

ROBINSON HELICOPTER COMPANY

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R22

SERVICE LETTER #39

DATE: 19 April 1991

TO: All R22 Owners and Service Centers

SUBJECT: Installation of New A190-2 Vee Belts

ROTORCRAFT AFFECTED: R22 Helicopters S/N 0002 thru 1770

BACKGROUND: Experience has shown that newly-installed vee belts have rolled in the sheave grooves and broken or come off in flight. Once the belts have worn in with over 100 hours of service there have been very few problems. A procedure for inspecting vee belts has been devised to prevent problems with newly-installed vee belts.

Note: This service letter supercedes Service Letter 27.

COMPLIANCE PROCEDURE:

1. Before installation of new belts, inspect the sheave grooves for corrosion, wear or roughness. Replace any sheave showing corrosion pitting or flaking of the metalized or anodized coatings. Wear grooves through the anodized coating or grooves over .006 inch deep in either sheave are also cause for replacement of the sheave.
2. Re-paint the grooves in the lower sheave with a thin coating of zinc chromate or epoxy primer per section 1.400 of the RHC Maintenance Manual. The sheave may be primed without removing the sheave by using an aerosol can or air brush.
3. After the primer is dry, install the new vee belts per section 7.282 of the Maintenance Manual, and Service Letter 35 dated 6 June 1990/
4. Check the belt tension per section 7.283 of the Maintenance Manual. Continue to ground run the helicopter for at least one-half hour.
5. At the end of the ground run, inspect the sheave grooves for the wear pattern in the primer. A similar wear pattern in all four grooves indicates the belt/sheave combination is compatible. A noticeably different wear pattern from groove to groove indicates the combination is not compatible.
6. If the belt/sheave combination is not compatible, re-check sheave alignment, replace belts, and repeat items 1 thru 5. If the belt/sheave combination is still not compatible, it may be necessary to replace the lower sheave. The wear pattern in all four sheave grooves must be similar before the aircraft is released for flight.