

Robinson Helicopter R44 II N178DF SN: 11969

The helo was found in the edge of a wooded area resting on its right side. One main rotor was wrapped around a dead tree, the other main rotor about 6 feet was separated. The separated main rotor blade was found about fifty feet from the helo fuselage. The tail rotor did not have any noticeable damage.

Flight control continuity was checked and appeared connected properly. The throttle system was checked for full movement. The throttle did not move freely. It appeared the firewall was displaced during the impact with the ground and damaged the throttle linkage. The mixture cable moved freely and full travel.

All rotor blade drive belts were accounted for but had shifted aft. The impact with the ground could have caused the belts to shift aft. The helo had been sitting on its right side for several days. No oil was found on the dip stick. The right side spark plugs were removed and engine oil had filled all the right side cylinders. The impact with the ground caused the engine mount and engine to move in the direction of the impact.

The airframe logbook indicates the following items were overflown TBO/life limited by 38 hours. The parts were replaced at 2238TT. 2200TBO.

Mr Gearbox, pn: C006-5, sn: 4538, MR Swashplate pn: C017-4, sn: 4082, Frame assy pn: C020-1, sn: 4240, TR Gearbox pn: C021-1 sn: 4042, MR Gear set pn: C146-5, sn: 4452, MR hub pn: C154-1 sn: 4366, Clutch shaft, pn: C166-4, sn: 4995, Sprag clutch, MR driveshaft, MRGB sump, MRGB housing, TR gear set, TR guard, Hyd servo assy pn: 9624.

The following items were required replaced at 2200 total time but were not replaced. (TBO)

Hyd resv assy, PN: D211-2, Hyd servo assy, pn: D212-1, sn: 9625, Hyd servo, pn: D212-1, sn: 9633, Hyd pump assy, d500-1, sn: 3333, Bearing assy, pn: C181-3, sn: 4539.

The airframe and engine logbooks have 250 hours missing between 5/15/20 and 1/18/2021. There are no maintenance records during this time.

The last 100 hour/annual inspection was completed Hobbs: 2238 TT, 1/18/2021. The helo crashed 3/26/2021, Hobbs: 2347. The helo overflowed the 100 hour inspection by 9 hours.

The last install for a Helipod spray system was 10-23-2017, Hobbs: 1328.1. The spray system was not installed at the crash site March 26, 2021 and there is no log entry to remove the Helipod spray system.

**JAMES LEO
WIRT**

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