

FLIGHT CONTROLS - SERVICING

1. General

- A. If possible, do the airplane servicing in an area free of contamination from sand, dust or other environmental conditions that can contribute to incorrect lubrication procedures.
- B. Lubricate the flight controls at specified time intervals. Refer to Chapter 5, Inspection Time Limits.
- C. Refer to Table 301 and 302 to find the lubrication data.

Table 301. Lubrication Specifics

ITEM DESCRIPTION	LUBRICATION TYPE	APPLICATION	FIGURE NUMBER	EFFECTIVITY
Rod Ends	GL	Hand	301, Sheet 1	
Drive Sprocket	OG	Oil Can	302, Sheet 1	
Drive Shaft	OG	Oil Can	302, Sheet 1	
Drive Shaft Bearings	OG	Oil Can	302, Sheet 1	
Forward Elevator Control Bell Crank (without Grease Fitting)	GR	Hand	303, Sheet 1	Airplanes 20800001 thru 20800156 and 208B0001 thru 208B0188 Except Airplanes Incorporating SNL89-17.
Forward Elevator Control Bell Crank	N/A	N/A	303, Sheet 1	Airplanes 20800157 and On and 208B0189 and On and Airplanes 20800001 thru 20800156 and 208B0001 thru 208B0188 Incorporating SNL89-17.
Elevator Bell Crank (without Grease Fitting)	GR	Hand	303, Sheet 1	Airplanes 20800001 thru 20800156 and 208B0001 thru 208B0188 Except Airplanes Incorporating SNL89-17.
Elevator Bell Crank (with one Grease Fitting)	GR	Gun	303, Sheet 1	Airplanes 20800199 and On and 208B0228 and On.
Elevator Bell Crank Pushrod (without Grease Fitting)	GR	Hand	303, Sheet 1	Airplanes 20800001 thru 20800156 and 208B0001 thru 208B0188 Except Airplanes Incorporating SNL89-17.
Elevator Bell Crank Pushrod (with one Grease Fitting)	GR	Gun	303, Sheet 1	Airplanes 20800199 and On and 208B0228 and On.
Aft Elevator Control Bell Crank End Bearings	GR	Hand	303, Sheet 1	Airplanes 20800001 thru 20800156 and 208B0001 thru 208B0188 Except Airplanes Incorporating SNL89-17.
Aft Elevator Control Bell Crank End Bearings	GR	Hand	303, Sheet 1	Airplanes 20800157 and On and 208B0189 and On and Airplanes 20800001 thru 20800156 and 208B0001 thru 208B0188 Incorporating SNL89-17.
Aft Elevator Control Bell Crank Center Bearing	GH	Hand	303, Sheet 1	Airplanes 20800001 thru 20800156 and 208B0001 thru 208B0188 Except Airplanes Incorporating SNL89-17.
Aft Elevator Control Bell Crank Center Bearing	N/A	N/A	303, Sheet 1	Airplanes 20800157 and On and 208B0189 and On and Airplanes 20800001 thru 20800156 and 208B0001 thru 208B0188 Incorporating SNL89-17.
Pivot Bearing	GR	Hand	304, Sheet 1	Airplanes 20800001 thru 20800207 and 208B0001 thru 208B0277 not Incorporating SK208-83.

Pivot Bearing	N/A	N/A	304, Sheet 1	Airplanes 20800208 and On and 208B0278 and On and Airplanes 20800001 thru 20800207 and 208B0001 thru 208B0277 Incorporating SK208-83 and all spares.
Control Wheel Column Bearings	GR	Gun	304, Sheet 1	
Rudder Bar Bearing	OG	Oil Can	305, Sheet 1	Airplanes 20800001 and On and 208B0001 thru 208B4999.
Rudder Bar Bearing	GH	Gun	305, Sheet 1	Airplanes 208B5000 and On
Bearing	GR	Hand	306, Sheet 1	Airplanes 20800001 thru 20800142 and 208B0001 thru 208B0135 Except Airplanes Incorporating SK208-148.
Bearing	N/A	N/A	306, Sheet 1	Airplanes 20800143 and On and 208B0136 and On and Airplanes 20800001 thru 20800142 and 208B0001 thru 208B0135 Incorporating SK208-148 and all spares.
Rod End Bearing	OG	Oil Can	Figure 306, Sheet 1 and 2	
Flap Actuator Screw Threads	GP	Oil Can	Figure 306, Sheet 1 and 2	
Rod End Bearings	OG	Oil Can	Figure 307, Sheet 1	Airplanes 20800001 thru 20800142 and 208B0001 thru 208B0135 Except Airplanes Incorporating SK208-148.
Bell Crank Bearings	GH	Hand	Figure 307, Sheet 1	Airplanes 20800001 thru 20800142 and 208B0001 thru 208B0135 not Incorporating SK208-148.
Bell Crank Bearings	N/A	N/A	Figure 307, Sheet 1	Airplanes 20800143 and On and 208B0136 and On and Airplanes 20800001 thru 20800142 and 208B0001 thru 208B0135 Incorporating SK208-148 and all spares.

