

Model Cyclone	702C9GC1, 2, 3, 4, 5, & 6	728C9GC1,2,3,4,5 & 6	
Propeller shaft, SAE No.	50	--	
Crankshaft dampers - torsional	4½ order - front and rear	--	
Carburetion	Stromberg PD-12H3 or B7 for engine models 1 & 4 Stromberg PD12K10 for models 3, 5 & 6 Holley 1375C,E,F,H,HA or HAR for model 2	Stromberg PD-12H3 or B7 for engine models 1 & 3 Stromberg PD12K10 for models 5 & 6 Holley 1375C,E,F,H,HA or HAR for models 2 and 4	
Ignition, dual	Scintilla SF9L-3,-4, SF9LN-4, or Bosch SF9LU-3, magnetos	--	
Ignition timing - °BTC	20	--	
Spark plugs	See NOTE 8	--	
NOTES	1,4,5,6,7,8	1,5,6,7,8	
Model Cyclone	730C9GD1,2,3,4,5 & 6	704C9GC1,2,3,4 & 5	731C9GC1 & 2
Type 9RA-Propeller reduction gearing	3:2	3:2 on models 1,2,3 & 4 16:9 on model 5	16:9
Rating (with low impeller gear ratio)	7:1	7.14:1	7.13:1
Maximum continuous, hp, rpm, in.Hg., at:			
Rated pressure altitude (ft.)	1100-2400-39.8-5500 or 1000-2300-36.7-6900	1100-2400-40.0-5500 or 1000-2300-37.2-6900	1100-2400-42.0-4000 1000-2300-38.5-5500
Sea level pressure altitude	1100-2400-42.5-S.L. or 1000-2300-39.0-S.L.	1100-2400-43.0-S.L. or 1000-2300-39.5-S.L.	1100-2400-43.0-S.L. 1000-2300-39.5-S.L.
Takeoff (5 minutes) hp, rpm, in. Hg.	1200-2500-45.0	1200-2500-45.5 or 1100-2350-43.0	-- --
Rating (with high impeller gear ratio)	—	10:1	10:06:1
Maximum continuous, hp, rpm, in.Hg. at:			
Rated pressure altitude (ft.)	—	900-2300-40.0-15200	900-2300-42.0-15000
Low critical pressure altitude (ft.)	—	900-2300-42.5-9700	900-2300-43.0-10000
Takeoff (5 minutes), hp, rpm, in. Hg., at:			
Rated pressure altitude (ft.)	—	1000-2500-44.5-14200	1000-2500-47.0-14000
Low critical press. altitude (ft.)	—	1000-2500-46.0-9200	1000-2500-48.0-9000
Fuel (Minimum grade aviation gas.)	--	91/96 (Grade 100/130 for rated high ratio takeoffs)	--
Bore and stroke, in.	6.125 x 6.875	--	--
Displacement, cu. in.	1823	--	--
Compression ratio	6.2:1	6.7:1	--
Weight (dry), lbs.	1310 for mod. 1,2 & 5 1325 for mod. 3,4 & 6	1320 for models 1,2 & 5 1335 for models 3 & 4	1320 for model 1 1326 for model 2
C.G. location (dry)			
Fwd. of mounting face, in.	7.5	--	7.2
Above prop. shaft, in.	.4	--	.2
Propeller shaft, SAE No.	50	--	--
Crankshaft dampers - torsional	4½ order - front and rear	--	--
Carburetion	Stromberg PD-12H3 or B7 for engine models 1 & 3 Stromberg PD12K10 for models 5 & 6 Holley 1375C,E,F,H,HA or HAR for models 2 and 4	-- Stromberg PD-12K10 for model 5 --	Stromberg PD-12K10 -- --

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

"—" indicates "does not apply."

Model	Cyclone	730C9GM, 2,3,4,5 & 6	704C9CG1,2,3,4 & 5	731C9GC1 & 2
Ignition, dual		Scintilla SF9L-3,-4, SF9LN-4, or Bosch SF9LU-3, magnetos	Scintilla SF9L-4 magnetos	Scintilla SF9LN-4 magnetos
Ignition timing - °BTC		20	--	--
Spark plugs		See NOTE 8	--	--
NOTES		1,3,5,6,7,8	1,2,4,5,6,7,8	1,5,6,7,8

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

"—" indicates "does not apply."

