DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

H79EU
Revision 3
Leonardo S.p.a.
AB412
AB412 EP
July 14, 2021

TYPE CERTIFICATE DATA SHEET No. H79EU

This data sheet which is part of Type Certificate No. H79EU prescribes conditions and limitations under which the product for which the type certificate was issued, meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Leonardo S.p.a.
Helicopter Division
Piazza Monte Grappa, 4
00195 – Rome, Italy

Type Certificate Holder Record: Agusta S.p.A. was previous name of TC holder. The company name change history is presented below.

Type Certificate Holder	Period
Costruzioni Aeronautiche Giovanni Agusta Via Giovanni Agusta, 520; 21017 Cascina Costa di Samarate (VA) – Italy	28 May 1975 – 29 November 1988
Agusta S.p.A. Via Giovanni Agusta, 520; 21017 Cascina Costa di Samarate (VA) – Italy	30 November 1988 - 19 December 1996
Agusta un'azienda di Finmeccanica S.p.A. Via Giovanni Agusta, 520; 21017 Cascina Costa di Samarate (VA) – Italy	20 December 1996 - 27 December 1999
Agusta S.p.A. Via Giovanni Agusta, 520; 21017 Cascina Costa di Samarate (VA) – Italy	28 December 1999 - 31 May 2011
AgustaWestland S.p.A. Via Giovanni Agusta, 520; 21017 Cascina Costa di Samarate (VA) – Italy	1 June 2011 - 30 July 2014
AgustaWestland S.p.A. Piazza Monte Grappa, 4; 00195 Roma - Italy	31 July 2014 - 31 December 2015
Finmeccanica S.p.A., Helicopter Division Piazza Monte Grappa, 4; 00195 Roma - Italy	1 January 2016 - 14 July 2016
Leonardo S.p.A., Helicopters Piazza Monte Grappa, 4; 00195 Roma - Italy	since 15 July 2016

I. **Model AB412 (Transport Helicopter - Category B), approved September 6, 1994. (Transport Helicopter - Category A), approved September 6, 1994 (S/N 25600 to 25699 and S/N 25805 to 25900). Model AB412 EP (Transport Helicopter - Category B), Approved March 7, 1997.**

Engines. United Aircraft of Canada, Ltd. PT6T-3B Twin Power Section Turboshaft (Ref. Note 5 on Type Certificate Data Sheet No. E22EA) or United Aircraft of Canada, Ltd. PT6T-3BE (Ref. Note 11).

United Aircraft of Canada, Ltd. PT6T-3D (Ref. Note 12). Power Turbine Governor P/N 3018712
Gas Generator Governor P/N 3014365
Py Accumulator P/N 3019405 (1.5 cu. in.) Pg Accumulator P/N 3015409 (20.0 cu. in.) Load Sharing Unit P/N 3014929
Above engine control items required to assure adequate torsional stability.

Fuel. Avjet type fuels conforming to ASTM D-1655, Type A, A-1, B; or MIL-T-5624, Grade JP-4 (NATO F-40) or JP-5 (NATO F-44)

Engine Operating Limits

For AB412 (S/N 25600 thru 25699) with PT6T-3B Engines and for AB412 (S/N 25501 thru 26599) complying with modification P/N 412-075-008-111.

	Torque lb-ft %	Power Turbine Speed Maximum	Power Turbine Speed Minimum	Gas Generator Speed %	Gas Temperature °C
Normal Operation:					
Takeoff (5 minutes)	557(1) (100)	33,000(2) (100)	32,000 (97)	38,400 (100.8)	810
Maximum Continuous	450(1) (81)	33,000(2)(3) (100)	32,000 (97)	38,400 (100.8)	765
One Engine Inoperative (Emergency):					
2 ½ minutes	815(4) (73.2)	33,000(2) (100)	32,000 (97)	39,000 (102.4)	850
30 minutes	815(4) (73.2)	33,000(2) (100)	32,000 (97)	38,400 (100.8)	822
Maximum Continuous	657(4) (58.9)	33,000(2) (100)	32,000 (97)	38,400 (100.8)	765

For AB412 (S/N 25801 thru 25900) with PT6T-3BE Engines.

