



AIRCRAFT  
MAINTENANCE MANUAL

**FREE-FALL SELECTOR VALVE - REMOVAL/INSTALLATION**

EFFECTIVITY: ALL

1. General

- A. This section gives the procedure to remove/install the free-fall selector valve.
- B. To get access to the free-fall selector valve, you must open access door 114CR (AMM MPP 06-41-01/100).
- 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
32-33-01-000-801-A	FREE-FALL SELECTOR VALVE - REMOV- AL	ALL
32-33-01-400-801-A	FREE-FALL SELECTOR VALVE - INSTAL- LATION	ALL



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TASK 32-33-01-000-801-A

EFFECTIVITY: ALL

2. FREE-FALL SELECTOR VALVE - REMOVAL

A. General

- (1) This task gives the procedures to remove the free-fall selector valve.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
<a href="#">AMM TASK 32-00-01-910-801-A/200</a>	LG SAFETY PIN - INSTALLATION AND REMOVAL

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
114	114CR	Hydraulic compartment

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

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Hydraulic compartment

I. Preparation

SUBTASK 841-002-A

- (1) Make sure that the landing gear safety pins are installed ( [AMM TASK 32-00-01-910-801-A/200](#)).
- (2) On the circuit breaker panel, open the ELEC PUMP 1 circuit breaker and attach a DO-NOT-CLOSE tag to it.



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- (3) Control the ailerons up and down, or the rudder to the left and to the right, until the pressure of the hydraulic system shows zero PSI on the EICAS.
- (4) Open access door 114CR of the nose hydraulic compartment (AMM MPP 06-41-01/100).
- (5) Release the pressure of the pax door/landing gear accumulator, installed in the nose hydraulic compartment. For this, open the discharge valve and monitor the pressure gage until it shows the nitrogen precharge.

