Civil Aviation Authority
United Kingdom

TYPE-CERTIFICATE DATA SHEET

UK.TC.R.00110

for

AW189

Type Certificate Holder

Leonardo S.p.A.

Helicopters

Piazza Monte Grappa, 4

00195 Roma

Italy

Model(s):	AW189
Issue:	1
Date of issue:	17 June 2024

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Note: In this TCDS, references to EU regulations are to those regulations as retained and amended in UK domestic law under the European Union (Withdrawal) Act 2018 and are referenced as “UK Regulation (EU) year/number or UK Regulation (EU) No. number/year”

Section 1 General

This Type-Certificate Data Sheet (TCDS) is the concise definition of the type-certificated product accepted and or approved by the CAA in the UK for the affected types and models.

This TCDS includes:

- Details of the type design that affect the TCDS that have been approved or accepted by the CAA in the UK from 01 January 2021.
- Details of the type design that affected the TCDS and were approved or accepted by EASA before 01 January 2021, and were incorporated into EASA TCDS EASA.R.510 at Issue 10 dated 08 June 2020, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

Section 2 AW189

i. General

1.	**Type / Variant / Model**	
1.1	Type	AW189
1.2	Model	AW189
1.3	Variant	-
2.	**Airworthiness Category**	Large Rotorcraft, Category A and B
3.	**Type Certificate Holder**	Leonardo S.p.A. Helicopters Piazza Monte Grappa, 4 00195 Roma, Italy See Section 3ii.
4.	**Manufacturer**	See Note 2.
5.	**EASA Type Certification Application Date**	12 May 2011
6.	**State of Design Authority**	EASA
7.	**EASA Type Certification Date**	7 February 2014
8.	**UK CAA Type Validation Application Date**	Prior to 31 December 2020, application dates for type certification are covered by EASA type certification application dates, as per Para 5 above. New applications for UK CAA type validation received after 01 January 2021 will be recorded in this section. At the current issue of this UK CAA TCDS, no new applications for type validation have been received since 01 January 2021.
9.	**UK CAA Type Validation Date**	Prior to 31 December 2020, dates of type certification are covered by EASA type certification, as per Para 7 above. UK CAA type validation dates after 01 January 2021 will be recorded in this section. At the current issue of this UK CAA TCDS, no UK CAA type validations have been completed since 01 January 2021. UK CAA TCDS UK.TC.R.00110 Issue 1 issued 17 June 2024.

ii. Certification Basis

1.	**Reference Date for determining the applicable requirements**	For Airworthiness and Environmental Protection: 12 May 2011 for OSD elements: 17 February 2014
2.	**Airworthiness Requirements**	AW189 with GE CT7-2E1 Engines CS-29 Amdt. 2, dated 17 November 2008

CS-29 Amdt. 3, dated 11 December 2012 for the following installations and affected areas only (see Note 10):

- Kit Single Rescue Hoist p/n 8G2591F00111

- Kit Double Rescue Hoist p/n 8G2591F00311

- Kit Foldable Single Hoist p/n 8G2591F00211

Kit Limited Ice Protection System (LIPS) p/n 8G3000F00211 and 8G3000F00212

- Kit Full Ice Protection System (FIPS) p/n 8G3000F00111 and 8G3000F00311

AW189 with Safran Aneto-1K Engines:

CS-29 Amdt. 2, dated 17 November 2008

CS-29 Amdt. 3, dated 11 December 2012 for the following installations and affected areas only (see Note 10):

- Kit Single Rescue Hoist p/n 8G2591F00111

CS-29 Amdt. 4, dated 30 November 2016, for the Safran Aneto-1K Engine Installation and affected areas.