	Torque lb-ft %	Power Turbine Speed Maximum	Power Turbine Speed Minimum	Gas Generator Speed %	Gas Temperature °C
Normal Operation:					
Takeoff (5 minutes)	612(1) (100)	33,000(2) (100)	32,000 (97)	38,400 (100.8)	810
Maximum Continuous	450(1) (81)	33,000(2)(3) (100)	32,000 (97)	38,400 (100.8)	765
One Engine Inoperative (Emergency):					
2 ½ minutes	815(4) (73.2)	33,000(2) (100)	32,000 (97)	39,000 (102.4)	850
30 minutes	815(4) (73.2)	33,000(2) (100)	32,000 (97)	38,400 (100.8)	822
Maximum Continuous	657(4) (58.9)	33,000(2) (100)	32,000 (97)	38,400 (100.8)	765

For AB412 EP (S/N 25901 and subs.) with PT6T-3D Engines and for AB412 (S/N 25801 thru 25900) with installed PT6T-3D Engines.

	Torque lb-ft %	Power Turbine Speed Maximum	Power Turbine Speed Minimum	Gas Generator Speed %	Gas Temperature °C
Normal Operation:					
Takeoff (5 minutes)	612(1) (100)	33,000(2) (100)	32,000 (97)	39,300 (103)	810
Maximum Continuous	450(1) (81)	33,000(2)(3) (100)	32,000 (97)	39,300 (103)	810

One Engine Inoperative (Emergency):					
2 ½ minutes	902(4) (81)	33,000(2) (100)	32,000 (97)	41,600 (109.2)	925
Maximum Continuous	815(4) (73.2)	33,000(2) (100)	32,000 (97)	39,500 (103.7)	820

(1) On Transmission Torque Scale
(2) 100% (33,000 RPM) corresponds to 6600 RPM engine output shaft speed
(3) 104.6% from to 30% engine torque
(4) On engine torque scale

Rotor Limits.

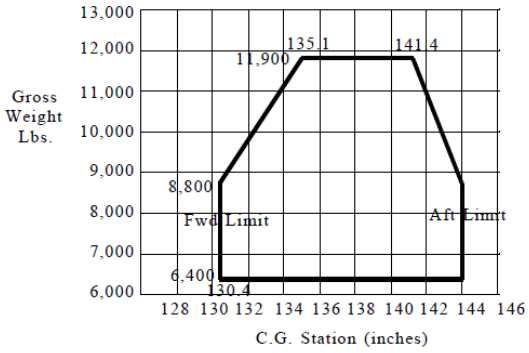
Power Off	Power On
Maximum 339 rpm (Tach reading 104.6%)	Maximum 324 rpm (Tach reading 100%)
Minimum 294 rpm (Tach reading 91%) G.W. more than 8,000 lbs.	Minimum 339 rpm (Tach reading 104.6%) (For 0 to 30% transmission torque)
Minimum 259 rpm (Tach reading 80%) G.W. less than 8,000 lbs.	Minimum 314 rpm (Tach reading 97%)

Airspeed Limits.

See Placard P/N 412-075-215 (V_{NE} varies with altitude and temperature) (Max. V_{NE} 104 KIAS).

C.G. Range for 11900 lbs.
Maximum Weight
Serial Numbers Eff.
25600 and Sub.

(a) Longitudinal C.G. Limits
(135.1) to (141.4) at 11900 lbs.
(130.0) to (144.0) at 8800 lbs.
(130.0) to (144.0) at 6500 lbs.
(130.4) to (144.0) at 6400 lbs. min. wt.
Straight line variation Between Points Given (see Figure).



Minimum Crew.

1 (pilot) Category B. and Category A. See Note 8 for IFR operations

Maximum Passengers.

14 (Not limited by emergency exit requirements)

Maximum Baggage.

400 lb. (See Flight Manual for loading schedule)

Fuel Capacity.

