

T.P. to HP

RPM x Torque Press $\div$ 142 = HP

AN 02A-35JG-2

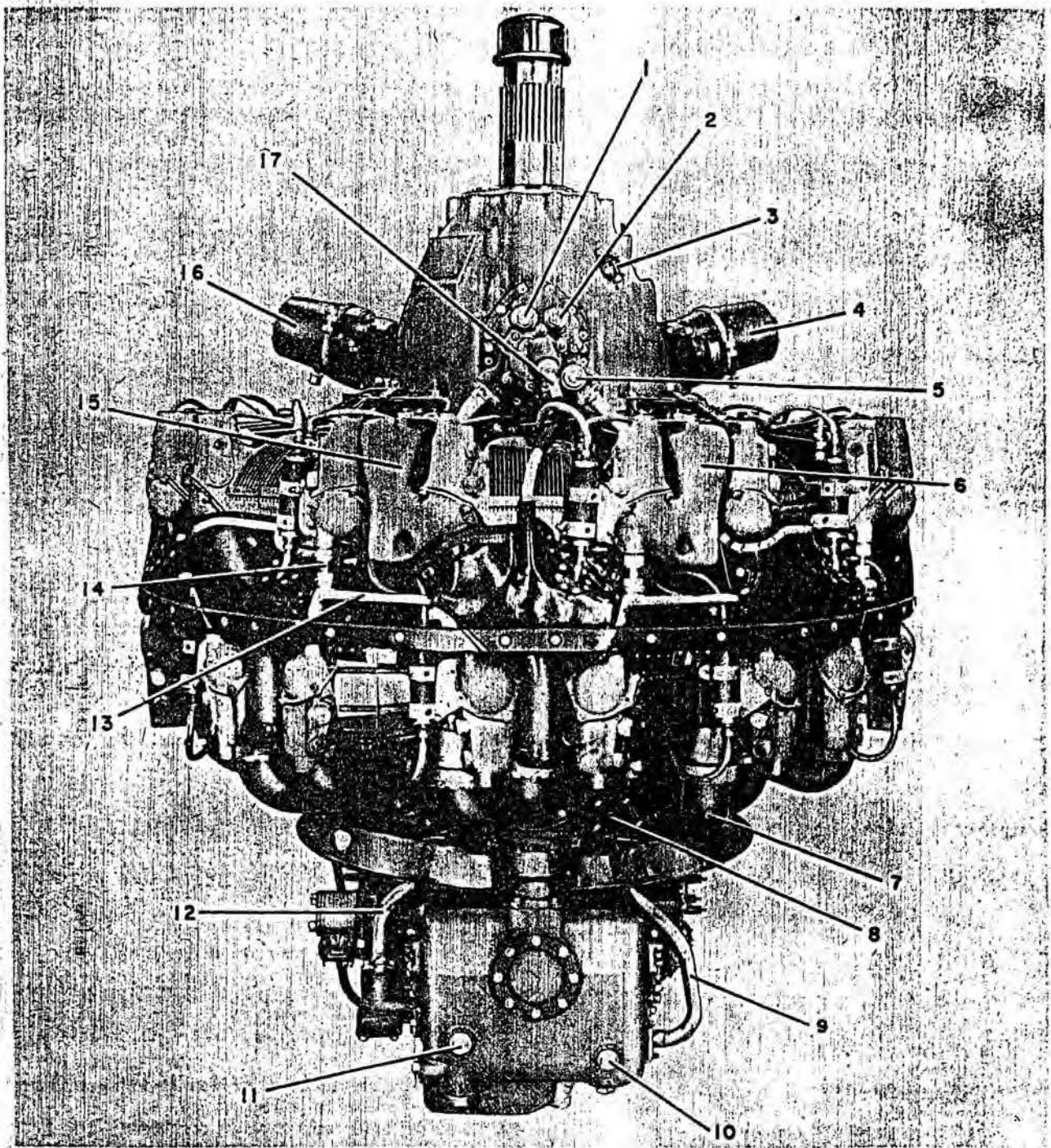
Handbook Service Instructions

NAVY MODELS R-3350-26WA AND -26WC AIRCRAFT ENGINES (Curtiss-Wright)