3. Special Conditions

AW189 with GE CT7-2E1 Engines

SC B-03 Automatic Search Modes (ASM) certification

SC E-07 Extended Take-Off Power Duration (EP, 30 min AEO)

SC E-09 Loss of Oil from Gearboxes Utilising a Pressurised Lubrication System

SC F-01 ‘HIRF Protection’ in accordance with JAA Interim Policy INT/POL/27&29/1, issue 3, dated 1 October 2003

SC J-01 Essential APU Installation in Large Rotorcraft

SC F-19 For kit Limited Ice Protection System: Special Condition for Limited Icing Clearance

SC F-24 Non Rechargeable Lithium Battery Installations

AW189 with Safran Aneto-1K Engines:

SC B-03 Automatic Search Modes (ASM) certification

SC 07/K Extended Take-Off Power Duration (EP, 30 min AEO)

SC E-09 Loss of Oil from Gearboxes Utilising a Pressurised Lubrication System (E-09)

SC J-01 Essential APU Installation in Large Rotorcraft

SC F-24 Non Rechargeable Lithium Battery Installations

4. Exemptions

None

5. Deviations

None

6. Equivalent Safety Findings

AW189 with GE CT7-2E1 Engines:

ESF D-03 Passenger access to each Emergency Exit

ESF D-04 Passenger Emergency Exits – other than Side-Of-Fuselage

ESF D-06 Emergency Exit Signs

		ESF D-07 Ditching Emergency Exits for Passengers
		ESF D-08 Ferry Flight Configuration
		ESF D-10 Main Aisle Width
		ESF D-11 Hoist Installation
		ESF F-16 H-V Envelope and RFM Charts
		ESF F-20- Power Index Indicator
		ESF G-01 Engine Training Mode
		ESF G-02 Airspeed Indicators Green Arcs
		ESF G-03 Never Exceed Speed – Power Off
		AW189 with Safran Aneto-1K Engines:
		ESF B-04/K Cat. A Procedures: 2.5' Rating Application for First and Second Segment Profile and Definition of V_{COSS}
		ESF D-03 Passenger access to each Emergency Exit
		ESF D-04 Passenger Emergency Exits – other than Side-Of-Fuselage
		ESF D-06 Emergency Exit Signs
		ESF D-07 Ditching Emergency Exits for Passengers
		ESF D-08 Ferry Flight Configuration
		ESF D-10 Main Aisle Width
		ESF D-11 Hoist Installation
		ESF E-11/K Ignition Switches
		ESF F-16 H-V Envelope and RFM Charts
		ESF F-20/K Power Index Indicator
		ESF G-02 Airspeed Indicators Green Arcs
		ESF G-03/K Never Exceed Speed – Power Off
7.	**Requirements elected to comply**	CS-36 Amdt. 3 (see A-01)
		CS-29 Amdt. 4 (see A-01/K)
		CS 29.1465 Vibration health monitoring, Amdt. 5
8.	**Environmental Protection Requirements**	
8.1	Noise Requirements	See TCDSN UK.TC.R.00110
8.2	Emissions Requirements	AW189 with GE CT7-2E1 Engines:
		Chapter 2 of ICAO Annex 16 Volume II, Part II to Chicago Convention (as implemented in CS-34 Amdt. 1).
		AW189 with Safran Aneto-1K Engines:
		Chapter 2 of ICAO Annex 16 Volume II, Part II to Chicago Convention (as implemented in CS-34 Amdt. 2).
9.	**Operational Suitability Data (OSD)**	
9.1	Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Amendment 1, dated 1 August 2005
9.2	Flight Crew Data (FCD)	CS-FCD Initial Issue, dated 31 January 2014

9.3	Simulation Data (SIMD)	Reserved
9.4	Maintenance Certifying Staff Data (MCSD)	Reserved

iii. Technical Characteristic and Operating Limitations

1. Type Design Definition

Doc. No. 189G0000P002/01 for AW189 with GE CT7-2E1 Engines

Doc. No. 189G0000P002/02 for AW189 with Safran Aneto-1K Engines

2. Description

Large twin-engine helicopter, conventional configuration, 5-blade fully articulated main rotor, 4-blade fully articulated tail rotor, retractable tricycle landing gear.

