



AIRCRAFT
MAINTENANCE MANUAL

FILTERING ELEMENT (PRESSURE RETURN CASE DRAIN) - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove/install the filtering element.
- B. The pressure filter and the two return filters are installed in the control unit of each hydraulic system.
- C. All the filters have a self-obstruction device which permits the replacement of the filtering elements with no important loss of hydraulic fluid from the system.
- D. 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
29-10-08-000-801-A	FILTERING ELEMENT - REMOVAL	ALL
29-10-08-400-801-A	FILTERING ELEMENT - INSTALLATION	ALL



EMB145 - EMB135

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TASK 29-10-08-000-801-A

EFFECTIVITY: ALL

2. FILTERING ELEMENT - REMOVAL

A. General

(1) This task gives the procedures to remove the filtering element.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 29-00-01-910-801-A/200	HYDRAULIC FLUID - DECONTAMINATION
AMM TASK 29-10-00-860-802-A/200	HYDRAULIC SYSTEM - PRESSURIZATION WITH EMDP

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	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
Commercially available	Drip Pan	To collect the hydraulic fluid when you disconnect the hydraulic line	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 system 2

I. Preparation

SUBTASK 841-002-A

- (1) On the circuit breaker panel, open the ELEC PUMP 1 and (or) ELEC PUMP 2 circuit breaker(s) and attach a DO-NOT-CLOSE tag to it (them).
- (2) Fully release the pressure from the related hydraulic system ([AMM TASK 29-10-00-860-802-A/200](#)).
- (3) Remove access panel(s) 193BL and (or) 193CR (AMM MPP 06-41-01/100).

J. Removal ([Figure 401](#))

SUBTASK 020-002-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.

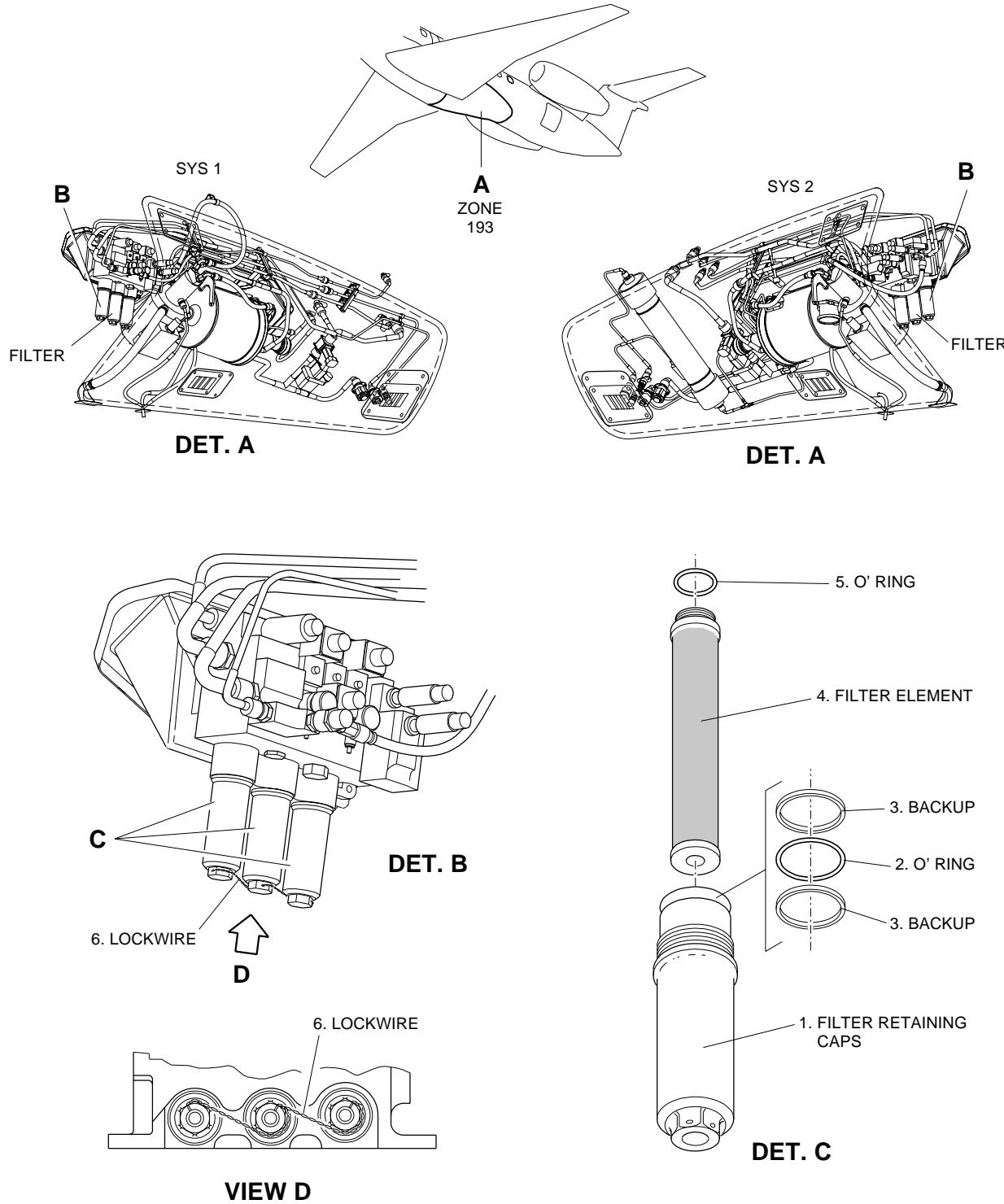
CAUTION: EXAMINE FOR CONTAMINATION THE FILTERING ELEMENT AND THE HYDRAULIC FLUID IN THE FILTER BOWL. IF THERE ARE CHIPS IN THE PRESSURE AND CASE DRAIN FILTERS, SPECIALLY BRONZE CHIPS, THIS IS A SIGN THAT THE HYDRAULIC PUMP DOES NOT OPERATE CORRECTLY. REMOVE THE HYDRAULIC PUMP AND EXAMINE IT. FLUSH THE HYDRAULIC SYSTEM ([AMM TASK 29-00-01-910-801-A/200](#)).

