



AIRCRAFT MAINTENANCE MANUAL

FILTERING ELEMENT (PRESSURE RETURN CASE DRAIN) - INSPECTION/CHECK

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to do an inspection of the differential pressure indicators with the red pins moved out.
- 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
29-10-08-200-801-A ♦	DIFFERENTIAL PRESSURE INDICATOR - ALL INSPECTION	
29-10-08-210-801-A	DIFFERENTIAL PRESSURE INDICATOR - ALL IN-SERVICE - INSPECTION	



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 29-10-08-200-801-A

EFFECTIVITY: ALL

2. DIFFERENTIAL PRESSURE INDICATOR - INSPECTION

A. General

- (1) This task gives the procedures to do an inspection of the differential pressure indicators with the red pins moved out.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 29-00-01-910-801-A/200	HYDRAULIC FLUID - DECONTAMINATION
AMM TASK 29-10-03-000-801-A/400	EDP - REMOVAL
AMM TASK 29-10-03-400-801-A/400	EDP - INSTALLATION
AMM TASK 29-10-08-000-801-A/400	FILTERING ELEMENT - REMOVAL
AMM TASK 29-10-08-400-801-A/400	FILTERING ELEMENT - INSTALLATION
AMM TASK 29-30-03-000-801-A/400	DPI - REMOVAL
AMM TASK 29-30-03-400-801-A/400	DPI - INSTALLATION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
193	193DL	Hydraulic System 1
193	193GR	Hydraulic System 2

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Hydraulic System 1 and Hydraulic System 2 compartments

I. Preparation

SUBTASK 841-002-A

- (1) Open access panels 193DL and 193GR (AMM MPP 06-41-01/100).

J. Visually Check Differential Pressure Indications for Red Pins Popped Out ([Figure 601](#))

SUBTASK 211-002-A

- (1) Do an inspection of the differential pressure indicators to see if the red pin is out. Do an inspection of these filters:
 - Pressure filter.
 - Return filter.
 - Case drain filter.
- (2) If the red pin is found moved out, do as follows:
 - (a) Remove the filter element related to that pin.
 - (b) Examine the filter element and the hydraulic fluid contained in the filter bowl:

NOTE: Contamination in the pressure or in the case drain filter, especially bronze chips, shows defect in the hydraulic pump.

 - 1 If contamination is found in the hydraulic fluid, in the pressure or in the case drain filter, replace the hydraulic pump ([AMM TASK 29-10-03-000-801-A/400](#) and [AMM TASK 29-10-03-400-801-A/400](#)), the filter element ([AMM TASK 29-10-08-000-801-A/400](#) and [AMM TASK 29-10-08-400-801-A/400](#)) and flush the related hydraulic system ([AMM TASK 29-00-01-910-801-A/200](#)).
 - 2 If the contamination is found in the return filter, replace the filter ([AMM TASK 29-10-08-000-801-A/400](#) and [AMM TASK 29-10-08-400-801-A/400](#)).
 - 3 If no contamination is found in the filter element or in the hydraulic fluid contained in the filter bowl, replace the filter ([AMM TASK 29-10-08-000-801-A/400](#) and [AMM TASK 29-10-08-400-801-A/400](#)).
 - (c) Reset the red pin.
 - (d) Turn on the hydraulic pump (EMDP) and control such systems as rudder, aileron, or brake.
 - (e) If the red pin comes out of its seat again, replace the related red pin assembly [AMM TASK 29-30-03-000-801-A/400](#) and [AMM TASK 29-30-03-400-801-A/400](#).

