A319neo**

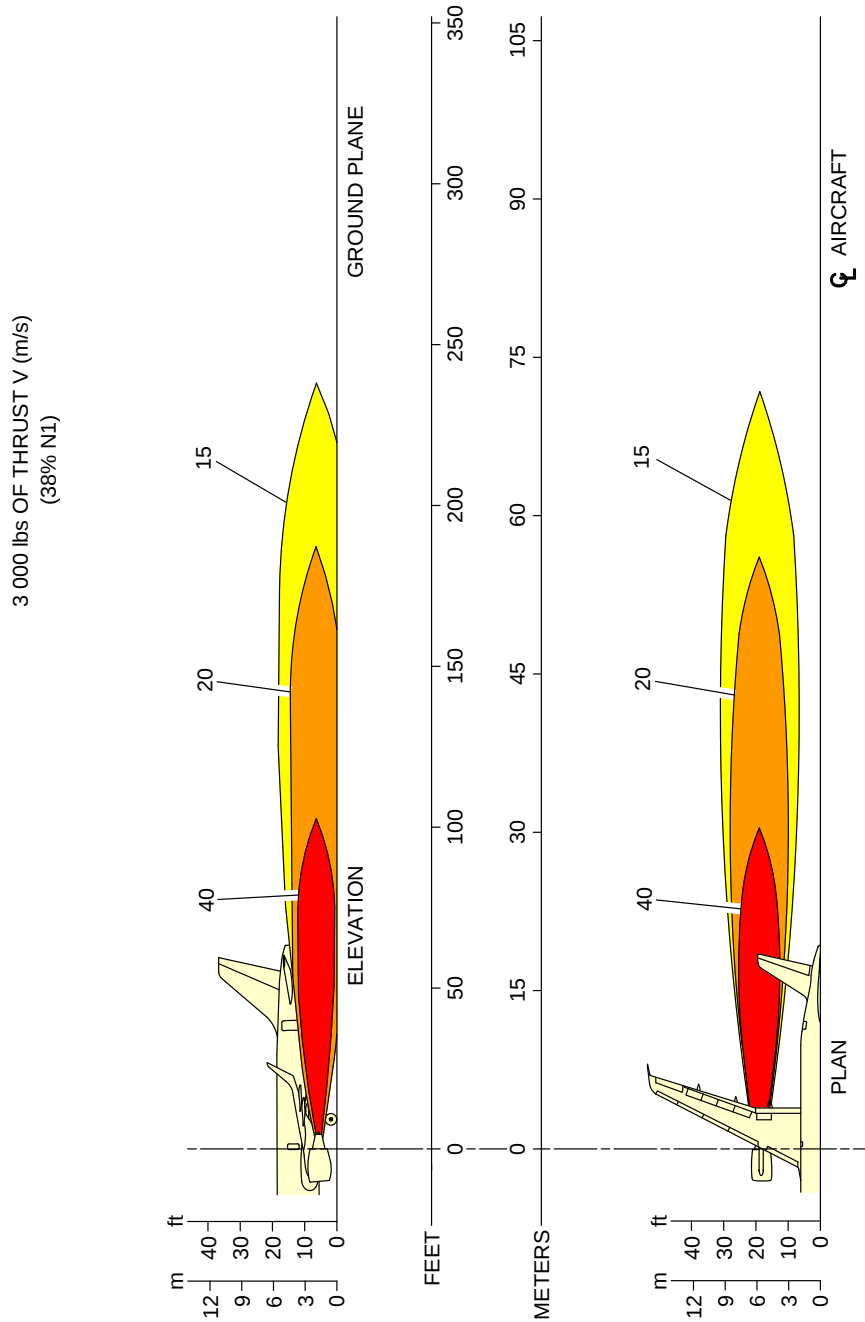


N\_AC\_060103\_1\_0180101\_01\_01

Engine Exhaust Velocities  
Breakaway Power 24% MTO – PW 1100G Engine  
FIGURE-6-1-3-991-018-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

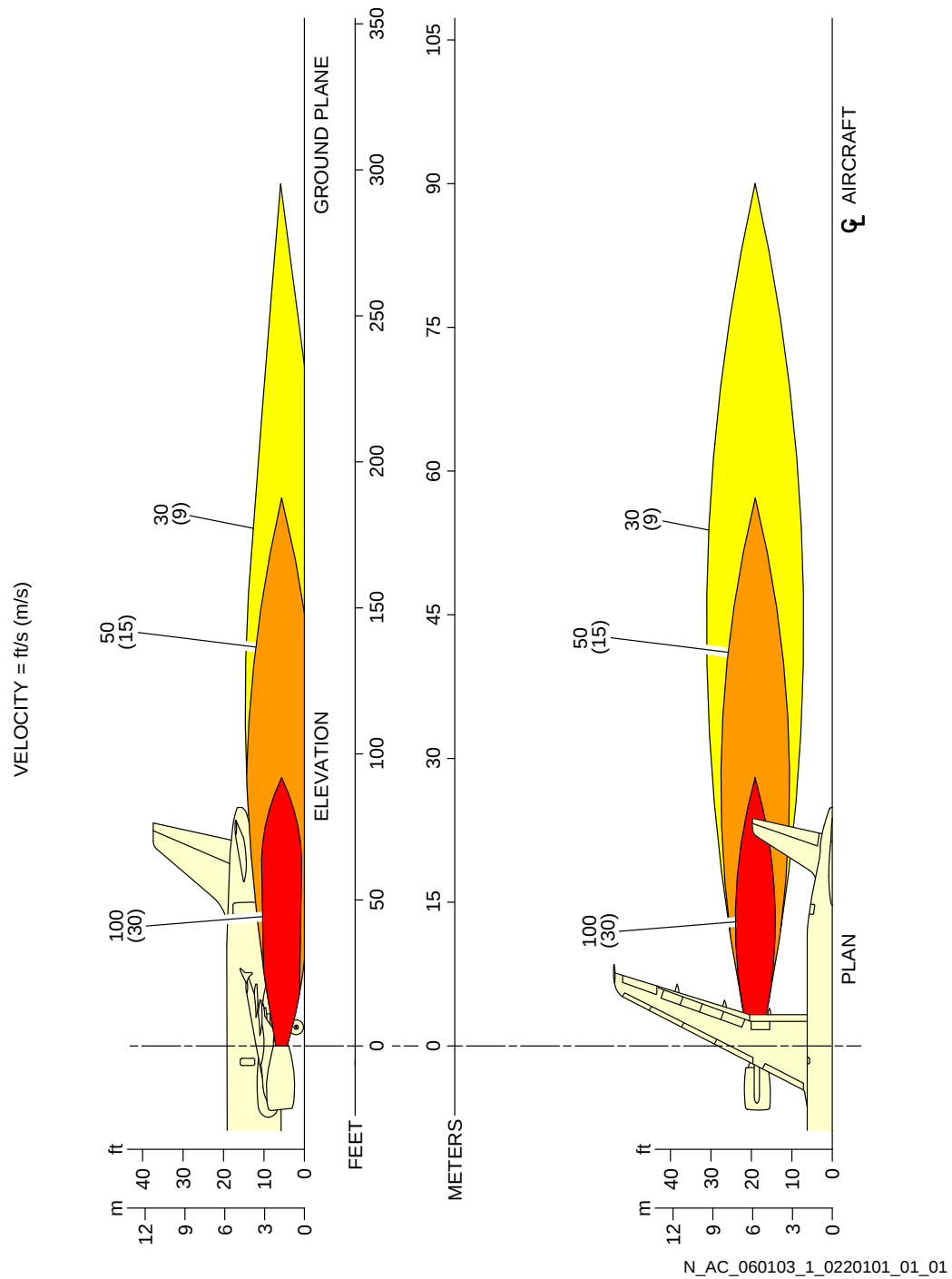


**NOTE:**  
 - ADD + 1% N1 PER + 15°C (27°F) ABOVE ISA TEMPERATURE CONDITIONS  
 - ADD + 1% N1 PER 2 000 ft

N\_AC\_060103\_1\_0210101\_01\_01

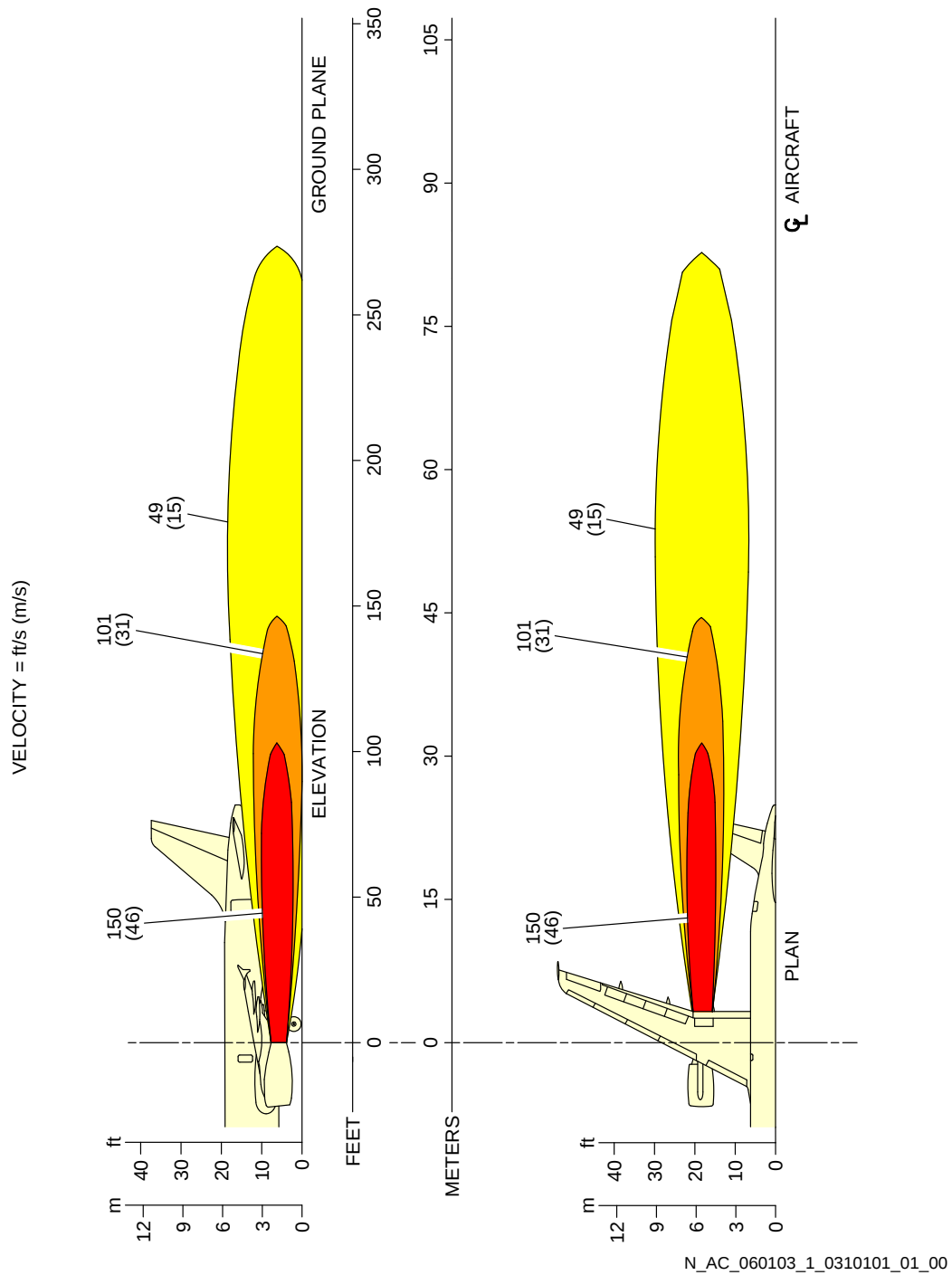
Engine Exhaust Velocities  
 Breakaway Power - CFM56 Series Engine  
 FIGURE-6-1-3-991-021-A01

**\*\*ON A/C A319-100**



Engine Exhaust Velocities  
Breakaway Power 14% MTO - IAE V2500 Series Engine  
FIGURE-6-1-3-991-022-A01

**\*\*ON A/C A319-100**



Engine Exhaust Velocities  
Breakaway Power 27% MTO - IAE V2500 Series Engine  
FIGURE-6-1-3-991-031-A01

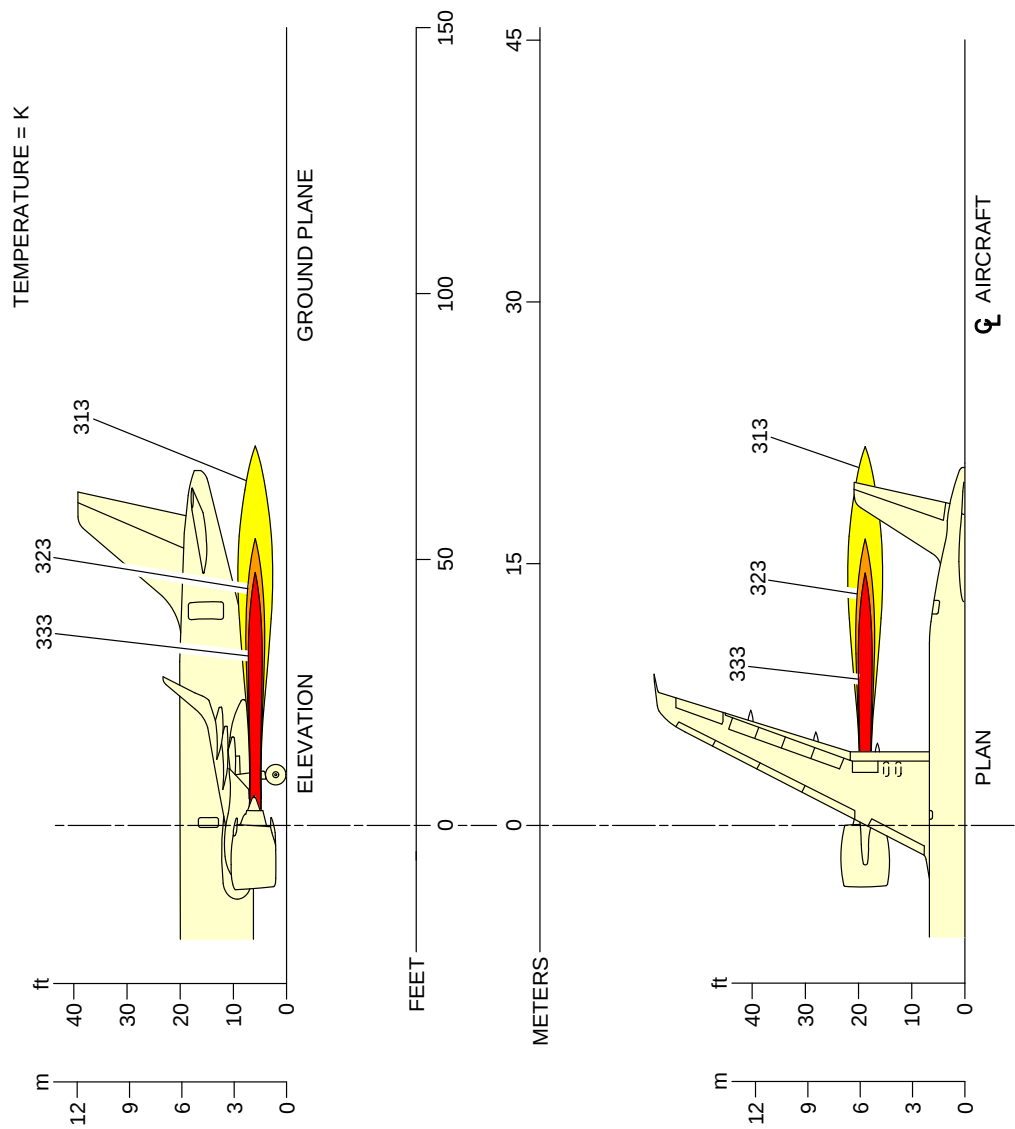
### 6-1-4 Engine Exhaust Temperatures Contours - Breakaway Power

**\*\*ON A/C A319-100 A319neo**

Engine Exhaust Temperatures Contours - Breakaway Power

1. This section provides engine exhaust temperatures contours at breakaway power.

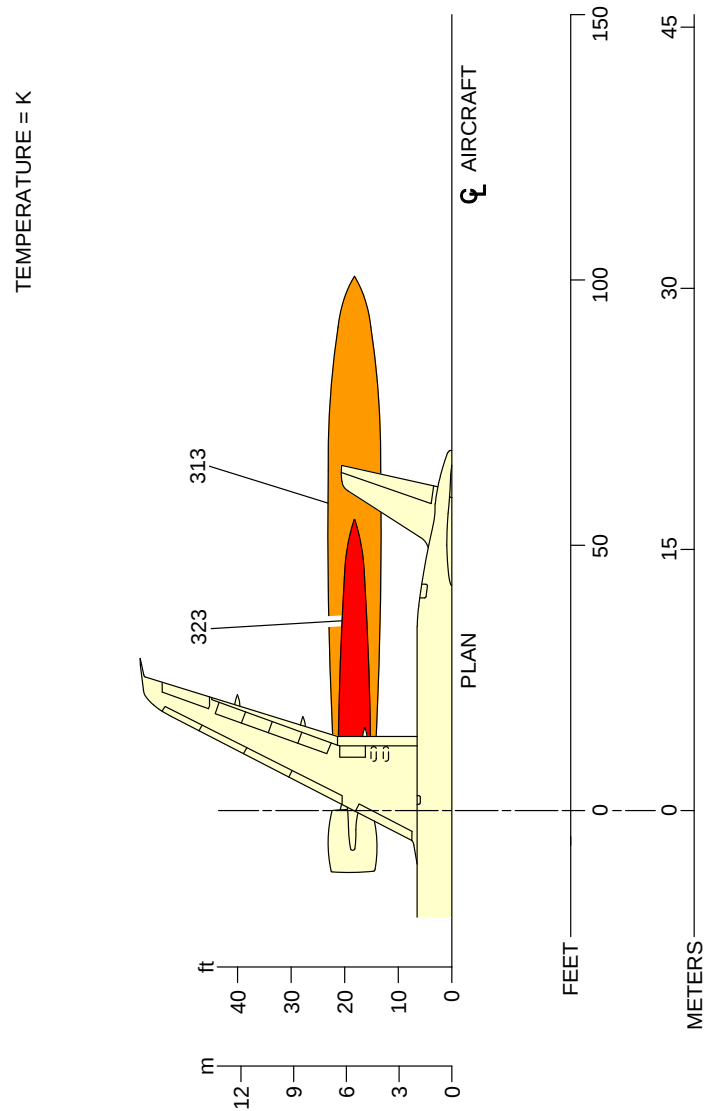
**\*\*ON A/C A319neo**



N\_AC\_060104\_1\_0130101\_01\_02

Engine Exhaust Temperatures  
Breakaway Power 12% MTO - CFM LEAP-1A Engine  
FIGURE-6-1-4-991-013-A01

**\*\*ON A/C A319neo**



N\_AC\_060104\_1\_0140101\_01\_01

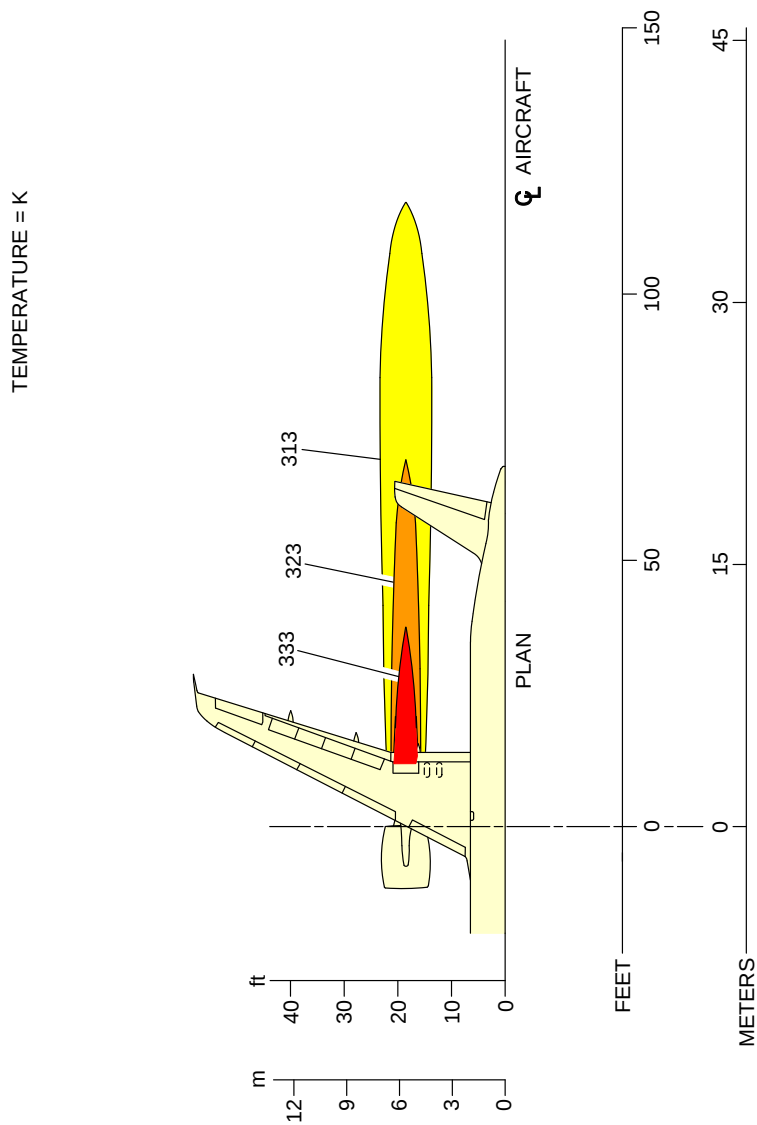
Engine Exhaust Temperatures  
Breakaway Power 12% MTO - PW 1100G Engine  
FIGURE-6-1-4-991-014-A01



N\_AC\_060104\_1\_0150101\_01\_02

## 6-1-4

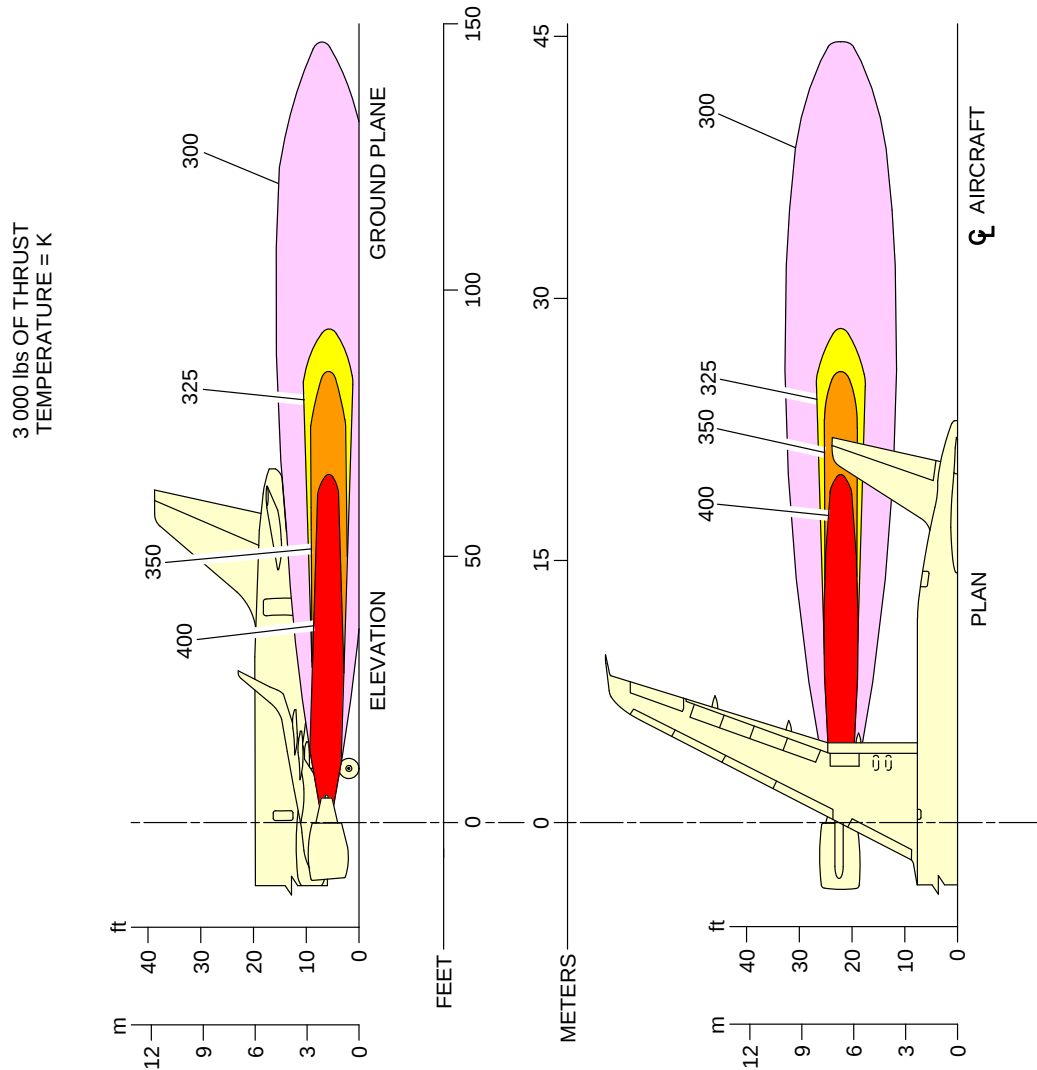
**\*\*ON A/C A319neo**



N\_AC\_060104\_1\_0160101\_01\_01

Engine Exhaust Temperatures  
Breakaway Power 24% MTO - PW 1100G Engine  
FIGURE-6-1-4-991-016-A01

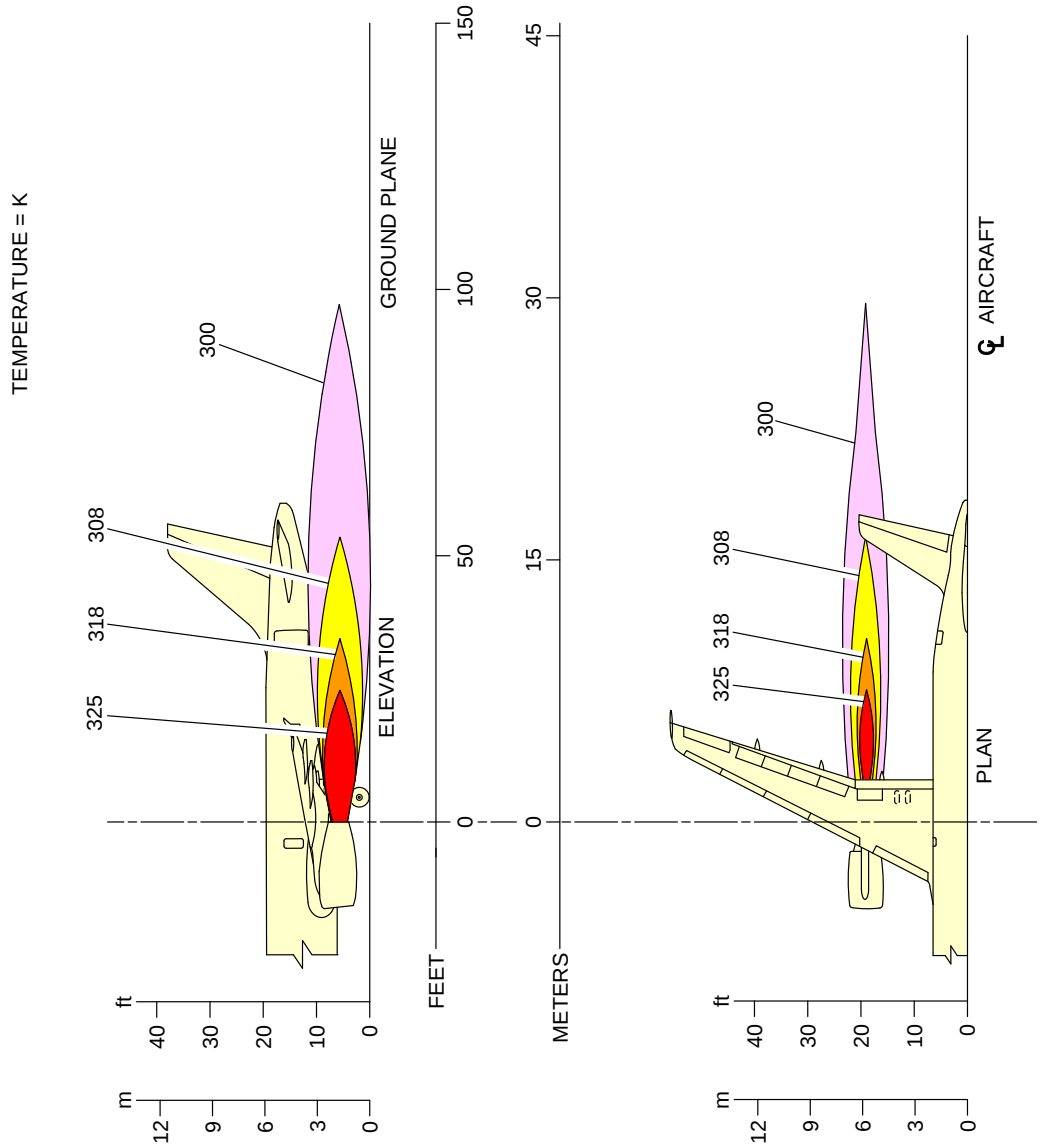
**\*\*ON A/C A319-100**



N\_AC\_060104\_1\_0210101\_01\_01

Engine Exhaust Temperatures  
Breakaway Power - CFM56 Series Engine  
FIGURE-6-1-4-991-021-A01

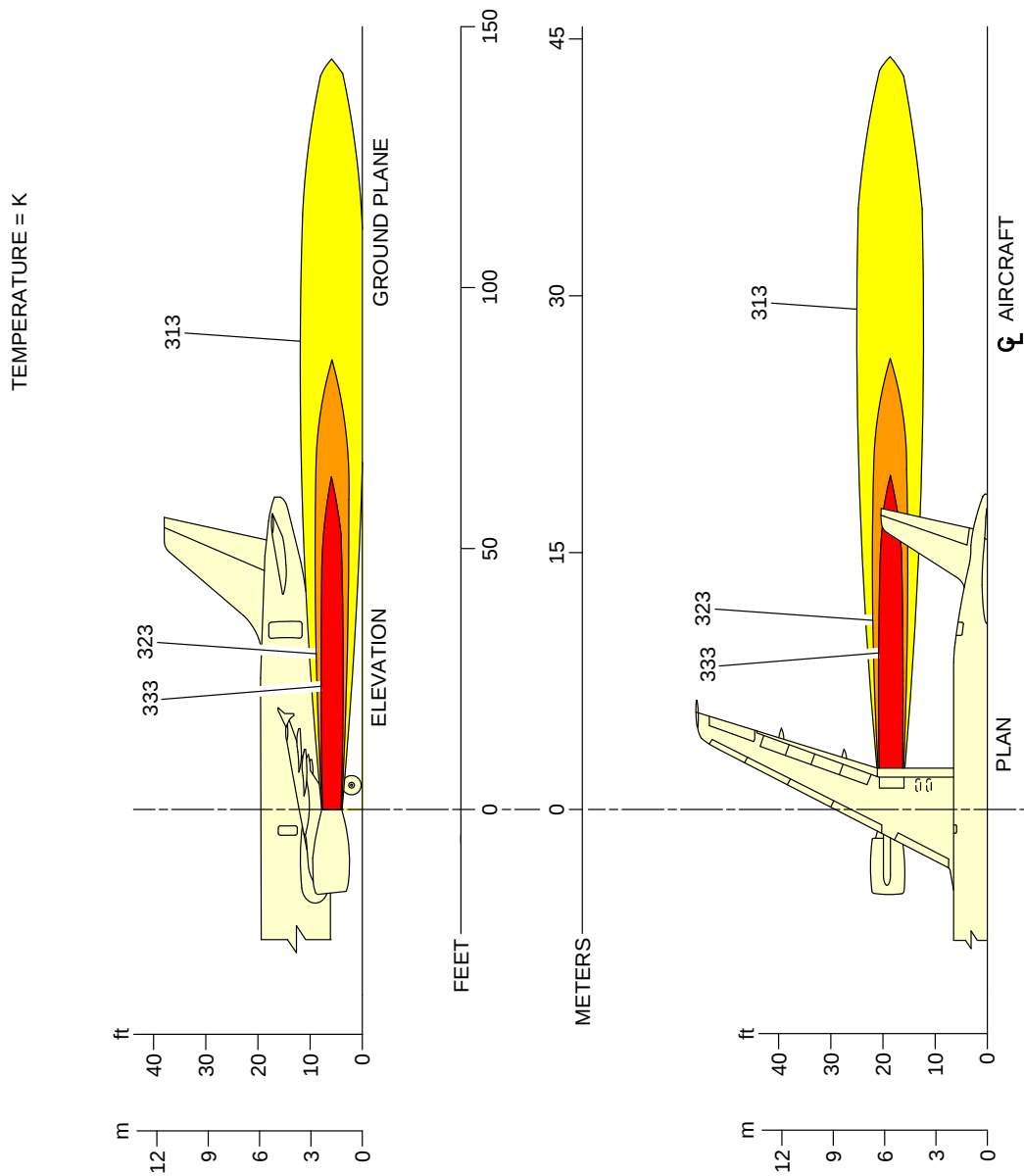
**\*\*ON A/C A319-100**



N\_AC\_060104\_1\_0220101\_01\_01

Engine Exhaust Temperatures  
Breakaway Power 14% MTO - IAE V2500 Series Engine  
FIGURE-6-1-4-991-022-A01

