GPA Group plc

GPA Group plc

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|---|---|---|
| 29-22-00 | | CONT. |
| 111 | SEP 20/94 | 04 |
| 112 | JAN 20/98 | 04 |
| 113 | SEP 20/94 | 04 |
| 114 | SEP 20/94 | 04 |
| 115 | SEP 20/94 | 04 |
| 116 | SEP 20/94 | 04 |
| 117 | JUN 20/95 | 02 |
| 118 | JUN 20/95 | 03 |
| 29-31-00 | | |
| 101 | JUN 20/91 | 01 |
| 102 | JUN 20/91 | 05 |
| 103 | JUN 20/91 | 01 |
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| 104 | MAY 28/99 | 02 |
| 105 | JUN 20/91 | 01 |
| 106 | JUN 20/91 | 01 |
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| 102 | JUN 20/91 | 01 |
| 103 | JUN 20/91 | 01 |
| 104 | MAY 28/99 | 01 |
| 105 | MAY 28/99 | 01 |
| 106 | JAN 28/00 | 01 |
| 107 | JUN 20/91 | 01 |
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| 29-35-00 | | |
| 101 | JUN 20/91 | 01 |
| 102 | JUN 20/91 | 01 |
| 103 | JUN 20/91 | 01 |
| 104 | JUN 20/91 | 01 |
| 105 | SEP 28/07 | 01 |
| 106 | JUN 20/91 | 01 |

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CHAPTER 29 - HYDRAULIC POWER

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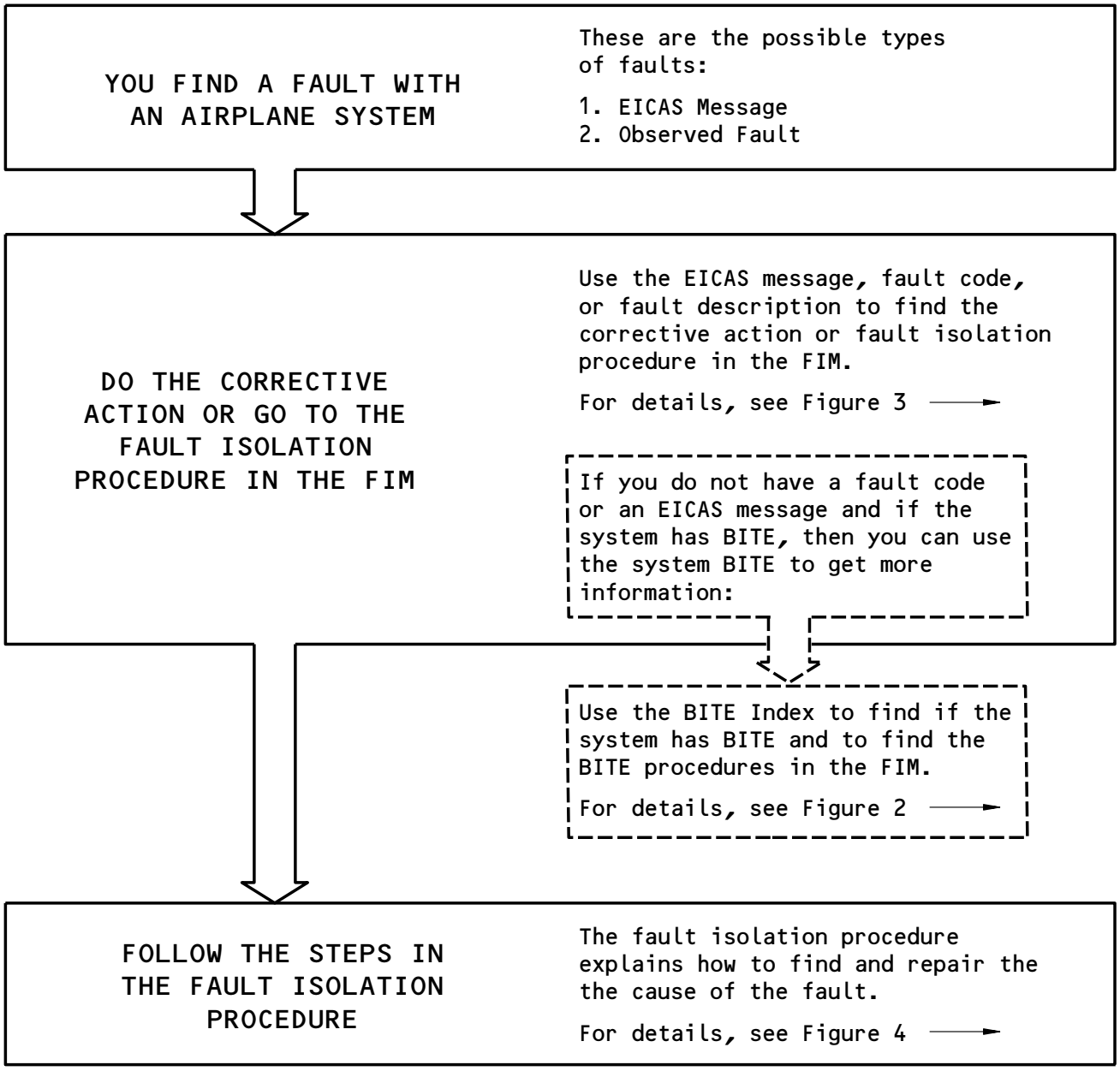
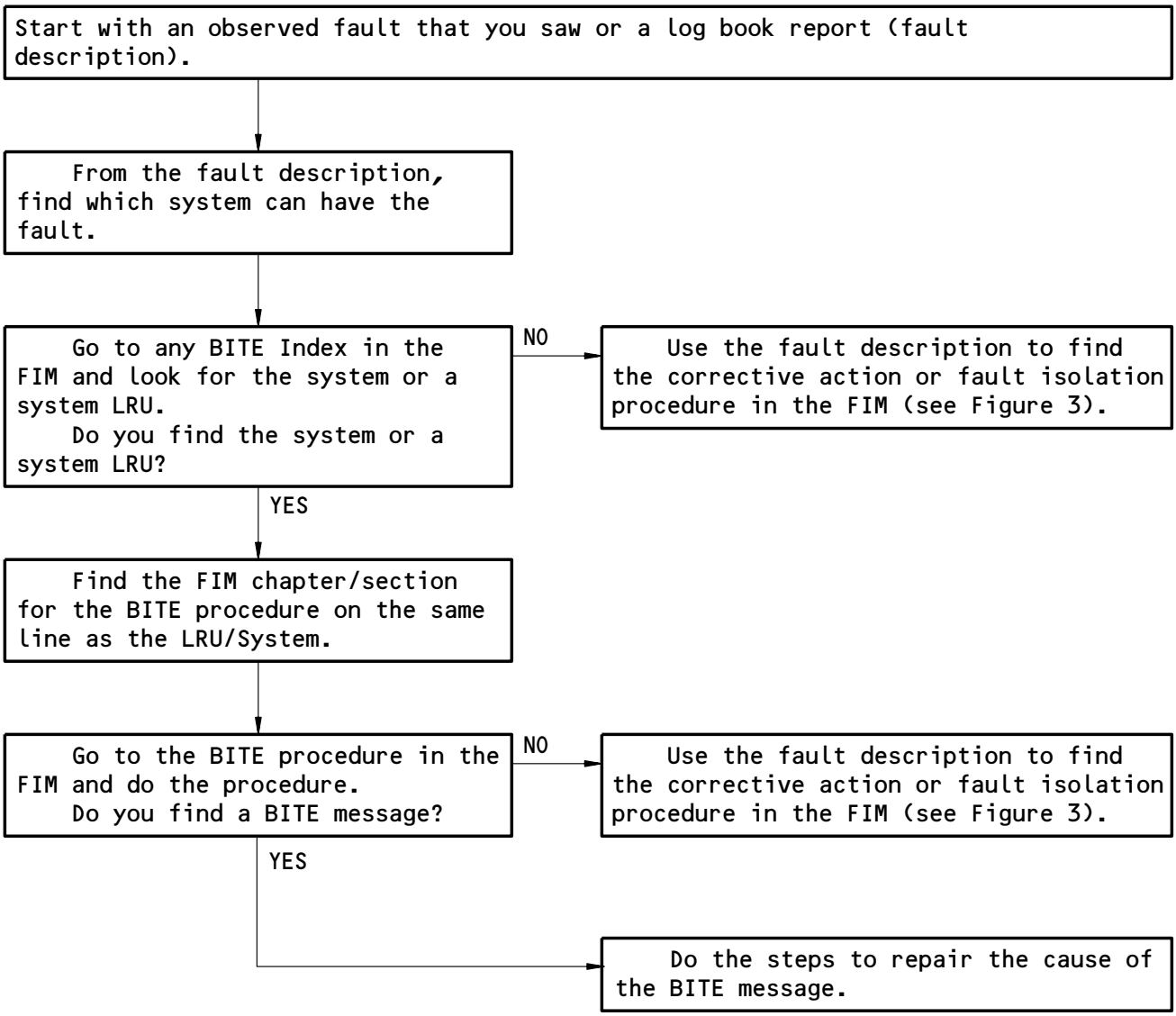



Basic Fault Isolation Process
Figure 1




How to Get Fault Information from BITE
Figure 2

| IF YOU HAVE: | THEN DO THIS TO FIND THE CORRECTIVE ACTION OR FAULT ISOLATION PROCEDURE IN THE FIM: |
|---|---|
| FAULT CODE | 1. The first two digits of the fault code are the FIM chapter that you need. Go to the Fault Code Index in that chapter and find the fault code.<br>2. Find the Fault Isolation Reference for the fault code and do the corrective action. If there is a FIM reference, then go to that fault isolation procedure in the FIM and do the steps in the procedure (see Figure 4). |
| EICAS MESSAGE TEXT (with no fault code) | 1. If you know the chapter of the EICAS message, then go to the EICAS Messages section in that chapter and find the EICAS message.<br>If you do not know the chapter of the EICAS message, then do these steps:<br>A. Go to FIM EICAS MESSAGE LIST and find the EICAS message in the table.<br>NOTE: The list follows the INTRODUCTION to the FIM.<br>B. Find the chapter number on the same line as the EICAS message. Go to the EICAS Messages section in that chapter and find the EICAS message.<br>2. Do the corrective action in the "Procedure" column for the EICAS message. If there is a FIM reference, then go to that fault isolation procedure in the FIM and do the steps in the procedure (see Figure 4). |
| OBSERVED FAULT DESCRIPTION | 1. Go to the Fault Code Diagram for the problem in the applicable chapter.<br>2. Do the fault analysis on the diagram and find the fault code.<br>3. The first two digits of the fault code are the FIM chapter that you need. Go to the Fault Code Index in that chapter and find the fault code.<br>4. Find the Fault Isolation Reference for the fault code and do the corrective action. If there is a FIM reference, then go to that fault isolation procedure in the FIM and do the steps in the procedure (see Figure 4). |

How to Find the Corrective Action or Fault Isolation Procedure in the FIM
Figure 3

ASSUMED CONDITIONS AT START OF TASK

- External electrical power is OFF
- Hydraulic power and pneumatic power are OFF
- Engines are shut down
- Circuit breakers for the system are closed
- No equipment in the system is deactivated

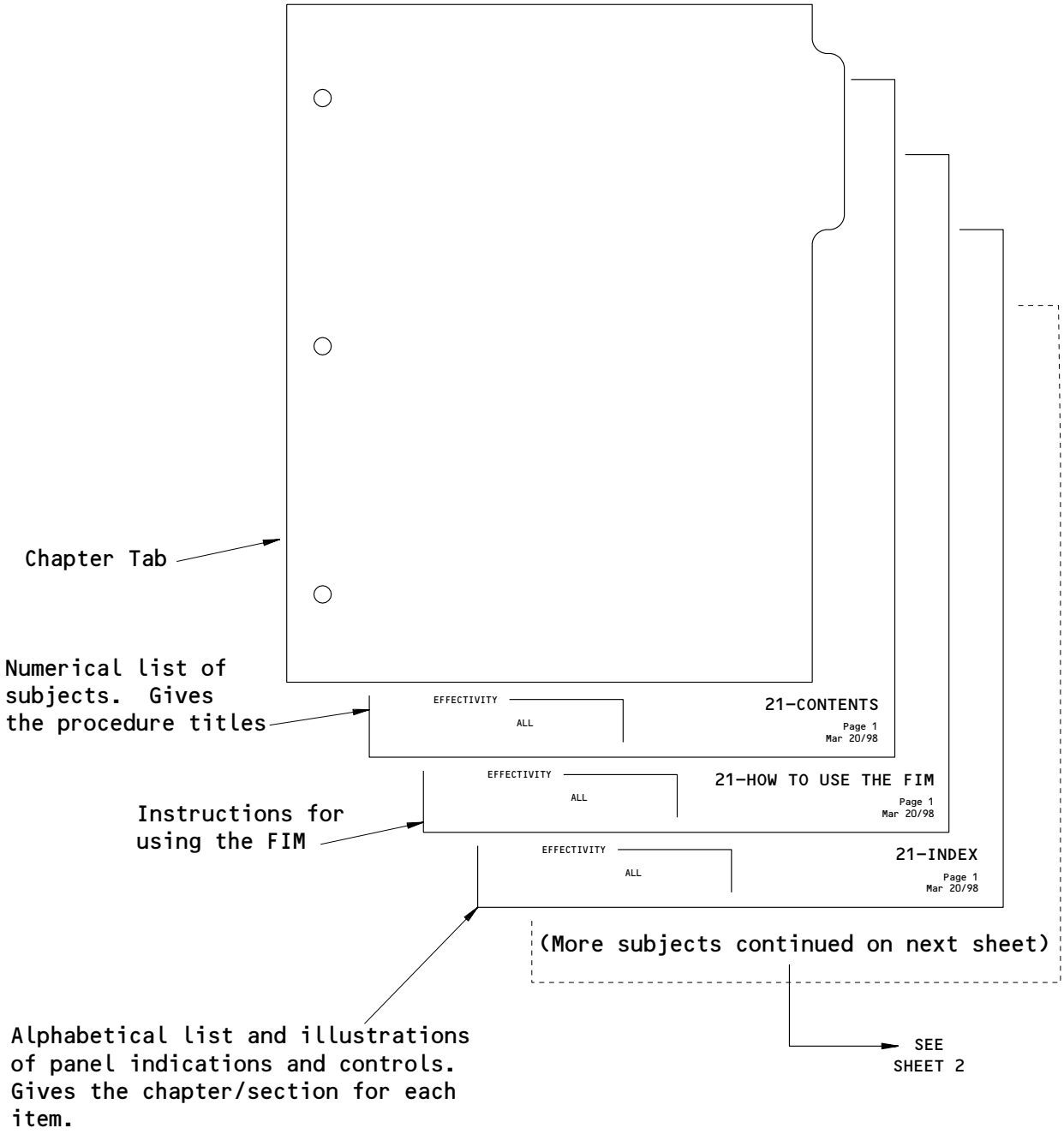
PREREQUISITES

- This box gives the steps to get the airplane from the normal shutdown condition to the configuration necessary to do the fault isolation procedure.
- The Prerequisites give procedure references, circuit breakers, and special tools and equipment requirements.

FAULT ISOLATION BLOCKS

- Start the fault isolation procedure at block 1 unless specified differently.
- Do the check to get an answer to the question in the box. Follow the arrow that applies to your answer. This will go to the next check.
- When you get to a box in the column at the right of the page, you have isolated that fault. Do the steps in that box to repair the cause of the fault.
- Make sure that fault is corrected to complete the procedure.

Do the Fault Isolation Procedure
Figure 4

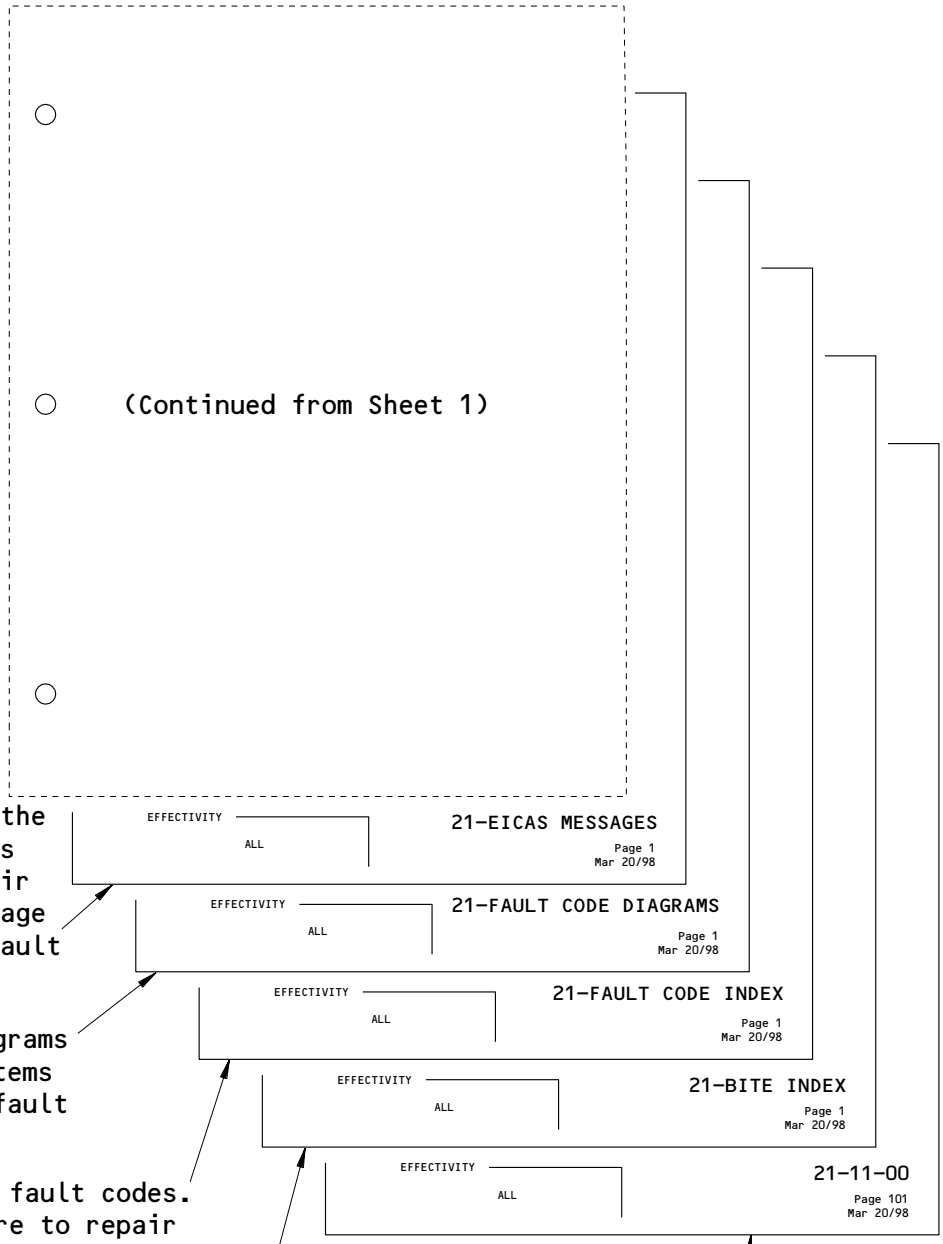



Subjects in Each FIM Chapter
Figure 5 (Sheet 1)

EFFECTIVITY
ALL

# 29-HOW TO USE THE FIM

H54379




Alphabetical list of the EICAS messages. Gives the procedure to repair the cause of the message or a reference to a fault isolation procedure.

Failure analysis diagrams for the airplane systems to find the correct fault code for the fault.

Numerical list of fault codes. Gives the procedure to repair the cause of the fault or a reference to a fault isolation procedure.

Alphabetical list of all the LRUs/systems that have BITE. Gives the chapter/ section for the BITE procedure.

Component index, component location, and fault isolation procedures for the systems in the chapter.

Subjects in Each FIM Chapter
Figure 5 (Sheet 2)

EFFECTIVITY
ALL

29-HOW TO USE THE FIM

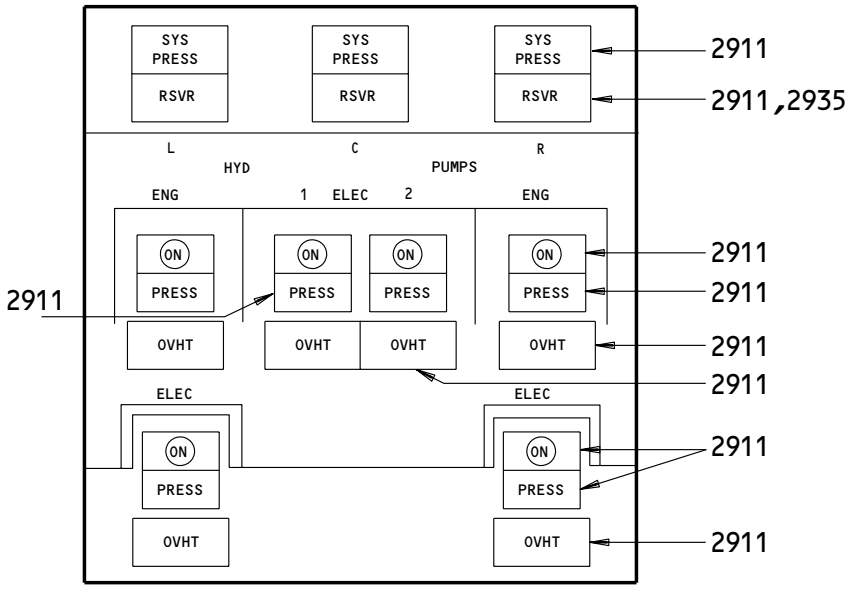
H54380

1 AIRPLANES WITH HYDRAULIC MOTOR-DRIVEN GENERATOR

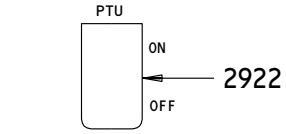
HYDRAULIC POWER - INDEX
Figure 1 (Sheet 1)

EFFECTIVITY
AIRPLANES WITH GENERATOR AND STATUS
PAGE HYD PRESSURE IND.

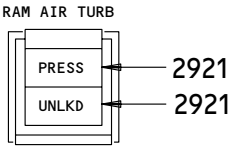
816533




OVERHEAD PANEL




ACCESSORY PANEL

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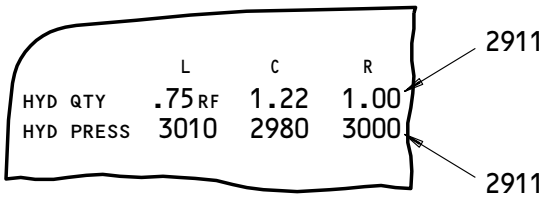
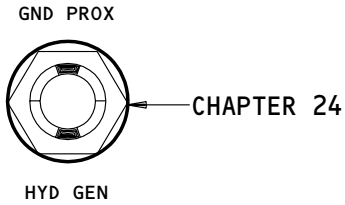



EICAS STATUS



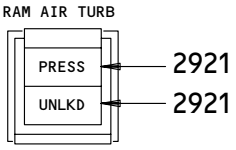

ACCESSORY PANEL

HYDRAULIC POWER – INDEX
Figure 1 (Sheet 2)

EFFECTIVITY
AIPLANES WITH HYD GENERATOR AND
STATUS PAGE HYD PRESSURE IND.



597708

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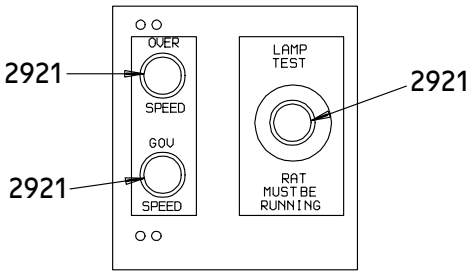
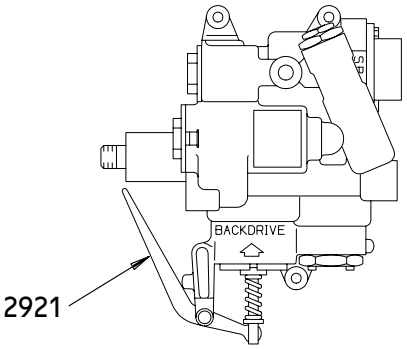
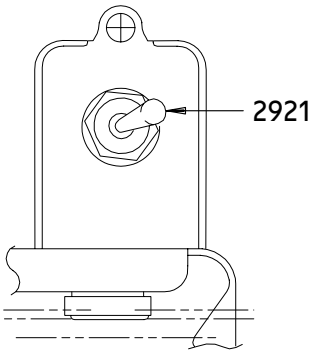



RAT TACHOMETER




RAT GROUND
CHECKOUT MODULE



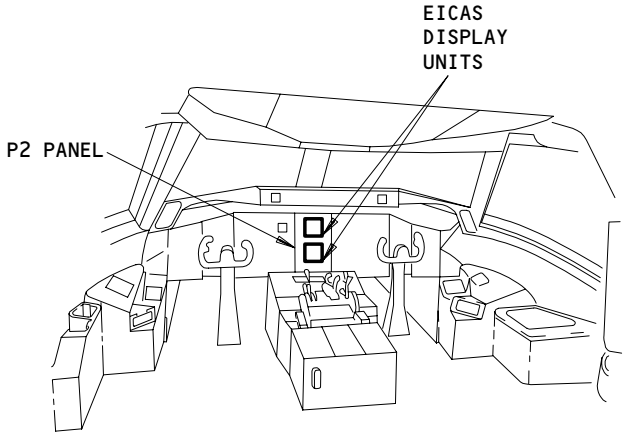

RAT GROUND MANUAL SWITCH



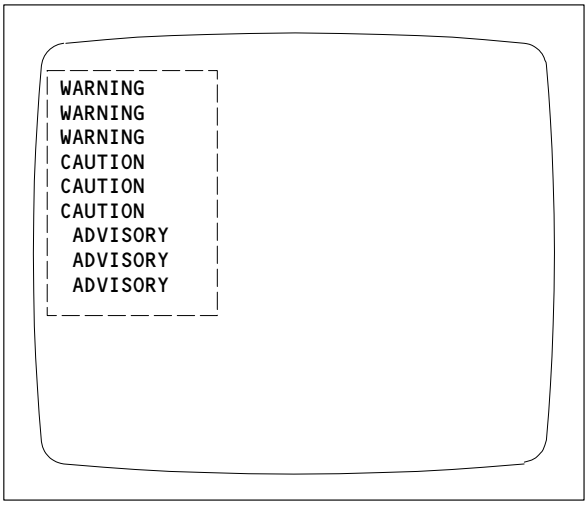
HYDRAULIC POWER - INDEX (GROUND)
Figure 2

# HYDRAULIC POWER - EICAS MESSAGE LIST

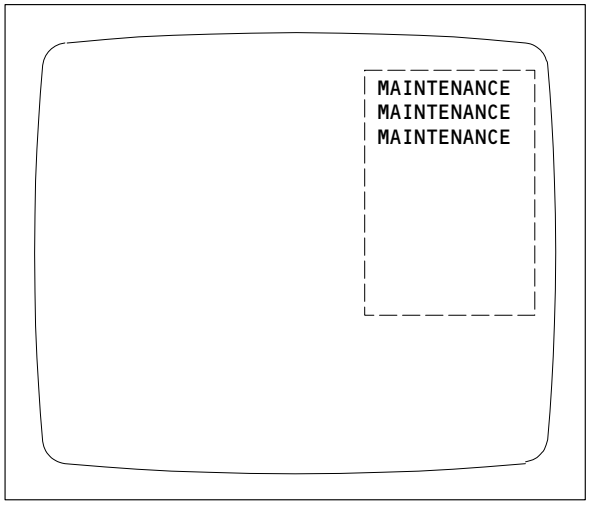
1. General
   A. This procedure shows the EICAS message locations and gives a list of procedures to find the solution for each message.
      (1) EICAS Message Locations (Fig. 1)
         (a) Figure 1 shows the location of the EICAS display units and the area where the messages show on the display units.
         (b) Each message level has a different location. The location and color of each message level is also shown.
      (2) The EICAS MESSAGE LIST gives the message, level, and procedure for each message.
         (a) The EICAS MESSAGE column lists the messages alphabetically. Messages which start with L, R, or C are put together and alphabetized at L.
         (b) The LEVEL column gives all levels for each message as follows:
            A - Warning messages
            B - Caution messages
            C - Advisory messages
            S - Status messages
            M - Maintenance messages
         (c) The PROCEDURE column gives the steps that are necessary to remove the message and includes one or more of the procedures that follow:
            1) A Fault Isolation Manual procedure reference
            2) A Maintenance Manual procedure and reference
            3) Wiring checks and a Wiring Diagram Manual reference
            4) A reference to an EICAS message list in a different chapter.
            5) A reference to a FAULT CODE INDEX and specified fault codes
            6) A step to change the airplane configuration



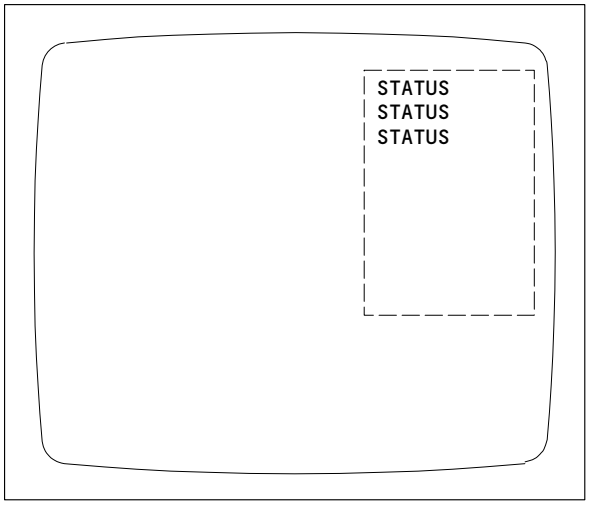

FLIGHT COMPARTMENT




ENGINE PRIMARY PAGE OR COMPACTED PAGE
(TOP DISPLAY UNIT)




ECS/MSG PAGE
(BOTTOM DISPLAY UNIT)



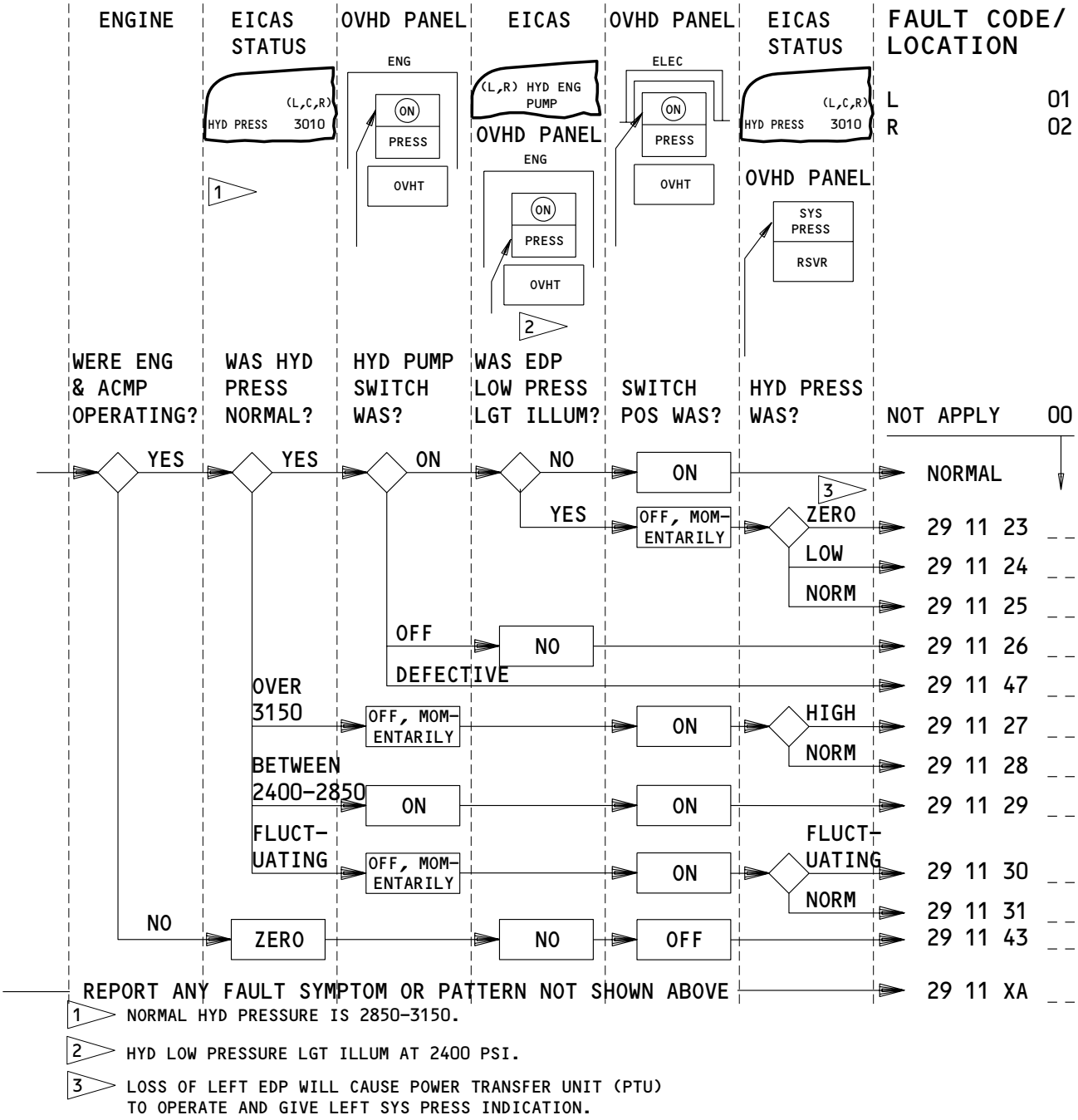

STATUS PAGE
(BOTTOM DISPLAY UNIT)

| LEVEL | COLOR |
|---|---|
| A–WARNING | RED |
| B–CAUTION | YELLOW |
| C–ADVISORY | YELLOW |
| S–STATUS | WHITE |
| M–MAINTENANCE | WHITE |

EICAS Message Locations
Figure 1

| EICAS MESSAGE LIST | | |
|---|---|---|
| EICAS MESSAGE | LEVEL | PROCEDURE |
| C HYD ELEC 1 | C | FIM 29-11-00/101, Fig. 106 |
| C HYD ELEC 2 | C | FIM 29-11-00/101, Fig. 106 |
| C HYD QTY | C | FIM 29-33-00/101, Fig. 104 |
| C HYD QTY O/FULL | M | FIM 29-33-00/101, Fig. 103 |
| C HYD RSVR PRES | C | FIM 29-35-00/101, Fig. 103 |
| C HYD SYS MAINT | S, M | FIM 29-11-00/101, Fig. 117 |
| C HYD SYS PRESS | B | Go to the 29-FAULT CODE INDEX and look at the fault codes:<br>29 11 10,<br>29 31 01. |
| C HYD 1 OVHT | C | FIM 29-11-00/101, Fig. 115 |
| C HYD 2 OVHT | C | FIM 29-11-00/101, Fig. 115 |
| L(R) ELEC HYD OVHT | C | FIM 29-11-00/101, Fig. 114 |
| L(R) ENG HYD OVHT | C | FIM 29-11-00/101, Fig. 113 |
| L(R) HYD ELEC PUMP | C | FIM 29-11-00/101, Fig. 105 |
| L(R) HYD ENG PUMP | C | FIM 29-11-00/101, Fig. 123 |
| L(R) HYD QTY | C | FIM 29-33-00/101, Fig. 104 |
| L(R) HYD QTY O/FULL | M | FIM 29-33-00/101, Fig. 103 |
| L(R) HYD RSVR PRES | C | FIM 29-35-00/101, Fig. 103 |
| L(R) HYD SYS MAINT | S, M | FIM 29-11-00/101, Fig. 116 |

| EICAS MESSAGE LIST | | |
|---|---|---|
| EICAS MESSAGE | LEVEL | PROCEDURE |
| L(R) HYD SYS PRESS | B | Go to the 29-FAULT CODE INDEX and look at the fault codes:<br>29 11 06,<br>29 31 01. |
| POWER XFER UNIT | S, M | FIM 29-22-00/101, Fig. 104 |
| RAT | S, M | FIM 29-21-00/101, Fig. 103 |
| RAT UNLOCKED | C | Adust or replace the ram air turbine stowed limit switch, S10258 (AMM 29-21-17/201). |
| RSV BRAKE VAL | M | FIM 29-11-00/101, Fig. 120 |




1 NORMAL HYD PRESSURE IS 2850-3150.

2 HYD LOW PRESSURE LGT ILLUM AT 2400 PSI.

3 LOSS OF LEFT EDP WILL CAUSE POWER TRANSFER UNIT (PTU) TO OPERATE AND GIVE LEFT SYS PRESS INDICATION.

APPLICABLE CIRCUIT BREAKERS AS INSTALLED

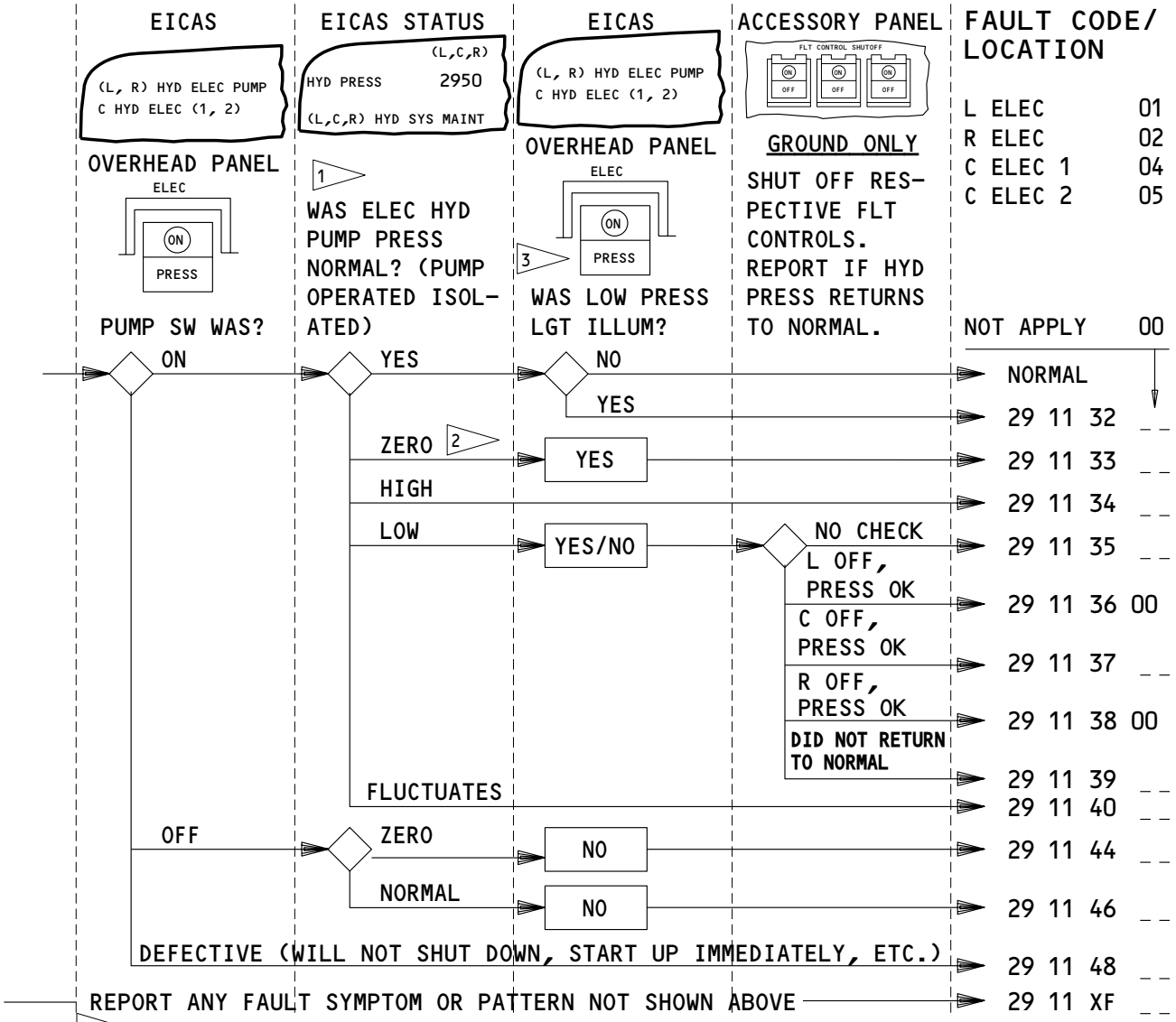
| | | | | | |
|---|---|---|---|---|---|
| 11D28 | ENG PUMP SUPPLY (LEFT, L) | 11K14 | (L) ENG PUMP VLV DEPRESS | 11K23 | R ENG PUMP VLV DEPRESS |
| 11D28 | ENG PUMP SOV L | 11K14 | (L, LEFT) ENG PUMP DEPRESS | 11K23 | R ENG PUMP DEPRESS |
| 11D29 | ENG PUMP SUPPLY (RIGHT, R) | 11K17 | SYSTEM PRESS (LEFT, L) | 11K26 | SYSTEM PRESS RIGHT |
| 11D29 | ENG PUMP SOV R | 11K18 | SYSTEM PRESS (CTR, C) | 11K26 | (PRESSURE, PRESS) SYS (R, RIGHT) |

SYS PRESS AND ENG DRIVEN PUMP (EDP) - FAULT CODES

EFFECTIVITY
AIRPLANES WITH STATUS PAGE HYD PRESSURE IND

# 29-FAULT CODE DIAGRAM

320031




1 NORMAL HYD PRESSURE IS 2850-3150.

2 THE ELEC HYD PUMPS MAY NOT START ON 1st ATTEMPT WITH TEMPERATURES OF -23.3°C (-10°F) OR LESS. THE SWITCH MAY BE CYCLED 2 TIMES WITH A SECOND DELAY BETWEEN EACH CYCLE. MORE THAN 3 START ATTEMPTS MAY DAMAGE PUMPS.

