DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A50CE
Revision 7
PACIFIC AEROSPACE LIMITED
750XL
January 20, 2022

TYPE CERTIFICATE DATA SHEET NO. A50CE

This data sheet which is part of Type Certificate No. A50CE 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

NZSkydive Ltd.
Trading as Pacific Aerospace
333 Airport Road
3282, New Zealand

Type Certificate Holder Record

Pacific Aerospace Limited
Hamilton Airport
Private Bag
3027 Hamilton, New Zealand

Transferred TC A50CE to
NZSkydive Ltd.
on January 20, 2022.

I. Model 750XL, (Normal Category), approved March 10, 2004 (See Note 8)

Engine

One Pratt & Whitney Canada, Inc. PT6A-34, TCDS E4EA

Fuel

Jet A, Jet A1, (See P & WC Service Bulletin 1344 for additional fuels and additives).

Engine Limits

Power Setting	Torque psi	Max ITTº C	Gas Gen RPM % Ng	Prop RPM % Np	Oil Press psi	Oil Temp. ºC	Shaft Horse-Power
Takeoff	64.5 (2)	790	101.6	91.2	85-105	10-99	750 (31 ºC)
Maximum Continuous	54	740	101.6	91.2	85-105	10-99	633
Maximum Climb	54	740	101.6	91.2	85-105	0-99	633
Maximum Cruise	64.5 (2) 54	790 740	101.6 101.6	91.2 91.2	85-105 85-105	0-99 0-99	750 633
Idle	-	685	52-54	-	40	-40-99	-
Maximum Reverse	64.5 (2)	790	101.6	86	85-105	0-99	-
Transient	68.4 (5)	850 (3)	102.6 (3)	100	85-105	0-99	-
Starting	-	1090 (3) (4)	-	-	-	-40	-

(1) All limits are based on sea level (2) 5 minute time limit (3) These values are limited to two seconds (4) Starting temperatures above 850 ºC should be investigated for cause (5) Time limited to 20 seconds

Propeller	One Hartzell, constant speed, HC-B3TN-3D/ T10282NS+4, TCDS P15EA or One Hartzell, constant speed, HC-E4N-3P/D9900, TCDS P10NE (installed by modification PAC/XL/0453)

Propeller Limits

HC-B3TN-3D/ T10282NS+4:

Diameter	106 inches maximum and minimum
Low Pitch	18.5º ± 0.5º
Feathered Angle	86.3º ± 1.5º
Maximum Reverse Angle	-8.1º ± 0.5º
Pitch Radius at	30.00 inches

HC-E4N-3P/D9900:

Diameter	100 inches maximum and minimum
Low Pitch	19.3º ± 0.1º
Feathered Angle	89.5º ± 0.5º
Maximum Reverse Angle	-10.0º ± 0.5º
Pitch Radius at	30.00 inches

Airspeed Limits

V_{NE}	170 KIAS
V_{NO}	140 KIAS
V_O , V_A	131 KIAS
$V_{FE\ 20º}$	130 KIAS
$V_{FE\ 40º}$	120 KIAS

C.G. Range
(See Note 7)

Forward Limit

100.46 in. (2.55 m) aft of datum at 4209 pounds (1905 kg)
103.18 in. (2.62 m) aft of datum at 5639 pounds (2553 kg)
111.55 in. (2.83 m) aft of datum at 7500 pounds (3395 kg)

Aft Limit

125.6 in. (3.19 m) aft of datum for all weights.

Straight-line variation between all points given.

Empty Wt. C.G. Range

None

Reference Datum

Station 0.00 (100.21 in. forward of wing leading edge.)

Leveling Means

Fuselage upper longerons and wing main spar.

Maximum Weight

Takeoff 7500 pounds (3395 kg.)
Landing 7125 pounds (3225 kg.)

Minimum Crew

1

No. of Seats

2 fixed seats at station 66.5 (1.69 m) aft of datum. (See note 6 for additional seating.)

Maximum Cargo

1200 pounds (543 kg) between Stations 82.0 (2.08 m) and 115.0 (2.92 m.)
1200 pounds (543 kg) between Stations 118.0 (3.0 m) and 166.0 (4.22 m.)
800 pounds (362 kg) between Stations 166.0 (4.22 m) and 240.0 (6.10 m.)

