A319

AIRCRAFT CHARACTERISTICS
AIRPORT AND MAINTENANCE PLANNING

AC

AIRBUS S.A.S.
Customer Services
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HIGHLIGHTS

Revision No. 27 - Dec 01/23

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****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 CO_2 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.

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
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
LPS	Last Pax Seating
MAC	Mean Aerodynamic Chord

MAX	Maximum
MIN	Minimum
MLG	Main Landing Gear
NLG	Nose Landing Gear
OAT	Outside Air Temperature
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:
  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**

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

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

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

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

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

****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) Maximum Taxi Weight (MTW)	64 400 kg (141 978 lb)	64 400 kg (141 978 lb)	70 400 kg (155 205 lb)	70 400 kg (155 205 lb)	75 900 kg (167 331 lb)
Maximum Take-Off Weight (MTOW)	64 000 kg (141 096 lb)	64 000 kg (141 096 lb)	70 000 kg (154 323 lb)	70 000 kg (154 323 lb)	75 500 kg (166 449 lb)
Maximum Landing Weight (MLW)	62 800 kg (138 450 lb)	63 900 kg (140 875 lb)	62 800 kg (138 450 lb)	63 900 kg (140 875 lb)	62 800 kg (138 450 lb)
Maximum Zero Fuel Weight (MZFW)	58 800 kg (129 632 lb)	60 300 kg (132 939 lb)	58 800 kg (129 632 lb)	60 300 kg (132 939 lb)	58 800 kg (129 632 lb)

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

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

Aircraft Characteristics						
	WV112 ACJ	WV113 ACJ	WV114 ACJ	WV115 ACJ	WV116 ACJ	WV120 ACJ
Maximum Landing Weight (MLW)	63 900 kg (140 875 lb)	63 900 kg (140 875 lb)	62 800 kg (138 450 lb)	63 900 kg (140 875 lb)	63 900 kg (140 875 lb)	63 900 kg (140 875 lb)
Maximum Zero Fuel Weight (MZFW)	53 800 kg (118 609 lb)	60 300 kg (132 939 lb)	58 800 kg (129 632 lb)	53 800 kg (118 609 lb)	53 800 kg (118 609 lb)	53 800 kg (118 609 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 (density = 0.785 kg/l)		A319CEO CFM Engine	A319CEO IAE Engine	ACJ3 19CEO	A319NEO	ACJ3 19NEO
	Total Wing Fuel	15 959 l (4 216 US gal)	15 609 l (4 123 US gal)	15 609 l (4 123 US gal)	15 490 l (4 092 US gal)	15 490 l (4 092 US gal)
	Center Tank Fuel	8 250 l (2 179 US gal)	8 250 l (2 179 US gal)	8 250 l (2 179 US gal)	8 250 l (2 179 US gal)	8 250 l (2 179 US gal)
	ACT 1	X	X	3 121 l (824 US gal)	X	3 121 l (824 US gal)
	ACT 2	X	X	3 121 l (824 US gal)	X	3 121 l (824 US gal)
	ACT4 / 4.1 / FWD	X	X	2 186 l (577 US gal)	X	3 046 l (805 US gal)
	Maximum Total Aircraft- Fuel	24 209 l (6 395 US gal)	23 859 l (6 303 US gal)	32 287 l (8 529 US gal)	23 740 l (6 271 US gal)	33 028 l (8 725 US gal)
Pressurized Fuselage Volume (A/C non equipped)		285 m³ (10 065 ft³)				
Passenger Compartment Volume		120 m³ (4 238 ft³)				

Aircraft Characteristics		
Cockpit Volume		9 m^3 (318 ft^3)
Usable Volume, FWD CC		8.52 m^3 (301 ft^3)
Usable Volume, AFT CC		11.92 m^3 (421 ft^3)
Usable Volume, Bulk CC		7.22 m^3 (255 ft^3)
Water Volume, FWD CC		10.63 m^3 (375 ft^3)
Water Volume, AFT CC		13.91 m^3 (491 ft^3)
Water Volume, Bulk CC		7.51 m^3 (265 ft^3)

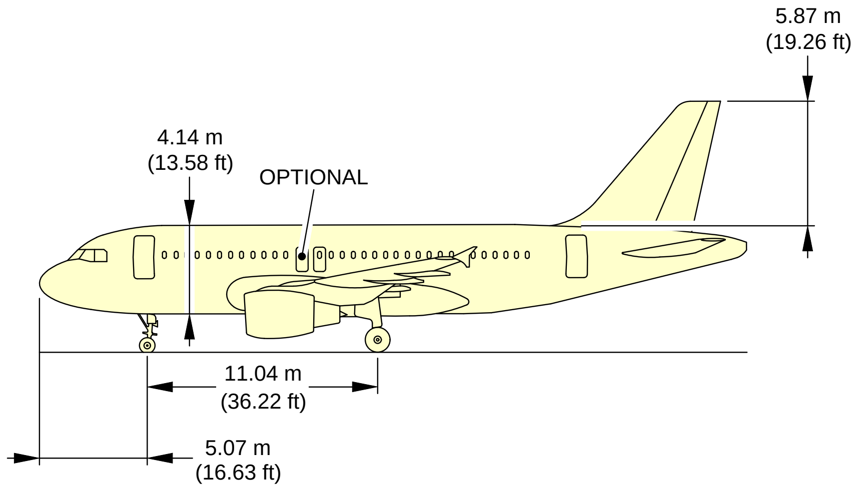
2-2-0 General Aircraft Dimensions

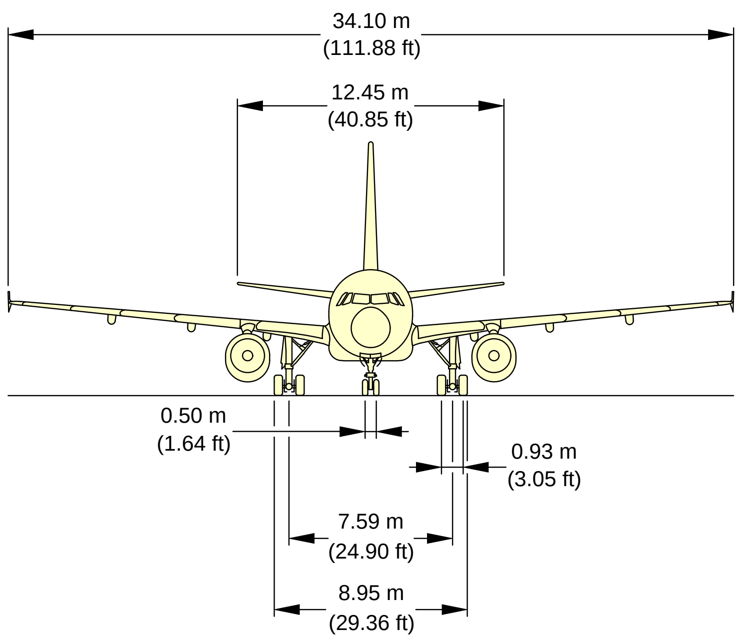
****ON A/C A319-100 A319neo**

General Aircraft Dimensions

1. This section provides general aircraft dimensions.

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



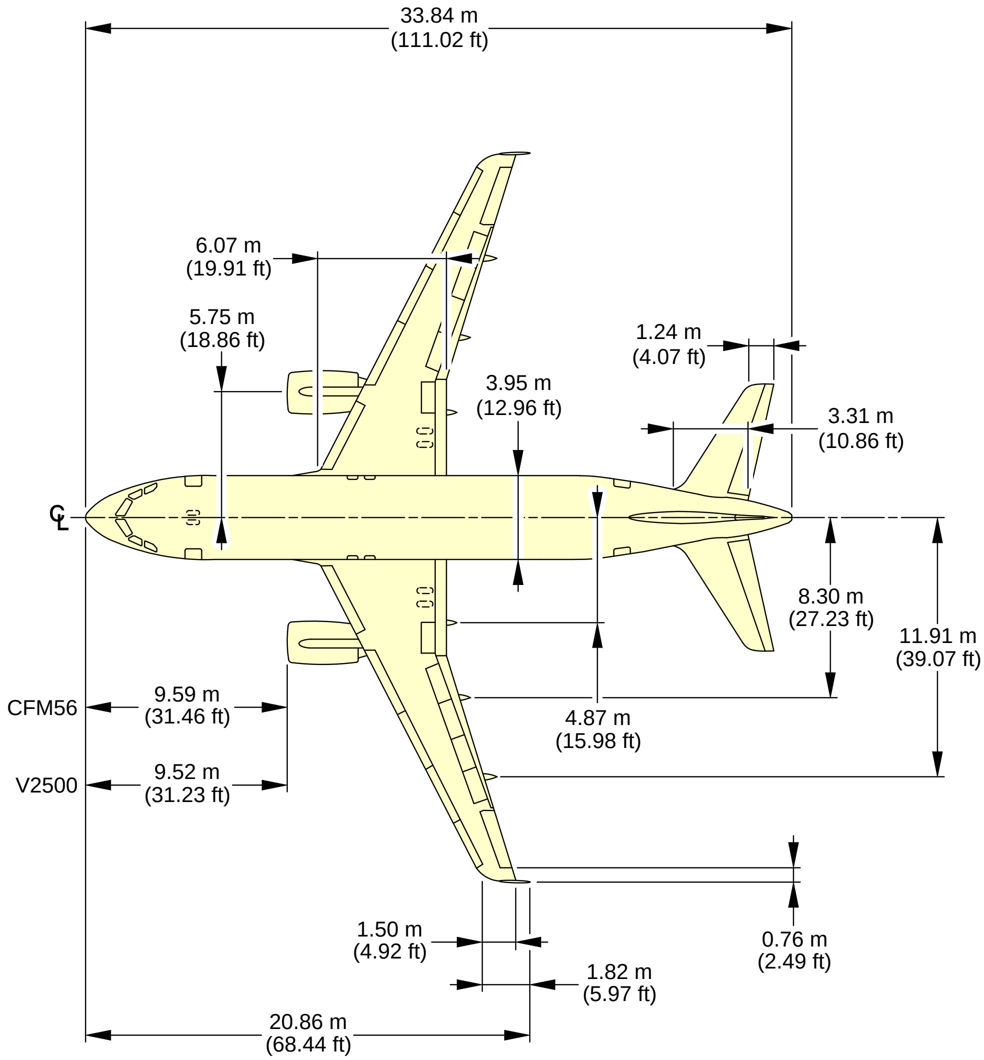


NOTE:
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

N_AC_020200_1_0020101_01_04

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

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

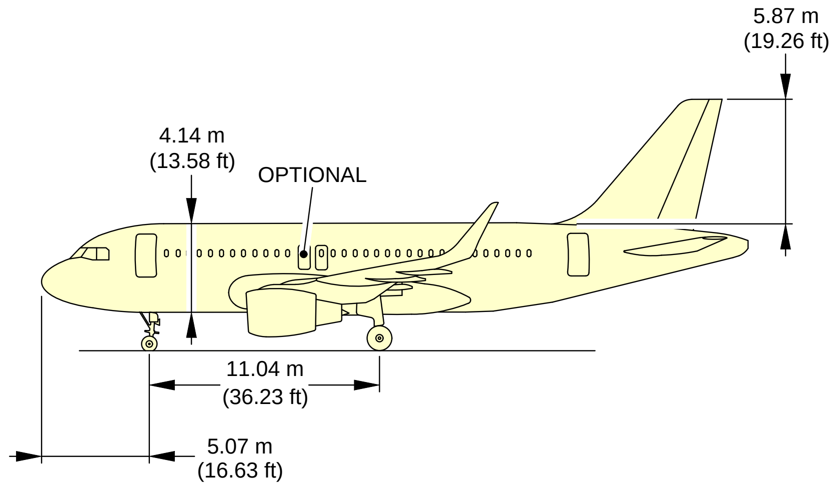


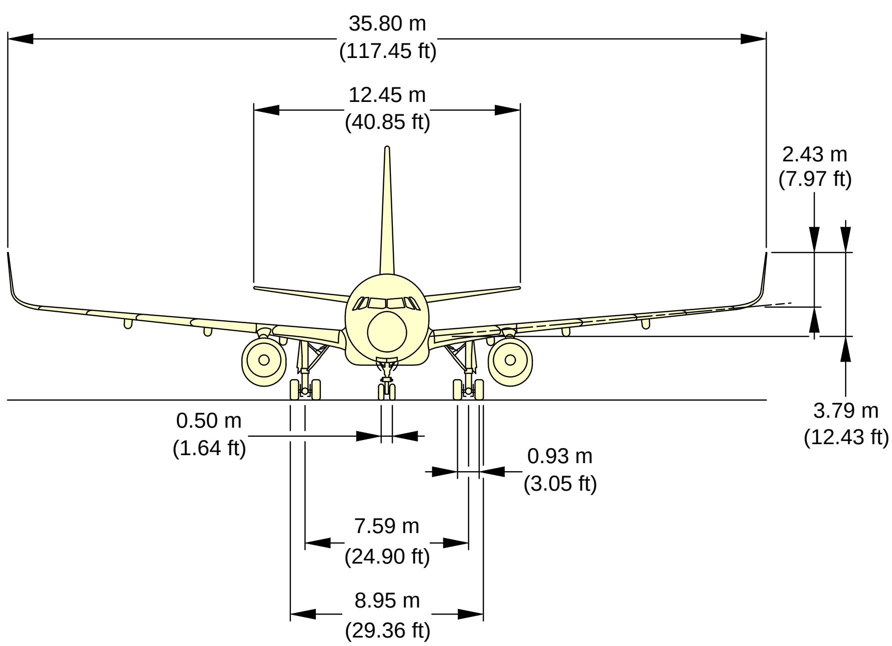
NOTE:
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

N_AC_020200_1_0020103_01_02

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

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



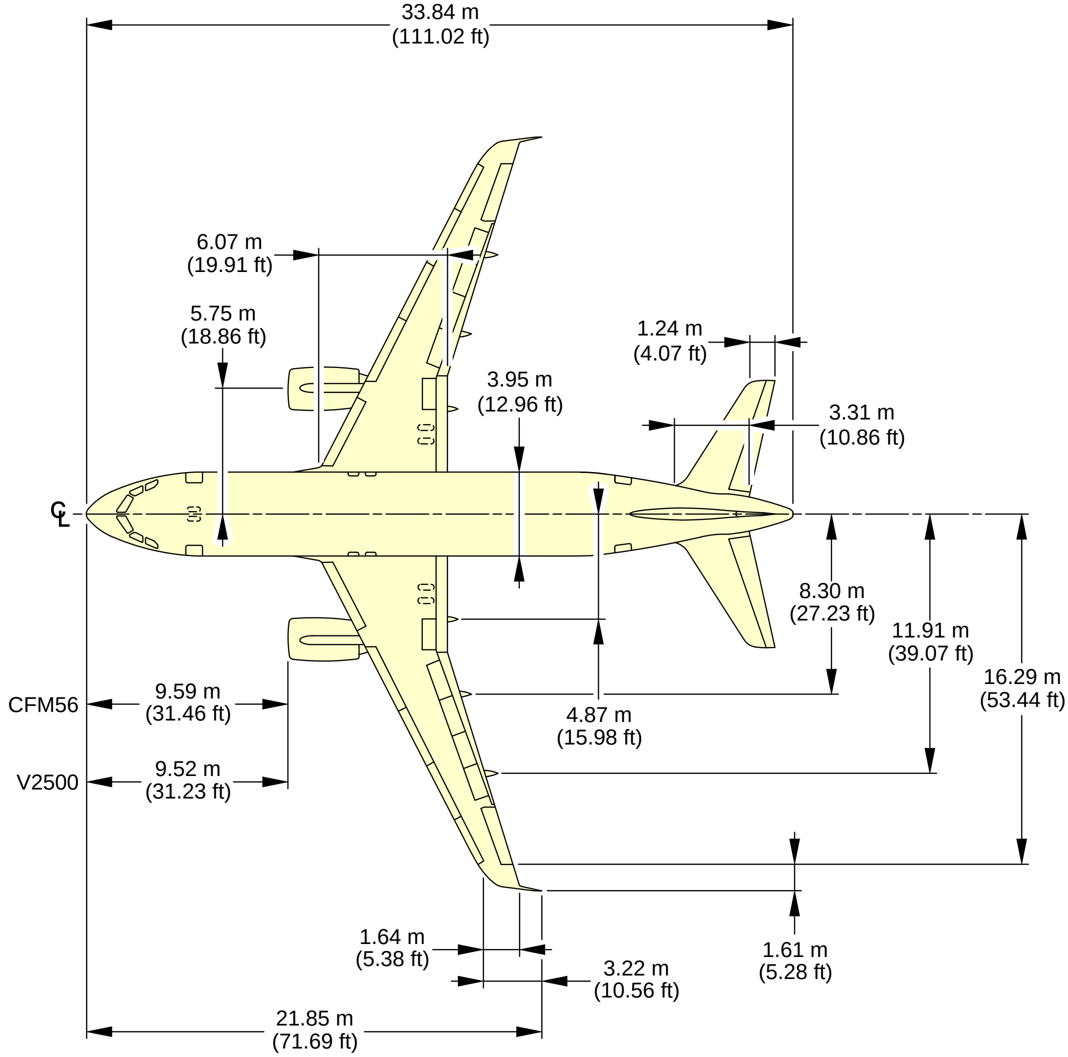


NOTE:
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

N_AC_020200_1_0020102_01_02

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

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

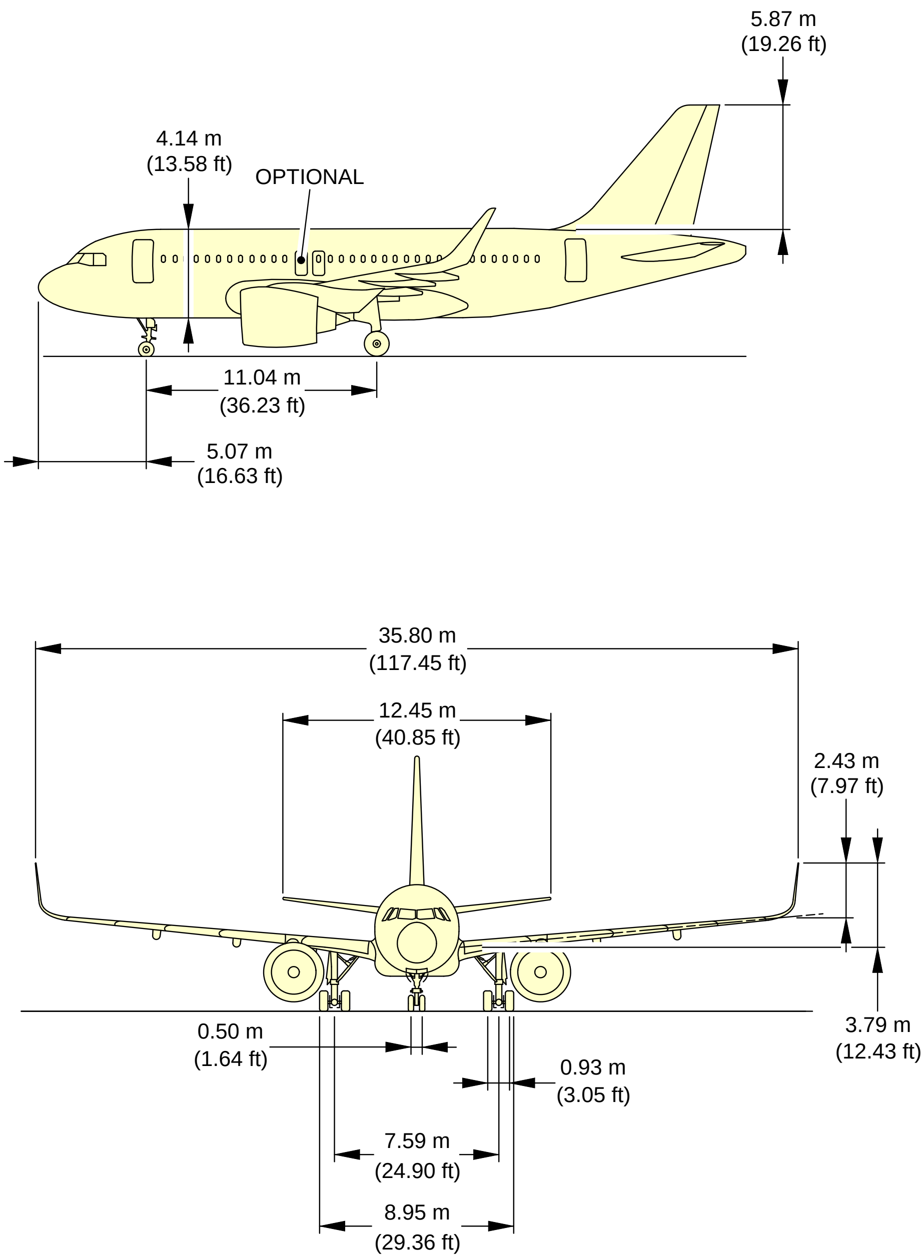


NOTE:
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

N_AC_020200_1_0020104_01_02

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

****ON A/C A319neo**

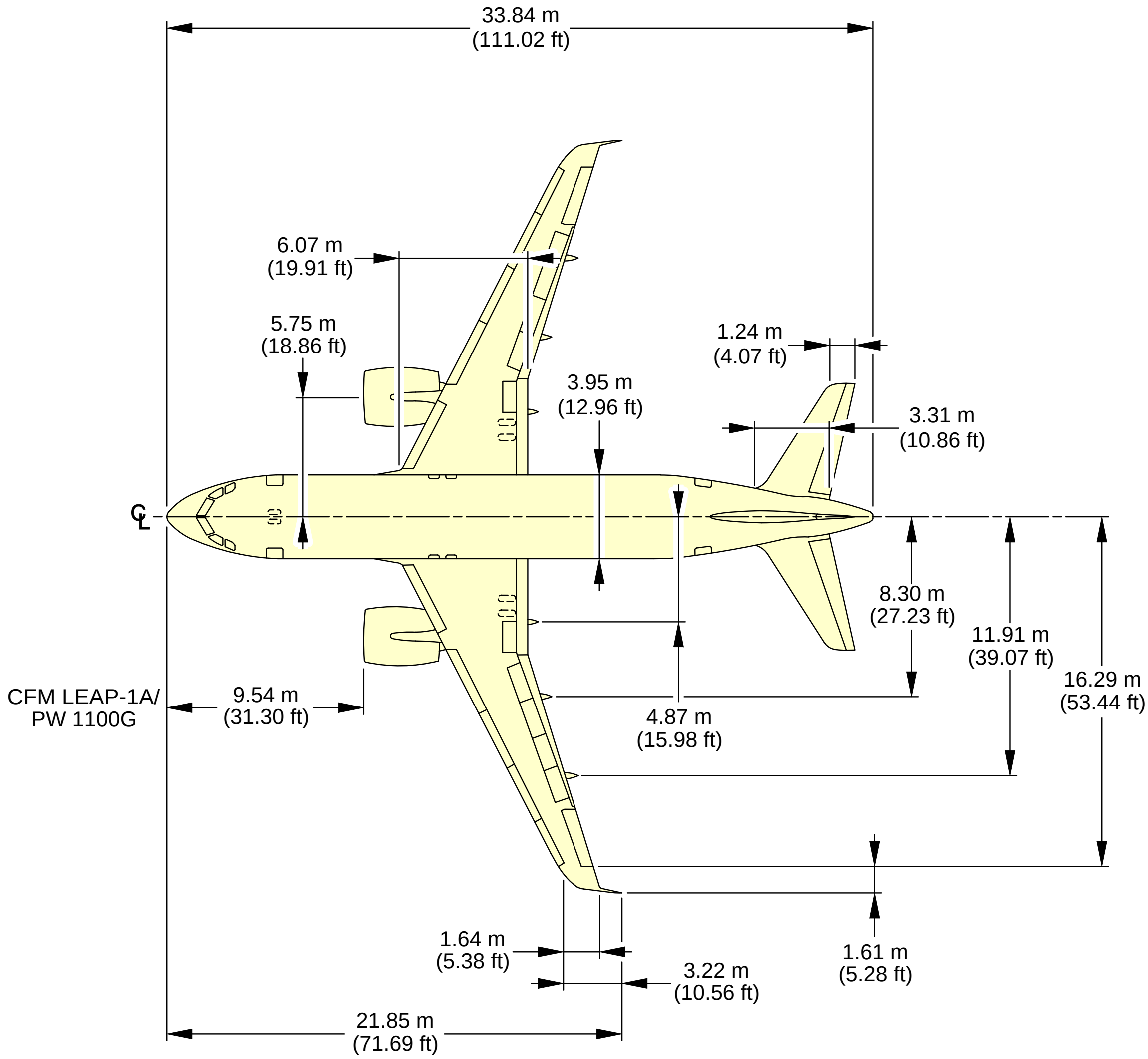


NOTE:
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

N_AC_020200_1_0080101_01_01

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

****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

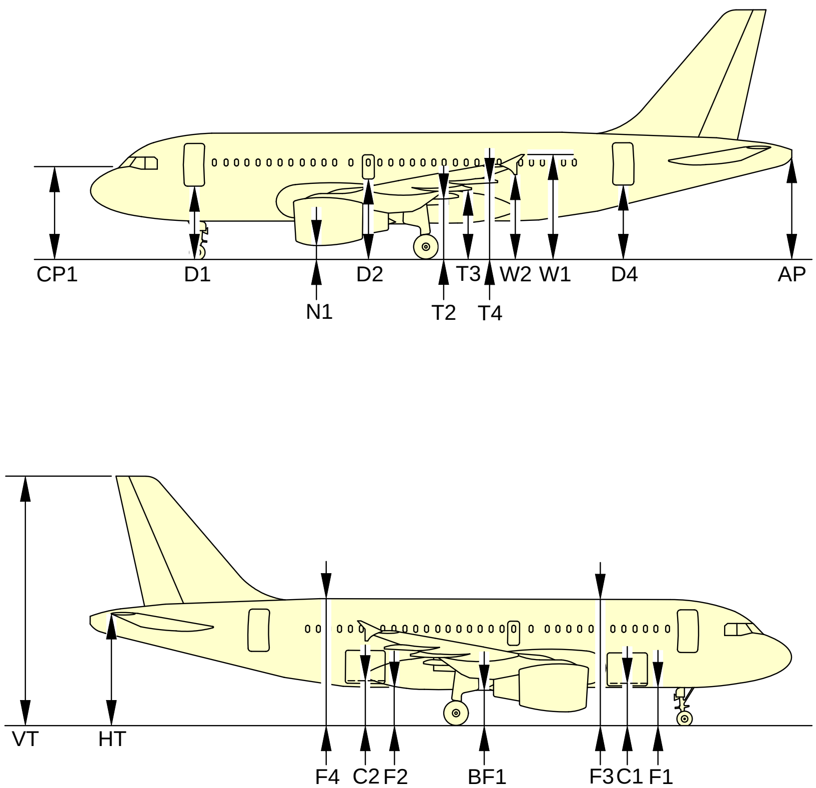
1. This section provides the height of various points of the aircraft, above the ground, for different aircraft configurations.

   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**



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

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

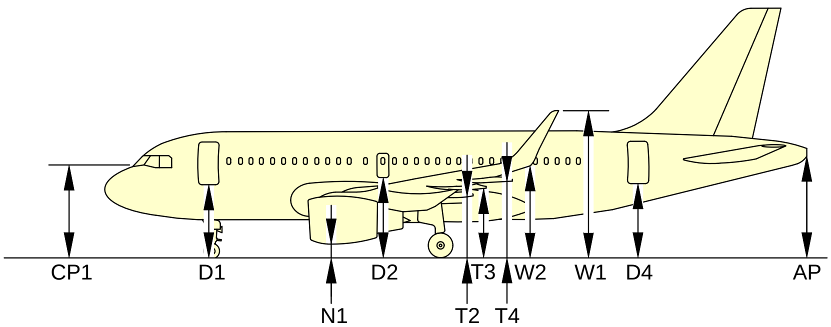
A/C CONFIGURATION			MRW(WV0) 64 400 kg(141 978 lb)				MRW (WV6) 73 900 kg (162 922 lb)				OEW 39 725 kg (87 579 lb)		A/C JACKED FDL = 4.60 m (15.09 ft)	
			FWD CG (21%)		AFT CG (36%)		FWD CG (21%)		AFT CG (36%)		CG (28%)			
			m	ft	m	ft	m	ft	m	ft	m	ft	m	ft
PASSENGER DOORS	DOOR 1	D1	3.391	11.125	3.451	11.322	3.377	11.079	3.434	11.266	3.473	11.394	4.132	13.556
	EMERGENCY HATCH	D2	3.902	12.801	3.905	12.811	3.878	12.723	3.882	12.736	3.974	13.038	4.535	14.878
	DOOR 2	D4	3.652	11.981	3.575	11.729	3.614	11.856	3.541	11.617	3.711	12.175	4.132	13.556
CARGO DOORS	FWD CARGO DOOR	C1	1.830	6.003	1.869	6.131	1.813	5.948	1.850	6.069	1.909	6.263	2.532	8.307
	AFT CARGO DOOR	C2	1.965	6.446	1.933	6.341	1.936	6.351	1.906	6.253	2.032	6.666	2.532	8.307
REFERENCE POINT	PILOT VIEW	CP1	4.171	13.684	4.256	13.963	4.162	13.654	4.242	13.917	4.257	13.966	4.959	16.269
FUSELAGE	BOTTOM FWD	F1	1.750	5.741	1.780	5.839	1.731	5.679	1.760	5.774	1.827	5.994	2.434	7.985
	BOTTOM AFT	F2	1.873	6.145	1.838	6.030	1.843	6.046	1.810	5.938	1.939	6.361	2.434	7.985
	TOP FWD	F3	5.897	19.347	5.924	19.435	5.878	19.284	5.903	19.366	5.973	19.596	6.575	21.571
	TOP AFT	F4	6.020	19.750	5.982	19.625	5.990	19.652	5.954	19.534	6.086	19.967	6.575	21.571
	BELLY FAIRING	BF1	1.661	5.449	1.644	5.393	1.634	5.360	1.618	5.308	1.730	5.675	2.256	7.401
WING	FLAP TRACK 2	T2	2.656	8.713	2.637	8.651	2.628	8.622	2.611	8.566	2.725	8.940	3.248	10.656
	FLAP TRACK 3	T3	3.092	10.144	3.070	10.072	3.064	10.052	3.043	9.983	3.160	10.367	3.677	12.063
	FLAP TRACK 4	T4	3.434	11.266	3.405	11.171	3.405	11.171	3.377	11.079	3.501	11.486	4.005	13.139
	WING TIP FENCE TOP	W1	4.809	15.777	4.765	15.633	4.778	15.675	4.736	15.538	4.874	15.990	5.353	17.562
	WING TIP FENCE BOTTOM	W2	3.836	12.585	3.794	12.447	3.805	12.483	3.765	12.352	3.901	12.798	4.383	14.379
TAILPLANE	HORIZONTAL TAIL PLANE	HT	5.529	18.139	5.410	17.749	5.484	17.992	5.372	17.624	5.581	18.310	5.930	19.455
	APU EXHAUST	AP	4.822	15.820	4.693	15.396	4.776	15.669	4.653	15.265	4.872	15.984	5.203	17.070
	VERTICAL TAIL PLANE	VT	12.054	39.547	11.930	39.140	12.009	39.399	11.891	39.012	12.106	39.717	12.445	40.830
ENGINE/ NACELLE	CFM 5A NACELLE LOW POINT	N1	0.594	1.948	0.604	1.981	0.572	1.876	0.581	1.906	0.668	2.191	1.239	4.064
	CFM 5B NACELLE LOW POINT	N1	0.595	1.952	0.604	1.981	0.572	1.876	0.581	1.906	0.668	2.191	1.239	4.064
	V2500 NACELLE LOW POINT	N1	0.779	2.555	0.784	2.572	0.756	2.480	0.761	2.496	0.852	2.795	1.416	4.645

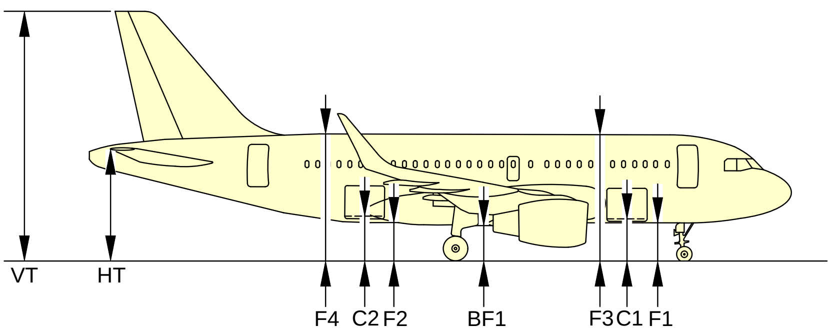
NOTE:
PASSENGER AND CARGO DOOR GROUND CLEARANCES ARE MEASURED FROM THE CENTER OF THE DOOR SILL AND FROM FLOOR LEVEL.

N_AC_020300_1_0020103_01_01

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

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

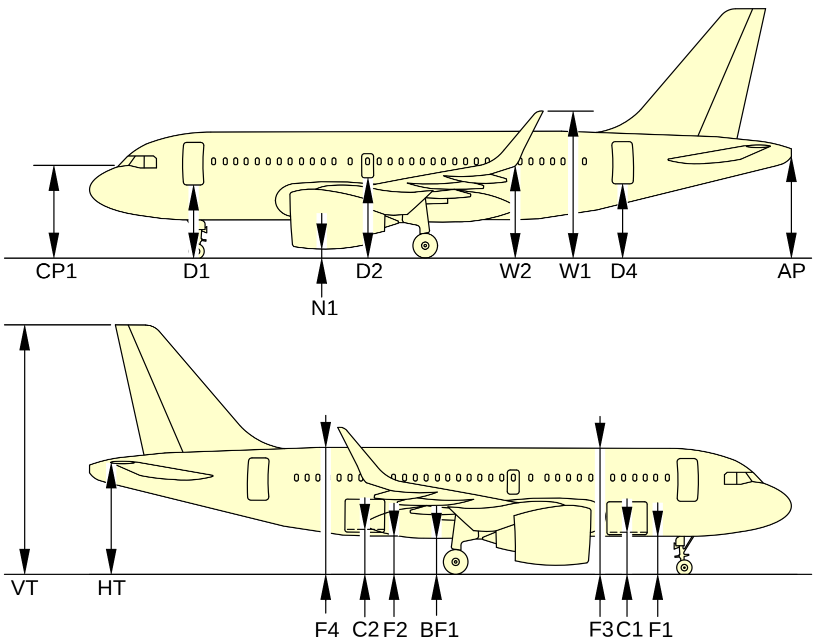
A/C CONFIGURATION			MRW(WV0) 64 400 kg(141 978 lb) FWD CG (21%) m	ft	AFT CG (36%) m	ft	MRW (WV6) 73 900 kg (162 922 lb) FWD CG (21%) m	ft	AFT CG (36%) m	ft	OEW 39 725 kg (87 579 lb) CG (28%) m	ft	A/C JACKED FDL = 4.60 m (15.09 ft) m	ft
PASSENGER DOORS	DOOR 1	D1	3.391	11.125	3.451	11.322	3.377	11.079	3.434	11.266	3.473	11.394	4.132	13.556
	EMERGENCY HATCH	D2	3.902	12.801	3.905	12.811	3.878	12.723	3.882	12.736	3.974	13.038	4.535	14.878
	DOOR 2	D4	3.652	11.981	3.575	11.729	3.614	11.856	3.541	11.617	3.711	12.175	4.132	13.556
CARGO DOORS	FWD CARGO DOOR	C1	1.830	6.003	1.869	6.131	1.813	5.948	1.850	6.069	1.909	6.263	2.532	8.307
	AFT CARGO DOOR	C2	1.965	6.446	1.933	6.341	1.936	6.351	1.906	6.253	2.032	6.666	2.532	8.307
REFERENCE POINT	PILOT VIEW	CP1	4.171	13.684	4.256	13.963	4.162	13.654	4.242	13.917	4.257	13.966	4.959	16.269
FUSELAGE	BOTTOM FWD	F1	1.750	5.741	1.780	5.839	1.731	5.679	1.760	5.774	1.827	5.994	2.434	7.985
	BOTTOM AFT	F2	1.873	6.145	1.838	6.030	1.843	6.046	1.810	5.938	1.939	6.361	2.434	7.985
	TOP FWD	F3	5.897	19.347	5.924	19.435	5.878	19.284	5.903	19.366	5.973	19.596	6.575	21.571
	TOP AFT	F4	6.020	19.750	5.982	19.625	5.990	19.652	5.954	19.534	6.086	19.967	6.575	21.571
	BELLY FAIRING	BF1	1.661	5.449	1.644	5.393	1.634	5.360	1.618	5.308	1.730	5.675	2.256	7.401
WING	FLAP TRACK 2	T2	2.656	8.713	2.637	8.651	2.628	8.622	2.611	8.566	2.725	8.940	3.248	10.656
	FLAP TRACK 3	T3	3.092	10.144	3.070	10.072	3.064	10.052	3.043	9.983	3.160	10.367	3.677	12.063
	FLAP TRACK 4	T4	3.434	11.266	3.405	11.171	3.405	11.171	3.377	11.079	3.501	11.486	4.005	13.139
	SHARKLET TOP	W1	6.749	22.142	6.705	21.998	6.650	21.817	6.676	21.902	6.814	22.355	7.293	23.927
	SHARKLET BOTTOM	W2	4.109	13.480	4.065	13.336	4.010	13.156	4.036	13.241	4.147	13.606	4.653	15.265
TAILPLANE	HORIZONTAL TAIL PLANE	HT	5.529	18.139	5.410	17.749	5.484	17.992	5.372	17.624	5.581	18.310	5.930	19.455
	APU EXHAUST	AP	4.822	15.820	4.693	15.396	4.776	15.669	4.653	15.265	4.872	15.984	5.203	17.070
	VERTICAL TAIL PLANE	VT	12.054	39.547	11.930	39.140	12.009	39.399	11.891	39.012	12.106	39.717	12.445	40.830
ENGINE/ NACELLE	CFM 5A NACELLE LOW POINT	N1	0.594	1.948	0.604	1.981	0.572	1.876	0.581	1.906	0.668	2.191	1.239	4.064
	CFM 5B NACELLE LOW POINT	N1	0.595	1.952	0.604	1.981	0.572	1.876	0.581	1.906	0.668	2.191	1.239	4.064
	V2500 NACELLE LOW POINT	N1	0.779	2.555	0.784	2.572	0.756	2.480	0.761	2.496	0.852	2.795	1.416	4.645

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_01

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

**ON A/C A319neo



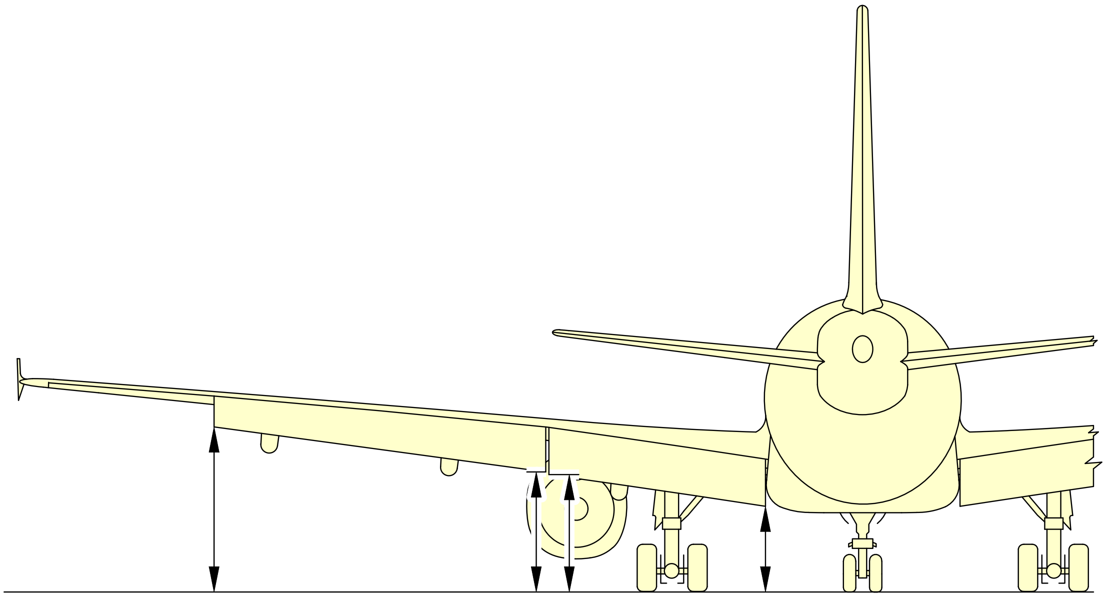
A/C CONFIGURATION		MRW				40 000 kg (88 185 lb)		A/C JACKED FDL = 4.60 m (15.09 ft)	
		FWD CG (21%)		AFT CG (36%)		CG (28%)			
		m	ft	m	ft	m	ft	m	ft
DOORS	D1	3.38	11.09	3.43	11.25	3.47	11.38	4.13	13.55
	D2	3.88	12.73	3.88	12.73	3.97	13.02	4.54	14.89
	D4	3.61	11.84	3.54	11.61	3.71	12.17	4.13	13.55
	C1	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/ 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.

N_AC_020300_1_0310101_01_02

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

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

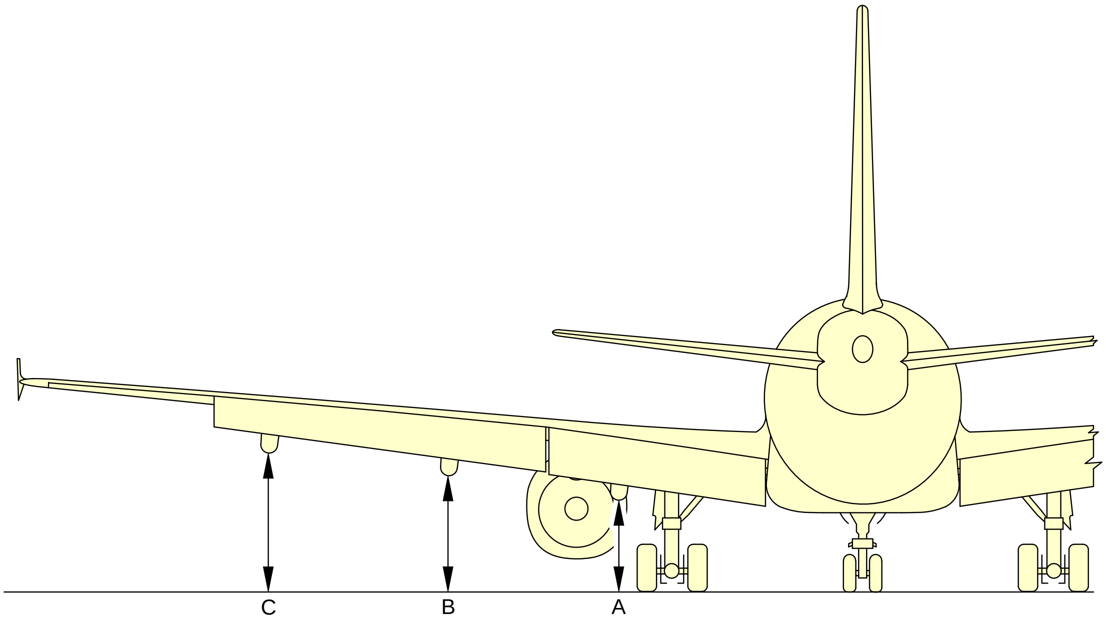


FLAPS EXTENDED								
DESCRIPTION		A/C IN MAINTENANCE CONFIGURATION MID CG		MAXIMUM RAMP WEIGHT FWD CG		MAXIMUM RAMP WEIGHT AFT CG	
		m	ft	m	ft	m	ft
FLAP 1 INBD	A	2.07	6.79	1.94	6.36	1.93	6.33
FLAP 1 OUTBD	B	2.79	9.15	2.67	8.76	2.65	8.69
FLAP 2 INBD	C	2.83	9.28	2.70	8.86	2.69	8.83
FLAP 2 OUTBD	D	3.67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

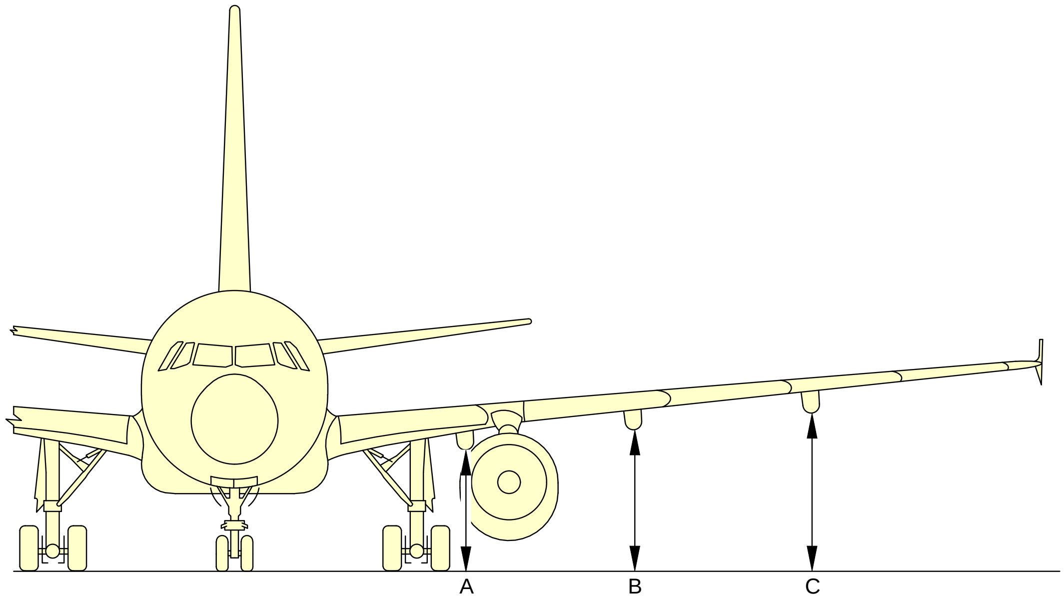


FLAP TRACKS EXTENDED							
DESCRIPTION		A/C IN MAINTENANCE CONFIGURATION MID CG		MAXIMUM RAMP WEIGHT FWD CG		MAXIMUM RAMP WEIGHT AFT CG	
		m	ft	m	ft	m	ft
FLAP TRACK 2	A	2.11	6.92	1.99	6.53	1.97	6.46
FLAP TRACK 3	B	2.61	8.56	2.48	8.14	2.46	8.07
FLAP TRACK 4	C	3.06	10.06	2.93	9.61	2.91	9.55

N_AC_020300_1_0380101_01_00

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

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

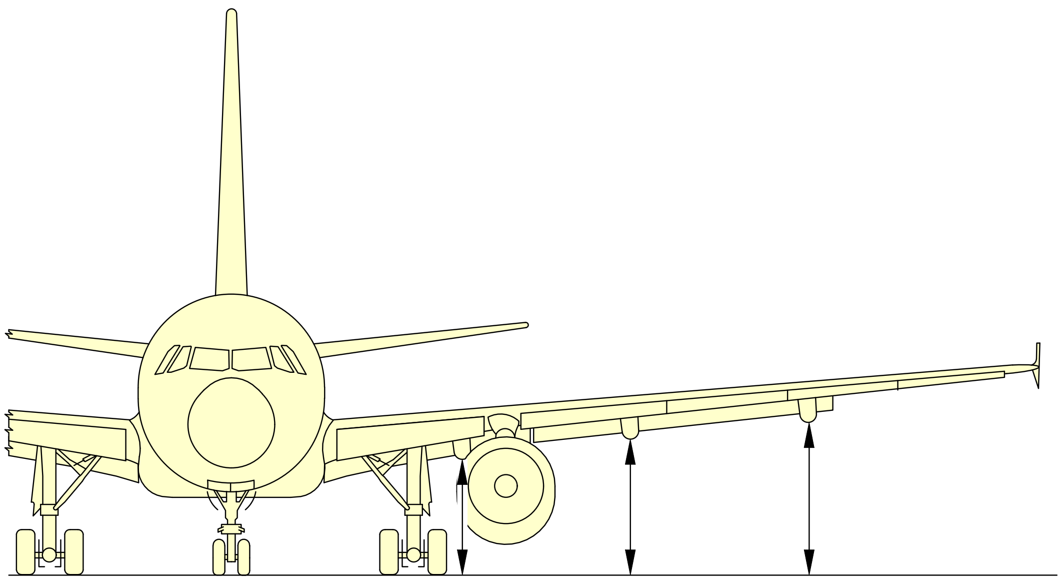


FLAP TRACKS RETRACTED							
DESCRIPTION		A/C IN MAINTENANCE CONFIGURATION MID CG		MAXIMUM RAMP WEIGHT FWD CG		MAXIMUM RAMP WEIGHT AFT CG	
		m	ft	m	ft	m	ft
FLAP TRACK 2	A	2.70	8.86	2.60	8.53	2.58	8.46
FLAP TRACK 3	B	3.10	10.17	3.00	9.84	2.97	9.74
FLAP TRACK 4	C	3.50	11.48	3.39	11.12	3.36	11.02

N_AC_020300_1_0120101_01_02

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

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

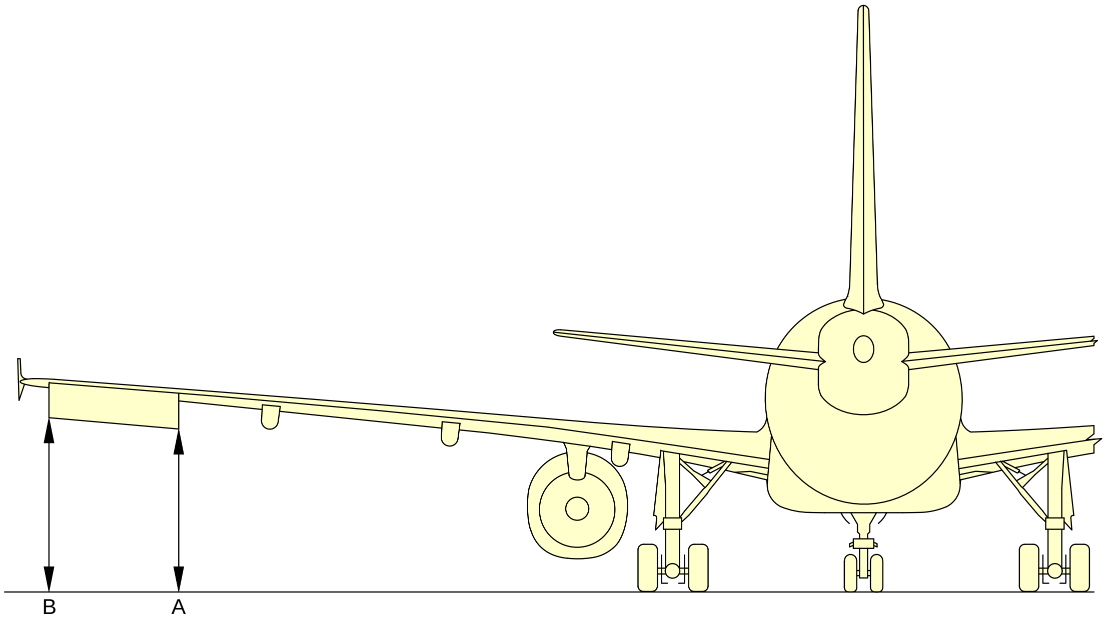


FLAP TRACKS 1+F							
DESCRIPTION		A/C IN MAINTENANCE CONFIGURATION MID CG		MAXIMUM RAMP WEIGHT FWD CG		MAXIMUM RAMP WEIGHT AFT CG	
		m	ft	m	ft	m	ft
FLAP TRACK 2	A	1.95	6.40	1.85	6.07	1.83	6.00
FLAP TRACK 3	B	2.31	7.58	2.21	7.25	2.18	7.15
FLAP TRACK 4	C	2.89	9.48	2.78	9.12	2.75	9.02

N_AC_020300_1_0390101_01_00

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

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

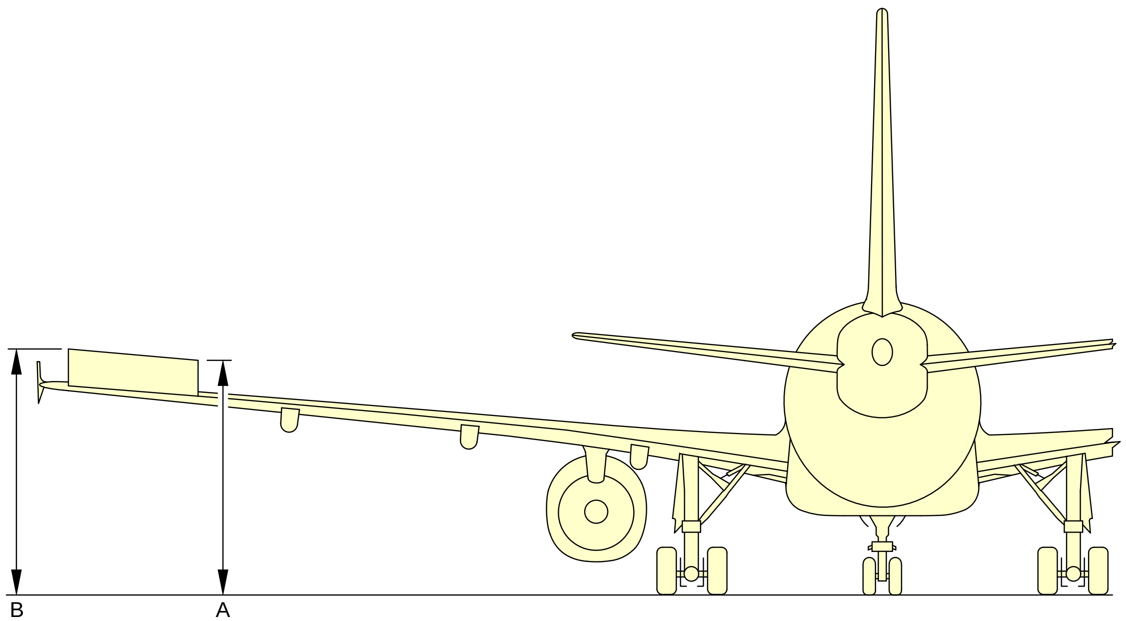


AILERON DOWN							
DESCRIPTION		A/C IN MAINTENANCE CONFIGURATION MID CG		MAXIMUM RAMP WEIGHT FWD CG		MAXIMUM RAMP WEIGHT AFT CG	
		m	ft	m	ft	m	ft
AILERON INBD	A	3.86	12.66	3.73	12.24	3.71	12.17
AILERON OUTBD	B	4.20	13.78	4.06	13.32	4.04	13.25

N_AC_020300_1_0130101_01_02

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

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

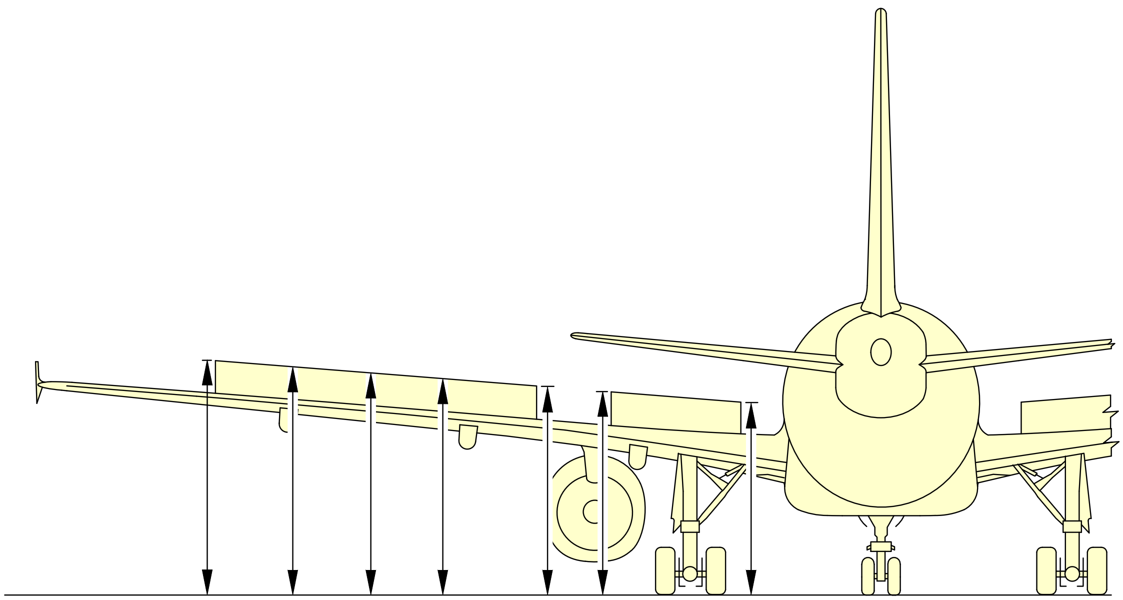


AILERON UP							
DESCRIPTION		A/C IN MAINTENANCE CONFIGURATION MID CG		MAXIMUM RAMP WEIGHT FWD CG		MAXIMUM RAMP WEIGHT AFT CG	
		m	ft	m	ft	m	ft
AILERON INBD	A	4.38	14.37	4.25	13.94	4.23	13.88
AILERON OUTBD	B	4.58	15.03	4.44	14.57	4.42	14.50

N_AC_020300_1_0400101_01_00

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

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

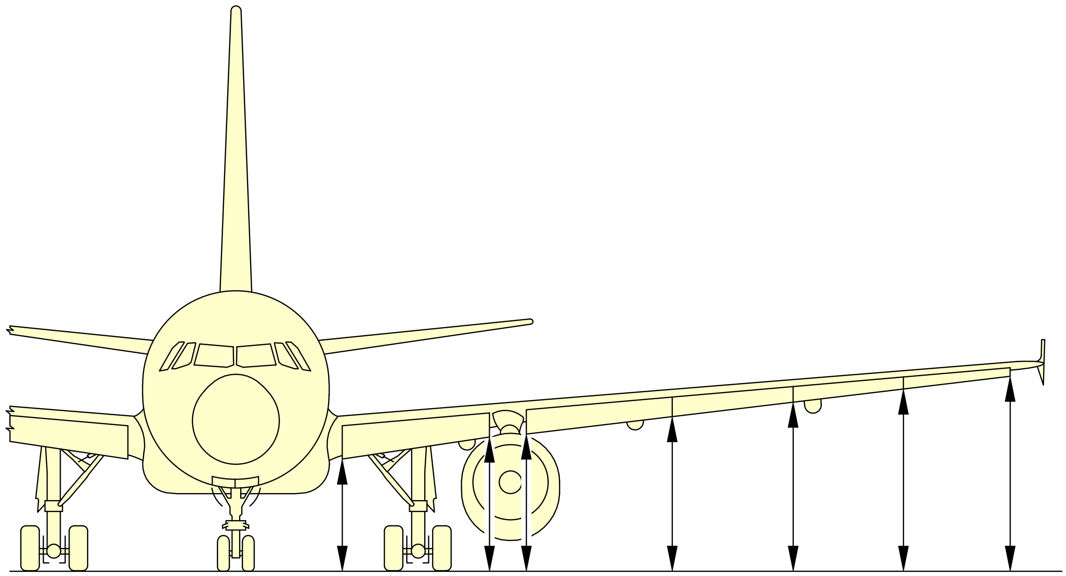


SPOILERS EXTENDED							
DESCRIPTION		A/C IN MAINTENANCE CONFIGURATION MID CG		MAXIMUM RAMP WEIGHT FWD CG		MAXIMUM RAMP WEIGHT AFT CG	
		m	ft	m	ft	m	ft
SPOILER 1 INBD	A	3.77	12.37	3.65	11.98	3.64	11.94
SPOILER 1 OUTBD	B	4.02	13.19	3.91	12.83	3.90	12.80
SPOILER 2 INBD	C	4.09	13.42	3.97	13.02	3.96	12.99
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

N_AC_020300_1_0140101_01_02

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

****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

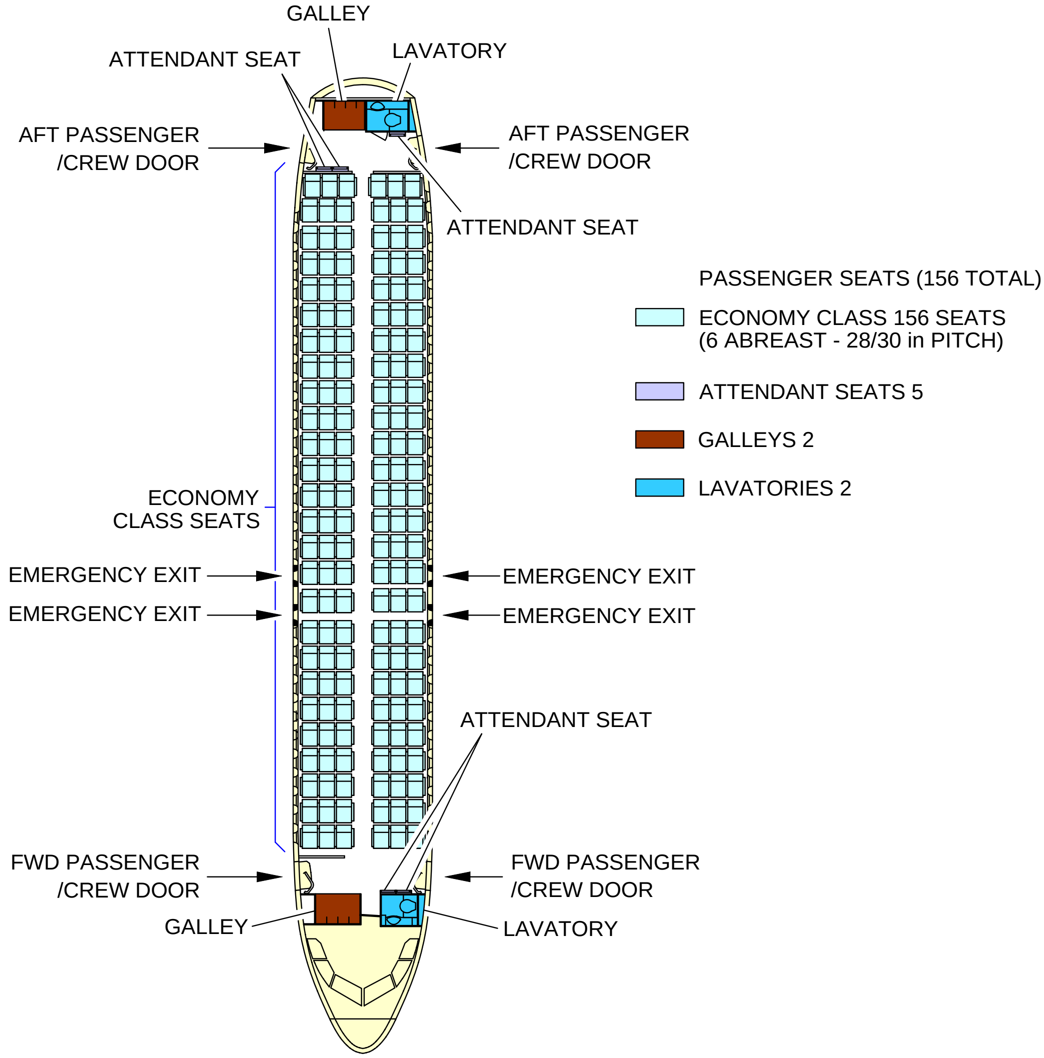
2-4-1 Interior Arrangements - Plan View

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

Interior Arrangements - Plan View

1. This section provides the typical interior configuration.

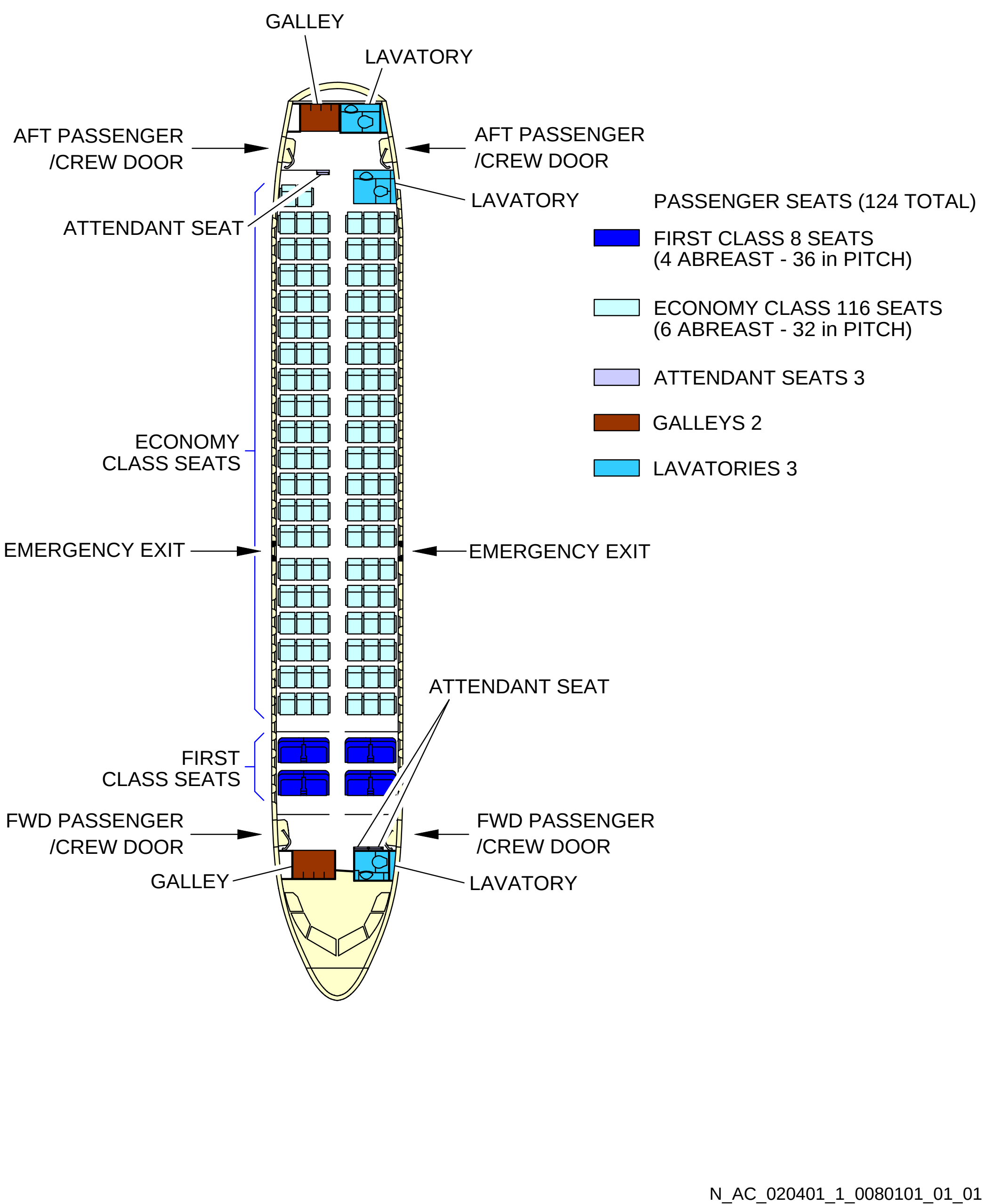
****ON A/C A319-100 A319neo**



N_AC_020401_1_0020101_01_03

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

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



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

2-5-0 Interior Arrangements - Cross Section

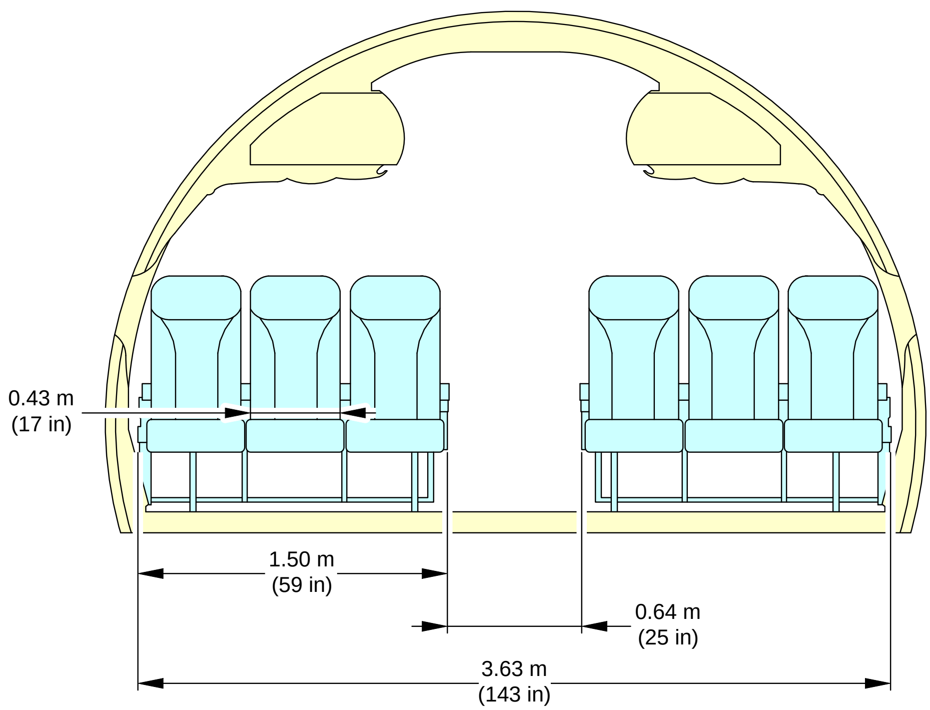
****ON A/C A319-100 A319neo**

Interior Arrangements - Cross Section

1. This section provides the typical configuration.

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

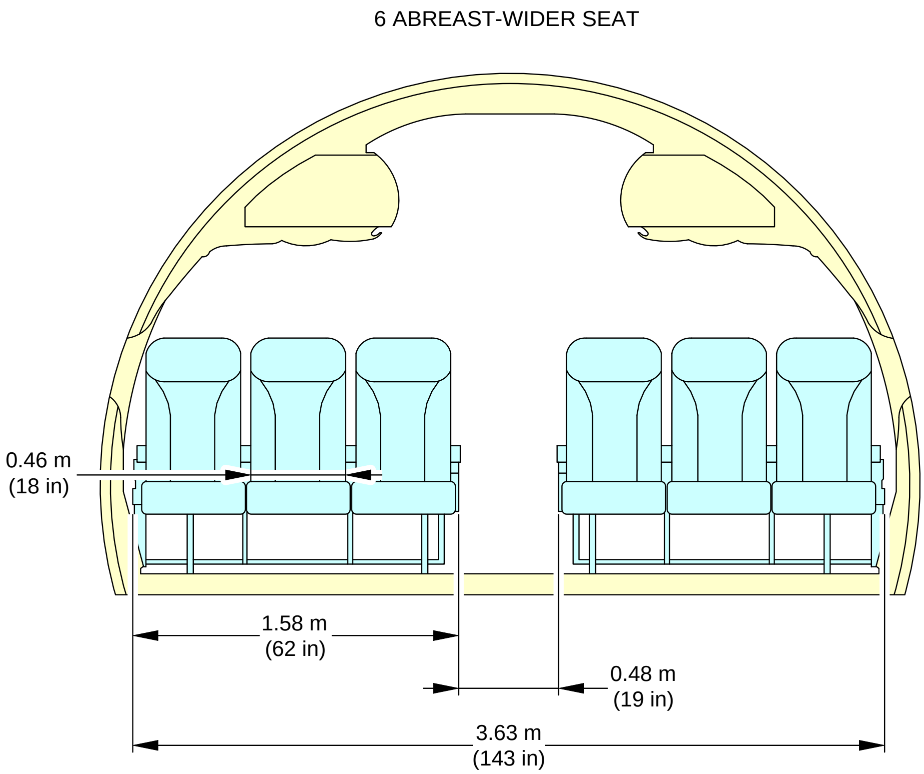
6 ABREAST-WIDER AISLE



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

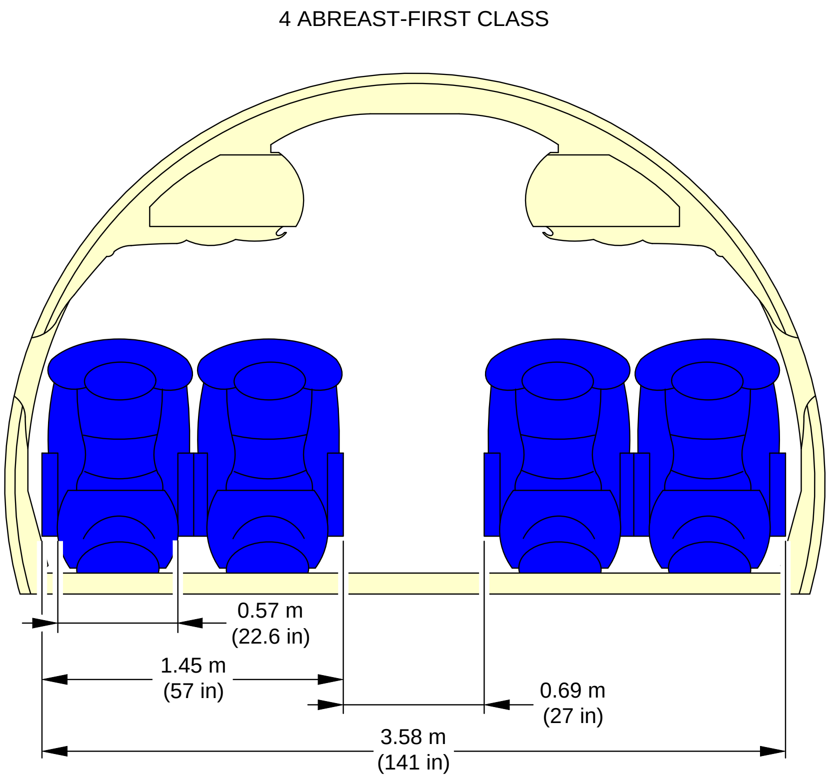
****ON A/C A319-100 A319neo**



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

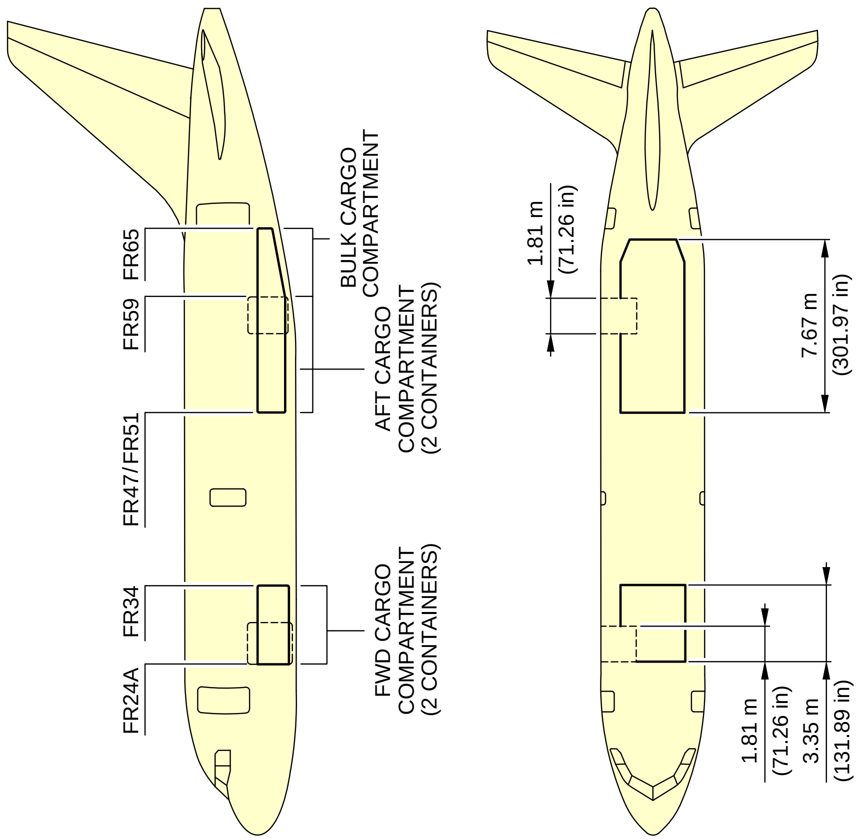
2-6-0 Cargo Compartments

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

Cargo Compartments

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

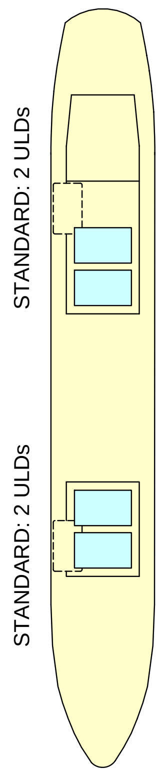
****ON A/C A319-100 A319neo**



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

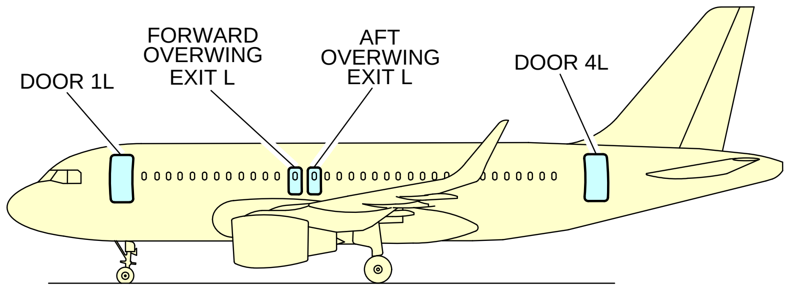
****ON A/C A319-100 A319neo**

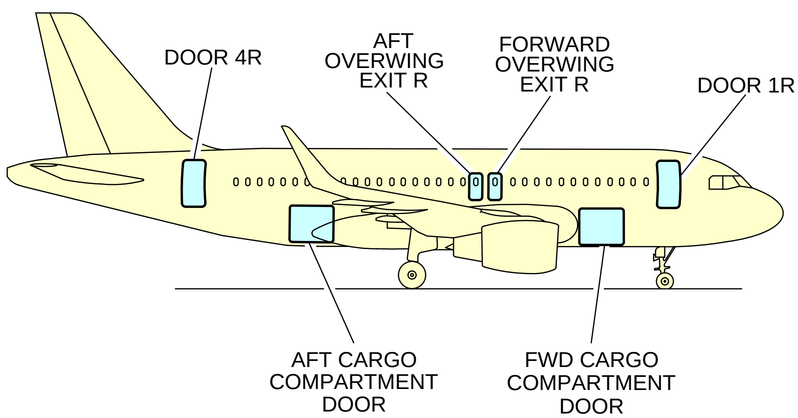
Door Clearances

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.

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

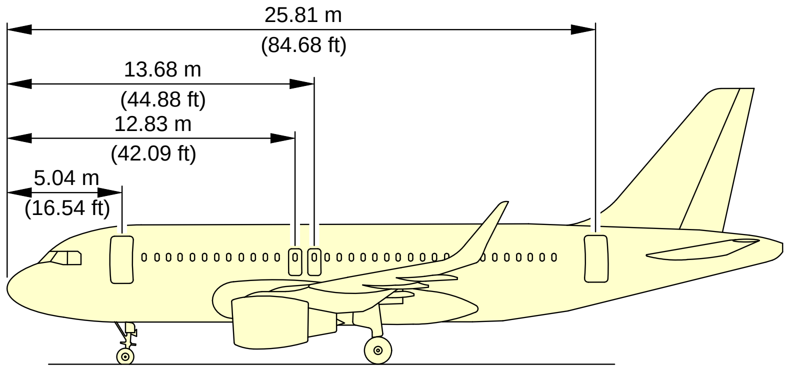


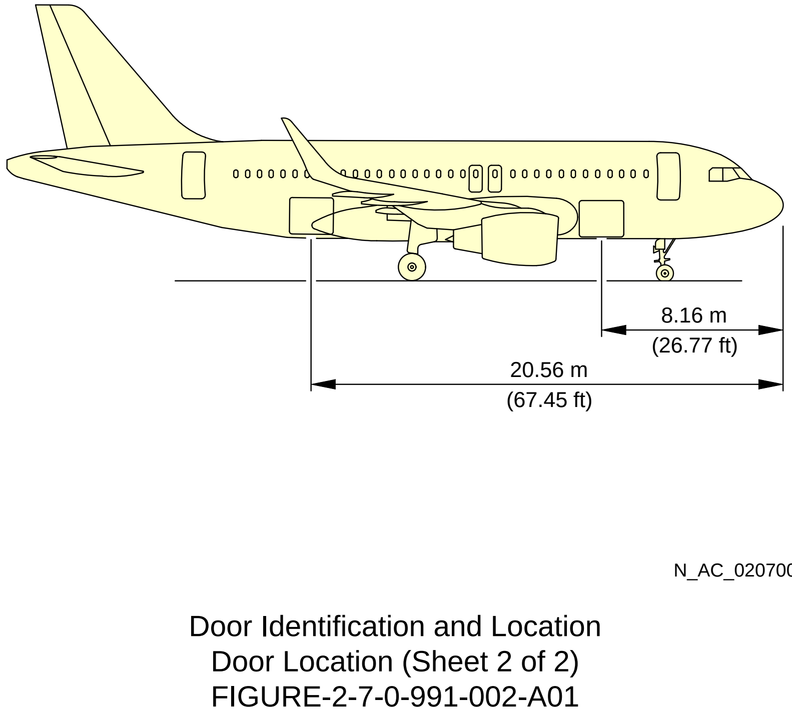


N_AC_020700_1_0020101_01_01

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

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

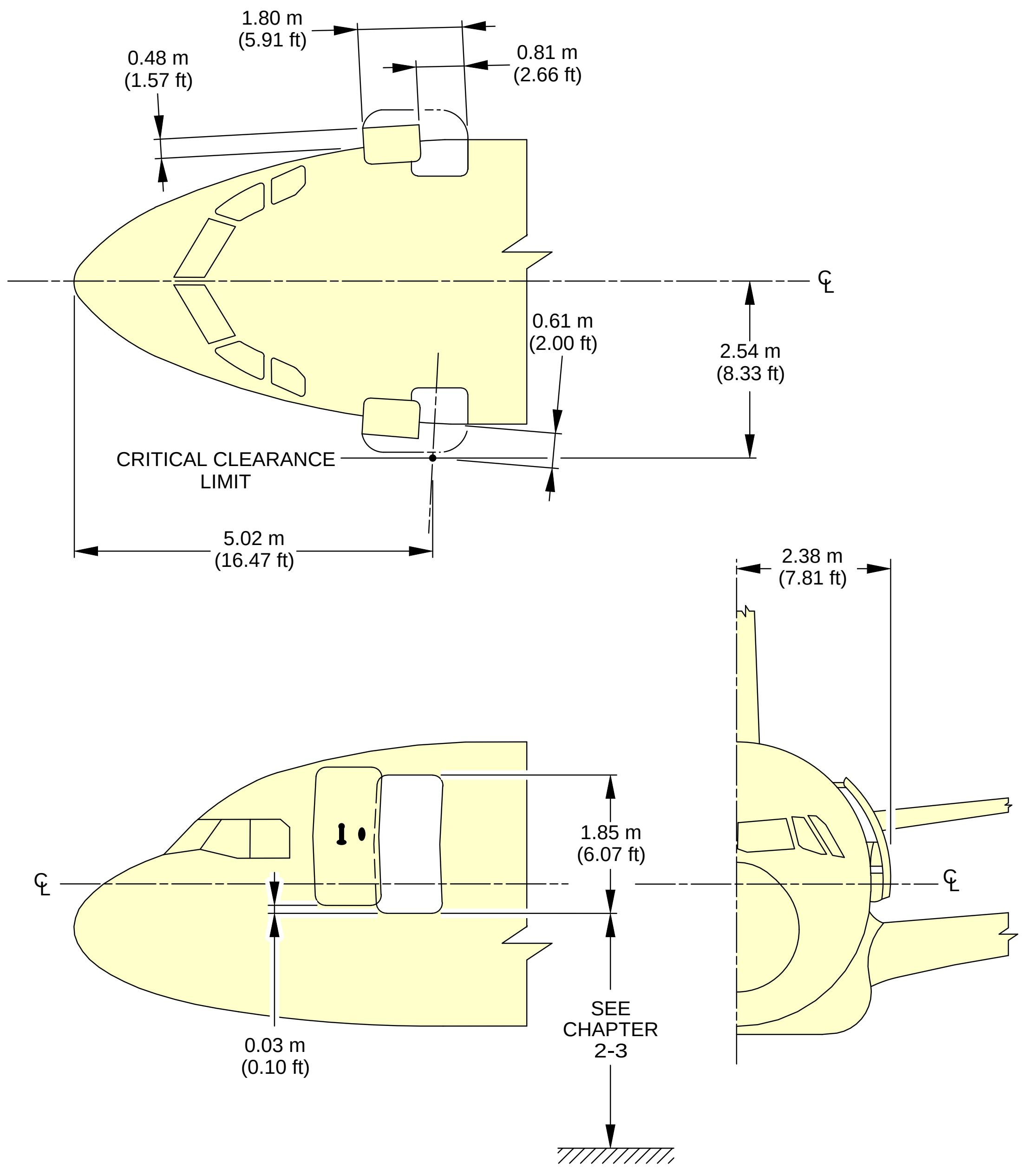




N_AC_020700_1_0020102_01_00

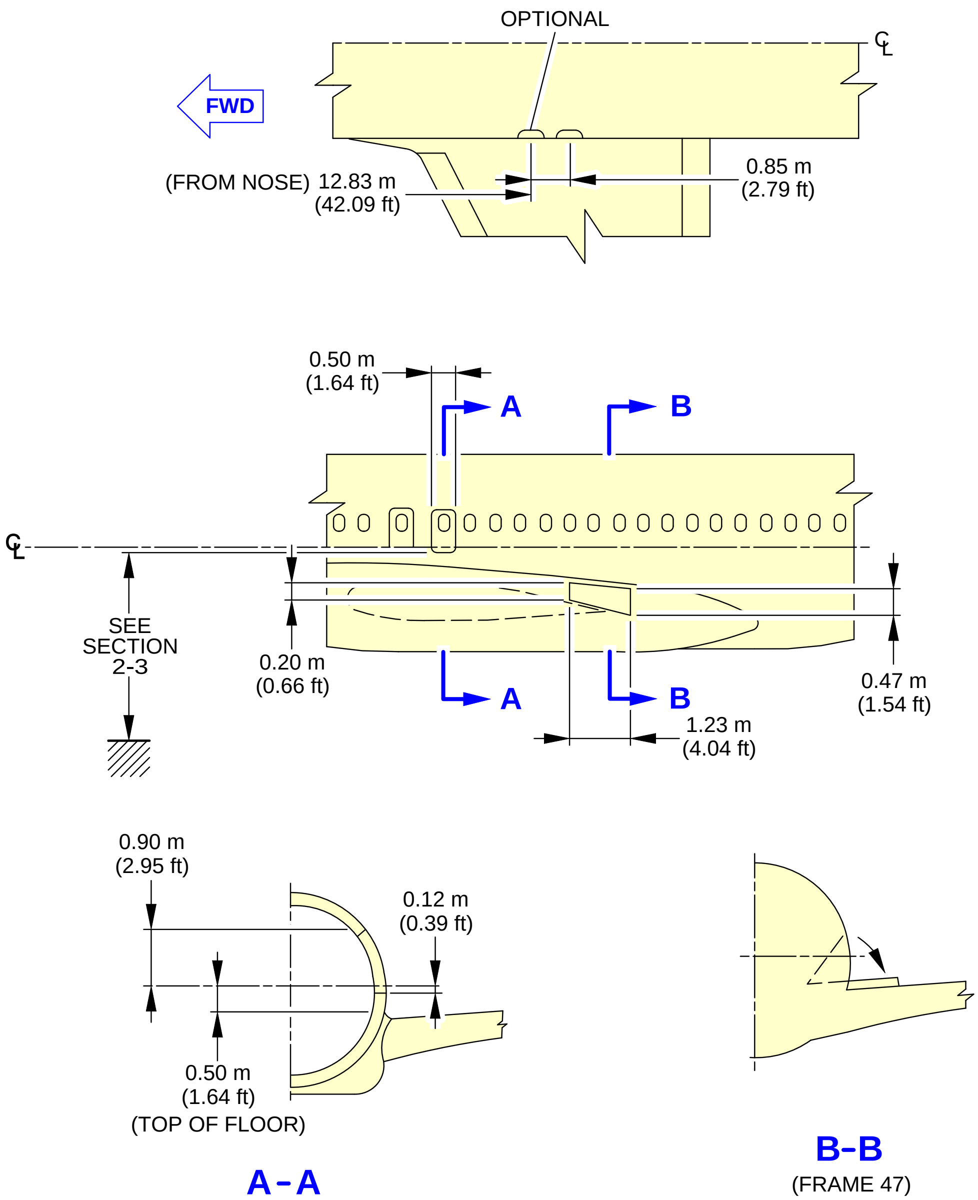
Door Identification and Location
Door Location (Sheet 2 of 2)
FIGURE-2-7-0-991-002-A01

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



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

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

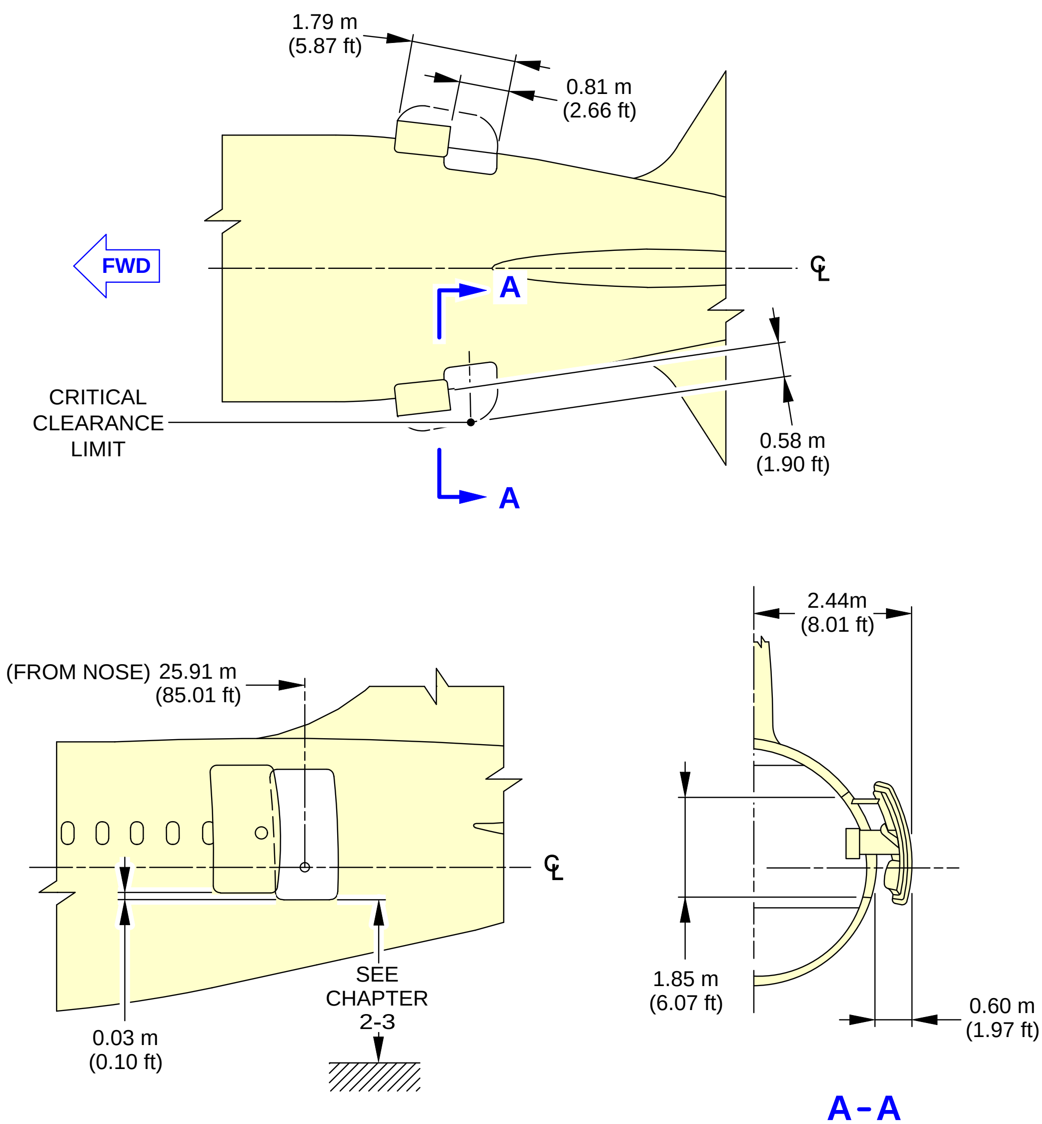


NOTE:
ESCAPE SLIDE COMPARTMENT DOOR OPENS ON WING UPPER SURFACE.

