TYPE CERTIFICATE
DATA SHEET

N° EASA.R.123

for

SE 316 / SA 315

Type Certificate Holder

Airbus Helicopters

Aéroport International Marseille – Provence

13725 Marignane CEDEX

France

For Models: SE 3160, SA 316 B, SA 316 C, SA 319 B, SA 315 B

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I. General

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2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	Airbus Helicopters Aéroport International Marseille – Provence 13725 Marignane CEDEX, France
4.	Type Certification Application Date to DGAC	not recorded
5.	State of Design Authority	EASA (pre EASA: DGAC, France)
6.	Type Certificate Date by DGAC FR	for SE 3160 15 December 1961 for SA 316B 17 March 1970
7.	Type Certificate n°	DGAC FR: n° 14 EASA: EASA.R.123
8.	Type Certificate Data Sheet n°	n° 61 (until issue 7, dated March 1993) EASA.R.123 (since 27 January 2010)
9.	EASA Type Certification Date	28 September 2003, in accordance with CR (EU) 1702/2003, Article 2, 3., (a), (i), 2nd bullet, 1st indented bullet.

II. Certification Basis

1.	Reference Date for determining the applicable requirements	not recorded
2.	Airworthiness Requirements	CAR-6, edition dated 20 December 1956 (including Amdts. 6-1 to 6-3) with additional Special Conditions for turbine helicopter notified at the DGAC FR by the Government of the United States (FAA letter, dated 3 May 1960)
3.	Special Conditions	Refer to §1 certification basis (see II.2)
4.	Exemptions	none
5.	Deviations	none
6.	Equivalent Safety Findings	none
7.	Requirements elected to comply	none
8.	Environmental Protection Requirements	
	8.1 Noise Requirements	Complies with the essential requirements by virtue of early TC date, see also TCDSN N° EASA.R.123
	8.2 Emission Requirements	n/a
9.	Operational Suitability Data (OSD)	Not required for rotorcraft that are no longer in production. CR (EU) 748/2012, as amended by CR (EU) 69/2014 does not require OSD elements for this model (see Article 7a, 1.).

III. Technical Characteristics and Operational Limitations

1. Type Design Definition

SE 3160: basic SE 3160 definition

SA 316 B: definition of SA 316 B is obtained by applying the SE 3160 modifications (structural reinforcements and mechanical assy. improvement) which allows extending the maximal weight. All SE 3160 aircraft could be upgraded to SA 316 B version by applying Aérospatiale Service Bulletin Alouette N° 01-20.

2. Description

Main rotor: three-bladed main rotor
Tail rotor: three-bladed tail rotor
Fuselage: airframe of conventional structure
Landing gear: three-wheeled fixed landing gear, skids or float gear
Powerplant: single turbine

3. Equipment

As per compliance with applicable airworthiness requirements defined here above and referenced within approved Rotorcraft Flight Manual.

4. Dimensions

4.1 Fuselage

Length: 10.18 m (33.38 ft)
Width: 2.59 m (8.50 ft) with wheel gear
2.65 m (8.69 ft) with skid gear
3.92 m (12.86 ft) with float gear
Height: 2.97 m (9.74 ft)
3.46 m (11.35 ft) with float gear

4.2 Main Rotor

Diameter: 11.00 m (36.09 ft)

4.3 Tail Rotor

Diameter: 1.91 m (6.27 ft)

5. Engine

5.1 Model

SAFRAN Helicopter Engines (Turbomeca)
1 x Model Artouste III B, or,
1 x Model Artouste III B1

5.2 Type Certificate

EASA TC/TCDS n°: EASA.E.091
(DGAC-FR TC/TCDS n°: M12)

5.3 Limitations

5.3.1 Installed Engine Limitations

	PWR [kW]	Gas generator [min^{-1}]	Temperature T4 [°C]
Max rpm	---	33 500[1)]	---
Max TOP (thermic) on GND	640	---	---
Max TOP (reducer) with Artouste III B	420	---	---
Max TOP (reducer) with Artouste III B1	440	---	---
MCP used	405 (reducer)	---	---
Max T4 at Start-up	---	---	630
Max T4 (5 min)	---	---	550
Max T4 continuous	---	---	500

Note: [1)] rpm ± 200 (rpm ±1 000 during transitory variation allowed)

5.3.2 Transmission Torque Limits

	PWR [kW]
TOP (SE 3160)	405
TOP (SA 316 B)	440
MCP (SE 3160, SA 316 B)	420

6. Fluids (Fuel/ Oil/ Additives)

6.1 Fuel — Refer to approved RFM

6.2 Oil — Refer to approved RFM for engine and gearboxes

6.3 Additives — Refer to approved RFM

6.4 Hydraulic — Refer to approved RFM

7. Fluid capacities

7.1 Fuel — Cubic tank:
Fuel tank capacity: 565 (±3.1) litres (149.2 ±0.82 US gal)
Usable fuel: 555 litres (146.6 US gal)
(Total capacity: 595 litres (157.1 US gal))

