



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

RUDDER PCU - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to do a check on the rudder power control unit for leakage.
- B. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

| TASK NUMBER | DESCRIPTION | EFFECTIVITY |
|--------------------|--|-------------|
| 27-22-03-700-801-A | CHECK OF THE RUDDER POWER CONTROL UNIT FOR LEAKAGE | ALL |



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TASK 27-22-03-700-801-A

EFFECTIVITY: ALL

2. CHECK OF THE RUDDER POWER CONTROL UNIT FOR LEAKAGE

A. General

- (1) This task gives the procedures to do a check on the rudder Power Control Unit for leakage. Figure 501 gives the dynamic seal locations.

B. References

| REFERENCE | DESIGNATION |
|---------------------------------|--|
| AMM MPP 06-42-00/100 | - |
| AMM TASK 29-10-00-860-801-A/200 | HYDRAULIC SYSTEM - PRESSURIZATION WITH HTS |

C. Zones and Accesses

| ZONE | PANEL/DOOR | LOCATION |
|------|------------|-----------|
| 325 | 325AL | Empennage |
| 325 | 325GR | Empennage |

D. Tools and Equipment

| ITEM | DESCRIPTION | PURPOSE | QTY |
|---------|-------------------------------|-----------------------------|-----|
| GSE 088 | Unit, Hydraulic Power Supply | To supply hydraulic power | |
| GSE 036 | Platform, Hydraulic, Aircraft | To get access to the rudder | |
| GSE 044 | Headset, ramp handling | For communication | |

E. Auxiliary Items

| ITEM | DESCRIPTION | PURPOSE | QTY |
|------------------------|---|--------------------------|--------|
| Commercially available | Rubber Gloves, Phosphate Ester-Base, Fluid Resistant | Protection for the hands | 1 pair |
| Commercially available | Rubber Goggles, Phosphate Ester-Base, Fluid Resistant | Protection for the eyes | 1 pair |

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

| QTY | FUNCTION | PLACE |
|-----|----------------------------|---------|
| 1 | Does the task | Rudder |
| 1 | Helps the other technician | Cockpit |



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I. Preparation

SUBTASK 841-002-A

- (1) Make sure that the aircraft is safe for maintenance.
- (2) Do not do other tasks on the rudder system.
- (3) Make sure that there are no equipment or persons in the rudder travel area.
- (4) Obey all applicable safety precautions when you use Skydrol.
- (5) Open access panel 325AL and 325GR (AMM MPP 06-42-00/100).

J. Check of the Rudder Power Control Unit for Leakage ([Figure 501](#))

SUBTASK 720-002-A

WARNING: • THE HYDRAULIC SYSTEM CONTAINS PHOSPHATE-ESTER HYDRAULIC FLUID. THE FLUID CAN CAUSE IRRITATION IN YOUR SKIN OR INJURY TO YOUR EYES. USE THE APPLICABLE RUBBER GOGGLES AND GLOVES. IF THE FLUID TOUCHES YOU, FLUSH YOUR SKIN WITH WATER. IF IT GETS IN YOUR EYES, FLUSH THEM WITH WATER AND GET MEDICAL HELP.

• MAKE SURE THAT THERE ARE NO PERSONS OR EQUIPMENT IN THE RUDDER TRAVEL AREA.

- (1) Pressurize the rudder hydraulic system ([AMM TASK 29-10-00-860-801-A/200](#)).
- (2) Do a check of the rudder PCU for leakage.
 - (a) With the pedals, control the rudder fully to the right and fully to the left, 25 times.
 - (b) The maximum leakage at each dynamic seal is two drops at each 25 full cycles ([Figure 501](#)).
- (3) If the leakage at each dynamic seal is more than the maximum permitted, replace the Power Control Unit.

K. Follow-on

SUBTASK 842-002-A

- (1) Release the pressure of the hydraulic system ([AMM TASK 29-10-00-860-801-A/200](#)).
- (2) Close access panel 325AL and access panel 325GR (AMM MPP 06-42-00/100).

EFFECTIVITY: ALL
Dynamic Seals - Location
Figure 501

