



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

RESERVOIR QUANTITY INDICATOR - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures for the operational check of the reservoir quantity indicator.
- 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
29-30-01-700-801-A	RESERVOIR QUANTITY INDICATOR (SYSTEM 1) - OPERATIONAL CHECK	ALL
29-30-01-700-802-A	RESERVOIR QUANTITY INDICATOR (SYSTEM 2) - OPERATIONAL CHECK	ALL



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 29-30-01-700-801-A

EFFECTIVITY: ALL

2. RESERVOIR QUANTITY INDICATOR (SYSTEM 1) - OPERATIONAL CHECK

A. General

- (1) This section gives the procedure to do the operational check of the reservoir quantity indicator (system 1).

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
193	193BL	Hydraulic compartment of system 1

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 020	Hydraulic reservoir service unit	To fill the hydraulic reservoir	

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Hose, Phosphate Ester-Base, Fluid-Resistant	To collect the hydraulic fluid discarded	1
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

SPECIFICATION (BRAND)	DESCRIPTION	QTY
SAE AS 1241A Type IV	Phosphate Ester-Base Hydraulic Fluid (Skydrol 500B-4 or Skydrol LD-4)	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

<i>QTY</i>	<i>FUNCTION</i>	<i>PLACE</i>
1	Does the task	Hydraulic compartment of system 1
1	Helps the other technician	Hydraulic compartment of system 1

I. Preparation
SUBTASK 841-002-A

- (1) Remove access panel 193BL (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.
- (6) The landing gears must be extended.
- (7) The landing gear accumulator must be discharged (but not the nitrogen pre-load).

J. Operational Check of the Reservoir Quantity Indicator (System 1) ([Figure 501](#))
SUBTASK 710-002-A

- (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) Remove the cap of the line of the filling set.
- (8) Connect the hydraulic reservoir service unit to the fitting of the inlet line.
- (9) Make sure that the EICAS display shows the "HYD 1 LO QTY" caution message.
- (10) Slowly pump the first liter of hydraulic fluid into the reservoir and compare the level indication with that shown on the "Hydraulic" page of the MFD display. See that:
 - (a) When you have the liter level, the "HYD 1 LO QTY" caution message goes out of view on the EICAS.
 - (b) The quantity indicator pointer, on the "Hydraulic" page of the MFD display, goes from the amber range to the green range.



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

- (11) Continue to fill the hydraulic reservoir to the "full" mark, which is 5.5 liters, and see that:
 - (a) The quantity indicator pointer, on the "Hydraulic" page of the MFD display, must be at the far right of the green range.
- (12) Remove the hose from the inlet line fitting and the hydraulic reservoir service unit.
- (13) Install the cap on the inlet line fitting of the reservoir.
- (14) Remove the hose from the hydraulic compartment drain.