333 U.S. gal. (+ 151.5)
total 326 U.S. gal.,
usable
7.0 U.S. gal., unusable
See Note 1 for requirements to include unusable fuel weight in certificated empty weight. For additional fuel capacities see Note 10.

Oil Capacity. Sys. Capacity 1.6 gal. (+ 182.9) each power section. (.75 gal usable) (Total capacity 3.2 gal. (+ 182.9)). See Note 1 for requirement to include undrainable oil weight in certificated empty weight.

Rotor Blade and Control Movements. For rigging information refer to the Model 412 Maintenance Manual.

Serial Nos. Eligible. 25600 thru 25699; 25801 thru 25900; 25901 and subs.

DATA PERTINENT TO ALL MODELS

Datum. Station 0 (datum is located 20-inches aft of the most forward point of the fuselage cabin nose section).

Leveling Means. Plumb line from top of left main door frame.

Import Requirements. To be eligible for operation in the United States, each aircraft manufactured under this Type Certificate must be accompanied by a certificate of airworthiness for export or certifying statement endorsed by the exporting civil airworthiness authority which states (in the English language): "This aircraft conforms to its U.S. type design Type Certificate Number H79EU and is in a condition for safe operation).
The U.S. airworthiness certification basis for aircraft type certificated under FAR Section
21.29 and exported by the country of manufacture is FAR Sections 21.183(c) or 21.185(c).
The U.S. airworthiness certification basis for aircraft type certificated under FAR Section
21.29 exported from countries other than the country of manufacture (e.g. third party country) is FAR Sections 21.183(d) or 21.183(b).

Refer to the applicable bilateral agreement to verify eligibility for import into the United States of both new and used aircraft based on the scope of the agreement, to identify any required statements by the exporting authority on the export certificate of airworthiness (or equivalent document), and for procedures for coordinating exceptions to conformity statements on these documents. Refer to FAA Order 8130.2, *Airworthiness Certification of Aircraft*, for requirements for issuance of an *airworthiness certificate* for imported aircraft.

Certification Basis.

Model AB412
FAR Part 29 dated 1 February 1965. Amend. 29-1 and 29-2, and FAR 29.473, 29.501, 29.663, 29.771, 29.903(c), 29.1323 and 29.1505(b) of Amend. 29-3;
Special Conditions No. 29-12-SW-1, as amended by amendment 1 and "Guidelines For Helicopter Certification Using Vertical Takeoff Techniques From
Ground Level and Elevated Heliports" vertical takeoff criteria transmitted to Bell by FAA SW-210 letter dated February 3, 1971 and IFR standards dated December 15, 1978.
Complied with Cat A engine isolation requirements.
Ditching: FAR 25.801 including FAR 29.1411 and 29.1415.

FAR 29.1323(c) and (d) Amendment 29-24 (Equivalent to Exemption 3100)

Shoulder Harness: FAR 29.2 Special retroactive requirement and Noise: FAR Part 36, Subpart H, Amendment 36-14.

Model AB412 EP
Model AB412 requirements plus to following Sections of FAR 29 for the AB412 EP unique changes:
FAR 29.1457 of Amend 29-6; 29.939 (c) of Amend 29-12; 29.1335, 29.1351 of Amend. 29-14; 29.1353, 29.1581 fo Amend 29-15; 29.1545 of Amend 29-17; 29.1321 of Amend 29-21; 29.151, 29.161, 29.672, 29.1303, 29.1309, 29.1325, 29.1329, 29.1331, 29.1333, 29.1355, 29.1357, 29.1555 of Amend 29-24;

29.1459 of Amend 29-25; 29.1549 of Amend 29-26; Appendix B to Part 29 of Amend 29-31; 29.2 of Amend 29-32.
Date of application for Type Certificate: March 13, 1993.

Equipment.

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the helicopter for certification. In addition, the following items of equipment are required with each helicopter asspecified:

Model AB412

1) FAA approved AB412 Flight Manual, dated September 6, 1994 or later FAA approved revision,
2) Model 412 Airspeed indicator P/N 412-075-009-105. Flight Manual approved by FAA ans sub. revisions for S/N 25801 thru 25900 (See Note 9).