3. Equipment

As per compliance with certification basis and included in Type Design Definition Document

4. Dimensions

4.1	Fuselage	Length:	14.60 m
		Width hull:	3.02 m
		Height:	4.04 m
4.2	Main Rotor	Diameter:	14.60 m
4.3	Tail Rotor	Diameter:	2.90 m

5. Engine

5.1 Model

General Electric

2 x Model CT7-2E1

or,

Safran Helicopter Engines

2 x Model Aneto-1K

5.2 Type Certificate

General Electric CT7-2E1:

FAA TC/TCDS:	E8NE
CAA TC/TCDS:	EASA IM.E.010 Issue 9

Safran Aneto-1K:

EASA TC/TCDS:	EASA.E.009
CAA TC/TCDS:	EASA.E.009 Issue 11

5.3 Limitations

5.3.1 Installed Engine Limitations

General Electric CT7-2E1 with EECU SW up to V5.0:

Rating		Max ITT [°C]	Max NG [% (rpm)]	Max NF [% (rpm)]
AEO	Continuous	942	102.7 (45 907)	104.7 (22 000)
	Take-off 5 min	968	102.7 (45 907)	---
OEI	Continuous	968	102.7 (45 907)	104.7 (22 000)
	Take-off 5 min	1 078	105 (46 935)	---

Safran Aneto-1K with GE EECU SW 6.0 or later:

Rating		Max ITT [°C]	Max NG [% (rpm)]	Max NF [% (rpm)]
AEO	Continuous	957	103.6 (37 628)	104.7 (21 987)
	Take-off 5 min	983	104.1 (37 807)	104.7 (21 987)
OEI	Continuous	983	104.6 (37 979)	104.7 (21 987)
	Take-off 5 min	1 101	106.9 (38 817)	104.7 (21 987)

5.3.2 Transmission Torque Limits

AW189 with GE CT7-2E1 and Core Avionics Phase 3.0 SW Release

Rating		Max Torque [%]	Input speed [rpm]	Input Power [shp]
AEO	Max Continuous	2 x 100	21 420	2 500
	T30 min	2 x 116(*)		2 907
OEI	Max Continuous	1 x 135	21 420	1 687
	T30 min	1 x 164(**)		2 055

(*) For airspeeds less than 90 KIAS. For airspeeds greater than 90 KIAS refer to RFM.

(**) Between 155% and 164% allowed for 30 sec and once per 2.5 min event

AW189 with GE CT7-2E1 and Core Avionics Phase 4.0 SW Release (or later), or AW189 with Safran Aneto-1K

Rating		Max Torque [%]	Input speed [rpm]	Input Power [shp]
AEO	Max Continuous	2 x 100	21 420	2 500
	T30 min	2 x 116(*)		2 907
OEI	Max Continuous	1 x 142	21 420	1 775
	T30 min	1 x 172(**)		2 150

(*) For airspeeds less than 90 KIAS. For airspeeds greater than 90 KIAS refer to RFM.

(**) Between 164% and 172% allowed for 30 sec and once per 2.5 min event

6. Fluids (Fuel/Oil/Additives)

6.1	Fuel	JET A, JET A1, JP5, JP8, JP8+100, No. 3 Jet Fuel (for code no. specification and more details refer to approved RFM)	
6.2	Oil	Transmissions:	AeroShell Turbo Oil 555 (DoD-L-85734). No different specification or brand allowed.
		Engine:	Ref. to GE Operating Instructions No. GEK112766 for CT7-2E1 Engines
			Ref. to Safran Operating Instructions No. X0461K0012 for Aneto-1K Engines
		APU:	MIL-PRF-23699, MIL-PRF-7808
		Hydraulics:	MIL-PRF-83282, MIL-PRF-5606 (as alternative)
6.3	Additives	MIL-DTL-27686, MIL-DTL-85470, MIL-I-25017, Biobor JF	
6.4	Coolant	R134a	

7. Fluid capacities

7.1 Fuel

AW189 with GE CT7-2E1 Engines and Core Avionics SW Release up to 6.0:	Total usable [litres (kg(*))]	Unusable [litres (kg(*))]
Two main fuel tanks (LH and RH)	1 320 (1 056)	24 (19)
Two main fuel tanks (LH and RH) plus Auxiliary Central Tank	1 830 (1 464)	24 (19)
Two main fuel tanks (LH and RH) plus Forward Tanks plus Auxiliary Central Tank	2 100 (1 680)	24 (19)
Extended Range (see Note 5) Two main fuel tanks (LH and RH) plus under-belly tanks	2 569 (2 055)	9 (7)

