

This Data Sheet, which is the integral part of Type Certificate No CT318-AW139 dated October 21, 2010, Supplement to Type Certificate № CT318-AW139/Д01, dated February 15, 2011, Supplement to Type Certificate № CT318-AW139/Д02, dated December 9, 2011, Supplement to Type Certificate № CT318-AW139/Д03, dated August 23, 2012, Supplement to Type Certificate № CT318-AW139/Д04, dated November 08, 2012, Supplement to Type Certificate № CT318-AW139/Д05, dated June 18, 2013, Supplement to Type Certificate № CT318-AW139/Д06, dated January 31, 2014, Major changes approvals CT318-AW139/ОГИ-7 dated 12 March 2015, CT318-AW139/ОГИ-8 dated 12 March 2015, CT318-AW139/ОГИ-9 dated 12 March 2015, CT318-AW139/ОГИ-10 dated 12 March 2015, CT318-AW139/ОГИ-11 dated 12 March 2015, CT318-AW139/ОГИ-12 dated 12 March 2015, ФАВТ-AW139-ОГИ-13 dated 04 October 2016 prescribes conditions and limitations under which the product for which Type Certificate and Supplement to Type Certificate were issued meet the requirements of Certification Basis.

AW139 Helicopter Model

Type Certificate Holder

Leonardo S.p.a
Helicopters
Piazza Monte Grappa 4
00195 Roma - Italy

Manufacturer

Leonardo S.p.a
Helicopters
Piazza Monte Grappa 4
00195 Roma - Italy

AgustaWestland Philadelphia Corporation (AWPC)
3050 Red Lion Road - Philadelphia, PA 19114
USA

JSC HeliVert
140070, Moscow region, Liuberetskiy district, Tomilimo,
Ul. Garshina, 26/3
Russia

Initial Certification Data

Type Certificate No CT318-AW139. Issued by Interstate Aviation Committee Aviation Register.

Certification Basis

Certification Basis AW139.29 approved by IAC AR on October 12, 2010, along with Supplement № 1, approved on February 14, 2011.

Certification Basis includes:

- Airworthiness requirements – Aviation Regulation, Part 29 "Airworthiness standards for Transport category rotorcraft" (Issue 2);
- Environmental protection requirements - Aviation Regulation, Part 36 (Issue 2) and Part 34 ;
- Special Technical Conditions :
HIRF protection requirements.
- Equivalent Safety Findings :
29.1181, 29.1309, 29.1357(e), 29.1305.

Aircraft Description

Twin-engine helicopter with one main rotor and tail rotor and a retractable wheel landing gear.

Category: Transport, A and B.

Approved for VFR and IFR flights, for flights in icing conditions, for over land and over water flights, external load transportation, for people transportation.

Type Design

Defined in the document № 139G0000P014 - AW139 – FATA Type Design Definition (Long nose configuration), rev. A.

The following equipment must be installed on the helicopter:

- Full Icing Protection System for flights in known icing conditions;
- Weather radar for flights into forecast thunderstorm activities;
- HF radio at performance of flights at breaks of VHF of communication from 5 till 60 minutes;
- Second ADF in case of approach on “OSP”;
- GPS;
- EGPWS;
- ELT model approved by EASA with frequencies 121.5 and 406 Mhz
- Ice detector kit 4G3080F00311;
- Place for first aid kit;
- The rotorcraft intended for regular commercial transportation must be equipped with a flight data recorder;
- The helicopter, which configuration make provisions for transportation of six or more passengers by two pilots, must be equipped with voice recorder;
- Placards and markings in Russian language should be provided in accordance with document 3G0206P02511 rev. A.

Noise

IAC AR Noise Type Certificate No CIII190-AW139 dated October 21, 2010 and IAC AR Supplement to Noise Type Certificate No CIII190-AW139/Д01 dated February 15, 2011.

Approved Fuel Type

TC-1, PT (GOST-10227-86)
(foreign fuel type see in RFM)

Engine

Two Engines Pratt & Whitney Canada PT6C-67C

IAC AR Engine Type Certificate No CT296-AMД of April 22, 2009

Engine Limits

OEI (2,5 min)	
Power max	1653 hp / 1217 kW
Gas generator speed	40500 rpm
Gas temperature before turbine	835 ⁰ C

OEI Continuous	
Power max	1447 hp / 1064 kW
Gas generator speed	39100 rpm
Gas temperature before turbine	775 ⁰ C

Takeoff (5 min)	
Power max	1170 hp / 861 kW
Gas generator speed	39100 rpm
Gas temperature before turbine	775 ⁰ C