3 HYD LOW PRESSURE LGT ILLUM AT 2400 PSI.

APPLICABLE CIRCUIT BREAKERS AS INSTALLED

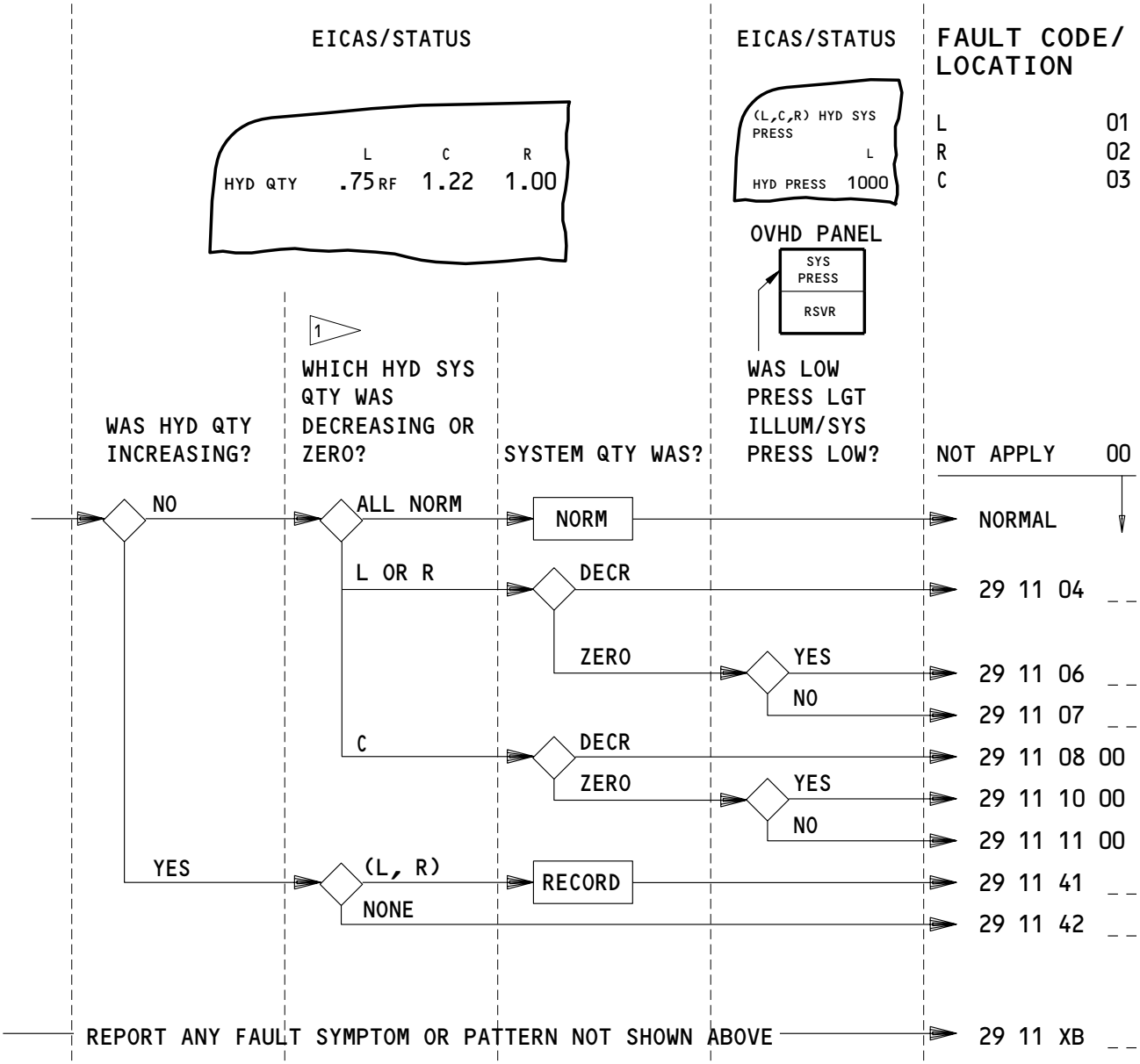
| | |
|---|---|
| 6K13 | C1 HYD EMP ENABLE |
| 6K14 | (R1, R) HYD EMP ENABLE |
| 6K19 | C2 HYD EMP ENABLE |
| 6K19 | HYD EMP ENABLE C2 |
| 11K15 | ELEC PUMP C-1 (C1) |
| 11K16 | ELEC PUMP (R, RIGHT) |
| 11K17 | SYSTEM PRESS (LEFT, L) |
| 11K18 | SYSTEM PRESS (CTR, C) |
| 11K24 | ELEC PUMP C-2 (C2) |
| 11K25 | ELEC PUMP (LEFT, L) |
| 11K26 | SYSTEM PRESS (RIGHT, R) |
| 11K26 | PRESSURE SYS (RIGHT, R) |

ELECTRIC HYDRAULIC PUMP (ACMP) - FAULT CODES

EFFECTIVITY
AIRPLANES WITH STATUS PAGE HYD PRESSURE IND

# 29-FAULT CODE DIAGRAM

F82958




1 COLD SOAK WILL RESULT IN QTY DECREASE.

APPLICABLE CIRCUIT BREAKERS

NONE

HYD QTY INCREASING/DECREASING – FAULT CODES

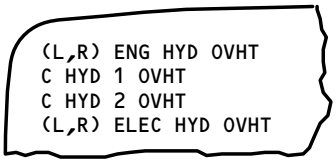
EFFECTIVITY
AIRPLANES WITH STATUS PAGE HYD PRESSURE IND

# 29-FAULT CODE DIAGRAM

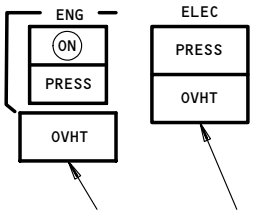


55345

EICAS




OVERHEAD PANEL




IS HYD OVHT LGT ILLUM?

NO → NORMAL

ENG PUMP OVHT → 29 11 12 _ _

ELEC PUMP OVHT → 29 11 13 _ _

REPORT ANY FAULT SYMPTOM OR PATTERN NOT SHOWN ABOVE → 29 11 XC _ _

FAULT CODE/ LOCATION

| | |
|---|---|
| L | 01 |
| R | 02 |
| C 1 | 04 |
| C 2 | 05 |
| NOT APPLY | 00 |

APPLICABLE CIRCUIT BREAKERS

NONE

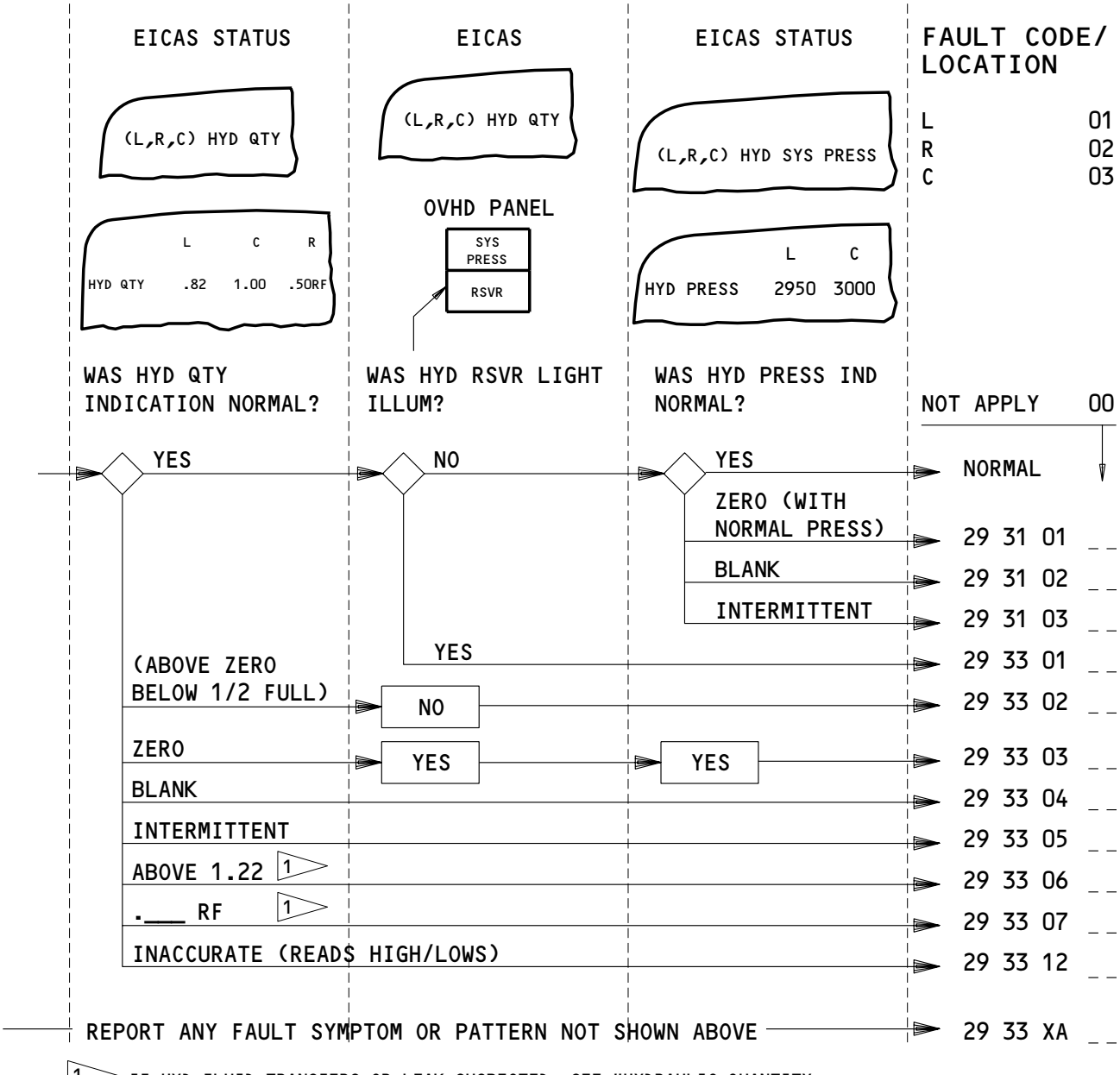
HYDRAULIC OVERHEAT – FAULT CODES

EFFECTIVITY

ALL

# 29-FAULT CODE DIAGRAM

55346




1 IF HYD FLUID TRANSFERS OR LEAK SUSPECTED, SEE "HYDRAULIC QUANTITY INCREASING/DECREASING".

APPLICABLE CIRCUIT BREAKERS AS INSTALLED

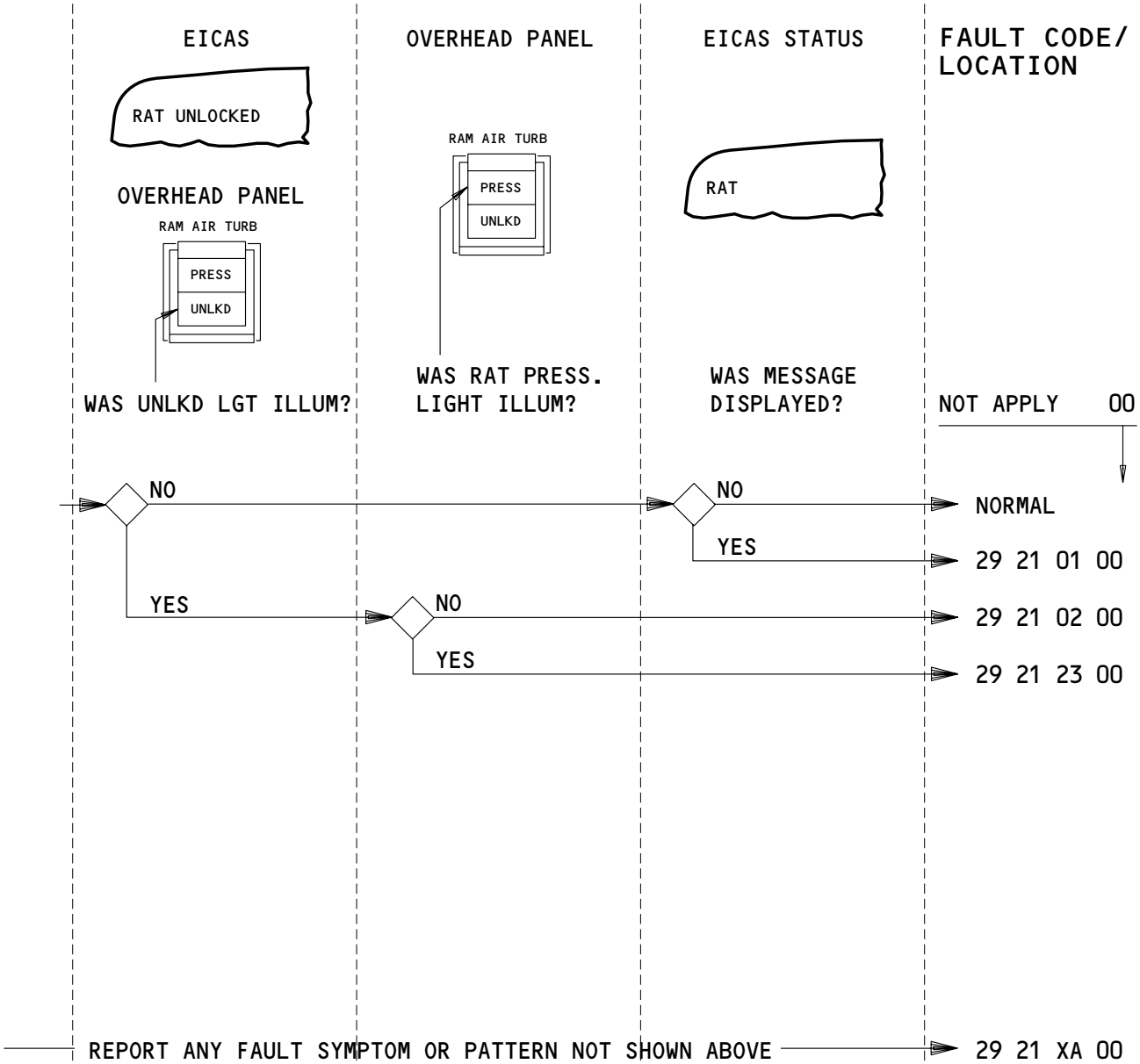
| | | | |
|---|---|---|---|
| 11K17 | SYSTEM PRESS (L, LEFT) | 11K21 | QTY (R, RIGHT) |
| 11K18 | SYSTEM PRESS (C, CTR) | 11K26 | SYSTEM PRESS (RIGHT, R) |
| 11K19 | QTY CTR | 11K26 | PRESS SYS R |
| 11K20 | QTY (L, LEFT) | 11K26 | PRESSURE SYS (RIGHT, R) |

HYDRAULIC INDICATORS – FAULT CODES

EFFECTIVITY
AIRPLANES WITH STATUS PAGE HYD PRESSURE IND

# 29-FAULT CODE DIAGRAM

F82960




APPLICABLE CIRCUIT BREAKERS AS INSTALLED

| | | | |
|---|---|---|---|
| 6F1 | RAT MAN PWR | 11D26 | RAT AUTO CONT |
| 6F1 | RAT MANUAL | 11D26 | RAT CONT |
| 6F1 | PWR RAT MAN | 11D27 | RAT AUTO PWR |
| 6F2 | RAT MAN CONT | 11D27 | RAT AUTO |
| 6F2 | CONT RAT MAN | | |

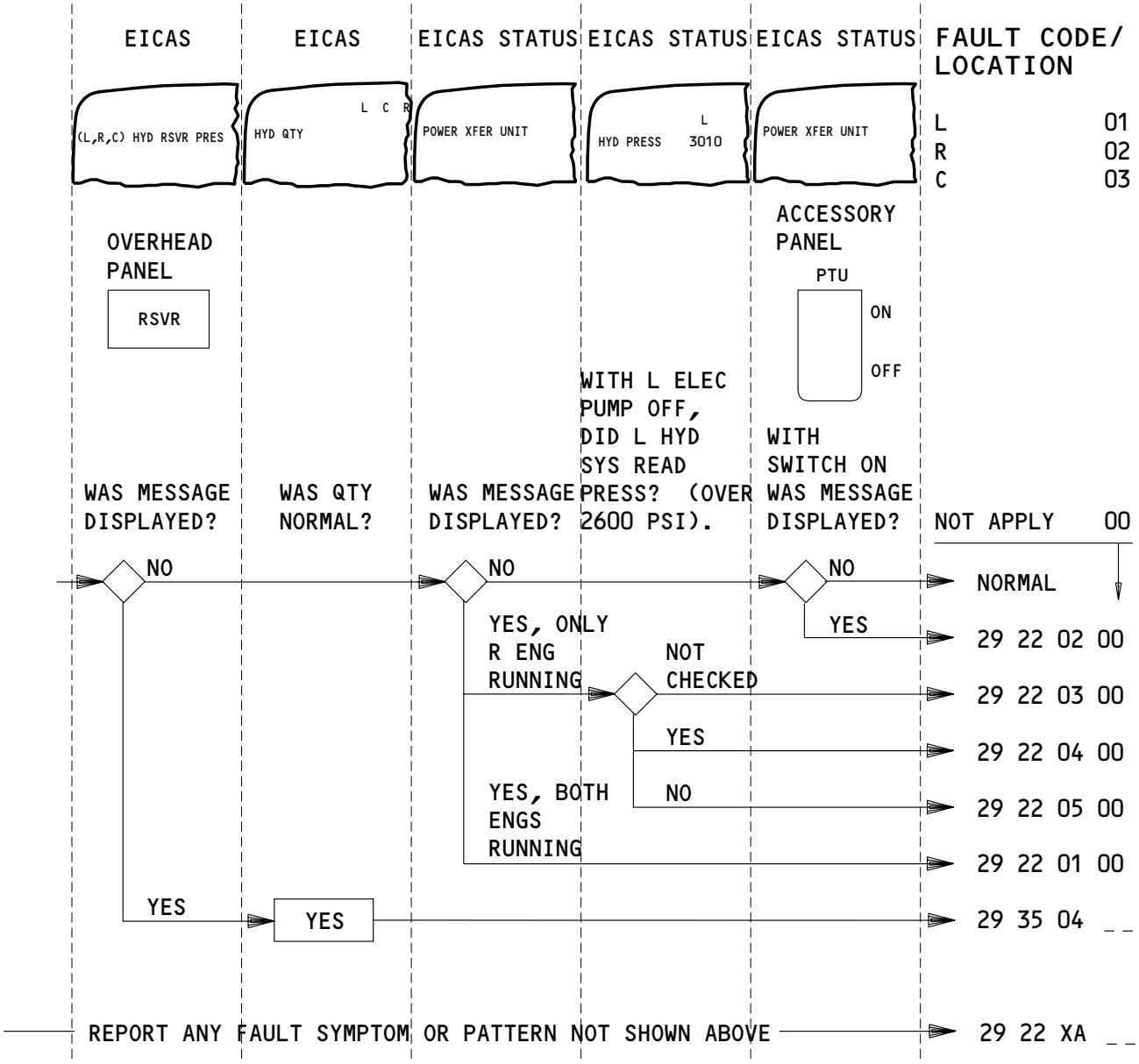
RAT (RAM AIR TURBINE) - FAULT CODES

EFFECTIVITY

ALL

# 29-FAULT CODE DIAGRAM

F82963




APPLICABLE CIRCUIT BREAKERS AS INSTALLED

| | | | |
|---|---|---|---|
| 11D30 | PTU IND | 11K19 | QTY CTR |
| 11D31 | PTU CONT | 11K20 | QTY (L, LEFT) |
| | | 11K21 | QTY (R, RIGHT) |

POWER XFER UNIT/HYD RSVR PRESS – FAULT CODES

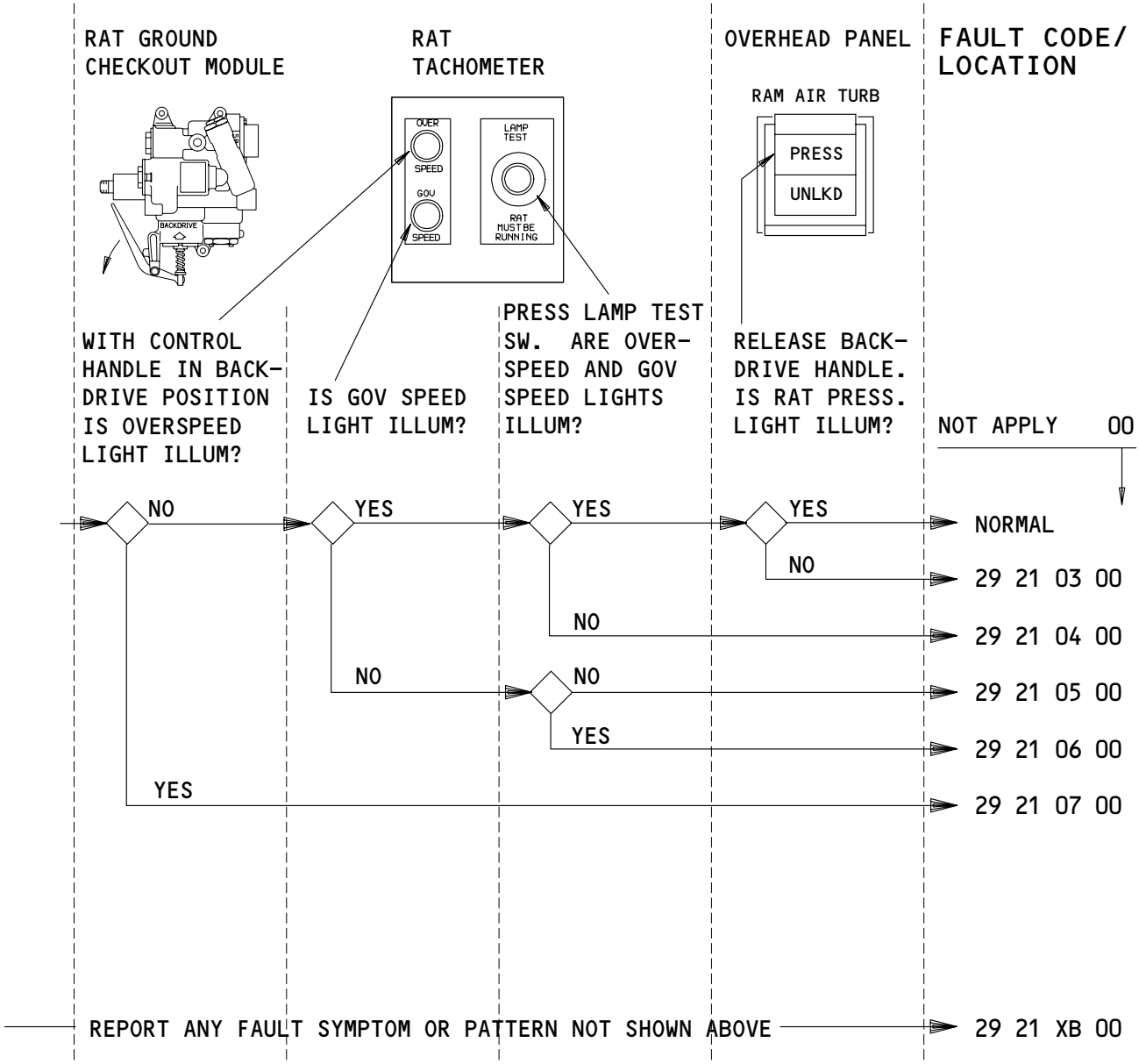
EFFECTIVITY
AIRPLANES WITH STATUS PAGE HYD PRESSURE IND

# 29-FAULT CODE DIAGRAM





55349




APPLICABLE CIRCUIT BREAKERS

| | |
|---|---|
| 6F1 | PWR RAT MAN |
| 6F2 | CONT RAT MAN |
| 11D26 | RAT AUTO CONT |
| 11D27 | RAT AUTO PWR |

RAT HYD PUMP AND DRIVE SYSTEM - FAULT CODES (GROUND)

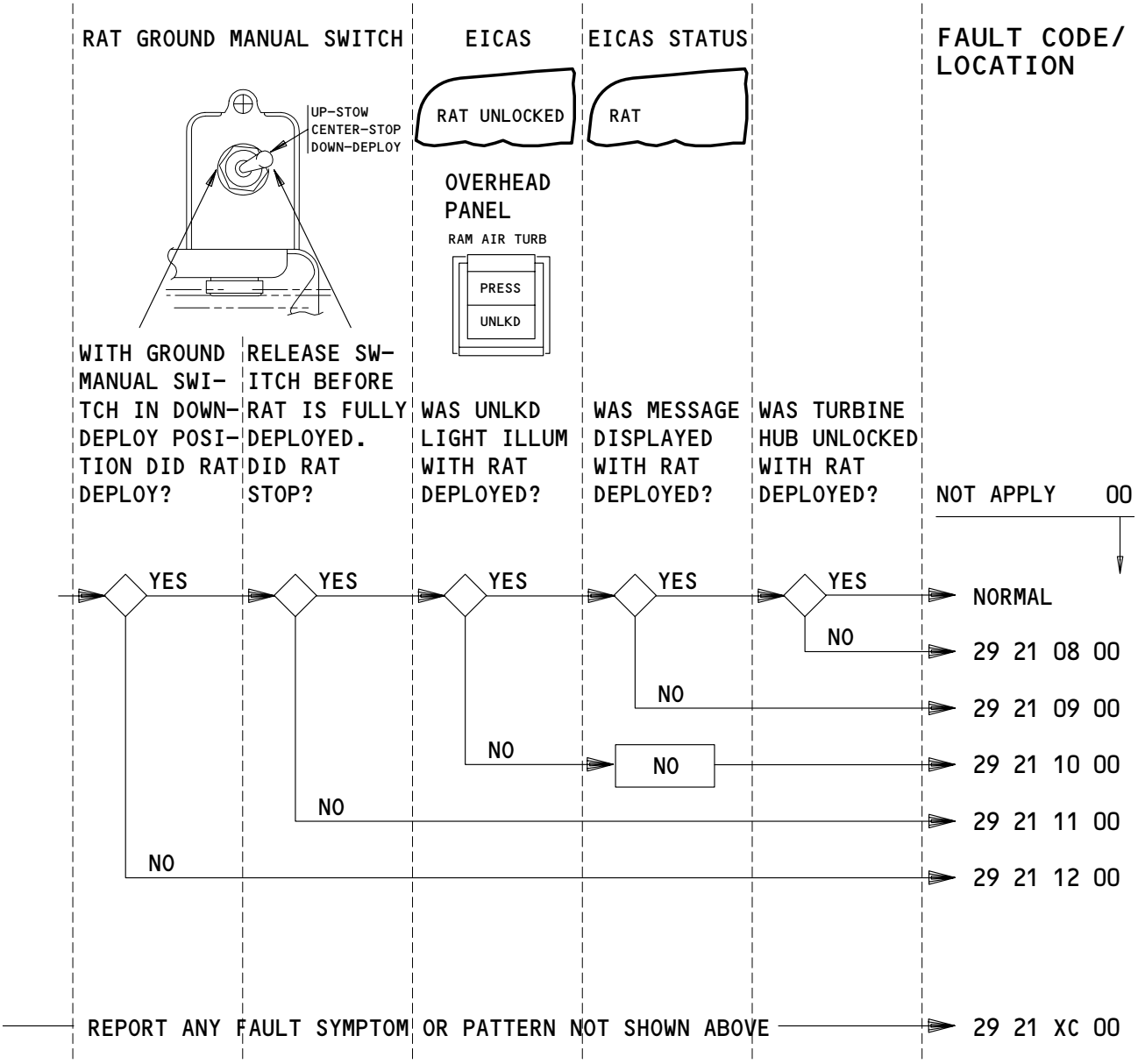
EFFECTIVITY

ALL

# 29-FAULT CODE DIAGRAM



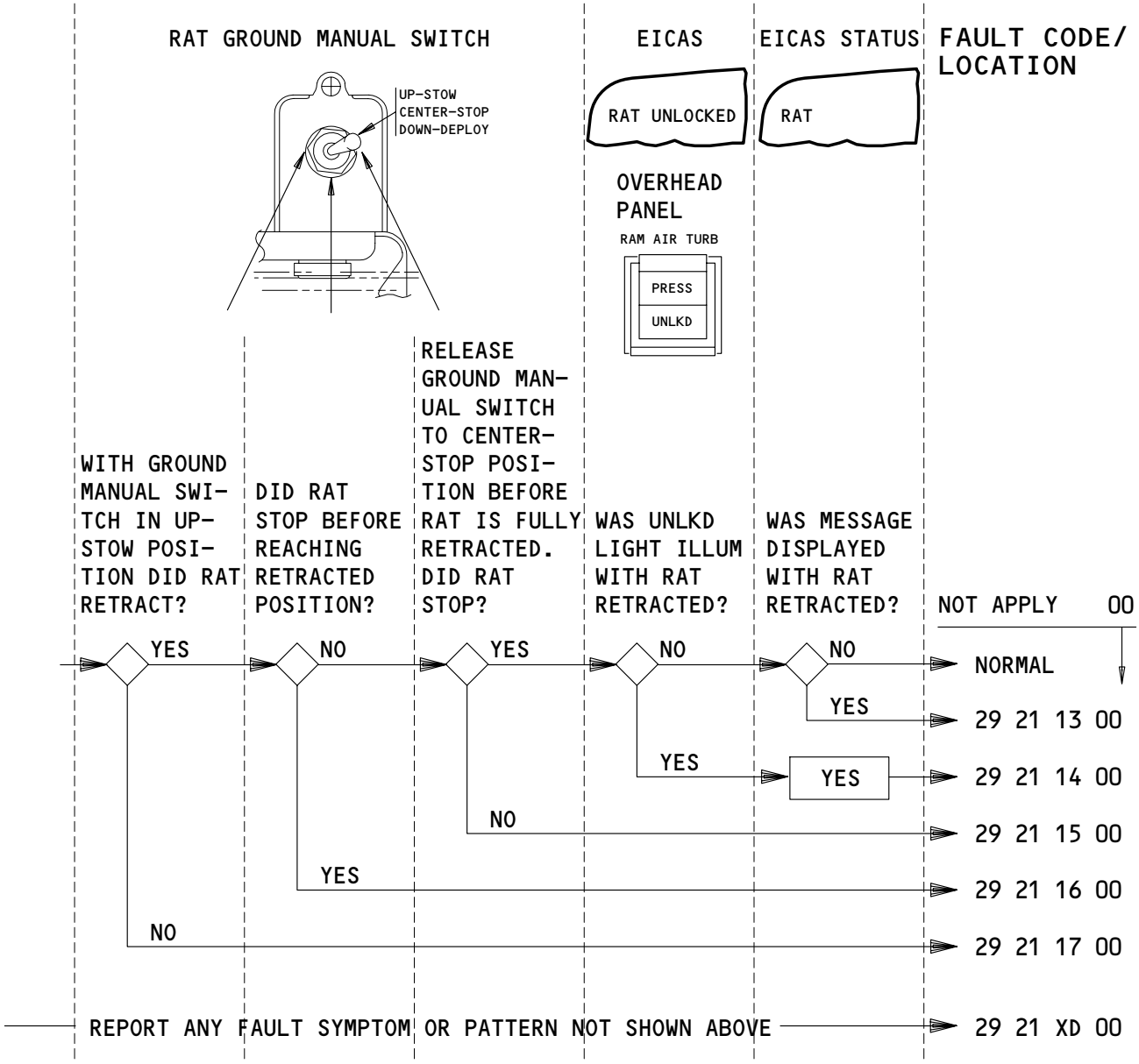
156352




APPLICABLE CIRCUIT BREAKERS

| | |
|---|---|
| 6F1 | PWR RAT MAN |
| 6F2 | CONT RAT MAN |
| 11D26 | RAT AUTO CONT |
| 11D27 | RAT AUTO PWR |

RAT GROUND DEPLOYMENT – FAULT CODES (GROUND)




APPLICABLE CIRCUIT BREAKERS

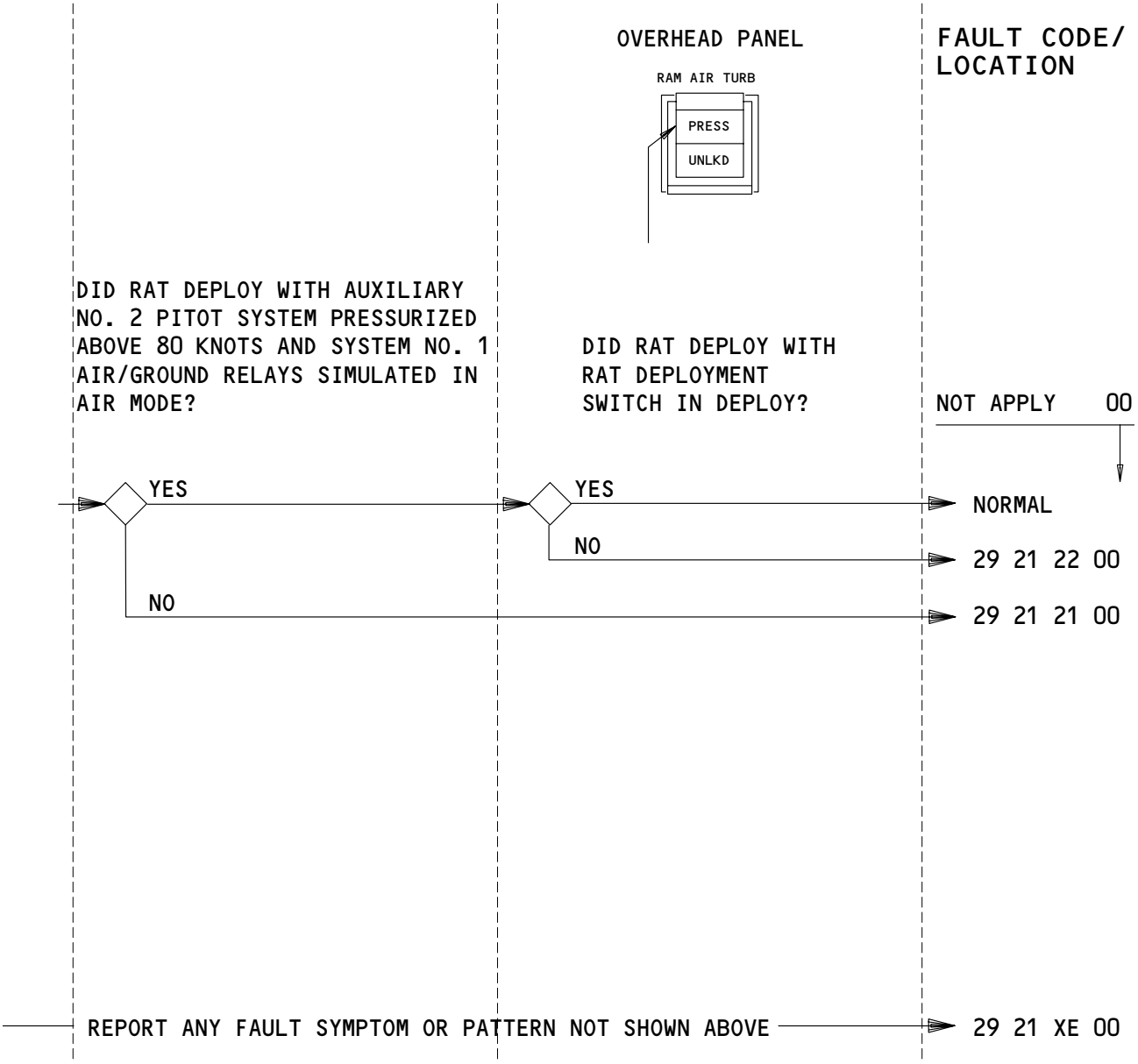
| | |
|---|---|
| 6F1 | PWR RAT MAN |
| 6F2 | CONT RAT MAN |
| 11D26 | RAT AUTO CONT |
| 11D27 | RAT AUTO PWR |

RAT GROUND RETRACTION - FAULT CODES (GROUND)





166441




APPLICABLE CIRCUIT BREAKERS

| | |
|---|---|
| 6F1 | PWR RAT MAN |
| 6F2 | CONT RAT MAN |
| 11D26 | RAT AUTO CONT |
| 11D27 | RAT AUTO PWR |

RAT AUTO DEPLOYMENT – FAULT CODES (GROUND)

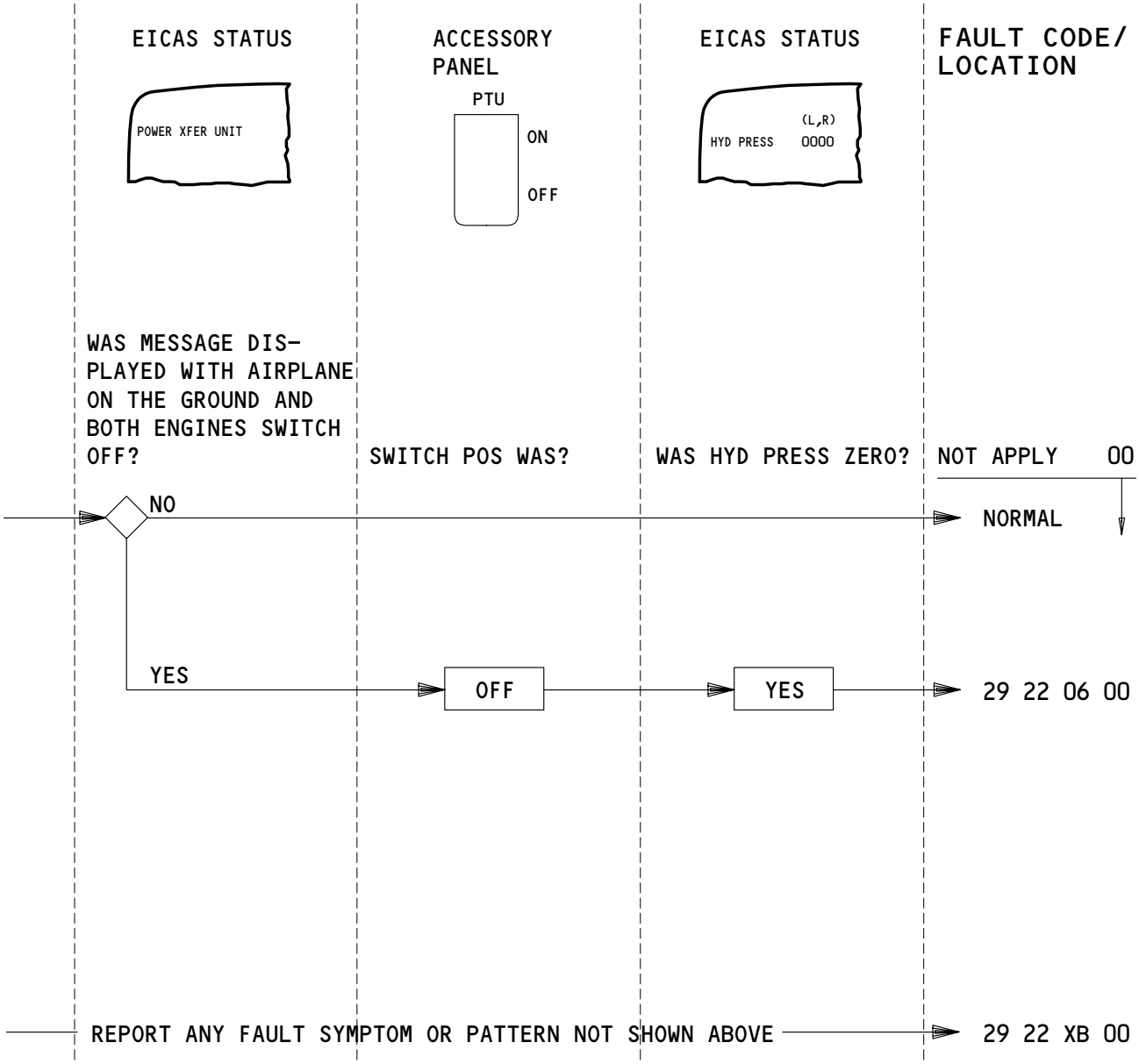
EFFECTIVITY

ALL

# 29-FAULT CODE DIAGRAM



279978




APPLICABLE CIRCUIT BREAKERS

11D31 PTU CONT

POWER XFER UNIT – FAULT CODES (GROUND)