K. Follow-on

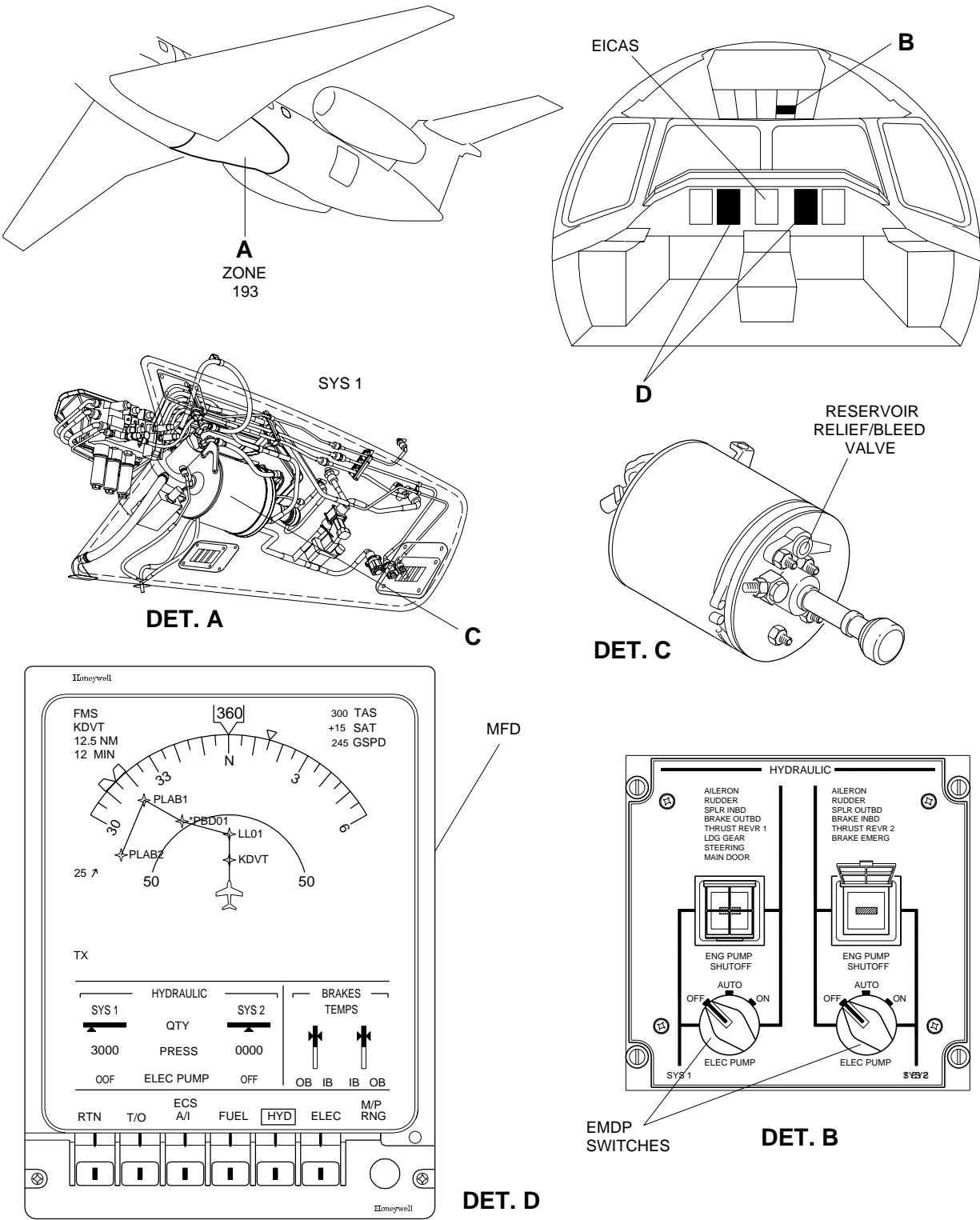
SUBTASK 842-002-A

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

EFFECTIVITY: ALL

Reservoir Quantity Indicator (System 1) - Operational Check

Figure 501



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EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 29-30-01-700-802-A

EFFECTIVITY: ALL

3. RESERVOIR QUANTITY INDICATOR (SYSTEM 2) - OPERATIONAL CHECK

A. General

- (1) This section gives the procedure to do the operational check of the reservoir quantity indicator (system 2).

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
193	193CR	Hydraulic compartment of system 2

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 020	Hydraulic reservoir service unit	To fill the hydraulic reservoir	

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Hose, Phosphate Ester-Base, Fluid-Resistant	To collect the hydraulic fluid discarded	1
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

SPECIFICATION (BRAND)	DESCRIPTION	QTY
SAE AS 1241A Type IV	Phosphate Ester-Base Hydraulic Fluid (Skydrol 500B-4 or Skydrol LD-4)	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Hydraulic compartment of system 2
1	Helps the other technician	Hydraulic compartment of system 2

I. Preparation

SUBTASK 841-003-A

- (1) Remove access panel 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.
- (6) The emergency/parking brake accumulator must be discharged (but not the nitrogen pre-load).

J. Operational Check of the Reservoir Quantity Indicator (System 2) ([Figure 502](#))

SUBTASK 710-003-A

- (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 fluid reservoir.
- (5) Release the bleed valve lever to close the valve.
- (6) Set the switch of the EMDP to off.
- (7) Remove the cap of the line of the replenishing set.
- (8) Connect the hydraulic reservoir service unit to the fitting of the inlet line.
- (9) Make sure that the EICAS display shows the "HYD 2 LO QTY" caution message.
- (10) Slowly pump the first liter of hydraulic fluid into the reservoir and compare the level indication with that shown on the "Hydraulic" page of the MFD display. See that:
 - (a) When you have the liter level, the "HYD 2 LO QTY" caution message goes out of view on the EICAS.
 - (b) The quantity indicator pointer, on the "Hydraulic" page of the MFD display, goes from the amber range to the green range.



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

- (11) Continue to fill the hydraulic reservoir to the "full" mark, which is 5.5 liters, and see that:
 - (a) The quantity indicator pointer, on the "Hydraulic" page of the MFD display, must be at the far right of the green range.
- (12) Remove the hose from the inlet line fitting and the hydraulic reservoir service unit.
- (13) Install the cap on the inlet line fitting of the reservoir.
- (14) Remove the hose from the hydraulic compartment drain.

K. Follow-on

SUBTASK 842-003-A

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

EFFECTIVITY: ALL

Reservoir Quantity Indicator (System 2) - Operational Check
Figure 502