(*) Considering a medium density between different fuels of 0.8 kg/litre

AW189 with Safran Aneto-1K Engines and Core Avionics SW release 7.0 or later:	Total usable [litres (kg(*))]	Unusable [litres (kg(*))]
Two main fuel tanks (LH and RH)	1 335 (1 068)	9 (7)
Two main fuel tanks (LH and RH) plus Auxiliary Central Tank	1 845 (1 476)	9 (7)
Two main fuel tanks (LH and RH) plus Forward Tanks plus Auxiliary Central Tank	2 115 (1 692)	9 (7)

(*) Considering a medium density between different fuels of 0.8 kg/litre

7.2 Oil

	Quantity [litres (kg)]
GE CT7-2E1 Engine (each)	min 3.6 (3.59) to max 5.5 (5.49)
Safran Aneto-1K Engine (each)	Min 4 (3.99) to max 6.4 (6.39)
Main gearbox (min/max)	min 21.5 (21.46) to max 27 (26.95) (24.5 + 2.5 for oil cooler, oil ducts and filter)
Intermediate gearbox	1.22 (1.22)
Tail gearbox	1.87 (1.87)
Hydraulic (per each Power Control Module)	3.20 (2.72)

7.3 Coolant System Capacity 2.9 kg

8. Air Speed Limitations

VNE Power On AEO: 169 KIAS

VNE Power On OEI: 139 KIAS

VNE Power Off: 120 KIAS

For reduction of the VNE with altitude, OAT and weight, refer to approved RFM.

9. Rotor Speed Limitations

Power On AEO		
Condition	[rpm]	[%]
Minimum Continuous	284.75	100.0
Maximum Continuous	296.14	104.0
Power On OEI		
Condition	[rpm]	[%]
Minimum Cautionary	256.28	90.0
Minimum Continuous	284.75	100.0
Maximum Continuous	296.14	104.0
Power Off		
Condition	[rpm]	[%]
Minimum Continuous	256.28	95.0
Maximum Continuous	313.23	110.0

Refer to approved RFM for additional rotor speed limitations

10. Maximum Operating Altitude and Temperature

10.1 Altitude

AW 189 with GE CT7-2E1 Engines:

Maximum operating altitude 10 000 ft PA/DA (whichever occurs first). See Note 12.

Maximum Take-off and Landing altitude 8 000 ft PA/DA (whichever occurs first).

AW189 with Safran Aneto-1K Engines:

Maximum operating altitude 15 000 ft DA. Maximum Take-off and Landing altitude 14 000 ft DA.

Refer to approved RFM and applicable supplements for additional altitude limitations.

10.2	Temperature	-40°C to +55°C (ISA+40°C) For variation of temperature limitations with altitude refer to approved RFM and applicable supplement
11.	**Operating Limitations**	AW189 with GE CT7-2E1 Engines: - VFR day and night and IFR operations in non-icing conditions. - Flight in limited icing condition is permitted only when the kit Limited Ice Protection System p/n 8G3000F00211, or p/n 8G3000F00212 is installed. - Flight into known icing condition is permitted only when the kit Full Ice Protection System p/n 8G3000F00111 or p/n°8G3000F00311 is installed. AW189 with Safran Aneto-1K Engines: - VFR day and night and IFR operations in non-icing conditions.
12.	**Maximum Mass**	GE CT7-2E1: Take-off and landing: 8 300 kg (see Note 4) Taxi and Towing: 8 350 kg (see Note 4) Safran Aneto-1K: Take-off and landing: 8 600 kg Taxi and Towing: 8 650 kg
13.	**Centre of Gravity Range**	Refer to approved RFM
14.	**Datum**	Longitudinal: The datum plane (STA 0) is located at 2 830 mm forward to the front jack point On the ‘Extended Range’ configuration (see Note 5) the longitudinal datum line (STA 0) is located at 3 009 mm forward to the front jack point. Lateral: The datum plane (B.L. 0) is located at ±275 mm inboard of LH/RH front jack points.
15.	**Levelling Means**	Plumb line from ceiling reference point to index plate on floor of passenger cabin; digital clinometer.