**\*\*ON A/C A319-100**



N\_AC\_060104\_1\_0260101\_01\_00

Engine Exhaust Temperature  
Breakaway Power 27% MTO - IAE V2500 Series Engine  
FIGURE-6-1-4-991-026-A01

### 6-1-5 Engine Exhaust Velocities Contours - Takeoff Power

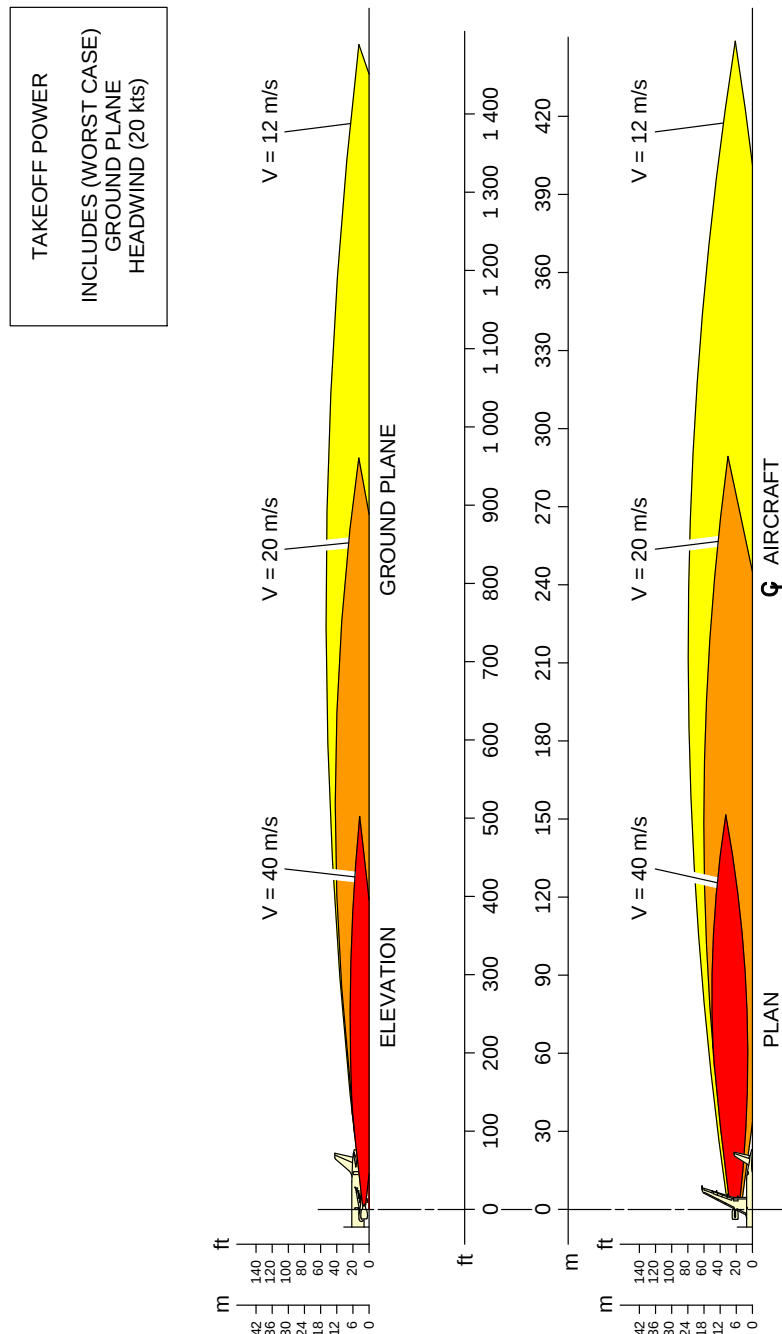
**\*\*ON A/C A319-100 A319neo**

Engine Exhaust Velocities Contours - Takeoff Power

1. This section provides engine exhaust velocities contours at takeoff power.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

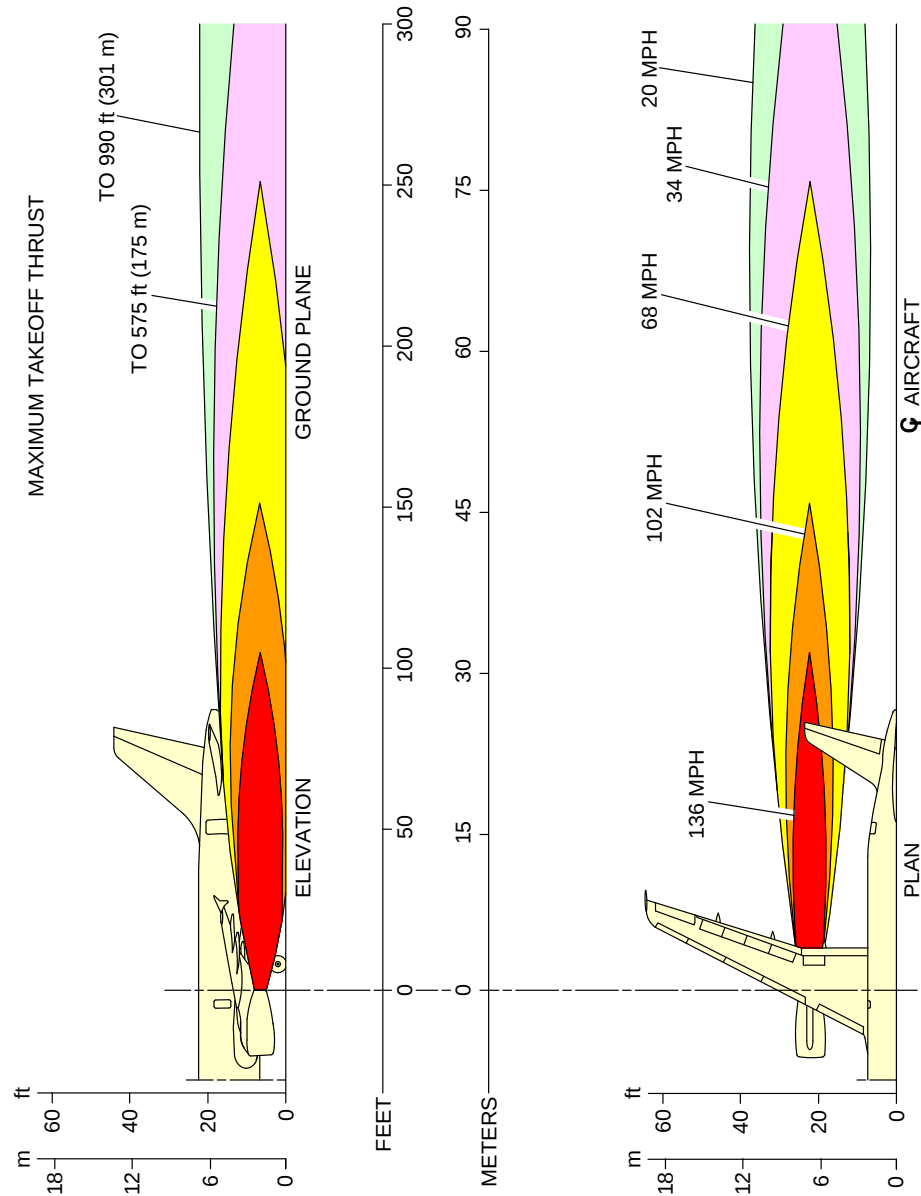
**\*\*ON A/C A319-100**



N\_AC\_060105\_1\_0030101\_01\_01

Engine Exhaust Velocities  
Takeoff Power – CFM56 Series Engine  
FIGURE-6-1-5-991-003-A01

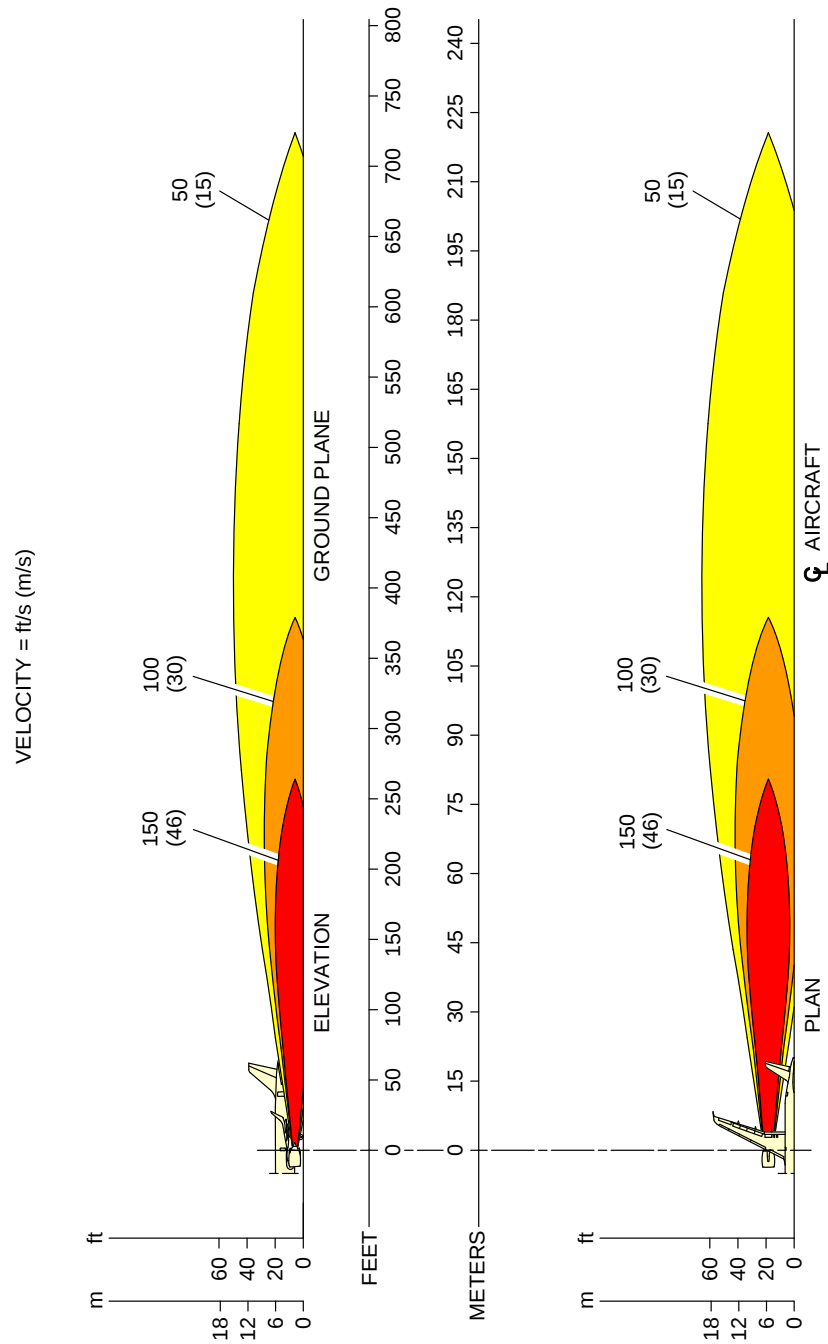
**\*\*ON A/C A319-100**



N\_AC\_060105\_1\_0040101\_01\_01

Engine Exhaust Velocities  
Takeoff Power – IAE V2500 Series Engine  
FIGURE-6-1-5-991-004-A01

**\*\*ON A/C A319neo**



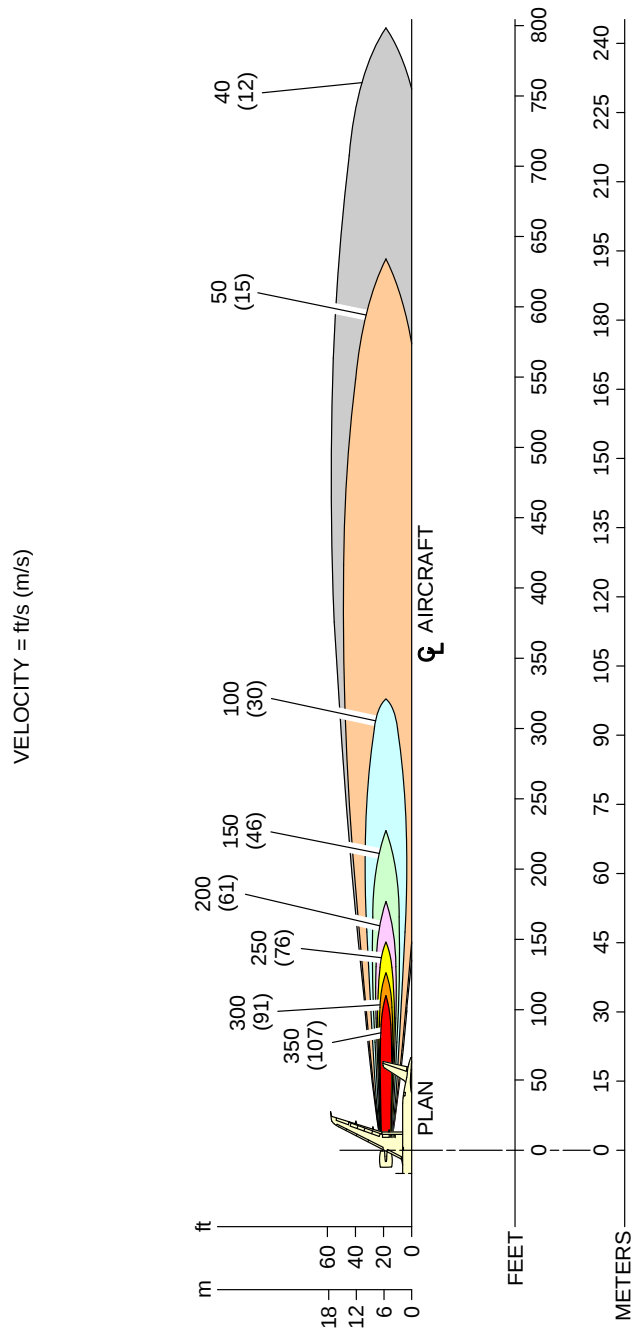
**NOTE:**  
MAX TAKEOFF, SEA LEVEL, ISA+15, FN = 32 517 lbf.

N\_AC\_060105\_1\_0090101\_01\_01

Engine Exhaust Velocities  
Takeoff Power – CFM LEAP-1A Engine  
FIGURE-6-1-5-991-009-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**



N\_AC\_060105\_1\_0100101\_01\_01

Engine Exhaust Velocities  
Takeoff Power – PW 1100G Engine  
FIGURE-6-1-5-991-010-A01

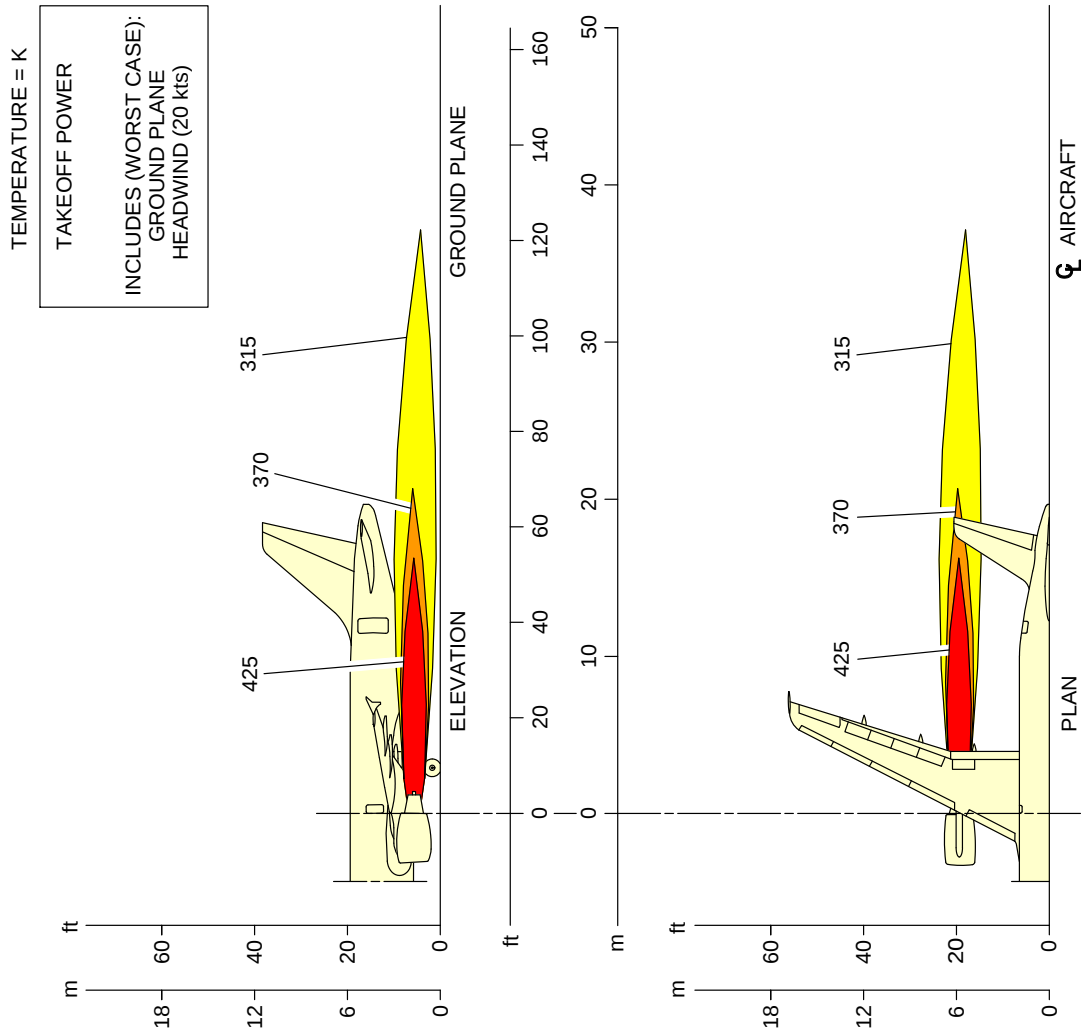
### 6-1-6 Engine Exhaust Temperatures Contours - Takeoff Power

**\*\*ON A/C A319-100 A319neo**

Engine Exhaust Temperatures Contours - Takeoff Power

1. This section provides engine exhaust temperatures contours at takeoff power.

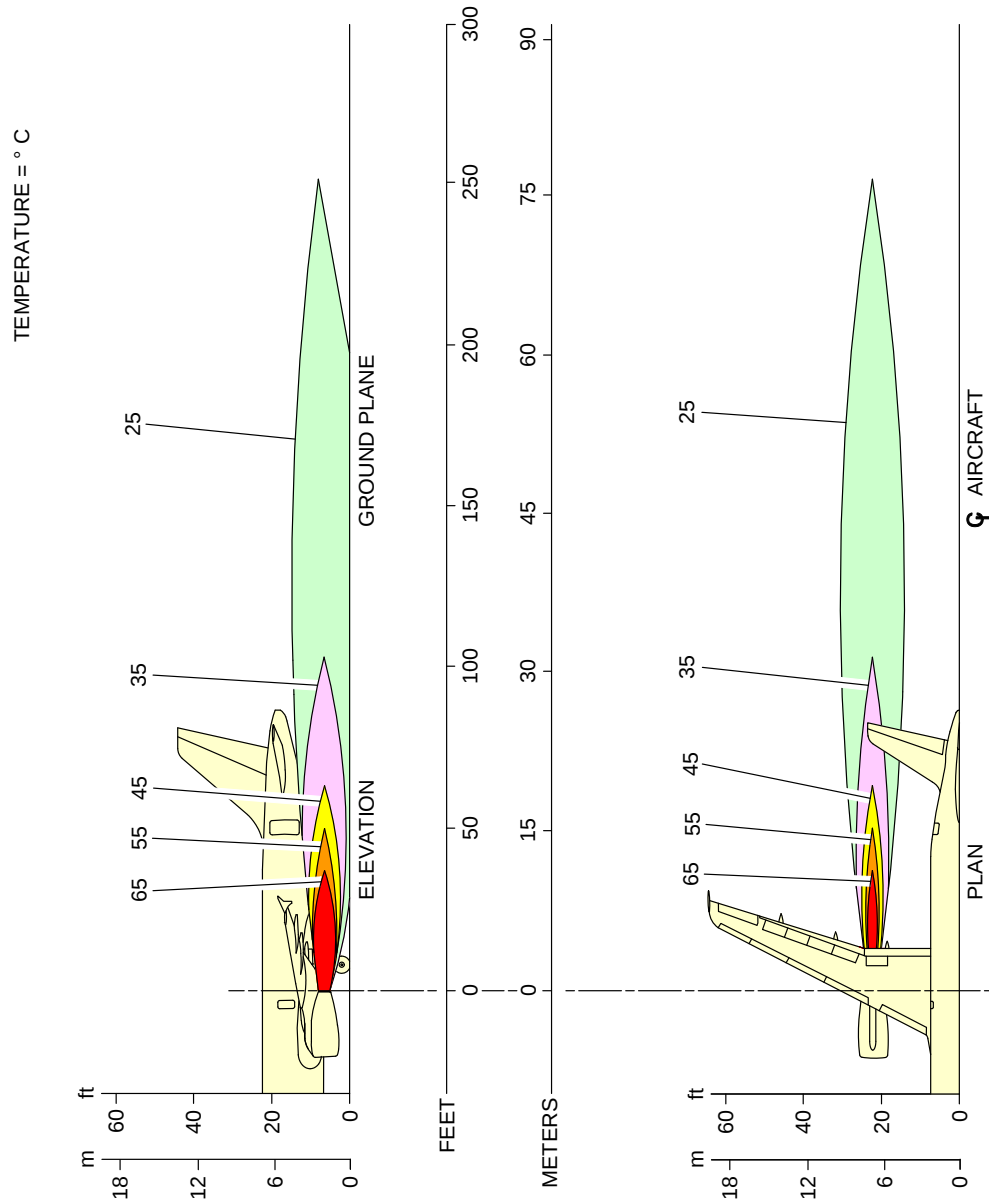
**\*\*ON A/C A319-100**



N\_AC\_060106\_1\_0030101\_01\_01

Engine Exhaust Temperatures  
Takeoff Power – CFM56 Series Engine  
FIGURE-6-1-6-991-003-A01

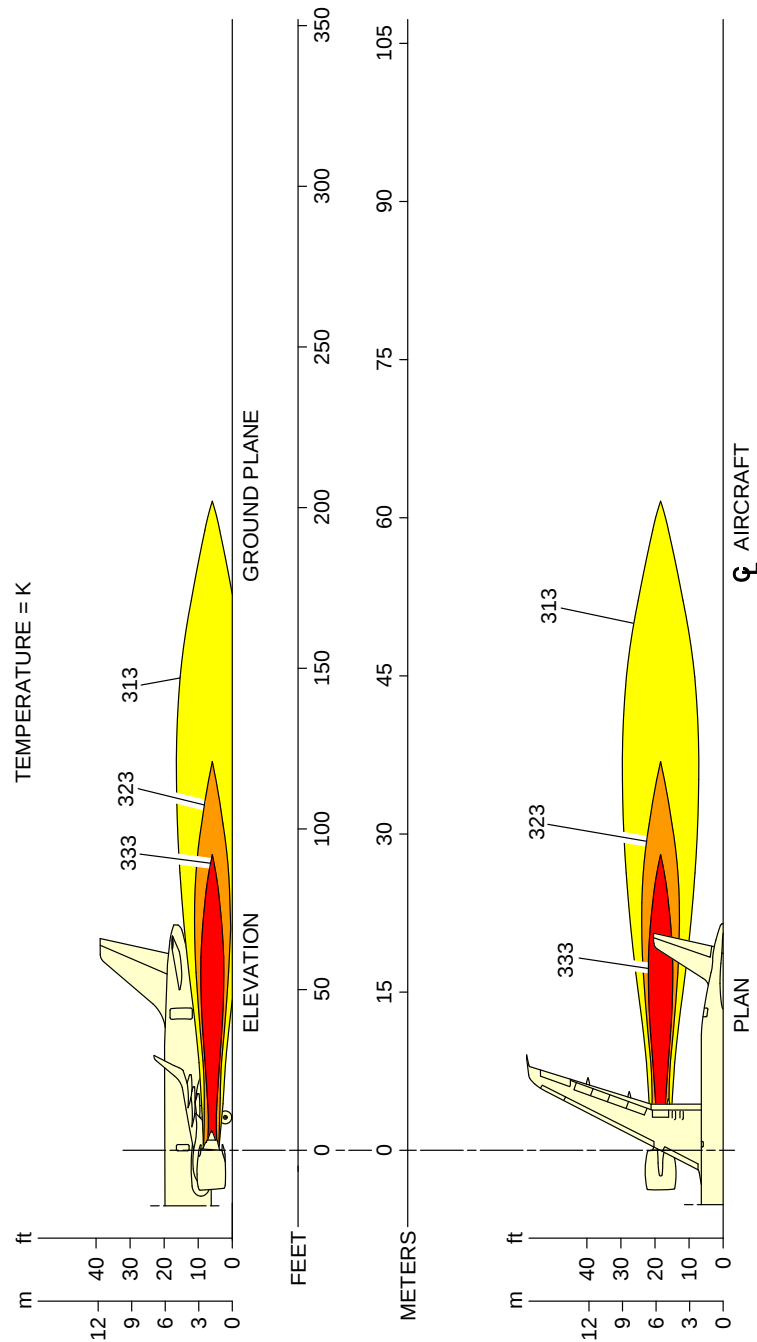
**\*\*ON A/C A319-100**



N\_AC\_060106\_1\_0040101\_01\_02

Engine Exhaust Temperatures  
Takeoff Power – IAE V2500 Series Engine  
FIGURE-6-1-6-991-004-A01

**\*\*ON A/C A319neo**

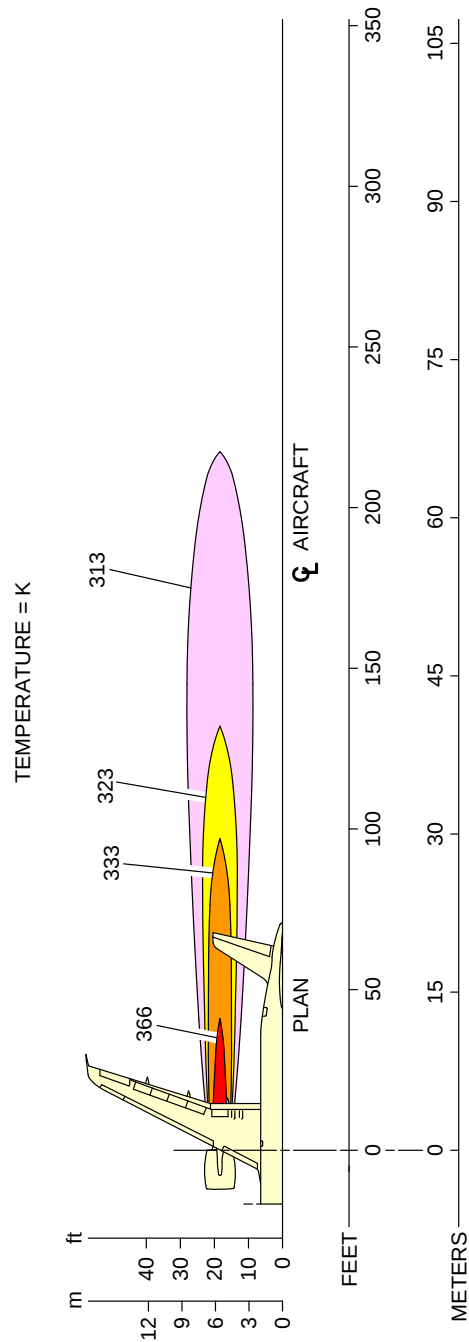


**NOTE:**  
MAX TAKEOFF, SEA LEVEL, ISA+15 DAY, FN = 32 517 lbf.

N\_AC\_060106\_1\_0090101\_01\_01

Engine Exhaust Temperatures  
Takeoff Power – CFM LEAP-1A Engine  
FIGURE-6-1-6-991-009-A01

**\*\*ON A/C A319neo**



N\_AC\_060106\_1\_0100101\_01\_01

Engine Exhaust Temperatures  
Takeoff Power – PW 1100G Engine  
FIGURE-6-1-6-991-010-A01

### 6-3-0 Danger Areas of Engines

**\*\*ON A/C A319-100 A319neo**

#### Danger Areas of Engines

#### 1. Danger Areas of the Engines

- A. The danger areas of the engines shown below are given in the normalized format:
- Entry corridors are only available at ground idle.
  - Do not go into the areas between the engines.
  - The exhaust danger areas are given for 0 kt headwind (if not specified otherwise).

