

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

E1SW
Revision 7
Jacobs-Page
R-755SM
R-755S

January 2, 2002

TYPE CERTIFICATE DATA SHEET NO. E1SW

Engine models described herein conforming with this data sheet (which is part of Type Certificate No. E1SW) 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	Air Repair, Inc. 920 Airport Service Road Cleveland, Mississippi 38732
Type Certificate Holder Record:	Air Repair, Inc. assumed ownership of this type certificate from Jacobs Service Company, 4305 Saturn Way, Chandler, Arizona 85334 on January 2, 2002.

	<u>R-755SM</u>	<u>R-755S</u>
Model		
Type - 7RA, Direct Drive, Turbosupercharged		
Ratings, standard atmosphere		
Maximum continuous hp, rpm, in.Hg.		
Sea level pressure altitude	275-2030-30.3	-
Critical altitude at 19,500 ft.	275-2030-30.3	--
Takeoff (1 min.) hp., rpm, in.Hg.	350-2200-35.0	-
Fuel (min. grade aviation gasoline)	80/87	--
Lubricating oil, engine	"Aeroshell W"	--
Bore and stroke in.	5.25 X 5.00	--
Displacement, cu. in.	757	-
Compression ratio	5.4:1	--
Weight (basic engine, dry), lb.	583	576
C.G. location (dry)		
Forward of mounting face, in.	6.0	--
Propeller shaft end, SAE No. Spline	20	--
Carburetion	Stromberg NA-R7A	--
Carburetion setting	482-13	--
Ignition	Dual Scintilla VMN7-DF5 magnetos	Combination Scintilla VMN7-DF5 magneto and Scintilla WL-7A battery ignition unit
Ignition timing, °BTC	31	--
Spark plugs	See Note 7	--

NOTES 1,2,3,4,5

Certification basis 14 CFR part 33, Changes 1, 2, and 3 effective April 3, 1965, plus exemption no. 1169 to § 33.17 for inter-cylinder drain lines.

Production basis None. Each engine produced is subject to a detailed inspection for workmanship and conformance with approved data by an FAA representative. Each engine must have a satisfactory run-in. Upon completion of the above, the FAA representative shall tag the engine with Tag Form 8130-3.

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NOTE 1. Maximum permissible temperatures:
 Cylinder head thermocouple (washer type) 500°F
 Cylinder barrel 300°F
 Oil inlet 200°F
 Carburetor air inlet 200°F

NOTE 2. Pressure limits:
 Fuel inlet 5-9 P.S.I. (measured relative to carburetor deck pressure)
 Oil 60-90 P.S.I.
 Idle min. 20 P.S.I.

NOTE 3. The following are the accessory drive and mounting provision limits:

Drive	Direction of Rotation	Drive Ratio	Maximum Torque (in.-lb.)		Maximum Overhang Moment (in.-lb.)
			Continuous	Static	
Starter	CC	1.5 :1	—	5500	150
Generator	CC	1.4 :1	50	300	110
Fuel pump (rear crankshaft)	C	1 :1	20	150	6
Tachometer	CC	.5 :1			
*Vacuum pump	CC	1 :1	—	—	—
		or .875:1	30	200	8
*Propeller governor	CC	1 :1	30	200	13
*Hydraulic pump	CC	1 :1			

All directions of rotation are given facing engine drive flange.

*Accessories marked with an asterisk are mounted in accessory drive unit (R-755S only). The total continuous torque taken off all the drives on the accessory drive unit should not exceed 70 inch-pounds.

NOTE 4. The models above incorporate the following characteristics.

Model

R-755S 7 cylinder radial direct drive turbo-supercharged

R-755SM Same as R-755S except for dual magneto ignition and no provisions for prop governor.

NOTE 5. The induction system relief valve, P/N 4884 (Honeywell P/N 470866-3) must be replaced after each 150 hours. Relief valve P/N 4884-1 (Honeywell P/N 470944-2) must be replaced after each 300 hours.

NOTE 6. Engines with serial numbers from 35,000 through 39,999 may contain parts from L4MB engines which have been inspected and found acceptable. Engines with serial numbers 40,000 and up are of new manufacture.

NOTE 7. The following spark plugs are approved for use in these engines:

Champion	EM42E or REM38E
AC	SR86, SR87, SR88, HSR86, HSR-87, or HSR-88

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