Table 302. Recommended Lubricants

LUBRICATION TYPE	PROCUREMENT SPECIFICATION	LUBRICANT DESCRIPTION
GH	MIL-PRF-23827	Grease, aircraft and instrument, gear and actuator screw.
GL	MIL-G-21164	Grease, molybdenum disulfide, for low and high temperatures.
GP	None	Number 10 weight, non-detergent oil
GR	MIL-PRF-81322	Grease, aircraft, general purpose, wide temperature range.
OG	MIL-PRF-7870	Lubricating oil, general purpose, low temperature.

2. Aileron Slot Lip Spoiler Pushrod Lubrication

A. Lubricate the aileron slot lip spoiler pushrods. Refer to Figure 301.

3. Aileron Trim Control Assembly Lubrication

A. Lubricate the aileron trim control assembly. Refer to Figure 302.

B. Do the Aileron Trim System Lubrication. Refer to Aileron Trim System - Inspection/Check.

TASK 12-21-02-640

4. Elevator Bell Crank Lubrication

A. Access

- (1) Remove access panel 320A, refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.
- (2) Get access to forward elevator bell crank.

B. Lubricate the elevator bell crank. Refer to Figure 303.

C. Restore Access

- (1) Install access panel 320A, refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.
- (2) Close access to forward elevator bell crank.

END OF TASK

5. Lubrication of Control Tube and Control Column Bearings

A. Lubricate the control tube and control column bearings. Refer to Figure 304.

6. Rudder Bar Lubrication

A. Lubricate the rudder bar. Refer to Figure 305.

- (1) For Airplanes 20800001 and On and 208B0001 thru 208B4999 do the steps that follow:
 - (a) Remove or loosen the top bearing blocks one at a time to get sufficient access to friction surface.
 - (b) Clean and lubricate the rudder bar attach bearings and all accessible component pivot points on the rudder bar.
- (2) For Airplanes 208B5000 and On, clean the grease Zerk fittings and lubricate through the fittings until lubricate is visible. Wipe off any excess lubricant with a clean cloth.

7. Wing Flap Actuator Lubrication

A. Lubricate the wing flap actuator system. Refer to Figure 306.

B. Lubricate the actuator jack screw. Refer to the steps that follow.

NOTE: This procedure, used in conjunction with Figure 306, lets you lubricate the screw jack while it is in position on the airplane.

- (1) Move the flaps to the full up position.
- (2) Clean the jack screw threads with a rag soaked in solvent.
- (3) Dry the jack screw with compressed air.
- (4) Apply a light coat of oil to the jack screw threads.