Fuel Capacity
(See Note 7)

Tank	Total Capacity	Unusable	Usable
Front Left Tank, (includes sump tank)	75 gallons (284 liters)	3 gallons (10 liters)	72 gallons (274 liters)
Front Right Tank	77 gallons (293 liters)	3 gallons (10 liters)	74 gallons (283 liters)
Rear Left Tank	37.5 gallons (142 liters)	0	37.5 gallons (142 liters)
Rear Right Tank	37.5 gallons (142 liters)	0	37.5 gallons (142 liters)
Total	227 gallons (861 liters)	6 gallons (20 liters)	221 gallons (841 liters)

Oil Capacity — 9.19 quarts (8.7 liters) at Station 13.0 (0.33 m.)

Maximum Operating Altitude — 20,000 feet.

Control Surface Movements

Elevator	trailing edge up 30º, trailing edge down 8.5º
Elevator tab (relative to elevator)	trailing edge up 10.5º, trailing edge down 27.5º
Rudder	right 25°, left 20°
Rudder tab (relative to rudder)	± 13°
Aileron	trailing edge up 23º, trailing edge down 9.5º
Aileron tab (relative to aileron)	trailing edge up 15º, trailing edge down 20º

For all control surfaces except flaps a tolerance of ± .5° is applied.

Flaps up	0°
Take off flap setting	21°
Landing flap setting	40°

A tolerance of ± 1° is applied to the flaps in the Up and Takeoff positions and +1° to -0° in the Landing position.

Manufacturer's Serial Numbers — 101, 102, 104 and on.

Import Requirements

a) A United States airworthiness certificate may be issued on the basis of a New Zealand Certificate of Airworthiness for Export signed by a representative of the Civil Aviation Authority (CAA), containing the following statement (in the English language): 'The aircraft covered by this certificate has been examined, tested, and found to comply with U.S. type certificate No. A50CE and to be in a condition for safe operation.'

b) The U.S. airworthiness certification basis for aircraft type certificated under 14 CFR Section 21.29 and exported by the country of manufacture is 14 CFR Sections 21.183(c) or 21.185(c).

c) The U.S. airworthiness certification basis for aircraft type certificated under 14 CFR Section 21.29 exported from countries other than the country of manufacture (e.g., third party country) is 14 CFR Section 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

Type Certification under 14 CFR Section 21.29 including the following requirements:

- 14 CFR Part 23 effective February 1, 1965, including Amendments 23-1 through Amendment 23-53,
- 14 CFR Part 36 effective December 1, 1969, including Amendments 36-1 through Amendment 36-24,

Certification Basis, (continued)

Equivalent Safety Items:

Equivalent levels of safety finding made per the provisions of 14 CFR Part 21.21(b)(1) for:

ELOS ACE-03-04: 14 CFR Part §23.1505(c) Airspeed Limitations for the Pacific Aerospace Corporation (PAC) 750XL Airplane; refer to FAA memorandum dated January 10, 2004.

(Airplanes equipped with option PAC/XL/0453, optional 4-bladed propeller, have complied with 14 CFR part 36 at Amendment 36-28.)

(Modification PAC/XL/0448 (extended range fuel tanks) has been certificated to 14 CFR Part 23 effective 1 February 1, 1965 including amendments 23-1 through 23-61, for the design changes only.)

Type Certificate No. A50CE was issued March 10, 2004.
Date of Application for Type Certificate was November 3, 2000.

No flight in icing approved.

See Note 4.

Equipment

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

In addition, the following items of equipment are required:
Pilot's Operating Handbook and Civil Aviation Authority of New Zealand Approved Flight Manual AIR 2825 for the model 750XL dated December 1, 2003, or later CAA approved revision. Revision 4 or higher required for IFR operations. See Note 4.

For those airplanes modified or built according to modification PAC/XL/0448, (serial numbers 186 and on) Pilot's Operating Handbook and Civil Aviation Authority of New Zealand Approved Flight Manual AIR 3237 for the model 750XL dated December 3, 2012, or later CAA approved revision. See Note 4.

Service Information

Service bulletins, structural repair manuals, vendor manuals, aircraft flight manuals, and overhaul and maintenance manuals which contain a statement that the document is approved by the Civil Aviation Authority, are accepted by the FAA and are considered FAA approved. (These approvals pertain to design data only).

