



Australian Government
Civil Aviation Safety Authority

Type Certificate

Number: VA512

Pursuant to regulation 21.29 of the Civil Aviation Safety Regulations 1998 this type certificate is issued in respect of the C212-EE aircraft, manufactured by EADS Construcciones Aeronáuticas, S.A.

This certificate is valid until it is suspended or cancelled by the Civil Aviation Safety Authority. The basis of certification is as described in type certificate data sheet number VA512.

Date of Application: 26 June 2003

Date of Issuance: 12 March 2004




Eugene Paul Holzapfel
Delegate of the Authority



Type Certificate Data Sheet No. VA512

This data sheet, which is part of Type Certificate No. VA512, lists conditions and operational limitations under which the aircraft, for which this Type Certificate was issued, complies with the airworthiness requirements of the Civil Aviation Safety Authority.

Type Certificate Holder: EADS Construcciones Aeronáuticas, S.A.
Avenida de Aragón, 404
28022 Madrid. Spain

Model C-212-EE (Transport Category) - approved 12 March 2004

Engines 2 - Honeywell International TPE 331-12JR-701C Turboprop engines.
– FAA TCDS E4WE

Prop. Shaft/Engine Rotor Ratio: 1/26.2287

Fuel Refer to the Aircraft Flight Manual (AFM) for approved fuels and approved additives.

Oil Oils conforming to Honeywell Specification EMS53110. See AFM for a list of approved engine lubricating oils.

Engine Limits

Conditions	SHP	ESHP	% RPM	EGT (°C)
Takeoff (initial) (5min)	925	970	101	650
Takeoff (APR) (5min)	925	970	101	650
Max. Continuous	925	970	101	650

Transient Temperature Limit (EGT) (1 sec.): 770 °C
Transient Overspeed Limit: 104 % for 30 sec.

The 100 % RPM value is defined as 41,730 rpm of the engine shaft and 1,591 rpm of the propeller shaft.

See Aircraft Flight Manual (AFM) for other engine operating limitations.

Propeller and Propeller Limits

2 - Dowty Aerospace R.334/4-82F/13 hydraulic, constant speed, full feathering and reversible propellers – CAA (UK) TCDS I15

Blades: 4 - part number 660709314
Diameter: 279.4 cm. (110.0 inch)
Prohibited RPM Range (windmilling): 18% to 28%

Page No.	1	2	3	4	5		
Rev. No.	0	0	0Rev 1	0	0	0	Page 1 of 5

Blade angles measured at 89.77 cm, (35.33 inch) radius station.

Feathered: 82° 30' ± 20'
 Flight Idle: 9° ± 20'
 Start Lock: From -1° 45' to 0° 30'
 Full Reverse: -13° ± 1°

Airspeed Limits:

V_{MO} (Max. Operating) (Sea Level to 25.000ft) 200 kts (IAS)
 V_A (Manoeuvring) 146 kts (IAS)
 V_{FE} (Flaps Extended) Takeoff and Approach, 25 % 135 kts (IAS)
 Landing, 100 % 115 kts (IAS)
 V_{MC} (Min. Control Speed) 77 kts (IAS)

C.G. Range

Weight (kg)	C.G. Positions (% MAC)	
	FWD Limit	AFT Limit
7700	16.0	30.0
7450	15.2	30.0
6500	12.0	30.0
4700	12.0	30.0

Straight line variation between points given.

Maximum Weights

Ramp: 7,750 kg
 Takeoff: 7,700 kg
 Landing: 7,450 kg
 MZFW: 7,100 kg

Control Surface Movements

Elevator 30° Up 20° Down
 Elevator Trim Tab 3.0° Up 8.58° Down
 Rudder 20° Right 24° Left
 Rudder Trim Tab 14.0° Right 14.0° Left
 Aileron 20° Up 20° Down
 Aileron Trim Tab 15° Up 15° Down
 Flaps 10° Down - Takeoff and Approach
 40° Down - Landing

All measurements are taken at the trailing edge from the neutral position of the control surface. For details of tolerance on control surface movement refer to document T.D. 87-2104

Maximum Passengers

28 – Number limited by space available for accommodation. For Australian extended range operations (EROPS), cabin configuration is not to exceed 19 passengers (refer note 5).

DATA PERTINENT TO ALL MODELS

Fuel Capacity

Total	2,074 L
Usable fuel	1,998 L
Unusable fuel	76 L

C-212-EE with under-wing Auxiliary Fuel Tanks 212-54700 or 212-54701 installed.

Total	3,066 L
Usable fuel	2,982 L
Unusable fuel	83 L

Oil Capacity (per engine)

Oil Tank Capacity:	6.86 L
Usable oil:	4.97 L

(See notes 1(b) and 1(c) for additional data on fuel and oil systems)

Maximum Approved Operating Altitude

25,000 ft.

Datum

The jig point is located in forward fuselage Frame N° 3 and marked on the underside of the fuselage. The C.G. reference datum is situated 1,115 mm forward of the jig point.

Mean Aerodynamic Chord

Length is 2,190 mm
The leading edge of MAC is 5,462 mm aft of datum.

