

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

E-248 Revision 2 WRIGHT CYCLONE 742C14BB1, 2, 3 DECEMBER 28, 1983

TYPE CERTIFICATE DATA SHEET NO. E-248

Engines of models described herein conforming with this specification and approved data on file with the Civil Aeronautics Administration are rated as airworthy for use in certificated aircraft in accordance with pertinent aircraft specifications.

Manufacturer: Curtiss Wright/Marquette Inc.
Fountain Inn, S.C.

Model: Cyclone 742C14BB1, 2, 3
Type: 14RA .4375:1 Reduction gearing

Rating:

Maximum, except take-off; hp, rpm, in.Hg., at: Rated Pressure altitude (ft.)	1600-2400-40.0-4000
Sea level pressure altitude	1600-2400-41.0-S.L.
Take-off (Five minutes) hp, rpm, in. Hg., at: Sea level pressure altitude	1900-2800-46.5-S.L.
Fuel (Minimum octane aviation gasoline)	Grade 100/130
Bore and stroke, inches	6.125 x 6.312
Displacement, cubic inches	2603
Compression ratio	6.9:1
Weight (dry), lbs.	2090, 2095, 2065
C.G. location (dry) Fwd. of mounting boss in.	12.43
Above prop. shaft, in.	.31
Supercharging (Impeller drive ratio)	7.07:1
Propeller shaft, SAE No.	50
Carburetion	Stromberg PR48A3 carburetor
Ignition, Dual	Bosch SF14LU-10 Magnetos
Timing, °BTC	20

NOTES 1, 2, 3, 4

"- -" indicates "same as preceding model"

"—" indicates "does not apply"

Certification basis Type Certificate No. 248
Production basis Production Certificate No. 8

NOTE 1. The maximum permissible temperatures are as follows:

	<u>Cylinder head</u>	<u>Cylinder barrel</u>	<u>Oil inlet</u>
Take-off, °F	500	325	220
METO, °F	475	325	220

	1	2
	2	2

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NOTE 2. The following accessory drive provisions are provided:

<u>Accessory</u>	<u>*Drive Ratio</u>	<u>*Rotation</u>	<u>Maximum Continuous</u>	<u>Torque-in. lbs. Static</u>
Starter	1.000	C		25800
Generator	3.150	C	415	3500
Hydraulic Pump	1.500	CC	150	2250
Vacuum Pump	1.500	CC	50	1200
Fuel Pump	0.875	CC	25	450
Propeller Governor	0.992	CC	65	600

Drive Ratio is times crankshaft rpm.

Rotation is C=clockwise; CC=counterclockwise.

NOTE 3. The 742C14BB1, 2, and 3 engines are characterized by the following differences:

<u>Model</u>	<u>Supercharger</u>	<u>2nd Order Balancer</u>	<u>Cylinder Air Baffle Type</u>
742C14BB1	Single, 7.07:1	Yes	Ducted
742C14BB2	2-speed, locked in low ratio, 7.06:1	Yes	Ducted
742C14BB3	2-speed, locked in low ratio, 7.06:1	No	Standard

NOTE 4. The above engines incorporate a 3½ order and 7 order vibration damper and an integral torque meter.

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