Certification basis Type Certificate No. 219
Production basis Production Certificate No. 8

NOTE 1. Maximum permissible cylinder head, barrel and oil inlet temperatures, 450°F, 325°F and 220°F, respectively.

NOTE 2. Models 7049GC1, 2, 3, 4, and 5 are eligible with an equivalent roller clutch 2-speed supercharger with drive ratios 7.134:1 and 10.06:1.

NOTE 3. Models 730C9GD - are similar to the models 702C9GC- and 728C9GC- except for the use of forged type cylinder heads which have a 1/8 in. larger exhaust port and other major differences as indicated.

NOTE 4. Military model R-1820-71 is equivalent to civil model 70209GC1, Military models R-1820-87 and -95 are equivalent to civil model 704C9GC1. The -87 differs from -95 only in the cylinder baffles and accessories section. Model R-1820-60 may be converted to civil model Cyclone 702C9GC1 in accordance with Wright Aeronautical Corporation's instructions to incorporate at least the following new parts:

Supercharger impeller shaft, gear, cover, etc.	Nos. 412379, 66682, 66681, 66386, 4040D5 and 34D33 (Remove high blower parts)
Breather assembly	Nos. 68531, 2075D15, 206709.
Hydro oil connection	Nos. 68529, 66251, 68530, 68533, 175D7
Carburetor	PD-12H3 setting No. 68973N35A

When these military engines are used in certificated aircraft, the engine designation plate should be stamped with the corresponding certificated model designation. If there is no room for this information on the existing plate, such information may be stamped on a plain thin metal plate attached beneath the existing plate by at least two of the mounting screws, or a new plate may be secured from the manufacturer.

NOTE 5. Models 702C9GC6; 728C9GC3, 4 & 6; 730C9GD3, 4 & 6; 704C9GC3 & 4; and 731C9GC2 incorporate a torque-meter built into the engine nose section.

NOTE 6. The above listed power ratings are based on best power mixture at altitudes except for those shown for models 731C9GC1 & 2 which are based on Auto-Rich settings. The 702C9GC series engines are eligible with the following Auto-Rich altitude ratings when using carburetor settings Nos. 68973N35A, 68973N39A or 69267N30A:

Maximum continuous, hp, rpm, in.	
Hg., at rated pressure altitude (ft.)	1100-2400-42.0-3700 or 1000-2300-38.5-5200

NOTE 7. The following accessory drives are provided:	Rotation*	Speed**	Maximum Torque (in. lb.)		Maximum Overhang (in. lb.)
			Continuous	Static	
Starter	C	1:0	—	25800	300
Generator and Accessory gear	C	1:5	600	6000	350
Generator and accessory gear (Model 702C9GC4 only)	C	3.27	230	1150	350
Fuel Pump	CC	1.0	16.5	450	—
Vacuum Pump	CC	1.5	50	1200	25
Hydraulic Pump	CC	1.5	150	2250	50
Propeller Governor	C	1.0	260	2000	—

*"C" = Clockwise viewing pad. "C" = Antilockwise viewing pad.

***"Speed" = Times crankshaft speed.

NOTE 8. The following spark plugs are approved on these engines.

AC 171, 181, 271, 281, 273, LS-87*, LS-88.

BG 3B2, 3B2S, 4B2, 4B2S, 314GS, RB19R-2, RB27R-1.

Champion R115, C27S, RC34S, RC35S, ED41N, EM41N, R37S-1, REA37N, REB37N, RHA37N, RHB37N, RHA37E, RHB37E.

Hahn 702.

Jet Ignition J1-1**, J1-1A**.

* Limited to use with engines of 1200 hp and under, and for 120 hours of service with no reconditioning permitted.

** Limited to use with engines of 1300 hp and under, and for 120 hours of service with no reconditioning permitted.

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