EFFECTIVITY

ALL

# 29-FAULT CODE DIAGRAM

| FAULT CODE | LOG BOOK REPORT | FAULT ISOLATION REFERENCE |
|---|---|---|
| 29 11 XA -- | A (O1=L,O2=R) System pressure or engine-driven pump problem was encountered by the flight crew which is not covered in the fault code diagrams. | SSM 29-00-02 |
| 29 11 XB -- | A (O1=L,O2=R,O3=C) Hydraulic quantity problem was encountered by the flight crew which is not covered in the fault code diagrams. | SSM 29-00-01 |
| 29 11 XC -- | A (O1=L,O2=R,O3=C1,O4=C2) Hydraulic overheat problem was encountered by the flight crew which is not covered in the fault code diagrams. | SSM 29-00-02 |
| 29 11 XF -- | A (O1=L ELEC,O2=R ELEC,O3=C ELEC 1,O4=C ELEC 2) electric hydraulic pump problem was encountered by the flight crew which is not covered in the fault code diagrams. | SSM 29-00-02 |
| 29 21 XA 00 | A RAT indicating problem was encountered by the flight crew which is not covered in the fault code diagrams. | SSM 29-00-06 |
| 29 21 XB 00 | A RAT hydraulic pump and drive system problem was encountered by the ground crew which is not covered in the fault code diagrams. | SSM 29-00-06 |

| FAULT CODE | LOG BOOK REPORT | FAULT ISOLATION REFERENCE |
|---|---|---|
| 29 21 XC 00 | A RAT ground deployment problem was encountered by the ground crew which is not covered in the fault code diagrams. | SSM 29-00-06 |
| 29 21 XD 00 | A RAT ground retraction problem was encountered by the ground crew which is not covered in the fault code diagrams. | SSM 29-00-06 |
| 29 21 XE 00 | A RAT auto deployment problem was encountered by the ground crew which is not covered in the fault code diagrams. | SSM 29-00-06 |
| 29 22 XA -- | A (01=L,02=R,03=C) Power transfer unit or hydraulic reservoir pressurization problem was encountered by the flight crew which is not covered in the fault code diagrams. | SSM 29-00-01 |
| 29 22 XB 00 | A power transfer unit problem was encountered by the ground crew which is not covered in the fault code diagrams. | SSM 29-00-01 |
| 29 33 XA -- | A (01=L,02=R,03=C) Hydraulic indicating problem was encountered by the flight crew which is not covered in the fault code diagrams. | SSM 29-00-02 |
| 29 11 04 -- | (01=L,02=R) Hyd qty decreased to _____. Qty stable with EDP depressurized and elec pump off. | FIM 29-11-00/101, Fig. 107, Block 1 |
| 29 11 05 -- | (01=L,02=R) Hyd qty decreased to _____. EDP depressurized and elec pump off, qty continued to decrease. | FIM 29-11-00/101, Fig. 108, Block 1 |
| 29 11 06 -- | (01=L,02=R) Hyd qty decreased to zero and system PRESS lgt on. EICAS msg: (L,R) HYD SYS PRESS displayed. | FIM 29-11-00/101, Fig. 109, Block 1 |

| FAULT CODE | LOG BOOK REPORT | FAULT ISOLATION REFERENCE |
|---|---|---|
| 29 11 07 -- | (O1=L,O2=R) Hyd qty zero, system PRESS lgt not on. | FIM 29-11-00/101, Fig. 109, Block 1 |
| 29 11 08 00 | C hyd qty decreased to _____. Qty stable with system pumps OFF. | FIM 29-11-00/101, Fig. 110, Block 1 |
| 29 11 09 00 | C hyd qty decreased to _____. System depressurized and leak continued. | FIM 29-11-00/101, Fig. 111, Block 1 |
| 29 11 10 00 | C hyd qty decreased to zero and system PRESS lgt on. EICAS msg: C HYD SYS PRESS displayed. | FIM 29-11-00/101, Fig. 112, Block 1 |
| 29 11 11 00 | C hyd qty zero. System PRESS lgt not on. | FIM 29-11-00/101, Fig. 112, Block 1 |
| 29 11 12 -- | (O1=L,O2=R) EDP hyd OVHT lgt on. EICAS msg: (L,R) ENG HYD OVHT displayed. Pump was deactivated. | FIM 29-11-00/101, Fig. 113, Block 1 |
| 29 11 13 -- | (O1=L,O2=R,O4=C1,O5=C2) Elec hyd OVHT lgt on. EICAS msg: (L,R) ELEC HYD OVHT or C HYD (1,2) OVHT displayed. Pump was deactivated. | L or R System Faults, FIM 29-11-00/101, Fig. 114, Block 1. C System Faults, FIM 29-11-00/101, Fig. 114, Block 1, Fig. 115, Block 1. |
| 29 11 19 00 | EICAS msg L HYD SYS MAINT displayed. | FIM 29-11-00/101, Fig. 116, Block 1 |
| 29 11 19 00 | EICAS msg R HYD SYS MAINT displayed. | FIM 29-11-00/101, Fig. 116, Block 1 |
| 29 11 21 00 | EICAS msg C HYD SYS MAINT displayed. | FIM 29-11-00/101, Fig. 117, Block 1 |
| 29 11 22 00 | EICAS msg RSV BRAKE VAL displayed. | FIM 29-11-00/101, Fig. 120, Block 1 |
| 29 11 23 -- | (O1=L,O2=R) EDP hyd push zero. | FIM 29-11-00/101, Fig. 123, Block 1 |
| 29 11 24 -- | (O1=L,O2=R) EDP hyd push low ___ PSI. Hyd push low, (____psi) and low PRESS light on and EICAS msg (L,R) ENG PUMP displayed. | Replace the engine-driven pump (EDP) in the left (right) hydraulic system (AMM 29-11-05/401). |

| FAULT CODE | LOG BOOK REPORT | FAULT ISOLATION REFERENCE |
|---|---|---|
| 29 11 25 -- | (O1=L,O2=R) EDP hyd low PRESS light on and EICAS msg (L,R) HYD ENG PUMP displayed. EDP push was normal. | Replace the pressure switch, S26 (S31), for the engine-driven pump (EDP) in the left (right) system (AMM 29-11-17/401). |
| 29 11 26 -- | (O1=L,O2=R) EDP failed to depressurize. | FIM 29-11-00/101, Fig. 104, Block 1 |
| 29 11 27 -- | (O1=L,O2=R) hyd push reads high (____ PSI) with EDP or elec hyd pump (ACMP) operating. | Replace the pressure transmitter M341 (M343), in the left (right) hydraulic system (AMM 29-31-01/401). |
| 29 11 28 -- | (O1=L,O2=R) EDP hyd push high (____ PSI). Push norm with elec hyd pump (ACMP) operating. | Replace the engine-driven pump (EDP) in the left (right) hydraulic system (AMM 29-11-05/401). |
| 29 11 29 -- | (O1=L,O2=R) Hyd push reads low ____ PSI with EDP or elec hyd pump (ACMP) operating. | FIM 29-11-00/101, Fig. 116, Block 1 |
| 29 11 30 -- | (O1=L,O2=R) Hyd push fluctuates during EDP or elec hyd pump (ACMP) operation. | Replace the pressure transmitter M341 (M343), in the left (right) hydraulic system (AMM 29-31-01/401). |
| 29 11 31 -- | (O1=L,O2=R) HYD push fluctuates during EDP operation. | Replace the engine-driven pump (EDP) in the left (right) hydraulic system (AMM 29-11-05/401). |
| 29 11 32 -- | (O1=L elec, O2=R elec, O4=C elec 1, O5=C elec 2) hyd low PRESS lgt on. Pump push was normal. EICAS msg (L,R) HYD ELEC PUMP or C HYD ELEC (1,2) displayed. | L or R System Faults, replace the pressure switch, S25 (S30), for the alternating current motor pump (ACMP) in the left (right) hydraulic system (AMM 29-11-18/401).<br>C System Faults, replace the pressure switch, S10003 (S10016), for the alternating current motor pump (ACMP) C1 (C2) in the center hydraulic system (AMM 29-11-19/401). |

| FAULT CODE | LOG BOOK REPORT | FAULT ISOLATION REFERENCE |
|---|---|---|
| 29 11 33 -- | (01=L elec,02=R elec,04=C elec 1,05=C elec 2) Hyd low PRESS lgt on. Pump push was zero. EICAS msg (L,R) HYD ELEC PUMP or C HYD ELEC (1,2) displayed. | L or R System Faults, FIM 29-11-00/101, Fig. 105, Block 2. C System Faults, FIM 29-11-00/101, Fig. 106, Block 2. |
| 29 11 34 -- | (01=L elec,02=R elec,04=C elec 1,05=C elec 2) Hyd push high, ____ psi. | L or R System Faults, replace the alternating current motor pump (ACMP), M231 (M232), in the left (right) hydraulic system (AMM 29-11-01/401). C System Faults, replace the alternating current motor pump (ACMP) C1 (C2), M10029 (M10030), in the center hydraulic system (AMM 29-11-02/401). |
| 29 11 35 -- | (01=L elec,02=R elec,04=C Elec 1,05=C elec 2) Hyd push low, ____ psi. EICAS msg (L,R) HYD SYS MAINT (was/was not) or C HYD SYS MAINT (was/was not) displayed. Hyd low PRESS lgt (was/was not) on. Flt control shutoff check not made. | L or R System Faults, FIM 29-11-00/101, Fig. 118, Block 1. C System Faults, FIM 29-11-00/101, Fig. 119, Block 1. |
| 29 11 36 00 | L elec hyd pump press low, ____ psi. Push normal with L flt control shutoff valve closed. | Do the internal leakage check for the left hydraulic system (AMM 29-11-00/601). |
| 29 11 37 -- | (04=C elec 1,05=C elec 2) Hyd pump press low, ____ psi. Push normal with C flt control shutoff valve closed. | Do the internal leakage check for the center hydraulic system (AMM 29-11-00/601). |
| 29 11 38 00 | R elec hyd pump press low, ____ psi. Push normal with R flt control shutoff valve closed. | Do the internal leakage check for the right hydraulic system (AMM 29-11-00/601). |
| 29 11 39 -- | (01=L elec,02=R elec,04=C elec 1,05=C elec 2) Hyd press low, ____ psi. Push did not return to normal with flt control shutoff valve closed. | L or R System Faults, FIM 29-11-00/101, Fig. 118, Block 2. C System Faults, FIM 29-11-00/101, Fig. 119, Block 2. |

| FAULT CODE | LOG BOOK REPORT | FAULT ISOLATION REFERENCE |
|---|---|---|
| 29 11 40 -- | (01=L elec,02=R elec,04=C elec 1,05=C elec 2) Hyd press fluctuates, ____ psi. | L or R System Faults, replace the alternating current motor pump (ACMP), M231 (M234), in the left (right) hydraulic system (AMM 29-11-01/401). C System Faults, replace the alternating current motor pump (ACMP) C1 (C2), M10029 (M10030), in the center hydraulic system (AMM 29-11-02/401). |
| 29 11 41 -- | (01=L,02=R,03=C) Hyd qty increased to ____ with a decrease in (L,R) hyd qty. | FIM 29-11-00/101, Fig. 121, Block 1 |
| 29 11 42 -- | (01=L,02=R,03=C) Hyd qty increased to ____ with no change in other hyd qtys. | (01=L,02=R) FIM 29-11-00/101, Fig. 109, Block 6. (03=C) FIM 29-11-00/101, Fig. 112, Block 6. |
| 29 11 43 -- | (01=L,02=R) EDP HYD low PRESS lgt did not come on or EICAS msg (L,R) HYD ENG PUMP display with eng not running. | Replace the pressure switch, S26 (S31), for the engine-driven pump (EDP) in the left (right) hydraulic system (AMM 29-11-17/401). |
| 29 11 44 -- | (01=L elec,02=R elec,04=C elec 1,05=C elec 2) Hyd low PRESS lgt did not come on or EICAS msg display with pump off and push zero. | L or R System Faults, FIM 29-11-00/101, Fig. 122, Block 1. C System Faults, replace the pressure switch, S10003 (S10016), for the alternating current motor pump (ACMP) C1 (C2) in the center hydraulic system (AMM 29-11-19/401). |
| 29 11 46 -- | (01=L elec,02=R elec,04=C elec 1,05=C elec 2) Hyd pump will not shut off. | L or R System Faults, FIM 29-11-00/101, Fig. 116, Block 1. C System Faults, FIM 29-11-00/101, Fig. 117, Block 1. |

| FAULT CODE | LOG BOOK REPORT | FAULT ISOLATION REFERENCE |
|---|---|---|
| 29 11 47 -- | (01=L,02=R) eng hyd pump sw defective (describe). | Replace the lamp in the switch/light, YQTS1 (YQTS4), for the engine-driven pump (EDP) in the left (right) hydraulic system, on the hydraulic control panel (AMM 33-13-00/201). If the problem continues, replace the switch/light, YQTS1 (YQTS4), on the hydraulic control panel, M10050 (AMM 33-13-00/201) or M10050 (WDM 29-11-11, WDM 29-11-21). |
| 29 11 48 -- | (01=L ELEC,02=R ELEC,04=C ELEC 1,05=C ELEC 2) Hyd pump sw defective (will not shut down pump, start up pump immediately, etc.) (describe). | Replace the lamp in the switch/light (YQTS5,YQTS6,YQTS2, YQTS3) for the alternating current motor pump (ACMP) (L,R,C1,C2) on the hydraulic control panel, M10050 (AMM 33-13-00/201). If the problem continues, replace the switch/light (YQTS5,YQTS6,YQTS2, YQTS3) for the alternating current motor pump (ACMP) (L,R,C1,C2) on the hydraulic control panel, M10050 (AMM 33-13-00/201) or M10050 (WDM 29-11-12,WDM 29-11-22, (WDM 29-11-31). |
| 29 21 01 00 | EICAS message: RAT displayed. | FIM 29-21-00/101, Fig. 103, Block 1 |
| 29 21 02 00 | RAT UNLKD lite on. Airplane perf not affected and RAT low PRESS lgt off. EICAS msg: RAT UNLOCKED displayed. | Adjust or replace the stowed limit switch, S10258, for the ram air turbine (RAT) (AMM 29-21-17/201). |
| 29 21 03 00 | Ram air turbine PRESS light did not come on when back-drive control handle is released. | FIM 29-21-00/101, Fig. 104, Block 1 |
| 29 21 04 00 | Ram air turbine tachometer OVERSPEED light not on GOV SPEED light on. OVERSPEED light remains off with LAMP TEST switch ON. | Replace the tachometer, N10028, for the ram air turbine (RAT) (AMM 29-21-51/401). |

| FAULT CODE | LOG BOOK REPORT | FAULT ISOLATION REFERENCE |
|---|---|---|
| 29 21 05 00 | Ram air turbine tachometer OVERSPEED and GOV SPEED lights did not come on during RAT back-drive. Lights remain off with LAMP TEST switch ON. | FIM 29-21-00/101, Fig. 105, Block 1 |
| 29 21 06 00 | Ram air turbine tachometer OVERSPEED and GOV SPEED lights did not come on during RAT back-drive. Lights on with LAMP TEST switch ON. | FIM 29-21-00/101, Fig. 105, Block 2 |
| 29 21 07 00 | Ram air turbine tachometer OVERSPEED light on during RAT back-drive. | Replace the hub on the ram air turbine (RAT)(AMM 29-21-01/401). |
| 29 21 08 00 | Ram air turbine hub did not unlock when RAT deployed. | FIM 29-21-00/101, Fig. 106, Block 1 |
| 29 21 09 00 | EICAS message RAT was not displayed with ram air turbine deployed. | FIM 29-21-00/101, Fig. 107, Block 1 |
| 29 21 10 00 | Ram air turbine UNLKD light did not come on with RAT deployed. EICAS messages RAT and RAT UNLOCKED were not displayed. | Adjust or replace the stowed limit switch, S10258, for the ram air turbine (RAT) (AMM 29-21-17/201). |
| 29 21 11 00 | Ram air turbine did not stop deploying when ground manual switch was returned to center-stop position. | FIM 29-21-00/101, Fig. 108, Block 1 |
| 29 21 12 00 | Ram air turbine did not deploy with ground manual switch in down-deploy position. RAT UNLKD light did not come on. EICAS messages RAT UNLOCKED and RAT were not displayed. | FIM 29-21-00/101, Fig. 109, Block 1 |
| 29 21 13 00 | EICAS message RAT displayed with ram air turbine retracted. RAT UNLKD light was not on. | FIM 29-21-00/101, Fig. 110, Block 1 |
| 29 21 14 00 | Ram air turbine UNLKD light was on with RAT retracted. EICAS messages RAT UNLOCKED and RAT were displayed. | Adjust or replace the stowed limit switch, S10258, for the ram air turbine (RAT) (AMM 29-21-17/201). |

| FAULT CODE | LOG BOOK REPORT | FAULT ISOLATION REFERENCE |
|---|---|---|
| 29 21 15 00 | Ram air turbine did not stop retracting when ground manual switch was returned to center-stop position. | FIM 29-21-00/101, Fig. 108, Block 1 |
| 29 21 16 00 | Ram air turbine did not fully retract. | FIM 29-21-00/101, Fig. 111, Block 1 |
| 29 21 17 00 | Ram air turbine did not retract with ground manual switch in up-stow position. | FIM 29-21-00/101, Fig. 112, Block 1 |
| 29 21 21 00 | Ram air turbine did not deploy when auxiliary No. 2 pitot system was pressurized above 80 knots and system No. 1 air/ground relays simulated in air mode. | FIM 29-21-00/101, Fig. 114, Block 1 |
| 29 21 22 00 | Ram air turbine did not deploy with deployment switch in DEPLOY position. | FIM 29-21-00/101, Fig. 113, Block 1 |
| 29 21 23 00 | RAT UNLKD lite on and RAT low press lite on. EICAS msg: RAT UNLOCKED displayed. | FIM 29-21-00/101, Fig. 115, Block 1 |
| 29 22 01 00 | EICAS message: POWER XFER UNIT displayed. | FIM 29-22-00/101, Fig. 104, Block 1 |
| 29 22 02 00 | EICAS msg POWER XFER UNIT displayed with PTU sw ON. | FIM 29-22-00/101, Fig. 105, Block 1 |
| 29 22 03 00 | EICAS msg POWER XFER UNIT displayed with only R eng running. | FIM 29-22-00/101, Fig. 104, Block 1 |
| 29 22 04 00 | EICAS msg POWER XFER UNIT displayed with only R eng running. PTU did pressurize L hyd system. | FIM 29-22-00/101, Fig. 104, Block 1 |
| 29 22 05 00 | EICAS msg POWER XFER UNIT displayed with only R eng running. PTU did not pressurize L hyd system. | FIM 29-22-00/101, Fig. 104, Block 3 |

| FAULT CODE | LOG BOOK REPORT | FAULT ISOLATION REFERENCE |
|---|---|---|
| 29 22 06 00 | EICAS msg POWER XFER UNIT displayed with the airplane on the ground and both engines off. The left and right hydraulic system pressure was zero. | FIM 29-22-00/101, Fig. 103, Block 1 |
| 29 31 01 -- | (01=L,02=R,03=C) hyd press reads zero with normal press. EICAS msg (L,R,C) HYD SYS PRESS displayed. | Replace the pressure transmitter M341 (M343,M342), for the left right, center) hydraulic system (AMM 29-31-01/401). |
| 29 31 02 -- | (01=L,02=R,03=C) Hyd press indication is blank. | Replace the pressure transmitter M341 (M343,M342), for the left (right, center) hydraulic system (AMM 29-31-01/401). |
| 29 31 03 -- | (01=L,02=R,03=C) Hyd press indication is intermittent. | Replace the pressure transmitter M341 (M343,M342), for the left (right, center) hydraulic system (AMM 29-31-01/401). |
| 29 33 01 -- | (01=L,02=R,03=C) Hyd RSVR light on. Qty reads normal. EICAS msg: (L,R,C) HYD QTY displayed. | Replace the hydraulic fluid quantity monitor unit, M122 (AMM 29-33-51/401). |
| 29 33 02 -- | (01=L,02=R,03=C) hyd RSVR lgt failed to come on with qty below 1/2 tank. | Replace the hydraulic fluid quantity monitor unit, M122 (AMM 29-33-51/401). |
| 29 33 03 -- | (01=L,02=R,03=C) hyd qty reads zero, hyd RSVR lgt on. EICAS msg: (L,R,C) HYD QTY displayed. Hydraulic press. is normal. | Replace the hydraulic fluid quantity monitor unit, M122 (AMM 29-33-51/401). If the problem continues, replace the hydraulic fluid quantity transmitter, M338 (M340,M339), for the left (right,center) hydraulic system (AMM 29-33-01/401). |
| 29 33 04 -- | (01=L,02=R,03=C) Hyd qty display is blank. | Inspect system wiring for loose connections and/or chafed wiring. Replace the hydraulic fluid quantity monitor unit, M122 (AMM 29-33-51/401). |

| FAULT CODE | LOG BOOK REPORT | FAULT ISOLATION REFERENCE |
|---|---|---|
| 29 33 05 -- | (01=L,02=R,03=C) Hyd qty display is intermittent. | Replace the hydraulic fluid quantity monitor unit, M122 (AMM 29-33-51/401). If the problem continues, replace the hydraulic fluid quantity transmitter, M338 (M340,M339) (AMM 29-33-01/401). |
| 29 33 06 -- | (01=L,02=R,03=C) Hyd qty reads high, _____. | FIM 29-33-00/101, Fig. 103, Block 1 |
| 29 33 07 -- | (01=L,02=R,03=C) Hyd qty reads _____ RF. | FIM 29-33-00/101, Fig. 104, Block 1 |
| 29 33 09 00 | EICAS msg: C HYD QTY 0/FULL displayed. | FIM 29-33-00/101, Fig. 103, Block 1 |
| 29 33 10 00 | EICAS msg: L HYD QTY 0/FULL displayed. | FIM 29-33-00/101, Fig. 103, Block 1 |
| 29 33 11 00 | EICAS msg: R HYD QTY 0/FULL displayed. | FIM 29-33-00/101, Fig. 103, Block 1 |
| 29 33 12 -- | (01=L,02=R,03=C) Hyd qty inaccurate, reads (high, low), _____. | The hydraulic qty indication is too high, FIM 29-33-00/101, Fig. 103. The hydraulic quantity indication is too low, FIM 29-33-00/101, Fig. 104. |
| 29 35 04 -- | EICAS message: (01=L,02=R,03=C) HYD RSVR PRES displayed. HYD QTY is normal. | FIM 29-35-00/101, Fig. 103, Block 1 |

# BITE Index

1. General
   A. Use this index to find the BITE procedure for the applicable LRU/System.
   B. The BITE procedure will provide the fault isolation instructions for the fault indications/LRU maintenance messages.

| LRU/System Name | Acronym | FIM Reference |
|---|---|---|
| Air Data Computer | ADC | 34-12 |
| Air Data Inertial Reference Unit | ADIRU | 34-26 |
| Air Traffic Control Transponder | ATC | 34-53 |
| Airborne Vibration Monitor Signal Conditioner | AVM | 77-31 |
| Antiskid/Autobrake Control Unit | | 32-42 |
| APU Fire Detection System | | 26-15 |
| Automatic Direction Finder Receiver | ADF | 34-57 |
| APU Control Unit | ECU | 49-11 |
| Brake Temperature Monitor Unit | | 32-46 |
| Bus Power Control Unit | BPCU | 24-20 |
| Cabin Pressure Controller | | 21-30 |
| Digital Flight Data Acquisition Unit | DFDAU | 31-31 |
| Distance Measuring Equipment Interrogator | DME | 34-55 |
| Duct Leak (Wing and Body) | | 26-18 |
| E/E Cooling Control Card (If cards installed) | | 21-58 |
| ECS Bleed Configuration Card | | 36-10 |
| Electronic Engine Control (RR Engines) | EEC | 73-21 |
| Electronic Engine Control Monitor Unit (PW Engines) | EECM | 71-EPCS Message Index |
| Electronic Flight Instrument System | EFIS | 34-22 |
| Electronic Propulsion Control System (PW Engines) | EPCS | 71-EPCS Message Index |
| Engine Fire/Overheat Detection System | | 26-11 |
| Engine Indication and Crew Alerting System Computer | EICAS | 31-41 |

Bite Index
Figure 1 (Sheet 1)

| LRU/System Name | Acronym | FIM Reference |
|---|---|---|
| Engine Turbine Cooling Overheat Detection System (RR Engines) | | 26-13 |
| Enhanced Ground Proximity Warning Computer | EGPWC | 34-46 |
| Flap/Slat Accessory Module | FSAM | 27-51 |
| Flap/Slat Electronic Unit | FSEU | 27-51 |
| Flight Management Computer | FMC | 34-61 |
| Fuel Quantity Indicating System Processor | FQIS | 28-41 |
| Ground Proximity Warning Computer | GPWC | 34-46 |
| HF (High Frequency) Communication | | 23-11 |
| Inertial Reference Unit | IRU | 34-21 |
| Instrument Comparator Unit | ICU | 34-25 |
| Instrument Landing System Receiver | ILS | 34-31 |
| Lower Cargo Compartment Smoke Detection System | | 26-16 |
| Maintenance Control Display Panel | MCDP | 22-00 |
| PA (Passenger Address) Amplifier | | 23-31 |
| Pack Standby Temperature Controller | | 21-51 |
| Pack Temperature Controller | | 21-51 |
| Passenger Entertainment System | PES | 23-34 |
| Power Supply Module (Control System Electronics Units) | PSM | 27-09 |
| Propulsion Discrete Interface Unit (PW Engines) | PDIU | 73-21 |
| Proximity Switch Electronics Unit | PSEU | 32-09 |
| Radio Altimeter Transmitter/Receiver | RA | 34-33 |
| Rudder Ratio Changer Module | RRCM | 27-09 |
| Spoiler Control Module | SCM | 27-09 |
| Stabilizer Position Module | SPM | 27-48 |
| Stabilizer Trim/Elevator Asymmetry Limit Module | SAM | 27-09 |
| Stall Warning Computer/Module (in Warning Electronic Unit) | SWC | 27-32 |
| Strut Overheat Detection System (RR Engines) | | 26-12 |

Bite Index
Figure 1 (Sheet 2)

| LRU/System Name | Acronym | FIM Reference |
|---|---|---|
| Thrust Management Computer/Autothrottle | TMC | 22-00 |
| Traffic Alert and Collision Avoidance Computer | TCAS | 34-45 |
| VHF (Very High Frequency) Communication | | 23-12 |
| VOR/Marker Beacon Receiver | VOR/MKR | 34-51 |
| Warning Electronic Unit BITE Module (Stall Warning) | WEU | 27-32 |
| Weather Radar Transceiver | WXR | 34-43 |
| Wheel Well Fire Detection | | 26-17 |
| Window Heat Control Unit | WHCU | 30-41 |
| Yaw Damper Module | YDM | 22-21 |
| Yaw Damper/Stabilizer Trim Module | YSM | 27-09 |
| Zone Temperature Controller | | 21-60 |

Bite Index
Figure 1 (Sheet 3)

## MAIN (LEFT,RIGHT, AND CENTER) HYDRAULIC SYSTEMS

| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | AMM REFERENCE |
|---|---|---|---|---|
| CIRCUIT BREAKER – | 1 | | FLIGHT COMPARTMENT, P6 PANEL | |
| HYD EMP ENABLE C1, C4329 | | 1 | 6K13 | * |
| HYD EMP ENABLE R, C4330 | | 1 | 6K14 | * |
| HYD EMP ENABLE C2, C4331 | | 1 | 6K19 | * |
| CIRCUIT BREAKER – | 1 | | FLIGHT COMPARTMENT, P11 PANEL | |
| ELEC PUMP C1, C4043 | | 1 | 11K15 | * |
| ELEC PUMP C2, C4014 | | 1 | 11K24 | * |
| ELEC PUMP LEFT, C4045 | | 1 | 11K25 | * |
| ELEC PUMP RIGHT, C4044 | | 1 | 11K16 | * |
| HYDRAULICS ENG PUMP SUPPLY L, C4023 | | 1 | 11D28 | * |
| HYDRAULICS ENG PUMP SUPPLY R, C4025 | | 1 | 11D29 | * |
| HYDRAULICS QTY CENTER, C4192 | | 1 | 11K19 | * |
| HYDRAULICS QTY LEFT, C1101 | | 1 | 11K20 | * |
| HYDRAULICS QTY RIGHT, C4193 | | 1 | 11K21 | * |
| RESERVE BRAKE SOURCE, C4292 | | 1 | 11K22 | * |
| L ENG PUMP DEPRESS, C4024 | | 1 | 11K14 | * |
| R ENG PUMP DEPRESS, C4026 | | 1 | 11K23 | * |
| SYSTEM PRESS CENTER, C1082 | | 1 | 11K18 | * |
| SYSTEM PRESS LEFT, C1080 | | 1 | 11K17 | * |
| SYSTEM PRESS RIGHT, C1081 | | 1 | 11K26 | * |
| CIRCUIT BREAKER – (FIM 31-01-31/101) | | | | |
| LEFT BUS TIE, C902 | | | | |
| CIRCUIT BREAKER – (FIM 31-01-32/101) | | | | |
| RIGHT BUS TIE, C904 | | | | |
| COMPUTER – (FIM 31-41-00/101) | | | | |
| EICAS L, M10181 | | | | |
| EICAS R, M10182 | | | | |

* SEE THE WDM EQUIPMENT LIST

Main (Left,Right, and Center) Hydraulic Systems – Component Index
Figure 101 (Sheet 1)

| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | REFERENCE |
|---|---|---|---|---|
| CONNECTION - CENTER SYSTEM HYDRAULIC GROUND POWER PRESSURE | 7 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING | 29-11-00 |
| CONNECTION - CENTER SYSTEM HYDRAULIC GROUND POWER RETURN | 7 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING | 29-11-00 |
| CONNECTION - LEFT SYSTEM HYDRAULIC GROUND POWER PRESSURE | 2 | 1 | 434AL, LEFT NACELLE STRUT-AFT FAIRING | 29-11-00 |
| CONNECTION - LEFT SYSTEM HYDRAULIC GROUND POWER RETURN | 2 | 1 | 434AL, LEFT NACELLE STRUT-AFT FAIRING | 29-11-00 |
| CONNECTION - RIGHT SYSTEM HYDRAULIC GROUND POWER PRESSURE | 2 | 1 | 444AL, RIGHT NACELLE STRUT-AFT FAIRING | 29-11-00 |
| CONNECTION - RIGHT SYSTEM HYDRAULIC GROUND POWER RETURN | 2 | 1 | 444AL, RIGHT NACELLE STRUT-AFT FAIRING | 29-11-00 |
| EXCHANGER - CENTER SYSTEM HEAT | 9 | 1 | 541BB, LEFT WING | 29-11-26 |
| EXCHANGER - LEFT SYSTEM HEAT | 9 | 1 | 541BB, LEFT WING | 29-11-26 |
| EXCHANGER - RIGHT SYSTEM HEAT | 9 | 1 | 641BB, RIGHT WING | 29-11-26 |
| JACKS - CENTER HYDRAULIC SYSTEM INTERNAL LEAK TEST, YQZJ7,YQZJ8 1 | 1 | 2 | FLIGHT COMPARTMENT, P61 PANEL, GENERATOR FIELD AND HYDRAULIC CONTROL PANEL, M10191 | * |
| JACKS - LEFT HYDRAULIC SYSTEM INTERNAL LEAK TEST, YQZJ5,YQZJ6 1 | 1 | 2 | FLIGHT COMPARTMENT, P61 PANEL, GENERATOR FIELD AND HYDRAULIC CONTROL PANEL, M10191 | * |
| JACKS - RIGHT HYDRAULIC SYSTEM INTERNAL LEAK TEST, YQZJ9,YQZJ10 1 | 1 | 2 | FLIGHT COMPARTMENT, P61 PANEL, GENERATOR FIELD AND HYDRAULIC CONTROL PANEL, M10191 | * |
| MODULE - RESERVOIR PRESSURIZATION | 8 | 1 | 193HL/194ER, LEFT/RIGHT ECS ACCESS PANELS | 29-11-16 |
| MODULE - CENTER SYSTEM ACMP PRESSURE/CASE DRAIN FILTER | 7 | 2 | 197KL, AFT LEFT WING-TO-BODY FAIRING | 29-11-19 |
| MODULE - CENTER SYSTEM RETURN FILTER | 7 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING | 29-11-13 |
| MODULE - LEFT SYSTEM ACMP PRESSURE/CASE DRAIN FILTER | 4 | 1 | LEFT WHEEL WELL | 29-11-18 |
| MODULE - LEFT SYSTEM EDP PRESSURE/CASE DRAIN FILTER | 2 | 1 | 434AL, LEFT NACELLE STRUT-AFT FAIRING | 29-11-17 |
| MODULE - LEFT SYSTEM RETURN FILTER | 4 | 1 | LEFT WHEEL WELL | 29-11-15 |
| MODULE - RIGHT SYSTEM ACMP PRESSURE/CASE DRAIN FILTER | 4 | 1 | RIGHT WHEEL WELL | 29-11-18 |
| MODULE - RIGHT SYSTEM EDP PRESSURE/CASE DRAIN FILTER | 2 | 1 | 444AL, RIGHT NACELLE STRUT-AFT FAIRING | 29-11-17 |
| MODULE - RIGHT SYSTEM RETURN FILTER | 4 | 1 | RIGHT WHEEL WELL | 29-11-15 |
| PANEL - (26-21-00/101) ENGINE FIRE CONTROL, M10443 | | | | |
| PANEL - (24-22-00/101) GENERATOR FIELD & HYDRAULIC CONTROL, M10191 | | | | |
| PANEL - HYDRAULIC CONTROL, M10050 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL | 29-11-00 |
| PUMP (ACMP) - CENTER SYSTEM ALTERNATING CURRENT MOTOR C1, M10029 | 7 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING | 29-11-02 |
| PUMP (ACMP) - CENTER SYSTEM ALTERNATING CURRENT MOTOR C2, M10030 | 7 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING | 29-11-02 |
| PUMP (ACMP) - LEFT SYSTEM ALTERNATING CURRENT MOTOR, M231 | 4 | 1 | LEFT WHEEL WELL | 29-11-01 |
| PUMP (ACMP) - RIGHT SYSTEM ALTERNATING CURRENT MOTOR, M234 | 4 | 1 | RIGHT WHEEL WELL | 29-11-01 |
| PUMP (EDP) - LEFT SYSTEM ENGINE DRIVEN | 2 | 1 | 413AL/414AR, LEFT ENGINE | 29-11-05 |
| PUMP (EDP) - RIGHT SYSTEM ENGINE DRIVEN | 2 | 1 | 423AL/424AR, RIGHT ENGINE | 29-11-05 |

* SEE THE WDM EQUIPMENT LIST

Main (Left,Right, and Center) Hydraulic Systems - Component Index
Figure 101 (Sheet 2)

| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | REFERENCE |
|---|---|---|---|---|
| RELAY - (31-01-31/101)<br>LEFT AUTO LAND, K526<br>RELAY - (31-01-32/101)<br>RIGHT AUTO LAND, K527<br>RELAY - (31-01-33/101)<br>LEFT SYSTEM ACMP CONTROL, K10253<br>RELAYS - (31-01-36/101)<br>CENTER SYSTEM ACMP C1 CONTROL, K10404<br>CENTER SYSTEM ACMP C1 ENABLE, K10526<br>CENTER SYSTEM ACMP C2 CONTROL, K128<br>CENTER SYSTEM ACMP C2 ENABLE, K10527<br>RIGHT SYSTEM ACMP CONT, K10255<br>RIGHT SYSTEM ACMP ENABLE, K10525<br>RELAY - (31-01-37/101)<br>RESERVE BRAKE CONTROL, K10426 | | | | |
| RESERVOIR - CENTER SYSTEM HYDRAULIC | 7 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING | 29-11-21 |
| RESERVOIR - LEFT SYSTEM HYDRAULIC | 5 | 1 | LEFT WHEEL WELL | 29-11-20 |
| RESERVOIR - RIGHT SYSTEM HYDRAULIC | 5 | 1 | RIGHT WHEEL WELL | 29-11-20 |
| SWITCH - RESERVE BRAKES, S10390 | 1 | 1 | FLIGHT COMPARTMENT, P1 PANEL | * |
| SWITCHES - (26-21-00/101)<br>LEFT ENGINE FIRE, YQNS37<br>RIGHT ENGINE FIRE, YQNS38 | | | | |
| SWITCH/LIGHT - CENTER SYSTEM ACMP C1, YQTS2 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| SWITCH/LIGHT - CENTER SYSTEM ACMP C2, YQTS3 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| SWITCH/LIGHT - LEFT SYSTEM ACMP, YQTS5 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| SWITCH/LIGHT - LEFT SYSTEM EDP, YQTS1 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| SWITCH/LIGHT - RIGHT SYSTEM ACMP, YQTS6 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| SWITCH/LIGHT - RIGHT SYSTEM EDP, YQTS4 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| TIME DELAY - (31-01-33/101)<br>LEFT SYSTEM ACMP, M499 | | | | |
| TIME DELAYS - (31-01-36/101)<br>CENTER SYSTEM ACMP C1 ON, M10482<br>CENTER SYSTEM ACMP C2 ON, M10020<br>RIGHT SYSTEM ACMP, M500 | | | | |
| TRANSFORMERS - (31-01-31/101)<br>CENTER SYSTEM HYDRAULIC LEAK DETECTION CURRENT, T157 1<br>RIGHT SYSTEM HYDRAULIC LEAK DETECTION CURRENT, T155 1 | | | | |
| TRANSFORMER - (31-01-32/101)<br>LEFT SYSTEM HYDRAULIC LEAK DETECTION CURRENT, T156 1 | | | | |

* SEE THE WDM EQUIPMENT LIST

Main (Left,Right, and Center) Hydraulic Systems - Component Index
Figure 101 (Sheet 3)

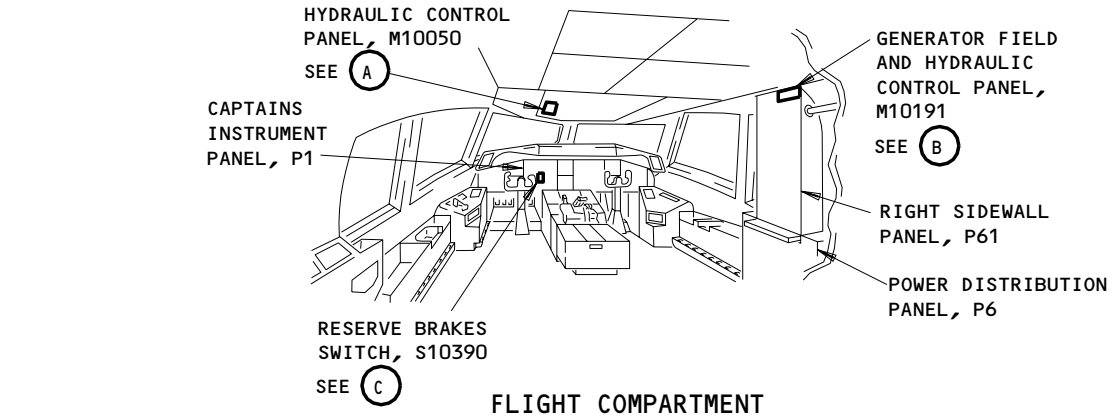


A71371

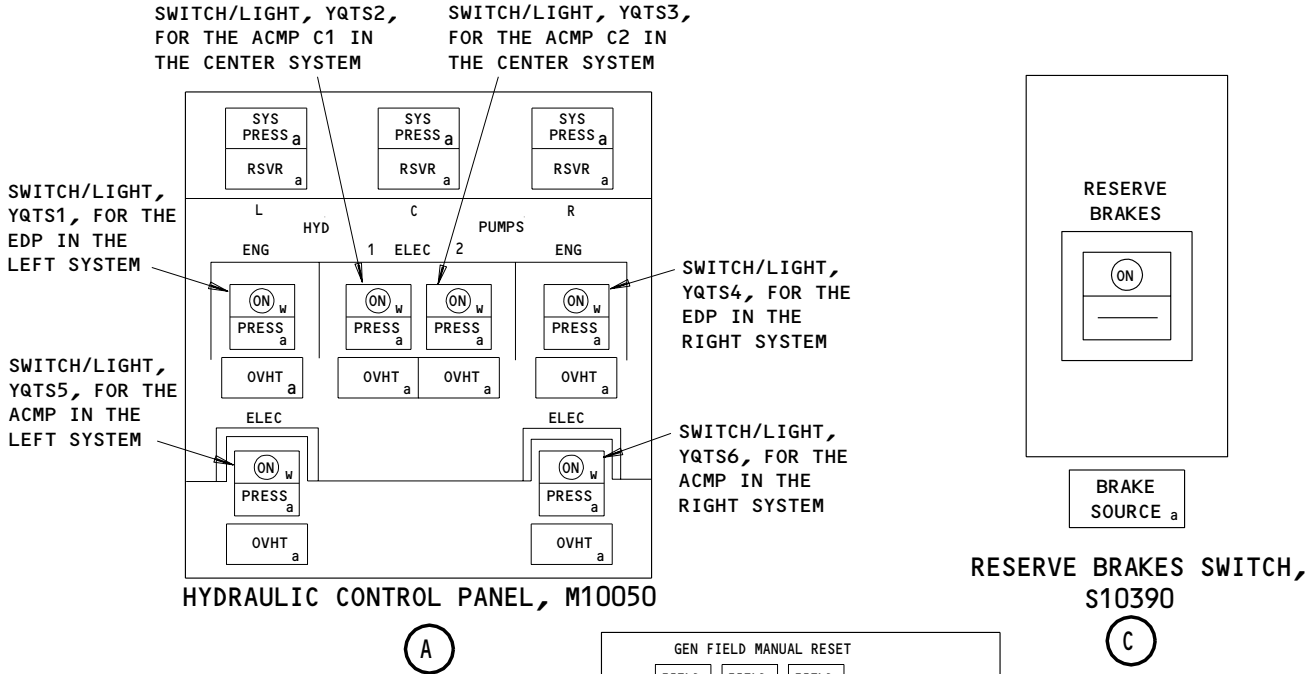
| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | REFERENCE |
|---|---|---|---|---|
| UNITS - (31-01-31/101)<br>CENTER SYSTEM ACMP C1 ELECTRICAL LOAD CONTROL, M10006<br>RIGHT SYSTEM ACMP ELECTRICAL LOAD CONTROL, M10005<br>UNITS - (31-01-32/101)<br>CENTER SYSTEM ACMP C2 ELECTRICAL LOAD CONTROL, M10022<br>LEFT SYSTEM ACMP ELECTRICAL LOAD CONTROL, M10001 | | | | |
| VALVE - CENTER SYSTEM RESERVOIR DRAIN | 7 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING | 29-11-22 |
| VALVE - CENTER SYSTEM RESERVOIR PRESSURE RELIEF | 7 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING | 29-11-24 |
| VALVE - CENTER SYSTEM RESERVOIR MANUAL DEPRESSURIZATION | 7 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING | 29-11-25 |
| VALVE - CENTER SYSTEM RESERVOIR SAMPLING | 7 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING | 29-11-23 |
| VALVE - LEFT SYSTEM EDP SUPPLY SHUTOFF, V10005 | 2 | 1 | 434AL, LEFT NACELLE STRUT-AFT FAIRING, | 29-11-06 |
| VALVE - LEFT SYSTEM PRESSURE RELIEF | 6 | 1 | LEFT WHEEL WELL | 29-11-29 |
| VALVE - LEFT SYSTEM RESERVOIR DRAIN | 6 | 1 | LEFT WHEEL WELL | 29-11-22 |
| VALVE - LEFT SYSTEM RESERVOIR MANUAL DEPRESSURIZATION | 6 | 1 | RIGHT WHEEL WELL | 29-11-25 |
| VALVE - LEFT SYSTEM RESERVOIR PRESSURE RELIEF | 6 | 1 | LEFT WHEEL WELL | 29-11-24 |
| VALVE - LEFT SYSTEM RESERVOIR SAMPLING | 6 | 1 | LEFT WHEEL WELL | 29-11-23 |
| VALVE - RIGHT SYSTEM EDP SUPPLY SHUTOFF, V10006 | 2 | 1 | 444AL, RIGHT NACELLE STRUT-AFT FAIRING | 29-11-06 |
| VALVE - RIGHT SYSTEM ISOLATED ACMP PRESSURE SHUTOFF, V10118 | 4 | 1 | RIGHT WHEEL WELL | 29-11-28 |
| VALVE - RIGHT SYSTEM ISOLATED ACMP SUPPLY SHUTOFF, V10117 | 5 | 1 | RIGHT WHEEL WELL | 29-11-27 |
| VALVE - RIGHT SYSTEM PRESSURE RELIEF | 6 | 1 | RIGHT WHEEL WELL | 29-11-29 |
| VALVE - RIGHT SYSTEM RESERVOIR DRAIN | 6 | 1 | RIGHT WHEEL WELL | 29-11-22 |
| VALVE - RIGHT SYSTEM RESERVOIR MANUAL DEPRESSURIZATION | 6 | 1 | LEFT WHEEL WELL | 29-11-25 |
| VALVE - RIGHT SYSTEM RESERVOIR PRESSURE RELIEF | 6 | 1 | RIGHT WHEEL WELL | 29-11-24 |
| VALVE - RIGHT SYSTEM RESERVOIR SAMPLING | 6 | 1 | RIGHT WHEEL WELL | 29-11-23 |

