

UH-60

PITCH TRIM ACTUATOR RELIABILITY UPGRADE

Moog recently designed and qualified a reliability upgrade to the UH-60 Black Hawk pitch trim actuator, which provides increased mean time between unscheduled removal (MTBUR) and better wear characteristics in harsh environments such as salt water, humidity and sand. An HVOF-applied Tungsten Carbide coating has been added to the booster piston, significantly enhancing wear protection against dust and sand. The design of the end cap has been improved to eliminate the dust boot and external leak path to keep the pitch trim flying longer by preventing nuisance external leakage removals. The redesigned mounting feet will prevent corrosion by better allowing the surface to shed moisture. Moog can implement this reliability upgrade on all UH-60 pitch trim actuators through an exclusive overhaul program.



UH-60 Pitch Trim with Upgrade

CONFIGURATION DETAILS

Description	UH-60 Pitch Trim Actuator		
Configuration	Pre-Flight Safety Configuration	Current*	Reliability Upgrade*
Sikorsky PN's	70410-02561-105	70410-02561-112	70410-02561-115
NSN's	1650-01-106-1957	1650-01-375-3160	1650-01-647-4590

^{*} Flight Safety Configuration

RELIABILITY UPGRADE HIGHLIGHTS

Booster Piston

- Redesigned for improved life in desert environment
- New Tungsten Carbide coating provides a much harder, more durable surface
- Improves resistance to foreign object intrusion into the actuator
- Designed for extended life, which increases MTBUR and reduces depot maintenance costs

Frame Mounting Feet

- Redesigned to enable the surface to shed moisture, helping to prevent corrosion
- Reduces depot maintenance costs by reducing frame repair and replacement

End Cap

- Redesigned to route non-critical leakage to a larger internal cavity
- Eliminates the appearance of an out-of-specification leak
- Estimated 35-40% increase in MTBUR by eliminating cause of unnecessary removals
- Eliminates dust boot (soft good) thereby avoiding nuisance removals for damaged component

