

**ATA AIRLINES, INC.**

1C LUBRICATION - RUDDER CONTROL SYSTEM

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CHECK BEING PERFORMED: Custom

ZONES: 324 325  
A/C NUMBER:  
REV. DATE: 11/04/02  
FREQUENCY: 1C

W/C NUMBER: 230L1203 DATE:  
W/O:  
JAC CODE:

MFR P/N	DESCRIPTION	QTY
BMS 3-33	Grease, Aircraft General Purpose	A/R

TOOLS	DESCRIPTION	QTY
B27013-19	Rudder PCA Lockout Equipment	1

**PANELS**  
324AL 324CL  
324BL

**REFERENCES**

Figures 1-4; AMM 20-10-29, 29-11-00

**MECH INSP**

ZONES AFFECTED: 324, 325

MPD ITEMS: 12-21-06-3A, 12-21-06-3B, 12-21-06-3C

WARNING: INTERMIXING GREASES IS NOT ALLOWED UNLESS SPECIFICALLY CALLED OUT IN LUBRICATION PROCEDURES. IF EVIDENCE OF DISSIMILAR GREASE IS NOTICED AT ANY JOINT OR BEARING, SLOWLY CONTINUE PURGING AT EACH FITTING UNTIL ONLY THE NEW GREASE COMES OUT.

CAUTION: LUBRICATION PRESSURES FROM 100-200 PSIG ARE NORMALLY SUFFICIENT FOR JOINTS TO ACCEPT THE LUBRICANT. DO NOT EXCEED 2500 PSIG. FITTINGS CAN BLOW OUT, BECOME DAMAGED, OR DAMAGE TO FITTING BOSS MAY OCCUR. NORMALLY, THE FLOW OF GREASE SHOULD BE STOPPED AT FIRST EVIDENCE OF SEAL DEFORMATION OR GREASE SEEPAGE FROM BEARING.

NOTE: FOR LUBRICATION FITTING REPLACEMENT, REFER TO AMM 20-10-29.

\_\_\_\_\_ XXXXX 1 Prepare For the Lubrication.

WARNING: KEEP PERSONS AND EQUIPMENT AWAY FROM ALL CONTROL SURFACES WHEN HYDRAULIC POWER IS SUPPLIED. AILERONS, ELEVATORS, RUDDER, FLAPS, SLATS, SPOILERS, AND STABILIZER ARE FULLY POWERED SURFACES. INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR WHEN HYDRAULIC POWER IS SUPPLIED.

A Supply pressure to the left, right, and center hydraulic

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MECH: INSP:

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systems (Ref. AMM 29-11-00/201).

CAUTION: AVOID RUDDER SURFACE TRAVEL TO THE EXTREME FAR LEFT PRIOR TO OR DURING RUDDER ADJUSTMENT. FULL LEFT TRAVEL OF THE RUDDER BEFORE RIGGING COMPLETION RESULTS IN FULL RETRACTION OF THE PCA'S. THIS MAY CAUSE SURFACE CONTACT BETWEEN THE RUDDER LEADING EDGE AND A PCA.

B Move the rudder pedals to their full right position and do these steps:

CAUTION: INSTALL THE AFT QUADRANT LOCKOUT TOOL BEFORE THE PCA LOCKOUT TOOL. STRUCTURAL DAMAGE CAN OCCUR IF THE TWO TOOLS ARE NOT USED TOGETHER AND IN THE CORRECT SEQUENCE.

1) Install the aft quadrant lockout tool (Fig. 1).

2) Release the rudder pedals.

C Remove the pressure from the hydraulic systems that supply the PCAs (Ref. AMM 29-11-00/201).

NOTE: The right system supplies the top PCA. The left system supplies the middle PCA. The center system supplies the bottom PCA.

WARNING: DO NOT INSTALL THE PCA LOCKOUT TOOL WHEN HYDRAULIC PRESSURE IS SUPPLIED. THE RUDDER CAN MOVE QUICKLY AND CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

D Install the PCA lockout tool (Fig. 1).

E Move the FLT CONTROL SHUTOFF switches L, C, and R on the right side panel, P61, to OFF. Attach DO-NOT-OPERATE tags and make sure the amber switch position legend lights come ON.