N_AC_020700_1_0140101_01_00

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

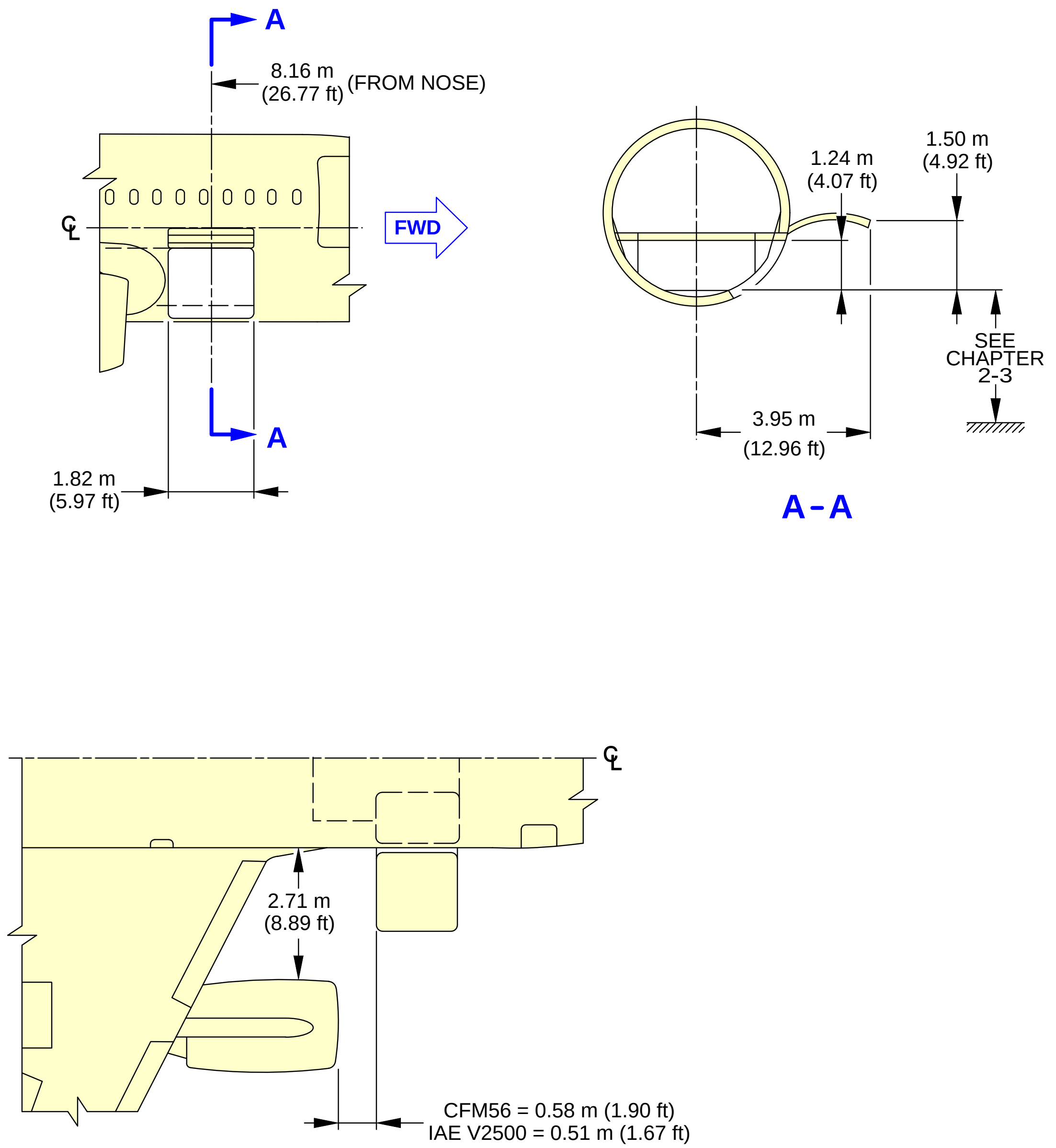
****ON A/C A319-100 A319neo**



N_AC_020700_1_0150101_01_00

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

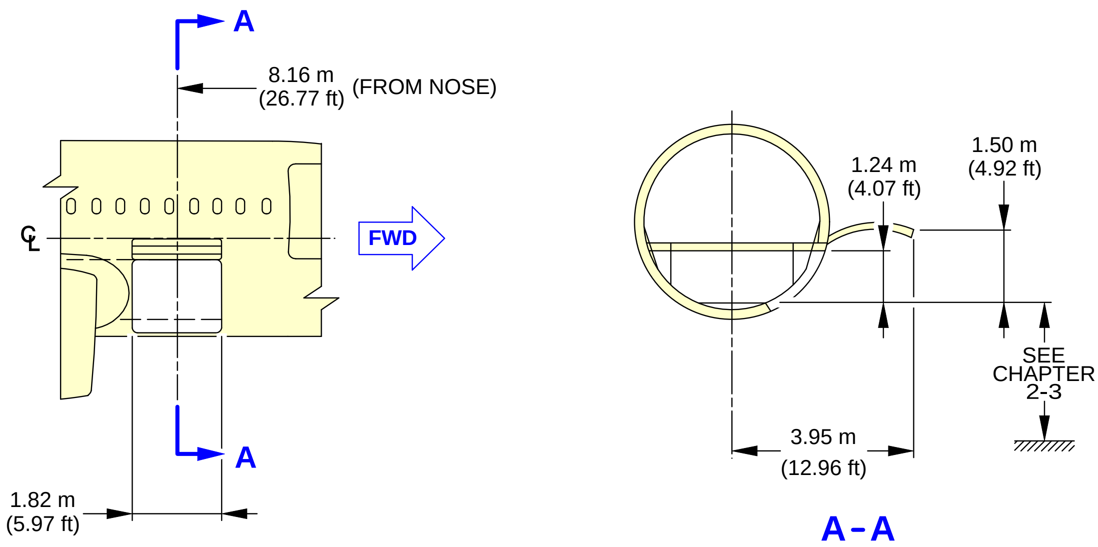
****ON A/C A319-100**

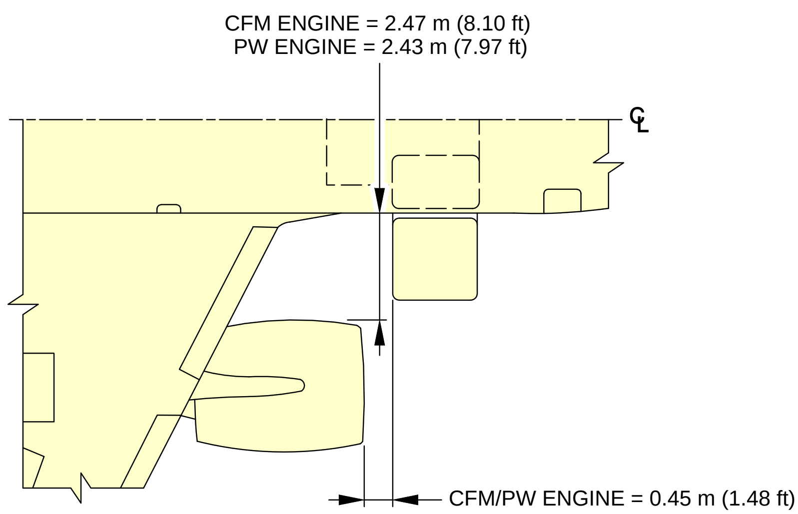


N_AC_020700_1_0160101_01_00

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

****ON A/C A319neo**

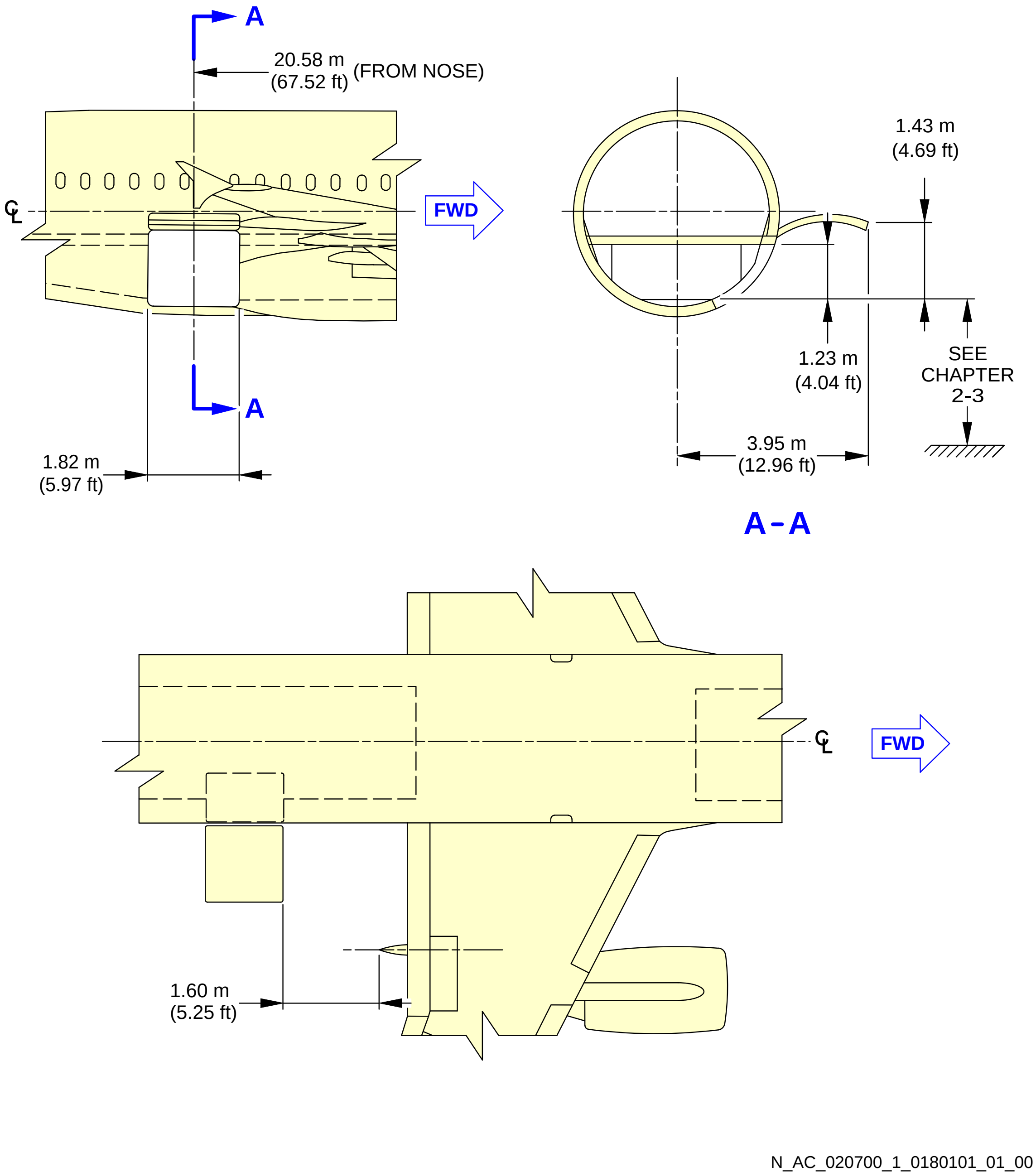




N_AC_020700_1_0170101_01_00

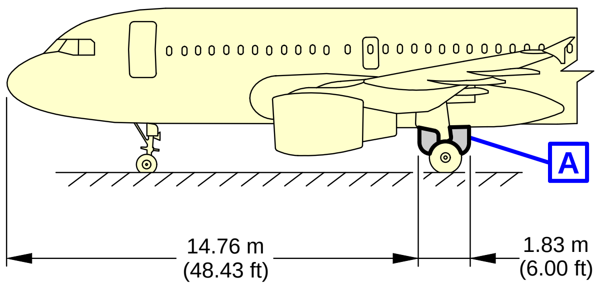
Doors Clearances
Forward Cargo Compartment Door
FIGURE-2-7-0-991-017-A01

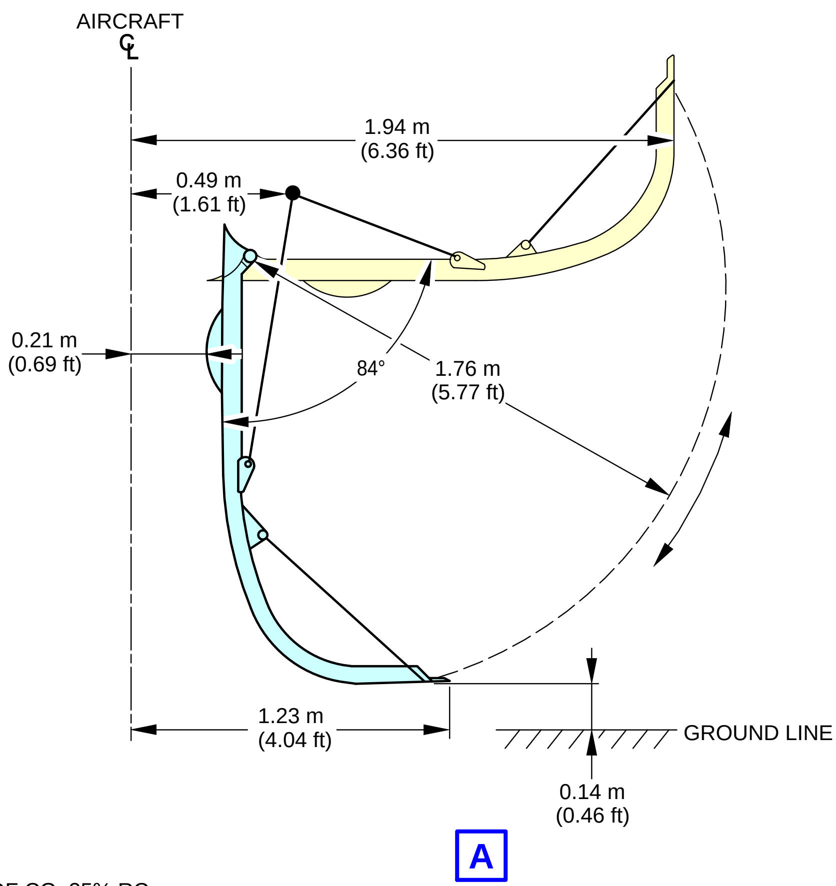
****ON A/C A319-100 A319neo**



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

**ON A/C A319-100 A319neo



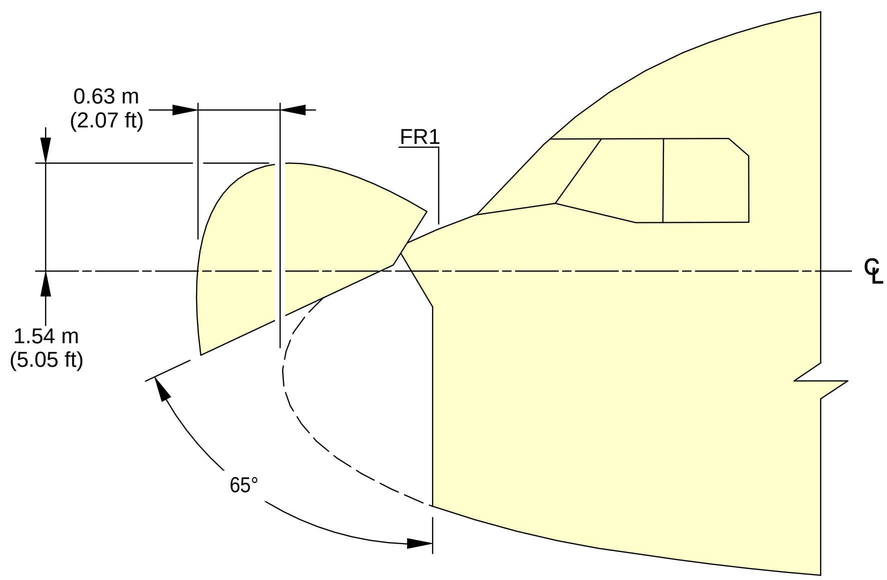


NOTE:
VALUE OF CG: 25% RC.

N_AC_020700_1_0190101_01_00

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

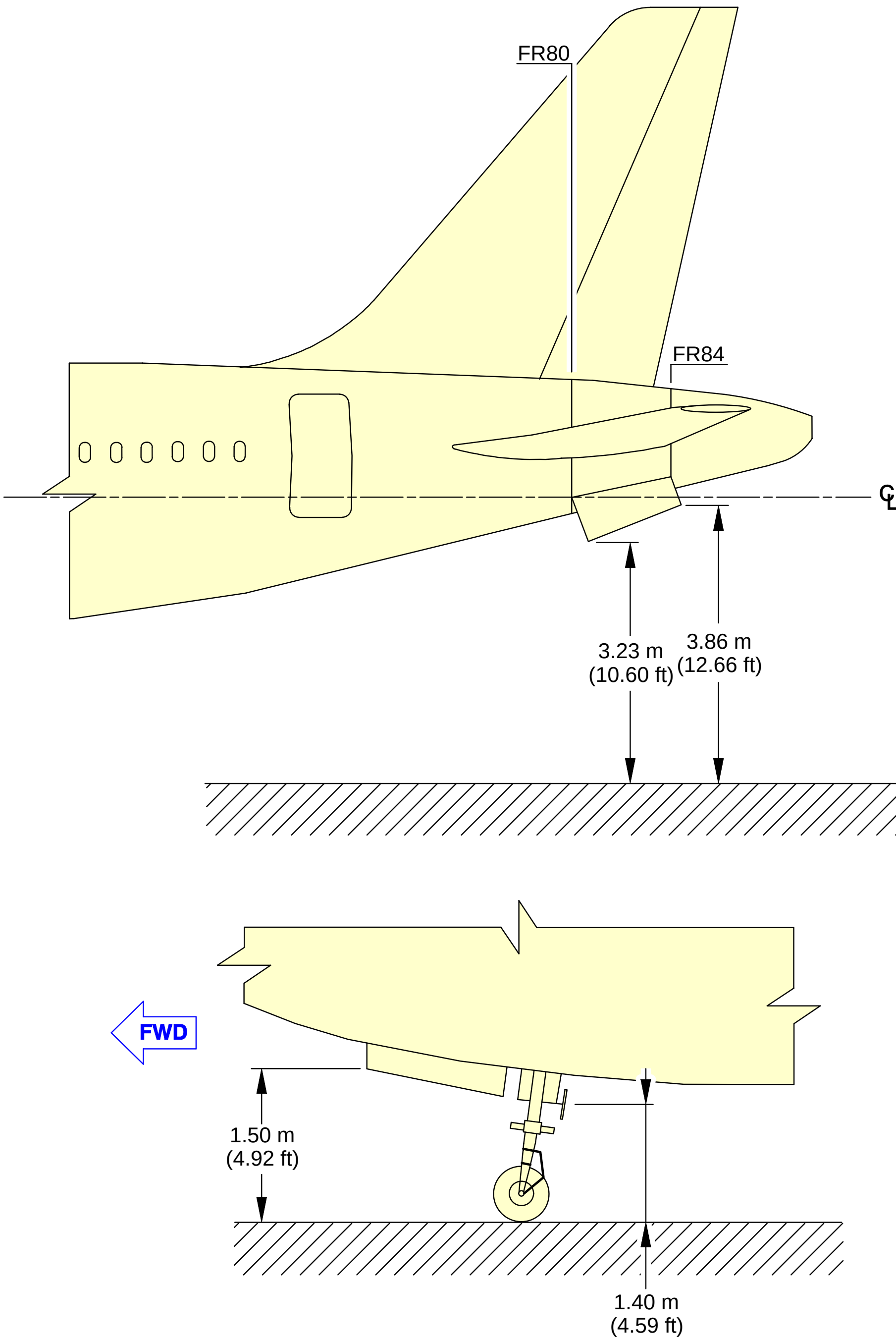
****ON A/C A319-100 A319neo**



N_AC_020700_1_0200101_01_00

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

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

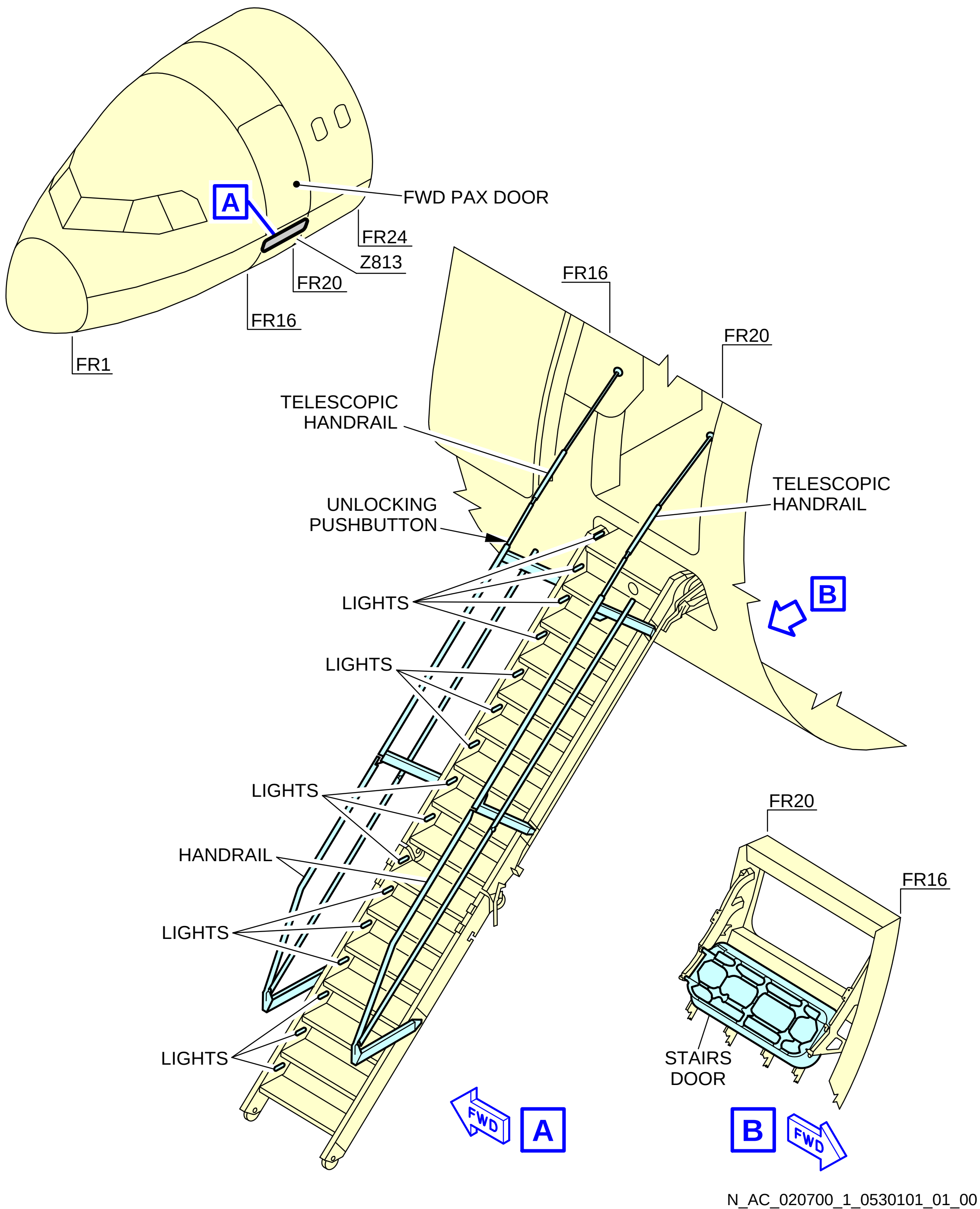


NOTE:
VALUE OF CG: 25% RC.

N_AC_020700_1_0210101_01_00

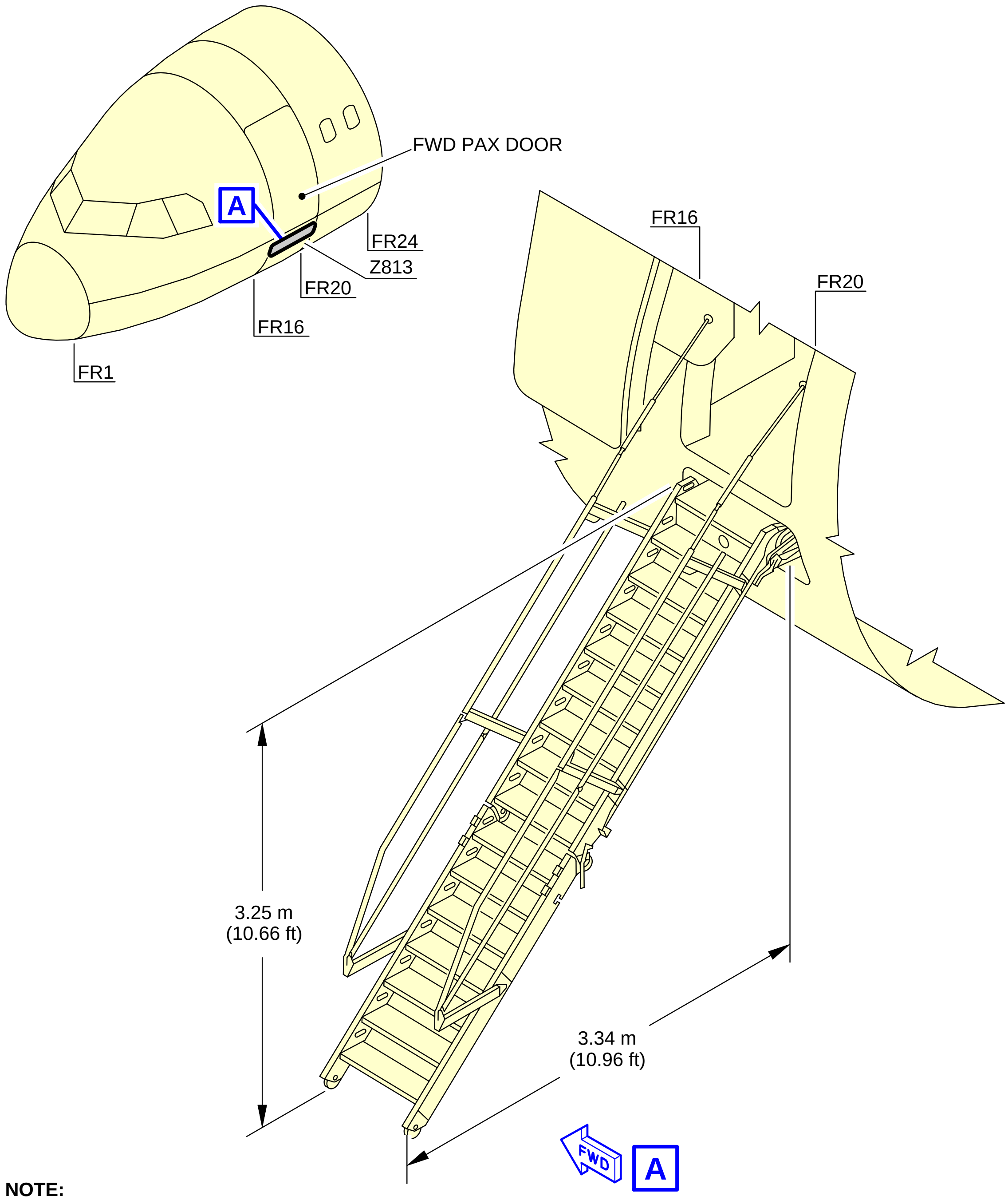
Doors Clearances
APU and Nose Landing Gear Doors
FIGURE-2-7-0-991-021-A01

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



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

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

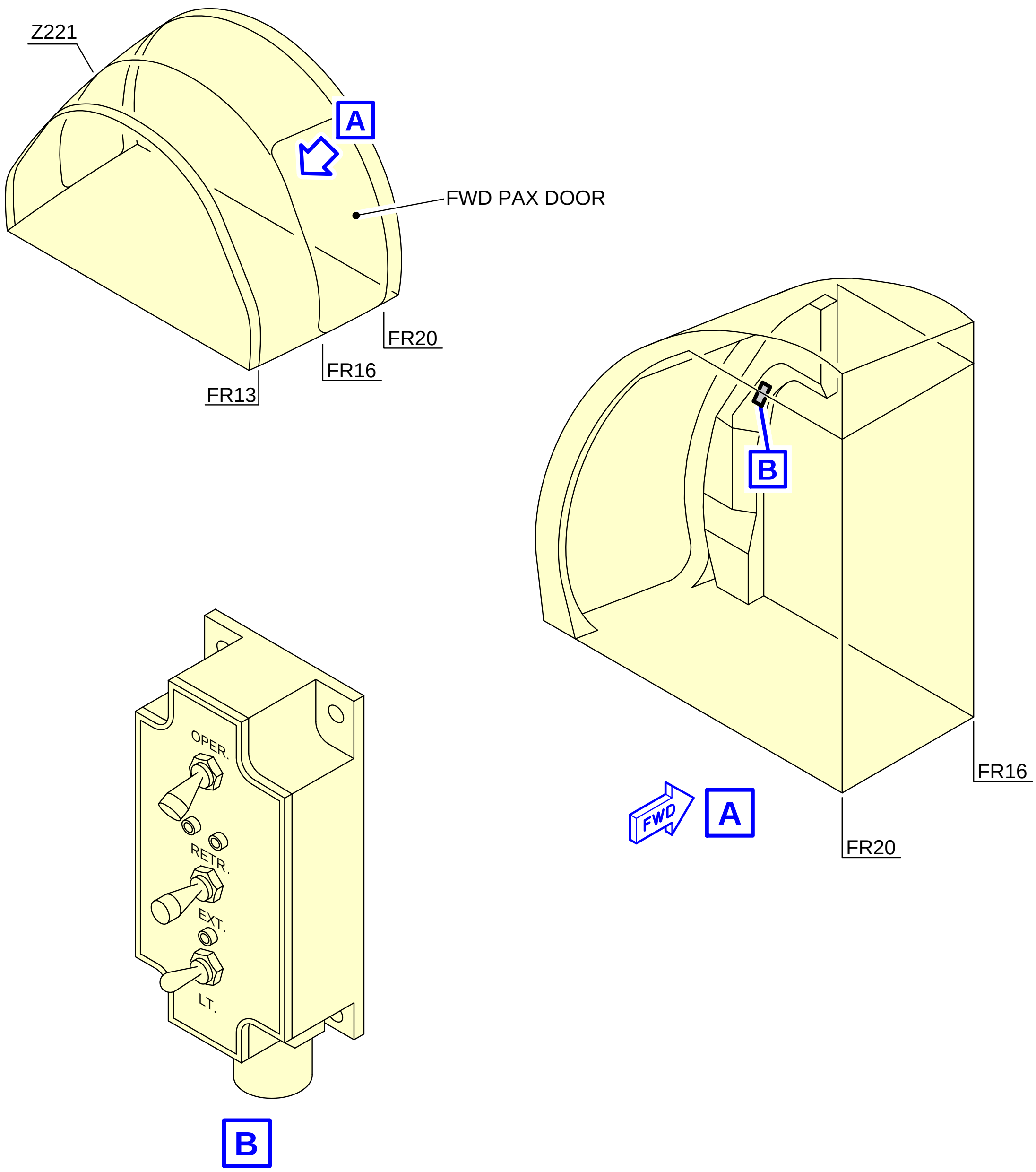


NOTE:
THE VALUES GIVEN DEPEND ON THE POSITION OF CENTER OF GRAVITY (CG) AND THE AIRCRAFT WEIGHT.

N_AC_020700_1_0540101_01_00

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

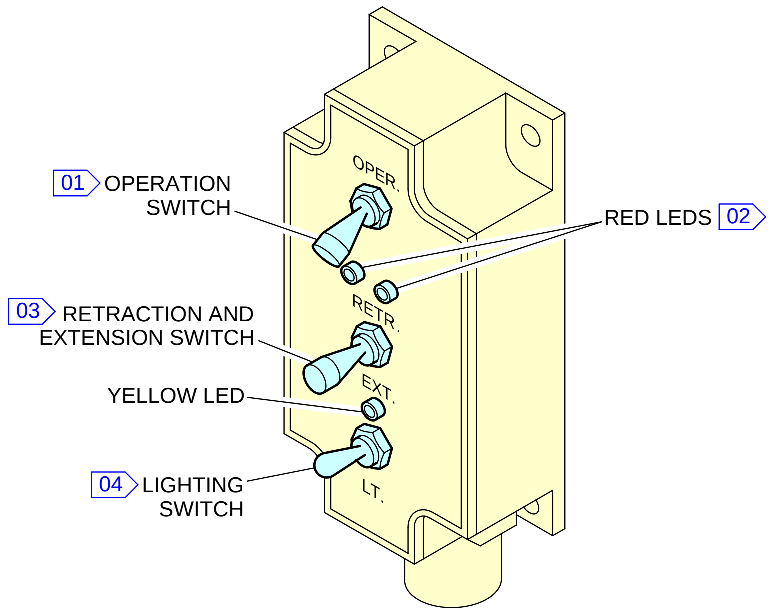
****ON A/C A319-100 A319neo**



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

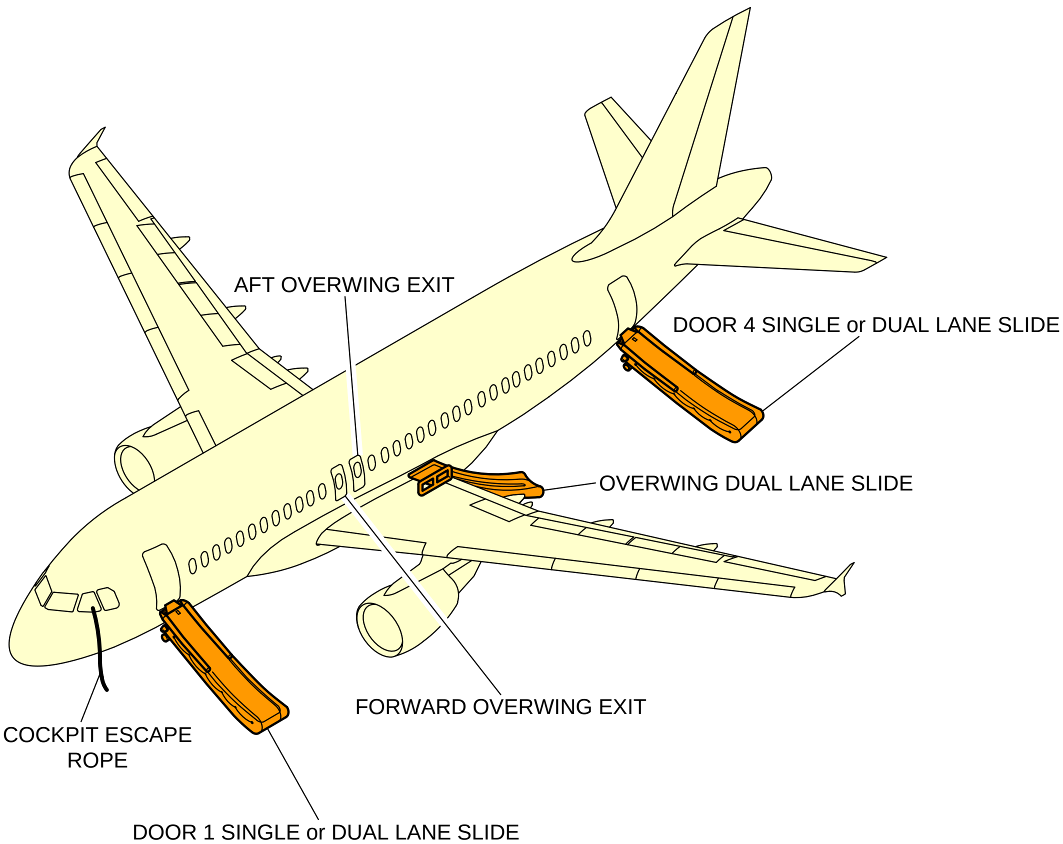
1. General

   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**

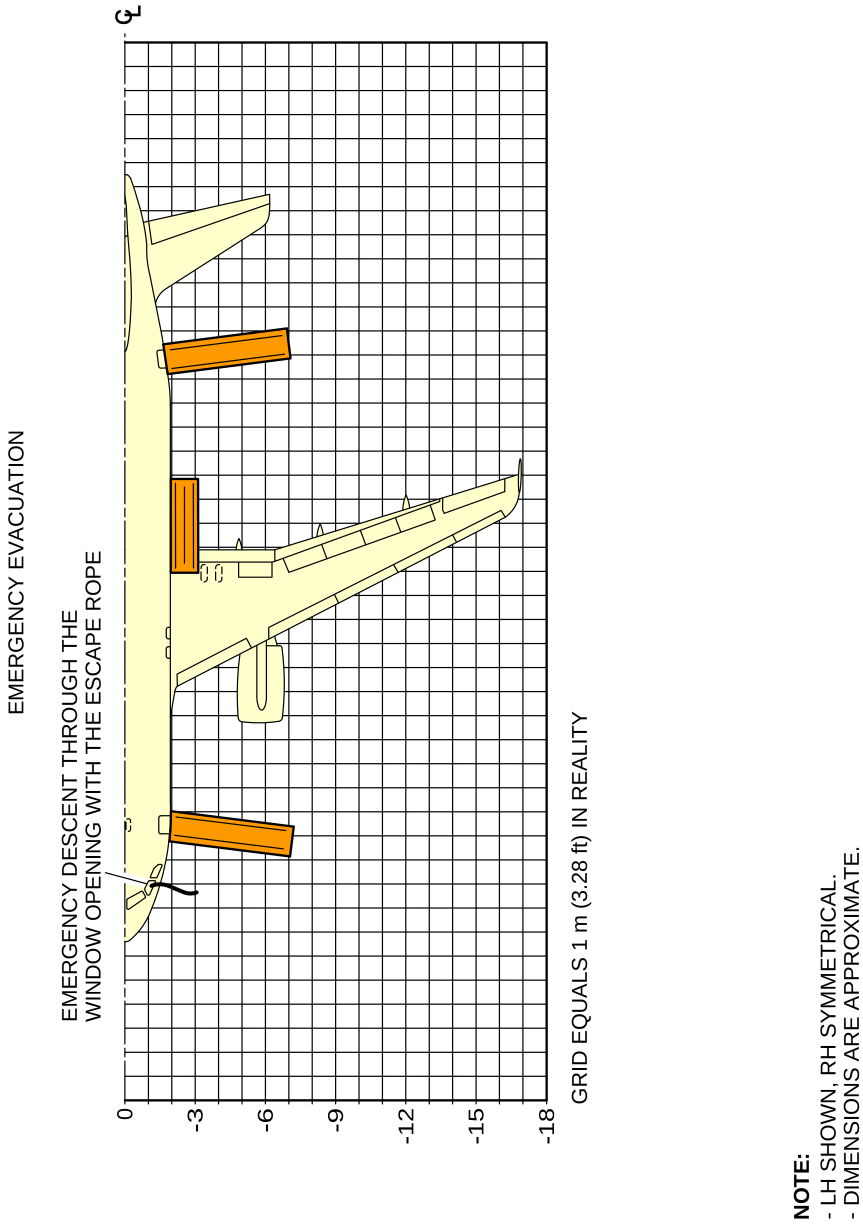


NOTE:
LH SHOWN, RH SYMMETRICAL.

N_AC_020800_1_0030101_01_04

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

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



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

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.

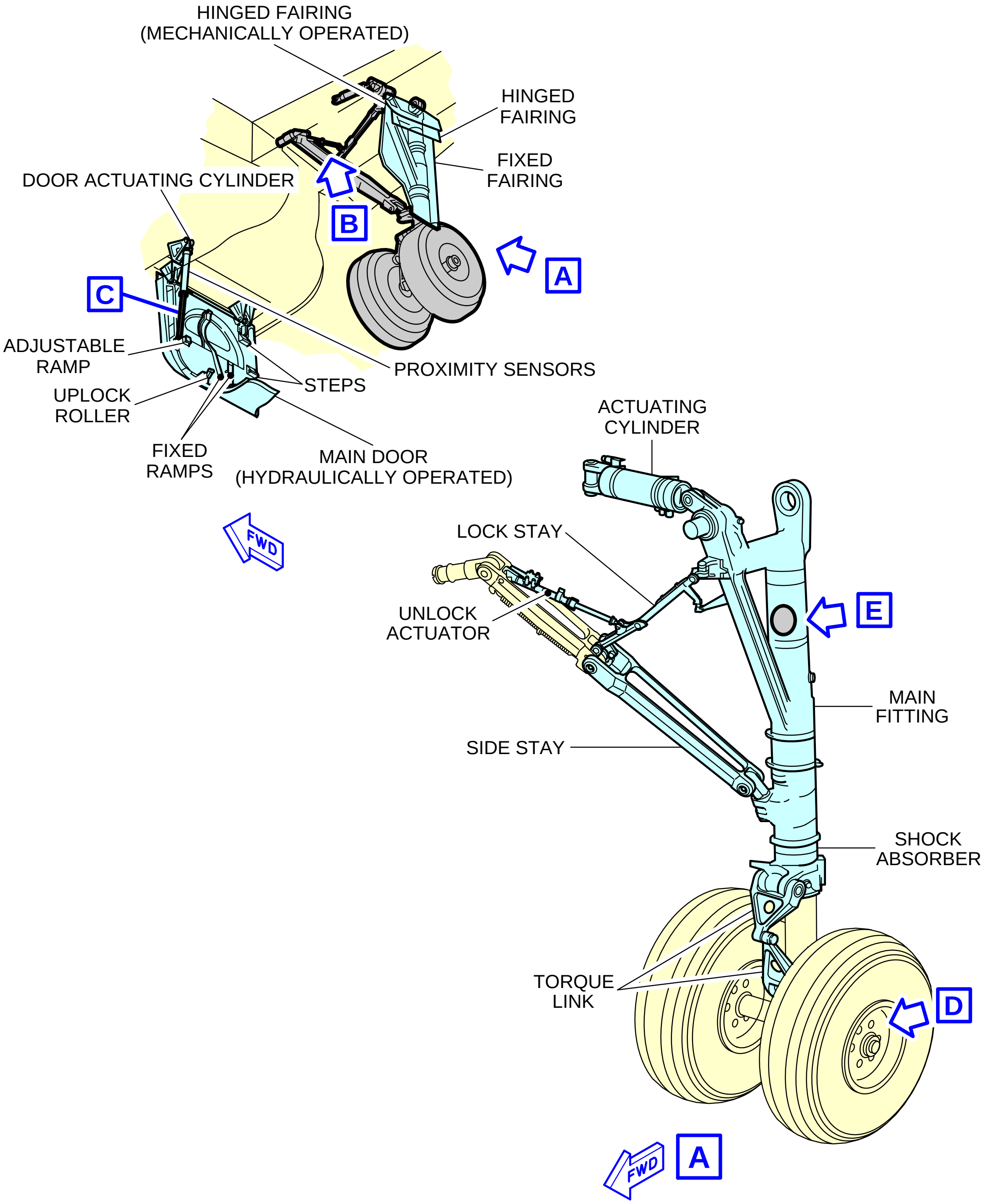
The braking system has four braking modes plus autobrake and anti-skid systems:
- Normal braking with anti-skid capability,
- Alternative braking with anti-skid capability,
- Alternative braking without anti-skid capability,
- Parking brake with full pressure application capability only.

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.

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

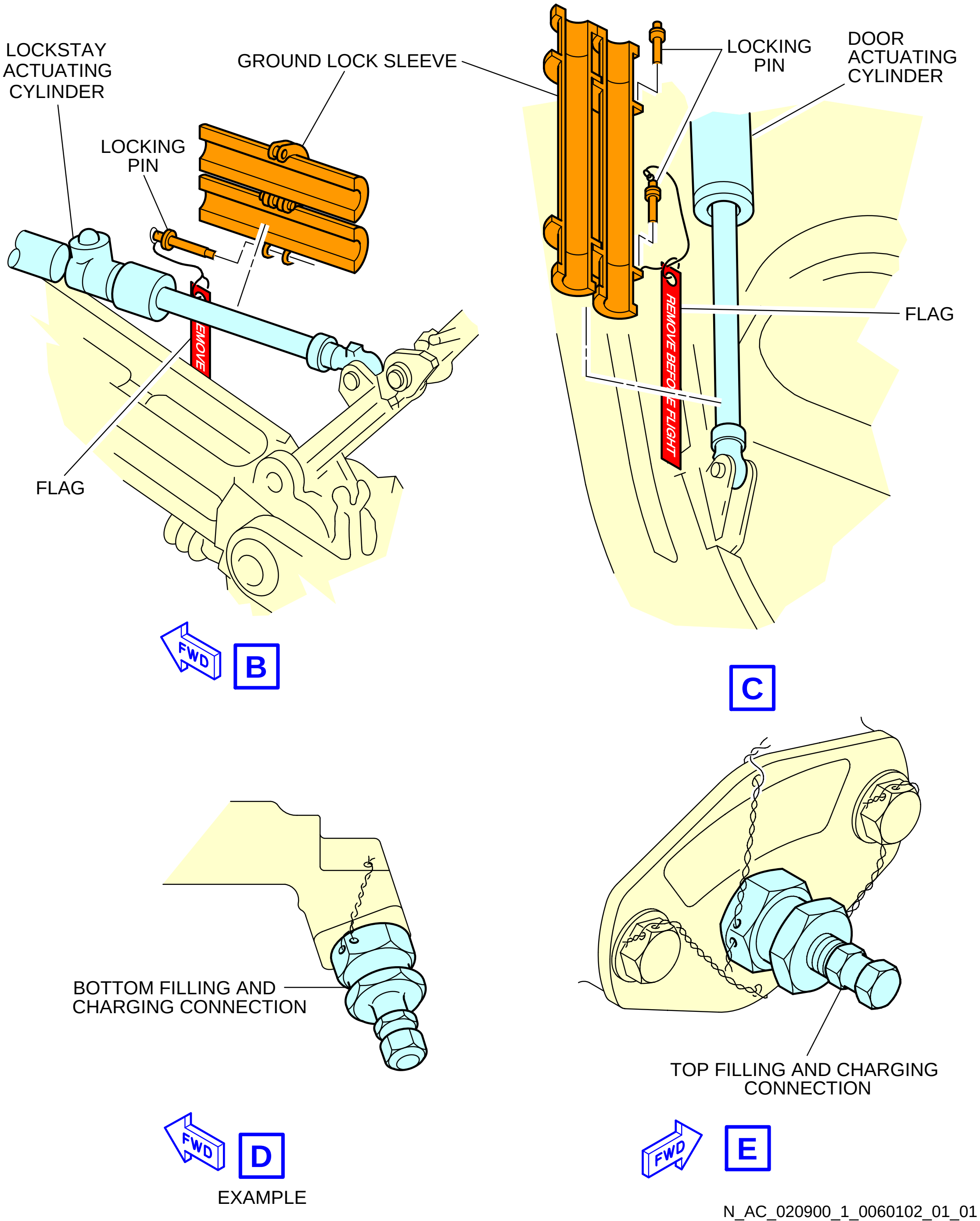


NOTE: MAIN DOOR SHOWN OPEN IN GROUND MAINTENANCE POSITION.

N_AC_020900_1_0060101_01_00

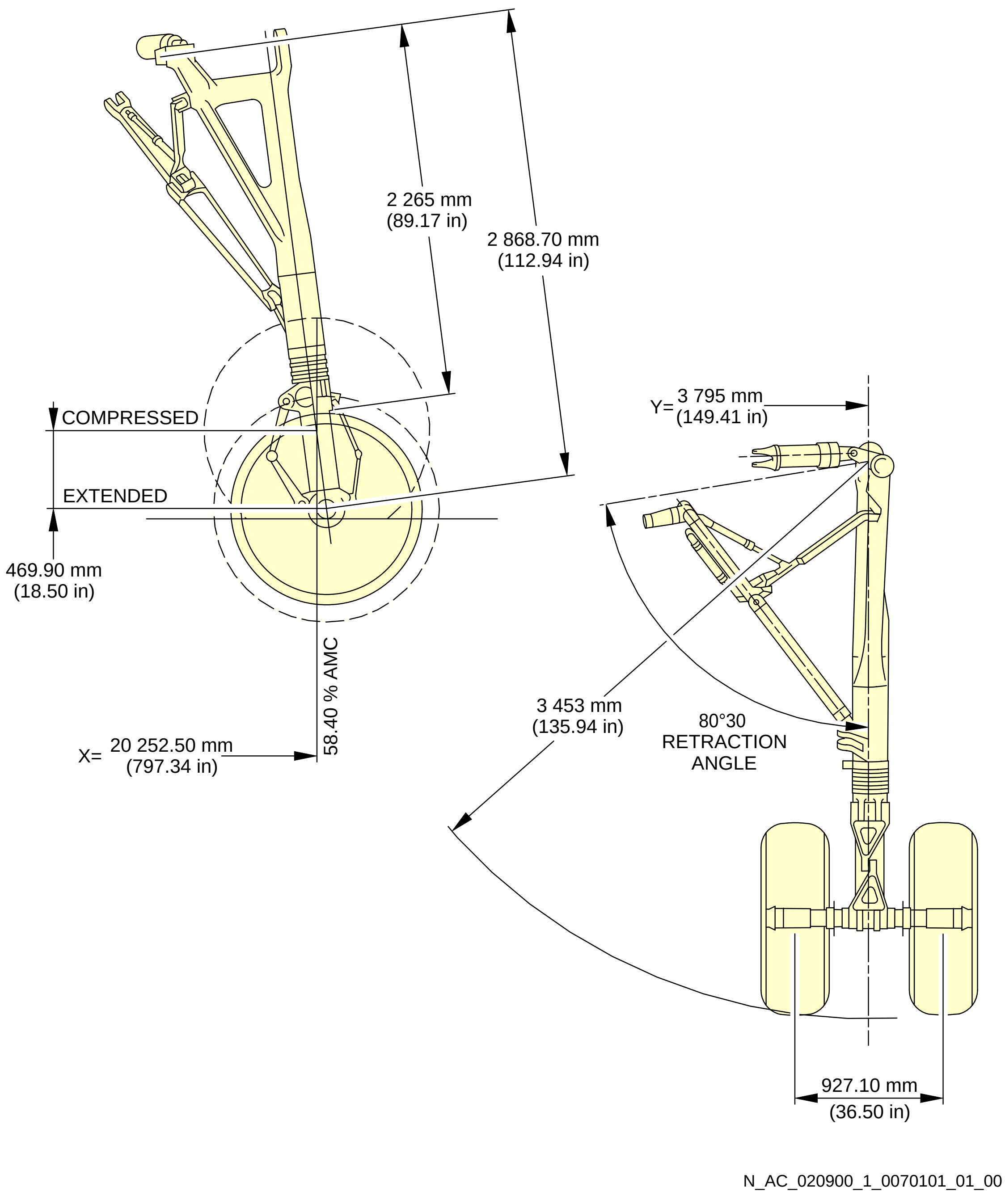
Landing Gear
Main Landing Gear - Twin-Wheel (Sheet 1 of 2)
FIGURE-2-9-0-991-006-A01

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



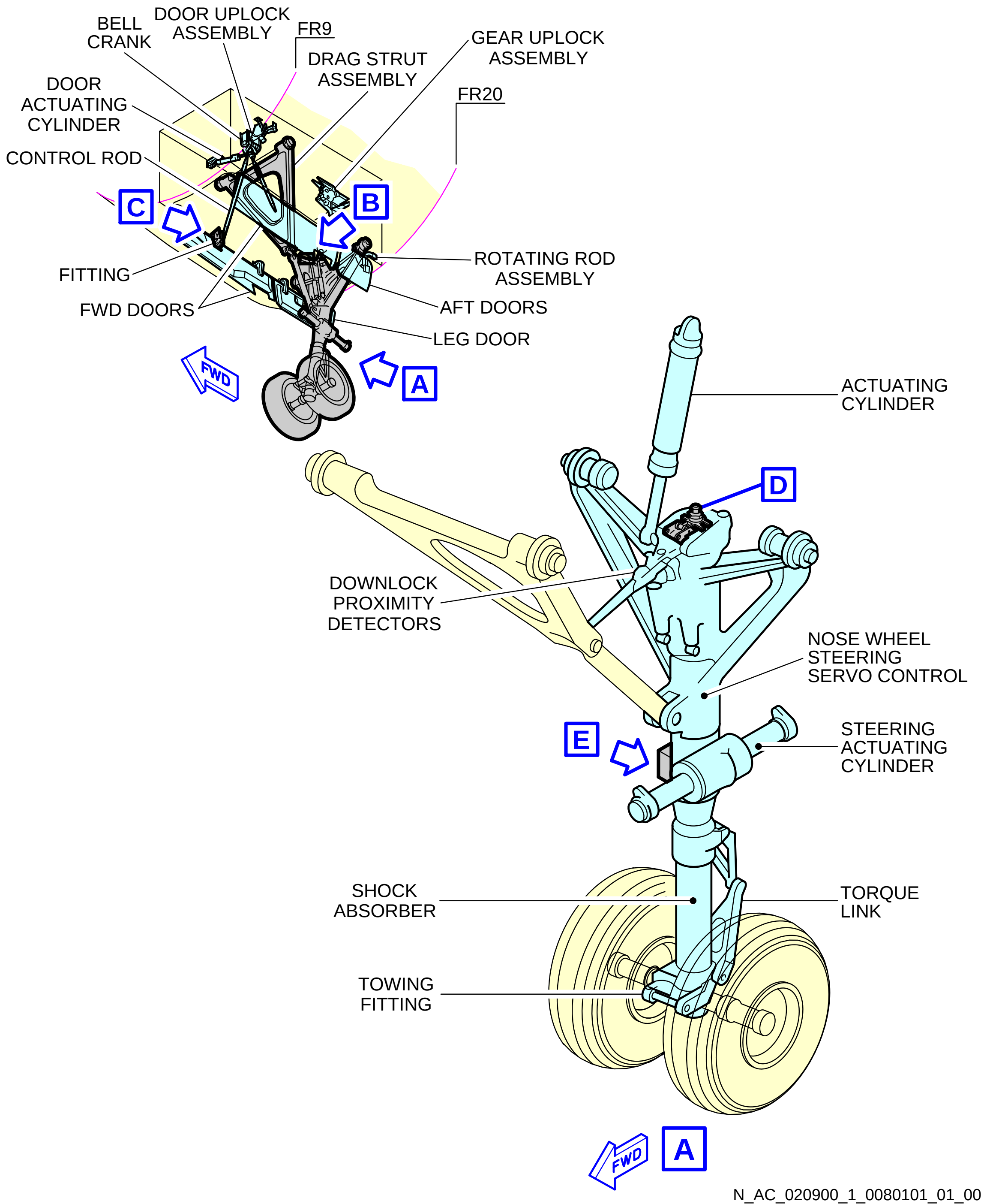
Landing Gear
Main Landing Gear - Twin-Wheel (Sheet 2 of 2)
FIGURE-2-9-0-991-006-A01

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



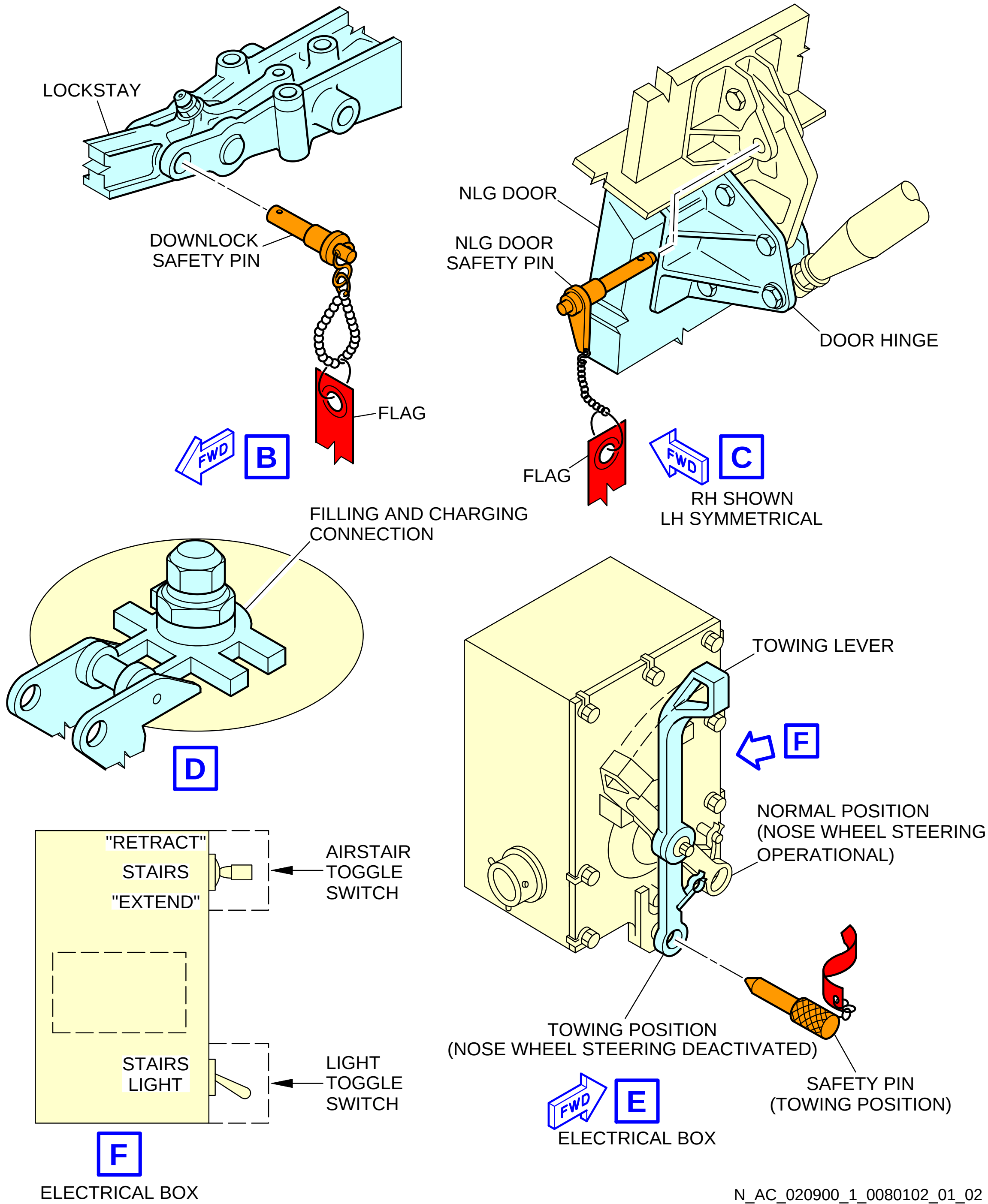
Landing Gear
Main Landing Gear Dimensions - Twin-Wheel
FIGURE-2-9-0-991-007-A01

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



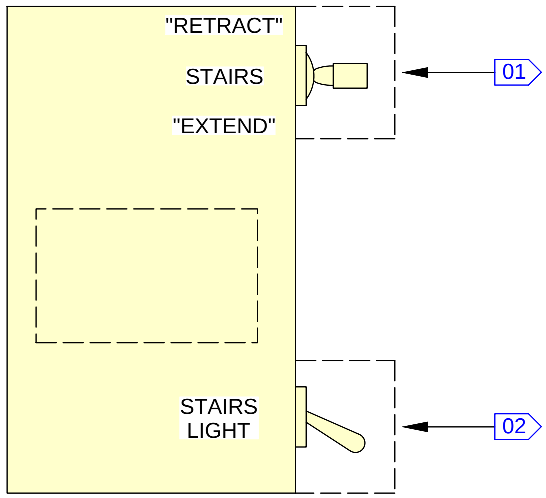
Landing Gear
Nose Landing Gear of ACJ (Sheet 1 of 2)
FIGURE-2-9-0-991-008-A01

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



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

****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

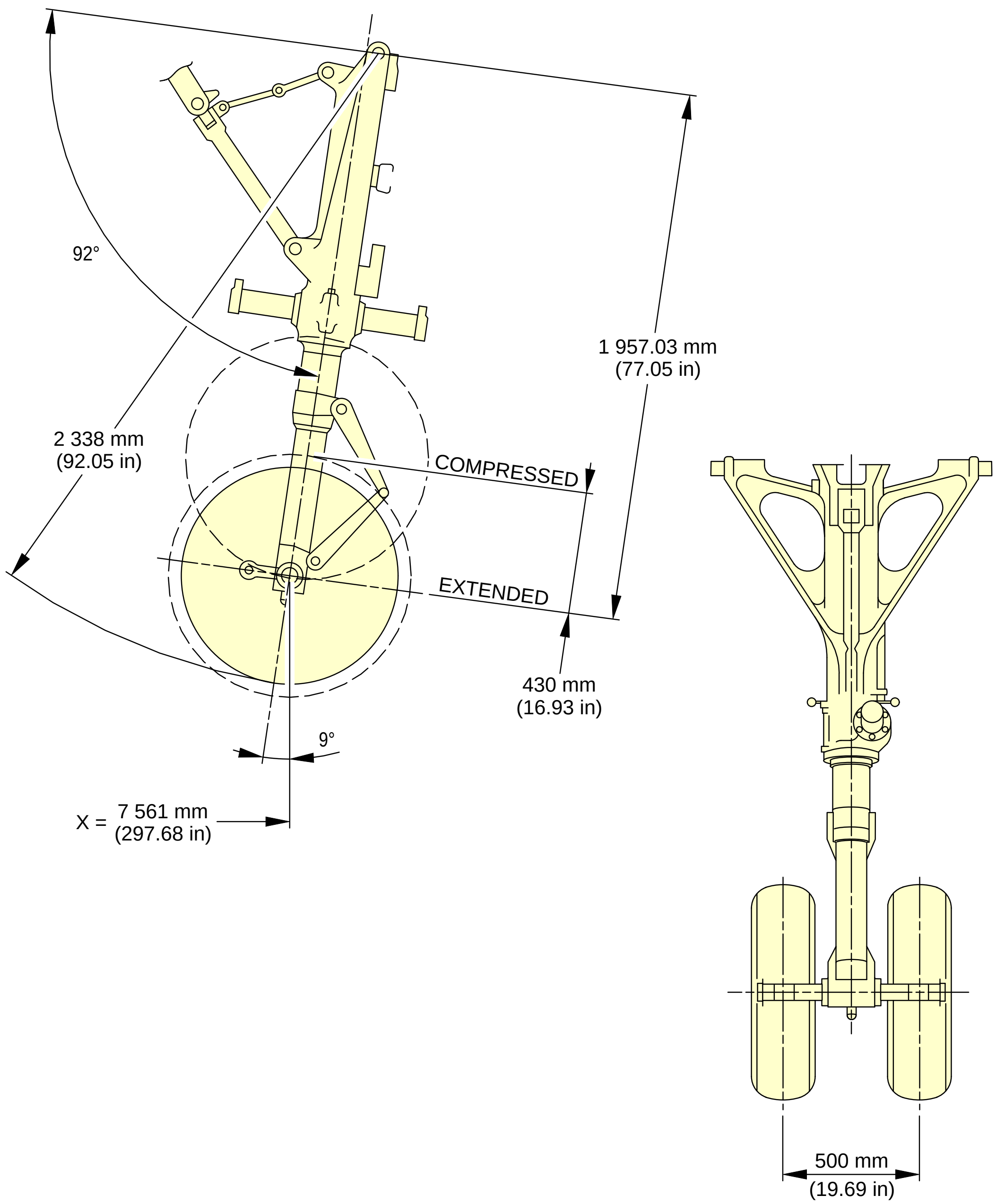
UP: STAIR LIGHTS COME ON, AS DOES THE YELLOW CONTROL LIGHT IN THE CABIN, IF:
- THE STAIRS ARE FULLY EXTENDED, AND
- POWER IS AVAILABLE FROM DC BUS 2.

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**



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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

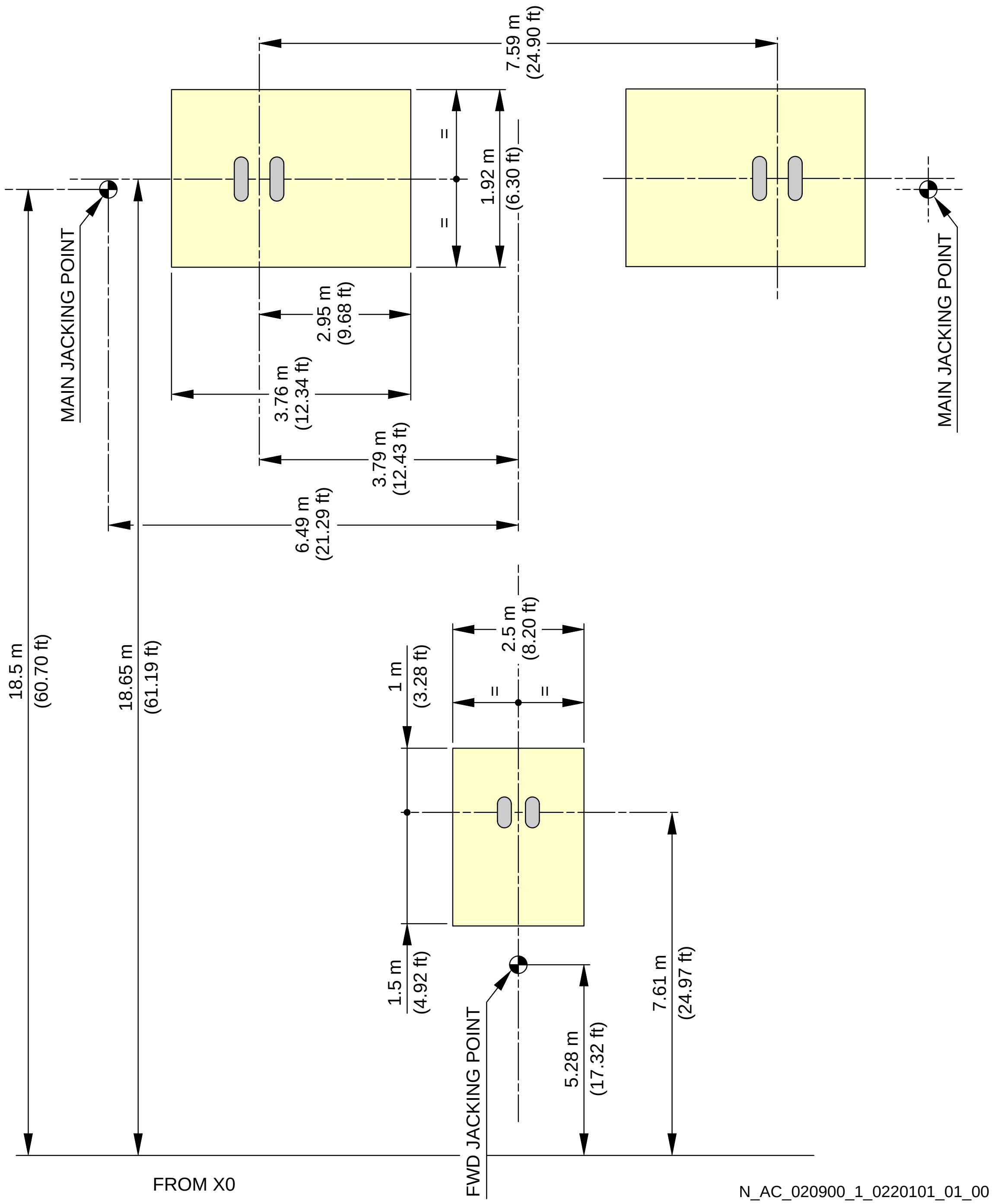
The minimum maintenance pit envelopes for the landing-gear shock absorber removal are shown in FIGURE 2-9-0-991-022-A and FIGURE 2-9-0-991-023-A.

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.

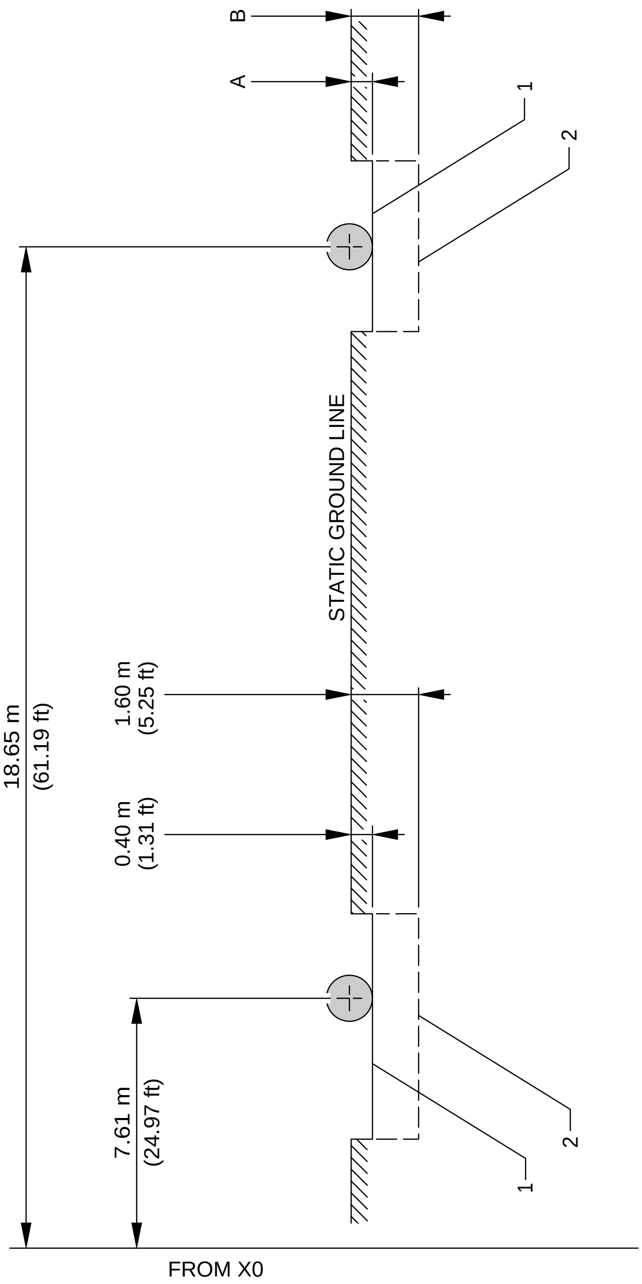
Dimensions for elevators and associated mechanisms must be added to those in FIGURE 2-9-0-991-022-Aand FIGURE 2-9-0-991-023-A.

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



Landing Gear Maintenance Pits
Maintenance Pit Envelopes
FIGURE-2-9-0-991-022-A01

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



	A		B	
	m	ft	m	ft
DIM QUOTED IS WITH WHEELS REMOVED AND 153 mm (6.02 in) CLEARANCE AT JACKING DOME	0.52	1.71	1.17	3.84

NOTE: 1 REPRESENTS TOP OF MECHANICAL OR HYDRAULIC ELEVATOR, WITH AIRCRAFT WEIGHT SUPPORTED AND LANDING GEAR SHOCK ABSORBERS EXTENDED.

2 REPRESENTS TOP OF MECHANICAL OR HYDRAULIC ELEVATOR, SHOWN WITH ZERO CLEARANCE LOWERED FOR SHOCK ABSORBER REMOVAL.

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**

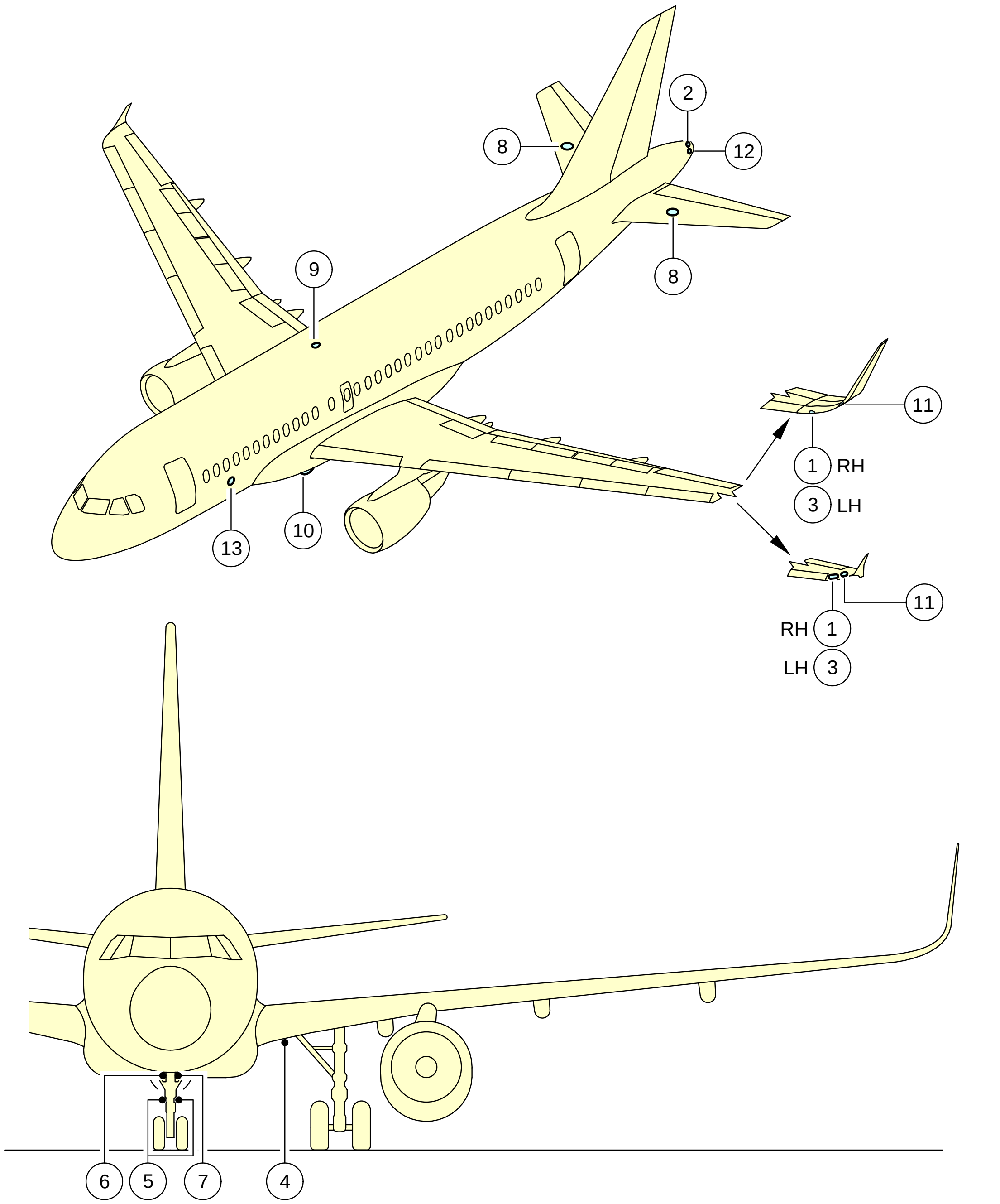
Exterior Lighting

1. General

This section provides the location of the aircraft exterior lighting.

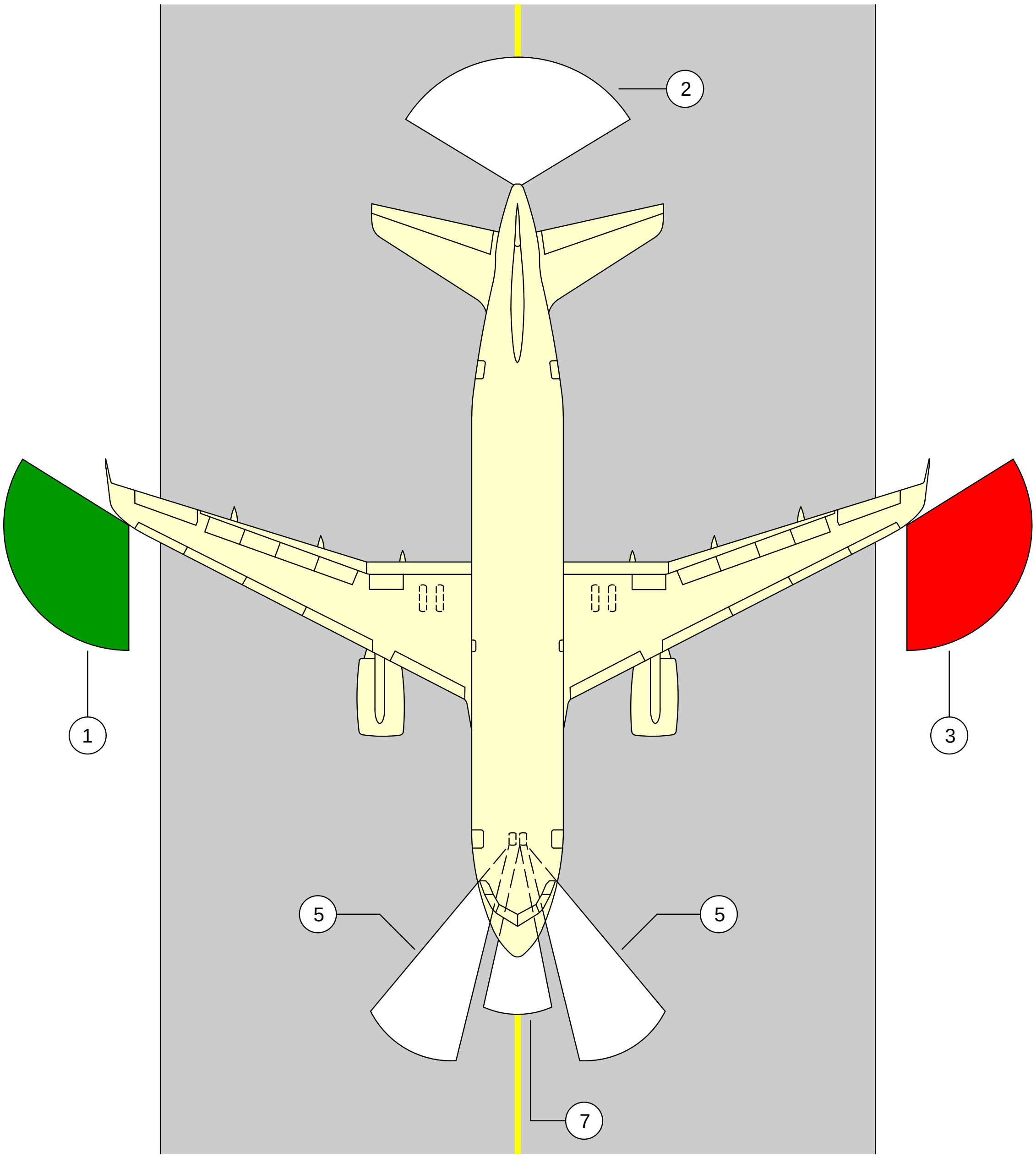
EXTERIOR LIGHTING	
ITEM	DESCRIPTION
1	RIGHT NAVIGATION LIGHT (GREEN)
2	TAIL NAVIGATION LIGHT (WHITE)
3	LEFT NAVIGATION LIGHT (RED)
4	RETRACTABLE LANDING LIGHT
5	RUNWAY TURN OFF LIGHT
6	TAXI LIGHT
7	TAKE-OFF LIGHT
8	LOGO LIGHT
9	UPPER ANTI-COLLISION LIGHT/BEACON (RED)
10	LOWER ANTI-COLLISION LIGHT/BEACON (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**



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

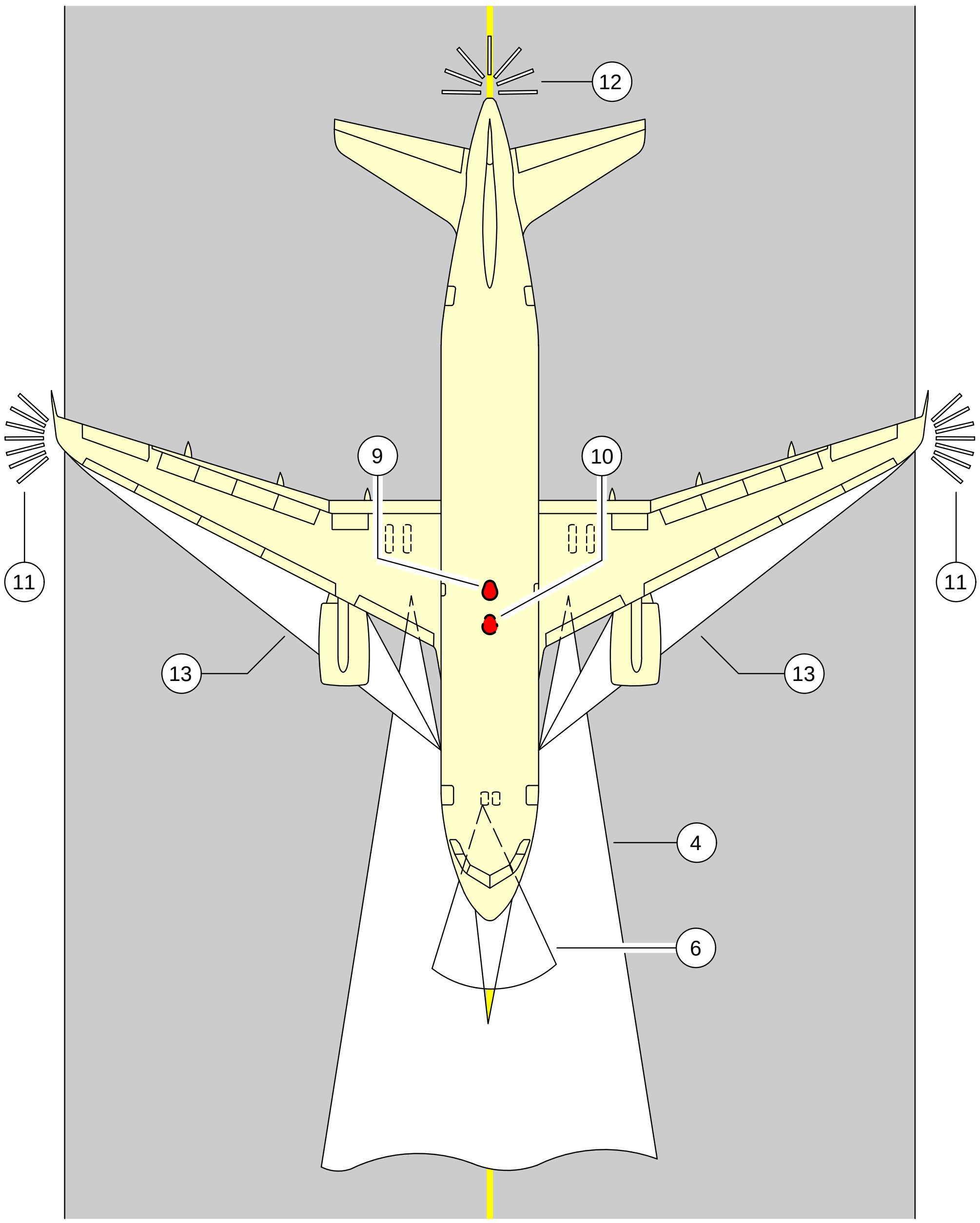
****ON A/C A319-100 A319neo**



N_AC_021000_1_0060101_01_00

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

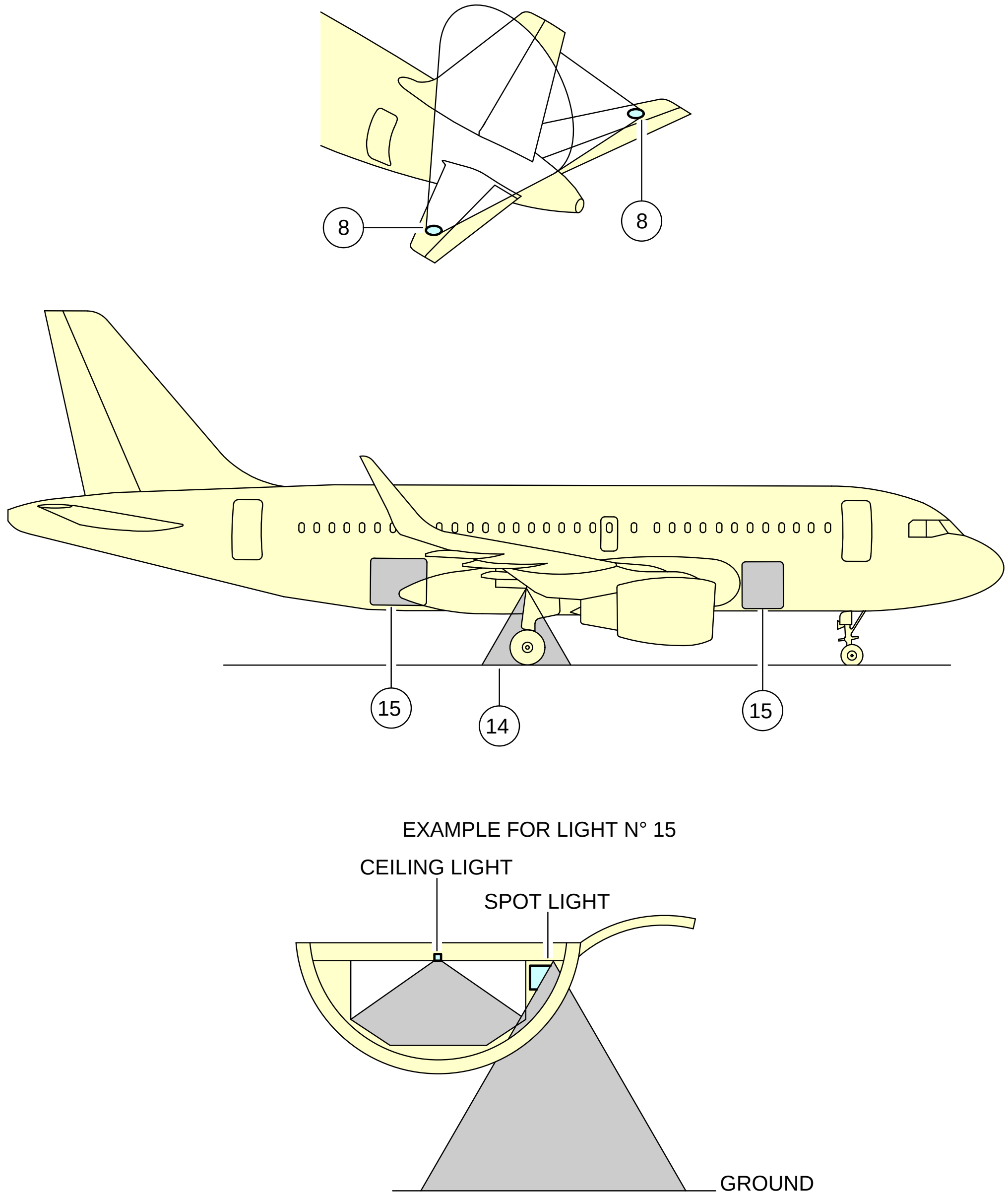
****ON A/C A319-100 A319neo**



N_AC_021000_1_0070101_01_00

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

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



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

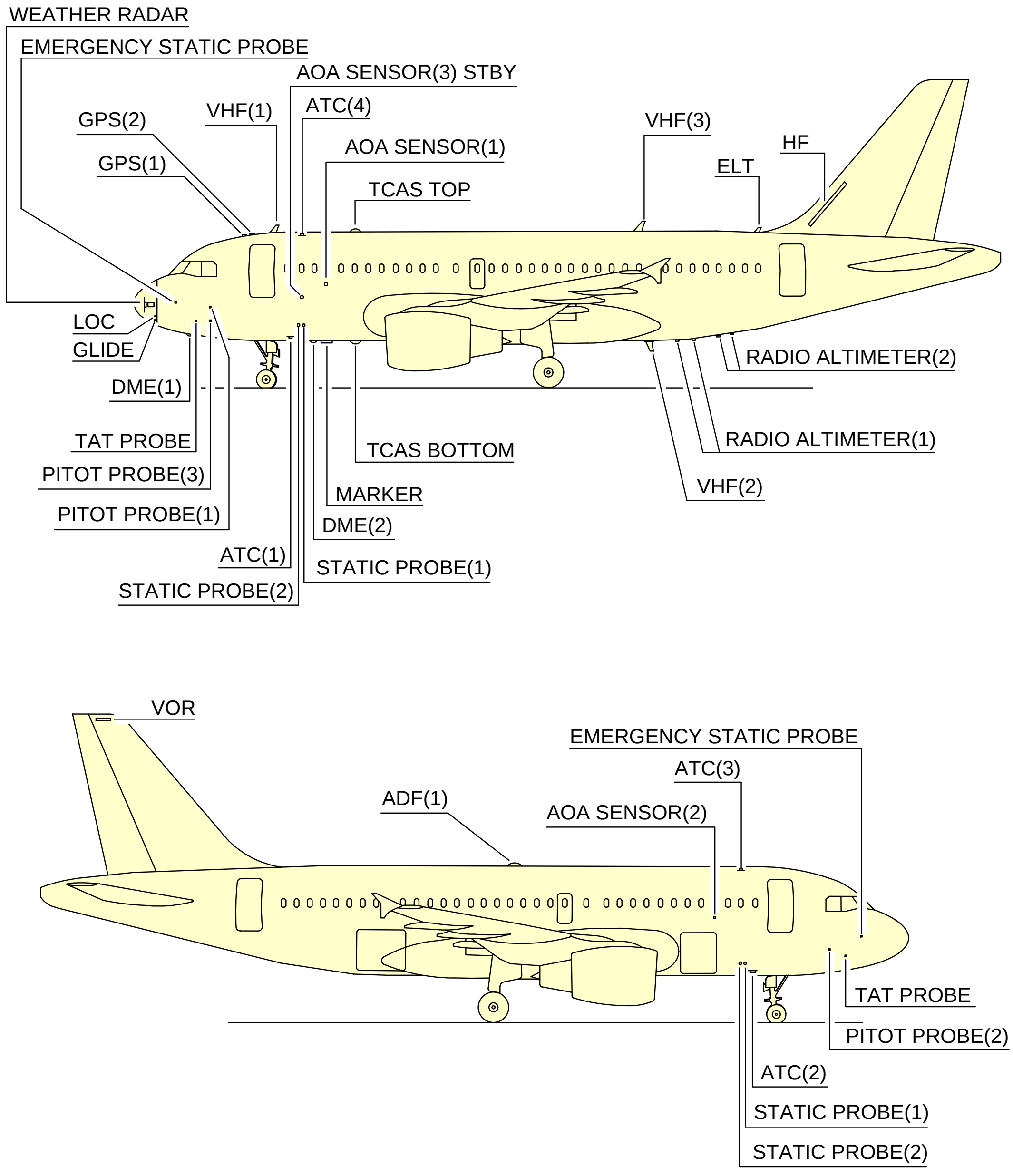
2-11-0 Antennas and Probes Location

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

Antennas and Probes Location

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

****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

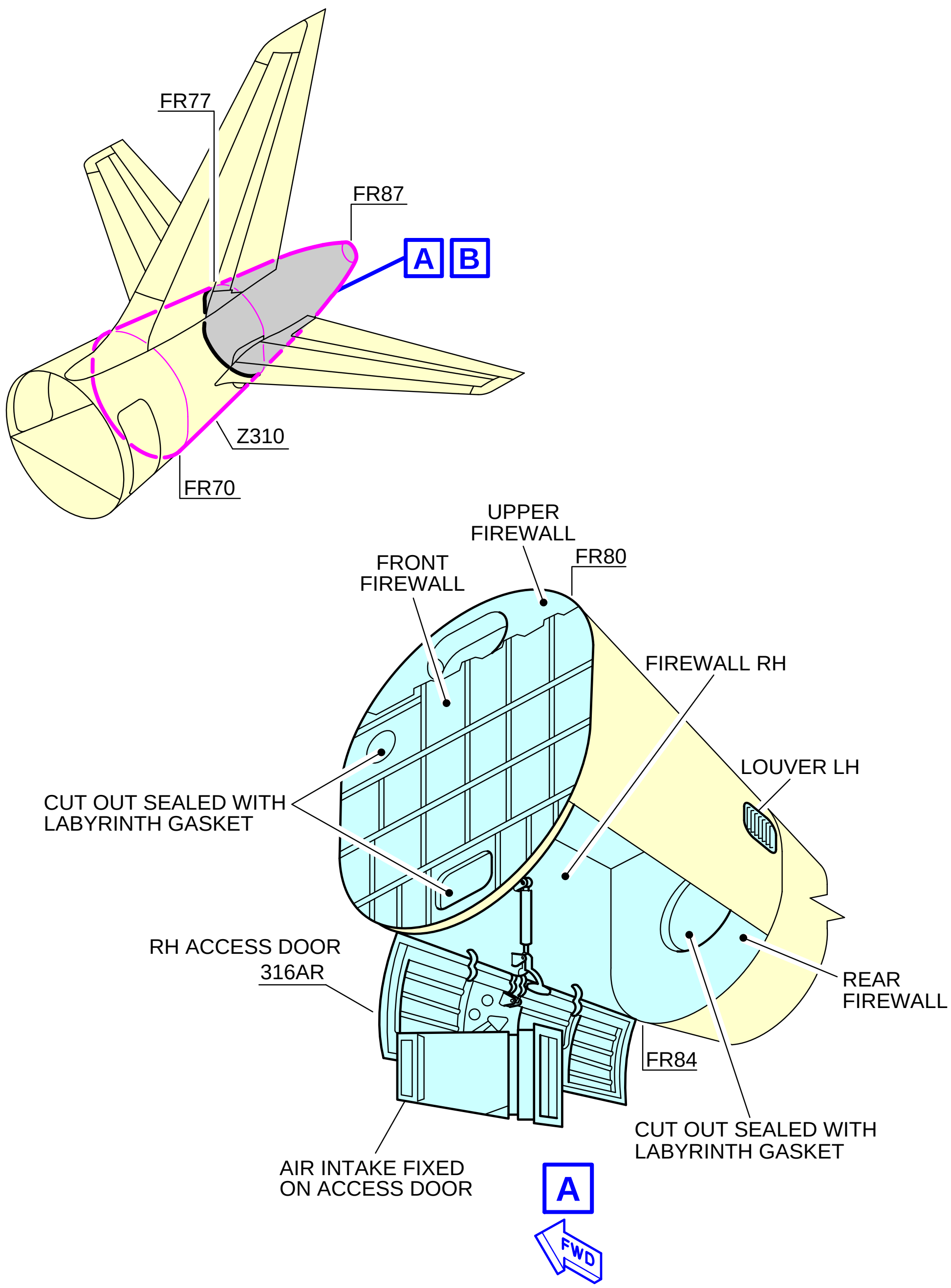
1. General

   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**

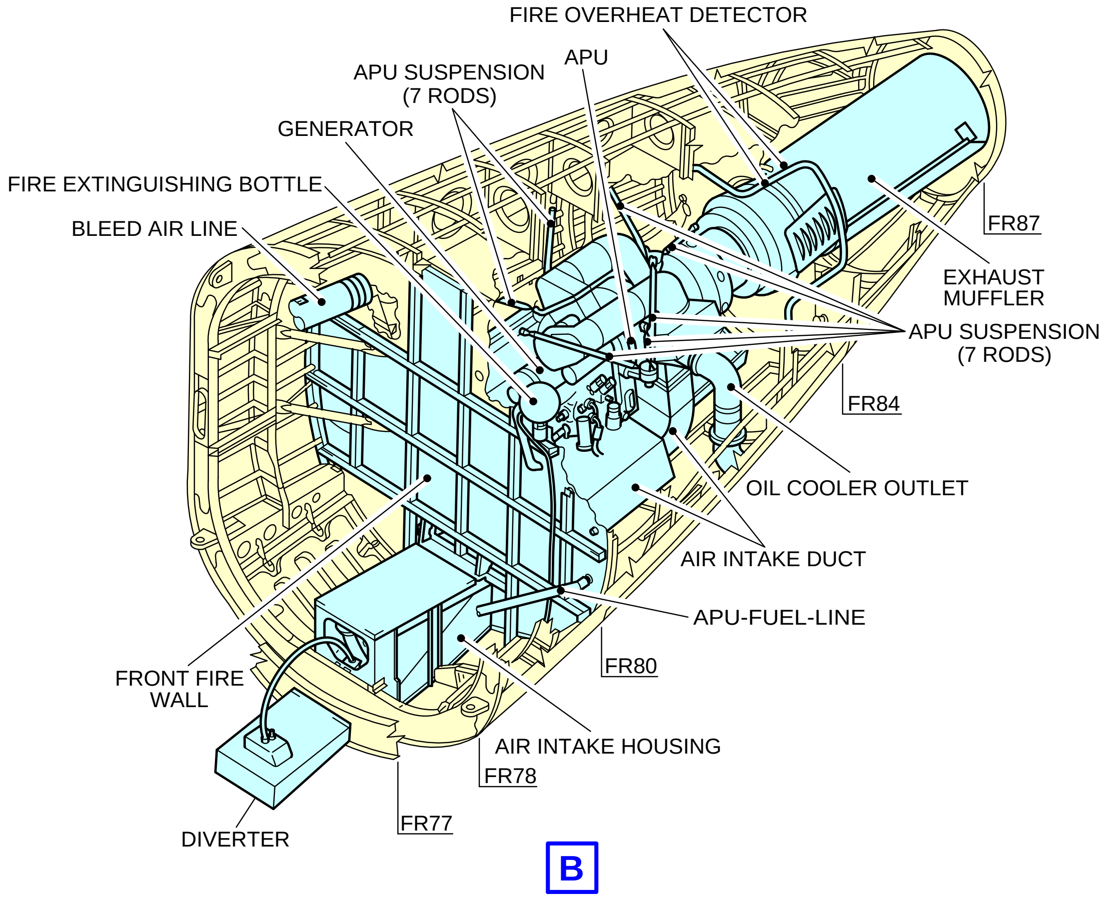


NOTE:
LH ACCESS DOOR 315AL NOT SHOWN FOR CLARITY.

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).
  - 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.
  - 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,
- 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:
- 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.