Levelling Means

Plumb-bob provision on aft face of aft cockpit compartment bulkhead.

Minimum Flight Crew

2 pilots.

Maximum Baggage

Aft Baggage Compartment:	400 kg total
Maximum Floor Loading:	586 kg/m ² and lineal 700 kg/m

Baggage and/or cargo load must comply with loading limitations in the AFM and must be loaded in accordance with loading instructions of approved Weight and Balance Manual.

Certification Basis

FAR Part 25, effective 1st February 1965, including amendments 25-1 through 25-35.

FMS, IEDS and EFIS, FAR Part 25 effective 1st February 1965, including amendments 25-1 through 25-87.

The applicant has elected to comply with:

- APR, FAR 25.904 in the revision state in correspondence with amendment 25-62 effective 9th December 1987
- For Cockpit Interior furnishing materials, FAR 25.853, amendment 25-72 effective 20th August 1990
- HIRF, "Ficha de Certificación" (Issue Paper) N° F-01, 1st edition, dated 20 June 1997.

An exemption against paragraph FAR Part 25, 25.903 (d) (1) applies when the under-wing auxiliary fuel tanks are installed. Refer to "Authorised Flight Conditions" below for operational limitations with these fuel tanks installed.

For environmental certification, compliance has been shown as follows:

Emissions: FAR Part 34, 10th August 1990. ICAO Annex 16, 2nd volume, 2nd edition of 1993, and

Noise: FAR Part 36, 1st December 1969. ICAO Annex 16, 1st volume, 3rd edition of 1993

Date of application for Type Certificate: 26th June 2003

Type Certificate, N° VA512, issued 12 March 2004.

Production Basis

Production Certificate Number DGAC-E.G.01 issued by the DGAC-E

Required Equipment

Unless otherwise approved, the basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) and listed in the document Equipment List Report T.D 97-2013, must be installed in the aircraft for certification (refer Note 4).

Additionally, the following Technical Documents are required:

Technical Document N° T.D. 97-2001, Aircraft Flight Manual (C-212-EE Model with or without under-wing Auxiliary Fuel Tanks 212-54700 or 212-54701 installed)

Authorised Flight Conditions

This aircraft has been certified in the Transport Category according to FAR 25. When the instruments and the equipment required for the particular operation are installed in the aircraft, it can be used in the following operations:

- Passenger Transportation
- Cargo Transportation
- Flight in Icing Conditions
- VFR day/night
- IFR day/night

Exceptions: Aircraft with under-wing auxiliary fuel tanks, Part No. 212-54700 or 212-54701, installed are eligible for an Australian Special Certificate of Airworthiness in Restricted category only. Operation is limited to the special purpose operations listed in Australian regulation CASR 21.025. For aircraft issued with multiple category Cs of A, procedures for compliance with sub-regulation CASR 21.187.2 must be established.

Service Information

Service Bulletins published by EADS CASA related to major modifications are approved by the DGAC E. Service Bulletins related to minor modifications are approved by EADS CASA by virtue of its approval as a Design Organisation. In both cases a declaration of the relevant approval must be shown in the Service Bulletin.

Maximum Inflation Pressure:

Maximum inflation pressure of tyres and its respective Load Classification Number (LCN) values are:

Model	Inflation Pressure (psig)		LCN (Minimum)
	Mains	Nose	
C-212-EE	60	53	7

NOTES

Note 1

- (a) Current Weight and Balance report, including the list of equipment included in certified empty weight and loading instructions must be in each aircraft at time of original certification.
- (b) The unusable fuel is the amount of fuel remaining in the system and in the tanks when the fuel quantity indicators read zero. The unusable fuel is determined according to FAR 25.929.
- (c) Oil system quantity is the oil quantity necessary to fill the engine oil system and tank up to the normal level.

Note 2

All placards mentioned in the Limitations Section of the approved AFM must be situated in the appropriate location on the aircraft.

Note 3

- (a) The service life limits for aircraft structural parts, which are fatigue critical, are listed in Chapter 5 of the approved Airframe Maintenance Manual and are mandatory Airworthiness Limitations under the Australian regulations.
- (b) Life limited parts for the Model TPE 331-12JR-701C engine are listed in FAA-approved Honeywell Service Bulletin, TPE 331-72-0476, Revision 19 or later revisions.

Note 4

The EE-88 version is defined in EADS CASA drawing 212-00409-00, C212EE-88, and meets the intent of Australian Type Certificate VA512.

Note 5

The EE-88 version is limited to 16 passengers.

Note 6

The Civil Aviation Safety Authority (CASA) approved Master Minimum Equipment List (MMEL) for the EADS CASA C212-EE is the applicable MMEL for Australian registered aircraft.

As an interim measure until the CASA approved MMEL is available, the FAA C212 MMEL may be used as the basis for the Operator's MEL. Once issued the CASA approved C212-EE MMEL shall take precedence over the FAA MMEL.

Note 7

This type certificate is issued after consideration of:
FAA TCDS A43EU for the C212-DF model, plus
DGAC-E TCDS 01-82 for the C212-EE model, plus
DGAC-E approval of the EE-88 version (Drawing No 212-00409).