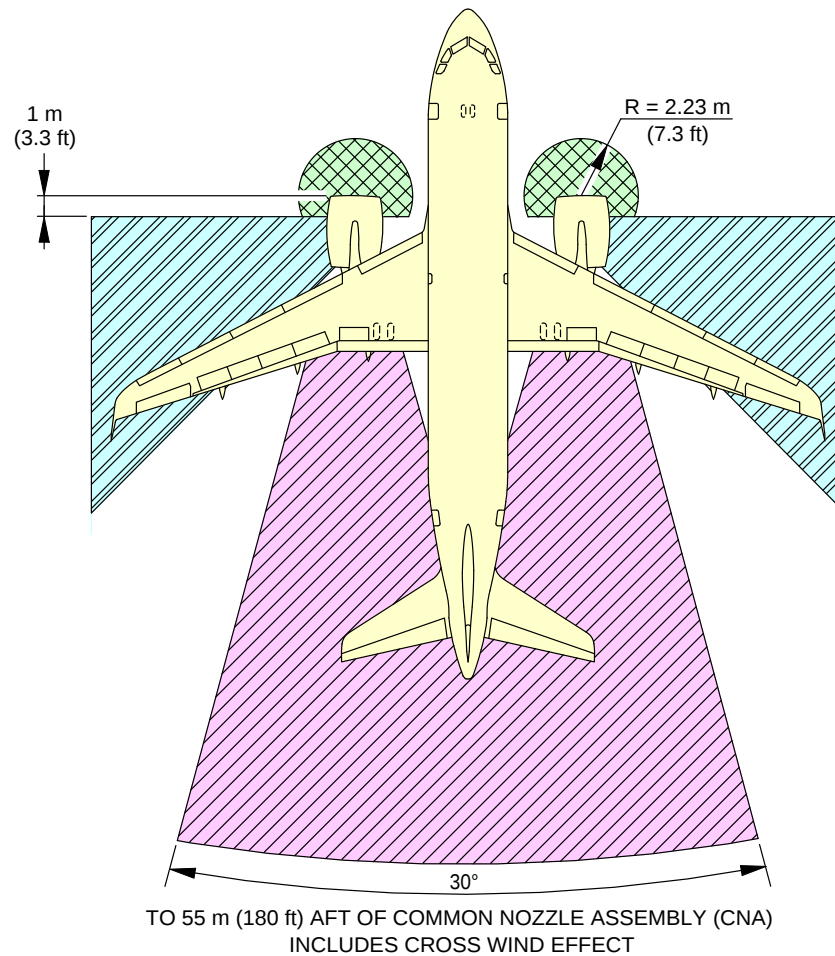
### 6-3-1 Ground Idle Power

**\*\*ON A/C A319-100 A319neo**

#### Ground Idle Power

1. This section provides danger areas of the engines at ground idle power conditions.

**\*\*ON A/C A319-100**



**NOTE:**



INLET SUCTION DANGER AREA



ENTRY CORRIDOR

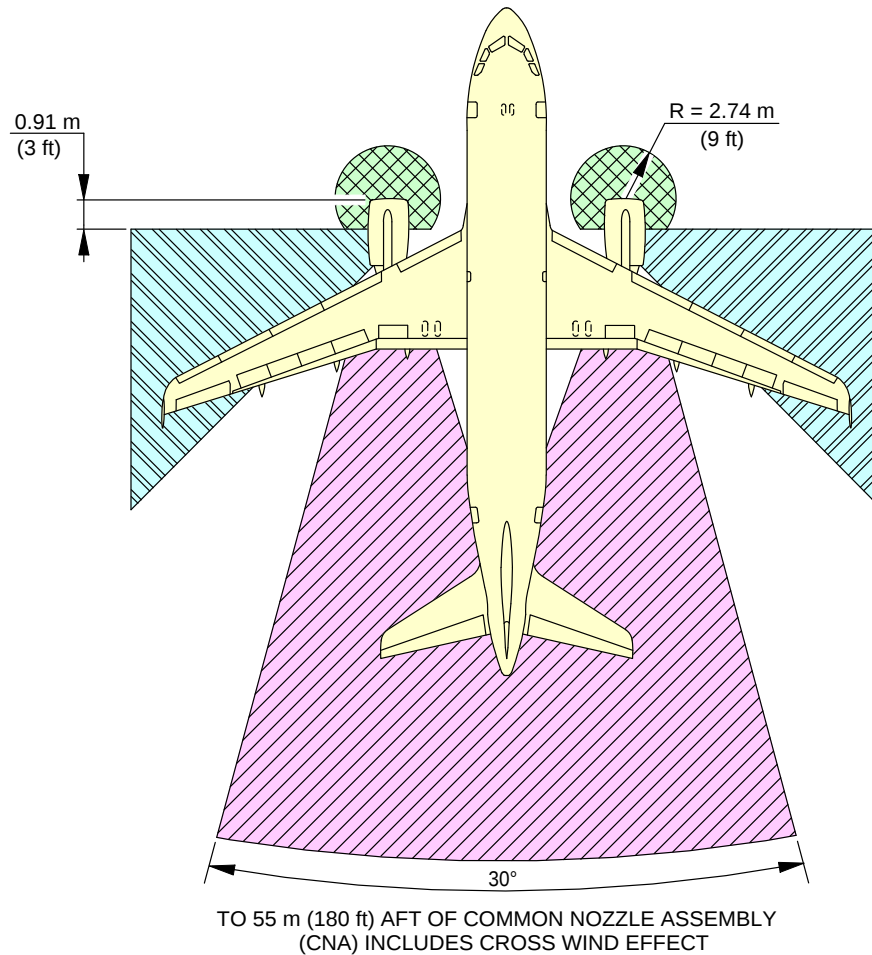


EXHAUST WAKE DANGER AREA

N\_AC\_060301\_1\_0030101\_01\_04

Danger Areas of the Engines  
CFM56 Series Engine  
FIGURE-6-3-1-991-003-A01

**\*\*ON A/C A319-100**



**NOTE:**



INTAKE SUCTION DANGER AREA MINIMUM IDLE POWER



ENTRY CORRIDOR

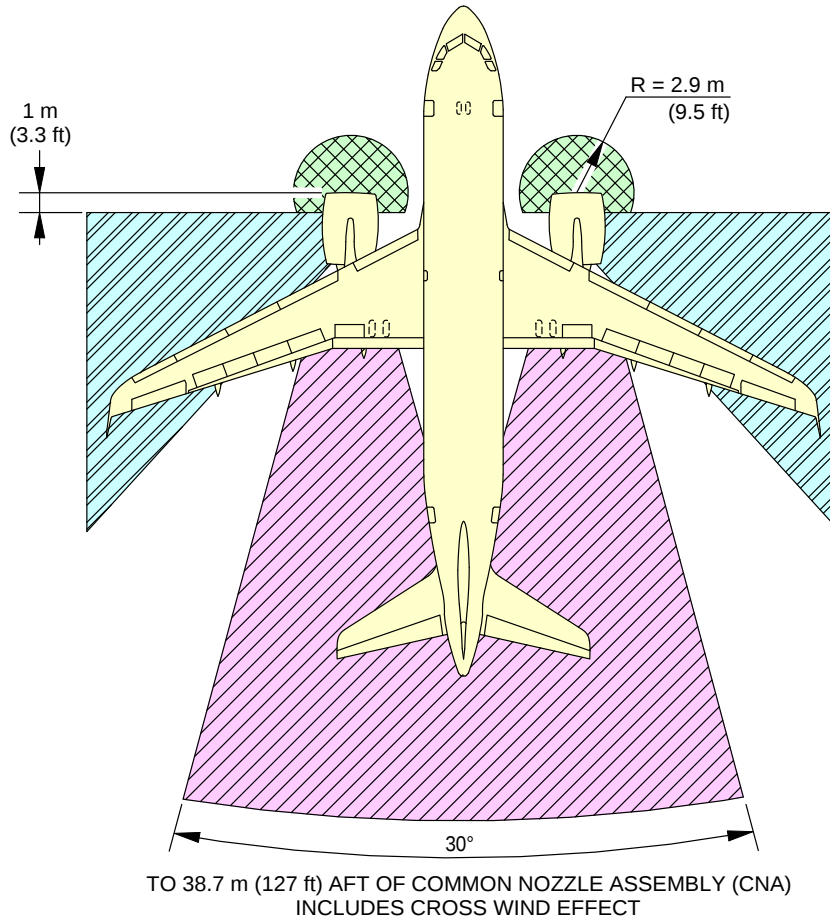


EXHAUST DANGER AREA

N\_AC\_060301\_1\_0040101\_01\_04

Danger Areas of the Engines  
IAE V2500 Series Engine  
FIGURE-6-3-1-991-004-A01

**\*\*ON A/C A319neo**



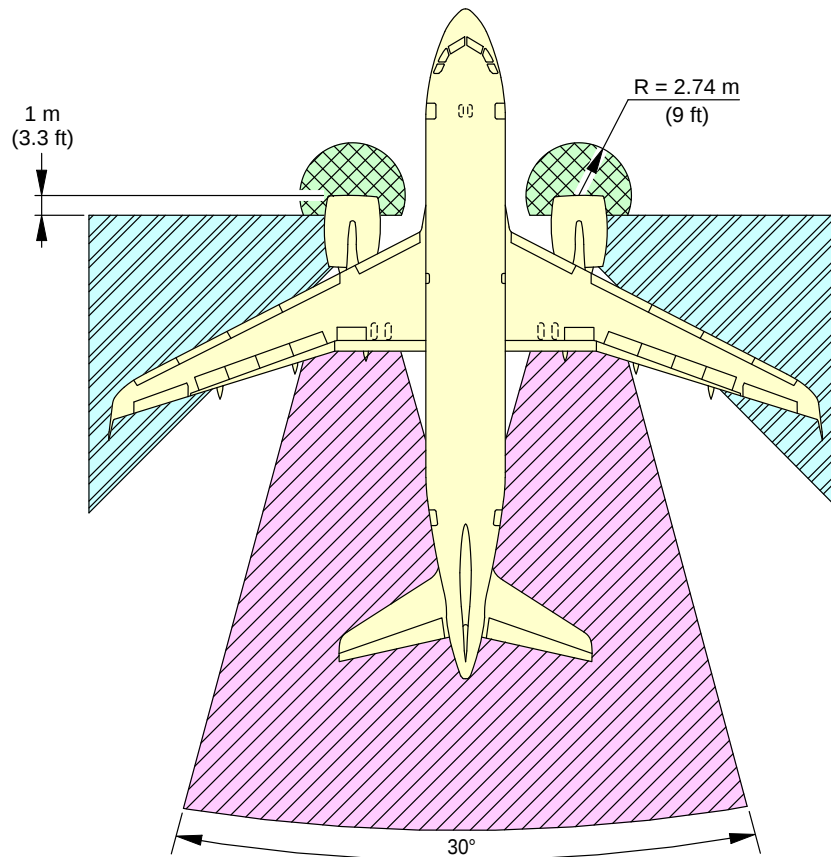
**NOTE:**

-  INTAKE SUCTION DANGER AREA MINIMUM IDLE POWER
-  ENTRY CORRIDOR
-  EXHAUST DANGER AREA

N\_AC\_060301\_1\_0110101\_01\_02

Danger Areas of the Engines  
CFM LEAP-1A Engine  
FIGURE-6-3-1-991-011-A01

**\*\*ON A/C A319neo**



TO 40.3 m (132 ft) AFT OF COMMON NOZZLE ASSEMBLY (CNA)  
INCLUDES CROSS WIND EFFECT

**NOTE:**



INTAKE SUCTION DANGER AREA MINIMUM IDLE POWER



ENTRY CORRIDOR



EXHAUST DANGER AREA

N\_AC\_060301\_1\_0120101\_01\_02

Danger Areas of the Engines  
PW 1100G Engine  
FIGURE-6-3-1-991-012-A01

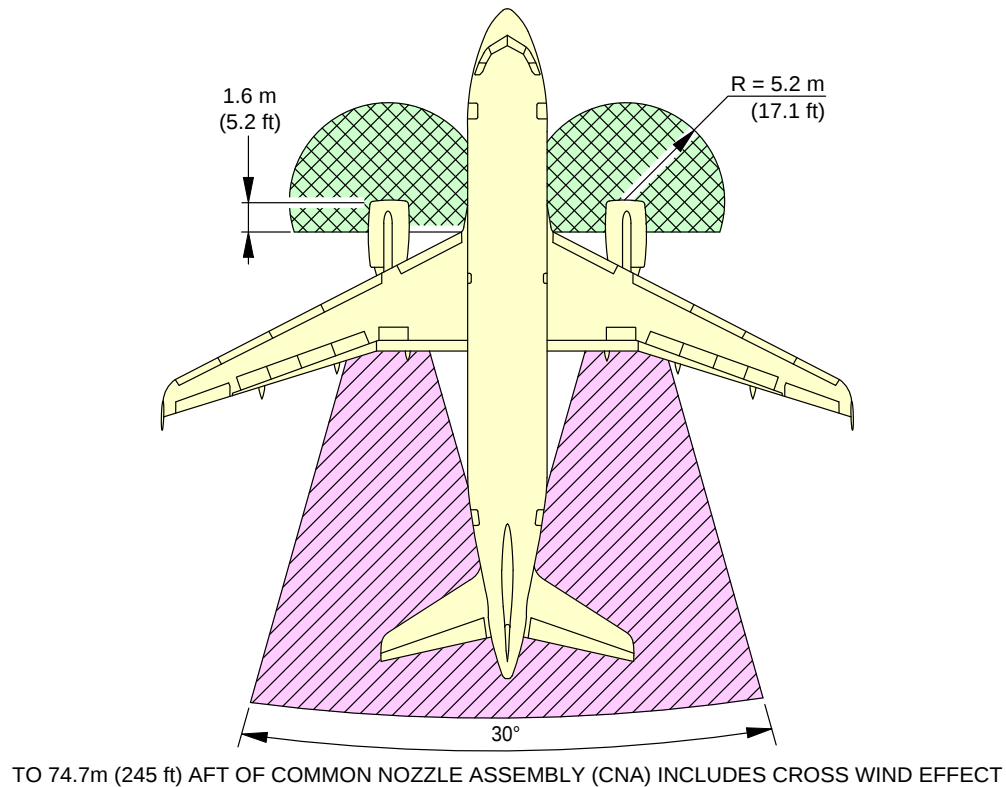
### 6-3-2 Breakaway Power

**\*\*ON A/C A319-100 A319neo**

#### Breakaway Power

1. This section provides danger areas of the engines at breakaway power.

**\*\*ON A/C A319-100**



**NOTE:**



INTAKE SUCTION DANGER AREA MAX. TAKEOFF POWER

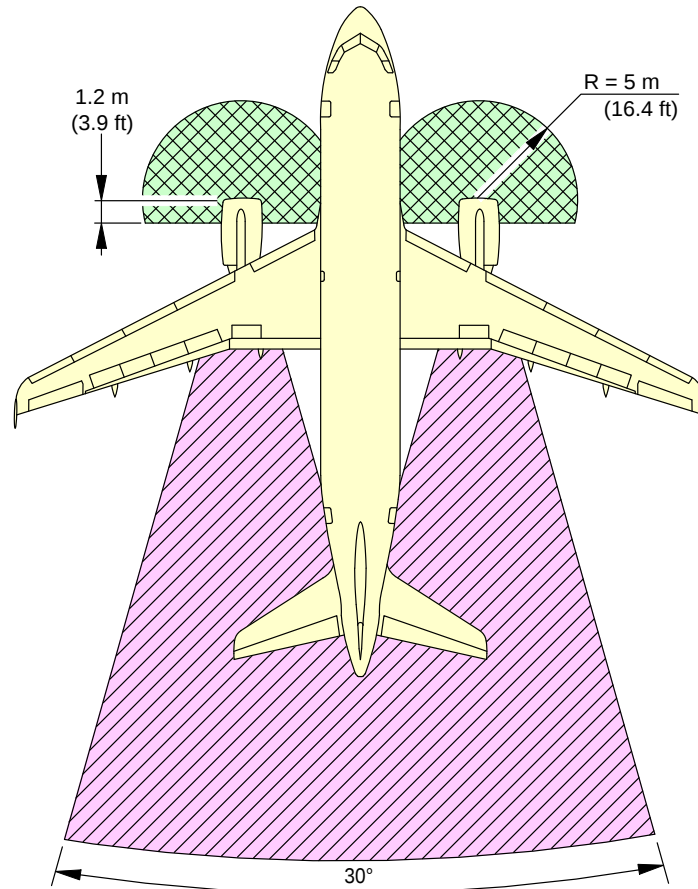


EXHAUST WAKE DANGER AREA

N\_AC\_060302\_1\_0030101\_01\_03

Danger Areas of the Engines  
CFM56 Series Engine  
FIGURE-6-3-2-991-003-A01

**\*\*ON A/C A319-100**



TO 91.4 m (300 ft) AFT OF COMMON NOZZLE ASSEMBLY (CNA) INCLUDES CROSS WIND EFFECT

**NOTE:**



INTAKE SUCTION DANGER AREA MAX. TAKEOFF POWER

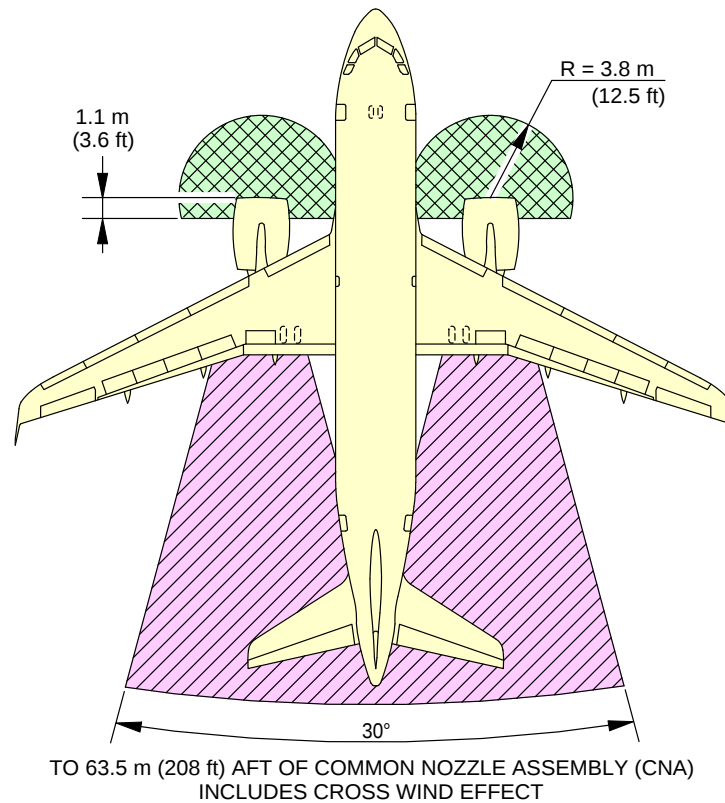


EXHAUST DANGER AREA

N\_AC\_060302\_1\_0040101\_01\_03

Danger Areas of the Engines  
IAE V2500 Series Engine  
FIGURE-6-3-2-991-004-A01

**\*\*ON A/C A319neo**



**NOTE:**



INTAKE SUCTION DANGER AREA MAX. TAKEOFF POWER

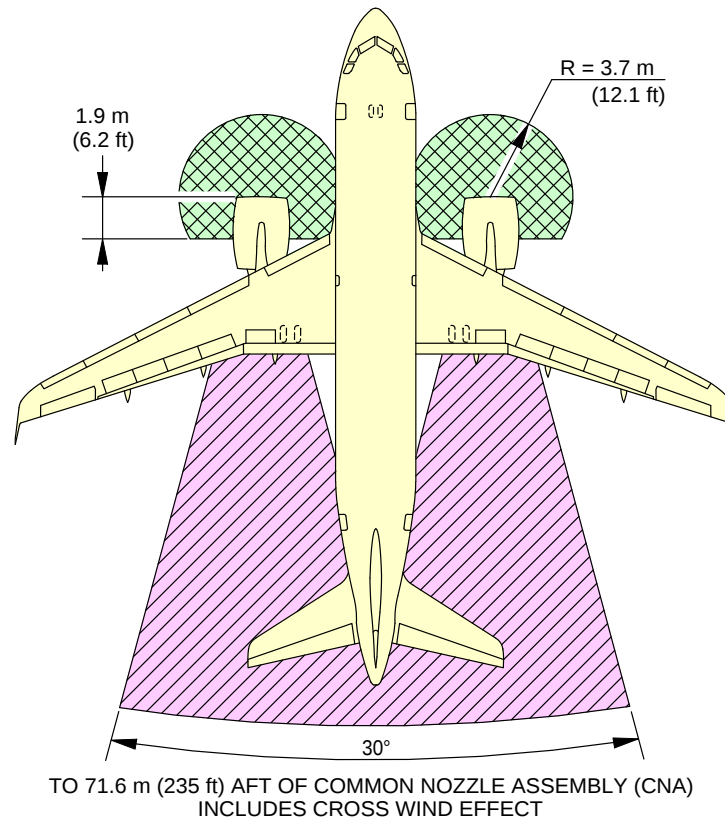


EXHAUST DANGER AREA

N\_AC\_060302\_1\_0090101\_01\_02

Danger Areas of the Engines  
CFM LEAP-1A Engine  
FIGURE-6-3-2-991-009-A01

**\*\*ON A/C A319neo**



**NOTE:**



INTAKE SUCTION DANGER AREA MAX. TAKEOFF POWER



EXHAUST DANGER AREA

N\_AC\_060302\_1\_0100101\_01\_02

Danger Areas of the Engines  
PW 1100G Engine  
FIGURE-6-3-2-991-010-A01

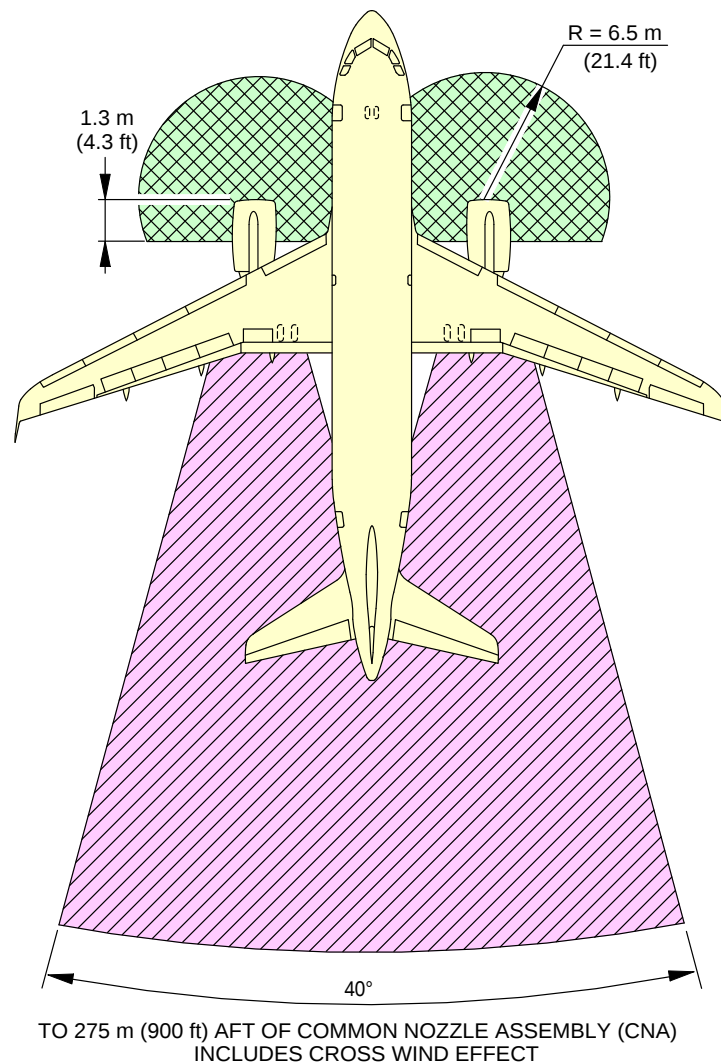
### 6-3-3 Max Take Off Power

**\*\*ON A/C A319-100 A319neo**

Take Off Power

1. This section provides danger areas of the engines at maximum take-off power conditions.

**\*\*ON A/C A319-100**



**NOTE:**



INTAKE SUCTION DANGER AREA

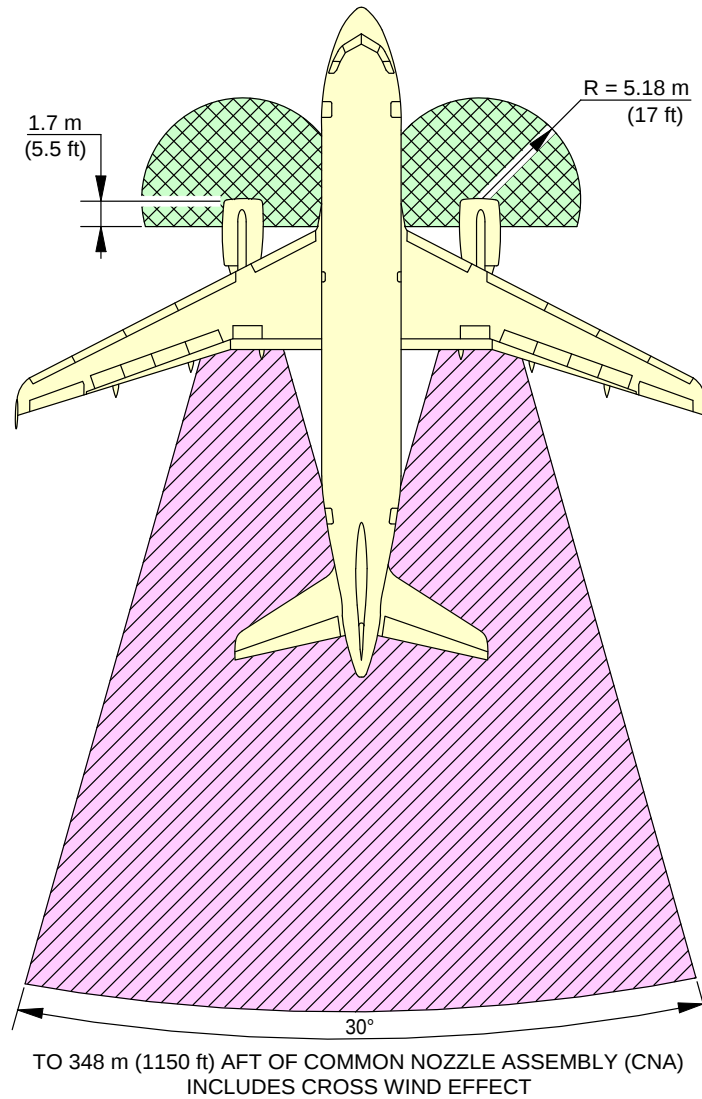


EXHAUST WAKE DANGER

N\_AC\_060303\_1\_0030101\_01\_01

Danger Areas of the Engines  
CFM56 Series Engine  
FIGURE-6-3-3-991-003-A01

**\*\*ON A/C A319-100**



**NOTE:**



INTAKE SUCTION DANGER AREA MAX. TAKEOFF POWER

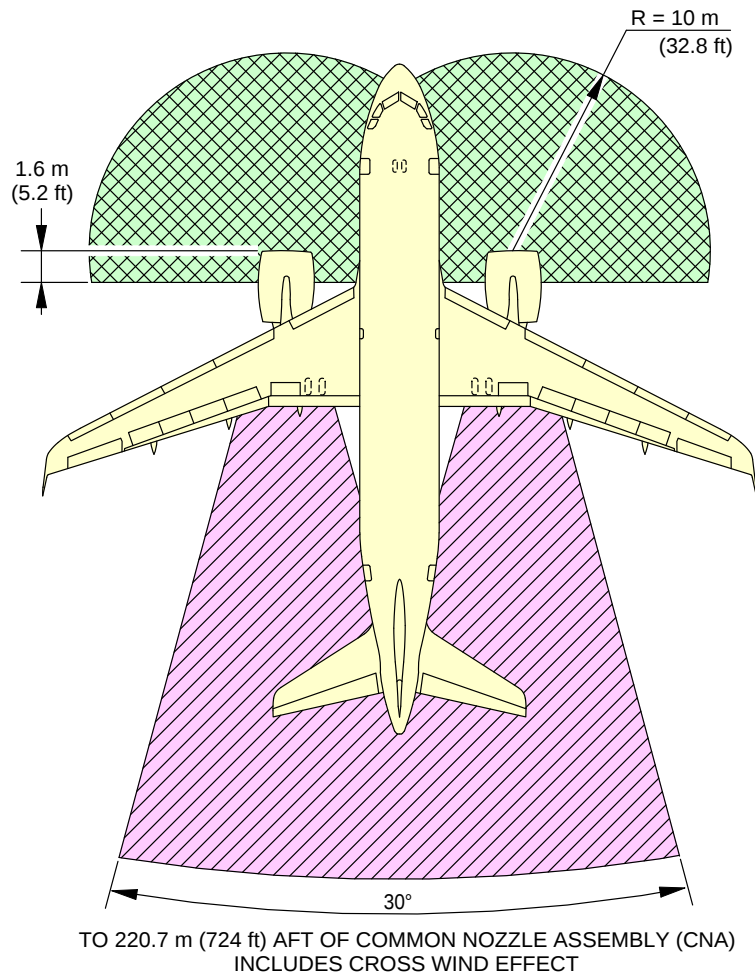


EXHAUST DANGER AREA

N\_AC\_060303\_1\_0040101\_01\_01

Danger Areas of the Engines  
IAE V2500 Series Engine  
FIGURE-6-3-3-991-004-A01

**\*\*ON A/C A319neo**



**NOTE:**



INTAKE SUCTION DANGER AREA MAX. TAKEOFF POWER

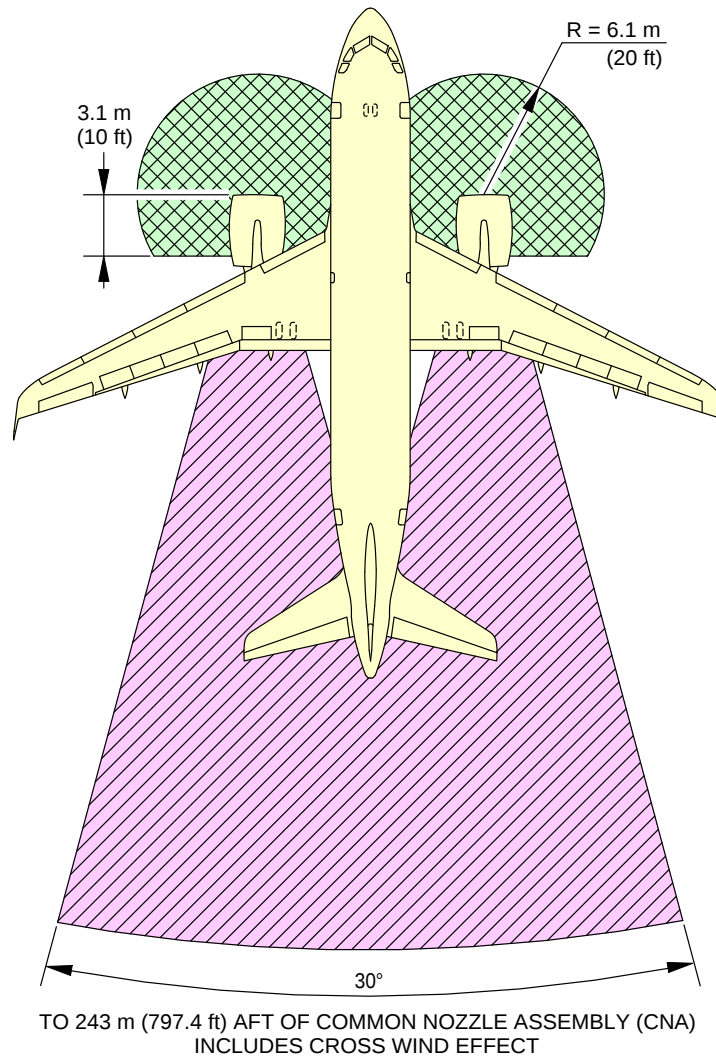


EXHAUST DANGER AREA

N\_AC\_060303\_1\_0050101\_01\_01

Danger Areas of the Engines  
CFM LEAP-1A Engine  
FIGURE-6-3-3-991-005-A01

**\*\*ON A/C A319neo**



**NOTE:**



INTAKE SUCTION DANGER AREA MAX. TAKEOFF POWER



EXHAUST DANGER AREA

N\_AC\_060303\_1\_0060101\_01\_01

Danger Areas of the Engines  
PW 1100G Engine  
FIGURE-6-3-3-991-006-A01

### 6-4-1 APU

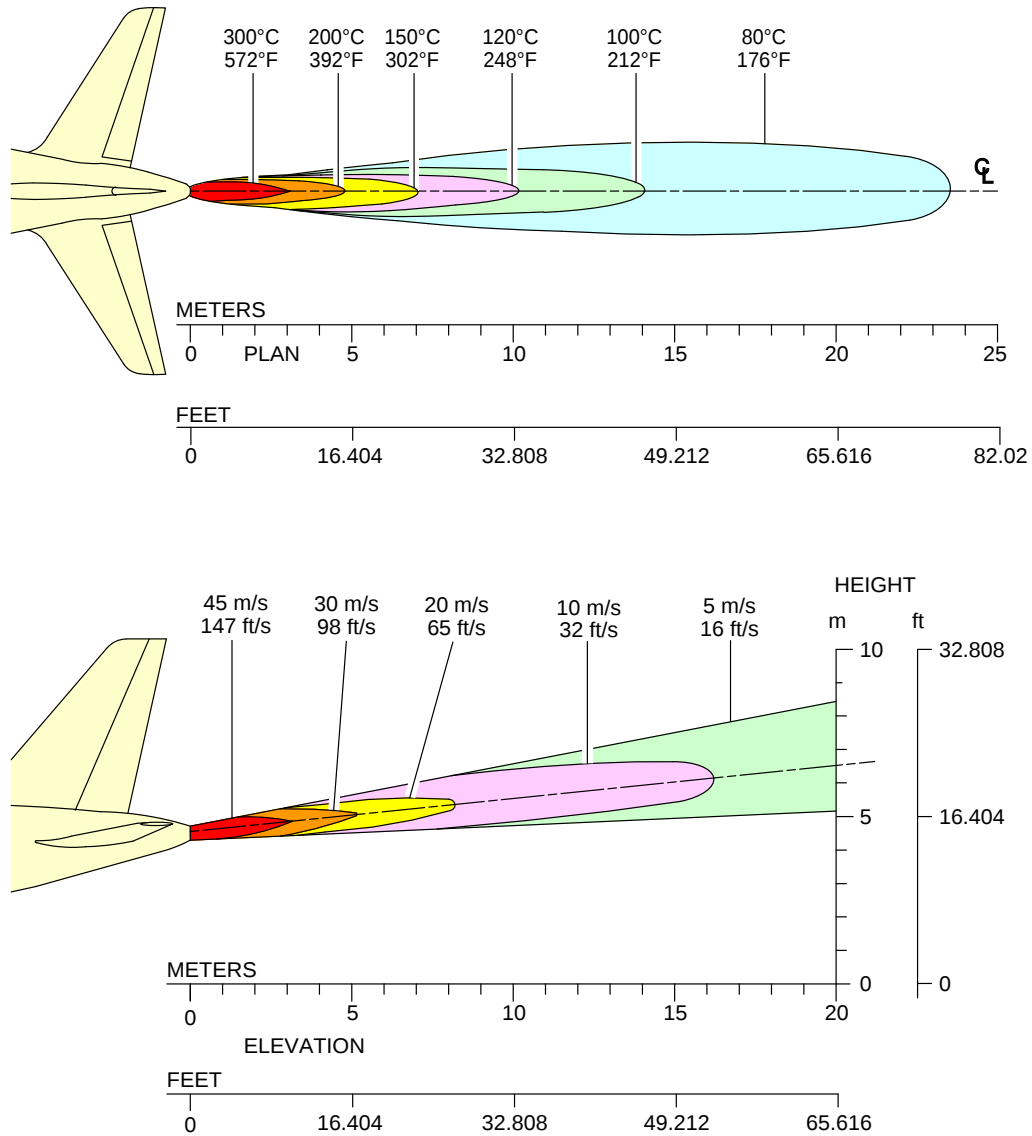
**\*\*ON A/C A319-100 A319neo**

APU - APIC & GARRETT

1. This section gives APU exhaust velocities and temperatures.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100 A319neo**



N\_AC\_060401\_1\_0020101\_01\_00

Exhaust Velocities and Temperatures  
APU – APIC & GARRETT  
FIGURE-6-4-1-991-002-A01

**PAVEMENT DATA****7-1-0 General Information****\*\*ON A/C A319-100 A319neo****General Information**

1. A brief description of the pavement charts that follow will help in airport planning.

To aid in the interpolation between the discrete values shown, each aircraft configuration is shown with a minimum range of five loads on the Main Landing Gear (MLG).