16.	**Minimum Flight Crew**	AW189 with GE CT7-2E1 Engines: One (1) for VFR day and two (2) for VFR night and IFR. Single pilot VFR night and IFR operations are allowed under conditions and limitations included in the Supplement 3 of the RFM. For Category A operations, two (2) pilots required if take-off and landing is to be carried out from the left seat. For NVIS operations, two (2) pilots or one (1) pilot and one (1) crew member required. Both pilot and crew member must be equipped with NVGs (see Note 3). For operations in limited icing conditions, two (2) pilots required. AW189 with Safran Aneto-1K Engines: One (1) for VFR day and one (1) for VFR night and IFR. For Category A operations, two (2) pilots required if take-off and landing is to be carried out from the left seat. For NVIS operations, two (2) pilots or one (1) pilot and one (1) crew member required. Both pilot and crew member must be equipped with NVGs (see Note 3).
17.	**Maximum Passenger Seating Capacity**	19
18.	**Passenger Emergency Exit**	10; 1 for pilot, 1 for co-pilot, 4 on each side of the passenger cabin
19.	**Maximum Baggage/ Cargo Loads**	300 kg located in the baggage/cargo compartment (see Note 9)
20.	**Rotor Blade Control Movement**	For rigging information, refer to Maintenance Manual
21.	**Auxiliary Power Unit (APU)**	Safran Power Units (former: Microturbo) 1 x Model e-APU60 model 342, ETSO approval: EASA.21O.10045083
22.	**Life-limited Parts**	Refer to the Airworthiness Limitation Section (ALS) Chapter 4 of the Maintenance Manual: - Doc. No. 89-A-AMPI-00-04-P for AW189 with GE CT7-2E1 Engines, approved on 5 February 2014, or later approved revision - Doc. No. 89-E-AMPI-00-04-P for AW189 with Safran Aneto-1K Engines, approved on 20 05 2020, or later approved revision
23.	**Wheels and Tyres**	MLG wheel assembly with 24x7.7 tubeless tyres NLG wheel assembly with 14.5x5.5 tubeless tyres

iv. Operating and Service Instructions

1.	**Flight Manual**	Doc. No. 189G0290X002 for AW189 with GE CT7-2E1 Engines, approved 31 January 2014, or later approved revision. Doc. No. 189G0290X006 for AW189 with Safran Aneto-1K Engines, approved 08 06 2020, or later approved revision

2.	**Maintenance Manual**	'AW189 Maintenance Planning Information': - Doc. No. 89-A-AMPI-00-P (includes Chapter 4 ALS and Chapter 5 with Scheduled Maintenance Requirements) for AW189 Helicopter with GE CT7-2E1 Engines, approved on 5 February 2014, or later approved revision - Doc No. 89-E-AMPI-00-P (includes Chapter 4 ALS and Chapter 5 with Scheduled Maintenance Requirements) for AW189 Helicopter with Safran Aneto-1K Engines, approved on 20 May 2020, or later approved revision 'Maintenance Review Board Report for AW189 Helicopter': - Doc. No. 189G0000M006 'AW189 Maintenance Publication' - Doc. No. 89-A-AMP-00-X 'AW189 Material Data Information' - Doc. No. 89-A-AMDI-00-X 'AW189 Corrosion Control Publication' - Doc. No. 89-A-ACCP-00-X 'AW189 Fault Isolation Publication' -Doc. No. 89-A-AFIP-00-X 'AW189 Wiring Data Publication' -Doc. No. 89-A-AWDP-00-X Component Maintenance Manual as applicable
3.	**Structural Repair Manual**	"AW189 Structural Repair Publication" Doc. No. 89-A-ASRP-00-X "AW189 Component Repair and Overhaul Publication" Doc. No. 89-A-CR&OP-00-X
4.	**Weight and Balance Manual**	Refer to the Section 6 of the RFM and applicable supplements
5.	**Illustrated Parts Catalogue**	"AW189 Illustrated Tool and Equipment Publication" Doc. No. 89-A-ITEP-00-X "AW189 Illustrated Part Data" Doc. No. 89-A-IPD-00-X
6.	**Service Letters and Service Bulletins**	As published by AgustaWestland, Finmeccanica or Leonardo
7.	**Required Equipment**	The following is mandatory for IFR/VFR night Single Pilot Operations: - Quick Reference Handbook (QRH) Doc. No. 189G0290X003, latest issue for AW189 with GE CT7-2E1 Engines, or, Doc. No. 189G0290X007, latest Issue, for AW189 with Safran Aneto-1K Engines. - Map/QRH holder p/n 8G2510F00211, or equivalent approved. - Traffic Advisory System TCAS II (see RFM Supplement 8). The installation of the following is mandatory for Ditching Operations (see RFM Supplement 6):

