



TYPE-CERTIFICATE DATA SHEET

No. IM.E.100

for

Continental IO-550 series engines

Type Certificate Holder

Continental Aerospace Technologies, Inc.

2039 Broad Street,

Mobile, Alabama 36615, USA

For Models:

Continental IO-550-B
Continental IO-550-C
Continental IO-550-D
Continental IO-550-F
Continental IO-550-G
Continental IO-550-N
Continental IO-550-P



Intentionally left blank



TABLE OF CONTENTS

I. General	4
1. Type/ Model	4
2. Type Certificate Holder	4
3. Manufacturer	4
4. Date of Application	4
5. EASA Type Certification Date	4
II. Certification Basis	5
1. State of Design Authority Certification Basis	5
2. Reference Date for determining the applicable airworthiness requirements	5
3. EASA Certification Basis	5
3.1. Airworthiness Standards	5
3.2. Special Conditions (SC)	5
3.3. Equivalent Safety Findings	5
3.4. Deviations	5
3.5. Environmental Protection	5
III. Technical Characteristics	5
1. Type Design Definition	5
2. Description	6
3. Equipment	6
4. Dimensions	6
5. Dry Weight	6
6. Ratings	7
7. Control System	7
8. Fluids (Fuel, Oil, Coolant, Additives)	7
9. Aircraft Accessory Drives	7
IV. Operating Limitations	7
1. Temperature Limits	8
2. Speed Limits	8
3. Pressure Limits	8
3.1 Fuel Pressure	8
3.2 Oil Pressure	8
V. Operating and Service Instructions	8
VI. Notes	9
SECTION: ADMINISTRATIVE	10
I. Acronyms and Abbreviations	10
II. Type Certificate Holder Record	10
III. Change Record	10



I. General

1. Type/ Model

Continental IO-550 / Continental IO-550-B, IO-550-C, IO-550-D, IO-550-F, IO-550-G, IO-550-N, IO-550-P

2. Type Certificate Holder

Continental Aerospace Technologies, Inc.
2039 South Broad Street
Mobile, Alabama 36615, USA

(from 05 July 2013 to 03 September 2020, Continental Motors, Inc.)
(until 05 July 2013, Teledyne Continental Motors)

3. Manufacturer

Continental Aerospace Technologies, Inc.

(from 05 July 2013 to 03 September 2020, Continental Motors, Inc.)
(until 05 July 2013, Teledyne Continental Motors)

4. Date of Application

IO-550-B	IO-550-C	IO-550-D	IO-550-F	IO-550-G
10 Nov. 1983	11 Nov. 1983	11 Nov. 1997	unknown	3 Aug. 1994
IO-550-N	IO-550-P			
8 Nov. 2004	21 Febr. 2017			

Note: Application for IO-550-B, IO-550-C, IO-550-D and IO-550-G was made to LBA Germany before EASA had been established.
Application for IO-550-F was made to CAA UK before EASA had been established.

5. EASA Type Certification Date

IO-550-B	IO-550-C	IO-550-D	IO-550-F	IO-550-G
17 Sep. 1984	17 Sep. 1984	10 Dec. 1998	07 May 1992	20 Mar. 1995
IO-550-N	IO-550-P			
09 May 2005	14 Sep. 2017			

Note: IO-550-B, IO-550-C, IO-550-D and IO-550-G had been validated by LBA Germany (TC/TCDS 4606).
IO-550-F had been validated by CAA UK (Airworthiness Approval Note 23415 - Cessna U206G)



II. Certification Basis

1. State of Design Authority Certification Basis

See FAA TCDS E3SO

2. Reference Date for determining the applicable airworthiness requirements

Same as FAA certification reference date:

10 August 1990 - for IO-550-N

30 April 1998 - for IO-550-P

3. EASA Certification Basis

3.1. Airworthiness Standards

FAR 33 Amdt. 8 effective May 2, 1977 (IO-550-B, IO-550-C, IO-550-D, IO-550-F)