F Open these circuit breakers on the overhead panel, P11, and attach DO-NOT-CLOSE tags:

1) 11H17, FLT CONT SHUTOFF TAIL LEFT

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MECH: INSP:

- 2) 11H18, FLT CONT SHUTOFF TAIL CTR
- 3) 11H28, FLT CONT SHUTOFF TAIL RIGHT
- 4) 11J10, PCU MON SENSOR
- 5) 11J11, PCU MON MOD

\_\_\_\_\_ XXXXX 2 Lubricate the rudder hinges as shown (Fig. 2).

\_\_\_\_\_ XXXXX 3 Lubricate the yaw damper linkages as shown (Fig. 3).

\_\_\_\_\_ XXXXX 4 Lubricate the rudder PCAs as shown (Fig. 4).

\_\_\_\_\_ XXXXX 5 Put the Airplane Back to Its Usual Condition.

A Make sure the power from the left, right, and center hydraulic systems is removed (Ref. AMM 29-11-00/201).

WARNING: DO NOT REMOVE THE PCA LOCKOUT TOOL WITH HYDRAULIC POWER ON. THE RUDDER CAN MOVE QUICKLY AND CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

B Do these steps with hydraulic power removed:

- 1) Remove the PCA lockout tool.
- 2) Remove the aft quadrant lockout tool.

C Remove the DO-NOT-CLOSE tags and close these circuit breakers on the overhead panel, P11:

- 1) 11H17, FLT CONT SHUTOFF TAIL LEFT
- 2) 11H18, FLT CONT SHUTOFF TAIL CTR
- 3) 11H28, FLT CONT SHUTOFF TAIL RIGHT
- 4) 11J10, PCU MON SENSOR
- 5) 11J11, PCU MON MOD

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MECH: INSP:

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\*\*\*\*\* END OF WORKCARD \*\*\*\*\*

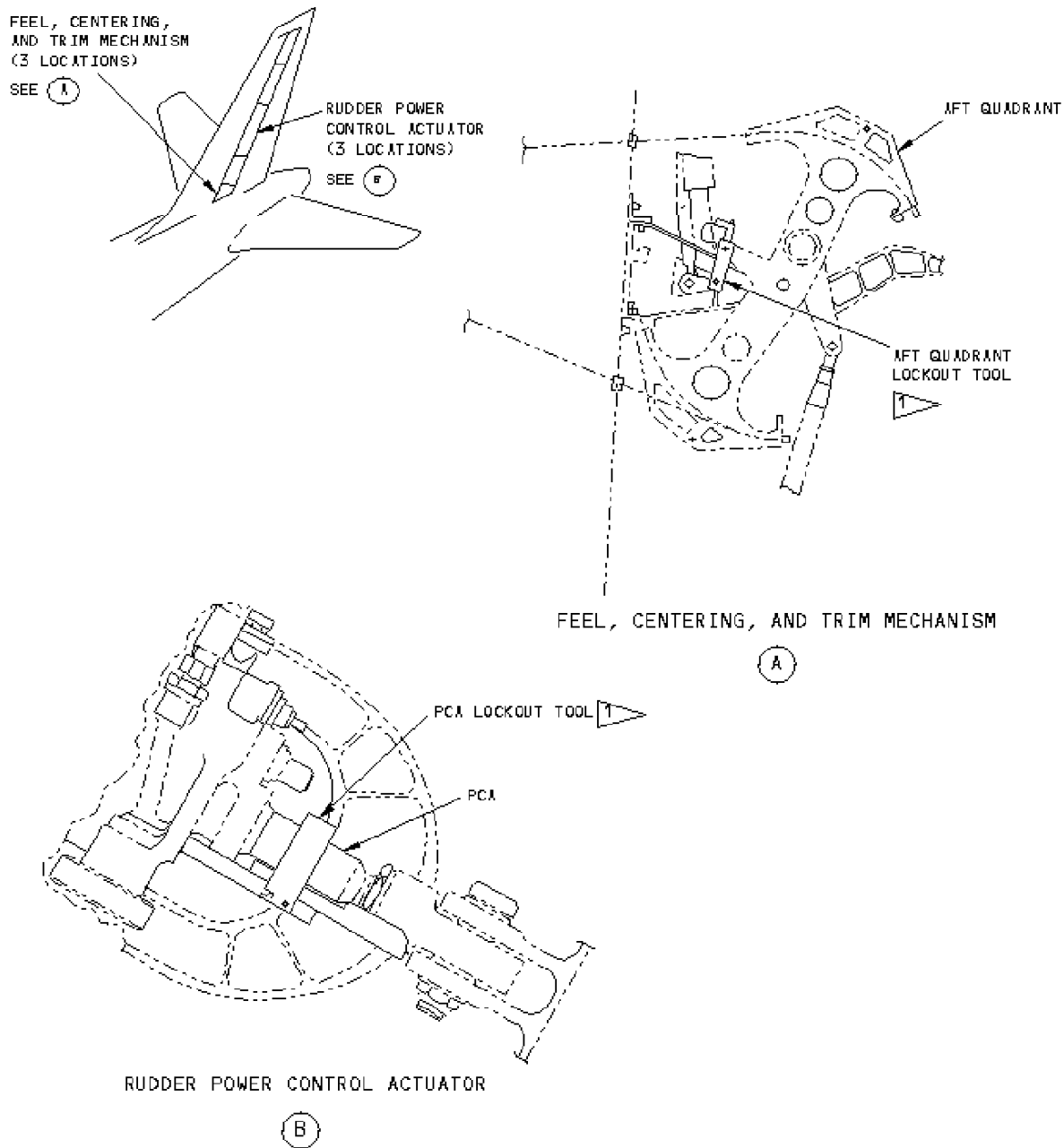
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REVISION DATE: 11/04/02