All curves on the charts represent data at a constant specified tire pressure with:

- The aircraft loaded to the Maximum Ramp Weight (MRW),
- The CG at its maximum permissible aft position.

Pavement requirements for commercial aircraft are derived from the static analysis of loads imposed on the MLG struts.

**Landing Gear Footprint:**

Section 07-02-00 presents basic data on the landing gear footprint configuration, MRW and tire sizes and pressures.

**Maximum Pavement Loads:**

Section 07-03-00 shows maximum vertical and horizontal pavement loads for certain critical conditions at the tire-ground interfaces.

**Landing Gear Loading on Pavement:**

The curves related to the landing gear loading on pavement are not given in section 07-04-00. Because the relationship between the aircraft weight, the center of gravity and the landing gear loading on the pavement is not strictly linear, it cannot be shown in chart format. But you can find in section 07-03-00 the maximum vertical and horizontal pavement loads for some critical conditions at the tire/ground interfaces for all the operational weight variants of the aircraft. For questions that are related to landing gear loading on pavement, contact Airbus.

Flexible Pavement Requirements - US Army Corps of Engineers Design Method:

**AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING**

The flexible pavement requirements curves as per U.S. Army Corps of Engineers Design Method are not given in section 07-05-00 since the related data is available through free software.

Sections 07-02-00 and 07-03-00 give all the inputs data required for the use of such software. For questions that are related to the flexible pavement requirements, contact Airbus.

**Flexible Pavement Requirements - LCN Conversion Method:**

The Load Classification Number (LCN) curves are not given in section 07-06-00 since the LCN system for reporting pavement strength is old and are replaced by the ICAO recommended ACN/PCN system in 1983 and ACR/PCR system in 2020.

For questions that are related to the flexible pavement requirements, contact Airbus.

**Rigid Pavement Requirements - PCA (Portland Cement Association) Design Method:**

The rigid pavement requirements curves as per as Portland Cement Association Design Method are not given in section 07-07-00 since the related data is available through free software.

Sections 07-02-00 and 07-03-00 give all the inputs data required for the use of such software. For questions that are related to the rigid pavement requirements, contact Airbus.

**Rigid Pavement Requirements - LCN Conversion:**

The Load Classification Number (LCN) curves are not given in section 07-08-00 since the LCN system for reporting pavement strength is old and are replaced by the ICAO recommended ACN/PCN system in 1983 and ACR/PCR system in 2020.

For questions that are related to the flexible pavement requirements, contact Airbus.

**ACN/PCN Reporting System:**

Section 07-09-00 gives ACN data prepared according to the ACN/PCN system as referenced in ICAO Annex 14, "Aerodromes", Volume 1 "Aerodrome Design and Operations".

Eighth Edition July 2018, incorporating Amendments 1 to 14 and ICAO doc 9157, "Aerodrome Design Manual", part 3 "Pavements" Second Edition 1983.

The ACN/PCN system is applicable until November 2024.

ACN is the Aircraft Classification Number and PCN is the related Pavement Classification Number.

An aircraft with an ACN less than or equal to the PCN can operate without restriction on the pavement.

Numerically the ACN is two times the derived single wheel load expressed in thousands of kilograms.

The derived single wheel load is calculated as the load on a single tire inflated to 1.25 MPa (181 psi) that would have the same pavement requirements as the aircraft.

Computationally the ACN/PCN system uses PCA program PDILB for rigid pavements and S-77-1 for flexible pavements to calculate ACN values.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

The airport authority must select the method of pavement analysis.  
The results of their analysis should be reported using the following format:

| PCN           |                   |                                                   |                    |
|---------------|-------------------|---------------------------------------------------|--------------------|
| PAVEMENT TYPE | SUBGRADE CATEGORY | TIRE PRESSURE CATEGORY                            | EVALUATION METHOD  |
| R – Rigid     | A – High          | W – No pressure limit                             | T – Technical      |
| F – Flexible  | B – Medium        | X – High pressure limited to 1.75 MPa (254 psi)   | U – Using Aircraft |
|               | C – Low           | Y – Medium pressure limited to 1.25 MPa (181 psi) |                    |
|               | D – Ultra Low     | Z – Low pressure limited to 0.5 MPa (73 psi)      |                    |

Section 07-09-00 shows the aircraft ACN values.

For flexible pavements, the four subgrade categories (CBR) are:

- A. High Strength CBR 15
- B. Medium Strength CBR 10
- C. Low Strength CBR 6
- D. Ultra Low Strength CBR 3

For rigid pavements, the four subgrade categories (k) are:

- A. High Strength k = 150 MN/m<sup>3</sup> (550 pci)
- B. Medium Strength k = 80 MN/m<sup>3</sup> (300 pci)
- C. Low Strength k = 40 MN/m<sup>3</sup> (150 pci)
- D. Ultra Low Strength k = 20 MN/m<sup>3</sup> (75 pci)

### ACR/PCR Reporting System:

Section 07-10-00 gives ACR data prepared according to the ACR/PCR system as referenced in ICAO Annex 14, "Aerodromes", Volume 1 "Aerodrome Design and Operations".

Eight Edition July 2018, incorporating Amendments 1 to 15 and ICAO doc 9157, "Aerodrome Design Manual", part 3 "Pavements" Third Edition 2021.

The ACR/PCR system is effective from November 2020 and will be applicable in November 2024.

ACR is the Aircraft Classification Rating and PCR is the related Pavement Classification Rating.

An aircraft with an ACR less than or equal to the PCR can operate without restriction on the pavement.

Computationally the ACR/PCR system relies on the Linear Elastic Analysis (LEA). The ACR are computed with the official ICAO-ACR software.

States can start their own methods for PCR determination, which agree with the overall parameters of the ACR/PCR method.

| PCR           |                   |                                                   |                    |
|---------------|-------------------|---------------------------------------------------|--------------------|
| PAVEMENT TYPE | SUBGRADE CATEGORY | TIRE PRESSURE CATEGORY                            | EVALUATION METHOD  |
| R – Rigid     | A – High          | W – No pressure limit                             | T – Technical      |
| F – Flexible  | B – Medium        | X – High pressure limited to 1.75 MPa (254 psi)   | U – Using Aircraft |
|               | C – Low           | Y – Medium pressure limited to 1.25 MPa (181 psi) |                    |
|               | D – Ultra Low     | Z – Low pressure limited to 0.5 MPa (73 psi)      |                    |

For flexible and rigid pavement, the four subgrade categories are defined based on the subgrade modulus of elasticity (E):

- A. High Strength E = 200 Mpa (29 008 psi)
- B. Medium Strength E = 120 Mpa (17 405 psi)
- C. Low Strength E = 80 Mpa (11 603 psi)
- D. Ultra Low Strength E = 50 Mpa (7 252 psi)

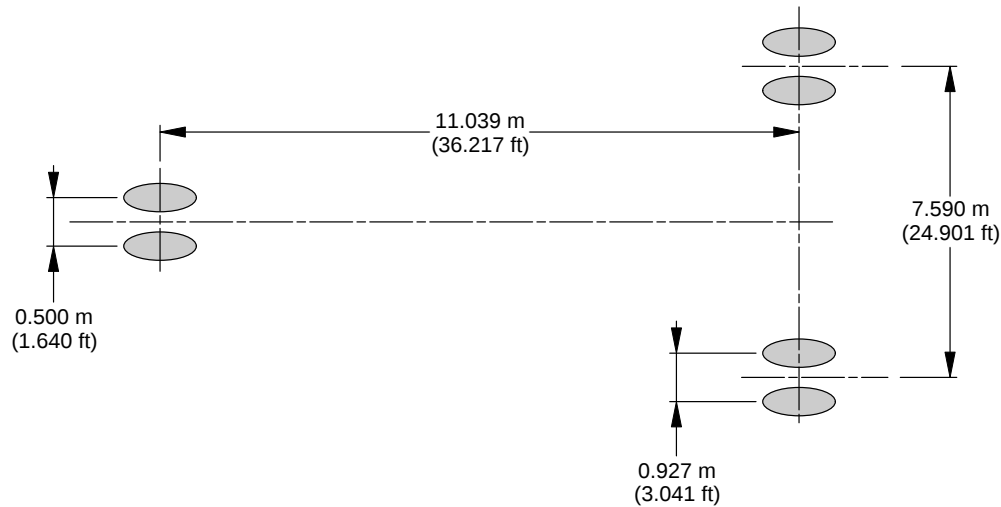
**7-2-0 Landing Gear Footprint****\*\*ON A/C A319-100 A319neo**Landing Gear Footprint

1. This section gives data about the landing gear footprint in relation with the aircraft MRW and tire sizes and pressures.

The landing-gear footprint information is given for all the operational weight variants of the aircraft.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**



| WEIGHT VARIANT            | MAXIMUM RAMP WEIGHT    | PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP | NOSE GEAR TIRE SIZE   | NOSE GEAR TIRE PRESSURE | MAIN GEAR TIRE SIZE | MAIN GEAR TIRE PRESSURE |
|---------------------------|------------------------|-----------------------------------------|-----------------------|-------------------------|---------------------|-------------------------|
| A319-100 WV000 (CG 39%)   | 64 400 kg (141 975 lb) | 92.6%                                   | 30x8.8R15 (30x8.8-15) | 11.4 bar (165 psi)      | 46x17R20 (46x16-20) | 11.9 bar (173 psi)      |
| A319-100 WV000 (CG 36%)   | 64 400 kg (141 975 lb) | 91.4%                                   | 30x8.8R15 (30x8.8-15) | 11.4 bar (165 psi)      | 46x17R20 (46x16-20) | 11.9 bar (173 psi)      |
| A319-100 WV001 (CG 37.5%) | 70 400 kg (155 200 lb) | 92.1%                                   | 30x8.8R15 (30x8.8-15) | 12.5 bar (181 psi)      | 46x17R20 (46x16-20) | 12.9 bar (187 psi)      |
| A319-100 WV001 (CG 36%)   | 70 400 kg (155 200 lb) | 91.5%                                   | 30x8.8R15 (30x8.8-15) | 12.5 bar (181 psi)      | 46x17R20 (46x16-20) | 12.9 bar (187 psi)      |
| A319-100 WV002            | 75 900 kg (167 325 lb) | 91.6%                                   | 30x8.8R15 (30x8.8-15) | 13.2 bar (191 psi)      | 46x17R20 (46x16-20) | 13.8 bar (200 psi)      |
| A319-100 WV002 (CJ)       | 75 900 kg (167 325 lb) | 91.6%                                   | 30x8.8R15 (30x8.8-15) | 13.9 bar (202 psi)      | 46x17R20 (46x16-20) | 13.8 bar (200 psi)      |
| A319-100 WV003 (CG 38.1%) | 68 400 kg (150 800 lb) | 92.3%                                   | 30x8.8R15 (30x8.8-15) | 12.1 bar (175 psi)      | 46x17R20 (46x16-20) | 12.5 bar (181 psi)      |
| A319-100 WV003 (CG 36%)   | 68 400 kg (150 800 lb) | 91.5%                                   | 30x8.8R15 (30x8.8-15) | 12.1 bar (175 psi)      | 46x17R20 (46x16-20) | 12.5 bar (181 psi)      |

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Landing Gear Footprint  
(Sheet 1 of 2)  
FIGURE-7-2-0-991-004-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

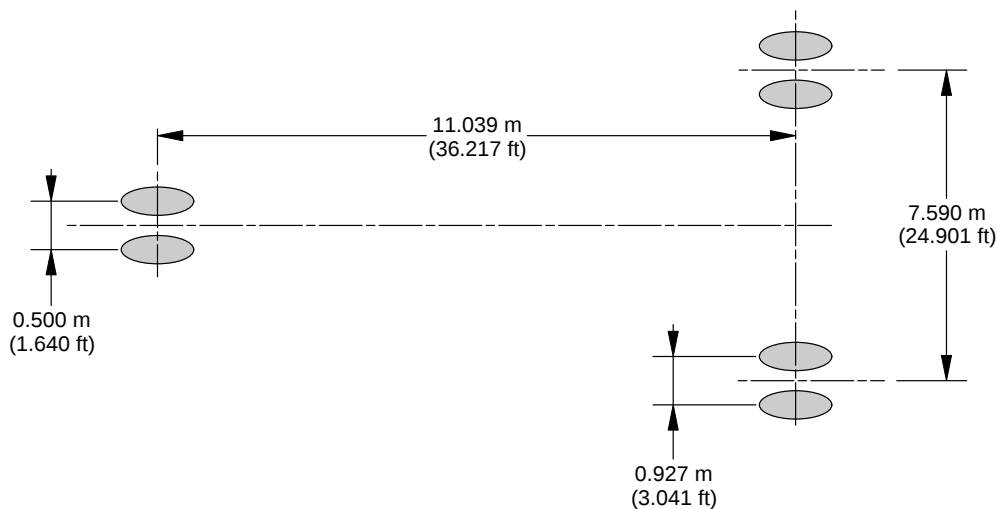
| WEIGHT VARIANT             | MAXIMUM RAMP WEIGHT    | PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP | NOSE GEAR TIRE SIZE   | NOSE GEAR TIRE PRESSURE | MAIN GEAR TIRE SIZE | MAIN GEAR TIRE PRESSURE |
|----------------------------|------------------------|-----------------------------------------|-----------------------|-------------------------|---------------------|-------------------------|
| A319-100 WV004 (CG 38.1%)  | 68 400 kg (150 800 lb) | 92.3%                                   | 30x8.8R15 (30x8.8-15) | 12.1 bar (175 psi)      | 46x17R20 (46x16-20) | 12.5 bar (181 psi)      |
| A319-100 WV004 (CG 36%)    | 68 400 kg (150 800 lb) | 91.5%                                   | 30x8.8R15 (30x8.8-15) | 12.1 bar (175 psi)      | 46x17R20 (46x16-20) | 12.5 bar (181 psi)      |
| A319-100 WV005 (CG 37.5%)  | 70 400 kg (155 200 lb) | 92.1%                                   | 30x8.8R15 (30x8.8-15) | 12.5 bar (181 psi)      | 46x17R20 (46x16-20) | 12.9 bar (187 psi)      |
| A319-100 WV005 (CG 36%)    | 70 400 kg (155 200 lb) | 91.5%                                   | 30x8.8R15 (30x8.8-15) | 12.5 bar (181 psi)      | 46x17R20 (46x16-20) | 12.9 bar (187 psi)      |
| A319-100 WV005 (CJ)        | 70 400 kg (155 200 lb) | 91.6%                                   | 30x8.8R15 (30x8.8-15) | 13.9 bar (202 psi)      | 46x17R20 (46x16-20) | 13.8 bar (200 psi)      |
| A319-100 WV006 (CG 36.52%) | 73 900 kg (162 925 lb) | 91.7%                                   | 30x8.8R15 (30x8.8-15) | 13.5 bar (196 psi)      | 46x17R20 (46x16-20) | 13.4 bar (194 psi)      |
| A319-100 WV006 (CG 36%)    | 73 900 kg (162 925 lb) | 91.5%                                   | 30x8.8R15 (30x8.8-15) | 13.5 bar (196 psi)      | 46x17R20 (46x16-20) | 13.4 bar (194 psi)      |
| A319-100 WV007             | 75 900 kg (167 325 lb) | 91.6%                                   | 30x8.8R15 (30x8.8-15) | 13.2 bar (191 psi)      | 46x17R20 (46x16-20) | 13.8 bar (200 psi)      |
| A319-100 WV008 (CG 39%)    | 64 400 kg (141 975 lb) | 92.6%                                   | 30x8.8R15 (30x8.8-15) | 11.4 bar (165 psi)      | 46x17R20 (46x16-20) | 11.9 bar (173 psi)      |
| A319-100 WV008 (CG 36%)    | 64 400 kg (141 975 lb) | 91.4%                                   | 30x8.8R15 (30x8.8-15) | 11.4 bar (165 psi)      | 46x17R20 (46x16-20) | 11.9 bar (173 psi)      |
| A319-100 WV009 (CG 38.8%)  | 66 400 kg (146 375 lb) | 92.6%                                   | 30x8.8R15 (30x8.8-15) | 12.1 bar (175 psi)      | 46x17R20 (46x16-20) | 12.5 bar (181 psi)      |
| A319-100 WV009 (CG 36%)    | 66 400 kg (146 375 lb) | 91.5%                                   | 30x8.8R15 (30x8.8-15) | 12.1 bar (175 psi)      | 46x17R20 (46x16-20) | 12.5 bar (181 psi)      |
| A319-100 WV010 (CJ)        | 76 900 kg (169 525 lb) | 91.5%                                   | 30x8.8R15 (30x8.8-15) | 13.9 bar (202 psi)      | 46x17R20            | 13.8 bar (200 psi)      |
| A319-100 WV011 (CG 38.8%)  | 66 400 kg (146 375 lb) | 92.6%                                   | 30x8.8R15 (30x8.8-15) | 12.1 bar (175 psi)      | 46x17R20 (46x16-20) | 12.5 bar (181 psi)      |
| A319-100 WV011 (CG 36%)    | 66 400 kg (146 375 lb) | 91.5%                                   | 30x8.8R15 (30x8.8-15) | 12.1 bar (175 psi)      | 46x17R20 (46x16-20) | 12.5 bar (181 psi)      |
| A319-100 WV012 (CG 39%)    | 62 400 kg (137 575 lb) | 92.6%                                   | 30x8.8R15 (30x8.8-15) | 11.4 bar (165 psi)      | 46x17R20 (46x16-20) | 11.9 bar (173 psi)      |
| A319-100 WV012 (CG 36%)    | 62 400 kg (137 575 lb) | 91.4%                                   | 30x8.8R15 (30x8.8-15) | 11.4 bar (165 psi)      | 46x17R20 (46x16-20) | 11.9 bar (173 psi)      |
| A319-100 WV013 (CJ)        | 75 900 kg (167 325 lb) | 91.6%                                   | 30x8.8R15 (30x8.8-15) | 13.9 bar (202 psi)      | 46x17R20 (46x16-20) | 13.8 bar (200 psi)      |

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Landing Gear Footprint  
(Sheet 2 of 2)  
FIGURE-7-2-0-991-004-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**



| WEIGHT VARIANT            | MAXIMUM RAMP WEIGHT    | PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP | NOSE GEAR TIRE SIZE   | NOSE GEAR TIRE PRESSURE | MAIN GEAR TIRE SIZE | MAIN GEAR TIRE PRESSURE |
|---------------------------|------------------------|-----------------------------------------|-----------------------|-------------------------|---------------------|-------------------------|
| A319NEO WV050 (CG 36%)    | 64 400 kg (141 975 lb) | 91.4%                                   | 30x8.8R15 (30x8.8-15) | 11.4 bar (165 psi)      | 46x17R20 (46x16-20) | 11.9 bar (173 psi)      |
| A319NEO WV050 (CG 35.44%) | 64 400 kg (141 975 lb) | 91.2%                                   | 30x8.8R15 (30x8.8-15) | 11.4 bar (165 psi)      | 46x17R20 (46x16-20) | 11.9 bar (173 psi)      |
| A319NEO WV051 (CG 36%)    | 64 400 kg (141 975 lb) | 91.4%                                   | 30x8.8R15 (30x8.8-15) | 11.4 bar (165 psi)      | 46x17R20 (46x16-20) | 11.9 bar (173 psi)      |
| A319NEO WV051 (CG 35.44%) | 64 400 kg (141 975 lb) | 91.2%                                   | 30x8.8R16 (30x8.8-16) | 11.4 bar (165 psi)      | 46x17R20 (46x16-20) | 11.9 bar (173 psi)      |
| A319NEO WV051 (CG 32%)    | 64 400 kg (141 975 lb) | 89.9%                                   | 30x8.8R17 (30x8.8-17) | 11.4 bar (165 psi)      | 46x17R20 (46x16-20) | 11.9 bar (173 psi)      |
| A319NEO WV052 (CG 36%)    | 70 400 kg (155 200 lb) | 91.5%                                   | 30x8.8R15 (30x8.8-15) | 12.5 bar (181 psi)      | 46x17R20 (46x16-20) | 12.9 bar (187 psi)      |
| A319NEO WV052 (CG 32%)    | 70 400 kg (155 200 lb) | 89.9%                                   | 30x8.8R19 (30x8.8-19) | 12.5 bar (181 psi)      | 46x17R20 (46x16-20) | 12.9 bar (187 psi)      |
| A319NEO WV053 (CG 36%)    | 70 400 kg (155 200 lb) | 91.5%                                   | 30x8.8R15 (30x8.8-15) | 12.5 bar (181 psi)      | 46x17R20 (46x16-20) | 12.9 bar (187 psi)      |

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Landing Gear Footprint  
(Sheet 1 of 2)  
FIGURE-7-2-0-991-037-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**

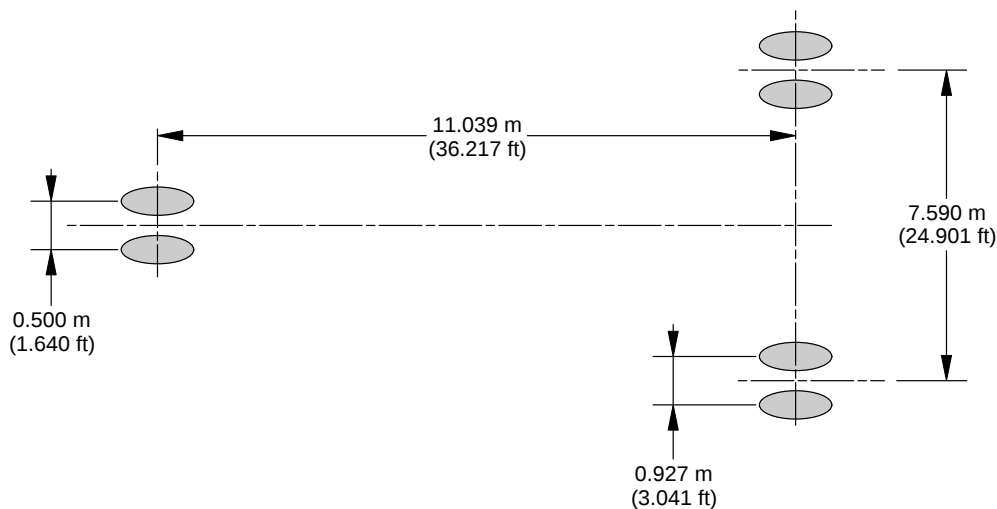
| WEIGHT<br>VARIANT            | MAXIMUM<br>RAMP<br>WEIGHT | PERCENTAGE<br>OF WEIGHT<br>ON MAIN<br>GEAR GROUP | NOSE GEAR TIRE<br>SIZE   | NOSE GEAR<br>TIRE<br>PRESSURE | MAIN GEAR TIRE<br>SIZE | MAIN GEAR<br>TIRE<br>PRESSURE |
|------------------------------|---------------------------|--------------------------------------------------|--------------------------|-------------------------------|------------------------|-------------------------------|
| A319NEO<br>WV053<br>(CG 32%) | 70 400 kg<br>(155 200 lb) | 89.9%                                            | 30x8.8R21<br>(30x8.8-21) | 12.5 bar<br>(181 psi)         | 46x17R20<br>(46x16-20) | 12.9 bar<br>(187 psi)         |
| A319NEO<br>WV054<br>(CG 36%) | 75 900 kg<br>(167 325 lb) | 91.6%                                            | 30x8.8R15<br>(30x8.8-15) | 13.2 bar<br>(191 psi)         | 46x17R20<br>(46x16-20) | 13.8 bar<br>(200 psi)         |
| A319NEO<br>WV054<br>(CG 32%) | 75 900 kg<br>(167 325 lb) | 90.0%                                            | 30x8.8R23<br>(30x8.8-23) | 13.2 bar<br>(191 psi)         | 46x17R20<br>(46x16-20) | 13.8 bar<br>(200 psi)         |
| A319NEO<br>WV055             | 75 900 kg<br>(167 325 lb) | 91.6%                                            | 30x8.8R15<br>(30x8.8-15) | 13.2 bar<br>(191 psi)         | 46x17R20<br>(46x16-20) | 13.8 bar<br>(200 psi)         |

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Landing Gear Footprint  
(Sheet 2 of 2)  
FIGURE-7-2-0-991-037-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**



| WEIGHT VARIANT           | MAXIMUM RAMP WEIGHT    | PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP | NOSE GEAR TIRE SIZE   | NOSE GEAR TIRE PRESSURE | MAIN GEAR TIRE SIZE | MAIN GEAR TIRE PRESSURE |
|--------------------------|------------------------|-----------------------------------------|-----------------------|-------------------------|---------------------|-------------------------|
| ACJ319NEO WV054          | 75 900 kg (167 325 lb) | 91.6%                                   | 30x8.8R15 (30x8.8-15) | 13.9 bar (202 psi)      | 46x17R20 (46x16-20) | 13.8 bar (200 psi)      |
| ACJ319NEO WV055 (CG 36%) | 75 900 kg (167 325 lb) | 91.6%                                   | 30x8.8R15 (30x8.8-15) | 13.9 bar (202 psi)      | 46x17R20 (46x16-20) | 13.8 bar (200 psi)      |
| ACJ319NEO WV055 (CG 32%) | 75 900 kg (167 325 lb) | 90.0%                                   | 30x8.8R15 (30x8.8-15) | 13.9 bar (202 psi)      | 46x17R20 (46x16-20) | 13.8 bar (200 psi)      |
| ACJ319NEO WV110 (CG 36%) | 77 700 kg (171 300 lb) | 91.5%                                   | 30x8.8R15 (30x8.8-15) | 13.9 bar (202 psi)      | 46x17R20 (46x16-20) | 13.8 bar (200 psi)      |
| ACJ319NEO WV110 (CG 32%) | 77 700 kg (171 300 lb) | 89.9%                                   | 30x8.8R15 (30x8.8-15) | 13.9 bar (202 psi)      | 46x17R20 (46x16-20) | 13.8 bar (200 psi)      |
| ACJ319NEO WV111          | 77 700 kg (171 300 lb) | 91.5%                                   | 30x8.8R15 (30x8.8-15) | 13.9 bar (202 psi)      | 46x17R20 (46x16-20) | 13.8 bar (200 psi)      |
| ACJ319NEO WV112          | 77 700 kg (171 300 lb) | 91.5%                                   | 30x8.8R15 (30x8.8-15) | 13.9 bar (202 psi)      | 46x17R20 (46x16-20) | 13.8 bar (200 psi)      |
| ACJ319NEO WV113          | 76 900 kg (169 525 lb) | 91.5%                                   | 30x8.8R15 (30x8.8-15) | 13.9 bar (202 psi)      | 46x17R20 (46x16-20) | 13.8 bar (200 psi)      |

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Landing Gear Footprint for ACJ319NEO  
(Sheet 1 of 2)  
FIGURE-7-2-0-991-040-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**

| WEIGHT<br>VARIANT              | MAXIMUM<br>RAMP<br>WEIGHT | PERCENTAGE<br>OF WEIGHT<br>ON MAIN<br>GEAR GROUP | NOSE GEAR TIRE<br>SIZE   | NOSE GEAR<br>TIRE<br>PRESSURE | MAIN GEAR TIRE<br>SIZE | MAIN GEAR<br>TIRE<br>PRESSURE |
|--------------------------------|---------------------------|--------------------------------------------------|--------------------------|-------------------------------|------------------------|-------------------------------|
| ACJ319NEO<br>WV114             | 76 900 kg<br>(169 525 lb) | 91.5%                                            | 30x8.8R15<br>(30x8.8-15) | 13.9 bar<br>(202 psi)         | 46x17R20<br>(46x16-20) | 13.8 bar<br>(200 psi)         |
| ACJ319NEO<br>WV115             | 76 900 kg<br>(169 525 lb) | 91.5%                                            | 30x8.8R15<br>(30x8.8-15) | 13.9 bar<br>(202 psi)         | 46x17R20<br>(46x16-20) | 13.8 bar<br>(200 psi)         |
| ACJ319NEO<br>WV116             | 75 900 kg<br>(167 325 lb) | 91.6%                                            | 30x8.8R15<br>(30x8.8-15) | 13.9 bar<br>(202 psi)         | 46x17R20<br>(46x16-20) | 13.8 bar<br>(200 psi)         |
| ACJ319NEO<br>WV120<br>(CG 34%) | 78 600 kg<br>(173 275 lb) | 90.7%                                            | 30x8.8R15<br>(30x8.8-15) | 13.9 bar<br>(202 psi)         | 46x17R20<br>(46x16-20) | 13.8 bar<br>(200 psi)         |
| ACJ319NEO<br>WV120<br>(CG 32%) | 78 600 kg<br>(173 275 lb) | 89.9%                                            | 30x8.8R15<br>(30x8.8-15) | 13.9 bar<br>(202 psi)         | 46x17R20<br>(46x16-20) | 13.8 bar<br>(200 psi)         |

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Landing Gear Footprint for ACJ319NEO  
(Sheet 2 of 2)  
FIGURE-7-2-0-991-040-A01

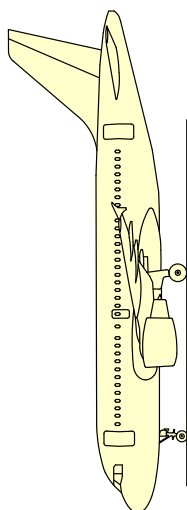
**7-3-0 Maximum Pavement Loads****\*\*ON A/C A319-100 A319neo**Maximum Pavement Loads

1. This section gives maximum vertical and horizontal pavement loads for some critical conditions at the tire-ground interfaces.