Quadrilobic tank:
Fuel tank capacity: 575 (±3.1) litres (151.9 ±0.82 US gal)
Usable fuel: 573 litres (151.3 US gal)
(Total capacity: 590 litres (155.8 US gal))

7.2 Oil — 10 litres ±3.6 litres (2.6 ±0.95 US gal)

7.3 Coolant System Capacity — n/a

8. Air Speed Limitations

For centre of gravity between 2.78 m and 3.08 m:

SE 3160, SA 316 B (for instruments with metric units):

Altitude [m]	0 to 1 000	2 000	3 000	4 000	5 000	6 000
Mass [kg]	V_{NE} [km/h]					
2 200*	210	195	172	---	---	---
2 100	210	200	180	140	---	---
1 900	210	207	188	160	115	---
1 700	210	210	195	173	143	105
≤1 500	210	210	203	185	160	130

* SA 316 B only

SE 3160 (for instruments with imperial units):

Altitude [ft]	0 to 3 000	6 000	9 000	12 000	15 000	18 000	21 000
Mass [lb]	V_{NE} [kt]						
4 630	113	109	101	85	---	---	---
4 400	113	110	103	89	---	---	---
4 000	113	112	106	94	79	58	---
3 600	113	113	108	99	86	72	51
≤3 300	113	113	110	102	92	78	62

SA 316 B (for instruments with imperial units):

Altitude [ft]	0 to 3 000	6 000	9 000	12 000	15 000	18 000	21 000
Mass [lb]	V_{NE} [kt]						
4 850	113	107	97	---	---	---	---
4 630	113	109	101	85	---	---	---
4 200	113	111	104	92	75	50	---
3 750	113	113	107	97	84	68	45
≤3 300	113	113	110	102	92	78	62

For centre of gravity between 3.08 m and 3.15 m (single-seat flight):

Instruments with:
- metric units: same limitation as above but V_{NE} limited to 190 km/h.
- imperial units:same limitation as above but V_{NE} limited to 103 kt.

9. Rotor Speed Limitations

Maximum 420 rpm
Minimum 270 rpm
Max continuous 353 rpm

10. Maximum Operating Altitude and Temperature

10.1 Altitude

Enroute: 21 300 ft (6 500 m) PA
TKOF: 19 000 ft (5 800 m) PA

10.2 Temperature

-40 °C to +55 °C

11. Operating Limitations

VFR day
VFR night, when the additional equipment required by operational regulations is installed and serviceable.
For more information refer to approved RFM.

12. Maximum Mass

TKOF/LDG
SE 3160: 2 100 kg (4 630 lb)
SE316B: 2 200 kg (4 850 lb)

13. Centre of Gravity Range

Longitudinal C.G. limits
Forward limit: 2 780 mm
Aft limit: 3 080 mm

Or:
Forward limit: 3 080 mm
Aft limit: 3 150 mm
with the following maximum translation speed limitation:
- C.G. between 2 800 mm to 3 080 mm: 210 km/h (113 kt)
- C.G. between 3 080 mm to 3 150 mm: 190 km/h (103 kt)

Lateral C.G Limits
LH limit: 140 mm
RH limit: 120 mm

14. Datum

Longitudinal:
3 000 mm (9.84 ft) forward of main rotor centre line
Lateral: aircraft symmetry plane

15. Levelling Means

4 levelling legs on the central structure:
- 2 on the front of the aircraft
- 2 on the rear of the aircraft

16. Minimum Flight Crew

1 pilot

17.	Maximum Passenger Seating Capacity	Six Front seats: 2 passengers Rear seats: 4 passengers
18.	Passenger Emergency Exit	Refer to approved RFM
19.	Maximum Baggage/ Cargo Loads	Refer to approved RFM
20.	Rotor Blade Control Movement	For rigging information refer to the Maintenance Manual
21.	Auxiliary Power Unit (APU)	n/a
22.	Life-limited Parts	The periods specified in the latest approved revision of the Airworthiness Limitations section of the Maintenance Manual must not be exceeded.

IV. Operating and Service Instructions

1.	Flight Manual	SE 3160 and SA 316 B Flight Manual, original edition approved by DGAC-FR for type certification, or later DGAC-FR / EASA approved revision
2.	Maintenance Manual	SE 3160 and SA 316 B Maintenance Manual
3.	Structural Repair Manual	not recorded
4.	Weight and Balance Manual	not recorded
5.	Illustrated Parts Catalogue	not recorded
6.	Miscellaneous Manuals	not recorded
7.	Service Letters and Service Bulletins	As published by Aérospatiale, Eurocopter or Airbus Helicopters

8. Required Equipment

As per compliance with applicable requirements and in accordance with the original Type Design standard; refer to approved Flight Manual.

