

W.O. No. 16324

CANADIAN PRATT & WHITNEY AIRCRAFT CO. LIMITED

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INSPECTION REPORT SUMMARY

CUSTOMER: ELDORADO AVIATION LTD.

SUBJECT: R-1830-92/M

SERIAL No. 79626

TIME SINCE LAST O/H: 747:35

PREVIOUS O/H BY: CPWA, January 1956

TOTAL TIME: 7766:00

DATE INSPECTED: May 2, 1957

REASON FOR O/H OR REPAIR:

Log book states "Removed due to metal flakes found in main oil screen and
oil sump."

LIST OF MAJOR PARTS REQUIRED:

ITEM No.	DESCRIPTION	REASON FOR REQUIREMENTS
1.	Bearing, Propeller Thrust	Races pitted by corrosion
2.	Bearing, Propeller Shaft Front	Balls pitted by corrosion
3.	Bearing, Reduction Gear Pinion (2)	Balls pitted by corrosion
4.	Bearing, Rear Main	(See remarks)
5.	Pistonpin (3)	I.D pitted by corrosion
6.	Piston (2)	Ring grooves distorted
7.	Valve, Intake (14)	Head thickness below limits
8.	Valve, Exhaust (9)	Stems below limits
9.	Guide, Exhaust Valve (14)	Worn excessively
10.	Bearing, Rocker (21)	Rough

REMARKS:

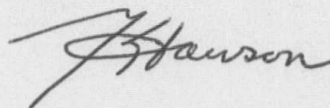
The reported metal flakes originated from the Rear Main Bearing, the Outer Race of which was spalled. Spalling is usually caused by surface crack, inclusion, or similar surface injury causing a progressive breaking away of the surface under load. Corrosive pitting is also a cause of spalling.

This engine was very clean, externally and internally, and we note from the log book that the oil screens and sumps had been checked regularly at 11 hour intervals. This practice not only leads to internal cleanliness of the engine, but also enables the detection and prevention of potentially serious and expensive failures.

Because this engine was not operated long after the oil became contaminated, very little damage was caused.

All parts were inspected and replaced where necessary in accordance with standard overhaul procedure. All oil passages will be well flushed before the engine is re-assembled.

TMcC/dv1
May 9, 1957



K.J. Dawson,
Assistant General Supervisor,
Service Department.