

Model (Continued)	O-470-11, -11B	O-470-13, -13A	O-470-4	O-470-15
C.G. location (with starter, generator and fuel pump)				
Fwd. or rear face, engine crankcase, in.	8.8	9.8	---	---
Below crankshaft, centerline, in.	.8	.2	---	---
Beside crankshaft, centerline toward 1-3-5 side, in.	—	.1	---	---
Propeller shaft, SAE No.	4 flange	Special integral flange 4-7/8 in. O.D. with six 1/2 in. bolt holes in 4 in. dia. circle	---	---
Carburetion	Bendix-Stromberg Model PS-5C (CMI/TCM/CMC No. 531857)	---	Bendix-Stromberg Model PS-5CD (CMI/TCM/CMC No. 538685)	Bendix-Stromberg Model PS-5C (CMI/TCM/CMC No. 625098)
Ignition, dual magnetos	Scintilla S6LN-21 (CMI/TCM/CMC NO. 531676)	Scintilla S6LN-23 (CMI/TCM/CMC No. 533173)	---	Scintilla S7LN-21 (CMI/TCM/CMC No. 531676)
Timing, °BTC	Right 26, Left 26	---	---	---
Spark plugs	(See NOTE 6)	---	---	---
Oil sump capacity, qt.	10; 7 usable	Dry	---	10; 7 usable
NOTES	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 6	1, 2, 3, 4, 6	1, 2, 3, 4, 6

"- - -" indicates "same as preceding model"

"—" indicates "does not apply"

Certification Basis

Part 13 of the Civil Air Regulations effective August 1, 1949 as amended by 13-1.
Type Certificate No. 269 issued January 19, 1951
Application for Type Certificate dated October 23, 1950

Production Basis

P.C. 7 (All models except O-470-11B and -11B-C1)
P.C. 508 (All models with "R" suffix on serial number except O-470-11B and -11B-C1)

NOTE 1.

Maximum permissible temperatures:

Cylinder head O-470-11, -11B, -15
325° F. (spark plug gasket)
450° F. (bayonet thermocouple downdraft cooling)
O-470-4, -13, -13A
465° F. (bayonet thermocouple downdraft cooling)

Cylinder barrel 315° F.
Oil inlet 225° F.

NOTE 2.

O-470-11, -11B, -13, -13A, -4, -15

Fuel inlet pressure limits:
9 to 15 p.s.i.g.

Oil pressure limits:
30 to 60 p.s.i.a.

O-470-11-CI, -11B-CI

Fuel inlet pressure limits:
Min. minus 2.25 p.s.i.g.
Max. plus 10 p.s.i.g.

Oil pressure limits:
30 to 60 p.s.i.a.

NOTE 3. The following accessory drive or mounting provisions are available:

Original Accessory	Type	Dwg. No.	Direction of Rotation*	Speed Ratio to Crankshaft	Maximum Torque (in.-lb.)		Max. Overhang Moment (in.-lb.)
					Continuous	Static	
Starter	XIV-A	AND 20004	C	1.0	—	3600	300
Generator							
(O-470-11 -11B, -15)	XII-A	AND 20002	C	2.37	500	2200	400
(O-470-13, -13A, -4)	XII-A	AND 20002	C	3.094	350	1000	400
Fuel Pump	XIII-A	AND 20003	CC	.94	25	450	—
Tachometer	XV-A	AND 20005	CC	.50	7	50	—
Fluid P Pump	X	AND 20000	C	1.43	100	800	25
Fluid P Pump	XI-A	AND 20001	C	1.45	250	1650	75
Spare	XV-A	AND 20005	CC	.50	7	50	—
Governor	XX	AND 20010	C	1.03	125	825	—

*C - Clockwise viewing drive pad;
CC - Counterclockwise

NOTE 4. Model O-470-11B is identical to the O-470-11 except that it incorporates the model O-470-15 cylinder and piston assemblies.

Model O-470-11 incorporates two 6th order dampers.

Model O-470-13A is identical to the O-470-13 except that an additional tachometer drive is provided through the camshaft gear and incorporates one 5th and one 6th order crankshaft damper.

Model O-470-15 is identical to the O-470-11 except that a four 6th order damper crankshaft is used with the same size propeller flange specified on the model O-470-13. Model O-470-15 incorporates propeller control provisions. Also, revised engine mount brackets and long skirt pistons are used with this engine.

O-470-13 engines incorporating crankshaft with one 5th and one 6th order dampers have the numeral 5 stamped on the outer circumference of the crankshaft propeller flange. O-470-13 engines with two 6th order dampers have no numeral stamped on the flange.

Model O-470-4 which was previously designated as O-470-13B is identical to the Model O-470-13A except for the carburetor.

NOTE 5. Models O-470-11 and -11B are eligible for incorporation of CMC continuous flow fuel injection equipment No. 5843 replacing carburetion system, with a weight increase of approximately 3 lb. When this modification is accomplished the suffix letters "CI" are to be added to the model designation.

NOTE 6. The following spark plugs and/or those listed in CMI Service Information Letter SIL03-2 are approved on this engine:

AC: SR83P, HSR83P, S88D, HS88, HSR88, SR88D
 Auto Lite: SH2M, SH15, SH15R, SH20, SH20A, SH200A
 BG: RB485S, 706S, 706SR, 919SR, 919SR5, RB955S, RB963S, HRB963S
 Champion: RC26S, C27S, REM38P, RHM38P, RED39N, REM39N, RHD39N, RHM39N, RED40E, REM40E, RHM40E, ED41N, EM41N, EM42E
 Red Seal: SE190, SJ190, SE230, SJ230

NOTE 7. Model O-470-11 engines which have been modified in accordance with U.S. Army Aviation and Surface Material Command Work Requirement No. WR-55-2810-112-B(1) issued 5 April 1963 and revised 13 February 1964, and designated Model O-470-11A, are considered to be equivalent to and interchangeable with Model O-470-11.

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