

R22 SERVICE BULLETIN SB-101

DATE: 30 April 2010

TO: R22 owners, operators, and maintenance personnel

SUBJECT: Door Lower Hinge Pins

ROTORCRAFT AFFECTED: R22, R22 Alpha, R22 Beta, & R22 Mariner helicopters S/N 0002 thru 2514, and all non-factory-installed R22 doors (refer to helicopter's maintenance records to determine if door was replaced) regardless of helicopter serial number.

TIME OF COMPLIANCE: Within next 150 flight hours or by 31 July 2010, whichever occurs first.

BACKGROUND: Early door lower hinge assemblies had hinge (pivot) pins which were either undrilled or too short to allow installation of a securing cotter pin when installed on the helicopter. This service bulletin requires installing lower hinge assemblies having a drilled hinge pin with sufficient length to install a cotter pin.

COMPLIANCE PROCEDURE:

1. With doors installed on the helicopter, determine if both door lower hinge assemblies can be secured with a MS24665-151 cotter pin (due to potential hinge damage, cotter rings are not approved for installation on R22 doors). If both hinges on each door can be secured then the requirements of this bulletin have been complied with.
2. If a door lower hinge assembly cannot accept a cotter pin, order one A227-3 (for left door) and/or one A227-4 (for right door) revision N (or subsequent) lower hinge assembly. Each hinge also requires two MS51861-37C screws plus one MS24665-151 cotter pin.
3. Remove affected door(s). Remove lower hinge assembly and discard screws.
4. Transfer mounting screw hole locations from removed hinge assembly to new hinge assembly and drill two 0.170-inch diameter holes in new hinge at noted locations. Deburr drilled holes.
5. Install new A227-3 and/or A227-4 lower hinge assembly with two MS51861-37C screws and torque screws to 36 in.-lb. Install door(s) per POH section 7, and install MS24665-151 cotter pins in upper and lower hinges. Verify doors open and close smoothly and latch correctly.

(OVER)

6. Remove affected door(s). Mask hinge pin and door. Zinc-chromate, or epoxy, prime and paint new hinge assembly. If matching factory DuPont Imron paint, refer to paint color codes located on inside front cover of original factory-supplied maintenance record (airframe log book).
7. Make appropriate maintenance record entries.

Approximate Cost:

Parts:	A227-3 lower hinge assembly (left door):	\$34.50
	A227-4 lower hinge assembly (right door):	\$34.50
	MS24665-151 cotter pin:	\$.04
	MS51861-37C screw, self-tapping:	\$.30

Parts may be obtained from any R22 Dealer or Service Center, or ordered directly from RHC Customer Service (via RHC web site, fax, or phone). Order must include helicopter serial number.

Labor: 1 man-hour (without paint matching).