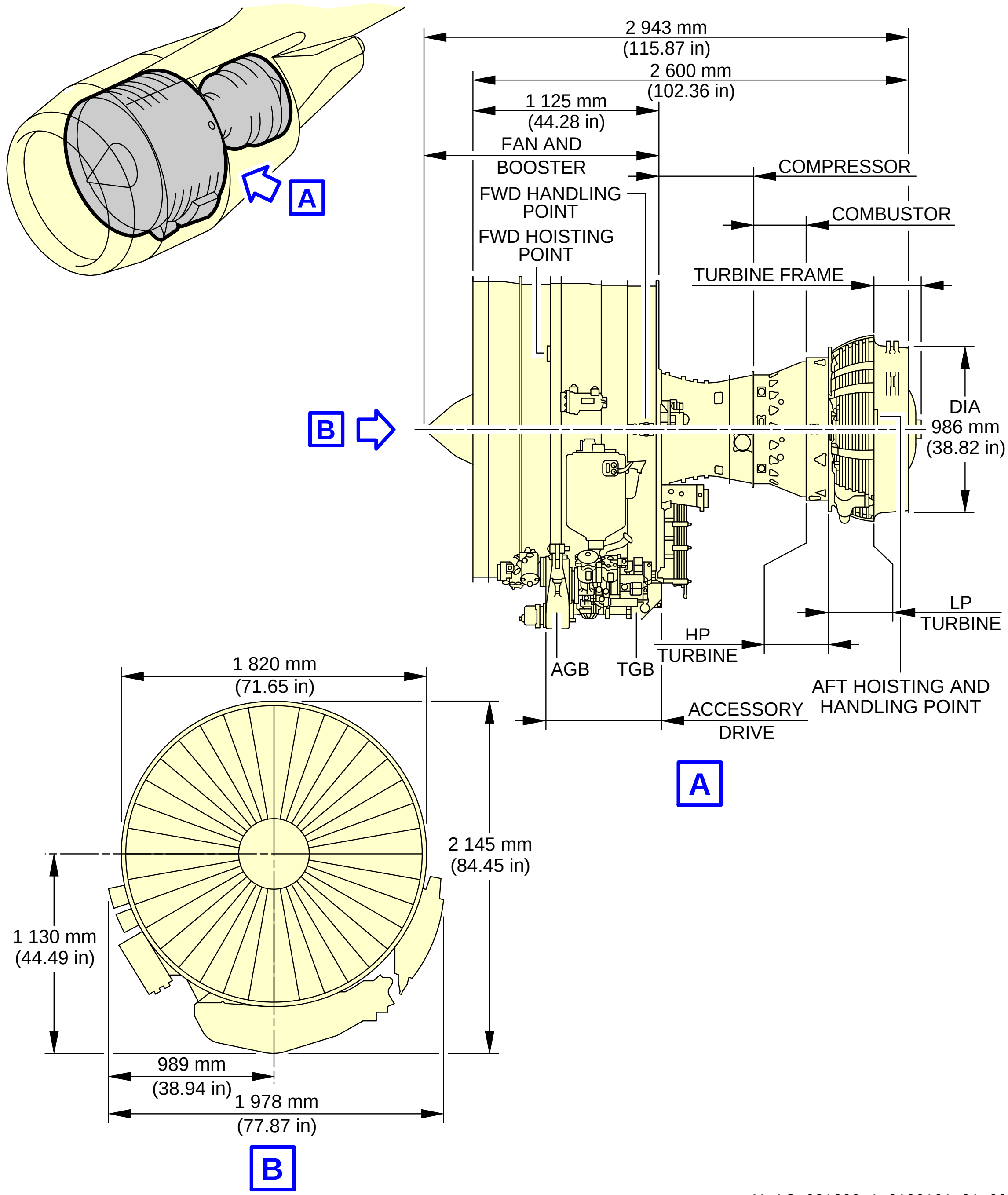
(5) The gas that results from combustion drives the HP and the LP turbines.
- The rotation speed of the fan provides the N1 engine parameter.
- The rotation speed of the HP rotor provides the N2 engine parameter.
- The N1 and N2 engine parameters appear on the Engine/Warning Display (E/WD).
- The N1 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

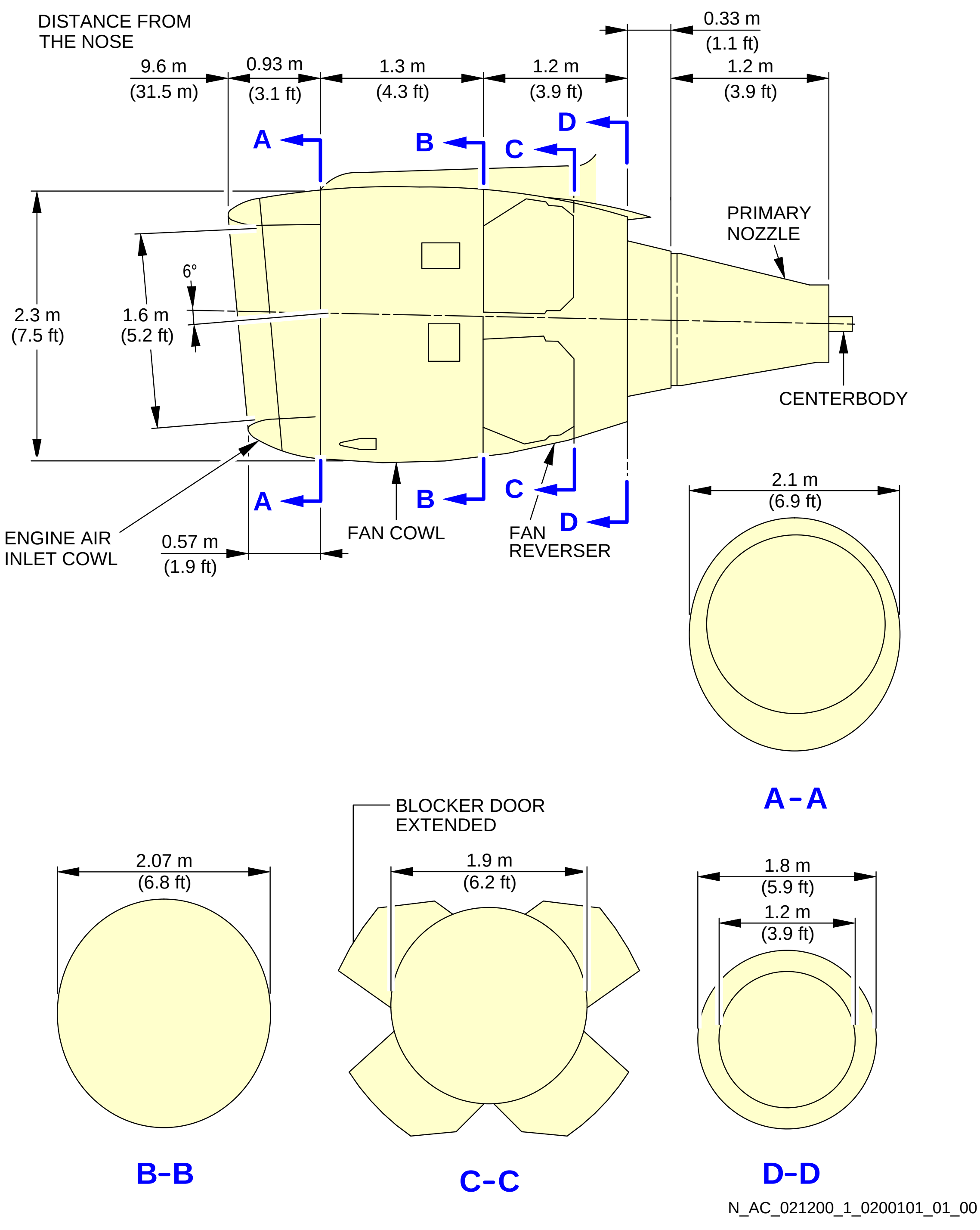
The cowls enclose the periphery of the engine so as to form the engine nacelle. Each engine is housed in a nacelle suspended from a pylon attached below the wing.
The nacelle installation is designed to provide cooling and ventilation air for engine accessories mounted along the fan and core casing. The nacelle provides:
- Protection for the engine and the accessories
- Airflow around the engine during its operation
- Lighting protection
- HIRF and EMI attenuation.

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



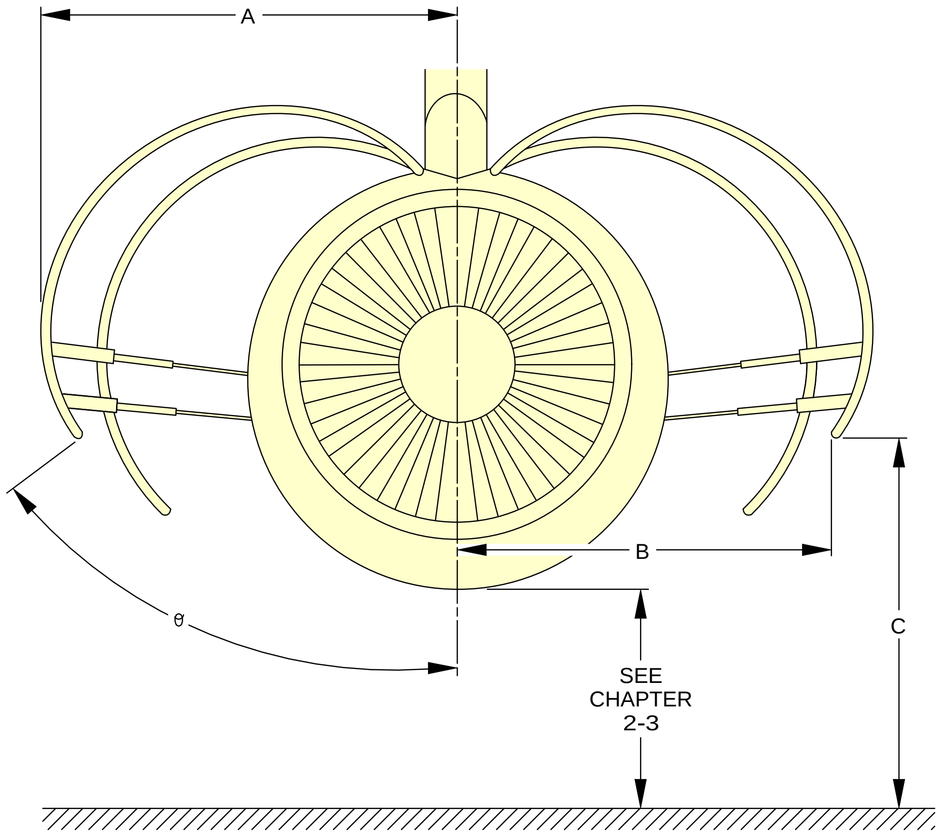
Power Plant Handling
Major Dimensions - CFM56 Series Engine
FIGURE-2-12-0-991-019-A01

****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**



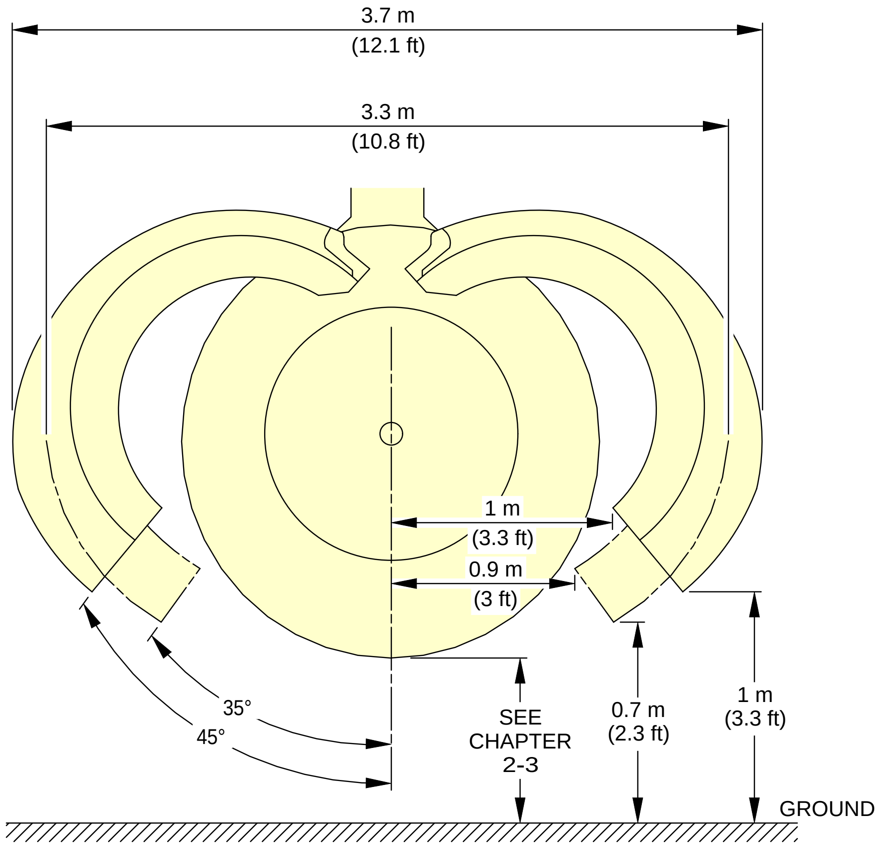
m (ft)	θ	A	B	C
VIEW COWLING AFT	42°27	1.8 (5.9)	1.5 (4.9)	1.3 (4.3)
	55°15	2.0 (6.6)	1.8 (5.9)	1.7 (5.6)
VIEW COWLING FWD	40°40	1.8 (5.9)	1.4 (4.6)	1.3 (4.3)
	52°56	2.0 (6.6)	1.7 (5.6)	1.6 (5.2)

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



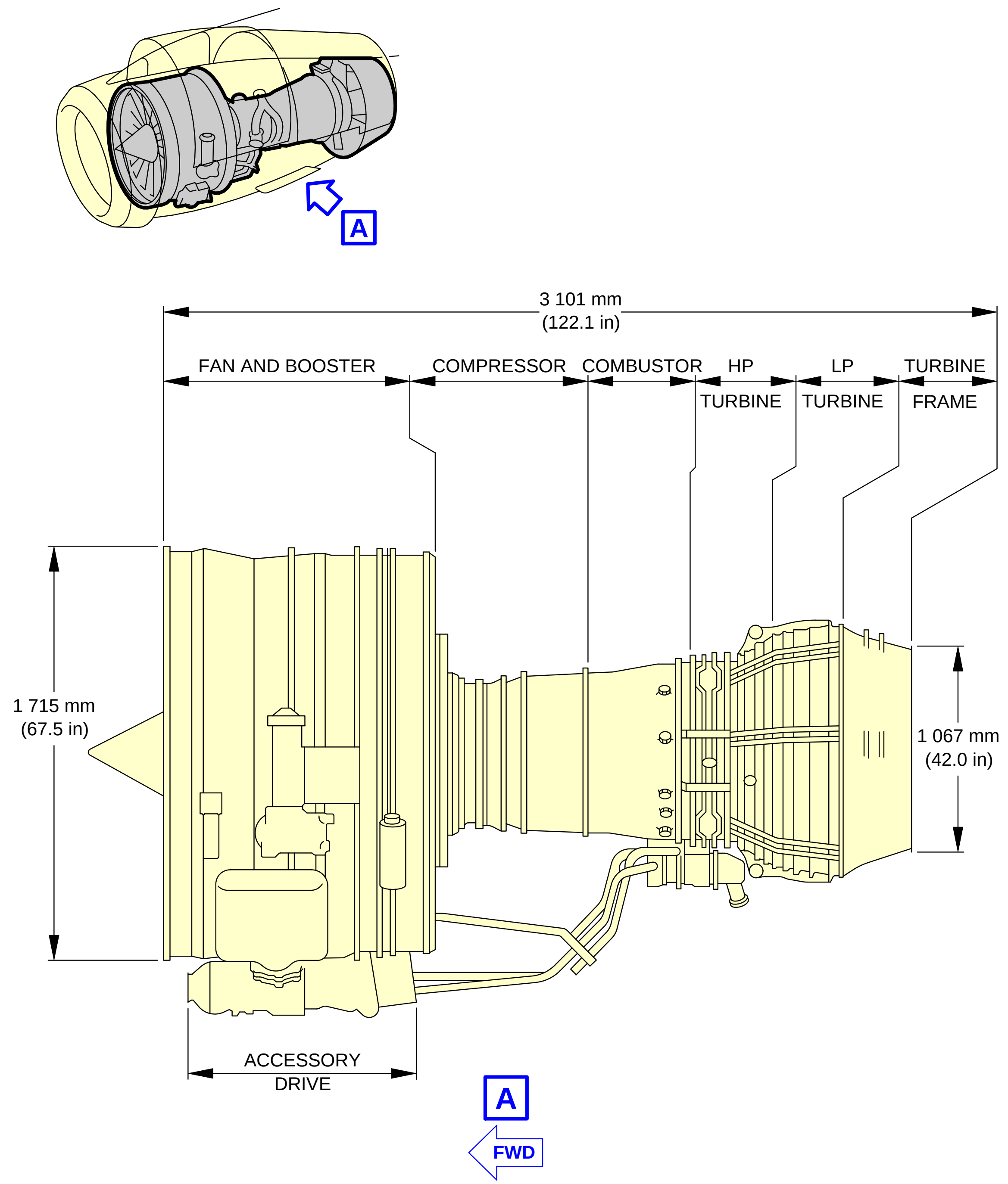
NOTE: APPROXIMATE DIMENSIONS.

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

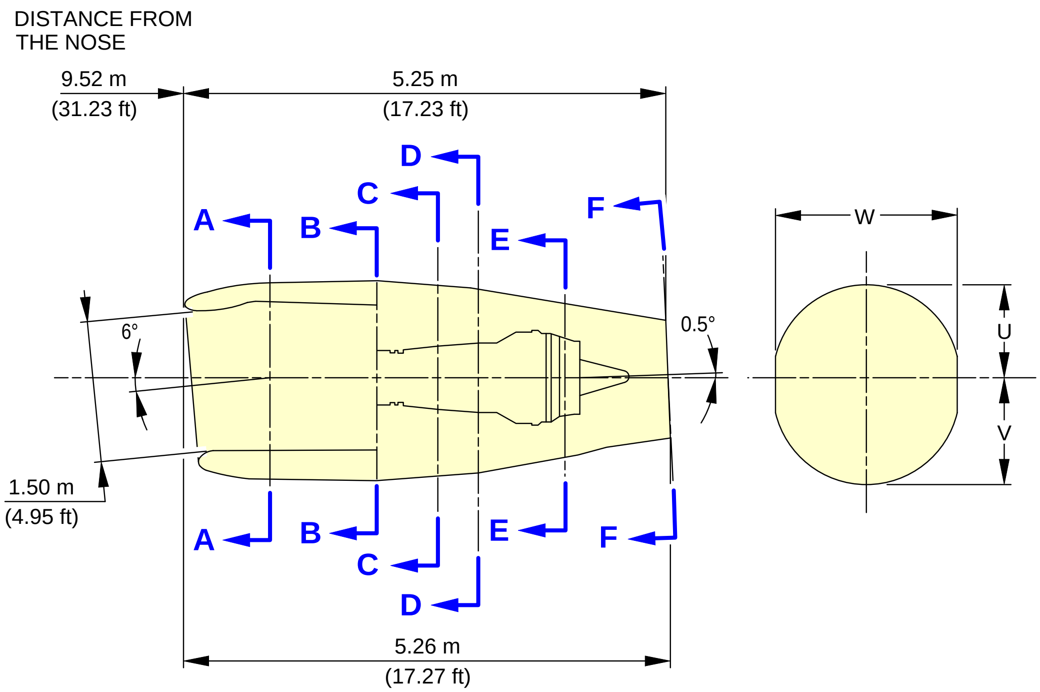
****ON A/C A319-100**



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**



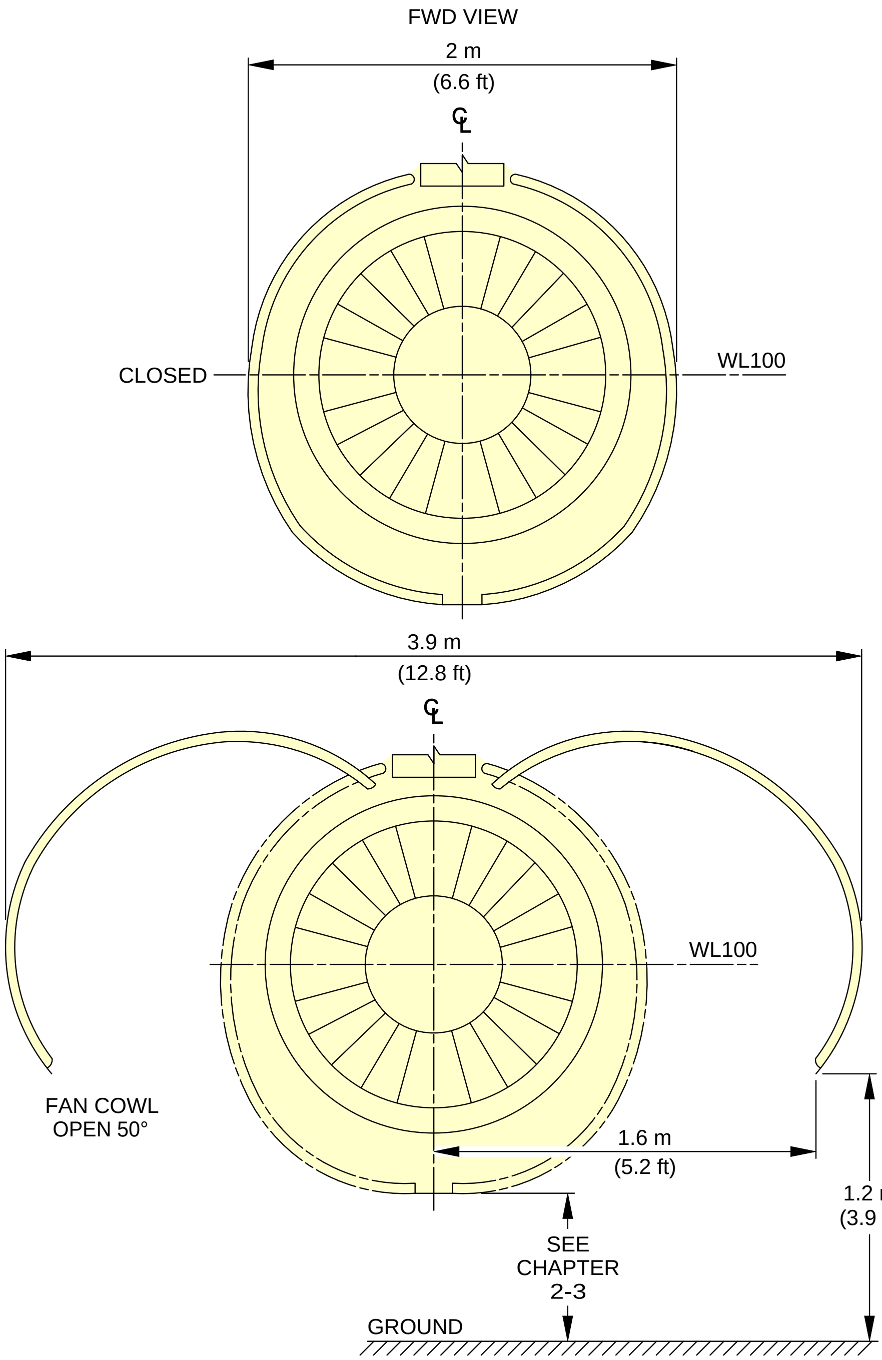
	W		U		V		PPS		AT COMPONENT
	m	ft	m	ft	m	ft	m	ft	
A-A	2.01	6.58	0.99	3.25	1.10	3.63	1.41	4.62	INLET ATTACH FLG
B-B	2.01	6.58	1.00	3.29	1.11	3.64	2.59	8.50	TORQUE BOX "V" BLADE
C-C	1.98	6.50	0.97	3.19	1.07	3.52	3.26	10.70	COMB. CHAMBER ENTRY FLG
D-D	1.93	6.32	0.93	3.06	1.03	3.39	3.63	11.90	COMB. CHAMBER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

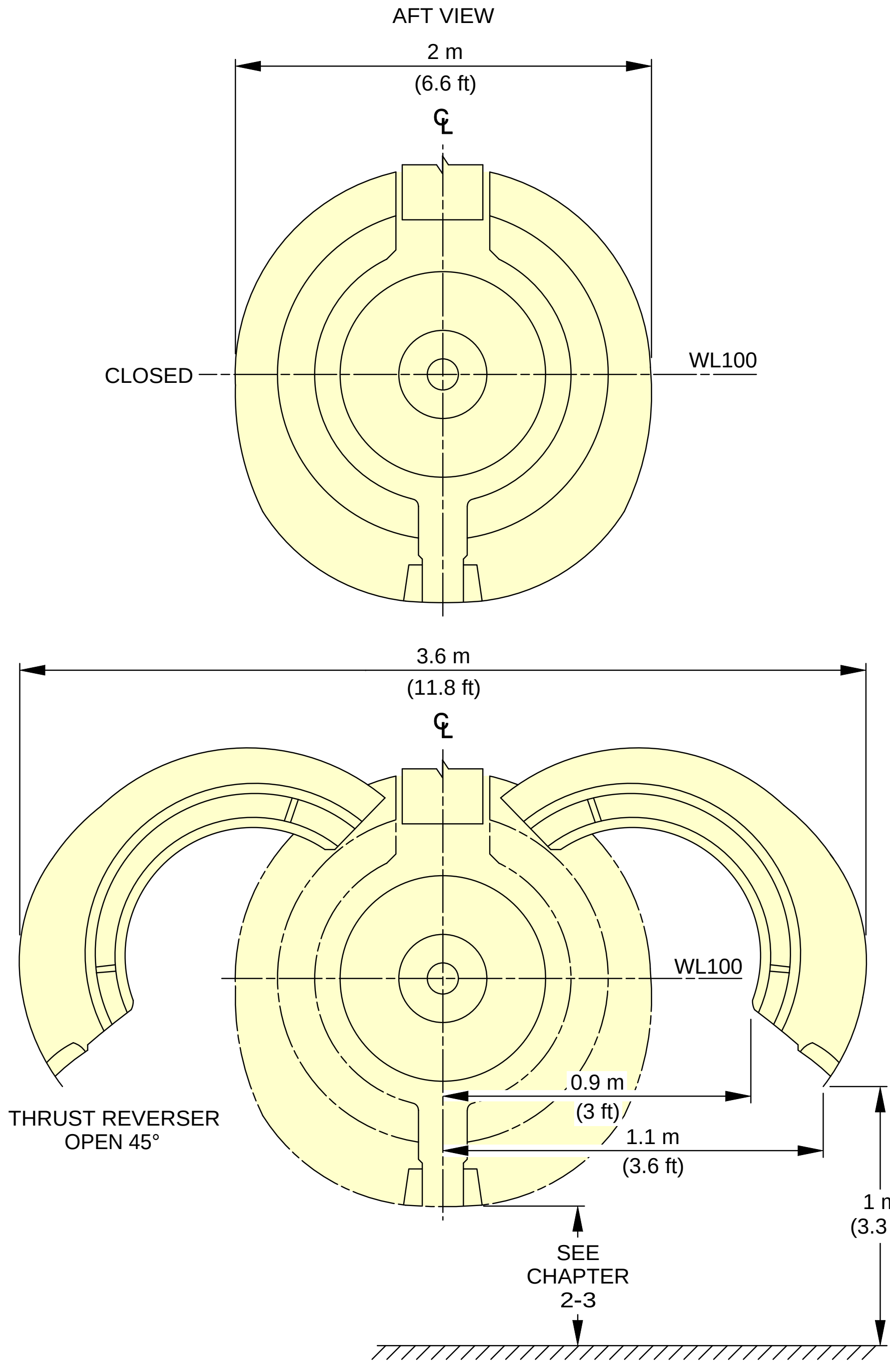


NOTE: APPROXIMATE DIMENSIONS.

N_AC_021200_1_0250101_01_01

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

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

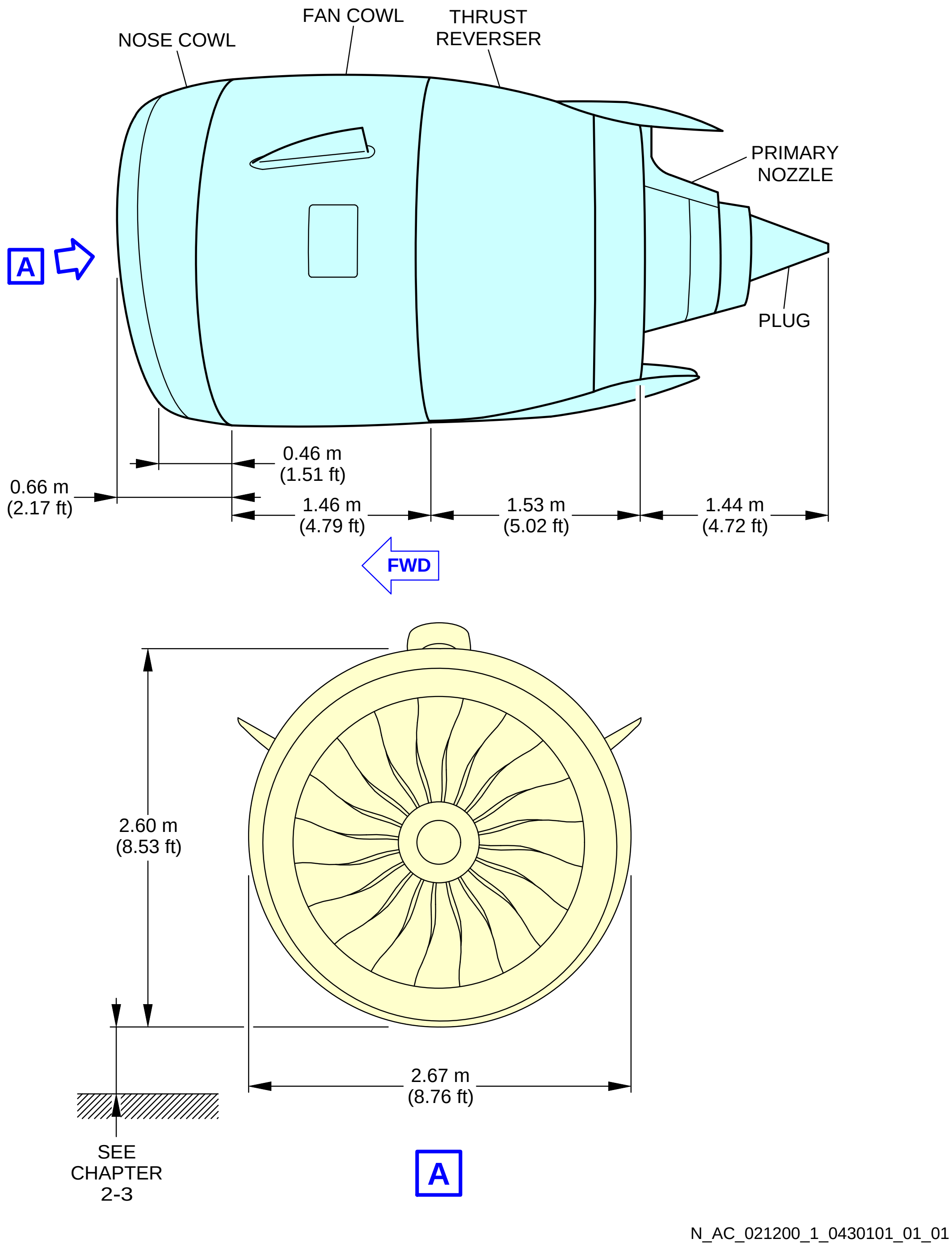


NOTE: APPROXIMATE DIMENSIONS.

N_AC_021200_1_0260101_01_01

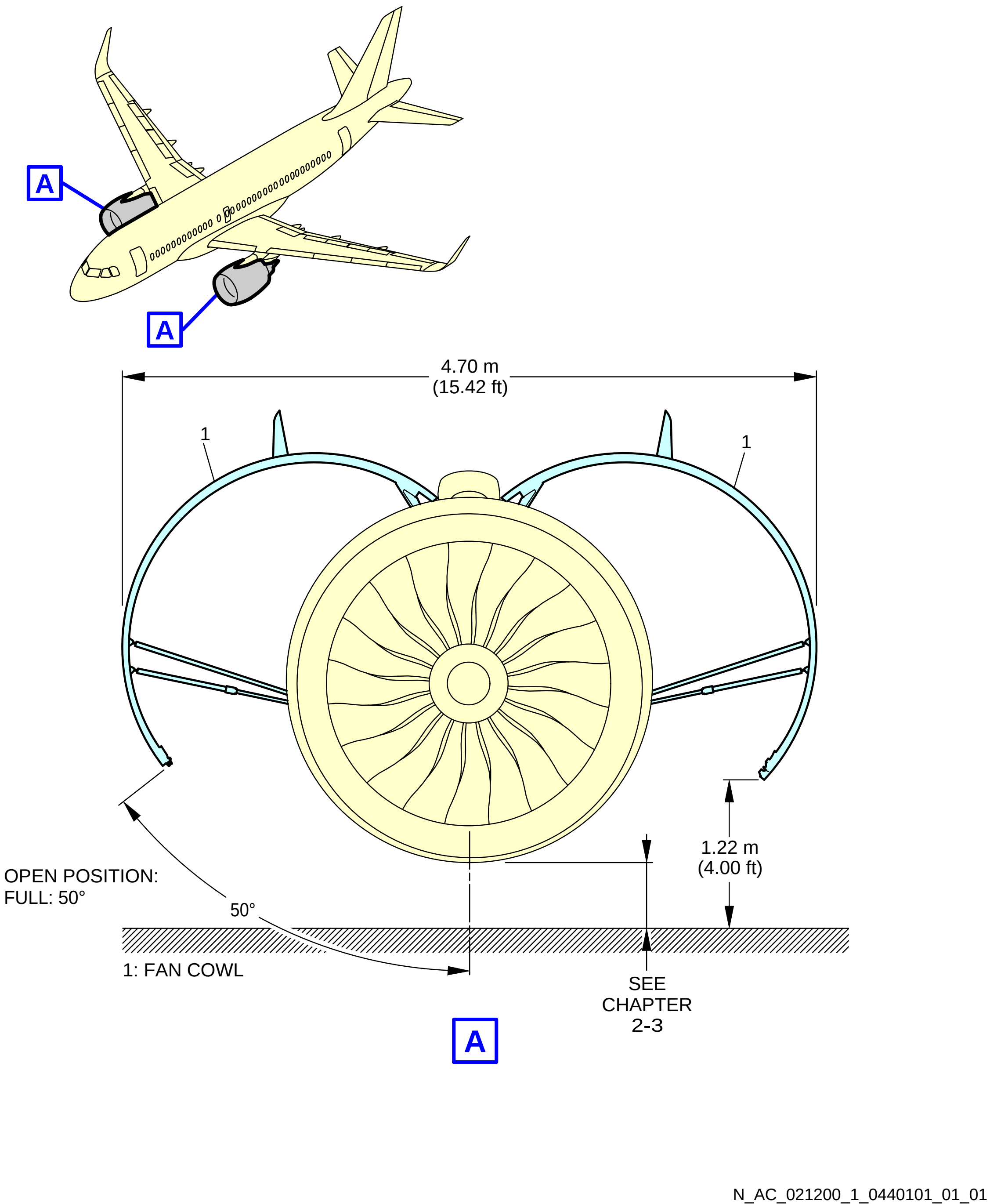
Power Plant Handling
Thrust Reverser Halves - IAE V2500 Series Engine
FIGURE-2-12-0-991-026-A01

****ON A/C A319neo**



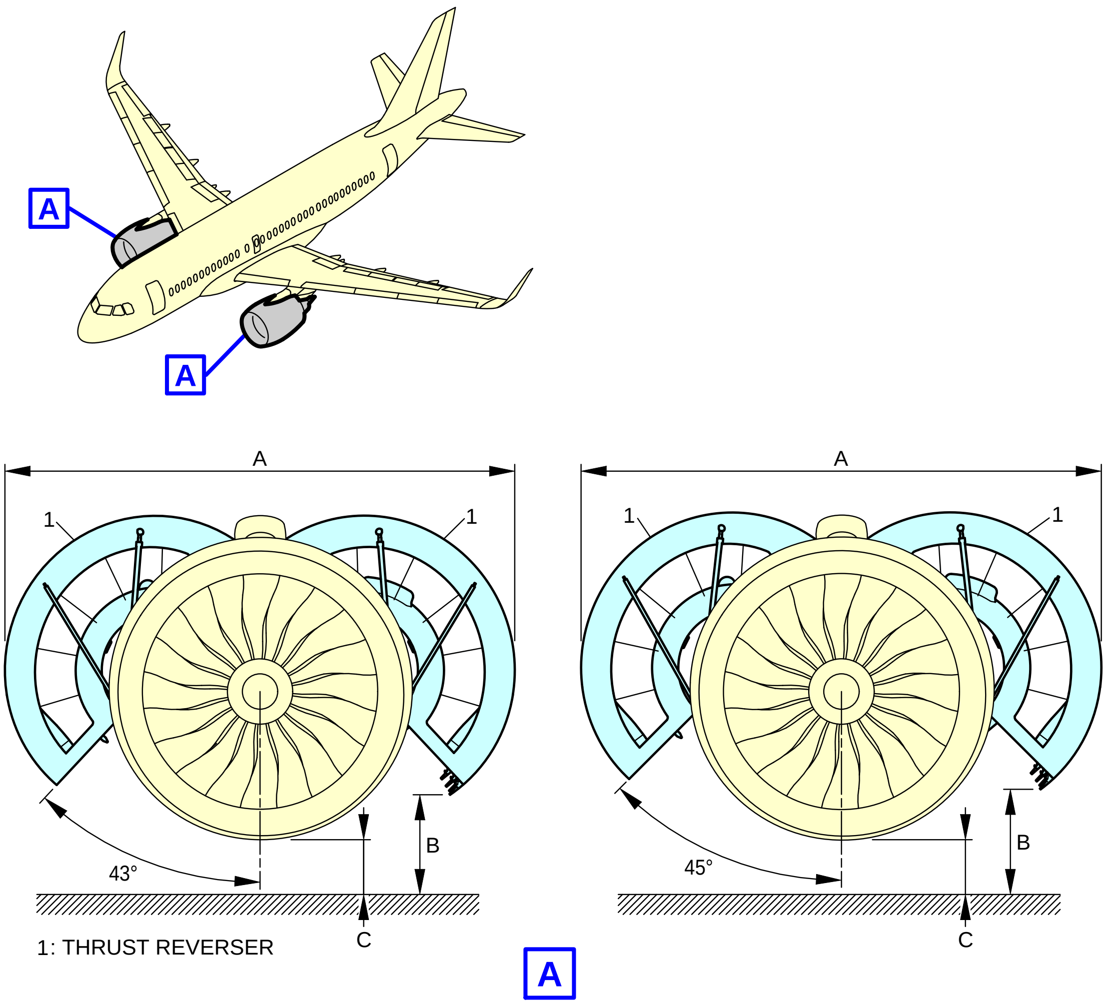
Power Plant Handling
Major Dimensions - PW 1100G Engine
FIGURE-2-12-0-991-043-A01

****ON A/C A319neo**



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

****ON A/C A319neo**



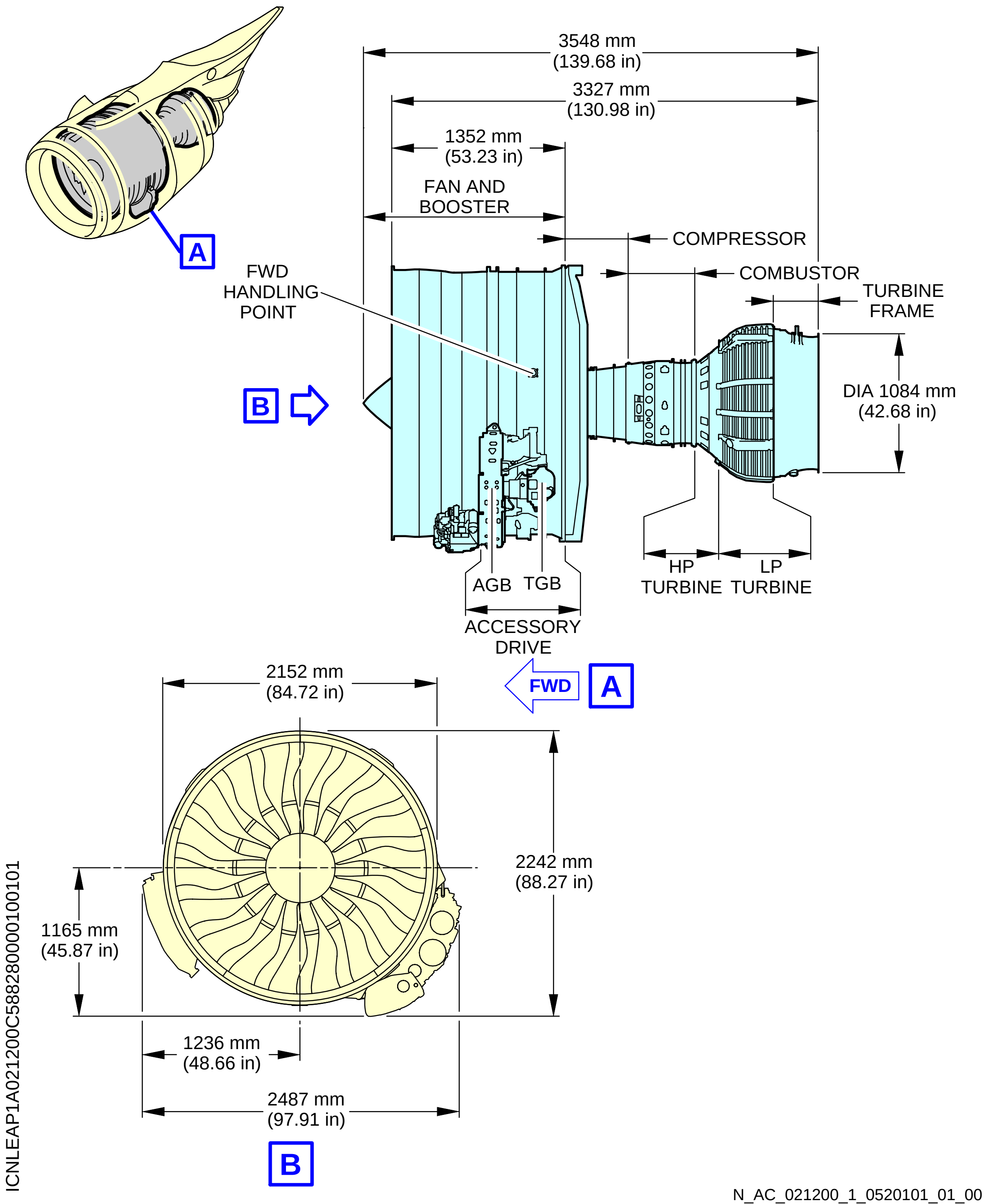
OPEN POSITION	A	B		C
		MIN.	MAX.	
43°	4.26 m (13.98 ft)	0.80 m (2.62 ft)	0.90 m (2.95 ft)	SEE AC SECTION 2-3-0
45°	4.33 m (14.21 ft)	0.84 m (2.76 ft)	0.95 m (3.12 ft)	

NOTE:
B AND C DEPENDING ON AIRCRAFT CONFIGURATION.

N_AC_021200_1_0450101_01_00

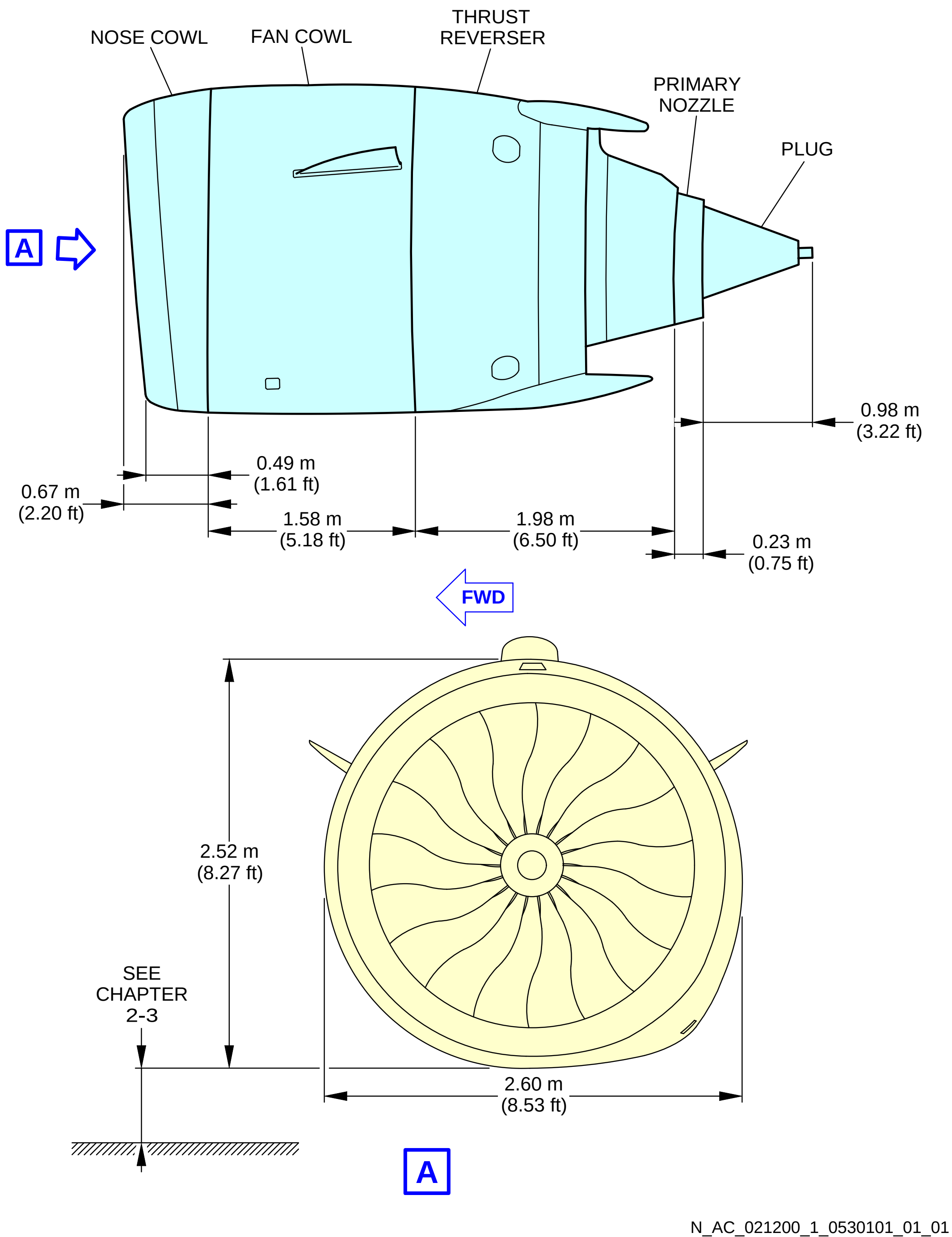
Power Plant Handling
Thrust Reverser Halves - PW 1100G Engine
FIGURE-2-12-0-991-045-A01

****ON A/C A319neo**



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

****ON A/C A319neo**



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.

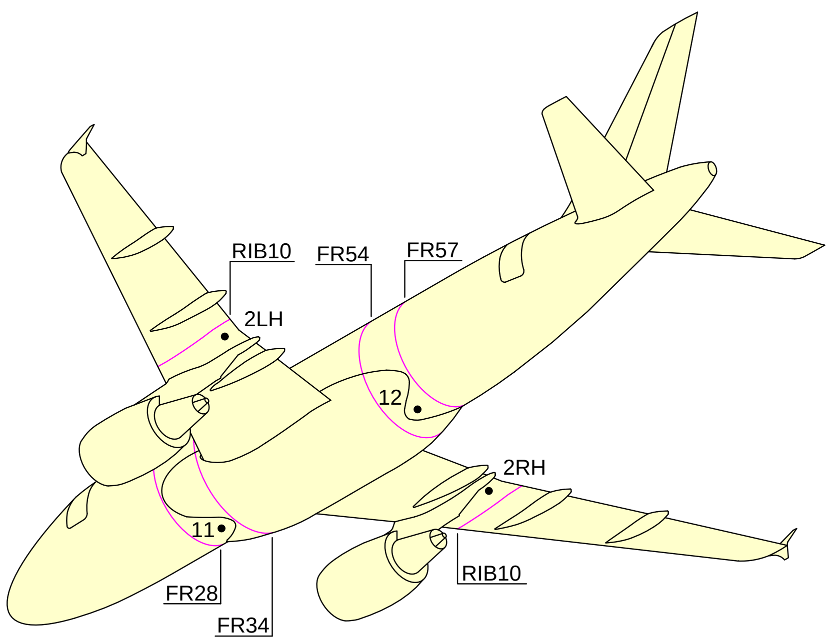
2. Precise Leveling

   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.

(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.

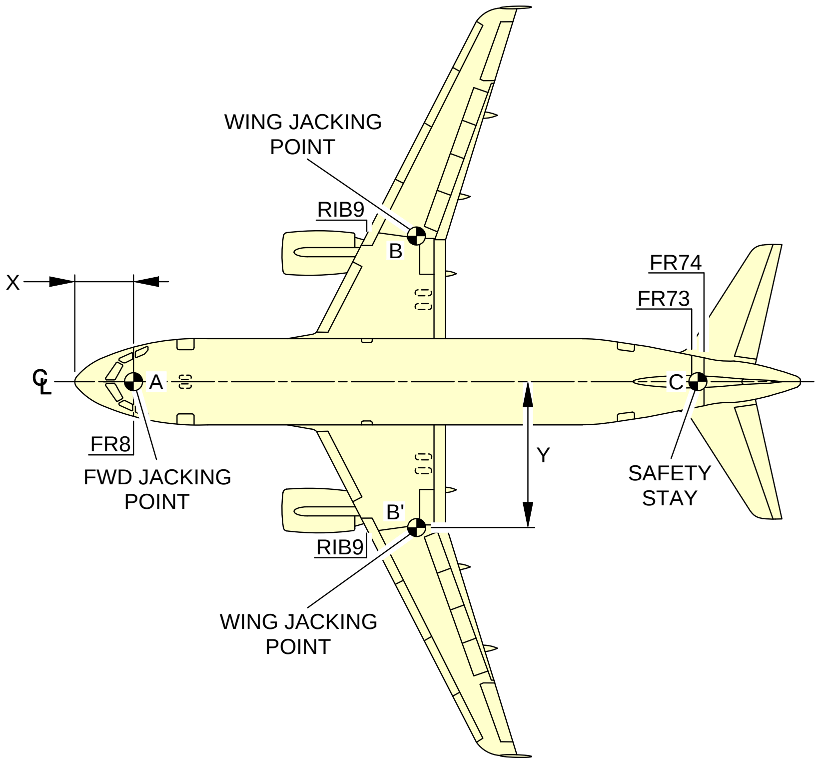
(3) The lifting jack stroke enables the aircraft to be jacked up so that the fuselage longitudinal datum line (aircraft center line) is parallel to the ground, with a clearance of 100 mm (3.94 in) between the main landing gear wheels and the ground. This enables the landing gear extension/retraction 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.

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



	X		Y		MAXIMUM LOAD ELIGIBLE
	m	ft	m	ft	daN
FORWARD FUSELAGE JACKING POINT A	2.74	8.99	0	0	6 800
WING JACKING POINT B	15.97	52.40	6.50	21.33	28 500
WING JACKING POINT 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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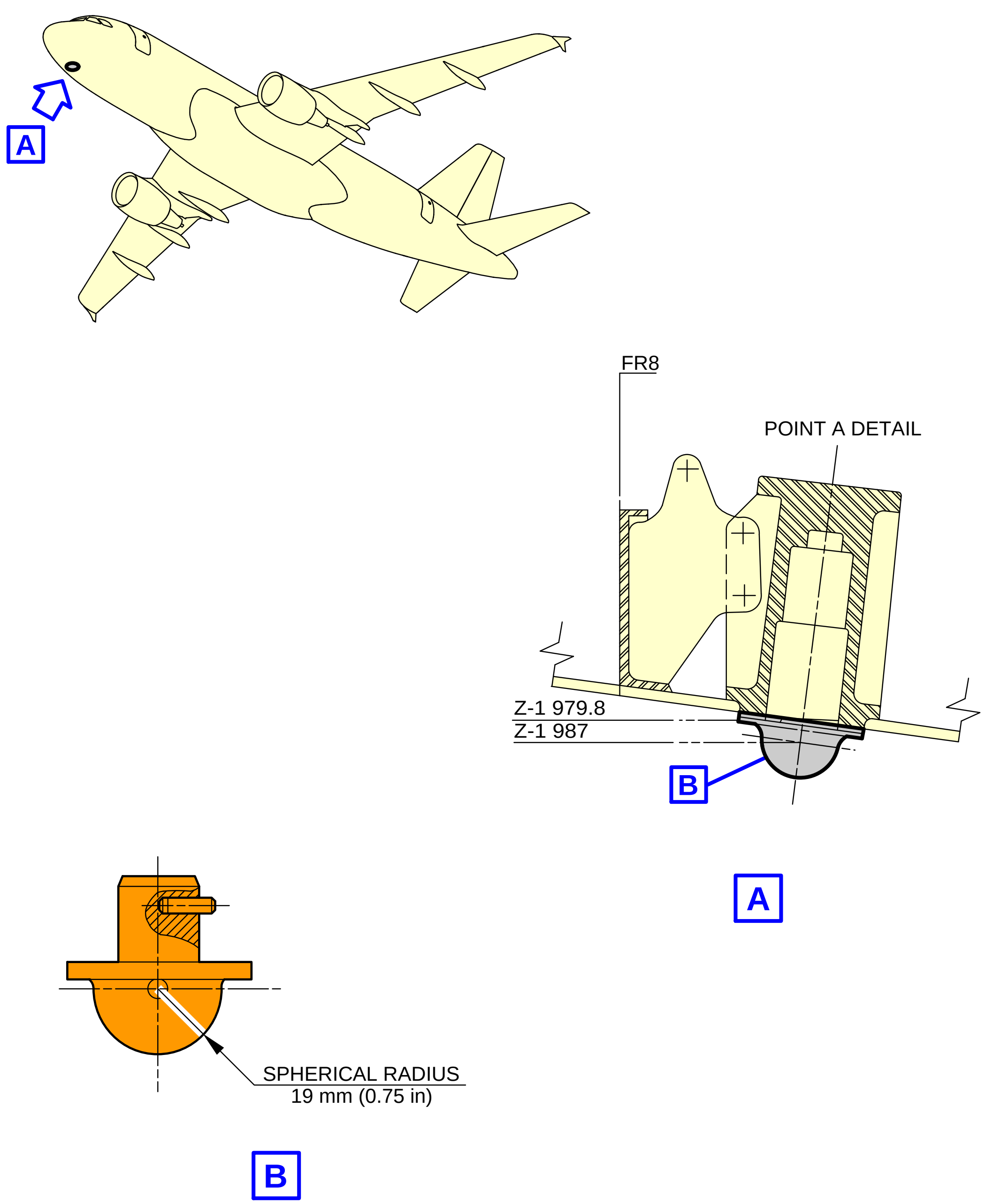
Jacking for Maintenance
Jacking Point Locations
FIGURE-2-14-0-991-005-A01

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



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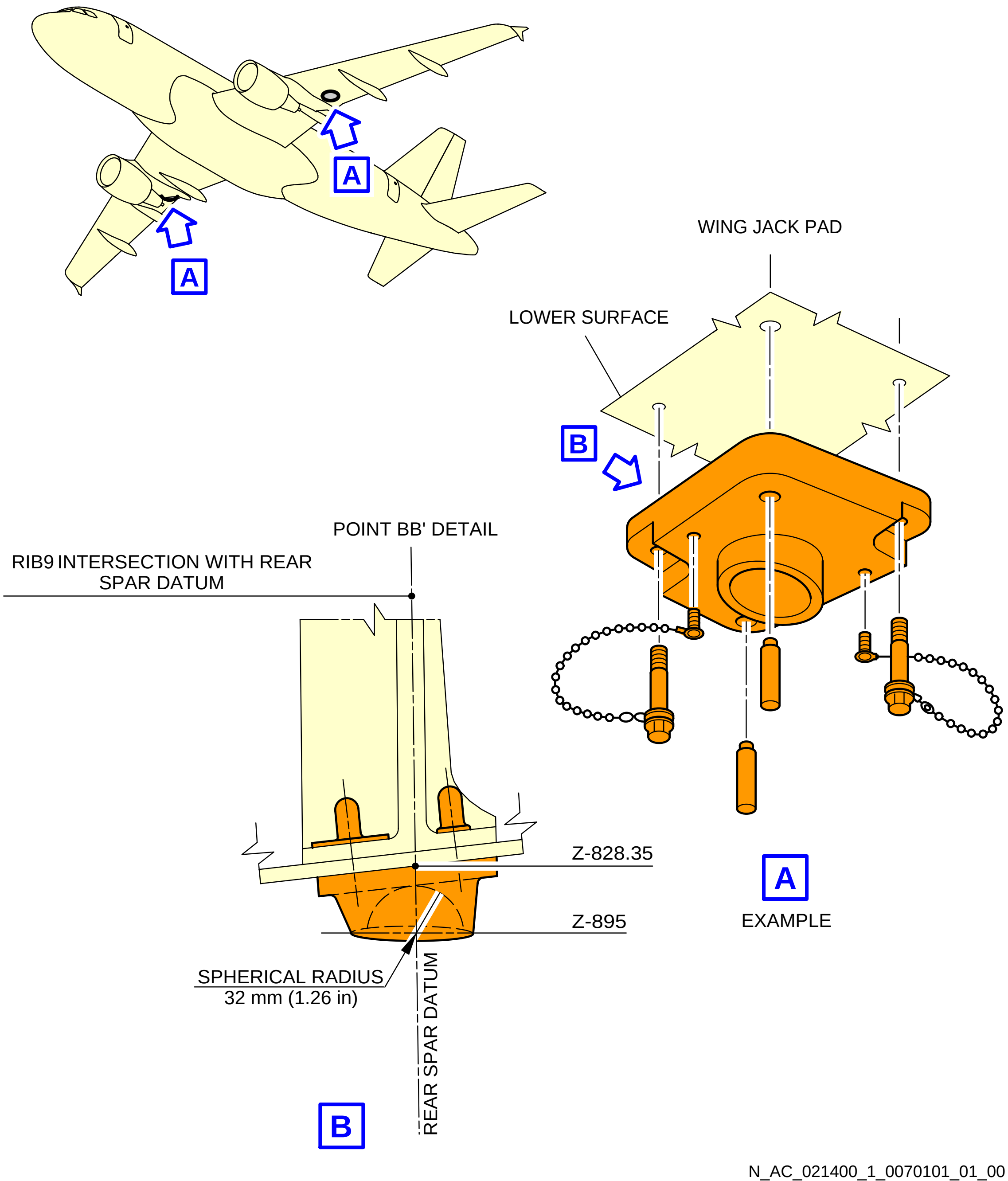
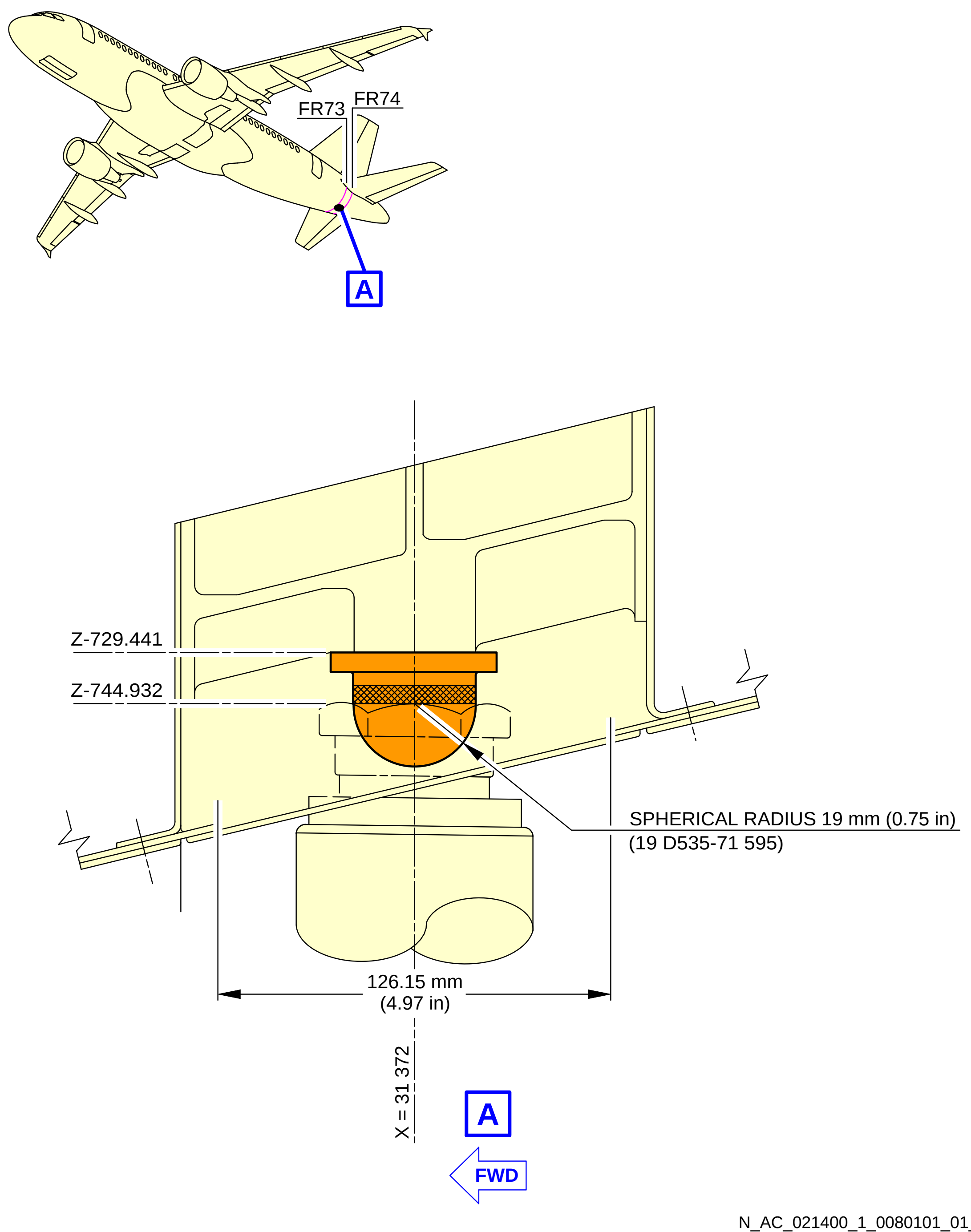
Jacking for Maintenance
Forward Jacking Point
FIGURE-2-14-0-991-006-A01

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



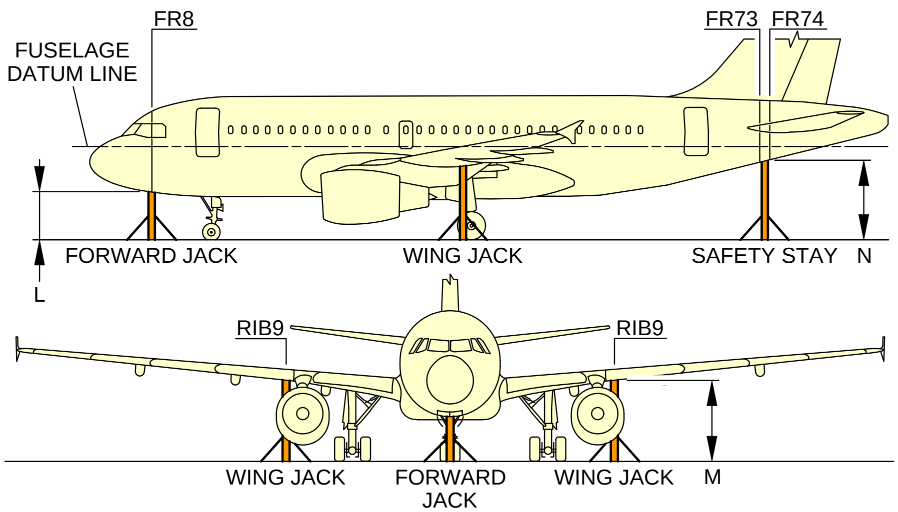
Jacking for Maintenance
Wing Jacking Points
FIGURE-2-14-0-991-007-A01

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



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

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



TYPICAL JACK INSTALLATION SHOWN

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

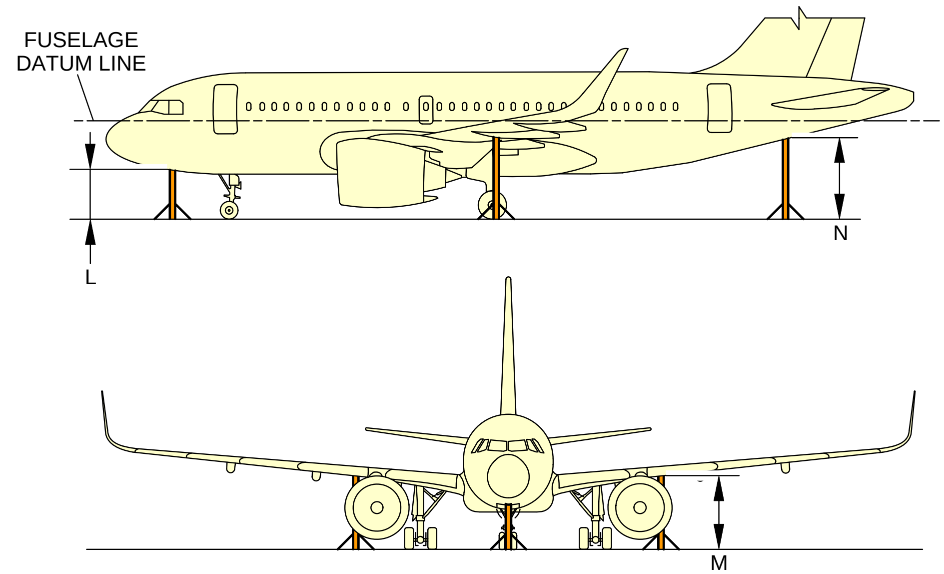
NOTE:

THE SAFETY STAY IS NOT USED FOR JACKING.

N_AC_021400_1_0090101_01_02

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

**ON A/C A319neo



CONFIGURATION	CG POSITION (% MAC)	HEIGHT L (m)	HEIGHT L (ft)	HEIGHT M (m)	HEIGHT M (ft)	HEIGHT N (m)	HEIGHT N (ft)
AIRCRAFT ON WHEELS, SHOCK-ABSORBERS DEFLATED, TIRES DEFLATED (RH)	14	1.90	6.23	3.31 LH 2.75 RH	10.86 LH 9.02 RH	3.09	10.14
	39	2.04	6.69	3.28 LH 2.75 RH	10.76 LH 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 01), CLEARANCE OF NOSE GEAR WHEELS = 0.95 m (3.12 ft) (STANDARD TIRES 01)	N/A	3.23	10.60	4.38	14.37	4.47	14.67
AIRCRAFT ON WHEELS (STANDARD TIRES 01) 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 01) 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

**ON A/C A319neo

CONFIGURATION	CG POSITION (% 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 01)	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 01), 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 01), 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 01), 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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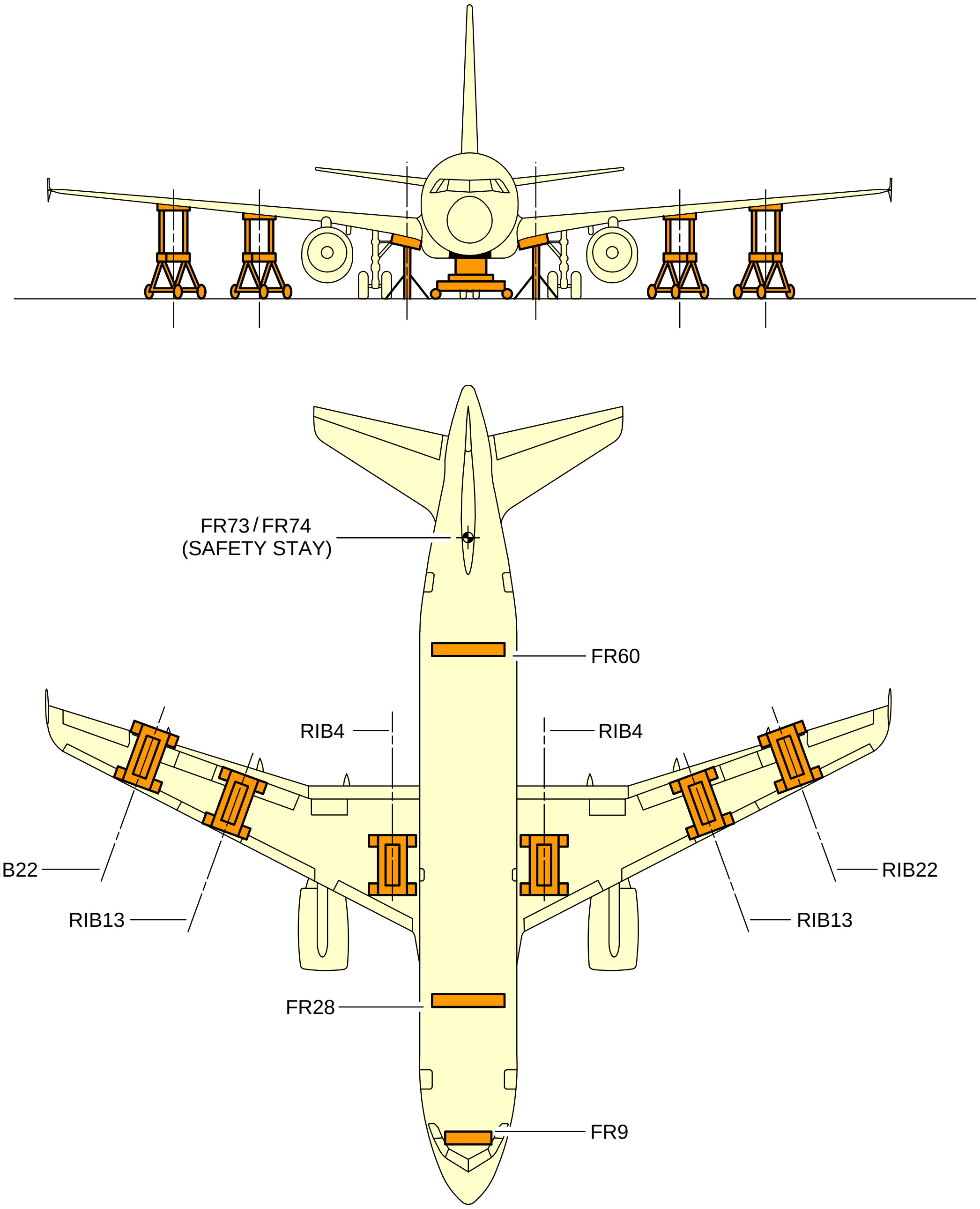
Jacking for Maintenance
Jacking Design (Sheet 2 of 2)
FIGURE-2-14-0-991-065-A01

****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.

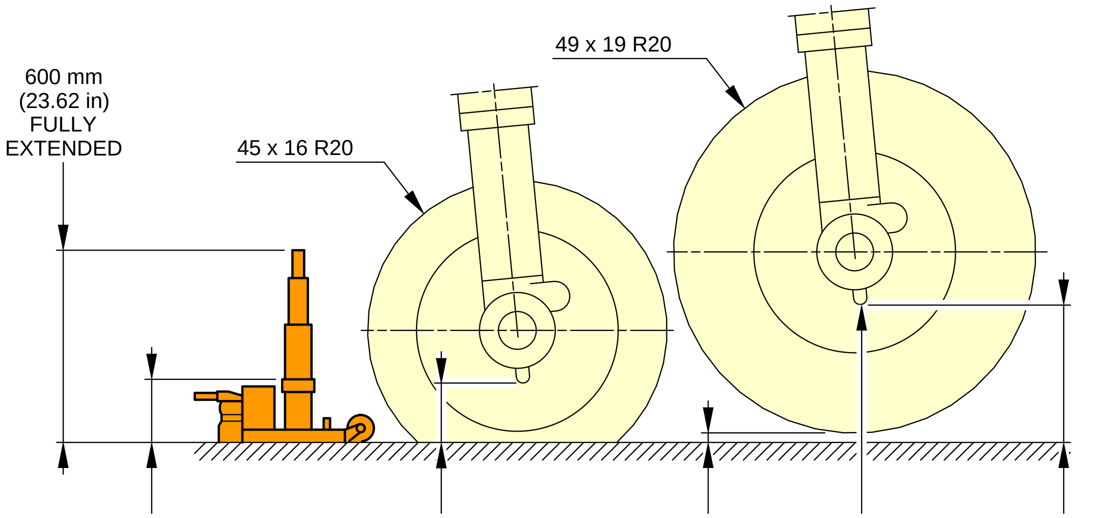
****ON A/C A319neo**

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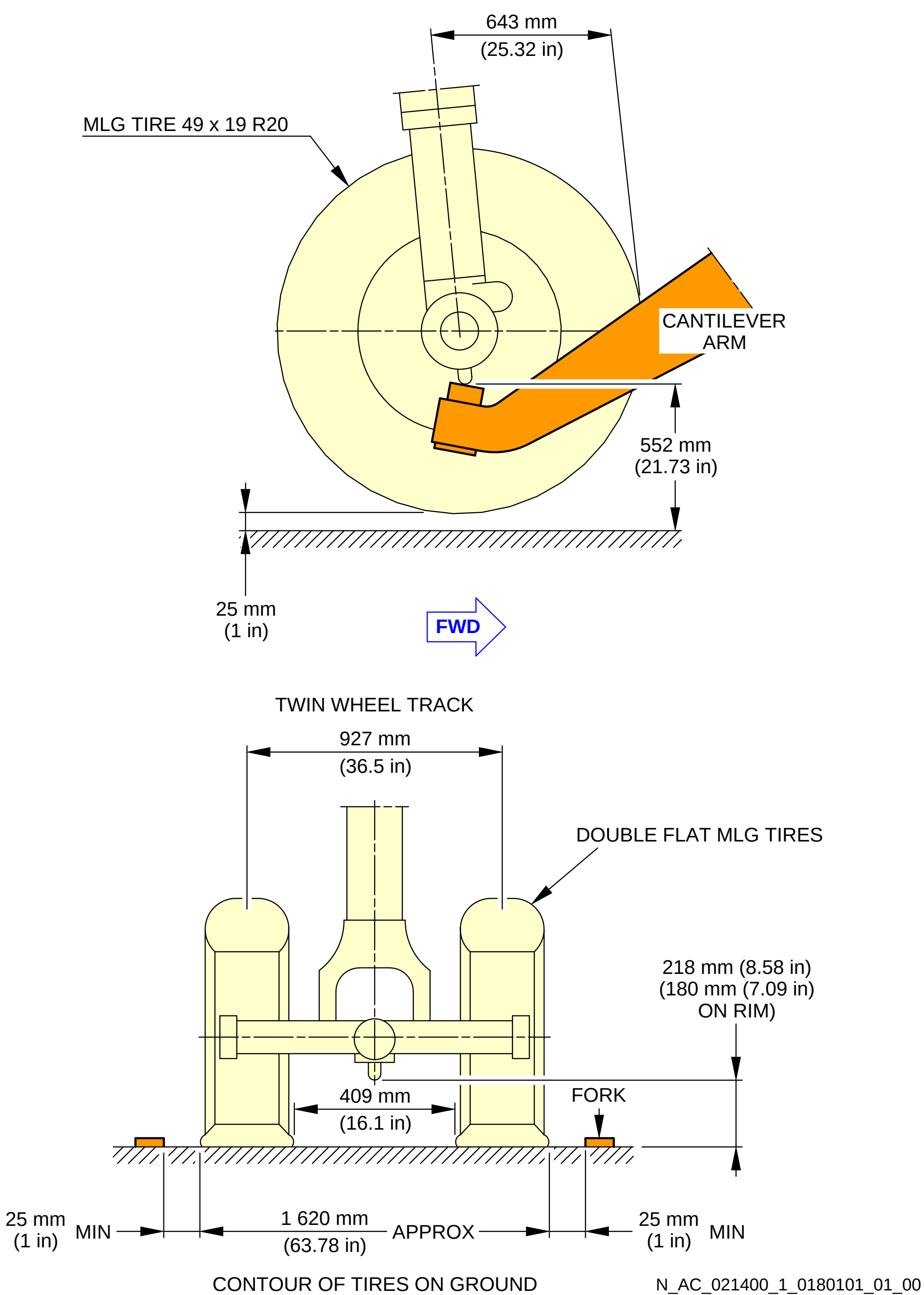
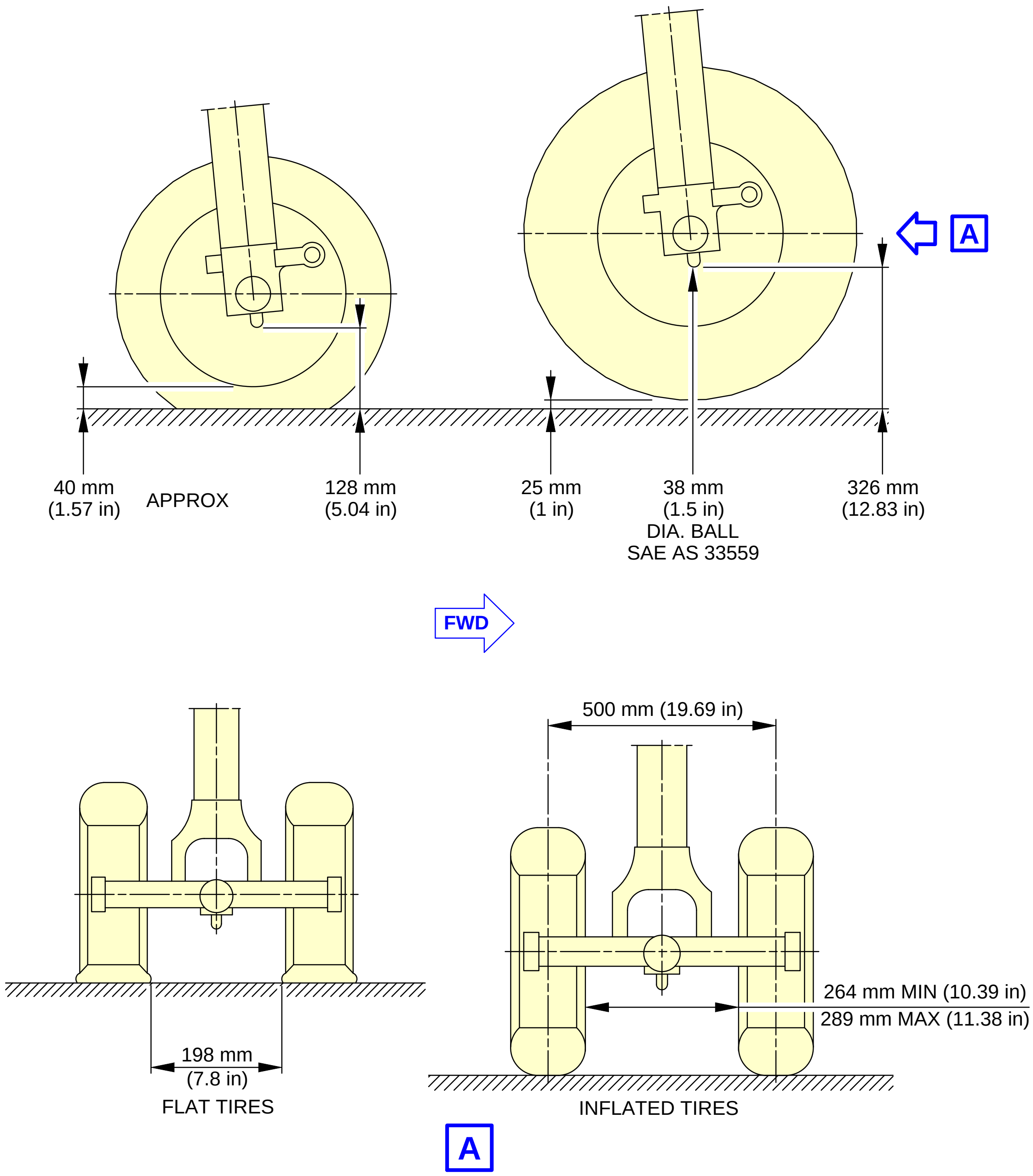
Jacking of the Landing Gear
MLG Jacking Point Location - Twin Wheels
FIGURE-2-14-0-991-017-A01

****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.

N_AC_021400_1_0210101_01_00

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

N_AC_021400_1_0590101_01_00

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

N_AC_021400_1_0620101_01_00

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

AIRCRAFT PERFORMANCE

3-1-0 General Information

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

General Information

1. 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

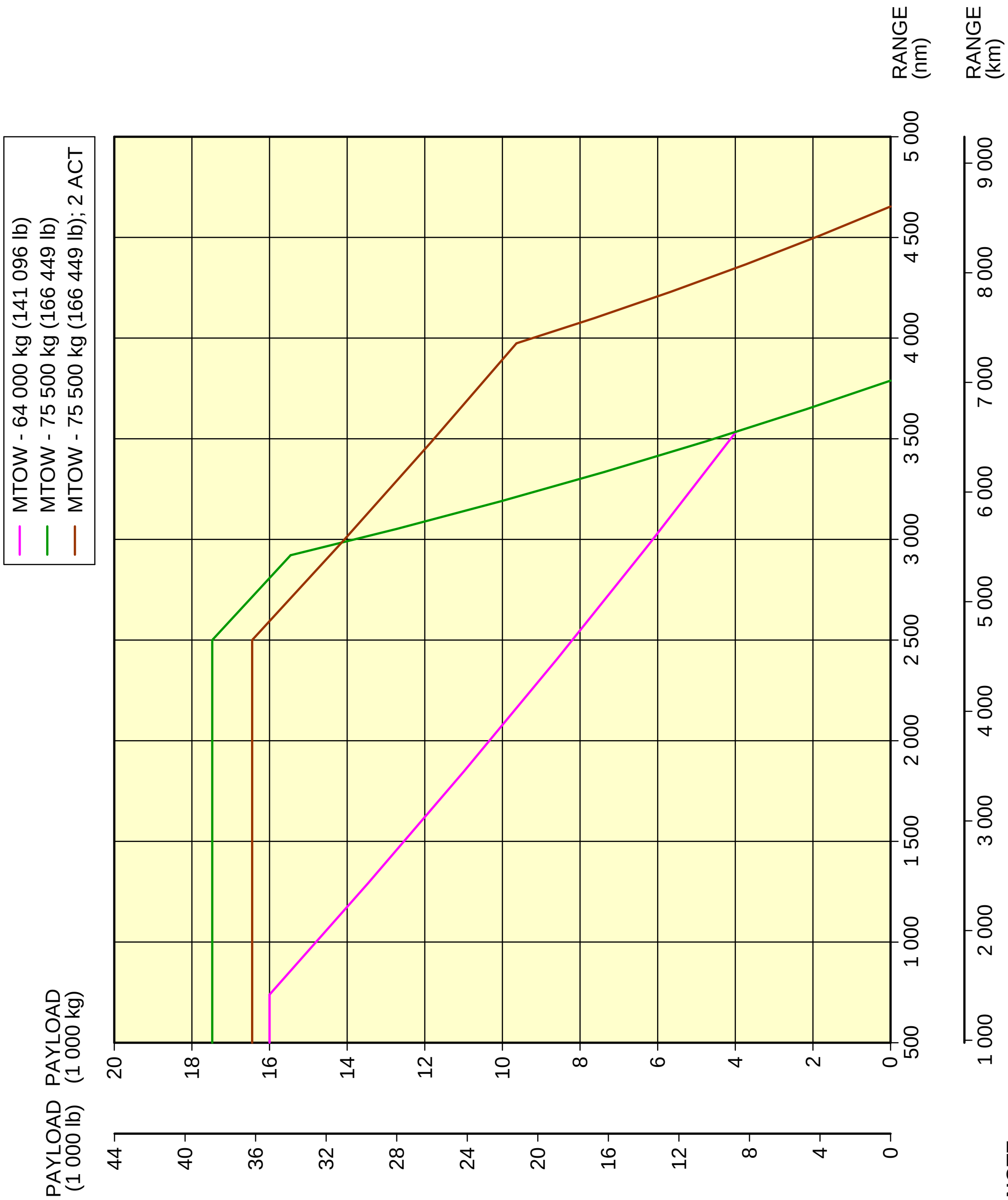
3-2-1 Payload / Range - ISA Conditions

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

Payload/Range - ISA Conditions

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

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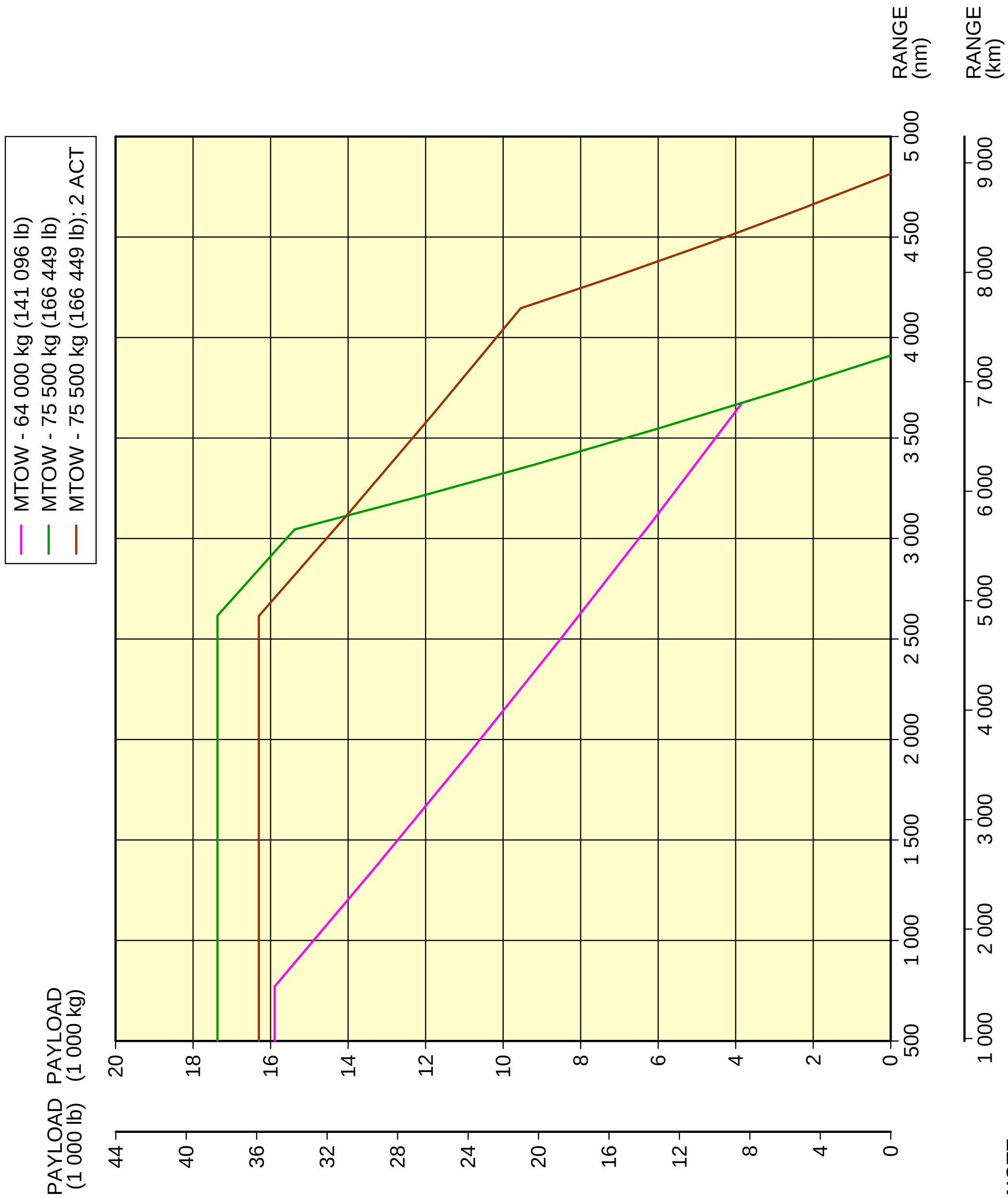
Payload/Range - ISA Conditions
FIGURE-3-2-1-991-013-A01

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



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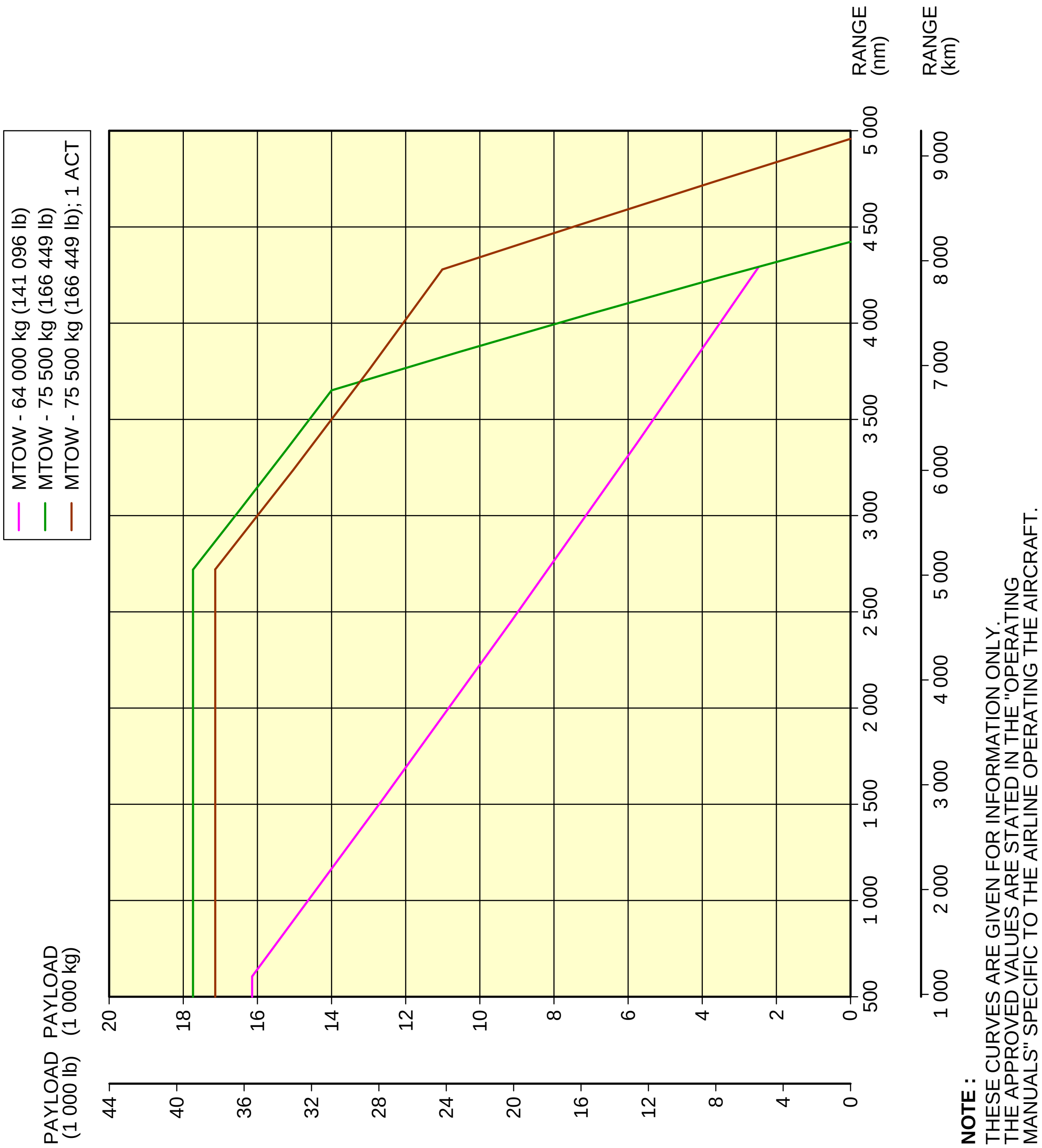
Payload/Range - ISA Conditions
Sharklet
FIGURE-3-2-1-991-014-A01

****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

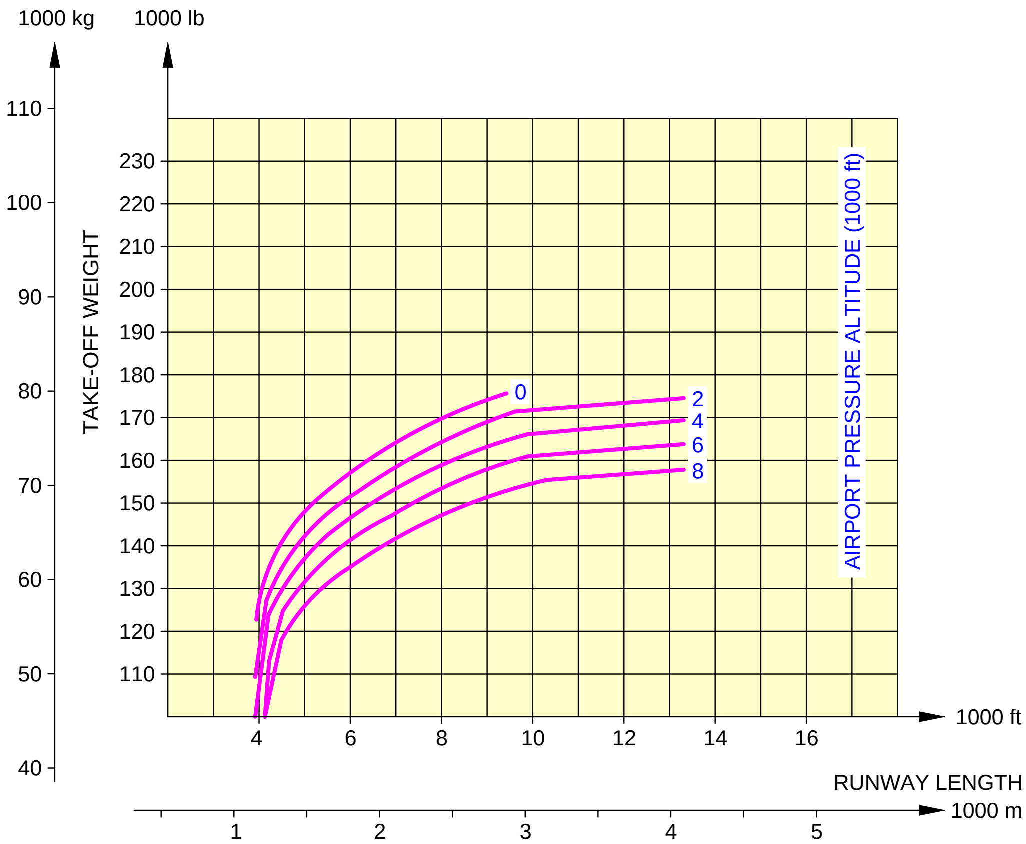
****ON A/C A319-100 A319neo**

Take-Off Weight Limitation - ISA Conditions

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

****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.

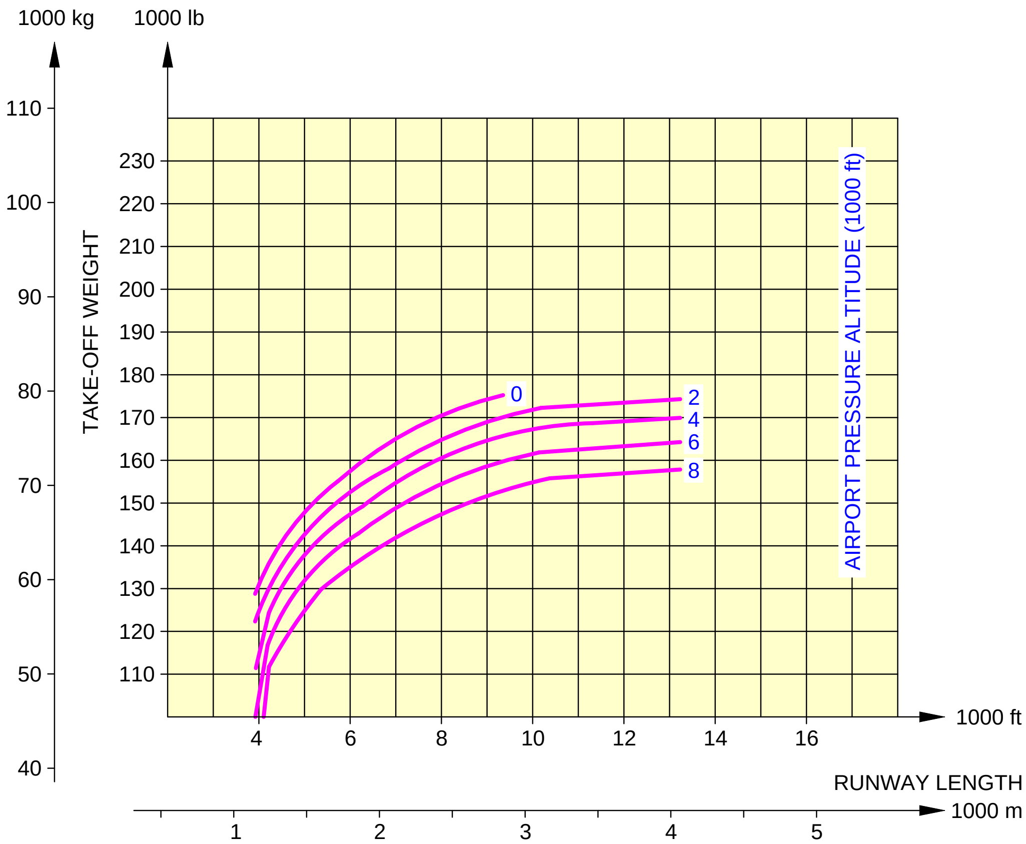


N_AC_030301_1_0030101_01_00

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

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

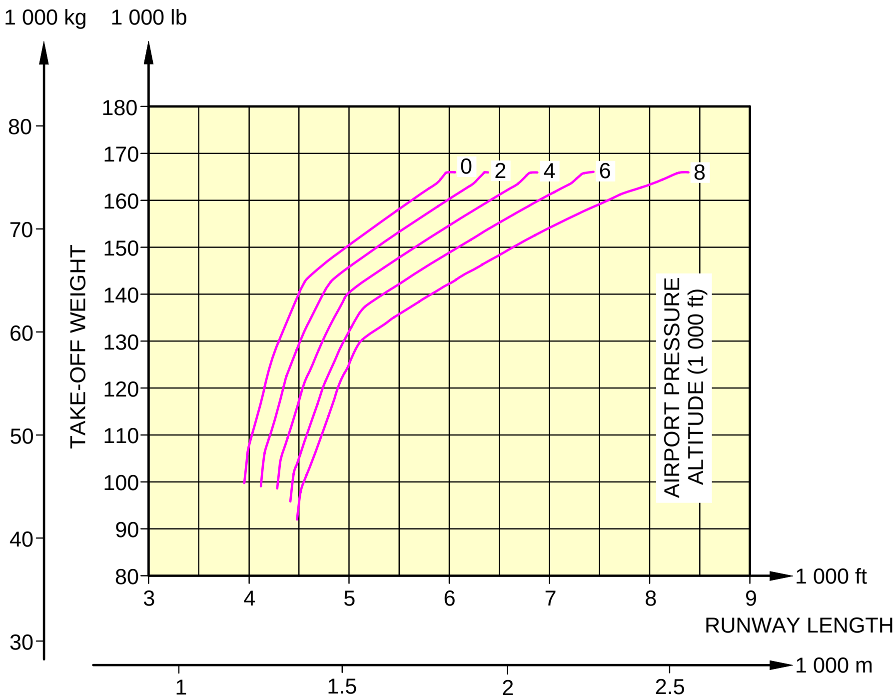
NOTE: THESE CURVES ARE GIVEN FOR INFORMATION ONLY
THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.