K. Follow-on

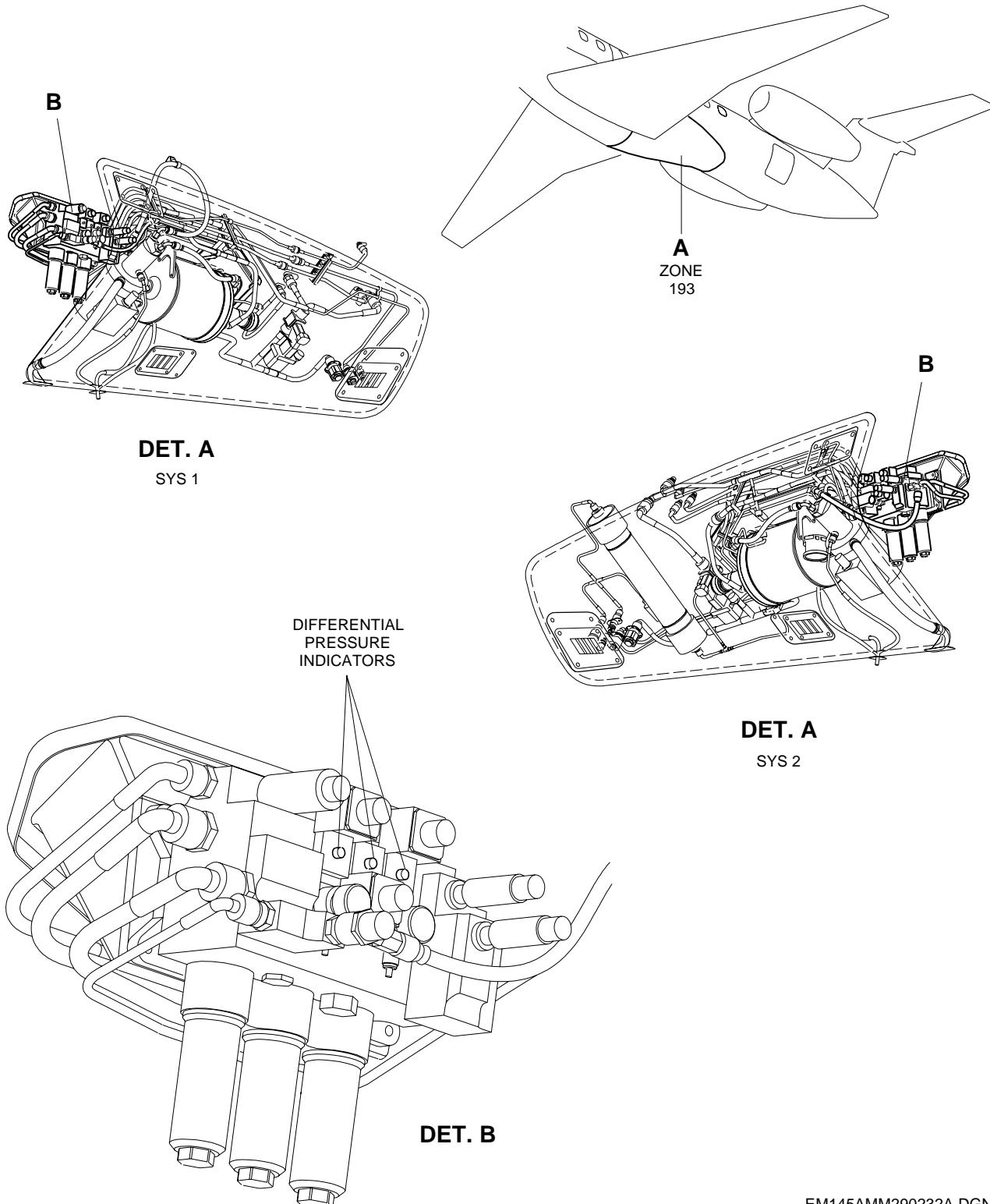
SUBTASK 842-002-A

- (1) Close access panels 193DL and 193GR (AMM MPP 06-41-01/100).

EFFECTIVITY: ALL

Differential Pressure Indicator - Inspection

Figure 601



EM145AMM290232A.DGN



AIRCRAFT MAINTENANCE MANUAL

TASK 29-10-08-210-801-A

EFFECTIVITY: ALL

3. DIFFERENTIAL PRESSURE INDICATOR - IN-SERVICE - INSPECTION

A. General

- (1) This task gives the procedures to do an inspection of the differential pressure indicators with the red pins moved out, when the aircraft is in-service.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 29-00-01-910-801-A/200	HYDRAULIC FLUID - DECONTAMINATION
AMM TASK 29-10-03-000-801-A/400	EDP - REMOVAL
AMM TASK 29-10-03-400-801-A/400	EDP - INSTALLATION
AMM TASK 29-10-08-000-801-A/400	FILTERING ELEMENT - REMOVAL
AMM TASK 29-10-08-400-801-A/400	FILTERING ELEMENT - INSTALLATION
AMM TASK 29-30-03-000-801-A/400	DPI - REMOVAL
AMM TASK 29-30-03-400-801-A/400	DPI - INSTALLATION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
193	193DL	Hydraulic System 1
193	193GR	Hydraulic System 2

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Hydraulic System 1 and Hydraulic System 2 compartments

I. Preparation

SUBTASK 841-003-A

- (1) Make sure that the aircraft is safe for maintenance.

- (2) Open access panels 193DL and 193GR (AMM MPP 06-41-01/100).