Model AB412 EP

Flight Manual approved by FAA ans subs. revisions for S/N 25901 and subs.

NOTES.

NOTE 1. Current weight and balance report including list of equipment included in the certificated empty weight, and loading instruction, when necessary, must be provided for each helicopter at the time of original certification.
The Model AB412 certificated empty weight and corresponding C.G. location must include undrainable oil of 6.3 lb. (231.0) and unusable fuel of 45.5 (+ 128) 47.6 lbs. (+ 128.0)

"When possible, the empty weight/cg shall be adjusted to the range given in Chapter 8 of the 412MM. For helicopter configurations where this is not possible, complete computations of critical fore and aft C.G. positions must be determined for each loading to ensure that the entire flight is conducted within the limits of the GW/CG chart in the Limitations Section of the Flight Manual."

NOTE 2. The following placards must be displayed in front of and in clear view of the pilot.
"This helicopter must be operated in compliance with the operating limitations specified in the FAA Approved Rotorcraft Flight Manual."

All placards required in the FAA approved Flight Manual must be installed in the appropriate locations. The Maintenance Manual includes information about other placards and their locations.

NOTE 3. The retirement times of certain parts and inspection requirements for the Model AB412 are listed in Airworthiness Limitations Section of the Model AB 412 Series Airworthiness Limitations Manual. These values of retirement or service life and inspections cannot be increased without RAI engineering approval. In addition, information essential for proper maintenance of the helicopter is contained in the LH AB412 Maintenance Manual and Component Repair and Overhaul Manual. Only the Airworthiness Limitations Section of the Airworthiness Limitation Manual must be complied with.

NOTE 4. Model AB412 helicopters equipped with the external cargo suspension kit installed in accordance with Drawing 212-706-103 meet the certification basis when operated in accordance with FAA approved Flight Manual Supplement.

NOTE 5. A partition must not be installed between the passenger and crew compartments that will obstruct the pilot's view of the passenger large sliding doors and hinged panels. Interior linings must not installed that obstruct the view of the crew/passenger (forward) door latch engagements with the fuselage.

NOTE 6. Bulkheads, fences, or partitions must not be installed between the passenger and crew compartments when the helicopter is equipped with Litter Kit No. 412-706-006.

NOTE 7. Model AB412 helicopters equipped with the internal hoist kit installed in accordance with Drawing 214-706-003 meet the certification basis when operated in accordance with FAA approved Flight Manual Supplement.

NOTE 8. Model AB412 helicopters incorporating IFR modification No. 412-705-006 are eligible for IFR operations when operated in accordance with the limitations of FAA approved Flight Manual dated

September 6, 1994 or later FAA approved revision. Minimum crew one (pilot) for IFR operations.

NOTE 9. Aircraft Model AB412 S/N 25600 and SUB; and S/N 25801 thru 25900 are eligible for category A, operation when operated in accordance with FAA approved Flight Manual Sec. VI. Model AB412 EP helicopters (S/N 25901 and subs.) are fit for Cat. A operations in accordance of the Appendix 1 to the Flight Manual.

NOTE 10. Model AB412 helicopter equipped with auxiliary fuel tank 412-706-006 have fuel capacities (including basic system) as follows:

496.0 U.S. gal. (150.) total
489.0 U.S. gal. (150.) usable
7.0 U.S. gal. unusable

Model AB412 helicopter equipped with auxiliary fuel tank 412-706-009 have fuel capacities (including basic system) as follows:

373.0 U.S. gal. (150.9) total
366.0 U.S. gal. (150.9) usable
7.0 U.S. gal. unusable

NOTE 11. Helicopters S/N 25801 ans sub. installing PT6T-3BE engine satisfy the base of the certification if operating in accordance with FAA approved Flight Manual.

NOTE 12. Helicopter S/N 25805 and Sub. installing PT6T-3D engine satisfy the base of the certification if operating in accordance of the appendix 20 to the AB412 Flight Manual.

- END -