V. Notes

1. Manufacturer's eligible serial numbers:
   s/n 1048 and subsequent.
2. The certified “optional” installations are each approved independently of the basic helicopter and an approved Flight Manual Supplement is associated to each optional installation, if necessary.
3. Commercial designation:
   ALOUETTE III

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SECTION 2: SA 316 C

I. General

1.	Type/ Model/ Variant	
	1.1 Type	SE 316
	1.2 Model	SA 316 C
	1.3 Variant	- - -
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	Airbus Helicopters Aéroport International Marseille – Provence 13725 Marignane CEDEX, France
4.	Type Certification Application Date to DGAC	not recorded
5.	State of Design Authority	EASA (pre EASA: DGAC, France)
6.	Type Certificate Date by DGAC FR	14 May 1971
7.	Type Certificate n°	DGAC FR: n° 14 EASA: EASA.R.123
8.	Type Certificate Data Sheet n°	n° 61 (until issue 7, dated March 1993) EASA.R.123 (since 27 January 2010)
9.	EASA Type Certification Date	28 September 2003, in accordance with CR (EU) 1702/2003, Article 2, 3., (a), (i), 2nd bullet, 1st indented bullet.

II. Certification Basis

1.	Reference Date for determining the applicable requirements	not recorded
2.	Airworthiness Requirements	CAR-6, edition dated 20 December 1956 (including Amdts. 6-1 to 6-3) with additional Special Conditions for turbine helicopter notified at the DGAC FR by the Government of the United States (FAA letter dated 3 May 1960)
3.	Special Conditions	Refer to §1 certification basis (see II.2)
4.	Exemptions	none
5.	Deviations	none
6.	Equivalent Safety Findings	none
7.	Requirements elected to comply	none
8.	Environmental Protection Requirements	
	8.1 Noise Requirements	Complies with the essential requirements by virtue of early TC date, see also TCDSN N° EASA.R.123
	8.2 Emission Requirements	n/a
9.	Operational Suitability Data (OSD)	Not required for rotorcraft that are no longer in production. CR (EU) 748/2012, as amended by CR (EU) 69/2014 does not require OSD elements for this model (see Article 7a, 1.).

III. Technical Characteristics and Operational Limitations

1. Type Design Definition — Definition of SA 316 C is obtained by applying the SE 3160 modifications according to document Aérospatiale SA 319 A 04.00.025

2. Description

Main rotor:	three-bladed main rotor
Tail rotor:	three-bladed tail rotor
Fuselage:	airframe of conventional structure
Landing gear:	three-wheeled fixed landing gear
Powerplant:	single turbine

3. Equipment — As per compliance with applicable airworthiness requirements defined here above and referenced within approved Rotorcraft Flight Manual.

4. Dimensions

4.1 Fuselage

Length:	10.18 m	(33.38 ft)
Width:	2.60 m	(8.54 ft)
Height:	3.00 m	(9.84 ft)

4.2 Main Rotor — Diameter: 11.02 m (36.15 ft)

4.3 Tail Rotor — Diameter: 1.92 m (6.30 ft)

5. Engine

5.1 Model — SAFRAN Helicopter Engines (Turbomeca)
1 x Model Artouste III D

5.2 Type Certificate — EASA TC/TCDS n°: EASA.E.091
(DGAC-FR TC/TCDS n°: M12)

5.3 Limitations

5.3.1 Installed Engine Limitations

	PWR [kW]	Gas generator [min^{-1}]	Temperature T4 [°C]
Max rpm	---	33 500[1)]	---
Max TOP (thermic) on GND	640	---	---
Max TOP (reducer)	440	---	---
MCP used (reducer)	405	---	---
Max T4 at Start-up	---	---	630
Max T4 (5 min)	---	---	550
Max T4 continuous	---	---	500

Note: [1)] rpm ± 200 (rpm ±1 000 during transitory variation allowed)

5.3.2 Transmission Torque Limits

	PWR [kW]
TOP	440
MCP	368

6. Fluids (Fuel/ Oil/ Additives)

6.1 Fuel — Refer to approved RFM

6.2 Oil — Refer to approved RFM for engine and gearboxes

6.3 Additives — Refer to approved RFM

6.4 Hydraulic — Refer to approved RFM

7. Fluid capacities

7.1 Fuel

Cubic tank:
Fuel tank capacity: 565 (±3.1) litres (149.2 ±0.82 US gal)
Usable fuel: 555 litres (146.6 US gal)
(Total capacity: 595 litres (157.1 US gal))

Quadrilobic tank:
Fuel tank capacity: 575 (±3.1) litres (151.9 ±0.82 US gal)
Usable fuel: 573 litres (151.3 US gal)
(Total capacity: 590 litres (155.8 US gal))

7.2 Oil: 12 litres (3.2 US gal)

7.3 Coolant System Capacity: n/a

8. Air Speed Limitations

For centre of gravity between 2.78 m and 3.08 m:

(for instruments with metric units):

Altitude [m]	0 to 1 000	2 000	3 000	4 000	5 000	6 000	6 500
Mass [kg]	V_{NE} [km/h]						
2 250	220	198	175	130	---	---	---
2 100	220	206	184	154	---	---	---
1 900	220	212	192	165	122	---	---
1 700	220	216	198	175	145	110	---
≤1 500	220	218	202	184	160	132	120

(for instruments with imperial units):

Altitude [ft]	0 to 3 000	6 000	9 000	12 000	15 000	18 000	21 000
Mass [lb]	V_{NE} [kt]						
4 980	118	108	98	82	---	---	---
4 650	118	113	103	90	64	---	---
4 200	118	116	107	95	78	---	---
3 750	118	118	109	99	86	70	---
≤3 300	118	118	112	102	92	80	67

For centre of gravity between 3.08 m and 3.15 m (single-seat flight):

Instruments with:
- metric units: same limitation as above but V_{NE} limited to 180 km/h up to 3 000 m, and to 160 km/h over 3 000 m.
- imperial units: same limitation as above but V_{NE} limited to 97 kt up to 10 000 ft, and to 85 kt over 10 000 ft.