8. Flap Bell Crank Lubrication

A. Lubricate the flap bell cranks, interconnect rods, and pushrods. Refer to Figure 307.

Figure 301 : Sheet 1 : Aileron Slot Lip Spoiler Pushrods Lubrication

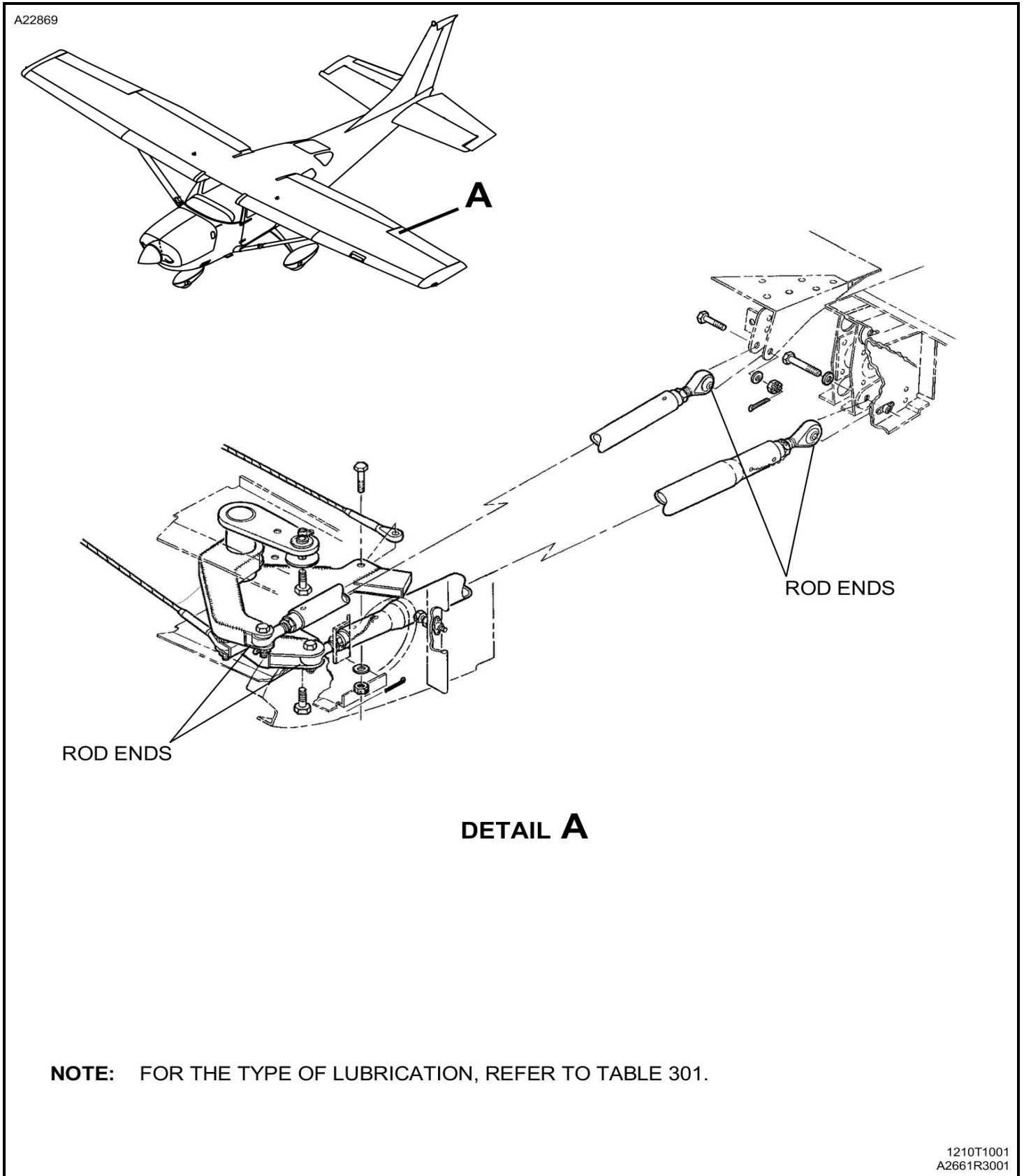


Figure 302 : Sheet 1 : Aileron Trim Control Assembly Lubrication

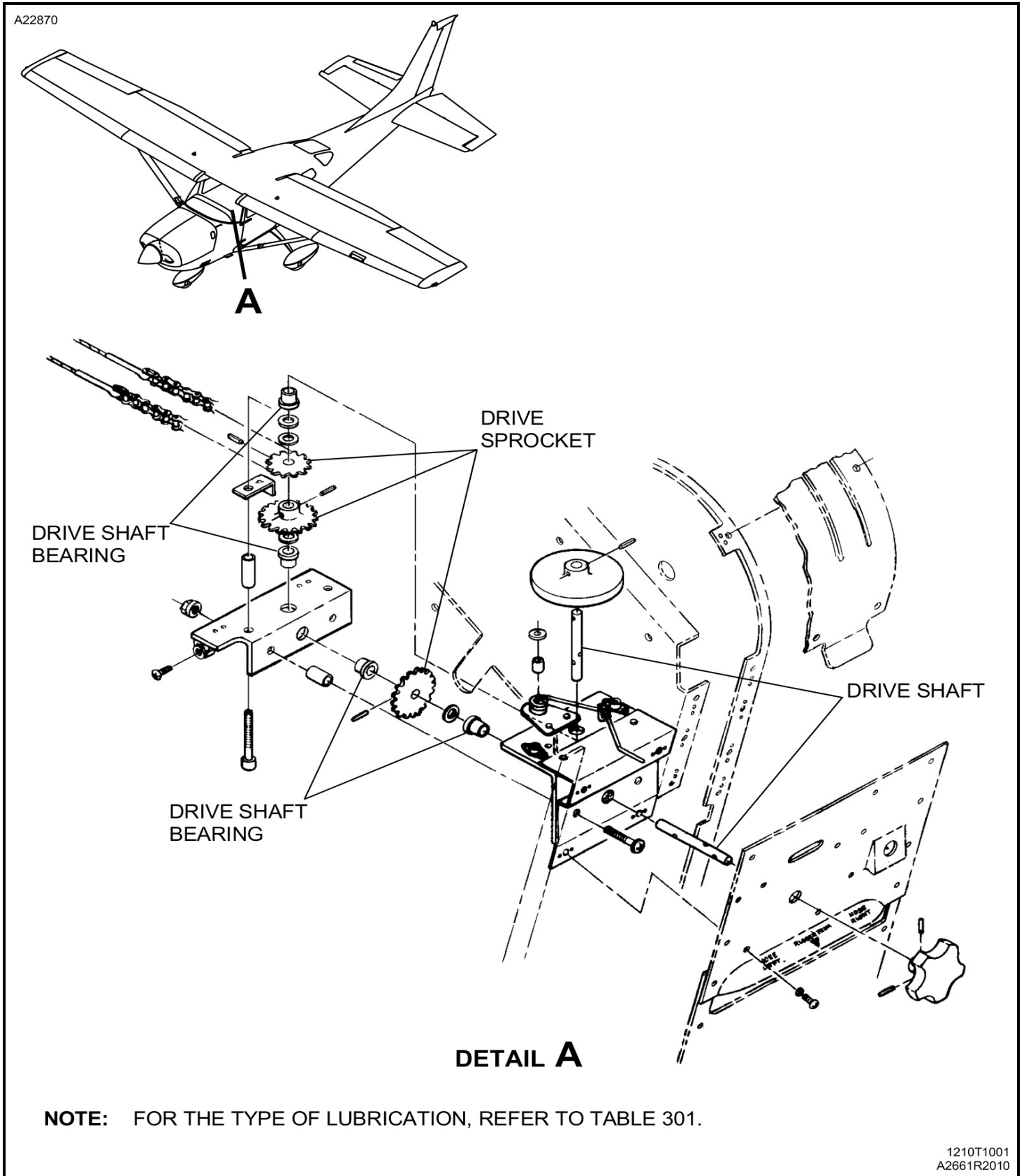


