



Memorandum For Record

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Eastern Region

Date: 7/17/2023
NTSB Accident Number: ERA21LA388

As part of the investigation the operator of the airplane was asked to provide maintenance record entries to NTSB regarding the engine.

A review of the engine logbook revealed the engine had been overhauled by a Federal Aviation Administration repair station in December 2010 (Figure 1), installed into the airplane days later (Figure 2), then removed in July 2011 for a disassembly inspection due to a stuck valve and bent pushrods (Figure 3). The engine was re-installed on July 20, 2011 (Figure 4).

YEAR MO DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
			2731.4	12/2/10 ENGINE CERTIFICATE FAA Repair Station XR3R981L Major overhaul engine in accordance with manufacturers specification and current federal aviation regulations. All listed current airworthiness directives and listed service bulletins complied with at overhaul. Magnaflux and zygo inspection of appropriate parts. Work Order No. <u>25510</u> on file at One Stop Aviation, Oceanside; engine reassembled, test run, and OK to return to service. Model <u>IO-360 L2A</u> Serial No. <u>L-31876-51A</u> Authorized representative <u>[REDACTED]</u>

Figure 1: Excerpt from Engine Logbook Showing Engine Overhaul.

RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
DATE: 12-10-2010 TYPE: CESSNA 172S	N116V	TACH: 2731.4 SER NO. 172S9815	TTAF SMOH 00.00 1. REMOVED ENGINE FOR OVERHAUL 2. ENGINE OVERHAULED BY ONE STOP AVIATION, OCEANSIDE, CA 3. INSTALLED OVERHAULED ENGINE IN THE ABOVE AIRCRAFT 4. INSTALLED NEW ENGINE MOUNTS, J9613-49, J9613-72 5. ENGINE INSTALLED WITH ORIGINAL ALTERNATOR 6. OVERHAULED OIL COOLER INSTALLED 7. INSTALLED EXHAUST USING ALL NEW EXHAUST GASKETS AND HARDWARE AS REQD 8. ENGINE SERVICED WITH 8 QTS AEROSHELL 100, 50 W OIL, MINERAL OIL 9. PROP INSTALLED, BOLTS TORQUED AND SAFETIED, SPINNER INSTALLED 10. ENGINE GROUND RUN, ALL OPS NORMAL, NO OIL/ FUEL LEAKS NOTED AT THIS TIME 11. FUEL SERVO ADJUSTED, IDLE SET 700

Figure 2: Excerpt from Engine Logbook Showing Engine Installation After Overhaul.

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
MAINTENANCE RELEASE <i>07/05/11</i> Disassemble engine for possible metal contamination from stuck valve and bent & broken push rods. Engine completely disassembled. No damage Found. Replaced all four cylinders with complete assemblies P/N 05K21104. Replaced seals and gaskets, as required. Reassembled engine, test run, ready for installation. WO # 25859 on file at: One Stop Aviation, Inc. FAA Repair Station XR3R981L Oceanside, CA [REDACTED] Model # IO-360-L2A Serial # L-31876-51A Authorized representative [REDACTED]				

Figure 3: Excerpt from Engine Logbook Showing Engine Disassembly Due To Metal Contamination From Stuck Valve and Bent Pushrods.

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
7-20-11	2899.9			Installed Engine at this time. [REDACTED] Cosmos Servics made [REDACTED] Tech drove misty - installed new [REDACTED] for sensors oil pressure switch [REDACTED] installed new oil Hobbie pressure switch [REDACTED] ops. Run, ops slow, all [REDACTED] and Runng ok. [REDACTED]

Figure 4: Excerpt from Engine Logbook Showing Engine Installation After Disassembly Inspection Due To Metal Contamination From Stuck Valve and Bent Pushrods.