- (1) Remove the lockwire (6).
- (2) Remove the filter retaining caps (1) from the filter manifold.
- (3) Remove and discard the O-rings (2) and backups (3) from the filter retaining caps (1).
- (4) Remove the three filter elements (4) from the filter manifold.
- (5) Remove and discard the O-rings (5) from the filter elements.

EFFECTIVITY: ALL

Filtering Element - Removal/Installation

Figure 401



EM145AMM290023B.DGN



EMB145 - EMB135

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TASK 29-10-08-400-801-A

EFFECTIVITY: ALL

3. FILTERING ELEMENT - INSTALLATION

A. General

(1) This task gives the procedures to install the filtering element.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 29-10-00-860-801-A/200	HYDRAULIC SYSTEM - PRESSURIZATION WITH HTS
AMM TASK 29-10-00-860-803-A/200	HYDRAULIC SYSTEM - BLEED OF AIR
IPC 29-10-07	MANIFOLD

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	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

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MS20995C32	Lockwire	As Necessary

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
O-ring	IPC 29-10-07	1/LRU
Backup	IPC 29-10-07	2/LRU
O-ring	IPC 29-10-07	1/LRU



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H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Hydraulic compartment of system 1 and system 2

I. Installation (Figure 401)

SUBTASK 420-002-A

- (1) Install the O-rings (5) on the three filter elements (4). Then install the filter elements into the filter sleeves.
- (2) Install the O-rings (2) and backups (3) on the three filter retaining caps (1).
- (3) Install the three filter retaining caps (1) in the filter manifold and torque to 81.35 to 88.13 N.m (720 to 780 lb.in).
- (4) Safety the retaining caps (1) with lockwire (6), using the double-twist method.

J. Follow-on

SUBTASK 842-002-A

- (1) On the circuit breaker panel, close the ELEC PUMP 1 and (or) ELEC PUMP 2 circuit breaker(s) and remove the DO-NOT-CLOSE tag from it (them).
- (2) Pressurize the related hydraulic system ([AMM TASK 29-10-00-860-801-A/200](#)) and make sure that there are no leaks in the filtering element.
- (3) Bleed the air from the hydraulic system lines ([AMM TASK 29-10-00-860-803-A/200](#)).
- (4) Install access panel(s) 193BL and (or) 193CR (AMM MPP 06-41-01/100).