1 GUI 115

Main (Left,Right, and Center) Hydraulic Systems - Component Index
Figure 101 (Sheet 4)




FLIGHT COMPARTMENT

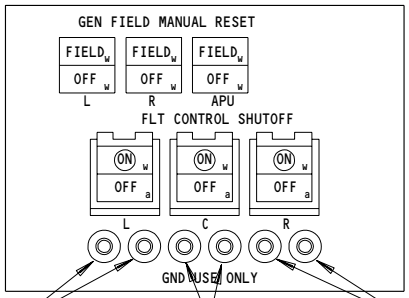



HYDRAULIC CONTROL PANEL, M10050

A

RESERVE BRAKES SWITCH, S10390

C




JACKS, YQZJ5 AND YQZJ6, FOR THE INTERNAL LEAK TEST OF THE LEFT SYSTEM 1

JACKS, YQZJ7 AND YQZJ8, FOR THE INTERNAL LEAK TEST OF THE CENTER SYSTEM 1

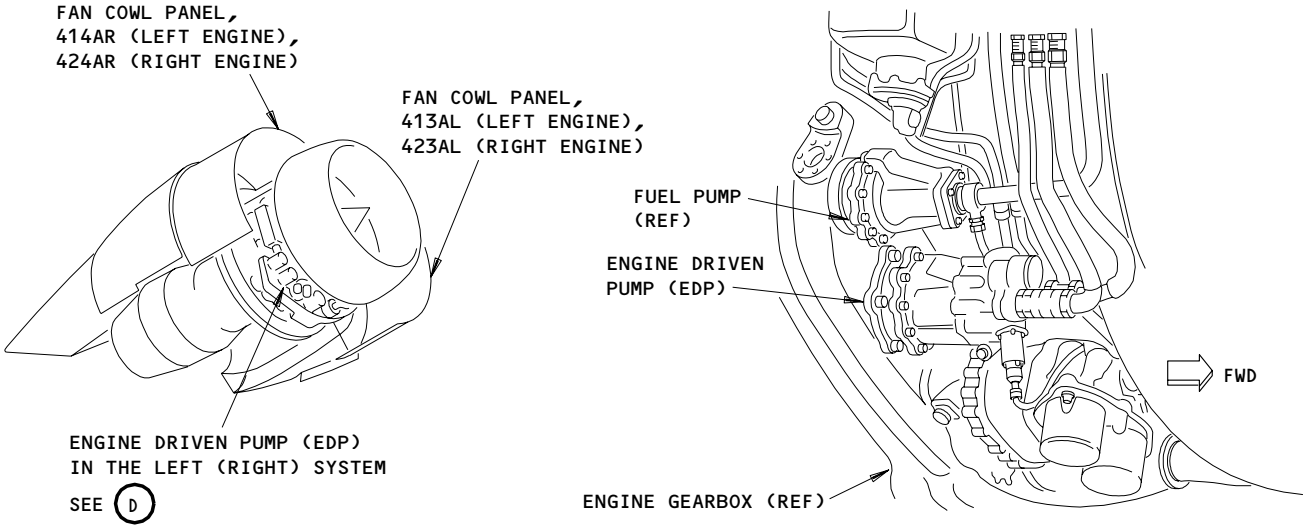
JACKS, YQZJ9 AND YQZJ10, FOR THE INTERNAL LEAK TEST OF THE RIGHT SYSTEM 1

GENERATOR FIELD AND HYDRAULIC CONTROL PANEL, M10191(REF)

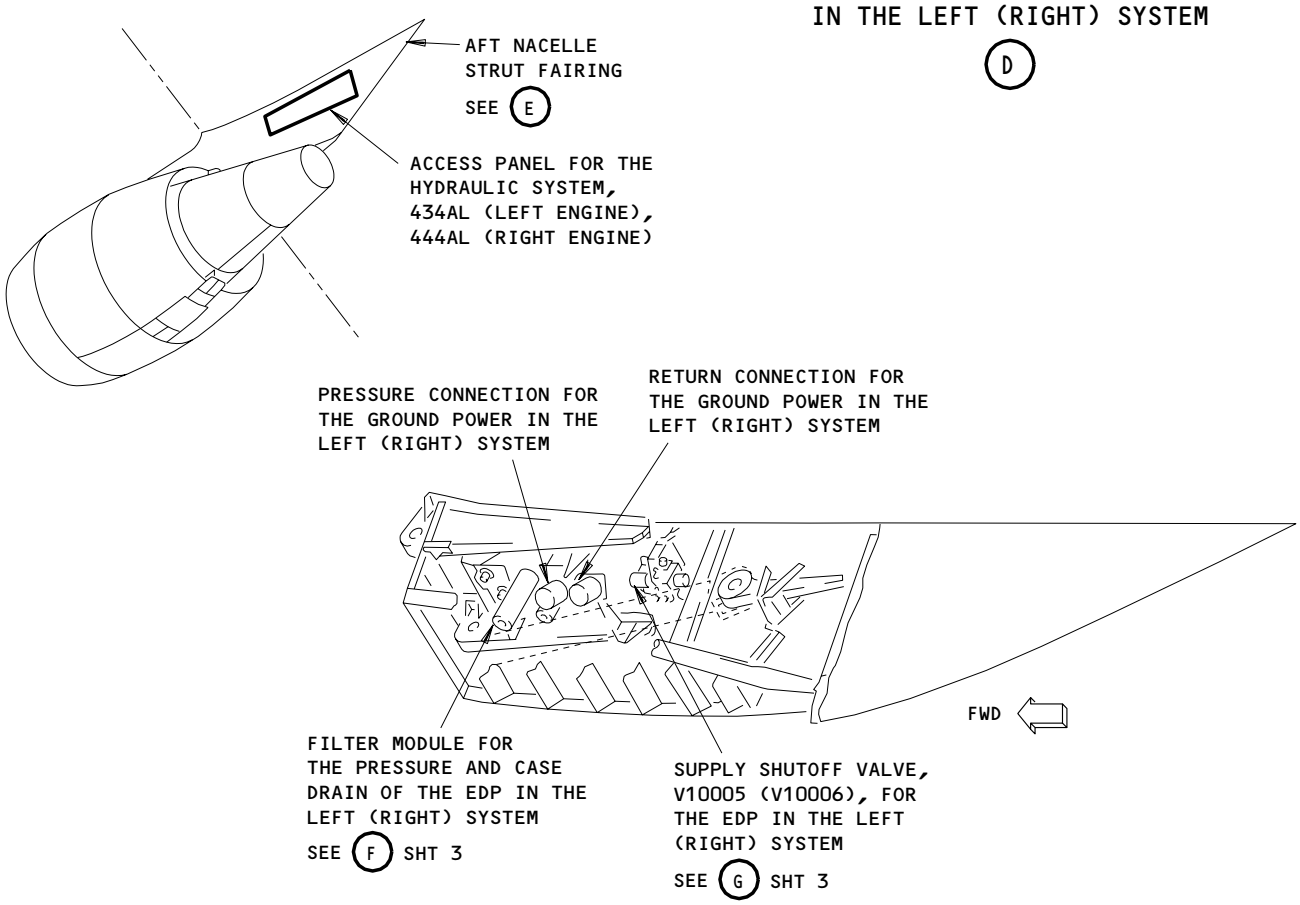
B

1 GUI 115

Main (Left, Right, and Center) Hydraulic Systems - Component Location
Figure 102 (Sheet 1)

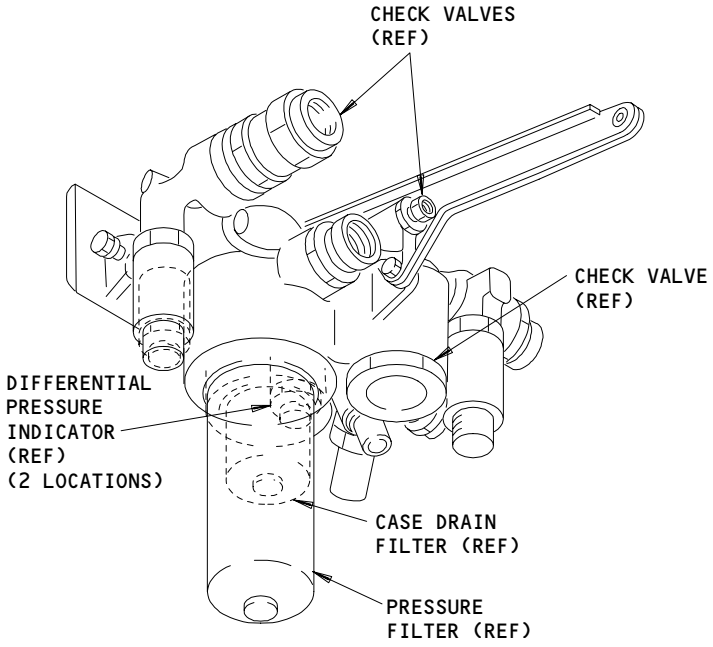



ENGINE DRIVEN PUMP (EDP)
IN THE LEFT (RIGHT) SYSTEM
D



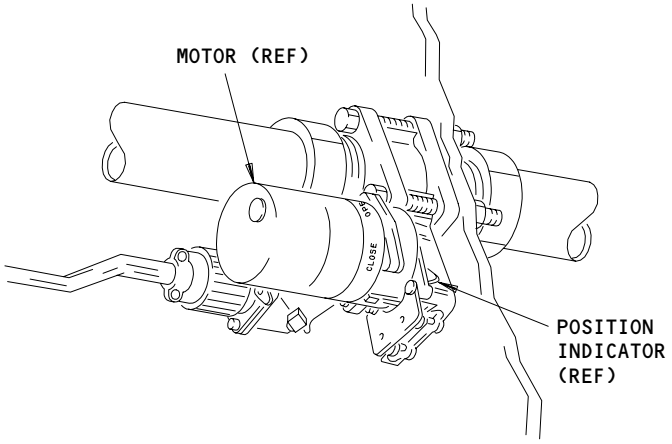

AFT NACELLE STRUT FAIRING (EXAMPLE)
E

Main (Left, Right, and Center) Hydraulic Systems - Component Location
Figure 102 (Sheet 2)




FILTER MODULE FOR THE PRESSURE AND CASE
DRAIN OF THE EDP IN THE LEFT (RIGHT) SYSTEM

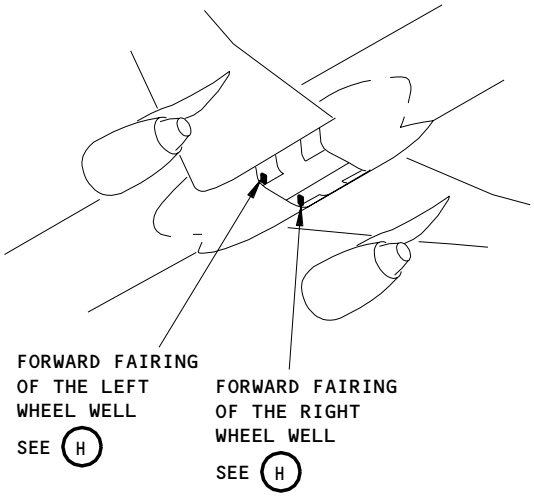
F

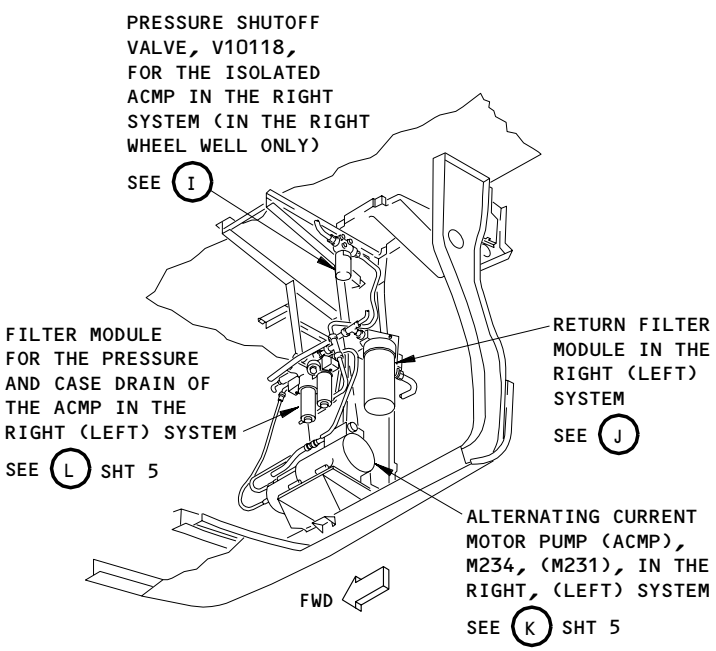



SUPPLY SHUTOFF VALVE, V10005 (V10006),
FOR THE EDP IN THE LEFT (RIGHT) SYSTEM

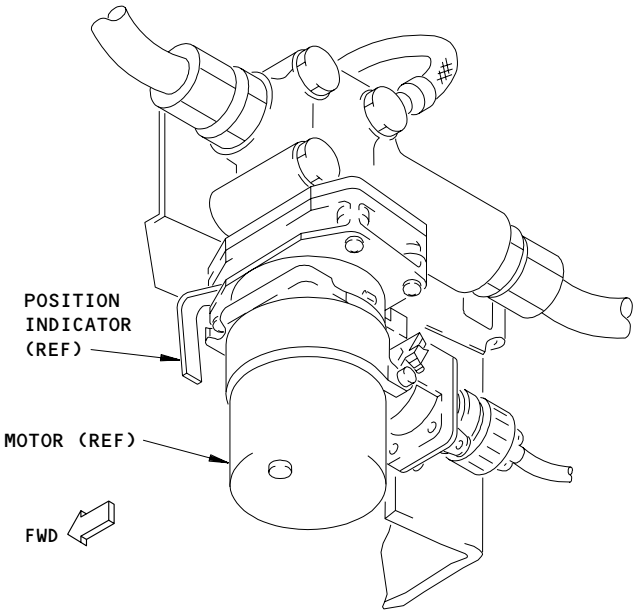
G

Main (Left, Right, and Center) Hydraulic Systems - Component Location
(Details from Sht 2)
Figure 102 (Sheet 3)

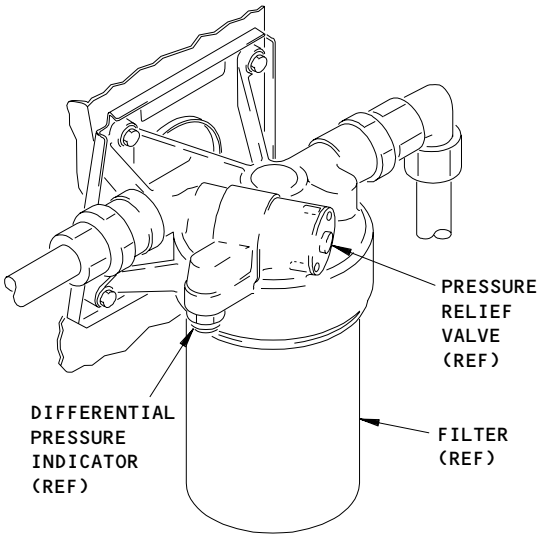



FORWARD FAIRING OF THE RIGHT WHEEL WELL
(THE FORWARD FAIRING OF THE LEFT WHEEL WELL IS OPPOSITE)
H

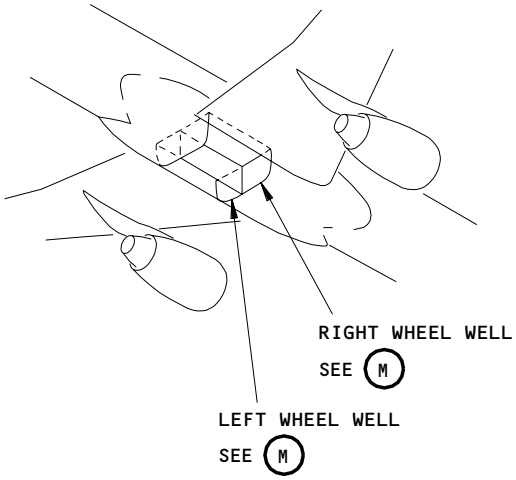


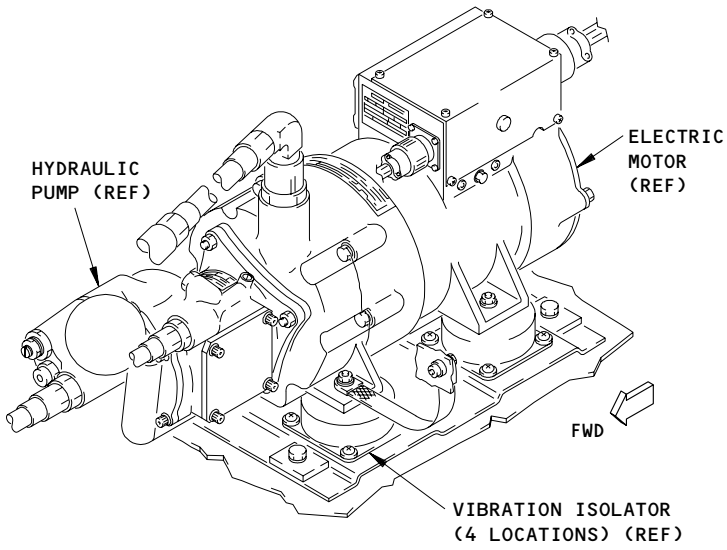

PRESSURE SHUTOFF VALVE, V10118, FOR THE ISOLATED ACMP IN THE RIGHT SYSTEM
I



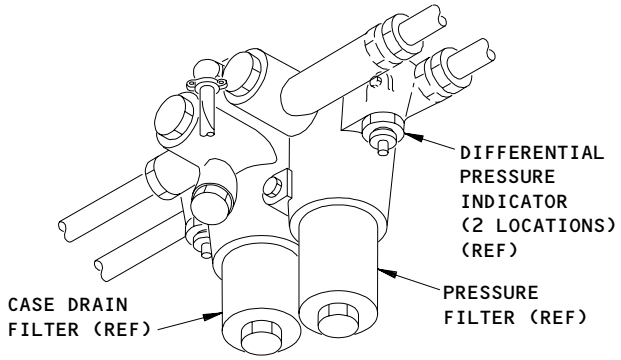

RETURN FILTER MODULE FOR THE RIGHT (LEFT) SYSTEM
J

Main (Left, Right, and Center) Hydraulic Systems – Component Location
Figure 102 (Sheet 4)



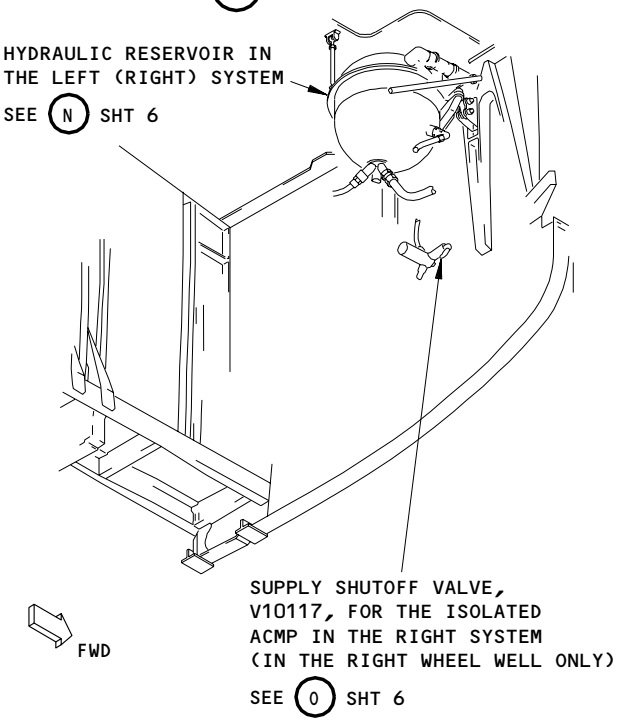

ALTERNATING CURRENT MOTOR PUMP (ACMP),
M231 (M234), IN THE LEFT (RIGHT) SYSTEM
(EXAMPLE)




FILTER MODULE FOR THE PRESSURE AND
CASE DRAIN OF THE ACMP IN THE
LEFT (RIGHT) SYSTEM

L FROM SHT 4

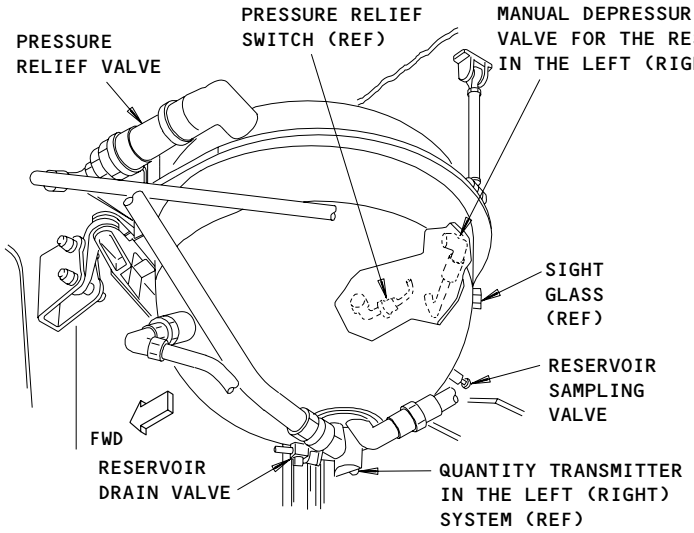
K FROM SHT 4




RIGHT WHEEL WELL
(THE LEFT WHEEL WELL IS OPPOSITE)

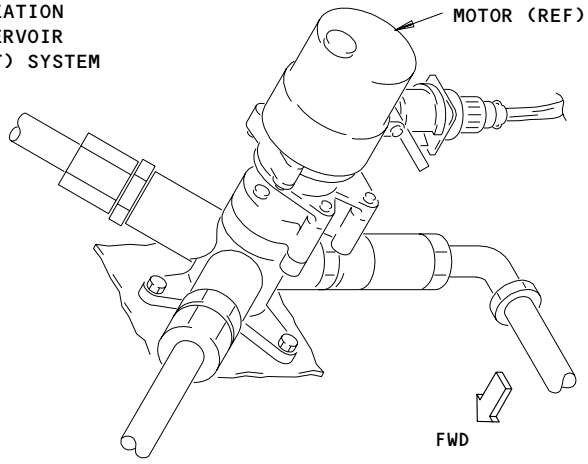
M

Main (Left, Right, and Center) Hydraulic Systems – Component Location
Figure 102 (Sheet 5)



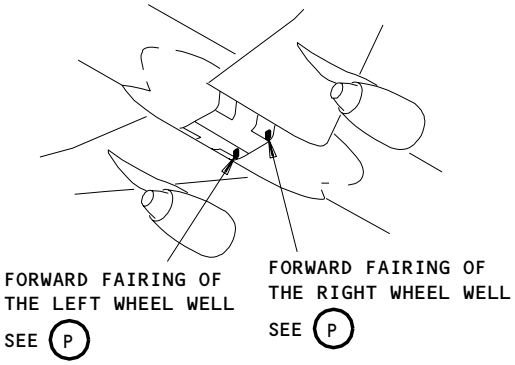

HYDRAULIC RESERVOIR IN THE LEFT (RIGHT) SYSTEM

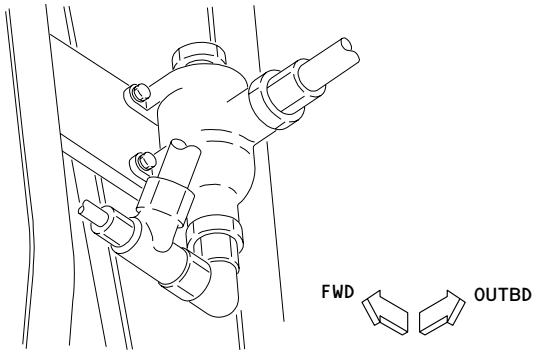
N FROM SHT 5




SUPPLY SHUTOFF VALVE, V10117, FOR THE ISOLATED ACMP IN THE RIGHT SYSTEM

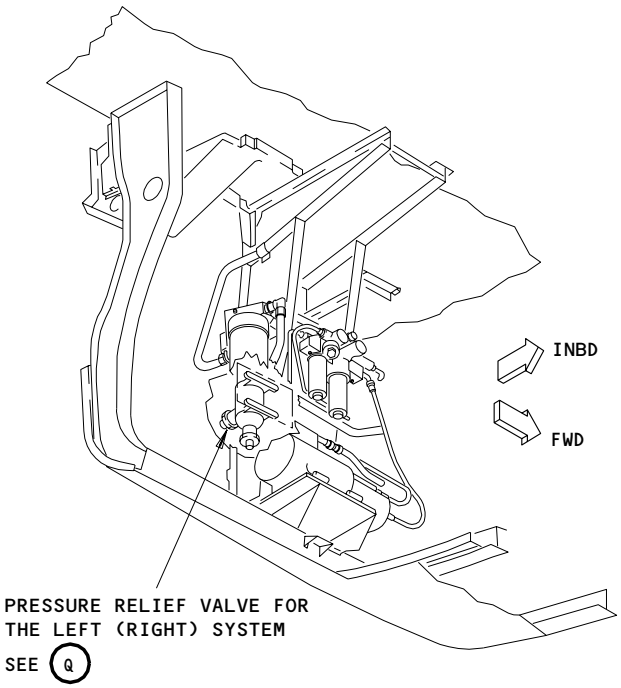
O FROM SHT 5




PRESSURE RELIEF VALVE FOR THE LEFT (RIGHT) SYSTEM

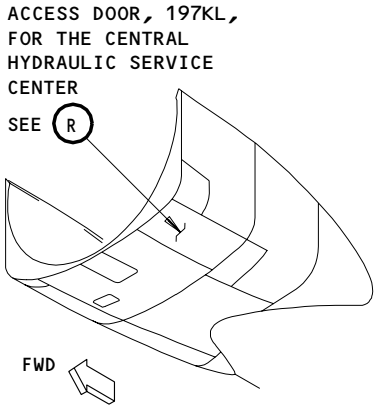
Q



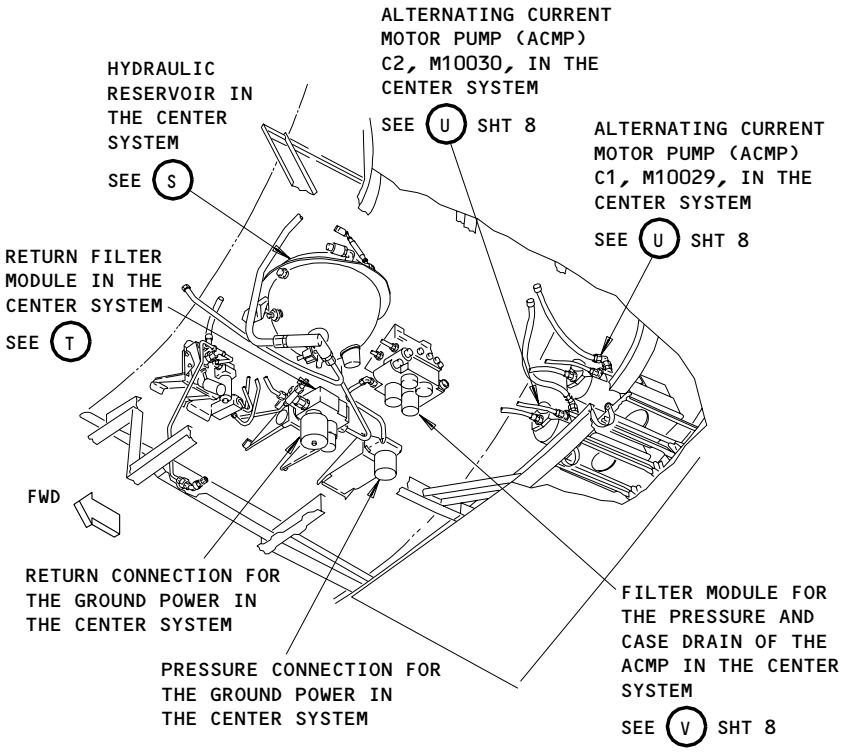

FORWARD FAIRING OF THE LEFT WHEEL WELL (THE FORWARD FAIRING OF THE RIGHT WHEEL WELL IS OPPOSITE)

P

Main (Left, Right, and Center) Hydraulic Systems – Component Location
Figure 102 (Sheet 6)

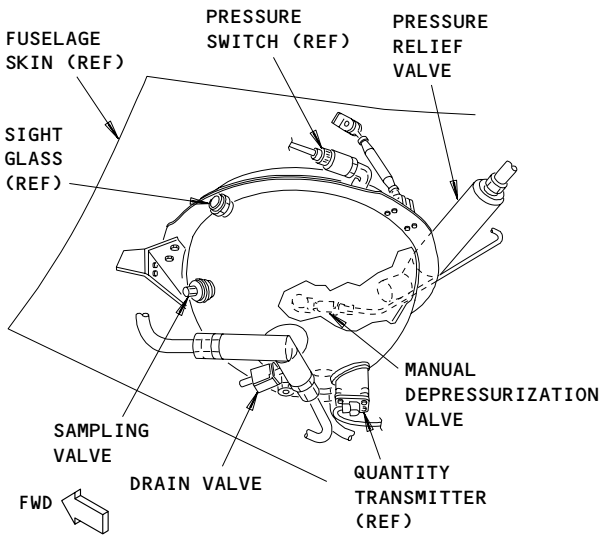



AFT LEFT WING-TO-BODY FAIRING



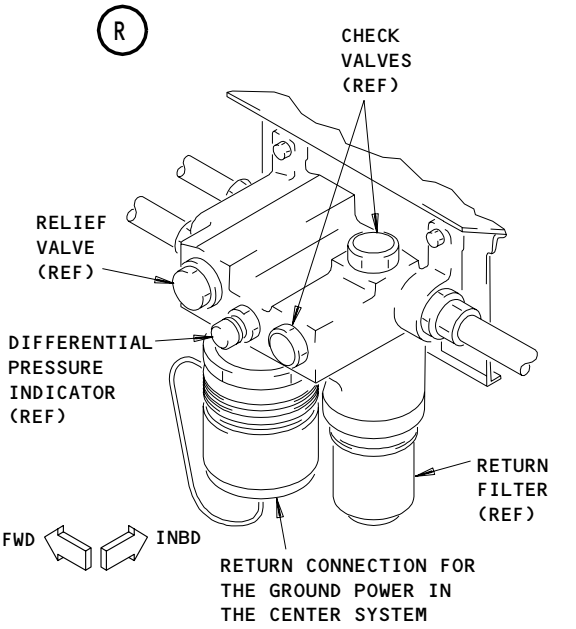

CENTRAL HYDRAULIC SERVICE CENTER

R




HYDRAULIC RESERVOIR IN THE CENTER SYSTEM

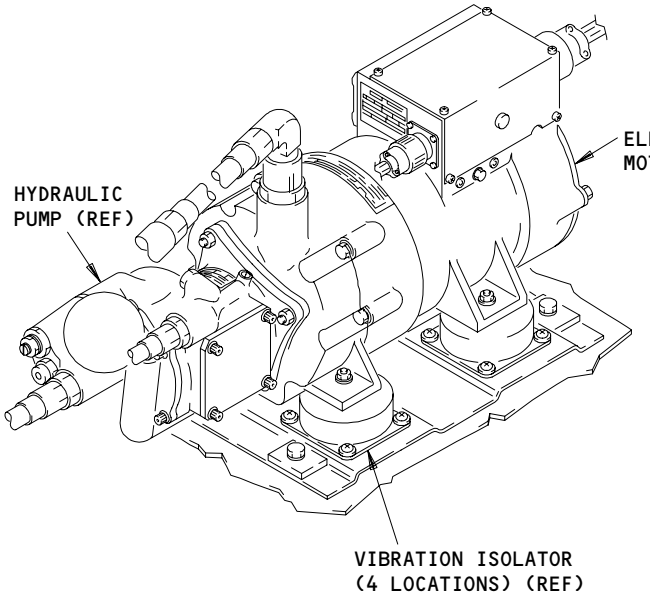
S




RETURN FILTER MODULE IN THE CENTER SYSTEM

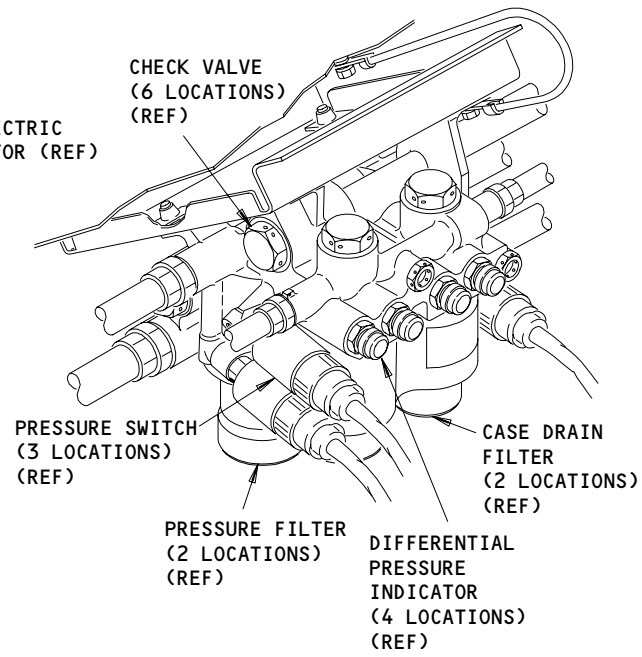
T

Main (Left, Right, and Center) Hydraulic Systems - Component Location
Figure 102 (Sheet 7)



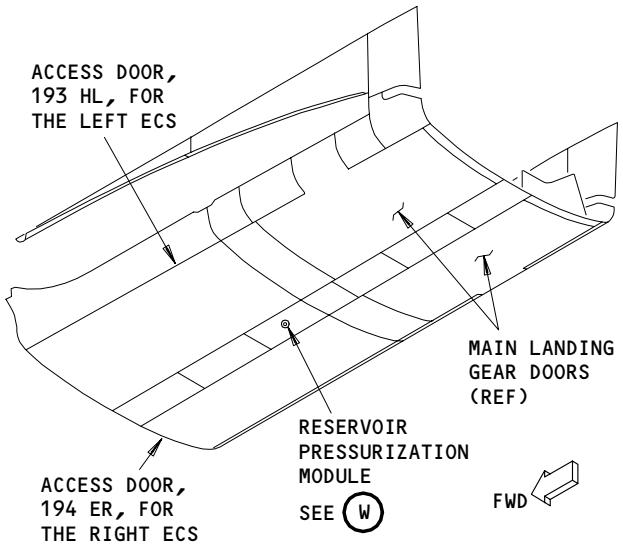

ALTERNATING CURRENT MOTOR
PUMP (ACMP) C1, M10029 OR C2, M10030,
IN THE CENTER SYSTEM

(U) FROM SHT 7

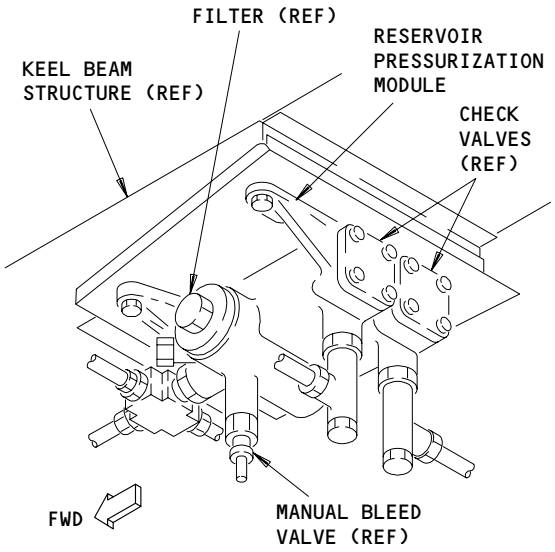



FILTER MODULE FOR THE PRESSURE AND CASE
DRAIN OF THE ACMP IN THE CENTER SYSTEM

(V) FROM SHT 7



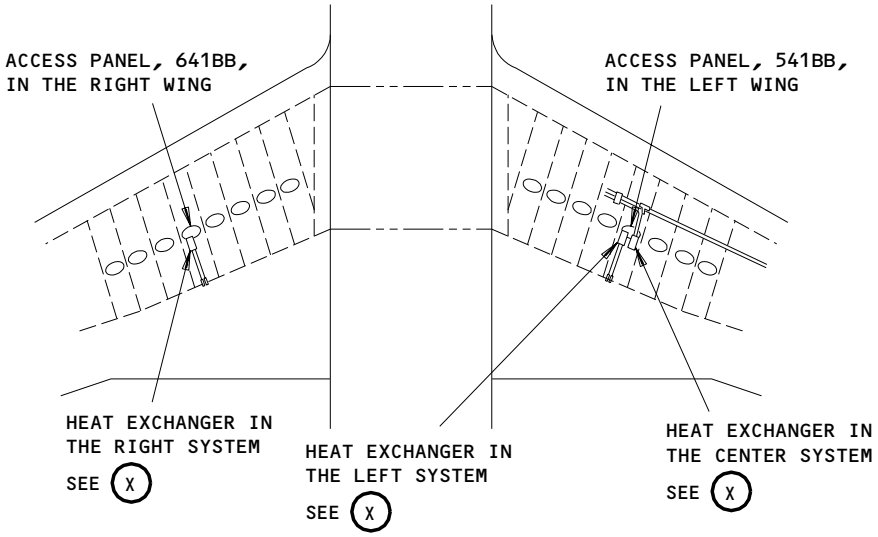

WING-TO-BODY FAIRING



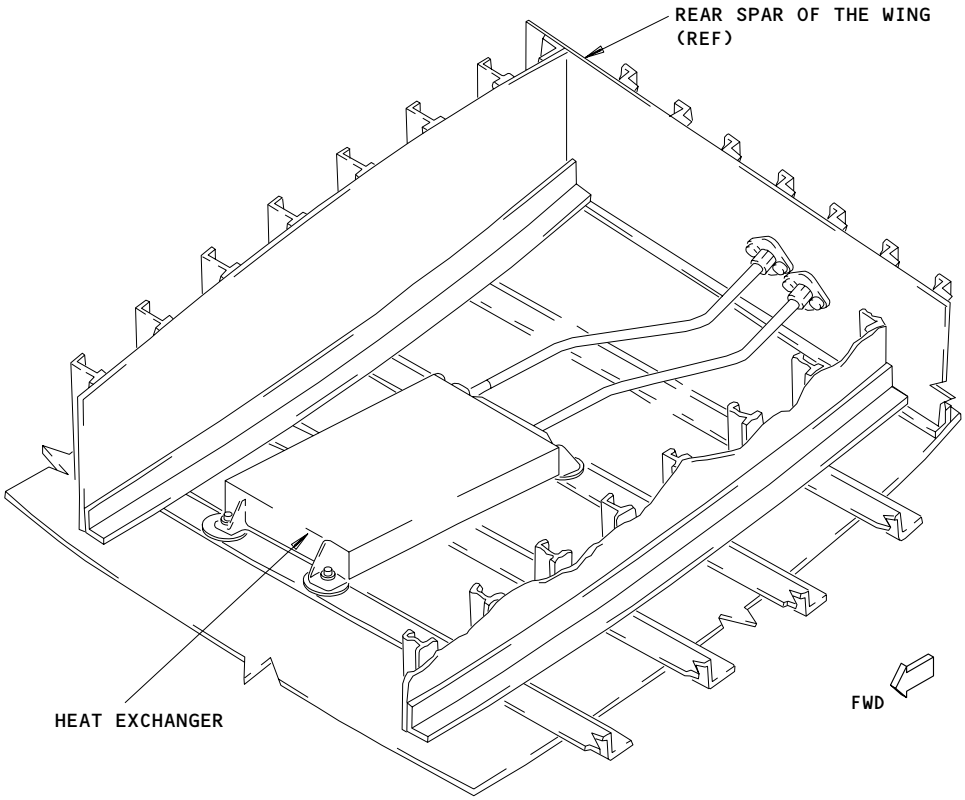

RESERVOIR PRESSURIZATION MODULE

(W)