- Life rafts (life rafts p/n 8G2560F00511 have been approved for use. The use of other life raft installations must be in accordance with CS/FAR 29 and must be approved)

- Survival type Emergency Locator Transmitter

- Life preservers (the following life preservers installations have been approved: 8G2560F00611, 8G2560F00711, 8G2560F00811. Different life preserver installations must be in accordance with CS/FAR 29 and must be approved).

The installation of the following is mandatory for Night Vision Goggles Operations:

- Aviator's Night Vision Goggles as specified in 189G3360A001 "AW189 NVG Compatibility Reference Handbook"

- Helmet with NVG mount suitable for NVG Model being used.

- Cockpit/Cabin physical separation device as defined in 189G3360A001 "AW189 NVG Compatibility Reference Handbook".

For AW189 with GE CT7-2E1 Engines, the installation of the following is mandatory for operations in limited icing condition:

- Kit Limited Ice Protection System p/n 8G3000F00211 (see RFM Supplement 38 or 48, according to the relevant aircraft configuration)

- Kit Limited Ice Protection System p/n 8G3000F00212 (see RFM Supplement 45 or 50, according to the relevant aircraft configuration)

For AW189 with GE CT7-2E1 Engines, the installation of the following is mandatory for operations in known icing condition:

- Kit Full Ice Protection System p/n 8G3000F00111 or p/n 8G3000F00311 (see RFM Supplement 44 or 49, according to the relevant aircraft configuration)

The aircraft configuration approved for use in limited or full known icing condition is described in the Report 189G3000A001 "AW189 Icing Compatibility Reference Handbook".

Operations in limited icing conditions and operations in known icing conditions are not allowed on AW189 with Safran Aneto-1K Engines.

Refer to approved RFM and related supplements for other approved mandatory and optional equipment.

Refer to Kit Compatibility Handbook 189G0000A002 for incompatibilities and restrictions between optional equipment.

AW189 Software Configuration is managed within the Software Handbook 189G0000X007.

PED-sensitive equipment, which is under the responsibility of the TC Holder and is declared as NON-PED tolerant, or has PED tolerance limitations, is reported in the document 189G9850A005 "PED Compatibility Reference Handbook".

v. Operational Suitability Data

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.R.510 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014 and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1.	**Master Minimum Equipment List (MMEL)**	The Master Minimum Equipment List has been approved in accordance with the defined Operational Suitability Data certification basis and as documented in the 189G0270Q001 Rev. A dated 12 May 2014, or later EASA approved revisions prior to 01 January 2021, or UK CAA revisions from 01 January 2021.
2.	**Flight Crew Data (FCD)**	The Flight Crew Data have been approved in accordance with the defined Operational Suitability Data certification basis and as documented in 189G0000N017 Issue B, dated 16 November 2016, EASA approved on 30 November 2018, or later EASA approved revisions prior to 01 January 2021, or UK CAA approved revisions from 01 January 2021.
3.	**Simulation Data (SIMD)**	Reserved
4.	**Maintenance Certifying Staff Data (MCSD)**	Reserved

vi. Notes

1. Manufacturer's eligible serial numbers:

   AW189 with GE CT7-2E1 Engines:

   - 49007, and subsequent, except 49024, manufactured by AgustaWestland S.p.A. in Italy

   - 89001, and subsequent manufactured by AgustaWestland S.p.A. in Italy (see Note 5 – Extended Range Configuration)