N_AC_030301_1_0040101_01_00

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

****ON A/C A319neo**



NOTE:
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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

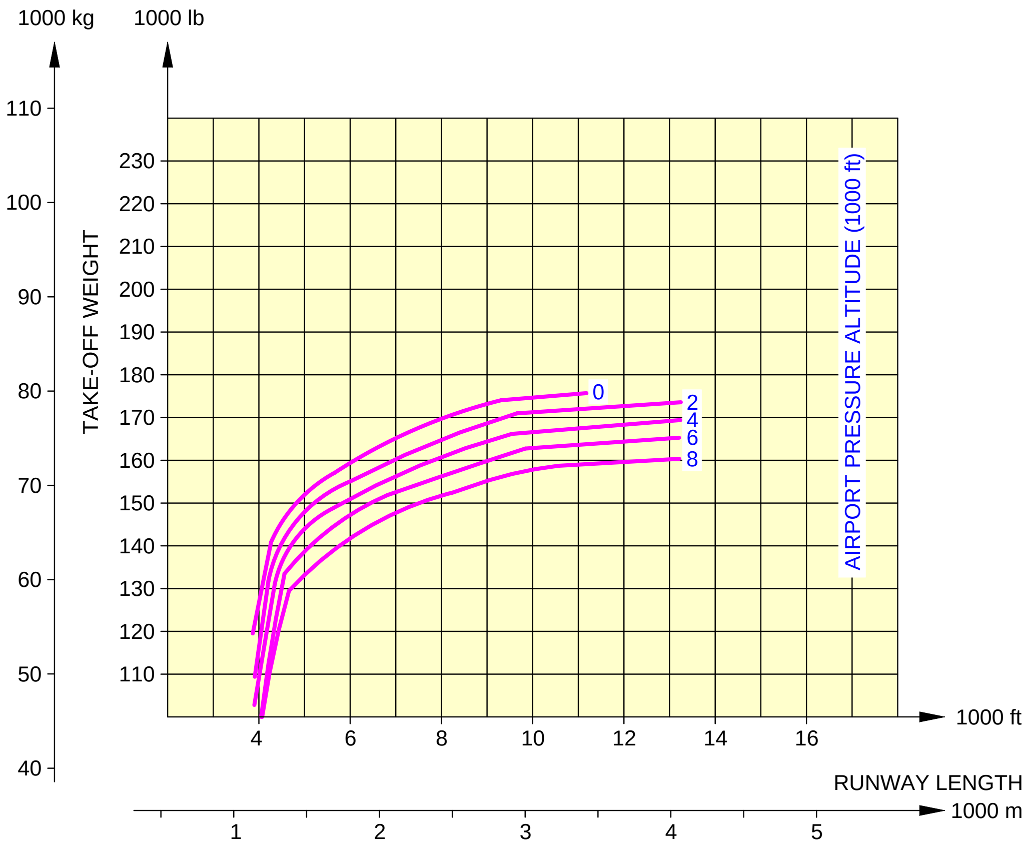
****ON A/C A319-100 A319neo**

Take-Off Weight Limitation - ISA +15°C (+27°F) Conditions

1. This section gives the take-off weight limitation at ISA +15°C (+27°F) conditions.

****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.

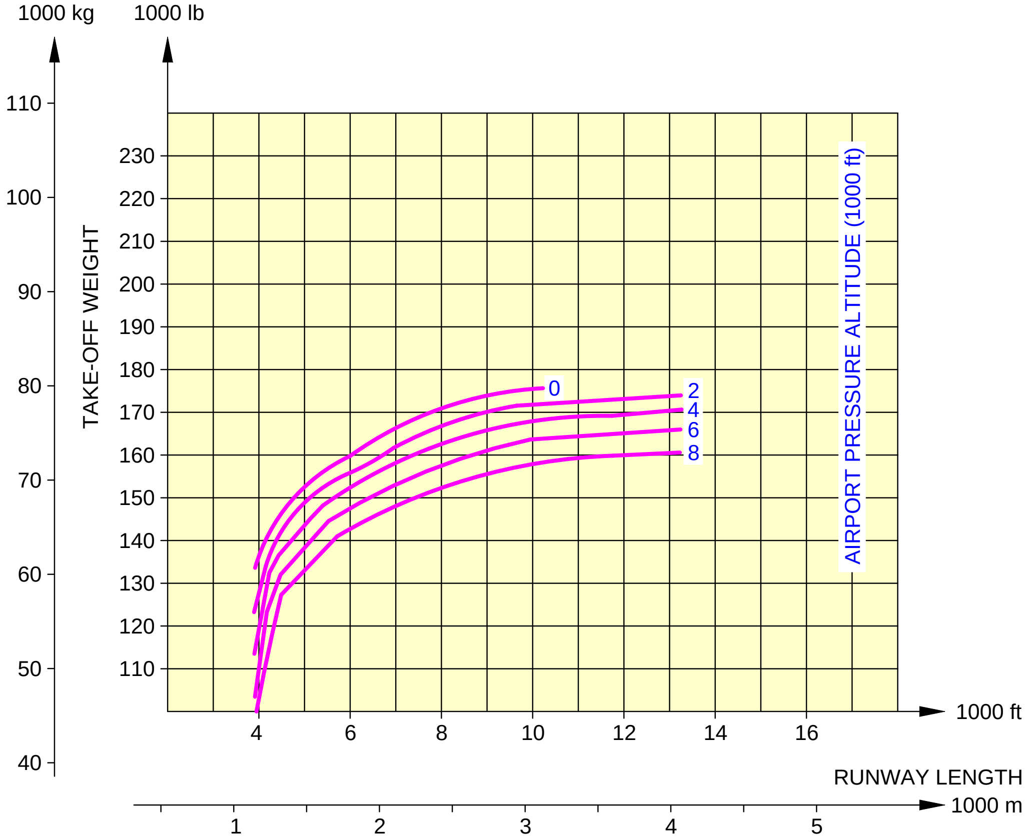


N_AC_030302_1_0030101_01_00

Take-Off Weight Limitation - ISA +15°C (+27°F) Conditions
CFM56 Series Engine
FIGURE-3-3-2-991-003-A01

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

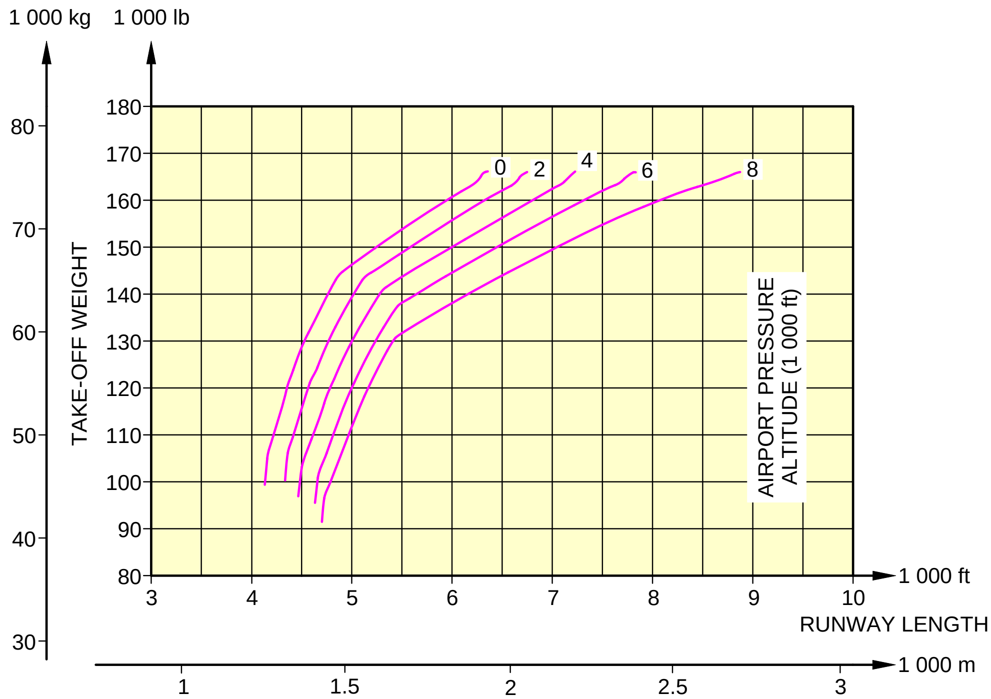
NOTE: THESE CURVES ARE GIVEN FOR INFORMATION ONLY
THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.



N_AC_030302_1_0040101_01_00

Take-Off Weight Limitation - ISA +15°C (+27°F) Conditions
IAE V2500 Series Engine
FIGURE-3-3-2-991-004-A01

****ON A/C A319neo**



NOTE:
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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°C (+27°F) 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.

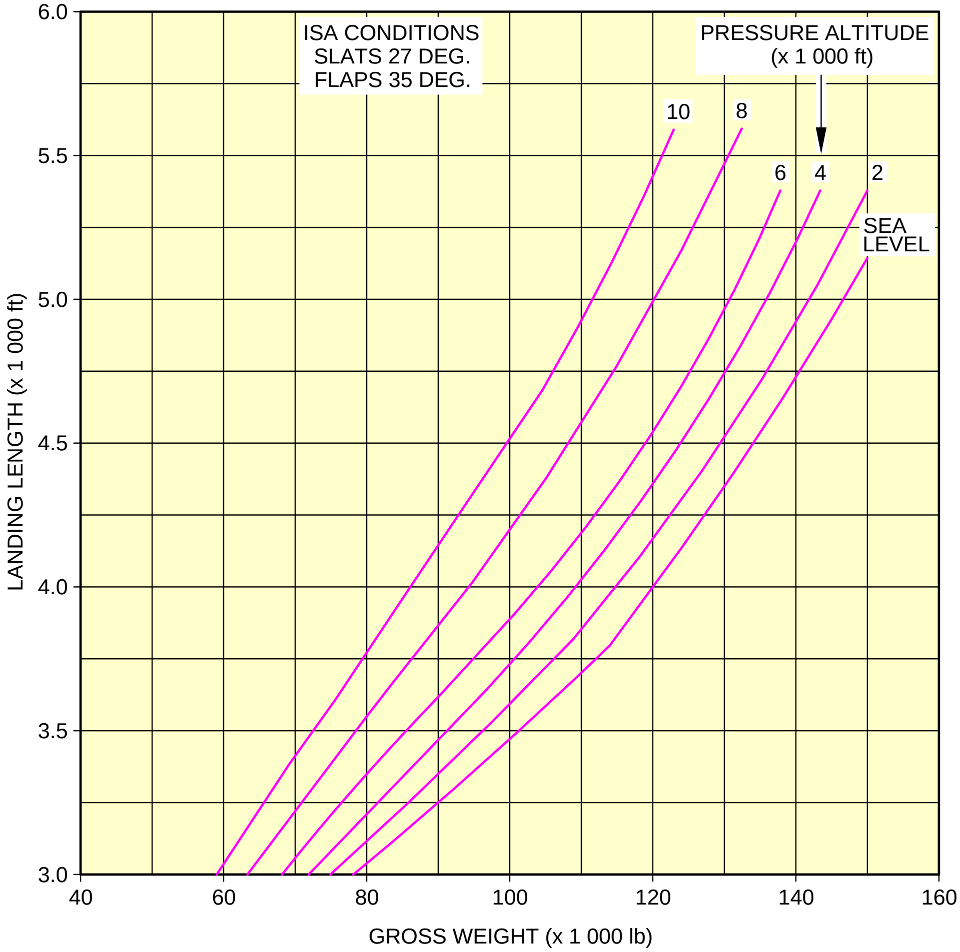
3-4-1 Landing Field Length - ISA Conditions

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

Landing Field Length - ISA Conditions

1. This section provides the landing field length.

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

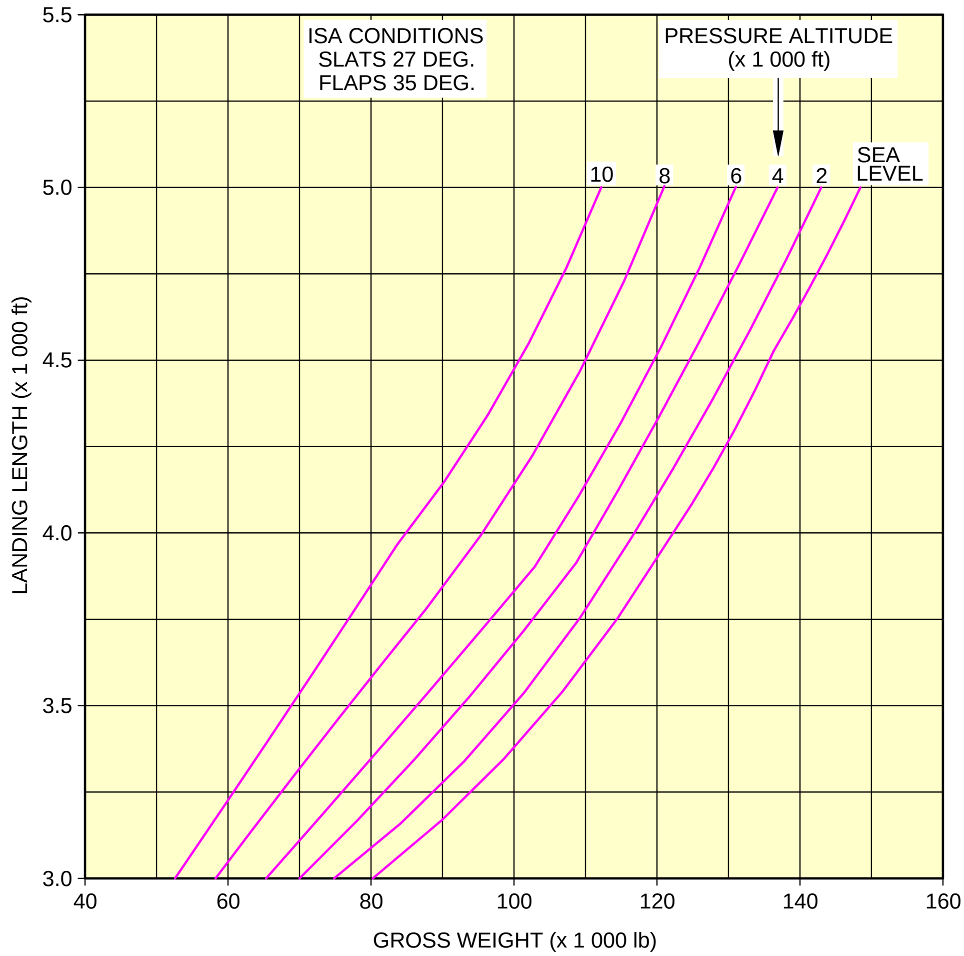


NOTE:
THESE CURVES ARE GIVEN FOR INFORMATION ONLY.
THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

N_AC_030401_1_0030101_01_01

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

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

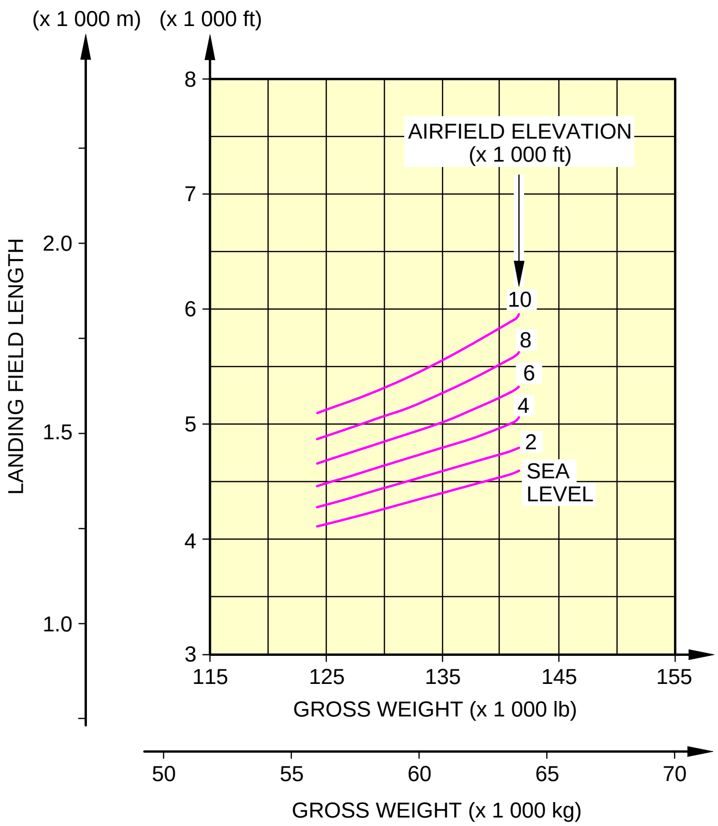


NOTE:
THESE CURVES ARE GIVEN FOR INFORMATION ONLY.
THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

N_AC_030401_1_0040101_01_01

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

****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.

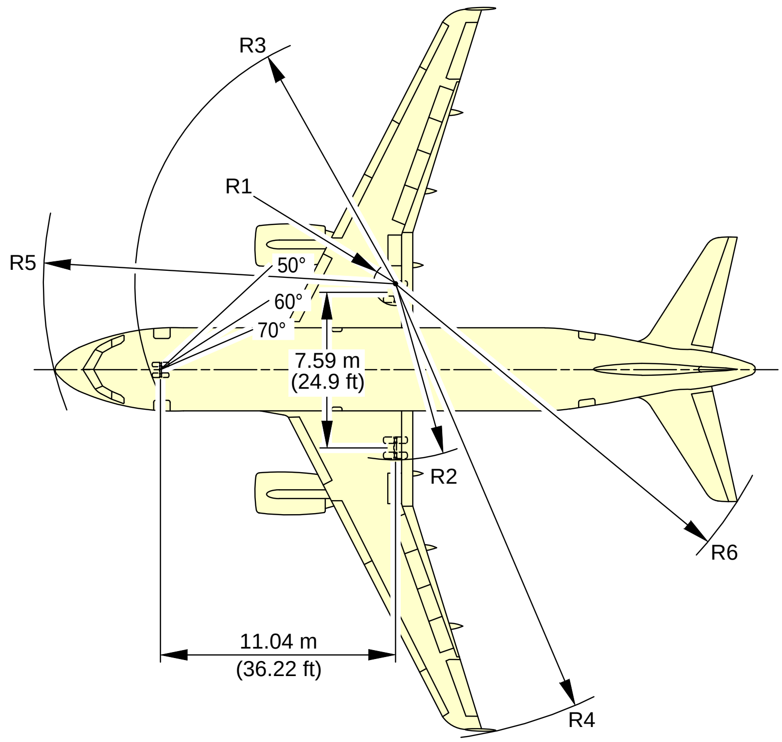
4-2-0 Turning Radii

****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

****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 m	WINGTIP FENCE ft	SHARKLET m	SHARKLET ft	m	ft	m	ft
2	20	19.4	28.2	92	35.8	117	33.5	110	48.6	159	49.4	162	35.2	116	41.2	135
2	25	24.3	21.4	70	29.0	95	27.2	89	41.8	137	42.6	140	29.3	96	35.1	115
2	30	29.1	16.7	55	24.3	80	23.0	76	37.1	122	38.0	125	25.6	84	31.1	102
2	35	33.9	13.3	44	20.9	69	20.1	66	33.7	111	34.6	113	23.0	75	28.3	93
2	40	38.8	10.6	35	18.2	60	17.9	59	31.1	102	31.9	105	21.2	69	26.2	86
2	45	43.6	8.5	28	16.1	53	16.3	53	29.0	95	29.8	98	19.8	65	24.6	81
2	50	48.4	6.7	22	14.3	47	15.0	49	27.2	89	28.0	92	18.9	62	23.3	76
2	55	53.2	5.2	17	12.7	42	14.0	46	25.7	84	26.5	87	18.1	59	22.3	73
2	60	57.9	3.8	13	11.4	37	13.2	43	24.4	80	25.2	83	17.5	58	21.4	70
2	65	62.5	2.6	9	10.2	34	12.6	41	23.2	76	24.0	79	17.1	56	20.7	68
2	70	66.9	1.6	5	9.2	30	12.2	40	22.2	73	23.0	76	16.8	55	20.1	66
2	75 (MAX)	70.3	0.8	3	8.4	28	11.8	39	21.4	70	22.3	73	16.6	54	19.7	65
1	50	48.6	6.6	22	14.2	47	14.9	49	27.1	89	28.0	92	18.8	62	23.2	76
1	55	53.5	5.1	17	12.6	41	14.0	46	25.6	84	26.4	87	18.1	59	22.2	73
1	60	58.3	3.7	12	11.3	37	13.2	43	24.3	80	25.1	82	17.5	57	21.3	70
1	65	63.1	2.5	8	10.1	33	12.5	41	23.1	76	23.9	78	17.1	56	20.6	68
1	70	67.7	1.4	5	9.0	30	12.1	40	22.0	72	22.8	75	16.7	55	20.0	66
1	75 (MAX)	71.9	0.5	2	8.1	27	11.7	38	21.1	69	22.0	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

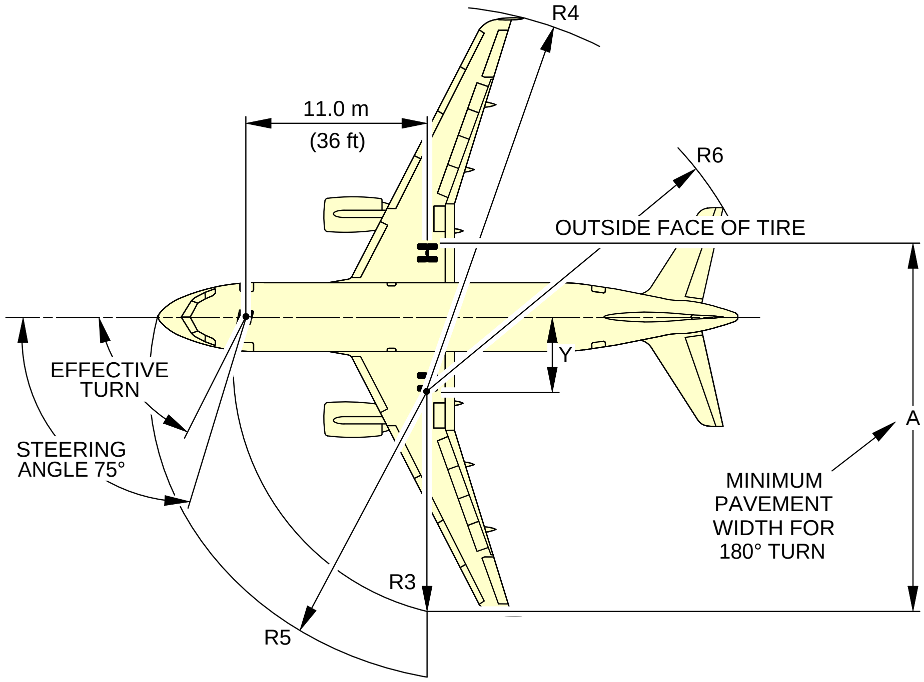
4-3-0 Minimum Turning Radii

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

Minimum Turning Radii

1. This section provides the minimum turning radii.

****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

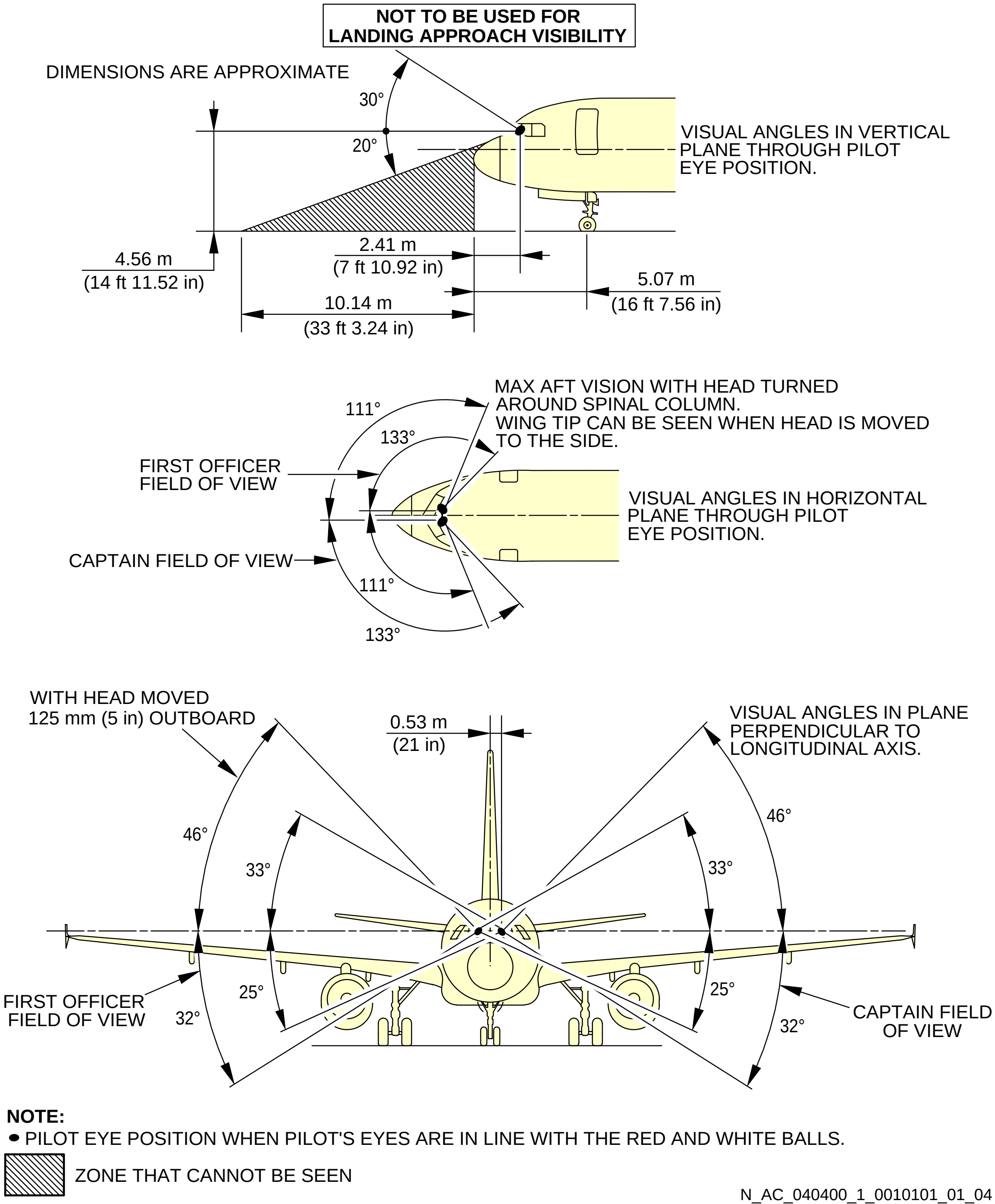
4-4-0 Visibility from Cockpit in Static Position

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

Visibility from Cockpit in Static Position

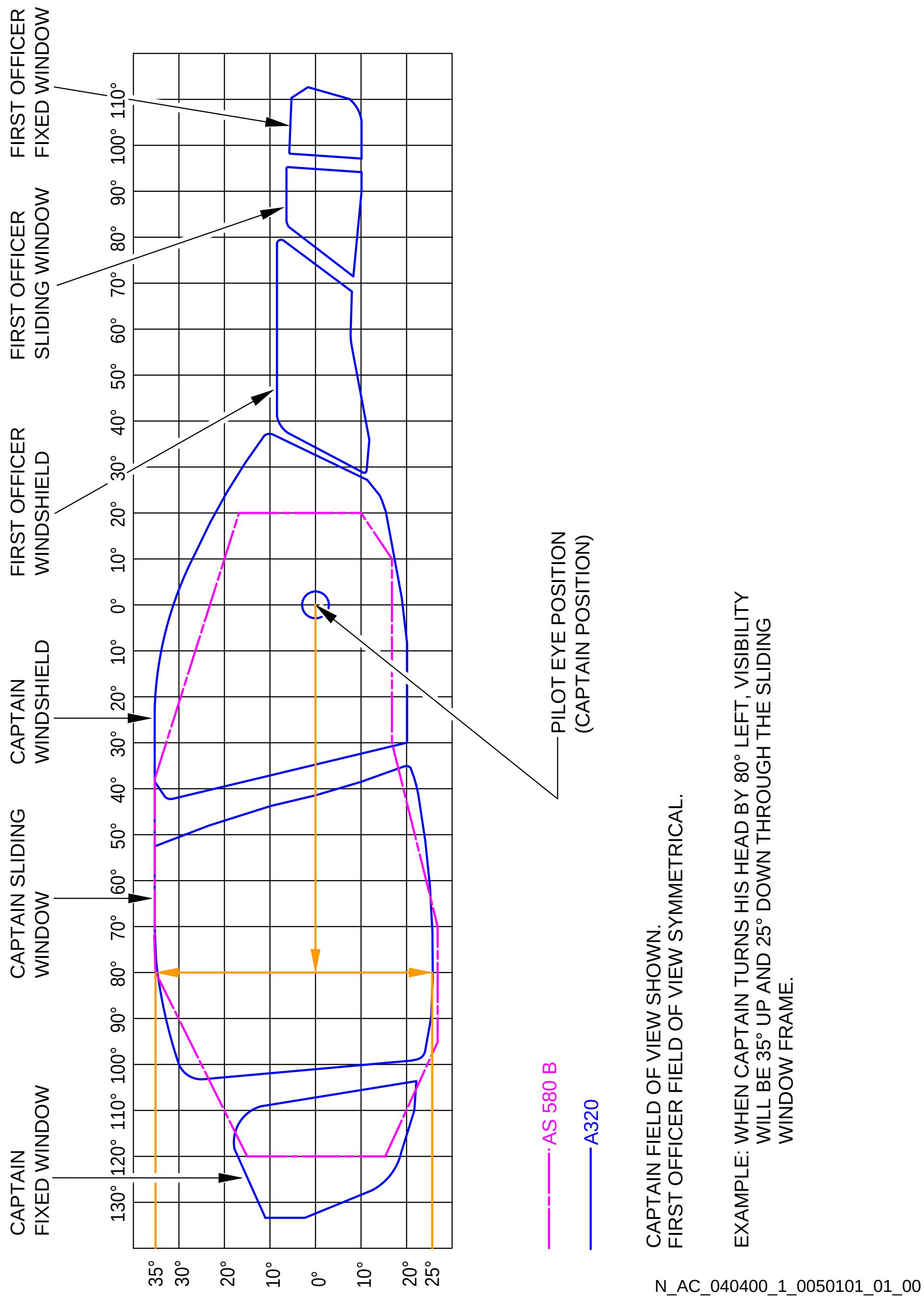
1. This section gives the visibility from cockpit in static position.

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



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

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



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.

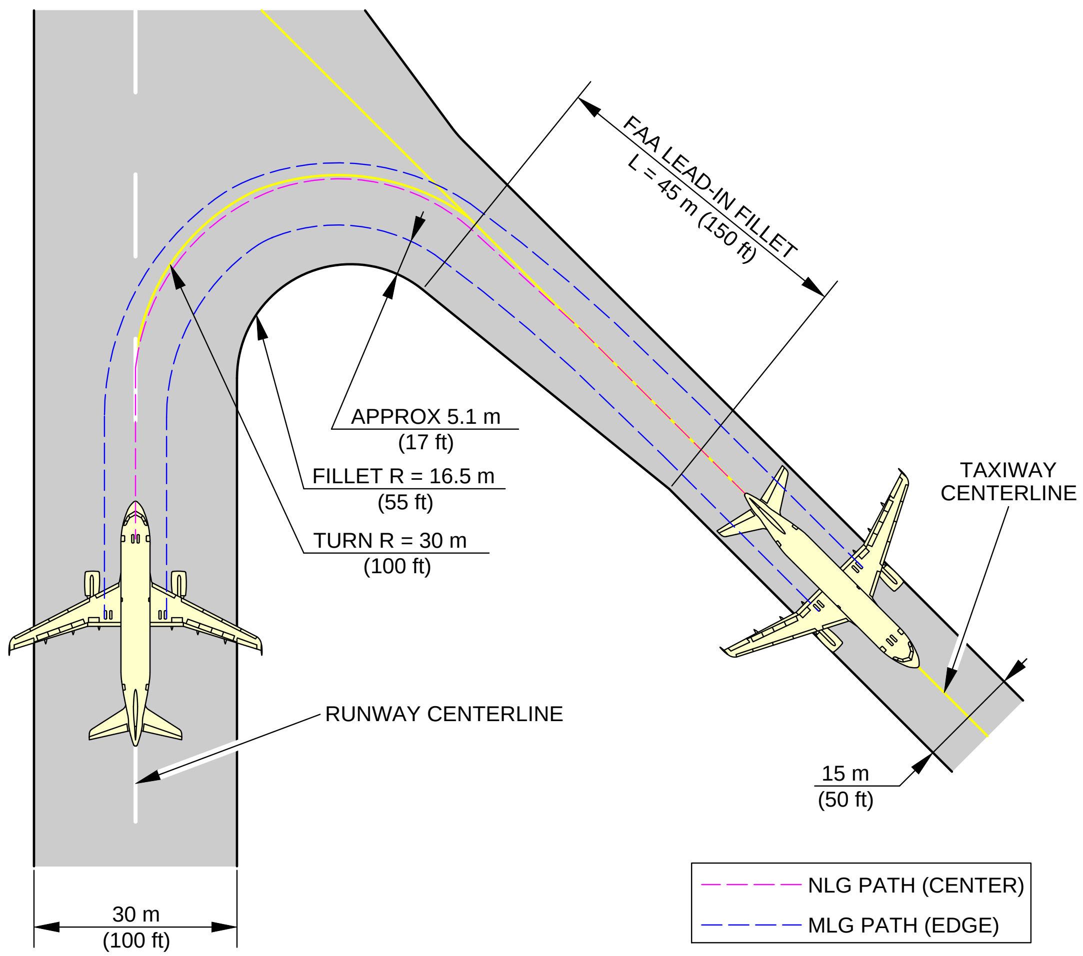
4-5-1 135° Turn - Runway to Taxiway

****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**

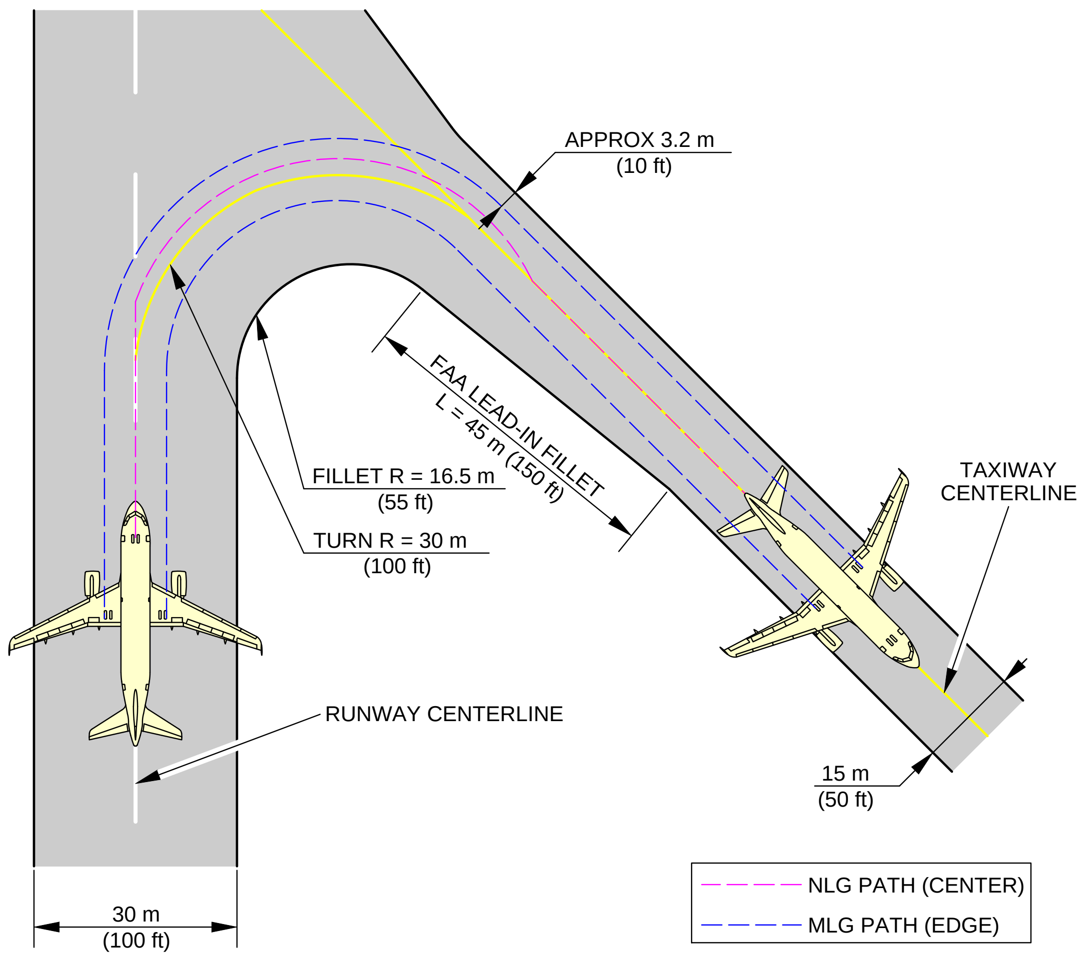


NOTE:
FAA GROUP III FACILITIES.

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

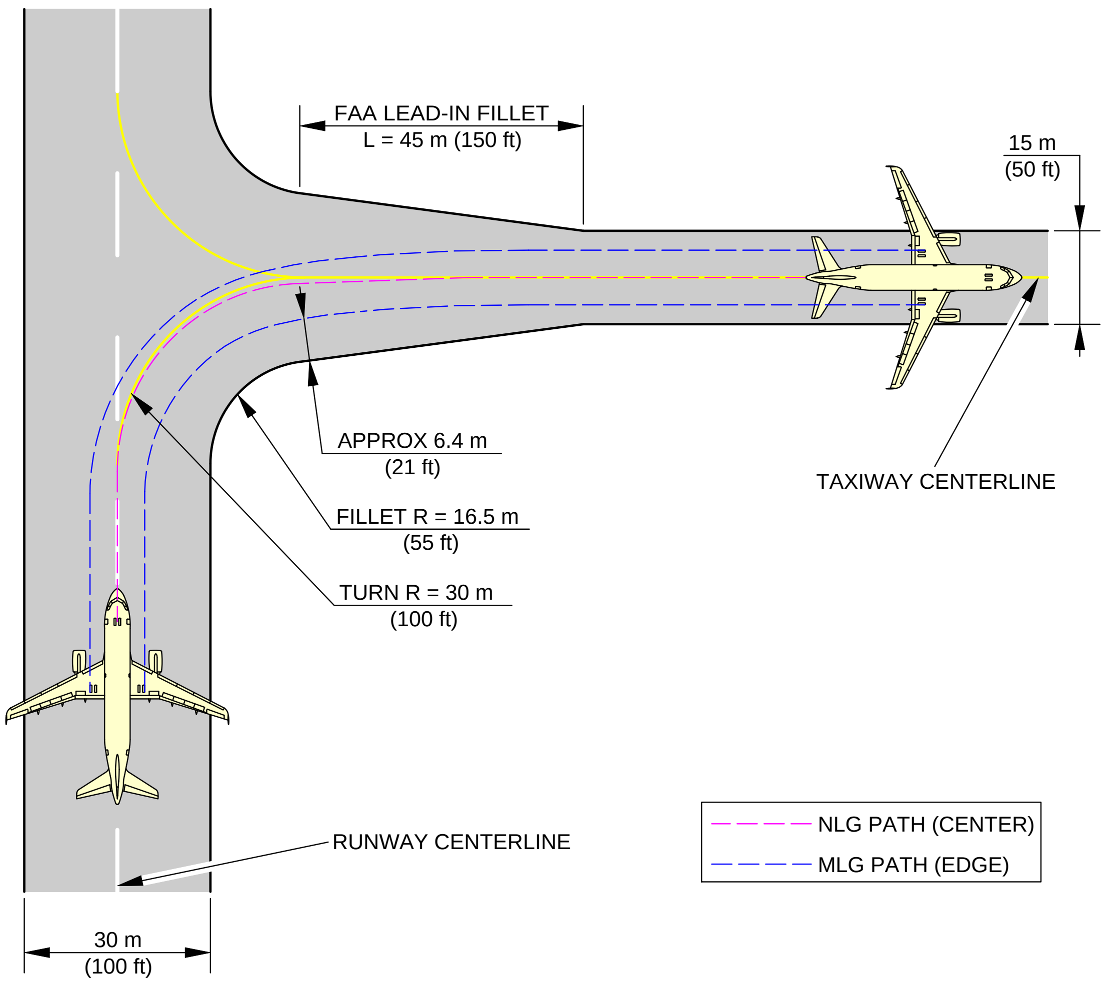
4-5-2 90° Turn - Runway to Taxiway

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

<u>90° Turn - Runway to Taxiway</u>

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

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

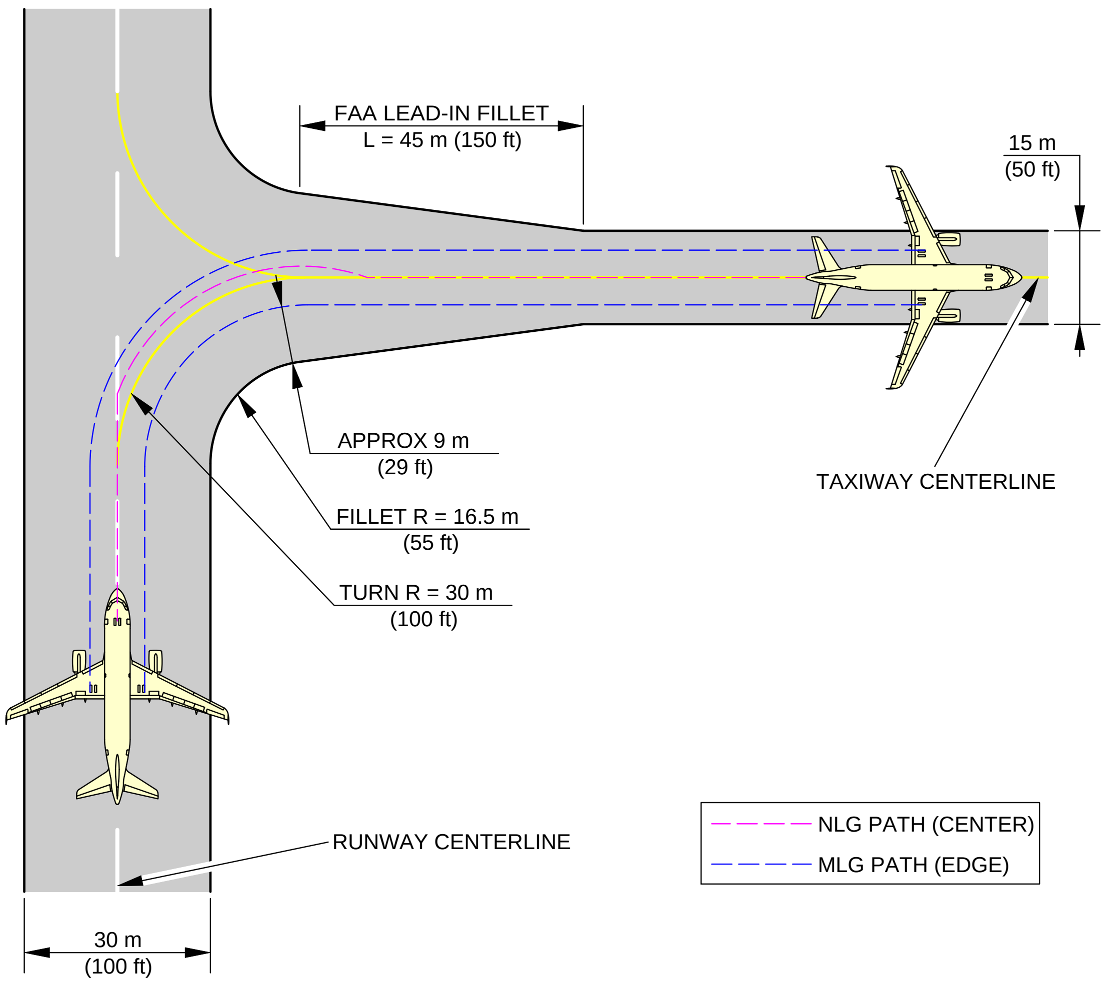


NOTE:
FAA GROUP III FACILITIES.

N_AC_040502_1_0020101_01_02

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

****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

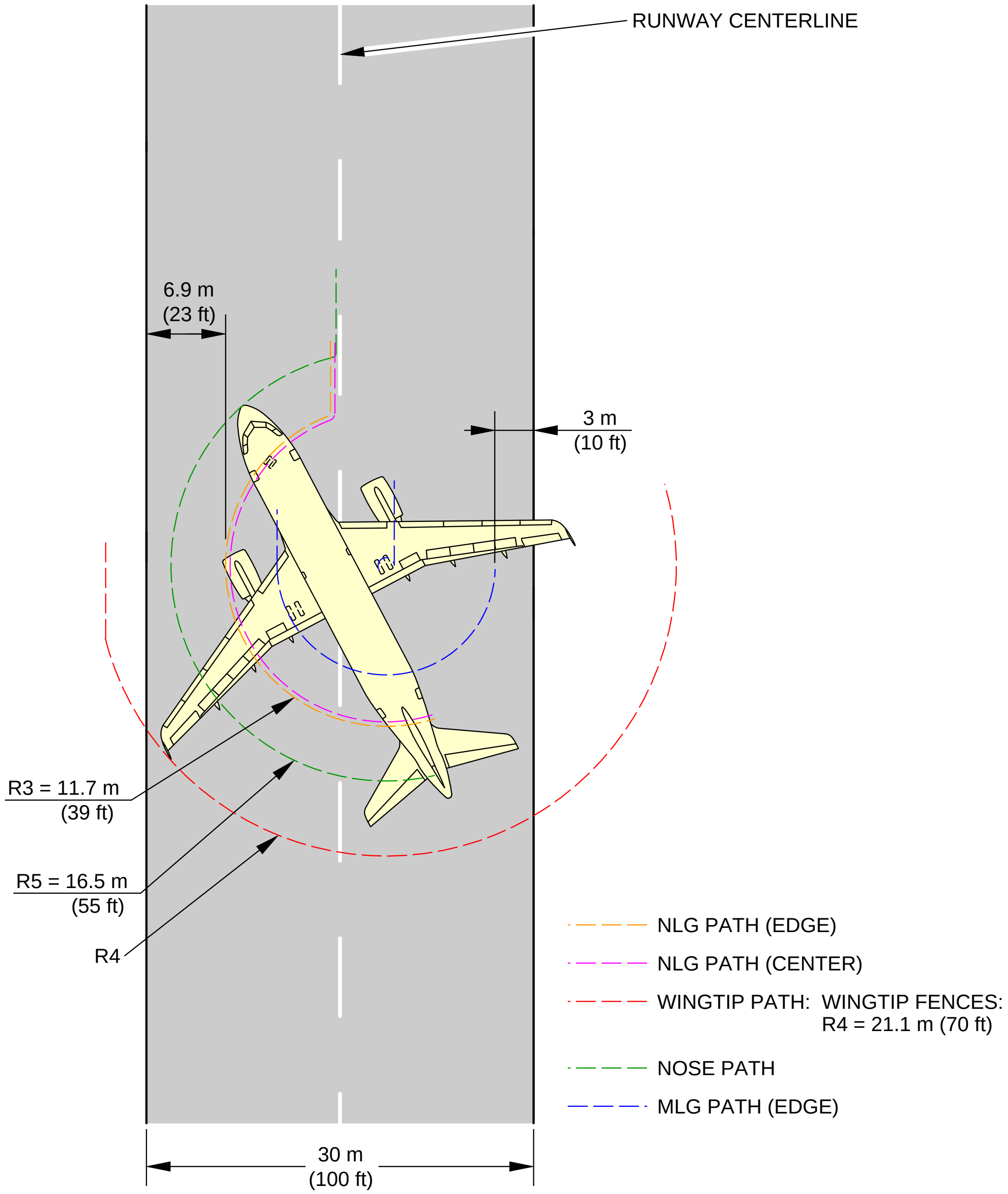
4-5-3 180° Turn on a Runway

****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

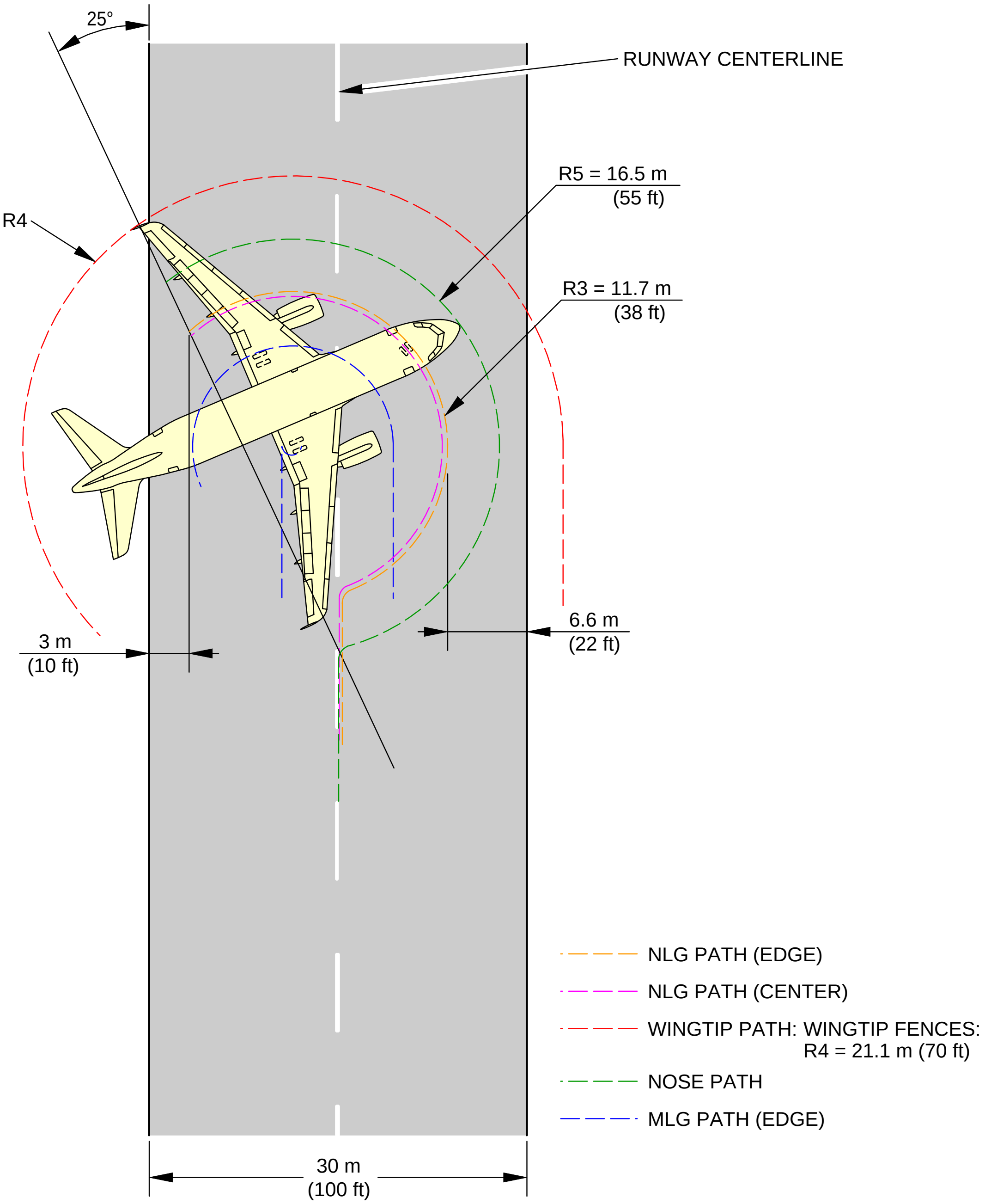


NOTE:
TYPE 1 VALUES.

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

**ON A/C A319-100

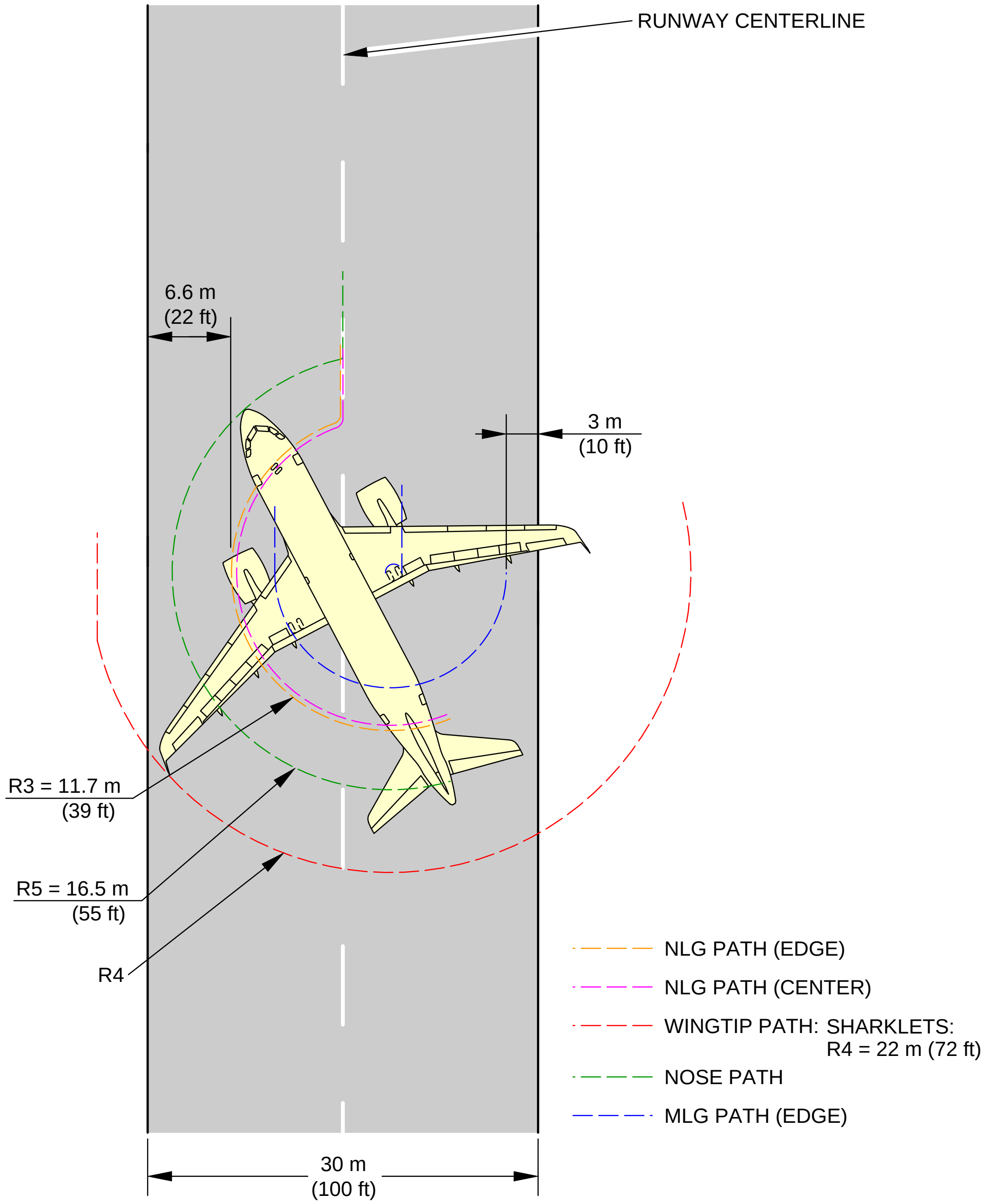


NOTE:
TYPE 1 VALUES.

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**

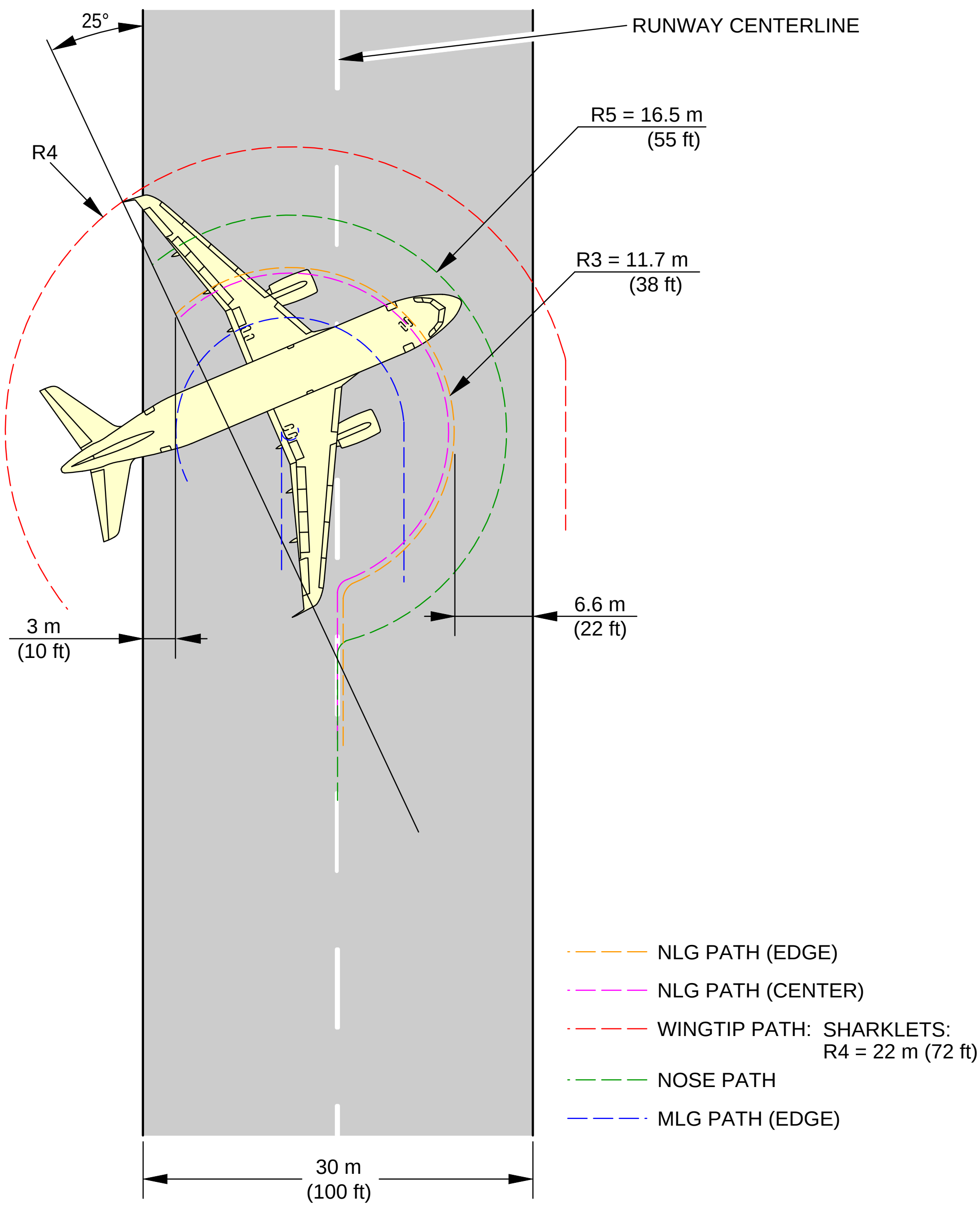


NOTE:
TYPE 1 VALUES.

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

****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

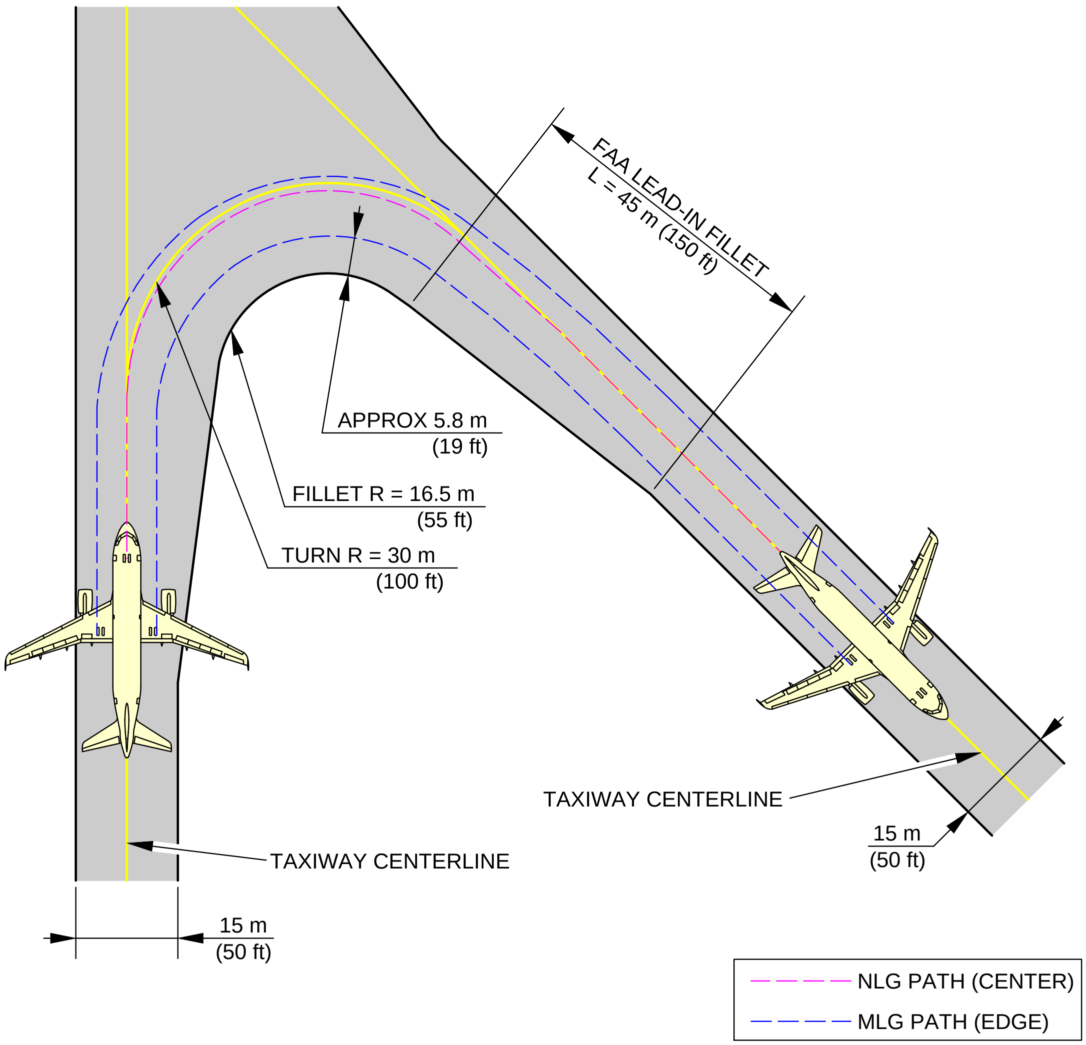
4-5-4 135° Turn - Taxiway to Taxiway

****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**

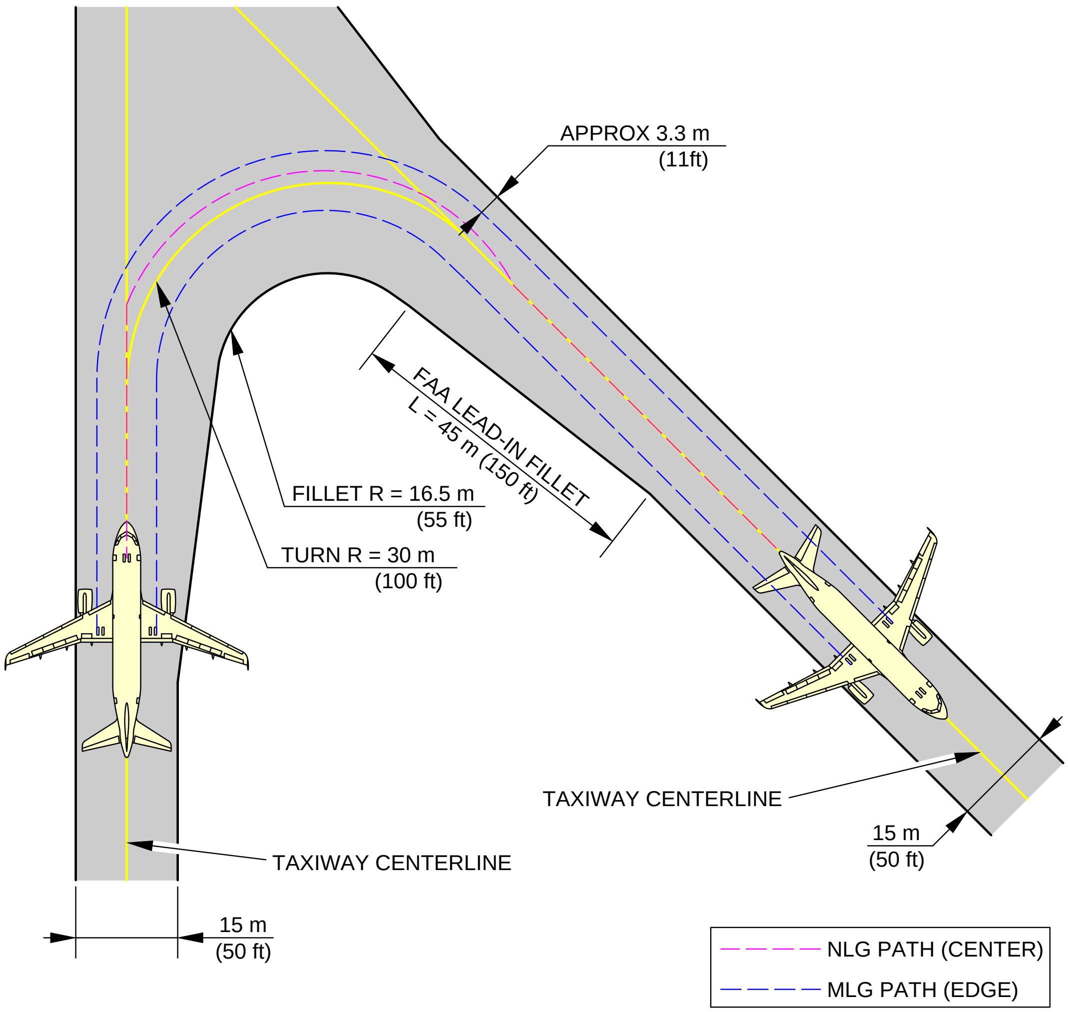


NOTE:
FAA GROUP III FACILITIES.

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

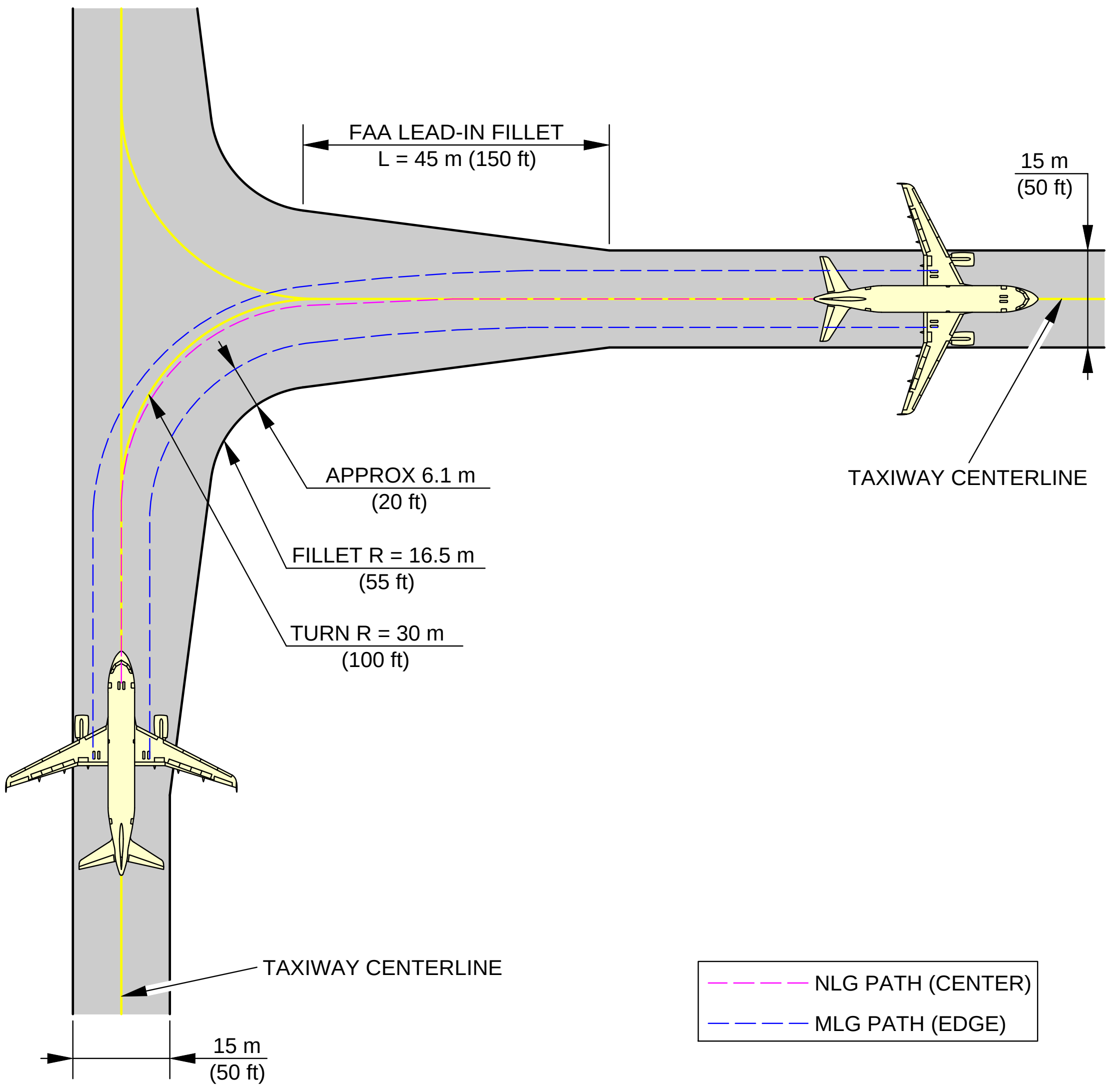
4-5-5 90° Turn - Taxiway to Taxiway

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

90° Turn - Taxiway to Taxiway

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

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

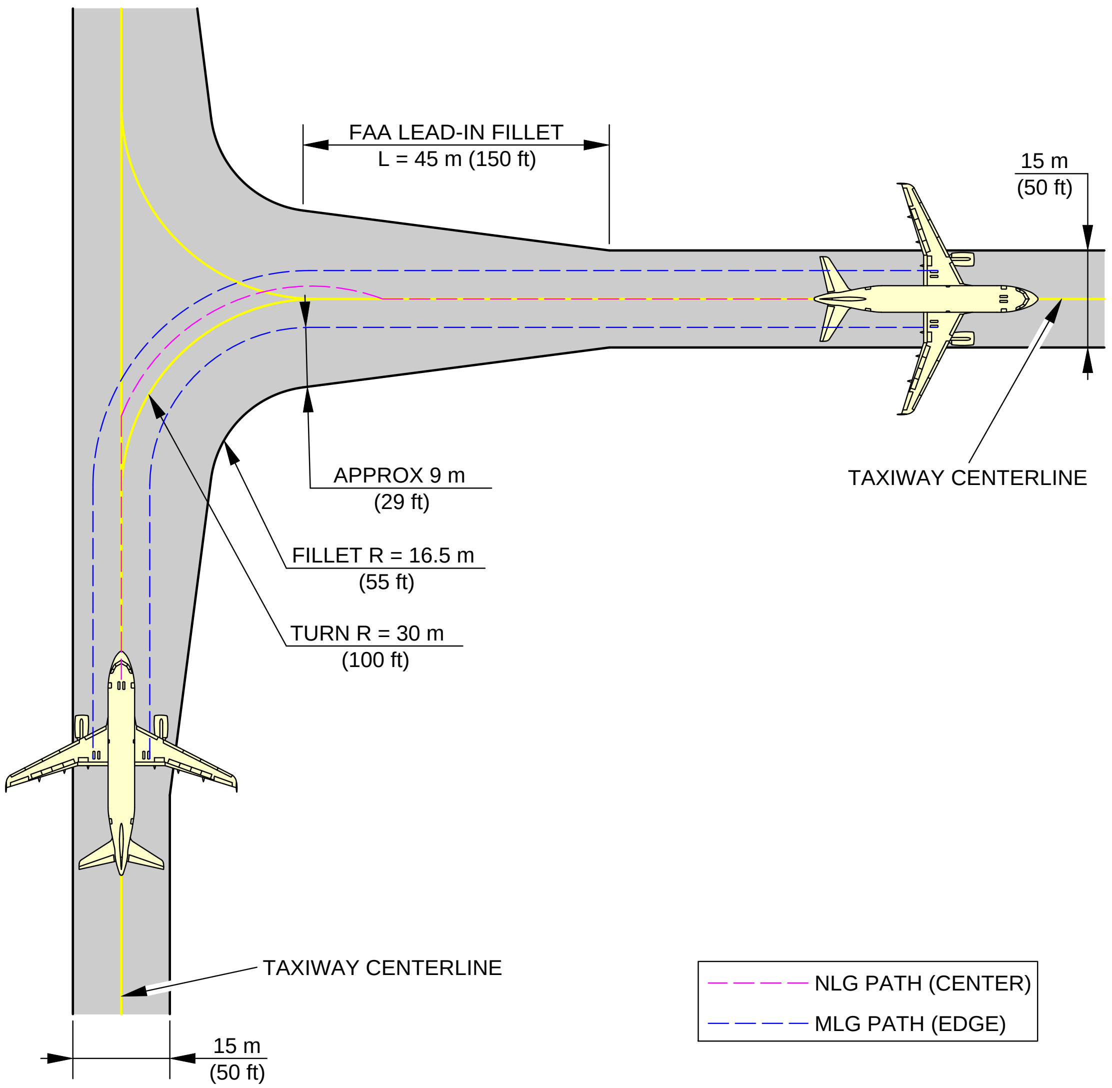


NOTE:
FAA GROUP III FACILITIES.

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

****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

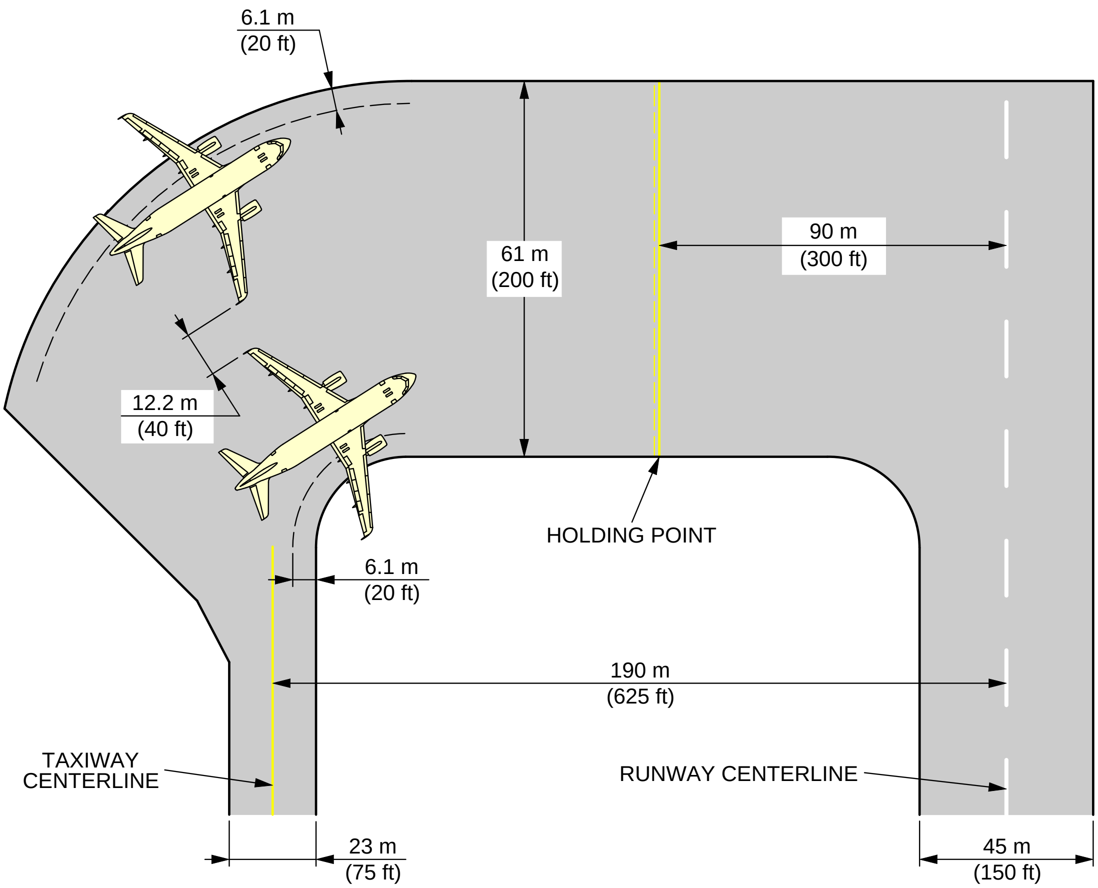
4-6-0 Runway Holding Bay (Apron)

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

Runway Holding Bay (Apron)

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

****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.

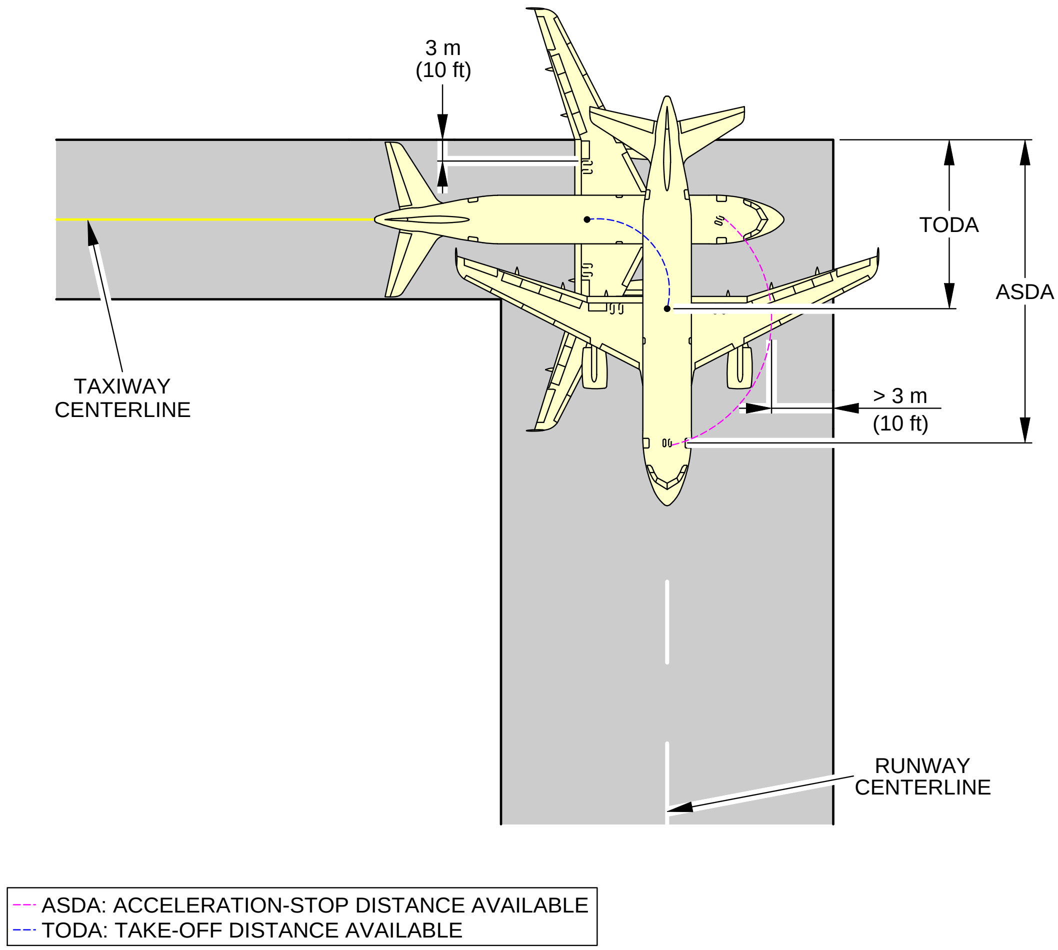
3. 180° Turn on Runway Turn Pad

   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.

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

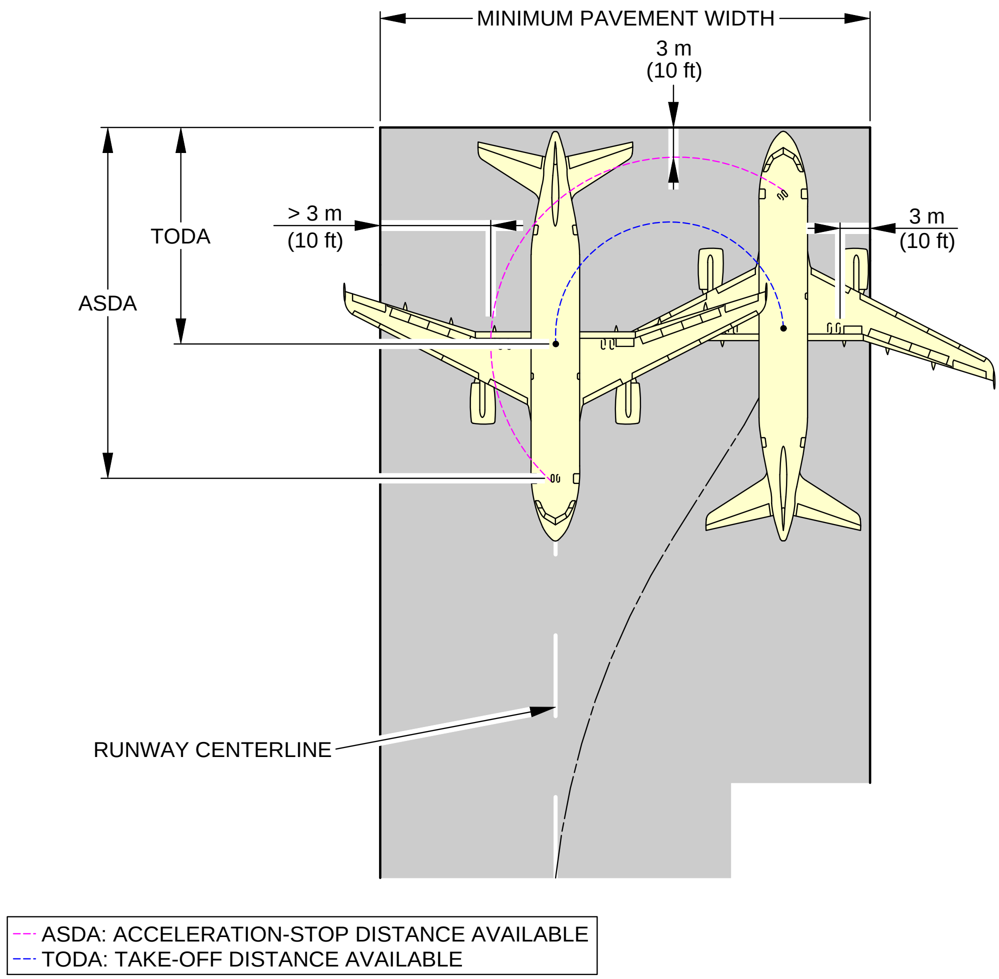


90° TURN ON RUNWAY ENTRY					
AIRCRAFT TYPE	MAX STEERING ANGLE	30 m (100 ft)/45 m (150 ft)/60 m (200 ft) WIDE RUNWAY MINIMUM LINE-UP DISTANCE CORRECTION			
		ON TODA		ON ASDA	
A319	75°	11.1 m	36 ft	22.1 m	73 ft

N_AC_040700_1_0170101_01_00

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

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

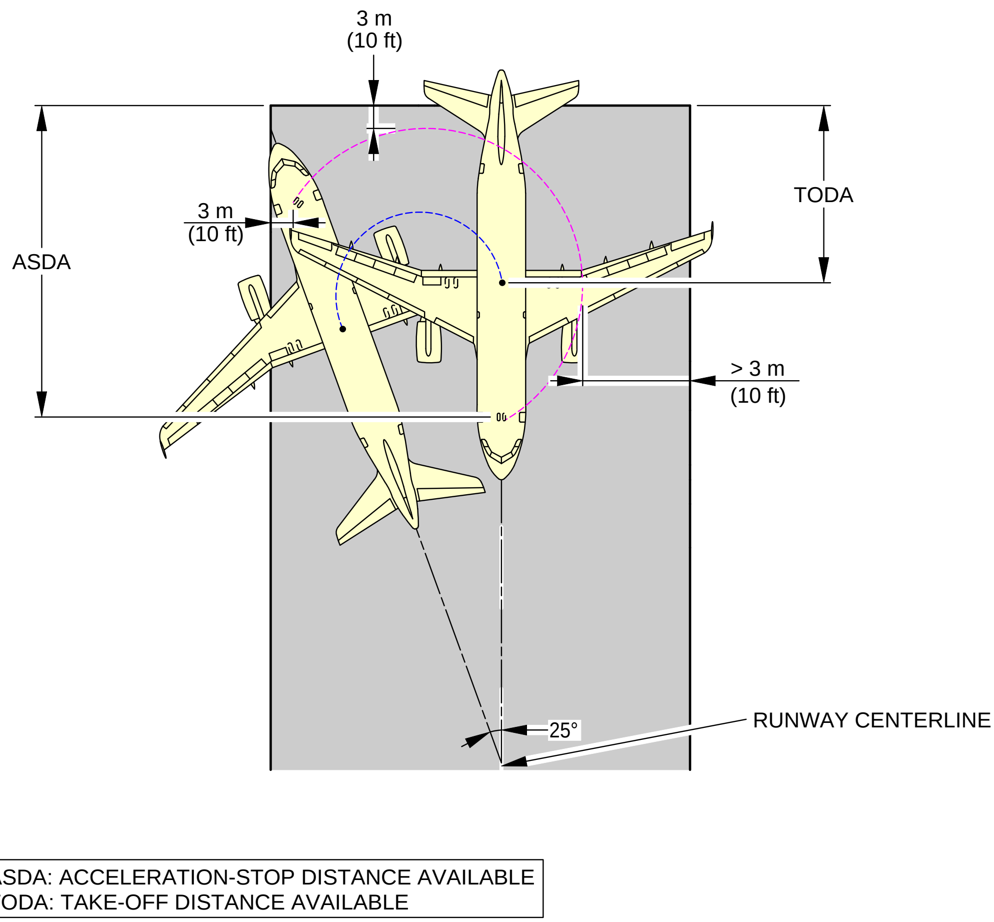


180° TURN ON RUNWAY TURN PAD							
AIRCRAFT TYPE	MAX STEERING ANGLE	30 m (100 ft)/45 m (150 ft)/60 m (200 ft) WIDE RUNWAY					
		MINIMUM LINE-UP DISTANCE CORRECTION				REQUIRED MINIMUM PAVEMENT WIDTH	
		ON TODA		ON ASDA			
A319	75°	15.0 m	49 ft	26.0 m	85 ft	29.7 m	97 ft

N_AC_040700_1_0180101_01_00

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

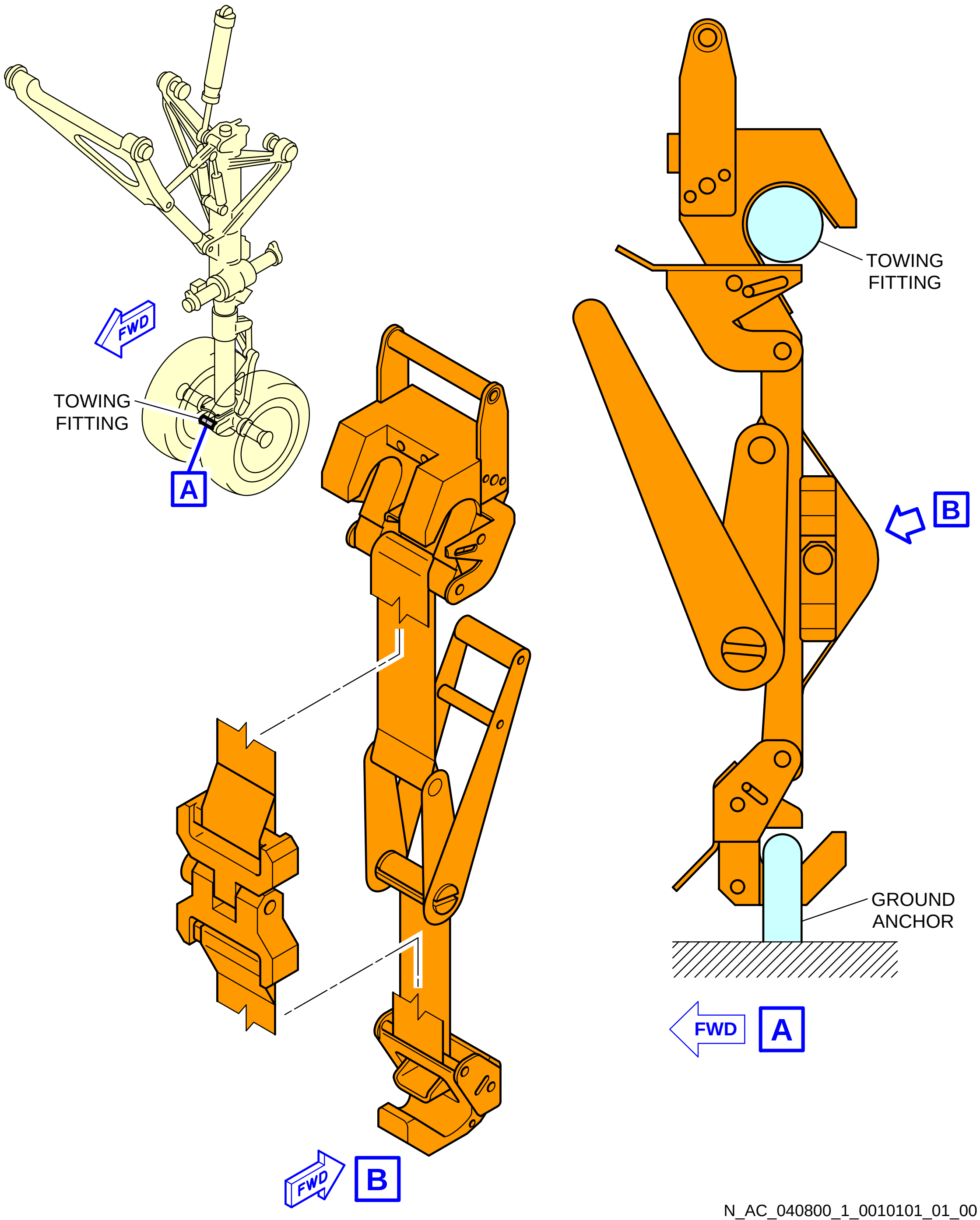
4-8-0 Aircraft Mooring

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

Aircraft Mooring

1. This section provides information on aircraft mooring.

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



Aircraft Mooring
FIGURE-4-8-0-991-001-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

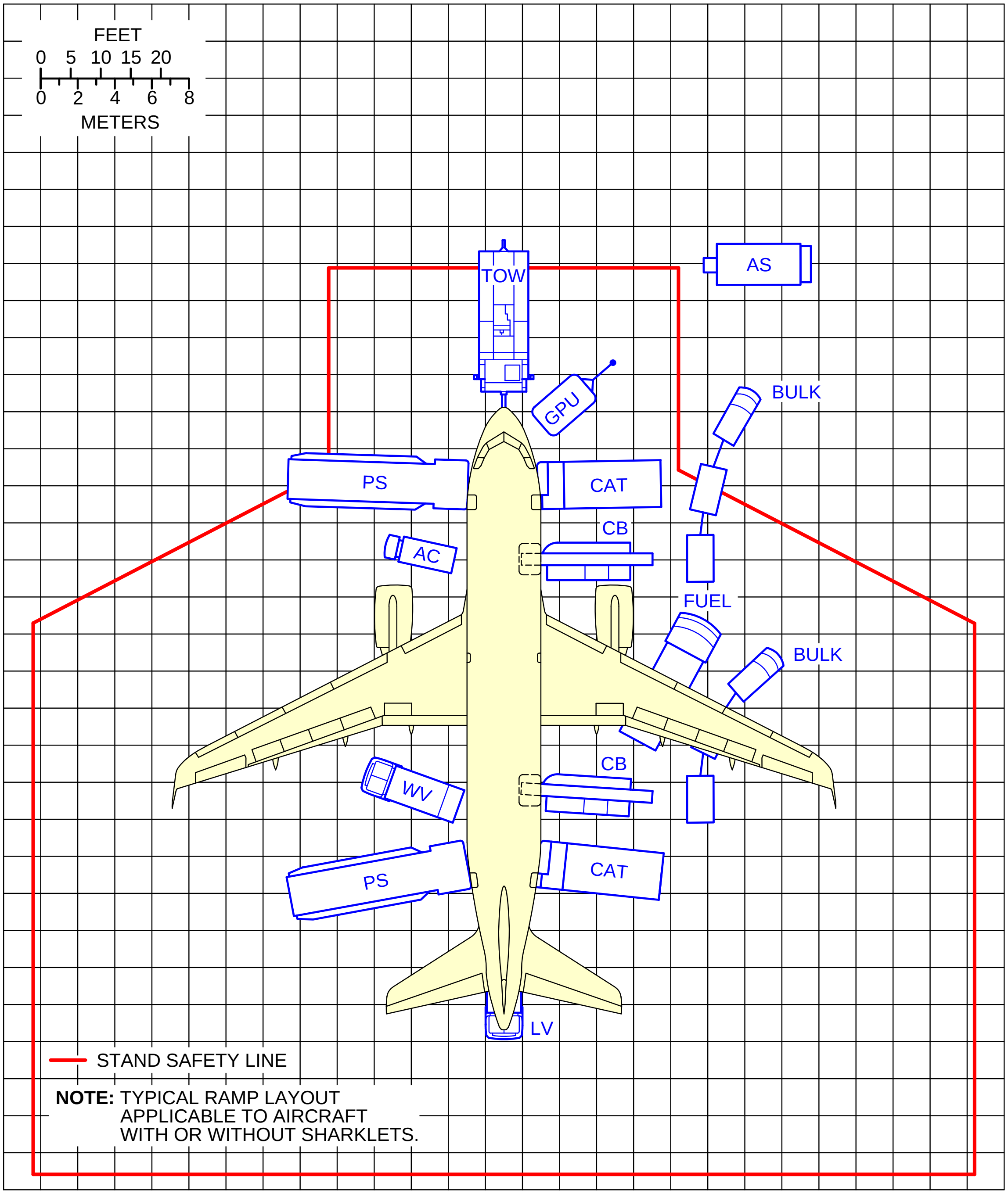
****ON A/C A319-100 A319neo**

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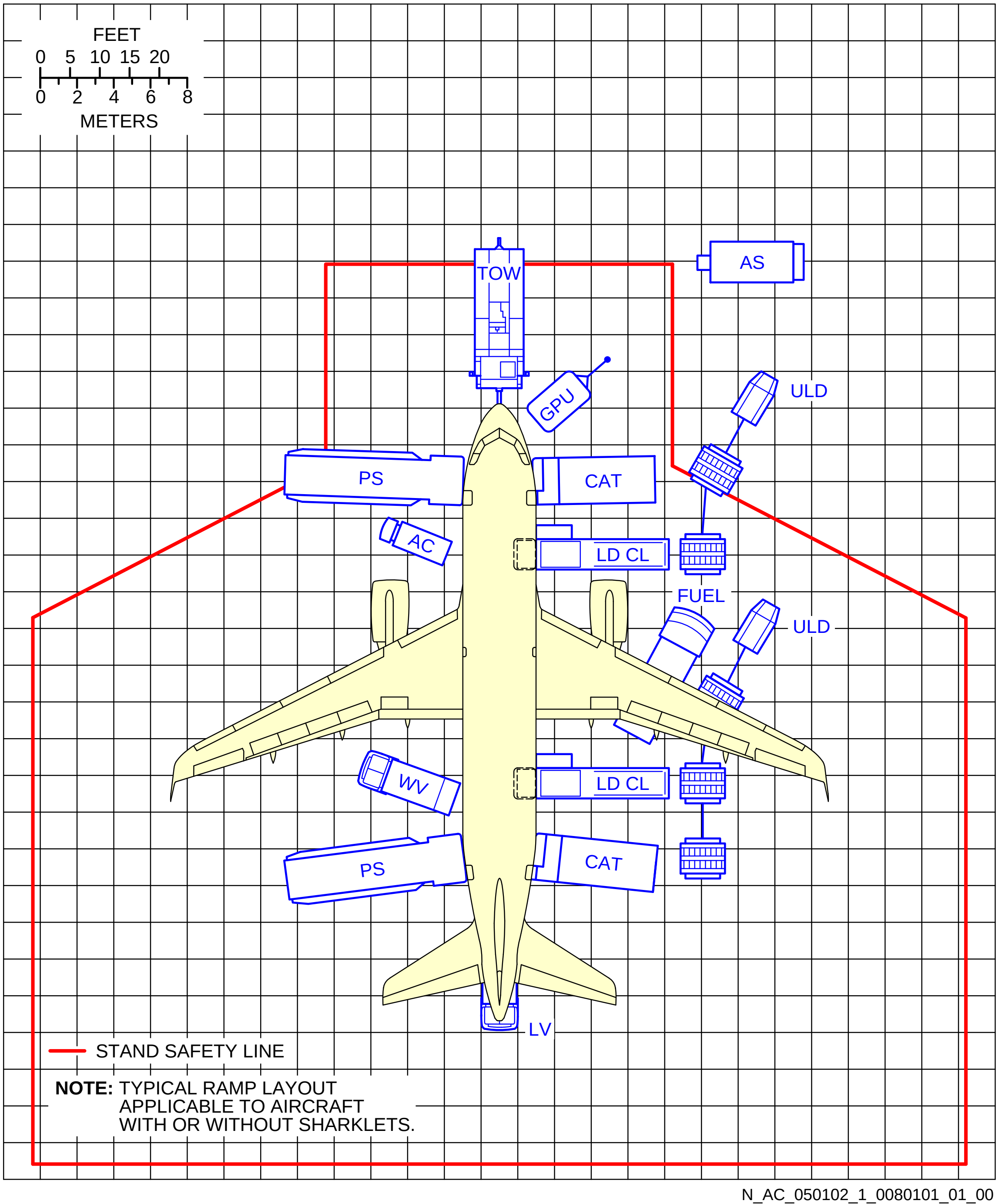
Typical Ramp Layout
Open Apron - Bulk Loading
FIGURE-5-1-2-991-002-A01

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



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

5-1-3 Typical Ramp Layout - Gate

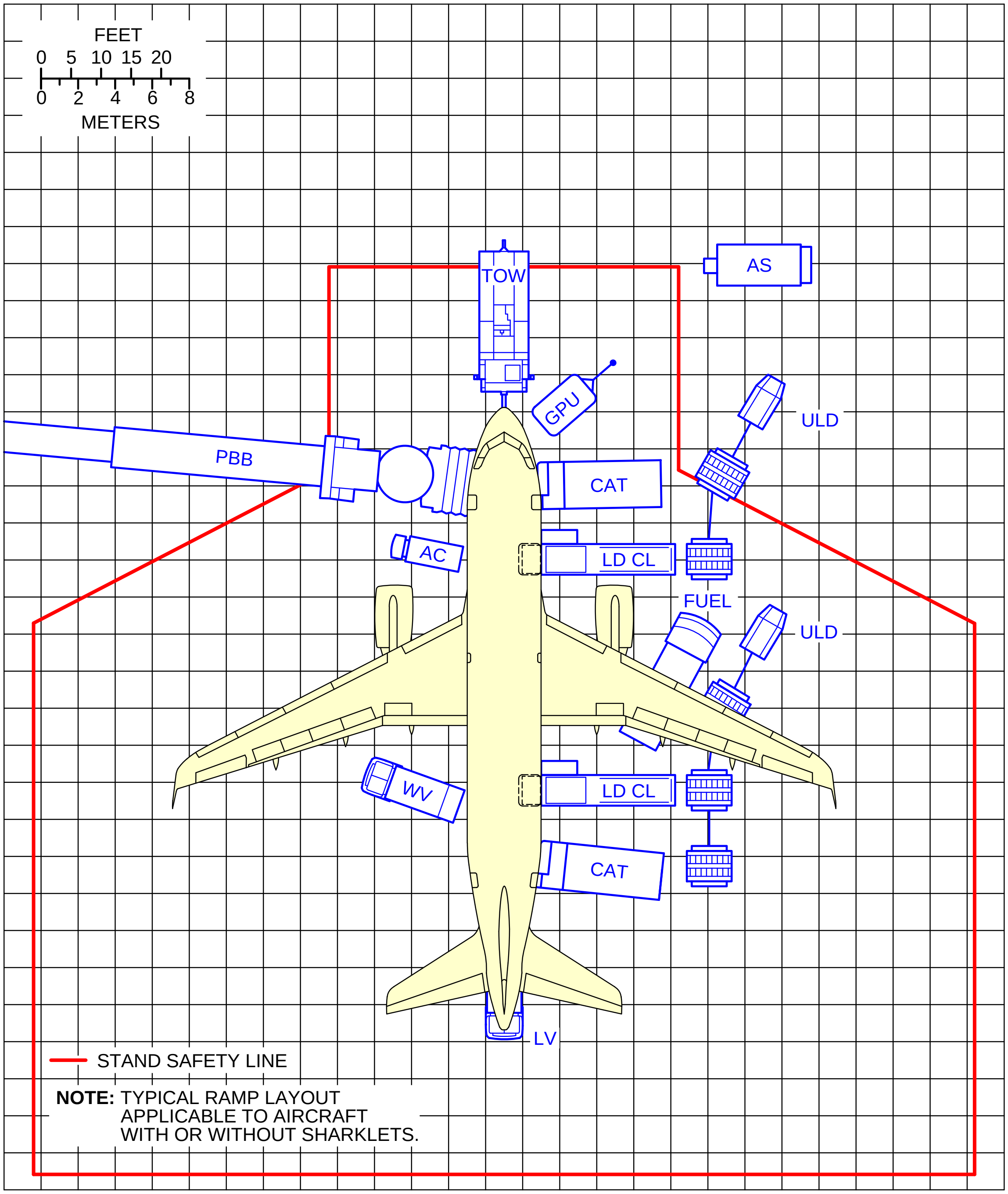
****ON A/C A319-100 A319neo**

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).

