



NTSB MEMORANDUM FOR RECORD

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National Transportation Safety Board

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Narrative:

The following are excerpts from a memorandum from Federal Aviation Administration (FAA) inspector, Timothy Griffin, who oversaw an examination of the accident helicopter.

Visual inspection of fuel remaining in aircraft to check for proper color (found to be bright blue and clear 100 LL). Checked Left and Right fuel tank sumps and main line strainer, sediment bowl (Gascolator). No water was observed in any sump and only very small particles of sediment was observed in the Left and Right sumps, no sediment was noted in Gascolator. Fuel quantity was again checked with aircraft more level than previously checked (in the field). With aircraft approximately level, fuel onboard was found to be approximately 10 gallons.

Engine oil checked, found serviced to 7 Quarts Phillips 20w-50XC. Visual inspection of the intake manifold, air filter, induction system and exhaust systems (turbocharged engine) for visual signs of leaks and condition and security. Visual inspection and hand checked spark plugs, fuel injector nozzles, clamps and hoses for condition and security. Visual inspection of area behind air filter and scat hose to servo, to check for restrictions in the air inlet and manifold.

Throttle lever for proper operation, travel, condition and security, found to be secured with castellated nut and cotter pin at fuel servo. Visually inspected and manually turned turbocharger impeller using long flat blade screwdriver, through the exhaust opening. Impeller (hot side) appears rotate with no binding or rubbing noted.

Inspected primary and secondary engine oil cooler "clean-out traps." Both Left and Right sides found with some debris on oil cooler. Cleared by hand. Connected aircraft battery and ran fuel boost pump electrically. Started engine. Engine started readily and was observed to run smooth through warmup. Idle RPM was noted at approximately 1450 RPM. No vibration, roughness, backfire or sputter noted. Engine oil pressure noted at approximately 60 PSI in green arc, Oil Temp 40 deg and rising toward amber, with green light showing normal fuel pressure from electric boost pump. As engine warmed, idle was noted settle closer to 1600 RPM.



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Advanced throttle to approximately 2000RPM and accomplished magneto check. MAG drop noted to be approximately 150 RPM (UNLOADED-NO MAIN or TAIL ROTOR ATTACHED) on both sides. Engine oil pressure noted at 75PSI at 2000 RPM. A small puff of dark smoke was noted when throttle was advanced rapidly (mechanic explained that there is a momentary Rich Mixture when the throttle is rapidly twisted). He stated that this is normal on most all Enstrom Helicopters.

Engine start and idle run were performed in an unloaded condition. Because of damage sustained during the accident there was no main or tail rotor attached to the engine, there was no way to verify high engine power performance or output above those RPMs previously noted.

Accomplished visual inspection of all ignition wires and leads. Accomplished a visual inspection on all Spark Plugs (TEMPEST P/N URHB32E). All plugs appear relatively clean and in good condition. Some oil fouling was noted on #3 Bottom Plug, mechanic on-site felt plugs were typical and normal. All plugs were checked for GAP and found to be between .019 to .022 in. (Manufacture recommends clean and re-gap to .016). All cylinders checked for compression hold. #1=77/80, #2=77/80, #3=79/80, #4=78/80. Compression check accomplished with engine warmed.