The maximum pavement loads are given for all the operational weight variants of the aircraft.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**



V(NG) MAXIMUM VERTICAL NOSE GEAR GROUND LOAD AT FWD CG  
V(MG) MAXIMUM VERTICAL MAIN GEAR GROUND LOAD AT AFT CG  
H MAXIMUM HORIZONTAL GROUND LOAD FROM BRAKING

| 1                         | 2                         | 3                        | 4                                                   | 5                        | 6                                                   |
|---------------------------|---------------------------|--------------------------|-----------------------------------------------------|--------------------------|-----------------------------------------------------|
| WEIGHT VARIANT            | MAXIMUM RAMP WEIGHT       | V(NG)                    |                                                     | V(MG) (PER STRUT)        | H (PER STRUT)                                       |
|                           |                           | STATIC LOAD AT FWD CG    | STATIC BRAKING AT 10 ft/s <sup>2</sup> DECELERATION | STATIC LOAD AT AFT CG    | STEADY BRAKING AT 10 ft/s <sup>2</sup> DECELERATION |
|                           |                           |                          |                                                     |                          | AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8          |
| A319-100 WV000 (CG 39%)   | 64 400 kg<br>(141 975 lb) | 9 300 kg<br>(20 500 lb)  | 15 310 kg<br>(33 750 lb)                            | 29 830 kg<br>(65 775 lb) | 10 010 kg<br>(22 075 lb) (d)                        |
| A319-100 WV000 (CG 36%)   | 64 400 kg<br>(141 975 lb) | 9 300 kg<br>(20 500 lb)  | 15 320 kg<br>(33 775 lb)                            | 29 450 kg<br>(64 925 lb) | 10 010 kg<br>(22 075 lb) (d)                        |
| A319-100 WV001 (CG 37.5%) | 70 400 kg<br>(155 200 lb) | 10 120 kg<br>(22 325 lb) | 16 660 kg<br>(36 750 lb)                            | 32 420 kg<br>(71 475 lb) | 10 940 kg<br>(24 125 lb) (d)                        |
| A319-100 WV001 (CG 36%)   | 70 400 kg<br>(155 200 lb) | 10 120 kg<br>(22 325 lb) | 16 670 kg<br>(36 750 lb)                            | 32 210 kg<br>(71 000 lb) | 10 940 kg<br>(24 125 lb) (d)                        |
| A319-100 WV002            | 75 900 kg<br>(167 325 lb) | 10 720 kg<br>(23 625 lb) | 17 880 kg<br>(39 400 lb)                            | 34 750 kg<br>(76 600 lb) | 11 800 kg<br>(26 000 lb) (d)                        |
| A319-100 WV002 (CJ)       | 75 900 kg<br>(167 325 lb) | 11 540 kg<br>(25 450 lb) | 17 910 kg<br>(39 500 lb)                            | 34 750 kg<br>(76 625 lb) | 11 800 kg<br>(26 000 lb) (d)                        |

**NOTE:**

- (a) LOADS CALCULATED USING AIRCRAFT AT MRW.
- (b) LOADS CALCULATED USING AIRCRAFT AT 74 500 kg (164 250 lb).
- (c) LOADS CALCULATED USING AIRCRAFT AT 67 500 kg (148 800 lb).
- (d) BRAKED MAIN GEAR.

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Maximum Pavement Loads for A319-100 and ACJ319-100

(Sheet 1 of 3)

FIGURE-7-3-0-991-023-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

| 1                                | 2                         | 3                        |                                                           | 4                        | 5                                                         | 6                                                                 |
|----------------------------------|---------------------------|--------------------------|-----------------------------------------------------------|--------------------------|-----------------------------------------------------------|-------------------------------------------------------------------|
|                                  |                           | V (NG)                   |                                                           |                          |                                                           |                                                                   |
| WEIGHT<br>VARIANT                | MAXIMUM<br>RAMP<br>WEIGHT | STATIC LOAD AT<br>FWD CG | STATIC BRAKING<br>AT 10 ft/s <sup>2</sup><br>DECELERATION | V (MG) (PER STRUT)       | STEADY BRAKING<br>AT 10 ft/s <sup>2</sup><br>DECELERATION | H (PER STRUT)<br>AT INSTANTANEOUS<br>BRAKING<br>COEFFICIENT = 0.8 |
| A319-100<br>WV003<br>(CG 38.1%)  | 68 400 kg<br>(150 800 lb) | 9 860 kg<br>(21 750 lb)  | 16 230 kg<br>(35 775 lb)                                  | 31 560 kg<br>(69 600 lb) | 10 630 kg<br>(23 425 lb)                                  | 25 250 kg<br>(55 675 lb)                                          |
| A319-100<br>WV003<br>(CG 36%)    | 68 400 kg<br>(150 800 lb) | 9 860 kg<br>(21 750 lb)  | 16 230 kg<br>(35 775 lb)                                  | 31 280 kg<br>(68 950 lb) | 10 630 kg<br>(23 425 lb)                                  | 25 020 kg<br>(55 175 lb)                                          |
| A319-100<br>WV004<br>(CG 38.1%)  | 68 400 kg<br>(150 800 lb) | 9 860 kg<br>(21 750 lb)  | 16 230 kg<br>(35 775 lb)                                  | 31 560 kg<br>(69 600 lb) | 10 630 kg<br>(23 425 lb)                                  | 25 250 kg<br>(55 675 lb)                                          |
| A319-100<br>WV004<br>(CG 36%)    | 68 400 kg<br>(150 800 lb) | 9 860 kg<br>(21 750 lb)  | 16 230 kg<br>(35 775 lb)                                  | 31 280 kg<br>(68 950 lb) | 10 630 kg<br>(23 425 lb)                                  | 25 020 kg<br>(55 175 lb)                                          |
| A319-100<br>WV005<br>(CG 37.5%)  | 70 400 kg<br>(155 200 lb) | 10 120 kg<br>(22 325 lb) | 16 660 kg<br>(36 750 lb)                                  | 32 420 kg<br>(71 475 lb) | 10 940 kg<br>(24 125 lb)                                  | 25 940 kg<br>(57 175 lb)                                          |
| A319-100<br>WV005<br>(CG 36%)    | 70 400 kg<br>(155 200 lb) | 10 120 kg<br>(22 325 lb) | 16 670 kg<br>(36 750 lb)                                  | 32 210 kg<br>(71 000 lb) | 10 940 kg<br>(24 125 lb)                                  | 25 770 kg<br>(56 800 lb)                                          |
| A319-100<br>WV005<br>(CJ)        | 70 400 kg<br>(155 200 lb) | 11 550 kg<br>(25 450 lb) | 17 990 kg<br>(39 650 lb)                                  | 32 240 kg<br>(71 075 lb) | 10 940 kg<br>(24 125 lb)                                  | 25 800 kg<br>(56 875 lb)                                          |
| A319-100<br>WV006<br>(CG 36.52%) | 73 900 kg<br>(162 925 lb) | 10 610 kg<br>(23 400 lb) | 17 470 kg<br>(38 500 lb)                                  | 33 890 kg<br>(74 725 lb) | 11 480 kg<br>(25 325 lb)                                  | 27 110 kg<br>(59 775 lb)                                          |
| A319-100<br>WV006<br>(CG 36%)    | 73 900 kg<br>(162 925 lb) | 10 610 kg<br>(23 400 lb) | 17 470 kg<br>(38 500 lb)                                  | 33 820 kg<br>(74 550 lb) | 11 480 kg<br>(25 325 lb)                                  | 27 050 kg<br>(59 650 lb)                                          |
| A319-100<br>WV007                | 75 900 kg<br>(167 325 lb) | 10 720 kg<br>(23 625 lb) | 17 880 kg<br>(39 400 lb)                                  | 34 750 kg<br>(76 600 lb) | 11 800 kg<br>(26 000 lb)                                  | 27 800 kg<br>(61 275 lb)                                          |

**NOTE:**

- (a) LOADS CALCULATED USING AIRCRAFT AT MRW.
- (b) LOADS CALCULATED USING AIRCRAFT AT 74 500 kg (164 250 lb).
- (c) LOADS CALCULATED USING AIRCRAFT AT 67 500 kg (148 800 lb).
- (d) BRAKED MAIN GEAR.

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Maximum Pavement Loads for A319-100 and ACJ319-100

(Sheet 2 of 3)

FIGURE-7-3-0-991-023-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

| 1                               | 2                         | 3                        | 4                                                         | 5                            | 6                                                                                                                                      |
|---------------------------------|---------------------------|--------------------------|-----------------------------------------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
|                                 |                           | V (NG)                   |                                                           |                              |                                                                                                                                        |
| WEIGHT<br>VARIANT               | MAXIMUM<br>RAMP<br>WEIGHT | STATIC LOAD AT<br>FWD CG | STATIC BRAKING<br>AT 10 ft/s <sup>2</sup><br>DECELERATION | STATIC LOAD AT<br>MAX AFT CG | STEADY BRAKING<br>AT 10 ft/s <sup>2</sup><br>DECELERATION<br><br>H (PER STRUT)<br><br>AT INSTANTANEOUS<br>BRAKING<br>COEFFICIENT = 0.8 |
| A319-100<br>WV008<br>(CG 39%)   | 64 400 kg<br>(141 975 lb) | 9 300 kg<br>(20 500 lb)  | 15 310 kg<br>(33 750 lb)                                  | 29 830 kg<br>(65 775 lb)     | 10 010 kg<br>(22 075 lb) (c)                                                                                                           |
| A319-100<br>WV008<br>(CG 36%)   | 64 400 kg<br>(141 975 lb) | 9 300 kg<br>(20 500 lb)  | 15 320 kg<br>(33 775 lb)                                  | 29 450 kg<br>(64 925 lb)     | 10 010 kg<br>(22 075 lb) (c)                                                                                                           |
| A319-100<br>WV009<br>(CG 38.8%) | 66 400 kg<br>(146 375 lb) | 9 580 kg<br>(21 125 lb)  | 15 770 kg<br>(34 775 lb)                                  | 30 730 kg<br>(67 750 lb)     | 10 320 kg<br>(22 750 lb) (c)                                                                                                           |
| A319-100<br>WV009<br>(CG 36%)   | 66 400 kg<br>(146 375 lb) | 9 580 kg<br>(21 125 lb)  | 15 770 kg<br>(34 775 lb)                                  | 30 360 kg<br>(66 950 lb)     | 10 320 kg<br>(22 750 lb) (c)                                                                                                           |
| A319-100<br>WV010<br>(CJ)       | 76 900 kg<br>(169 525 lb) | 11 540 kg<br>(25 450 lb) | 17 830 kg<br>(39 300 lb)                                  | 35 180 kg<br>(77 550 lb)     | 11 950 kg<br>(26 350 lb) (c)                                                                                                           |
| A319-100<br>WV011<br>(CG 38.8%) | 66 400 kg<br>(146 375 lb) | 9 580 kg<br>(21 125 lb)  | 15 770 kg<br>(34 775 lb)                                  | 30 730 kg<br>(67 750 lb)     | 10 320 kg<br>(22 750 lb) (c)                                                                                                           |
| A319-100<br>WV011<br>(CG 36%)   | 66 400 kg<br>(146 375 lb) | 9 580 kg<br>(21 125 lb)  | 15 770 kg<br>(34 775 lb)                                  | 30 360 kg<br>(66 950 lb)     | 10 320 kg<br>(22 750 lb) (c)                                                                                                           |
| A319-100<br>WV012<br>(CG 39%)   | 62 400 kg<br>(137 575 lb) | 9 170 kg<br>(20 200 lb)  | 15 000 kg<br>(33 075 lb)                                  | 28 900 kg<br>(63 725 lb)     | 9 700 kg<br>(21 375 lb) (c)                                                                                                            |
| A319-100<br>WV012<br>(CG 36%)   | 62 400 kg<br>(137 575 lb) | 9 170 kg<br>(20 200 lb)  | 15 000 kg<br>(33 075 lb)                                  | 28 530 kg<br>(62 900 lb)     | 9 700 kg<br>(21 375 lb) (c)                                                                                                            |
| A319-100<br>WV013<br>(CJ)       | 75 900 kg<br>(167 325 lb) | 11 540 kg<br>(25 450 lb) | 17 910 kg<br>(39 500 lb)                                  | 34 750 kg<br>(76 625 lb)     | 11 800 kg<br>(26 000 lb) (c)                                                                                                           |

**NOTE:**

- (a) LOADS CALCULATED USING AIRCRAFT AT MRW.
- (b) LOADS CALCULATED USING AIRCRAFT AT 67 500 kg (148 800 lb).
- (c) BRAKED MAIN GEAR.

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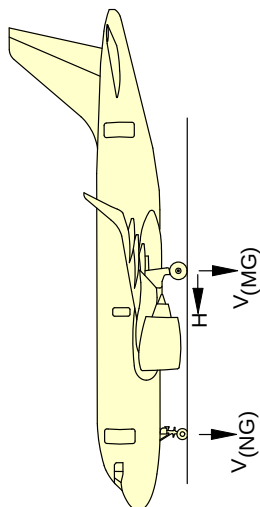
Maximum Pavement Loads for A319-100 and ACJ319-100

(Sheet 3 of 3)

FIGURE-7-3-0-991-023-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**



V(NG) MAXIMUM VERTICAL NOSE GEAR GROUND LOAD AT FWD CG  
V(MG) MAXIMUM VERTICAL MAIN GEAR GROUND LOAD AT AFT CG  
H MAXIMUM HORIZONTAL GROUND LOAD FROM BRAKING

| 1                         | 2                         | 3                            |                | 4                                                  |                             | 5                 |                                                    | 6                                                  |                                            |
|---------------------------|---------------------------|------------------------------|----------------|----------------------------------------------------|-----------------------------|-------------------|----------------------------------------------------|----------------------------------------------------|--------------------------------------------|
|                           |                           | V(NG)                        |                | V(MG)                                              |                             | H (PER STRUT)     |                                                    | H (PER STRUT)                                      |                                            |
| WEIGHT VARIANT            | MAXIMUM RAMP WEIGHT       | STATIC LOAD AT MOST FWD C.G. | MAC (a)        | STATIC BRAKING @ 10 ft/s <sup>2</sup> DECELERATION | STATIC LOAD AT MAX AFT C.G. | MAC (a)           | STEADY BRAKING @ 10 ft/s <sup>2</sup> DECELERATION | STEADY BRAKING @ 10 ft/s <sup>2</sup> DECELERATION | AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8 |
| A319NEO WV050 (CG 36%)    | 64 400 kg<br>(141 975 lb) | 9 300 kg<br>(20 500 lb)      | 21%<br>MAC (a) | 15 320 kg<br>(33 775 lb)                           | 29 450 kg<br>(64 925 lb)    | 36%<br>MAC (a)    | 10 010 kg<br>(22 075 lb)                           | 10 010 kg<br>(22 075 lb)                           | 23 560 kg<br>(51 925 lb) (b)               |
| A319NEO WV050 (CG 35.44%) | 64 400 kg<br>(141 975 lb) | 9 300 kg<br>(20 500 lb)      | 21%<br>MAC (a) | 15 310 kg<br>(33 750 lb)                           | 29 370 kg<br>(64 750 lb)    | 35.44%<br>MAC (a) | 10 010 kg<br>(22 075 lb)                           | 10 010 kg<br>(22 075 lb)                           | 23 500 kg<br>(51 800 lb) (b)               |
| A319NEO WV051 (CG 36%)    | 64 400 kg<br>(141 975 lb) | 9 300 kg<br>(20 500 lb)      | 21%<br>MAC (a) | 15 320 kg<br>(33 775 lb)                           | 29 450 kg<br>(64 925 lb)    | 36%<br>MAC (a)    | 10 010 kg<br>(22 075 lb)                           | 10 010 kg<br>(22 075 lb)                           | 23 560 kg<br>(51 925 lb) (b)               |
| A319NEO WV051 (CG 35.44%) | 64 400 kg<br>(141 975 lb) | 9 300 kg<br>(20 500 lb)      | 21%<br>MAC (a) | 15 310 kg<br>(33 750 lb)                           | 29 370 kg<br>(64 750 lb)    | 35.44%<br>MAC (a) | 10 010 kg<br>(22 075 lb)                           | 10 010 kg<br>(22 075 lb)                           | 23 500 kg<br>(51 800 lb) (b)               |
| A319NEO WV052 (CG 32%)    | 64 400 kg<br>(141 975 lb) | 9 300 kg<br>(20 500 lb)      | 21%<br>MAC (a) | 15 320 kg<br>(33 775 lb)                           | 28 940 kg<br>(63 800 lb)    | 32%<br>MAC (a)    | 10 010 kg<br>(22 075 lb)                           | 10 010 kg<br>(22 075 lb)                           | 23 150 kg<br>(51 025 lb) (b)               |
| A319NEO WV052 (CG 36%)    | 70 400 kg<br>(155 200 lb) | 10 120 kg<br>(22 325 lb)     | 21%<br>MAC (a) | 16 670 kg<br>(36 750 lb)                           | 32 210 kg<br>(71 000 lb)    | 36%<br>MAC (a)    | 10 940 kg<br>(24 125 lb)                           | 10 940 kg<br>(24 125 lb)                           | 25 770 kg<br>(56 800 lb) (b)               |

**NOTE:**

- (a) LOADS CALCULATED USING AIRCRAFT AT MRW.
- (b) LOADS CALCULATED USING AIRCRAFT AT 74 500 kg (164 250 lb).
- (c) BRAKED MAIN GEAR.

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Maximum Pavement Loads for ACF319NEO.  
Maximum Pavement Loads for ACF319NEO (Sheet 1 of 4)  
FIGURE-7-3-0-991-040-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**

| 1                      | 2                      | 3                                 | 4                                                  | 5                                 | 6                                                   |
|------------------------|------------------------|-----------------------------------|----------------------------------------------------|-----------------------------------|-----------------------------------------------------|
|                        |                        | V (NG)                            |                                                    | V (MG) (PER STRUT)                | H (PER STRUT)                                       |
| WEIGHT VARIANT         | MAXIMUM RAMP WEIGHT    | STATIC LOAD AT MOST FWD C.G.      | STATIC BRAKING @ 10 ft/s <sup>2</sup> DECELERATION | STATIC LOAD AT MAX AFT C.G.       | STEADY BRAKING @ 10 ft/s <sup>2</sup> DECELERATION  |
| A319NEO WV052 (CG 32%) | 70 400 kg (155 200 lb) | 10 120 kg (22 325 lb) 21% MAC (a) | 16 670 kg (36 750 lb)                              | 31 650 kg (69 775 lb) 32% MAC (a) | 10 940 kg (24 125 lb) (c) 25 320 kg (55 825 lb) (c) |
| A319NEO WV053 (CG 36%) | 70 400 kg (155 200 lb) | 10 120 kg (22 325 lb) 21% MAC (a) | 16 670 kg (36 750 lb)                              | 32 210 kg (71 000 lb) 36% MAC (a) | 10 940 kg (24 125 lb) (c) 25 770 kg (56 800 lb) (c) |
| A319NEO WV053 (CG 32%) | 70 400 kg (155 200 lb) | 10 120 kg (22 325 lb) 21% MAC (a) | 16 670 kg (36 750 lb)                              | 31 650 kg (69 775 lb) 32% MAC (a) | 10 940 kg (24 125 lb) (c) 25 320 kg (55 825 lb) (c) |
| A319NEO WV054 (CG 36%) | 75 900 kg (167 325 lb) | 10 720 kg (23 625 lb) 21% MAC (b) | 17 880 kg (39 400 lb)                              | 34 750 kg (76 600 lb) 36% MAC (a) | 11 800 kg (26 000 lb) (c) 27 800 kg (61 275 lb) (c) |
| A319NEO WV054 (CG 32%) | 75 900 kg (167 325 lb) | 10 720 kg (23 625 lb) 21% MAC (b) | 17 870 kg (39 400 lb)                              | 34 140 kg (75 275 lb) 32% MAC (a) | 11 800 kg (26 000 lb) (c) 27 310 kg (60 225 lb) (c) |
| A319NEO WV055          | 75 900 kg (167 325 lb) | 10 720 kg (23 625 lb) 21% MAC (b) | 17 880 kg (39 400 lb)                              | 34 750 kg (76 600 lb) 36% MAC (a) | 11 800 kg (26 000 lb) (c) 27 800 kg (61 275 lb) (c) |

**NOTE:**

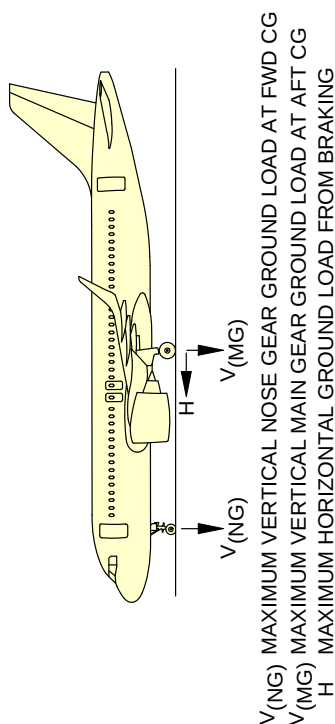
- (a) LOADS CALCULATED USING AIRCRAFT AT MRW.
- (b) LOADS CALCULATED USING AIRCRAFT AT 74 500 kg (164 250 lb).
- (c) BRAKED MAIN GEAR.

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Maximum Pavement Loads for ACF319NEO.  
Maximum Pavement Loads for ACF319NEO (Sheet 2 of 4)  
FIGURE-7-3-0-991-040-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**



| 1                        | 2                         | 3                                   | 4                                                  | 5                                   | 6                                                            |
|--------------------------|---------------------------|-------------------------------------|----------------------------------------------------|-------------------------------------|--------------------------------------------------------------|
| WEIGHT VARIANT           | MAXIMUM RAMP WEIGHT       | $V(NG)$                             |                                                    | $V(MG)$ (PER STRUT)                 | H (PER STRUT)                                                |
|                          |                           | STATIC LOAD AT MOST FWD C.G.        | STATIC BRAKING @ 10 ft/s <sup>2</sup> DECELERATION | STATIC LOAD AT MAX AFT C.G.         | STEADY BRAKING AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8    |
| ACJ319NEO WV054          | 75 900 kg<br>(167 325 lb) | 11 540 kg<br>(25 450 lb)<br>MAC (b) | 17 880 kg<br>(39 425 lb)                           | 34 750 kg<br>(76 625 lb)<br>MAC (a) | 11 800 kg<br>(26 000 lb) (c)<br>27 800 kg<br>(61 300 lb) (c) |
| ACJ319NEO WV055 (CG 36%) | 75 900 kg<br>(167 325 lb) | 11 540 kg<br>(25 450 lb)<br>MAC (b) | 17 880 kg<br>(39 425 lb)                           | 34 750 kg<br>(76 625 lb)<br>MAC (a) | 11 800 kg<br>(26 000 lb) (c)<br>27 800 kg<br>(61 300 lb) (c) |
| ACJ319NEO WV055 (CG 32%) | 75 900 kg<br>(167 325 lb) | 11 540 kg<br>(25 450 lb)<br>MAC (b) | 17 880 kg<br>(39 425 lb)                           | 34 150 kg<br>(75 300 lb)<br>MAC (a) | 11 800 kg<br>(26 000 lb) (c)<br>27 320 kg<br>(60 225 lb) (c) |
| ACJ319NEO WV110 (CG 36%) | 77 700 kg<br>(171 300 lb) | 11 540 kg<br>(25 450 lb)<br>MAC (b) | 17 780 kg<br>(39 200 lb)                           | 35 540 kg<br>(78 350 lb)<br>MAC (a) | 12 070 kg<br>(26 625 lb) (c)<br>28 440 kg<br>(62 700 lb) (c) |
| ACJ319NEO WV110 (CG 32%) | 77 700 kg<br>(171 300 lb) | 11 540 kg<br>(25 450 lb)<br>MAC (b) | 17 780 kg<br>(39 200 lb)                           | 34 930 kg<br>(77 000 lb)<br>MAC (a) | 12 070 kg<br>(26 625 lb) (c)<br>27 950 kg<br>(61 600 lb) (c) |
| ACJ319NEO WV111          | 77 700 kg<br>(171 300 lb) | 11 540 kg<br>(25 450 lb)<br>MAC (b) | 17 780 kg<br>(39 200 lb)                           | 35 540 kg<br>(78 350 lb)<br>MAC (a) | 12 070 kg<br>(26 625 lb) (c)<br>28 440 kg<br>(62 700 lb) (c) |

**NOTE:**

- (a) LOADS CALCULATED USING AIRCRAFT AT MRW.
- (b) LOADS CALCULATED USING AIRCRAFT AT 67 500 kg (148 800 lb).
- (c) BRAKED MAIN GEAR.

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Maximum Pavement Loads for ACJ319NEO.  
 Maximum Pavement Loads for ACJ319NEO (Sheet 3 of 4)  
 FIGURE-7-3-0-991-040-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**

| 1                        | 2                         | 3                            |             | 4                                                  |             | 5                           |             | 6                                                  |                                            |
|--------------------------|---------------------------|------------------------------|-------------|----------------------------------------------------|-------------|-----------------------------|-------------|----------------------------------------------------|--------------------------------------------|
|                          |                           | V (NG)                       |             | V (NG)                                             |             | V (MG) (PER STRUT)          |             | H (PER STRUT)                                      |                                            |
| WEIGHT VARIANT           | MAXIMUM RAMP WEIGHT       | STATIC LOAD AT MOST FWD C.G. | 14% MAC (b) | STATIC BRAKING @ 10 ft/s <sup>2</sup> DECELERATION | 36% MAC (a) | STATIC LOAD AT MAX AFT C.G. | 36% MAC (a) | STEADY BRAKING @ 10 ft/s <sup>2</sup> DECELERATION | AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8 |
| ACJ319NEO WV112          | 77 700 kg<br>(171 300 lb) | 11 540 kg<br>(25 450 lb)     | 14% MAC (b) | 17 780 kg<br>(39 200 lb)                           | 36% MAC (a) | 35 540 kg<br>(78 350 lb)    | 36% MAC (a) | 12 070 kg<br>(26 625 lb) (c)                       | 28 440 kg<br>(62 700 lb) (c)               |
| ACJ319NEO WV113          | 76 900 kg<br>(169 525 lb) | 11 540 kg<br>(25 450 lb)     | 14% MAC (b) | 17 790 kg<br>(39 225 lb)                           | 36% MAC (a) | 35 180 kg<br>(77 550 lb)    | 36% MAC (a) | 11 950 kg<br>(26 350 lb) (c)                       | 28 140 kg<br>(62 050 lb) (c)               |
| ACJ319NEO WV114          | 76 900 kg<br>(169 525 lb) | 11 540 kg<br>(25 450 lb)     | 14% MAC (b) | 17 790 kg<br>(39 225 lb)                           | 36% MAC (a) | 35 180 kg<br>(77 550 lb)    | 36% MAC (a) | 11 950 kg<br>(26 350 lb) (c)                       | 28 140 kg<br>(62 050 lb) (c)               |
| ACJ319NEO WV115          | 76 900 kg<br>(169 525 lb) | 11 540 kg<br>(25 450 lb)     | 14% MAC (b) | 17 790 kg<br>(39 225 lb)                           | 36% MAC (a) | 35 180 kg<br>(77 550 lb)    | 36% MAC (a) | 11 950 kg<br>(26 350 lb) (c)                       | 28 140 kg<br>(62 050 lb) (c)               |
| ACJ319NEO WV116          | 75 900 kg<br>(167 325 lb) | 11 540 kg<br>(25 450 lb)     | 14% MAC (b) | 17 880 kg<br>(39 425 lb)                           | 36% MAC (a) | 34 750 kg<br>(76 625 lb)    | 36% MAC (a) | 11 800 kg<br>(26 000 lb) (c)                       | 27 800 kg<br>(61 300 lb) (c)               |
| ACJ319NEO WV120 (CG 34%) | 78 600 kg<br>(173 275 lb) | 11 540 kg<br>(25 450 lb)     | 14% MAC (b) | 17 780 kg<br>(39 200 lb)                           | 34% MAC (a) | 35 650 kg<br>(78 575 lb)    | 34% MAC (a) | 12 210 kg<br>(26 925 lb) (c)                       | 28 520 kg<br>(62 875 lb) (c)               |
| ACJ319NEO WV120 (CG 32%) | 78 600 kg<br>(173 275 lb) | 11 540 kg<br>(25 450 lb)     | 14% MAC (b) | 17 780 kg<br>(39 200 lb)                           | 32% MAC (a) | 35 340 kg<br>(77 900 lb)    | 32% MAC (a) | 12 210 kg<br>(26 925 lb) (c)                       | 28 270 kg<br>(62 325 lb) (c)               |

**NOTE:**

- (a) LOADS CALCULATED USING AIRCRAFT AT MRW.
- (b) LOADS CALCULATED USING AIRCRAFT AT 67 500 kg (148 800 lb).
- (c) BRAKED MAIN GEAR.

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Maximum Pavement Loads for ACJ319NEO.  
Maximum Pavement Loads for ACJ319NEO (Sheet 4 of 4)  
FIGURE-7-3-0-991-040-A01

**7-4-0 Landing Gear Loading on Pavement****\*\*ON A/C A319-100**Landing Gear Loading on Pavement

1. The curves related to the landing gear loading on pavement are not given in section 07-04-00. Because the relationship between the aircraft weight, the center of gravity and the landing gear loading on the pavement is not strictly linear, it cannot be shown in chart format. But you can find in section 07-03-00 the maximum vertical and horizontal pavement loads for some critical conditions at the tire/ground interfaces for all the operational weight variants of the aircraft.

For questions that are related to landing gear loading on pavement, contact Airbus.

**7-5-0 Flexible Pavement Requirements - U.S. Army Corps of Engineers Design Method****\*\*ON A/C A319-100 A319neo**Flexible Pavement Requirements - US Army Corps of Engineers Design Method

1. The flexible pavement requirements curves as per as U.S. Army Corps of Engineers Design Method are not given in section 07-05-00 since the related data is available through free software.  
Sections 07-02-00 and 07-03-00 give all the inputs data required for the use of such software.

NOTE : The U.S. Army Corps of Engineers Design Method for flexible pavements is being gradually superseded by mechanistic-empirical design methods mostly relying on Linear Elastic Analysis (LEA). The number of parameters considered by such methods is not applicable for a chart format and the use of dedicated pavement-design software is necessary.

For questions that are related to the flexible pavement requirements, contact Airbus.

**7-6-0 Flexible Pavement Requirements - LCN Conversion****\*\*ON A/C A319-100 A319neo**Flexible Pavement Requirements - LCN Conversion

1. The Load Classification Number (LCN) curves are not given in section 07-06-00 since the LCN system for reporting pavement strength is old and are replaced by the ICAO recommended ACN/PCN system in 1983 and ACR/PCR system in 2020.  
For questions that are related to the LCN system, contact Airbus.

**7-7-0 Rigid Pavement Requirements - Portland Cement Association Design Method****\*\*ON A/C A319-100 A319neo**Rigid Pavement Requirements - Portland Cement Association Design Method

1. The rigid-pavement requirements curves as per as Portland Cement Association Design Method are not given in section 07-07-00 since the related data is available through free software. Sections 07-02-00 and 07-03-00 give all the inputs data required for the use of such software.

NOTE : The Portland Cement Association Design Method for rigid pavements is being gradually superseded by mechanistic-empirical design methods mostly relying on Finite Element Analysis (FEM). The number of parameters considered by such methods is not applicable for a chart format and the use of dedicated pavement-design software is necessary.

For questions that are related to the rigid pavement requirements, contact Airbus.

**7-8-0 Rigid Pavement Requirements - LCN Conversion****\*\*ON A/C A319-100 A319neo**Rigid Pavement Requirements - LCN Conversion

1. The Load Classification Number (LCN) curves are not given in section 07-08-00 since the LCN system for reporting pavement strength is old and are replaced by the ICAO recommended ACN/PCN system in 1983 and ACR/PCR system in 2020.  
For questions that are related to the LCN system, contact Airbus.

### 7-9-0 ACN/PCN Reporting System - Flexible and Rigid Pavements

#### **\*\*ON A/C A319-100 A319neo**

#### Aircraft Classification Number - Flexible and Rigid Pavements

1. This section gives data about the Aircraft Classification Number (ACN) for an aircraft gross weight in relation with standard subgrade strength values for flexible and rigid pavement.

To find the ACN of an aircraft on flexible and rigid pavement, you must know the aircraft gross weight and the subgrade strength.

**NOTE :** An aircraft with an ACN equal to or less than the reported PCN can operate on that pavement, subject to any limitation on the tire pressure.  
(Ref: ICAO Aerodrome Design Manual, Part 3, Chapter 1, Second Edition 1983).

2. Aircraft Classification Number - ACN table

The tables in FIGURE 7-9-0-991-006-A and FIGURE 7-9-0-991-009-A give ACN data in tabular format for all the operational weight variants of the aircraft.

As an approximation, use a linear interpolation in order to get the ACN at the required operating weight using the following equation:

$$- \text{ACN} = \text{ACN min} + (\text{ACN max} - \text{ACN min}) \times (\text{Operating weight} - 41\,000 \text{ kg}) / (\text{MRW} - 41\,000 \text{ kg})$$

Please note that the interpolation error may reach 5% to 10%.

As an approximation, use a linear interpolation in order to get the aircraft weight at the pavement PCN using the following equation:

$$- \text{Operating weight} = 41\,000 \text{ kg} + (\text{MRW} - 41\,000 \text{ kg}) \times (\text{PCN} - \text{ACN min}) / (\text{ACN max} - \text{ACN min})$$

Please note that the interpolation error may reach up to 5%.

With ACN max = ACN calculated at the MRW in the table and with ACN min = ACN calculated at 41 000 kg.