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

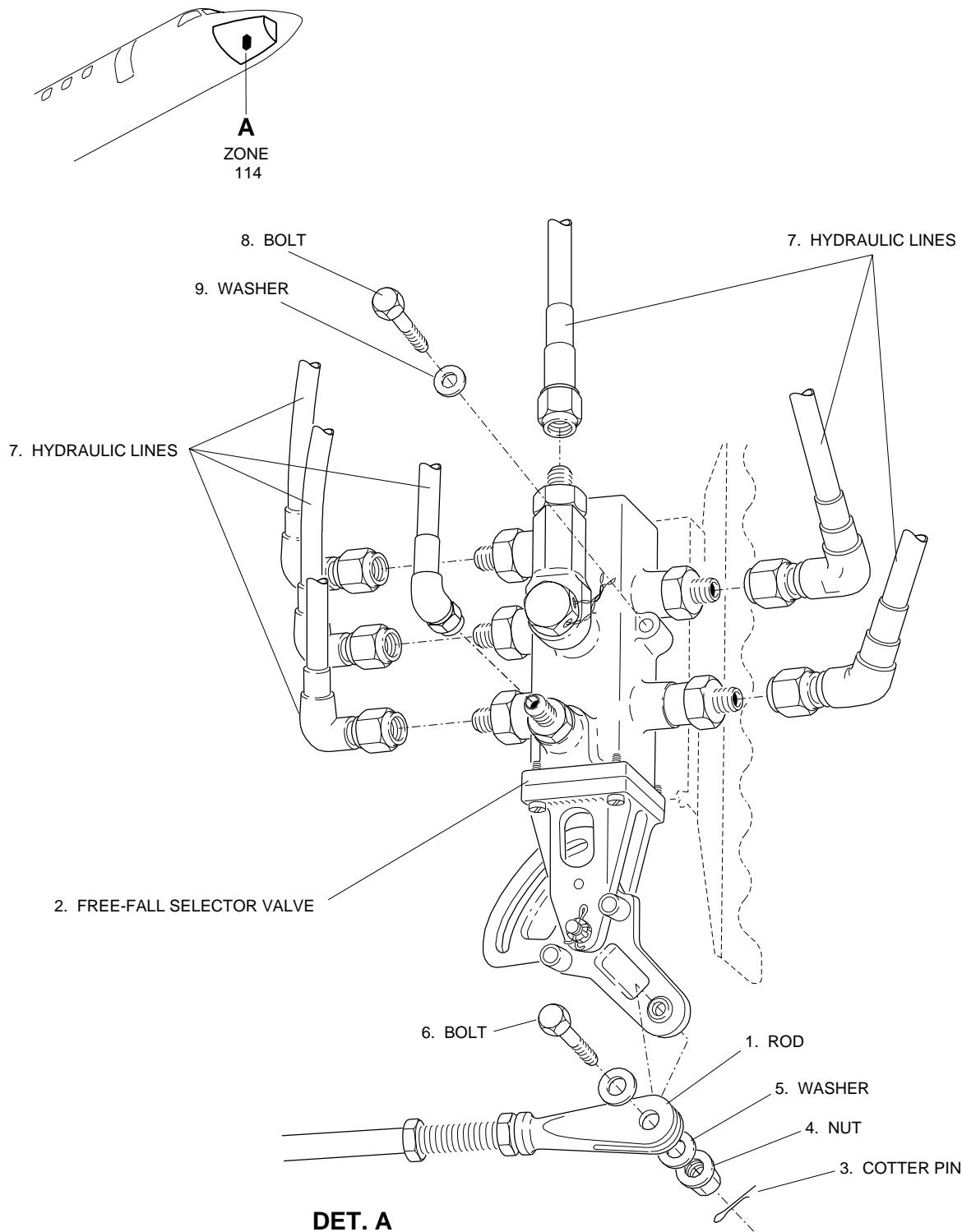
SUBTASK 020-002-A

- (1) Remove the cotter pin (3), nut (4), washer (5), and bolt (6) to disconnect the rod (1) from the free-fall selector valve (2).
- (2) Disconnect the hydraulic lines (7).
- (3) Remove the bolts (8) and washers (9) from the free-fall selector valve (2).
- (4) Remove the free-fall selector valve (2).

**EFFECTIVITY: ALL**

Free-Fall Selector Valve - Removal/Installation

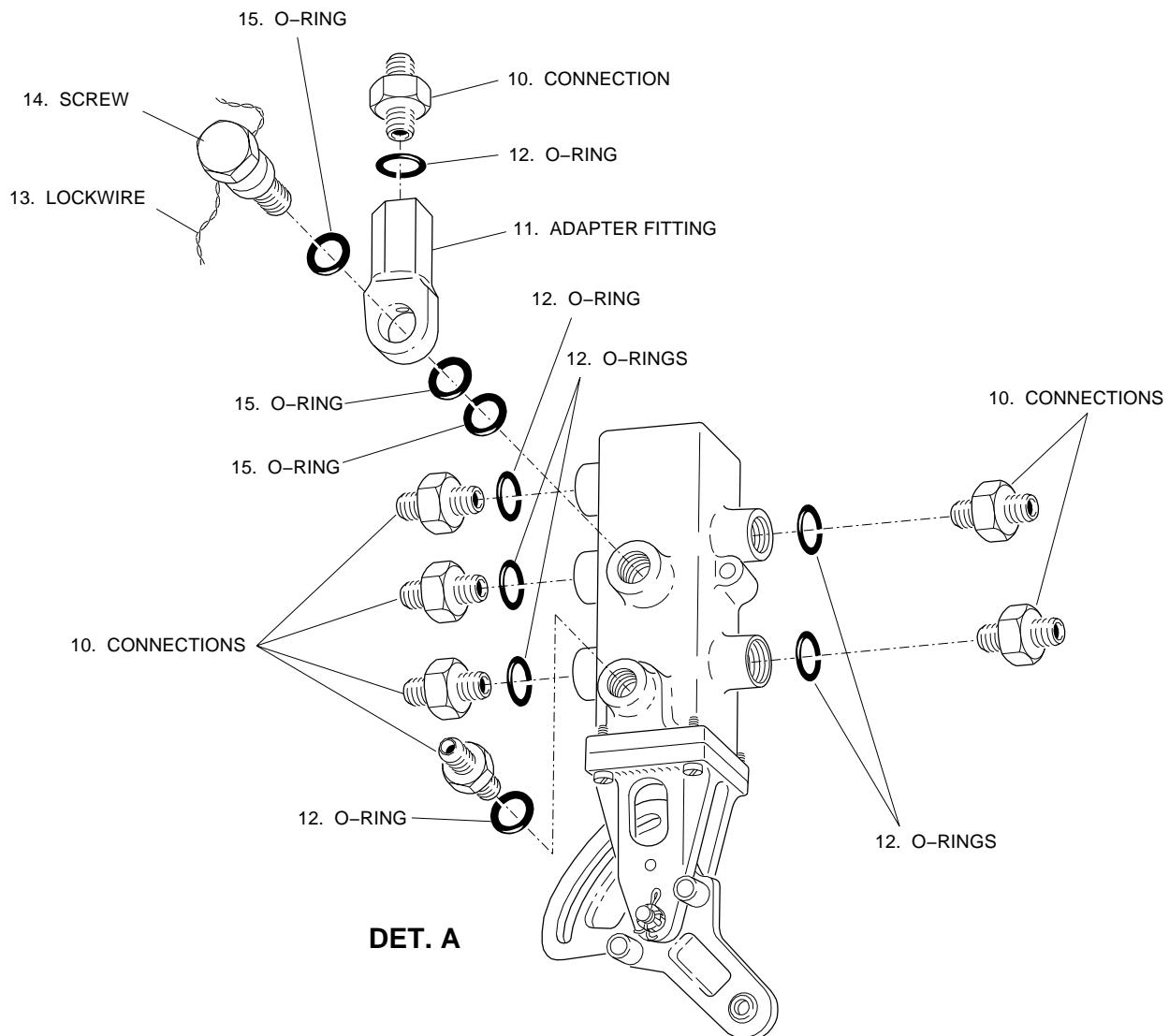
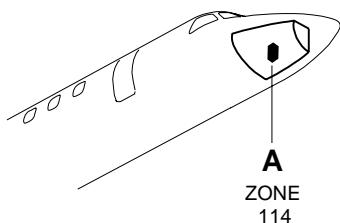
Figure 401