Figure 303 : Sheet 1 : Lubrication of Elevator Bell Cranks

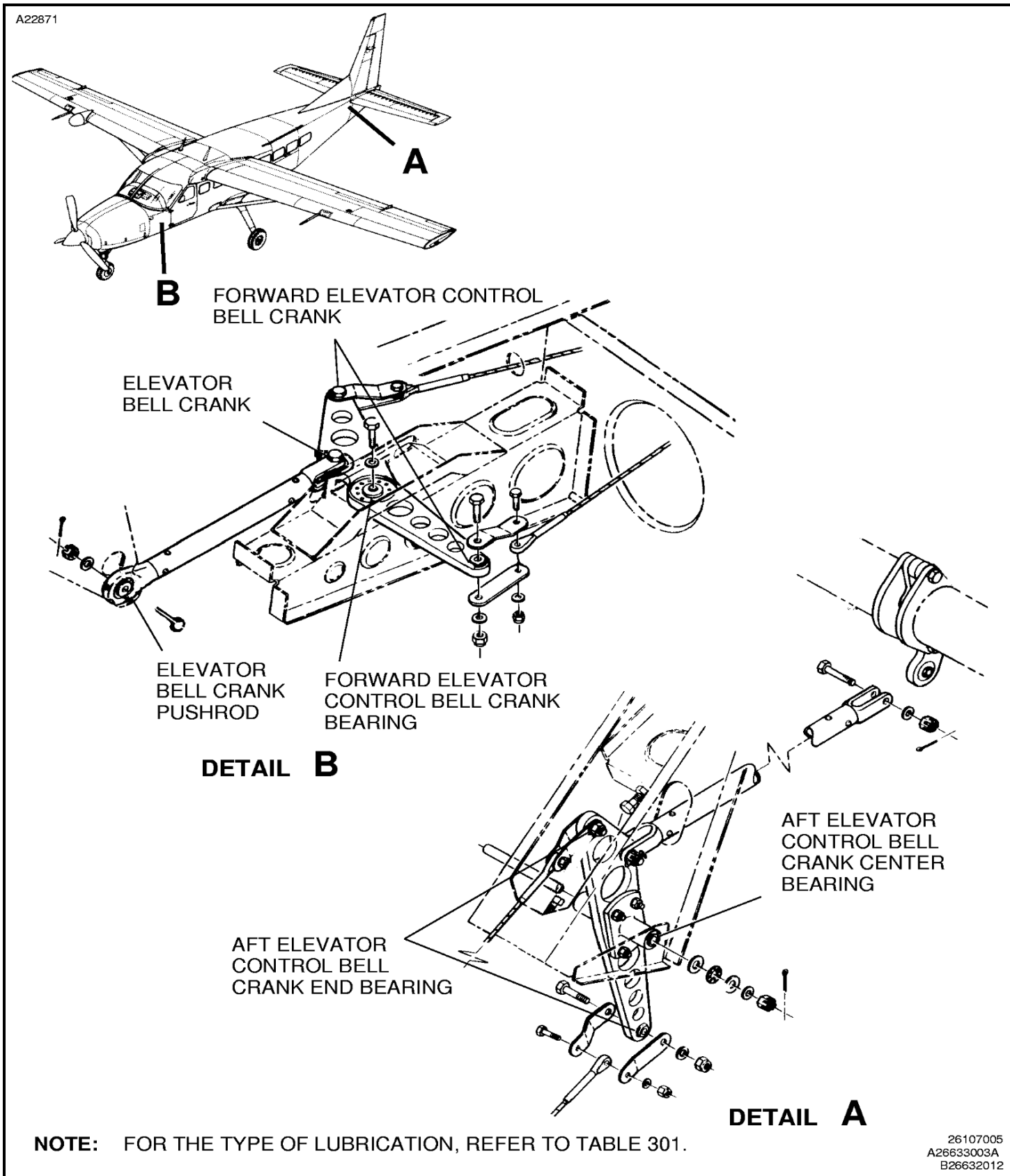
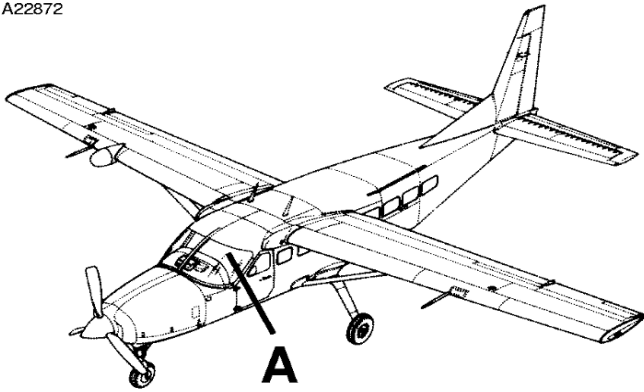
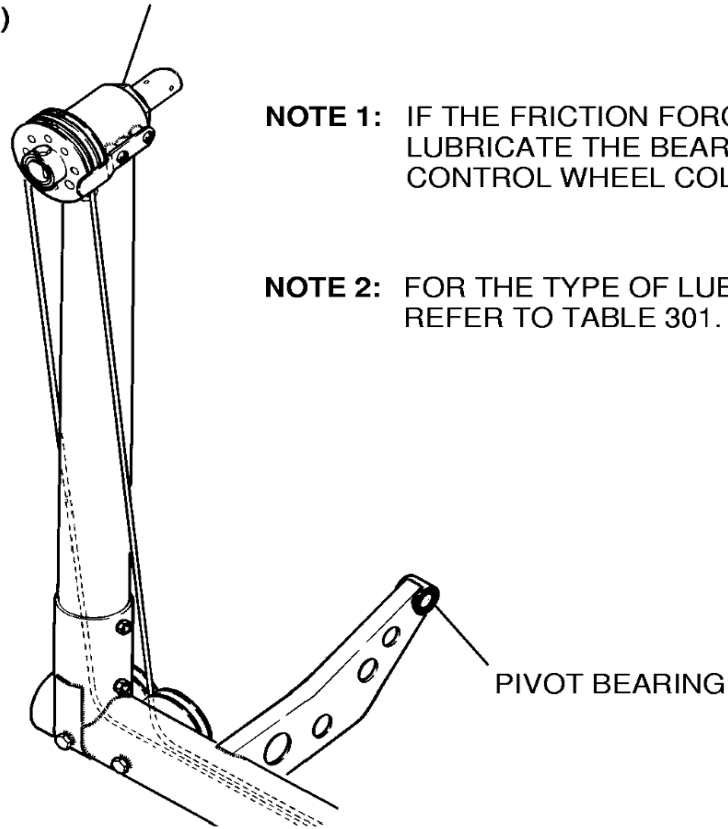


