Type Certificate Data Sheet

Number: A-275
Issue No.: 1
Approval Date: Refer Below
Issue Date: June 27, 2019

This Type Certificate Data Sheet (TCDS), which is part of Type Certificate (TC) No. A-275 prescribes the conditions and limitations under which the product(s) for which the Type Certificate was granted meet(s) the standards of airworthiness required by the Canadian Aviation Regulations.

Type Certificate Holder:
Pilatus Aircraft Ltd.
Ennetbürgerstrasse 101
6370 Stans
Switzerland

Models

PC-24

1. MODEL PC-24 (Commuter Category) Approved June 27, 2019

Engines: 2 Williams International FJ44-4A-QPM

Fuel: Refer to the latest revision Williams International Engine Installation and Operating Instructions 110675-201 FJ-44-4A-QPM (73200-201) (including JET A, JET A-1, JP-8, TS-1).

Fuel Anti-Ice Additives are not required.

Oil: Refer to the latest revision Williams International Engine Installation and Operating Instructions 110675-201 FJ-44-4A-QPM (73200-201) (including Mobil Jet II, Mobil 254)

Engine Limits

Thrust Setting	N_1 Fan RPM	ITT (1)	N_2 Turbine RPM
Takeoff	104.7% (17,139 RPM)	855°C (2)	100.8% (37,773 RPM)
Max Continuous	104.7% (17, 139 RPM)	835°C (2)	100.8% (37, 773 RPM)

The PC-24 is approved for 10 Minutes OEI (see NOTE 4)

(1) ITT values are displayed limits and not actual temperature values.

(2) No transient permitted.

(Engine) power management de-rated minimum static thrust ratings at sea level with no installation losses:

Maximum Takeoff	3,616 lb thrust at 22.7 °C
Takeoff	3,435 lb thrust at 22.7 °C
Max Continuous	3,433 lb thrust at 15 °C

Type Certificate Data Sheet

(Continuation Sheet)

Number: A-275 Issue: 1

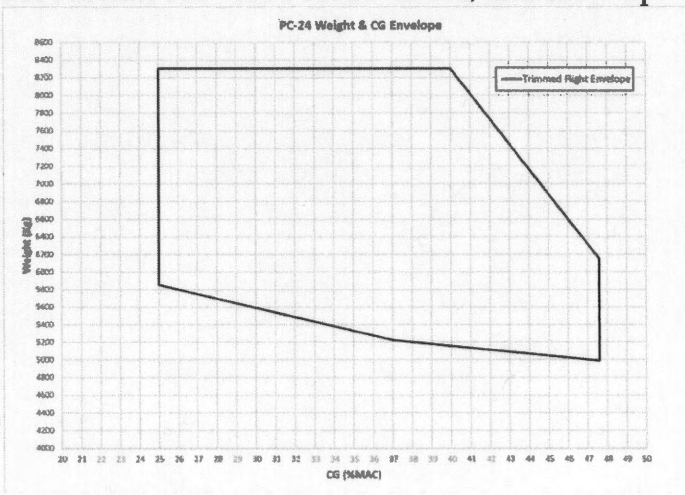
Airspeed Limits (IAS)	V_{MO}	290 KIAS	
	M_{MO}	0.74 Mach	
	V_A	185 KIAS	
	V_{MC}		
	Flaps 8°	82 KIAS	weight ≥ 13,669 lb (6,200 kg)
		87 KIAS	weight > 12,125 lb (5,500 kg)
		90 KIAS	weight > 11,023 lb (5,000 kg)
	Flaps 15°	77 KIAS	weight ≥ 13,228 lb (6,000 kg)
		81 KIAS	weight > 12,125 lb (5,500 kg)
		84 KIAS	weight > 11,023 lb (5,000 kg)
	V_{MCL}		
	Flaps 15°	78 KIAS	weight ≥ 13,007 lb (5,900 kg)
		81 KIAS	weight > 12,125 lb (5,500 kg)
		84 KIAS	weight > 11,023 lb (5,000 kg)
	Flaps 33°	73 KIAS	weight ≥ 13,228 lb (6,000 kg)
		77 KIAS	weight > 12,125 lb (5,500 kg)
		80 KIAS	weight > 11,023 lb (5,000 kg)
	V_{FE}		
	Flaps 8°	200 KIAS	
	Flaps 15°	200 KIAS	
	Flaps 33°	175 KIAS	
	V_{LE}	250 KIAS /0.74 Mach	
	V_{LO}		
	Extension	250 KIAS /0.74 Mach	
	Retraction	200 KIAS	
	V_{TIRE}	165 knots (Max Tire Ground Speed)	