J. Visually Check Differential Pressure Indicators for Red Pins Popped Out (Figure 601)

SUBTASK 211-003-A

- (1) Do an inspection of the differential pressure indicators to see if the red pin is moved out. Do an inspection of these filters:

- Pressure filter.
- Return filter.
- Case drain filter.

- (2) If any of the red pins are out of their seats proceed as follows:

- (a) Reset the red pin moved out.
- (b) Make an entry in the aircraft logbook to show which pin was moved out, and the date when it occurred.
- (c) Turn on the hydraulic pump (EMDP) and control such systems as rudder, aileron, or brake.
- (d) Check if the same pin moves out of its seat.
- (e) If so, remove the filtering element related to that pin ([AMM TASK 29-10-08-000-801-A/400](#) and [AMM TASK 29-10-08-400-801-A/400](#)). Examine the filter element and the hydraulic fluid contained in the filter bowl:

NOTE: Contamination in the pressure or case drain filter, especially bronze chips, shows defect in the hydraulic pump.

- 1 If contamination is found in the hydraulic fluid, in the pressure or in the case drain filter, replace the hydraulic pump ([AMM TASK 29-10-03-000-801-A/400](#) and [AMM TASK 29-10-03-400-801-A/400](#)), the filter element ([AMM TASK 29-10-08-000-801-A/400](#) and [AMM TASK 29-10-08-400-801-A/400](#)) and flush the related hydraulic system ([AMM TASK 29-00-01-910-801-A/200](#)).
- 2 If contamination is found in return filter, replace the filter ([AMM TASK 29-10-08-000-801-A/400](#) and [AMM TASK 29-10-08-400-801-A/400](#)).
- 3 If no contamination is found in the filter element or in the hydraulic fluid contained in the filter bowl, replace the filter ([AMM TASK 29-10-08-000-801-A/400](#) and [AMM TASK 29-10-08-400-801-A/400](#)).
- 4 Note on the aircraft logbook that the filtering element was replaced.
- 5 Reset the red pin.
- 6 Turn on the hydraulic pump (EMDP) and control such systems as rudder, aileron, or brake.

7 If the same red pin comes out of its seat, replace the related red pin assembly ([AMM TASK 29-30-03-000-801-A/400](#) and [AMM TASK 29-30-03-400-801-A/400](#)).

(f) If after the test with the EMDP, the pin does not move out of its seat, the aircraft is permitted to fly for 50 FH.

(3) Within 50 FH the following maintenance action is required:

(a) On the first opportunity, on a main base, check if the same pin is moved out.

(b) If not, no maintenance action is required. Record on the aircraft logbook that after reset the pin, and perform some flights the pin did not move out from its seat, and this issue is closed.

(c) If you find the pin moved out, remove the filtering element related to that pin ([AMM TASK 29-10-08-000-801-A/400](#) and [AMM TASK 29-10-08-400-801-A/400](#)). Examine the filter element and the hydraulic fluid contained in the filter bowl:

NOTE: Contamination in the pressure or case drain filter, especially bronze chips, shows defect in the hydraulic pump.

1 If contamination is found in the hydraulic fluid, in the pressure or in the case drain filter, replace the hydraulic pump ([AMM TASK 29-10-03-000-801-A/400](#) and [AMM TASK 29-10-03-400-801-A/400](#)), the filter element ([AMM TASK 29-10-08-000-801-A/400](#) and [AMM TASK 29-10-08-400-801-A/400](#)) and flush the related hydraulic system ([AMM TASK 29-00-01-910-801-A/200](#)).

2 If contamination is found in the return filter, replace the filter ([AMM TASK 29-10-08-000-801-A/400](#) and [AMM TASK 29-10-08-400-801-A/400](#)).

3 If no contamination is found in the filter element or in the hydraulic fluid contained in the filter bowl, replace the filter ([AMM TASK 29-10-08-000-801-A/400](#) and [AMM TASK 29-10-08-400-801-A/400](#)).

4 Note on the aircraft logbook that the filtering element was replaced.

5 Reset the red pin.

6 Turn on the hydraulic pump (EMDP) and control such systems as rudder, aileron, or brake.

7 If the same red pin comes out of its seat, replace the related red pin assembly ([AMM TASK 29-30-03-000-801-A/400](#) and [AMM TASK 29-30-03-400-801-A/400](#)).

K. Follow-on

SUBTASK 842-003-A

(1) Close access panels 193DL and 193GR (AMM MPP 06-41-01/100).