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



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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).

   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.

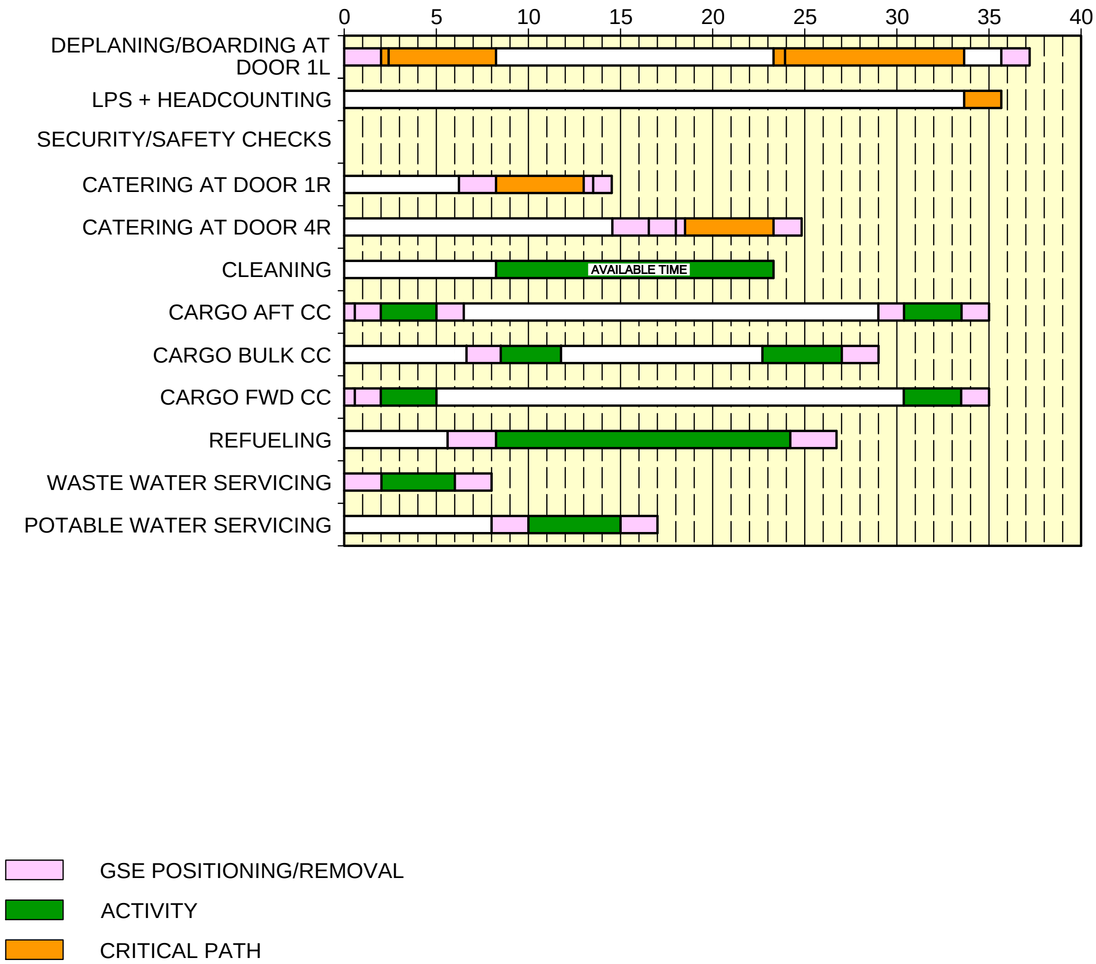
Time for trolley exchange = 1.2 min per FSTE.

F. GROUND HANDLING/GENERAL SERVICING
Start of operations:
- Bridges/stairs: t0 = 0
- Other equipment: t = t0.

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.

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

TRT: 37 min



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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.

   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.

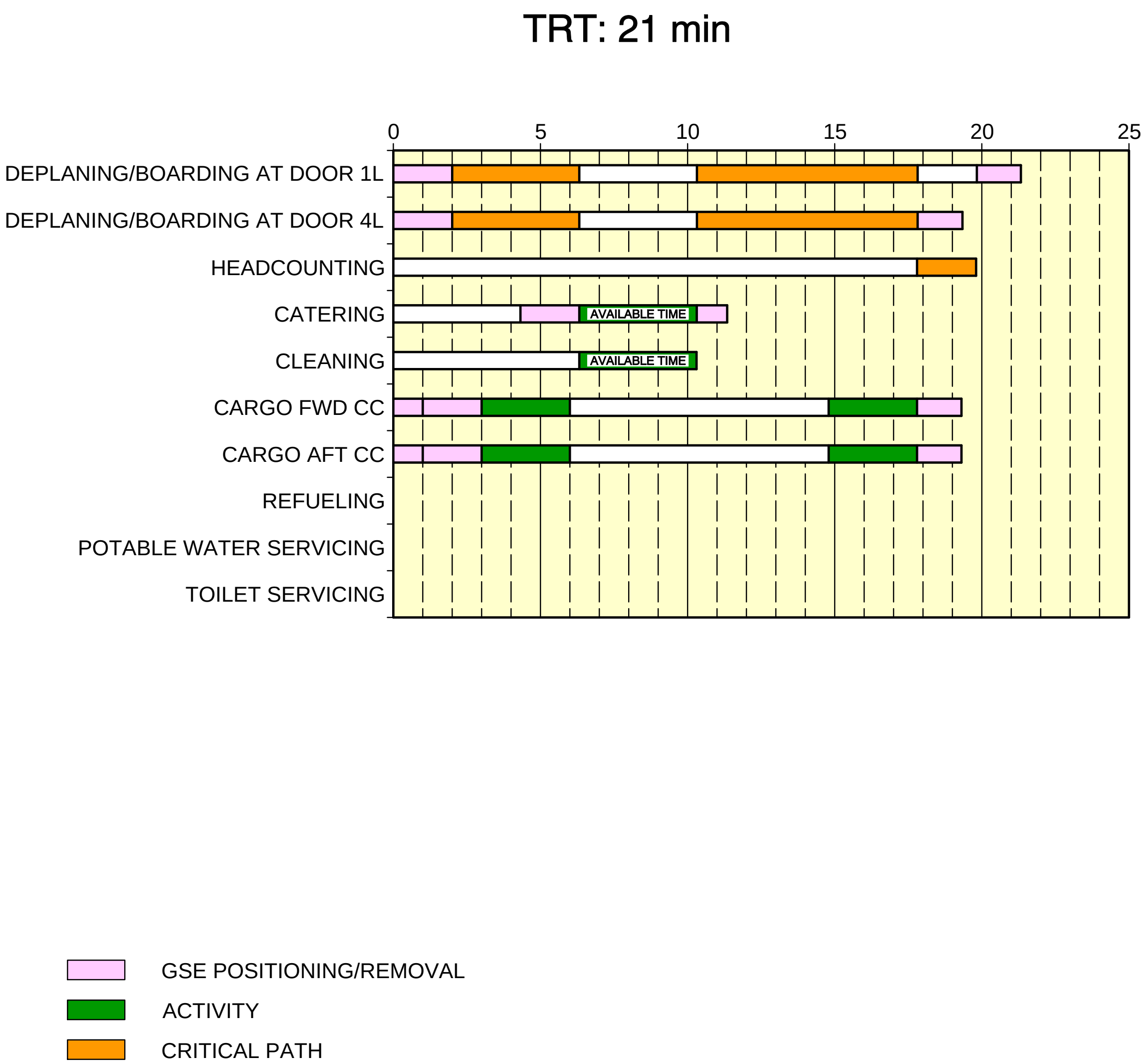
F. GROUND HANDLING/GENERAL SERVICING

Start of operations:

- Bridges/stairs: t0 = 0
- Other equipment: t = t0.

Ground Power Unit (GPU): up to 90 kVA.
Air conditioning: one hose.
No potable water servicing.
No toilet servicing.

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



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

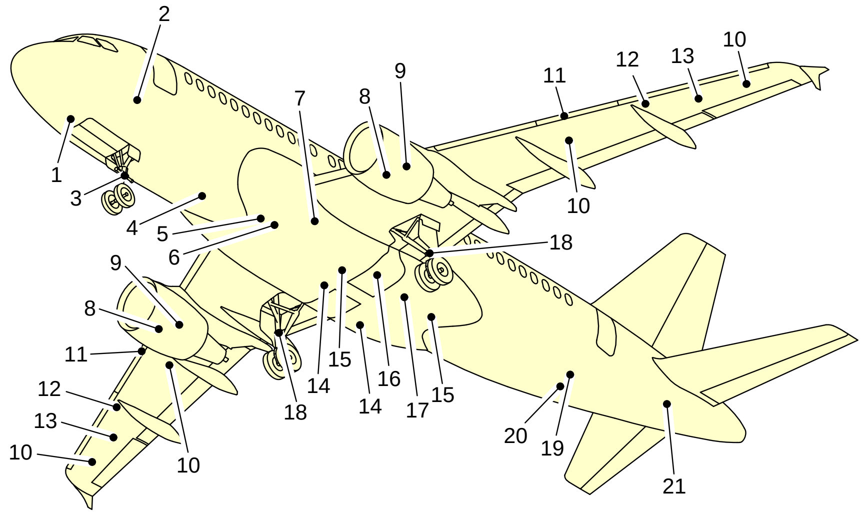
5-4-1 Ground Service Connections

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

Ground Service Connections Layout

1. This section provides the ground service connections layout.

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



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

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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

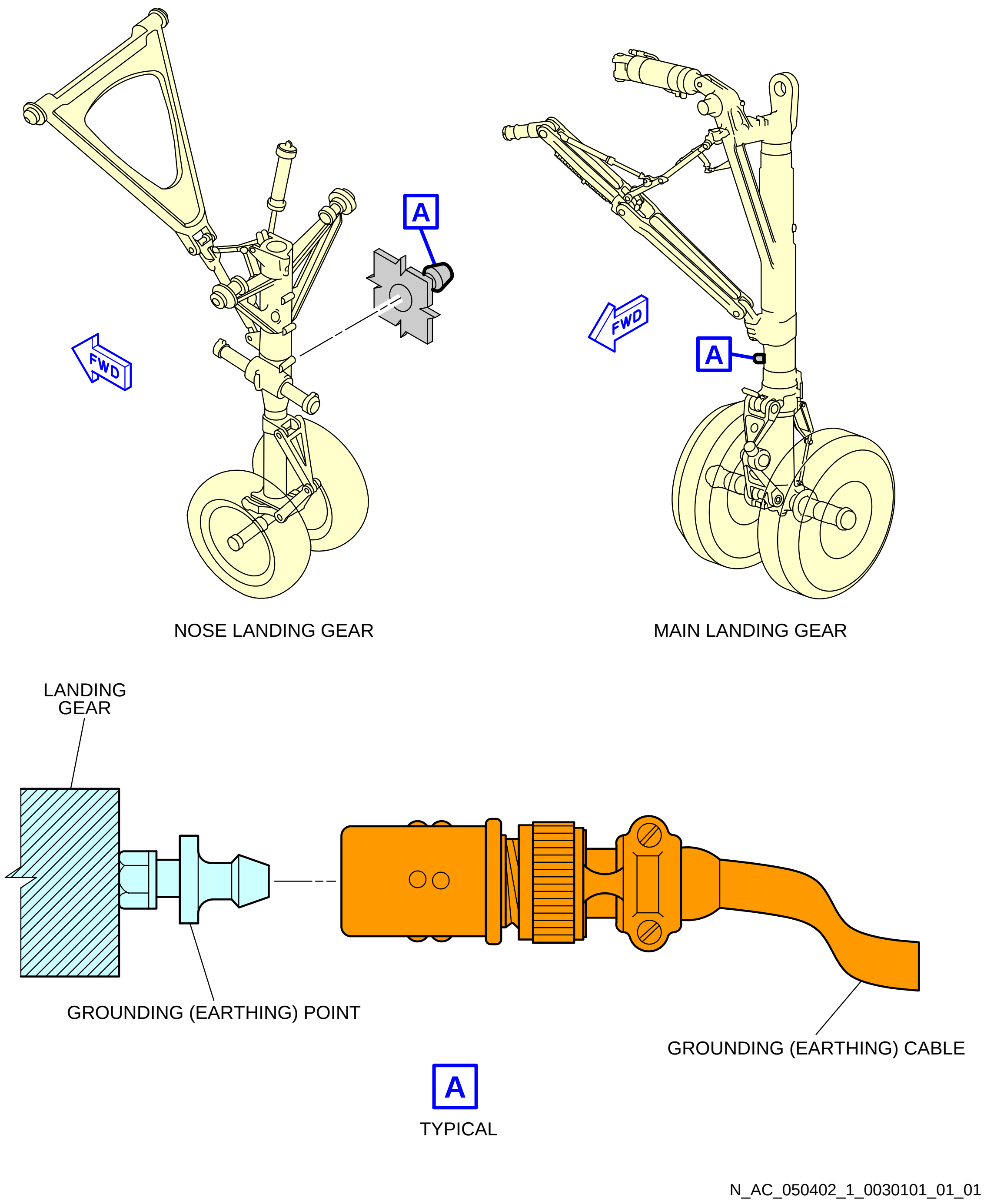
	DISTANCE			
	AFT OF NOSE	FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND
		LH SIDE	RH SIDE	
On Nose Landing Gear leg:	5.07 m (16.63 ft)	On Centerline		0.94 m (3.08 ft)
On left Main Landing Gear leg:	16.11 m (52.85 ft)	3.79 m (12.43 ft)	-	1.07 m (3.51 ft)
On right Main Landing Gear leg:	16.11 m (52.85 ft)	-	3.79 m (12.43 ft)	1.07 m (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.

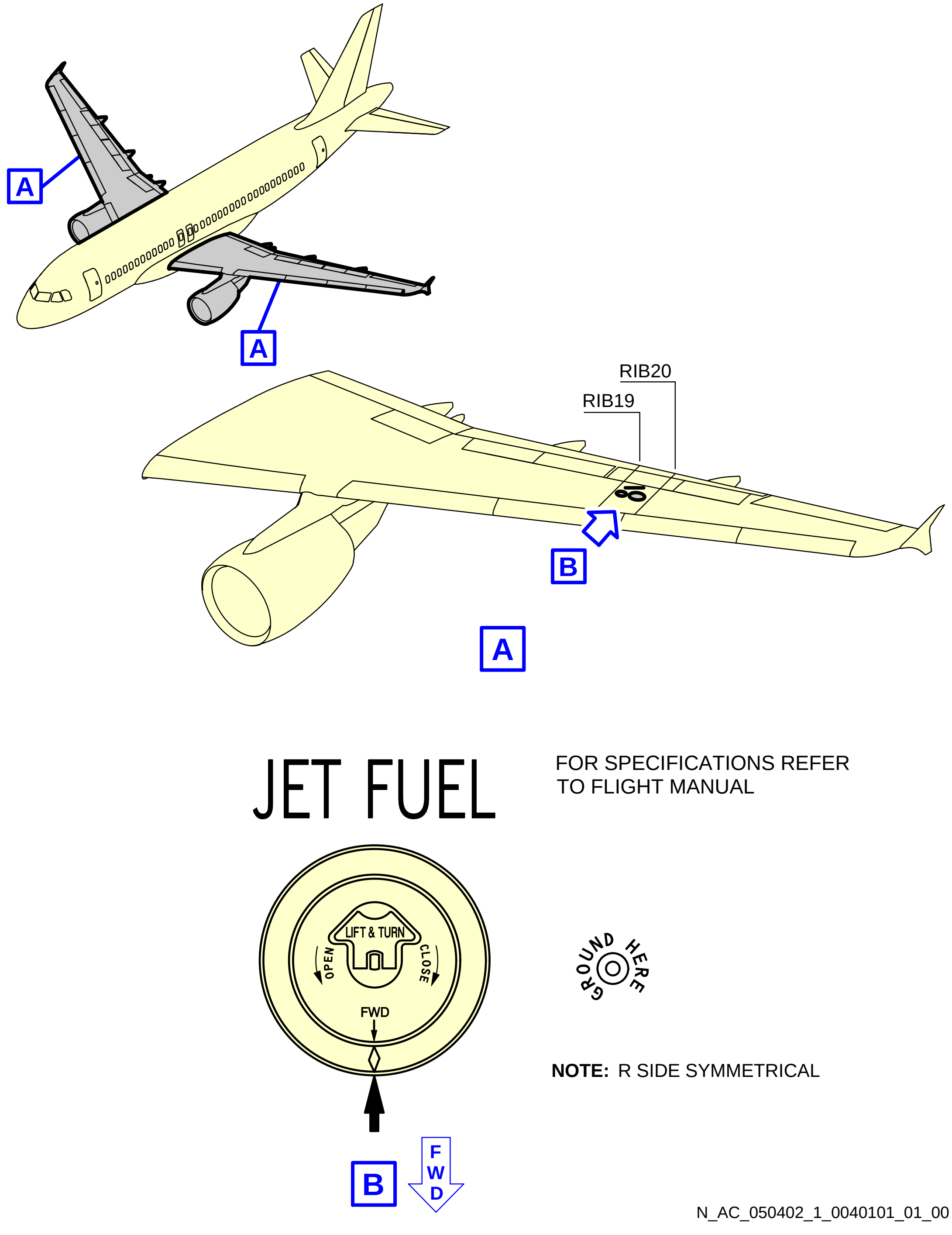
NOTE : In all other conditions, the electrostatic discharge through the tire is sufficient. If the aircraft is on jacks for retraction and extension checks or for the removal/installation of the landing gear, the grounding (earthing) alternative points (if installed) are:
- In the hole on the avionics-compartment lateral right door-frame (on FR14),
- On the engine nacelles,
- Adjacent to the high-pressure connector,
- On the wing upper surfaces.

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



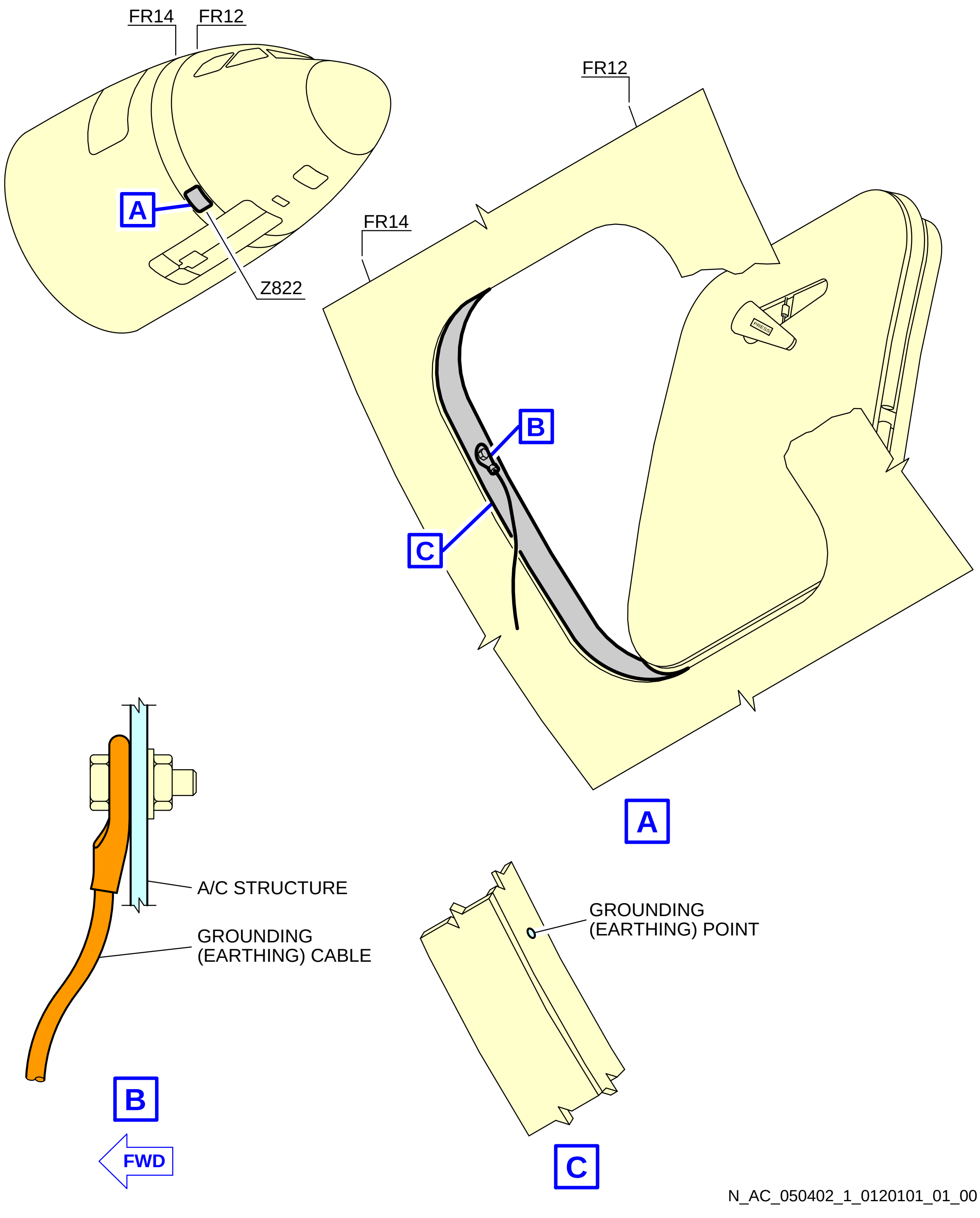
Ground Service Connections
Grounding (Earthing) Points - Landing Gear
FIGURE-5-4-2-991-003-A01

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



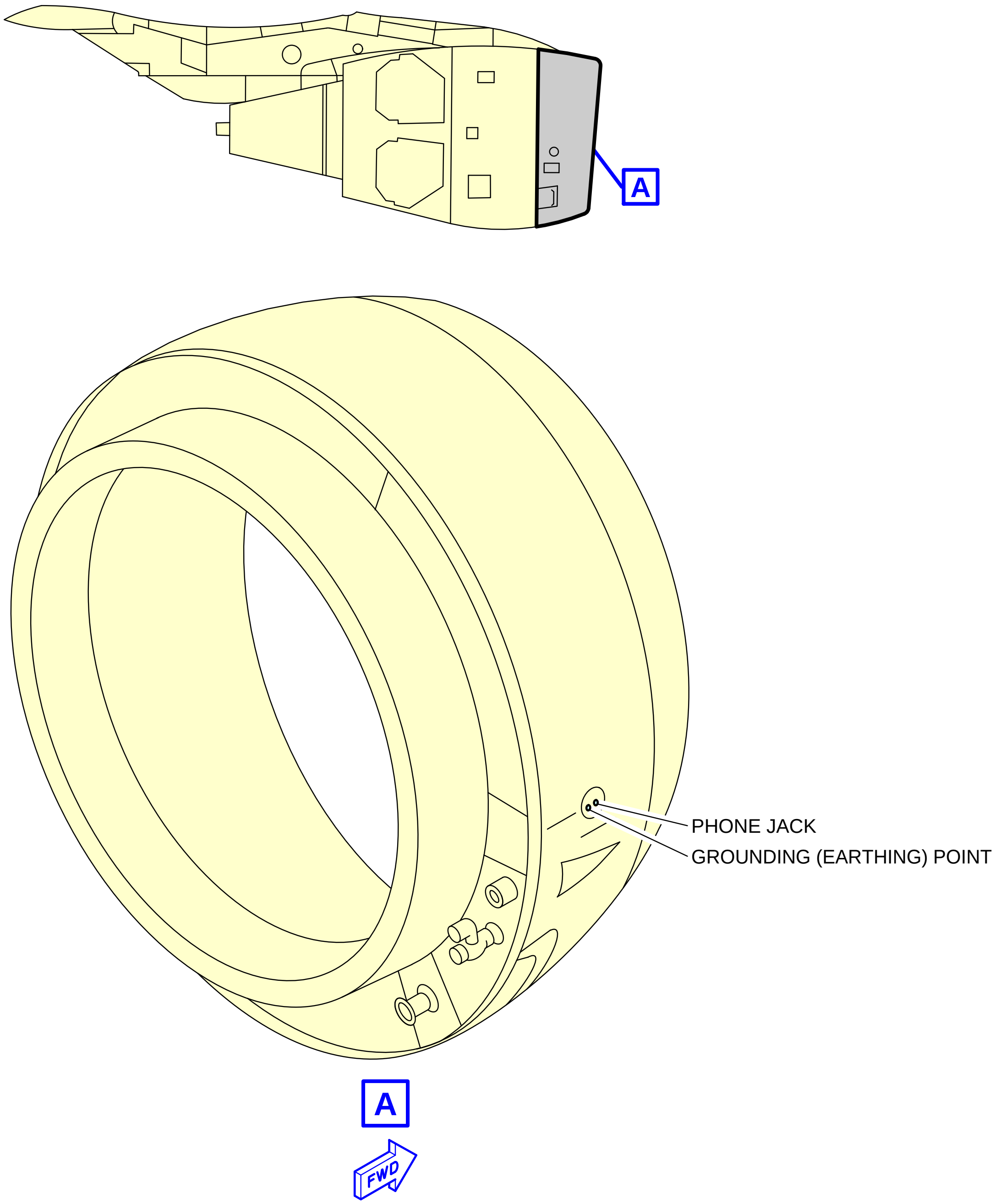
Ground Service Connections
Grounding (Earthing) Points - Wing (If Installed)
FIGURE-5-4-2-991-004-A01

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



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

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



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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 FROM GROUND
		LH SIDE	RH SIDE	
Green System: Access Door 197CB	17.57 m (57.64 ft)	1.27 m (4.17 ft)		1.76 m (5.77 ft)
Yellow System: Access Door 198CB	17.57 m (57.64 ft)		1.27 m (4.17 ft)	1.76 m (5.77 ft)
Blue System: Access Door 197EB	18.92 m (60.07 ft)	1.27 m (4.17 ft)		1.76 m (5.77 ft)

2. Reservoir Pressurization

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

3. Accumulator Charging

Four MIL-PRF-6164 connections:

ACCESS	DISTANCE			
	AFT OF NOSE	FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND
		LH SIDE	RH SIDE	
Yellow System Accumulator: Access Door 196BB	14.05 m (46.10 ft)		0.25 m (0.82 ft)	1.74 m (5.71 ft)
Green System Accumulator: Left MLG Door	15.67 m (51.41 ft)	0.25 m (0.82 ft)		3.20 m (10.50 ft)
Blue System Accumulator: Access Door 195BB	14.05 m (46.10 ft)	0.25 m (0.82 ft)		1.74 m (5.71 ft)
Yellow System Braking Accumulator: Access Door 196BB	14.05 m (46.10 ft)		0.25 m (0.82 ft)	1.74 m (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 FROM GROUND
		LH SIDE	RH SIDE	
Access Door 197CB	17.57 m (57.64 ft)	1.27 m (4.17 ft)		1.76 m (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 FROM GROUND
		LH SIDE	RH SIDE	
Yellow System:	14.05 m		0.25 m	1.74 m

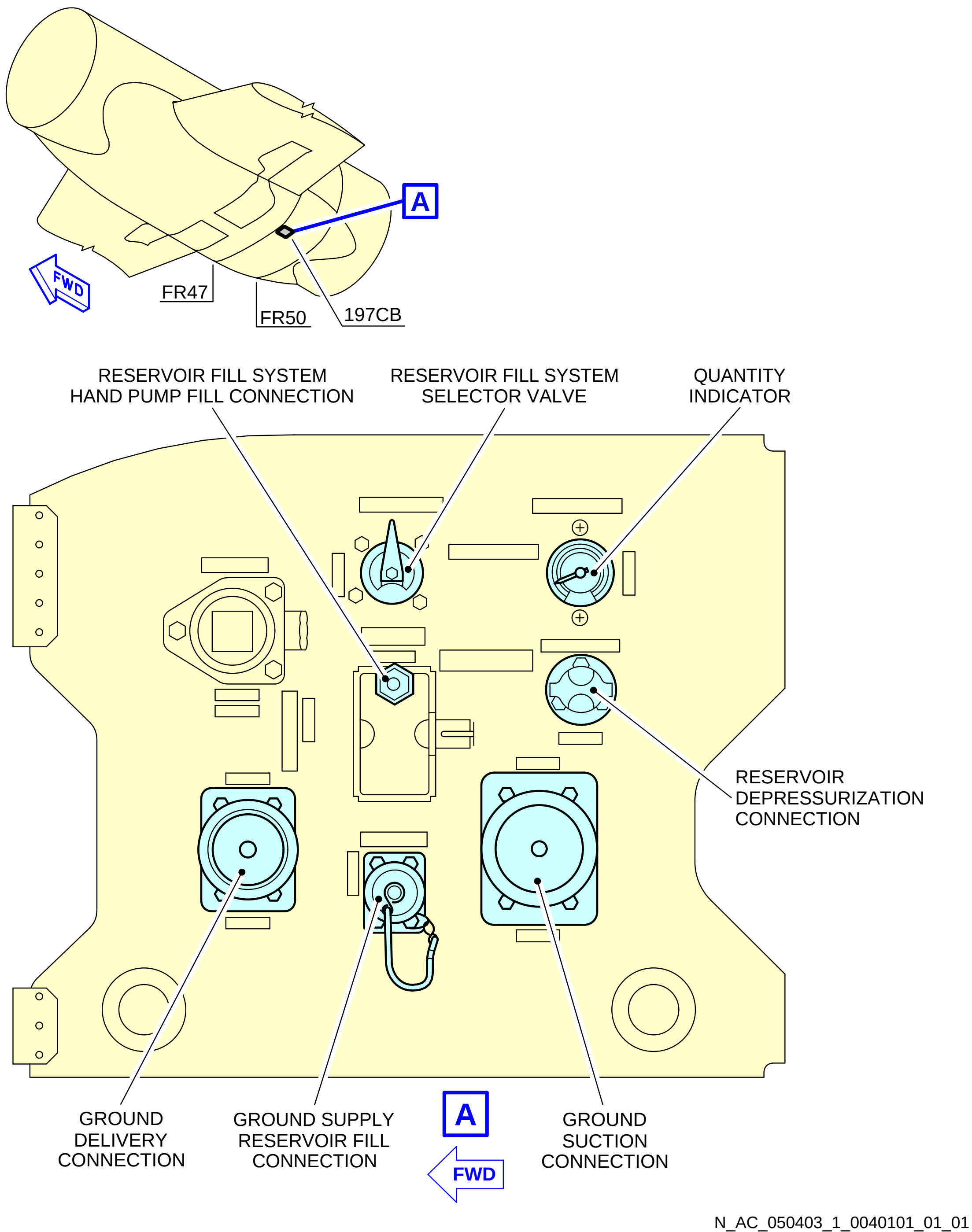
ACCESS	DISTANCE			
	AFT OF NOSE	FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND
		LH SIDE	RH SIDE	
Access Door 196BB	(46.10 ft)		(0.82 ft)	(5.71 ft)
Green System: Left MLG Door	15.67 m (51.41 ft)	0.25 m (0.82 ft)		3.20 m (10.50 ft)
Blue System: Access Door 197EB	18.92 m (62.07 ft)	1.27 m (4.17 ft)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

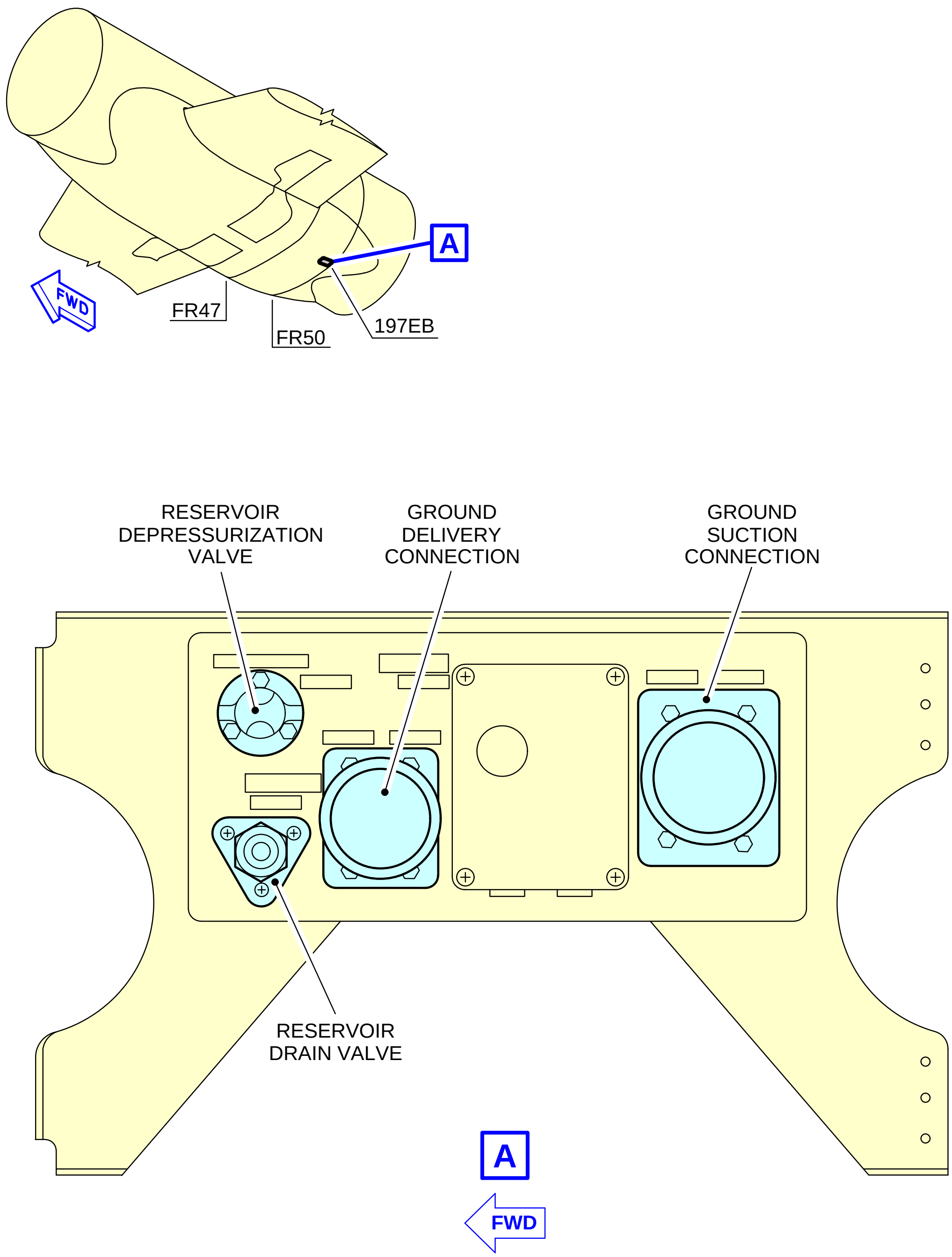
On each ground service panel:
- One self-sealing connector (suction).
- One self-sealing connector (delivery).

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



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

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



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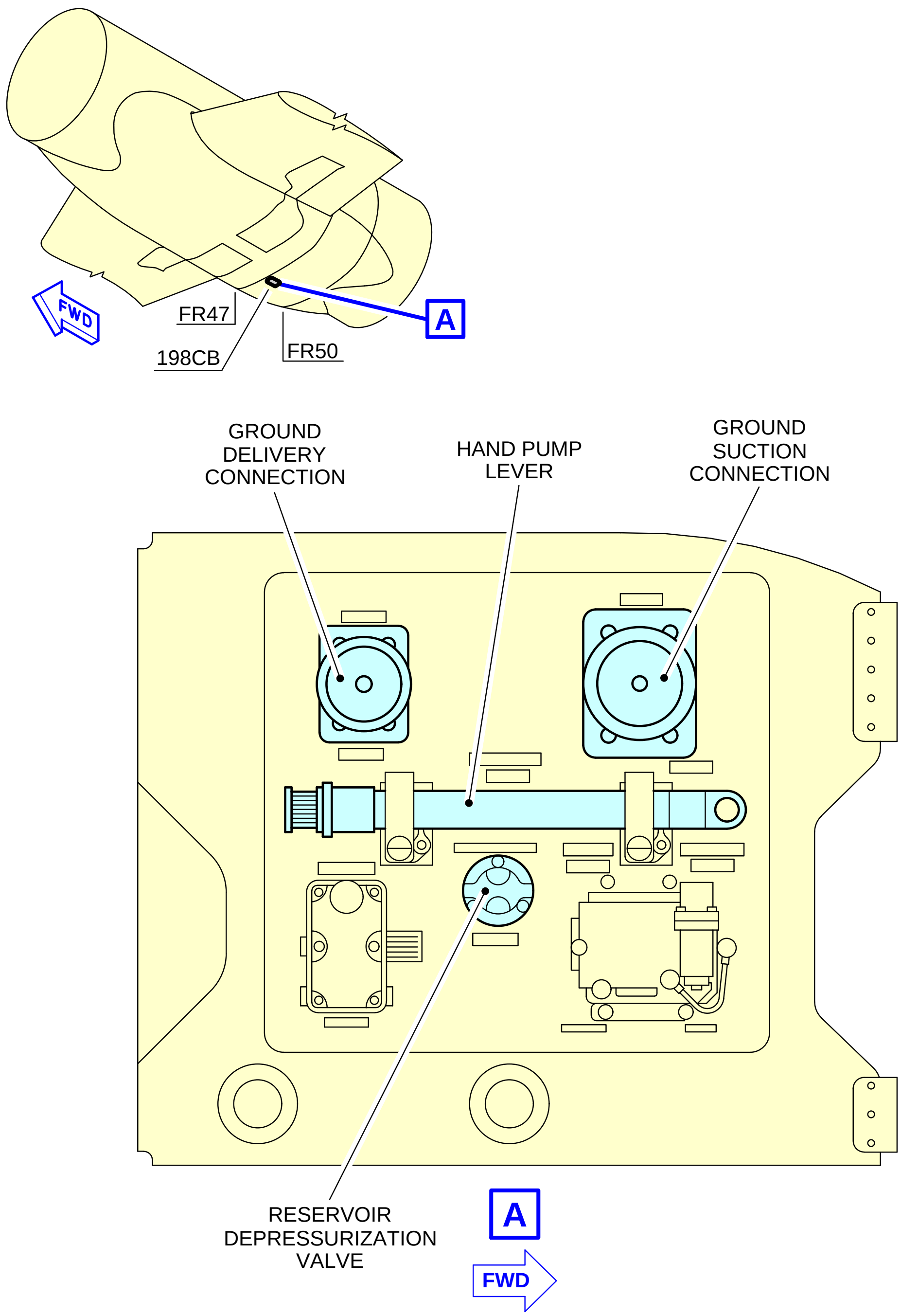
Ground Service Connections
Blue System Ground Service Panel
FIGURE-5-4-3-991-005-A01

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



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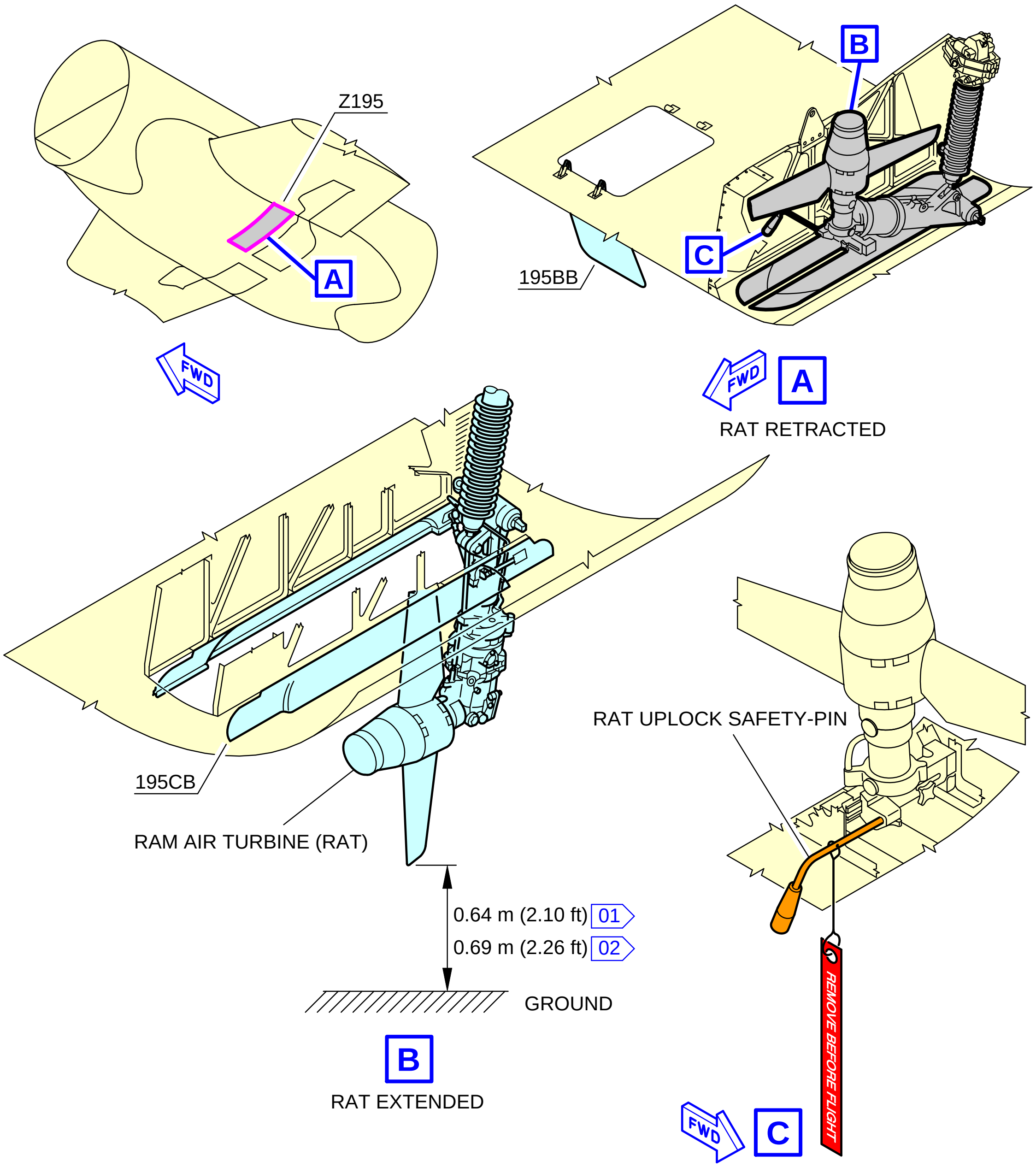
Ground Service Connections
Yellow System Ground Service Panel
FIGURE-5-4-3-991-006-A01

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



NOTE:
01 FOR A318, A319 AND A320
02 FOR A321

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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		MEAN HEIGHT FROM GROUND
		LH SIDE	RH SIDE	
A/C External Power: Access Door 121AL	2.55 m (8.37 ft)	On centerline		2.00 m (6.56 ft)

NOTE : Distances are approximate.

2. Technical Specifications

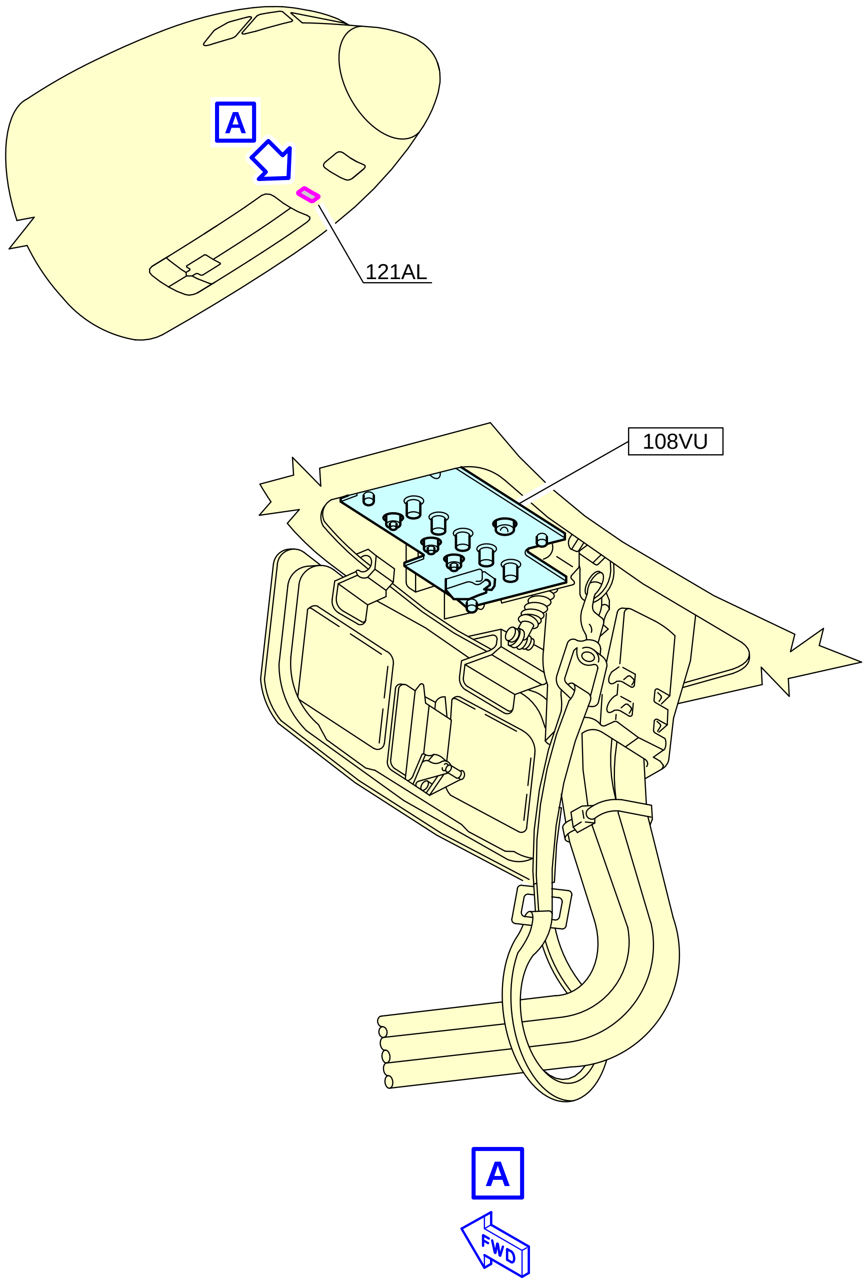
A. External Power Receptacle:
- One receptacle according to MS 90362-3 (without shield MS 17845-1) – 90 kVA.

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**



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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

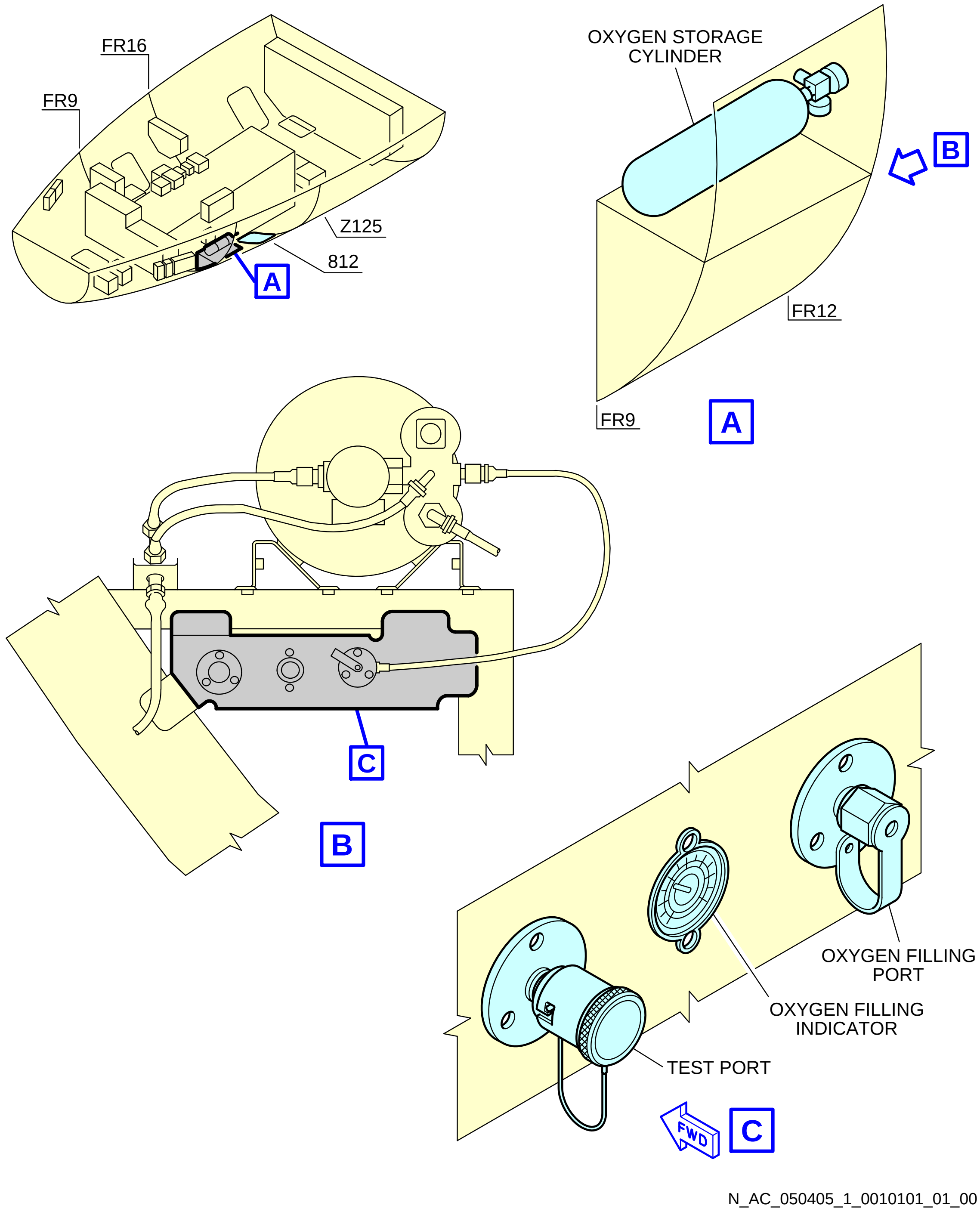
1. Oxygen System

<table>
<tr><th rowspan="3">ACCESS</th><th colspan="4">DISTANCE</th></tr>
<tr><th rowspan="2">AFT OF NOSE</th><th colspan="2">FROM AIRCRAFT CENTERLINE</th><th rowspan="2">MEAN HEIGHT FROM GROUND</th></tr>
<tr><th>LH SIDE</th><th>RH SIDE</th></tr>
<tr><td>Oxygen Replenishment:
Access Door 812</td><td>3.45 m
(11.32 ft)</td><td>1.15 m
(3.77 ft)</td><td>-</td><td>2.60 m
(8.53 ft)</td></tr>
</table>

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**



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 (48.56 ft)	-	1.8 m (5.91 ft)	1.8 m (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 (52.46 ft)	9.83 m (32.25 ft)	-	3.65 m (11.98 ft)
Refuel/Defuel Coupling, Right: Access Panel 622HB	15.99 m (52.46 ft)	-	9.83 m (32.25 ft)	3.65 m (11.98 ft)
Overwing Gravity-Refuel Cap	17.5 m (57.41 ft)	12.4 m (40.68 ft)	12.4 m (40.68 ft)	3.7 m (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.

B. Refuel Pressure:
- Maximum pressure: 3.45 bar (50 psi).

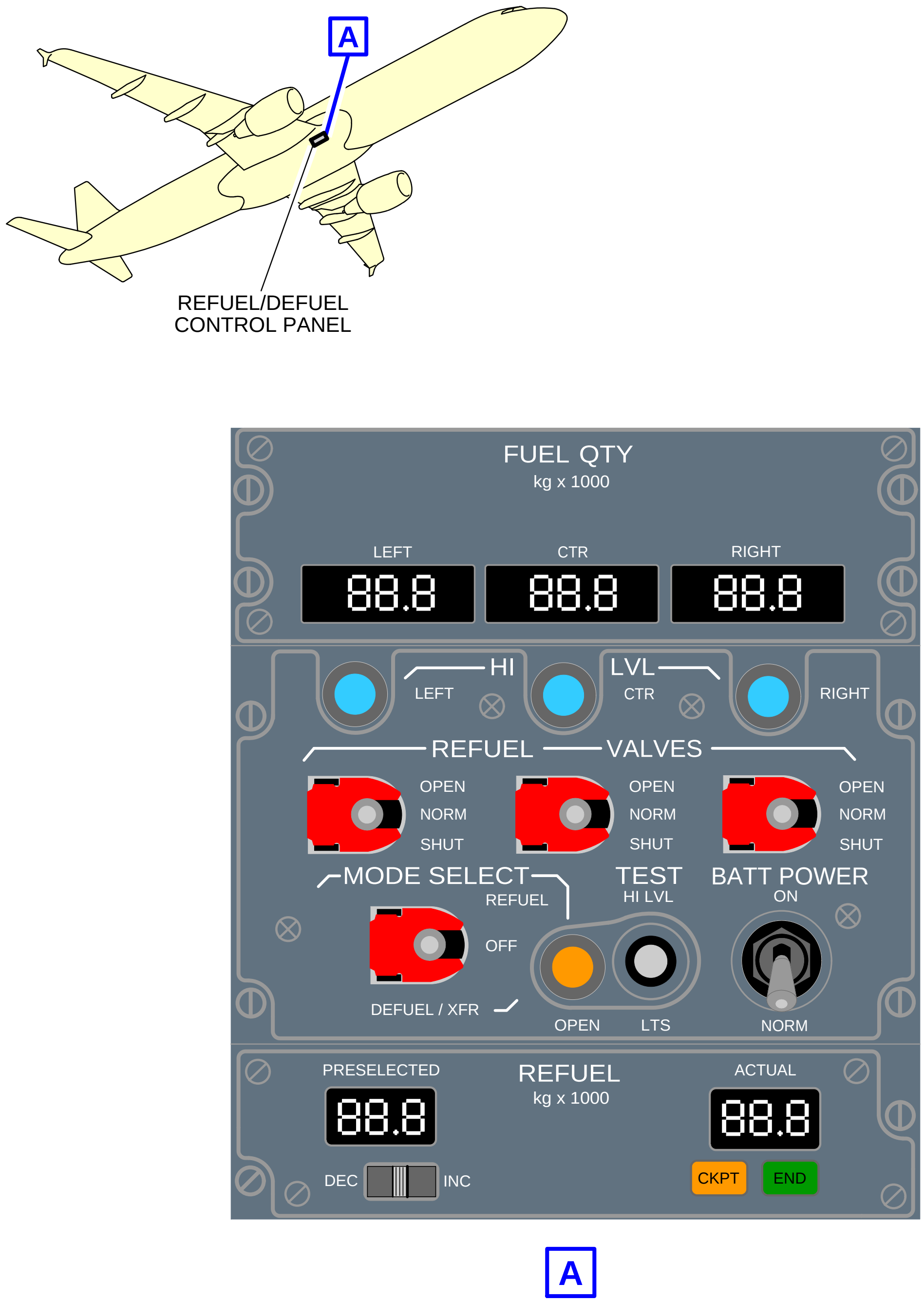
C. Average Flow Rate:
- 1250 l/min (330 US gal/min).

3. Overpressure Protectors and NACA Vent Intake

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

NOTE : Distances are approximate.

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



NOTE: STANDARD CONFIGURATION OF REFUEL/DEFUEL PANEL.

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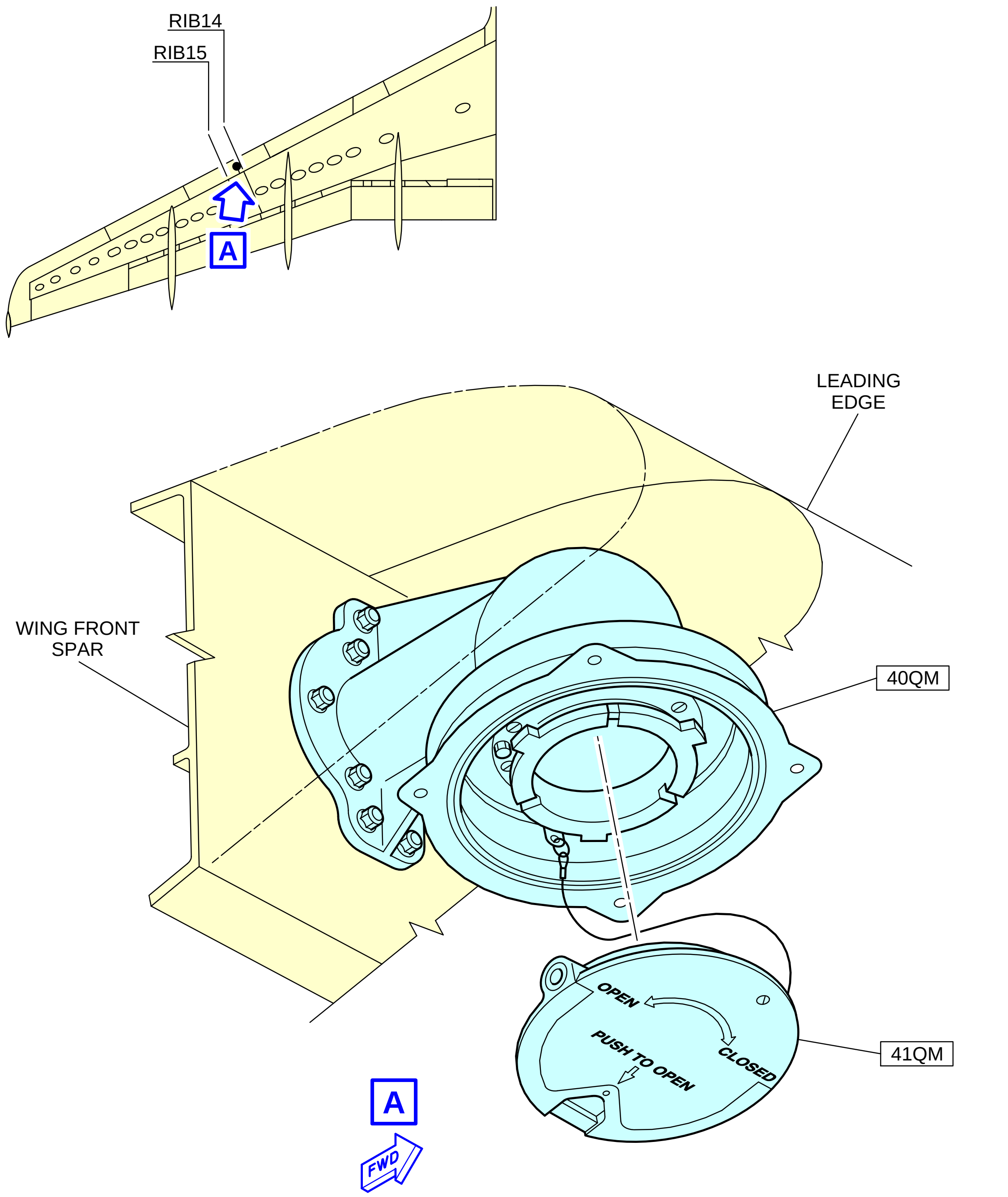
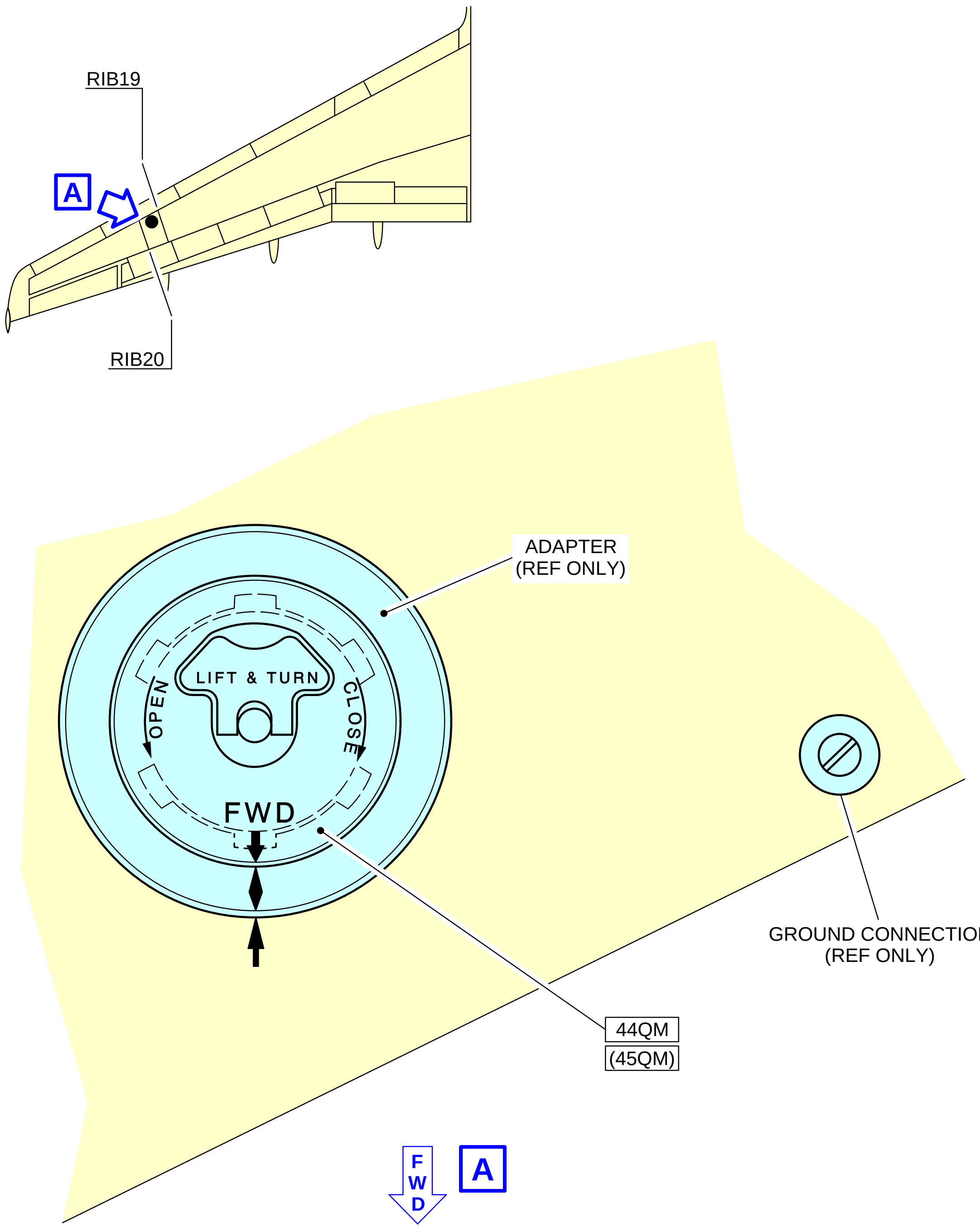
Ground Service Connections
Refuel/Defuel Control Panel
FIGURE-5-4-6-991-001-A01

**ON A/C A319-100 A319neo



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

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



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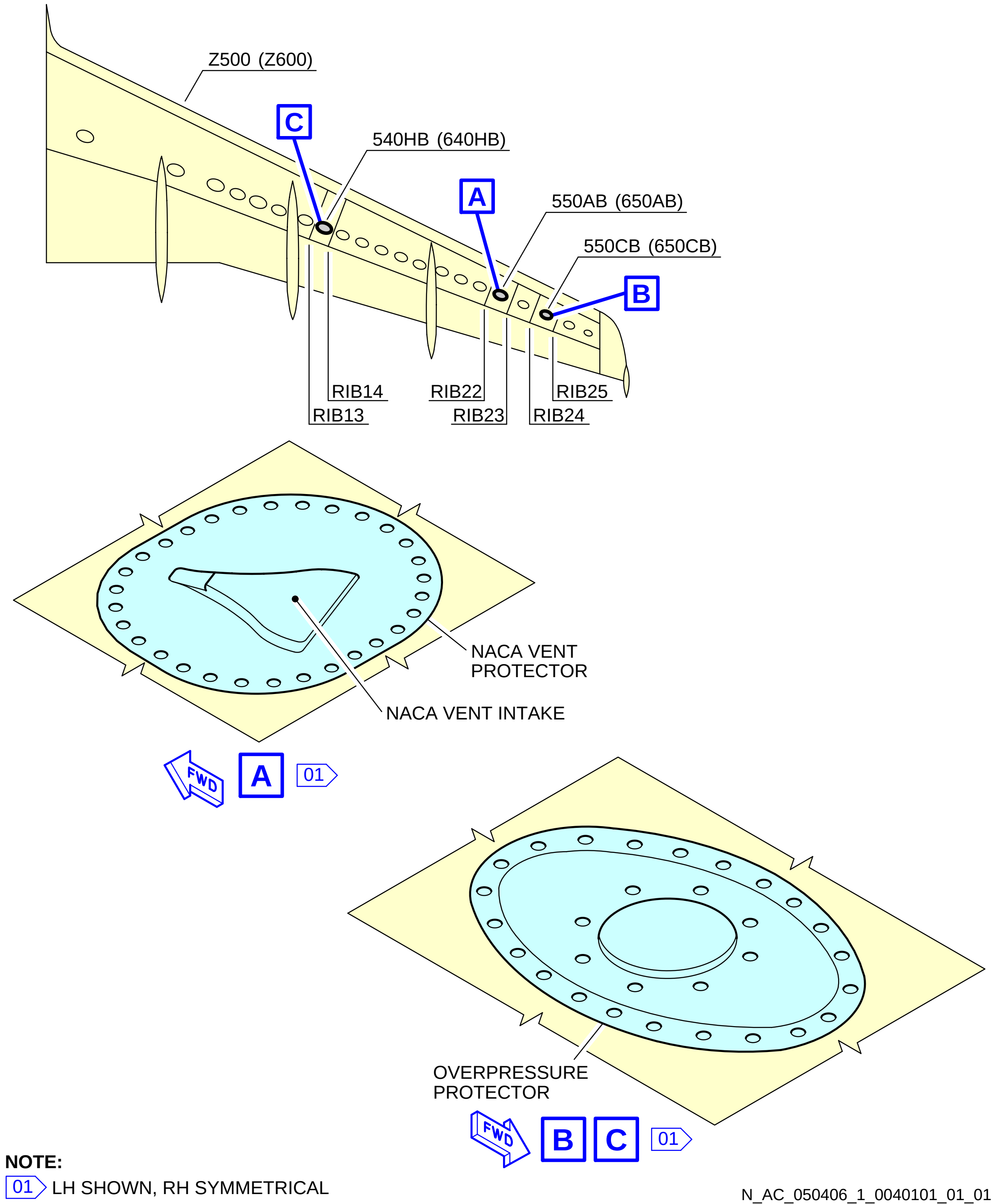
Ground Service Connections
Overwing Gravity-Refuel Cap (If Installed)
FIGURE-5-4-6-991-003-A01

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



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 FROM GROUND
		LH SIDE	RH SIDE	
HP Connector: Access Door 191DB	11.38 m (37.34 ft)	0.84 m (2.76 ft)	-	1.76 m (5.77 ft)

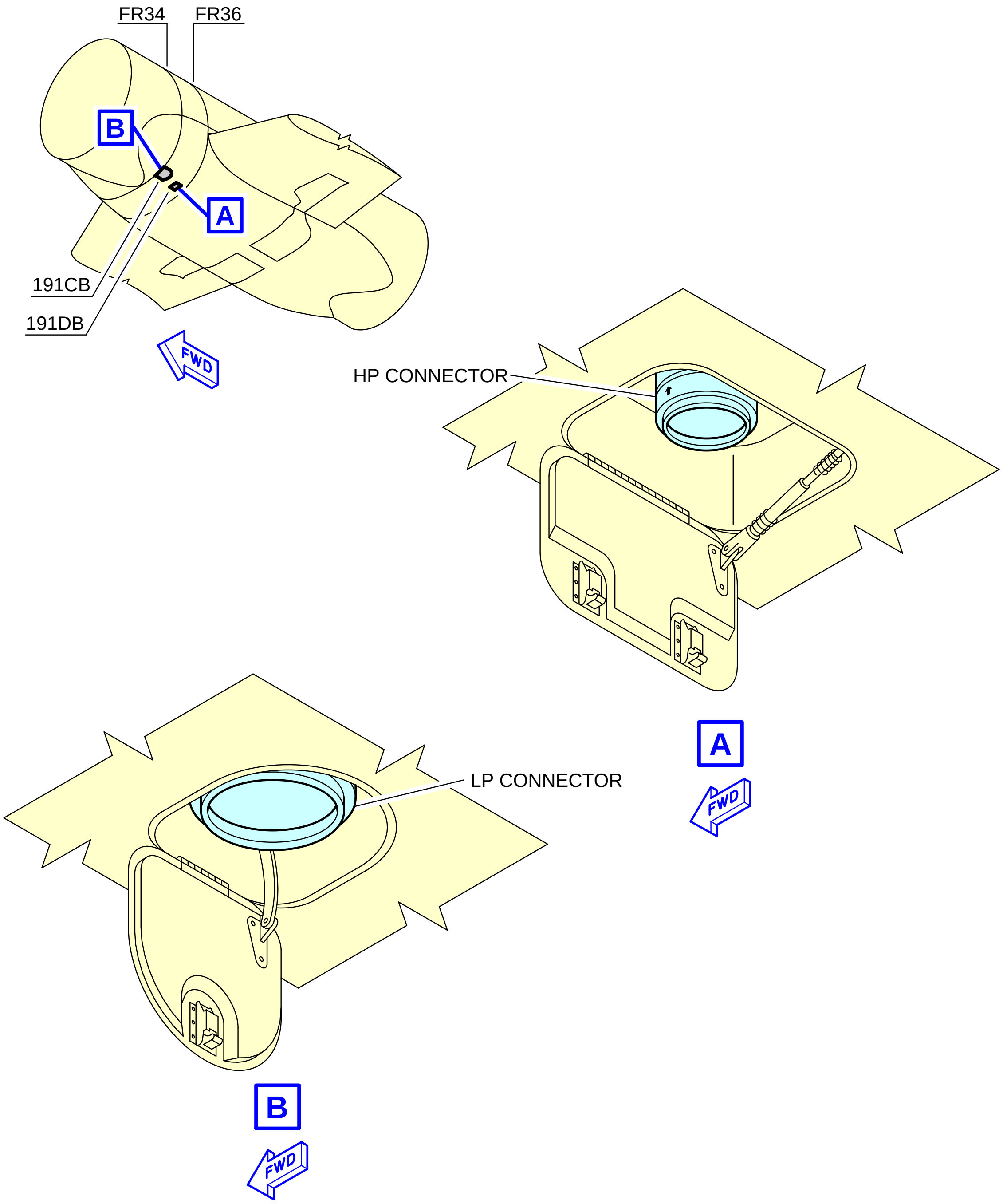
A. Connector:
- One standard 3 in. ISO 2026 connection.

2. Low Pressure Air Connector

ACCESS	DISTANCE			
	AFT OF NOSE	FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND
		LH SIDE	RH SIDE	
LP Connector: Access Door 191CB	10.85 m (35.6 ft)	1.11 m (3.64 ft)	-	1.73 m (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 FROM GROUND
		ENGINE 1 (LH)	ENGINE 2 (RH)	
Engine oil gravity-filling-cap: Access door: 437BL (LH), 447BL (RH)	11.56 m (37.93 ft)	6.63 m (21.75 ft)	4.82 m (15.81 ft)	1.46 m (4.79 ft)
Engine oil pressure-filling-port:	11.40 m (37.40 ft)	6.49 m (21.29 ft)	4.74 m (15.55 ft)	1.42 m (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 FROM GROUND
		ENGINE 1 (LH)	ENGINE 2 (RH)	
IDG oil-pressure-filling connection: Access door: 438AR (LH),	10.60 m (34.78 ft)	6.90 m (22.64 ft)	5.52 m (18.11 ft)	0.68 m (2.23 ft)

ACCESS	DISTANCE			
	AFT OF NOSE	FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM 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 FROM GROUND
		ENGINE 1 (LH)	ENGINE 2 (RH)	
Starter-oil filling connection:	11.40 m (37.40 ft)	5.30 m (17.39 ft)	6.20 m (20.34 ft)	0.76 m (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 FROM GROUND
		ENGINE 1 (LH)	ENGINE 2 (RH)	
Engine oil gravity-filling-cap: Access door: 437BL (LH), 447BL (RH)	10.64 m (34.91 ft)	6.56 m (21.52 ft)	4.92 m (16.14 ft)	1.22 m (4.00 ft)

NOTE : Distances are approximate.

A. Tank capacity:
   - Full level: 28 l (7 US gal),

- Usable: 23.50 l (6 US gal).

5. 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 FROM GROUND
		ENGINE 1 (LH)	ENGINE 2 (RH)	
IDG oil-pressure-filling connection:	11.04 m (36.22 ft)	5.30 m (17.39 ft)	6.14 m (20.14 ft)	0.75 m (2.46 ft)

NOTE : Distances are approximate.

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

6. 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 FROM GROUND
		ENGINE 1 (LH)	ENGINE 2 (RH)	
Starter-oil filling connection:	11.04 m (36.22 ft)	5.30 m (17.39 ft)	6.14 m (20.14 ft)	0.75 m (2.46 ft)

NOTE : Distances are approximate.

A. Tank capacity: 0.35 l (0.09 US gal).

****ON A/C A319neo**

7. 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 FROM GROUND
		ENGINE 1 (LH)	ENGINE 2 (RH)	
Engine oil gravity-filling-cap: Access doors: 438BR and 448BR.	TBD	TBD	TBD	TBD

ACCESS	DISTANCE			
	AFT OF NOSE	FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND
		ENGINE 1 (LH)	ENGINE 2 (RH)	
Engine oil pressure-filling-port: 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 FROM GROUND
		ENGINE 1 (LH)	ENGINE 2 (RH)	
IDG oil-pressure-filling connection: 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.

ACCESS	DISTANCE			
	AFT OF NOSE	FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND
		ENGINE 1 (LH)	ENGINE 2 (RH)	
Starter-oil filling connection: 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**

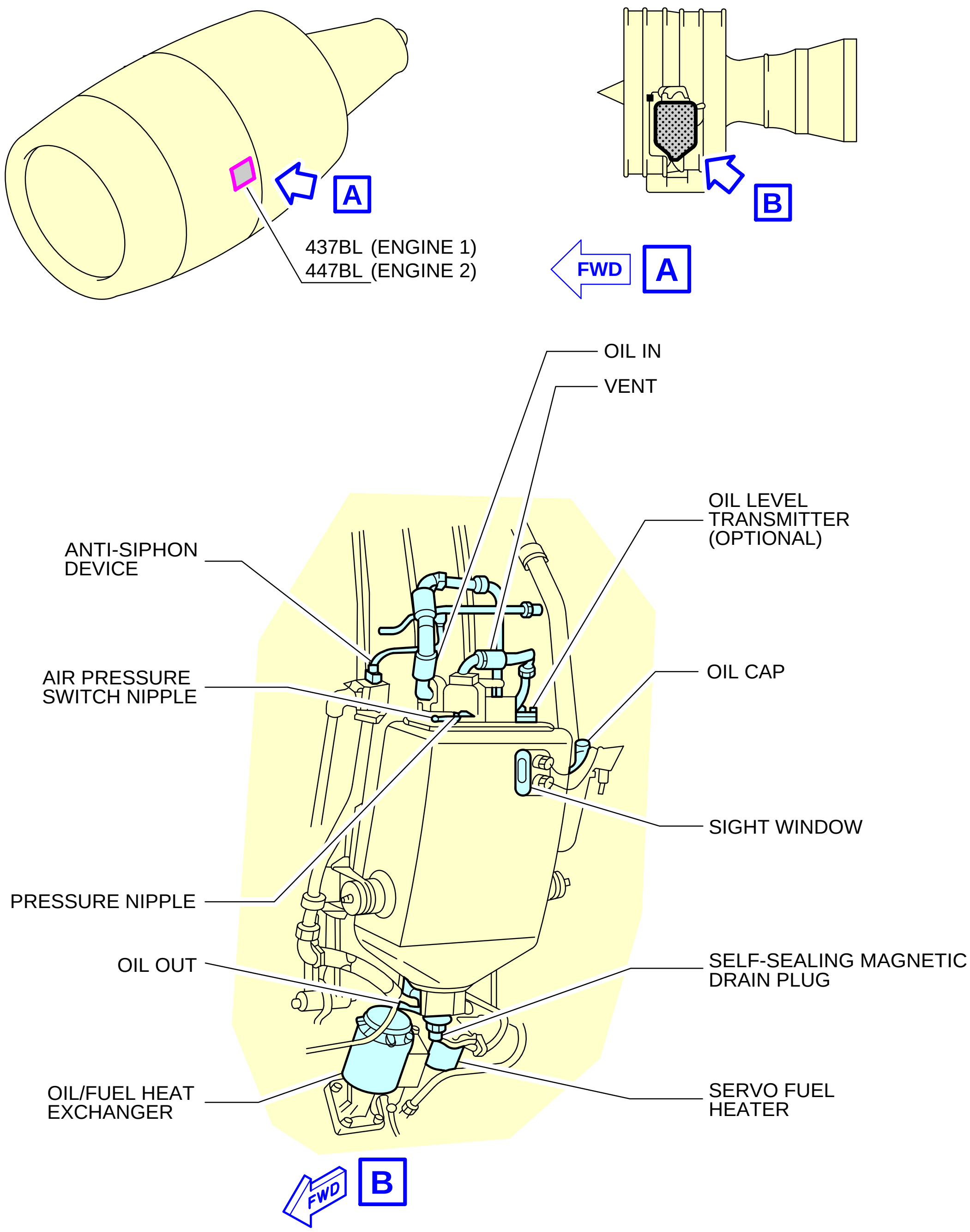
10. APU Oil System (See FIGURE 5-4-8-991-009-A):
APU oil gravity-filling-cap.

ACCESS	DISTANCE			
	AFT OF NOSE	FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND
		ENGINE 1 (LH)	ENGINE 2 (RH)	
GTCP 36-300	31.76 m (104.20 ft)	0.30 m (0.98 ft)	-	4.83 m (15.85 ft)
APS 3200	31.76 m (104.20 ft)	0.30 m (0.98 ft)	-	4.78 m (15.68 ft)
131-9	31.66 m (103.87 ft)	0.35 m (1.15 ft)	-	4.32 m (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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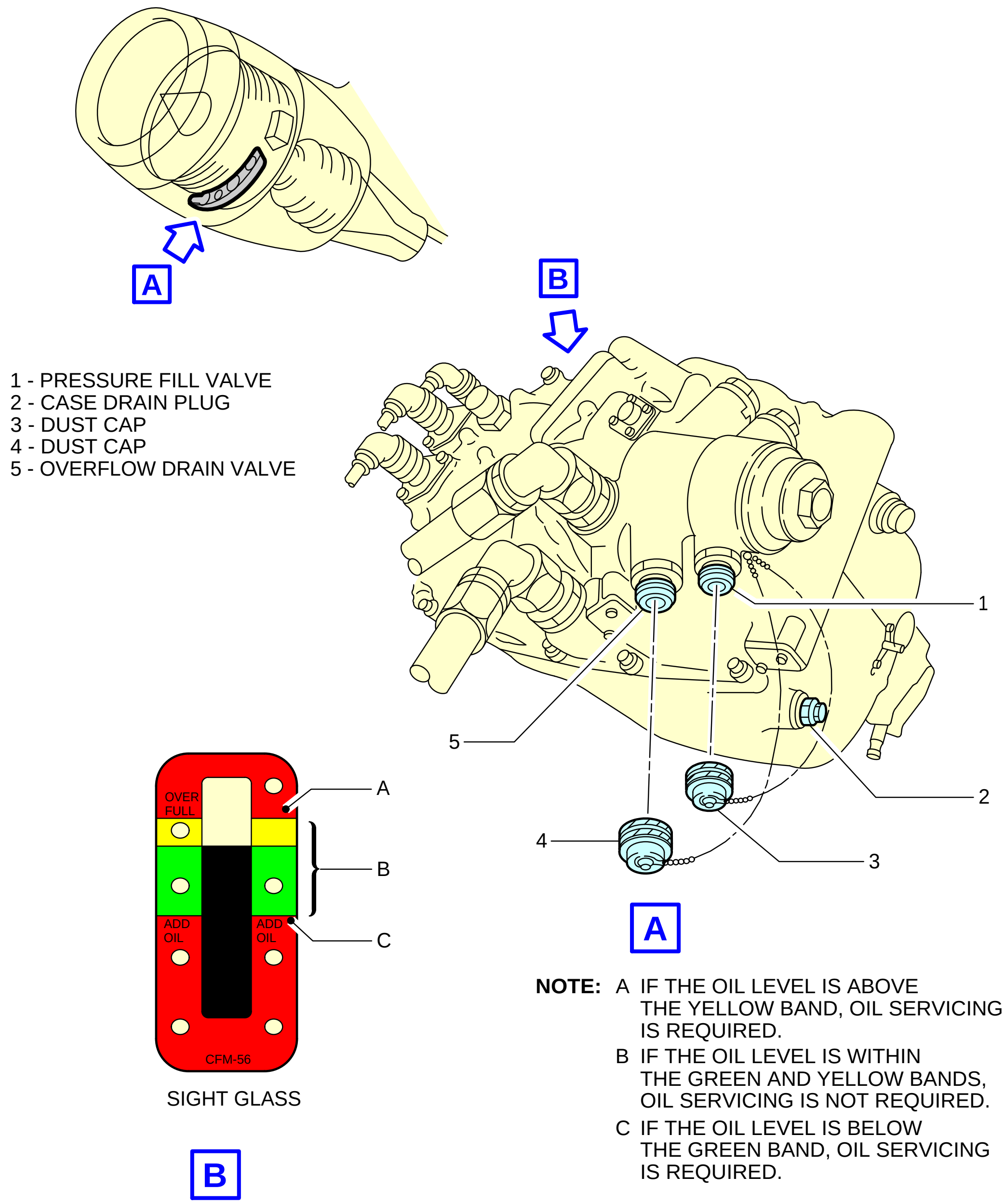
Ground Service Connections
Engine Oil Tank – CFM56 Series Engine
FIGURE-5-4-8-991-003-A01

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



NOTE: A IF THE OIL LEVEL IS ABOVE THE YELLOW BAND, OIL SERVICING IS REQUIRED.
B IF THE OIL LEVEL IS WITHIN THE GREEN AND YELLOW BANDS, OIL SERVICING IS NOT REQUIRED.
C IF THE OIL LEVEL IS BELOW THE GREEN BAND, OIL SERVICING IS REQUIRED.