For questions or specific calculation regarding ACN/PCN Reporting System, contact Airbus.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

| WEIGHT<br>VARIANT             | ALL UP<br>MASS (kg) | LOAD ON<br>ONE MAIN<br>GEAR LEG<br>(%) | TIRE<br>PRESSURE<br>(MPa) | ACN FOR<br>RIGID PAVEMENT<br>SUBGRADES - MN/m <sup>3</sup> |              |           |                 | ACN FOR<br>FLEXIBLE PAVEMENT<br>SUBGRADES - CBR |              |          |                |
|-------------------------------|---------------------|----------------------------------------|---------------------------|------------------------------------------------------------|--------------|-----------|-----------------|-------------------------------------------------|--------------|----------|----------------|
|                               |                     |                                        |                           | HIGH<br>150                                                | MEDIUM<br>80 | LOW<br>40 | ULTRA-LOW<br>20 | HIGH<br>15                                      | MEDIUM<br>10 | LOW<br>6 | ULTRA-LOW<br>3 |
| A319-100<br>WV000 (CG 39%)    | 64 400              | 46.3                                   | 1.19                      | 35                                                         | 37           | 39        | 41              | 32                                              | 33           | 36       | 42             |
| A319-100<br>WV000 (CG 36%)    | 64 400              | 45.7                                   | 1.19                      | 20                                                         | 22           | 23        | 24              | 19                                              | 19           | 21       | 24             |
| A319-100<br>WV000 (CG 36%)    | 64 400              | 45.7                                   | 1.19                      | 34                                                         | 36           | 39        | 41              | 31                                              | 32           | 36       | 41             |
| A319-100<br>WV000 (CG 36%)    | 41 000              | 45.7                                   | 1.19                      | 20                                                         | 21           | 23        | 24              | 19                                              | 19           | 21       | 24             |
| A319-100<br>WV000 (CG 37.5%)  | 70 400              | 46.1                                   | 1.29                      | 39                                                         | 42           | 44        | 46              | 35                                              | 36           | 41       | 46             |
| A319-100<br>WV001 (CG 36%)    | 41 000              | 46.0                                   | 1.29                      | 21                                                         | 22           | 23        | 25              | 19                                              | 19           | 21       | 24             |
| A319-100<br>WV001 (CG 36%)    | 70 400              | 45.8                                   | 1.29                      | 39                                                         | 41           | 44        | 46              | 35                                              | 36           | 40       | 46             |
| A319-100<br>WV001 (CG 36%)    | 41 000              | 45.7                                   | 1.29                      | 21                                                         | 22           | 23        | 25              | 19                                              | 19           | 21       | 24             |
| A319-100<br>WV002             | 75 900              | 45.8                                   | 1.38                      | 44                                                         | 46           | 48        | 50              | 39                                              | 40           | 44       | 50             |
| A319-100<br>WV002 (CJ)        | 41 000              | 45.7                                   | 1.38                      | 21                                                         | 22           | 24        | 25              | 19                                              | 19           | 21       | 24             |
| A319-100<br>WV002 (CJ)        | 75 900              | 45.8                                   | 1.38                      | 44                                                         | 46           | 48        | 50              | 39                                              | 40           | 44       | 50             |
| A319-100<br>WV003 (CG 38.1%)  | 41 000              | 45.8                                   | 1.25                      | 21                                                         | 22           | 24        | 25              | 19                                              | 19           | 21       | 24             |
| A319-100<br>WV003 (CG 38.1%)  | 68 400              | 46.1                                   | 1.25                      | 38                                                         | 40           | 42        | 44              | 34                                              | 35           | 39       | 45             |
| A319-100<br>WV003 (CG 38.1%)  | 41 000              | 46.1                                   | 1.25                      | 21                                                         | 22           | 23        | 25              | 19                                              | 19           | 21       | 24             |
| A319-100<br>WV003 (CG 36%)    | 68 400              | 45.7                                   | 1.25                      | 37                                                         | 40           | 42        | 44              | 34                                              | 35           | 39       | 45             |
| A319-100<br>WV003 (CG 36%)    | 41 000              | 45.7                                   | 1.25                      | 20                                                         | 22           | 23        | 24              | 19                                              | 19           | 21       | 24             |
| A319-100<br>WV004 (CG 38.1%)  | 68 400              | 46.1                                   | 1.25                      | 38                                                         | 40           | 42        | 44              | 34                                              | 35           | 39       | 45             |
| A319-100<br>WV004 (CG 38.1%)  | 41 000              | 46.1                                   | 1.25                      | 21                                                         | 22           | 23        | 25              | 19                                              | 19           | 21       | 24             |
| A319-100<br>WV004 (CG 36%)    | 68 400              | 45.7                                   | 1.25                      | 37                                                         | 40           | 42        | 44              | 34                                              | 35           | 39       | 45             |
| A319-100<br>WV004 (CG 36%)    | 41 000              | 45.7                                   | 1.25                      | 20                                                         | 22           | 23        | 24              | 19                                              | 19           | 21       | 24             |
| A319-100<br>WV005 (CG 37.5%)  | 70 400              | 46.1                                   | 1.29                      | 39                                                         | 42           | 44        | 46              | 35                                              | 36           | 41       | 46             |
| A319-100<br>WV005 (CG 37.5%)  | 41 000              | 46.0                                   | 1.29                      | 21                                                         | 22           | 23        | 25              | 19                                              | 19           | 21       | 24             |
| A319-100<br>WV005 (CG 36%)    | 70 400              | 45.8                                   | 1.29                      | 39                                                         | 41           | 44        | 46              | 35                                              | 36           | 40       | 46             |
| A319-100<br>WV005 (CG 36%)    | 41 000              | 45.7                                   | 1.29                      | 21                                                         | 22           | 23        | 25              | 19                                              | 19           | 21       | 24             |
| A319-100<br>WV005 (CJ)        | 70 400              | 45.8                                   | 1.38                      | 40                                                         | 42           | 44        | 46              | 35                                              | 37           | 40       | 46             |
| A319-100<br>WV005 (CJ)        | 41 000              | 45.7                                   | 1.38                      | 21                                                         | 22           | 24        | 25              | 19                                              | 19           | 21       | 24             |
| A319-100<br>WV006 (CG 36.52%) | 73 900              | 45.9                                   | 1.34                      | 42                                                         | 44           | 47        | 49              | 37                                              | 39           | 43       | 49             |
| A319-100<br>WV006 (CG 36.52%) | 41 000              | 45.8                                   | 1.34                      | 21                                                         | 22           | 24        | 25              | 19                                              | 19           | 21       | 24             |
| A319-100<br>WV006 (CG 36%)    | 73 900              | 45.8                                   | 1.34                      | 42                                                         | 44           | 47        | 49              | 37                                              | 39           | 43       | 49             |
| A319-100<br>WV006 (CG 36%)    | 41 000              | 45.7                                   | 1.34                      | 21                                                         | 22           | 24        | 25              | 19                                              | 19           | 21       | 24             |

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ACN Table for A319-100  
(Sheet 1 of 2)  
FIGURE-7-9-0-991-006-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

| WEIGHT<br>VARIANT            | ALL UP<br>MASS (kg) | LOAD ON<br>ONE MAIN<br>GEAR LEG<br>(%) | TIRE<br>PRESSURE<br>(MPa) | ACN FOR<br>RIGID PAVEMENT<br>SUBGRADES - MN/m <sup>3</sup> |              |           | ACN FOR<br>FLEXIBLE PAVEMENT<br>SUBGRADES - CBR |              |          |                |
|------------------------------|---------------------|----------------------------------------|---------------------------|------------------------------------------------------------|--------------|-----------|-------------------------------------------------|--------------|----------|----------------|
|                              |                     |                                        |                           | HIGH<br>150                                                | MEDIUM<br>80 | LOW<br>40 | HIGH<br>15                                      | MEDIUM<br>10 | LOW<br>6 | ULTRA-LOW<br>3 |
| A319-100<br>WV007            | 75 900              | 45.8                                   | 1.38                      | 44                                                         | 46           | 48        | 39                                              | 40           | 44       | 50             |
| A319-100<br>WV008 (CG 39%)   | 41 000              | 45.7                                   | 1.19                      | 21                                                         | 22           | 24        | 19                                              | 19           | 21       | 24             |
|                              | 64 400              | 46.3                                   |                           | 35                                                         | 37           | 39        | 32                                              | 33           | 36       | 42             |
| A319-100<br>WV008 (CG 36%)   | 41 000              | 46.3                                   | 1.19                      | 20                                                         | 22           | 23        | 19                                              | 19           | 21       | 24             |
|                              | 64 400              | 45.7                                   |                           | 34                                                         | 36           | 39        | 31                                              | 32           | 36       | 41             |
| A319-100<br>WV009 (CG 38.8%) | 41 000              | 45.7                                   | 1.25                      | 20                                                         | 21           | 23        | 19                                              | 19           | 21       | 24             |
|                              | 66 400              | 46.3                                   |                           | 37                                                         | 39           | 41        | 33                                              | 34           | 38       | 44             |
| A319-100<br>WV009 (CG 36%)   | 41 000              | 46.2                                   | 1.25                      | 21                                                         | 22           | 23        | 19                                              | 19           | 21       | 24             |
|                              | 66 400              | 45.7                                   |                           | 36                                                         | 38           | 41        | 33                                              | 34           | 37       | 43             |
| A319-100<br>WV010 (Cj)       | 41 000              | 45.7                                   | 1.38                      | 20                                                         | 22           | 23        | 19                                              | 19           | 21       | 24             |
|                              | 76 900              | 45.7                                   |                           | 44                                                         | 47           | 49        | 39                                              | 41           | 45       | 51             |
| A319-100<br>WV011 (CG 38.8%) | 41 000              | 45.8                                   | 1.25                      | 21                                                         | 22           | 24        | 19                                              | 19           | 21       | 24             |
|                              | 66 400              | 46.3                                   |                           | 37                                                         | 39           | 41        | 33                                              | 34           | 38       | 44             |
| A319-100<br>WV011 (CG 36%)   | 41 000              | 46.2                                   | 1.25                      | 21                                                         | 22           | 23        | 19                                              | 19           | 21       | 24             |
|                              | 66 400              | 45.7                                   |                           | 36                                                         | 38           | 41        | 33                                              | 34           | 37       | 43             |
| A319-100<br>WV012 (CG 39%)   | 41 000              | 45.7                                   | 1.19                      | 20                                                         | 22           | 23        | 19                                              | 19           | 21       | 24             |
|                              | 62 400              | 46.3                                   |                           | 33                                                         | 36           | 38        | 31                                              | 32           | 35       | 41             |
| A319-100<br>WV012 (CG 36%)   | 41 000              | 46.3                                   | 1.19                      | 20                                                         | 22           | 23        | 19                                              | 19           | 21       | 24             |
|                              | 62 400              | 45.7                                   |                           | 33                                                         | 35           | 37        | 30                                              | 31           | 34       | 40             |
| A319-100<br>WV013 (Cj)       | 41 000              | 45.7                                   | 1.38                      | 20                                                         | 21           | 23        | 19                                              | 19           | 21       | 24             |
|                              | 75 900              | 45.8                                   |                           | 44                                                         | 46           | 48        | 39                                              | 40           | 44       | 50             |
|                              | 41 000              | 45.8                                   |                           | 21                                                         | 22           | 24        | 19                                              | 19           | 21       | 24             |

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ACN Table for A319-100  
(Sheet 2 of 2)  
FIGURE-7-9-0-991-006-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**

| WEIGHT<br>VARIANT            | ALL UP<br>MASS (kg) | LOAD ON<br>ONE MAIN<br>GEAR LEG<br>(%) | TIRE<br>PRESSURE<br>(MPa) | ACN FOR<br>RIGID PAVEMENT<br>SUBGRADES - MN/m³ |              |           |                     | ACN FOR<br>FLEXIBLE PAVEMENT<br>SUBGRADES - CBR |              |          |                    |
|------------------------------|---------------------|----------------------------------------|---------------------------|------------------------------------------------|--------------|-----------|---------------------|-------------------------------------------------|--------------|----------|--------------------|
|                              |                     |                                        |                           | HIGH<br>150                                    | MEDIUM<br>80 | LOW<br>40 | ULTRA-<br>LOW<br>20 | HIGH<br>15                                      | MEDIUM<br>10 | LOW<br>6 | ULTRA-<br>LOW<br>3 |
| A319NEO<br>WV050 (CG 36%)    | 64 400              | 45.7                                   | 1.19                      | 34                                             | 36           | 39        | 41                  | 31                                              | 32           | 36       | 41                 |
|                              | 41 000              | 45.7                                   |                           | 20                                             | 21           | 23        | 24                  | 19                                              | 19           | 21       | 24                 |
| A319NEO<br>WV050 (CG 35.44%) | 64 400              | 45.6                                   | 1.19                      | 34                                             | 36           | 39        | 40                  | 31                                              | 32           | 36       | 41                 |
|                              | 41 000              | 45.6                                   |                           | 20                                             | 21           | 23        | 24                  | 19                                              | 19           | 21       | 24                 |
| A319NEO<br>WV051 (CG 36%)    | 64 400              | 45.7                                   | 1.19                      | 34                                             | 36           | 39        | 41                  | 31                                              | 32           | 36       | 41                 |
|                              | 41 000              | 45.7                                   |                           | 20                                             | 21           | 23        | 24                  | 19                                              | 19           | 21       | 24                 |
| A319NEO<br>WV051 (CG 35.44%) | 64 400              | 45.6                                   | 1.19                      | 34                                             | 36           | 39        | 40                  | 31                                              | 32           | 36       | 41                 |
|                              | 41 000              | 45.6                                   |                           | 20                                             | 21           | 23        | 24                  | 19                                              | 19           | 21       | 24                 |
| A319NEO<br>WV051 (CG 32%)    | 64 400              | 44.9                                   | 1.19                      | 33                                             | 36           | 38        | 40                  | 31                                              | 32           | 35       | 41                 |
|                              | 41 000              | 44.9                                   |                           | 20                                             | 21           | 22        | 24                  | 19                                              | 19           | 20       | 23                 |
| A319NEO<br>WV052 (CG 36%)    | 70 400              | 45.8                                   | 1.29                      | 39                                             | 41           | 44        | 46                  | 35                                              | 36           | 40       | 46                 |
|                              | 41 000              | 45.7                                   |                           | 21                                             | 22           | 23        | 25                  | 19                                              | 19           | 21       | 24                 |
| A319NEO<br>WV052 (CG 32%)    | 70 400              | 45.0                                   | 1.29                      | 38                                             | 41           | 43        | 45                  | 34                                              | 35           | 39       | 45                 |
|                              | 41 000              | 44.9                                   |                           | 20                                             | 22           | 23        | 24                  | 19                                              | 19           | 20       | 23                 |
| A319NEO<br>WV053 (CG 36%)    | 70 400              | 45.8                                   | 1.29                      | 39                                             | 41           | 44        | 46                  | 35                                              | 36           | 40       | 46                 |
|                              | 41 000              | 45.7                                   |                           | 21                                             | 22           | 23        | 25                  | 19                                              | 19           | 21       | 24                 |
| A319NEO<br>WV053 (CG 32%)    | 70 400              | 45.0                                   | 1.29                      | 38                                             | 41           | 43        | 45                  | 34                                              | 35           | 39       | 45                 |
|                              | 41 000              | 44.9                                   |                           | 20                                             | 22           | 23        | 24                  | 19                                              | 19           | 20       | 23                 |
| A319NEO<br>WV054 (CG 36%)    | 75 900              | 45.8                                   | 1.38                      | 44                                             | 46           | 48        | 50                  | 39                                              | 40           | 44       | 50                 |
|                              | 41 000              | 45.7                                   |                           | 21                                             | 22           | 24        | 25                  | 19                                              | 19           | 21       | 24                 |
| A319NEO<br>WV054 (CG 32%)    | 75 900              | 45.0                                   | 1.38                      | 43                                             | 45           | 48        | 49                  | 38                                              | 39           | 43       | 49                 |
|                              | 41 000              | 44.9                                   |                           | 21                                             | 22           | 23        | 24                  | 19                                              | 19           | 20       | 23                 |
| A319NEO<br>WV055             | 75 900              | 45.8                                   | 1.38                      | 44                                             | 46           | 48        | 50                  | 39                                              | 40           | 44       | 50                 |
|                              | 41 000              | 45.7                                   |                           | 21                                             | 22           | 24        | 25                  | 19                                              | 19           | 21       | 24                 |

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ACN Table for A319NEO and ACJ319NEO  
ACN Table for A319NEO (Sheet 1 of 2)  
FIGURE-7-9-0-991-009-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**

| WEIGHT<br>VARIANT           | ALL UP<br>MASS (kg) | LOAD ON<br>ONE MAIN<br>GEAR LEG<br>(%) | TIRE<br>PRESSURE<br>(MPa) | ACN FOR<br>RIGID PAVEMENT<br>SUBGRADES - MN/m <sup>3</sup> |              |           |                     | ACN FOR<br>FLEXIBLE PAVEMENT<br>SUBGRADES - CBR |              |          |                    |
|-----------------------------|---------------------|----------------------------------------|---------------------------|------------------------------------------------------------|--------------|-----------|---------------------|-------------------------------------------------|--------------|----------|--------------------|
|                             |                     |                                        |                           | HIGH<br>150                                                | MEDIUM<br>80 | LOW<br>40 | ULTRA<br>-LOW<br>20 | HIGH<br>15                                      | MEDIUM<br>10 | LOW<br>6 | ULTRA<br>-LOW<br>3 |
| ACJ319NEO<br>WV054          | 75 900              | 45.8                                   | 1.38                      | 44                                                         | 46           | 48        | 50                  | 39                                              | 40           | 44       | 50                 |
|                             | 41 000              | 45.8                                   |                           | 21                                                         | 22           | 24        | 25                  | 19                                              | 19           | 21       | 24                 |
| ACJ319NEO<br>WV055 (CG 36%) | 75 900              | 45.8                                   | 1.38                      | 44                                                         | 46           | 48        | 50                  | 39                                              | 40           | 44       | 50                 |
|                             | 41 000              | 45.8                                   |                           | 21                                                         | 22           | 24        | 25                  | 19                                              | 19           | 21       | 24                 |
| ACJ319NEO<br>WV055 (CG 32%) | 75 900              | 45.0                                   | 1.38                      | 43                                                         | 45           | 48        | 49                  | 38                                              | 39           | 43       | 49                 |
|                             | 41 000              | 44.9                                   |                           | 21                                                         | 22           | 23        | 24                  | 19                                              | 19           | 20       | 23                 |
| ACJ319NEO<br>WV110 (CG 36%) | 77 700              | 45.7                                   | 1.38                      | 45                                                         | 47           | 50        | 52                  | 40                                              | 41           | 46       | 52                 |
|                             | 41 000              | 45.8                                   |                           | 21                                                         | 22           | 24        | 25                  | 19                                              | 19           | 21       | 24                 |
| ACJ319NEO<br>WV110 (CG 32%) | 77 700              | 45.0                                   | 1.38                      | 44                                                         | 46           | 49        | 51                  | 39                                              | 40           | 45       | 51                 |
|                             | 41 000              | 44.9                                   |                           | 21                                                         | 22           | 23        | 24                  | 19                                              | 19           | 20       | 23                 |
| ACJ319NEO<br>WV111          | 77 700              | 45.7                                   | 1.38                      | 45                                                         | 47           | 50        | 52                  | 40                                              | 41           | 46       | 52                 |
|                             | 41 000              | 45.8                                   |                           | 21                                                         | 22           | 24        | 25                  | 19                                              | 19           | 21       | 24                 |
| ACJ319NEO<br>WV112          | 77 700              | 45.7                                   | 1.38                      | 45                                                         | 47           | 50        | 52                  | 40                                              | 41           | 46       | 52                 |
|                             | 41 000              | 45.8                                   |                           | 21                                                         | 22           | 24        | 25                  | 19                                              | 19           | 21       | 24                 |
| ACJ319NEO<br>WV113          | 76 900              | 45.7                                   | 1.38                      | 44                                                         | 47           | 49        | 51                  | 39                                              | 41           | 45       | 51                 |
|                             | 41 000              | 45.8                                   |                           | 21                                                         | 22           | 24        | 25                  | 19                                              | 19           | 21       | 24                 |
| ACJ319NEO<br>WV114          | 76 900              | 45.7                                   | 1.38                      | 44                                                         | 47           | 49        | 51                  | 39                                              | 41           | 45       | 51                 |
|                             | 41 000              | 45.8                                   |                           | 21                                                         | 22           | 24        | 25                  | 19                                              | 19           | 21       | 24                 |
| ACJ319NEO<br>WV115          | 76 900              | 45.7                                   | 1.38                      | 44                                                         | 47           | 49        | 51                  | 39                                              | 41           | 45       | 51                 |
|                             | 41 000              | 45.8                                   |                           | 21                                                         | 22           | 24        | 25                  | 19                                              | 19           | 21       | 24                 |
| ACJ319NEO<br>WV116          | 75 900              | 45.8                                   | 1.38                      | 44                                                         | 46           | 48        | 50                  | 39                                              | 40           | 44       | 50                 |
|                             | 41 000              | 45.8                                   |                           | 21                                                         | 22           | 24        | 25                  | 19                                              | 19           | 21       | 24                 |
| ACJ319NEO<br>WV120 (CG 34%) | 78 600              | 45.3                                   | 1.38                      | 45                                                         | 48           | 50        | 52                  | 40                                              | 41           | 46       | 52                 |
|                             | 41 000              | 45.3                                   |                           | 21                                                         | 22           | 23        | 25                  | 19                                              | 19           | 21       | 24                 |
| ACJ319NEO<br>WV120 (CG 32%) | 78 600              | 45.0                                   | 1.38                      | 44                                                         | 47           | 49        | 51                  | 39                                              | 41           | 45       | 51                 |
|                             | 41 000              | 44.9                                   |                           | 21                                                         | 22           | 23        | 24                  | 19                                              | 19           | 20       | 23                 |

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ACN Table for A319NEO and ACJ319NEO  
ACN Table for ACJ319NEO (Sheet 2 of 2)  
FIGURE-7-9-0-991-009-A01

**7-10-0 ACR/PCR Reporting System - Flexible And Rigid Pavements****\*\*ON A/C A319-100 A319neo**ACR/PCR Reporting System - Flexible and Rigid Pavements

1. The ACR/PCR system has been developed by the ICAO to overcome the deficiencies of the ACN/PCN system. Significant advances in pavement design methods had occurred since its development in the late 1970s early 1980s, leading to inconsistencies with the pavement-strength-rating system.

The ACR/PCR system entails new procedures for the determination of both the ACR and the PCR that are consistent with the current pavement design procedures. This allows to capture the effects of the improved characteristics of new pavement materials as well as modern landing gear configurations, thus leading to an improved accuracy.

This section gives data about the Aircraft Classification Rating (ACR) for the maximum ramp weight in relation with standard subgrade strength values for flexible and rigid pavement. To determine the ACR at other aircraft gross weight, use the official ICAO-ACR software.

NOTE : An aircraft with an ACR equal to or less than the reported PCR can operate on that pavement, subject to any limitation on the tire pressure. (Ref: ICAO Aerodrome Design Manual, Part 3, Third Edition 2020).

2. Aircraft Classification Rating - ACR Table

The tables in FIGURE 7-10-0-991-004-A, FIGURE 7-10-0-991-005-A and FIGURE 7-10-0-991-006-A give ACR data in tabular format for all the operational weight variants of the aircraft. For questions or specific calculation related to ACR/PCR Reporting System, contact Airbus.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

| WEIGHT<br>VARIANT            | ALL UP<br>MASS<br>(kg) | LOAD ON<br>ONE MAIN<br>GEAR LEG<br>(%) | TIRE<br>PRESSURE<br>(MPa) | ACR FOR<br>RIGID PAVEMENT<br>SUBGRADES - MPa |               |           | ACR FOR<br>FLEXIBLE PAVEMENT<br>SUBGRADES - MPa |               |                 |
|------------------------------|------------------------|----------------------------------------|---------------------------|----------------------------------------------|---------------|-----------|-------------------------------------------------|---------------|-----------------|
|                              |                        |                                        |                           | HIGH<br>200                                  | MEDIUM<br>120 | LOW<br>80 | HIGH<br>200                                     | MEDIUM<br>120 | ULTRA-LOW<br>50 |
| A319-100<br>WV000 (CG 39%)   | 64 400                 | 46.3                                   | 1.19                      | 360                                          | 380           | 400       | 280                                             | 300           | 330             |
| A319-100<br>WV000 (CG 36%)   | 64 400                 | 45.7                                   | 1.19                      | 350                                          | 370           | 390       | 280                                             | 300           | 320             |
| A319-100<br>WV001 (CG 37.5%) | 70 400                 | 46.1                                   | 1.29                      | 410                                          | 430           | 440       | 310                                             | 340           | 370             |
| A319-100<br>WV001 (CG 36%)   | 70 400                 | 45.8                                   | 1.29                      | 400                                          | 420           | 440       | 310                                             | 330           | 360             |
| A319-100<br>WV002            | 75 900                 | 45.8                                   | 1.38                      | 450                                          | 470           | 490       | 350                                             | 370           | 400             |
| A319-100<br>WV002 (CJ)       | 75 900                 | 45.8                                   | 1.38                      | 450                                          | 470           | 490       | 350                                             | 370           | 400             |
| A319-100<br>WV003 (CG 38.1%) | 68 400                 | 46.1                                   | 1.25                      | 390                                          | 410           | 430       | 300                                             | 330           | 350             |
| A319-100<br>WV003 (CG 36%)   | 68 400                 | 45.7                                   | 1.25                      | 380                                          | 410           | 420       | 300                                             | 320           | 350             |
| A319-100<br>WV004 (CG 38.1%) | 68 400                 | 46.1                                   | 1.25                      | 390                                          | 410           | 430       | 300                                             | 330           | 350             |
| A319-100<br>WV004 (CG 36%)   | 68 400                 | 45.7                                   | 1.25                      | 380                                          | 410           | 420       | 300                                             | 320           | 350             |
| A319-100<br>WV005 (CG 37.5%) | 70 400                 | 46.1                                   | 1.29                      | 410                                          | 430           | 440       | 310                                             | 340           | 370             |
| A319-100<br>WV005 (CG 36%)   | 70 400                 | 45.8                                   | 1.29                      | 400                                          | 420           | 440       | 310                                             | 330           | 360             |
| A319-100<br>WV005 (CJ)       | 70 400                 | 45.8                                   | 1.38                      | 410                                          | 430           | 450       | 320                                             | 340           | 370             |

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ACR Table for A319-100 and A319-100 CJ

(Sheet 1 of 2)

FIGURE-7-10-0-991-004-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**

| WEIGHT<br>VARIANT             | ALL UP<br>MASS<br>(kg) | LOAD ON<br>ONE MAIN<br>GEAR LEG<br>(%) | TIRE<br>PRESSURE<br>(MPa) | ACR FOR<br>RIGID PAVEMENT<br>SUBGRADES - MPa |               |           |                 | ACR FOR<br>FLEXIBLE PAVEMENT<br>SUBGRADES - MPa |               |           |                 |
|-------------------------------|------------------------|----------------------------------------|---------------------------|----------------------------------------------|---------------|-----------|-----------------|-------------------------------------------------|---------------|-----------|-----------------|
|                               |                        |                                        |                           | HIGH<br>200                                  | MEDIUM<br>120 | LOW<br>80 | ULTRA-LOW<br>50 | HIGH<br>200                                     | MEDIUM<br>120 | LOW<br>80 | ULTRA-LOW<br>50 |
| A319-100<br>WV006 (CG 36.52%) | 73 900                 | 45.9                                   | 1.34                      | 430                                          | 450           | 470       | 490             | 330                                             | 360           | 390       | 430             |
| A319-100<br>WV006 (CG 36%)    | 73 900                 | 45.8                                   | 1.34                      | 430                                          | 450           | 470       | 490             | 330                                             | 360           | 390       | 430             |
| A319-100<br>WV007             | 75 900                 | 45.8                                   | 1.38                      | 450                                          | 470           | 490       | 500             | 350                                             | 370           | 400       | 450             |
| A319-100<br>WV008 (CG 39%)    | 64 400                 | 46.3                                   | 1.19                      | 360                                          | 380           | 400       | 410             | 280                                             | 300           | 330       | 360             |
| A319-100<br>WV008 (CG 36%)    | 64 400                 | 45.7                                   | 1.19                      | 350                                          | 370           | 390       | 410             | 280                                             | 300           | 320       | 360             |
| A319-100<br>WV009 (CG 38.8%)  | 66 400                 | 46.3                                   | 1.25                      | 380                                          | 400           | 410       | 430             | 290                                             | 320           | 340       | 380             |
| A319-100<br>WV009 (CG 36%)    | 66 400                 | 45.7                                   | 1.25                      | 370                                          | 390           | 410       | 420             | 290                                             | 310           | 340       | 370             |
| A319-100<br>WV010 (CJ)        | 76 900                 | 45.7                                   | 1.38                      | 460                                          | 480           | 490       | 510             | 350                                             | 370           | 410       | 450             |
| A319-100<br>WV011 (CG 38.8%)  | 66 400                 | 46.3                                   | 1.25                      | 380                                          | 400           | 410       | 430             | 290                                             | 320           | 340       | 380             |
| A319-100<br>WV011 (CG 36%)    | 66 400                 | 45.7                                   | 1.25                      | 370                                          | 390           | 410       | 420             | 290                                             | 310           | 340       | 370             |
| A319-100<br>WV012 (CG 39%)    | 62 400                 | 46.3                                   | 1.19                      | 340                                          | 370           | 380       | 400             | 270                                             | 290           | 310       | 350             |
| A319-100<br>WV012 (CG 36%)    | 62 400                 | 45.7                                   | 1.19                      | 340                                          | 360           | 380       | 390             | 270                                             | 290           | 310       | 350             |
| A319-100<br>WV013 (CJ)        | 75 900                 | 45.8                                   | 1.38                      | 450                                          | 470           | 490       | 500             | 350                                             | 370           | 400       | 450             |

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ACR Table for A319-100 and A319-100 CJ

(Sheet 2 of 2)

FIGURE-7-10-0-991-004-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**

| WEIGHT<br>VARIANT            | ALL UP<br>MASS (kg) | LOAD ON<br>ONE MAIN<br>GEAR LEG<br>(%) | TIRE<br>PRESSURE<br>(MPa) | ACR FOR<br>RIGID PAVEMENT<br>SUBGRADES - MPa |               |           |                     | ACR FOR<br>FLEXIBLE PAVEMENT<br>SUBGRADES - MPa |               |           |                     |
|------------------------------|---------------------|----------------------------------------|---------------------------|----------------------------------------------|---------------|-----------|---------------------|-------------------------------------------------|---------------|-----------|---------------------|
|                              |                     |                                        |                           | HIGH<br>200                                  | MEDIUM<br>120 | LOW<br>80 | ULTRA<br>-LOW<br>50 | HIGH<br>200                                     | MEDIUM<br>120 | LOW<br>80 | ULTRA<br>-LOW<br>50 |
| A319NEO<br>WV050 (CG 36%)    | 64 400              | 45.7                                   | 1.19                      | 350                                          | 370           | 390       | 410                 | 280                                             | 300           | 320       | 360                 |
| A319NEO<br>WV050 (CG 35.44%) | 64 400              | 45.6                                   | 1.19                      | 350                                          | 370           | 390       | 400                 | 280                                             | 300           | 320       | 360                 |
| A319NEO<br>WV051 (CG 36%)    | 64 400              | 45.7                                   | 1.19                      | 350                                          | 370           | 390       | 410                 | 280                                             | 300           | 320       | 360                 |
| A319NEO<br>WV051 (CG 35.44%) | 64 400              | 45.6                                   | 1.19                      | 350                                          | 370           | 390       | 400                 | 280                                             | 300           | 320       | 360                 |
| A319NEO<br>WV051 (CG 32%)    | 64 400              | 44.9                                   | 1.19                      | 350                                          | 370           | 380       | 400                 | 270                                             | 290           | 310       | 350                 |
| A319NEO<br>WV052 (CG 36%)    | 70 400              | 45.8                                   | 1.29                      | 400                                          | 420           | 440       | 460                 | 310                                             | 330           | 360       | 400                 |
| A319NEO<br>WV052 (CG 32%)    | 70 400              | 45.0                                   | 1.29                      | 390                                          | 420           | 430       | 450                 | 310                                             | 330           | 350       | 390                 |
| A319NEO<br>WV053 (CG 36%)    | 70 400              | 45.8                                   | 1.29                      | 400                                          | 420           | 440       | 460                 | 310                                             | 330           | 360       | 400                 |
| A319NEO<br>WV053 (CG 32%)    | 70 400              | 45.0                                   | 1.29                      | 390                                          | 420           | 430       | 450                 | 310                                             | 330           | 350       | 390                 |
| A319NEO<br>WV054 (CG 36%)    | 75 900              | 45.8                                   | 1.38                      | 450                                          | 470           | 490       | 500                 | 350                                             | 370           | 400       | 450                 |
| A319NEO<br>WV054 (CG 32%)    | 75 900              | 45.0                                   | 1.38                      | 440                                          | 460           | 480       | 490                 | 340                                             | 360           | 390       | 440                 |
| A319NEO<br>WV055             | 75 900              | 45.8                                   | 1.38                      | 450                                          | 470           | 490       | 500                 | 350                                             | 370           | 400       | 450                 |

