

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

E-233
Revision 17
CONTINENTAL
C75-8, -8F, -8FH, -8FHJ, -8FJ, -8J
C75-12, -12F, -12FH, -12FHJ, -12FJ, -12J
C75-12B, -12BF, -12BFH
C75-15, -15F
C85-8, -8F, -8FHJ, -8FJ, -8J
C85-12, -12F, -12FH, -12FHJ, -12FJ, -12J
C85-14F
C85-15, -15F

August 15, 1973

TYPE CERTIFICATE DATA SHEET NO. E-233

Engines of models described herein conforming with this data sheet (which is part of type certificate No. 233) and other approved data on file with the Federal Aviation Administration, meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Federal Aviation Regulations provided they are installed, operated and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

Type Certificate Holder Teledyne Continental Motors
Mobile, Alabama 36601

Model	C75-8	C75-12, -15	C85-8	C85-12, -14, -
Type	4H0A	--	--	15
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Rating, ICAO or ARDC
standard atmosphere

Max. continuous hp., r.p.m., full throttle at sea level pressure altitude	75-2275	--	85-2575	--
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Takeoff hp., 5 min., r.p.m. full throttle at sea level pressure altitude	75-2275	--	85-2575 (87-2650 for - J, -FHJ and - FJ models only)	--
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Fuel (min. grade aviation gasoline)	73	--	--	--
Lubricating oil, ambient temperature	Oil Grade			
Below 40°F.	SAE 20	--	--	--
Above 40°F.	SAE 40	--	--	--
Bore and stroke, in.	4.062 x 3.625	--	--	--
Displacement, cu. in.	188	--	--	--
Compression ratio	6.3:1	--	--	--
Weight (dry), lb.	177	182	178	180
C.G. location (with accessories where eligible)				
Fwd. of rear face of mounting lugs, in.	6.2	4.6	6.2	4.6
Below crankshaft center line, in.	1.5	1.3	1.5	1.3
Propeller shaft, SAE No. (see NOTE 4)	0 (Taper)	--	--	--
Carburetion (see NOTE 2)	Stromberg NA-S3A1 P/N 40059	For gravity system: Stromberg NA-S3A1, P/N 380162, CMC P/N 24716 or 40059 or Marvel-Schebler MA3 -SPA, P/N 8-2889, CMC P/N 40439. For pump system: Stromberg	For gravity system: Stromberg NA-S3A1, P/N 380167, CMC P/N 40590 or Marvel-Schebler MA3-SPA, P/N 10-2899, CMC P/N 40439 or Marvel-Schebler MA3-SPA	--

NA-S3A1 P/N P/N 10-4240,
 380171, CMC CMC P/N
 P/N 36019. 627366. For
 pump system:
 Stromberg
 NA-S3A1,
 P/N 380172,
 CMC P/N
 40636.

Ignition, dual	Bendix- Scintilla SF- 4R, SF4RN-8, S4RN-21; Eisemann LA- 4, AM-4; Case 47; Slick- Electro 443 or 4003 magnetos	Bendix- Scintilla SF4LN-8, S4LN-21; Eisemann LA- 4, AM-4; Case 47, Slick- Electro 447 or 4001 magnetos	Bendix- Scintilla SF- 4R, SF4RN-8, S4RN-21; Eisemann LA- 4, AM-4; Case 47; Slick- Electro 443 or 4003 magnetos	Bendix- Scintilla SF4LN-8, S4LN-21, Eisemann LA- 4, AM-4, Case 4-CAMA, 47; Slick-Electro 447 or 4001 magnetos
Timing, °BTC	28 top, 30 bottom	--	--	--
Spark plugs	See NOTE 5	--	--	--
Oil sump capacity (qt.)	4	--	4-1/2 or 5	--
NOTES	1 thru 5	1 thru 5	1 thru 5	1 thru 5

"- -" indicates "same as preceding model"

Certification basis CAR 13, Type Certificate No. 233

Production basis Production Certificate No. 7. Production Certificate No. 508, re
 manufactured only-(for all models except C75-12BFH)

NOTE 1. Maximum permissible cylinder head, barrel and oil inlet
 temperature are as follows (oil pressure limits 30 to 40 p.s.i.):

Head Barrel Oil Inlet

C75 Series	550°F.	300°F.	225°F.
C85 Series	540°F	300°F.	225°F.

