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Subject: CEN24LA189, Record of Examination

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The aircraft, Piper PA-28-180, N6571J, was destroyed by post-crash fire. The fuselage from the engine firewall to the empennage was consumed by post-crash fire. The left wing to about 3-4 ft from the wing tip was consumed by post-crash fire. The right wing was consumed by fire to about the fuel tank and right main landing gear. The instrument panel and throttle and mixture controls were destroyed by post-crash fire.

Flight control cables remained attached to all primary control surface attach points but with separations throughout the fuselage area consistent with impact forces, thermal damage, and recovery cuts. Lengths of cable consistent with the fuselage sections were accounted for except for the one section of aileron cable and chain segment in the cockpit.

The flap selector handle was separated from the fuselage. The flap drive cable remained attached to the flap selector ratchet. The selector handle was in the third position setting, which is consistent with a wing flap extension of 25°. The stabilator trim jackscrew was extended above the drum about 1-1/8", which equates to a partial aircraft nose up trim setting.

Engine control continuity from the cockpit throttle and mixture controls to the engine carburetor was confirmed. The cockpit carburetor heat control lever was in the ON position. Carburetor heat control continuity from the cockpit carburetor heat control to the intake airbox was confirmed.

The carburetor heat cable was continuous from the cockpit lever to the valve arm on the air box. The carburetor airbox was partially consumed by fire and the carburetor heat valve was mostly intact but separated from its mounts in the airbox.

The fuel strainer bowl cover and internal screen were separated from the assembly due to impact damage and not found.

The electric fuel boost pump exhibited thermal damage and could not be functionally tested with a source of electrical power. The filter screen cover was in place and secured with safety wire. The filter element exhibited thermal damage and could not be removed.

The propeller was attached to the engine's crankshaft flange. Both propeller blades were relatively straight.

The engine was rotated through by hand by rotating the propeller during which valve train and drive train continuity to the accessory section was confirmed. Thumb compression was present through the top spark plug hole from each cylinder.

The engine contained oil, and the engine suction screen and the oil filter element did not contain debris.

The carburetor bowl was disassembled, and its examination revealed no debris within the carburetor bowl and the fuel inlet screen. One of two of the carburetor floats was separated at the bracket attachment due to melting of solder weld from post-crash fire.

Both magnetos were secured onto their engine accessory case pads and the ignition harness was attached to each magneto. The magnetos exhibited thermal damage from post-crash fire and impact damage and could not be functionally tested.

The top and bottom spark plugs electrode exhibited a gray coloration consistent with normal operation.