



**TYPE CERTIFICATE DATA SHEET Nº ER-2016T08**

Type Certificate Holder:

**LEONARDO S.p.A**  
Helicopters  
Piazza Monte Grappa, 4  
00195 - Roma  
**ITALY**

ER-2016T08  
Sheet 01

LEONARDO  
AW-169

27 October 2016

This data sheet, which is part of Type Certificate No. 2016T08, prescribes conditions and limitations under which the product, for which the Type Certificate was issued, meets the airworthiness requirements of the Brazilian Aeronautical Regulations.

**I - Model AW169 (Transport Category A and B Rotorcraft), approved 24 October 2016.**

**ENGINE** Two (2) Pratt & Whitney Canada PW210A (TCDS No. EM-2014T02).  
For limitations Ref. to PW Installation Manual No. 30L2374.

**AUXILIAR POWER UNIT (APU)** N/A

**FUEL SPECIFICATION** JET A, JET A1, JP8, JP8+100 (for code no. specification and more details refer to Rotorcraft Flight Manual).

**OIL SPECIFICATION**

Transmissions	AEROSHELL TURBO OIL 555 (DoD-L-85734). No different specification or brand is allowed
Engine	Ref. to Rotorcraft Flight Manual
Hydraulics	MIL-PRF-83282, MIL-PRF-87257 (as alternative)
Fuel Additives	Refer to approved Rotorcraft Flight Manual
Coolant	R134a

**FLUID CAPACITIES**

<b>FUEL</b>	<b>Total A/C Capacity litres (Kg (*))</b>	<b>Unusable litres (Kg (*))</b>
Two main fuel tanks (LH and RH)	1130 (904)	20 (16)

(\* ) Above fuel mass has been defined assuming a standard fuel density of 0,8 kg/l.

<b>OIL</b>	<b>Quantity litres (Kg) (*)</b>
ENGINE (each)	min 5,25 (4,948) - max 5,78 (5,448)
MAIN GEARBOX (min/max)	min 17 (16,968) - max 19 (18,964) (16,8 + 2.2 for oil cooler, oil ducts and filter)

**FLUID CAPACITIES (Cont.)**

<b>OIL</b>	<b>Quantity litres (Kg) (*)</b>
INTERMEDIATE GEARBOX	0.77( 0.768)
TAIL GEARBOX	1.10 (1.098)
HYDRAULIC (per each Power Control Module)	1.3 (1.1)

(\*) litres (kg at 80°C)

<b>COOLANT SYSTEM CAPACITY</b>	2,1 Kg
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**INSTALLED ENGINE LIMITS**

<b>Rating</b>		<b>MAX TORQUE [% - NM]</b>	<b>MAX ITT [°C]</b>	<b>MAX NG [% - RPM]</b>	<b>MAX NF [% - RPM]</b>
<b>AEO</b>	Continuous	118,6 - 395,9	868	96,5 - 49200	107 - 28120
	Take-off 5 min	125,9 - 420,3	930	98,2 - 50100	
<b>OEI</b>	Continuous	148,3 - 494,9	941	98,9 - 50430	107 - 28120
	2,5 min	174,7 - 583	1020	100,7 - 51360	

**TRANSMISSION TORQUE  
LIMITS**

<b>Rating</b>		<b>MAX TORQUE [% - Nm]</b>	<b>INPUT SPEED [RPM]</b>	<b>INPUT POWER [Hp]</b>
<b>AEO</b>	Maximum Continuous	100 - 334 (x2)	14400	1350 (675x2)
	5 min	111 - 371 (x2)	14400	1500 (750x2)
<b>OEI</b>	Continuous	140 - 470	14400	950
	2,5 min	174 - 583	14400	1180

**ROTOR LIMITS**

<b>Power ON – AEO (*)</b>		
<b>Condition</b>	<b>(RPM)</b>	<b>(%)</b>
Minimum Continuous	317,56	96,0
Maximum Continuous	354,72	103,0
<b>Power ON – OEI</b>		
<b>Condition</b>	<b>(RPM)</b>	<b>(%)</b>
Minimum Cautionary	304,05	90,0
Minimum Continuous	341,21	101,0
Maximum Continuous	354,72	105,0
<b>Power OFF</b>		
<b>Condition</b>	<b>(RPM)</b>	<b>(%)</b>
Minimum Continuous	304,05	90,0
Maximum Continuous	371,61	110,0



**ROTOR BLADES AND CONTROL MOVEMENT**

For rigging information, refer to RFM

**SERIAL NUMBER ELIGIBLE**

69005 and subsequent

To be considered eligible for operation in Brazil, a Certificate of Airworthiness for Export endorsed as noted under "Import Requirements", must be submitted for each individual rotorcraft for which application for a Brazilian Certificate of Airworthiness is made.

The only rotorcraft eligible for import into Brazil are those aircraft with the configuration defined in Leonardo Report No. 169F0272N004, "AW169 – ANAC BRAZIL Type Design Definition", Issue B, dated on 12 September 2016, or latest issue.