FAR 33 Amdt. 11 effective April 24, 1986 (IO-550-G)

JAR-E Change 9 dated May 4, 1990 (IO-550-N)

JAR-E Change 9 incl. Amdt. E/96/1 and Amdt. E/97/1 (IO-550-P)

3.2. Special Conditions (SC)

none

3.3. Equivalent Safety Findings

none

3.4. Deviations

none

3.5. Environmental Protection

none (not required for piston engines)

III. Technical Characteristics

1. Type Design Definition

For IO-550-B, IO-550-C, IO-550-D, IO-550-F, IO-550-G, IO-550-N: As defined by CONTINENTAL engine stocklist

For IO-550-P: CONTINENTAL IO-550-P Stocklist and Installation Drawing No. 654576



2. Description

The Continental IO-550 engine is a fuel injected, naturally aspirated, horizontally opposed, six cylinder four stroke, spark ignited, aircooled, wet sump engine incorporating a top induction system, bottom exhaust, and provisions for front and rear mounted accessories.

Displacement: 9.046 dm³ (552 cu. in.)
Bore x stroke: 133.4 mm x 108.0 mm (5.25 in. x 4.25 in.)
Compression ratio: 8.5 : 1
Gear ratio: N/A

3. Equipment

Magnetos: CONTINENTAL/Bendix S6RN-201/S6RN-205
CONTINENTAL/ Bendix S6RSCSC-201 and S6RSCSC-205
CONTINENTAL/Bendix S6RN-1201/S6RN-1205 (L/R, not for IO-550-G, -N, -P)
CONTINENTAL/Bendix S6RN-25(L/R)
CONTINENTAL/Bendix S6RN-1225(L/R, not for IO-550—G, -N, -P)
Bendix S6RSC-25 (L/R)
Slick Electro Model 6210 (L/R, not for IO-550-G, -N, -P)
Slick Electro Model 6310 (L/R, not for IO-550-G, -N, -P)

Spark plugs: AC 271, 273, 281, 281IR, 283, 283R, 291, 293
Auto Lite PL350, URHB32E
Champion RHB32E, RHB32S, RHB36S,

Alternators: CONTINENTAL 60AMP, CONTINENTAL 100AMP, Prestolite 70 AMP, HET/KAPS 85AMP, HET/KAPS 100AMP, HET/KAPS 70AMP

4. Dimensions

	All models
Overall Length	976 mm (38.43 in.)
Overall Height	518 mm (20.41 in.)
Width	865 mm (34.04 in.)

5. Dry Weight

IO-550-B	IO-550-C	IO-550-D, -F	IO-550-G, -N	IO-550-P
191.24 kg	196.50 kg	198.27 kg	194.58 kg	194.59 kg
(421.61 lbs)	(433.20 lbs)	(437.1 lbs)	(428.97 lbs)	(429 lbs)

(weight without starter and alternator)



6. Ratings

Rating		IO-550-B, -C; -D, -F	IO-550-G	IO-550-N, -P
Power, kW (HP)	Take-off, 5 min., full throttle at sea level pressure altitude	224 (300) at 2700 rpm	209 (280) at 2500 rpm	231 (310) at 2700 rpm
	Maximum Continuous, full throttle at sea level pressure altitude	224 (300) at 2700 rpm	209 (280) at 2500 rpm	231 (310) at 2700 rpm

Note : the performance values specified above correspond to minimum values defined under the conditions of ICAO or ARDC standard atmosphere.

7. Control System

The engine is equipped with a mechanical CONTINENTAL fuel injection system.