NOTE 1: Weight and Balance:

A current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification.

The certificated empty weight and corresponding center of gravity location must include full oil and unusable fuel.

NOTE 2: The placards specified in the approved Pilot's Operating Handbook/Airplane Flight Manual must be displayed.

NOTE 3: Continued airworthiness and limitations are contained in 750XL Maintenance Manual (dated March 2003 or later issue), Airworthiness Limitations, Chapter 4, (CAA approved for FAA July 23, 2003 or later approved chapter 4 revision).

NOTE 4: Approved for day and night VFR. Approved for IFR when modified according to Pacific Aerospace Corporation Ltd. drawing 11-00005-1. No flight in icing approved.

NOTE 5: The installation of electronic equipment, such as primary flight displays for flight critical information (such as altitude, attitude, or airspeed) will require additional certification requirements, including Special Conditions.

NOTE 6: Additional passenger seating is installed in accordance with the following optional modifications:

1. PAC/XL/0148 – Installation of Gippsland Passenger Seats
   (Requires the prior installation of PAC/XL/0001 "Mk II floor", and PAC/XL/0019 or PAC/XL/0079 "Cabin Ventilation".)
   Eight seats: Two at Station 106.46 ins (2.70 m)
   Two at Station 145.23 ins (3.69 m)
   Two at Station 181.12 ins (4.60 m)
   Two at Station 226.21 ins (5.74 m)
   The seats at Station 181.12 (4.60m) may not be installed if the standard roller door is fitted.
2. PAC/XL/0193 – Installation of Aero Twin Passenger Seats
   (Requires the prior installation of PAC/XL/0107 "Mk III floor", and PAC/XL/0019 or PAC/XL/0079 "Cabin Ventilation".)
   Eight seats: Two at Station 104.34 ins (2.65 m)
   Two at Station 144.43 ins (3.67 m)
   Two at Station 178.32 ins (4.53 m)
   Two at Station 226.76 ins (5.76 m)

NOTE 7: When modification PAC/XL/0448 is incorporated, the C.G. range is changed to the following:

Forward Limit 102.18 ins (2.60 m) aft of datum at 4,209 lbs (1,905 kgs).
104.90 ins (2.66 m) aft of datum at 5,639 lbs (2,553 kgs).
113.27 ins (2.88 m) aft of datum at 7,500 lbs (3,395 kgs).

Aft Limit 124.60 ins (3.17 m) aft of datum at all weights.

Straight line variation between points given.

When modification PAC/XL/0448 is incorporated, the fuel capacity is changed to the following:

Tank	Total capacity	Unusable	Usable
Front Left Tank (includes sump tank)	48.4 gallons 183.4 liters, 323 lbs	0.9 gallons 3.4 liters, 6 lbs	47.6 gallons 180 liters, 317 lbs

Front Right Tank	48.1 gallons 182 liters, 320 lbs	0.5 gallons 2 liters, 3.5 lbs	47.6 gallons 180 liters, 317 lbs
Rear Left Tank	121.9 gallons 461.3 liters, 812 lbs	3.5 gallons 13.3 liters, 23.4 lbs	118.3 gallons 448 liters, 788 lbs
Rear Right Tank	121.9 gallons 461.3 liters, 812 lbs	3.5 gallons 13.3 liters, 23.4 lbs	118.3 gallons 448 liters, 788 lbs
Total	340.3 gallons 1288 liters, 2267 lbs	8.5 gallons 32 liters, 56 lbs	331.8 gallons 1256 liters, 2210 lbs

NOTE 8: Airplanes with serial numbers 186 and higher all incorporate modification PAC/XL/0448, see Note 7

NOTE 9: Additional approved Modifications are:

Number	Description	Comment
PAC/XL/0387	Installation Wide Main Tyres	Major Change
PAC/XL/0389	Installation MCI Model 2023 Crew Seats	Major Change
PAC/XL/0609	Installation Fuselage Changes – Modular Floor	Major Change
PAC/XL/0610	Installation - Passenger / Freight Plug (Modular Floor)	Major Change
PAC/XL/0658	Installation High Flotation Nose Wheel	Major Change

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