ATA AIRLINES, INC. B757 FLEET

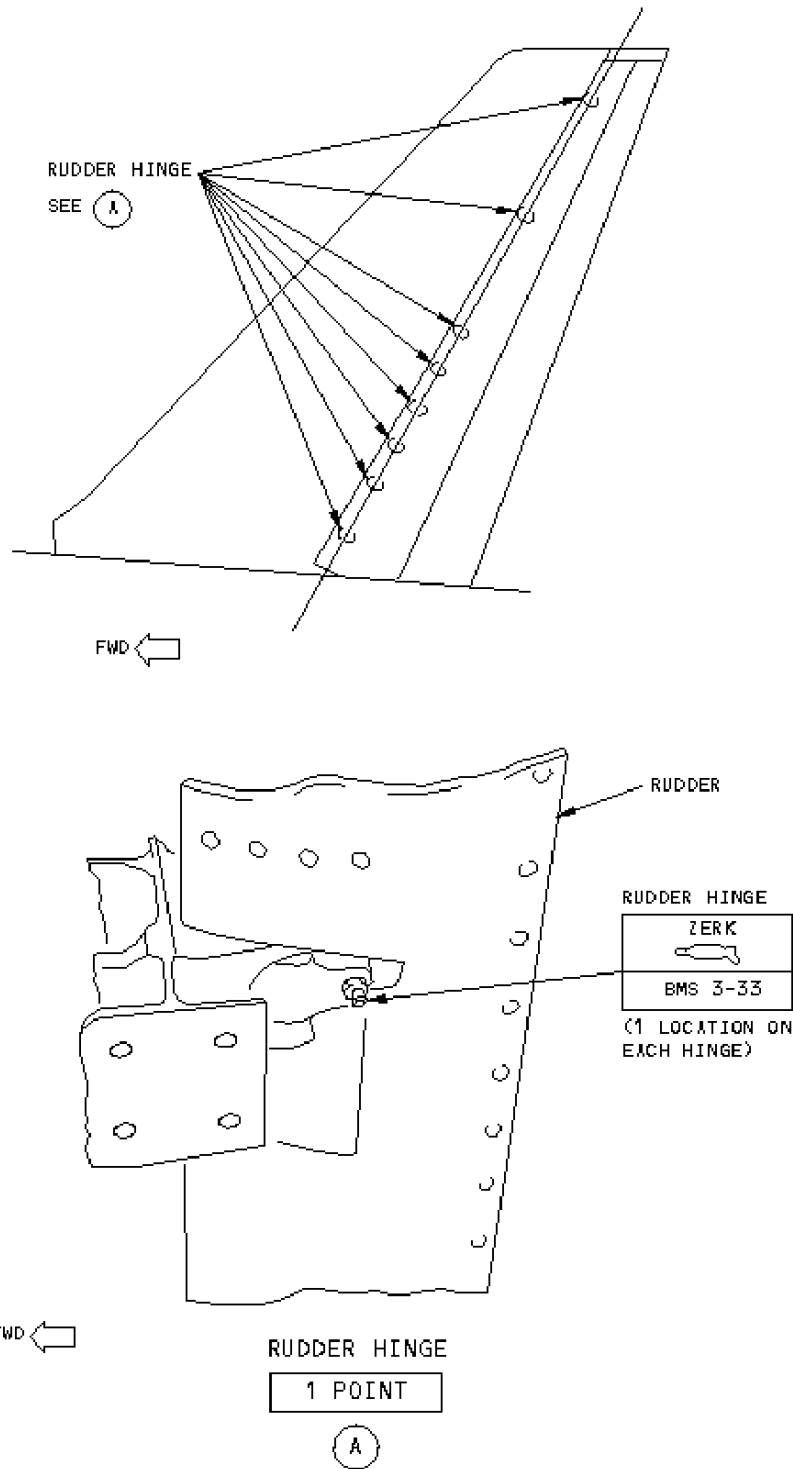
W/C #: 230L1203

DATE WORK CARD COMPLETE \_\_\_/\_\_\_/\_\_\_

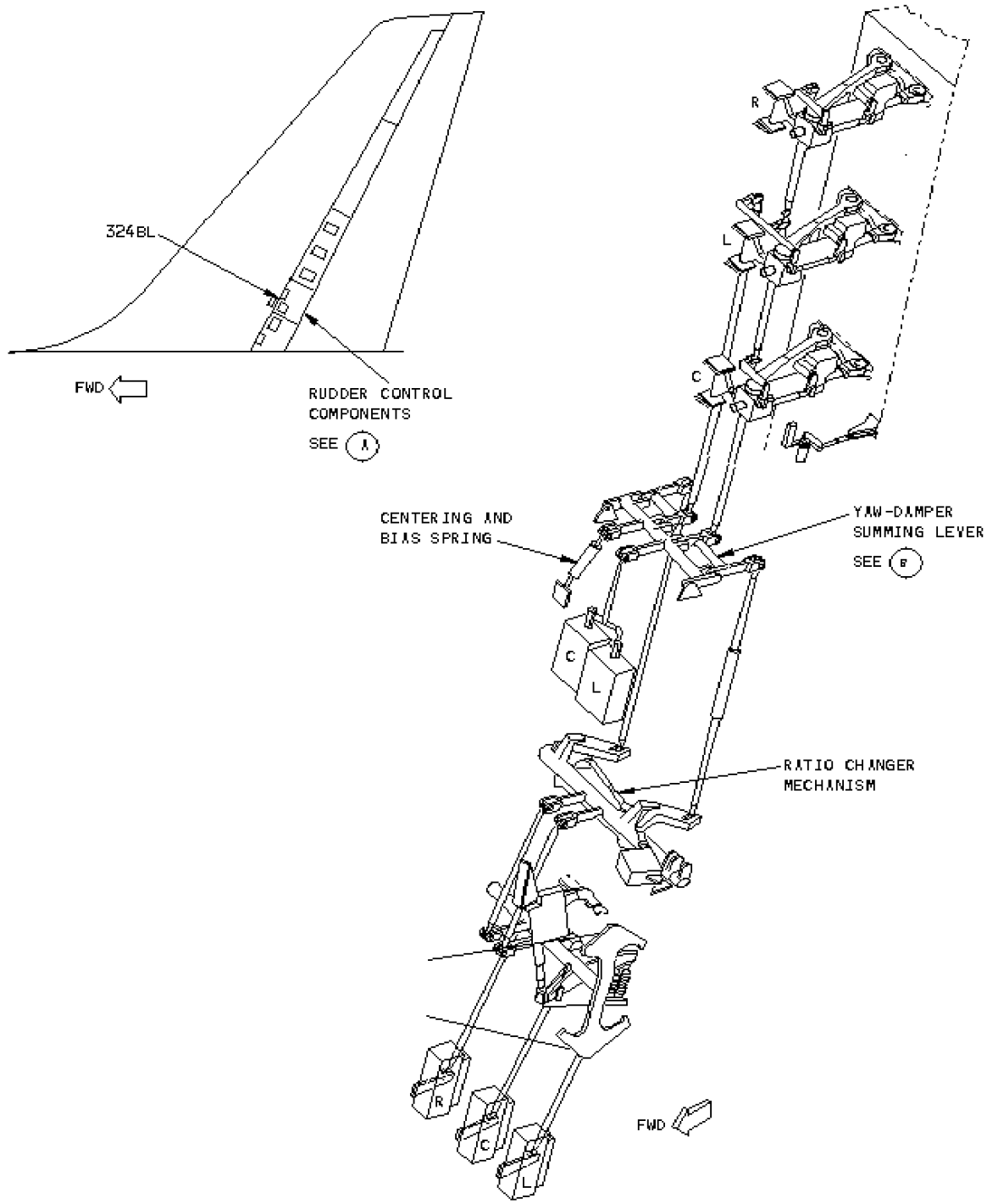


