CIVIL AVIATION AUTHORITY
OF NEW ZEALAND

A-11
Revision 5
NZSkydive Ltd
CRESCO 08-600
29 November 2021

TYPE CERTIFICATE DATA SHEET No A-11

This data sheet, which is part of Type Certificate No A-11, prescribes the conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the New Zealand Civil Aviation Rules.

Type Certificate Holder: **NZSkydive Ltd.**
Trading as Pacific Aerospace
333 Airport Road
Hamilton 3282
New Zealand

Type Certificate Holder Record: **Transferred from Pacific Aerospace Ltd. to NZSkydive Ltd. on 29/11/21**
Transferred from Pacific Aerospace Corporation Ltd. to Pacific Aerospace Ltd. on 12/12/06.

I - Model CRESCO 08-600 (Standard and Restricted categories) Approved 9.4.84 (See Note 4)

CONFIGURATION 1

Engine: Lycoming LTP 101-600A-1A. (See Note 5)

Fuel: MIL-T-5624 Grades JP4 and JP5.
ASTM D1655-79 Types Jet A, Jet A1 and Jet B.

Oil: MIL-L-7808 or MIL-L-23699.
(Fuels and oils shall conform to the specifications as listed or to subsequent revisions thereto.)

Engine Limits:

	Shaft Horsepower (@1924 RPM)	Gas Gen Speed (% RPM)	Prop Shaft Speed (RPM)	Prop Shaft Torque (ft-lb)	Measured Gas Temp. (°C)
Take-off (5 mins)	599	103.2	1950	1634	782
Max. Continuous	565	101.1	1950	1542	763
Transient	-	104.8	2032	1687	843*
Starting	-	-	-	-	899*

* Time limit 12 seconds above 782 °C

Propeller & Limits:	Hartzell HC-B3TN-3D/T10282. (See Note 7) Diameter : 102 in. max., 98 in. min. Pitch at 30 in. station: Low (Beta Light) 20° Reverse -25°
Fuel Capacity:	Two coupled wing tanks 283 litres total at 0.254m aft of datum. Usable capacity 238 litres. Two coupled wing tanks 281 litres total at 0.892m aft of datum. Usable capacity 281 litres.
Oil Tank Capacity:	5.7 litres at 2.013m forward of datum.
Flight Manual:	AIR 2138 at latest CAA approved revision.

CONFIGURATION 2

The PT6A engine installation is covered by modification PAC/CR/210. This has been the standard production configuration from serial number 010 on but may be retro-fitted to aircraft originally manufactured as Configuration 1.

Engine:	Pratt & Whitney PT6A-34AG (See Note 10)
Oil:	MIL-L-23699

Engine Limits:

	Inter-turbine Temperature ITT (°C)	Gas Gener. Speed Ng (% RPM)	Power Output Shaft Speed Np (% RPM)	Torque (lb-ft)
Starting	1090 *	-	-	-
Ground Idle	685	52-54	92	-
Flight Idle	685	72	-	-
Transient	850 *	102.6	110	2100 *
Steady-state Take-off	790	101.5 **	92	1970 **
Steady-state Climb/Cruise	740	-	-	-
Maximum Continuous	-	101.3	92	1655

* Steady state limits must not be exceeded for more than 2 seconds.

** 5 minutes limit.

Propeller & Limits:	Hartzell HC-B3TN-3D/T10282 (See Note 7) Diameter : 102 in max., 98 in min. Low Pitch Setting at 30" Station : 18°

Fuel Capacity:	Two coupled wing tanks 283 litres total at 0.254m aft of datum. Usable capacity 218 litres. Two coupled wing tanks 281 litres total at 0.892m aft of datum. Usable capacity 281 litres.
Oil Tank Capacity:	8.7 litres at 2.44m forward of datum.
Flight Manual:	AIR 2467 at latest revision.

DATA APPLICABLE TO BOTH CONFIGURATIONS

Airspeed Limits:	Never exceed	173 kt CAS
	Max. structural cruising	137 kt CAS
	Manoeuvering	124 kt CAS
	Flaps extended 20°	110 kt CAS
	Flaps extended 30°	100 kt CAS

C.G. Range: (See Note 13)	Fwd Limit:	0.192m aft of datum at 1647 kg or less. 0.530m aft of datum at 2925 kg.
	Aft Limit:	0.645m aft of datum at all weights.
	Straight line variation between points given.	

Empty Weight C.G. Range:	None.
Datum:	Wing leading edge.
Levelling means:	Fuselage upper longerons and bulkhead in cargo area.
Maximum Weight:	2925 kg Standard Category. (See Note 13)
Number of seats:	Two at 0.475m forward of datum. See Flight Manual Supplements for optional seating.
Maximum Cargo:	227 kg between 1.68m and 3.05m aft of datum.
Maximum Hopper load:	1860 kg (structural). Moment arm varies between 0.86m aft of datum and 0.99m aft of datum according to load.
Maximum Operating Altitude:	10,000 ft.