Maximum Weights	For aircraft 101 - 130 Pre SB 42-002	For aircraft 101 - 130 Post SB 42-002, and 131 - Up
Max. Ramp	17,750 lb (8,050 kg)	18,400 lb (8,345 kg)
Max. Takeoff	17,650 lb (8,005 kg)	18,300 lb (8,300 kg)
Max. Landing	16,250 lb (7,370 kg)	16,900 lb (7,665 kg)
Max Zero Fuel	13,448 lb (6,100 kg)	14,220 lb (6,450 kg)

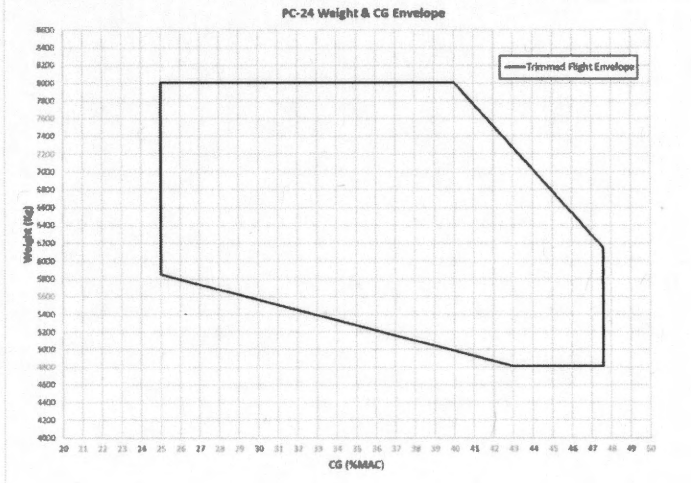
Max. Baggage: 400 lb (180 kg) (with small restraint net)
530 lb (240 kg) (with large restraint net)

Datum: The Datum is 146.1 in (3,711 mm) forward of forward jacking point.

Mean Aerodynamic Chord	1.997 m (6ft 6")
Levelling Means	Levelling datum which is the seat rail behind the cargo door. Refer to the PC-24 Airplane Flight Manual (AFM), Section 6.
Empty Weight C.G. Range	None.
C.G. Range	For Aircraft 101 - 130 Post SB 42-002, and 131 – Up:



For Aircraft 101 - 130 Pre SB 42-002:



Fuel Capacity	Total capacity:	895 US gal 5999.8 lb	(3,389 Litres) (2,721 kg)
	Usable quantity:	890 US gal 5,964 lb	(3,369 Litres) (2,705 kg)
	Unusable fuel quantity:	5.3 US gal 35 lb	(20 Litres) (16 kg)
Oil Tank Capacity	Each engine tank:		
	Oil Tank Total Volume:	5.85 US qt	(5.54 Litres)
	Oil Tank Fill Volume:	5.65 US qt	(5.35 Litres)
	Oil Tank Usable Volume:	4.32 US qt	(4.09 Litres)

Control Surface Movements

	Maximum Deflection	
Control Surface	Trailing Edge Up or Left	Trailing Edge Down or Right
Elevator	25° +1°/-0°	15° +1°/-0°
Rudder	28° ± 0.5°	28° ± 0.5°
Aileron	25° ± 0.5°	15° ± 0.5°
Aileron Trim (at neutral position)	14.9° ± 0.5°	14.5° ± 0.5°
Rudder Trim (at neutral position)	21.2° ± 1.0°	24.2° ± 1.0°
Horizontal Stabilizer Trim (nominal)	-10°	+5°
Flaps (nominal)	0°	33°

Serial Numbers Eligible: S/N 101 and up.