Figure 304 : Sheet 1 : Lubrication of Control Tube and Control Column Bearings

A22872



CONTROL WHEEL
COLUMN BEARINGS
(NOTE 1)



NOTE 1: IF THE FRICTION FORCE IS EXCESSIVE,
LUBRICATE THE BEARING ON THE
CONTROL WHEEL COLUMN.

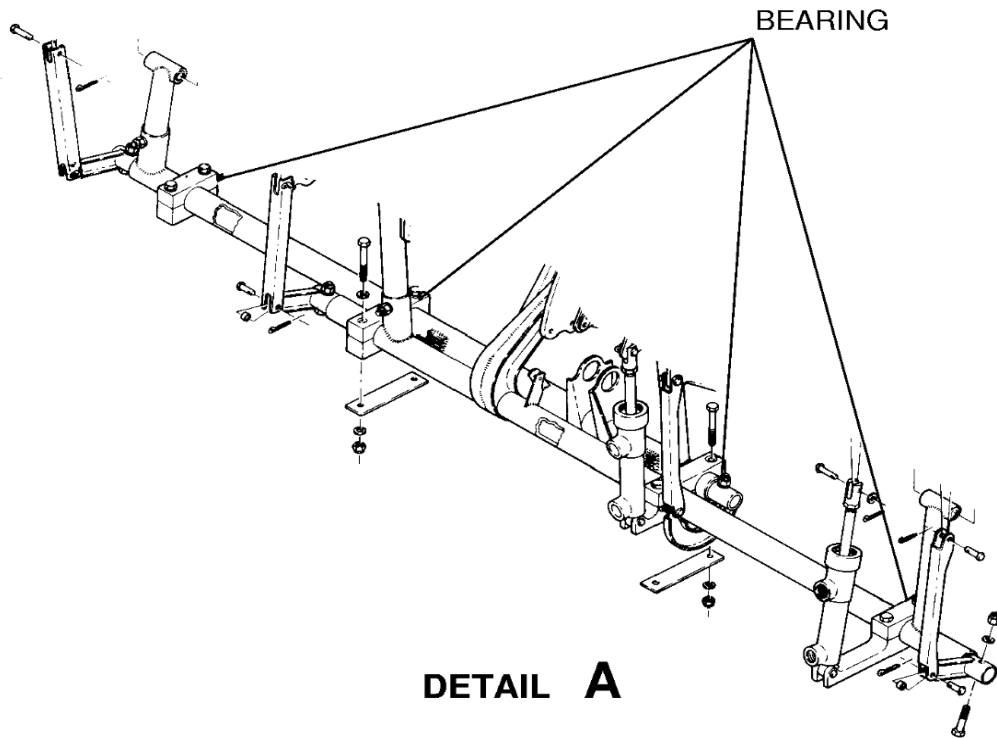
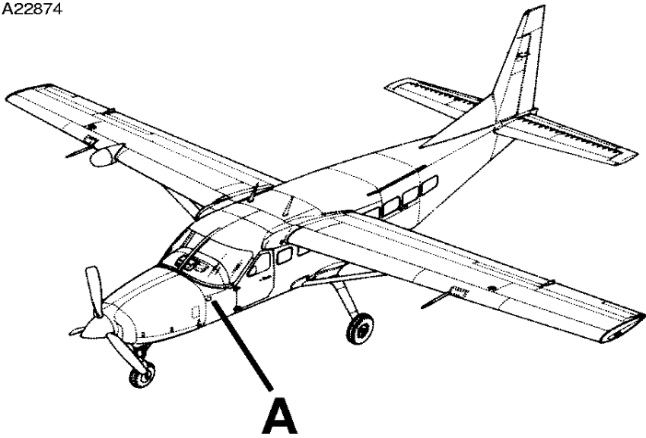
NOTE 2: FOR THE TYPE OF LUBRICATION,
REFER TO TABLE 301.