Maximum continuous	
Power max	1108 hp / 815 kW
Gas generator speed	38200 rpm
Gas temperature before turbine	735 ⁰ C

Rotor Speed Limitation

Speed	Power on	Power off
Minimum	95%	90%
Maximum	106%	116%

Maximum power transmitted by the main gearbox

1622 hp (1193 kW)

Maximum Takeoff Weight

6400 kg
 6800 kg with Kit 4G0000F00111 installed
 6800 kg with external load

Maximum Baggage Loads

200 kg
 150 kg when Full Ice Protection System is installed

Maximum Load on cargo compartment floor300 kg/m²**External load operation**

2200 kg

Speed Limitations

Never exceed speed $V_{NE}=309$ km/h (167 KIAS)
 Power OFF $V_{NE}=272$ km/h (147 KIAS)

Center of Gravity Limitations

Refer to RFM

Minimum Crew	one pilot (for more detailed information concerning flight crew see RFM)
Number of Passengers Seats	15
Fuel Capacity	Maximum fuel 1588 liters Unusable fuel 20 liters
Maximum Operation Altitude	6096 m (20 000 ft) For barometric flight altitude limitations due to crew and passage oxygen supply, refer to national operational requirements
Outside Ambient Temperature Limitations	minus 40° C ... plus 50°C – for take-off weight of 6400kg minus 30° C ... plus 50°C – for take-off weight of 6800kg

Supplemental Type Certificates (STC), approved by IAC AR, FATA

No	STC title	STC Holder	Type Design Reference	Issued by	Aircraft model
1.	10017170, Rev.2 VIP 43 Interiors (P/N 6AB1AD006-001)	Mecaer Aviation Group S.P.A.	No. 6AB1RAD-041, rev. A - VIP 43 Interiors Configuration Description No 6AB1RFM-1-4, rev.G - RFM Supplement.	EASA	AW139
2.	10017151, Rev.1 SAT-COM Installation (P/N 6AB1EL018-001)	Mecaer Aviation Group S.P.A.	No. 6AB1RAD-021, rev. A – SAT-COM Installation Drawing Dataset	EASA	AW139
3.	10031938, Rev.0 IFEEL Entertainment System Installation (P/N 6AB1AD016-001)	Mecaer Aviation Group S.P.A.	No. 6AB1RAD-176, rev. C – IFEEL Entertainment System Description	EASA	AW139
4.	10030371, Rev.1 AW139 «Liners» Silens (P/N 6AB1AD010-001)	Mecaer Aviation Group S.P.A.	No. 6AB1RAD-124, rev. A – AW139 New Liners VIP Silens Description; No 6AB1RFM-1-9, rev.D - RFM Supplement; No. 6AB1WNM-2-17 Owner's Manual.	EASA	AW139
5.	10017267, Rev. 2 AW139 VIP 37 PLUS Interior 7 and 9 seat configuration, P/N 6AB1AD012-001	Mecaer Aviation Group S.P.A.	NDC No. 6AB1AD-204 Rev. A, NDC No. 6AB1AD-024, NDC No. 6AB1AD; No. 6AB1RFM-1-8 Rev. AC Rotorcraft Flight Manual Supplement; No. 6AB1WNM-2-16 Rev. X Owner's Manual 6AB1RAD-216 Rev. E - AW139-VIP 37 plus-MC A – Description.	EASA	AW139

6.	10017130, Rev. 2 VIP29 Interiors 10 Seats P/N 6AB1KT004-001	Mecaer Aviation Group S.P.A.	NDC No. 6AB1KT-048 Issue B; No. 6AB1RFM-1-2 Rev. N Rotorcraft Flight Manual Supplement; No. 6AB1WNM-2-2 Reissue 2, Rev. E Owner's Manual.	EASA	AW139
7.	10030095. Rev.0 VIP 305 Interiors Configuration P/N 6AB1AD015-001	Mecaer Aviation Group S.P.A.	NDC No. 6AB1AD-053 Rev. A; 6AB1RFM-1-11 Rev. F Rotorcraft Flight Manual Supplement; 6AB1WNM-2-19 Rev. F Owner's Manual.	EASA	AW139
8.	10017170, Rev. 3 Major Change to AW139 VIP43 Interior P/N 6AB1AD006-001	Mecaer Aviation Group S.P.A.	NDC No. 6AB1AD-217; 6AB1RAD-320 rev. B –VIP 43 Major Change Description; No. 6AB1RFM-1-4, Rev. W – RFM Supplement; No. 6AB1ENM-2-8, Reissue 2 rev. Q- VIP43 Owner's Manual	EASA	AW139