Main (Left, Right, and Center) Hydraulic Systems - Component Location
Figure 102 (Sheet 8)




WING – BOTTOM VIEW




HEAT EXCHANGER (EXAMPLE)
(THE TOP SKIN OF THE WING IS NOT SHOWN)
(X)

Main (Left, Right, and Center) Hydraulic Systems – Component Location
Figure 102 (Sheet 9)

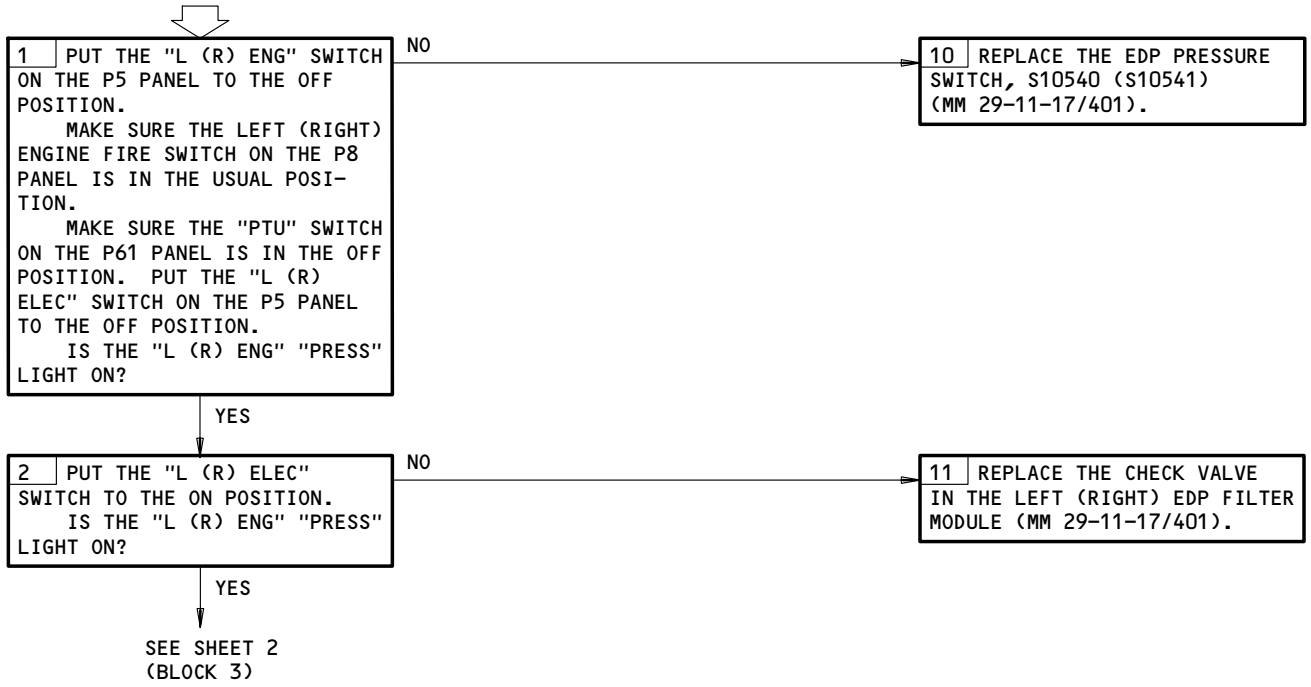
Not Used
Figure 103

## LEFT/RIGHT EDP FAILED TO DEPRESSURIZE

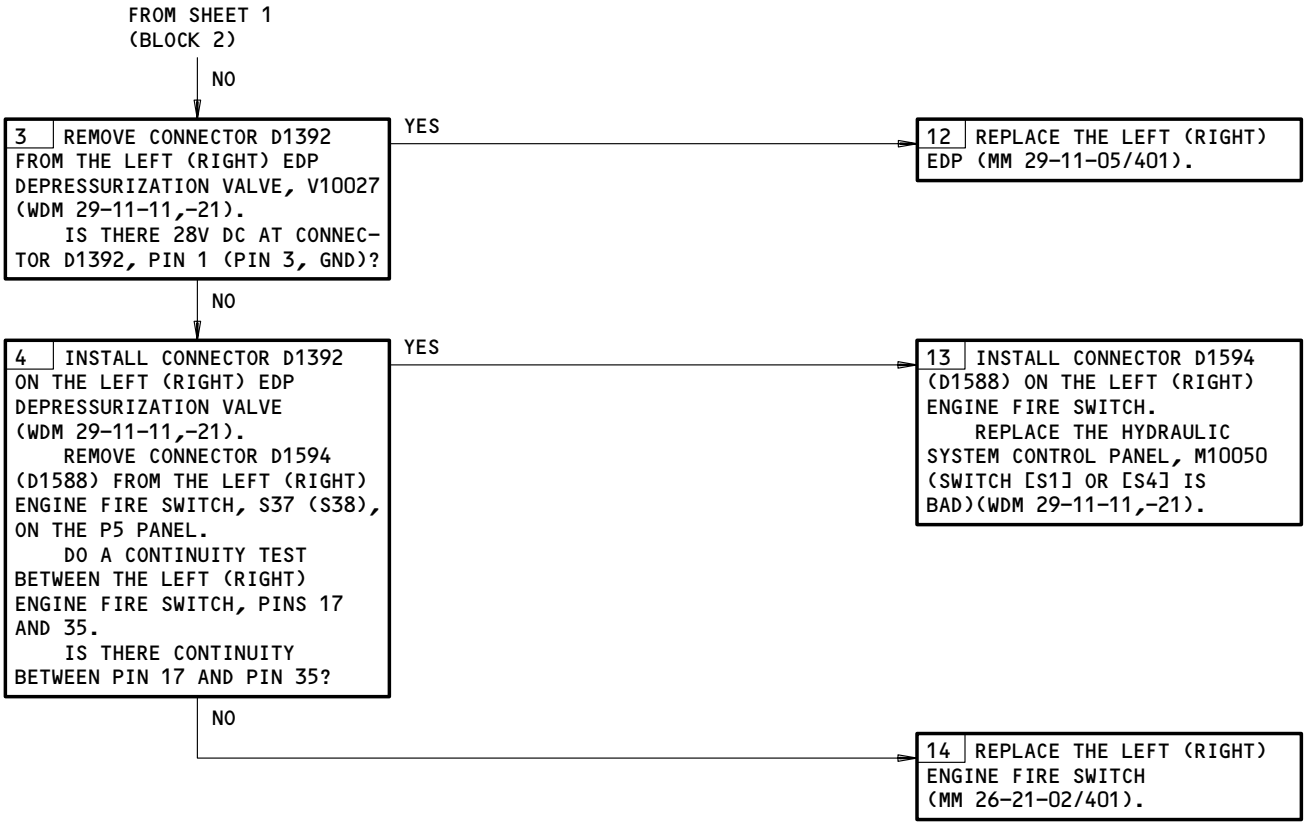
**PREREQUISITES**

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
6K14,11K14,11K16,11K23,11K25

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (MM 24-22-00/201)
THE TWO ENGINES ARE OFF (MM 71-00-00/201)




Left/Right EDP Failed to Depressurize
Figure 104 (Sheet 1)



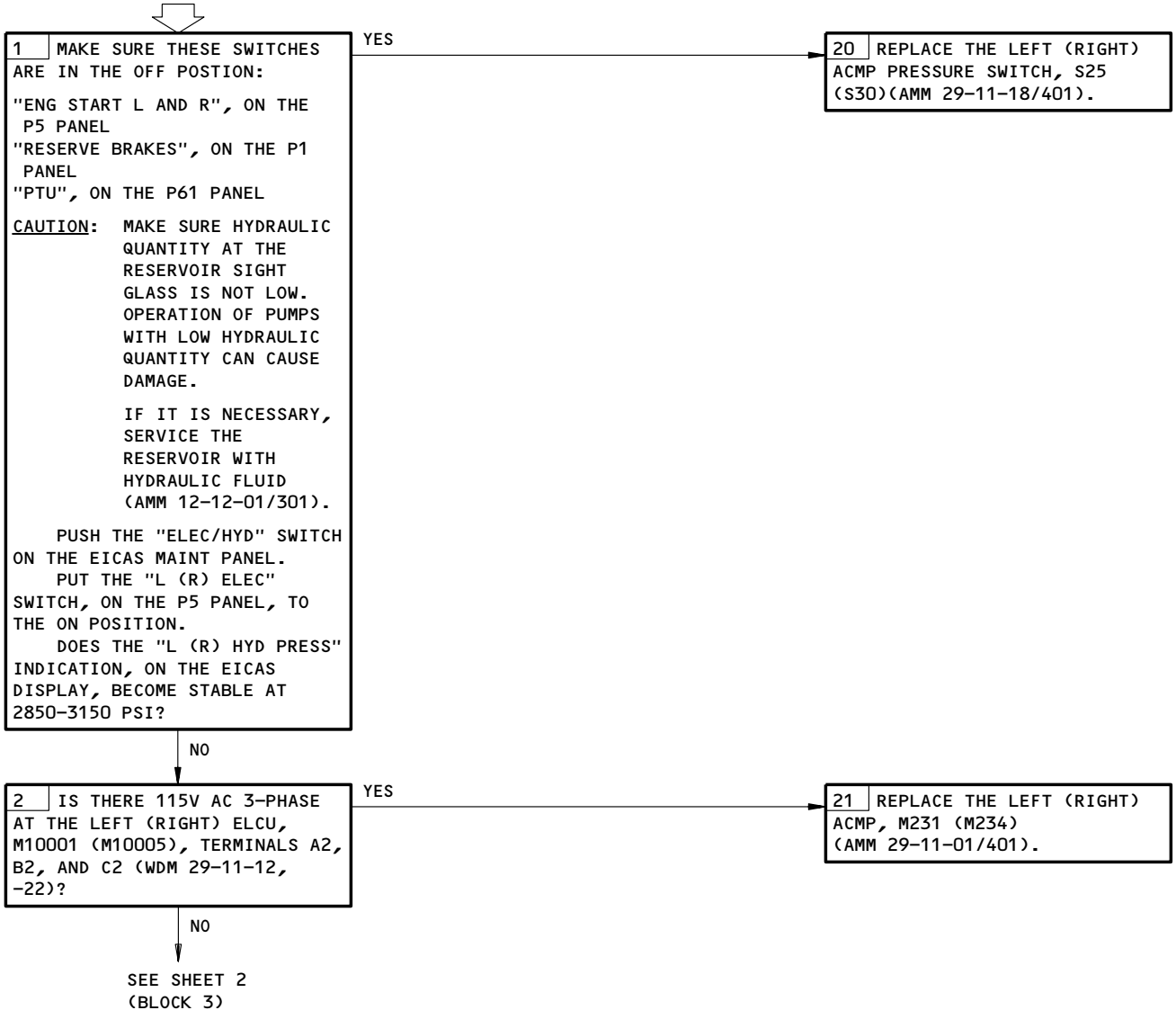

Left/Right EDP Failed to Depressurize
Figure 104 (Sheet 2)

## LEFT/RIGHT ACMP LOW PRESSURE LIGHT ILLUMINATED WITH ACMP ON

**PREREQUISITES**

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
6K14, 11K16, 11K17, 11K25, 11K26

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
THE TWO ENGINES ARE OFF (AMM 71-00-00/201)

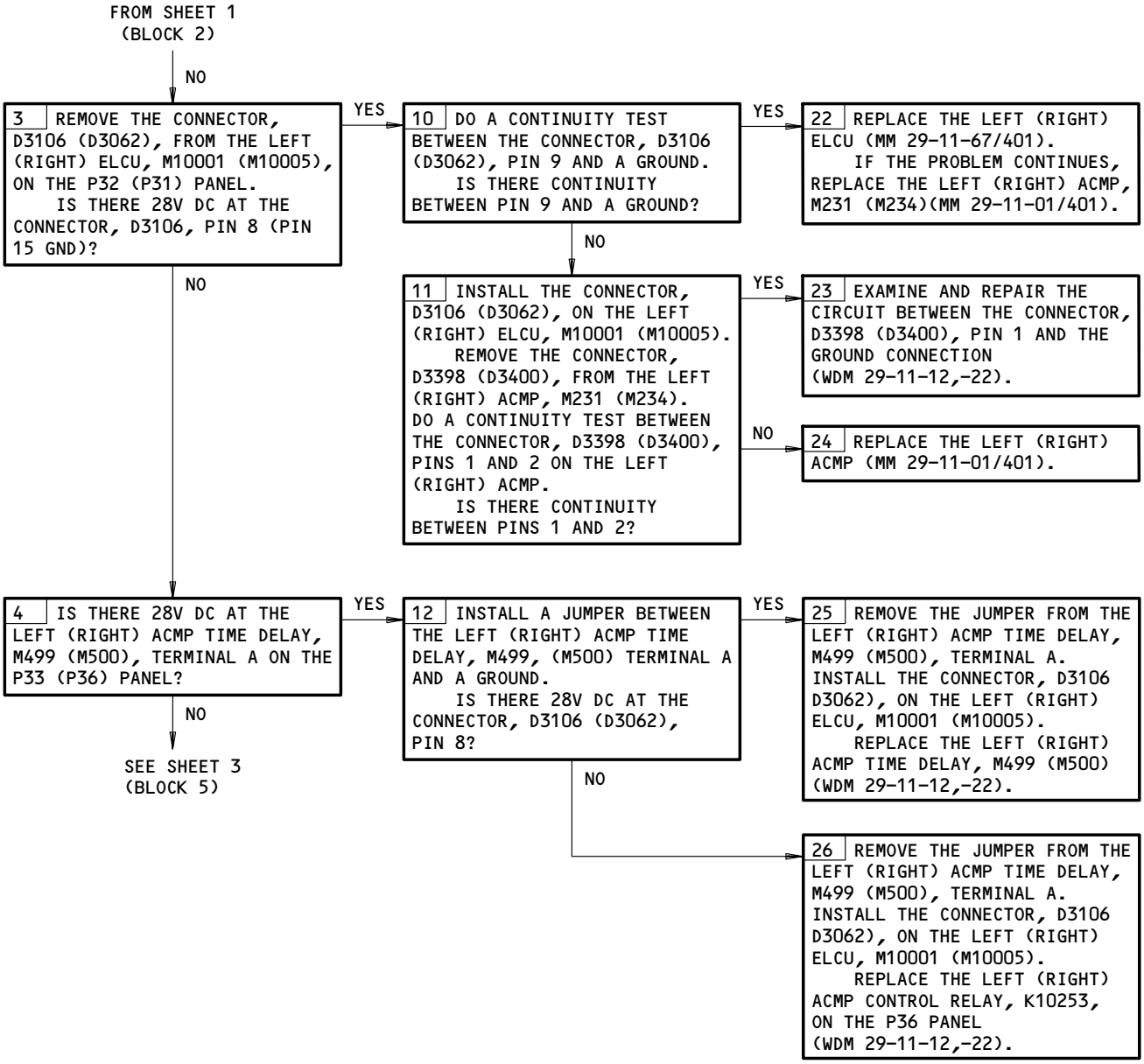



Left/Right ACMP Low Pressure Light Illuminated with ACMP On
Figure 105 (Sheet 1)

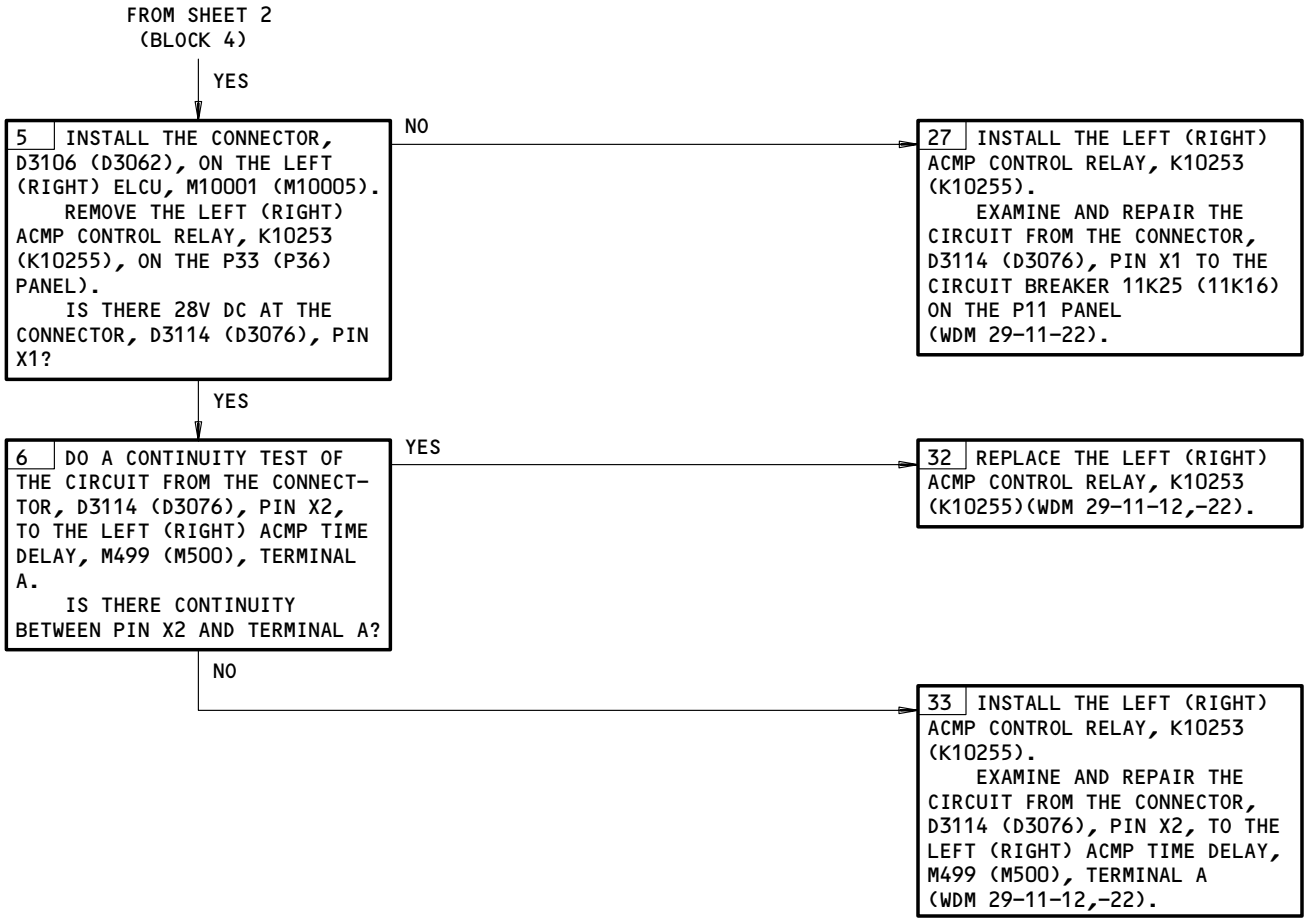




117435




Left/Right ACMP Low Pressure Light Illuminated with ACMP On
Figure 105 (Sheet 2)




Left/Right ACMP Low Pressure Light Illuminated with ACMP On
Figure 105 (Sheet 3)

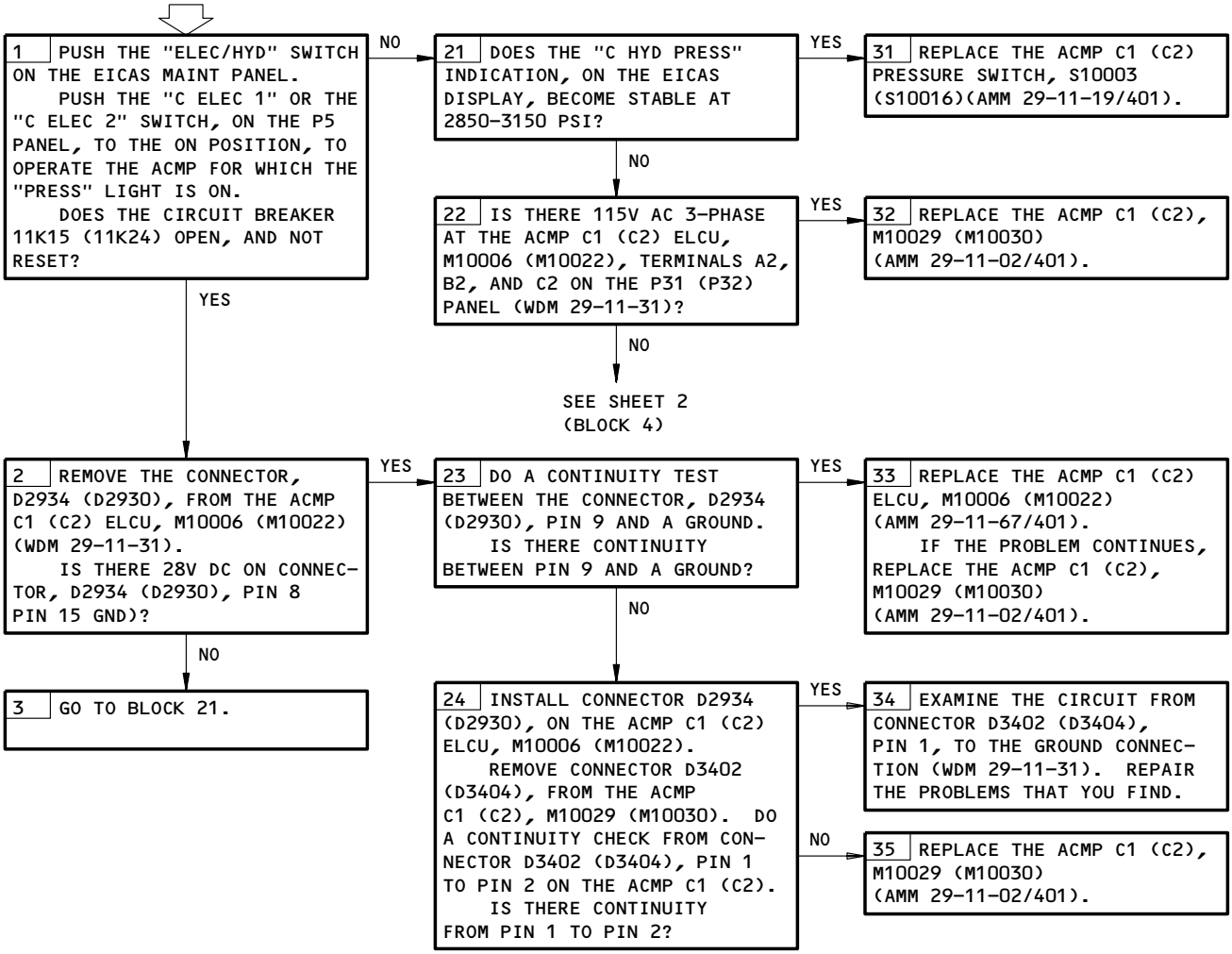
**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (AMM 31-41-00/201)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
6K13, 6K19, 11K15, 11K24, 11K18

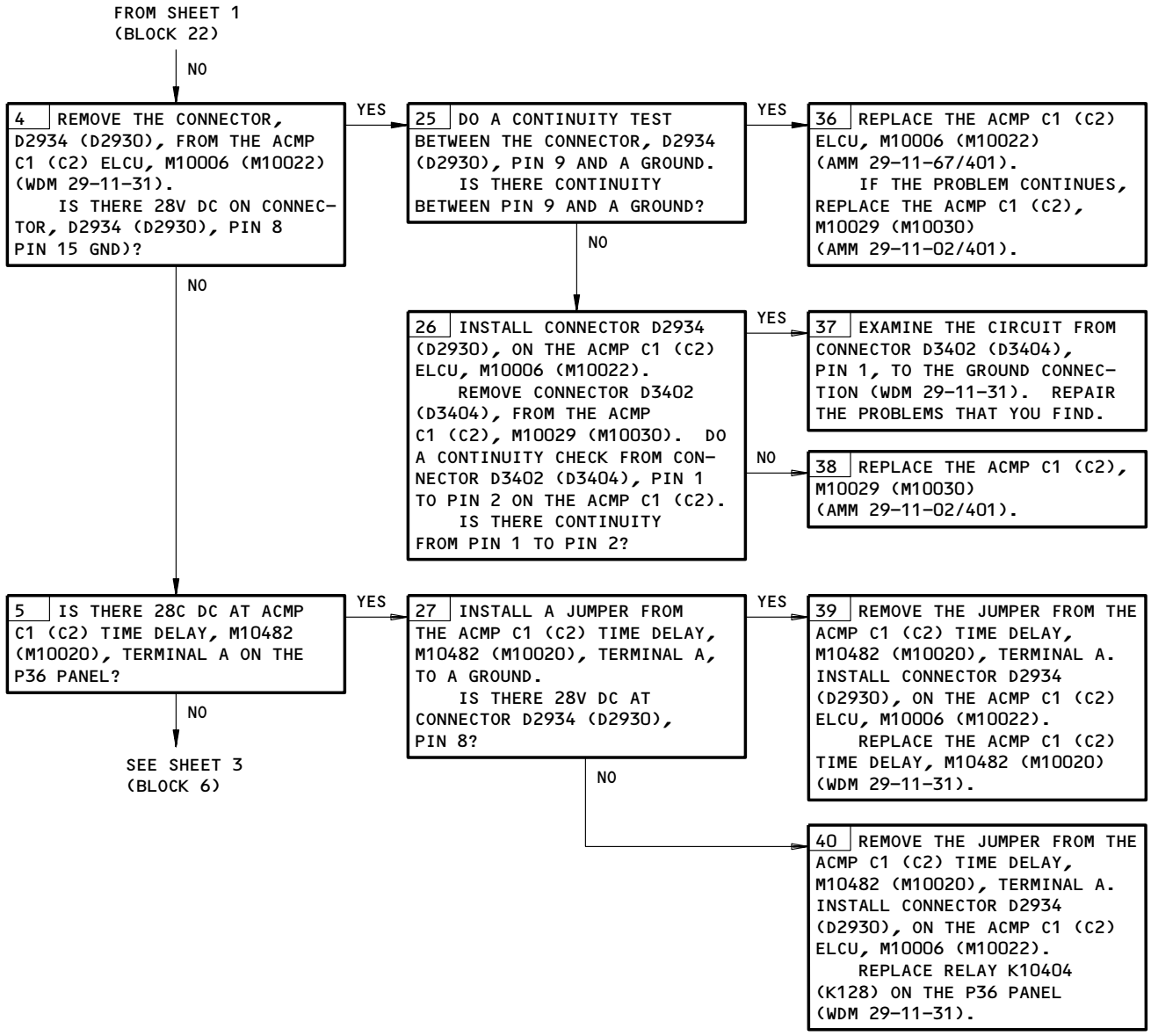
MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)

**CENTER ACMP LOW PRESSURE LIGHT ILLUMINATED** 1

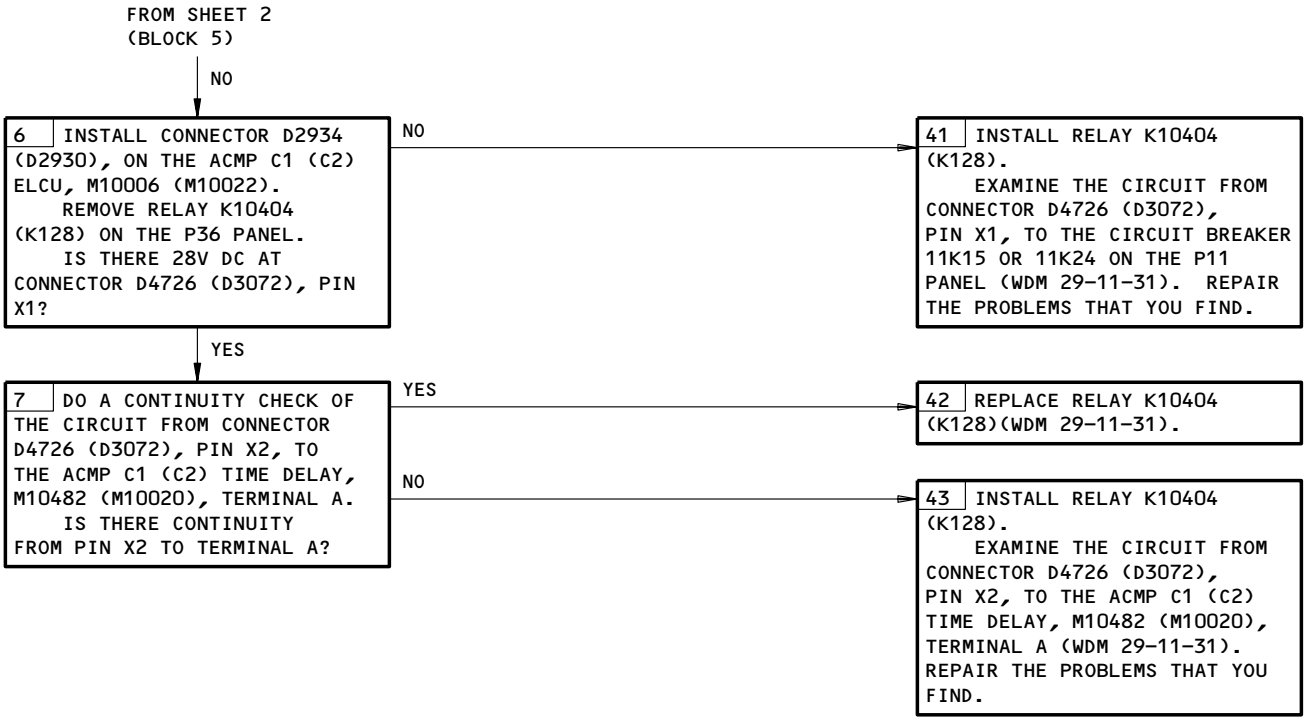



1 IF CENTER ACMP 1 LOW PRESSURE LIGHT ILLUMINATED ON DESCENT AT 1500 FT. R.A, WHEN DOING AN AUTOLAND APPROACH, AND ACMP 1 OPERATION IS OTHERWISE NORMAL, REPLACE K10526 (HYD EMP ENABLE RELAY, C1) IN THE P36 PANEL.

Center ACMP Low Pressure Light Illuminated
Figure 106 (Sheet 1)




Center ACMP Low Pressure Light Illuminated
Figure 106 (Sheet 2)




Center ACMP Low Pressure Light Illuminated
Figure 106 (Sheet 3)

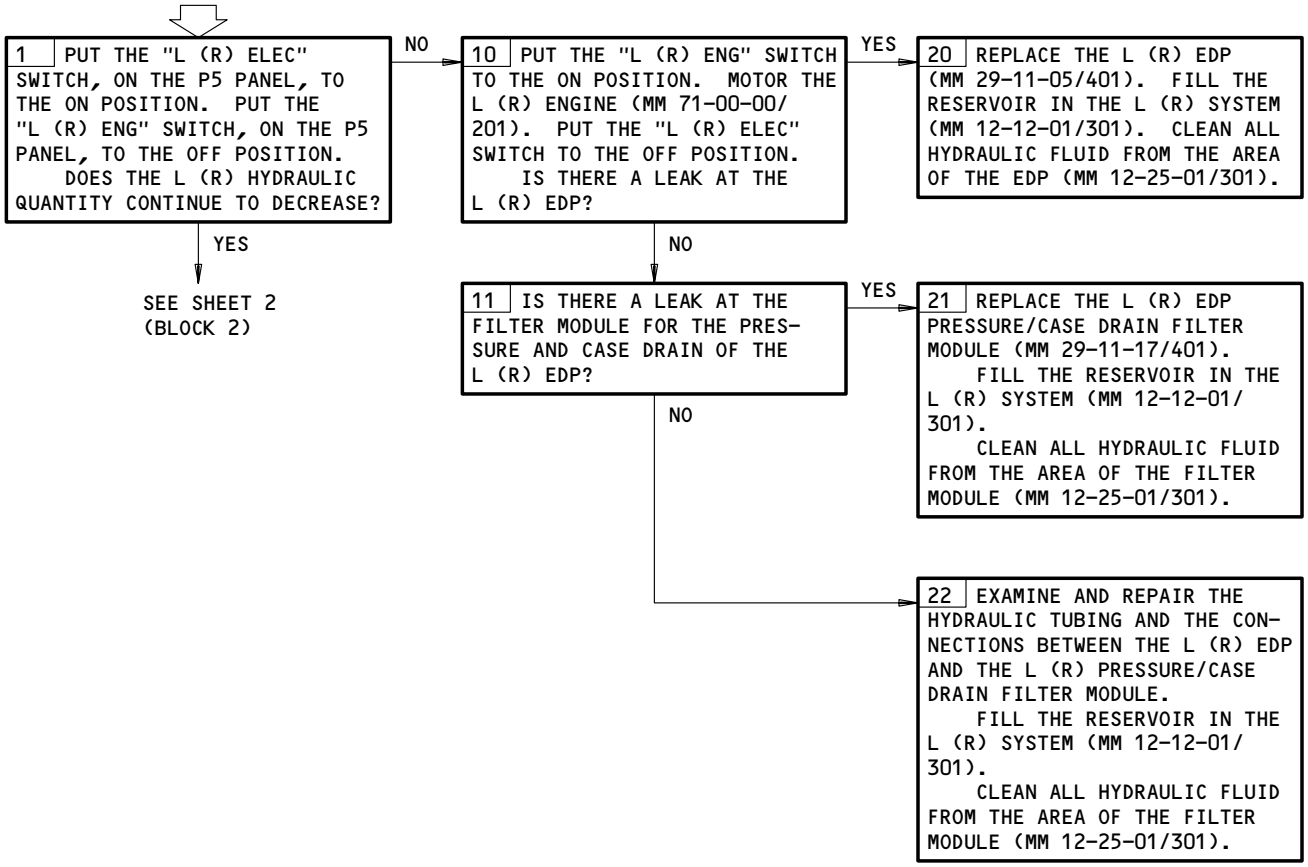
**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (MM 31-41-00/201)

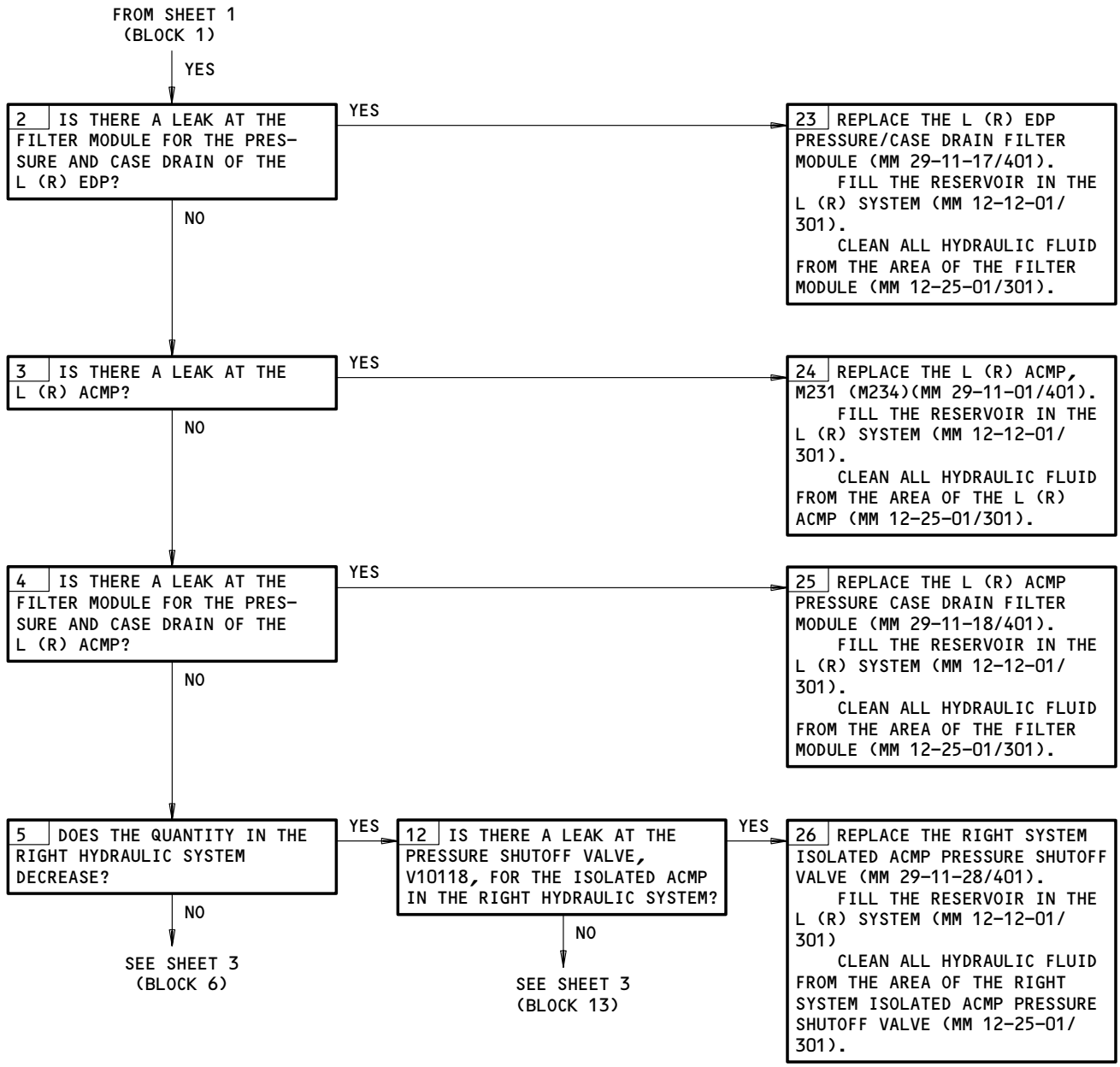
MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
6K14,11K16,11K20,11K21,11K25

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (MM 24-22-00/201)
LEFT (RIGHT) HYDRAULIC RESERVOIR IS PRESSURIZED (MM 29-11-00/201)

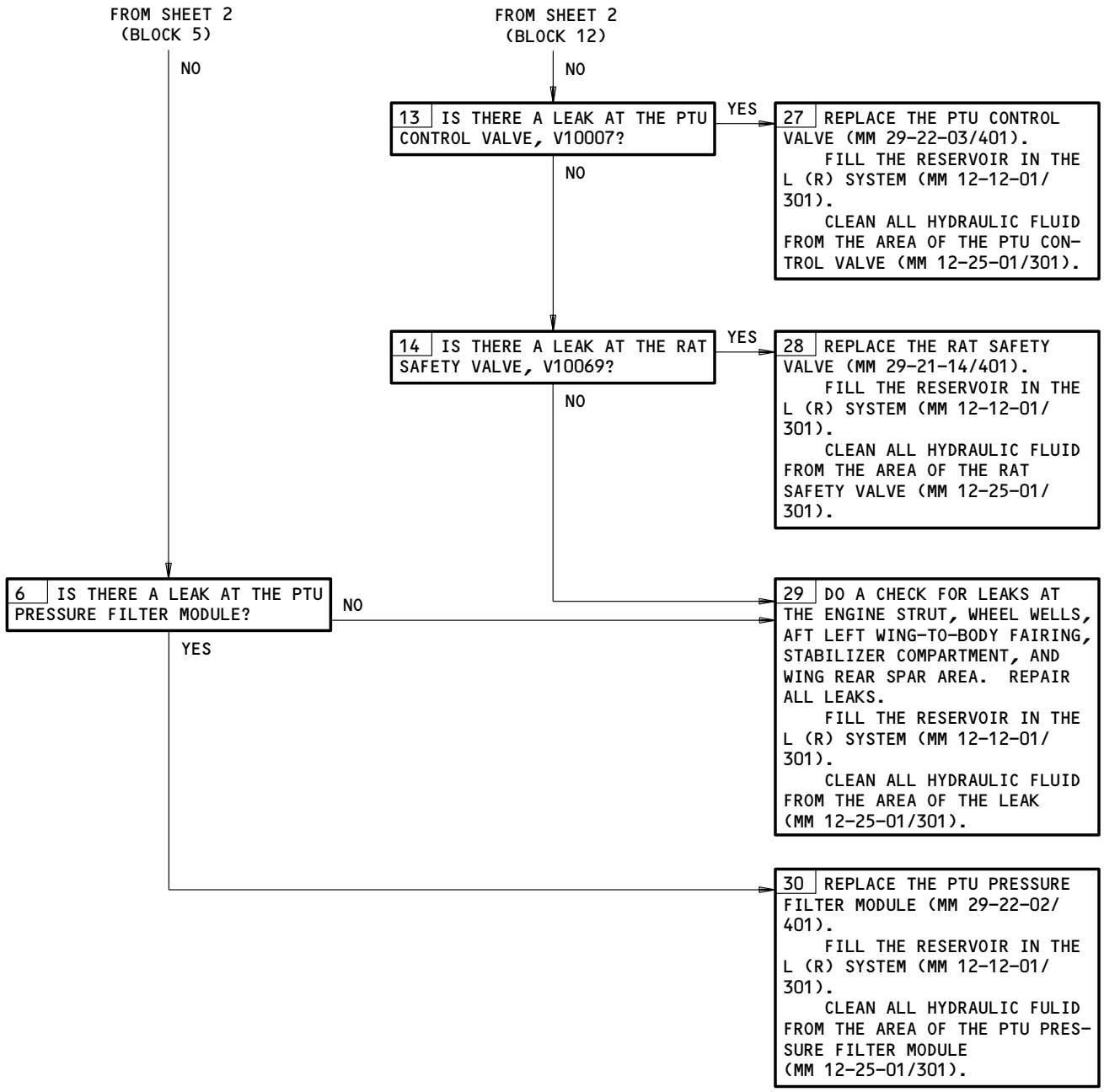
LEFT OR RIGHT HYDRAULIC QUANTITY DECREASING REMAINED STABLE WITH EDP DEPRESSURIZED AND ACMP OFF




Left or Right Hydraulic Quantity Decreasing Remained Stable with EDP Depressurized and ACMP Off
Figure 107 (Sheet 1)




Left or Right Hydraulic Quantity Decreasing Remained Stable with EDP Depressurized and ACMP Off
Figure 107 (Sheet 2)




Left or Right Hydraulic Quantity Decreasing Remained Stable with EDP Depressurized and ACMP Off
Figure 107 (Sheet 3)

## LEFT OR RIGHT HYDRAULIC QUANTITY DECREASING WITH EDP DEPRESSURIZED AND ACMP OFF

**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
- EICAS (MM 31-41-00/201)

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
- ELECTRICAL POWER IS ON (MM 24-22-00/201)
- LEFT (RIGHT) HYDRAULIC RESERVOIR IS PRESSURIZED (MM 29-11-00/201)

1 PUT THE "L (R) ENG" SWITCH, ON THE P5 PANEL, TO THE ON POSITION. MOTOR THE L (R) ENGINE (MM 71-00-00/201).
IS THERE A LEAK AT THE L (R) EDP?

