

## HYDRAULIC FLUID - MAINTENANCE PRACTICES

*EFFECTIVITY: ALL*

1. General

- A. This section gives the procedures to do the decontamination of the hydraulic system fluid.
- B. The fluid decontamination is necessary when:
- The pump becomes unserviceable and there are metal chips as a result.
  - A fluid inspection by the particle-counting method shows more contamination than the permitted quantity.
- C. 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 |
|--------------------|-----------------------------------|-------------|
| 29-00-01-910-801-A | HYDRAULIC FLUID - DECONTAMINATION | ALL         |

TASK 29-00-01-910-801-A

*EFFECTIVITY: ALL*

## 2. HYDRAULIC FLUID - DECONTAMINATION

### A. General

(1) This task gives the procedure to do the decontamination of the hydraulic fluid.

### B. References

| REFERENCE                                       | DESIGNATION  |
|---|--|
| AMM MPP 06-41-01/100                            | -  |
| <a href="#">AMM TASK 12-13-01-600-801-A/300</a> | HYDRAULIC SYSTEM RESERVOIR - FLUID LEVEL CHECK             |
| <a href="#">AMM TASK 12-13-01-600-802-A/300</a> | HYDRAULIC SYSTEM RESERVOIR - REPLENISHMENT                 |
| <a href="#">AMM TASK 20-40-01-860-801-A/200</a> | ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE |
| <a href="#">AMM TASK 29-10-08-000-801-A/400</a> | FILTERING ELEMENT - REMOVAL                                |
| <a href="#">AMM TASK 29-10-08-400-801-A/400</a> | FILTERING ELEMENT - INSTALLATION                           |
| <a href="#">AMM TASK 71-00-01-910-801-A/200</a> | ENGINE START PROCEDURE (NORMAL)                            |
| <a href="#">AMM TASK 71-00-01-910-804-A/200</a> | ENGINE STOP PROCEDURE                                      |

### C. Zones and Accesses

| ZONE | PANEL/DOOR | LOCATION                          |
|------|------------|-----------------------------------|
| 193  | 193BL      | Hydraulic compartment of system 1 |
| 193  | 193CR      | Hydraulic compartment of system 2 |

### D. Tools and Equipment

Not Applicable

### E. Auxiliary Items

| ITEM                   | DESCRIPTION   | PURPOSE                                  | QTY |
|------------------------|---|--|-----|
| Commercially available | Hose, Phosphate Ester-Base, Fluid-Resistant           | To collect the hydraulic fluid discarded | 2   |
| Commercially available | Drip pan  | To collect the hydraulic fluid discarded | 1   |
| Commercially available | Rubber Gloves, Phosphate Ester-Base, Fluid-Resistant  | Protection for the hands                 | 1   |
| Commercially available | Rubber Goggles, Phosphate Ester-Base, Fluid-Resistant | Protection for the eyes                  | 1   |

### F. Consumable Materials

Not Applicable

### G. Expandable Parts

Not Applicable

H. Persons Recommended

| QTY | FUNCTION                   | PLACE   |
|-----|----------------------------|---|
| 1   | Does the task              | Hydraulic compartment of system 1 and (or) system 2 |
| 1   | Helps the other technician | Hydraulic compartment of system 1 and (or) system 2 |

I. Preparation

*SUBTASK 841-002-A*

- (1) Remove access panel(s) 193BL and/or 193CR (AMM MPP 06-41-01/100).
- (2) Energize the aircraft ( [AMM TASK 20-40-01-860-801-A/200](#)).
- (3) Isolate the operational areas near the landing gear, rudder, spoiler, thrust reverser, ailerons, and flaps.
- (4) Make sure that, on the circuit breaker panel, the EMDP 1 and/or EMDP 2 circuit breaker(s) is (are) closed.
- (5) Make sure that the safety pins are installed on the landing gears.

J. Decontamination of the Hydraulic Fluid (Used when a pump failure causes metal chips to be released)

*SUBTASK 910-002-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 GOGGLES AND RUBBER 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.**

**CAUTION: REMOVE ALL HYDRAULIC FLUID THAT FALLS ON THE AIRCRAFT SURFACES. HYDRAULIC FLUID CAN CAUSE DAMAGE TO THE AIRCRAFT SURFACES.**

- (1) **NOTE:** Put a drip pan below the hydraulic compartment to collect the hydraulic fluid.  
Remove the bowl from the pressure and case drain filters.
- (2) Disconnect the pressure and case drain lines from between the electric or engine-operated pump and the manifold.
- (3) Clean the disconnected line from the pump to the manifold with pressure nitrogen gas.
- (4) Replace the pressure and case drain filter elements ( [AMM TASK 29-10-08-000-801-A/400](#)) and ( [AMM TASK 29-10-08-400-801-A/400](#)).
- (5) Install all hydraulic lines.
- (6) See the level of the hydraulic reservoir ( [AMM TASK 12-13-01-600-801-A/300](#)) and, if necessary, fill it ( [AMM TASK 12-13-01-600-802-A/300](#)).

- (7) Do an engine run-up ( [AMM TASK 71-00-01-910-801-A/200](#)).
  - (8) Examine the installation for leaks.
  - (9) Stop the engine ( [AMM TASK 71-00-01-910-804-A/200](#)).
  - (10) Fill the hydraulic reservoir if necessary ( [AMM TASK 12-13-01-600-802-A/300](#)).
- K. Decontamination of the Hydraulic (Used when a fluid inspection by the particle-counting method shows more contamination than the permitted quantity) ([Figure 201](#))

*SUBTASK 910-003-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 GOGGLES AND RUBBER 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**

- (1) Connect a length of hose to the hydraulic compartment drain and have a drip pan at the free end of the hose.
- (2) Set the switch of the EMDP to on.
- (3) Pull the bleed-valve lever to open the valve.
- (4) Fully drain the hydraulic reservoir fluid.
- (5) Release the bleed valve lever to close the valve.
- (6) Set the switch of the EMDP to off.
- (7) Replace the filter elements ( [AMM TASK 29-10-08-000-801-A/400](#)) and ( [AMM TASK 29-10-08-400-801-A/400](#)).
- (8) Fill the hydraulic reservoir with clean hydraulic fluid ( [AMM TASK 12-13-01-600-802-A/300](#)).
- (9) Remove the hose from the hydraulic compartment drain.
- (10) Bleed the system as follows:
  - (a) Connect a length of a clean hose to the hydraulic compartment drain and have a drip pan at the free end of the hose to catch the fluid.
  - (b) Set the switch of the EMDP to on.
  - (c) Pull the bleed valve lever to open the valve.
  - (d) Make sure that air-free oil is drained through the hose into the drip pan.
  - (e) Release the bleed valve lever to close the valve.
  - (f) Examine the valve for leaks.
  - (g) Set the switch of the EMDP to off.

- (h) Remove the hose from the hydraulic compartment drain.
- (i) Fill the hydraulic reservoir if necessary ( [AMM TASK 12-13-01-600-802-A/300](#)).

L. Follow-on

*SUBTASK 842-002-A*

- (1) Install access panel(s) 193BL and/or 193CR (AMM MPP 06-41-01/100).
- (2) Deenergize the aircraft ( [AMM TASK 20-40-01-860-801-A/200](#)).

Figure 201