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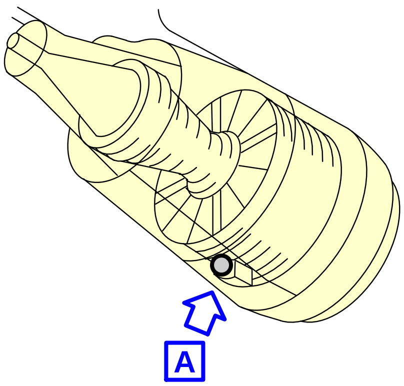
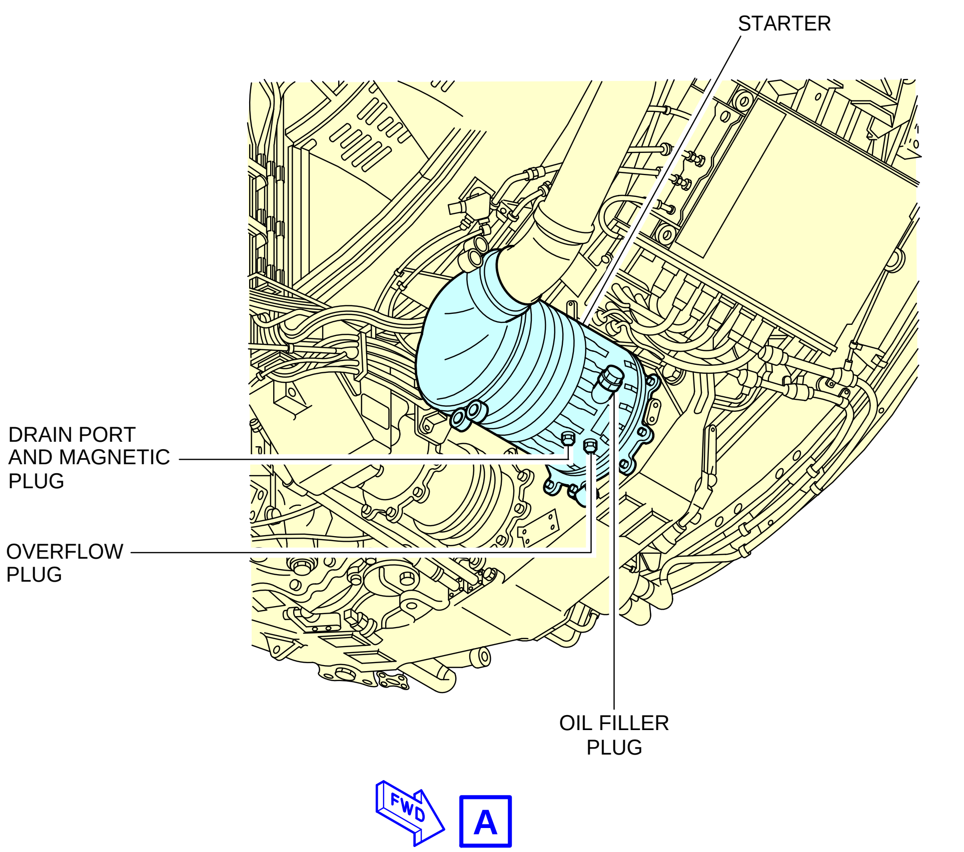
Ground Service Connections
IDG Oil Tank – CFM56 Series Engine
FIGURE-5-4-8-991-004-A01

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





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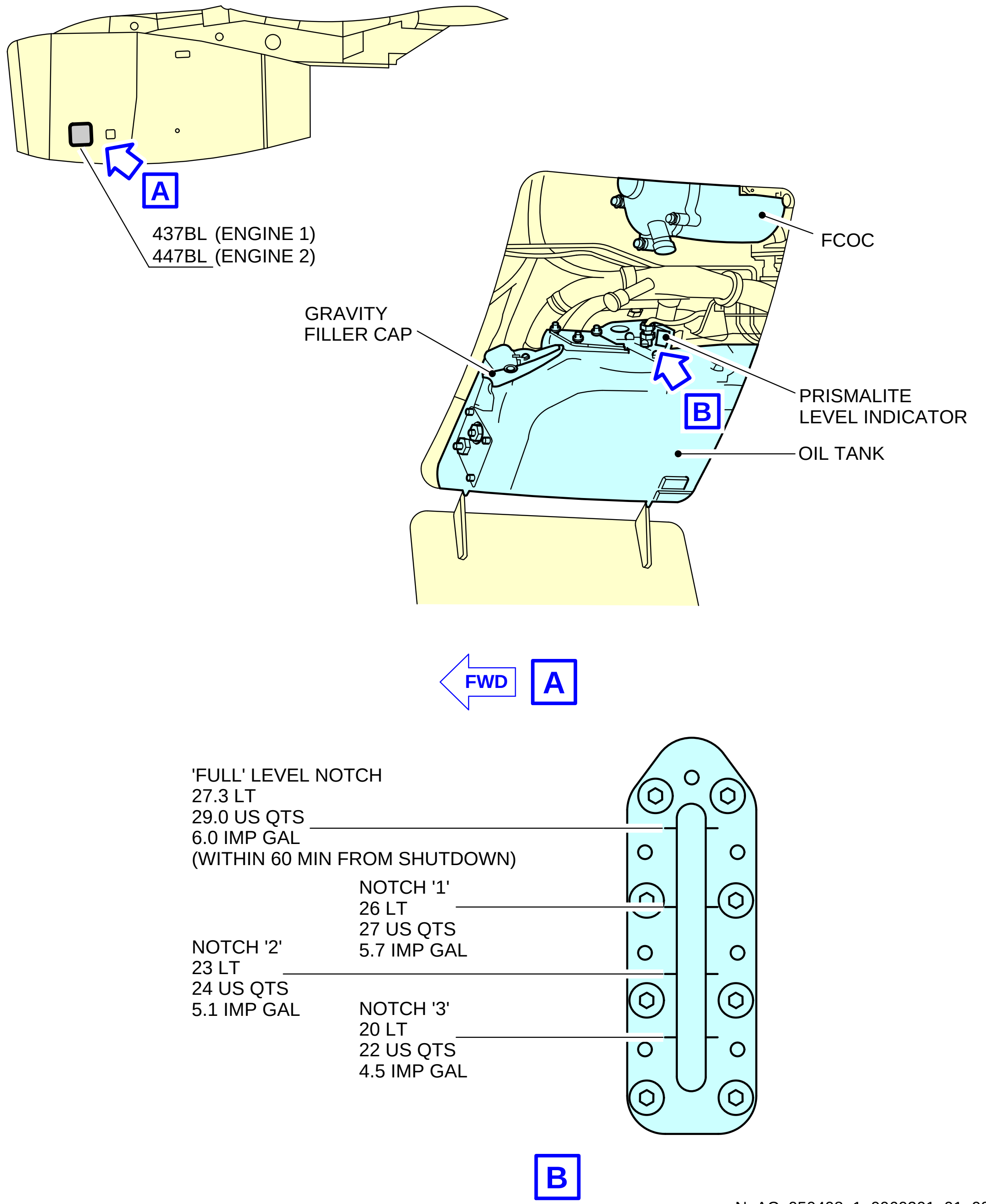
Ground Service Connections
Starter Oil Tank – CFM56 Series Engine
FIGURE-5-4-8-991-005-A01

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



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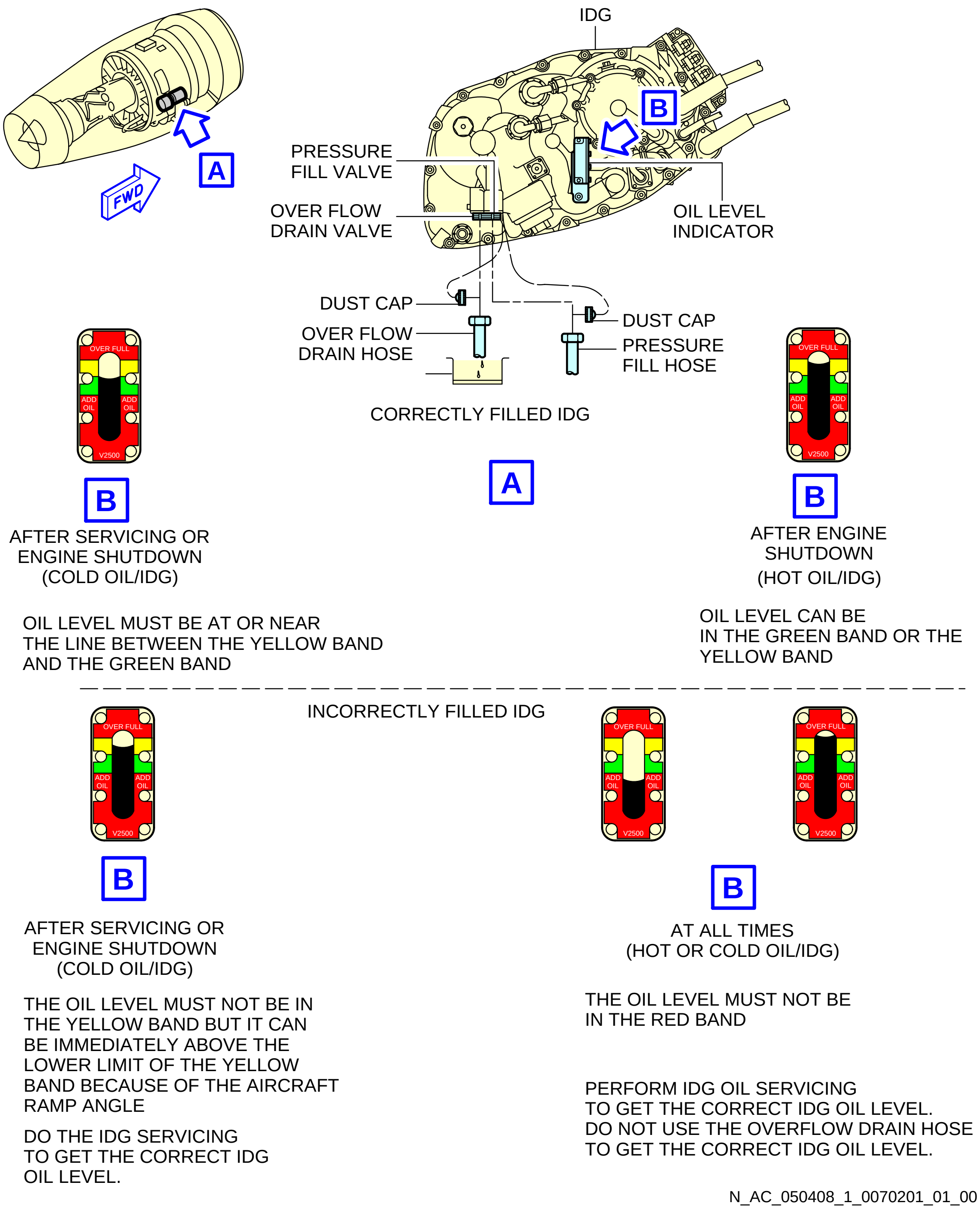
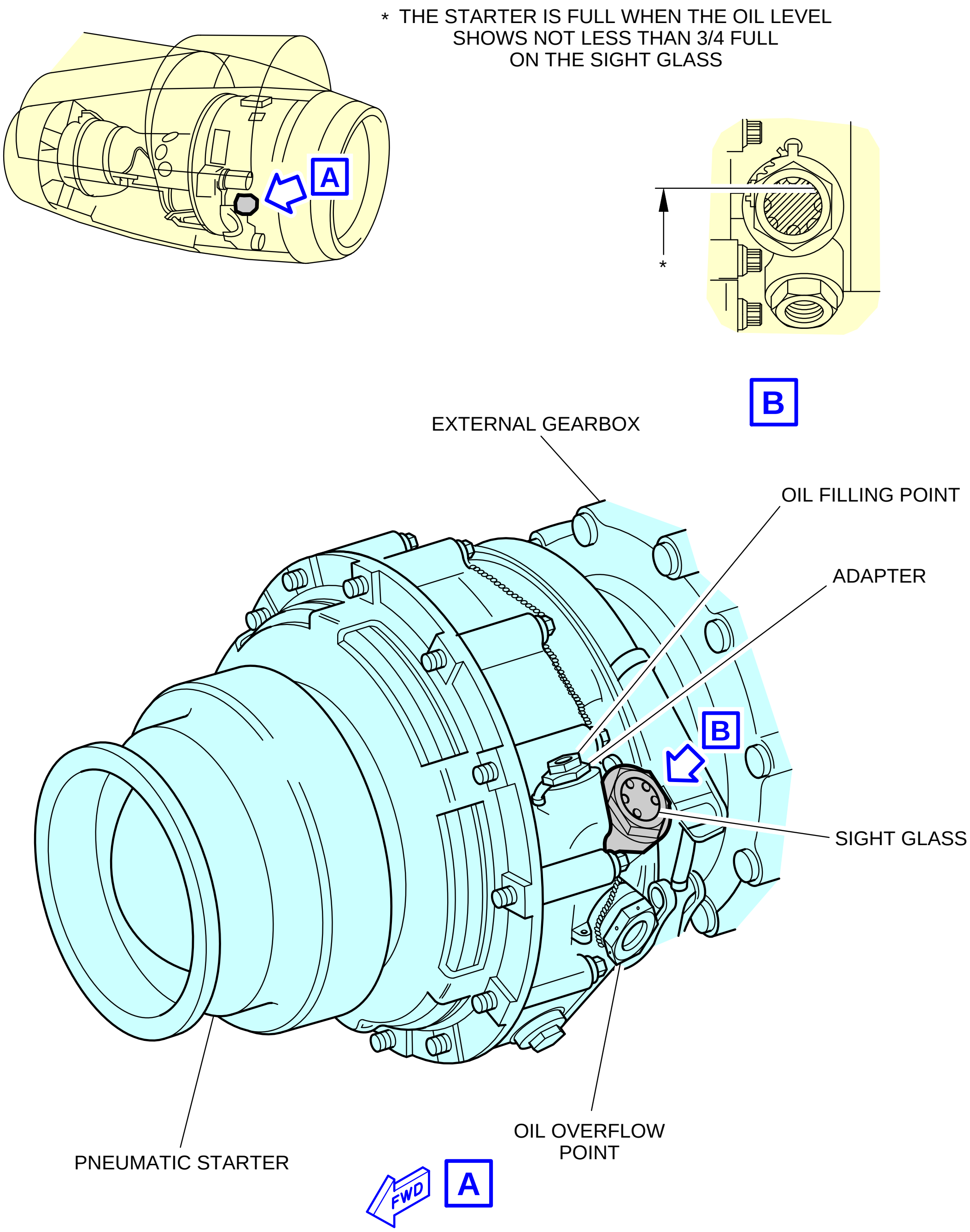
Ground Service Connections
Engine Oil Tank – IAE V2500 Series Engine
FIGURE-5-4-8-991-006-B01

**ON A/C A319-100



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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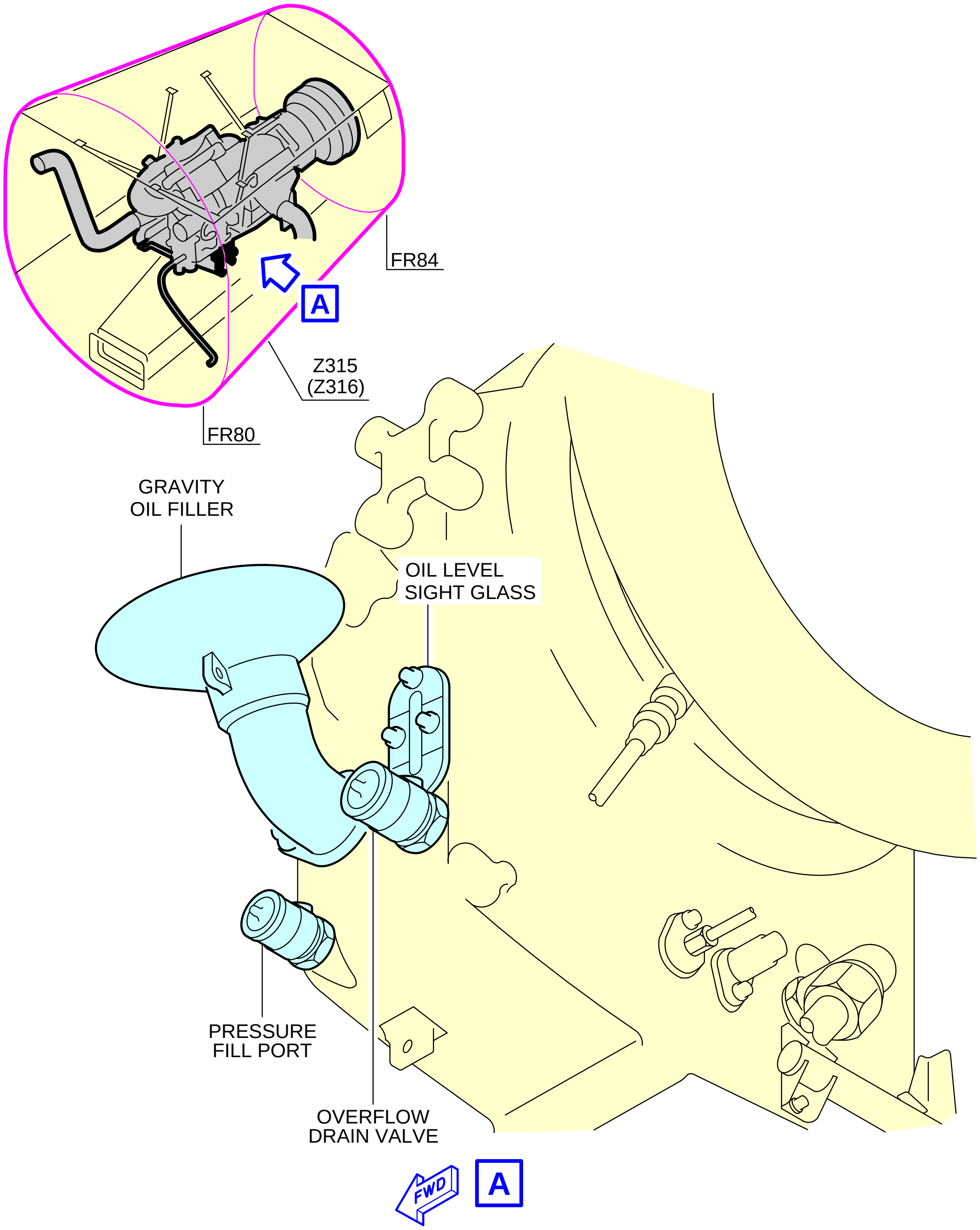
Ground Service Connections
Starter Oil Tank – IAE V2500 Series Engine
FIGURE-5-4-8-991-008-B01

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



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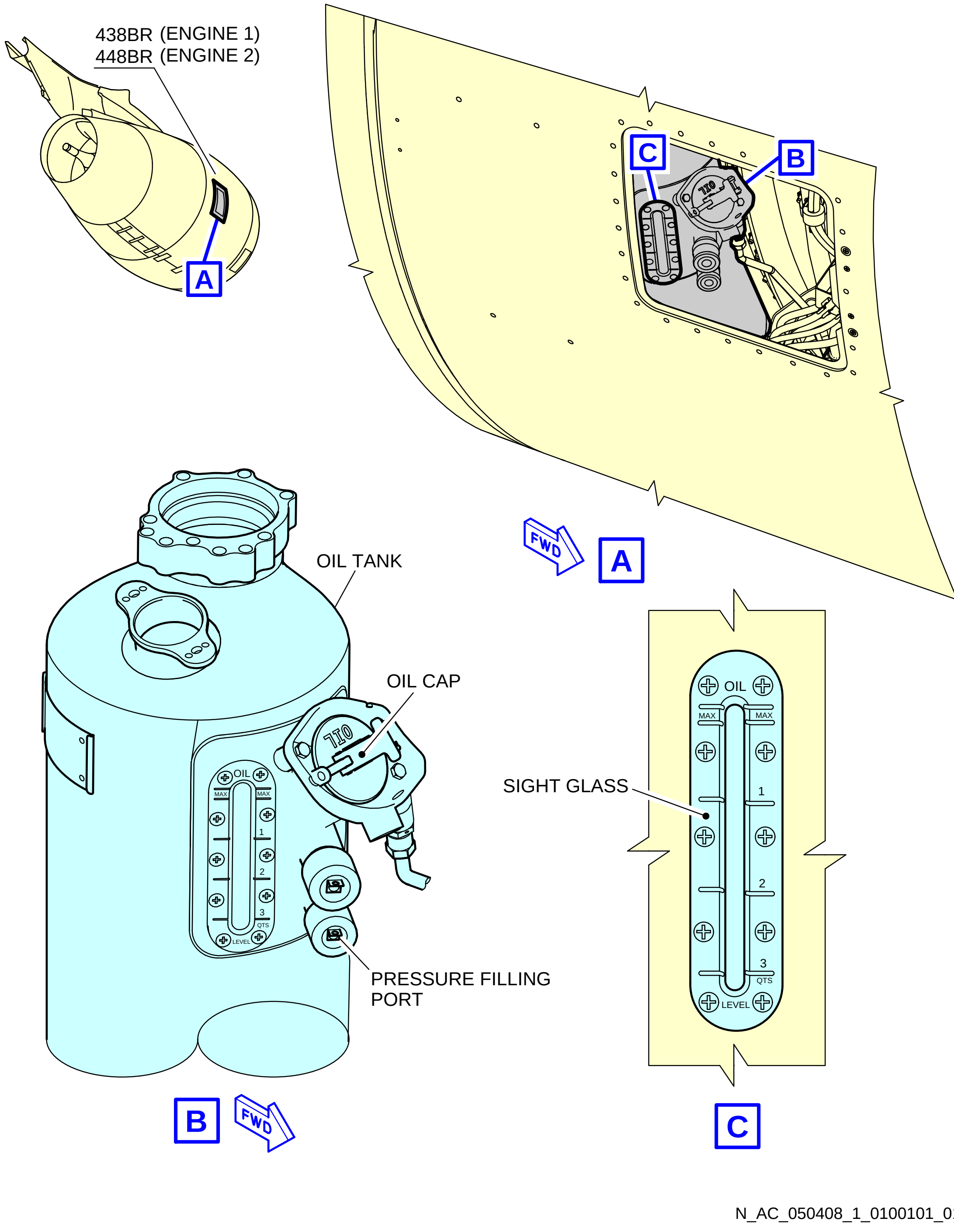
Ground Service Connections
APU Oil Tank
FIGURE-5-4-8-991-009-A01

****ON A/C A319neo**



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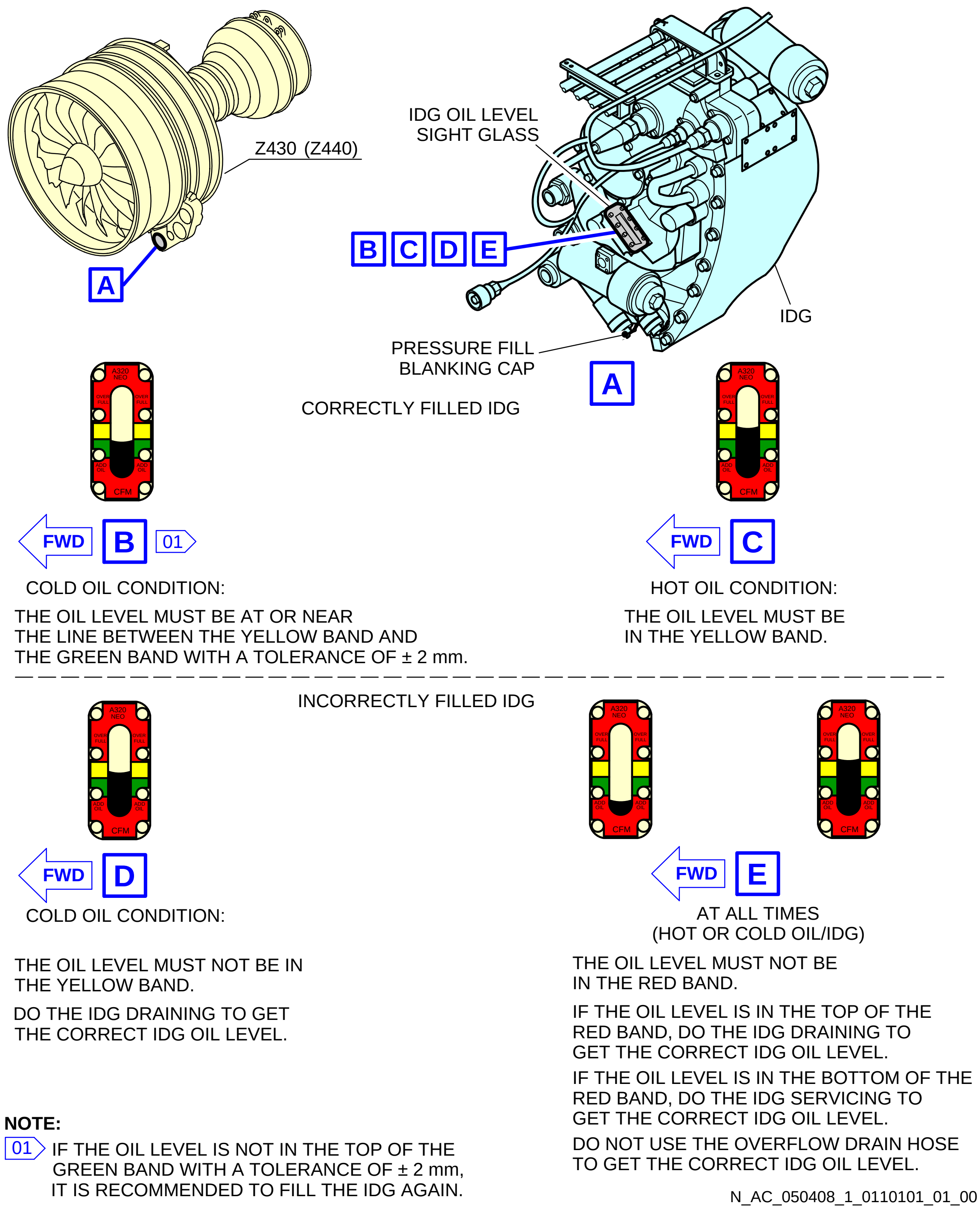
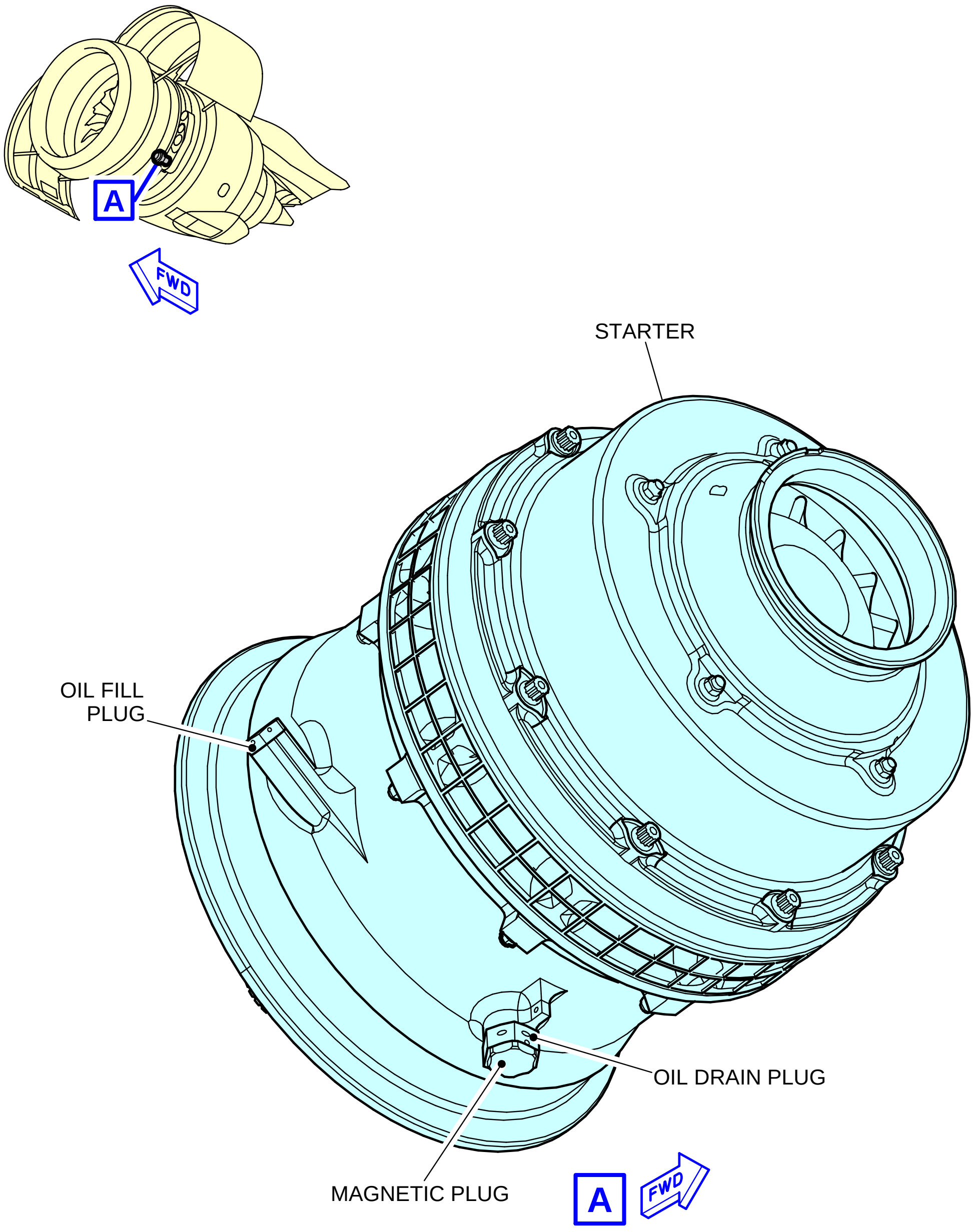
Ground Service Connections
Engine Oil Tank – CFM LEAP-1A Series Engine
FIGURE-5-4-8-991-010-A01

****ON A/C A319neo**



Ground Service Connections
IDG Oil Tank – CFM LEAP-1A Series Engine
FIGURE-5-4-8-991-011-A01

**ON A/C A319neo



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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 (90.22 ft)	0.3 m (0.98 ft)	-	2.6 m (8.53 ft)
Potable-Water Drain Panel: Access Door 133AL	11.8 m (38.71 ft)	0.15 m (0.49 ft)	-	1.75 m (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.

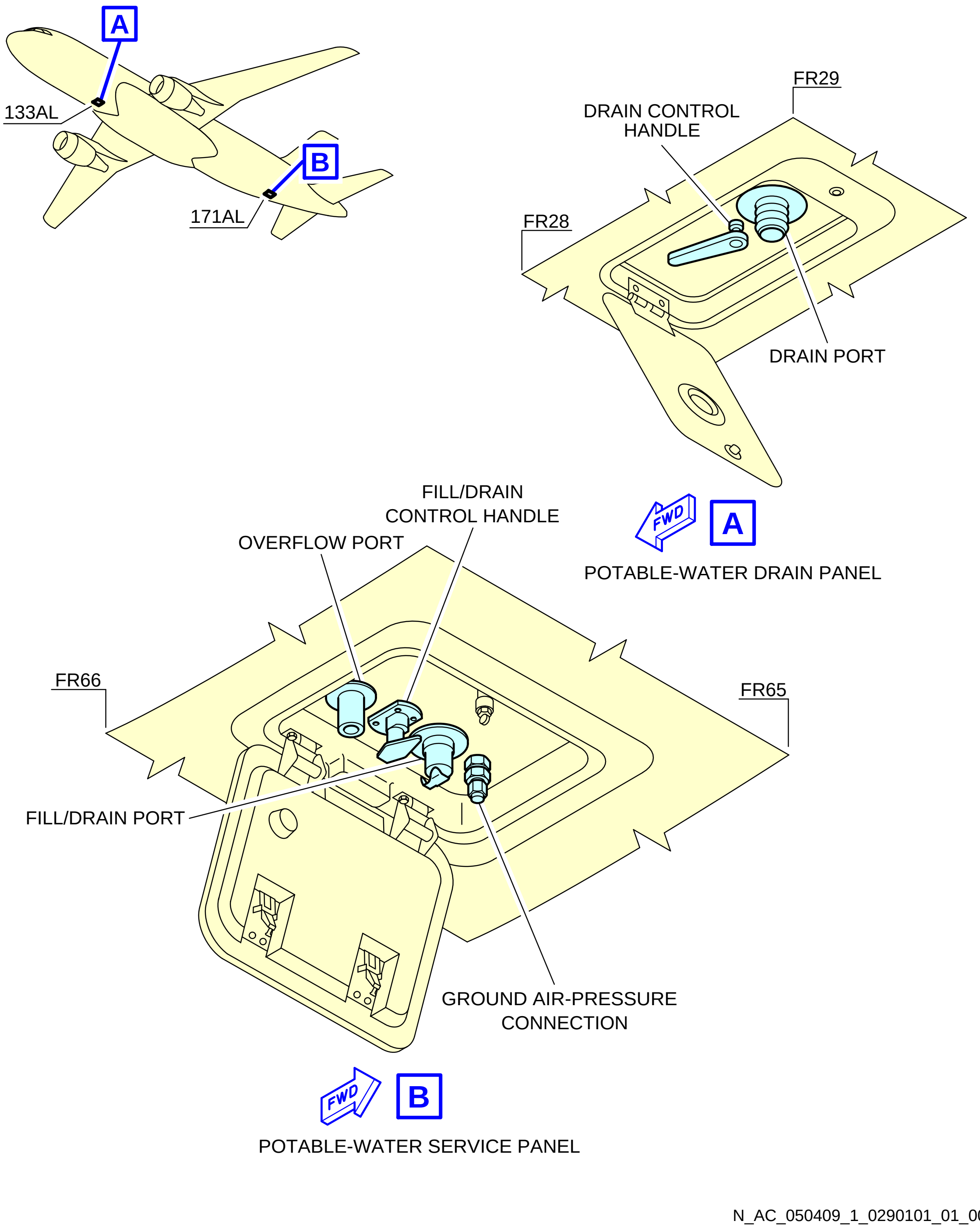
      (2) On the potable-water drain panel (Access Door 133AL)
         - Drain Nipple 3/4 in. (ISO 17775).

   B. Usable capacity:
      - Standard configuration - one tank: 200 l (53 US gal).

   C. Filling pressure:
      - 3.45 bar (50 psi).

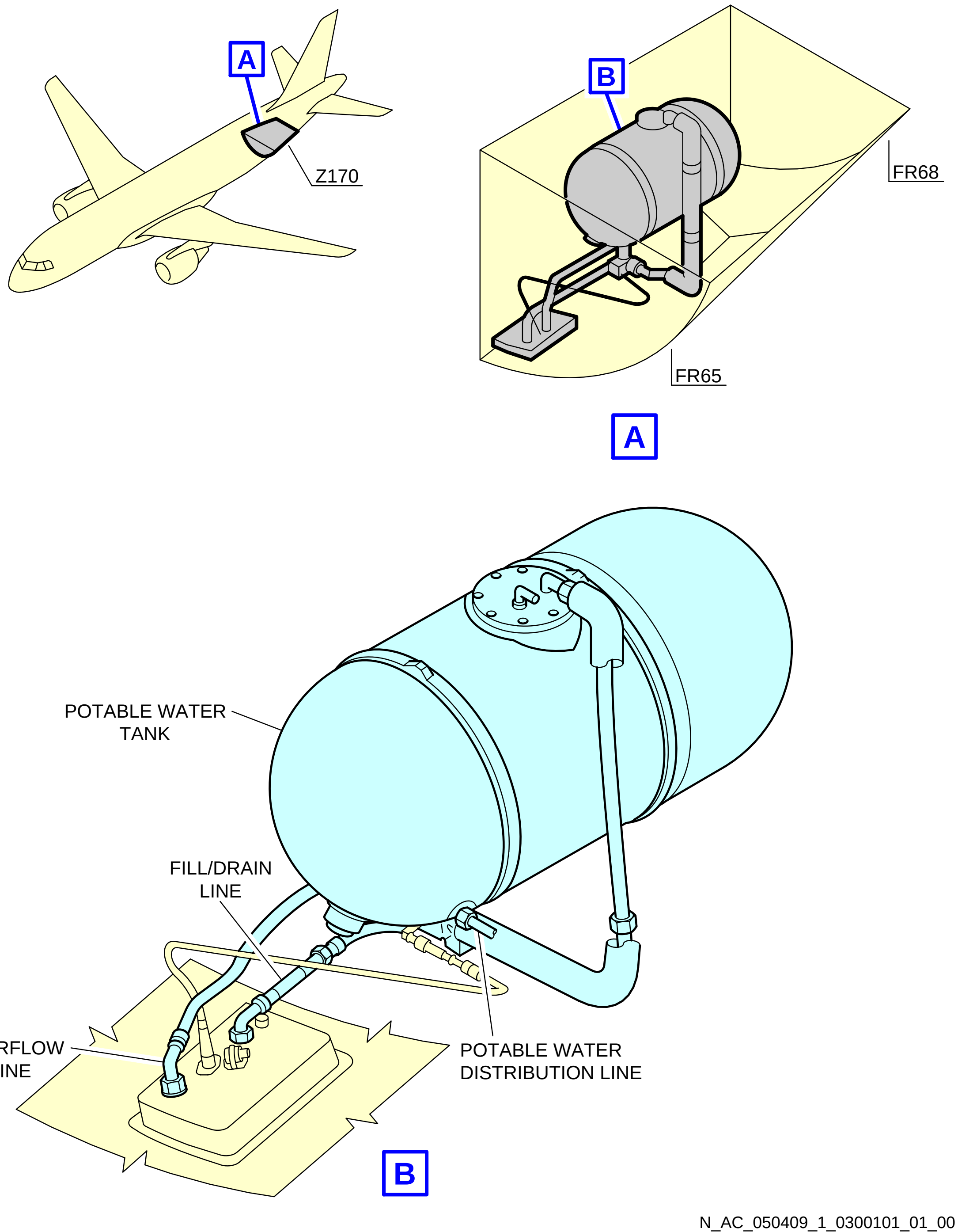
   D. Typical flow rate:
      - 50 l/min (13 US gal/min).

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



Ground Service Connections
Potable Water Ground Service Panels
FIGURE-5-4-9-991-029-A01

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



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 AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND
		LH SIDE	RH SIDE	
Waste-Water Ground Service Panel: Access door 172AR	27.5 m (90.22 ft)	-	0.8 m (2.62 ft)	2.8 m (9.19 ft)

NOTE : Distances are approximate.

2. Technical Specifications

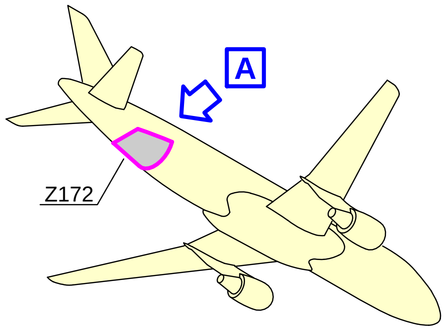
   A. Connectors:
      - Draining: 4 in. (ISO 17775).
      - Flushing and filling: 1 in. (ISO 17775).

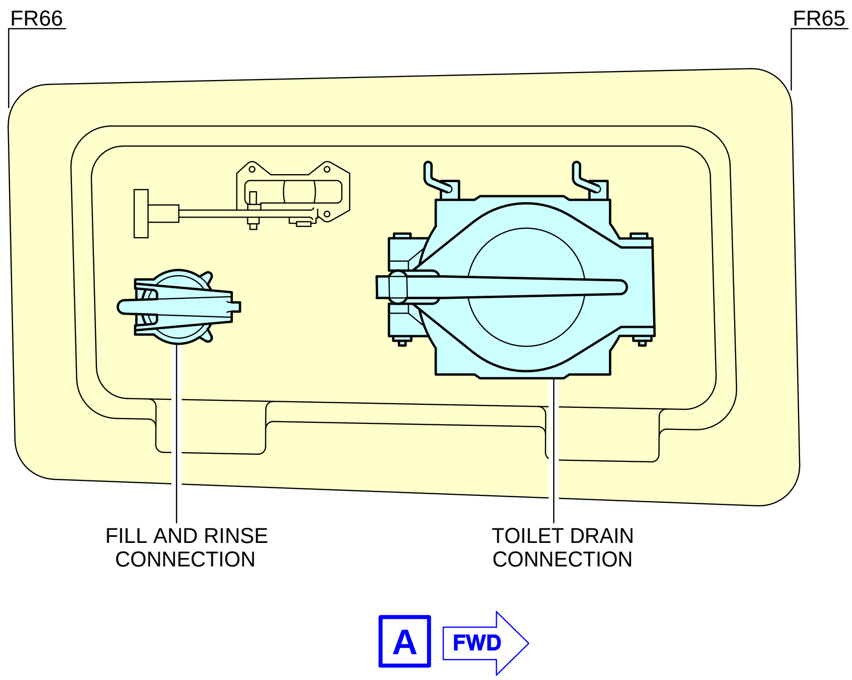
   B. Usable waste tank capacity:
      - Standard configuration - one tank: 177 l (47 US gal).

   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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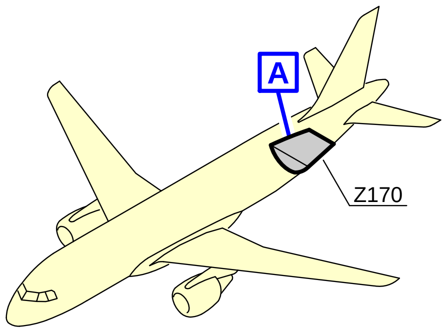
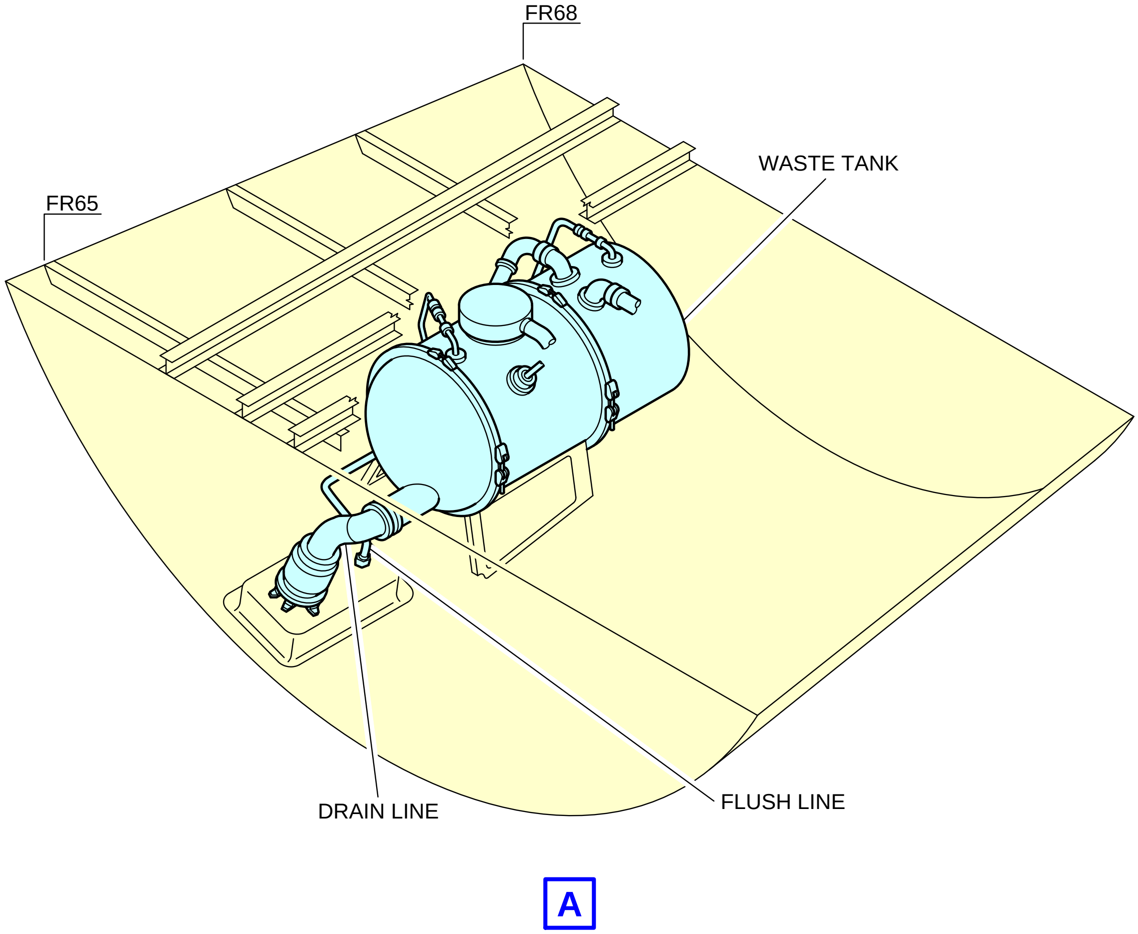
Ground Service Connections
Waste Water Ground Service Panel
FIGURE-5-4-10-991-001-A01

****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.

****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)

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.

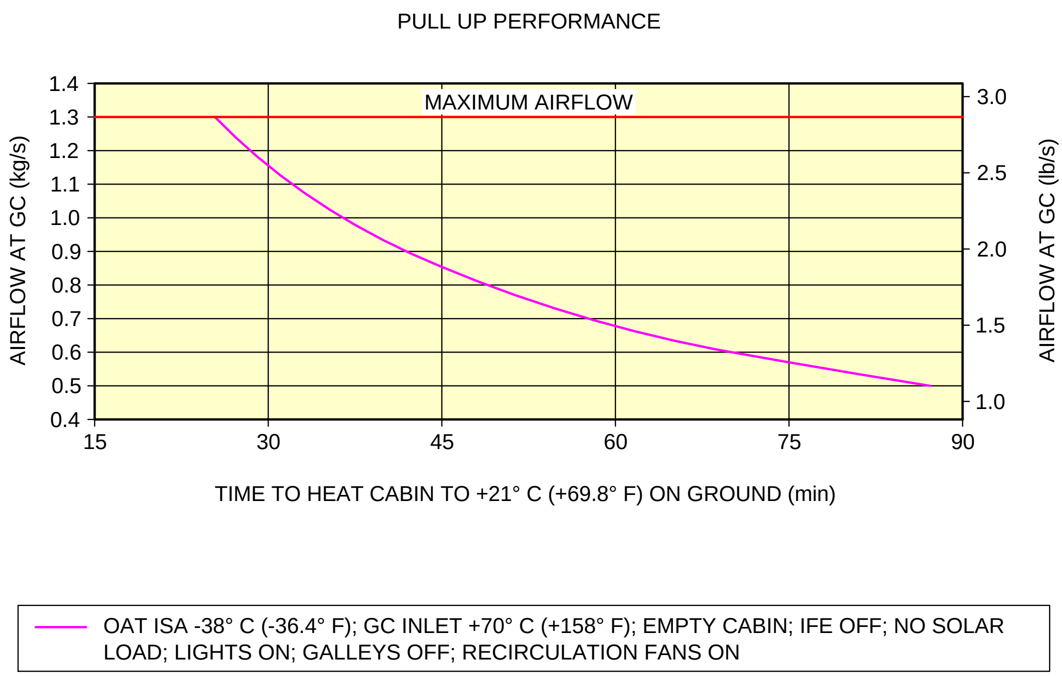
B. For temperatures at ground connection below 2 °C (35.6 °F) (Subfreezing), the ground equipment shall be compliant with the Airbus document ”Subfreezing PCA Carts - Compliance Document for Suppliers” (contact Airbus to obtain this document) defining all the requirements with which Subfreezing Pre-Conditioning 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:

- 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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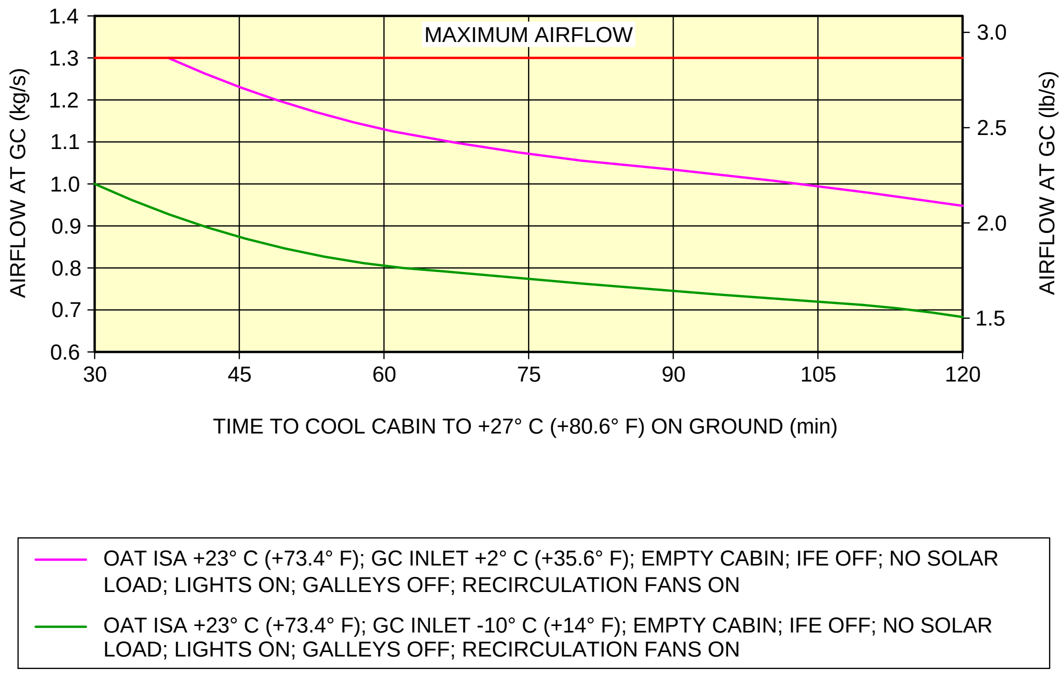
Ground Pneumatic Power Requirements
Heating
FIGURE-5-6-0-991-001-A01

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

PULL DOWN PERFORMANCE



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Ground Pneumatic Power Requirements
Cooling
FIGURE-5-6-0-991-002-A01

5-7-0 Preconditioned Airflow Requirements

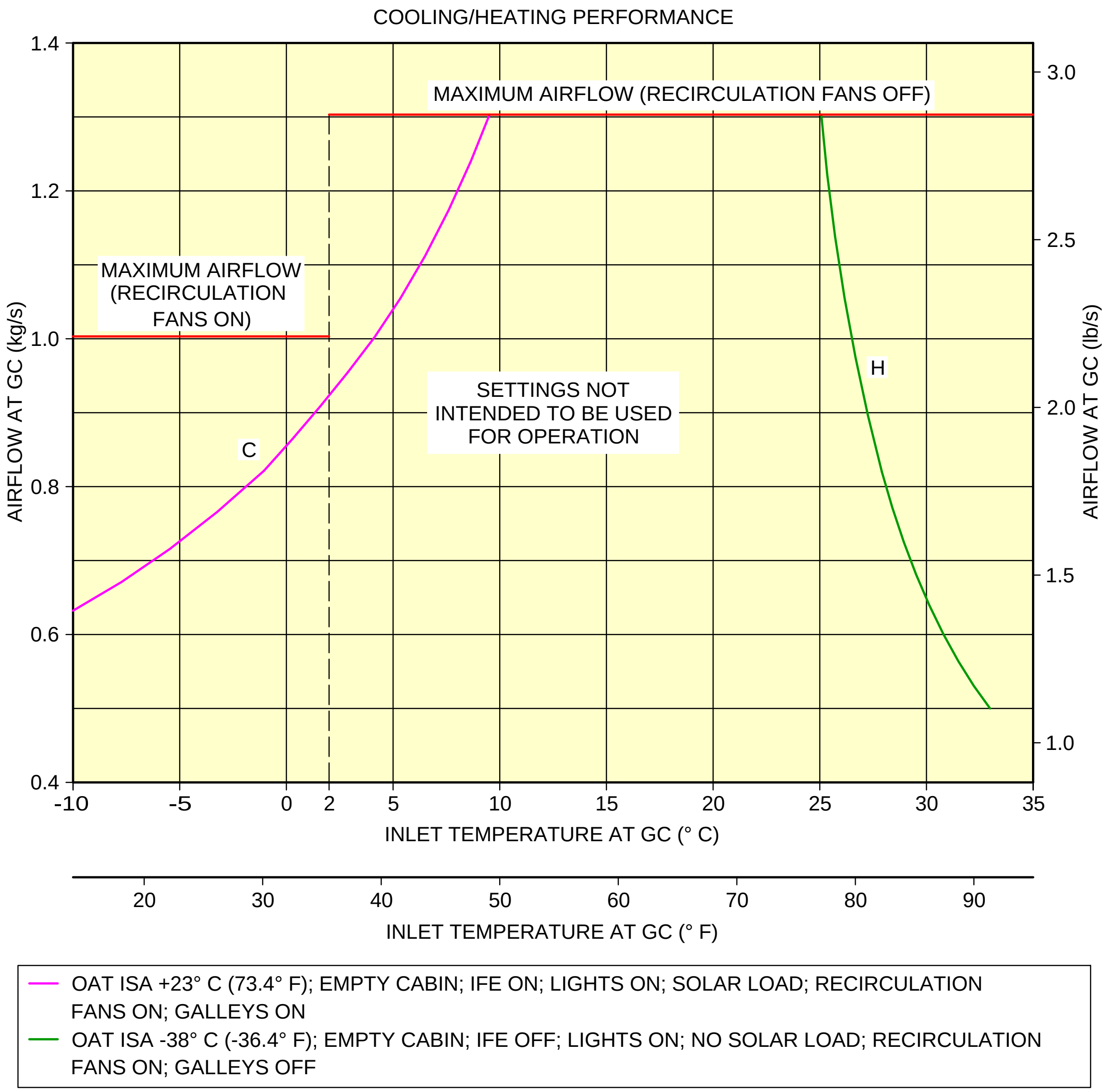
ON A/C A319-100 A319neo

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).

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



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Preconditioned Airflow Requirements
FIGURE-5-7-0-991-001-A01

5-8-0 Ground Towing Requirements

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

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.

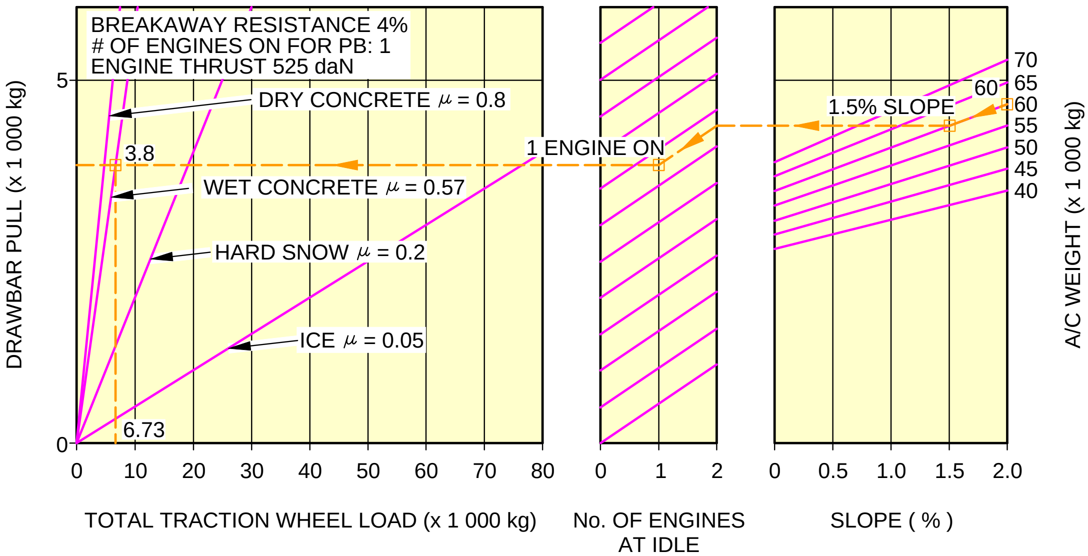
2. Towbar design guidelines

   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) 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.

**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
5-8-0-991-001-J01

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 (Both Sides)		Wingtip Devices (Both Inside and Outside Surfaces) (Both Sides)		HTP Top Surface (Both Sides)		VTP (Both Sides)	
	m²	ft²	m²	ft²	m²	ft²	m²	ft²
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 (Top Third - 120° Arc)		Nacelle and Pylon (Top Third - 120° Arc) (All Engines)		Total De-Iced Area	
	m²	ft²	m²	ft²	m²	ft²
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 (Both Sides)		Wing Lower Surface (Including Flap Track Fairing) (Both Sides)		Wingtip Devices (Both Inside and Outside Surfaces) (Both Sides)	
	m²	ft²	m²	ft²	m²	ft²
A319	100	1 076	103	1 109	2	22
A319 Sharklet/neo	100	1 076	103	1 109	10	108

AIRCRAFT TYPE	HTP Top Surface (Both Sides)		HTP Lower Surface (Both Sides)		VTP (Both Sides)	
	m²	ft²	m²	ft²	m²	ft²
A319	27	291	27	291	43	463
A319 Sharklet/neo	27	291	27	291	43	463

AIRCRAFT TYPE	Fuselage and Belly Fairing		Nacelle and Pylon (All Engines)		Total Cleaned Area	
	m²	ft²	m²	ft²	m²	ft²
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, Breakaway 12% MTO, Breakaway 24% MTO and Ground Idle conditions for the CFM LEAP-1A and PW 1100G engines.

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. Breakaway thrust corresponds to 12% MTO if applied on both engines and 24% MTO when applied on a single engine (Idle thrust on the other engine).

The Idle data, provided by the engine manufacturer, are calculated for operational conditions ISA +15K (+15°C), 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).

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.

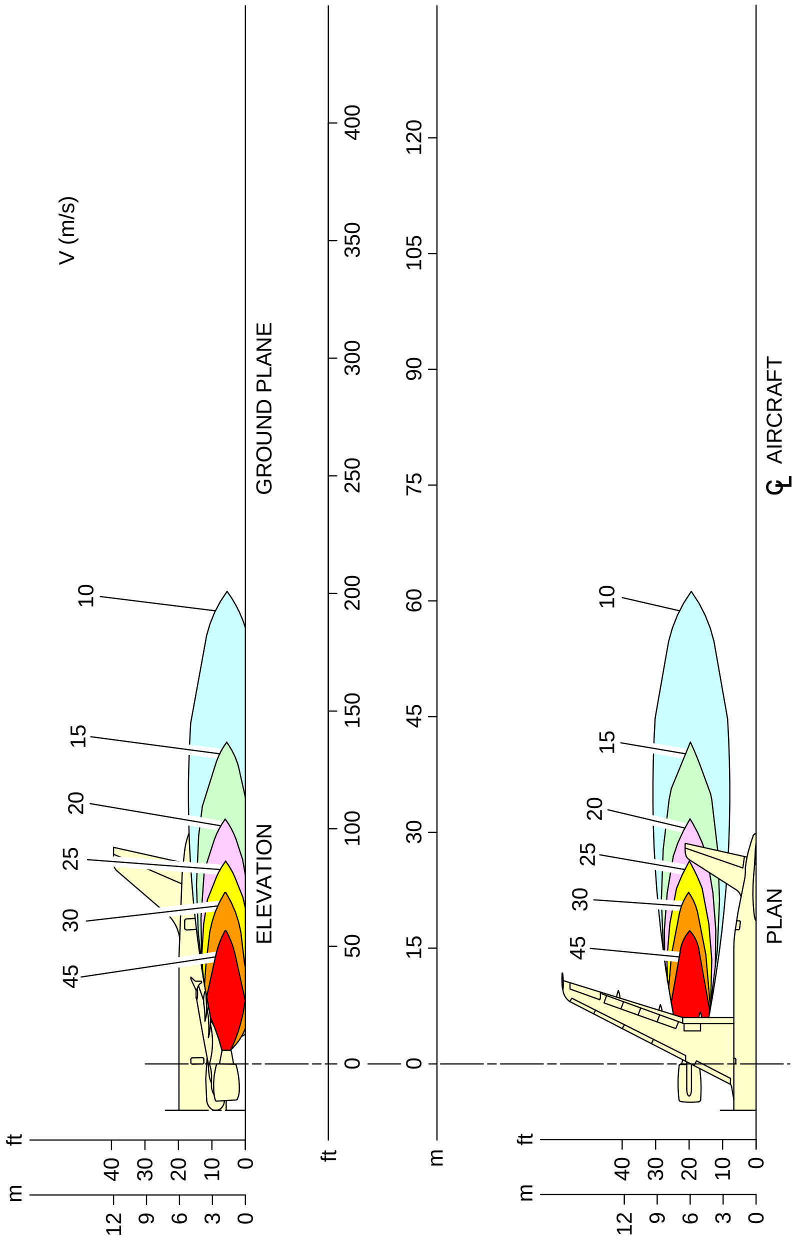
6-1-1 Engine Exhaust Velocities Contours - Ground Idle Power

****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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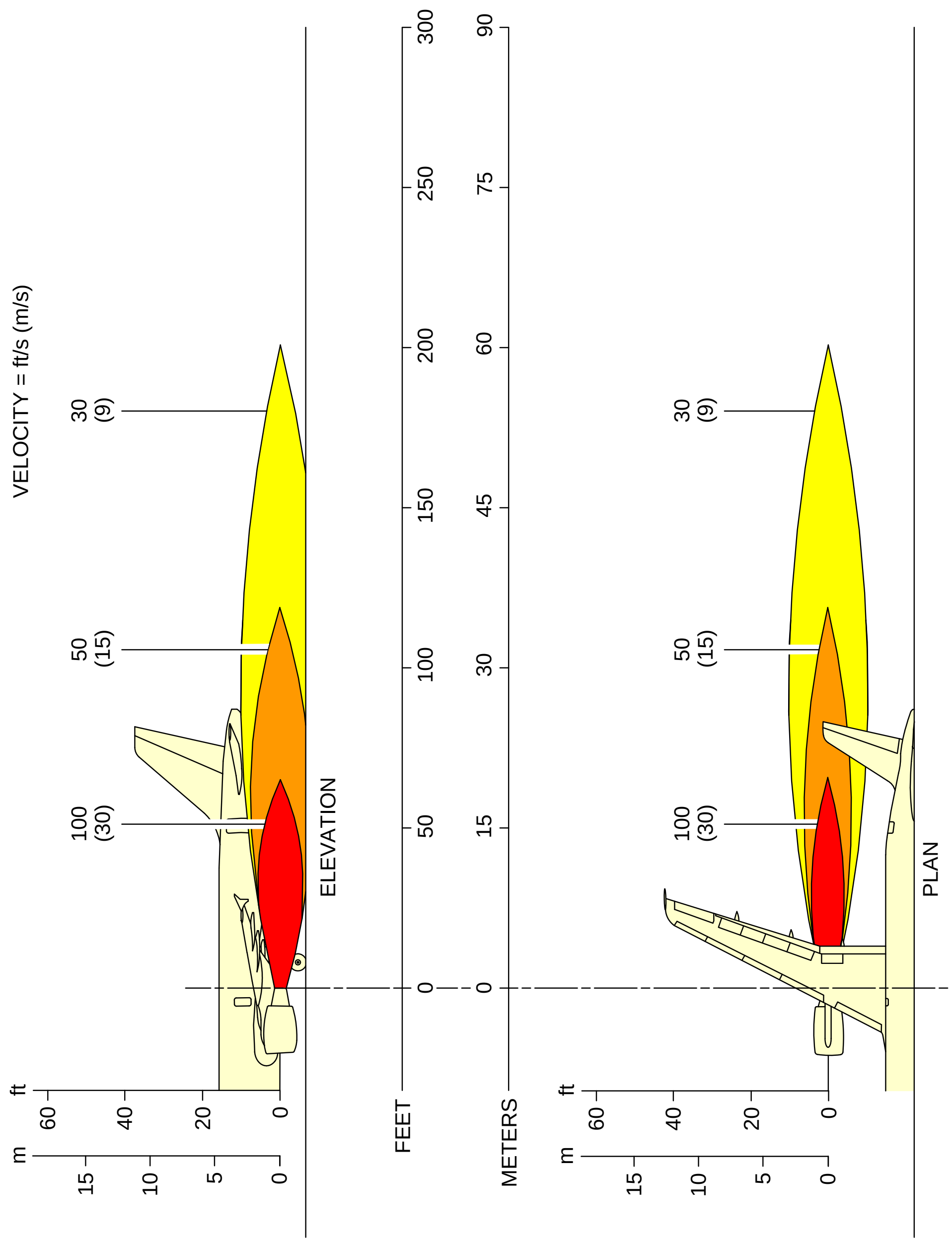
Engine Exhaust Velocities
Ground Idle Power – CFM56 Series Engine
FIGURE-6-1-1-991-003-A01

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



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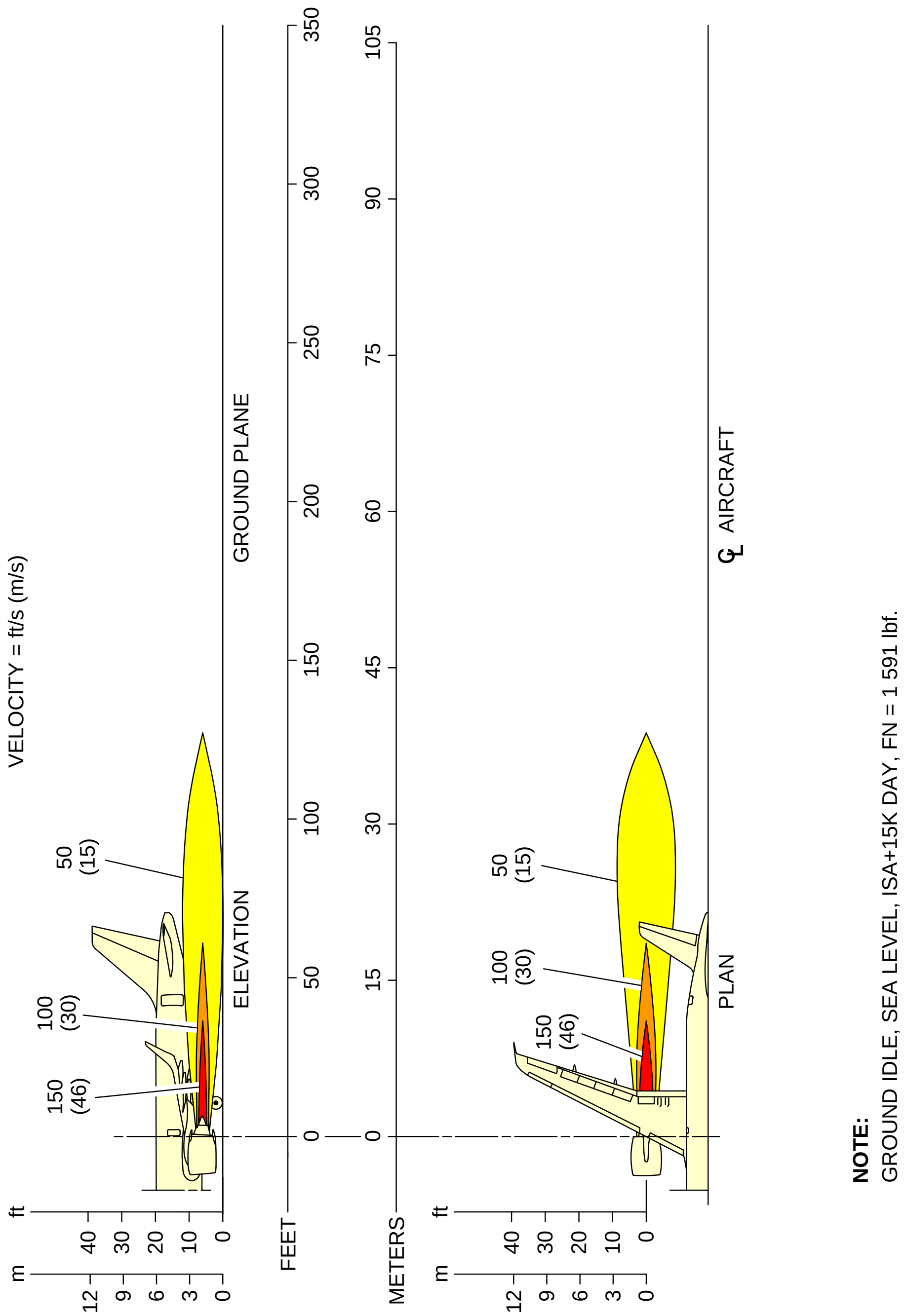
Engine Exhaust Velocities
Ground Idle Power – IAE V2500 Series Engine
FIGURE-6-1-1-991-004-A01

****ON A/C A319neo**



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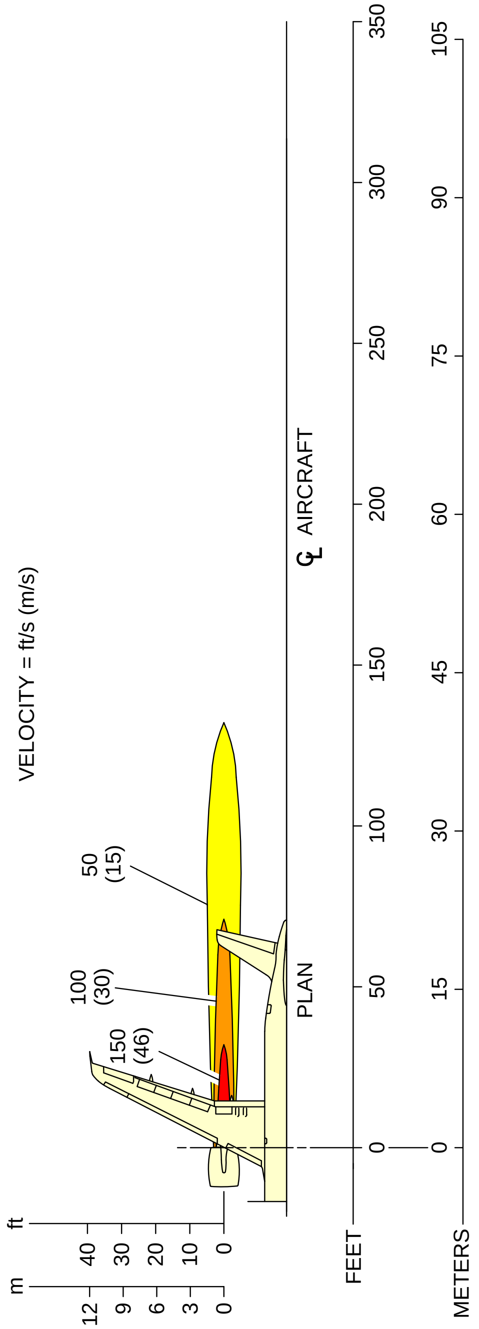
Engine Exhaust Velocities
Ground Idle Power – CFM LEAP-1A Engine
FIGURE-6-1-1-991-009-A01

****ON A/C A319neo**



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Engine Exhaust Velocities
Ground Idle Power – PW 1100G Engine
FIGURE-6-1-1-991-010-A01

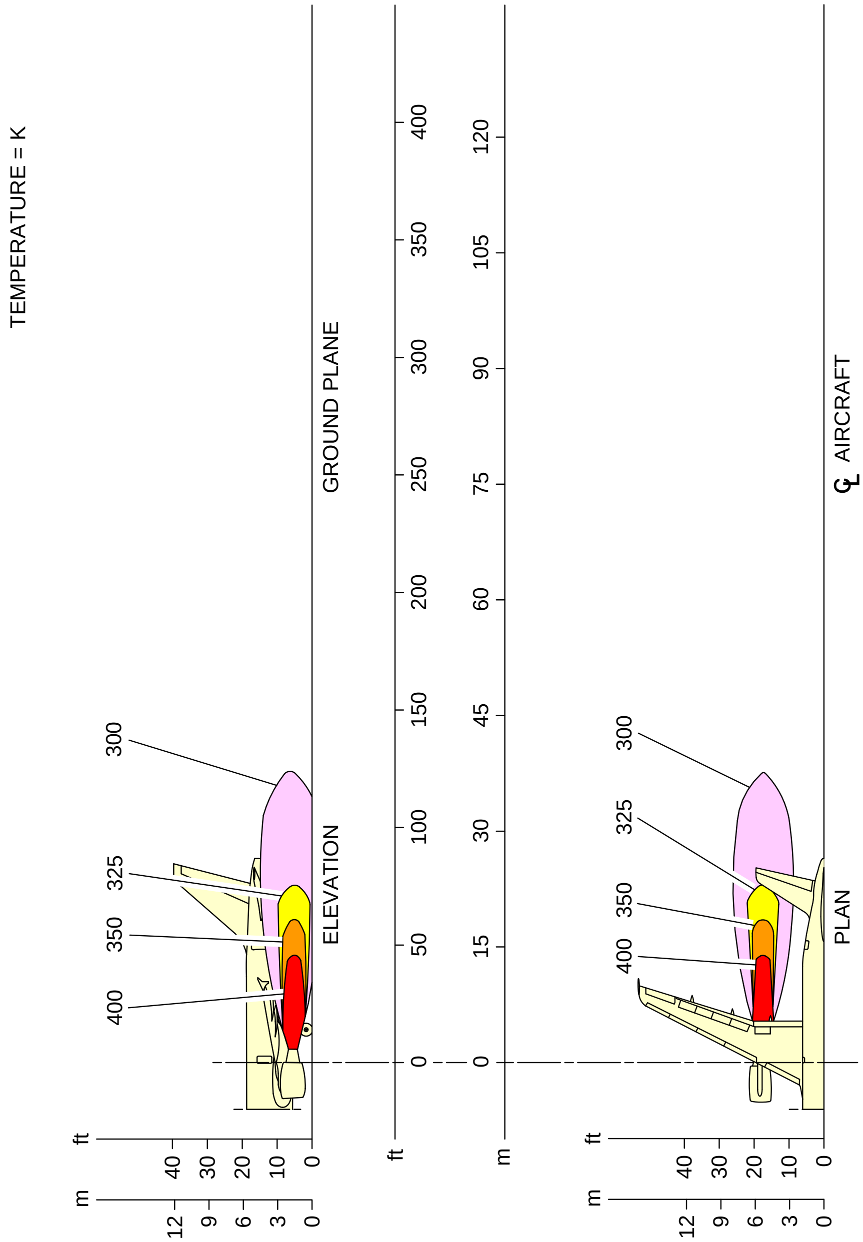
6-1-2 Engine Exhaust Temperatures Contours - Ground Idle Power

****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.

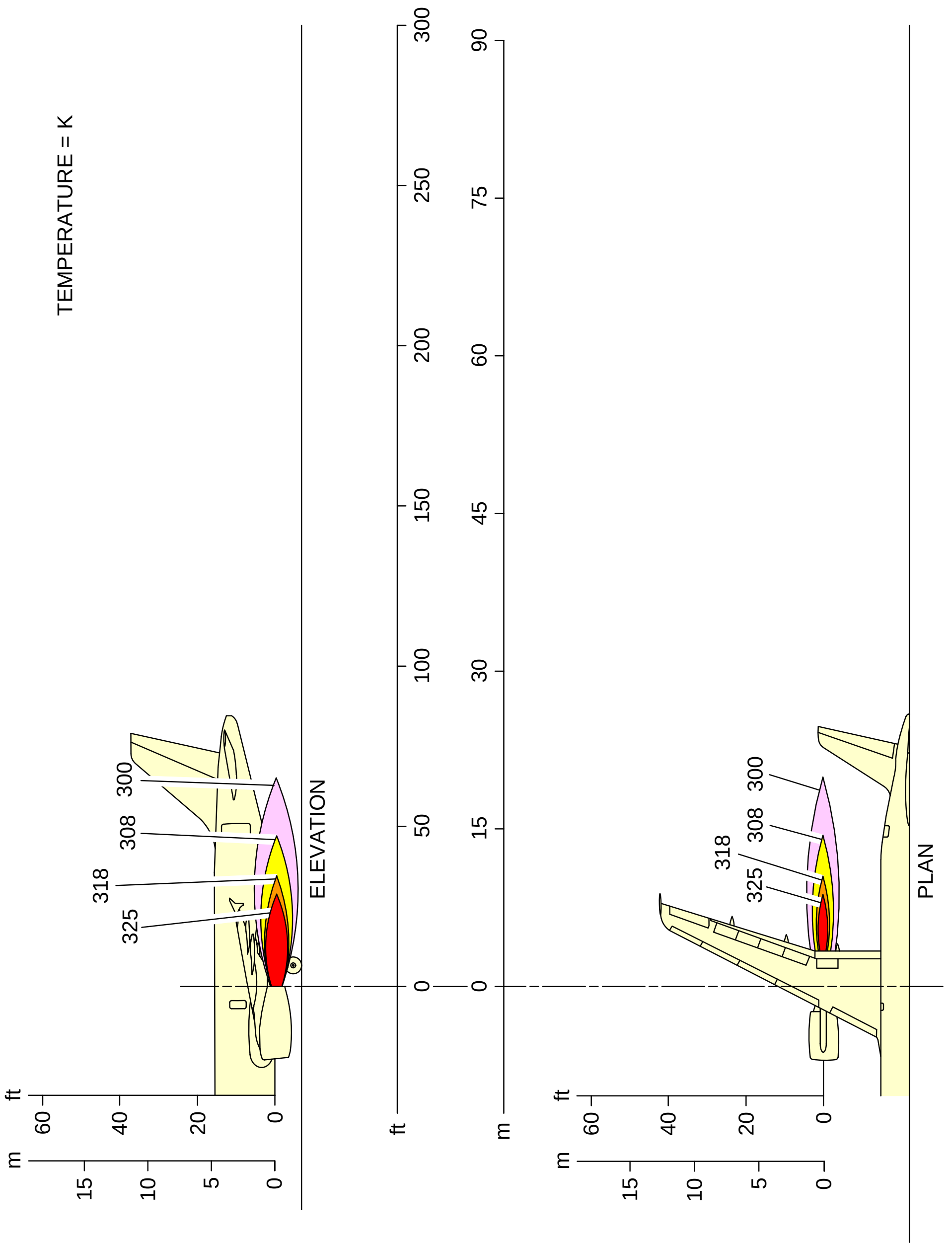
****ON A/C A319-100**



N_AC_060102_1_0030101_01_01

Engine Exhaust Temperatures
Ground Idle Power – CFM56 Series Engine
FIGURE-6-1-2-991-003-A01

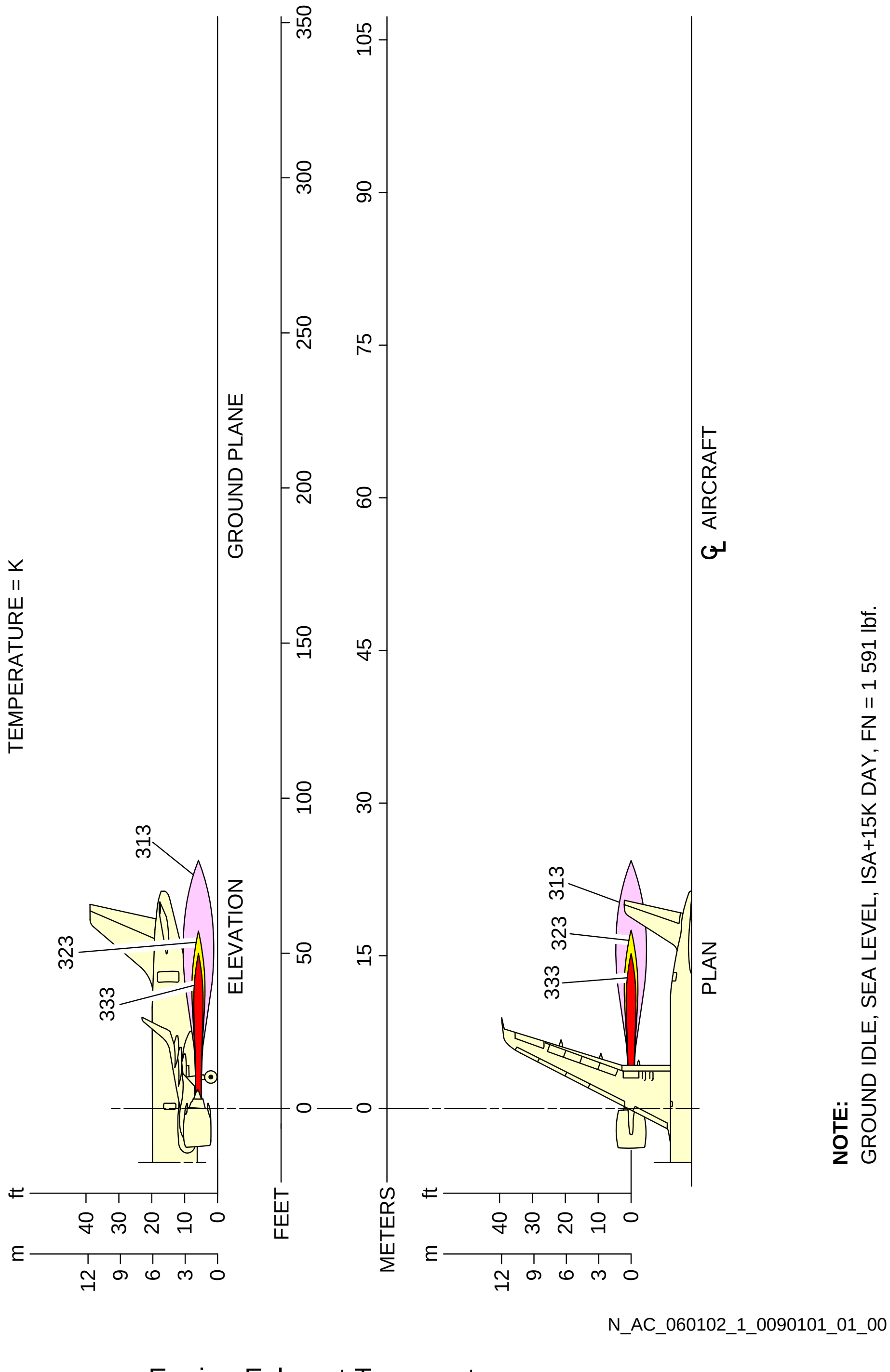
****ON A/C A319-100**



N_AC_060102_1_0040101_01_01

Engine Exhaust Temperatures
Ground Idle Power – IAE V2500 Series Engine
FIGURE-6-1-2-991-004-A01

****ON A/C A319neo**



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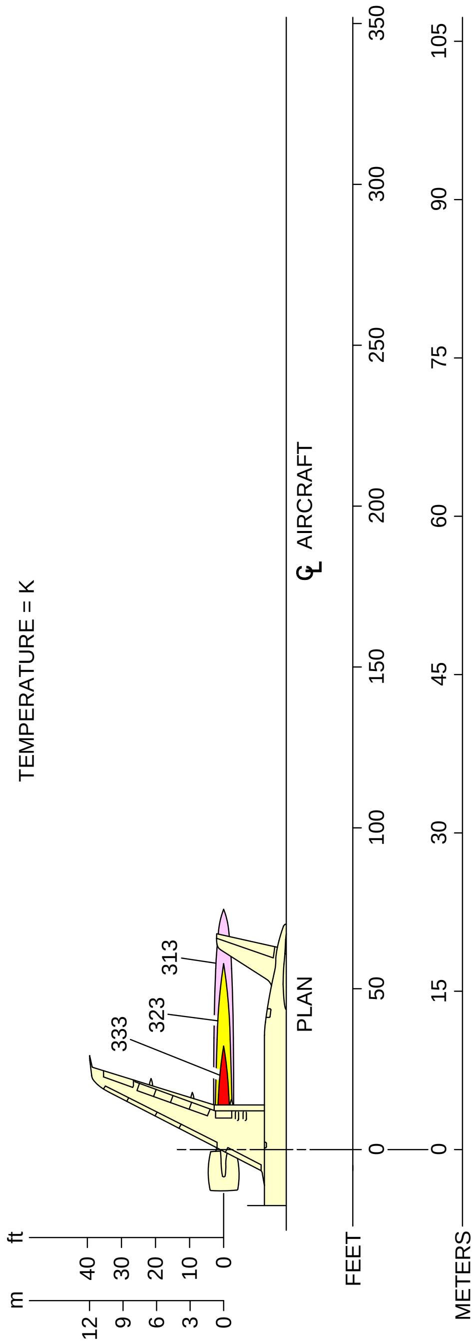
Engine Exhaust Temperatures
Ground Idle Power – CFM LEAP-1A Engine
FIGURE-6-1-2-991-009-A01

****ON A/C A319neo**



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Engine Exhaust Temperatures
Ground Idle Power – PW 1100G Engine
FIGURE-6-1-2-991-010-A01

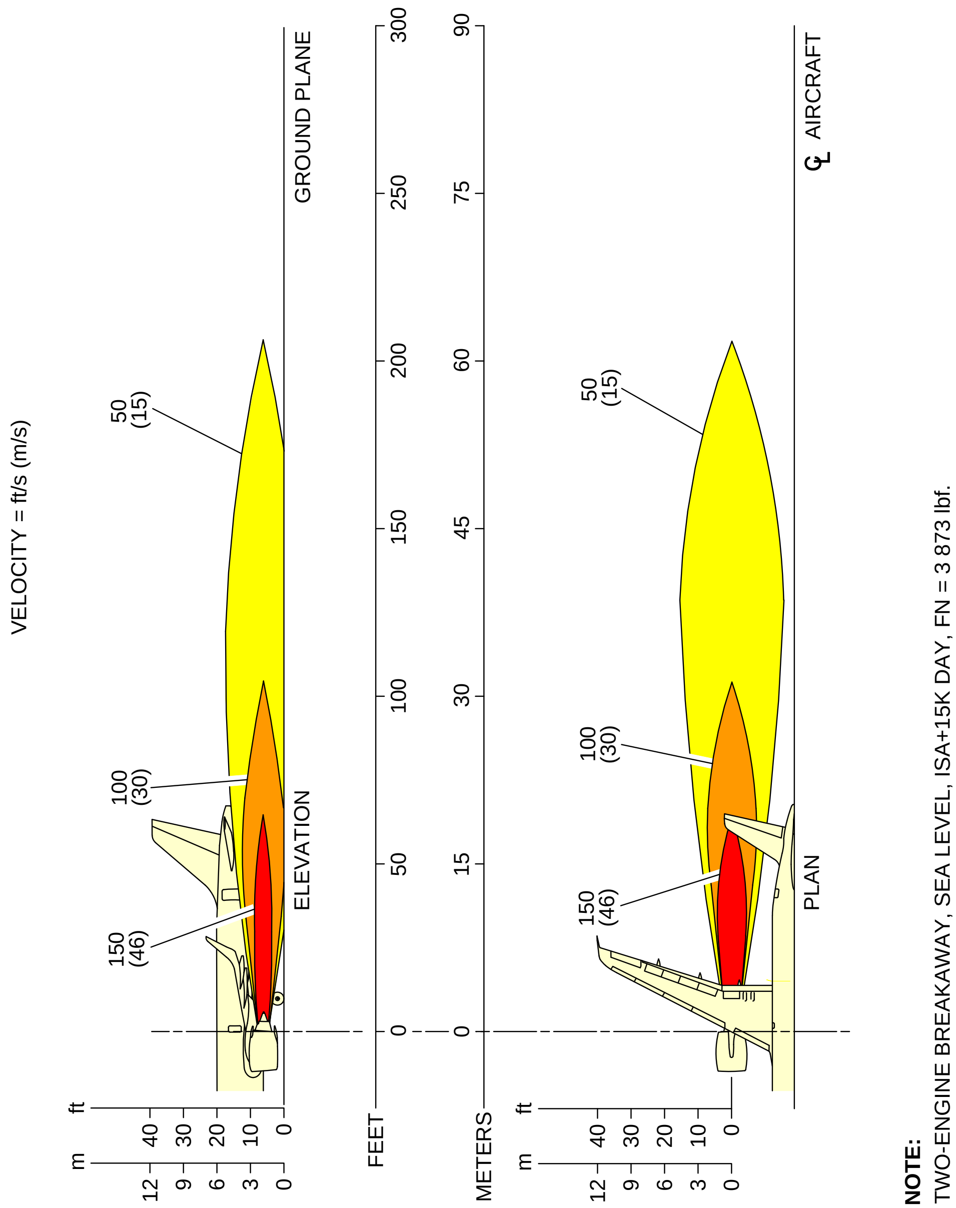
6-1-3 Engine Exhaust Velocities Contours - Breakaway Power

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

Engine Exhaust Velocities Contours - Breakaway Power

1. This section provides engine exhaust velocities contours at breakaway power.

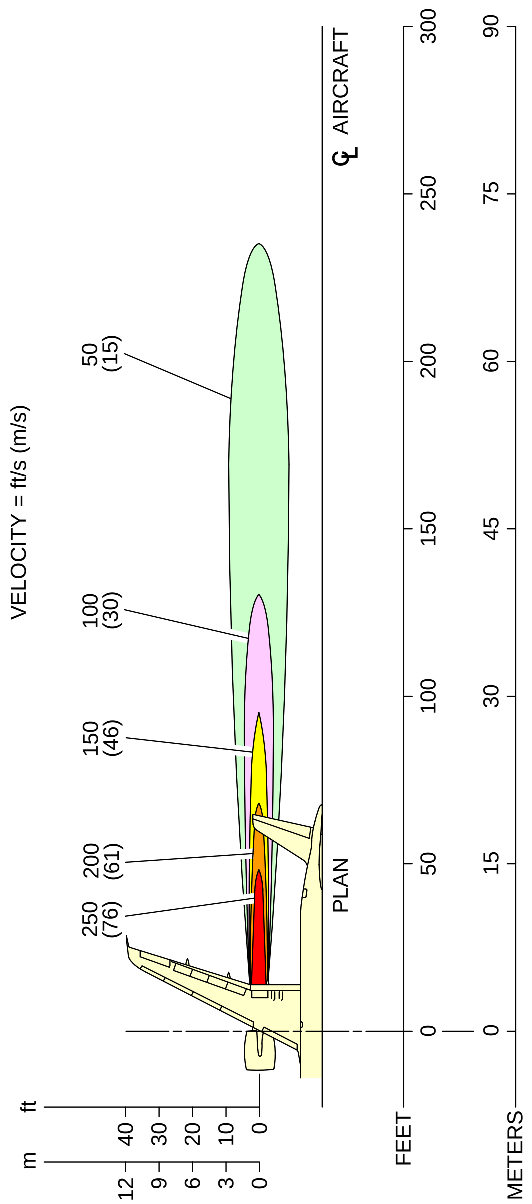
****ON A/C A319neo**



N_AC_060103_1_0090101_01_00

Engine Exhaust Velocities
Breakaway Power 12% MTO – CFM LEAP-1A Engine
FIGURE-6-1-3-991-009-A01

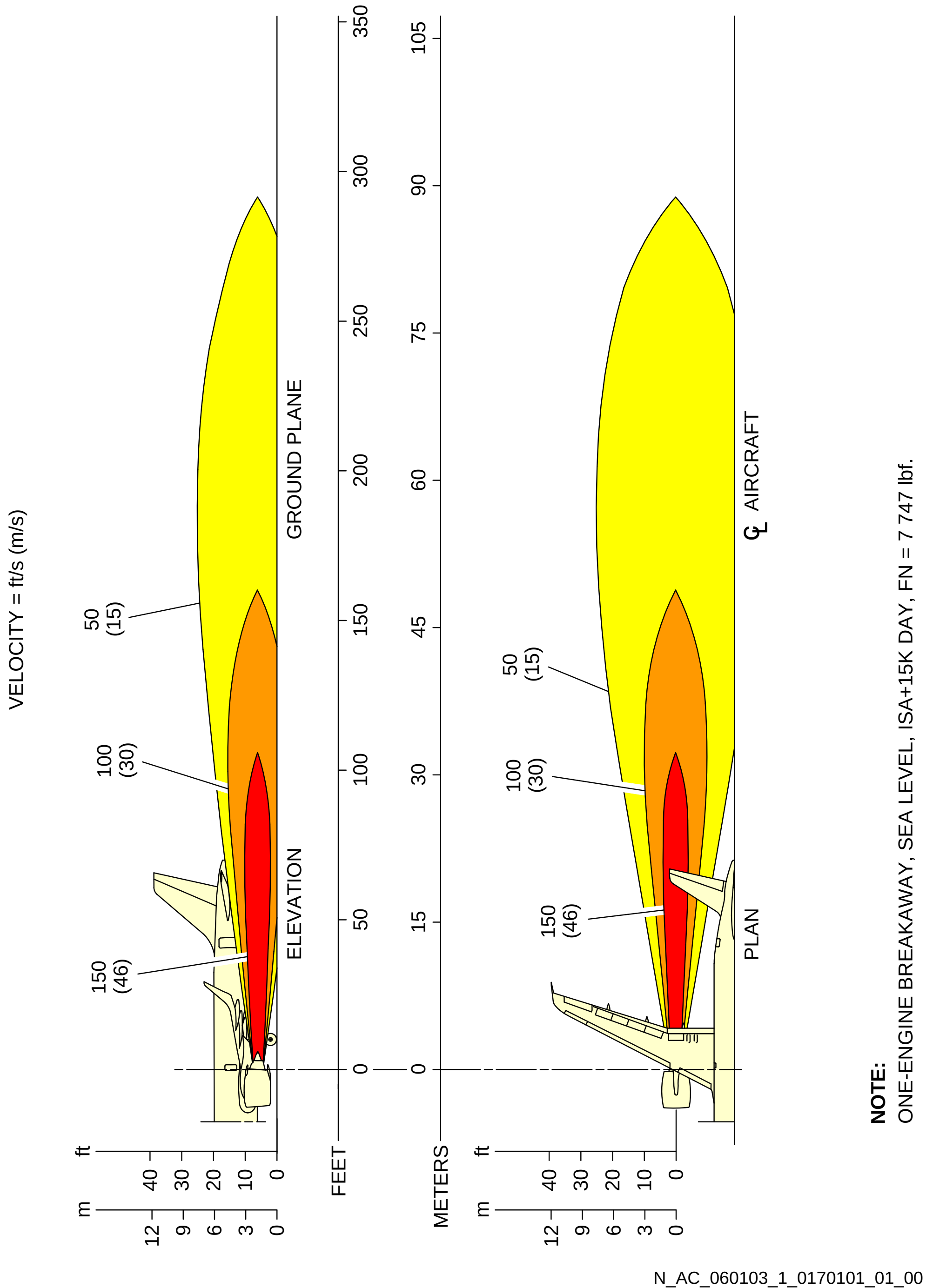
****ON A/C A319neo**



N_AC_060103_1_0100101_01_00

Engine Exhaust Velocities
Breakaway Power 12% MTO – PW 1100G Engine
FIGURE-6-1-3-991-010-A01

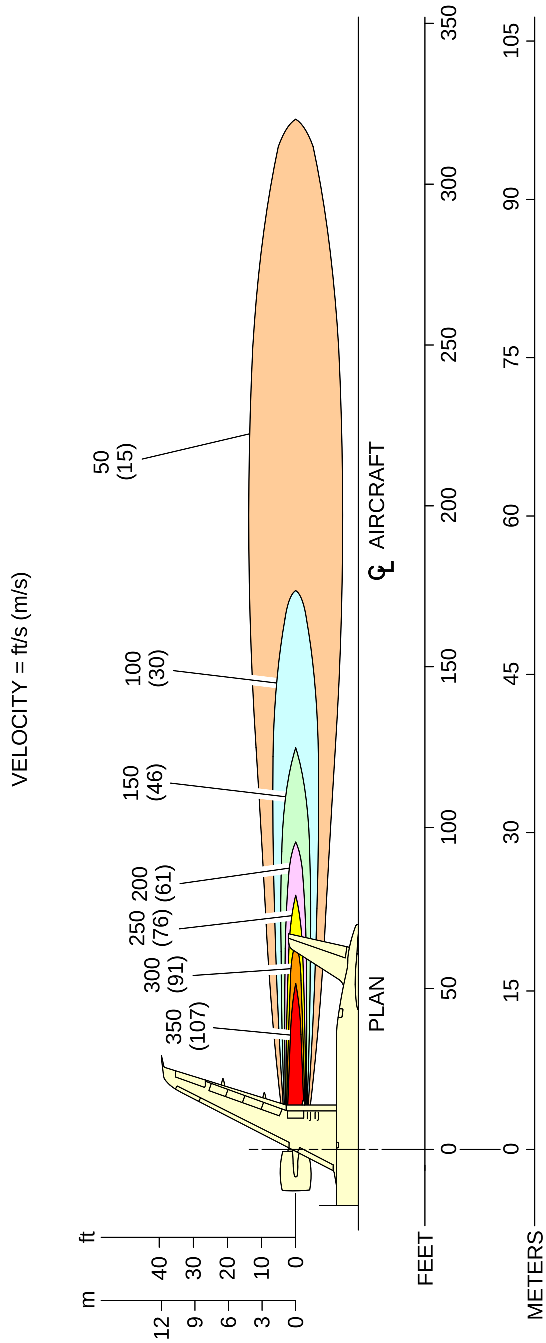
****ON A/C A319neo**



N_AC_060103_1_0170101_01_00

Engine Exhaust Velocities
Breakaway Power 24% MTO – CFM LEAP-1A Engine
FIGURE-6-1-3-991-017-A01

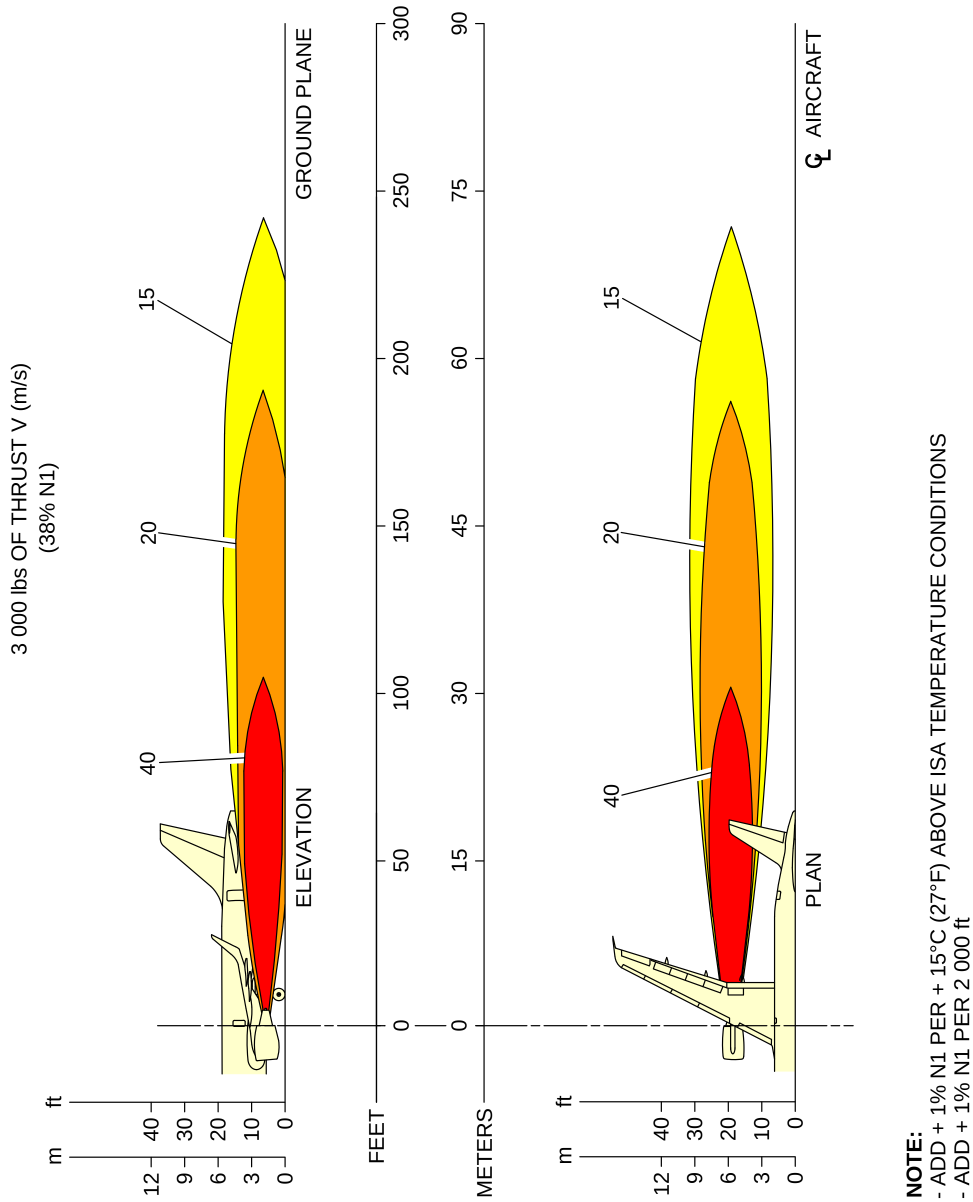
****ON A/C A319neo**



N_AC_060103_1_0180101_01_00

Engine Exhaust Velocities
Breakaway Power 24% MTO – PW 1100G Engine
FIGURE-6-1-3-991-018-A01

