SCHWEIZER 269 SERIES

SCHWEIZER SERVICE LETTER

SUBJECT: FUNCTION OF TAIL ROTOR DRIVESHAFT DAMPER BLOCK

MODELS AFFECTED: All 269A, B, C, and C-1 Series Helicopters

The driveshaft passes through its natural bending frequency during start-up and shut down. This would cause shaft deflections large enough to contact the interior structure of the tailboom if not restricted. The tail rotor driveshaft damper assembly prevents this from happening. The vibration occurs when the rotor speed is approximately 300 RPM and is not present at any other rotor RPM. The loss of friction in the damper assembly will allow the damper block to rest on the top of the driveshaft wear sleeve and this will cause accelerated wear to the block. A small amount of friction holds the block off the sleeve and prevents excess wear. If no friction exists in the damper assembly, the block still functions and restricts the shaft travel. In these cases, it is common for a vibration to be heard and felt as the rotor system coasts down through 300 RPM.

Traditionally pilots have been trained to perform a finger check of the damper block during preflight inspections. The Pilot's Flight Manual does not require a preflight check nor does it provide any inspection criteria. It is not possible to determine serviceability of the damper assembly by a finger test with the tail rotor driveshaft installed. A finger check will only expose serious cases of wear, improper assembly of the damper, or a restriction in movement. If a finger check is desired, the suggested parameters are; the damper moves smoothly with finger pressure, exhibits some light resistance to movement and does not fall freely to a new position when the finger pressure is removed.

The helicopter's Handbook of Maintenance Instruction (HMI) requires the damper assembly be removed at specific time intervals and be inspected for wear and proper friction adjustment. These periodic inspections are the only damper assembly checks required.

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