THIS PUBLICATION SUPERSEDES AN 02A-35JG-2 DATED
15 OCTOBER 1952 REVISED 30 NOVEMBER 1954

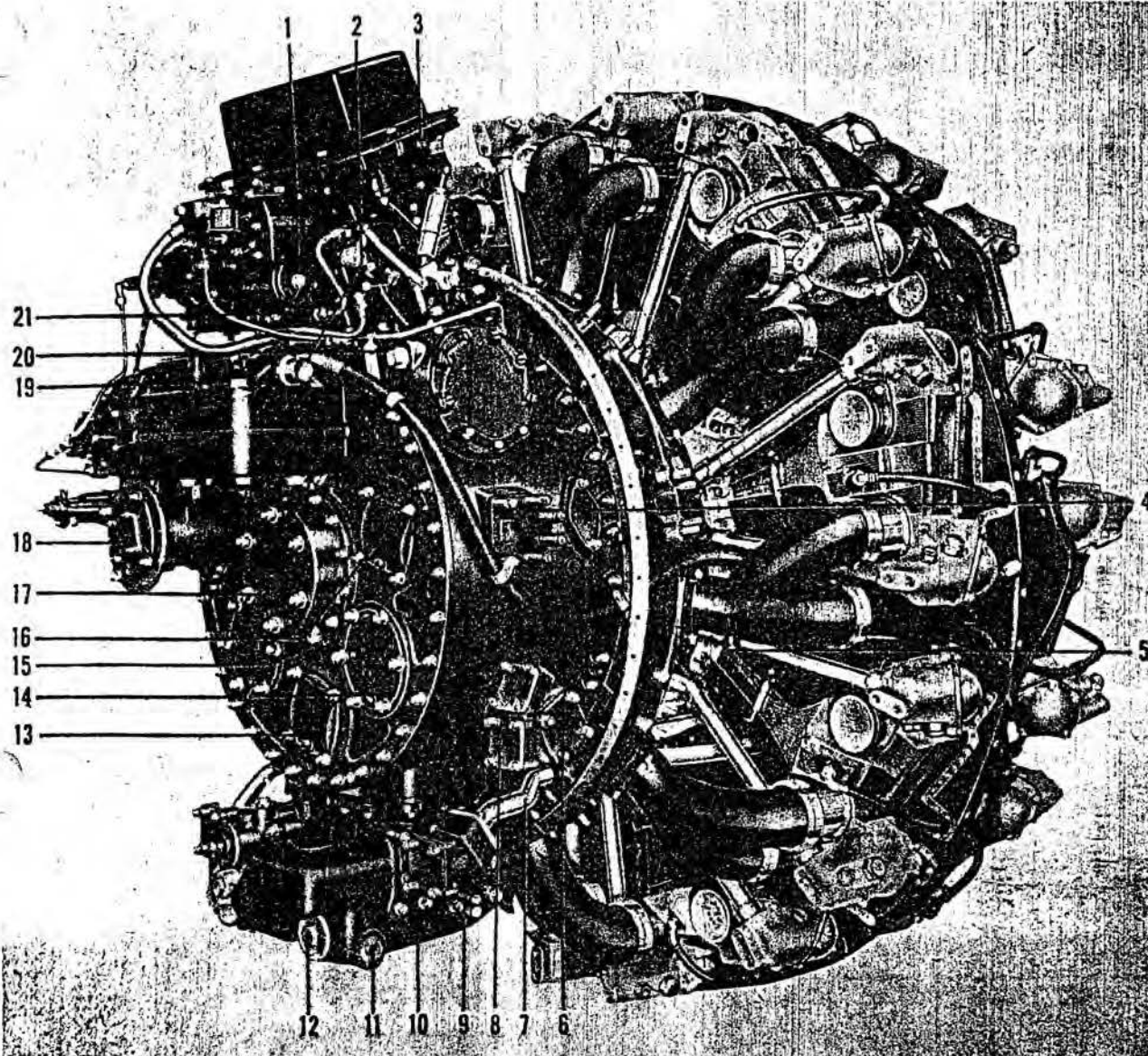
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|---|--|
| 1. Front oil pump scavenge oil strainers and magnetic chip detector plugs | 10. Rear oil pump and sump magnetic chip detector drain plug |
| 2. Front oil pump scavenge oil strainers and magnetic chip detector plugs | 11. Rear oil pump and sump oil drain hole plug |
| 3. Torquemeter oil external connector | 12. External oil tube (scavenge) |
| 4. Left hand distributor | 13. Rocker box drain manifold |
| 5. Front oil pump pressure control valve | 14. Rocker box cover to drain manifold tube |
| 6. Rocker box cover and sump (left hand) | 15. Rocker box cover and sump (right hand) |
| 7. Intake pipe drain plug | 16. Right hand distributor |
| 8. Engine mount pad | 17. Rocker box drain manifold to scavenge pump tube |
| 9. External oil tube (pressure) | |

Bottom View - Model R3350-26WC Engine



- | | |
|--|---|
| 1. Carburetor fuel strainer | 11. Drain plug in right side of rear oil sump scavenge strainer chamber |
| 2. Magneto air blast | 12. Rear oil sump scavenge oil strainer |
| 3. Static air scoop pressure connection | 13. Lower accessory mounting pad |
| 4. Alternate supercharger rear housing breather mounting pad | 14. Accessory or generator mounting pads |
| 5. Fire detector thermocouple connection in intake pipe to cylinders No. 5 and 6 | 15. Starter adapter oil drain plug |
| 6. Alternate fuel pump mounting pad | 16. Hydraulic pump mounting pad |
| 7. Front oil sump to rear oil sump external oil outlet rear tube | 17. Starter mounting pad |
| 8. Electrical tachometer mounting pad | 18. Upper left accessory mounting pad |
| 9. Oil return connection to supply tank | 19. Magneto ground connections |
| 10. Rear oil sump accessory drive drain plug | 20. Supercharger rear housing oil tank vent connection plug |
| | 21. Fuel pressure gage connection |

Three-Quarter Right Rear View - Model R3350-26WA Engine

SECTION III
TABLE OF SPECIFICATIONS

3-1. GENERAL.