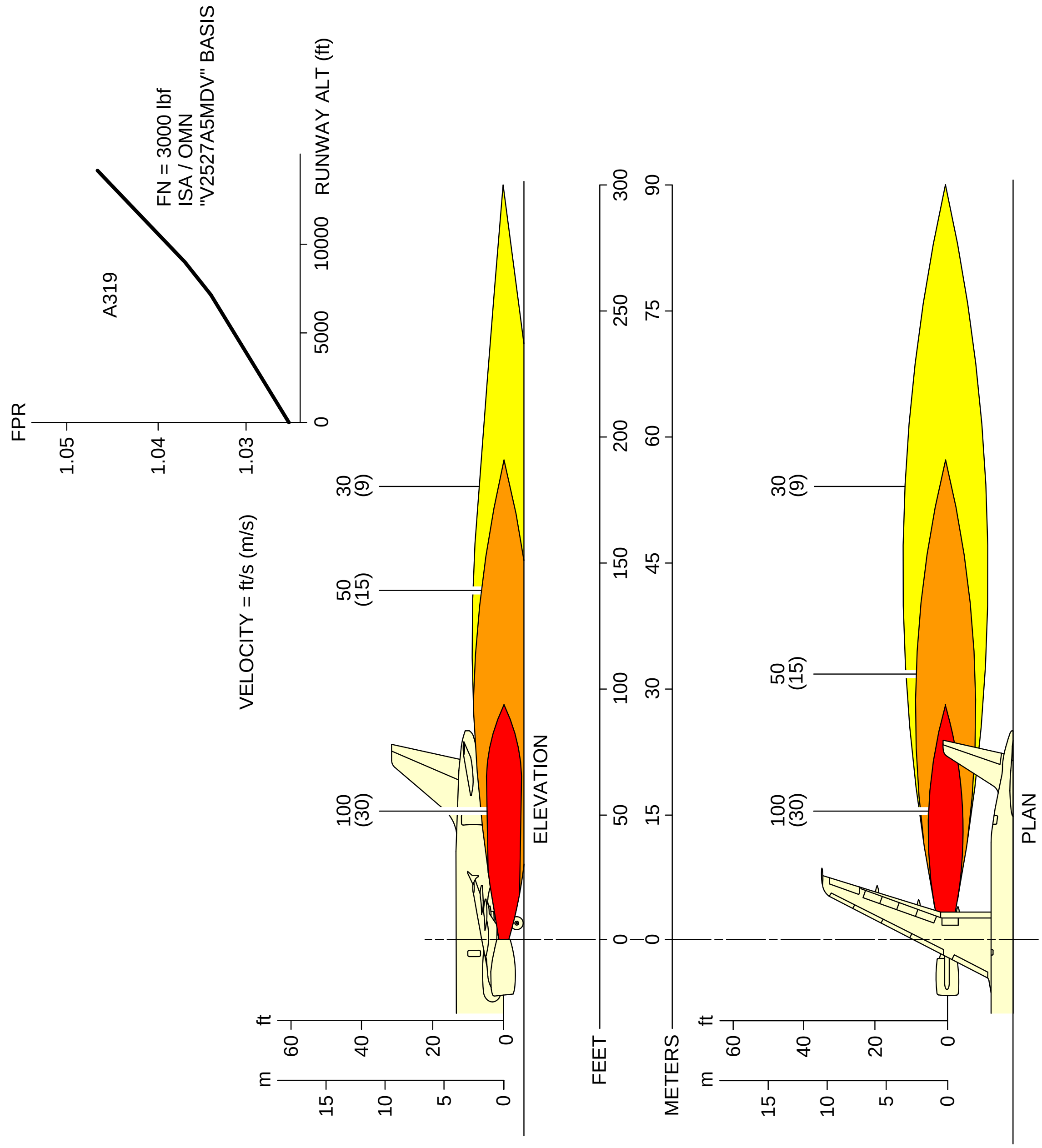
****ON A/C A319-100**



N_AC_060103_1_0210101_01_00

Engine Exhaust Velocities
Breakaway Power - CFM56 Series Engine
FIGURE-6-1-3-991-021-A01

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



N_AC_060103_1_0220101_01_00

Engine Exhaust Velocities
Breakaway Power - IAE V2500 Series Engine
FIGURE-6-1-3-991-022-A01

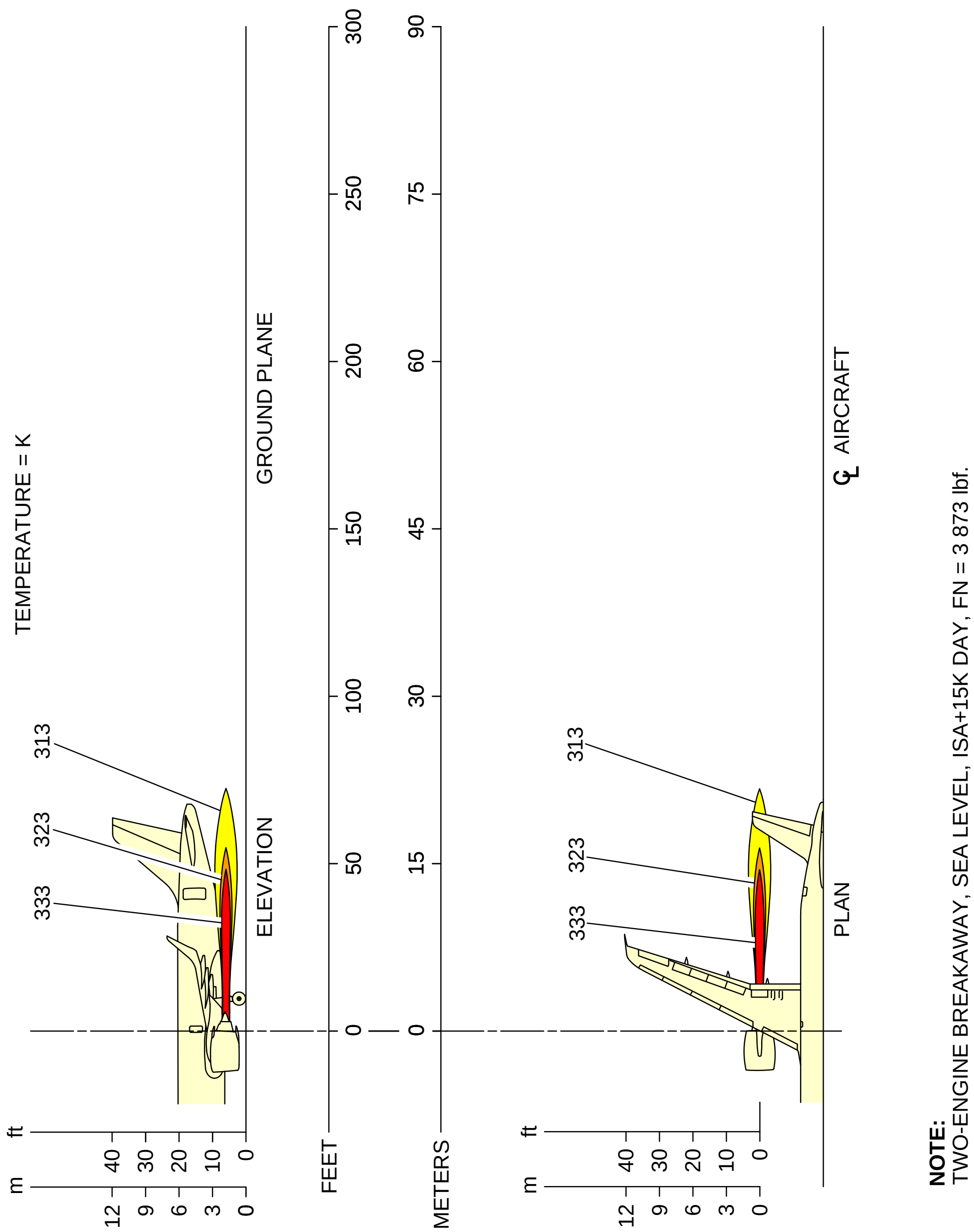
6-1-4 Engine Exhaust Temperatures Contours - Breakaway Power

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

Engine Exhaust Temperatures Contours - Breakaway Power

1. This section provides engine exhaust temperatures contours at breakaway power.

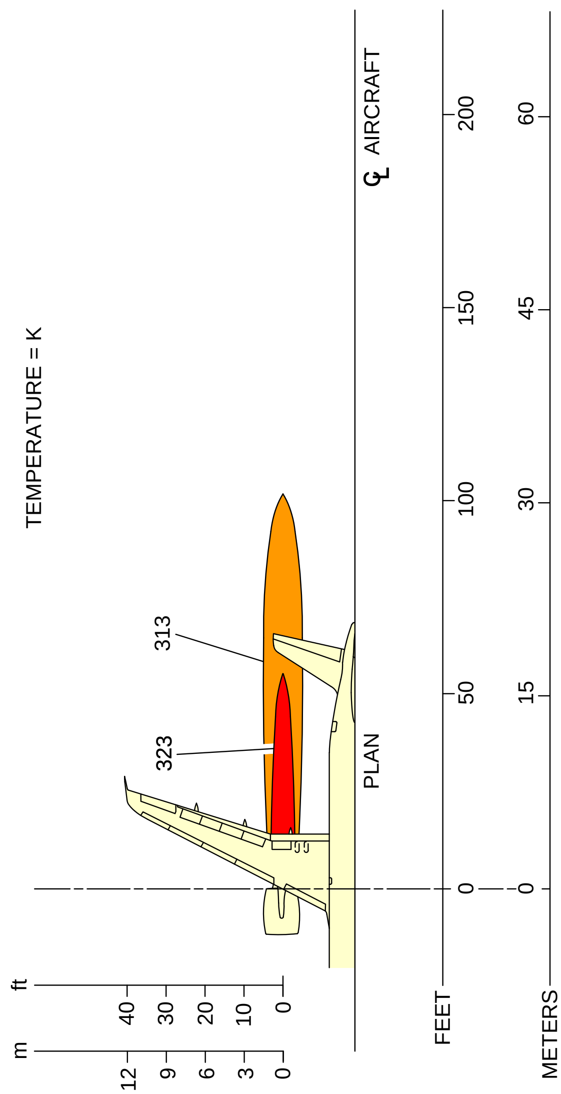
**ON A/C A319neo



N_AC_060104_1_0130101_01_00

Engine Exhaust Temperatures
Breakaway Power 12% MTO - CFM LEAP-1A Engine
FIGURE-6-1-4-991-013-A01

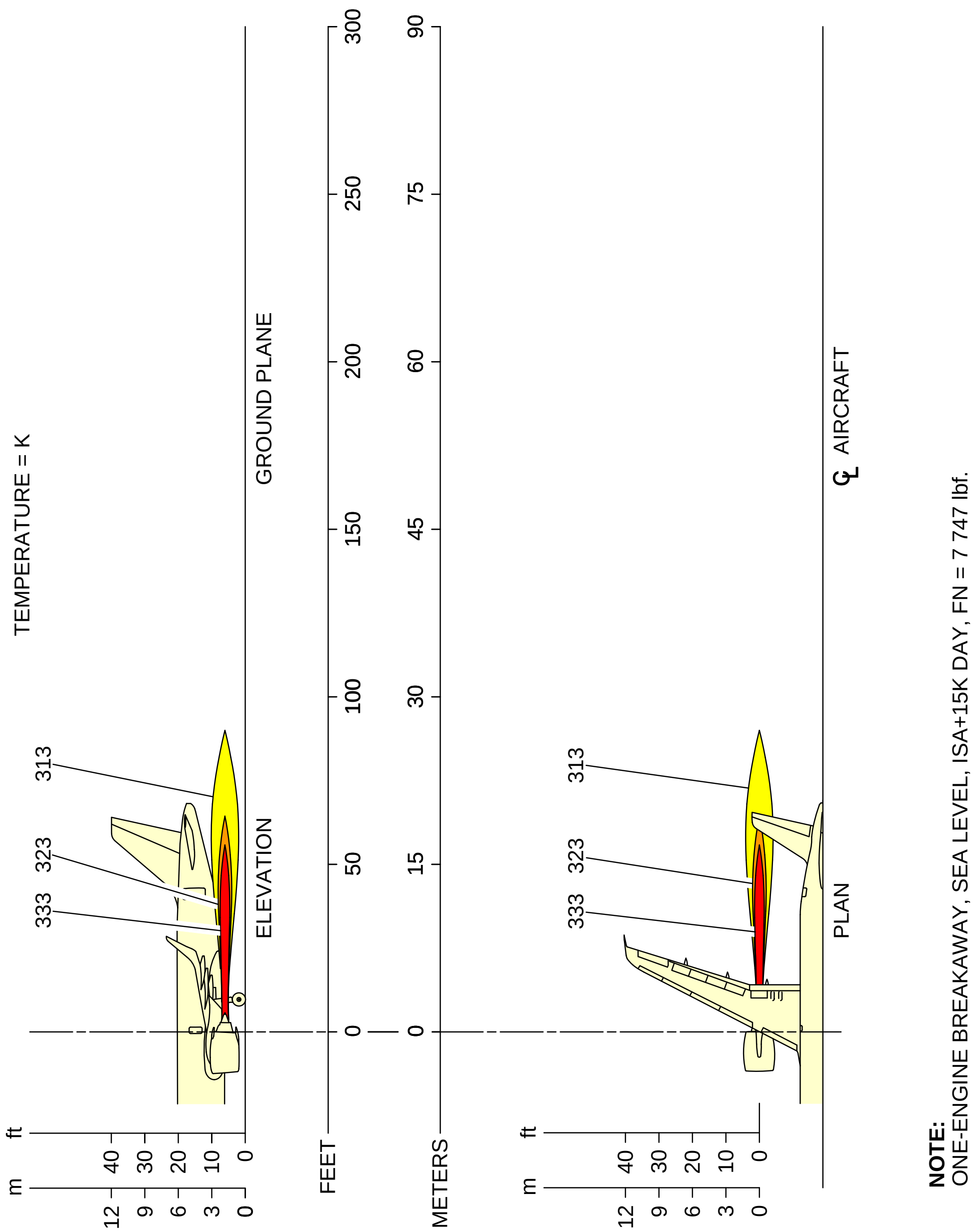
****ON A/C A319neo**



N_AC_060104_1_0140101_01_00

Engine Exhaust Temperatures
Breakaway Power 12% MTO - PW 1100G Engine
FIGURE-6-1-4-991-014-A01

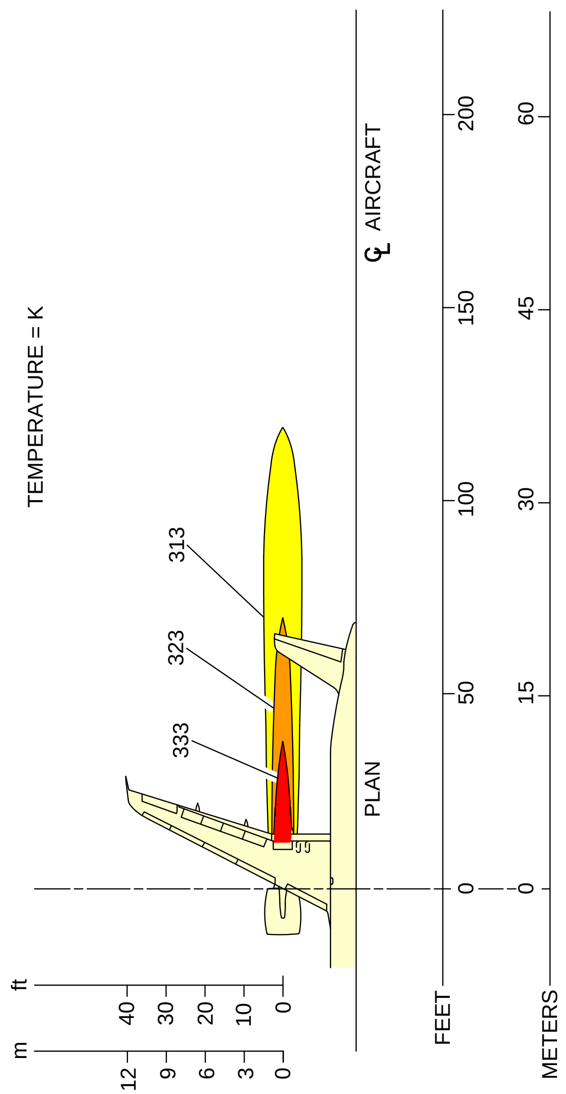
****ON A/C A319neo**



N_AC_060104_1_0150101_01_00

Engine Exhaust Temperatures
Breakaway Power 24% MTO - CFM LEAP-1A Engine
FIGURE-6-1-4-991-015-A01

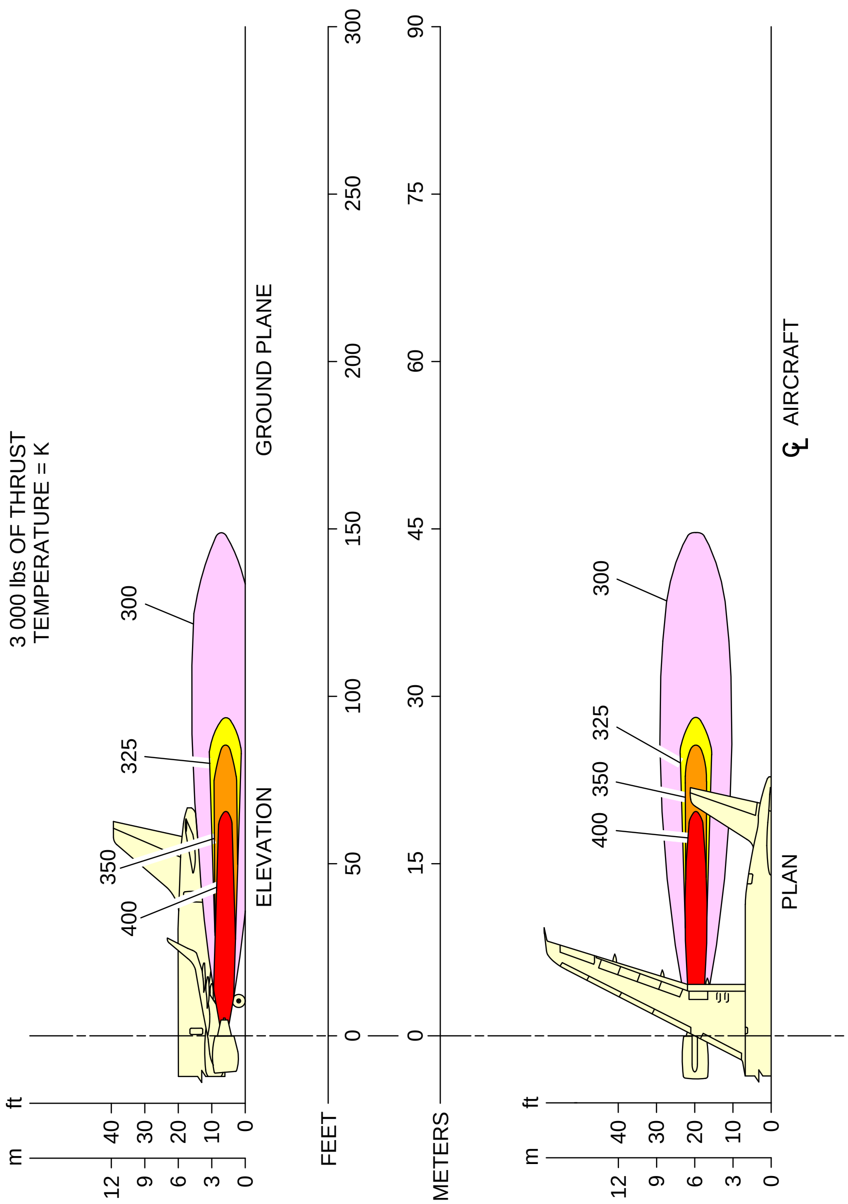
****ON A/C A319neo**



N_AC_060104_1_0160101_01_00

Engine Exhaust Temperatures
Breakaway Power 24% MTO - PW 1100G Engine
FIGURE-6-1-4-991-016-A01

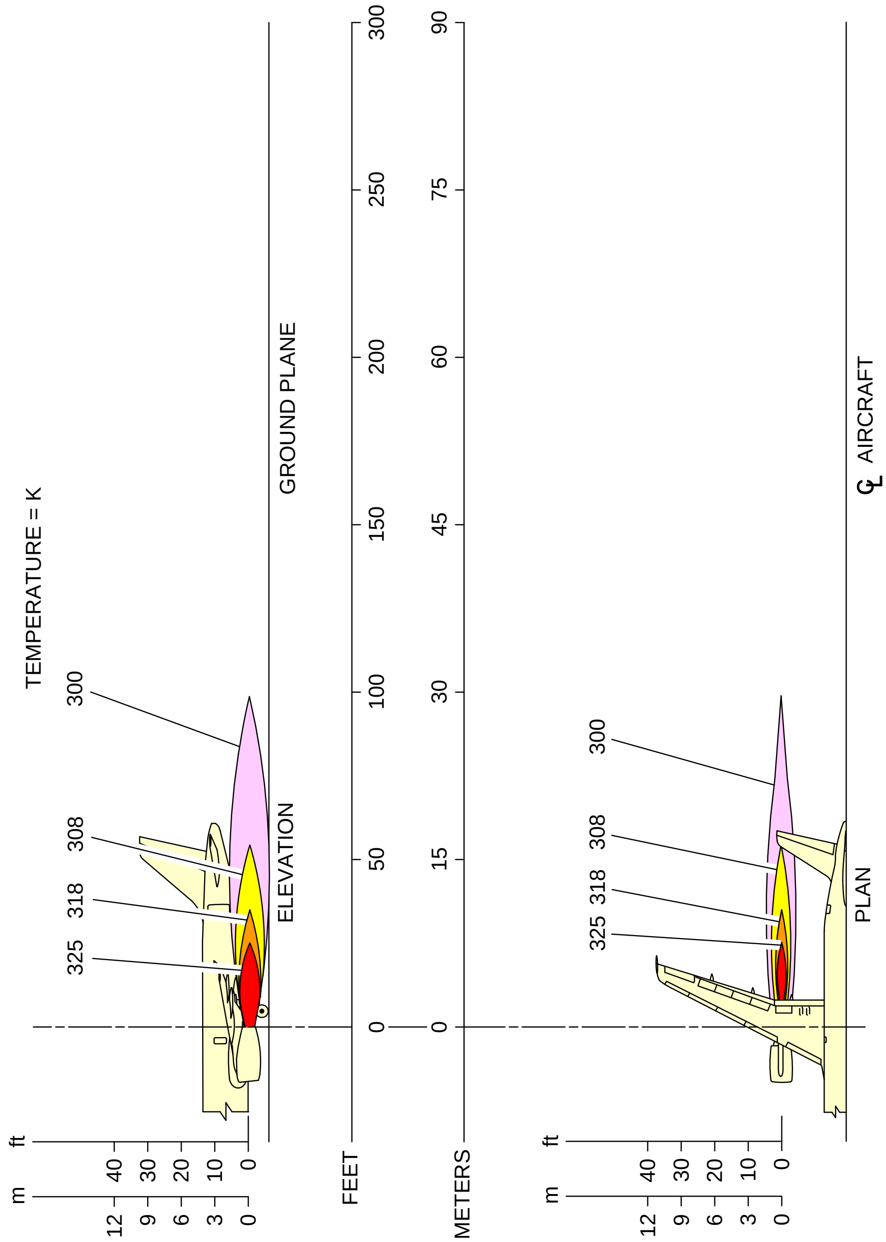
****ON A/C A319-100**



N_AC_060104_1_0210101_01_00

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_00

Engine Exhaust Temperatures
Breakaway Power - IAE V2500 Series Engine
FIGURE-6-1-4-991-022-A01

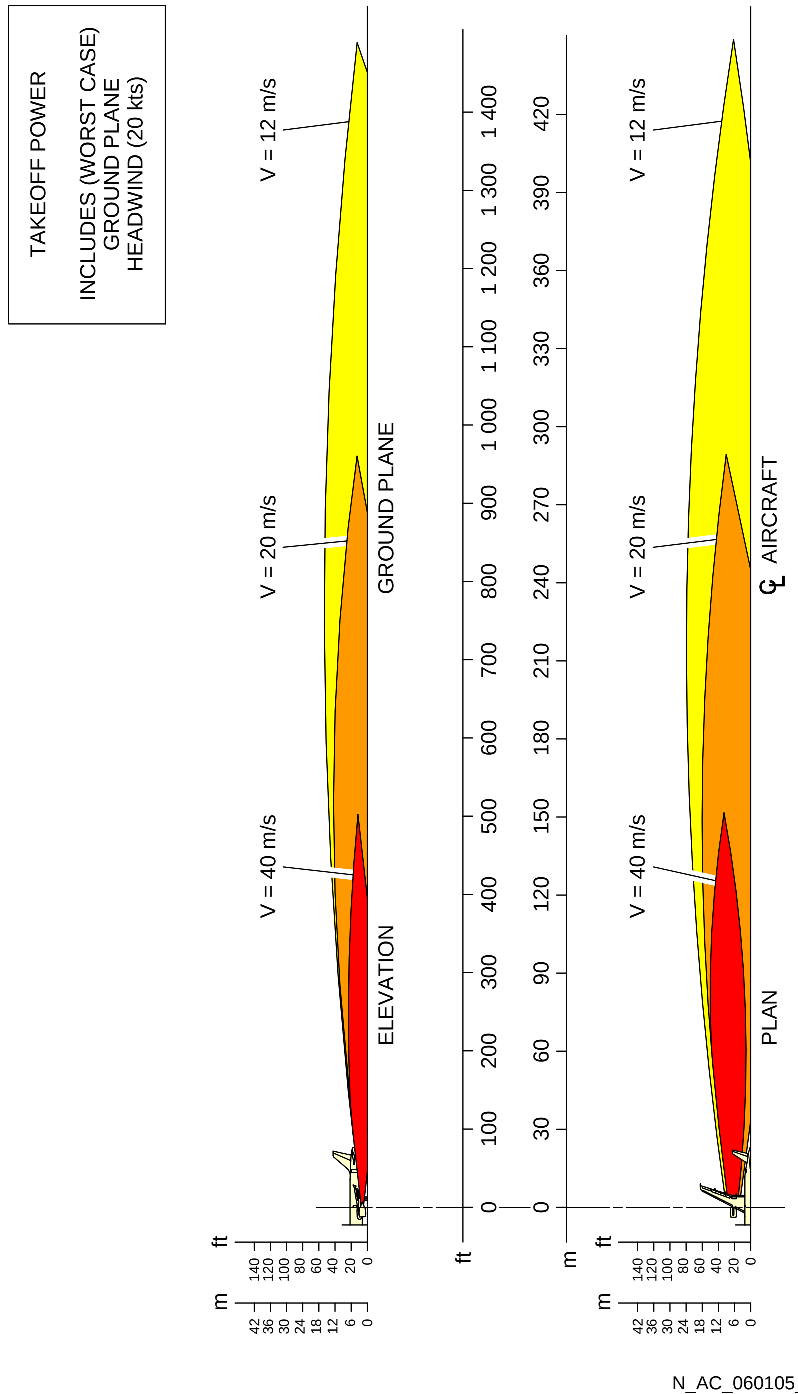
6-1-5 Engine Exhaust Velocities Contours - Takeoff Power

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

Engine Exhaust Velocities Contours - Takeoff Power

1. This section provides engine exhaust velocities contours at takeoff power.

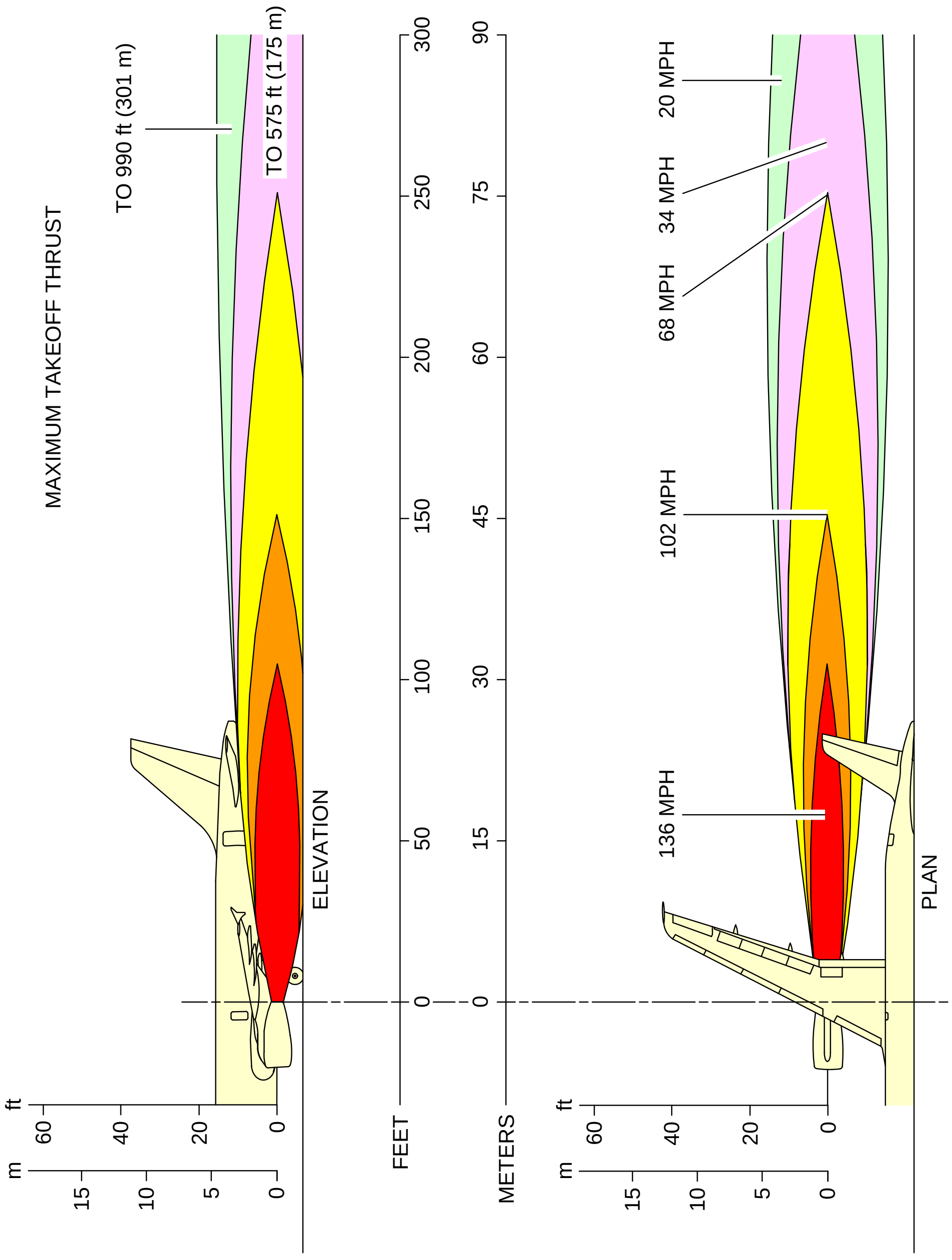
****ON A/C A319-100**



N_AC_060105_1_0030101_01_01

Engine Exhaust Velocities
Takeoff Power – CFM56 Series Engine
FIGURE-6-1-5-991-003-A01

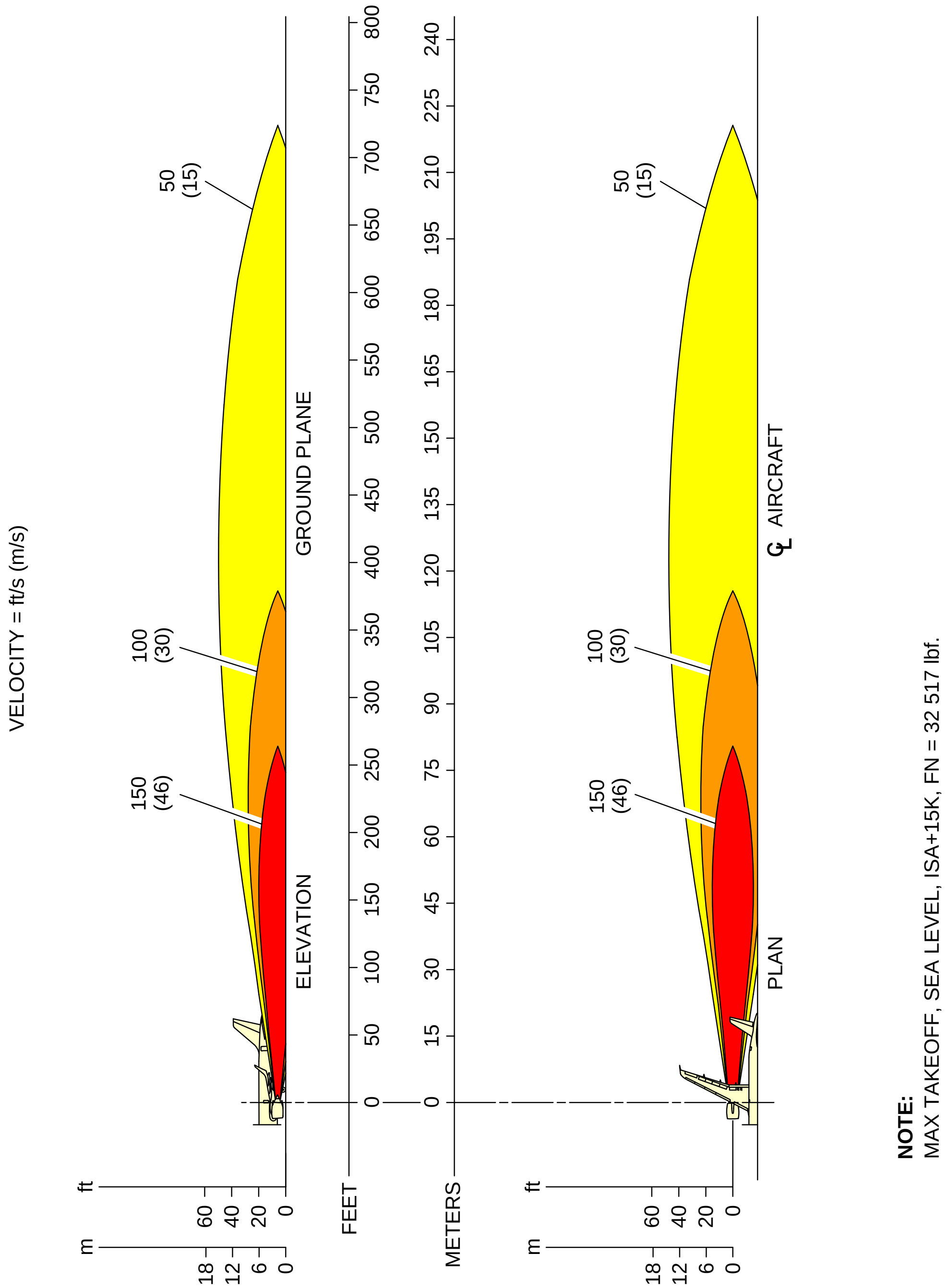
****ON A/C A319-100**



N_AC_060105_1_0040101_01_00

Engine Exhaust Velocities
Takeoff Power – IAE V2500 Series Engine
FIGURE-6-1-5-991-004-A01

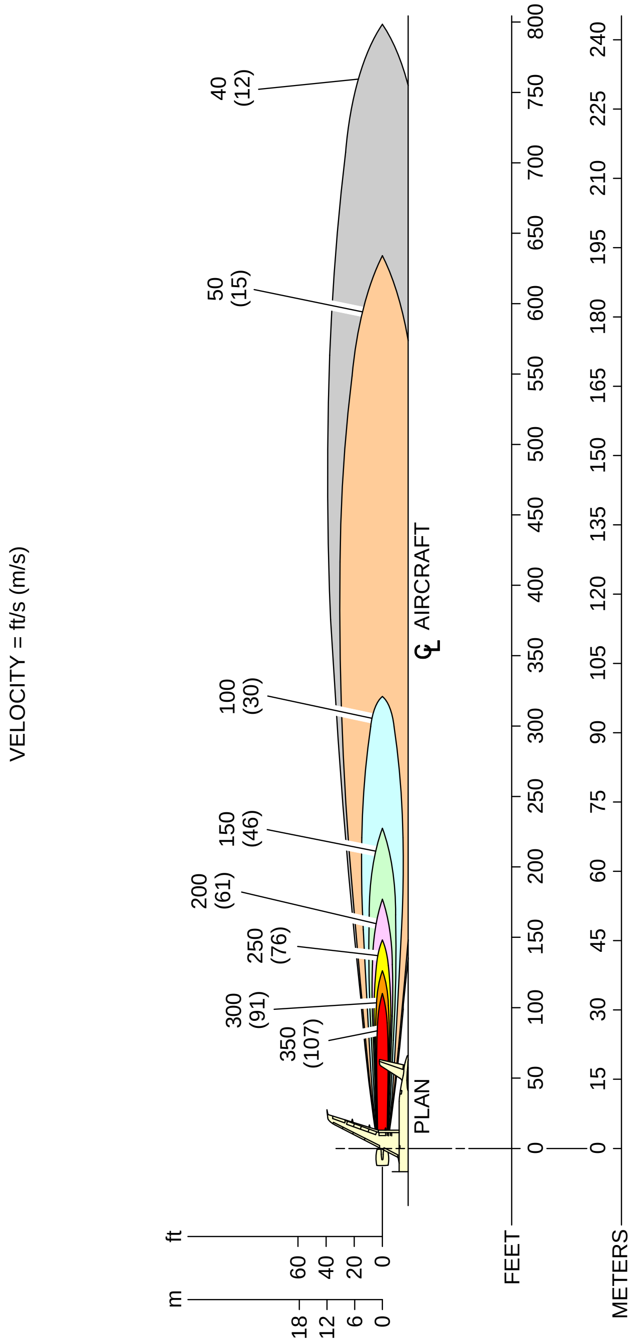
**ON A/C A319neo



N_AC_060105_1_0090101_01_00

Engine Exhaust Velocities
Takeoff Power – CFM LEAP-1A Engine
FIGURE-6-1-5-991-009-A01

****ON A/C A319neo**



N_AC_060105_1_0100101_01_00

Engine Exhaust Velocities
Takeoff Power – PW 1100G Engine
FIGURE-6-1-5-991-010-A01

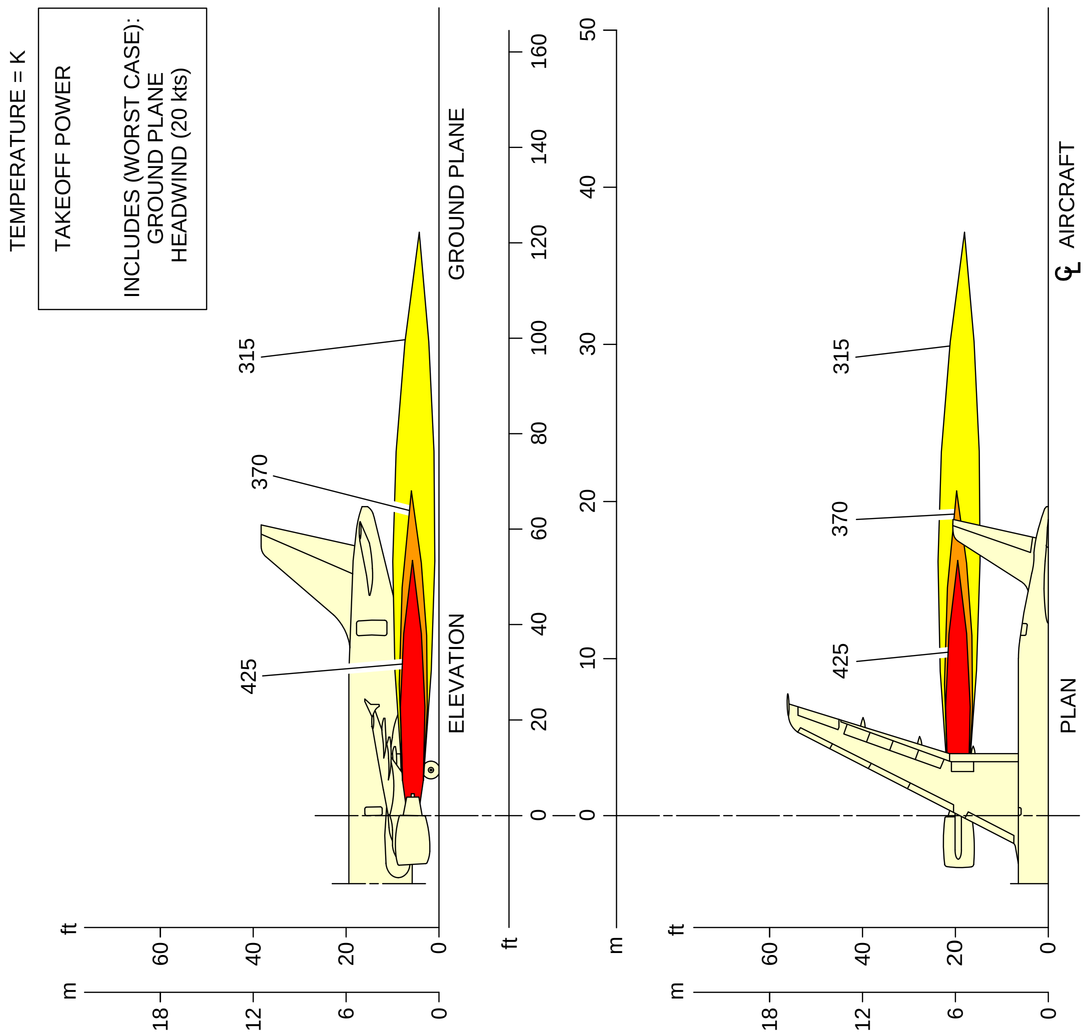
6-1-6 Engine Exhaust Temperatures Contours - Takeoff Power

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

Engine Exhaust Temperatures Contours - Takeoff Power

1. This section provides engine exhaust temperatures contours at takeoff power.

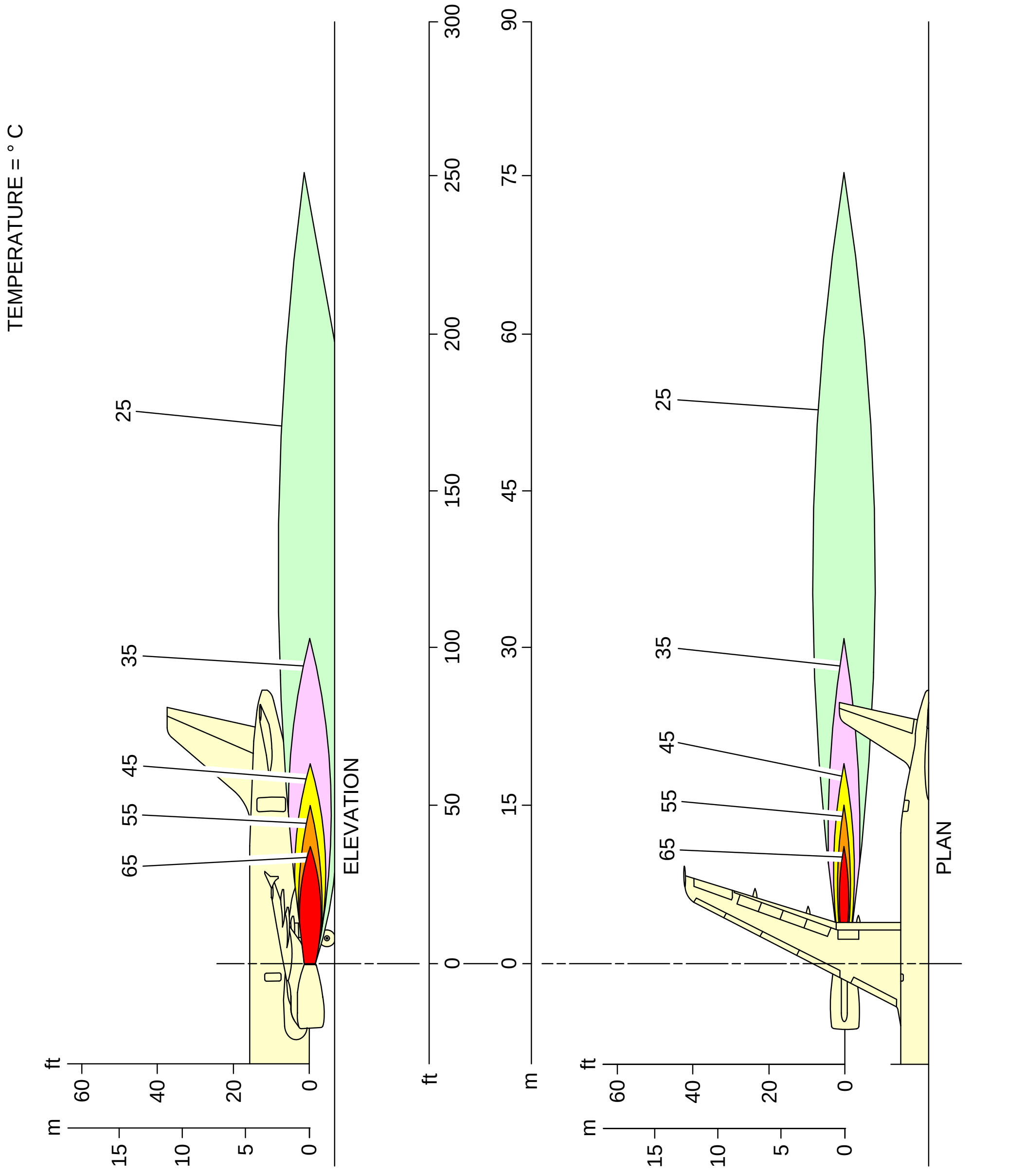
****ON A/C A319-100**



N_AC_060106_1_0030101_01_01

Engine Exhaust Temperatures
Takeoff Power – CFM56 Series Engine
FIGURE-6-1-6-991-003-A01

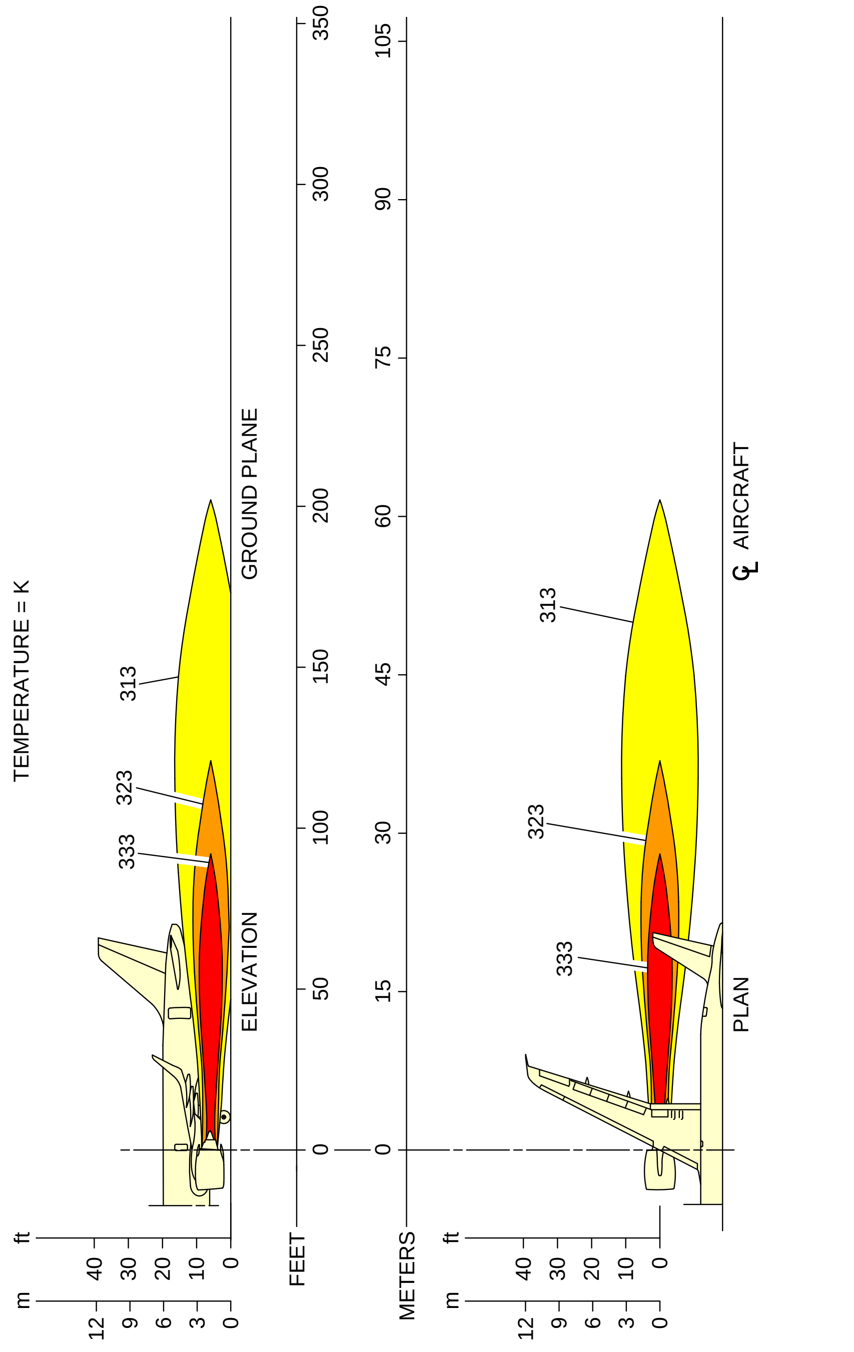
****ON A/C A319-100**



N_AC_060106_1_0040101_01_01

Engine Exhaust Temperatures
Takeoff Power – IAE V2500 Series Engine
FIGURE-6-1-6-991-004-A01

****ON A/C A319neo**

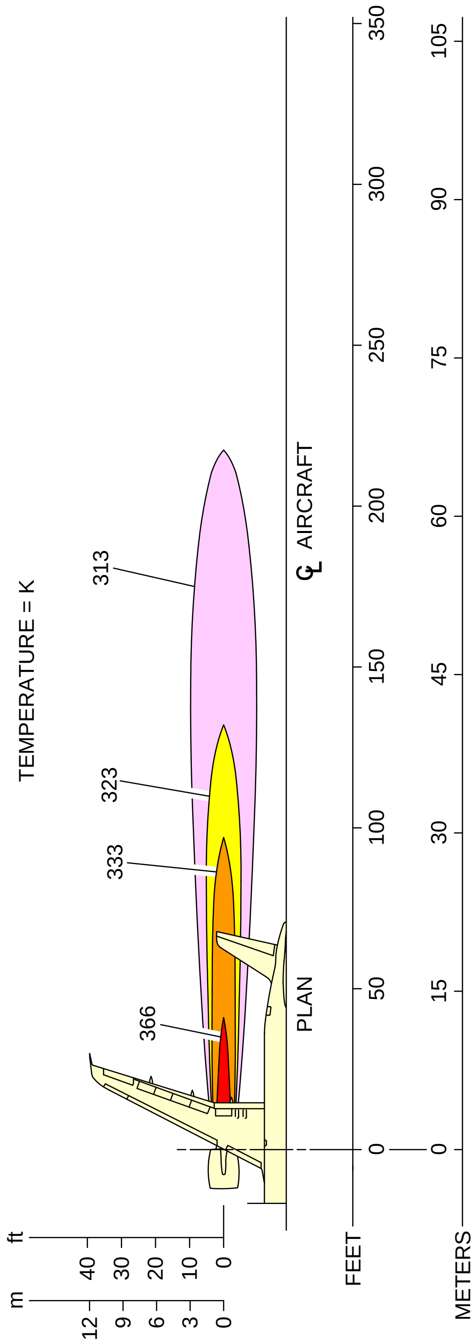


NOTE:
MAX TAKEOFF, SEA LEVEL, ISA+15K DAY, FN = 32 517 lbf.

N_AC_060106_1_0090101_01_00

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_00

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).

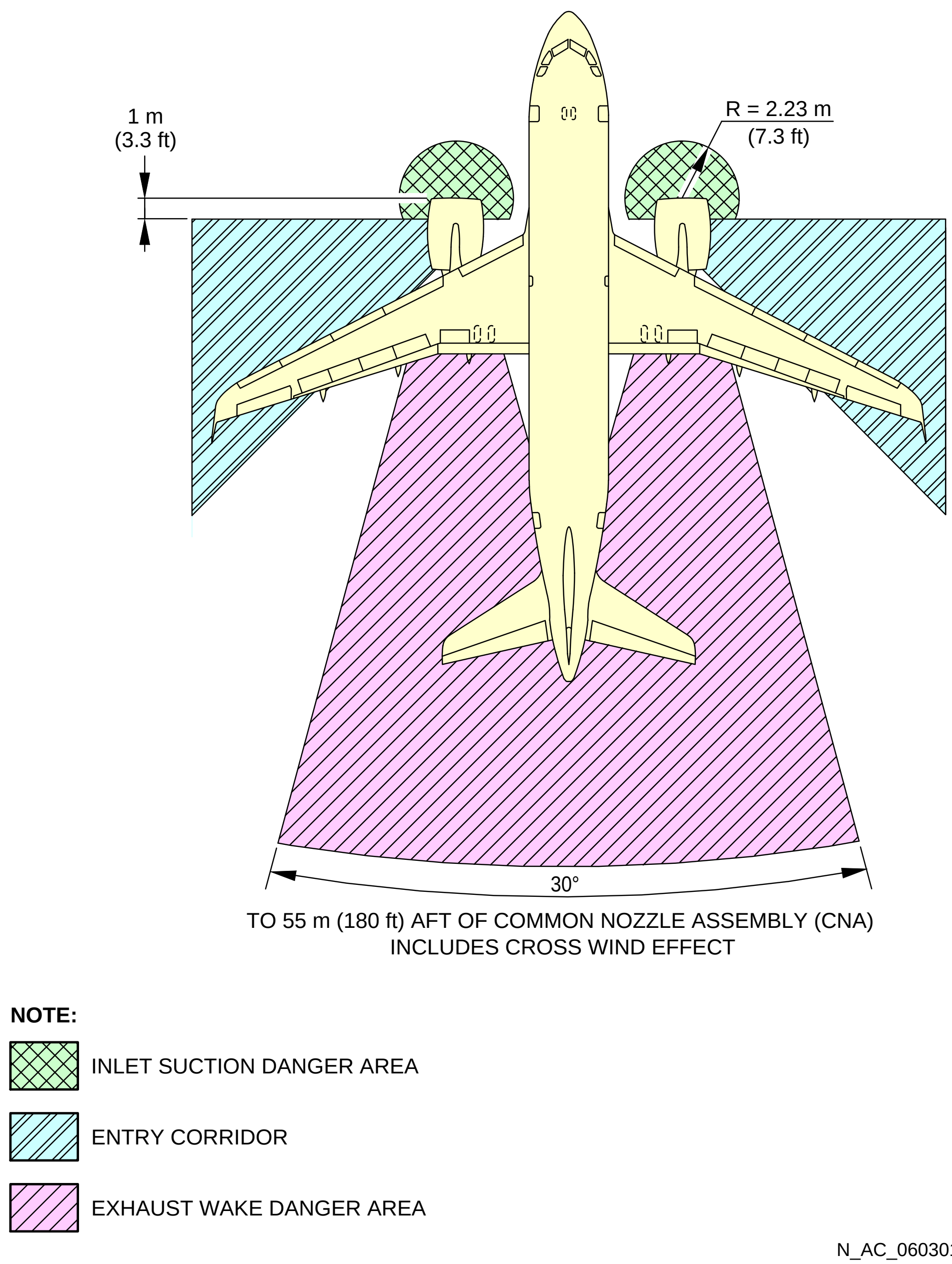
6-3-1 Ground Idle Power

****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**



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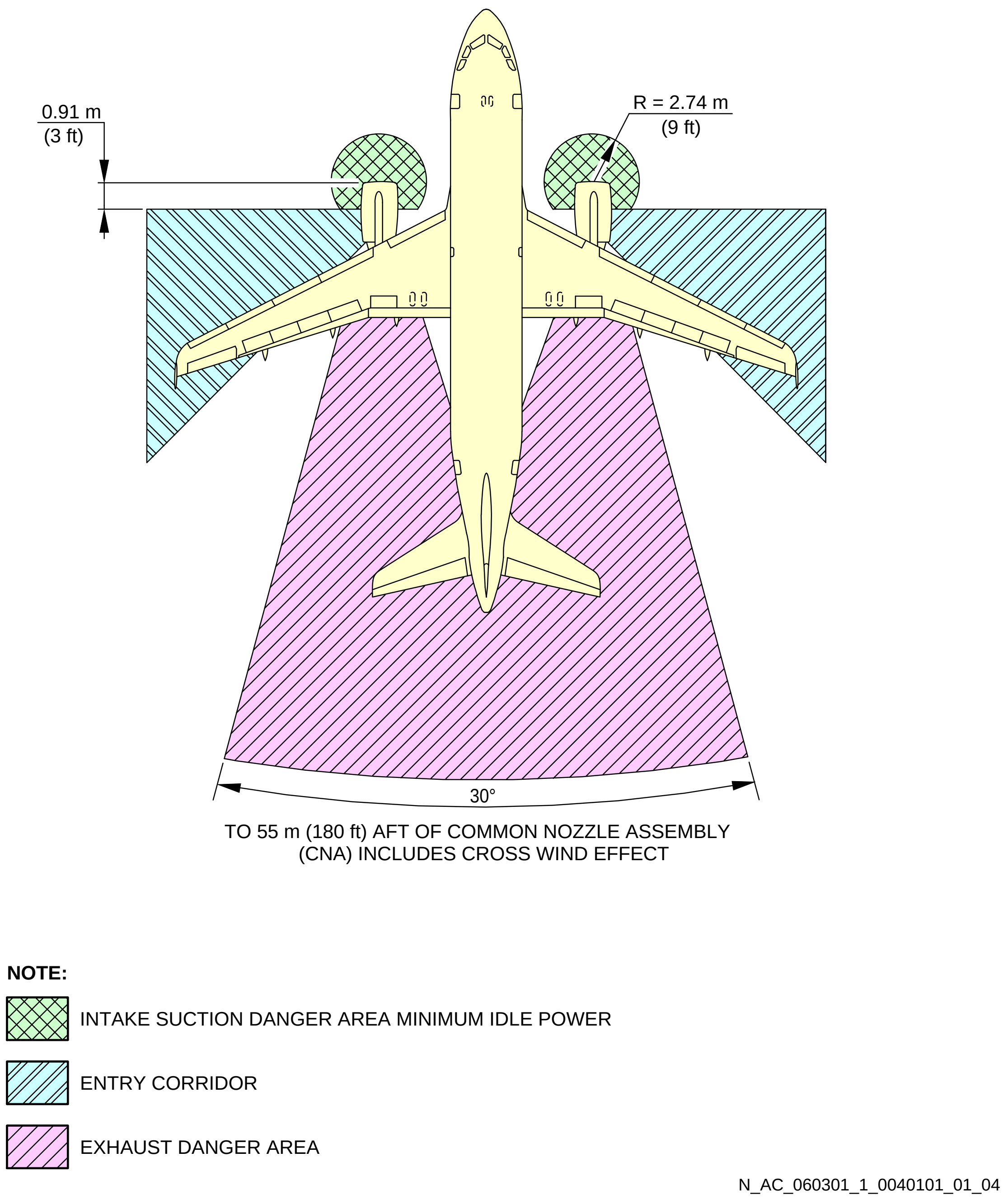
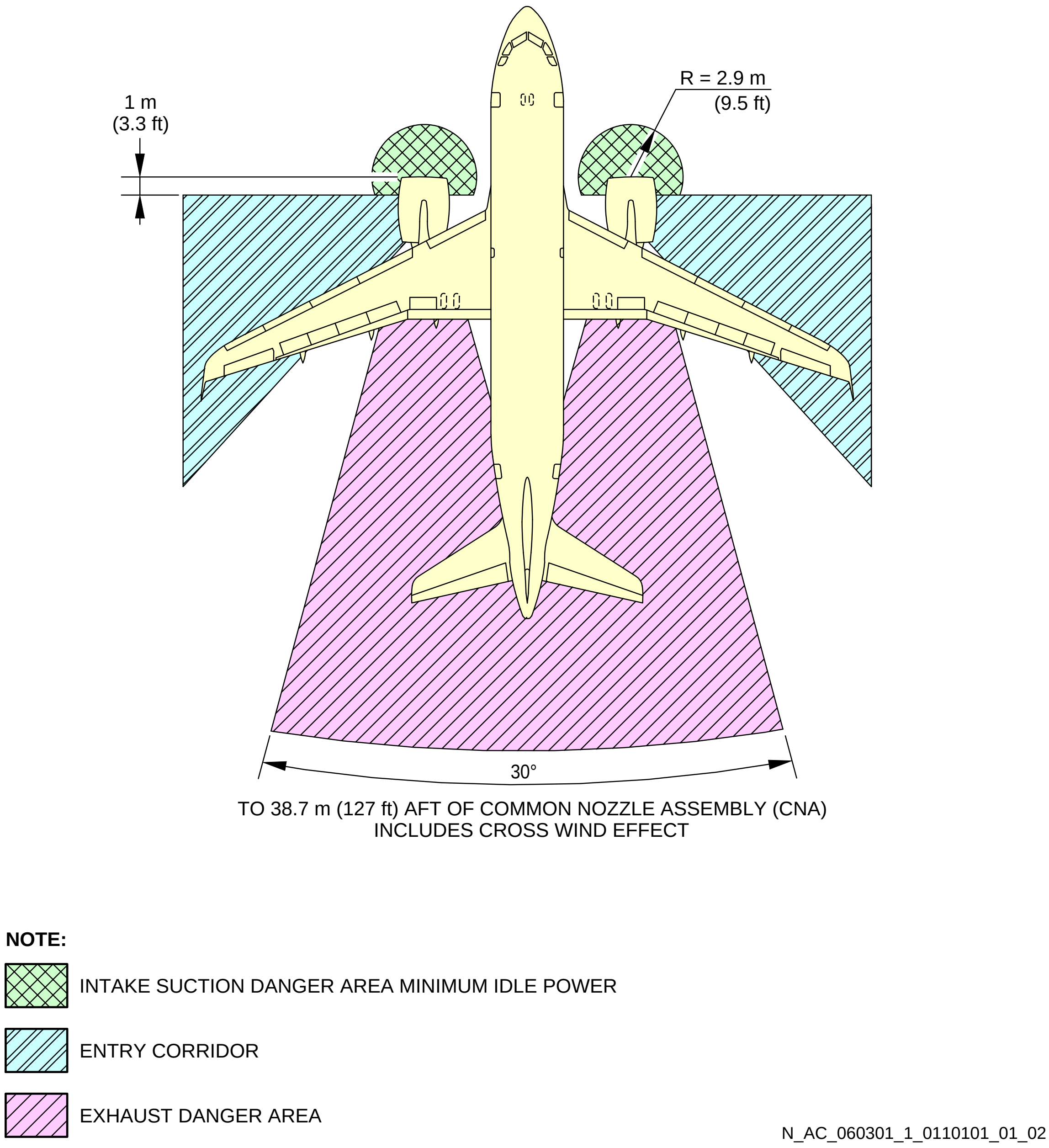
Danger Areas of the Engines
CFM56 Series Engine
FIGURE-6-3-1-991-003-A01

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



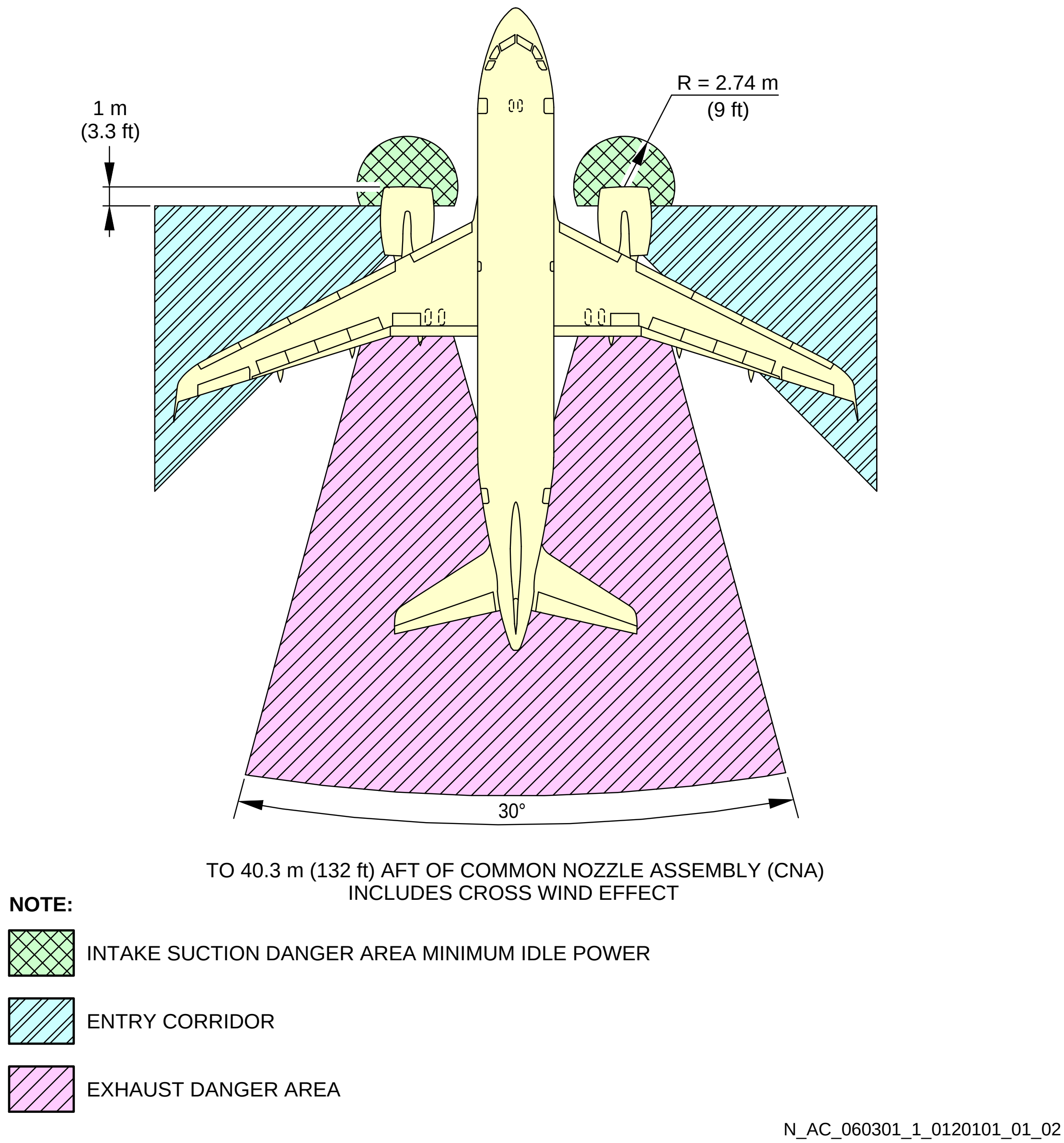
Danger Areas of the Engines
IAE V2500 Series Engine
FIGURE-6-3-1-991-004-A01

****ON A/C A319neo**



Danger Areas of the Engines
CFM LEAP-1A Engine
FIGURE-6-3-1-991-011-A01

****ON A/C A319neo**



Danger Areas of the Engines
PW 1100G Engine
FIGURE-6-3-1-991-012-A01

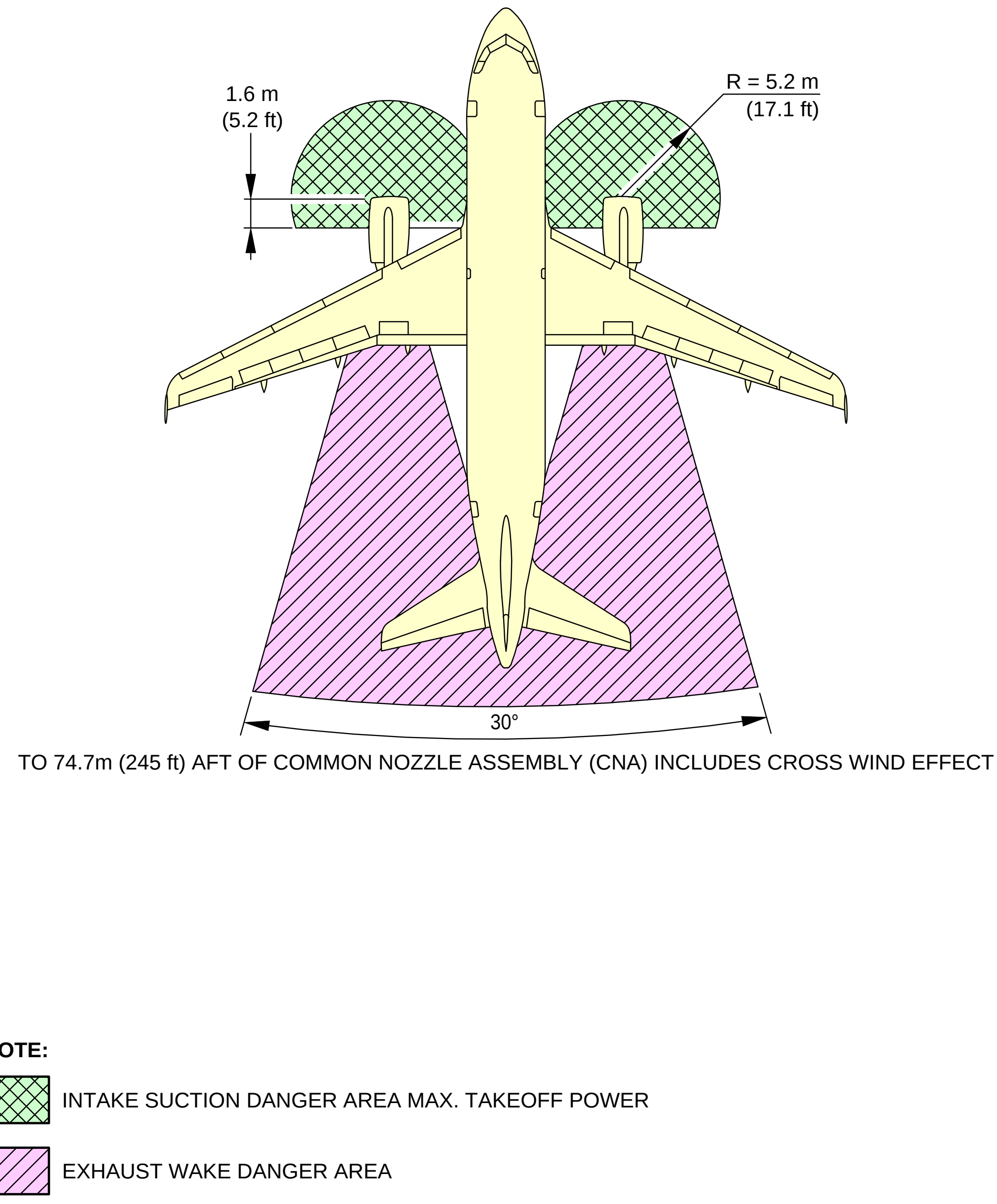
6-3-2 Breakaway Power

****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**



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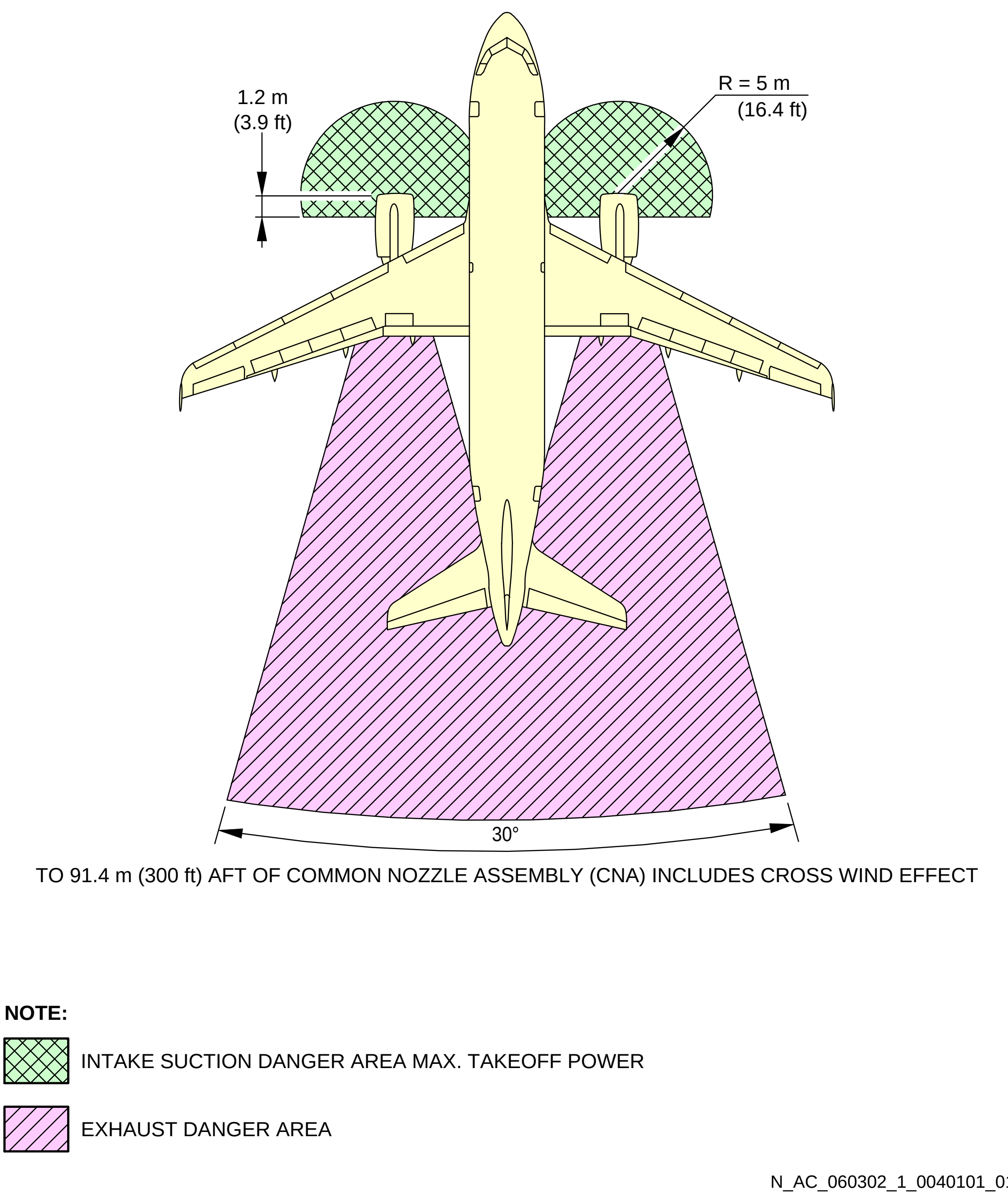
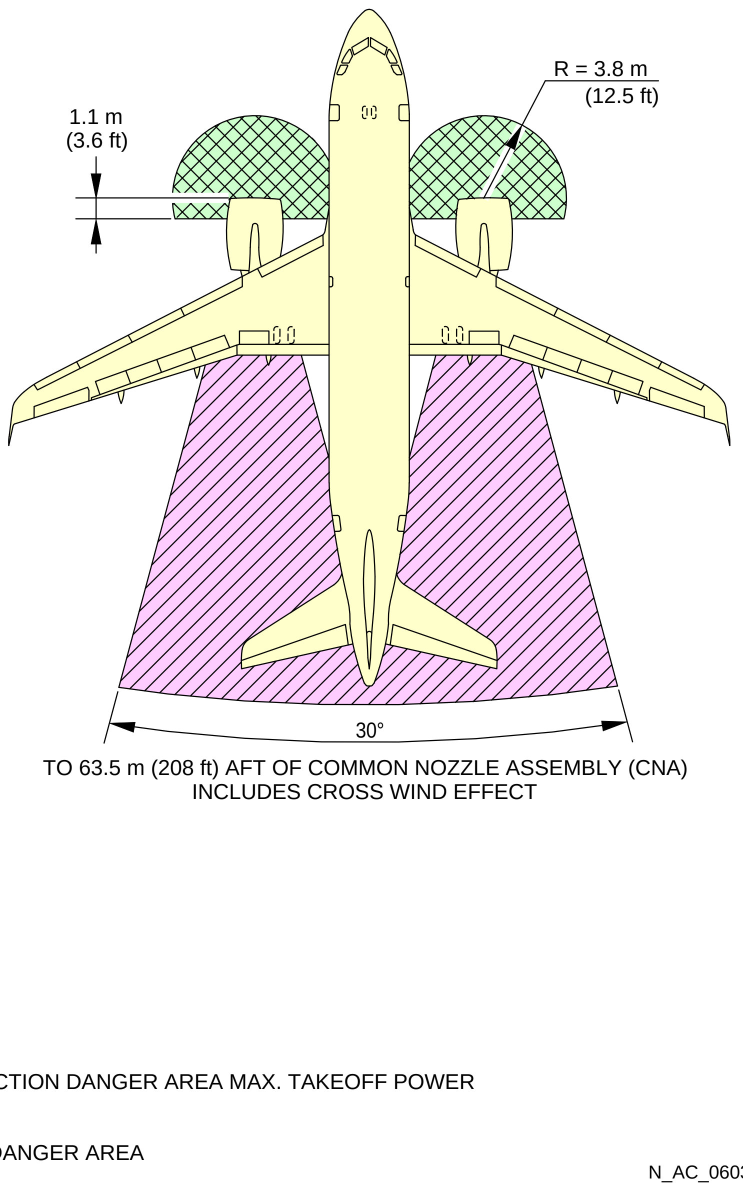
Danger Areas of the Engines
CFM56 Series Engine
FIGURE-6-3-2-991-003-A01

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



Danger Areas of the Engines
IAE V2500 Series Engine
FIGURE-6-3-2-991-004-A01

****ON A/C A319neo**



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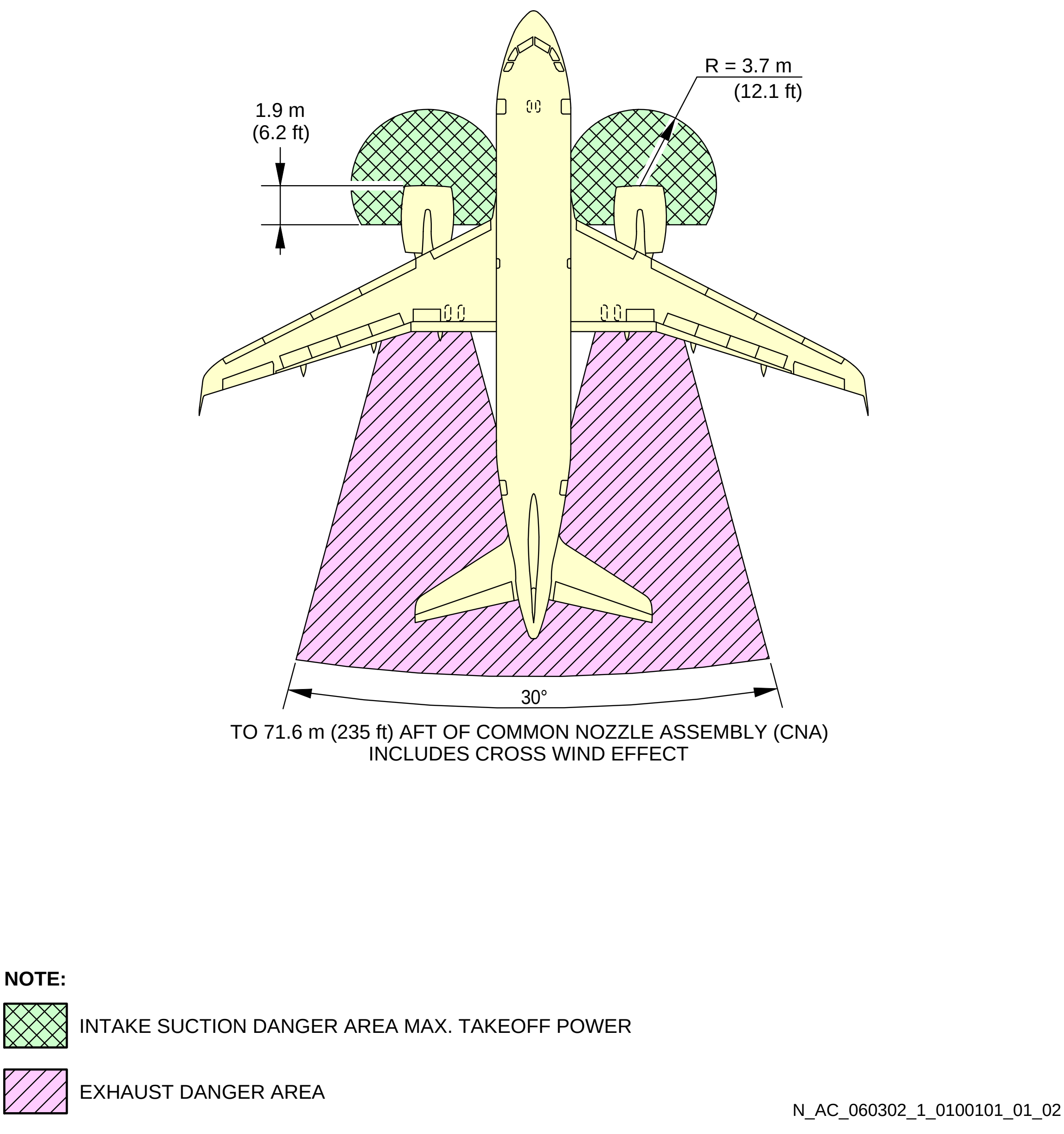
Danger Areas of the Engines
CFM LEAP-1A Engine
FIGURE-6-3-2-991-009-A01

****ON A/C A319neo**



Danger Areas of the Engines
PW 1100G Engine
FIGURE-6-3-2-991-010-A01

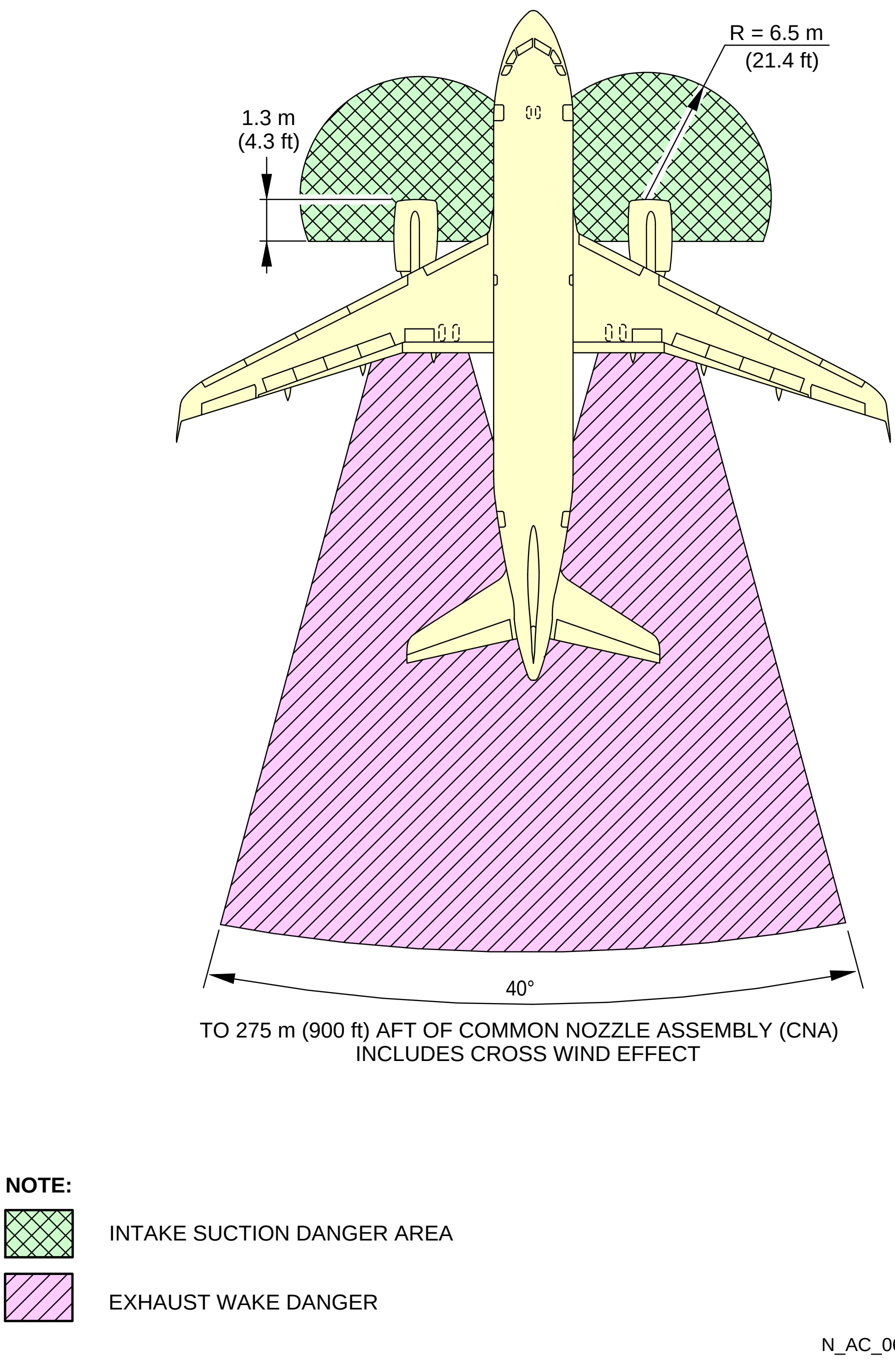
6-3-3 Max Take Off Power

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

Take Off Power

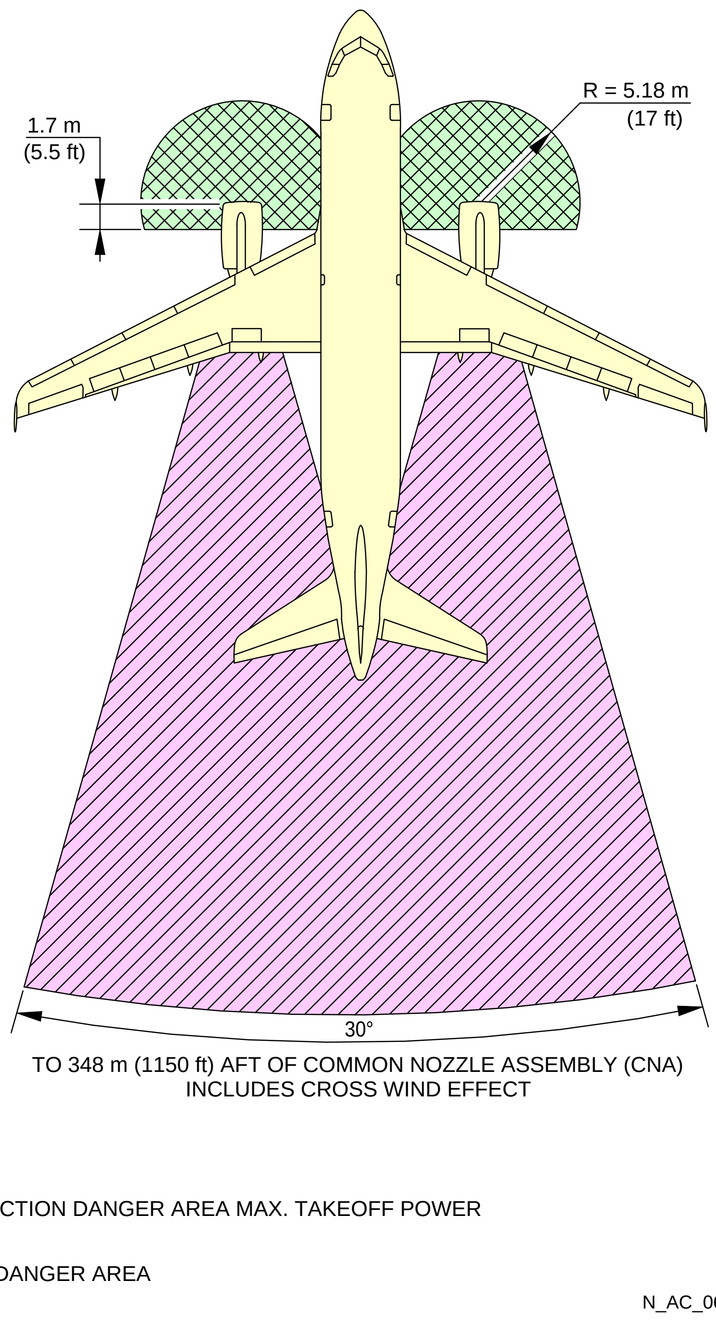
1. This section provides danger areas of the engines at maximum take-off power conditions.

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



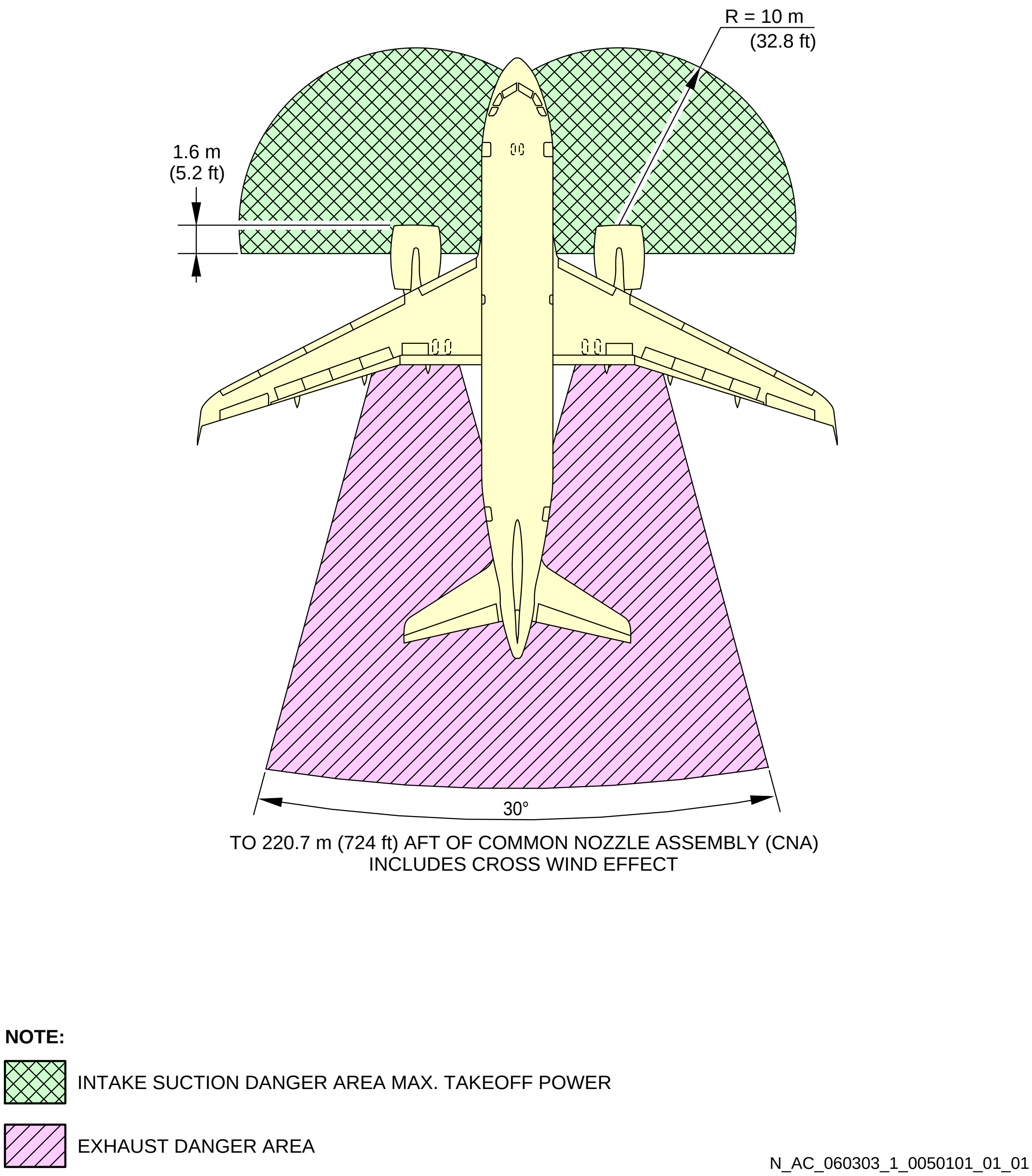
Danger Areas of the Engines
CFM56 Series Engine
FIGURE-6-3-3-991-003-A01

**ON A/C A319-100



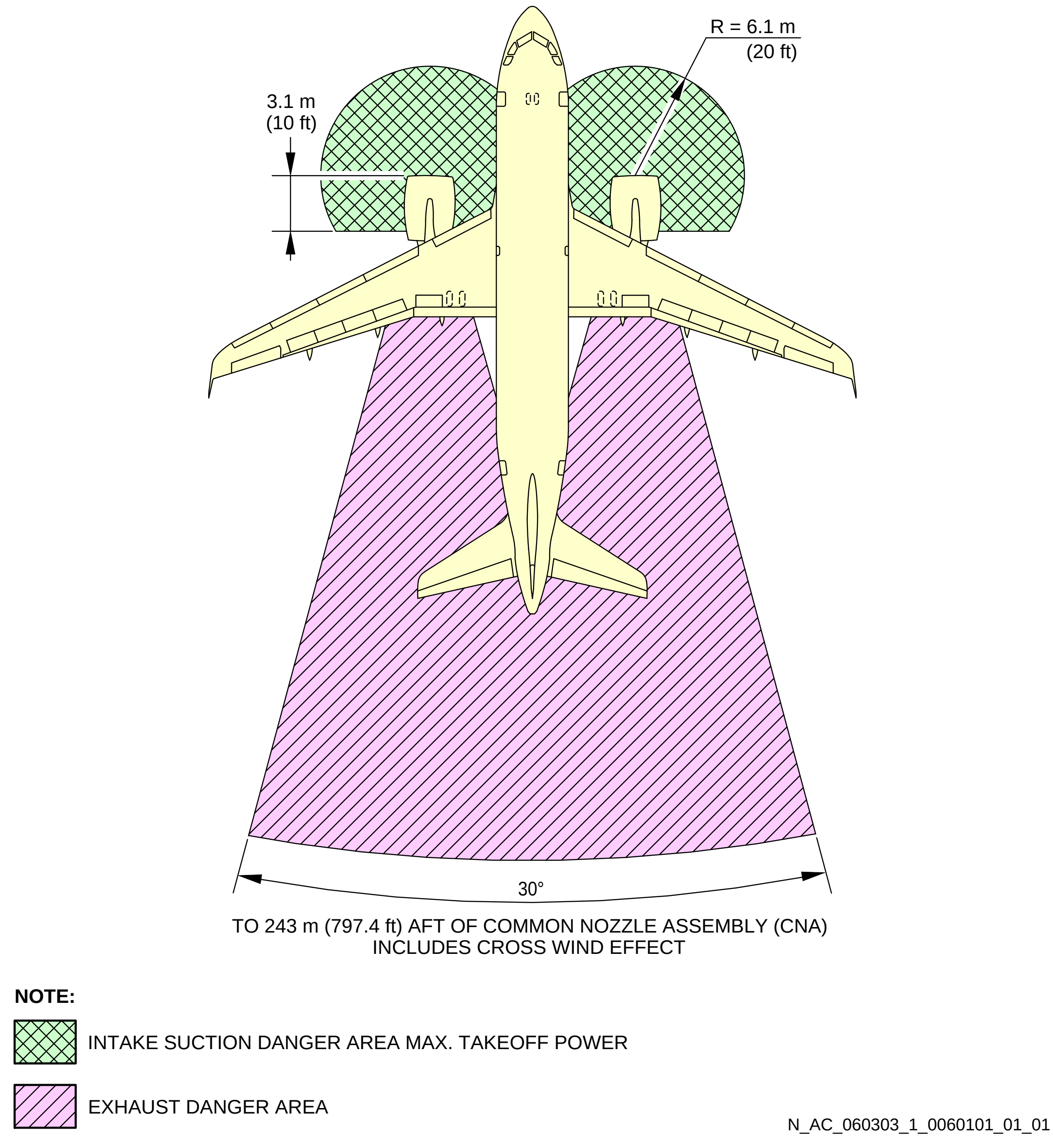
Danger Areas of the Engines
IAE V2500 Series Engine
FIGURE-6-3-3-991-004-A01

****ON A/C A319neo**



Danger Areas of the Engines
CFM LEAP-1A Engine
FIGURE-6-3-3-991-005-A01

****ON A/C A319neo**



Danger Areas of the Engines
PW 1100G Engine
FIGURE-6-3-3-991-006-A01

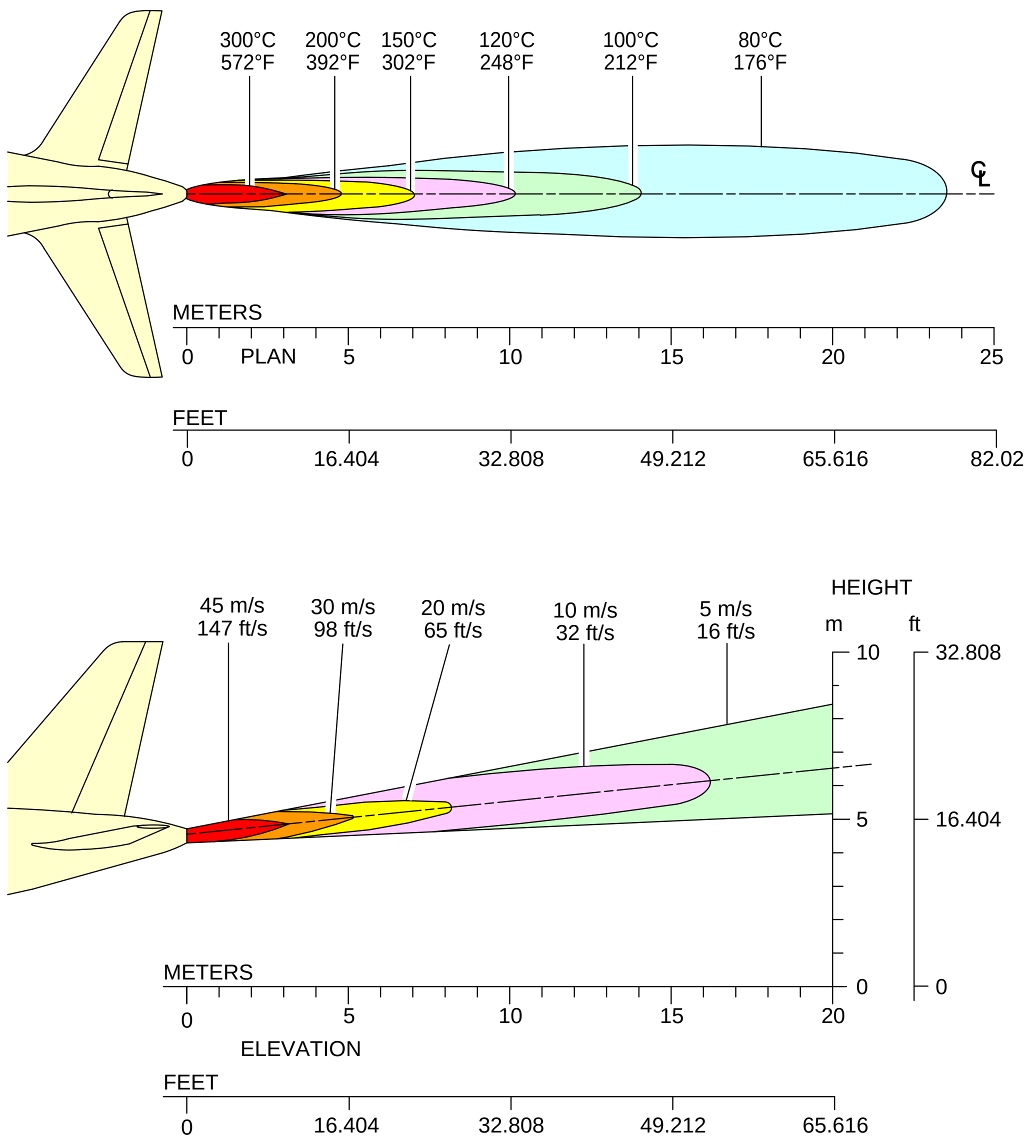
6-4-1 APU

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

APU - APIC & GARRETT

1. This section gives APU exhaust velocities and temperatures.

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



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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:

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.