9. Rotor Speed Limitations

Maximum 420 rpm
Minimum 270 rpm
Max continuous 353 rpm

10. Maximum Operating Altitude and Temperature

10.1 Altitude

Enroute: 21 300 ft (6 500 m) PA
Take-off: 13 000 ft (4 000 m) PA
Restart in flight:
16 500 ft (5 000 m) PA
17 000 ft (5 200 m) PA for engine equipped with barostatic controller
(modification Turbomeca ref. TU 81)

	10.2 Temperature	-40 °C to +55 °C
11.	Operating Limitations	VFR day VFR night, when the additional equipment required by operational regulations is installed and serviceable For more information refer to approved RFM.
12.	Maximum Mass	TKOF/LDG: 2 250 kg (4 960 lb)
13.	Centre of Gravity Range	Longitudinal C.G. limits Forward limit: 2 780 mm Aft limit: 3 080 mm Or: Forward limit: 3 080 mm Aft limit: 3 150 mm with the following maximum translation speed limitation: For C.G. between 2 800 mm to 3 080 mm: - 220 km/h (119 kt) Note: For altitude over 4 920 ft (1 500 m) and for temperature ≤ISA -20°C V_{NE} must be decreased by 15 km/h (8 kt). For C.G. between 3 080 mm to 3 150 mm: - 180 km/h (97 kt) up to 9 840 ft (3 000 m) - 160 km/h (85 kt) above 9 840 ft (3 000 m) Lateral C.G Limits LH limit: 140 mm RH limit: 120 mm
14.	Datum	Longitudinal: 3 000 mm (9.84 ft) forward of main rotor centre line Lateral: aircraft symmetry plane
15.	Levelling Means	4 levelling legs on the central structure: - 2 on the front of the aircraft - 2 on the rear of the aircraft
16.	Minimum Flight Crew	1 pilot at STA +1 385 mm
17.	Maximum Passenger Seating Capacity	Six Front seats: 2 passengers at STA +1 385 mm Rear seats: 4 passengers at STA +2 195 mm
18.	Passenger Emergency Exit	Refer to approved RFM
19.	Maximum Baggage/ Cargo Loads	Refer to approved RFM
20.	Rotor Blade Control Movement	For rigging information refer to the Maintenance Manual
21.	Auxiliary Power Unit (APU)	n/a
22.	Life-limited Parts	The periods specified in the latest approved revision of the Airworthiness Limitations section of the Maintenance Manual must not be exceeded.

IV. Operating and Service Instructions

1.	Flight Manual	SA 316 C Flight Manual, original edition approved by DGAC-FR for type certification, or later DGAC-FR / EASA approved revision
2.	Maintenance Manual	SA 316 C Maintenance Manual
3.	Structural Repair Manual	not recorded
4.	Weight and Balance Manual	not recorded
5.	Illustrated Parts Catalogue	not recorded
6.	Miscellaneous Manuals	not recorded
7.	Service Letters and Service Bulletins	As published by Aérospatiale, Eurocopter or Airbus Helicopters

8. Required Equipment

As per compliance with applicable requirements and in accordance with the original Type Design standard; refer to approved Flight Manual.

V. Notes

1. Manufacturer's eligible serial numbers:
   All s/n complying with SA 316 C type (refer to III.1. Type Design Definition).
2. The certified “optional” installations are each approved independently of the basic helicopter and an approved Flight Manual Supplement is associated to each optional installation, if necessary.
3. Commercial designation:
   ALOUETTE III

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SECTION 3: SA 319 B

I. General

1.	Type/ Model/ Variant	
	1.1 Type	SE 316
	1.2 Model	SA 319 B
	1.3 Variant	- - -
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	Airbus Helicopters Aéroport International Marseille – Provence 13725 Marignane Cedex, France
4.	Type Certification Application Date to DGAC	not recorded
5.	State of Design Authority	EASA (pre EASA: DGAC, France)
6.	Type Certificate Date by DGAC FR	14 May 1971
7.	Type Certificate n°	DGAC FR: n° 14 EASA: EASA.R.123
8.	Type Certificate Data Sheet n°	n° 61 (until issue 7, dated March 1993) EASA.R.123 (since 27 January 2010)
9.	EASA Type Certification Date	28 September 2003, in accordance with CR (EU) 1702/2003, Article 2, 3., (a), (i), 2nd bullet, 1st indented bullet.

