SCHWEIZER 269 SERIES

SCHWEIZER SERVICE BULLETIN

MANDATORY MANDATORY MANDATORY

SUBJECT: INSPECTION AND MODIFICATION OF 269A7316-13 LATERAL CONTROL TRIM ASSEMBLY

MODELS AFFECTED: Model 269C-1 S/N 0169 thru S/N 0191

TIME OF COMPLIANCE:

PART I • Initial inspection prior to next flight.

PART II • Next 25 hour periodic inspection

REFERENCE: Model 269C-1 Basic HMI, Section 8 (Issued: 14 July 1995; Revised: 13 Dec 2004)

PREFACE:

- Field reports indicate there is a possibility of separation of the spring tube from the trim assembly housing after extraneous external sideward load application. To preclude the possibility of separation, this bulletin provides instructions for an interim preflight inspection and scheduled modification of the subject 269A7316-13 lateral trim actuator assemblies.

- Failure to comply with this bulletin may lead to loss of trim control and increased local resistance to cyclic stick movement, which could be interpreted as restrictive flight control. This interpretation could result in a forced landing, and potentially actions that could cause the loss of the aircraft with subsequent injury, death, and/or property damage.

FAA APPROVAL: The engineering aspects of this Service Bulletin (C1B-017.1) are FAA approved.

MATERIALS:

Adhesive	EA9309	Dexter Hysol Pittsburg, CA
Solvent	MEK	Commercial
Sandpaper	320 Grit	Commercial
Nylon or Cotton Cord	1/8 in.	Commercial

TOOLS AND EQUIPMENT:

Soft Jawed Pliers
5/8 in.–11 UNC Thread Tap
100 Pound Spring Scale
8 Ounce Plastic Type Hammer or Rubber Mallet
No. 30 Twist Drill

*Supersedes C1B-017 dated 08 Feb 2004

PROCEDURES:

PART I: ONE-TIME INITIAL INSPECTION OF INSTALLED TRIM ASSEMBLY

NOTE

Actuator assemblies containing a #30 drilled hole in housing through the wall of the inner spring tube socket as shown in Figure C1B-017.1 are in compliance with this Service Bulletin and no further action is required. During inspection, soft jaw pliers may be used in lieu of finger pressure as long as care is taken not to cause permanent distortion of the inner tube. If some, or all, of the resin fillet has a cream or light pink color (doesn't transmit the black color of the housing through the resin), this is an indication of bond separation. To confirm separation, a drop of alcohol on the edge of the fillet and housing will indicate a color change if resin bond has separated.

a. Turn on battery power and move the cyclic trim actuator to full left cyclic position.

b. Examine assembly for evidence of a side load application to actuator in the form of scuffmarks, indentation, or outer spring guide tube deformation. Inspect tube security in socket of housing by aggressively rotating and pulling on the inner spring tube. Examine the resin bead around the base of the inner spring tube and housing socket. Resin should be translucent dark pink in color to indicate a good bond.

c. If scuffmarks, indentation, or outer spring tube deformation exists, tube is loose or has motion, or bond shows evidence of separation, before further flight, remove actuator assembly and modify according to **Part II**.

d. If no evidence of separation, side load or delamination exists, return the aircraft to service until the next 25-hour scheduled inspection and modify assembly in accordance with **Part II**.

PART II: MODIFICATION OF HOUSING INNER TUBE ASSEMBLY

NOTE

Actuator assemblies containing a #30 drilled hole in housing through the wall of the inner spring tube socket as shown in Figure C1B-017.1 are in compliance with this Service Bulletin and no further action is required.

a. Remove actuator assembly from helicopter and remove spring and pinion rack assembly from actuator housing in accordance with Basic HMI Section 8.

b. Attach 1/8 inch nylon or cotton cord to holes in end of tube and attachment pin hole in housing. Secure housing cord to vise and 100-pound spring scale to tube cord loop.

c. Separate tube from housing by apply 75 to 80 pounds pull with spring scale and using a plastic hammer or rubber mallet, strike the housing and tube assembly near the fillet joint of the tube from opposite directions with sufficient force to fracture the adhesive bond to the housing.

NOTE

The striking force should not be sufficient to cause damage to the housing or the inner spring tube. The tube should separate from housing with under 50 pounds of axial force.

d. Remove nylon or cotton chords. Chip off all residual adhesive from the tube bore in the housing and from the tube exterior using scraping tool and/or file. After adhesive is removed, use 320 grit sandpaper to abrade the glue faying surface on the exterior of the tube and housing bore. Clean tube and housing bore several times with MEK and dry with clean cloth.

e. Drill a No. 30 hole in the housing through the socket wall as shown in Figure C1B-017.1; deburr hole paying particular attention to burrs on the inside diameter of the housing tube socket.

f. Cut spiral grooves inside the housing tube socket to depth of 0.50 to 0.75 inch using a 5/8”-11 standard tap as shown in Figure C1B-017.1 and remove all loose debris. Clean with MEK and dry with clean cloth.

g. Mix Hysol EA9309 adhesive in accordance with manufacturers instructions and apply to faying surfaces of tube, and socket in housing. Insert tube using a clockwise rotation until tube is full seated in housing socket. Remove excess adhesive from interior and exterior with clean cloth saturated with MEK, paying particular attention to inside of tube and housing. Allow adhesive resin to cure undisturbed for a minimum of 8 hours at 70º F room temperature before reassembly of the actuator.

h. Reassemble trim actuator assembly and install in helicopter in accordance with Basic HMI Section 8.

i. Turn on battery and test run actuator full right to full left travel several times; check motor for proper operation, binding and cyclic reaches full travel limits.

j. Record compliance with this Service Bulletin in the aircraft records.

WEIGHT AND BALANCE

Weight and balance are not affected.

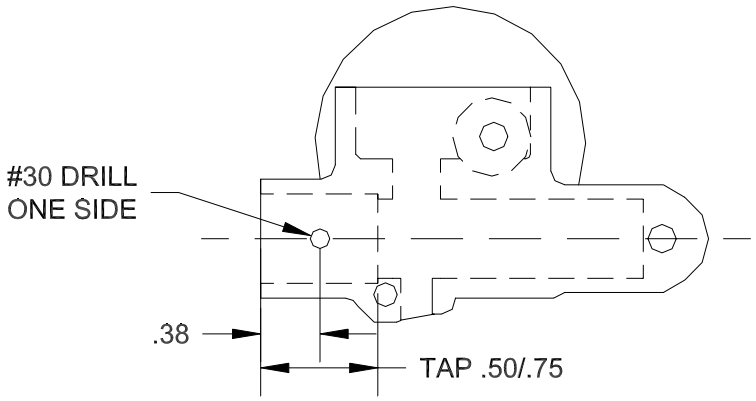

Figure C1B-017.1 - Trim Control