

To: Maja Smith

Date: 9/25/2018

Topic: N632NV

Inspector Smith,

Upon recovery of N632NV to the Novictor Helicopter Maintenance Facility the aircraft was secured until arrival of FAA Inspector Sanchez. Under his supervision, the Tail Rotor Drive System was disconnected and secured and the engine cowlings removed in preparation for engine start up and ground run of the aircraft.

Approximately 7.5 quarts of engine oil was added to the engine bringing the measured total to 9 quarts as depicted on the engine "dip stick".

After positioning the aircraft to the flight line, under Inspector Sanchez observation the engine was started normally. He and I monitored the engine condition from either side of the aircraft. The rotor brake was applied after start up to prevent the Main Rotor from turning under the normal drag of the Drive Belts and Clutch system.

As the engine was running at normal idle. No abnormalities were noted. It started normally, idled normally, no indication of laboring was noted, Manifold pressure indicated normal. Oil pressure and temperature was indicating normal. The engine sound was normal. No apparent oil leak was detected during the eight minutes of engine run time.

After positioning the aircraft back into the Novictor Maintenance Hangar a plastic oil containment device was placed under the aircraft as a normal practice.

The following morning, upon arrival to the Novictor Maintenance Hangar, I noticed a area of oil approximately 8 inches in diameter. It was under the forward area of the engine in the plastic oil containment device. The oil color indicated a fresh oil, not a darkened oil indicating hours of service.

With the aid of a flashlight, I looked to see if I could locate the origin of the oil. The Engine Oil Filter was directly above the area of oil. I could not see any obvious area of oil leakage.

At this time, I removed the safety wire from the filter, placed a 1" socket with extension and 3/8" drive ratchet wrench onto the machined hex at the cap of the filter assembly. As I applied a counter clockwise force onto the ratchet to remove the filter, the required torque to remove the filter seemed less than that of the many filters I have previously removed in my 35 + years of aircraft maintenance.

As I removed the filter, I noticed the threaded fitting that the filter threads onto was only in the adapter (P/N D723-1) approximately 2 threads and the filter cavity was empty of any oil.

At this time I researched the manufactures ICA for the prescribed torque of the fitting. I was unable to locate any prescribed torque in the Manufactures ICA.

I then contacted the Manufacture Technical Representative, he advised 268 inch-pounds with a liquid thread lock.

Respectfully,
Andrew D MacQueen