II. Certification Basis

1.	Reference Date for determining the applicable requirements	not recorded
2.	Airworthiness Requirements	CAR-6, edition dated 20 December 1956 (including Amdts. 6-1 to 6-3) with additional Special Conditions for turbine helicopter notified at the DGAC FR by the Government of the United States (FAA letter dated 3 May 1960)
3.	Special Conditions	Refer to §1 certification basis (see II.2)
4.	Exemptions	none
5.	Deviations	none
6.	Equivalent Safety Findings	none
7.	Requirements elected to comply	none
8.	Environmental Protection Requirements	
	8.1 Noise Requirements	Complies with the essential requirements by virtue of early TC date, see also TCDSN N° EASA.R.123
	8.2 Emission Requirements	n/a
9.	Operational Suitability Data (OSD)	Not required for rotorcraft that are no longer in production. CR (EU) 748/2012, as amended by CR (EU) 69/2014 does not require OSD elements for this model (see Article 7a, 1.).

III. Technical Characteristics and Operational Limitations

1. Type Design Definition

Definition of SA 319 B is obtained by applying the SE 3160 modifications according to document Aérospatiale SA 319 A 04.00.025

2. Description

Main rotor: three-bladed main rotor
Tail rotor: three-bladed tail rotor
Fuselage: airframe of conventional structure
Landing gear: three-wheeled fixed landing gear
Powerplant: single turbine

3. Equipment

As per compliance with applicable airworthiness requirements defined here above and referenced within approved Rotorcraft Flight Manual.

4. Dimensions

4.1 Fuselage

Length: 10.18 m (33.38 ft)
Width: 2.60 m (8.54 ft)
Height: 3.00 m (9.84 ft)

4.2 Main Rotor

Diameter: 11.02 m (36.15 ft)

4.3 Tail Rotor

Diameter: 1.92 m (6.30 ft)

5. Engine

5.1 Model

SAFRAN Helicopter Engines (Turbomeca)
1 x Model Astazou XIV B

5.2 Type Certificate

EASA TC/TCDS n°: EASA.E.075
(DGAC-FR TC/TCDS n°: M3)

5.3 Limitations

5.3.1 Installed Engine Limitations

	PWR [kW]	Gas generator [min^{-1}]	Temperature T4 [°C]
Max rpm	---	43 500[1)]	---
Max TOP (thermic) on GND	640	---	---
Max TOP (reducer)	440	---	---
MCP used (reducer)	405	---	---
Max T4 at Start-up	---	---	700
Max T4 at Start-up (5 sec)	---	---	750
Max T4 (5 min)	---	---	550
Max T4 continuous without modification AB 60/N°40	---	---	470
Max T4 continuous with modification AB 60/N°40	---	---	500

Note: [1)] rpm ± 200 (rpm ±1 500 during transitory variation allowed)

5.3.2 Transmission Torque Limits

	PWR [kW]
TOP	440
MCP	368

6. Fluids (Fuel/ Oil/ Additives)

6.1 Fuel	Refer to approved RFM
6.2 Oil	Refer to approved RFM for engine and gearboxes
6.3 Additives	Refer to approved RFM
6.4 Hydraulic	Refer to approved RFM

7. Fluid capacities

7.1 Fuel	Cubic tank: Fuel tank capacity: 565.0 (±3.1) litres (149.2 ±0.82 US gal) Usable fuel: 555.0 litres (146.6 US gal) (Total capacity: 595.0 litres (157.1 US gal)) Quadrilobic tank: Fuel tank capacity: 575.0 (±3.1) litres (151.9 ±0.82 US gal) Usable fuel: 573.0 litres (151.3 US gal) (Total capacity: 590.0 litres (155.8 US gal))
7.2 Oil	12 litres (3.2 US gal)
7.3 Coolant System Capacity	n/a

8. Air Speed Limitations

For centre of gravity between 2.78 m and 3.08 m:

(for instruments with metric units):

Altitude [m]	0 to 1 000	2 000	3 000	4 000	5 000	6 000	6 500
Mass [kg]	V_{NE} [km/h]						
2 250	220	198	175	130	---	---	---
2 100	220	206	184	154	---	---	---
1 900	220	212	192	165	122	---	---
1 700	220	216	198	175	145	110	---
≤1 500	220	218	202	184	160	132	120

(for instruments with imperial units):

Altitude [ft]	0 to 3 000	6 000	9 000	12 000	15 000	18 000	21 000
Mass [lb]	V_{NE} [kt]						
4 980	118	108	98	82	---	---	---
4 650	118	113	103	90	64	---	---
4 200	118	116	107	95	78	---	---
3 750	118	118	109	99	86	70	---
≤3 300	118	118	112	102	92	80	67

For centre of gravity between 3.08 m and 3.15 m (single-seat flight):

Instruments with:
- metric units: same limitation as above but V_{NE} limited to 180 km/h up to 3 000 m, and to 160 km/h over 3 000 m.
- imperial units: same limitation as above but V_{NE} limited to 97 kt up to 10 000 ft, and to 85 kt over 10 000 ft.

