

R44

Page 1 of 2

SERVICE BULLETIN SB-21

DATE: 18 April 1997

TO: All R44 Owners, Operators, and Service Centers

SUBJECT: Belt Tension Actuator Switches

ROTORCRAFT AFFECTED: R44 Helicopters S/N 0001 through 0332 excluding S/N 0182, 0301, 0319, 0329, and 0331.

TIME OF COMPLIANCE: Within next 10 flight hours or by 30 April 1997, whichever occurs first.

BACKGROUND: RHC has found examples of actuator up-limit switches not functioning properly. The belt tension actuator is equipped with two up-limit switches for redundancy. If one switch fails, the actuator may continue to function normally, but there is an increased risk of overtensioning the V-belts, which may cause the belts or clutch shaft to fail.

---

COMPLIANCE PROCEDURE:

1. Remove D040-1 aft engine cowling.
2. Turn master switch on and engage clutch switch to fully tension V-belts (leave master switch on).
3. Refer to Figure 1. Depress column springs on one side of actuator until springs snap inward. Use a large screwdriver or similar tool with several layers of tape over the end to protect actuator. Actuator motor should not start to run. If motor does start, allow motor to run approximately two seconds, release pressure, and depress springs again. If motor starts again, switch does not function properly.
4. Disengage and re-engage clutch actuator. Then repeat step 3 for springs on opposite side.
5. If either switch does not function properly, replace switch per R44 Maintenance Manual Section 7.551. Verify proper switch operation per above procedure prior to returning actuator to service. Actuator is not airworthy unless both up-limit switches function properly.
6. Reinstall aft engine cowling.
7. Record compliance with R44 SB-21 in aircraft maintenance record (logbook).

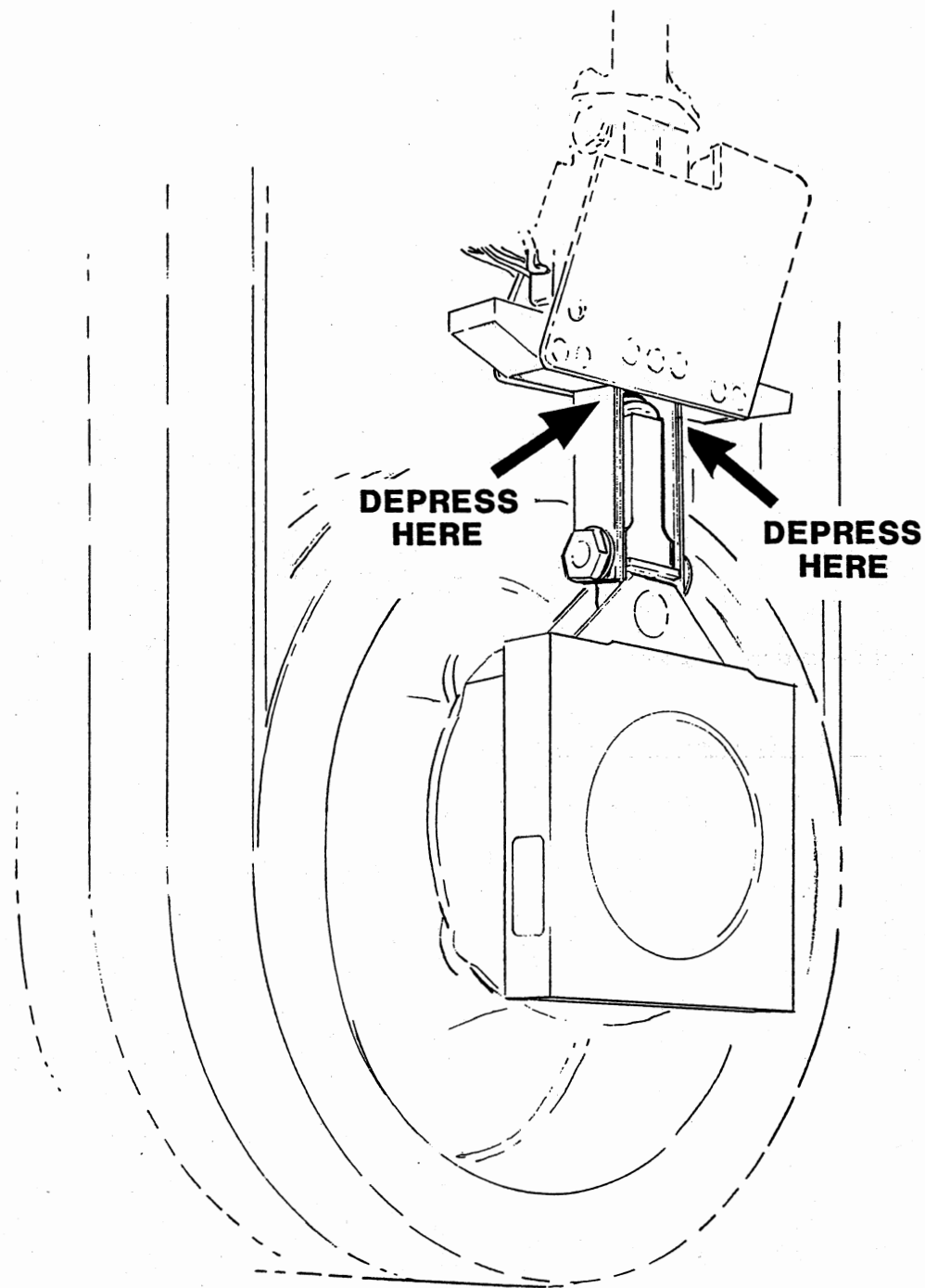
Approximate Cost:

Labor: 0.5 manhour to perform actuator test.

Parts: None required.

THE DESIGN ENGINEERING ASPECTS OF THIS BULLETIN HAVE BEEN SHOWN TO COMPLY WITH THE APPLICABLE FEDERAL AVIATION REGULATIONS, AND ARE FAA APPROVED.

(over)



**FIGURE 1**

**(COOLING FAN AND SCROLL NOT SHOWN)**