

**R66 SERVICE LETTER SL-24**

**DATE:** 20 December 2017

**TO:** R66-series Owners, Operators, and Maintenance Personnel

**SUBJECT:** F642 Shaft (Engine-to-Main Gearbox) Upgrade

**ROTORCRAFT AFFECTED:** R66-series helicopters equipped with a cargo hook or agricultural sprayer and an F642-1 or F642-6 shaft. NOTE: R66 Helicopter S/Ns 0726 & subsequent were factory-fitted with an F642-7 shaft.

**BACKGROUND:** F642-7 shafts have improved fatigue strength compared to F642-1 and F642-6 shafts. RHC recommends helicopters subject to frequent high torque cycles, such as those engaged in external load or agricultural work, upgrade to an F642-7 shaft.

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**COMPLIANCE PROCEDURE:**

1. If helicopter is equipped with a cargo hook or agricultural sprayer and an F642-1 or F642-6 shaft, order one R9535 kit from RHC Customer Service.
2. Remove F642-1 or F642-6 shaft per R66 Maintenance Manual (MM) § 63-10 and install F642-7 shaft per MM § 63-10. See note below for new hardware included with kit.
3. Balance shaft per MM § 18-70 in conjunction with chart in Figure 1.
4. Make appropriate maintenance record entries.

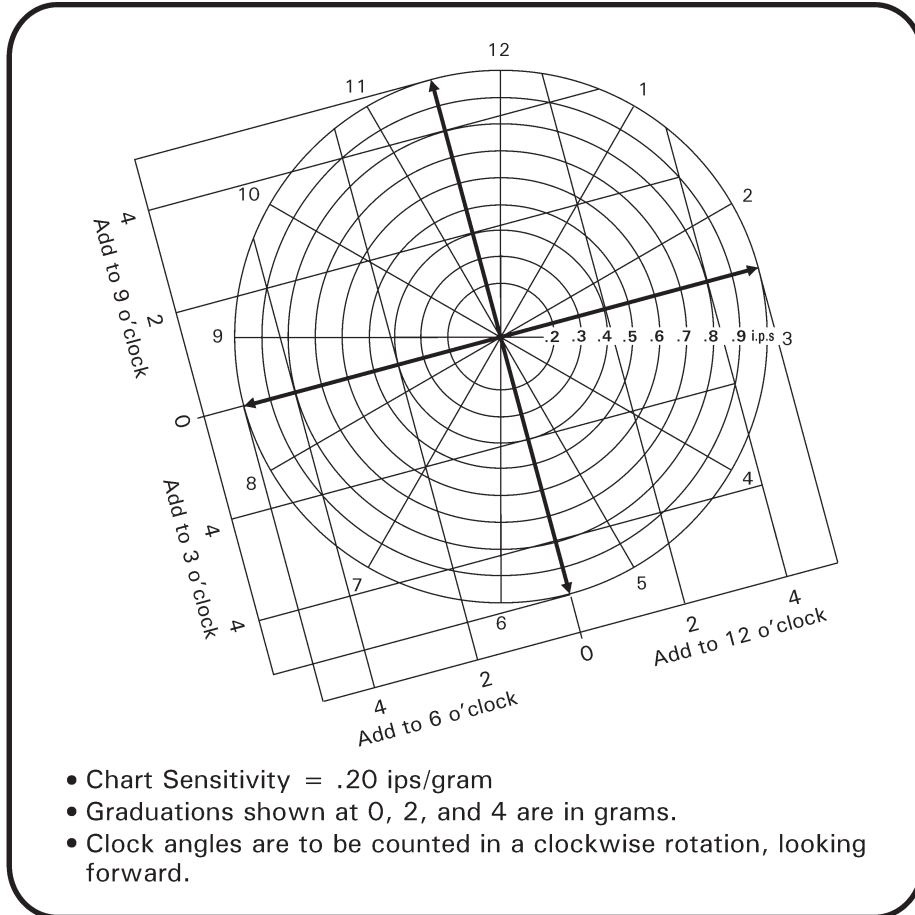
**APPROXIMATE COST:**

Parts: \$950 for one R9535 kit.

**R9535 kits include:** (8) B330-13 palnut, (8) D210-4 nut, (1) F642-7 shaft weldment, (16) NAS1149F0432P washer, (8) NAS1149F0463P washer, (4) NAS6604-5 bolt, & (4) NAS6604-6 bolt.

Labor: Approximately 5-6 man-hours for kit installation.

(OVER)



**FIGURE 1**