Minimum Crew: One (1) pilot (left seat)

Maximum Occupants: 10 (2 Pilot Seats and 8 Passenger Seats)
Refer to the PC-24 Airplane Flight Manual (AFM), Section 6, for passengers and flight crew loading instructions and approved configurations.

Maximum Operating Altitude	45,000 ft MSL
Maximum Takeoff Field Elevation	10,000 ft MSL
Temperature Operating Limitation	-54°C to +50°C at Sea Level Refer to the PC-24 Airplane Flight Manual (AFM), Section 2, for Engine Starting Limitations.
Manoeuvre Limits	Operation is limited to any manoeuvre incident to normal flying, stalls (except whip stalls) and steep turns in which the angle of bank is not more than 60 degrees. No acrobatic manoeuvres, including spins, are authorized. Pull-up and push-over manoeuvres are limited by the accelerations given below: Flap Position — Load Limitation Up — +3.0 g, -1.2 g Down — +2.0 g, -0.0 g
Other Operating Limitations	Refer to the PC-24 Airplane Flight Manual (AFM), Section 2, for any other operating limitation.
Certification Basis (See Note 5)	AWM 523 at Change 523-16, based on the equivalency of EASA CS-23, Amendment 3, plus the following EASA approved additional Special Conditions and Equivalent Safety Findings to the requirements of AWM 523 at Change 523-16. Special Condition – Airworthiness (SCA) 2019-02 – Electronic Engine Control Finding of Equivalent Safety - AWM 523 Change 523-16 Errors AWM 516, Subchapter A at Change 516-11, which incorporates by reference ICAO Annex 16 – Environmental Protection, Volume I – Aircraft Noise, Amendment 10 and AWM 516, Subchapter B at Change 516-10, which incorporates by reference ICAO Annex 16, Volume II – Aircraft Emissions, Amendment 6.

Certification Basis (See Note 5) (Cont'd)

EASA CS-ACNS, Initial Issue

EASA Special Conditions

CRI B-01	Handling and Performance
CRI B-02	High Speed Characteristics
CRI B-03	Stall Speed Determination
CRI B-04	Contaminated Runways
CRI B-05	Stick Pusher
CRI B-152	Human Factors
CRI C-01	Sonic Fatigue
CRI C-02	Pressurisation into Non-Pressurized Areas
CRI C-05	Dynamic Response
CRI C-06	Out of Trim Conditions (Structures)
CRI C-07	Round-the-clock Gust
CRI D-01	Take-Off Warning System
CRI D-02	Extension and Retraction Systems
CRI D-03	Wheels
CRI D-04	Brakes and Braking Systems
CRI D-05	Doors
CRI D-06	Bird Strike
CRI D-09	Operation above 41.000 ft
CRI E-01	Fuel Tank Crashworthiness
CRI E-04	Lines, Fittings and Components
CRI E-06	Powerplant Fire Extinguishing Systems
CRI E-10	Fuel Tank Ignition Prevention
CRI E-11	Induction System Ice Protection - Cold Soaked Fuel
CRI E-59	Engine Installation (Rain Conditions)
CRI E-102	Single Point Refuelling
CRI F-01	Battery Endurance Requirement
CRI F-03	Interaction of Systems and Structures
CRI F-07	Data Link Services Recording
CRI F-15	Airworthiness Information Security
CRI F-52	Protection from effect of HIRF

Certification Basis (See Note 5) (Cont'd)	CRI F-54	Protection from the effects to lightning strike, indirect effects
	CRI F-62	Flight Instrument External Probes – Qualification in extended Icing conditions
	CRI F-110	Auto-throttle
	CRI G-02	Approval process of digital AFM
	CRI O-04	Towbarless towing loads
	EASA Equivalent Safety Findings	
	CRI E-56	Powerplant System Indications.
	CRI F-05	IMA Individual Circuit Protection.
	CRI F-90	ASI Flaps Markings on PFD.
	CRI F-108	ESIS 3rd ATT Indicator (ESIS) Compliance to CS 23.1303
	CRI F-111	Mechanical Magnetic Compass - Flight Deck without Whisky Compass
	CRI F-112	Pressurization and Pneumatic systems – bleed air level compliance

Type Design Definition (See NOTE 2)

Model PC-24 is defined by the top level drawing 500.00.24.001, Rev B or later approved revision.