NOTE 2. Carburetor fuel inlet pressure limits:

Marvel-Schebler MA3-SPA used with gravity or pump system; minimum 7.5 inch fuel head, maximum 6 p.s.i.

Bendix-Stromberg NA-S3A1 for gravity system; minimum 19 inch fuel head, maximum 4 p.s.i.

Bendix-Stromberg NA-S3A1 for pump system; minimum 2 p.s.i., maximum 4 p.s.i.

NOTE 3. The following accessories are eligible for use at indicated weight increases:

Accessory	Direction of Rotation*	Speed Ratio to Crankshaft	Max. Torque (in. -lb.)		Maximum Overhang Moment (in. -lb)
			Cont.	Static	
Tachometer	C	0.500:1	7	50	25
** Generator	CC	2.035:1	60	600	100
*** Starter	C	35.7:1			
**** Fuel pump (diaphragm)		0.500:1			

*C Clockwise viewing drive pad; CC - Counterclockwise.

** <u>Generator (eligible 12, 14 and 15 series only)</u>	<u>Weight (lb.)</u>
Delco-Remy No. 1101876 (CMC P/N A40435) 12 v. 15 a.	10
Delco-Remy No. 1101890 (CMC P/N 534111) 12 v. 20 a.	10
Delco-Remy No. 1101879 (CMC P/N 530190) 12 v. 25 a.	14

Delco-Remy No. 1101898 (CMC P/N 536035) 12 v. 35 a.	16
*** <u>Starter (eligible 12, 14 and 15 series only)</u>	
Delco-Remy No. 1109656 (CMC P/N 50309)	16
**** <u>Fuel pump</u>	
AC Diaphragm Type No. 1539051 or 9051, CMC P/N 40585 (use with float type carburetor)	2
AC Diaphragm Type No. 1539076 or 9076, CMC P/N 40695 (use with float type carburetor)	2
AC Diaphragm Type No. 1539003 or 9003, CMC P/N 40281 (use with pressure type carburetor on C75-12B)	2
AC Diaphragm Type No. 1537973 or 7973, CMC P/N 40452 (use with float type carburetor)	2
<u>Miscellaneous</u>	
Air filter and scoop No. A-5810, A-40522 or 35937	3
Shielded ignition	3
Harrison oil radiator Model HE431-9, P/N 40601 and adapter P/N 4763	4

NOTE 4. The C75-8 series engines are similar to the C75-12 and C85-12 series except that they do not incorporate provisions for generator and starter drives.

The C85 series engines are similar to the corresponding C75 series except for rating and a different carburetor setting.

The C75-12B engine is similar to the C75-12 except that it incorporates a Stromberg PS-3 pressure carburetor (P/N 40284) at weight increase of 3 lb. See NOTE 3 for fuel pump.

The C75-15 and C85-15 series engines are identical to the C75-12 and C85-12 series except that they incorporate modified mounting lugs for Lord flexible mount assemblies. Increased engine motion results and must be provided for in the installation.

The C85-14F is the same as the C85-12F except that it incorporates provisions for modified mounting lugs for Lord flexible mounting assemblies that are used on the C90-14F engine.

Those models listed in the heading of this data sheet suffixed by letters F, H and J, differ from the basic model designation as follows:

"F" denotes an SAE No. 1 flanged crankshaft rather than 0 taper, at weight increase of 1 lb.

"H" denotes a special SAE No. 1 flanged crankshaft and special crankcase for installation of hydraulically operated controllable pitch propeller requiring oil supply through crankshaft.

"J" denotes a fuel injector. Ex-Cell-O model A-41 (P/N 40572) or Ex-Cell-O model B-41 (P/N Ex-A40791) instead of a carburetor, at weight increase of 4 lb.

NOTE 5.

The following spark plugs are approved for these engines:

AC SR83IR, HSR83P, SR83P, A88, S88, S88D, HS88, SR88, SR88D, HSR87LIR, SR93, HSR93P

Auto Lite 18A1, B4, B4S, BH4S, SH2K, H15, SH15, SH15R, SH20A, SH26, SH150, SH200A

BG RB485S, BG706, BG706R, BG706S, BG706SR, BG919SR5, BGRB955S

Champion C27, C27S, REM38P, REM38W, RHM38P, RHM38W, RHM40E, D41N, EM41E, EM41N, M41E, EM41E, M41N, M42E, EM42E, 62S, RE1140RE

Red Seal SA190, SK190, SJ190, SE230, SJ230

Safir B57

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