



August 20, 2019

Investigative Notes – N1831A
Schweizer 269 C-1 – SN 0228
Lycoming Engine HIO-360G1A – SN RL-26782-51L
Maintenance Hobbs reading – 2582.4
Flight Hobbs reading – 1445.0

On site inspection completed on August 20, 2019 in Allentown PA. Attendees:
David Horton – Schweizer RSG
Jill Browning – Lockheed Martin Company
Javier Casanova – Lockheed Martin Company
Joe Bauer – FAA Aviation Inspector
Mike Childers – Lycoming Engines

My notes:

- The initial inspection of the helicopter concluded that the dynamic components were intact and the blades, both main and tail were still installed on the helicopter. The blades exhibit impact damage at a low power setting.
- The throttle control and the mixture controls show that they were connected pre impact based on the visual findings
- The fuel tank, while severely damaged, didn't leak fuel. The only portion of the helicopter that appeared to leak fuel was a line that was broken upon impact with the building or impact with the ground. The fuel drained from the tank (approx. 5 gallons) was clear and bright with a strong smell of AVGAS.
- The Lower Coupling Driveshaft was well lubricated, and the teeth appeared to be in good condition.
- All 8 drive belts were accounted for and appeared in good condition
- The transmissions contained oil
- The collective and cyclic controls were still connected.
- Air filter assembly was void of debris
- Engine teardown reveled the following:
 - o All valve train movements appeared to be intact
 - o The left magneto was still attached
 - o Fuel servo was partially attached to the engine
 - o The right magneto was detached from the engine and broke into two pieces
 - o The filters and fuel injection nozzles showed no anomalies
 - o #4 cylinder fuel injection nozzle was loose in the cylinder head
- This engine installed June 3, 2017 from another helicopter involved in a ground resonance accident. Logbook entry shows the steps taken before



the installation of the engine into subject helicopter. Left magneto installed at this time was new, Right magneto installed at this time purported to be overhauled. No certification documentation was presented to validate this entry.

- The Right magneto was changed in July 25, 2018 with a customer supplied magneto. This was the magneto that was installed on the subject engine / helicopter at the investigation.
- Last 100hr inspection was completed May 28, 2019 at a hobbs time of 2547.8. Recorded hobbs time between the last engine entry and the incident is 35.2 hrs.