9. Rotor Speed Limitations

Maximum	420 rpm
Minimum	270 rpm
Max continuous	353 rpm

10.	Maximum Operating Altitude and Temperature	
	10.1 Altitude	Enroute: 21 300 ft (6 500 m) PA Take-off: 13 000 ft (4 000 m) PA Restart in flight: 16 500 ft (5 000 m) PA
	10.2 Temperature	-40 °C to +55 °C
11.	Operating Limitations	VFR day VFR night, when the additional equipment required by operational regulations is installed and serviceable For more information refer to approved RFM.
12.	Maximum Mass	TKOF/LDG: 2 250 kg (4 960 lb)
13.	Centre of Gravity Range	Longitudinal C.G. limits Forward limit: 2 780 mm Aft limit: 3 080 mm Or: Forward limit: 3 080 mm Aft limit: 3 150 mm with the following maximum translation speed limitation: For C.G. between 2 800 mm to 3 080 mm: - 220 km/h (119 kt) Note: For altitude over 4 920 ft (1 500 m) and for temperature ≤ISA -20°C V_{NE} must be decreased by 15 km/h (8 kt). For C.G. between 3 080 mm to 3 150 mm: - 180 km/h (97 kt) up to 9 840 ft (3 000 m) - 160 km/h (85 kt) above 9 840 ft (3 000 m) Lateral C.G Limits LH limit: 140 mm RH limit: 120 mm
14.	Datum	Longitudinal: 3 000 mm (9.84 ft) forward of main rotor centre line Lateral: aircraft symmetry plane
15.	Levelling Means	4 levelling legs on the central structure: - 2 on the front of the aircraft - 2 on the rear of the aircraft
16.	Minimum Flight Crew	1 pilot at STA +1 385 mm
17.	Maximum Passenger Seating Capacity	Six Front seats: 2 passengers at STA +1 385 mm Rear seats: 4 passengers at STA +2 195 mm
18.	Passenger Emergency Exit	Refer to approved RFM
19.	Maximum Baggage/ Cargo Loads	Refer to approved RFM
20.	Rotor Blade Control Movement	For rigging information refer to the Maintenance Manual
21.	Auxiliary Power Unit (APU)	n/a
22.	Life-limited Parts	The periods specified in the latest approved revision of the Airworthiness Limitations section of the Maintenance Manual must not be exceeded.

IV. Operating and Service Instructions

1.	Flight Manual	SA 319 B Flight Manual, original edition approved by DGAC-FR for type certification, or later DGAC-FR / EASA approved revision
2.	Maintenance Manual	SA 319 B Maintenance Manual
3.	Structural Repair Manual	not recorded
4.	Weight and Balance Manual	not recorded
5.	Illustrated Parts Catalogue	not recorded
6.	Miscellaneous Manuals	not recorded
7.	Service Letters and Service Bulletins	As published by Aérospatiale, Eurocopter or Airbus Helicopters

8. Required Equipment

As per compliance with applicable requirements and in accordance with the original Type Design standard; refer to approved Flight Manual.

V. Notes

1. Manufacturer's eligible serial numbers:
   All s/n complying with SA 319 B type (refer to III.1. Type Design Definition).
2. The certified “optional” installations are each approved independently of the basic helicopter and an approved Flight Manual Supplement is associated to each optional installation, if necessary.
3. Commercial designation:
   ALOUETTE III

* * *

SECTION 4: SA 315 B

I. General

1.	Type/ Model/ Variant	
	1.1 Type	SA 315
	1.2 Model	SA 315 B
	1.3 Variant	- - -
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	Airbus Helicopters Aéroport International Marseille – Provence 13725 Marignane CEDEX, France
4.	Type Certification Application Date to DGAC	not recorded
5.	State of Design Authority	EASA (pre EASA: DGAC, France)
6.	Type Certificate Date by DGAC FR	29 September 1970
7.	Type Certificate n°	DGAC FR: n° 14 EASA: EASA.R.123
8.	Type Certificate Data Sheet n°	n° 61 (until issue 7, dated March 1993) EASA.R.123 (since 27 January 2010)
9.	EASA Type Certification Date	28 September 2003, in accordance with CR (EU) 1702/2003, Article 2, 3., (a), (i), 2nd bullet, 1st indented bullet.

II. Certification Basis

1.	Reference Date for determining the applicable requirements	not recorded
2.	Airworthiness Requirements	CAR-6, edition dated 20 December 1956 (including Amdts. 6-1 to 6-3) with additional Special Conditions for turbine helicopter notified at the DGAC FR by the Government of the United States (FAA letter, dated 3 May 1960)
3.	Special Conditions	Refer to §1 certification basis (see II.2.)
4.	Exemptions	none
5.	Deviations	none
6.	Equivalent Safety Findings	none
7.	Requirements elected to comply	none
8.	Environmental Protection Requirements	
	8.1 Noise Requirements	Complies with the essential requirements by virtue of early TC date, see also TCDSN N° EASA.R.123
	8.2 Emission Requirements	n/a
9.	Operational Suitability Data (OSD)	Not required for rotorcraft that are no longer in production. CR (EU) 748/2012, as amended by CR (EU) 69/2014 does not require OSD elements for this model (see Article 7a, 1.).