**CAUTION:** INSTALL THE AFT QUADRANT LOCKOUT TOOL BEFORE THE PCA LOCKOUT TOOL. STRUCTURAL DAMAGE CAN OCCUR IF THE TWO TOOLS ARE NOT USED TOGETHER AND IN THE CORRECT SEQUENCE.

Rudder Power Control Actuator Lockout Equipment Installation



Rudder Hinge Lubrication



RUDDER CONTROL COMPONENTS  
SEE (A)

CENTERING AND BIAS SPRING

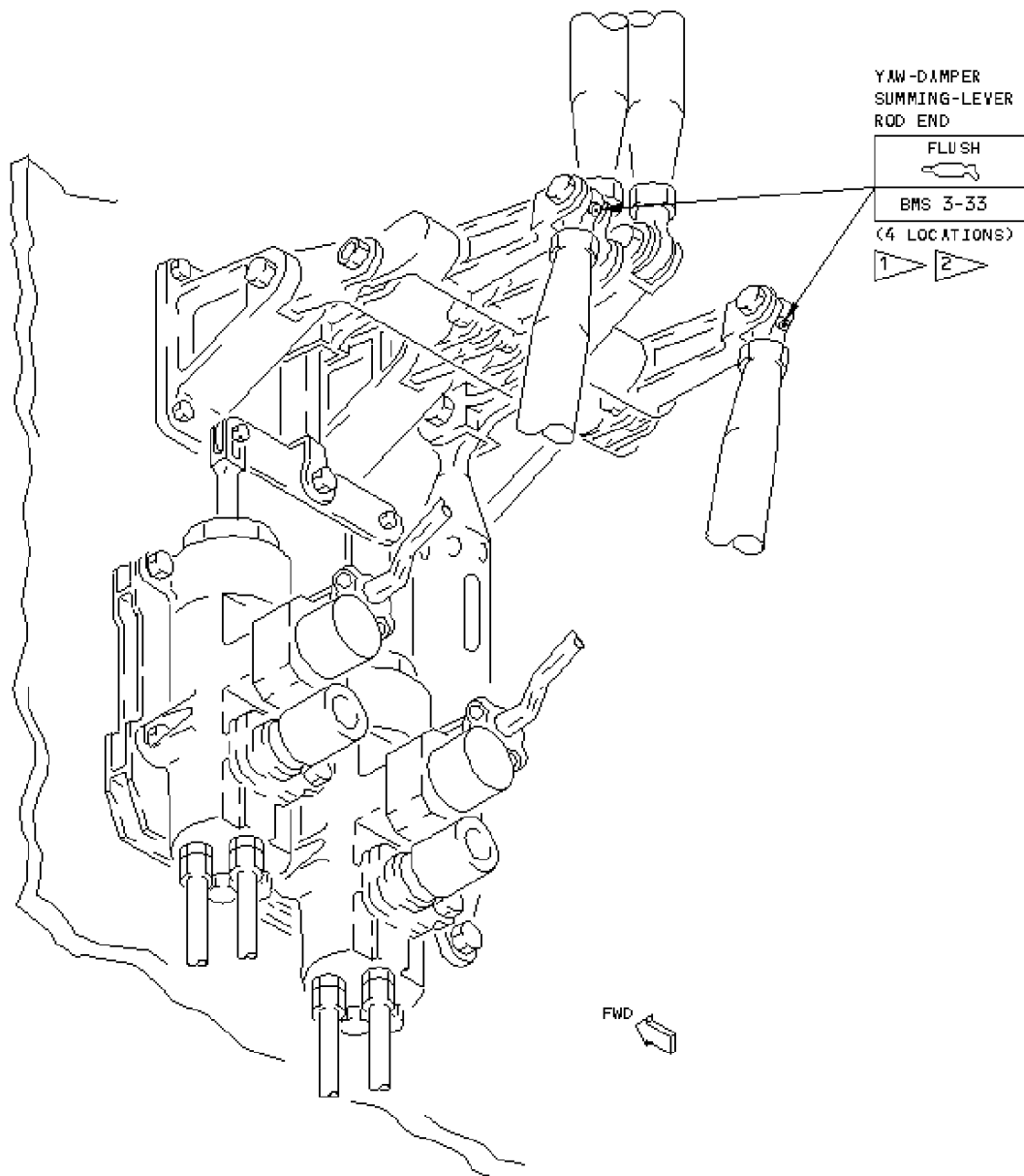
YAW-DAMPER SUMMING LEVER  
SEE (B)

