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Date: March 26, 2025

Subject: CEN25LA093 - N7191B- Engine Examination

Examination Summary:

-All top sparkplugs were found tightly installed. They were removed to gain access to the cylinders.

-A lighted borescope inspection was conducted and cylinder #3 showed signs of a burned intake valve. All other cylinders were unremarkable.

Thumb compression was observed on all cylinders; although, cylinder #3 was weak.

-A cold compression test was performed and cylinder #3 showed a 6/80.

- Cylinder #3 was removed for closer inspection of the intake valve.

-Both intake and exhaust pushrods were removed and found to be straight when rolled on a flat surface.

-Valve springs were in good condition with no cracks or fractures observed.

-The intake valve was burned, and material was missing along the edge of the valve. The combustion face, margin, and seat face all exhibited damage.

-The bolts that secured the intake manifold system to the engine block were loose. One of the tested bolts rotated 180° with a torque wrench to reach 60 in/lbs.

-The carburetor was found tightly installed to the engine with all control arms secured. Full travel was achieved on the throttle and mixture arms. The unit was disassembled, and the fuel inlet screen was clear of obstruction and debris. The needle and seat were in good condition. No anomalies noted.

-The piston for the #3 cylinder showed signs of blowby/dark coloration (leakage of combustion gasses) on the piston skirt.

-Remaining sparkplugs were removed and all sparkplugs had normal coloration and wear patterns when compared to the Champion Check-A- Plug Chart.

-The oil screen was found tightly installed and was removed. The screen was free and clear of obstructions and debris. The oil filter was found securely installed and had a date of January 17, 2025, with 1663.4 hours written on the filter can.

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