III. Technical Characteristics and Operational Limitations

1. Type Design Definition

SA 315 B:
Basic SA 315 B definition according to drawing Aérospatiale 315 A.00.10 000.
SA 315 B:
Could also be obtained from Alouette II/Alouette Astazou helicopter by applying drawing Aérospatiale 315 A.00.02 000.1.
Note: SA 315 B obtained from Alouette II are deemed approved by EASA if this transformation was done before 7 March 2007 when the Alouette II was officially declared to satisfy the definition of the Annex II of Basic Regulation EC 1592/2002.

2. Description

Main rotor: three-bladed main rotor
Tail rotor: three-bladed tail rotor
Fuselage: airframe of conventional structure
Landing gear: three-wheeled fixed landing gear
Powerplant: single turbine

3. Equipment

As per compliance with applicable airworthiness requirements defined here above and referenced within approved Rotorcraft Flight Manual.

4. Dimensions

4.1 Fuselage

Length: 10.24 m (33.58 ft)
Width: 2.38 m (7.80 ft)
Height: 3.09 m (10.14 ft)

4.2 Main Rotor

Diameter: 11.02 m (36.15 ft)

4.3 Tail Rotor

Diameter: 1.91 m (6.27 ft)

5. Engine

5.1 Model

SAFRAN Helicopter Engines (Turbomeca)
1 x Model Artouste III B, or,
1 x Model Artouste III B1

5.2 Type Certificate

EASA TC/TCDS n°: EASA.E.091
(DGAC-FR TC/TCDS n°: M12)

5.3 Limitations

5.3.1 Installed Engine Limitations

	PWR [kW]	Gas generator [min^{-1}]	Temperature T4 [°C]
Max rpm	---	33 500[1)]	---
Max TOP (thermic) on GND	640	---	---
Max TOP (reducer) with Artouste III B	420	---	---
Max TOP (reducer) with Artouste III B1	440	---	---
MCP used	405 (reducer)	---	---
Max T4 at Start-up	---	---	630
Max T4 (5 min)	---	---	550
Max T4 continuous	---	---	500

Note: [1)] rpm ± 200 (rpm ±1 000 during transitory variation allowed)

5.3.2 Transmission Torque Limits

	PWR [kW]
TOP	440
MCP	368

6. Fluids (Fuel/ Oil/ Additives)

6.1 Fuel — Refer to approved RFM

6.2 Oil — Refer to approved RFM for engine and gearboxes

6.3 Additives — Refer to approved RFM

6.4 Hydraulic — Refer to approved RFM

7. Fluid capacities

7.1 Fuel — Cubic tank:
Fuel tank capacity: 565 (±3.1) litres (149.2 ±0.82 US gal)
Usable fuel: 555 litres (146.6 US gal)
(Total capacity: 595 litres (157.1 US gal))

Quadrilobic tank:
Fuel tank capacity: 575 (±3.1) litres (151.9 ±0.82 US gal)
Usable fuel: 573 litres (151.3 US gal)
(Total capacity: 590 litres (155.8 US gal))

7.2 Oil — Engine: 10 litres (2.64 US gal)
MGB: 6 litres (1.58 US gal)
RGB: 0.5 litres (1.05 US pint)

7.3 Coolant System Capacity — n/a

8. Air Speed Limitations

For centre of gravity between 2.76 m and 3.00 m:

(for instruments with metric units):

Altitude [m]	0 to 1 000	2 000	3 000	4 000	5 000	6 000	6 500	7 000
Mass [kg]	V_{NE} [km/h]							
1 950	210	205	188	156	106	---	---	---
1 750	210	208	192	167	135	93	---	---
1 600	210	210	197	177	152	120	---	88
1 400	210	210	204	188	167	140	---	110
≤1 200	210	210	210	200	182	160	---	130

(for instruments with imperial units):

Altitude [ft]	0 to 3 000	6 000	9 000	12 000	15 000	18 000	21 000	23 000
Mass [lb]	V_{NE} [kt]							
4 300	113	113	104	91	72	---	---	---
3 850	113	113	106	95	79	58	38	---
3 500	113	113	110	102	89	75	59	47
3 000	113	113	113	107	97	84	70	61
≤2 500	113	113	113	112	104	95	84	76

For centre of gravity between 3.00 m and 3.15 m (single-seat flight):

Instruments with:
- metric units: same limitation as above but V_{NE} limited to 200 km/h.
- imperial units: same limitation as above but V_{NE} limited to 108 kt.