Supplements to the Type Certificate № CT318-AW139

Supplement to the Type Certificate №CT318-AW139	Type design change description	Appliance
№CT318-AW139/Д01	<ul style="list-style-type: none"> - Gross Weight temperature extended -30°C to ISA +35°C (max 50°C); - Confined Area and Offshore take off and landing procedure; - Kit Main Gearbox Supersilent; - Double hoist limitation of use of secondary hoist; - Kit Breeze hoist with extended cable; - Tail Assy Reinforcement longeron retro modification; - Icing Protection System; - MGB accessory; - EAPS falling and blowing snow limitation removed; - Take off 6800 kg helideck size reduced; - Hoist Goodrich Improvements (Phase 2); - Electronic standby attitude system Meggit; - AW139 RFM 139G0290X002 Issue 2 Rev./; - Kit Increased Gross Weight 6800 kg. 	AW139
№CT318-AW139/Д02	<ul style="list-style-type: none"> - Main rotor damper, - Shaft, main rotor. 	AW139

Supplement to the Type Certificate №CT318-AW139	Type design change description	Appliance
CT318-AW139/Д03	<ul style="list-style-type: none"> -Installation of kit emergency floats and life rafts Aeroserur (sea state 6); -Installation of the kit Nightsun XPII Search Light- Gimbal modification; -Installation of the high performance nose radome; -Installation of the emergency floats switch; -Third source for MGB Bearings; -Fatigue life extension with relevant ALS for the main and nose landing gear for increased take-off weight 6800 kg; -MGB aft rod assembly – fatigue life extension with relevant ASL Issue 2, Change 11; -Rear attachments cruciform fittings interval inspection modification with relevant ASL Issue 2, Change 11; - Kit increased Tail Rotor (TR) pitch angle for extended Take off and Landing envelope; -Reduction of the helideck size (from 22x22 to 15x15) for Cat A landing with increased gross weight of 6800 kg; -Installation Primus EPIC Phase 6 hardware and software release; -Installation of the improved engine exhaust system; -Improved tail-rotor blade; -Main rotor Damper fatigue life extension; -Introduction of retirement life in terms of landings for the tail and rear fuselage assemblies; -Hoist operation hover OGE at take-off power rating AEO; -Cat A first second segments profile; -Increased wind/ground/airspeed limitation for hoist operation. 	AW139
№CT318-AW139/Д04	<ul style="list-style-type: none"> -Alternative material for the central winding element/ 	AW139
№CT318-AW139/Д05	<ul style="list-style-type: none"> -Display Unit DU-1080 H/W HPN 7036340-802; -AMPI Chapter IV – Issue 2 –Change 13; -Kit Fisher passage seats; -Kit Goodrich Landing Gear; -Kit Baggage Barrier Net; -Kit 4 Longitudinal Litters; -M/R Rotating Scissors Assy, Scissor Attachment Assy and Scissor Installation Bolt; -Electronic Stand-by Instrument System (L3); -Trakka Searchlight A800; -Kit Emergency Floats (AERAZUR); -RFM Changes and Revisions; -AMPI Chapter IV –Issue 3; -Upper Deck Reinforcement Retro-modification. 	AW139
№CT318-AW139/Д06	<ul style="list-style-type: none"> -AC Generator Control Unit (GCU); -30KVA Auto Transformer Rectifier Unit (ATRU) 	AW139

Major changes approval

Major Change Approval	Type design change description	Appliance
№CT318-AW139/ОГИ-7	Tail rotor blade fatigue life extension	AW139
№CT318-AW139/ОГИ-8	Subfloor frame retro modification	AW139
№CT318-AW139/ОГИ-9	Primus EPIC Phase 7 Hardware and Software release	AW139
№CT318-AW139/ОГИ-10	Primus EPIC Phase 7 Ver. 3 Hardware and Software release	AW139
№CT318-AW139/ОГИ-11	Primus EPIC Phase 7 Ver. 4 Hardware and Software release	AW139
№CT318-AW139/ОГИ-12	Tail rotor drive line	AW139
№ФАВТ-AW139-ОГИ-13	Emergency floats control panel	AW139

Additional Conditions, Limitations and Information for AW139

1. Cargo transportation inside of a passenger cabin is prohibited.

3. While operating the helicopter the operator should consider MMEL doc. No 139G0270Q009, Revision C, No 139G0270Q008, Revision G, along with AW 139 RFM, MM and MPM.

Other operational limitations are listed in the operational documentation.

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*Original in Russian is signed by
Mikhail Bulanov
Deputy Director General*