DETAIL A

26107005
A2615T2008A

Figure 305 : Sheet 1 : Rudder Bar Lubrication

A22874

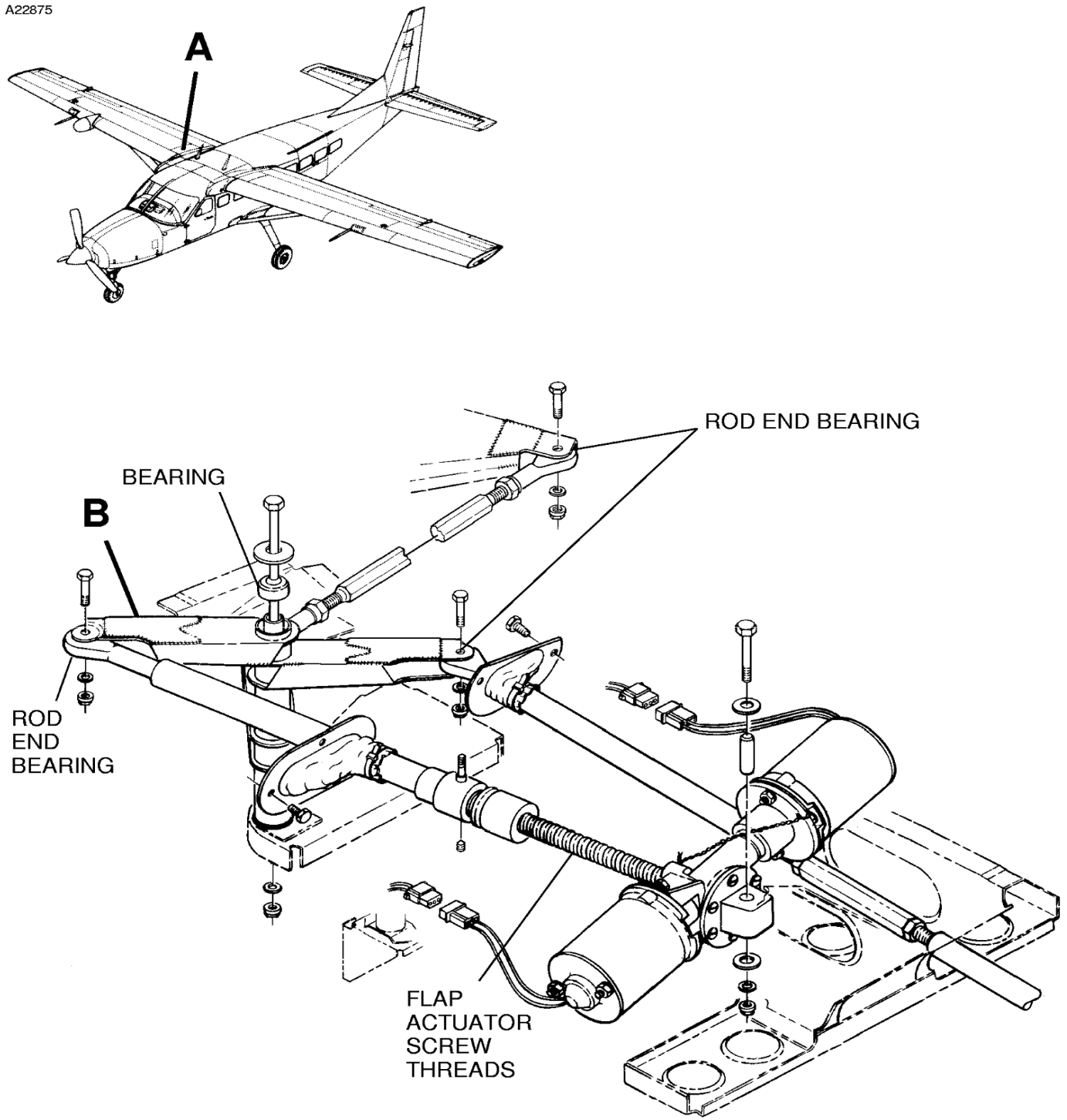


NOTE: FOR THE TYPE OF LUBRICATION, REFER TO TABLE 301.

26107005
A26624001

Figure 306 : Sheet 1 : Wing Flap Actuator Lubrication

A22875



DETAIL A

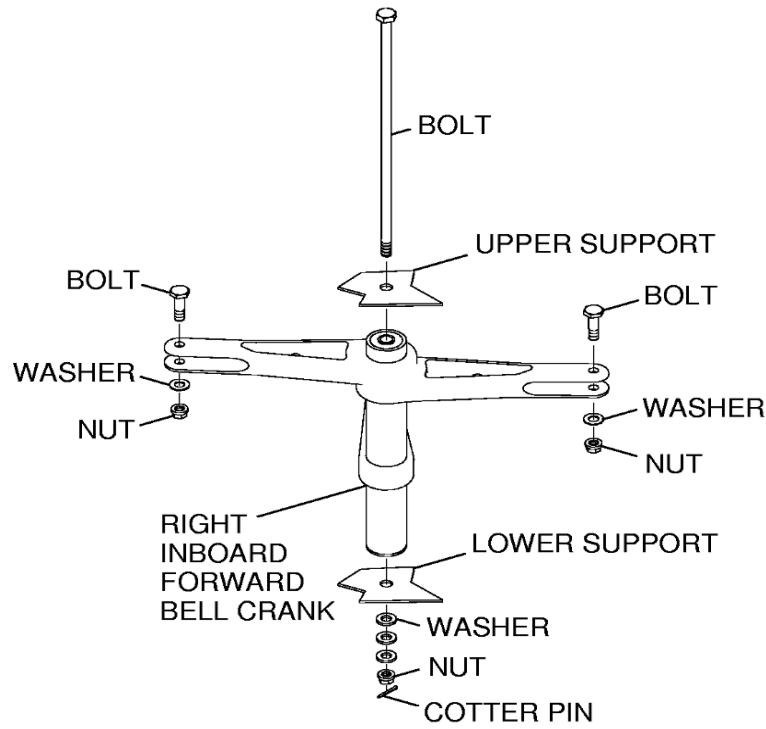
AIRPLANES 20800001 THRU 20800362 AND
AIRPLANES 208B0001 THRU 208B0998
NOT INCORPORATING SK208-148

NOTE: FOR THE TYPE OF LUBRICATION, REFER TO TABLE 301.

26107005
A26643001

Figure 306 : Sheet 2 : Wing Flap Actuator Lubrication

A1664



DETAIL B

AIRPLANES 20800363 AND ON AND
AIRPLANES 208B0999 AND ON AND
AIRPLANES 20800001 THRU 20800362 AND
AIRPLANES 208B0001 THRU 208B0998
INCORPORATING SK208-148

NOTE: FOR THE TYPE OF LUBRICATION, REFER TO TABLE 301.

B2664T1025

Figure 307 : Sheet 1 : Flap Bell Crank, Interconnect Rods and Pushrods Lubrication