8. Fluids (Fuel, Oil, Coolant, Additives)

Fuel: Aviation Gasoline, minimum grade 100LL, 100 or B95/130 CIS or RH95/130

Oil: see CONTINENTAL Spec MHS No. 24

9. Aircraft Accessory Drives

Designation	Rotation direction	Speed ratio to crankshaft	Max. Torque Nm (in. lbs)		Max. Overhang moment Nm (in. lbs)
			Continuous	Static	
Propeller governor ¹⁾	CW	1 : 1	3.28 (29)	93.21 (825)	5.65 (50)
Tachometer ²⁾	CCW	0.5:1	0.79 (7)	5.65 (50)	2.82 (25)
Generator, gear driven (IO-550-B, -C, -G, -N, -P)	CCW	3:1	11.30 (100)	56.49 (500)	16.95 (150)
Generator, belt driven (IO-550-D, -F)	CCW	2:1	14.12 (125)	90.39 (800)	N/A
Accessory Drive (2) ³⁾	CW	1.5:1	11.30 (100)	90.39 (800)	4.52 (40)

Notes : - CW - clockwise; CCW – counter clockwise (viewing drive pad)

¹⁾ Modified AND 20010 pad

²⁾ AND 20005 pad for IO-550-B, -C, -G, -N, -P; AS-24 pad for IO-550-D, -F

³⁾ One drive is eligible at 18.08 Nm (160 in. lbs) continuous torque load provided the other does not exceed 11.30 Nm (100 in. lbs) continuous torque load.



IV. Operating Limitations

1. Temperature Limits

Cylinder head bayonet thermocouple: 238 °C (460 °F)
Oil inlet: 116 °C (240 °F)

2. Speed Limits

Max. overspeed (10 seconds, Momentary overspeed): 3000 rpm
See latest revision of CONTINENTAL Standard Practice Maintenance Manual M-0, Chapter 6, for detailed information

3. Pressure Limits

3.1 Fuel Pressure

Inlet to injection pump, minimum: - 24.1 kPa (-3.5 psig)
maximum: + 41.4 kPa (+6.0 psig)
Outlet to upper return line, max.: + 24.1 kPa (+3.5 psig)

3.2 Oil Pressure

Idle: 69 kPa (10 psig)
Normal: 207...414 kPa (30...60 psig)
Maximum (cold oil) 690 kPa (100 psig)

V. Operating and Service Instructions

Manuals

	IO-550-B, -C, -G, -N, -P	IO-550-D, -F	
Installation and Operation Manual	OI-16	X30565	

Instructions for Continued Airworthiness

	IO-550-B, -C, -G, -N, -P	IO-550-D, -F	
Maintenance Manual	M-0, M-16	M-0, X30605	
Overhaul Manual	M-16	X30607	
Service Bulletins and Service Letters	As issued	As issued	



VI. Notes

- Note 1:** The EASA approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness is published in the applicable "Maintenance Manual" document, chapter 4 "Airworthiness Limitations".
- Note 2:** All models incorporate a crankshaft with one 4th, one 5th and two 6th order dampers.
- Note 3:** Engine model numbers may include a suffix to define minor specification changes.
Example: IO-550-B(1B)
- Note 4:** These models of engines are eligible for installation of the freon compressor drive system, CONTINENTAL equipment no. EQ6576 or EQ6580 - IO-550-B, -C, -G, -N, -P
CONTINENTAL equipment no. EQ6563 - IO-550-D, -F and/or
and auxiliary alternator EQ6562 - IO-550-D, -F



SECTION: ADMINISTRATIVE

I. Acronyms and Abbreviations

n/a

II. Type Certificate Holder Record

Continental Aerospace Technologies, Inc.
(from 05 July 2013 to 03 September 2020, Continental Motors, Inc.)
(until 05 July 2013, Teledyne Continental Motors)

III. Change Record

Issue	Date	Changes	TC issue
Issue 01	09 May 2005	Initial Issue	09 May 2005
Issue 02	05 July 2013	Name Change of TC Holder and Manufacturer	05 July 2013
Issue 03	14 September 2017	Model IO-550-P added	14 September 2017
Issue 04	03 September 2020	Name Change of TC Holder and Manufacturer	03 September 2020

-END-