**IMPORT REQUIREMENTS**

A Brazilian Certificate of Airworthiness may be issued on the basis of on an EASA Export Certificate on Airworthiness (or a third country Export Certificate on Airworthiness, in case of used aircraft imported from such country), including the following statement:

*"The aircraft covered by this certificate has been inspected, tested and found to be in conformity with the Brazilian approved type design as defined by the Brazilian Type Certificate no. 2016T08 and in condition of safe operation".*

**CERTIFICATION BASIS**

Brazilian Type Certificate No. 2016T08 issued on 24 October 2016 based on the RBAC 21.29, which establishes as certification basis for the aircraft the following:

**Airworthiness Requirements:**

RBAC 29 "Requisitos de Aeronavegabilidade: Aeronaves de Asas Rotativas Categoria Transporte", which endorses the 14 CFR Part 29, as amended by 25-1 through 25-52, effective on 05 April 2010. The compliance was verified through equivalency finding to EASA CS 29, Amendment 2, "Certification Specifications for Large Rotorcraft", plus CS 29 Amendment 3, dated 11 December 2012 for installation and affected areas of the Single Rescue Hoist Kit P/N 6F2591F00111.

Also including EASA issued Special Conditions and Equivalent Levels of Safety, accepted by ANAC, as follow:

**EASA Special Conditions:**

- CRI E-09 Loss of Oil from Gearboxes Utilising a Pressurised Lubrication System
- CRI F-01 HIRF Protection in accordance with JAA Interim Policy INT/POL/27&29/1 issue 3 dated 01-10-2003
- CRI F-21 Lithium Battery Installation

**EASA Equivalent Levels of Safety:**

- CRI D-02 Emergency Exit Access
- CRI D-03 Passenger Emergency Exits (other than Side-of-Fuselage)
- CRI D-04 Emergency Exit Signs

**CERTIFICATION BASIS  
(Cont.)**

CRI D-05	Hoist Installation
CRI F-16	Power Index
CRI F-18	Standby Attitude Indicator Power Supply
CRI G-01	Engine Training Mode
CRI G-02	Airspeed Indicators Green Arcs

**Emission Requirements:**

RBAC 34 "Requisitos para Drenagem de Combustível e Emissões de Escapamento de Aviões com Motores a Turbina", effective on 22 March 2013, corresponding to 14 CFR Part 34, as amended by 34-1 through 34-4, effective on 29 June 2009.

**Noise Requirements:**

RBAC 36 "Requisitos de Ruído para Aeronave", effective on 09 June 2009, corresponding to 14 CFR Part 36, as amended by 36-1 through 36-28, effective on 03 February 2006. The compliance was verified through equivalency finding (Elected to Comply) to EASA CS 36, Amendment 3 (See CRI A-01 and associated CRI N-01).

**REQUIRED EQUIPMENT**

The basic required equipment, as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane for certification.

Refer to EASA Approved (on behalf of ANAC) Rotorcraft Flight Manual and related supplements for other approved mandatory and optional equipment.

**SERVICE INFORMATION**

AW169 Service Bulletins, Structural Repair Manuals, Vendor Manuals, and Overhaul and Maintenance Manuals, which contain a statement that the document is EASA approved, are accepted by the ANAC and are considered ANAC approved. These approvals pertain to the approved type design only.

**FLIGHT MANUAL**

EASA approved on behalf of ANAC Rotorcraft Flight Manual 169F0290X001, Issue 1, Revision 0 or later approved revision.

**MAINTENANCE MANUAL**

AW169 Maintenance Planning Information 69-A-AMPI-00-P; and Leonardo Helicopters Maintenance Publication 69-A-AMP-00-X.

**DATA PERTINENT TO ALL MODELS:****NOTES:**

**NOTE 1** Weight and balance. A current weight and balance report including a list of the equipment included in the certificated empty weight, and loading instructions, when necessary, must be provided for each aircraft at the time of original airworthiness certification in accordance with RBAC 29.25, 29.27 and 29.29.

**NOTE 2** Markings and placards. All placards required by either the Brazilian RFM, the applicable operating rules, or the certification basis must be installed in appropriate location on the rotorcraft.

All markings and placards for passenger information under normal or emergency conditions must be in Portuguese (or English and Portuguese). External markings for emergency operation of doors, normal ground operation of cargo doors and servicing operations must be in Portuguese (or bilingual). Marking and placards indicating maximum loads in cargo and baggage compartments must be also presented in Portuguese (or bilingual).

For the approved markings and placards translations contact the TC holder and/or ANAC at the following address: [progcert@anac.gov.br](mailto:progcert@anac.gov.br).

- NOTE 3** Continuing airworthiness. Information essential to proper maintenance of the rotorcraft is contained in the Manufacturer's Maintenance Manual provided with each aircraft. Life limited components and associated retirement times are presented in Chapter 4 and must be replaced accordingly.
- NOTE 4** Night Vision Goggle Operations are permitted according to RFM 169F0290X001 Supplement No. 16. The aircraft configuration involving internal/external emitting/reflecting equipment approved for use with NVG is described in the Report No. 169F3360A001 (AW169 NVG Compatibility Reference Handbook). Subsequent modifications and deviations to the NVG helicopter configuration shall be managed in accordance with document 169F3360E001 (AW169 Helicopter NVG Policy).



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**(MANAGER, AERONAUTICAL PRODUCT CERTIFICATION)**