   - 91001, and subsequent manufactured by AgustaWestland S.p.A. in UK

   - 92001 and 92003 manufactured by AgustaWestland Ltd in UK (see Note 5 – Extended Range Configuration)

   - 92002, 92004, and subsequent manufactured by AgustaWestland S.p.A. in UK (see Note 5)

   AW189 with Safran Aneto-1K Engines:

   - 93001, and subsequent manufactured by Leonardo S.p.A. in Italy

2. Manufacturers:

   AgustaWestland S.p.A.(*)

   Italy Plant – Vergiate (VA)

   UK Plant – Yeovil (Somerset)

   AgustaWestland Ltd (only for s/n 92001 and 92003)

   UK Plant – Yeovil (Somerset)

   (*) Effective on 1 January 2016, AgustaWestland S.p.A. ownership was transferred to Finmeccanica S.p.A.; Effective on 28 July 2016, Finmeccanica S.p.A. name was changed into Leonardo S.p.A.

3. NVIS Operations:

   - AW189 with GE CT7-2E1 Engines:

     Night Vision Imaging System Operations are permitted according to RFM 189G0290X002 Supplement No. 14.

   - AW189 with Safran Aneto-1K Engines:

     Night Vision Imaging System Operations are permitted according to RFM 189G0290X006 Supplement No. 14.

   The aircraft configuration involving internal/external emitting/reflecting equipment approved for use with NVG is described in the Report N. 189G3360A001 “AW189 NVG Compatibility Reference Handbook”. Subsequent modifications and deviations to the NVG helicopter configuration shall be managed in accordance with document 189G3360E001 “AW189 Helicopter NVG Policy”.

4. Maximum mass for AW189 with GE CT7-2E1 Engines:

   Installation of Drawing 8G0000F00111, according to RFM 189G0290X002 Supplement 21, permits operations at the following mass:

   - Take-off and Landing: 8 600 kg

   - Taxi and Towing: 8 650 kg

5. Extended Range Configuration for AW189 with GE CT7-2E1 Engines:

   According to RFM 189G0290X002 Supplement 22, as per Drawing 8G0000X00831 and Drawing 8G0000X00931.

6. deleted

7. deleted

8. deleted

9. Maximum Baggage / Cargo Loads:

   The installation of the kit Vertical Cargo Net p/n 8G2550F00311 and Cargo Net p/n 8G2550V00131 permits the maximum load in the baggage compartment to be increased to 360 kg.

The installation of the Heavy Duty Baggage Compartment Kit p/n 8G5010F00411, according to RFM Supplement 46, permits the maximum load in the baggage compartment to be increased to 460 kg.

The installation of the Heavy Duty Baggage Compartment Kit p/n 8G5010F00511, according to RFM Supplement 46, permits maximum load in the baggage compartment of 280 kg.

10. Kit Rescue Hoist, LIPS and FIPS:

    - For Rescue Hoist installation on AW189 with GE CT7-2E1 Engines and AW189 with Safran Aneto-1K Engines, CS-29 Amdt. 3, dated 11 December 2012 is applicable for the following requirements:

        - CS 29.571 Fatigue tolerance evaluation of metallic structures,

        - CS 29.573 Damage tolerance and fatigue evaluation of composite rotorcraft structures,

        - Appendix A, A 29.4 Airworthiness Limitation Section.

    - For LIPS and FIPS installation on AW189 with GE CT7-2E1 Engines, CS-29 Amdt. 3, dated 11 December 2012 is applicable for the following requirements:

        - CS 29.571 Fatigue tolerance evaluation of metallic structures,

        - CS 29.573 Damage tolerance and fatigue evaluation of composite rotorcraft structures,

        - Appendix A, A 29.4 Airworthiness Limitation Section.

11. deleted

12. Service Ceiling Extension for AW189 with GE CT7-2E1 Engines:

    For aircraft equipped with Core Avionics Phase 5.0 SW release (or later) and Altitude Extension Kit P/N 8G0000F00511 the Maximum Operating Altitude is extended to 15 000 ft PA/DA (whichever comes first).