3-2. The following table presents data applicable to Models R3350-26WA and R3350-26WC.

Series	R3350-26WA, 26WC
Type	Double row, radial, air-cooled
Number of Cylinders	18
Bore	6.125 in.
Stroke	6.312 in.
Piston Displacement	3350 cu. in.
Compression Ratio	6.70:1
Impeller Gear Ratio	6.46:1 and 8.67:1
Impeller Diameter	13.5 in.
Rotation of Crankshaft (facing rear of engine)	Clockwise
Rotation of Propeller Shaft (facing rear of engine)	Clockwise
Propeller Gear Ratio	4375:1
Propeller Shaft	SAE No. 60A

DIMENSIONS

Overall Diameter	55.84 in.
Overall Length	80.81 in.

WEIGHTS

Total Dry Weight of Engine R3350-26WA	2848 lbs.
Total Dry Weight of Engine R3350-26WC	2907 lbs.
Total Weight Packed for Shipment, R3350-26WA	Average (Can) 5,400 lbs.
Total Weight Packed for Shipment, R3350-26WC	Average (Can) 5,459 lbs.

LUBRICATION SYSTEM

Type	Dry Sump
Oil Specification	MIL-L-6082
Oil Grade	1100
Oil Pressure (at rear pump)	70 ± 5 psi at 2600 RPM
Oil Pressure (at front pump)	35 ± 5 psi at 2600 RPM

VALVES AND VALVE TIMING

R3350-26WA and R3350-26WC

Intake Opens	
Front Cam	Front, 51° B. T. C.
Rear Cam	Rear, 61° B. T. C.
Intake Closes	
Front Cam	Front, 66° A. B. C.
Rear Cam	Rear, 66° A. B. C.
Exhaust Opens	
Front Cam	Front, 85° B. B. C.
Rear Cam	Rear, 85° B. B. C.
Exhaust Closes	
Front Cam	Front, 52° A. T. C.
Rear Cam	Rear, 67° A. T. C.

VALVES AND VALVE TIMING - (Continued)

Valve Clearance

Set for Timing Check (Intake and Exhaust)	0.055 in.
Set for Operation (Intake and Exhaust)	0.010 in.

IGNITION SYSTEM

R3350-26WA

Type	High Tension
Magneto	Scintilla DF 18LN-2
Ignition Harness	Scintilla High Tension
Spark Timing	Front Plugs 28° B. T. C.
Spark Timing	Rear Plugs 28° B. T. C.
Spark Plugs	BG-RB27R1 or Champion REB-37N
Spark Plug Gap	0.015 - 0.018 in.

R3350-26WC

Low Tension
Scintilla DLN-9
Scintilla Low Tension
Front Plugs 28° B. T. C.
Rear Plugs 28° B. T. C.
Champion RHB-37N
0.015 - 0.018 in.

FUEL SYSTEM

R3350-26WA

Carburetor	Stromberg PR58U1
Fuel Required	Grade 115/145
Specification No.	MIL-F-5572
Fuel Pressure Required	19 - 21 psi

R3350-26WC

Stromberg PR58U1
Grade 115/145
MIL-F-5572
19 - 21 psi

CYLINDER HEAD TEMPERATURES

R3350-26WA and 26WC

Ground Operation (Maximum)	260° C (500° F)
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CAUTION

Hold all ground operations to an absolute minimum.

ACCESSORY DRIVES

SUBJECT	SPEED	ROTATION	MAX. TORQUE IN-LB.	
			AT RATED SPEED CONT.	STATIC
Propeller Shaft and Engine Nose	.4375:1	c. c.	-	-
Propeller Governor	.857:1	c.	125	825
Fuel Pump	1.000:1	c. c.	25	450
Electrical Tachometer, Type II	.500:1	c.	7	50
Electrical Tachometer, Type II	.500:1	c. c.	7	50
Vacuum Pump (with AN4055)	1.400:1	c. c.	525	2250
Hydraulic Pump	1.400:1	c.	525	2250
Generator or Accessory, Type II A	2.800:1	c.	800	4400
Starter	1.000:1	c.	-	36,000
Generator or Accessory, Type II A	2.800:1	c.	600	4400
Spare (without AN 4055)	1.000:1	c.	525	2250

RATINGS

(All ratings are based on the use of fuel conforming to Specification MIL-F-5572, Grade 115/145 and oil conforming to Specification MIL-L-6082, Grade 1120).

	BHP	RPM	Alt. Ft.
Take-off (5 minutes)	2700	2900	Sea Level
Military (30 minutes)			
Low Ratio	2700	2900	3700
High Ratio	2100	2600	14,500
Normal (Continuous)			
Low Ratio	2300	2600	6200
High Ratio	1900	2600	17,000