YES → 20 REPLACE THE L (R) EDP (MM 29-11-05/401).
FILL THE RESERVOIR IN THE L (R) SYSTEM (MM 12-12-01/301).
CLEAN ALL HYDRAULIC FLUID FROM THE AREA OF THE L (R) EDP (MM 12-25-01/301).

NO ↓

2 IS THERE A LEAK AT THE SUPPLY SHUTOFF VALVE FOR THE L (R) EDP, V10005 (V10006)?

YES → 21 REPLACE THE L (R) EDP SUPPLY SHUTOFF VALVE (MM 29-11-06/401).
FILL THE RESERVOIR IN THE L (R) SYSTEM (MM 12-12-01/301).
CLEAN ALL HYDRAULIC FLUID FROM THE AREA OF THE SUPPLY SHUTOFF VALVE FOR THE L (R) EDP (MM 12-25-01/301).

NO ↓

3 IS THERE A LEAK AT THE RESERVOIR IN THE L (R) SYSTEM?

YES → 22 REPLACE THE L (R) RESERVOIR (MM 29-11-02/401).
CLEAN ALL HYDRAULIC FLUID FROM THE AREA OF THE L (R) RESERVOIR (MM 12-25-01/301).

NO ↓

4 IS THERE A LEAK AT THE RETURN FILTER MODULE IN THE L (R) SYSTEM?

YES → 23 REPLACE THE L (R) RETURN FILTER MODULE (MM 29-11-15/401).
FILL THE RESERVOIR IN THE L (R) SYSTEM (MM 12-12-01/301).
CLEAN ALL HYDRAULIC FLUID FROM THE AREA OF THE RETURN FILTER MODULE IN THE L (R) SYSTEM (MM 12-25-01/301).

NO ↓

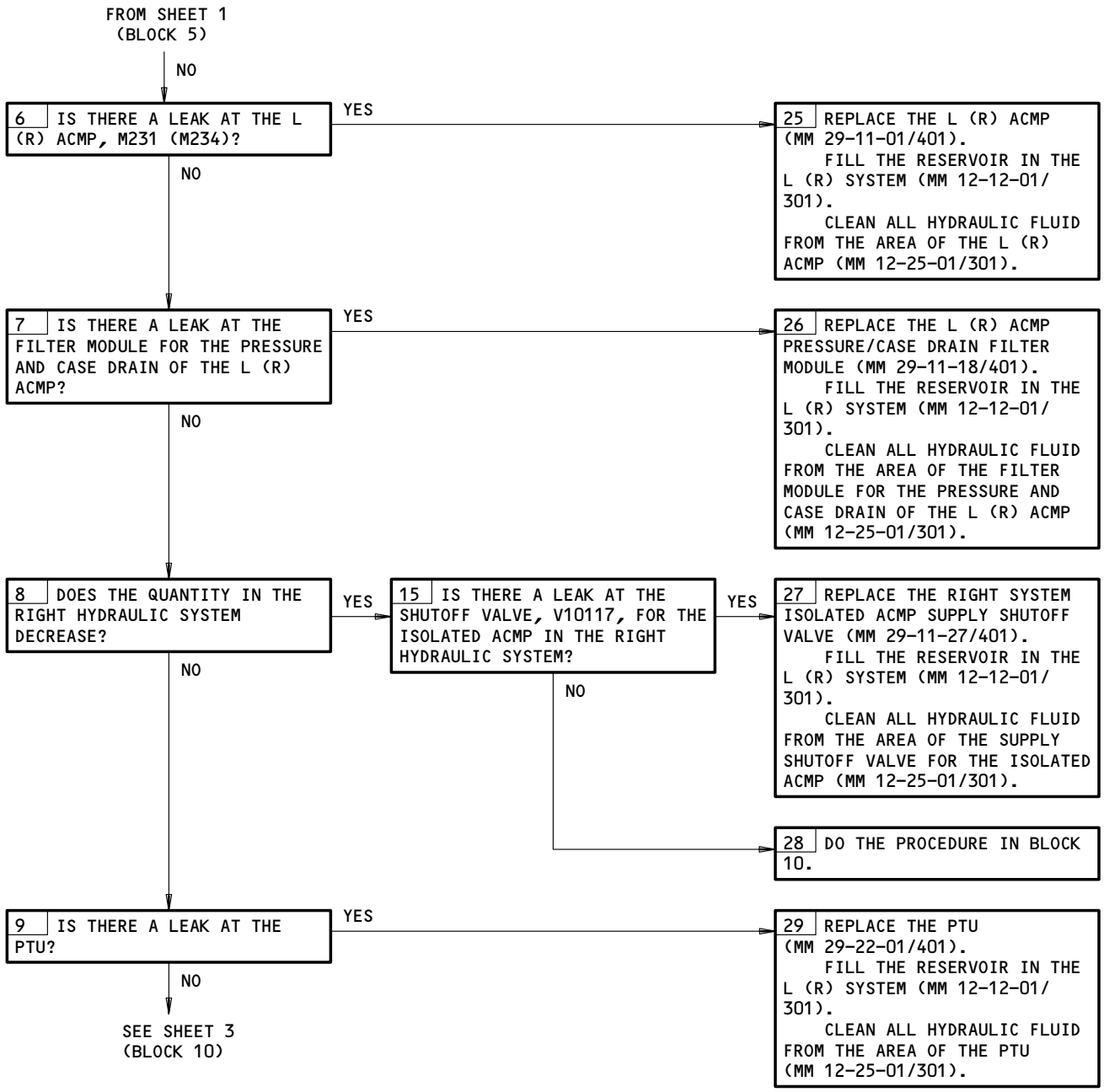
5 IS THERE A LEAK AT THE FILTER MODULE FOR THE PRESSURE AND CASE DRAIN OF THE L (R) EDP?

YES → 24 REPLACE THE L (R) EDP PRESSURE/CASE DRAIN FILTER MODULE (MM 29-11-17/401).
FILL THE RESERVOIR IN THE L (R) SYSTEM (MM 12-12-01/301).
CLEAN ALL HYDRAULIC FLUID FROM THE AREA OF THE FILTER MODULE FOR THE PRESSURE AND CASE DRAIN OF THE L (R) EDP (MM 12-25-01/301).

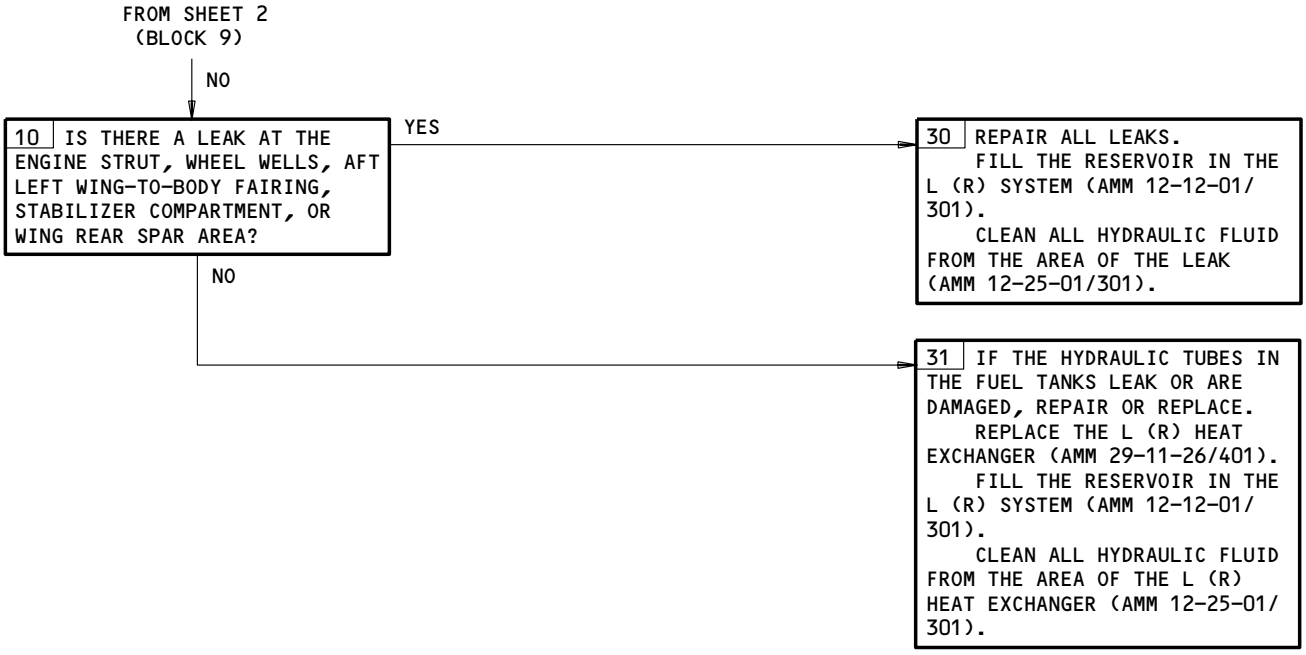
NO ↓

SEE SHEET 2 (BLOCK 6)

Left or Right Hydraulic Quantity Decreasing with EDP Depressurized and ACMP Off
Figure 108 (Sheet 1)




Left or Right Hydraulic Quantity Decreasing with EDP Depressurized and ACMP Off
Figure 108 (Sheet 2)




Left or Right Hydraulic Quantity Decreasing with EDP Depressurized and ACMP Off
Figure 108 (Sheet 3)

**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (AMM 31-41-00/201)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11K14,11K20,11K21,11K232,11D28,11D29

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)

**LEFT OR RIGHT HYDRAULIC QUANTITY INDICATES ZERO, "L (R) HYD QTY" MESSAGE DISPLAYED**

1 FILL THE RESERVOIR IN THE L (R) SYSTEM UNTIL THE FLUID LEVEL IS AT THE CENTER OF THE RESERVOIR SIGHT GLASS (AMM 12-12-01/301).
PUSH THE "ELEC/HYD" SWITCH ON THE EICAS MAINT PANEL ON P61 PANEL.
IS THE "L (R) HYD QTY" INDICATION ON THE EICAS DISPLAY 1.00 ±0.08?

NO

6 DO A CHECK OF THE COAXIAL CABLE BETWEEN THE HYDRAULIC QUANTITY MONITOR UNIT, M122, AND THE HYDRAULIC QUANTITY TRANSMITTER, M338 (M340), FOR A GOOD GROUND (WDM 29-33-11).
IF THE PROBLEM CONTINUES, REPLACE THE HYDRAULIC QUANTITY MONITOR UNIT, M122 (AMM 29-33-51/401).
PUSH THE "ELEC/HYD", AND THE "AUTO-EVENT READ" SWITCHES ON THE EICAS MAINT PANEL ON THE P61 PANEL. PUSH AND HOLD THE ERASE SWITCH FOR 3 SECONDS. MAKE SURE THE "L (R) HYD QTY" AND THE "L (R) HYD SYS PRESS" MESSAGES DO NOT SHOW ON THE EICAS DISPLAY.
IF THE PROBLEM CONTINUES, REPLACE THE L (R) HYDRAULIC QUANTITY TRANSMITTER, M338 (M340)(AMM 29-33-01/401).

YES

2 PRESSURIZE THE RESERVOIR IN THE L (R) SYSTEM (AMM 29-11-00/201).
PUT THE "L (R) ENG" AND THE "L (R) ELEC" SWITCHES, ON THE P5 PANEL, TO THE OFF POSITION.
MOTOR THE ENGINE (AMM 71-00-00/201).
DOES THE QUANTITY IN THE L (R) SYSTEM DECREASE?

YES

7 DO THE PROCEDURE IN FIG. 108.
PUSH THE "ELEC/HYD" AND THE "AUTO-EVENT READ" SWITCHES ON THE EICAS MAINT PANEL ON THE P61 PANEL. PUSH AND HOLD THE ERASE SWITCH FOR 3 SECONDS. MAKE SURE THE "L (R) HYD QTY" AND THE "L (R) HYD SYS PRESS" MESSAGES DO NOT SHOW ON THE EICAS DISPLAY.

NO

8 DO THE PROCEDURE IN FIG. 107.
PUSH THE "ELEC/HYD" AND THE "AUTO-EVENT READ" SWITCHES ON THE EICAS MAINT PANEL ON THE P61 PANEL. PUSH AND HOLD THE ERASE SWITCH FOR 3 SECONDS. MAKE SURE THE "L (R) HYD QTY" AND THE "L (R) HYD SYS PRESS" MESSAGES DO NOT SHOW ON THE EICAS DISPLAY.

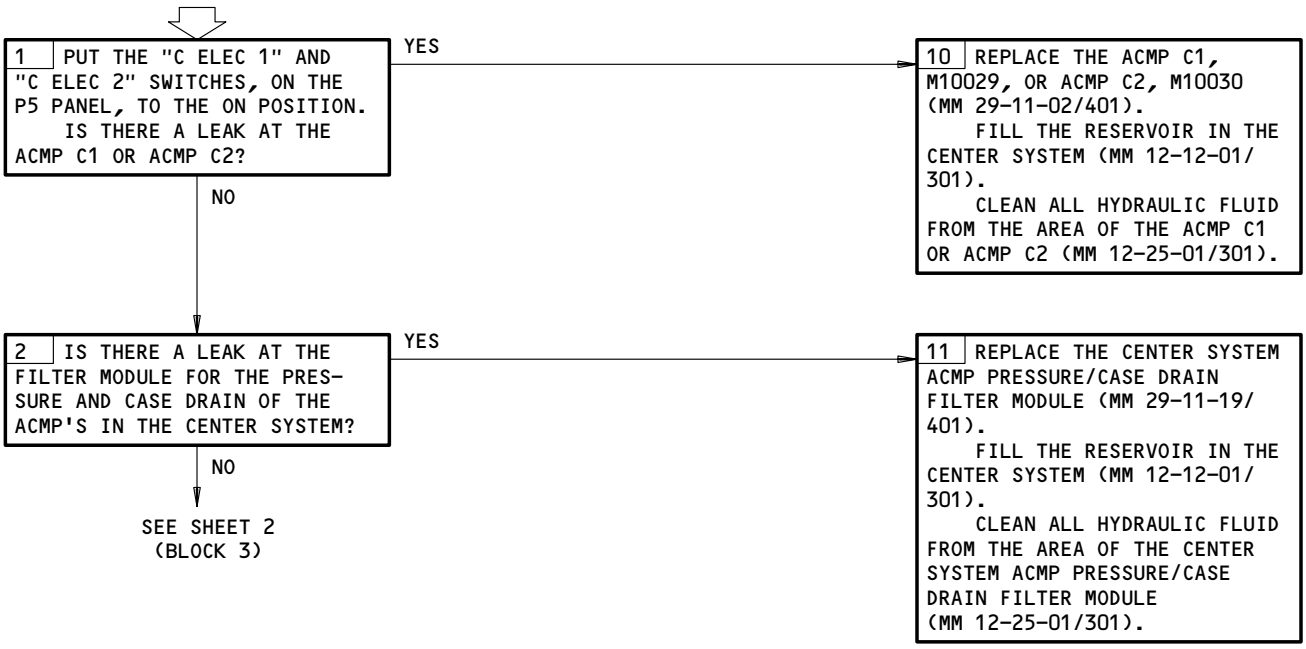
Left or Right Hydraulic Quantity Indicates Zero, L (R) HYD QTY Message Displayed
Figure 109

## CENTER HYDRAULIC QUANTITY DECREASING, REMAINED STABLE WITH SYSTEM DEPRESSURIZED

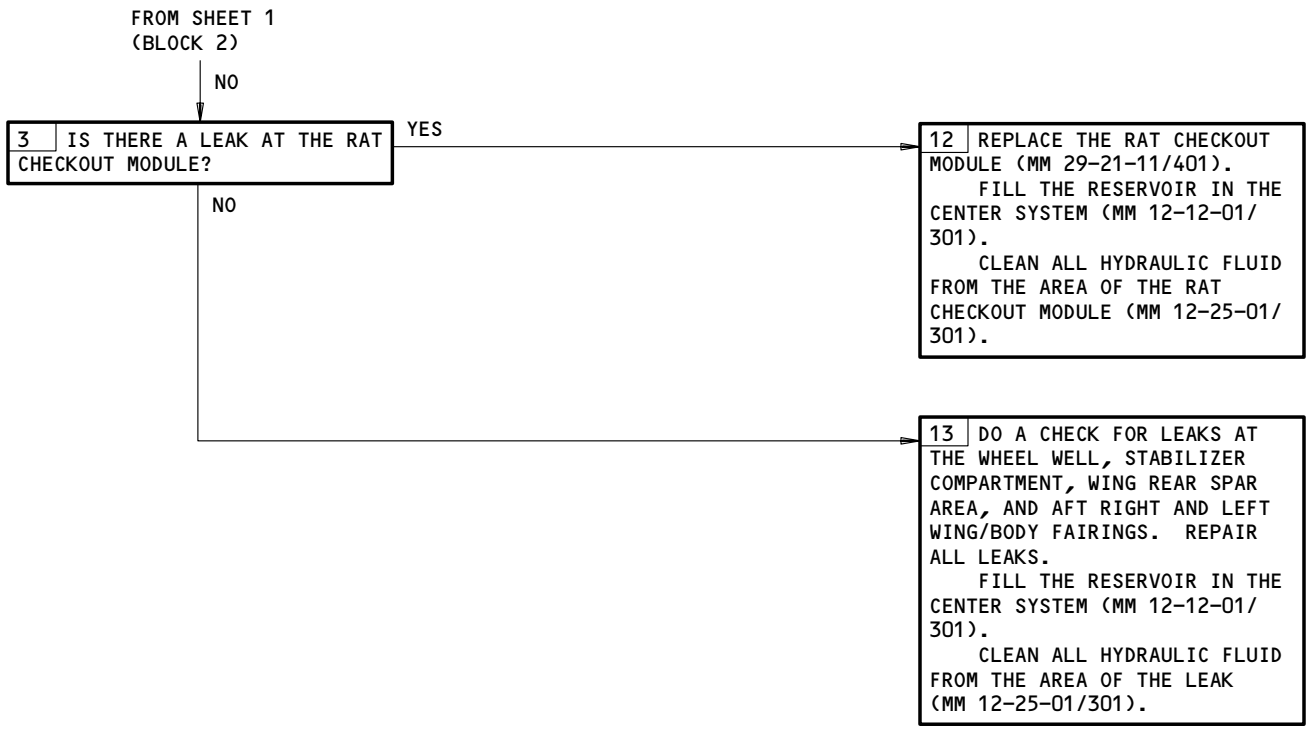
**PREREQUISITES**

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
6K13,6K19,11K15,11K19,11K24

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (MM 24-22-00/201)




Center Hydraulic Quantity Decreasing, Remained Stable with System Depressurized
Figure 110 (Sheet 1)




Center Hydraulic Quantity Decreasing, Remained Stable with System Depressurized
Figure 110 (Sheet 2)

## CENTER HYDRAULIC QUANTITY DECREASING WITH SYSTEM DEPRESSURIZED

**PREREQUISITES**

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

- ELECTRICAL POWER IS ON (MM 24-22-00/201)
- CENTER HYDRAULIC RESERVOIR IS PRESSURIZED (MM 29-11-00/201)

1 IS THERE A LEAK AT THE ACMP C1 OR THE ACMP C2?

YES

10 REPLACE THE ACMP C1, M10029, OR THE ACMP C2, M10030 (MM 29-11-02/401).

FILL THE RESERVOIR IN THE CENTER SYSTEM (MM 12-12-01/301).

CLEAN ALL HYDRAULIC FLUID FROM THE AREA OF THE ACMP C1 OR ACMP C2 (MM 12-25-01/301).

NO

2 IS THERE A LEAK AT THE FILTER MODULE FOR THE PRESSURE AND CASE DRAIN OF THE ACMP'S IN THE CENTER SYSTEM?

YES

11 REPLACE THE CENTER SYSTEM ACMP PRESSURE/CASE DRAIN FILTER MODULE (MM 29-11-19/401).

FILL THE RESERVOIR IN THE CENTER SYSTEM (MM 12-12-01/301).

CLEAN ALL HYDRAULIC FLUID FROM THE AREA OF THE CENTER SYSTEM ACMP PRESSURE/CASE DRAIN FILTER MODULE (MM 12-25-01/301).

NO

3 IS THERE A LEAK AT THE RESERVOIR IN THE CENTER SYSTEM?

YES

12 REPLACE THE RESERVOIR IN THE CENTER SYSTEM (MM 29-11-21/401).

CLEAN ALL HYDRAULIC FLUID FROM THE AREA OF THE RESERVOIR IN THE CENTER SYSTEM (MM 12-25-01/301).

NO

4 IS THERE A LEAK AT THE RETURN FILTER MODULE IN THE CENTER SYSTEM?

YES

13 REPLACE THE RETURN FILTER MODULE IN THE CENTER SYSTEM (MM 29-11-13/401).

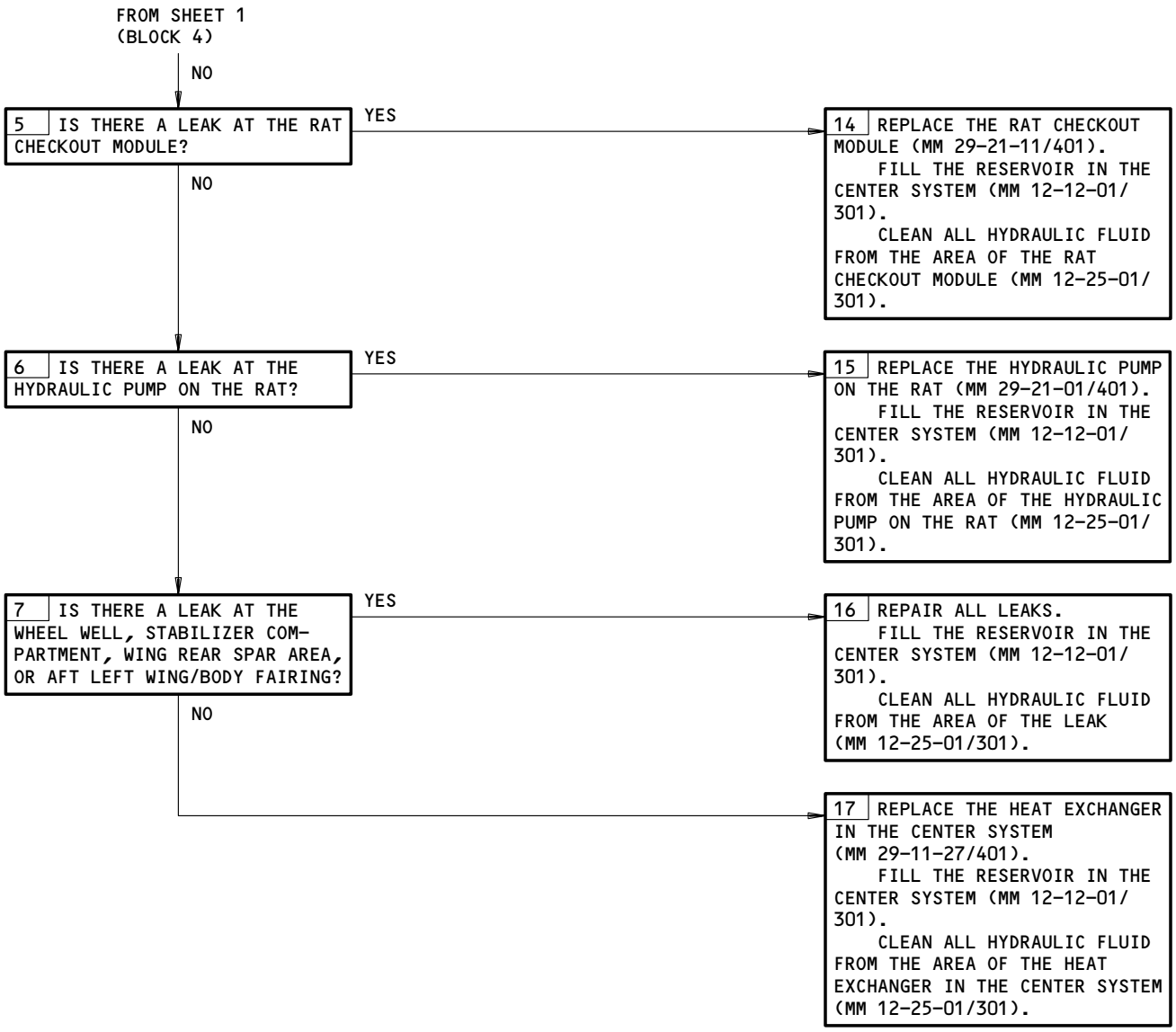
FILL THE RESERVOIR IN THE CENTER SYSTEM (MM 12-12-01/301).

CLEAN ALL HYDRAULIC FLUID FROM THE AREA OF THE RETURN FILTER MODULE IN THE CENTER SYSTEM (MM 12-25-01/301).

NO

SEE SHEET 2 (BLOCK 5)

Center Hydraulic Quantity Decreasing with System Depressurized
Figure 111 (Sheet 1)




Center Hydraulic Quantity Decreasing with System Depressurized
Figure 111 (Sheet 2)



833016

**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (MM 31-41-00/201)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
6K13,6K19,11K15,11K19,11K24

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (MM 24-22-00/201)

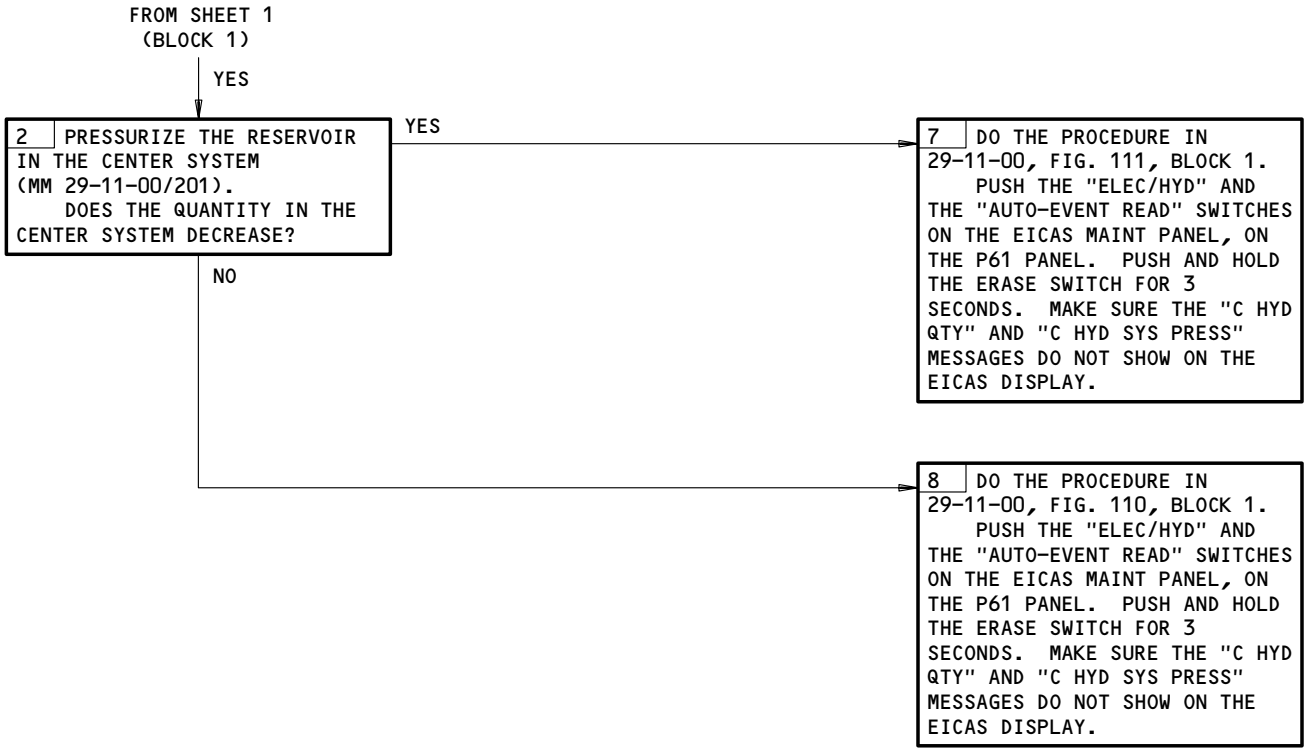
**CENTER HYDRAULIC QUANTITY INDICATES ZERO, "C HYD QTY" MESSAGE DISPLAYED**

1 FILL THE RESERVOIR IN THE CENTER SYSTEM UNTIL THE FLUID LEVEL IS AT THE CENTER OF THE RESERVOIR SIGHT GLASS (MM 12-12-01/301). PUSH THE "ELEC/HYD" SWITCH ON THE EICAS MAINT PANEL.
IS THE "C HYD QTY" INDICATION ON THE EICAS DISPLAY 1.00 ±0.14?

NO → 6 REPLACE THE HYDRAULIC QUANTITY MONITOR UNIT, M122 (MM 29-33-51/401).
PUSH THE "ELEC/HYD" AND THE "AUTO-EVENT READ" SWITCHES ON THE EICAS MAINT PANEL, ON THE P61 PANEL. PUSH AND HOLD THE ERASE SWITCH FOR 3 SECONDS. MAKE SURE THE "C HYD QTY" AND "C HYD SYS PRESS" MESSAGES DO NOT SHOW ON THE EICAS DISPLAY.
IF THE PROBLEM CONTINUES, REPLACE THE HYDRAULIC QUANTITY TRANSMITTER, M339, ON THE RESERVOIR IN THE CENTER SYSTEM (MM 29-33-01/401).
IF THE PROBLEM CONTINUES, DO A CHECK OF THE COAXIAL CABLE BETWEEN THE HYDRAULIC QUANTITY MONITOR UNIT, M122, AND THE HYDRAULIC QUANTITY TRANSMITTER, M339, FOR A GOOD GROUND (WDM 29-33-11).

YES → SEE SHEET 2 (BLOCK 2)

Center Hydraulic Quantity Indicates Zero, C HYD QTY Message Displayed
Figure 112 (Sheet 1)




Center Hydraulic Quantity Indicates Zero, C HYD QTY Message Displayed
Figure 112 (Sheet 2)

## LEFT (RIGHT) EDP OVERHEAT LIGHT ILLUMINATED, "L (R) ENG HYD OVHT" EICAS MESSAGE DISPLAYED

**PREREQUISITES**

MAKE SURE THESE SYSTEMS WILL OPERATE:
- EICAS (AMM 31-41-00/201)
- MASTER DIM AND TEST (AMM 33-16-00/501)

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
- ELECTRICAL POWER IS ON (AMM 24-22-00/201)

1 REMOVE CONNECTOR D2152 (D2200), FROM THE TEMPERATURE SWITCH, S10006 (S10007) (WDM 29-32-11,-21).
IS THE OVERHEAT LIGHT, L7 (L10), FOR THE L (R) EDP, ON THE P5 PANEL, ON?

YES → 3 REPLACE THE DIODE/FUSE CARD IN THE LIGHT, L7 (L10) (AMM 33-16-02/201).
IS THE OVERHEAT LIGHT, L7 (L10), FOR THE L (R) EDP, ON THE P5 PANEL, ON?

NO → 5 INSTALL CONNECTOR D2152 (D2200), ON THE TEMPERATURE SWITCH, S10006 (S10007) (WDM 29-32-11,-21).
THE FAILURE IS CORRECTED. [1]

YES → 6 INSTALL CONNECTOR D2152 (D2200), ON THE TEMPERATURE SWITCH, S10006 (S10007) (WDM 29-32-11,-21).
REMOVE THE L AND R EICAS COMPUTERS, M10181 AND M10182 (AMM 31-41-02/401).
EXAMINE THE CIRCUIT FROM CONNECTOR D3546 (D3544), PIN 13, TO CONNECTOR D2152 (D2200), PIN 2; AND FROM CONNECTOR D319F (D319A), PIN G4 (K4), TO CONNECTOR D321F (D321A), PIN G4 (K4) (WDM 29-32-11,-21).
REPAIR THE PROBLEMS THAT YOU FIND.
INSTALL THE L AND R EICAS COMPUTERS (AMM 31-41-02/401). [1]

NO → 2 INSTALL CONNECTOR D2152 (D2200), ON THE TEMPERATURE SWITCH, S10006 (S10007) (WDM 29-32-11,-21).
EXAMINE THE DIFFERENTIAL PRESSURE INDICATOR FOR THE CASE DRAIN ON THE L (R) EDP PRESSURE/CASE DRAIN FILTER MODULE (AMM 29-11-17/401).
CAN YOU SEE THE RED BUTTON ON THE DIFFERENTIAL PRESSURE INDICATOR?

NO → 4 EXAMINE THE CASE DRAIN TUBING OF THE L (R) EDP FOR A CLOSED CONDITION.
IS THE CASE DRAIN TUBING CLOSED?

NO → 7 REPLACE THE TEMPERATURE SWITCH, S10006 (S10007) (AMM 29-32-01/401). [1]
IF THE PROBLEM CONTINUES, REPLACE THE L (R) EDP (AMM 29-11-05/401).

YES → 8 REPAIR THE CASE DRAIN TUBING FOR THE L (R) EDP (AMM 20-10-09/801). [1]

YES → 9 REPLACE THE FILTER ELEMENT FOR THE CASE DRAIN OF THE L (R) EDP AND SET THE DIFFERENTIAL PRESSURE INDICATOR (AMM 29-11-17/401). [1]

[1] PUSH THE "ELEC/HYD" AND THE "AUTO-EVENT READ" SWITCHES ON THE EICAS MAINT PANEL, ON THE P61 PANEL. PUSH AND HOLD THE ERASE SWITCH FOR 3 SECONDS. MAKE SURE THE "L (R) ENG HYD OVHT" MESSAGE DOES NOT SHOW ON THE EICAS DISPLAY.

Left (Right) EDP Overheat Light Illuminated, L (R) ENG HYD OVHT EICAS Message Displayed
Figure 113

## LEFT (RIGHT) ACMP OVERHEAT LIGHT ILLUMINATED, "L (R) ELEC HYD OVHT" EICAS MESSAGE DISPLAYED

**PREREQUISITES**

MAKE SURE THESE SYSTEMS WILL OPERATE:
- EICAS (AMM 31-41-00/201)
- MASTER DIM AND TEST (AMM 33-16-00/501)

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT
- ELECTRICAL POWER IS ON (AMM 24-22-00/201)

1 REMOVE CONNECTOR D3398 (D3400), FROM THE L (R) ACMP (WDM 29-32-11,-21).
IS THE OVERHEAT LIGHT, L11 (L12), FOR THE L (R) ACMP, ON THE P5 PANEL, ON?
- YES → 3
- NO → 2

3 REPLACE THE DIODE/FUSE CARD IN THE LIGHT, L11 (L12) (AMM 33-16-02/201).
IS THE OVERHEAT LIGHT, L11 (L12), FOR THE L (R) ACMP, ON THE P5 PANEL, ON?
- NO → 5
- YES → 6

5 INSTALL CONNECTOR D3398 (D3400), ON THE L (R) ACMP (WDM 29-32-11,-21).
THE FAILURE IS CORRECTED. 1

6 INSTALL CONNECTOR D3398 (D3400), ON THE L (R) ACMP (WDM 29-32-11,-21).
REMOVE THE L AND R EICAS COMPUTERS, M10181 AND M10182 (AMM 31-41-02/401).
EXAMINE THE CIRCUIT FROM CONNECTOR D3398 (D3400), PIN 3, ON THE L (R) ACMP, TO CONNECTOR D3546 (D3544), PIN 14 (15); AND FROM CONNECTOR D319B (D319A), PIN K7 (K8), TO CONNECTOR D321B (D321A), PIN K7 (K8) (WDM 29-32-11,-21). REPAIR THE PROBLEMS THAT YOU FIND.
INSTALL THE L AND R EICAS COMPUTERS (AMM 31-41-02/401). 1

2 INSTALL CONNECTOR D3398 (D3400), ON THE L (R) ACMP (WDM 29-32-11,-21).
EXAMINE THE DIFFERENTIAL PRESSURE INDICATOR FOR THE CASE DRAIN ON THE L (R) ACMP PRESSURE/CASE DRAIN FILTER MODULE (AMM 29-11-18/401).
CAN YOU SEE THE RED BUTTON ON THE DIFFERENTIAL PRESSURE INDICATOR?
- NO → 4
- YES → 9

4 EXAMINE THE CASE DRAIN TUBING OF THE L (R) ACMP FOR A CLOSED CONDITION.
IS THE CASE DRAIN TUBING CLOSED?
- NO → 7
- YES → 8

7 REPLACE THE L (R) ACMP (AMM 29-11-01/401). 1

8 REPAIR THE CASE DRAIN TUBING FOR THE L (R) ACMP (AMM 20-10-09/801). 1

9 REPLACE THE FILTER ELEMENT FOR THE CASE DRAIN OF THE L (R) ACMP AND SET THE DIFFERENTIAL PRESSURE INDICATOR (AMM 29-11-18/401). 1

1 PUSH THE "ELEC/HYD" AND THE "AUTO-EVENT READ" SWITCHES ON THE EICAS MAINT PANEL, ON THE P61 PANEL. PUSH AND HOLD THE ERASE SWITCH FOR 3 SECONDS. MAKE SURE THE "L (R) ELEC HYD OVHT" MESSAGE DOES NOT SHOW ON THE EICAS DISPLAY.

Left (Right) ACMP Overheat Light Illuminated, L (R) ELEC HYD OVHT EICAS Message Displayed
Figure 114

**C1 (C2) ACMP OVHT LIGHT ILLUMINATED, "C HYD 1 (2) OVHT" EICAS MESSAGE DISPLAYED**

**PREREQUISITES**

MAKE SURE THESE SYSTEMS WILL OPERATE:
- EICAS (AMM 31-41-00/201)
- MASTER DIM AND TEST (AMM 33-16-00/501)

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
- ELECTRICAL POWER IS ON (AMM 24-22-00/201)

1 REMOVE CONNECTOR D3402 (D3404), FROM THE ACMP C1 (C2) (WDM 29-32-31).
IS THE OVERHEAT LIGHT, L8 (L9), FOR THE ACMP C1 (C2), ON THE P5 PANEL, ON?

YES → 3 REPLACE THE DIODE/FUSE CARD IN THE LIGHT, L8 (L9), (AMM 33-16-02/201).
IS THE OVERHEAT LIGHT, L8 (L9), FOR THE ACMP C1 (C2), ON THE P5 PANEL, ON?

NO → 5 INSTALL CONNECTOR D3402 (D3404), ON THE ACMP C1 (C2) (WDM 29-32-31).
THE FAILURE IS CORRECTED. 1

YES → 6 INSTALL CONNECTOR D3402 (D3404), ON THE ACMP C1 (C2) (WDM 29-32-31).
REMOVE THE L AND R EICAS COMPUTERS, M10181 AND M10182 (AMM 31-41-02/401).
EXAMINE THE CIRCUIT FROM CONNECTOR D3402 (D3404), PIN 3, TO CONNECTOR D3544 (D3548), PIN 5 (6); AND FROM CONNECTOR D319B (D319A), PIN K8 (K3), TO CONNECTOR D319B (D321A), PIN K8 (K3) (WDM 29-32-31).
REPAIR THE PROBLEMS THAT YOU FIND.
INSTALL THE L AND R EICAS COMPUTERS (AMM 31-41-02/401). 1

NO → 2 INSTALL CONNECTOR D3402 (D3404), ON THE ACMP C1 (C2) (WDM 29-32-31).
EXAMINE THE DIFFERENTIAL PRESSURE INDICATOR FOR THE CASE DRAIN ON THE CENTER SYSTEM ACMP PRESSURE/CASE DRAIN FILTER MODULE (AMM 29-11-19/401).
CAN YOU SEE THE RED BUTTON ON THE DIFFERENTIAL PRESSURE INDICATOR?

NO → 4 EXAMINE THE CASE DRAIN TUBING OF THE ACMP C1 (C2) FOR A CLOSED CONDITION.
IS THE CASE DRAIN TUBING CLOSED?

