

MODELS: Wright Cyclone R and GR-1820G-2, -2E and Military Models R-1820-49, -53, -55

T.C. NUMBER: T.C. 157

Model - Cyclone Type - 9RA Rating:	R-1820G-2 Direct drive	GR-1820G-2 16:11 reduction gearing
Maximum continuous, hp, rpm, in.Hg., at:		
Rated pressure altitude (ft.)	850-2100-34.5-5800	--
Sea level pressure altitude	820-2100-34.5-S.L.	--
Take-off (one minute), hp, rpm, in.Hg., S.I.	1000-2200-40.0	--
Fuel (minimum octane aviation gasoline)	87	--
Bore and stroke, in.	6.125 x 6.875	--
Displacement, cu. in.	1823	--
Compression ratio	6.45:1	--
Weight (dry), lbs.	1103	1198
Propeller shaft, SAE No.	40	50
Supercharging (impeller gear ratio)	7:1	--
Carburetion	Stromberg NA-F7F, F2, J or K with 2-3/8 in. venturi, Holley C.G. 1375 C, E, F, H or Chandler-Evans 1375DA-1 carburetor	
Ignition, dual	Scintilla SF9L1, SF9L2, SF9LN, SF9LN1, SF9LN2, SF9L3 or SF9L4 magnetos	
Certification basis	Type Certificate No. 157	
Production basis	None. The manufacturer does not hold a production certificate for the production of engines under this type certificate and, therefore, each engine so produced is subject to a detailed inspection for workmanship and conformity with the approved data by a Civil Aeronautics Administration Agent. In addition, the engine must have a satisfactory run-in including 5 hours at rated power and speed. Upon satisfactory completion of the above, the agent will tag the engine with Tag Form ACA 186.	
NOTES	1, 3, 4	1, 2, 3, 4, 5

NOTE 1. Maximum permissible cylinder head, barrel, and oil inlet temperatures, 500 degrees F., 300 degrees F., and 200 degrees F., respectively.

NOTE 2. All model GR-1820G-2A engines, numbers 25844 to 25850 inclusive, were subsequently modified to model GR-1820G-2 engines.

NOTE 3. Models R and GR-1820G-2E, similar to corresponding models R and GR-1820G-2, eligible at weights (dry) of 1127 and 1222 lbs., respectively, incorporate the G-100 series steel crankcase.

NOTE 4. Engines serial numbers 24023, 24024, 24026, 24027, 24030, 24031, 24032, 24035, 24036, 24040, 24041, 24042, 24043, 24044, 24045, 24051, 24053, 24054, 24057, 24058 are eligible with the following rating:

Maximum continuous, hp, rpm, in.Hg., at:	
Rated pressure altitude (ft.)	850-2100-35.5-5500
Sea level pressure altitude	820-2100-35.5-S.L.
Take-off (one minute), hp, rpm, in.Hg.	1000-2200-42.0

NOTE 5. Military models R-1820-49, -53, -55 becomes eligible as model GR-1820G-2 when modified in accordance with the manufacturer's instructions to incorporate at least the following new parts and settings:

<u>Model</u>	<u>New Parts</u>
R-1820-49 and -55	Supercharger impeller, P/N 27145; carburetor, Stromberg NAF7F2, setting number 64551 or NAF7K carburetor with setting number 115168; new name-plate.
R-1820-53	The foregoing plus: Impeller shaft, gear; drive shaft, numbers 412179, 44425, and 61978 respectively, and related P/Ns 69470, 61746, 61979 and 110483. (Remove all high ratio drive parts.)