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^3 (550 pci)
- B. Medium Strength	k = 80 MN/m^3 (300 pci)
- C. Low Strength	k = 40 MN/m^3 (150 pci)
- D. Ultra Low Strength	k = 20 MN/m^3 (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.
Numerically the ACR is two times the derived single-wheel load expressed in hundreds of kilograms.
The derived single-wheel load is calculated as the load on a single tire inflated to 1.50 Mpa (218 psi) that can have the same pavement requirements as the aircraft.

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.
The results of their analysis should be reported with the following format:

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)	

Section 07-10-00 shows the aircraft ACR value.
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

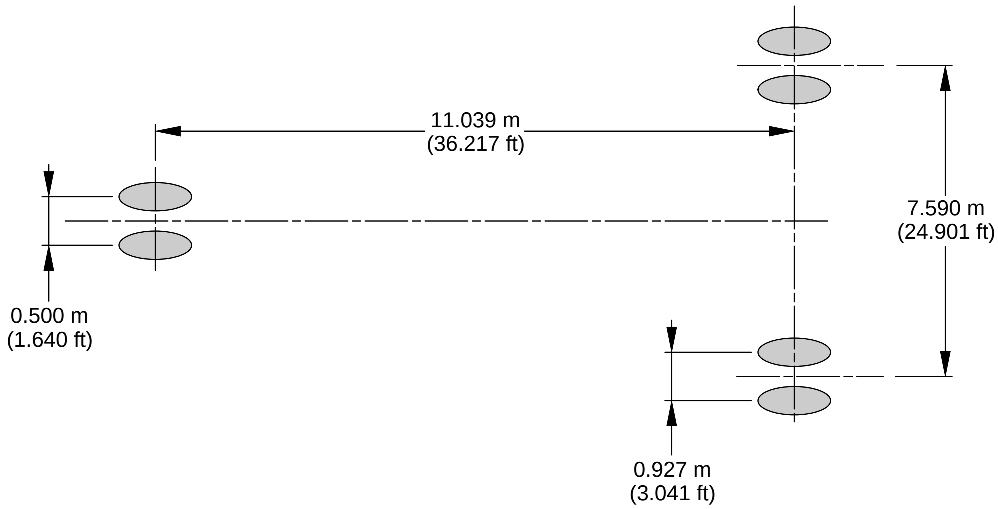
****ON A/C A319-100 A319neo**

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.

****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

****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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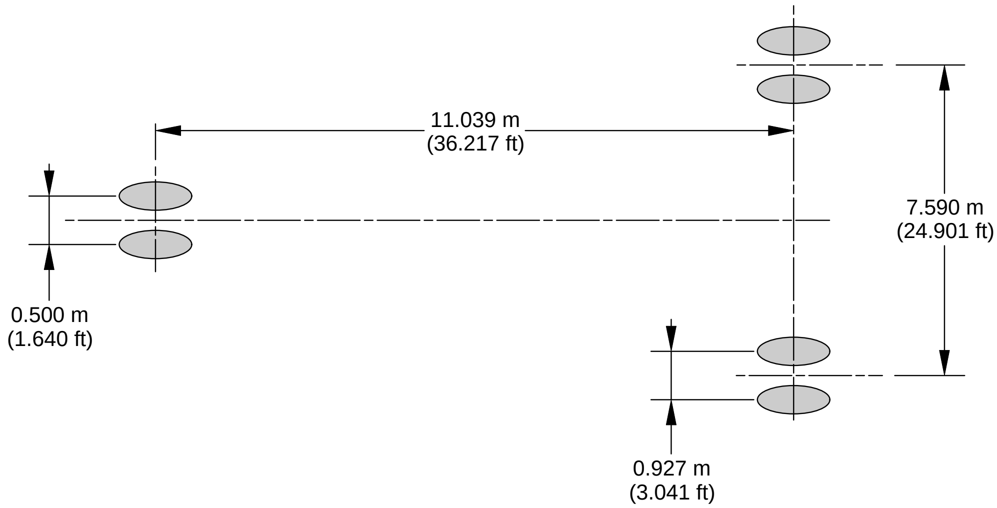
Landing Gear Footprint
(Sheet 2 of 2)
FIGURE-7-2-0-991-004-A01

****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

****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 WV053 (CG 32%)	70 400 kg (155 200 lb)	89.9%	30x8.8R21 (30x8.8-21)	12.5 bar (181 psi)	46x17R20 (46x16-20)	12.9 bar (187 psi)
A319NEO WV054 (CG 36%)	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)
A319NEO WV054 (CG 32%)	75 900 kg (167 325 lb)	90.0%	30x8.8R23 (30x8.8-23)	13.2 bar (191 psi)	46x17R20 (46x16-20)	13.8 bar (200 psi)
A319NEO WV055	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)

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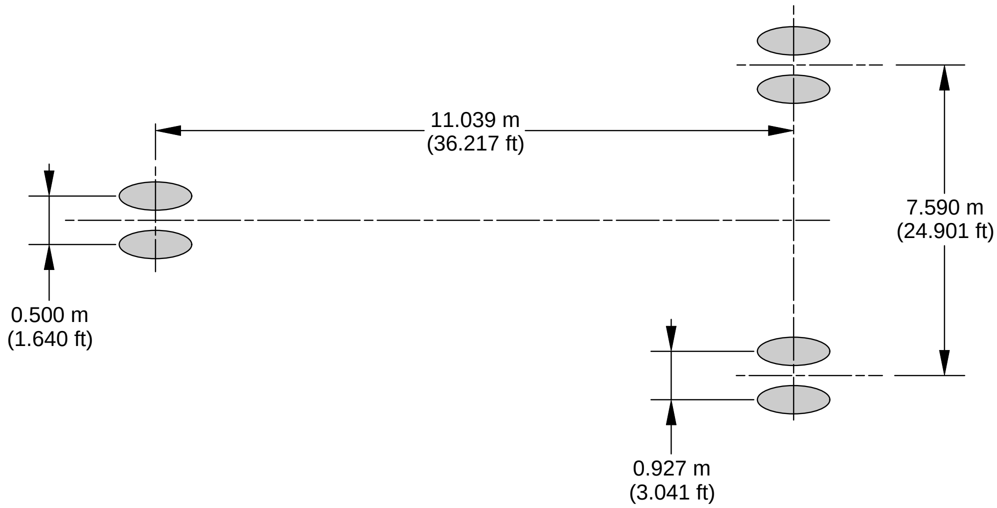
Landing Gear Footprint
(Sheet 2 of 2)
FIGURE-7-2-0-991-037-A01

****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

****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 WV114	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)
ACJ319NEO WV115	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)
ACJ319NEO WV116	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 WV120 (CG 34%)	78 600 kg (173 275 lb)	90.7%	30x8.8R15 (30x8.8-15)	13.9 bar (202 psi)	46x17R20 (46x16-20)	13.8 bar (200 psi)
ACJ319NEO WV120 (CG 32%)	78 600 kg (173 275 lb)	89.9%	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 2 of 2)
FIGURE-7-2-0-991-040-A01

7-3-0 Maximum Pavement Loads

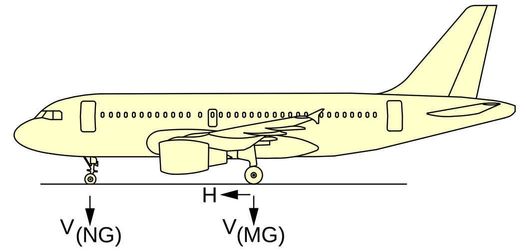
****ON A/C A319-100 A319neo**

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.

****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	
		$V_{(NG)}$			$V_{(MG)}$ (PER STRUT)		H (PER STRUT)	
WEIGHT VARIANT	MAXIMUM RAMP WEIGHT	STATIC LOAD AT FWD CG		STATIC BRAKING AT 10 ft/s² DECELERATION	STATIC LOAD AT AFT CG		STEADY BRAKING AT 10 ft/s² DECELERATION	AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8
A319-100 WV000 (CG 39%)	64 400 kg (141 975 lb)	9 300 kg (20 500 lb)	21% MAC (a)	15 310 kg (33 750 lb)	29 830 kg (65 775 lb)	39% MAC (a)	10 010 kg (22 075 lb) (d)	23 860 kg (52 600 lb) (d)
A319-100 WV000 (CG 36%)	64 400 kg (141 975 lb)	9 300 kg (20 500 lb)	21% MAC (a)	15 320 kg (33 775 lb)	29 450 kg (64 925 lb)	36% MAC (a)	10 010 kg (22 075 lb) (d)	23 560 kg (51 925 lb) (d)
A319-100 WV001 (CG 37.5%)	70 400 kg (155 200 lb)	10 120 kg (22 325 lb)	21% MAC (a)	16 660 kg (36 750 lb)	32 420 kg (71 475 lb)	37.5% MAC (a)	10 940 kg (24 125 lb) (d)	25 940 kg (57 175 lb) (d)
A319-100 WV001 (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) (d)	25 770 kg (56 800 lb) (d)
A319-100 WV002	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) (d)	27 800 kg (61 275 lb) (d)
A319-100 WV002 (CJ)	75 900 kg (167 325 lb)	11 540 kg (25 450 lb)	14% MAC (c)	17 910 kg (39 500 lb)	34 750 kg (76 625 lb)	36% MAC (a)	11 800 kg (26 000 lb) (d)	27 800 kg (61 300 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

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

1	2	3		4	5		6	
		$V_{(NG)}$			$V_{(MG)}$ (PER STRUT)		H (PER STRUT)	
WEIGHT VARIANT	MAXIMUM RAMP WEIGHT	STATIC LOAD AT FWD CG		STATIC BRAKING AT 10 ft/s² DECELERATION	STATIC LOAD AT MAX AFT CG		STEADY BRAKING AT 10 ft/s² DECELERATION	AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8
A319-100 WV003 (CG 38.1%)	68 400 kg (150 800 lb)	9 860 kg (21 750 lb)	21% MAC (a)	16 230 kg (35 775 lb)	31 560 kg (69 600 lb)	38.1% MAC (a)	10 630 kg (23 425 lb) (d)	25 250 kg (55 675 lb) (d)
A319-100 WV003 (CG 36%)	68 400 kg (150 800 lb)	9 860 kg (21 750 lb)	21% MAC (a)	16 230 kg (35 775 lb)	31 280 kg (68 950 lb)	36% MAC (a)	10 630 kg (23 425 lb) (d)	25 020 kg (55 175 lb) (d)
A319-100 WV004 (CG 38.1%)	68 400 kg (150 800 lb)	9 860 kg (21 750 lb)	21% MAC (a)	16 230 kg (35 775 lb)	31 560 kg (69 600 lb)	38.1% MAC (a)	10 630 kg (23 425 lb) (d)	25 250 kg (55 675 lb) (d)
A319-100 WV004 (CG 36%)	68 400 kg (150 800 lb)	9 860 kg (21 750 lb)	21% MAC (a)	16 230 kg (35 775 lb)	31 280 kg (68 950 lb)	36% MAC (a)	10 630 kg (23 425 lb) (d)	25 020 kg (55 175 lb) (d)
A319-100 WV005 (CG 37.5%)	70 400 kg (155 200 lb)	10 120 kg (22 325 lb)	21% MAC (a)	16 660 kg (36 750 lb)	32 420 kg (71 475 lb)	37.5% MAC (a)	10 940 kg (24 125 lb) (d)	25 940 kg (57 175 lb) (d)
A319-100 WV005 (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) (d)	25 770 kg (56 800 lb) (d)
A319-100 WV005 (CJ)	70 400 kg (155 200 lb)	11 550 kg (25 450 lb)	14% MAC (b)	17 990 kg (39 650 lb)	32 240 kg (71 075 lb)	36% MAC (a)	10 940 kg (24 125 lb) (d)	25 800 kg (56 875 lb) (d)
A319-100 WV006 (CG 36.52%)	73 900 kg (162 925 lb)	10 610 kg (23 400 lb)	21% MAC (a)	17 470 kg (38 500 lb)	33 890 kg (74 725 lb)	36.52% MAC (a)	11 480 kg (25 325 lb) (d)	27 110 kg (59 775 lb) (d)
A319-100 WV006 (CG 36%)	73 900 kg (162 925 lb)	10 610 kg (23 400 lb)	21% MAC (a)	17 470 kg (38 500 lb)	33 820 kg (74 550 lb)	36% MAC (a)	11 480 kg (25 325 lb) (d)	27 050 kg (59 650 lb) (d)
A319-100 WV007	75 900 kg (167 325 lb)	10 720 kg (23 625 lb)	21% MAC (c)	17 880 kg (39 400 lb)	34 750 kg (76 600 lb)	36% MAC (a)	11 800 kg (26 000 lb) (d)	27 800 kg (61 275 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 2 of 3)
FIGURE-7-3-0-991-023-A01

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

1	2	3		4	5		6	
		$V_{(NG)}$			$V_{(MG)}$ (PER STRUT)		H (PER STRUT)	
WEIGHT VARIANT	MAXIMUM RAMP WEIGHT	STATIC LOAD AT FWD CG		STATIC BRAKING AT 10 ft/s² DECELERATION	STATIC LOAD AT MAX AFT CG		STEADY BRAKING AT 10 ft/s² DECELERATION	AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8
A319-100 WV008 (CG 39%)	64 400 kg (141 975 lb)	9 300 kg (20 500 lb)	21% MAC (a)	15 310 kg (33 750 lb)	29 830 kg (65 775 lb)	39% MAC (a)	10 010 kg (22 075 lb) (c)	23 860 kg (52 600 lb) (c)
A319-100 WV008 (CG 36%)	64 400 kg (141 975 lb)	9 300 kg (20 500 lb)	21% MAC (a)	15 320 kg (33 775 lb)	29 450 kg (64 925 lb)	36% MAC (a)	10 010 kg (22 075 lb) (c)	23 560 kg (51 925 lb) (c)
A319-100 WV009 (CG 38.8%)	66 400 kg (146 375 lb)	9 580 kg (21 125 lb)	21% MAC (a)	15 770 kg (34 775 lb)	30 730 kg (67 750 lb)	38.8% MAC (a)	10 320 kg (22 750 lb) (c)	24 590 kg (54 200 lb) (c)
A319-100 WV009 (CG 36%)	66 400 kg (146 375 lb)	9 580 kg (21 125 lb)	21% MAC (a)	15 770 kg (34 775 lb)	30 360 kg (66 950 lb)	36% MAC (a)	10 320 kg (22 750 lb) (c)	24 290 kg (53 550 lb) (c)
A319-100 WV010 (CJ)	76 900 kg (169 525 lb)	11 540 kg (25 450 lb)	14% MAC (b)	17 830 kg (39 300 lb)	35 180 kg (77 550 lb)	36% MAC (a)	11 950 kg (26 350 lb) (c)	28 140 kg (62 050 lb) (c)
A319-100 WV011 (CG 38.8%)	66 400 kg (146 375 lb)	9 580 kg (21 125 lb)	21% MAC (a)	15 770 kg (34 775 lb)	30 730 kg (67 750 lb)	38.8% MAC (a)	10 320 kg (22 750 lb) (c)	24 590 kg (54 200 lb) (c)
A319-100 WV011 (CG 36%)	66 400 kg (146 375 lb)	9 580 kg (21 125 lb)	21% MAC (a)	15 770 kg (34 775 lb)	30 360 kg (66 950 lb)	36% MAC (a)	10 320 kg (22 750 lb) (c)	24 290 kg (53 550 lb) (c)
A319-100 WV012 (CG 39%)	62 400 kg (137 575 lb)	9 170 kg (20 200 lb)	20.4% MAC (a)	15 000 kg (33 075 lb)	28 900 kg (63 725 lb)	39% MAC (a)	9 700 kg (21 375 lb) (c)	23 120 kg (50 975 lb) (c)
A319-100 WV012 (CG 36%)	62 400 kg (137 575 lb)	9 170 kg (20 200 lb)	20.4% MAC (a)	15 000 kg (33 075 lb)	28 530 kg (62 900 lb)	36% MAC (a)	9 700 kg (21 375 lb) (c)	22 820 kg (50 325 lb) (c)
A319-100 WV013 (CJ)	75 900 kg (167 325 lb)	11 540 kg (25 450 lb)	14% MAC (b)	17 910 kg (39 500 lb)	34 750 kg (76 625 lb)	36% MAC (a)	11 800 kg (26 000 lb) (c)	27 800 kg (61 300 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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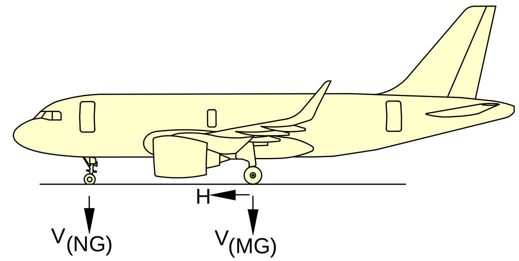
Maximum Pavement Loads for A319-100 and ACJ319-100
(Sheet 3 of 3)
FIGURE-7-3-0-991-023-A01

****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	
		$V_{(NG)}$			$V_{(MG)}$ (PER STRUT)		H (PER STRUT)	
WEIGHT VARIANT	MAXIMUM RAMP WEIGHT	STATIC LOAD AT MOST FWD C.G.		STATIC BRAKING @ 10 ft/s² DECELERATION	STATIC LOAD AT MAX AFT C.G.		STEADY BRAKING @ 10 ft/s² DECELERATION	AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8
A319NEO WV050 (CG 36%)	64 400 kg (141 975 lb)	9 300 kg (20 500 lb)	21% MAC (a)	15 320 kg (33 775 lb)	29 450 kg (64 925 lb)	36% MAC (a)	10 010 kg (22 075 lb) (b)	23 560 kg (51 925 lb) (b)
A319NEO WV050 (CG 35.44%)	64 400 kg (141 975 lb)	9 300 kg (20 500 lb)	21% MAC (a)	15 310 kg (33 750 lb)	29 370 kg (64 750 lb)	35.44% MAC (a)	10 010 kg (22 075 lb) (b)	23 500 kg (51 800 lb) (b)
A319NEO WV051 (CG 36%)	64 400 kg (141 975 lb)	9 300 kg (20 500 lb)	21% MAC (a)	15 320 kg (33 775 lb)	29 450 kg (64 925 lb)	36% MAC (a)	10 010 kg (22 075 lb) (b)	23 560 kg (51 925 lb) (b)
A319NEO WV051 (CG 35.44%)	64 400 kg (141 975 lb)	9 300 kg (20 500 lb)	21% MAC (a)	15 310 kg (33 750 lb)	29 370 kg (64 750 lb)	35.44% MAC (a)	10 010 kg (22 075 lb) (b)	23 500 kg (51 800 lb) (b)
A319NEO WV051 (CG 32%)	64 400 kg (141 975 lb)	9 300 kg (20 500 lb)	21% MAC (a)	15 320 kg (33 775 lb)	28 940 kg (63 800 lb)	32% MAC (a)	10 010 kg (22 075 lb) (b)	23 150 kg (51 025 lb) (b)
A319NEO WV052 (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) (b)	25 770 kg (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.

N_AC_070300_1_0400101_01_05

Maximum Pavement Loads for ACF319NEO.
Maximum Pavement Loads for ACF319NEO (Sheet 1 of 4)
FIGURE-7-3-0-991-040-A01

****ON A/C A319neo**

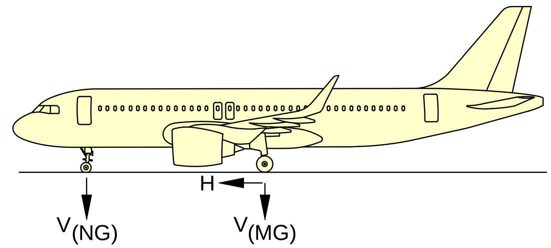
1	2	3		4	5		6	
		$V_{(NG)}$			$V_{(MG)}$ (PER STRUT)		H (PER STRUT)	
WEIGHT VARIANT	MAXIMUM RAMP WEIGHT	STATIC LOAD AT MOST FWD C.G.		STATIC BRAKING @ 10 ft/s² DECELERATION	STATIC LOAD AT MAX AFT C.G.		STEADY BRAKING @ 10 ft/s² DECELERATION	AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8
A319NEO WV052 (CG 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.

N_AC_070300_1_0400103_01_00

Maximum Pavement Loads for ACF319NEO.
Maximum Pavement Loads for ACF319NEO (Sheet 2 of 4)
FIGURE-7-3-0-991-040-A01

****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	
		$V_{(NG)}$			$V_{(MG)}$ (PER STRUT)		H (PER STRUT)	
WEIGHT VARIANT	MAXIMUM RAMP WEIGHT	STATIC LOAD AT MOST FWD C.G.		STATIC BRAKING @ 10 ft/s² DECELERATION	STATIC LOAD AT MAX AFT C.G.		STEADY BRAKING @ 10 ft/s² DECELERATION	AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8
ACJ319NEO WV054	75 900 kg (167 325 lb)	11 540 kg (25 450 lb)	14% MAC (b)	17 880 kg (39 425 lb)	34 750 kg (76 625 lb)	36% MAC (a)	11 800 kg (26 000 lb) (c)	27 800 kg (61 300 lb) (c)
ACJ319NEO WV055 (CG 36%)	75 900 kg (167 325 lb)	11 540 kg (25 450 lb)	14% MAC (b)	17 880 kg (39 425 lb)	34 750 kg (76 625 lb)	36% MAC (a)	11 800 kg (26 000 lb) (c)	27 800 kg (61 300 lb) (c)
ACJ319NEO WV055 (CG 32%)	75 900 kg (167 325 lb)	11 540 kg (25 450 lb)	14% MAC (b)	17 880 kg (39 425 lb)	34 150 kg (75 300 lb)	32% MAC (a)	11 800 kg (26 000 lb) (c)	27 320 kg (60 225 lb) (c)
ACJ319NEO WV110 (CG 36%)	77 700 kg (171 300 lb)	11 540 kg (25 450 lb)	14% MAC (b)	17 780 kg (39 200 lb)	35 540 kg (78 350 lb)	36% MAC (a)	12 070 kg (26 625 lb) (c)	28 440 kg (62 700 lb) (c)
ACJ319NEO WV110 (CG 32%)	77 700 kg (171 300 lb)	11 540 kg (25 450 lb)	14% MAC (b)	17 780 kg (39 200 lb)	34 930 kg (77 000 lb)	32% MAC (a)	12 070 kg (26 625 lb) (c)	27 950 kg (61 600 lb) (c)
ACJ319NEO WV111	77 700 kg (171 300 lb)	11 540 kg (25 450 lb)	14% MAC (b)	17 780 kg (39 200 lb)	35 540 kg (78 350 lb)	36% MAC (a)	12 070 kg (26 625 lb) (c)	28 440 kg (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 ACF319NEO.
Maximum Pavement Loads for ACJ319NEO (Sheet 3 of 4)
FIGURE-7-3-0-991-040-A01

****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/s² DECELERATION	STATIC LOAD AT MAX AFT C.G.		STEADY BRAKING @ 10 ft/s² DECELERATION	AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8
ACJ319NEO WV112	77 700 kg (171 300 lb)	11 540 kg (25 450 lb)	14% MAC (b)	17 780 kg (39 200 lb)	35 540 kg (78 350 lb)	36% MAC (a)	12 070 kg (26 625 lb) (c)	28 440 kg (62 700 lb) (c)
ACJ319NEO WV113	76 900 kg (169 525 lb)	11 540 kg (25 450 lb)	14% MAC (b)	17 790 kg (39 225 lb)	35 180 kg (77 550 lb)	36% MAC (a)	11 950 kg (26 350 lb) (c)	28 140 kg (62 050 lb) (c)
ACJ319NEO WV114	76 900 kg (169 525 lb)	11 540 kg (25 450 lb)	14% MAC (b)	17 790 kg (39 225 lb)	35 180 kg (77 550 lb)	36% MAC (a)	11 950 kg (26 350 lb) (c)	28 140 kg (62 050 lb) (c)
ACJ319NEO WV115	76 900 kg (169 525 lb)	11 540 kg (25 450 lb)	14% MAC (b)	17 790 kg (39 225 lb)	35 180 kg (77 550 lb)	36% MAC (a)	11 950 kg (26 350 lb) (c)	28 140 kg (62 050 lb) (c)
ACJ319NEO WV116	75 900 kg (167 325 lb)	11 540 kg (25 450 lb)	14% MAC (b)	17 880 kg (39 425 lb)	34 750 kg (76 625 lb)	36% MAC (a)	11 800 kg (26 000 lb) (c)	27 800 kg (61 300 lb) (c)
ACJ319NEO WV120 (CG 34%)	78 600 kg (173 275 lb)	11 540 kg (25 450 lb)	14% MAC (b)	17 780 kg (39 200 lb)	35 650 kg (78 575 lb)	34% MAC (a)	12 210 kg (26 925 lb) (c)	28 520 kg (62 875 lb) (c)
ACJ319NEO WV120 (CG 32%)	78 600 kg (173 275 lb)	11 540 kg (25 450 lb)	14% MAC (b)	17 780 kg (39 200 lb)	35 340 kg (77 900 lb)	32% MAC (a)	12 210 kg (26 925 lb) (c)	28 270 kg (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.

N_AC_070300_1_0400104_01_00

Maximum Pavement Loads for ACF319NEO.
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:
   - ACN = ACN min + (ACN max - ACN min) x (Operating weight - 41 000 kg)/(MRW - 41 000 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:
   - Operating weight = 41 000 kg + (MRW - 41 000 kg) x (PCN - ACN min)/(ACN max - 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.

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

WEIGHT VARIANT	ALL UP MASS (kg)	LOAD ON ONE MAIN GEAR LEG (%)	TIRE PRESSURE (MPa)	ACN FOR RIGID PAVEMENT SUBGRADES - MN/m^3				ACN FOR FLEXIBLE PAVEMENT SUBGRADES - CBR			
				HIGH 150	MEDIUM 80	LOW 40	ULTRA-LOW 20	HIGH 15	MEDIUM 10	LOW 6	ULTRA-LOW 3
A319-100 WV000 (CG 39%)	64 400	46.3	1.19	35	37	39	41	32	33	36	42
	41 000	46.3		20	22	23	24	19	19	21	24
A319-100 WV000 (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
A319-100 WV0001(CG 37.5%)	70 400	46.1	1.29	39	42	44	46	35	36	41	46
	41 000	46.0		21	22	23	25	19	19	21	24
A319-100 WV001 (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
A319-100 WV002	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
A319-100 WV002 (CJ)	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
A319-100 WV003 (CG 38.1%)	68 400	46.1	1.25	38	40	42	44	34	35	39	45
	41 000	46.1		21	22	23	25	19	19	21	24
A319-100 WV003 (CG 36%)	68 400	45.7	1.25	37	40	42	44	34	35	39	45
	41 000	45.7		20	22	23	24	19	19	21	24
A319-100 WV004 (CG 38.1%)	68 400	46.1	1.25	38	40	42	44	34	35	39	45
	41 000	46.1		21	22	23	25	19	19	21	24
A319-100 WV004 (CG 36%)	68 400	45.7	1.25	37	40	42	44	34	35	39	45
	41 000	45.7		20	22	23	24	19	19	21	24
A319-100 WV005 (CG 37.5%)	70 400	46.1	1.29	39	42	44	46	35	36	41	46
	41 000	46.0		21	22	23	25	19	19	21	24
A319-100 WV005 (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
A319-100 WV005 (CJ)	70 400	45.8	1.38	40	42	44	46	35	37	40	46
	41 000	45.7		21	22	24	25	19	19	21	24
A319-100 WV006 (CG 36.52%)	73 900	45.9	1.34	42	44	47	49	37	39	43	49
	41 000	45.8		21	22	24	25	19	19	21	24
A319-100 WV006 (CG 36%)	73 900	45.8	1.34	42	44	47	49	37	39	43	49
	41 000	45.7		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

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

WEIGHT VARIANT	ALL UP MASS (kg)	LOAD ON ONE MAIN GEAR LEG (%)	TIRE PRESSURE (MPa)	ACN FOR RIGID PAVEMENT SUBGRADES - MN/m³				ACN FOR FLEXIBLE PAVEMENT SUBGRADES - CBR			
				HIGH 150	MEDIUM 80	LOW 40	ULTRA-LOW 20	HIGH 15	MEDIUM 10	LOW 6	ULTRA-LOW 3
A319-100 WV007	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
A319-100 WV008 (CG 39%)	64 400	46.3	1.19	35	37	39	41	32	33	36	42
	41 000	46.3		20	22	23	24	19	19	21	24
A319-100 WV008 (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
A319-100 WV009 (CG 38.8%)	66 400	46.3	1.25	37	39	41	43	33	34	38	44
	41 000	46.2		21	22	23	25	19	19	21	24
A319-100 WV009 (CG 36%)	66 400	45.7	1.25	36	38	41	42	33	34	37	43
	41 000	45.7		20	22	23	24	19	19	21	24
A319-100 WV010 (CJ)	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
A319-100 WV011 (CG 38.8%)	66 400	46.3	1.25	37	39	41	43	33	34	38	44
	41 000	46.2		21	22	23	25	19	19	21	24
A319-100 WV011 (CG 36%)	66 400	45.7	1.25	36	38	41	42	33	34	37	43
	41 000	45.7		20	22	23	24	19	19	21	24
A319-100 WV012 (CG 39%)	62 400	46.3	1.19	33	36	38	40	31	32	35	41
	41 000	46.3		20	22	23	24	19	19	21	24
A319-100 WV012 (CG 36%)	62 400	45.7	1.19	33	35	37	39	30	31	34	40
	41 000	45.7		20	21	23	24	19	19	21	24
A319-100 WV013 (CJ)	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

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ACN Table for A319-100
(Sheet 2 of 2)
FIGURE-7-9-0-991-006-A01

****ON A/C A319neo**

WEIGHT VARIANT	ALL UP MASS (kg)	LOAD ON ONE MAIN GEAR LEG (%)	TIRE PRESSURE (MPa)	ACN FOR RIGID PAVEMENT SUBGRADES - MN/m³				ACN FOR FLEXIBLE PAVEMENT SUBGRADES - CBR			
				HIGH 150	MEDIUM 80	LOW 40	ULTRA -LOW 20	HIGH 15	MEDIUM 10	LOW 6	ULTRA -LOW 3
A319NEO 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 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 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 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 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 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 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 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 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 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 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 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

****ON A/C A319neo**

WEIGHT VARIANT	ALL UP MASS (kg)	LOAD ON ONE MAIN GEAR LEG (%)	TIRE PRESSURE (MPa)	ACN FOR RIGID PAVEMENT SUBGRADES - MN/m³				ACN FOR FLEXIBLE PAVEMENT SUBGRADES - CBR			
				HIGH 150	MEDIUM 80	LOW 40	ULTRA -LOW 20	HIGH 15	MEDIUM 10	LOW 6	ULTRA -LOW 3
ACJ319NEO 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 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 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 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 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 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 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 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 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 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 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 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 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.

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

WEIGHT VARIANT	ALL UP MASS (kg)	LOAD ON ONE MAIN GEAR LEG (%)	TIRE PRESSURE (MPa)	ACR FOR RIGID PAVEMENT SUBGRADES - MPa				ACR FOR FLEXIBLE PAVEMENT SUBGRADES - MPa			
				HIGH 200	MEDIUM 120	LOW 80	ULTRA-LOW 50	HIGH 200	MEDIUM 120	LOW 80	ULTRA-LOW 50
A319-100 WV000 (CG 39%)	64 400	46.3	1.19	360	380	400	410	280	300	330	360
A319-100 WV000 (CG 36%)	64 400	45.7	1.19	350	370	390	410	280	300	320	360
A319-100 WV001 (CG 37.5%)	70 400	46.1	1.29	410	430	440	460	310	340	370	410
A319-100 WV001 (CG 36%)	70 400	45.8	1.29	400	420	440	460	310	330	360	400
A319-100 WV002	75 900	45.8	1.38	450	470	490	500	350	370	400	450
A319-100 WV002 (CJ)	75 900	45.8	1.38	450	470	490	500	350	370	400	450
A319-100 WV003 (CG 38.1%)	68 400	46.1	1.25	390	410	430	440	300	330	350	390
A319-100 WV003 (CG 36%)	68 400	45.7	1.25	380	410	420	440	300	320	350	390
A319-100 WV004 (CG 38.1%)	68 400	46.1	1.25	390	410	430	440	300	330	350	390
A319-100 WV004 (CG 36%)	68 400	45.7	1.25	380	410	420	440	300	320	350	390
A319-100 WV005 (CG 37.5%)	70 400	46.1	1.29	410	430	440	460	310	340	370	410
A319-100 WV005 (CG 36%)	70 400	45.8	1.29	400	420	440	460	310	330	360	400
A319-100 WV005 (CJ)	70 400	45.8	1.38	410	430	450	460	320	340	370	410

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ACR Table for A319-100 and A319-100 CJ
(Sheet 1 of 2)
FIGURE-7-10-0-991-004-A01

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

WEIGHT VARIANT	ALL UP MASS (kg)	LOAD ON ONE MAIN GEAR LEG (%)	TIRE PRESSURE (MPa)	ACR FOR RIGID PAVEMENT SUBGRADES - MPa				ACR FOR FLEXIBLE PAVEMENT SUBGRADES - MPa			
				HIGH 200	MEDIUM 120	LOW 80	ULTRA-LOW 50	HIGH 200	MEDIUM 120	LOW 80	ULTRA-LOW 50
A319-100 WV006 (CG 36.52%)	73 900	45.9	1.34	430	450	470	490	330	360	390	430
A319-100 WV006 (CG 36%)	73 900	45.8	1.34	430	450	470	490	330	360	390	430
A319-100 WV007	75 900	45.8	1.38	450	470	490	500	350	370	400	450
A319-100 WV008 (CG 39%)	64 400	46.3	1.19	360	380	400	410	280	300	330	360
A319-100 WV008 (CG 36%)	64 400	45.7	1.19	350	370	390	410	280	300	320	360
A319-100 WV009 (CG 38.8%)	66 400	46.3	1.25	380	400	410	430	290	320	340	380
A319-100 WV009 (CG 36%)	66 400	45.7	1.25	370	390	410	420	290	310	340	370
A319-100 WV010 (CJ)	76 900	45.7	1.38	460	480	490	510	350	370	410	450
A319-100 WV011 (CG 38.8%)	66 400	46.3	1.25	380	400	410	430	290	320	340	380
A319-100 WV011 (CG 36%)	66 400	45.7	1.25	370	390	410	420	290	310	340	370
A319-100 WV012 (CG 39%)	62 400	46.3	1.19	340	370	380	400	270	290	310	350
A319-100 WV012 (CG 36%)	62 400	45.7	1.19	340	360	380	390	270	290	310	350
A319-100 WV013 (CJ)	75 900	45.8	1.38	450	470	490	500	350	370	400	450

N_AC_071000_1_0040102_01_00

ACR Table for A319-100 and A319-100 CJ
(Sheet 2 of 2)
FIGURE-7-10-0-991-004-A01

****ON A/C A319neo**

WEIGHT VARIANT	ALL UP MASS (kg)	LOAD ON ONE MAIN GEAR LEG (%)	TIRE PRESSURE (MPa)	ACR FOR RIGID PAVEMENT SUBGRADES - MPa				ACR FOR FLEXIBLE PAVEMENT SUBGRADES - MPa			
				HIGH 200	MEDIUM 120	LOW 80	ULTRA -LOW 50	HIGH 200	MEDIUM 120	LOW 80	ULTRA -LOW 50
A319NEO WV050 (CG 36%)	64 400	45.7	1.19	350	370	390	410	280	300	320	360
A319NEO WV050 (CG 35.44%)	64 400	45.6	1.19	350	370	390	400	280	300	320	360
A319NEO WV051 (CG 36%)	64 400	45.7	1.19	350	370	390	410	280	300	320	360
A319NEO WV051 (CG 35.44%)	64 400	45.6	1.19	350	370	390	400	280	300	320	360
A319NEO WV051 (CG 32%)	64 400	44.9	1.19	350	370	380	400	270	290	310	350
A319NEO WV052 (CG 36%)	70 400	45.8	1.29	400	420	440	460	310	330	360	400
A319NEO WV052 (CG 32%)	70 400	45.0	1.29	390	420	430	450	310	330	350	390
A319NEO WV053 (CG 36%)	70 400	45.8	1.29	400	420	440	460	310	330	360	400
A319NEO WV053 (CG 32%)	70 400	45.0	1.29	390	420	430	450	310	330	350	390
A319NEO WV054 (CG 36%)	75 900	45.8	1.38	450	470	490	500	350	370	400	450
A319NEO WV054 (CG 32%)	75 900	45.0	1.38	440	460	480	490	340	360	390	440
A319NEO WV055	75 900	45.8	1.38	450	470	490	500	350	370	400	450

N_AC_071000_1_0050101_01_01

ACR Table
FIGURE-7-10-0-991-005-A01

****ON A/C A319neo**

WEIGHT VARIANT	ALL UP MASS (kg)	LOAD ON ONE MAIN GEAR LEG (%)	TIRE PRESSURE (MPa)	ACR FOR RIGID PAVEMENT SUBGRADES - MPa				ACR FOR FLEXIBLE PAVEMENT SUBGRADES - MPa			
				HIGH 200	MEDIUM 120	LOW 80	ULTRA -LOW 50	HIGH 200	MEDIUM 120	LOW 80	ULTRA -LOW 50
ACJ319NEO WV054	75 900	45.8	1.38	450	470	490	500	350	370	400	450
ACJ319NEO WV055 (CG 36%)	75 900	45.8	1.38	450	470	490	500	350	370	400	450
ACJ319NEO WV055 (CG 32%)	75 900	45.0	1.38	440	460	480	490	340	360	390	440
ACJ319NEO WV110 (CG 36%)	77 700	45.7	1.38	460	480	500	520	350	380	410	460
ACJ319NEO WV110 (CG 32%)	77 700	45.0	1.38	450	470	490	510	350	370	400	450
ACJ319NEO WV111	77 700	45.7	1.38	460	480	500	520	350	380	410	460
ACJ319NEO WV112	77 700	45.7	1.38	460	480	500	520	350	380	410	460
ACJ319NEO WV113	76 900	45.7	1.38	460	480	490	510	350	370	410	450
ACJ319NEO WV114	76 900	45.7	1.38	460	480	490	510	350	370	410	450
ACJ319NEO WV115	76 900	45.7	1.38	460	480	490	510	350	370	410	450
ACJ319NEO WV116	75 900	45.8	1.38	450	470	490	500	350	370	400	450
ACJ319NEO WV120 (CG 34%)	78 600	45.3	1.38	460	490	500	520	360	380	410	460
ACJ319NEO WV120 (CG 32%)	78 600	45.0	1.38	460	480	500	510	350	380	410	450

N_AC_071000_1_0060101_01_01

ACR Table for ACJ319NEO
FIGURE-7-10-0-991-006-A01

8-0-0 SCALED DRAWINGS

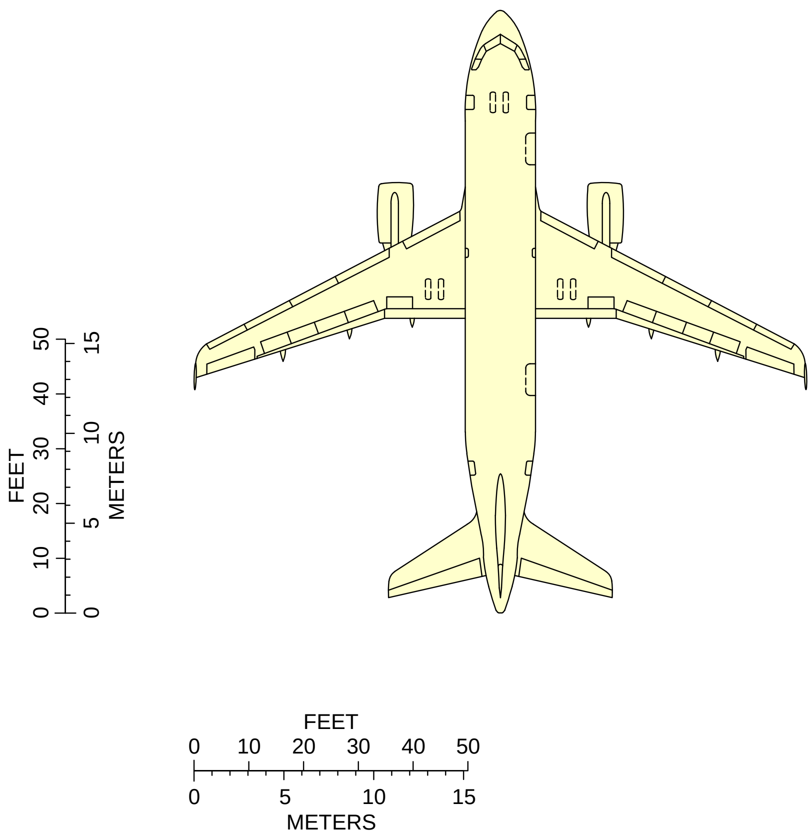
****ON A/C A319-100 A319neo**

Scaled Drawings

1. This section provides the scaled drawings.

   NOTE : When printing this drawing, make sure to adjust for proper scaling.

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



NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING.

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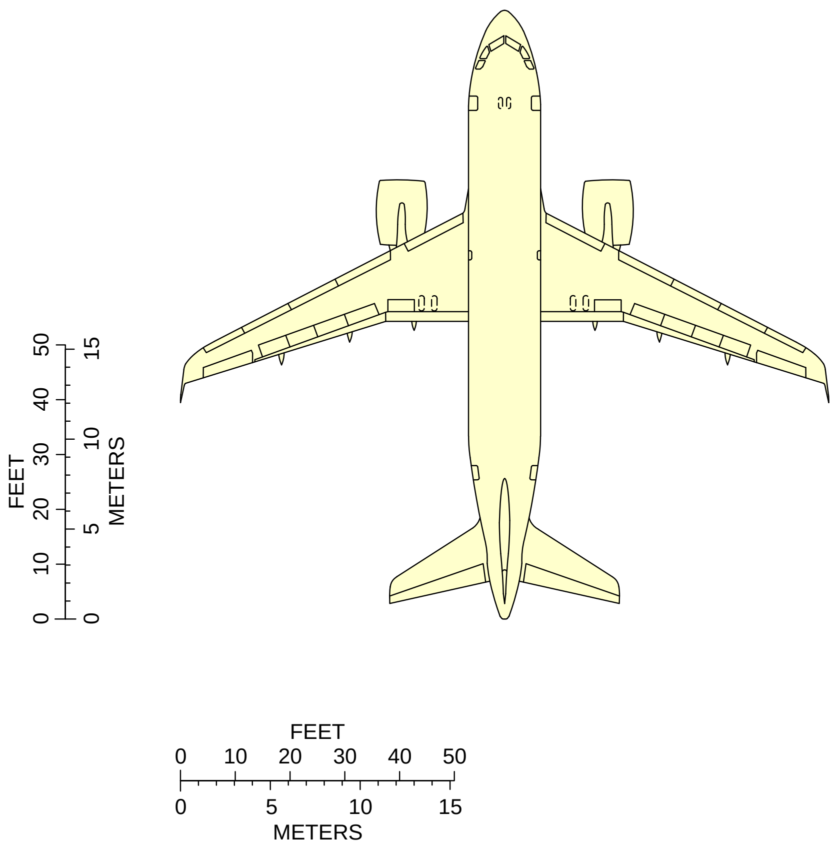
Scaled Drawing
FIGURE-8-0-0-991-002-A01

****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
31707 BLAGNAC CEDEX
FRANCE

REVISION DATE: NOV 2019
REFERENCE : N_RF_000000_1_A319000
SHEET 1/2

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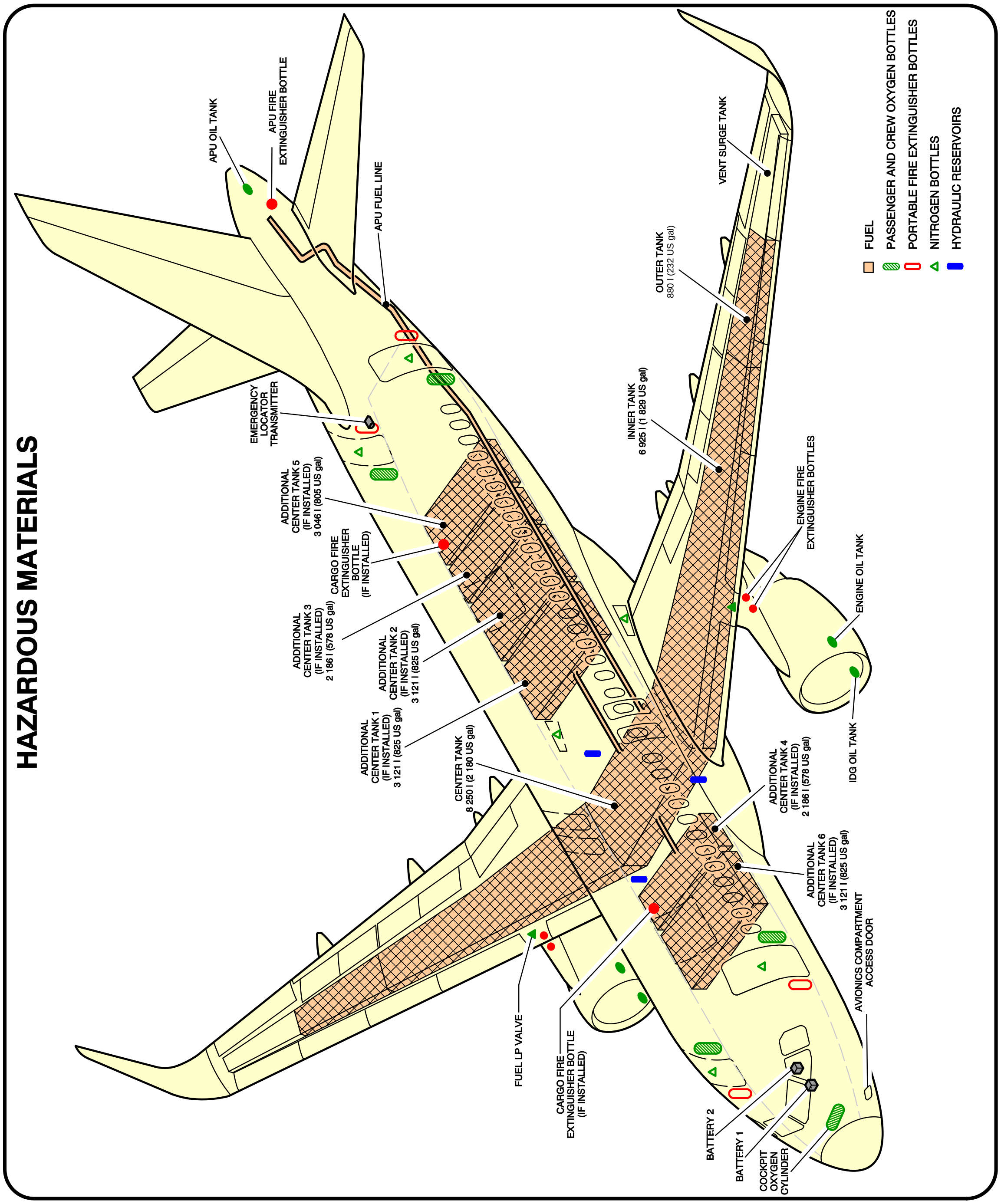
Front Page
FIGURE-10-0-0-991-017-A01

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



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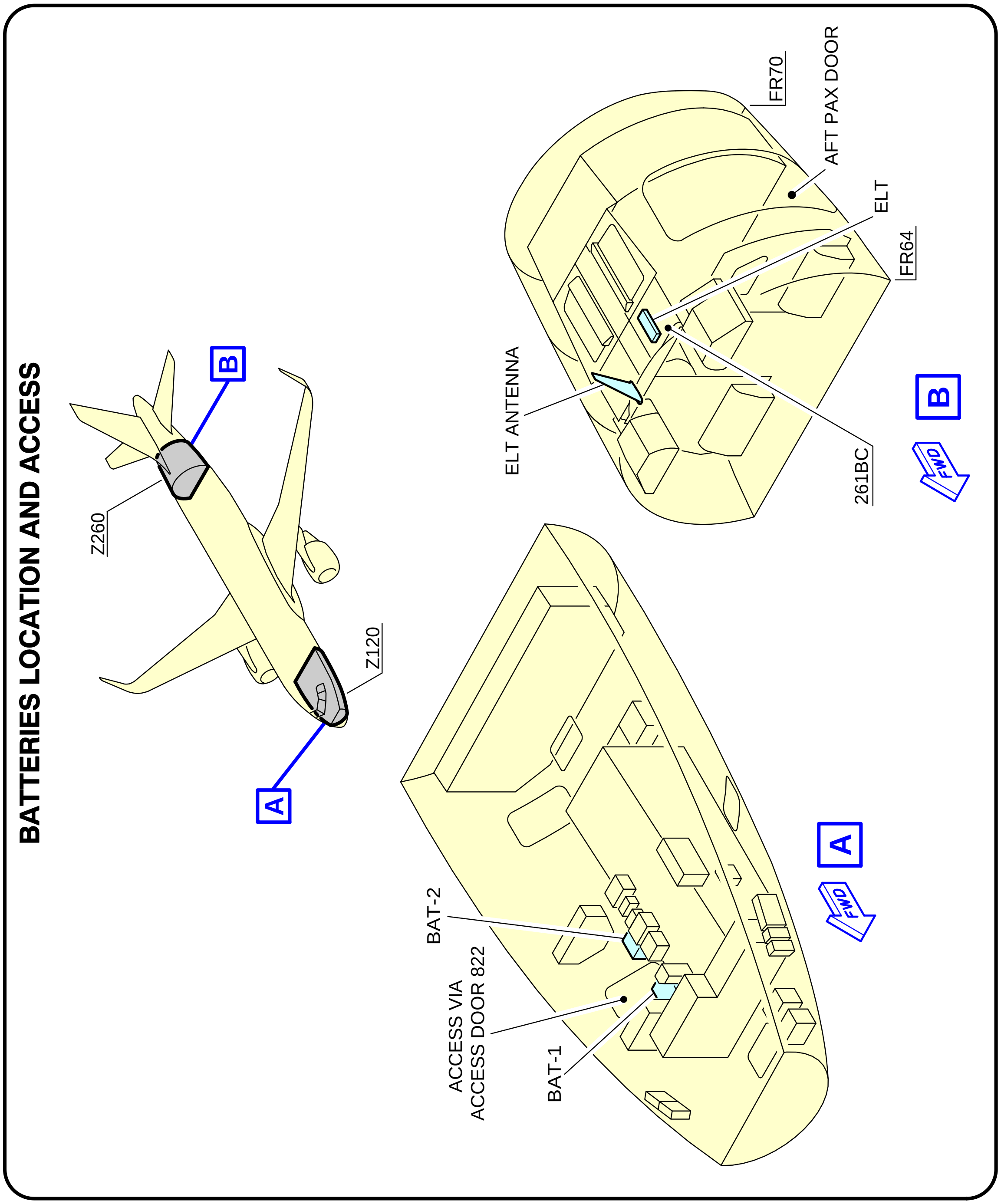
Highly Flammable and Hazardous Materials and Components
FIGURE-10-0-0-991-018-A01

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



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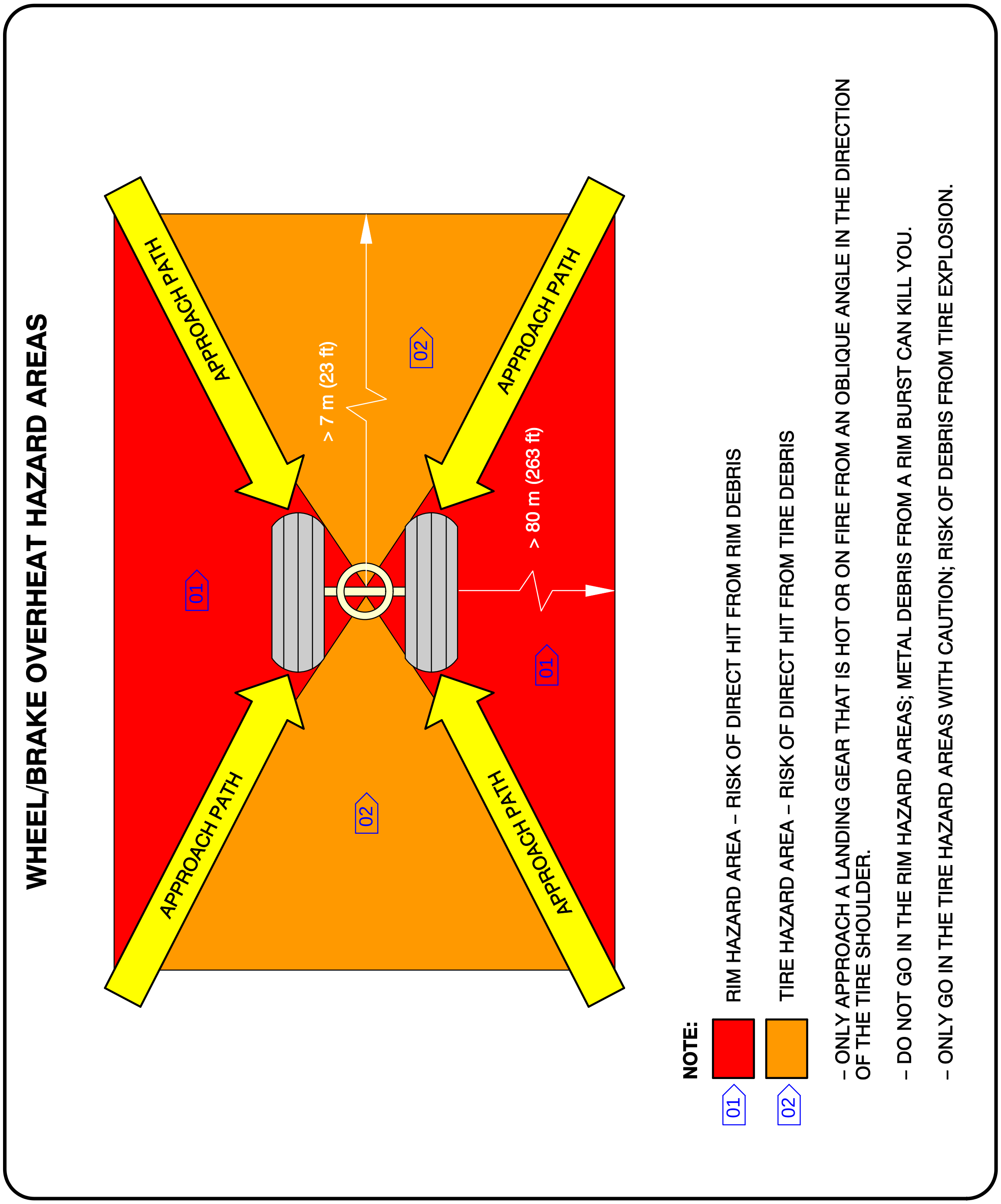
Batteries Location and Access
FIGURE-10-0-0-991-056-A01

****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 CO2. THESE COOLING AGENTS (AND ESPECIALLY CO2, 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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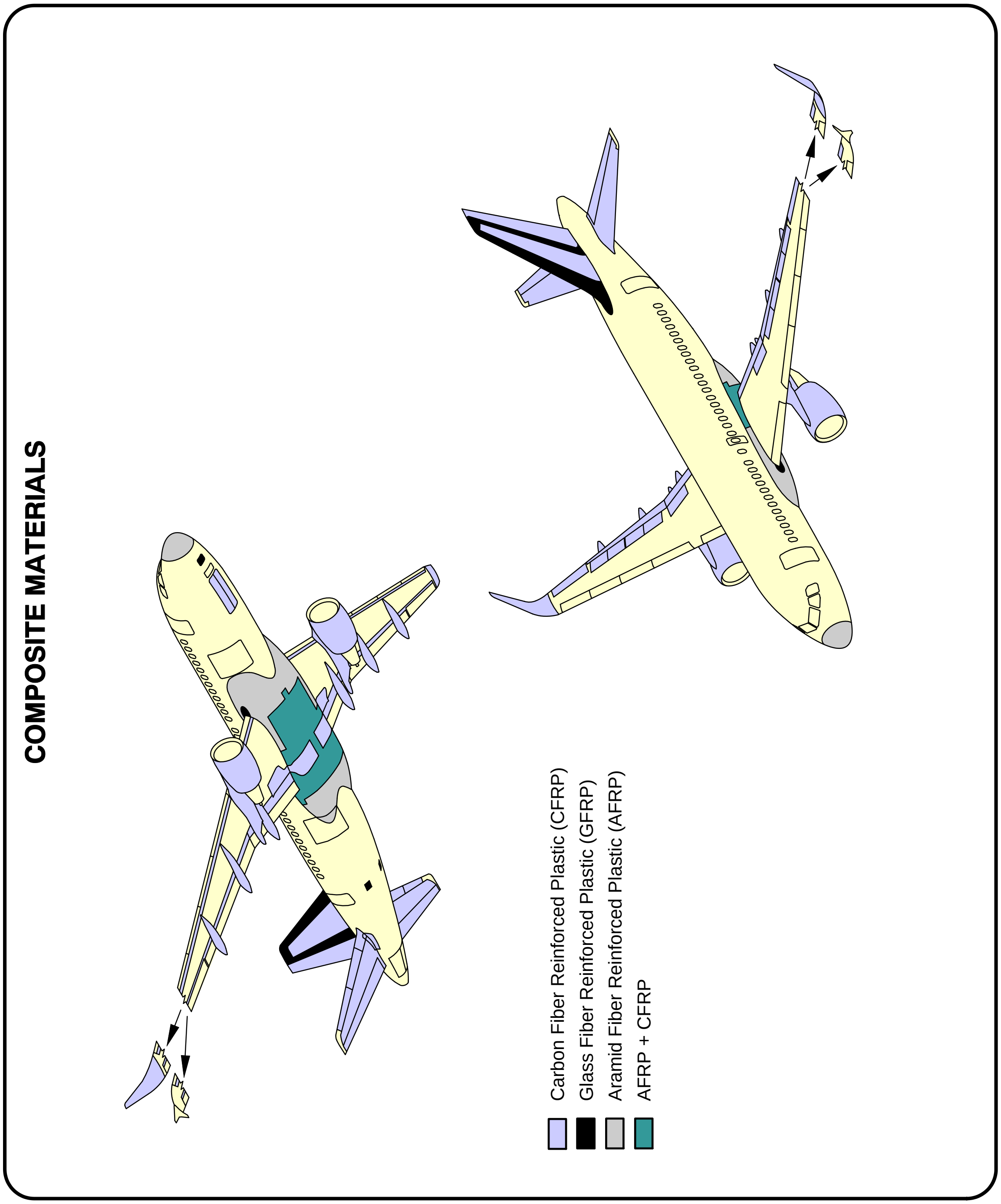
Wheel/Brake Overheat
Recommendations (Sheet 2 of 2)
FIGURE-10-0-0-991-019-A01

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



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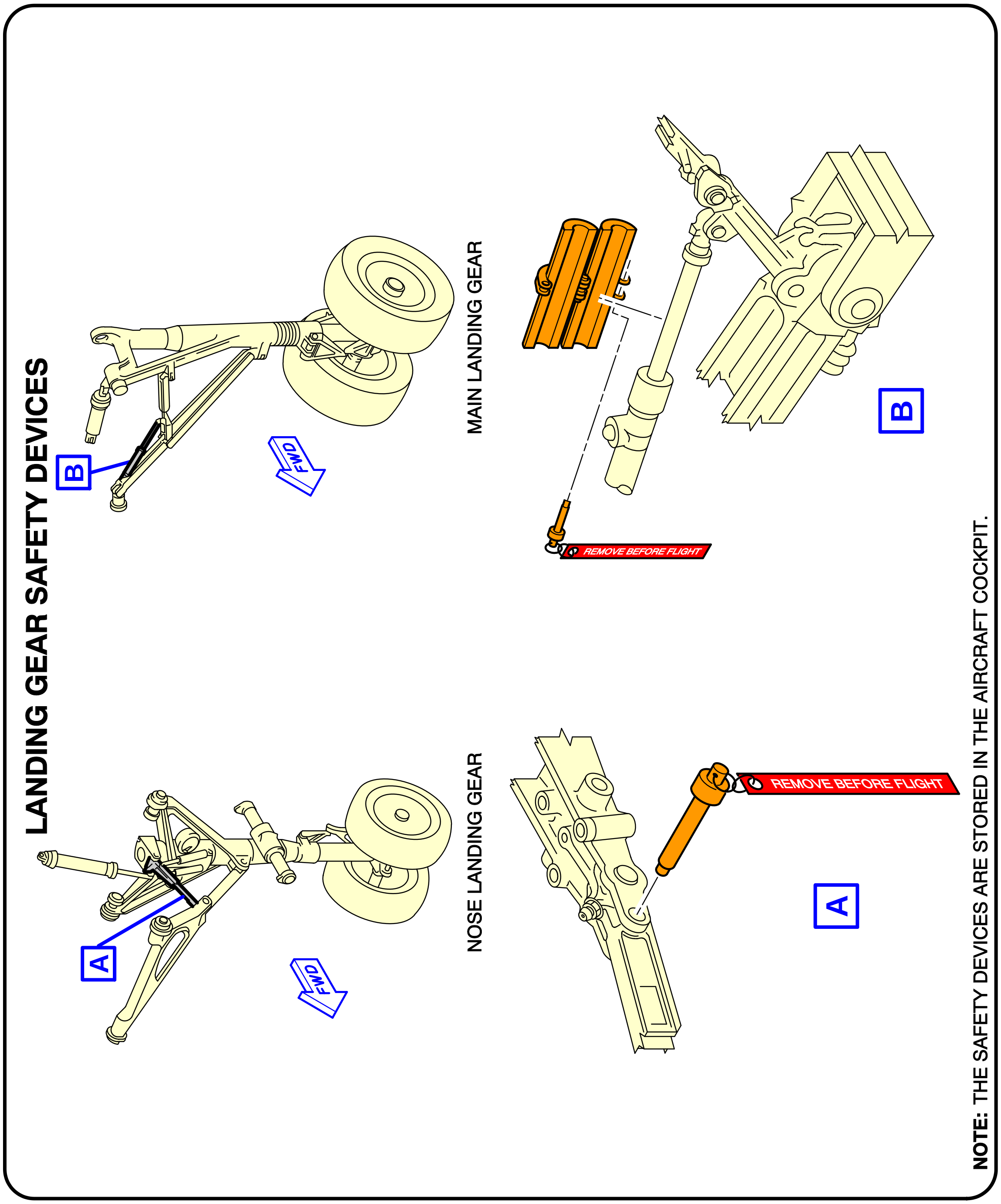
Composite Materials
FIGURE-10-0-0-991-020-A01

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



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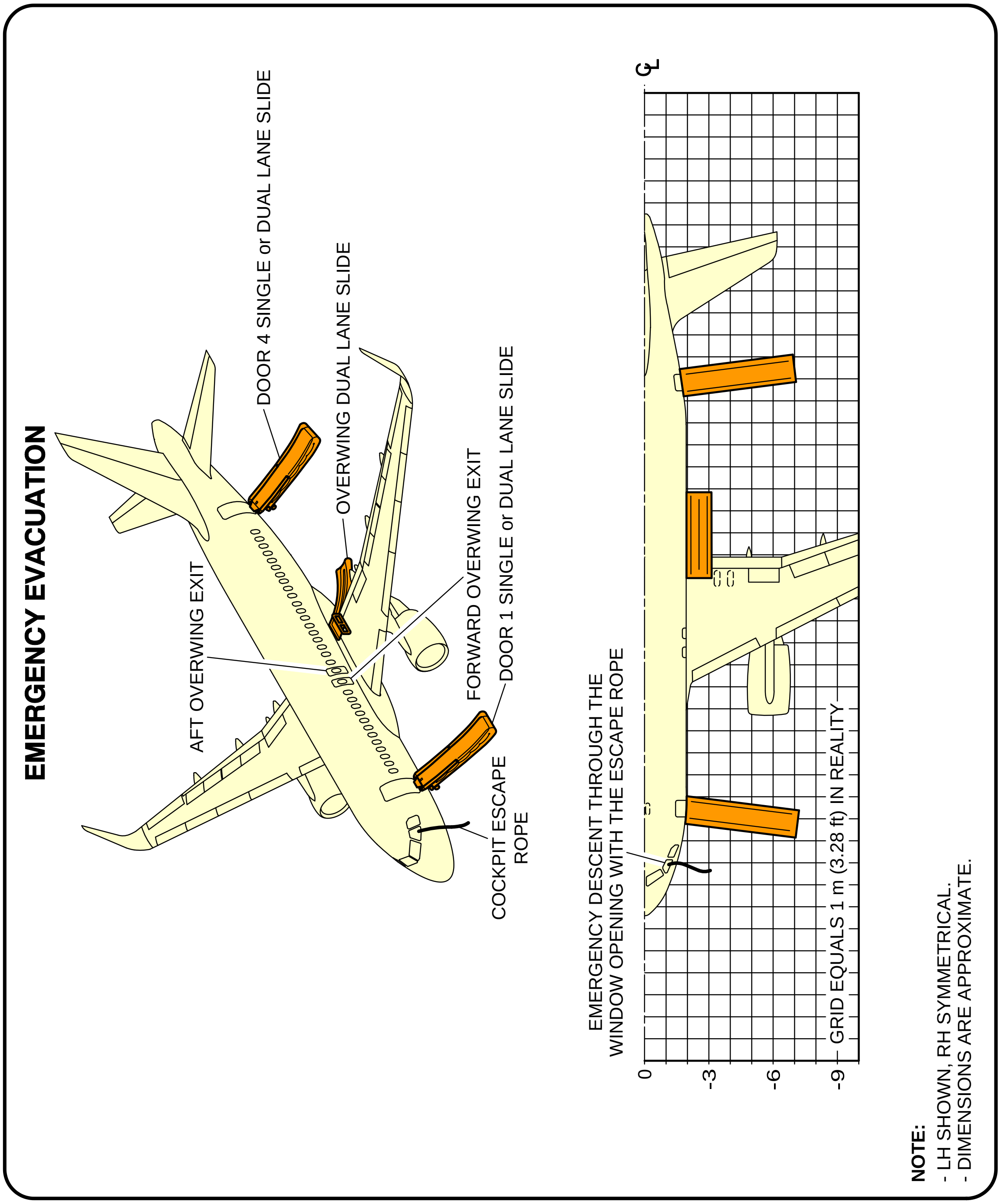
L/G Ground Lock Safety Devices
FIGURE-10-0-0-991-021-A01

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



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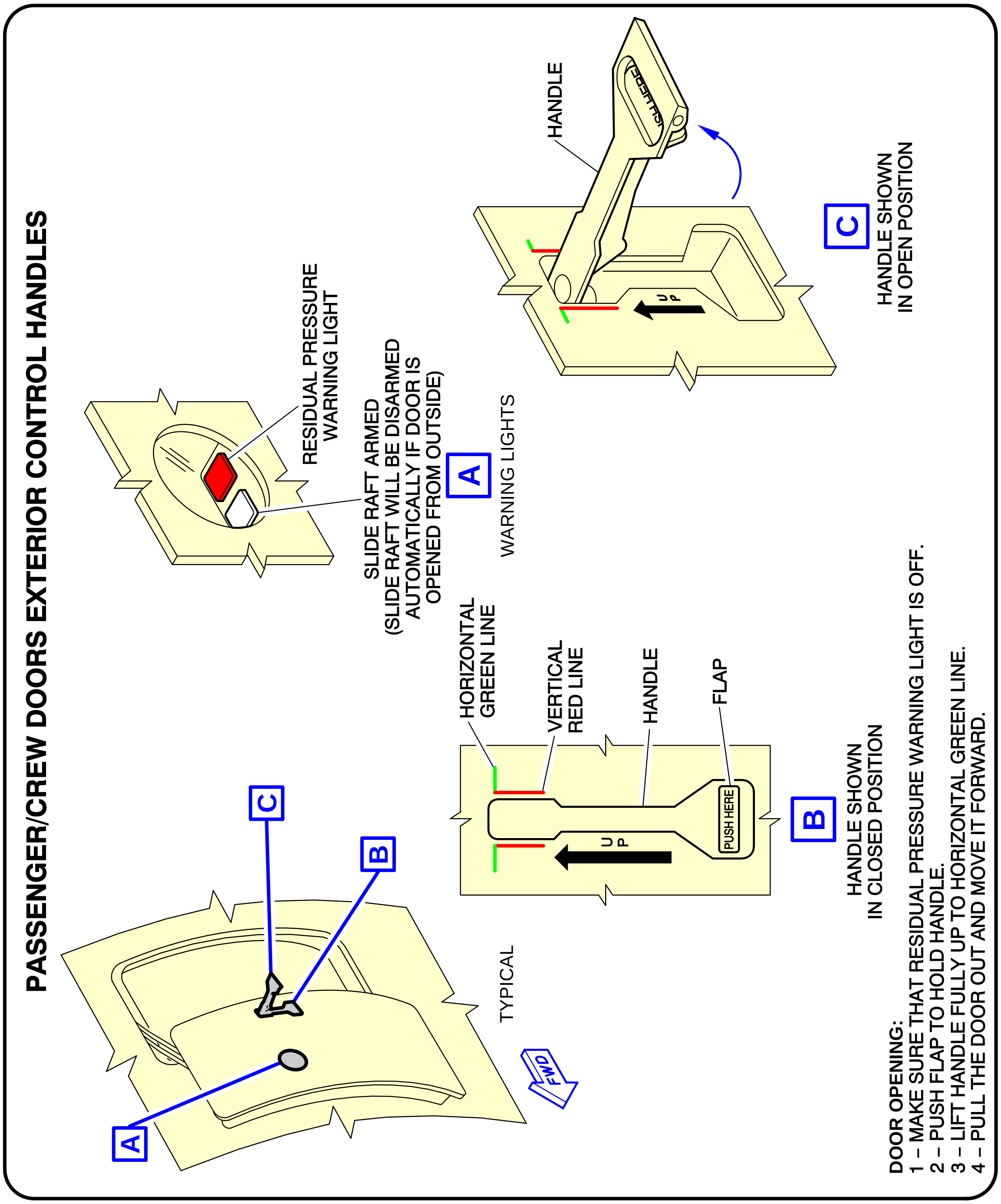
Emergency Evacuation Devices
FIGURE-10-0-0-991-022-A01

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



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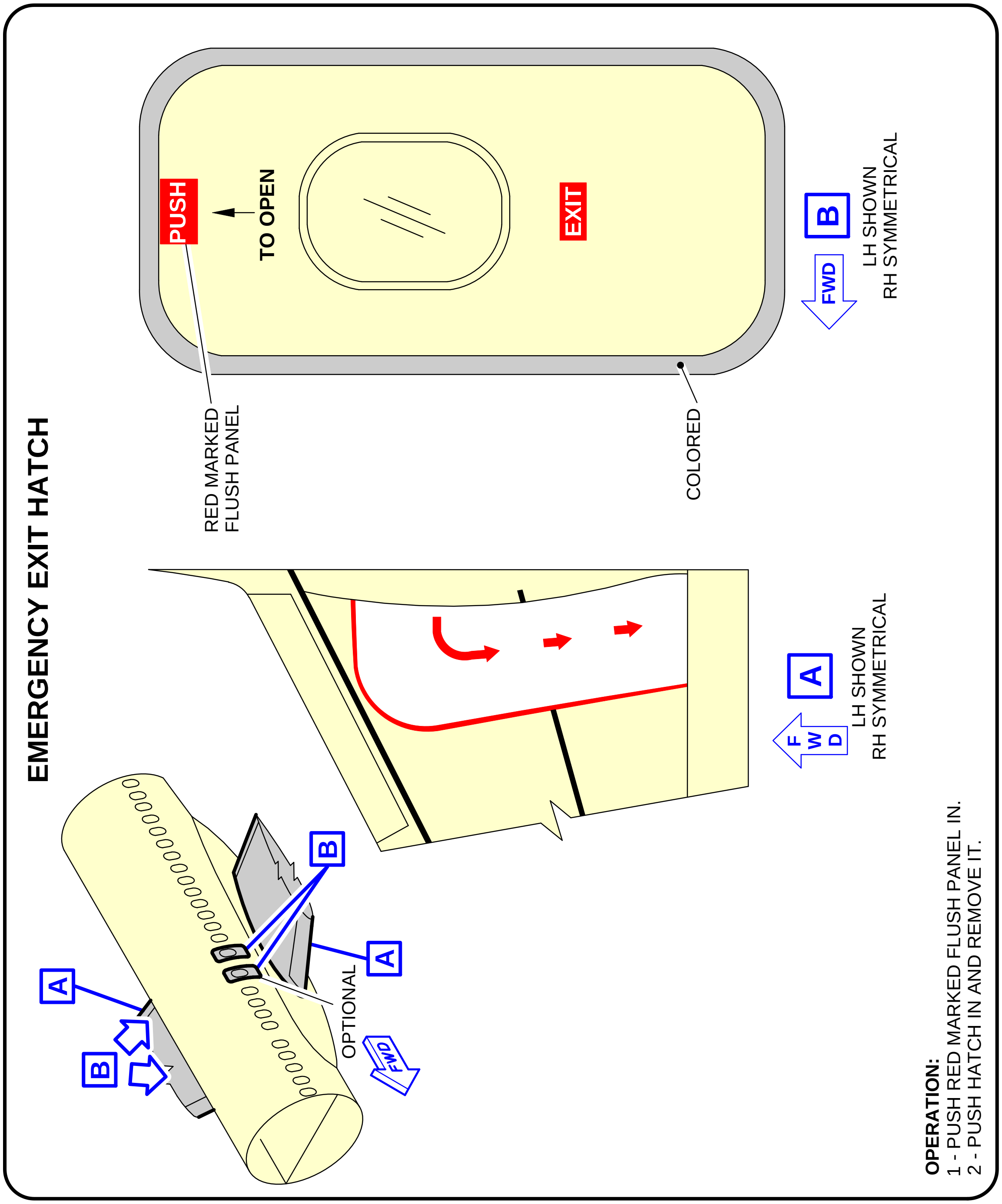
Pax/Crew Doors
FIGURE-10-0-0-991-023-A01

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



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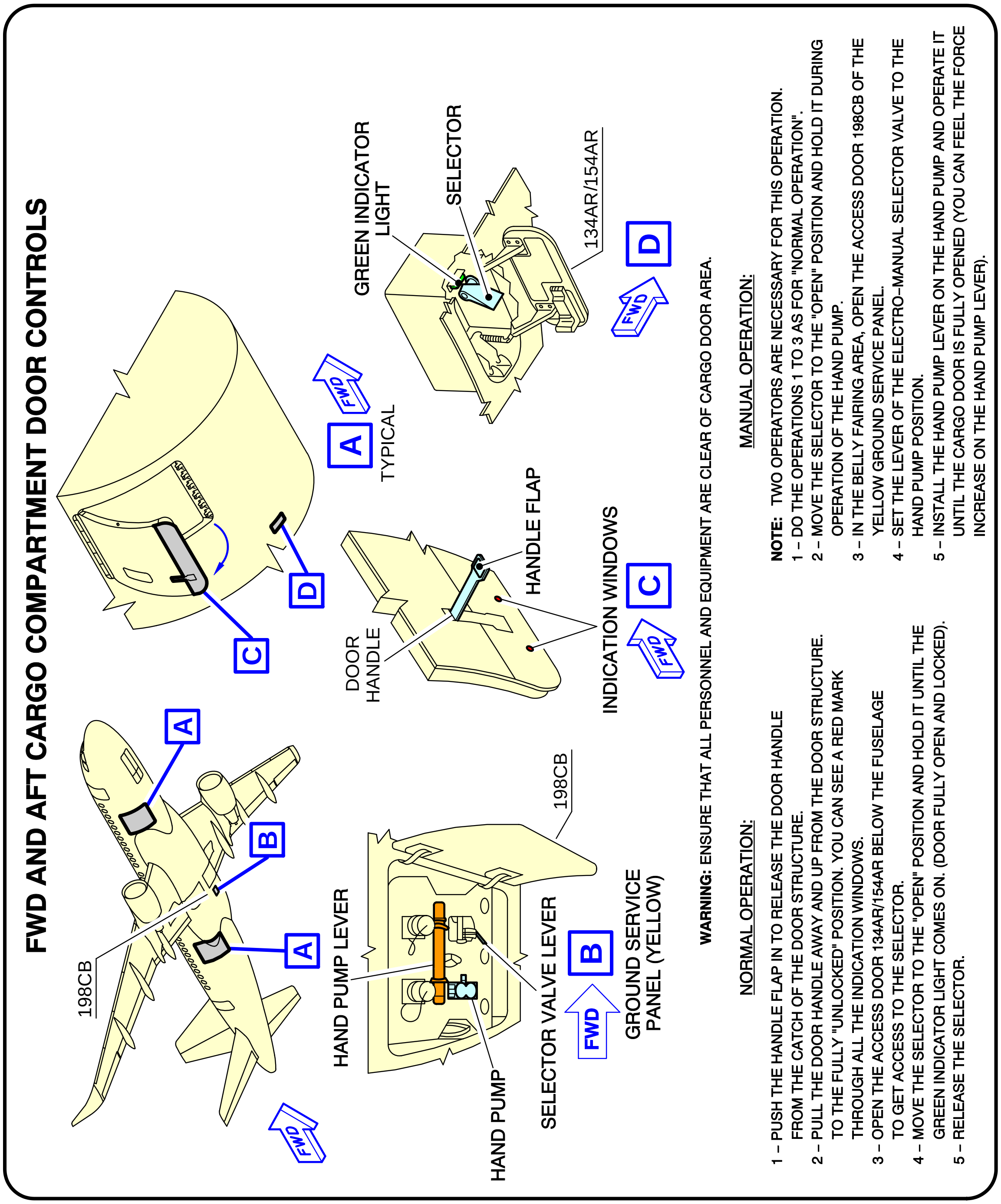
Emergency Exit Hatch
FIGURE-10-0-0-991-024-A01

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



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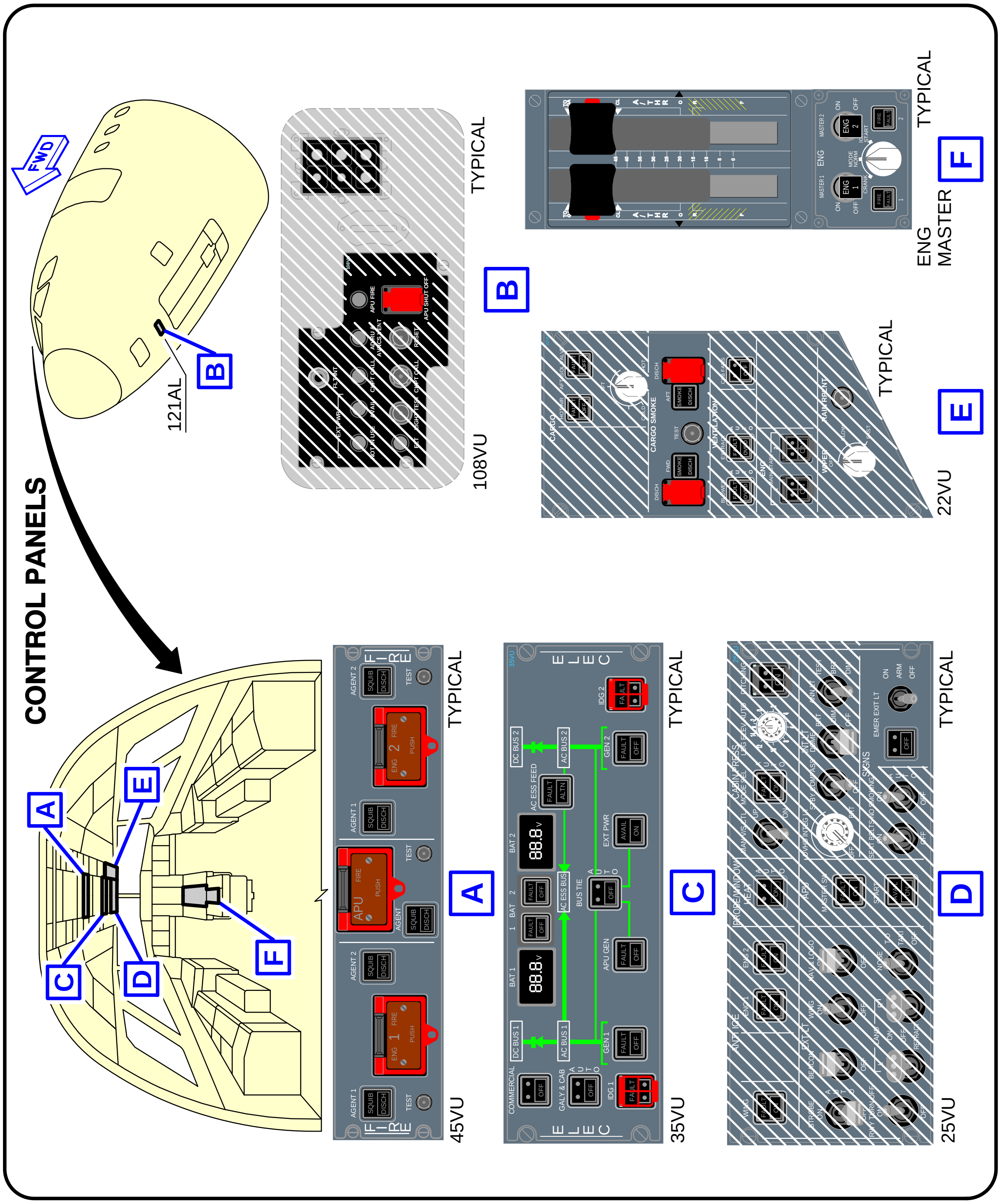
FWD and AFT Lower Deck Cargo Doors
FIGURE-10-0-0-991-025-A01

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



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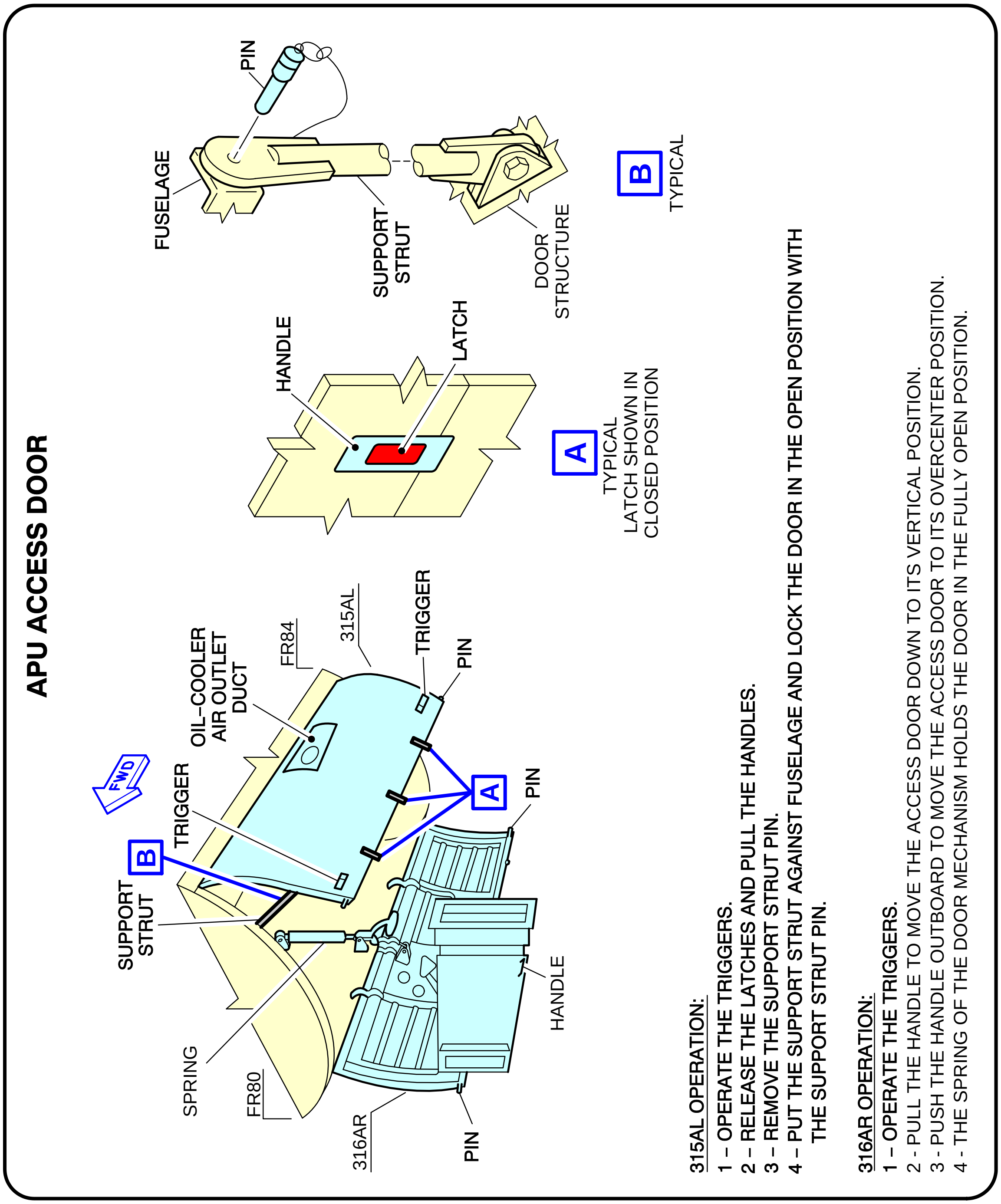
Control Panels
FIGURE-10-0-0-991-026-A01

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



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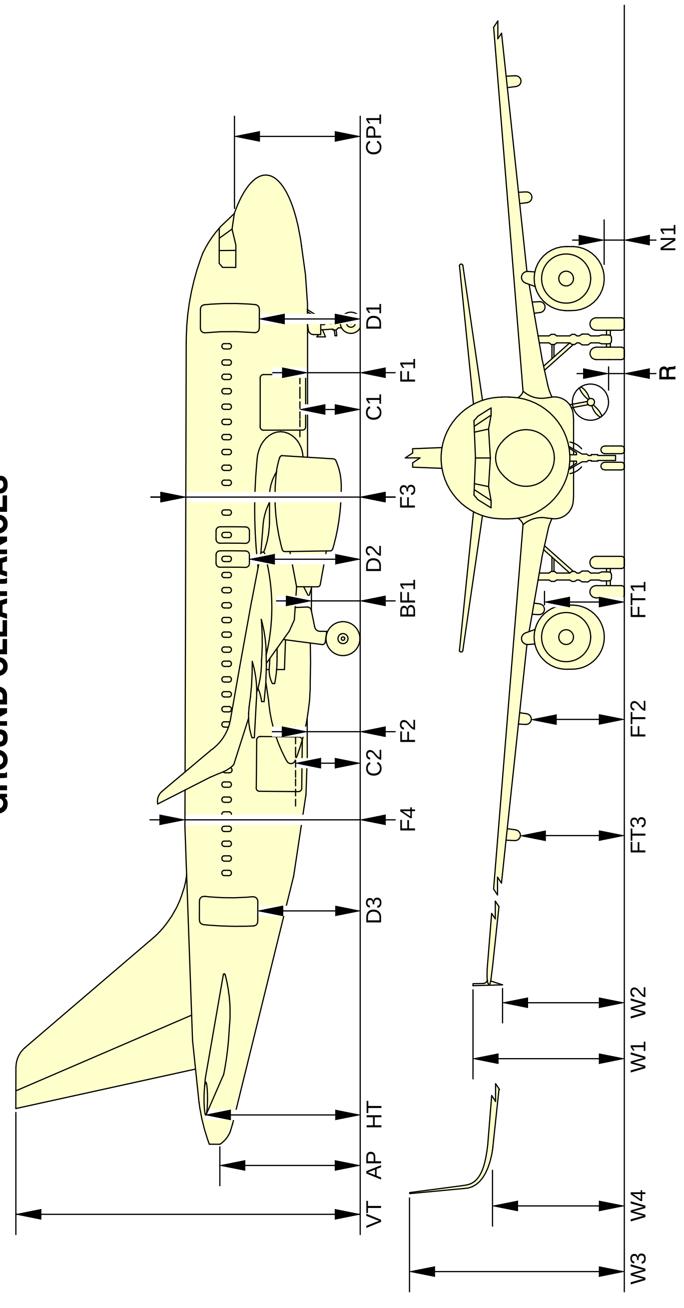
APU Access Door
FIGURE-10-0-0-991-027-A01

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

GROUND CLEARANCES



DIMENSIONS ARE RELATED TO AIRCRAFT WEIGHT AND CG CONFIGURATION

A/C CONFIGURATION		40 000 kg (88 185 lb) AFT CG (28%) m	40 000 kg (88 185 lb) AFT CG (28%) ft
DOORS	D1	3.47	11.38
	D2	3.97	13.02
	D3	3.71	12.17
	C1	2.09	6.86
	C2	2.22	7.28

A/C CONFIGURATION		40 000 kg (88 185 lb) AFT CG (28%) m	40 000 kg (88 185 lb) AFT CG (28%) ft
FUSELAGE	F1	1.83	6.00
	F2	1.94	6.36
	F3	5.97	19.59
	F4	6.09	19.98
	BF1	1.73	5.68
	CP1	4.26	13.98
ENGINE/ NACELLE	N1 (CFM56)	0.67	2.20
	N1 (IAE V2500)	0.85	2.79
	N1 (CFM LEAP-1A)	0.56	1.84
	N1 (PW 1100G)	0.56	1.84

A/C CONFIGURATION		40 000 kg (88 185 lb) AFT CG (28%) m	40 000 kg (88 185 lb) AFT CG (28%) ft
WINGS	FT1	2.73	8.96
	FT2	3.16	10.37
	FT3	3.50	11.48
	W1	4.87	15.98
	W2	3.90	12.80
	W3	6.81	22.34
	W4	4.17	13.68
	R	0.64	2.10
TAILPLANE	HT	5.58	18.31
	AP	4.87	15.98
	VT	12.11	39.73

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

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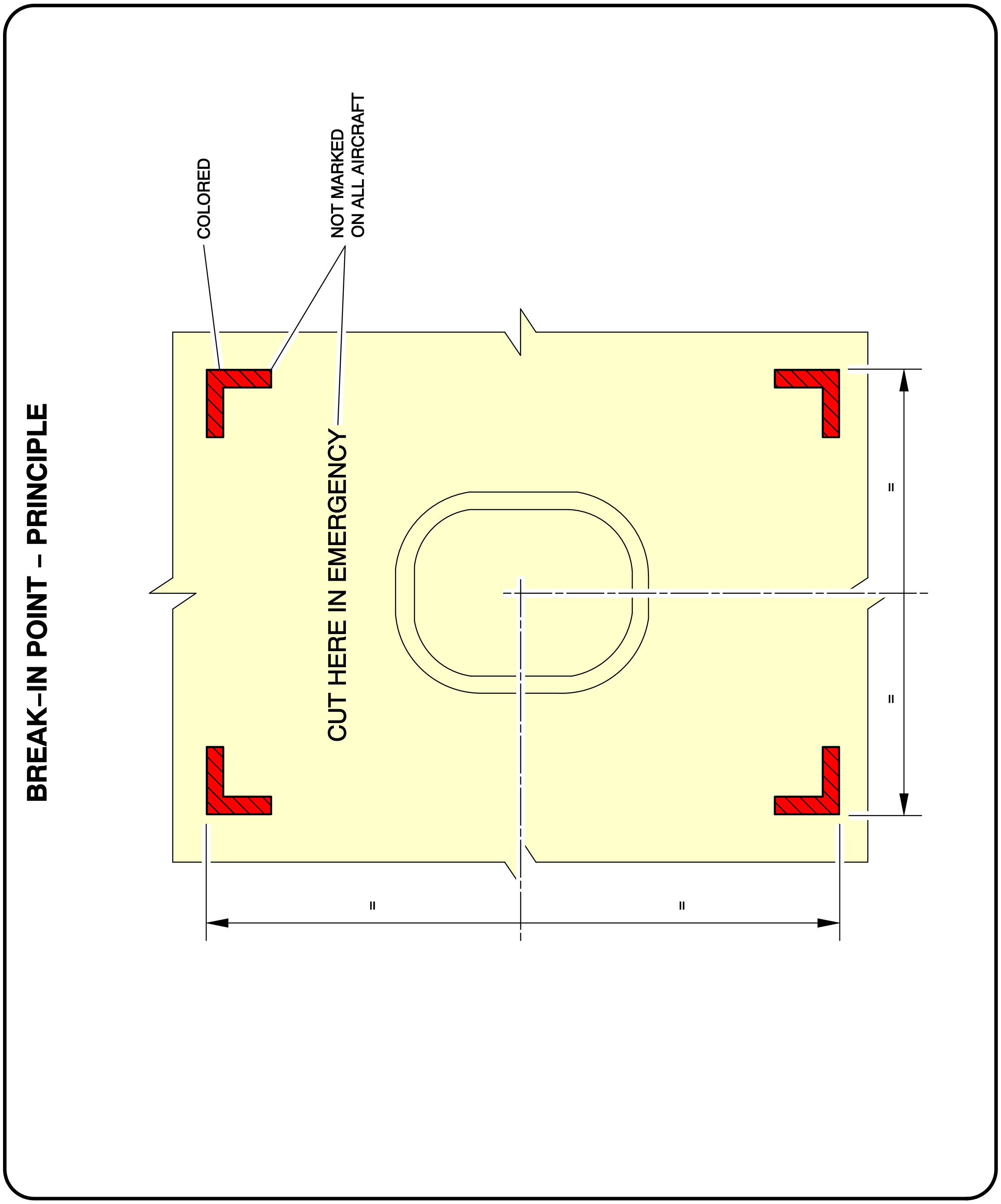
Aircraft Ground Clearances
FIGURE-10-0-0-991-028-A01

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



Structural Break-in Points
FIGURE-10-0-0-991-029-A01