NO → 7 REPLACE THE ACMP C1 (C2) (AMM 29-11-02/401). 1

YES → 8 REPAIR THE CASE DRAIN TUBING FOR THE ACMP C1 (C2) (AMM 20-10-09/801). 1

YES → 9 REPLACE THE FILTER ELEMENT FOR THE CASE DRAIN OF THE ACMP C1 (C2) AND SET THE DIFFERENTIAL PRESSURE INDICATOR (AMM 29-11-19/401). 1

1 PUSH THE "ELEC/HYD" AND THE "AUTO-EVENT READ" SWITCHES ON THE EICAS MAINT PANEL, ON THE P61 PANEL. PUSH AND HOLD THE ERASE SWITCH FOR 3 SECONDS. MAKE SURE THE "C HYD 1 (2) OVHT" MESSAGE DOES NOT SHOW ON THE EICAS DISPLAY.

C1 (C2) ACMP Ovht Light Illuminated, C HYD 1 (2) OVHT
EICAS Message Displayed
Figure 115

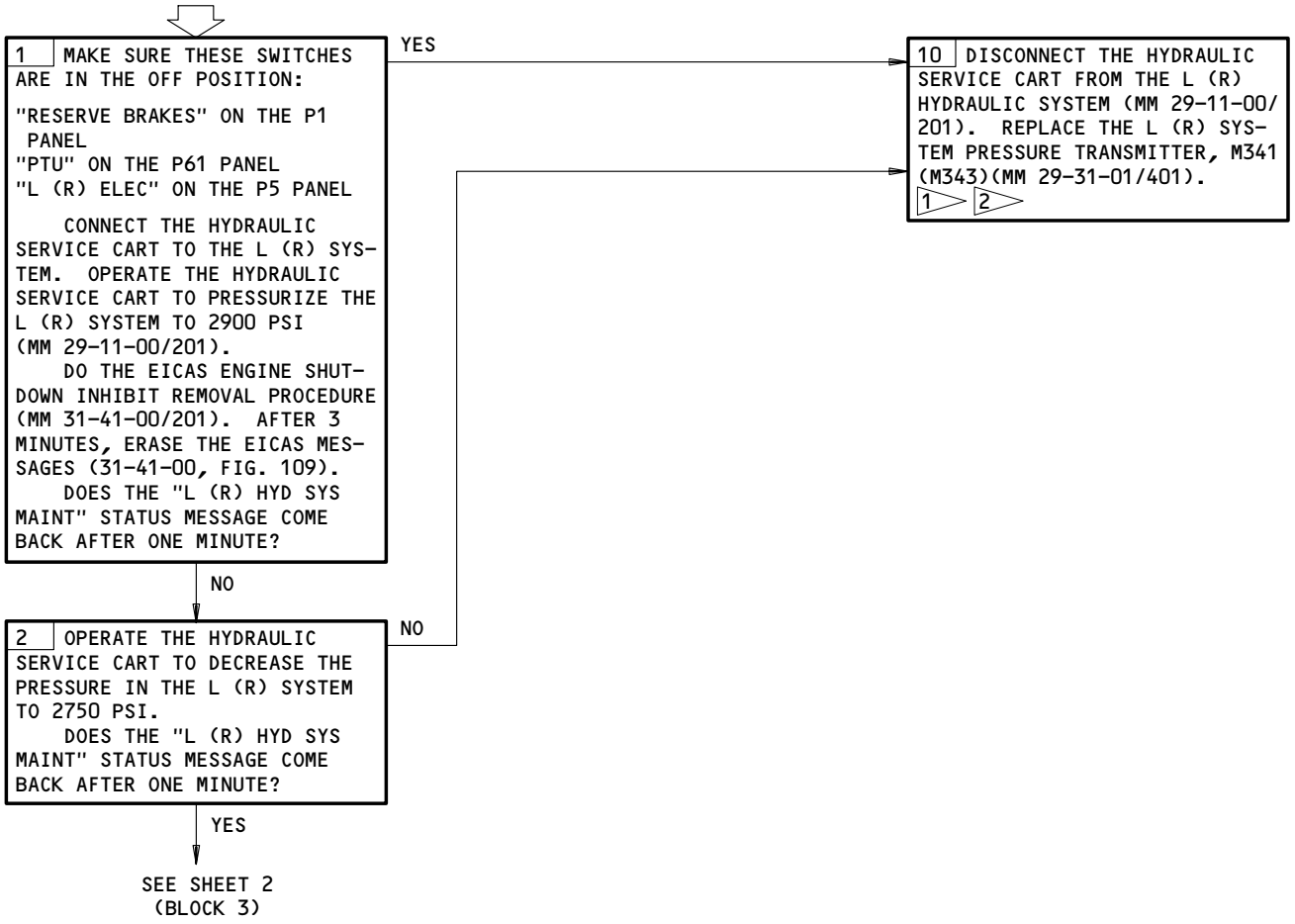
**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (MM 31-41-00/201)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
6K14,11K16,11K17,11K25,11K26

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (MM 24-22-00/201)
THE TWO ENGINES ARE OFF (MM 71-00-00/201)

"L (R) HYD SYS MAINT" EICAS MESSAGE ILLUM

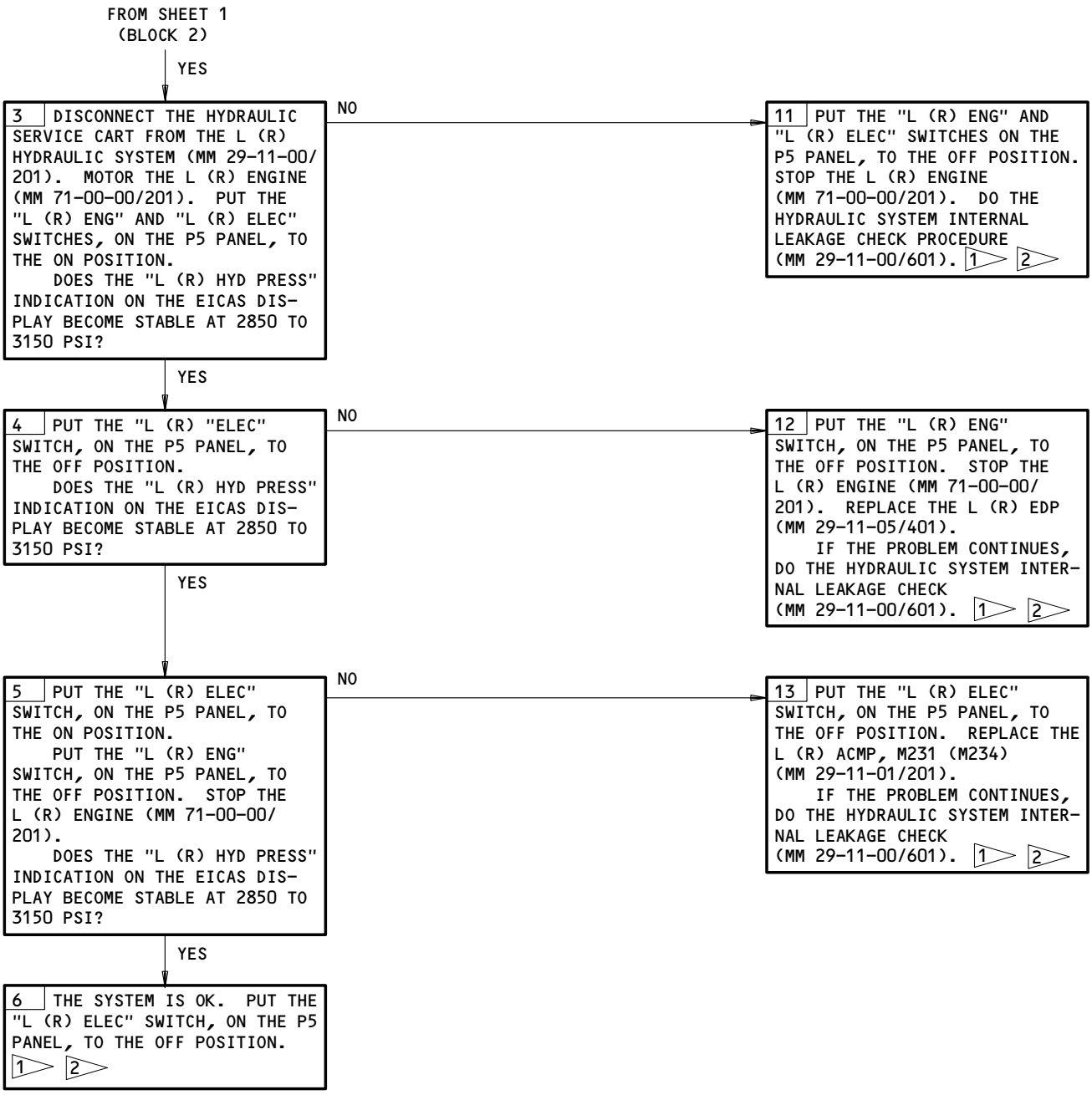



1 ERASE THE "L (R) HYD SYS MAINT" MESSAGE (31-41-00, FIG. 109)
2 PUT THE EICAS ENGINE SHUTDOWN INHIBIT BACK TO ITS USUAL CONDITION (MM 31-41-00/201)

L (R) HYD SYS MAINT EICAS Message Illuminated
Figure 116 (Sheet 1)



117766




L (R) HYD SYS MAINT EICAS Message Illuminated
Figure 116 (Sheet 2)

**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (MM 31-41-00/201)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
6K13,6K19,11K15,11K18,11K24,11K26

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (MM 24-22-00/201)

"C HYD SYS MAINT" EICAS MESSAGE ILLUM

1 PUT THE "C ELEC 1" AND "C ELEC 2" SWITCH, ON THE P5 PANEL, TO THE OFF POSITION. CONNECT THE HYDRAULIC SERVICE CART TO THE CENTER SYSTEM. OPERATE THE HYDRAULIC SERVICE CART TO PRESSURIZE THE CENTER SYSTEM TO 2900 PSI (MM 29-11-00/201). DO THE EICAS ENGINE SHUTDOWN INHIBIT PROCEDURE (MM 31-41-00/201). AFTER 3 MINUTES, ERASE THE EICAS MESSAGES (31-41-00, FIG. 109).
DOES THE "C HYD SYS MAINT" MESSAGE COME BACK AFTER ONE MINUTE?

YES → 10 DISCONNECT THE HYDRAULIC SERVICE CART FROM THE CENTER SYSTEM (MM 29-11-00/201). REPLACE THE CENTER SYSTEM PRESSURE TRANSMITTER, M342 (MM 29-31-01/401). 1 2

NO

2 OPERATE THE HYDRAULIC SERVICE CART TO DECREASE THE PRESSURE IN THE L (R) SYSTEM TO 2750 PSI.
DOES THE "C HYD SYS MAINT" MESSAGE COME BACK AFTER ONE MINUTE?

NO → 10

YES

SEE SHEET 2 (BLOCK 3)

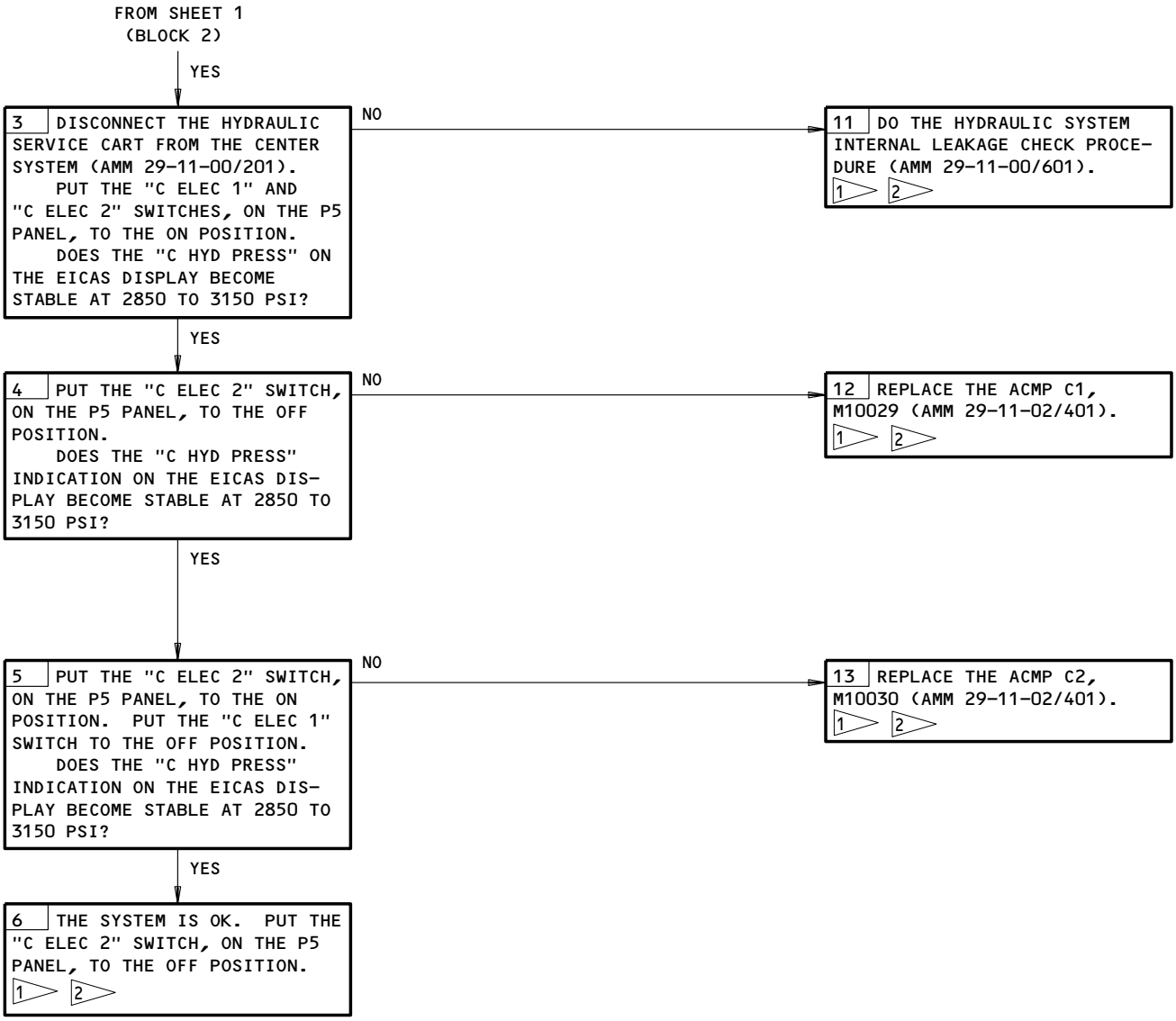
1 ERASE THE "C HYD SYS MAINT" MESSAGE (31-41-00, FIG. 109)

2 PUT THE EICAS ENGINE SHUTDOWN INHIBIT BACK TO ITS USUAL CONDITION (MM 31-41-00/201)

C HYD SYS MAINT EICAS Message Illuminated
Figure 117 (Sheet 1)



117768




C HYD SYS MAINT EICAS Message Illuminated
Figure 117 (Sheet 2)

**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (AMM 31-41-00/201)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11D28, 11D29, 11K14, 11K16, 11K17, 11K25, 11K26

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)

## LEFT/RIGHT ACMP PRESS LOW

1 MAKE SURE THE "RESERVE BRAKES" SWITCH, ON THE P1 PANEL, IS IN THE OFF POSITION.

IF THE ENGINES ARE IN OPERATION, PUT THE "L (R) ENG" SWITCH, ON THE P5 PANEL, TO THE OFF POSITION.

CAUTION: MAKE SURE HYDRAULIC QUANTITY AT THE RESERVOIR SIGHT GLASS IS NOT LOW. OPERATION OF PUMPS WITH LOW HYDRAULIC QUANTITY CAN CAUSE DAMAGE.

IF IT IS NECESSARY, SERVICE THE RESERVOIR WITH HYDRAULIC FLUID (AMM 12-12-01/301).

PUT THE "L (R) ELEC" SWITCH, ON THE P5 PANEL, TO THE ON POSITION.

DOES THE "L (R) HYD PRESS" INDICATION ON THE EICAS DISPLAY BECOME STABLE AT 2850 TO 3150 PSI?

NOTE: THE PRESSURE IN THE RIGHT SYSTEM CAN BE LOW IF ONLY THE RIGHT ACMP OPERATES, THE RIGHT ENGINE OPERATES, AND THE AIRPLANE IS IN ONE OF THESE CONDITIONS:

1. LEFT ENGINE IS OFF.
2. "L (R) ENG" SWITCH, ON THE P5 PANEL, IS IN THE OFF POSITION.

THE LOW PRESSURE IN THE RIGHT SYSTEM IS CAUSED BY THE LOAD ON THE RIGHT ACMP FROM THE OPERATION OF THE PTU.

YES → 5 DO THE HYDRAULIC SYSTEM INTERNAL LEAKAGE CHECK PROCEDURE (AMM 29-11-00/601).

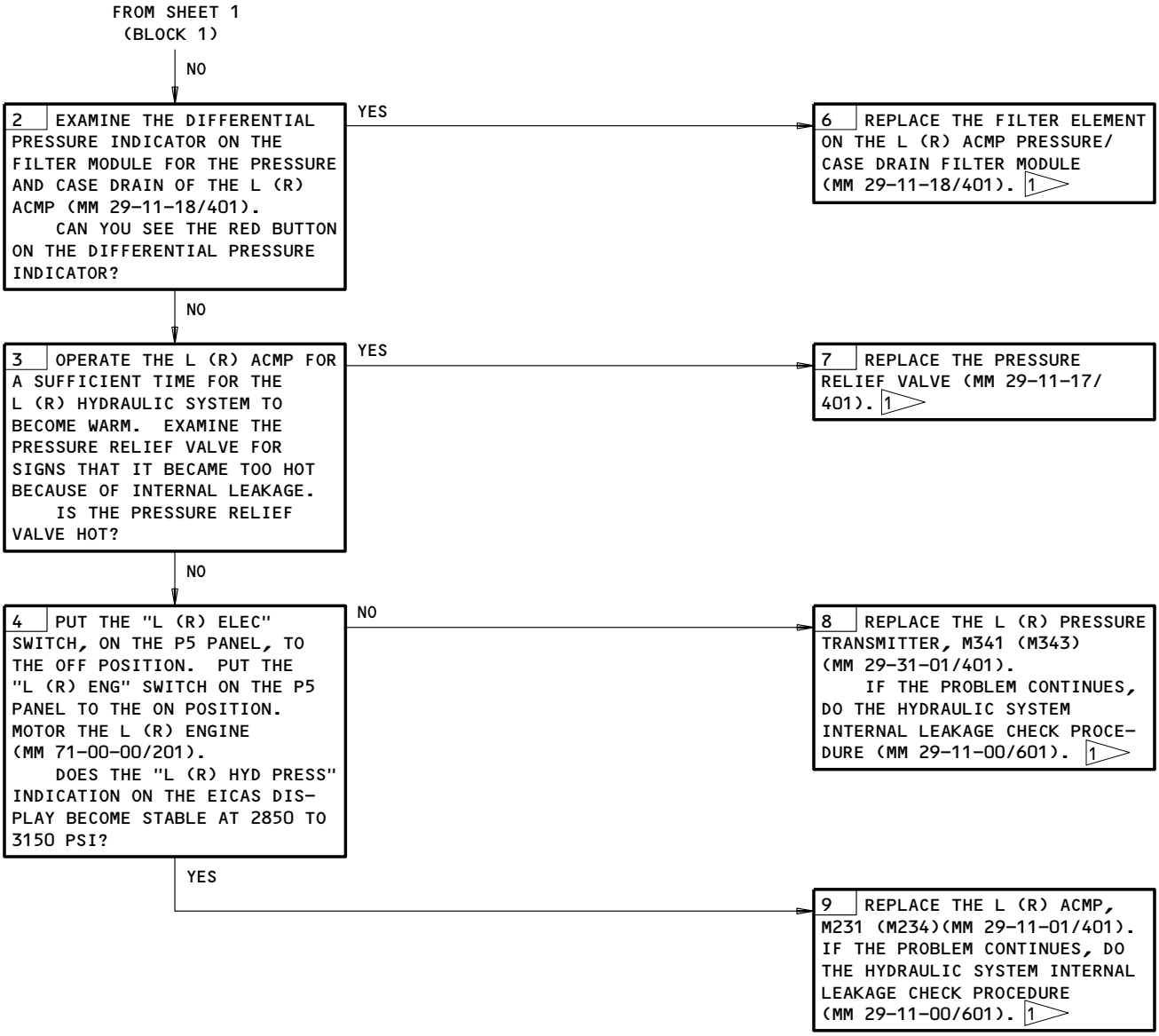
NO → SEE SHEET 2 (BLOCK 2)

1 ERASE THE "L (R) HYD SYS MAINT" MESSAGE (FIM 31-41-00/101, FIG. 109)

Left/Right ACMP Pressure Low
Figure 118 (Sheet 1)



117770




Left/Right ACMP Pressure Low
Figure 118 (Sheet 2)

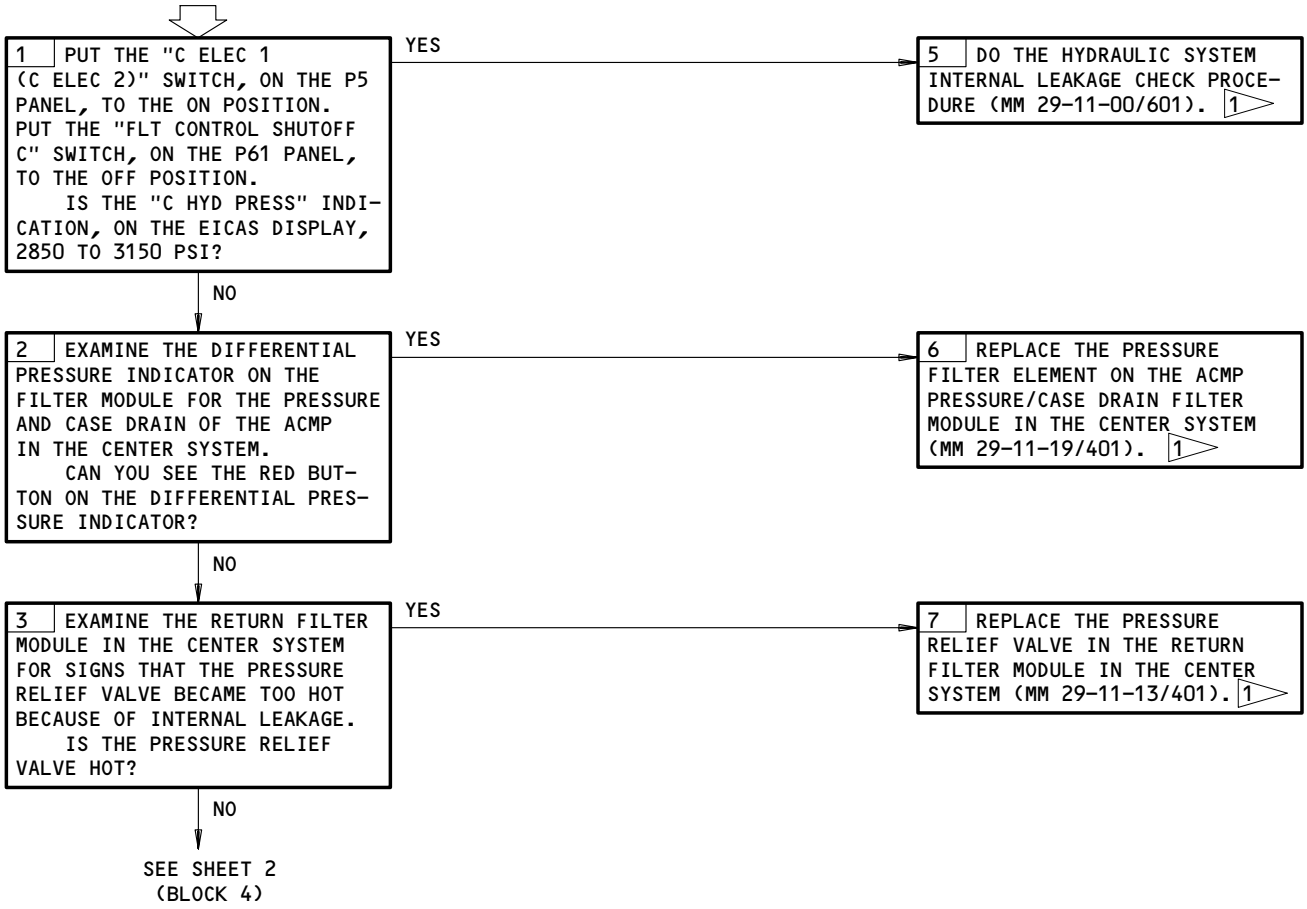
**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (MM 31-41-00/201)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
6K13,6K19,11K15,11K18,11K24

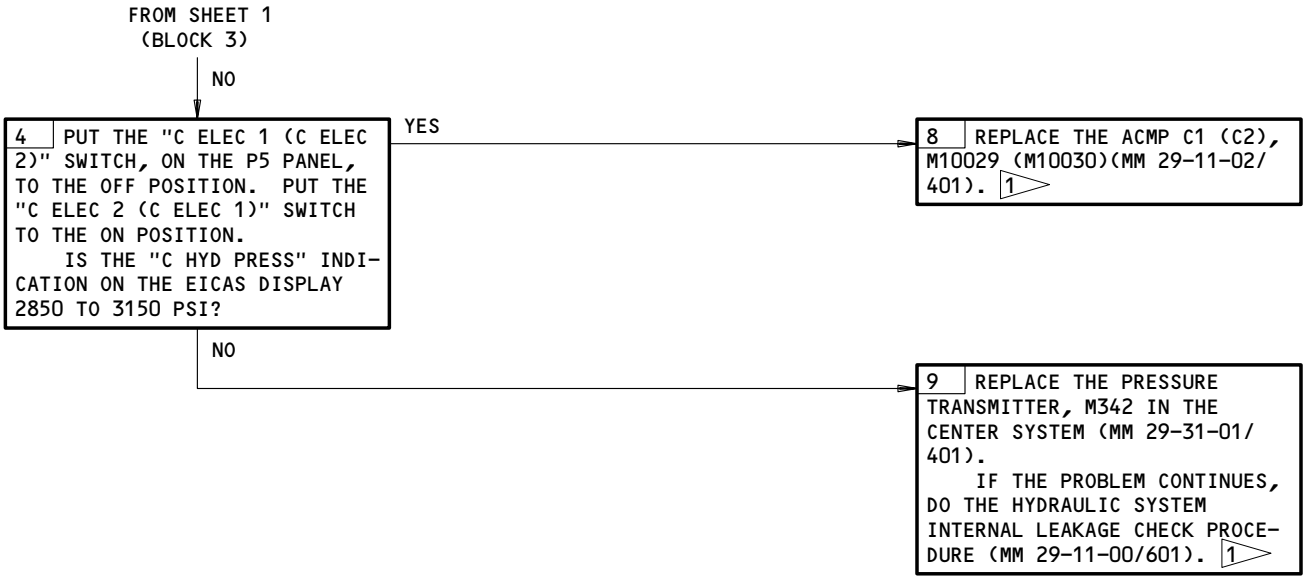
MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (MM 24-22-00/201)

## CENTER ACMP C1 (C2) PRESSURE LOW




1 ERASE THE "C HYD SYS MAINT" MESSAGE (31-41-00, FIG. 109)

Center ACMP C1 (C2) Pressure Low
Figure 119 (Sheet 1)




Center ACMP C1 (C2) Pressure Low
Figure 119 (Sheet 2)

**PREREQUISITES**

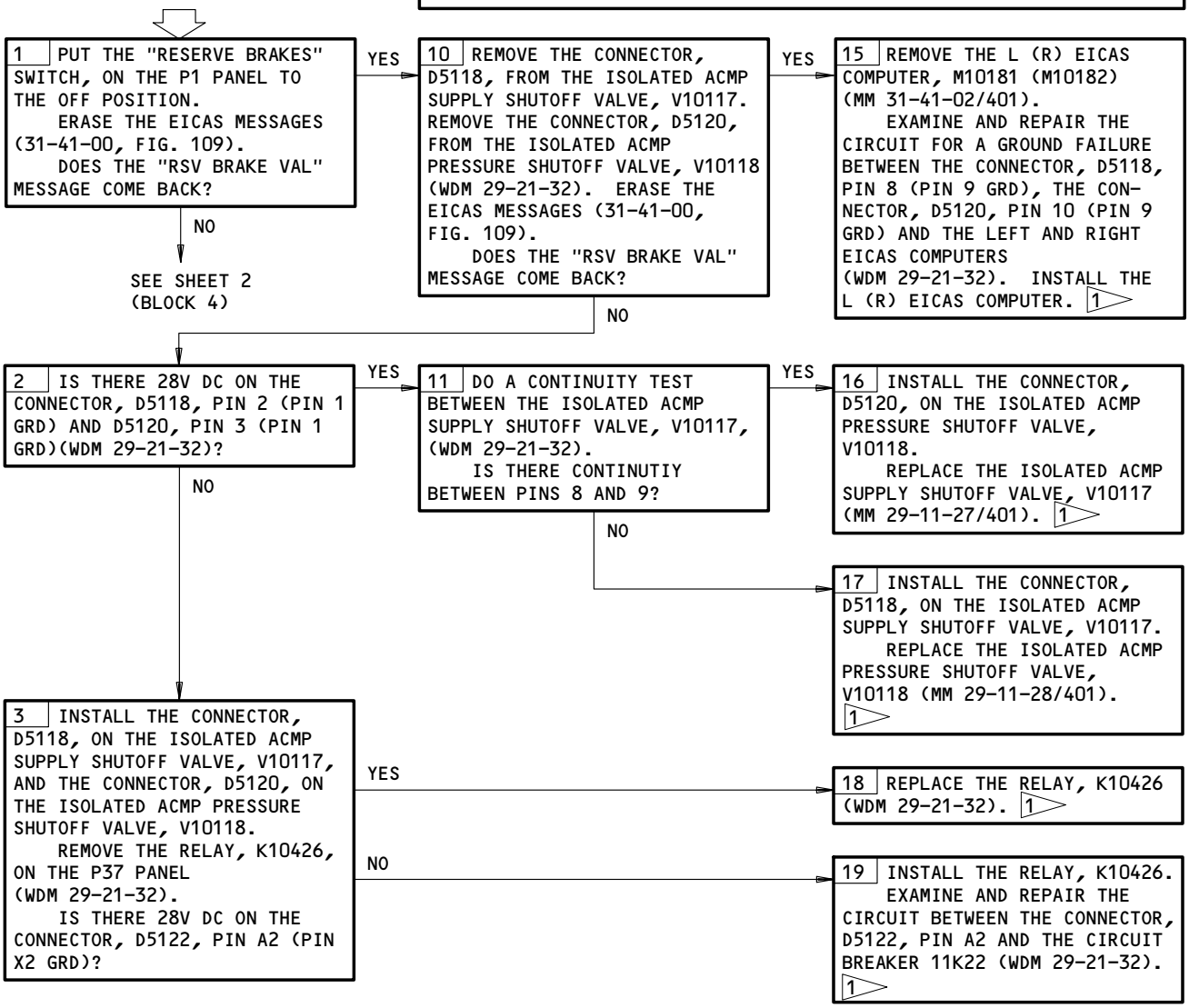
MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (MM 31-41-00/201)

MAKE SURE THIS CIRCUIT BREAKER IS CLOSED:
11K22

MAKE SURE THIS CIRCUIT BREAKER IS OPEN AND ATTACH A DO-NOT-CLOSE TAG:
11K16

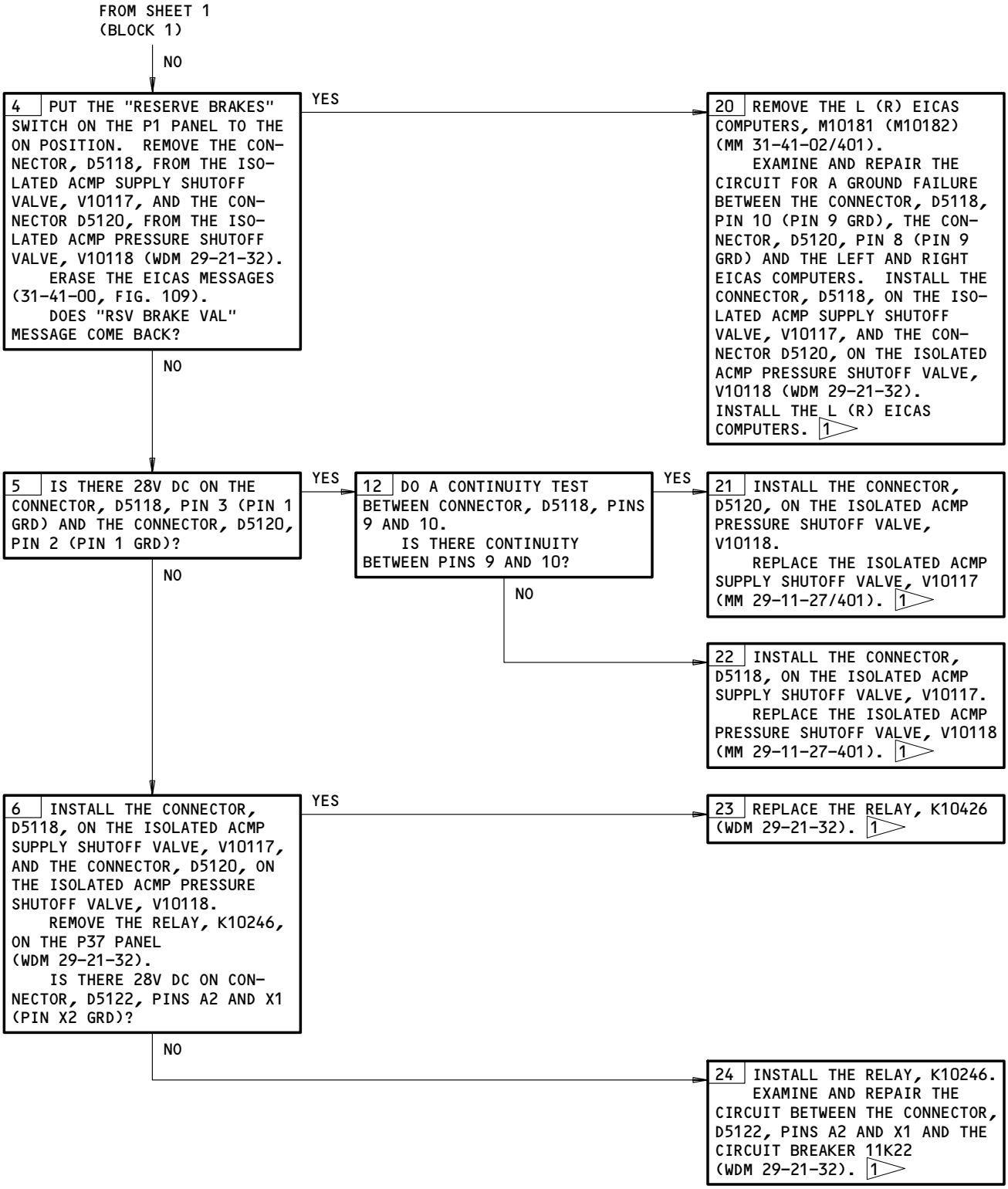
MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (MM 24-22-00/201)

"RSV BRAKE VAL" EICAS MESSAGE ILLUMINATED




1 ERASE THE EICAS MESSAGES (31-41-00, FIG. 109). REMOVE THE DO-NOT-CLOSE TAG AND CLOSE THIS CIRCUIT BREAKER: 11K16

RSV BRAKE VAL EICAS Message Illuminated
Figure 120 (Sheet 1)




RSV BRAKE VAL EICAS Message Illuminated
Figure 120 (Sheet 2)

## LEFT (RIGHT) HYDRAULIC SYSTEM QUANTITY INCREASED, RIGHT (LEFT) SYSTEM QUANTITY DECREASED

**PREREQUISITES**

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
6K13, 6K14, 6K19, 11K6, 11K15, 11K16, 11K17, 11K18, 11K25, 11K26

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)

1 REMOVE THE PRESSURE FROM THE LEFT AND RIGHT HYDRAULIC SYSTEMS AND THE RESERVOIRS (AMM 29-11-00/201).
DISCONNECT THE ALTERNATE BRAKE SYSTEM (LEFT) HYDRAULIC LINES AT EACH END OF THE LEFT AND RIGHT ANTISKID SHUTTLE VALVE MODULES (AMM 32-42-07/401).
PRESSURIZE THE RIGHT HYDRAULIC SYSTEM (AMM 29-11-00/201).
SET THE PARKING BRAKES (AMM 32-44-00/001).
DO A CHECK FOR HIGH PRESSURE LEAKAGE AT THE ALTERNATE BRAKE PORTS OF THE ANTISKID SHUTTLE VALVE MODULES.
IS THERE LEAKAGE AT THE PORTS OF THE ANTISKID SHUTTLE VALVE MODULE?

YES → 21 REPLACE THE PAIR OF THE ANTISKID SHUTTLE VALVES WHICH ARE ADJACENT TO THE PORT WHERE THERE IS LEAKAGE.
CONNECT THE HYDRAULIC LINES TO THE LEFT AND RIGHT ANTISKID SHUTTLE VALVE MODULES (AMM 32-42-07/401).
FILL THE RESERVOIRS IN THE LEFT AND RIGHT HYDRAULIC SYSTEMS (AMM 12-12-01/301).

NO

2 REMOVE THE PRESSURE FROM THE RIGHT HYDRAULIC SYSTEM AND KEEP THE RIGHT SYSTEM RESERVOIR PRESSURIZED (AMM 29-11-00/201).
RELEASE THE PARKING BRAKE (AMM 32-44-00/001).
DO A CHECK FOR LOW PRESSURE LEAKAGE AT THE ANTISKID SHUTTLE VALVE MODULES.
IS THERE A LEAKAGE AT THE PORTS OF THE ANTISKID SHUTTLE VALVE MODULES?

YES → 22 REPLACE THE PAIR OF THE ANTISKID SHUTTLE VALVES WHICH ARE ADJACENT TO THE PORT WHERE THERE IS LEAKAGE.
CONNECT THE HYDRAULIC LINES TO THE LEFT AND RIGHT ANTISKID SHUTTLE VALVE MODULES (AMM 32-42-07/401).
FILL THE RESERVOIRS IN THE LEFT AND RIGHT HYDRAULIC SYSTEMS (AMM 12-12-01/301).

NO

SEE SHEET 2
(BLOCK 3)

Left (Right) Hydraulic System Quantity Increased,
Right (Left) System Quantity Decreased
Figure 121 (Sheet 1)

FROM SHEET 1
(BLOCK 2)

NO

3 CONNECT THE HYDRAULIC LINES TO THE LEFT AND RIGHT ANTISKID SHUTTLE VALVE MODULES (AMM 32-42-07/401).

NOTE: IF THERE IS STILL HYDRAULIC FLUID MOVEMENT, THERE MIGHT BE A PROBLEM WITH THE BRAKE METERING VALUE CABLE QUADRANT BEARINGS (757-FTD-32-00008)

FILL THE RESERVOIRS IN THE LEFT AND RIGHT HYDRAULIC SYSTEMS (AMM 12-12-01/301).
THE SYSTEM IS OK.

NOTE: THE MOVEMENT OF FLUID BETWEEN THE LEFT AND RIGHT HYDRAULIC SYSTEMS OCCURS BECAUSE OF THE SEQUENCE OF PARKING BRAKE OPERATION IN RELATION TO THE SEQUENCE IN WHICH YOU SUPPLY AND REMOVE PRESSURE TO THE HYDRAULIC SYSTEM.

Left (Right) Hydraulic System Quantity Increased,
Right (Left) System Quantity Decreased
Figure 121 (Sheet 2)

## LEFT/RIGHT ACMP LOW PRESSURE LIGHT NOT ILLUMINATED WITH PUMP OFF AND PRES-SURE ZERO

**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
- MASTER DIM AND TEST (MM 33-16-00/501)

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
- ELECTRICAL POWER IS ON (MM 24-22-00/201)
- LEFT AND RIGHT HYDRAULIC SYSTEM POWER IS OFF (MM 29-11-00/201)

1 REMOVE THE CONNECTOR, D3102 (D3066), FROM THE PRESSURE SWITCH, S25 (S30) ON THE L (R) ACMP PRESSURE/ CASE DRAIN FILTER MODULE. INSTALL A JUMPER BETWEEN THE CONNECTOR, D3102 (D3066), PINS 2 AND 3 (WDM 29-11-12,-22). IS THE "L (R) ELEC" "PRESS" LIGHT ON?

YES → 5 REMOVE THE JUMPER FROM THE CONNECTOR, D3102 (D3066). REPLACE THE L (R) ACMP PRESSURE SWITCH, S25 (S30) (MM 29-11-18/401).

NO → 6 REMOVE THE JUMPER FROM THE CONNECTOR, D3102 (D3066). INSTALL THE CONNECTOR, D3102 (D3066), ON THE L (R) ACMP PRESSURE SWITCH, S25 (S30). REPLACE THE TIME DELAY, M10557 (M10559), ON THE P33 (P36) PANEL (WDM 29-11-12,-22).

Left/Right ACMP Low Pressure Light Illuminated with Pump Off and Pressure Zero
Figure 122

**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (AMM 31-41-00/201)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11D28, 11D29, 11K14, 11K17, 11K23, 11K26

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)

**LEFT (RIGHT) EDP LOW PRESSURE LIGHT ILLUMINATED WITH EDP ON**

1 MAKE SURE THE L (R) ENGINE FIRE SWITCH, S37 (S38), ON THE P8 PANEL IS IN THE USUAL POSITION.

CAUTION: MAKE SURE HYDRAULIC QUANTITY AT THE RESERVOIR SIGHT GLASS IS NOT LOW. OPERATION OF PUMPS WITH LOW HYDRAULIC QUANTITY CAN CAUSE DAMAGE.

IF IT IS NECESSARY, SERVICE THE RESERVOIR WITH HYDRAULIC FLUID (AMM 12-12-01/301).

MAKE SURE THE "L (R) ENG" SWITCH ON THE P5 PANEL IS IN THE ON POSITION.