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ACR Table  
FIGURE-7-10-0-991-005-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**

| WEIGHT<br>VARIANT           | ALL UP<br>MASS (kg) | LOAD ON<br>ONE MAIN<br>GEAR LEG<br>(%) | TIRE<br>PRESSURE<br>(MPa) | ACR FOR<br>RIGID PAVEMENT<br>SUBGRADES - MPa |               |           |                     | ACR FOR<br>FLEXIBLE PAVEMENT<br>SUBGRADES - MPa |               |           |                     |
|-----------------------------|---------------------|----------------------------------------|---------------------------|----------------------------------------------|---------------|-----------|---------------------|-------------------------------------------------|---------------|-----------|---------------------|
|                             |                     |                                        |                           | HIGH<br>200                                  | MEDIUM<br>120 | LOW<br>80 | ULTRA<br>-LOW<br>50 | HIGH<br>200                                     | MEDIUM<br>120 | LOW<br>80 | ULTRA<br>-LOW<br>50 |
| ACJ319NEO<br>WV054          | 75 900              | 45.8                                   | 1.38                      | 450                                          | 470           | 490       | 500                 | 350                                             | 370           | 400       | 450                 |
| ACJ319NEO<br>WV055 (CG 36%) | 75 900              | 45.8                                   | 1.38                      | 450                                          | 470           | 490       | 500                 | 350                                             | 370           | 400       | 450                 |
| ACJ319NEO<br>WV055 (CG 32%) | 75 900              | 45.0                                   | 1.38                      | 440                                          | 460           | 480       | 490                 | 340                                             | 360           | 390       | 440                 |
| ACJ319NEO<br>WV110 (CG 36%) | 77 700              | 45.7                                   | 1.38                      | 460                                          | 480           | 500       | 520                 | 350                                             | 380           | 410       | 460                 |
| ACJ319NEO<br>WV110 (CG 32%) | 77 700              | 45.0                                   | 1.38                      | 450                                          | 470           | 490       | 510                 | 350                                             | 370           | 400       | 450                 |
| ACJ319NEO<br>WV111          | 77 700              | 45.7                                   | 1.38                      | 460                                          | 480           | 500       | 520                 | 350                                             | 380           | 410       | 460                 |
| ACJ319NEO<br>WV112          | 77 700              | 45.7                                   | 1.38                      | 460                                          | 480           | 500       | 520                 | 350                                             | 380           | 410       | 460                 |
| ACJ319NEO<br>WV113          | 76 900              | 45.7                                   | 1.38                      | 460                                          | 480           | 490       | 510                 | 350                                             | 370           | 410       | 450                 |
| ACJ319NEO<br>WV114          | 76 900              | 45.7                                   | 1.38                      | 460                                          | 480           | 490       | 510                 | 350                                             | 370           | 410       | 450                 |
| ACJ319NEO<br>WV115          | 76 900              | 45.7                                   | 1.38                      | 460                                          | 480           | 490       | 510                 | 350                                             | 370           | 410       | 450                 |
| ACJ319NEO<br>WV116          | 75 900              | 45.8                                   | 1.38                      | 450                                          | 470           | 490       | 500                 | 350                                             | 370           | 400       | 450                 |
| ACJ319NEO<br>WV120 (CG 34%) | 78 600              | 45.3                                   | 1.38                      | 460                                          | 490           | 500       | 520                 | 360                                             | 380           | 410       | 460                 |
| ACJ319NEO<br>WV120 (CG 32%) | 78 600              | 45.0                                   | 1.38                      | 460                                          | 480           | 500       | 510                 | 350                                             | 380           | 410       | 450                 |

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ACR Table for ACJ319NEO  
FIGURE-7-10-0-991-006-A01

### SCALED DRAWINGS

#### 8-0-0 SCALED DRAWINGS

**\*\*ON A/C A319-100 A319neo**

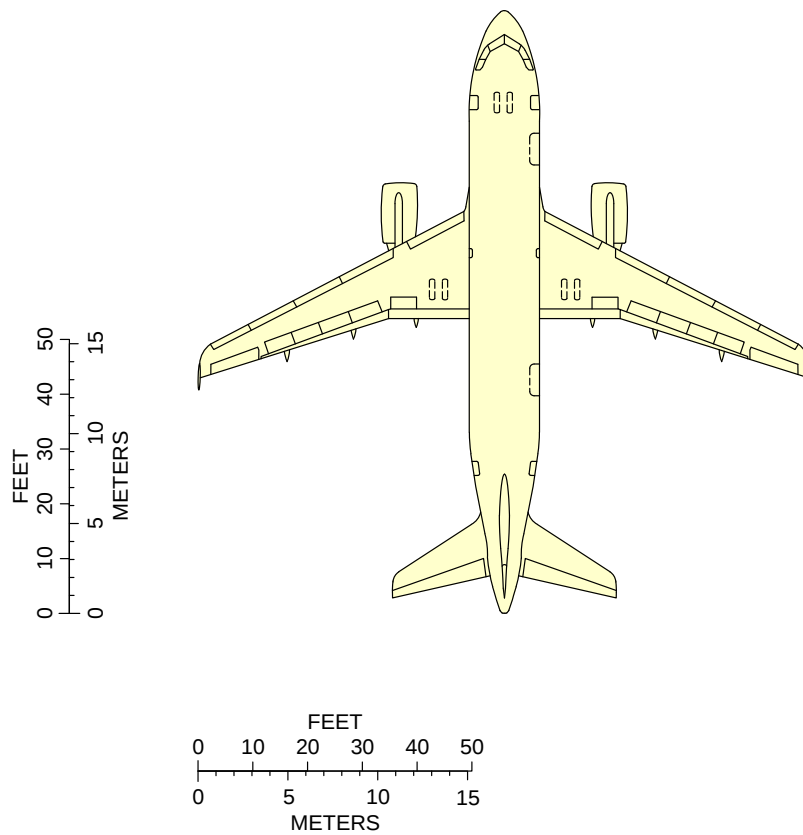
#### Scaled Drawings

1. This section provides the scaled drawings.

NOTE : When printing this drawing, make sure to adjust for proper scaling.

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319-100**



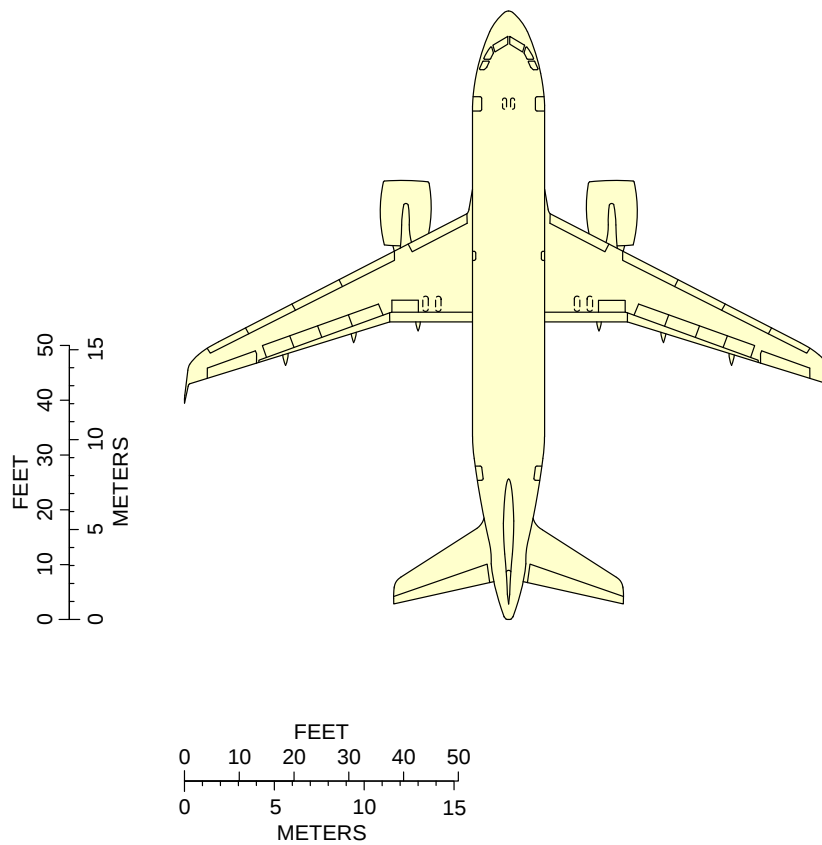
**NOTE:** WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING.

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Scaled Drawing  
FIGURE-8-0-0-991-002-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**\*\*ON A/C A319neo**



**NOTE:**

WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING.

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Scaled Drawing  
FIGURE-8-0-0-991-005-A01

**AIRCRAFT RESCUE AND FIRE FIGHTING****10-0-0      AIRCRAFT RESCUE AND FIRE FIGHTING****\*\*ON A/C A319-100 A319neo****Aircraft Rescue and Fire Fighting****1.    Aircraft Rescue and Fire Fighting Charts**

This sections provides data related to aircraft rescue and fire fighting.

The figures contained in this section are the figures that are in the Aircraft Rescue and Fire Fighting Charts poster available for download on AIRBUSWorld and the Airbus website.

\*\*ON A/C A319-100 A319neo

AIRBUS

A319/A319neo

Aircraft Rescue and Fire Fighting Chart

ARFC

NOTE:

THIS CHART GIVES THE GENERAL LAYOUT OF THE A319 STANDARD VERSION.  
THE NUMBER AND ARRANGEMENT OF THE INDIVIDUAL ITEMS VARY WITH THE CUSTOMERS.  
FIGURES CONTAINED IN THIS POSTER ARE AVAILABLE SEPARATELY IN THE CHAPTER 10 OF THE  
"AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING" DOCUMENT.

ISSUED BY:

AIRBUS S.A.S  
CUSTOMER SERVICES  
TECHNICAL DATA SUPPORT AND SERVICES  
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FRANCE

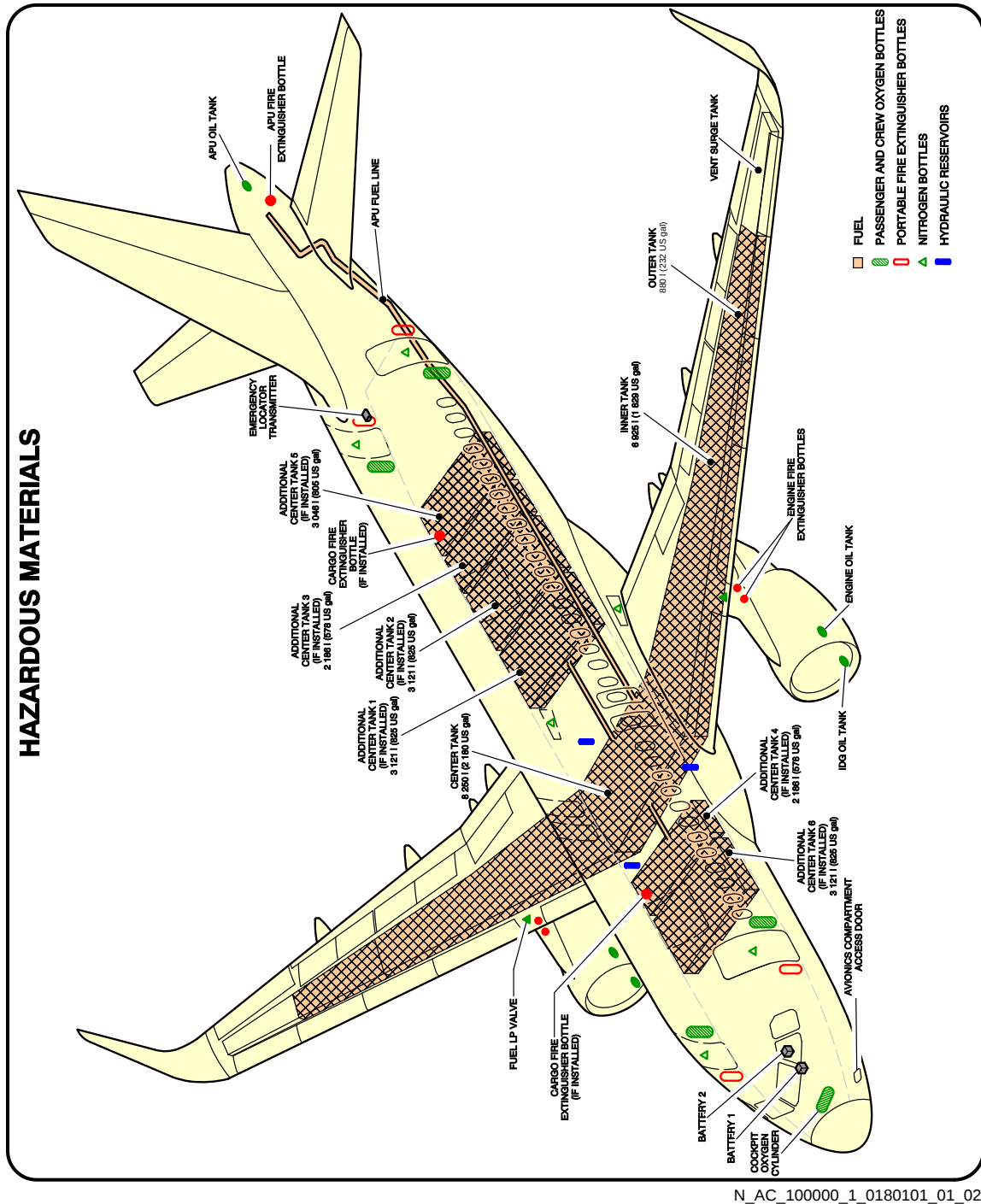
REVISION DATE: NOV 2019  
REFERENCE : N\_RF\_000000\_1\_A319000  
SHEET 1/2

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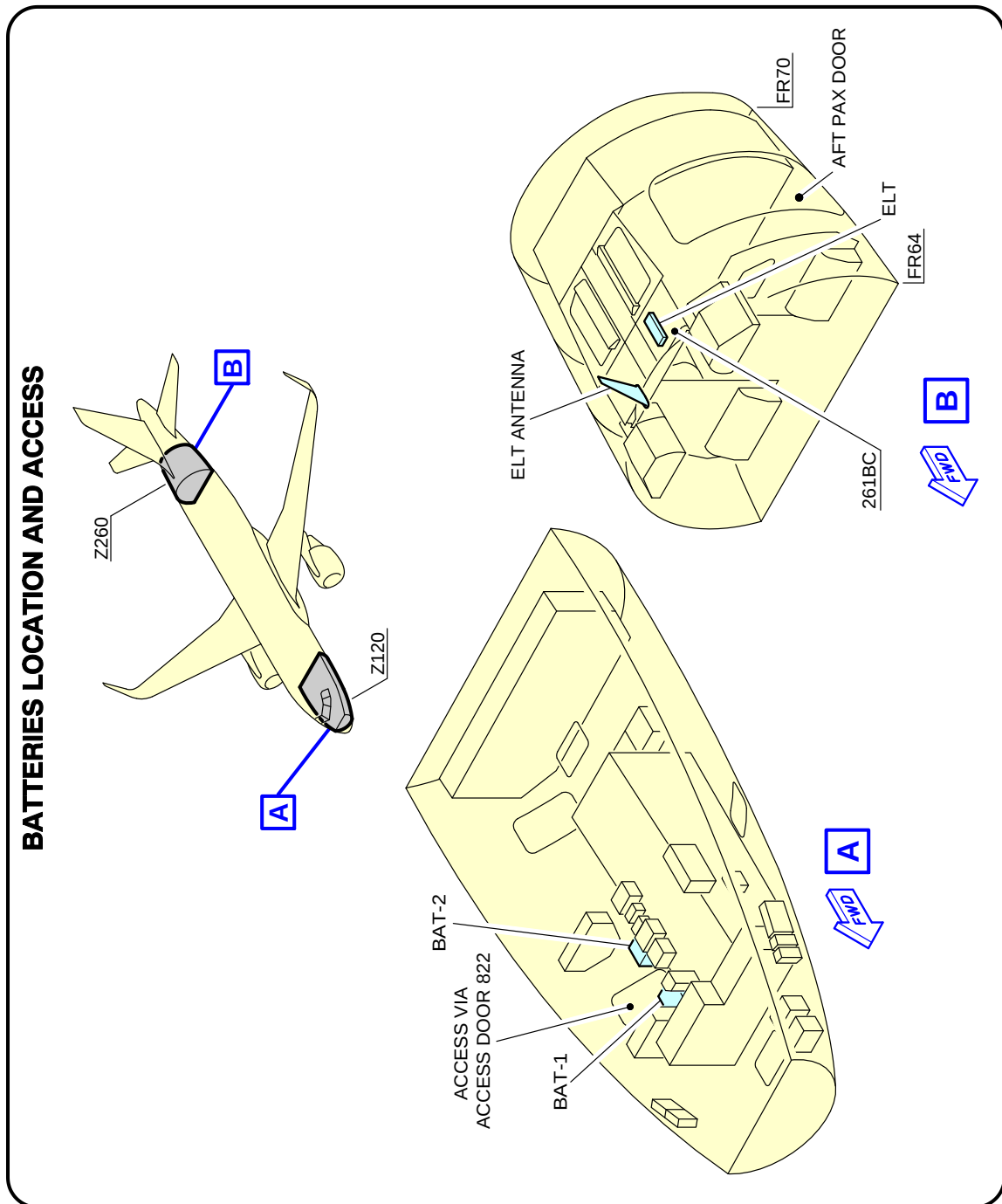
Front Page  
FIGURE-10-0-0-991-017-A01

**\*\*ON A/C A319-100 A319neo**



Highly Flammable and Hazardous Materials and Components  
FIGURE-10-0-0-991-018-A01

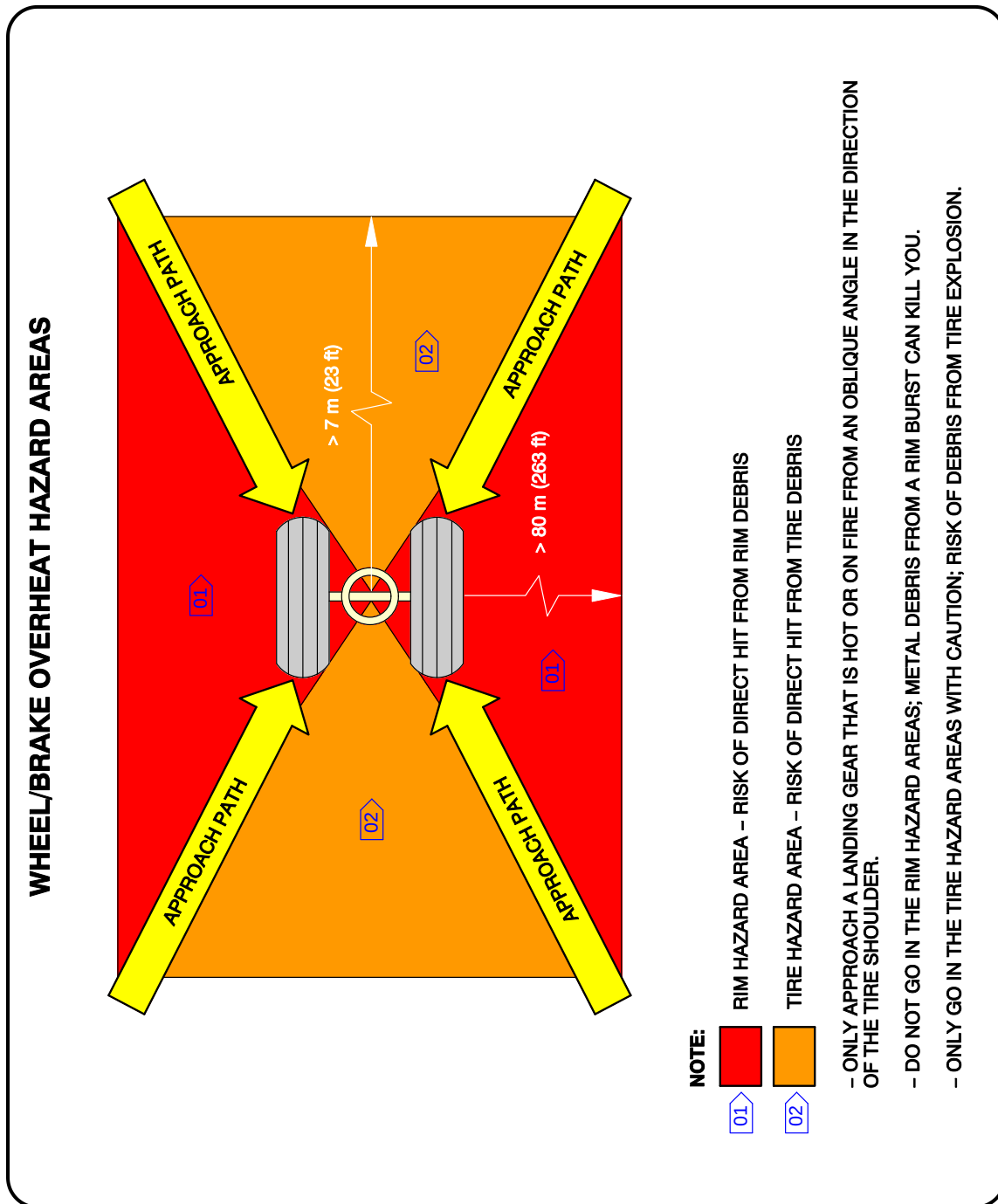
**\*\*ON A/C A319-100 A319neo**



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Batteries Location and Access  
FIGURE-10-0-0-991-056-A01

**\*\*ON A/C A319-100 A319neo**



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Wheel/Brake Overheat  
Wheel Safety Area (Sheet 1 of 2)  
FIGURE-10-0-0-991-019-A01

**\*\*ON A/C A319-100 A319neo**

### BRAKE OVERHEAT AND LANDING GEAR FIRE

**WARNING:** BE VERY CAREFUL WHEN THERE IS A BRAKE OVERHEAT AND/OR LANDING GEAR FIRE. THERE IS A RISK OF TIRE EXPLOSION AND/OR WHEEL RIM BURST THAT CAN CAUSE DEATH OR INJURY. MAKE SURE THAT YOU OBEY THE SAFETY PRECAUTIONS THAT FOLLOW.

THE PROCEDURES THAT FOLLOW GIVE RECOMMENDATIONS AND SAFETY PRECAUTIONS FOR THE COOLING OF VERY HOT BRAKES AFTER ABNORMAL OPERATIONS SUCH AS A REJECTED TAKE-OFF OR OVERWEIGHT LANDING. FOR THE COOLING OF BRAKES AFTER NORMAL TAXI-IN, REFER TO YOUR COMPANY PROCEDURES.

#### BRAKE OVERHEAT:

- 1 - GET THE BRAKE TEMPERATURE FROM THE COCKPIT OR USE A REMOTE MEASUREMENT TECHNIQUE. THE REAL TEMPERATURE OF THE BRAKES CAN BE MUCH HIGHER THAN THE TEMPERATURE SHOWN ON THE ECAM.  
**NOTE:** AT HIGH TEMPERATURES (>800°C), THERE IS A RISK OF WARPING OF THE LANDING GEAR STRUTS AND AXLES.
- 2 - APPROACH THE LANDING GEAR WITH EXTREME CAUTION AND FROM AN OBLIQUE ANGLE IN THE DIRECTION OF THE TIRE SHOULDER. DO NOT GO INTO THE RIM HAZARD AREA AND ONLY GO IN THE TIRE HAZARD AREA WITH CAUTION. (REF FIG. WHEEL/BRAKE OVERHEAT HAZARD AREAS). IF POSSIBLE, STAY IN A VEHICLE.
- 3 - LOOK AT THE CONDITION OF THE TIRES:  
IF THE TIRES ARE STILL INFLATED (FUSE PLUGS NOT MELTED), THERE IS A RISK OF TIRE EXPLOSION AND RIM BURST. DO NOT USE COOLING FANS BECAUSE THEY CAN PREVENT OPERATION OF THE FUSE PLUGS.
- 4 - USE WATER MIST TO DECREASE THE TEMPERATURE OF THE COMPLETE WHEEL AND BRAKE ASSEMBLY. USE A TECHNIQUE THAT PREVENTS SUDDEN COOLING. SUDDEN COOLING CAN CAUSE WHEEL CRACKS OR RIM BURST. DO NOT APPLY WATER, FOAM OR CO<sub>2</sub>. THESE COOLING AGENTS (AND ESPECIALLY CO<sub>2</sub>, WHICH HAS A VERY STRONG COOLING EFFECT) CAN CAUSE THERMAL SHOCKS AND BURST OF HOT PARTS.

#### LANDING GEAR FIRE:

**CAUTION:** AIRBUS RECOMMENDS THAT YOU DO NOT USE DRY POWDERS OR DRY CHEMICALS ON HOT BRAKES OR LANDING GEAR FIRES. THESE AGENTS CAN CHANGE INTO SOLID OR ENAMELED DEPOSITS. THEY CAN DECREASE THE SPEED OF HEAT DISSIPATION WITH A POSSIBLE RISK OF PERMANENT STRUCTURAL DAMAGE TO THE BRAKES, WHEELS OR WHEEL AXLES.

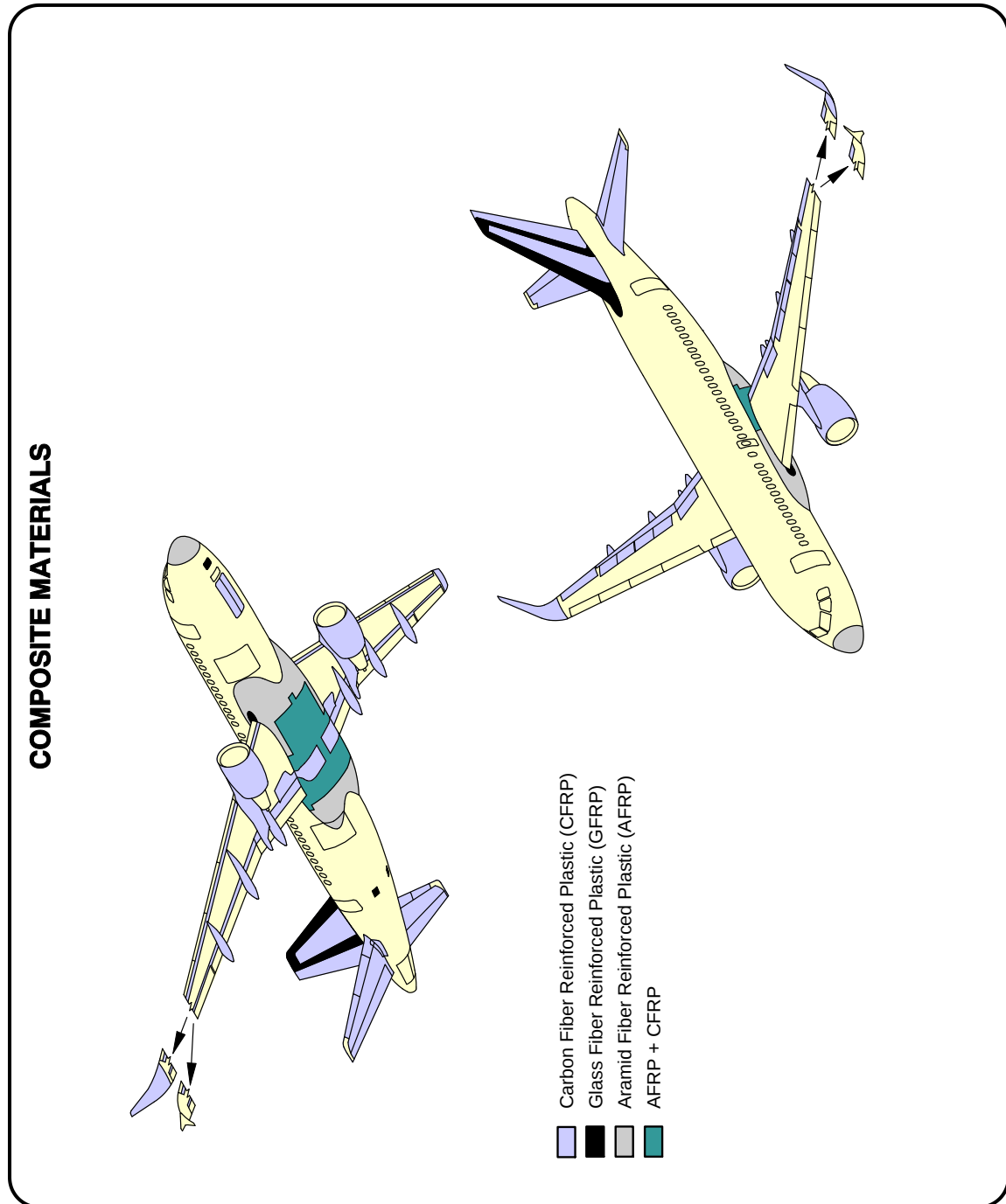
#### 1 - IMMEDIATELY STOP THE FIRE:

- A) APPROACH THE LANDING GEAR WITH EXTREME CAUTION AND FROM AN OBLIQUE ANGLE IN THE DIRECTION OF THE TIRE SHOULDER. DO NOT GO INTO THE RIM HAZARD AREA AND ONLY GO IN THE TIRE HAZARD AREA WITH CAUTION. IF POSSIBLE, STAY IN A VEHICLE.
- B) USE LARGE AMOUNTS OF WATER, WATER MIST; IF THE FUEL TANKS ARE AT RISK, USE FOAM. USE A TECHNIQUE THAT PREVENTS SUDDEN COOLING. SUDDEN COOLING CAN CAUSE WHEEL CRACKS OR RIM BURST.
- C) DO NOT USE FANS OR BLOWERS.