For aircraft imported into Canada, Pilatus Factory Options 500.20.24.191, 511.32.24.106 and 511.32.24.920 must be installed. These factory options may be retrofitted on in-service aircraft with the embodiment of Pilatus Service Bulletin 04-001 (Canadian Registration of PC-24 Aircraft).

Import Requirements

1. An Export Certificate of Airworthiness to Canada signed by a representative of the the Swiss Federal Office of Civil Aviation (FOCA);

or

2. An export certificate of airworthiness signed by an authorized representative of the civil aviation authority of a country with which Canada has a bilateral airworthiness agreement or a similar arrangement that provides for the acceptance of such certificates.

Import Requirements (Cont'd)	In case 1 or 2, the certificate must contain a statement equivalent to following: "The aircraft identified by this certificate has been examined and found to conform to the Canadian Department of Transport Type Certificate A-275 and is found to be in condition for safe operation." or 3. Other procedures acceptable to the Minister.
Required Equipment	The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. In addition, the following items of equipment are required: 1. Approved Airplane Flight Manual For single pilot operations, the following equipment must be operative/ available in addition to those items listed above: 1. Autopilot 2. Quick Reference Handbook (QRH), Report No. 02382
Approved Publications	1. EASA Approved Airplane Flight Manual (AFM) Report No. 02371, Issue 003, Revision 02, 26 April 2019 including AFM Supplement Report No. 02465, Issue 001, Revision 00, 19 June 2019; AFM Temporary Revisions 02371-007, 17 June 2019; 02371-008, 17 June 2019; and 02371-009, 19 June 2019.* 2. EASA Approved Airworthiness Limitations (ALS): Section 4 of the of the PC-24 Aircraft Maintenance Manual (AMM), Report No. 02378, Issue 005, Revision 00, 09 November 2018. * * or latest EASA approved revision
NOTE 1	<u>Weight and Balance</u> A current weight and balance report, including a list of equipment included in the certificated empty weight, and loading instructions must be provided for each aircraft at the time of original certification.
NOTE 2	<u>Placards</u> Airplane operation must be in accordance with the Approved Airplane Flight Manual. All placards required by the Flight Manual, the applicable operating rules, and the Certification Basis must be installed

in the airplane.

NOTE 2 (Cont'd) The following additional placards (Ref. AWM 551.104) are required to be installed on Canadian registered aircraft:

- Placard, ELT Remote Control, Canada (Drawing 511.32.24.106)

Internal Placard Installation, ELT Remote Control, Canada (Drawing 511.32.24.920)

NOTE 3 Service Life Limits and required Maintenance/Inspections

Inspection time limits and maintenance checks are included in the Aircraft Maintenance Manual (AMM), Report No. 02378). The retirement times of the life limited components in Section 4 (ALS) cannot be altered without TCCA approval.

NOTE 4 One Engine Inoperative (OEI) Operation.
The rated takeoff thrust and its associated limitations may be used for up to 10 minutes in the event one engine on a multi-engine airplane becomes inoperative during takeoff.

NOTE 5 Airworthiness Manual Chapter 523 (AWM 523) Change 523-16 incorporated by reference United States Code of Federal Regulations, Title 14, Chapter I, Part 23 (14 CFR Part 23) Amendment 23-62, dated December 2, 2011 but included additional regulatory requirements in:

AWM 523.903(a)(1) and (2)
AWM 523.951(d)
AWM 523.1557(c)(4)

- END -

Charles Lanning
Chief, Project Management
National Aircraft Certification
for Minister of Transport

Canada