9.	Rotor Speed Limitations	Maximum 420 rpm Minimum 270 rpm Max continuous 353 rpm
10.	Maximum Operating Altitude and Temperature	
	10.1 Altitude	Enroute: 23 000 ft (7 000 m) PA Take-off: 19 000 ft (5 800 m) PA Restart in flight: 19 000 ft (5 800 m) PA
	10.2 Temperature	-40 °C to +55 °C
11.	Operating Limitations	VFR day VFR night, when the additional equipment required by operational regulations is installed and serviceable For more information refer to approved RFM.
12.	Maximum Mass	TKOF/LDG (with non-releasable loads): 1 950 kg (4 299 lb) with gear 315 A 46.10.000 TKOF/LDG (with releasable loads): 2 300 kg (5 071 lb) Max sling load: 1 000 kg (2 205 lb)
13.	Centre of Gravity Range	Longitudinal C.G. limits Forward limit: 2 760 mm Aft limit: 3 000 mm Or: Forward limit: 3 000 mm Aft limit: 3 150 mm with the following Maximum translation speed limitation and mass limited to 1 750 kg (3 858 lb): For C.G. between 2 760 mm to 3 000 mm: - 210 km/h (113 kt) For C.G. between 3 000 mm to 3 150 mm: - 200 km/h (108 kt) Lateral C.G Limits LH limit: 135 mm RH limit: 43 mm
14.	Datum	Longitudinal: 3 000 mm (9.84 ft) forward of main rotor centre line Lateral: aircraft symmetry plane
15.	Levelling Means	4 levelling legs on the central structure: - 2 on the front of the aircraft - 2 on the rear of the aircraft
16.	Minimum Flight Crew	1 pilot at STA +1 340 mm
17.	Maximum Passenger Seating Capacity	Four Front seats: 1 passenger at STA +1 340 mm Rear seats: 3 passengers at STA +2 100 mm
18.	Passenger Emergency Exit	Refer to approved RFM

19. Maximum Baggage/ Cargo Loads

Configuration	Baggage/Cargo location	Max load	Station
5 passengers – 80 kg each	Under the rear bench	100 kg (220 lb)	+2 200 mm
1 pilot + 1 passenger on front seats	Behind the front seats with the rear bench folded up	230 kg (507 lb)	+1 900 mm

20. Rotor Blade Control Movement — For rigging information refer to the Maintenance Manual

21. Auxiliary Power Unit (APU) — n/a

22. Life-limited Parts — The periods specified in the latest approved revision of the Airworthiness Limitations section of the Maintenance Manual must not be exceeded.

IV. Operating and Service Instructions

1. Flight Manual — SA 315 B Flight Manual, original edition approved by DGAC-FR for type certification, or later DGAC-FR / EASA approved revision
2. Maintenance Manual — SA 315 B Maintenance Manual
3. Structural Repair Manual — not recorded
4. Weight and Balance Manual — not recorded
5. Illustrated Parts Catalogue — not recorded
6. Miscellaneous Manuals — not recorded
7. Service Letters and Service Bulletins — As published by Aérospatiale, Eurocopter or Airbus Helicopters
8. Required Equipment

   As per compliance with applicable requirements and in accordance with the original Type Design standard; refer to approved Flight Manual.

V. Notes

1. Manufacturer's eligible serial numbers:
   All s/n complying with SA 315 B type (refer to III.1. Type Design Definition).
2. The certified “optional” installations are each approved independently of the basic helicopter and an approved Flight Manual Supplement is associated to each optional installation, if necessary.
3. Commercial designation:
   ALOUETTE III LAMA

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SECTION 5: ADMINISTRATIVE

I. Acronyms and Abbreviations

°C	Degree Celsius
C.G.	Centre of Gravity
CR	(European) Commission Regulation
EU	European Union
LDG	Landing
Max	Maximum
MCP	Maximum Continuous Power
MGB	Main Gear Box
n/a	not applicable
n°	Number
OSD	Operational Suitability Data
PA	Pressure Altitude
PWR	Power
RFM	Rotorcraft Flight Manual
RGB	Rear Gear Box
rpm	Rounds per minute
s/n	Serial Number
sec	Seconds
STA	Station
TC	Type Certificate
TCDS	Type Certificate Data Sheet
TKOF	Take-Off
TOP	Take-Off Power
VFR	Visual Flight Rules
V_{NE}	Never Exceed Speed

II. Type Certificate Holder Record

Type Certificate Holder	**Period**
Sud Aviation 37, Boulevard de Montmorency 75016 Paris, France	until 31 December 1996
Aérospatiale 37, Boulevard de Montmorency 75781 Paris CEDEX 16, France	From 1 January 1970 until 31 December 1991
Eurocopter France Aéroport International Marseille – Provence 13725 Marignane CEDEX, France	From 1 January 1992 until 30 May 1997
Eurocopter Aéroport International Marseille – Provence 13725 Marignane CEDEX, France	From 1 June 1997 until 6 January 2014
Airbus Helicopters Aéroport International Marseille – Provence 13725 Marignane CEDEX, France	Since 7 January 2014

III. Change Record

Issue	**Date**	**Changes**	**TC issue**
Issue 01	27 Jan 2010	Initial issue of EASA TCDS	Re-issued on 27 January 2010
Issue 02	7 Jan 2014	The company name has been changed to AIRBUS HELICOPTERS	Re-issued on 7 January 2014
Issue 03	14 Feb 2017	New TCDS template, reference to OSD, minor editorial corrections	- - -

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