Control Surface Movements:	Elevator relative to tailplane:	Up	30°
		Down	8.5°
	Elevator tab relative to tailplane:	Up	8.5°
		Down	30°
	Rudder relative to fin:	Right	30°
		Left	30°
	Ailerons relative to wing:	Up	25°
		Down	10°
	Flaps relative to wing:	Up	0°
		Down	30°

Serial Numbers Eligible:	002 and 003 constructed to drawing 08-00001 issue C, -3 assembly, provided the following modifications are embodied: AI/CR/0018, AI/CR/0019, AI/CR/0025, AI/CR/0037, AI/CR/0038, AI/CR/0060, AI/CR/0064, AI/CR/0065, AI/CR/0066, AI/CR/0071, AI/CR/0073, AI/CR/0074, AI/CR/0077, AI/CR/0082, AI/CR/0083. 004 and up constructed to drawing 08-00001 issue E, -4 assembly.
Drawing List:	NZAIL Drawing No. 08-00001.
Equipment:	The basic required equipment as prescribed in the applicable airworthiness regulations (see certification basis) must be installed in the aircraft for airworthiness certification. The applicable CAA approved Flight Manual is required for all operations. Included within the Flight Manual is information in the form of supplements which cover installation of optional systems and equipment and are necessary for safe operation of the aircraft.
Certification Basis:	New Zealand Civil Airworthiness Requirements current on 17 June 1976 and New Zealand Civil Airworthiness Requirements Vol.1 C.4 current on 9 April 1984. United States Federal Aviation Regulations Part 23 dated 1 February 1965 as amended by amendment 23-1 through 23-16, except FAR 23.49, 23.65, 23.77, 23.977, 23.1043, 23.1521 and 23.1583 are as amended through to amendment 23-21 and 23.1545 is as amended through to amendment 23-23. The following requirements are not complied with but are compensated for by factors that provide an equivalent level of safety: FAR 23.253, 23.929, 23.991, 23.1013, 23.1093, 23.1321, 23.1337, 23.1505.(See Notes 6,8,9,11 and 12). Application for certification dated 17 June 1976. Aircraft internally equipped for dispensing substances on agricultural operations are only eligible for Restricted category for the purpose of agricultural aircraft operations. (See Note 13).

NOTE 1 Current weight and balance report, including list of equipment included in certified empty weight, must be provided for each aircraft at the time of original airworthiness certification and at all times thereafter. Loading instructions are included in the applicable CAA approved Flight Manual.

NOTE 2 (a) Placards and instrument markings must be displayed in accordance with the applicable CAA approved Flight Manual including relevant supplements.

In addition, each aircraft classified on its certificate of airworthiness in the Restricted category must have a placard displayed in the cockpit with wording as follows:

CAUTION
This is an agricultural aircraft. All aerobatic manoeuvres, including spins prohibited. Avoid severe flight manoeuvres. Do not exceed maximum authorised weight. Disregard of this notice will greatly reduce fatigue life and may result in structural failure.

(b) Each aircraft must have a placard in clear view of the pilot that specifies the kind of operations such as VFR or IFR, DAY or NIGHT, to which the operation of the aircraft is limited by the equipment installed, and also that flight in known icing conditions is prohibited.

(c) The operating limitations placard required by FAR 23.1559(a) is not necessary for operation in New Zealand but must be installed in aircraft to be exported from New Zealand.

NOTE 3 Information essential for the proper maintenance of the aircraft is contained in Pacific Aerospace Corporation Ltd Maintenance Manual for the Cresco 08-600 aircraft. Time limits of life limited components, including the wing spar, are given in the Airworthiness Limitations Section of Chapter 05.

NOTE 4 Provisional CTA A-11 issued 18.12.80.

NOTE 5 The Lycoming LTP 101-700A-1A engine may be installed under modification AI/CR/0080. This engine is de-rated to the same power rating as the LTP 101-600A-1A engine. Changes to engine limits and associated instrument markings are given in Supplement 2 to the CAA approved Flight Manual AIR 2138.

NOTE 6 When electrically operated flaps are installed in accordance with modification PAC/CR/0118 the requirements of 23.777(d) are not complied with but are compensated for by factors that provide an equivalent level of safety.

NOTE 7 The Hartzell HC-B3TN-3C/T10282 propeller may be installed under modification PAC/CR/0230. This propeller is fully interchangeable with the original propeller and there is no change to the applicable propeller limits.

NOTE 8 When a rear cabin seat is installed in accordance with modifications PAC/CR/0050 or PAC/CR/0346 the requirements of FAR 23.771(b) are not complied with but are compensated for by factors that provide an equivalent level of safety. Aircraft with this modification embodied are only eligible for Restricted category.

NOTE 9 When the hopper is removed and passenger seating is installed in accordance with modification PAC/CR/0142 the requirements of FAR 23.807(a) are not complied with but are compensated for by factors that provide an equivalent level of safety.

NOTE 10 The Pratt & Whitney PT6A-34 engine may be installed under modification PAC/CR/0291. This engine is fully interchangeable with the original engine and there is no change to the applicable engine limits.

NOTE 11 When the alternate air intake is deleted from PT6A powered aircraft in accordance with modification PAC/CR/0295 the requirements of FAR 23.1093(b) are not complied with but are compensated for by factors that provide an equivalent level of safety. Aircraft with this modification embodied are only eligible for Restricted category.

NOTE 12 When a long-range fuel system is installed in accordance with modification PAC/CR/0334 the requirements of FAR 23.965(a)(2) are not complied with but are compensated for by factors that provide an equivalent level of safety.

NOTE 13 Revised limitations and conditions for aircraft operating in the Restricted category for the purposes of agricultural aircraft operations under the provisions of CAR Part 137 are given in Supplement 1 to the applicable flight manual.

- END -