13. Core Avionics SW Releases summary:

    - AW189 with GE CT7-2E1 Engines:

        - Core Avionics Phase 1.0 SW Release – retired from service;

        - Core Avionics Phase 2.0 SW Release – retired from service;

        - Core Avionics Phase 2.1 SW Release – retired from service;

        - Core Avionics Phase 3.0 SW Release, in service, with GE EECU SW V4.0 only;

        - Core Avionics Phase 4.0 SW Release, in service, with GE EECU SW V5.0 only;

        - Core Avionics Phase 5.0 SW Release, in service, with GE EECU SW V5.0 only;

        - Core Avionics Phase 6.0 SW Release, in service, with GE EECU SW V5.0 only;

        - Core Avionics Phase 7.0 SW Release, in service, with GE EECU SW V6.0 only.

    - AW189 with Safran Aneto-1K Engines:

        - Core Avionics Phase 7.0 SW Release, in service, with Safran EECU SW A110.

    Refer to LHD AW189 Software Compatibility Handbook 189G0000X007 for subsequent approved SW releases. This note will be updated at the first occasion.

Section 3 : Administration

i. Acronyms and Abbreviations

Acronym / Abbreviation	Definition
AEO	All Engines Operative
Amdt.	Amendment
AW	AgustaWestland
B.L.	Butt Line
CAA	Civil Aviation Authority
C.G.	Centre of Gravity
CRI	Certification Review Item
CS	Certification Specification
DA	Density altitude
Doc.	Document
EP	Extended Take-Off Power Duration
FAA	Federal Aviation Administration
GE	General Electric
HIRF	High Intensity Radiated Fields
HP	Horsepower
IFR	Instrument Flight Rules
IMC	Instrument Meteorological Conditions
ISA	International Standard Atmosphere
JAA	Joint Aviation Authorities
LH	Left Hand
MLG	Main Landing Gear
NLG	Nose Landing Gear
No.	Number
NVG	Night Vision Goggle
OAT	Outside Air Temperature
OEB	Operational Evaluation Board
OEI	One Engine Inoperative
OSD	Operational Suitability Data
p/n	Part number
PA	Pressure altitude
RFM	Rotorcraft Flight Manual
RH	Right Hand
SL	Sea Level
s/n	Serial number
STA	Station
TCCA	Transport Canada Civil Aviation
VFR	Visual Flight Rules
Vcoss	Climb Out Safety Speed
VNE	Never Exceed Speed

ii. Type Certificate Holder Record

Type Certificate Holder and Manufacturer	Period
AgustaWestland S.p.A Via Giovanni Agusta, 520 21017 Cascina Costa di Samarate (VA), Italy	From 7 February 2014 until 30 July 2014
AgustaWestland S.p.A Piazza Monte Grappa, 4, 00195 Roma, Italy	from 31 July 2014 until 31 December 2015
Finmeccanica S.p.A. Helicopter Division, Piazza Monte Grappa, 4, 00195 Roma, Italy	From 1 January 2016 until 14 July 2016
Leonardo S.p.A. Helicopters, Piazza Monte Grappa, 4, 00195 Roma, Italy	since 15 July 2016

iii. Amendment Record

TCDS Issue No.	TCDS Issue Date	Changes	TC Issue and Date
1	17 Jun 2024	The content of the initial issue of this UK CAA TCDS was taken from EASA TCDS No. EASA.R.510 Issue 10 dated 8 June 2020 which was the current EASA version on 31 December 2020 and therefore the version accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement. Other changes introduced are as follows: - II.3: SC references adapted - II.6: ESF references adapted - III.5.3: SW 6.0 and increased ITT added - III.6.3: Kathon FP 1.5 removed - III.7.1: Fuel Capacity for Core Avionics Phase 7 updated - III.22: Approval dates added - IV.2: AMPI references corrected - V.: Note 13 added to trace Core Avionics SW versions. Issue 11 modifies data (e.g. fuel quantities) because of Core Avionics Phase 7.0 SW optimisations. Previous Core Avionics releases improved the AW189 operational capabilities without impact to TCDS data.	Issue 1 17 Jun 2024

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