



SERVICE INFORMATION LETTER

SERVICE INFORMATION LETTER NO. T-012

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DATE: March 31, 1999

1. SUBJECT: Main Rotor Transmission Pinion Nut Retorque
2. MODEL: TH-28 and 480 Helicopters
3. EFFECTIVITY: All serial numbers
4. BACKGROUND:

Several main rotor transmissions, P/N 4130020-"X", have required premature overhaul. Tear down inspection revealed evidence of looseness in the pinion stack. Enstrom contends this looseness is the result of loss of torque on the pinion nut and subsequent fretting damage on the mating surfaces in the pinion stack.

The periodic inspection checklist in the TH-28/480 Maintenance Manual requires the pinion nut torque to be checked during every 100 hour/annual inspection. If the pinion nut loses torque, the pinion component mating surfaces may be damaged before the 100 hour/annual inspection. Retorquing the pinion nut after the fretting damage does not resolve the problem.

5. COMPLIANCE:

In order to preclude damage to components in the pinion stack, Enstrom recommends to retorque the main rotor transmission pinion nut 20 - 25 hours after installation of a new or overhauled main rotor transmission or after any maintenance requiring removal or replacement of the pinion nut.

CAUTION

Do not loosen the pinion nut during the torque check. Relockwire (.041) the pinion nut and add a torque stripe to the pinion nut after retorquing.

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NOTE

If the pinion nut moves during the torque check, contact Enstrom Customer Service for further instructions.

- 5.1 Upon installation of an overhauled main rotor transmission, check the mating surfaces of the pulley hub, P/N 4142010-11, and the pinion nut mating surface of the aft pinion bearing adapter, P/N 28-13323-11, for fretting wear and perpendicularity. The mating surfaces should be perpendicular to the pinion bore within .002 inches with no sign of fretting wear. Contact Enstrom Customer Service if fretting wear is found or the surfaces are not perpendicular within .002 inch.
- 5.2 If the upper pulley assembly is removed from the transmission for unscheduled maintenance, check the mating surface of the pinion bearing adapter located in the main rotor transmission. Check the mating surfaces of the pulley hub and the aft pinion bearing adapter in accordance with paragraph 5.1. Contact Enstrom Customer Service if fretting wear is found.
- 5.3 Checking the pinion nut torque during the 100 hour/annual inspection is still required in accordance with the TH-28/480 Maintenance Manual.