FLIGHT CONTROLS - INSPECTION/CHECK

TASK 27-00-00-640

1. Flight Controls Lubrication

A. General

(1) This task provides the procedures to perform a Lubrication of the Flight Controls.

NOTE: For more flight controls lubrications, Refer to Chapter 12, Flight Controls - Servicing.

B. Special Tools

NOTE: Equivalent tools and equipment can be used.

(1) Oil - MIL-L-7870

(2) Grease - MIL-G-21164

(3) Grease - MIL-G-81322

(4) Dry Solid Film Lubricant - MIL-L-23398.

C. Access.

(1) Remove floor panels 216AC and 216BC. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

(2) Remove pedestal panels 226A, 226B, 226C, and 226D. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

(3) Remove vertical stabilizer panels 373AL and 374AR. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

(4) Remove wing panels 503EB, 525AB, and 525CB left, and 603EB, 625AB, and 625CB right. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

(5) If installed, remove the liquid barrier. Refer to Chapter 53, Plates/Skins - Maintenance Practices.

D. Do a Lubrication of the Left and the Right Aileron and Spoiler Pushrods.

(1) Disconnect the left and the right wing aileron and spoiler pushrods. Refer to Ailerons and Control Column - Maintenance Practices.

(2) Examine for corrosion, condition, and pitting.

(3) Lubricate by hand with MIL-G-21164 grease.

(4) Connect the left and the right wing aileron and spoiler pushrods. Refer to Ailerons and Control Column - Maintenance Practices.

E. Do a Lubrication of the Left and the Right Spoiler Hinges.

(1) Wipe and clean the left and right spoiler hinge assemblies with a lint-free cloth.

(2) Lubricate the left and the right spoiler hinge assemblies with dry solid film lubricant.

(3) Wipe off excess lubricant.

F. Do a lubrication of the Rudder Trim Control.

(1) Turn the trim control wheel fully left or right.

(2) Wipe the threads of the rudder trim shaft with a lint-free cloth.

(3) Turn the trim control in the full opposite direction.

(4) Wipe the threads of the rudder trim shaft with a lint-free cloth.

(5) Lubricate the trim shaft, nut, and link with MIL-L-7870 oil.

(6) Lubricate the trim wheel support bearing from the left side of pedestal with MIL-L-7870 oil.

(7) Wipe off the excess oil.

G. Do a Lubrication of the Elevator Trim Control.

(1) Lubricate the elevator trim control wheel shaft and the support bearing with dry solid film lubricant.

(2) Lubricate both sprocket shafts under the floor with dry solid film lubricant.

(3) Wipe the cable chain with clean a lint-free cloth, but do not lubricate.

H. Do a lubrication of the Elevator Trim Actuator Pushrods (Left and Right).

(1) Lubricate the pushrods at the actuator and the trim tab horn with MIL-L-7870 oil.

I. Do a lubrication of the Elevator Trim Cable Chains (Left and Right Stabilizer).

(1) Wipe the left and the right chains with a clean lint-free cloth.

NOTE: Do not lubricate the chains unless you operate the airplane in a seacoast condition. Lubricant can cause dust and dirt to collect and cause the links to bind.

(2) If you operate the airplane in seacoast conditions, apply a light coat of MIL-L-7870 oil to the chains for corrosion protection.

J. Do a lubrication of the Left and the Right Flap Outboard Bell Crank Bearings.

NOTE: Airplanes 20800161 and On, 208B0190 and On, and airplanes that incorporate SNL89-17 have sealed bearings installed and do not require lubrication. To identify these bell cranks, measure the bell crank mount tube outside diameter. The new bell crank mount tube outside diameter is 1.00 inch. The initial bell crank mount tube outside diameter is 0.687 and must be removed for lubrication.

(1) Remove the flap bell cranks from the wings. Refer to Flap System - Maintenance Practices.

(2) Remove the bearings from the bell cranks.

(a) Clean and examine the bearing for corrosion, condition, and pitting.

NOTE: If bearing is found unserviceable, you can replace the bell crank with sealed bearings in accordance with SNL89-17.

(3) Install the bearings in the bell cranks

(4) Install the bell cranks in the wing. Refer to Flap System - Maintenance Practices.

K. Restore Access.

(1) If previously installed, install the liquid barrier. Refer to Chapter 53, Plates/Skins - Maintenance Practices.

(2) Install wing panels 503EB, 525AB, and 525CB left, and 603EB, 625AB, and 625CB right. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

(3) Install vertical stabilizer panels 373AL and 374AR. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

(4) Install pedestal panels 226A, 226B, 226C, and 226D. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

(5) Install floor panels 216AC and 216BC. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

END OF TASK