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Wheel/Brake Overheat  
Recommendations (Sheet 2 of 2)  
FIGURE-10-0-0-991-019-A01

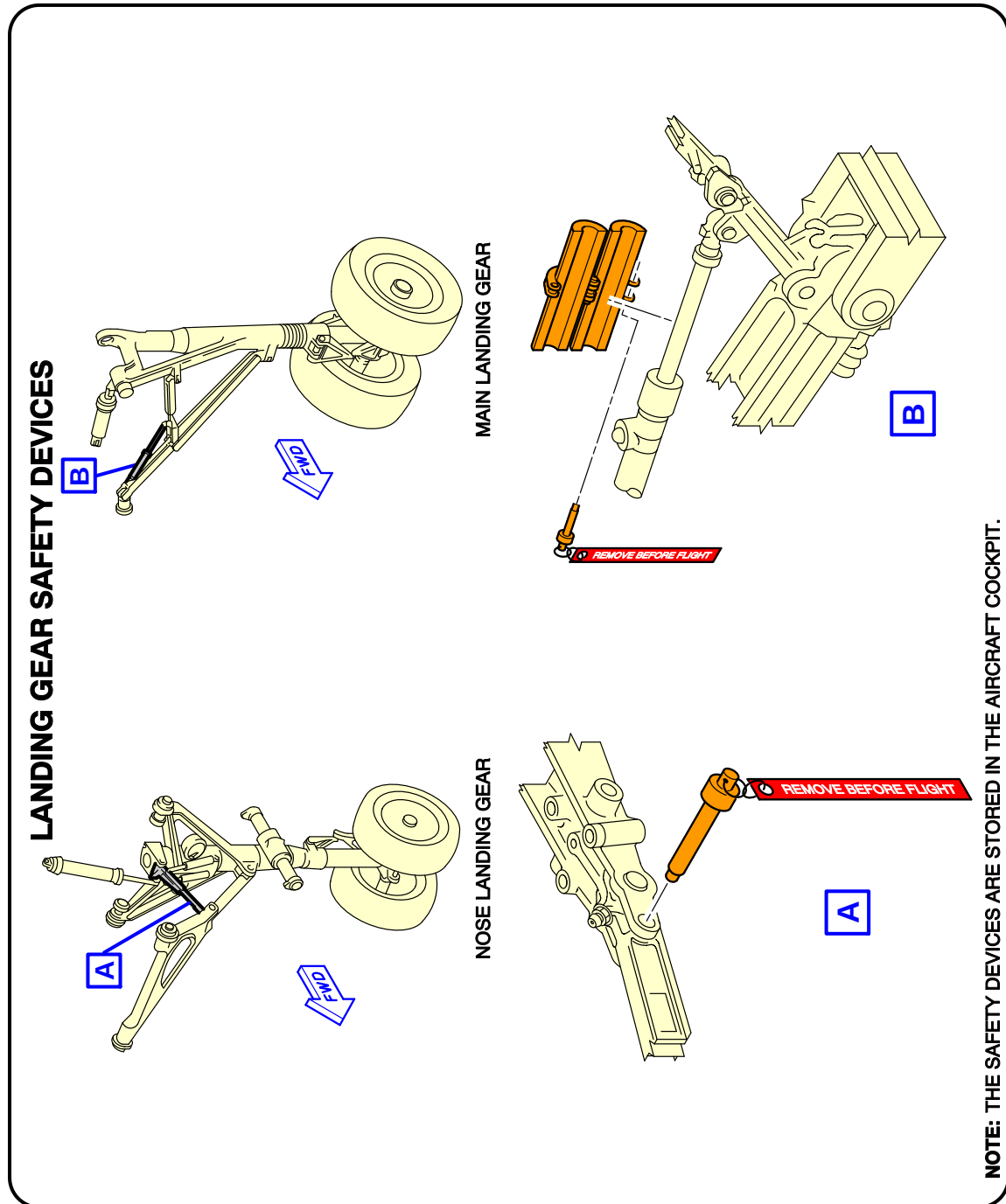
**\*\*ON A/C A319-100 A319neo**



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Composite Materials  
 FIGURE-10-0-0-991-020-A01

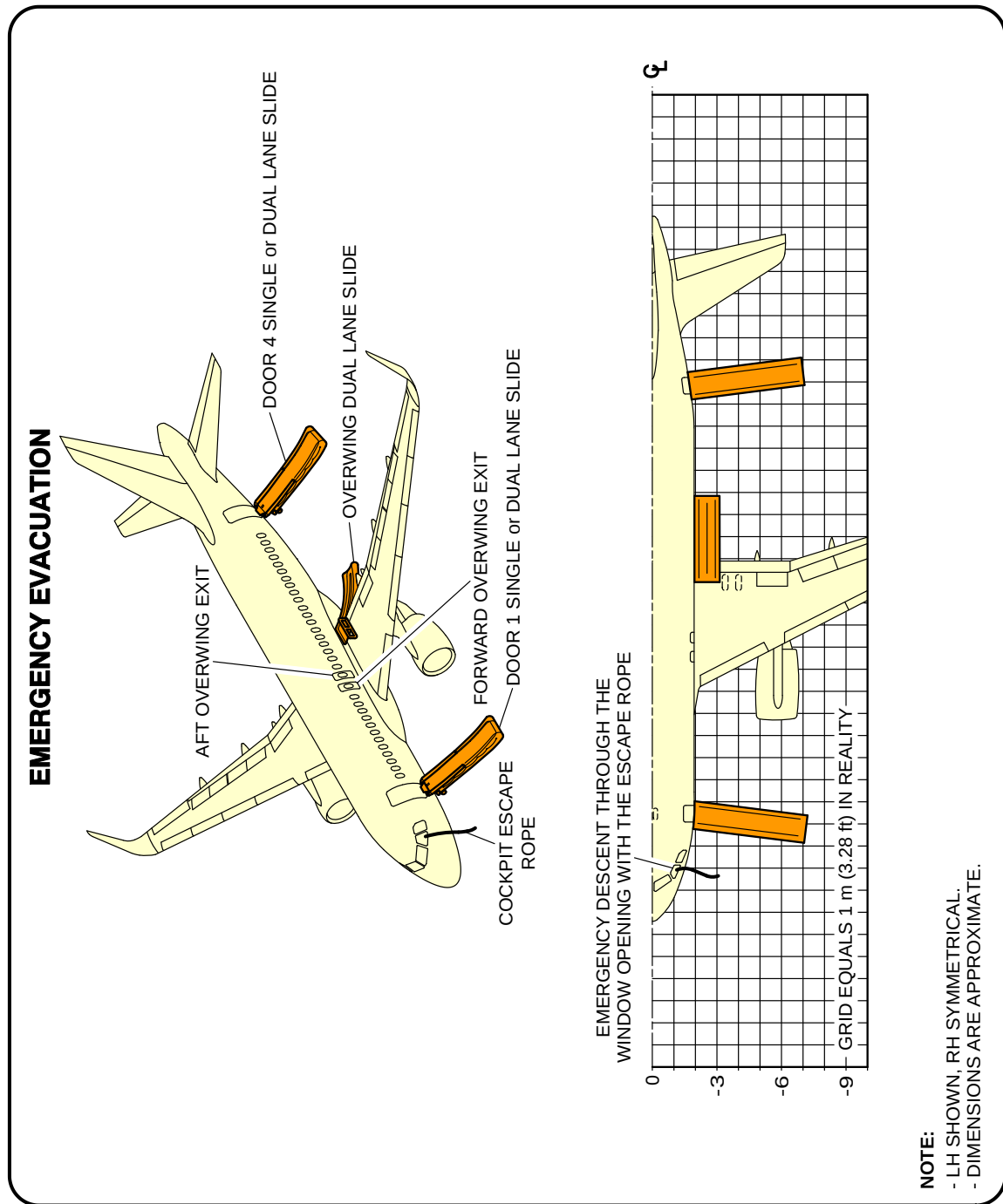
**\*\*ON A/C A319-100 A319neo**



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L/G Ground Lock Safety Devices  
FIGURE-10-0-0-991-021-A01

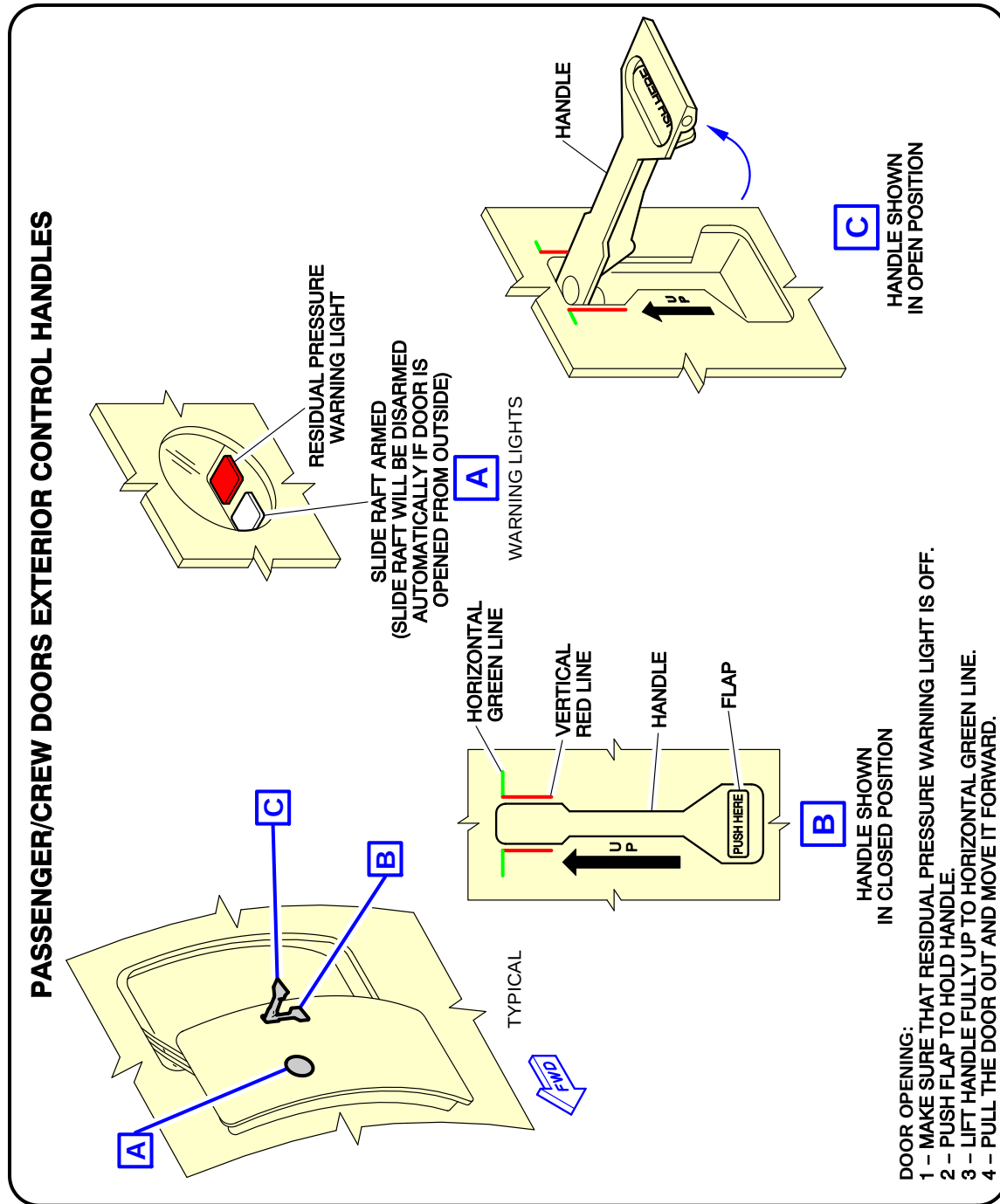
**\*\*ON A/C A319-100 A319neo**



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Emergency Evacuation Devices  
FIGURE-10-0-0-991-022-A01

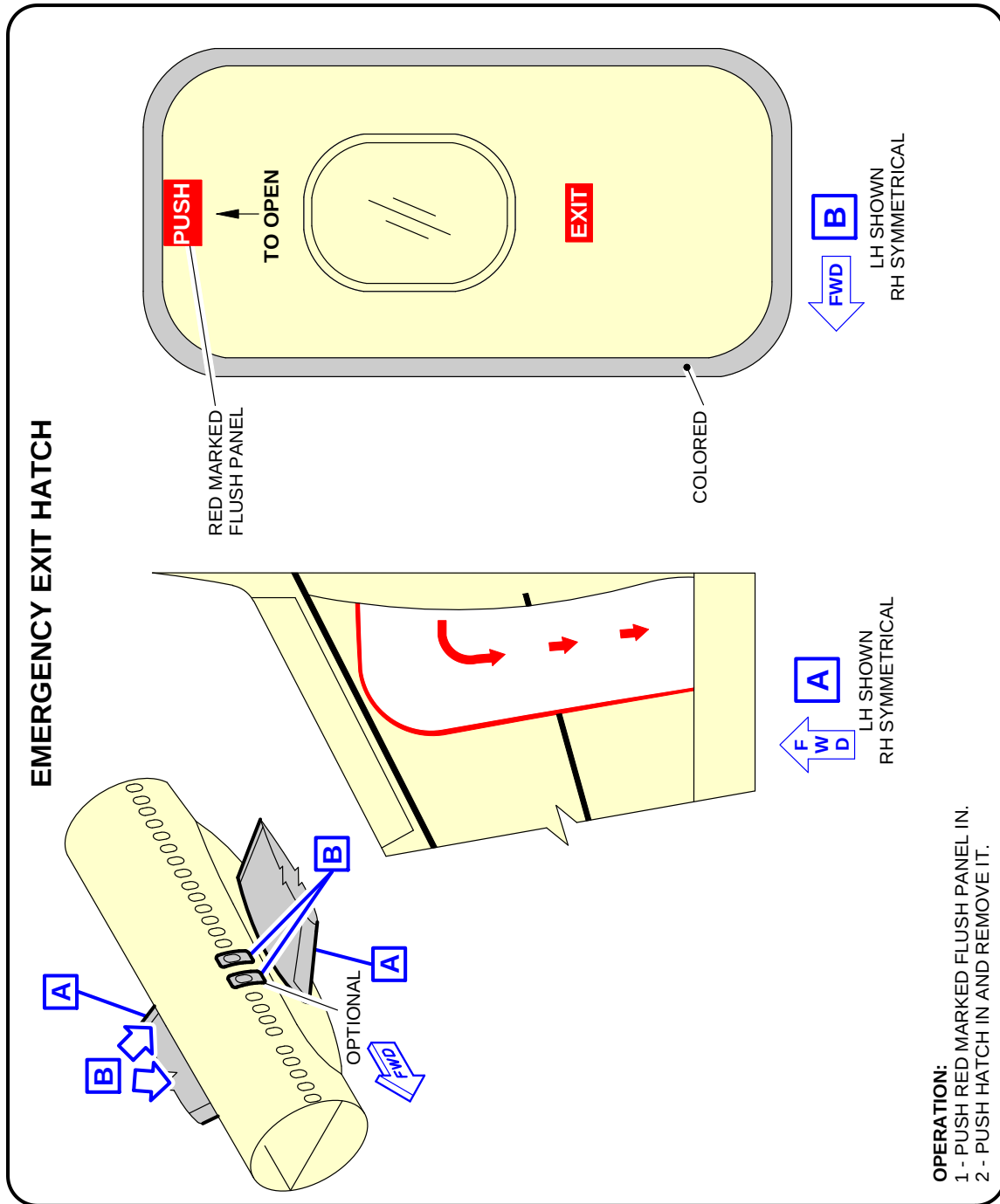
**\*\*ON A/C A319-100 A319neo**



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Pax/Crew Doors  
FIGURE-10-0-0-991-023-A01

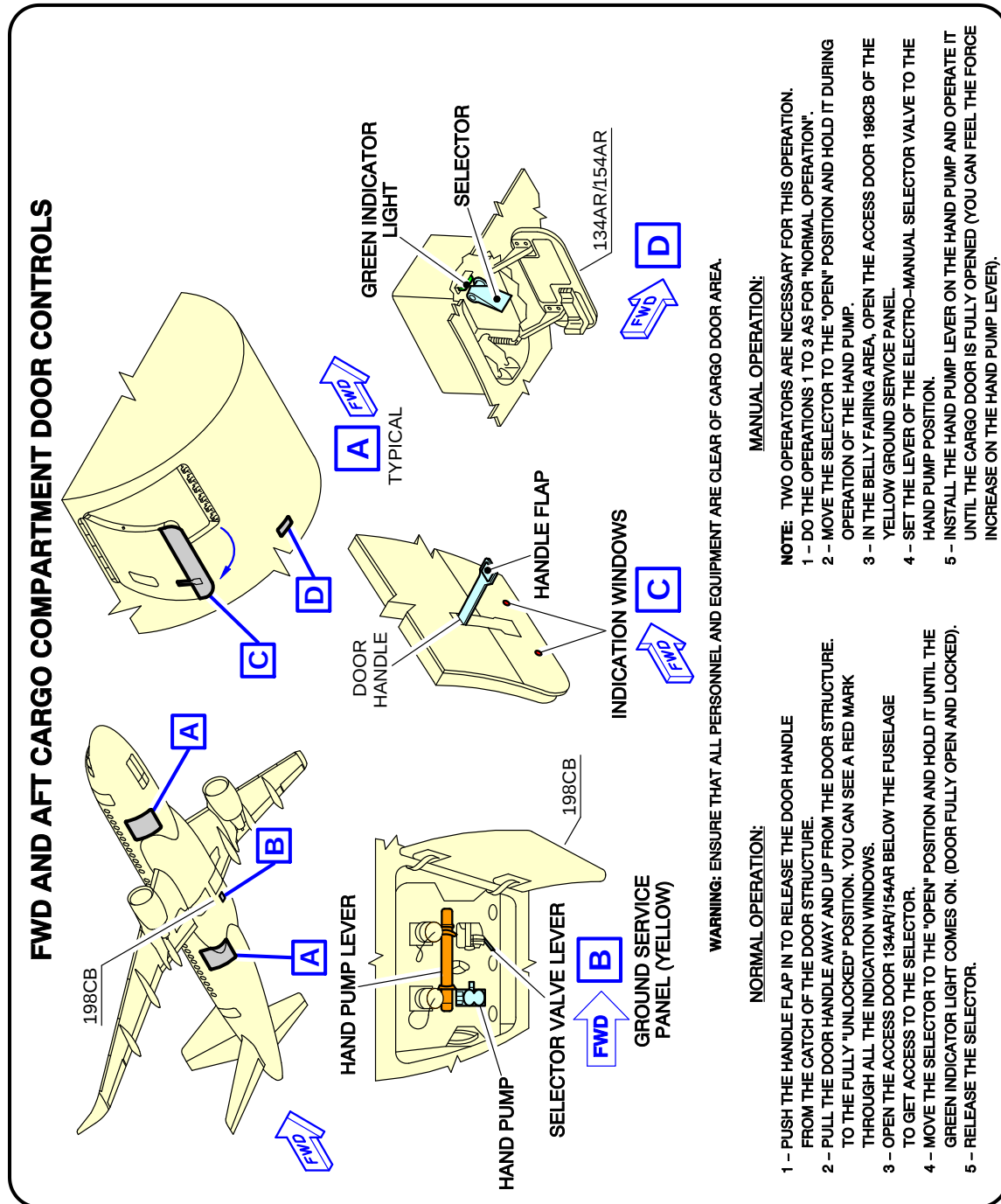
**\*\*ON A/C A319-100 A319neo**



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Emergency Exit Hatch  
FIGURE-10-0-0-991-024-A01

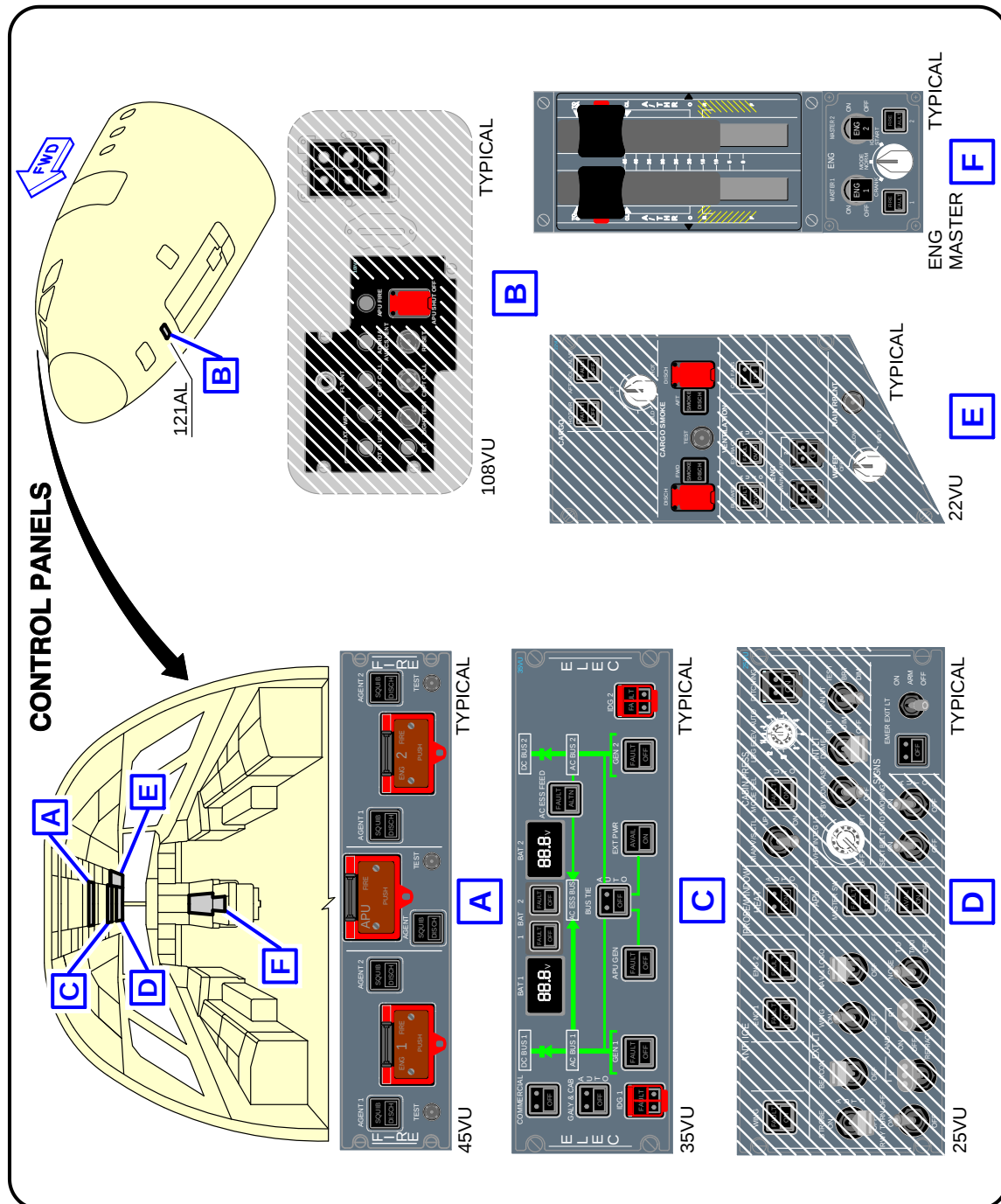
**\*\*ON A/C A319-100 A319neo**



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FWD and AFT Lower Deck Cargo Doors  
FIGURE-10-0-0-991-025-A01

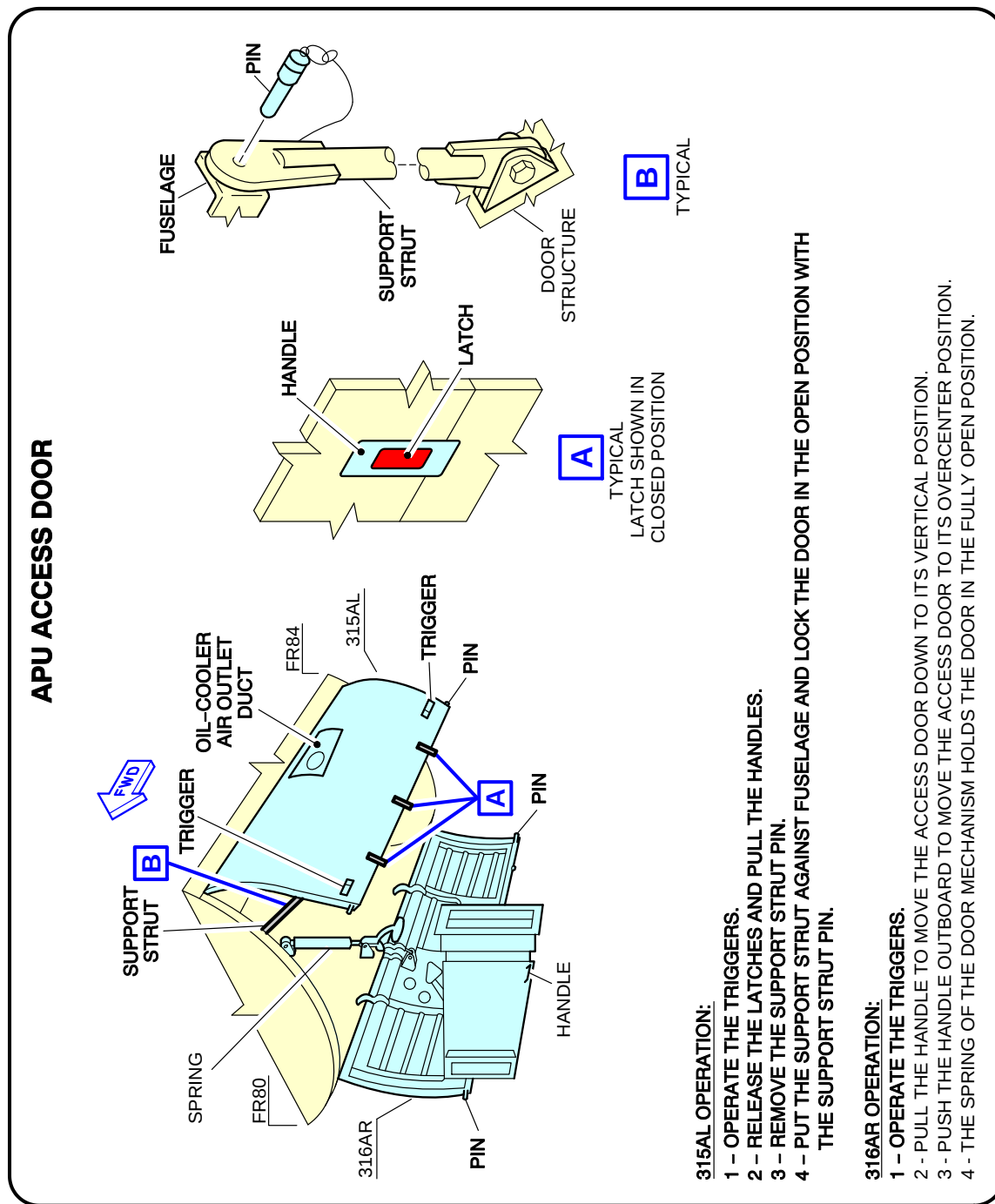
**\*\*ON A/C A319-100 A319neo**



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Control Panels  
FIGURE-10-0-0-991-026-A01

**\*\*ON A/C A319-100 A319neo**

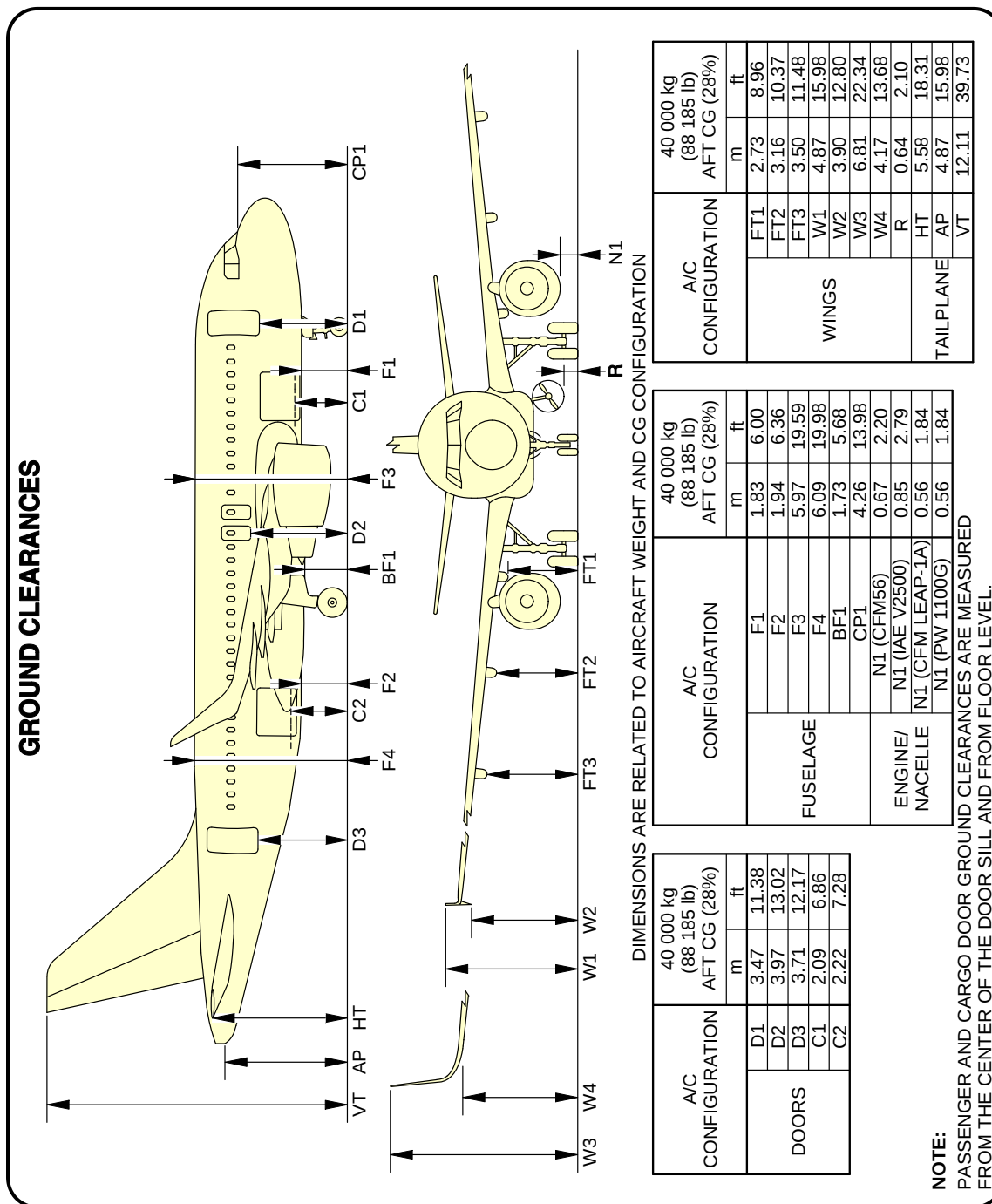


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APU Access Door  
FIGURE-10-0-0-991-027-A01

## AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

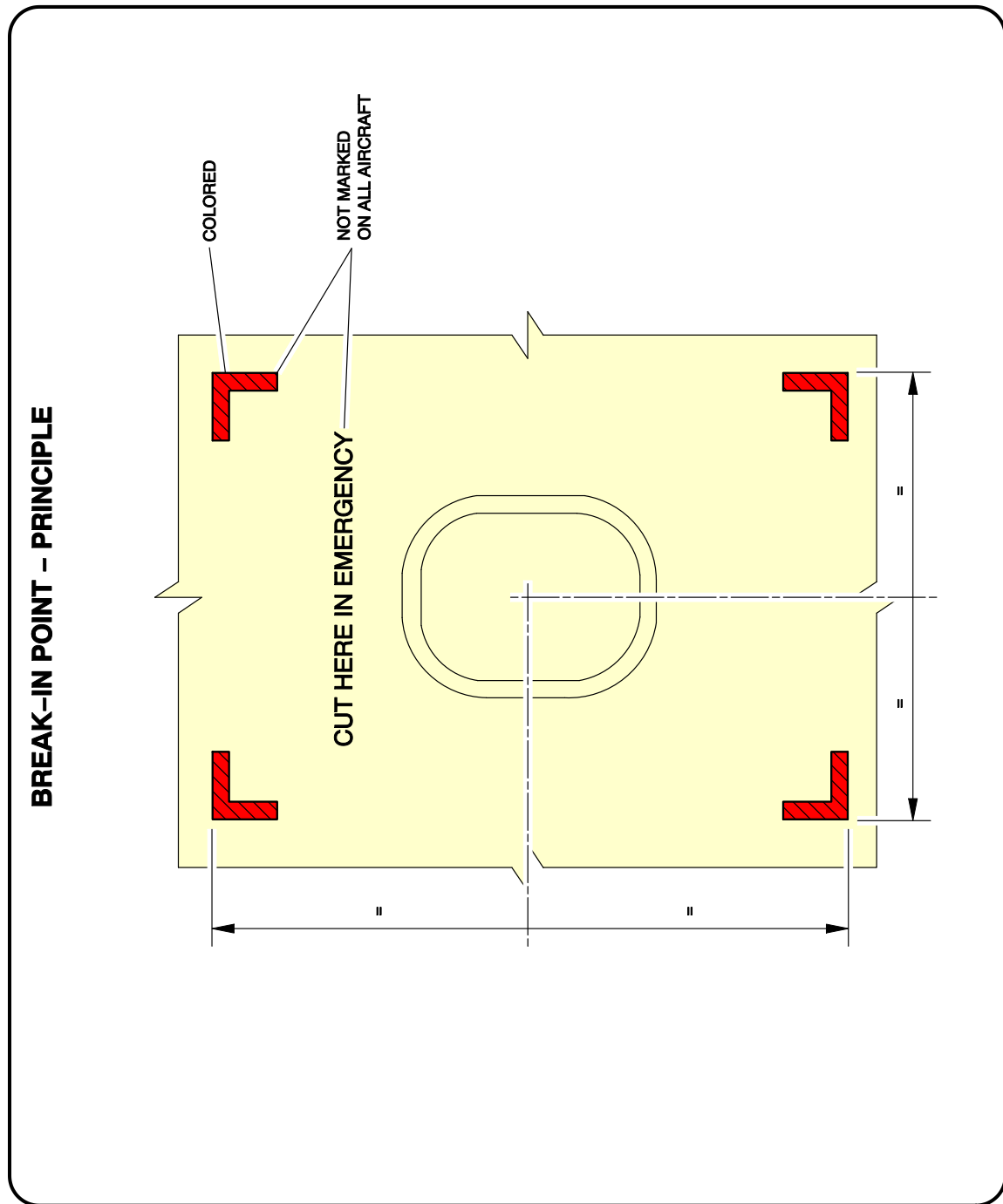
**\*\*ON A/C A319-100 A319neo**



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Aircraft Ground Clearances  
FIGURE-10-0-0-991-028-A01

**\*\*ON A/C A319-100 A319neo**



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Structural Break-in Points  
FIGURE-10-0-0-991-029-A01