RATIO CHANGER MECHANISM

RUDDER CONTROL COMPONENTS

(A)

Ratio Changer and Yaw-Damper Mechanisms Lubrication



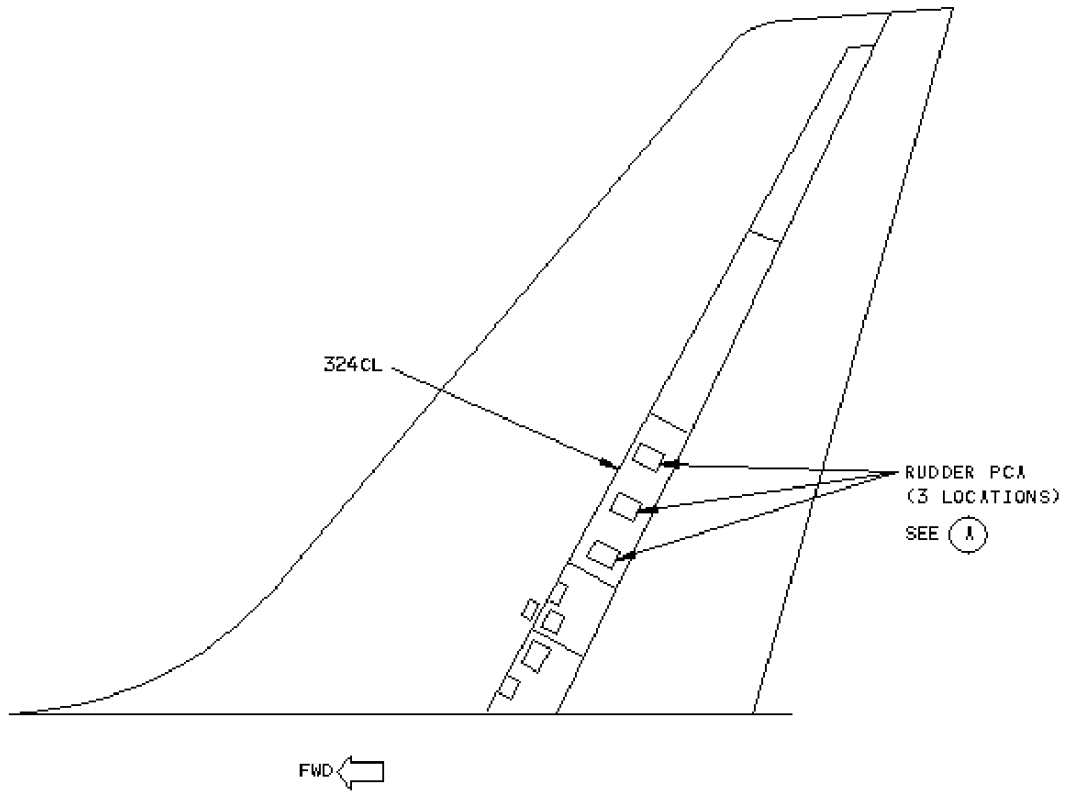
YAW-DAMPER SUMMING LEVER

4 POINTS

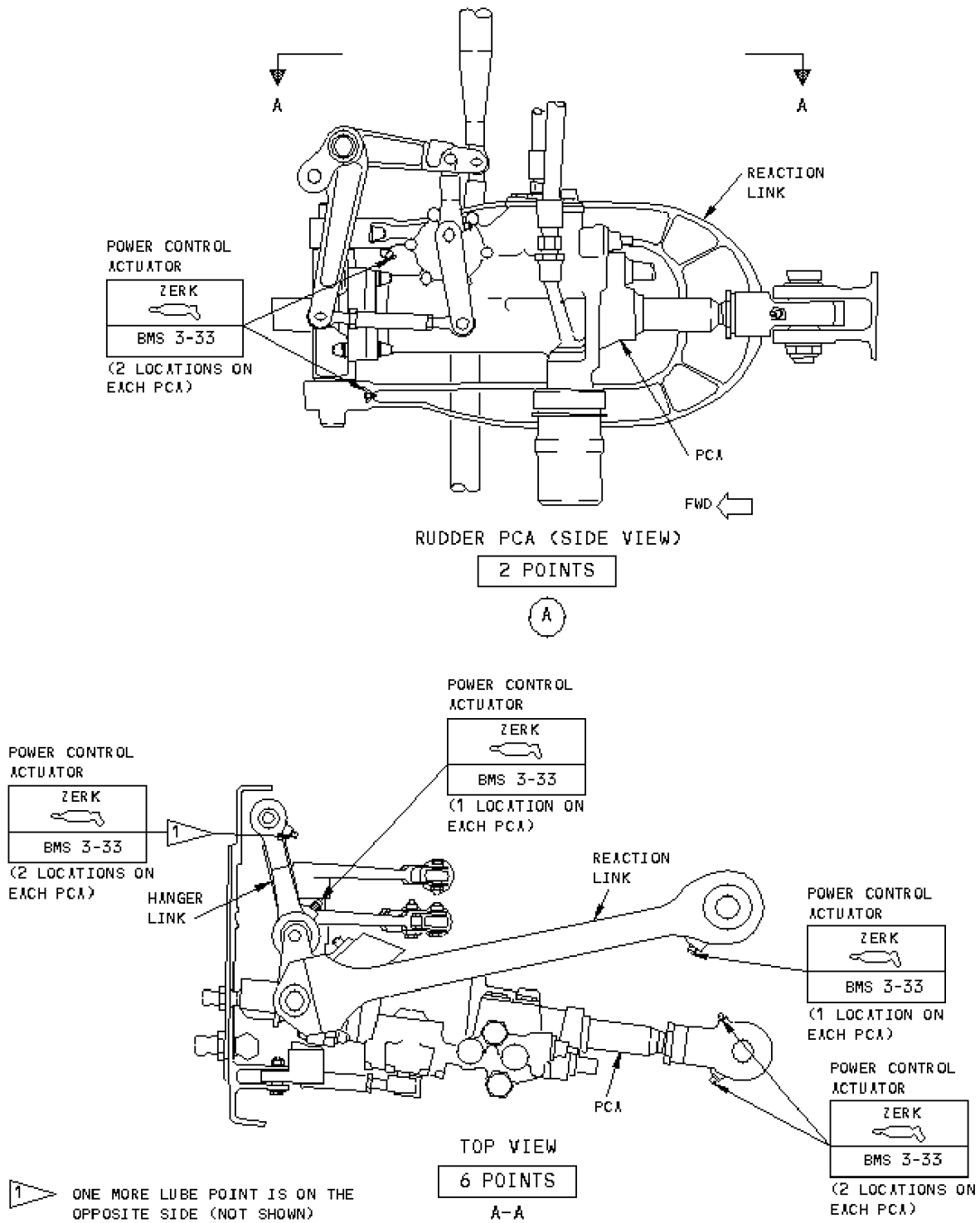
(B)

- 1 ADDITIONAL LUBRICATION FITTINGS ON THE LOWER ROD ENDS (NOT SHOWN).
- 2 NO LUBRICATION FITTINGS INDICATE SELF-LUBRICATING ROD END BEARING(S).

Ratio Changer and Yaw-Damper Mechanisms Lubrication



Rudder Power Control Actuator Lubrication



Rudder Power-Control-Actuator - Servicing (Lubrication)