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**EFFECTIVITY: ALL**

Connections and Check Valve of the Free-Fall Selector Valve- Removal/Installation  
Figure 402



EM145AMM320032B.DGN



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TASK 32-33-01-400-801-A

EFFECTIVITY: ALL

3. FREE-FALL SELECTOR VALVE - INSTALLATION

A. General

(1) This task gives the procedures for installation of the free-fall selector valve.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 07-10-00-500-801-A/200	-
AMM TASK 29-10-00-860-803-A/200	HYDRAULIC SYSTEM - BLEED OF AIR
AMM TASK 32-00-01-910-801-A/200	LG SAFETY PIN - INSTALLATION AND REMOVAL
AMM TASK 32-34-00-700-801-A/500	LG EMERGENCY EXTENSION - OPERATIONAL AND FUNCTIONAL CHECKS
AMM TASK 32-44-02-600-801-A/300	EMERGENCY/PARKING BRAKE ACCUMULATOR - CHARGE
IPC 32-33-01	FREE-FALL SELECTOR VALVE
IPC 32-34-00	LDG EMERGENCY EXTENSION - FREE-FALL

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
114	114CR	Hydraulic compartment

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

Not Applicable

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
O-ring	IPC 32-33-01	10
Cotter pin	IPC 32-34-00	1
Lockwire	IPC 32-33-01	AR

**H. Persons Recommended**

QTY	FUNCTION	PLACE
1	Does the task	Hydraulic compartment

**I. Preparation (Figure 402)**

**SUBTASK 841-003-A**

- (1) Remove the connections (10) with the related O-rings (12) from the used free-fall selector valve.
- (2) Remove the lockwire (13) and screw (14) with the related O-rings (15). Then remove the adapter fitting (16) from the used free-fall selector valve.
- (3) Discard the O-rings removed in steps (1) and (2).
- (4) Install the connections (10) with the related new O-rings (12) to the free-fall selector valve.
- (5) Put the adapter fitting (11) in position again and install the screw (14) with the related new O-rings (15).
- (6) Lockwire the screw (14).

**J. Installation (Figure 401)**

**SUBTASK 420-002-A**

- (1) Put the free-fall selector valve (2) on its support.
- (2) Install the washers (9) and bolts (8).
- (3) Connect the hydraulic lines (7).
- (4) Connect the rod (1) to the free-fall selector valve (2) and install the bolt (6), washer (5), nut (4), and cotter pin (3).

**K. Follow-on**

**SUBTASK 842-002-A**

- (1) On the circuit breaker panel, close the ELEC PUMP 1 circuit breaker and remove the DO-NOT-CLOSE tag from it.
- (2) Pressurize the Emergency/Parking brake accumulator ([AMM TASK 32-44-02-600-801-A/300](#)).
- (3) Do the bleed of air from the hydraulic system lines ([AMM TASK 29-10-00-860-803-A/200](#)).
- (4) Remove the landing gear safety pin ([AMM TASK 32-00-01-910-801-A/200](#)).
- (5) Fully lift the aircraft on jacks. Refer to ([AMM TASK 07-10-00-500-801-A/200](#)).
- (6) Do the functional check of the landing gear free-fall system ([AMM TASK 32-34-00-700-801-A/500](#)).



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- (7) Install the landing gear safety pin ([AMM TASK 32-00-01-910-801-A/200](#)).
- (8) Make sure that there are no leaks in the free-fall selector valve.
- (9) Close the nose hydraulic compartment door 114CR (AMM MPP 06-41-01/100).