MOTOR THE L (R) ENGINE (AMM 71-00-00/201).

IS THE "L (R) HYD PRESS" INDICATION, ON THE EICAS DISPLAY, 2850 TO 3150 PSI?

YES → 15 REPLACE THE L (R) EDP PRESSURE SWITCH, S10540 (S10541)(AMM 29-11-17/401).

NO ↓

2 STOP THE L (R) ENGINE (AMM 71-00-00/201).

KEEP THE "L (R) ENG" SWITCH IN THE ON POSITION.

REMOVE CONNECTOR D1392 FROM THE L (R) EDP DEPRESSURIZATION VALVE, V10027 (WDM 29-11-11,-21).

IS THERE 28V DC AT CONNECTOR D1392, PIN 1 (PIN 3, GND)?

YES → 10 INSTALL CONNECTOR D1392 ON THE L (R) EDP DEPRESSURIZATION VALVE, V10027.

REMOVE CONNECTOR D1594 (D1588) FROM THE L (R) ENGINE FIRE SWITCH, S37 (S38) (WDM 29-11-11,-21).

DO A CONTINUITY CHECK FROM SWITCH S37 (S38), PIN 17 TO PIN 34.

IS THERE CONTINUITY FROM PIN 17 TO PIN 34?

YES → 16 REPLACE THE L (R) ENGINE FIRE SWITCH, S37 (S38) (AMM 26-21-02/401).

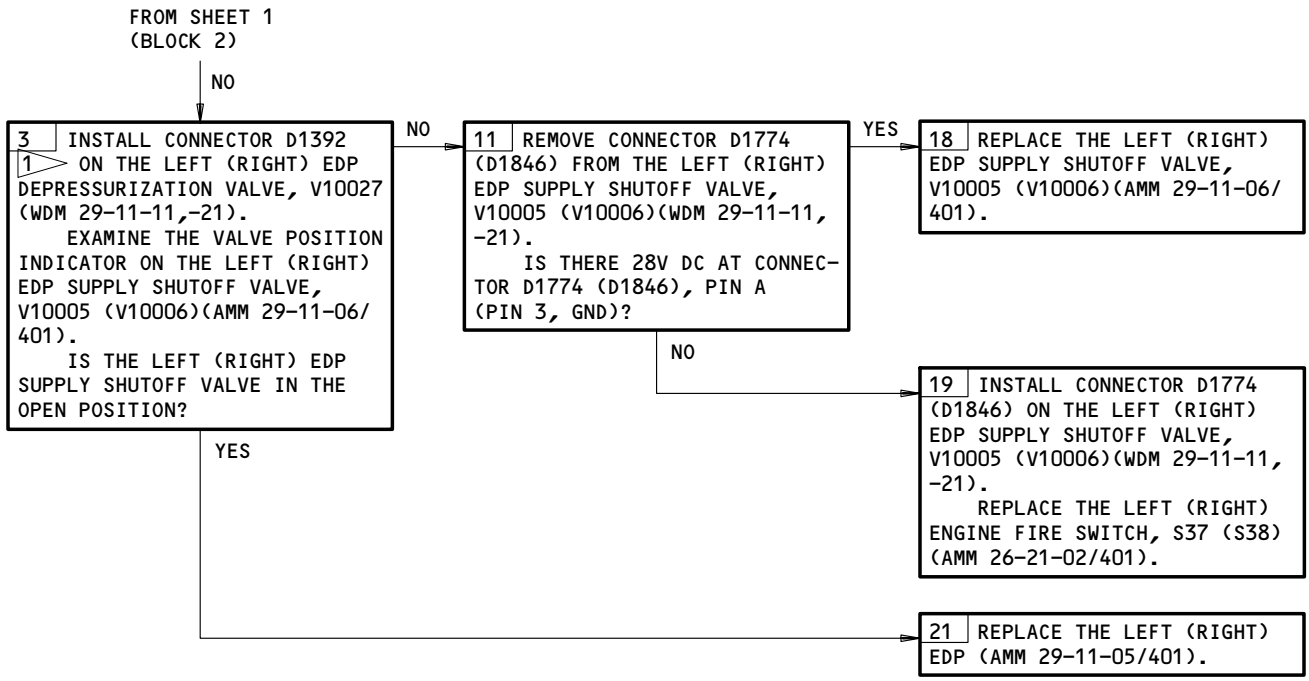
NO → 17 INSTALL CONNECTOR D1594 (D1588), ON THE L (R) ENGINE FIRE SWITCH, S37 (S38).

REPLACE THE HYDRAULIC SYSTEM CONTROL PANEL, M10050 (SWITCH S1 OR S4 IS BAD) (WDM 29-11-11,-21).

NO ↓

SEE SHEET 2 (BLOCK 3)

Left (Right) EDP Low Pressure Light Illuminated with EDP On
Figure 123 (Sheet 1)




Left (Right) EDP Low Pressure Light Illuminated with EDP On
Figure 123 (Sheet 2)

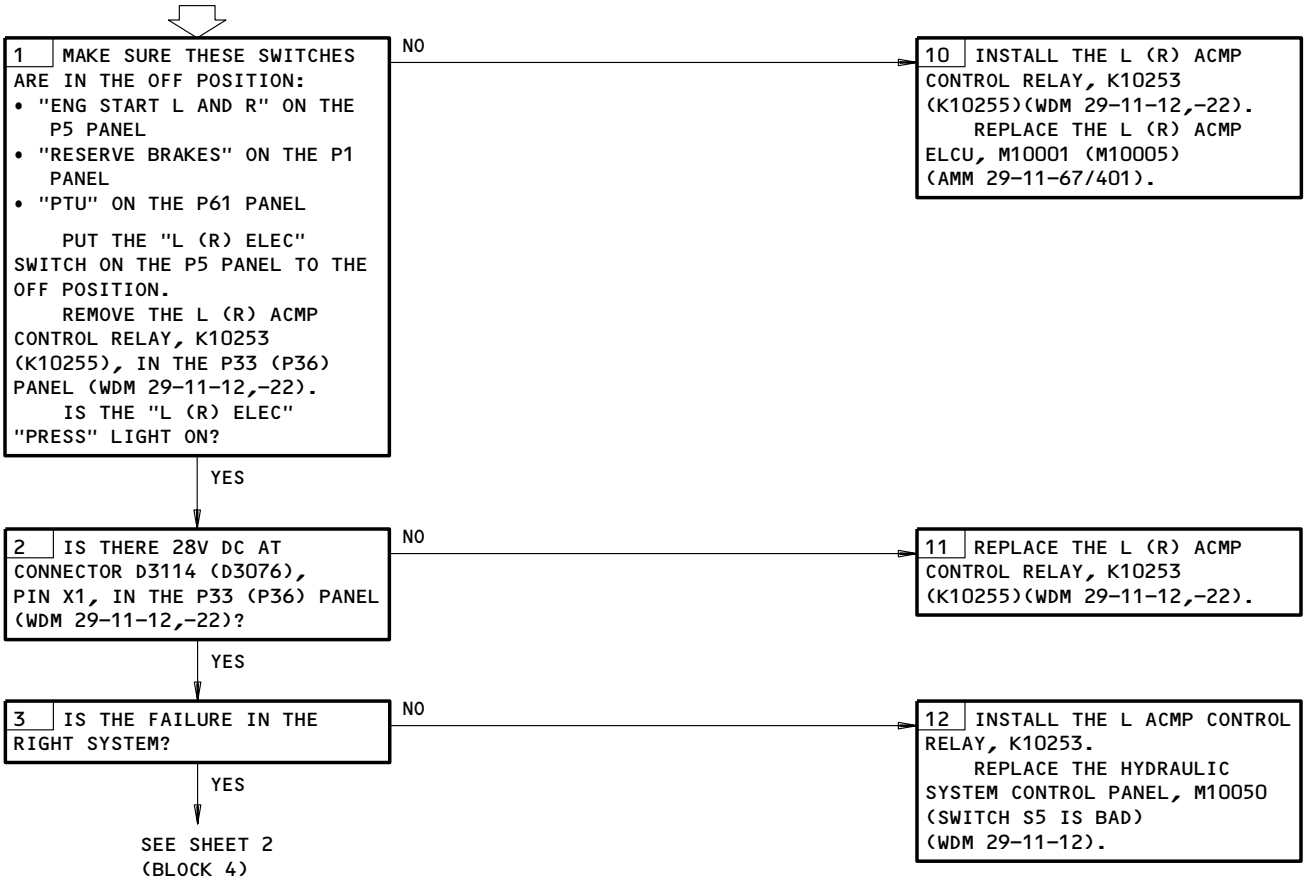
**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
MASTER DIM AND TEST (AMM 33-16-00/501)

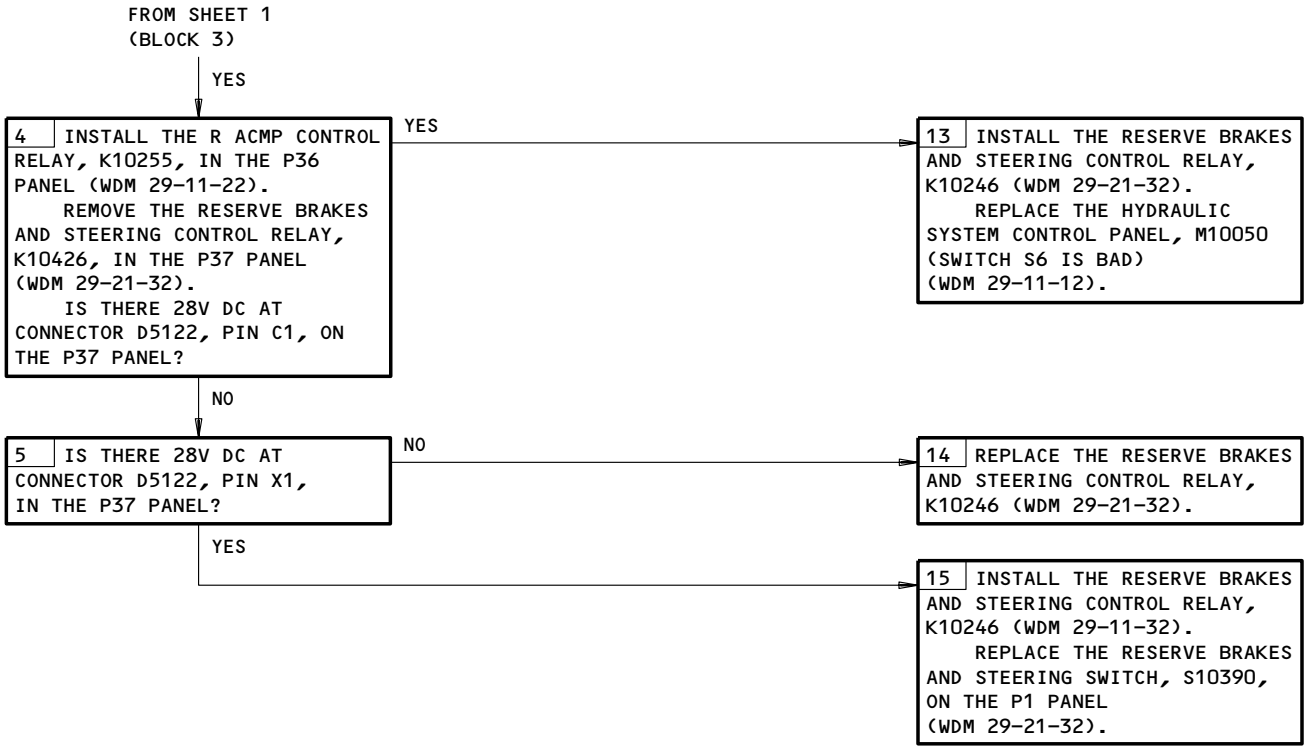
MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
6K14,11K16,11K17,11K25,11K26

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
THE TWO ENGINES ARE OFF (AMM 71-00-00/201)

## LEFT/RIGHT ACMP WILL NOT SHUT OFF




Left/Right ACMP Will Not Shut Off
Figure 124 (Sheet 1)



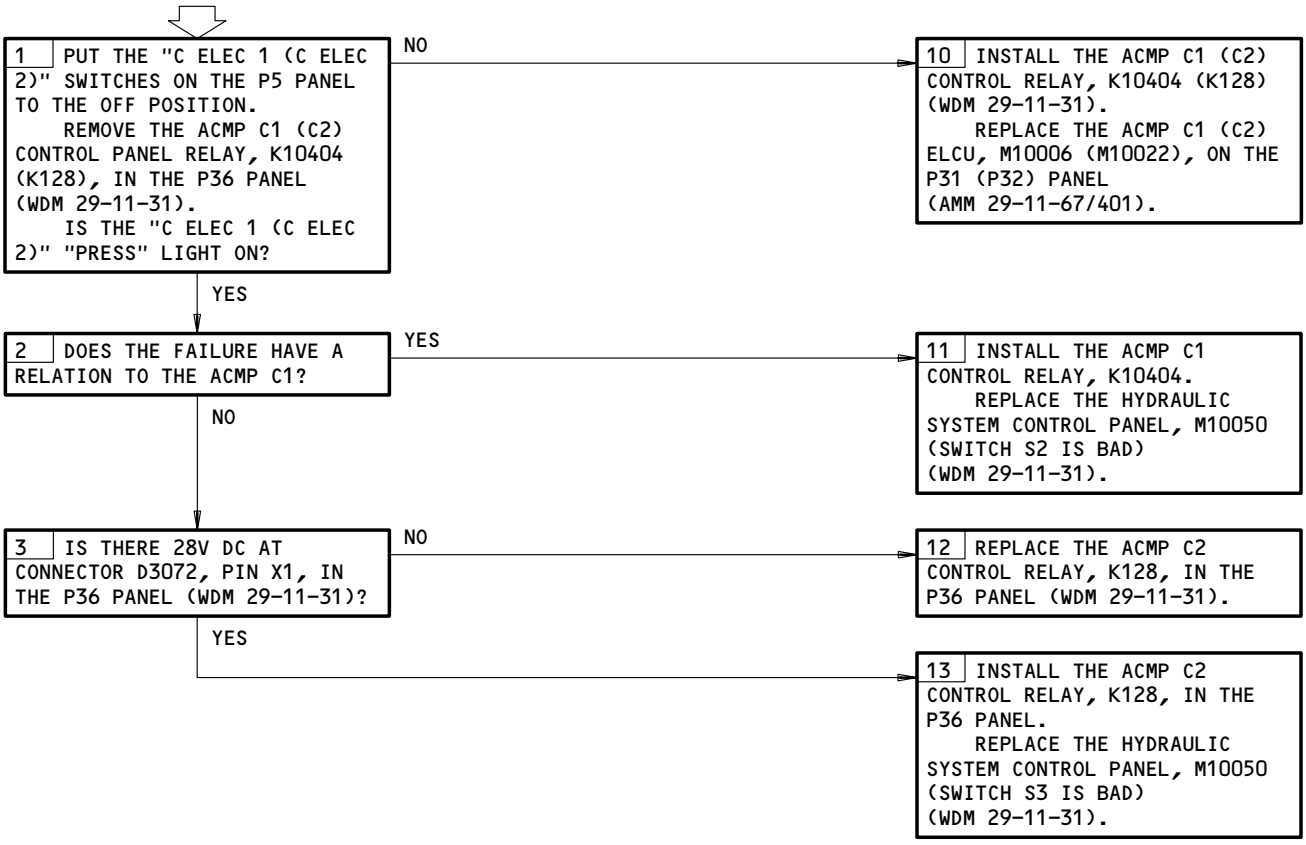

Left/Right ACMP Will Not Shut Off
Figure 124 (Sheet 2)

**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
MASTER DIM AND TEST (AMM 33-16-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
6K13,6K19,11K15,11K18,11K24

## CENTER ACMP C1 (C2) WILL NOT SHUT OFF



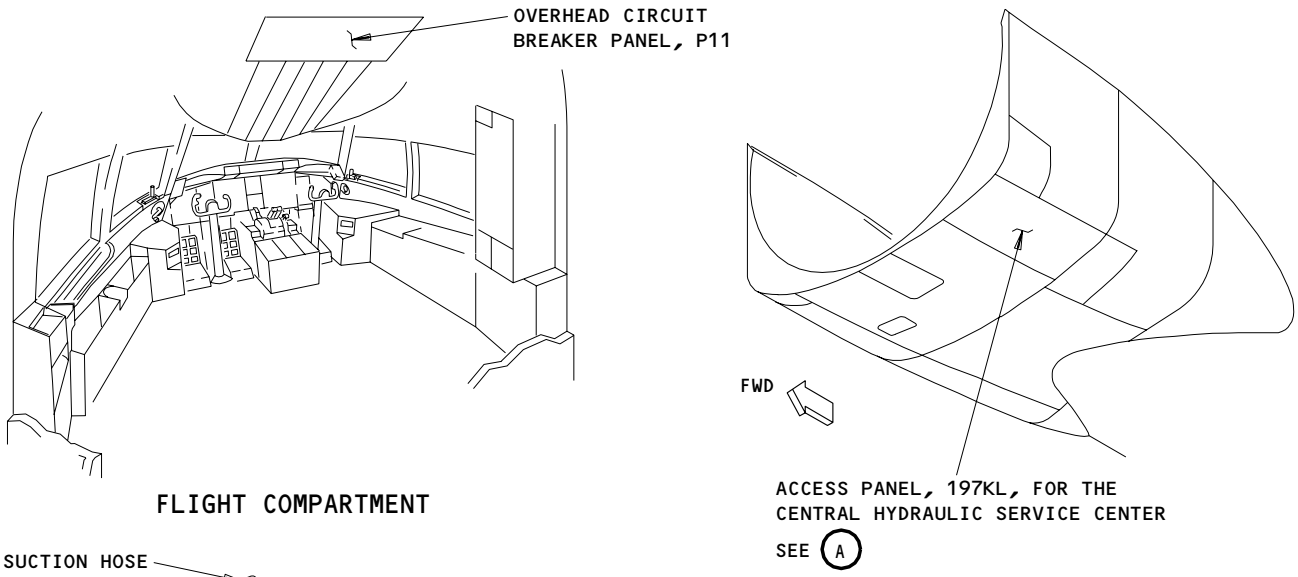

Center ACMP C1 (C2) Will Not Shut Off
Figure 125

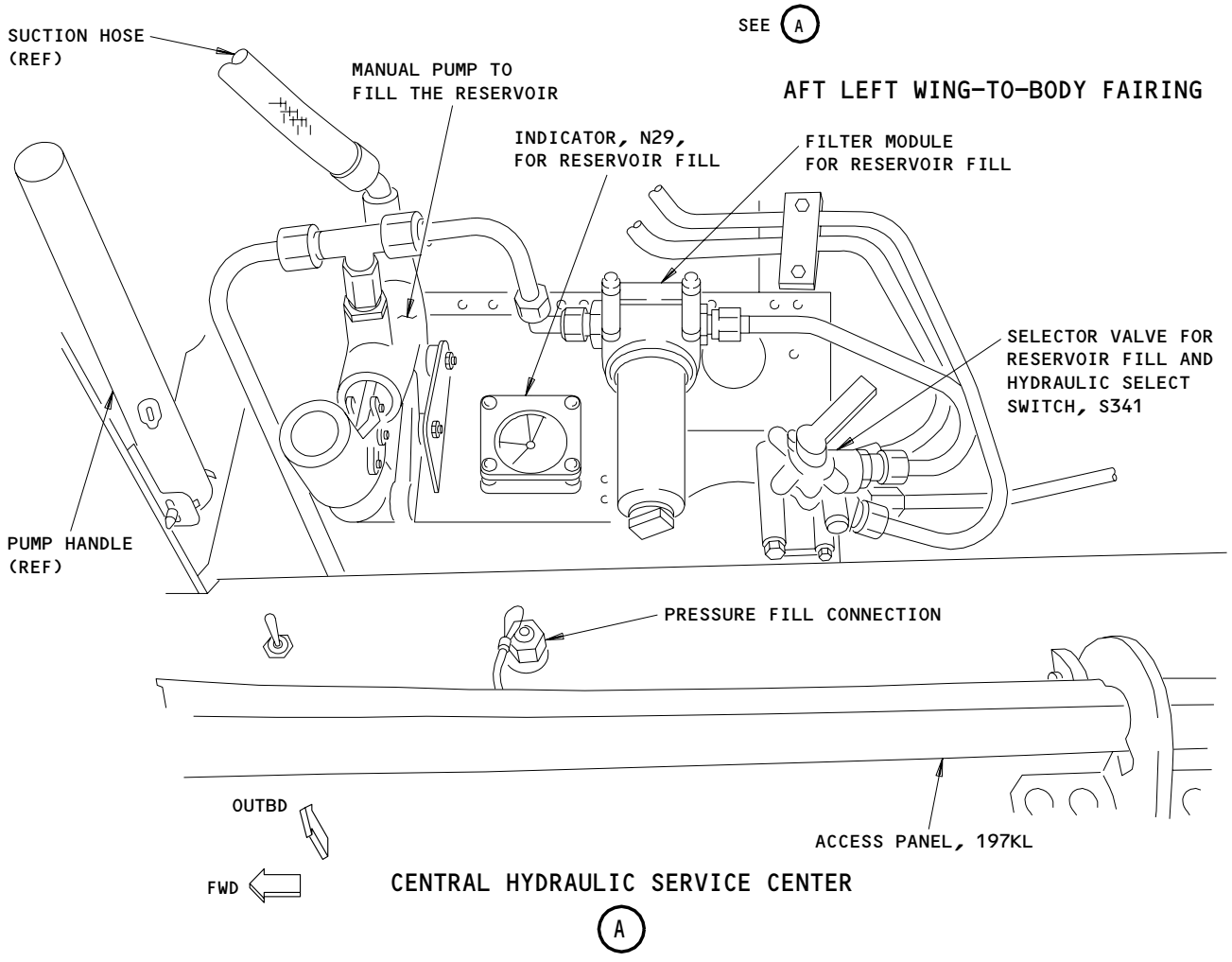
GROUND SERVICING SYSTEM

| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | REFERENCE |
|---|---|---|---|---|
| CIRCUIT BREAKERS | -- | 1 | FLIGHT COMPARTMENT, P11 PANEL | |
| HYDRAULICS QTY CTR, C4192 | | 1 | 11K19 | * |
| HYDRAULICS QTY LEFT, C1101 | | 1 | 11K20 | * |
| HYDRALICS QTY RIGHT, C4193 | | 1 | 11K21 | * |
| CONNECTION - PRESSURE FILL | -- | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING | 29-18-00 |
| INDICATOR - RESERVOIR FILL, N29 | -- | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING | 29-18-03 |
| MODULE - RESERVOIR FILL FILTER | -- | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING | 29-18-04 |
| PUMP - RESERVOIR MANUAL FILL | -- | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING | 29-18-01 |
| SWITCH - HYDRAULIC QUANTITY SELECT, S341 | -- | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING, RESERVOIR FILL SELECTOR VALVE | * |
| TRANSMITTER - (REF 29-33-00, FIG. 101) | | | | |
| HYDRAULIC FLUID QUANTITY | | | | |
| SYS C, M339 | | | | |
| SYS L, M338 | | | | |
| SYS R, M340 | | | | |
| UNIT - (REF 29-33-00, FIG. 101) | | | | |
| HYDRAULIC FLUID QUANTITY MONITOR, M122 | | | | |
| VALVE - RESERVOIR FILL SELECTOR | -- | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING | 29-18-02 |

* SEE THE WDM EQUIPMENT LIST

Ground Servicing System - Component Index
Figure 101




Ground Servicing System - Component Location
Figure 102

RAM AIR TURBINE (RAT) SYSTEM

| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | REFERENCE |
|---|---|---|---|---|
| ACTUATOR - RAT DEPLOYMENT | 2 | 1 | 198MR, AFT RIGHT WING-TO-BODY FAIRING | 29-21-05 |
| ASSEMBLY - RAT, M10148 | 3 | 1 | 198MR, AFT RIGHT WING-TO-BODY FAIRING | 29-21-01 |
| CABLE - RAT BLADE LOCK | 4 | 1 | 198MR, AFT RIGHT WING-TO-BODY FAIRING, RAT ASSEMBLY, M10148 | 29-21-19 |
| CARDS - (77-12-00/101) | | | | |
| LEFT ENGINE SPEED, M10298 | | | | |
| RIGHT ENGINE SPEED, M10311 | | | | |
| CIRCUIT BREAKERS - | 1 | | FLIGHT COMPARTMENT, P6 PANEL | |
| RAT MAN CONT, C4287 [1] | | 1 | 6F2 | * |
| RAT MAN PWR, C4062 | | 1 | 6F1 | |
| CIRCUIT BREAKERS - | 1 | | FLIGHT COMPARTMENT, P11 PANEL | |
| HYDRAULIC RAT AUTO CONT, C4061 [1] | | 1 | 11D26 | * |
| HYDRAULIC RAT CONT, C4061 [2] | | 1 | 11D26 | * |
| HYDRAULIC RAT AUTO PWR, C4216 [1] | | 1 | 11D27 | * |
| HYDRAULIC RAT AUTO, C4216 [2] | | 1 | 11D27 | |
| COMPUTERS - (31-41-00/101) | | | | |
| EICAS L, M10181 | | | | |
| EICAS R, M10182 | | | | |
| DOOR - RAT COMPARTMENT | 2 | 1 | 198MR, AFT RIGHT WING-TO-BODY FAIRING | 29-21-09 |
| HARNESS - RAT WIRE | 4 | 1 | 198MR, AFT RIGHT WING-TO-BODY FAIRING, RAT ASSEMBLY, M10148 | 29-21-18 |
| HUB - RAT | 4 | 1 | 198MR, AFT RIGHT WING-TO-BODY FAIRING, RAT ASSEMBLY, M10148 | 29-21-01 |
| LINK - RAT DOOR ACTUATOR | 3 | 1 | 198MR, AFT RIGHT WING-TO-BODY FAIRING | 29-21-10 |
| MODULE - RAT CHECKOUT | 5 | 1 | RIGHT WHEEL WELL | 29-21-11 |
| PANELS - (80-11-00/101) | | | | |
| ENG START/RAT CONT, M10468 | | | | |
| PLUNGER - RAT BLADE LOCK | 4 | 1 | 198MR, AFT RIGHT WING-TO-BODY FAIRING, RAT ASSEMBLY, M10148 | 29-21-19 |
| PUMP - RAT HYDRAULIC | 4 | 1 | 198MR, AFT RIGHT WING-TO-BODY FAIRING, RAT ASSEMBLY, M10148 | 29-21-01 |

* SEE THE WDM EQUIPMENT LIST

Ram Air Turbine (RAT) System - Component Index
Figure 101 (Sheet 1)



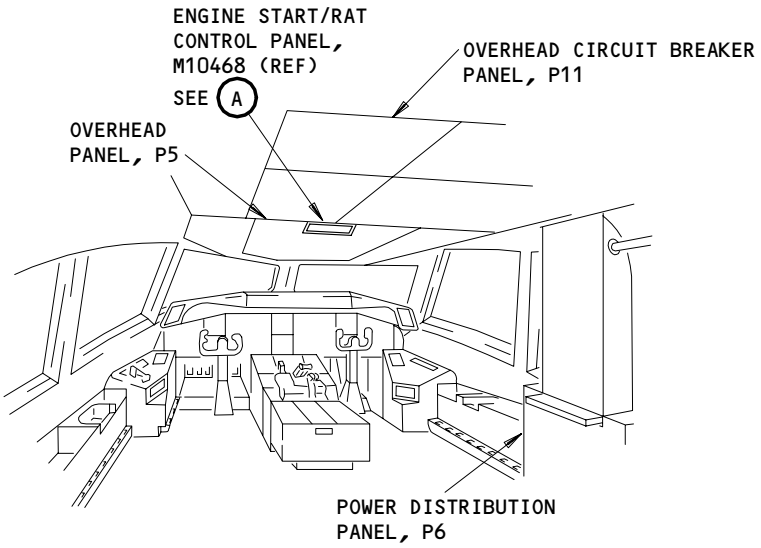
A71441

| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | REFERENCE |
|---|---|---|---|---|
| RELAY - (31-01-33/101)<br>RAT AUTO CONTROL, K10059 | | | | |
| RELAYS - (31-01-36/101)<br>RAT MANUAL CONTROL, K10058<br>SYSTEM 1 AIR/GROUND, K10384 | | | | |
| SENSOR - RAT TACHOMETER SPEED | 4 | 1 | 198MR, AFT RIGHT WING-TO-BODY FAIRING, RAT ASSEMBLY, M10148 | 29-21-15 |
| SOLENOID - RAT ACTUATOR AUTO, M10407 | 2 | 1 | 198MR, AFT RIGHT WING-TO-BODY FAIRING, RAT DEPLOYMENT ACTUATOR | * |
| SOLENOID - RAT ACTUATOR MANUAL, M10406 | 2 | 1 | 198MR, AFT RIGHT WING-TO-BODY FAIRING, RAT DEPLOYMENT ACTUATOR | * |
| SWITCH - RAT ARM Q AIRSPEED, S10334 | 6 | 1 | 119BL, MAIN EQUIPMENT CENTER, E1 RACK | 29-21-53 |
| SWITCH - RAT BLADE LOCK LIMIT | 4 | 1 | 198MR, AFT RIGHT WING-TO-BODY FAIRING, RAT ASSEMBLY, M10148 | 29-21-21 |
| SWITCH - RAT GROUND MANUAL, M10405 | 5 | 1 | RIGHT WHEEL WELL | 29-21-51 |
| SWITCH - RAT HYDRAULIC PRESSURE, S10323 | 5 | 1 | RIGHT WHEEL WELL, RAT GROUND CHECKOUT MODULE | 29-21-11 |
| SWITCH - RAT STOWED LIMIT, S10258 | 3 | 1 | 198MR, AFT RIGHT WING-TO-BODY FAIRING, RAT ASSEMBLY, M10148 | 29-21-17 |
| SWITCH - RAT STRUT POSITION LIMIT | 3 | 1 | 198MR, AFT RIGHT WING-TO-BODY FAIRING, RAT ASSEMBLY, M10148 | 29-21-20 |
| SWITCH/LIGHT - RAT DEPLOYMENT, YQUS1 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, ENGINE START/RAT CONTROL PANEL, M10468 | * |
| TACHOMETER - RAT, N10028 | 5 | 1 | RIGHT WHEEL WELL | 29-21-51 |
| TIME DELAY - (31-01-33/101)<br>RAT, M10323 | | | | |
| VALVE - RAT ACTUATOR CONTROL, V10070 | 2 | 1 | 198MR, AFT RIGHT WING-TO-BODY FAIRING | 29-21-04 |
| VALVE - RAT SAFETY, V10069 | 5 | 1 | RIGHT WHEEL WELL | 29-21-14 |

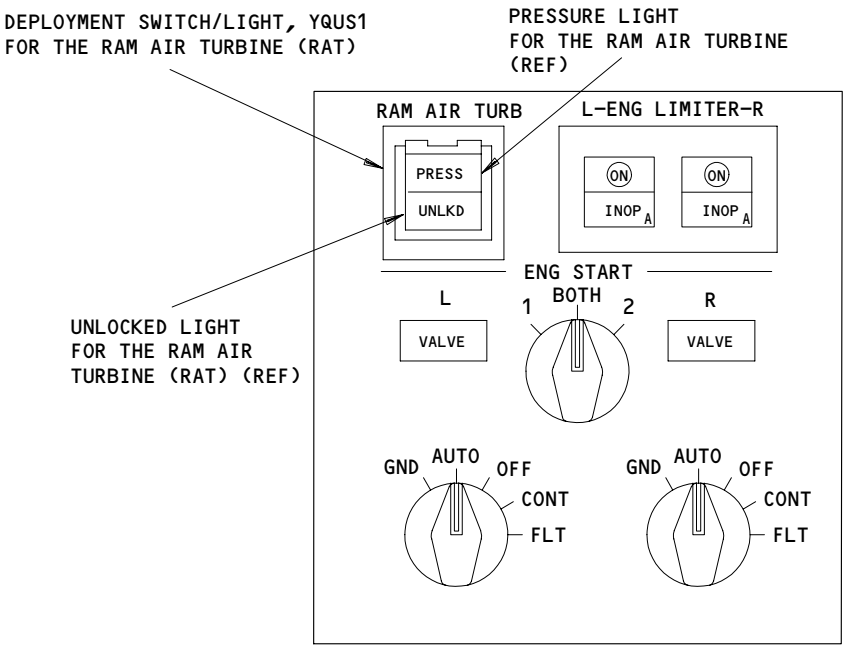
* SEE THE WDM EQUIPMENT LIST

1> ALL EXCEPT GUI 115
2> GUI 115

Ram Air Turbine (RAT) System - Component Index
Figure 101 (Sheet 2)



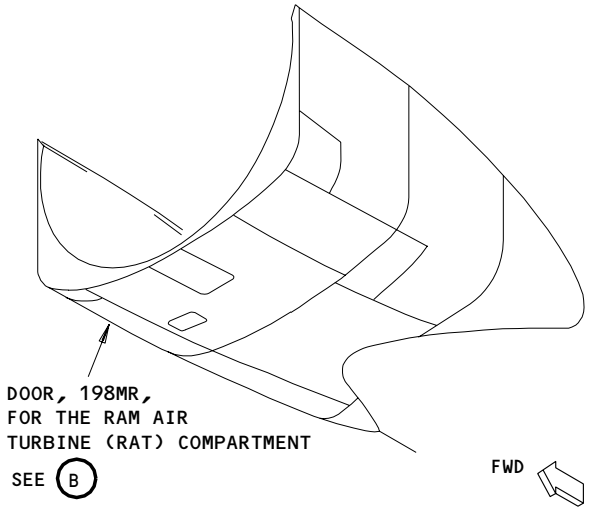

FLIGHT COMPARTMENT



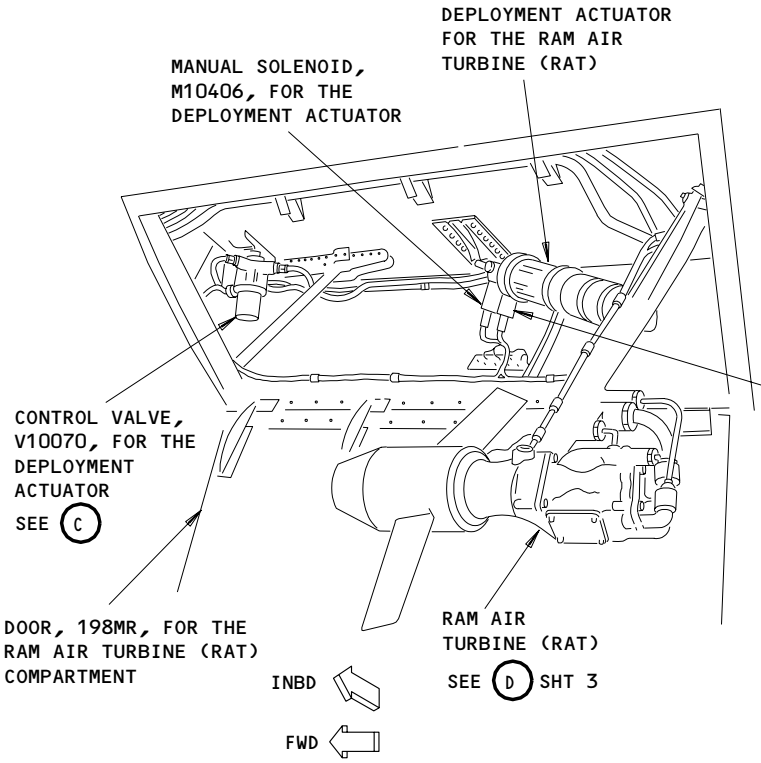

ENGINE START/RAT CONTROL PANEL, M10468 (REF)

A

Ram Air Turbine (RAT) System - Component Location
Figure 102 (Sheet 1)

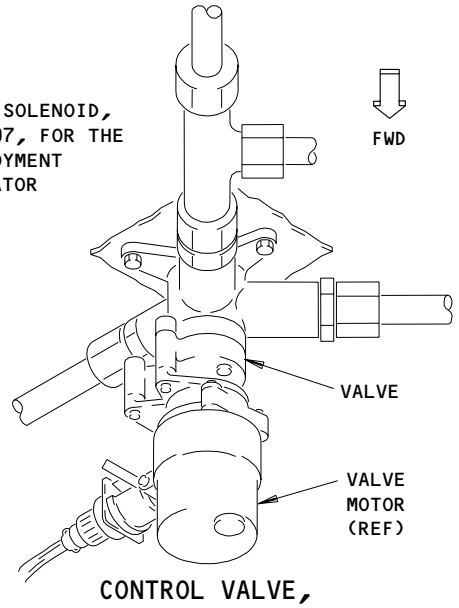



AFT WING-TO-BODY FAIRING




RAM AIR TURBINE (RAT) COMPARTMENT

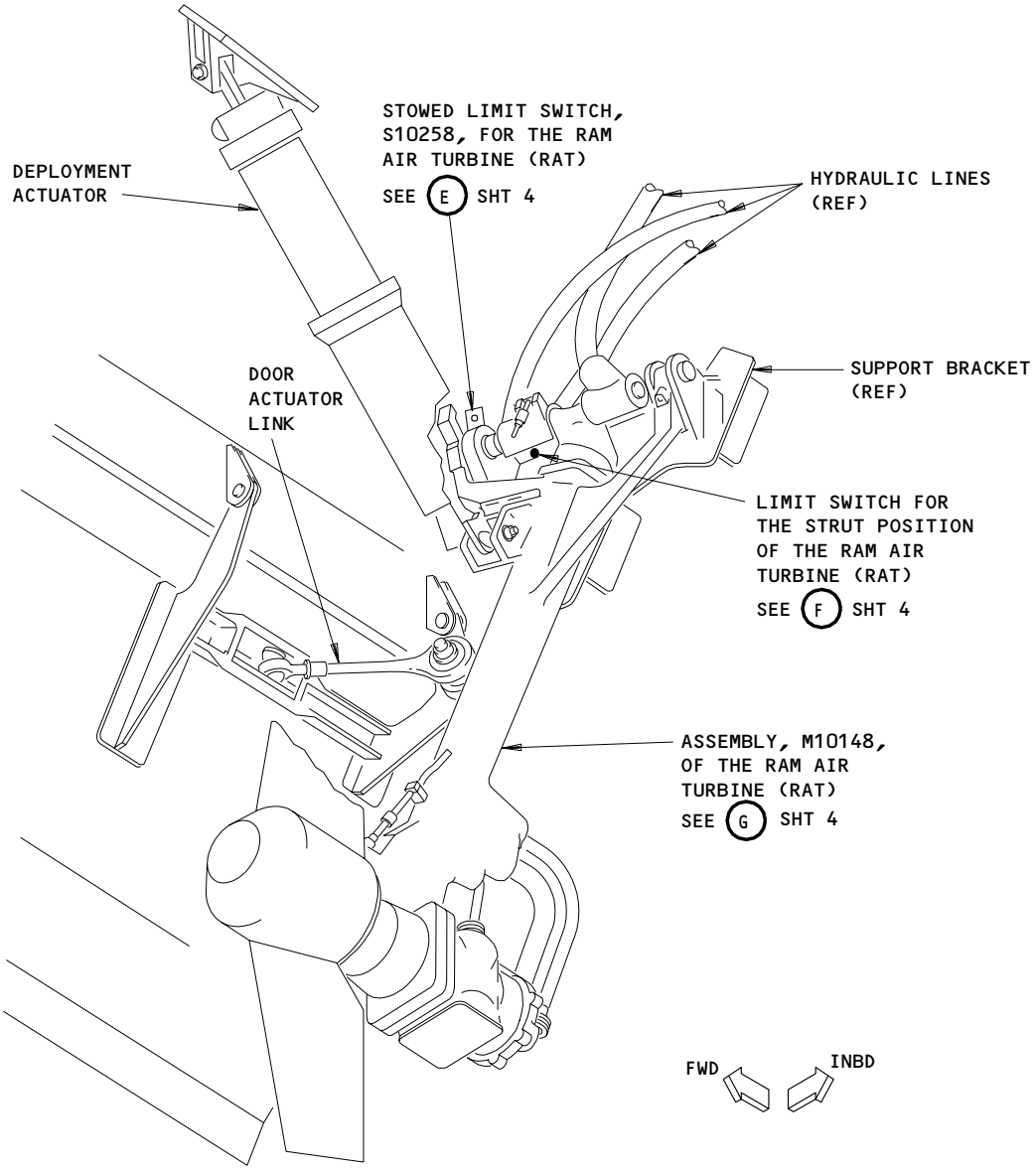
B




CONTROL VALVE,
V10070, FOR THE
DEPLOYMENT ACTUATOR

C

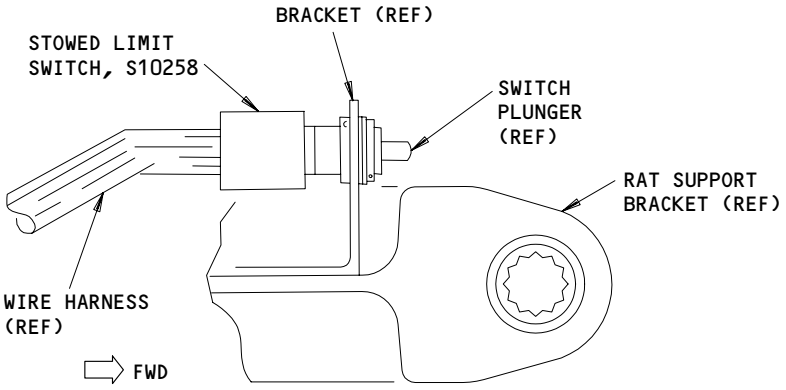
Ram Air Turbine (RAT) System - Component Location
Figure 102 (Sheet 2)




RAM AIR TURBINE (RAT)

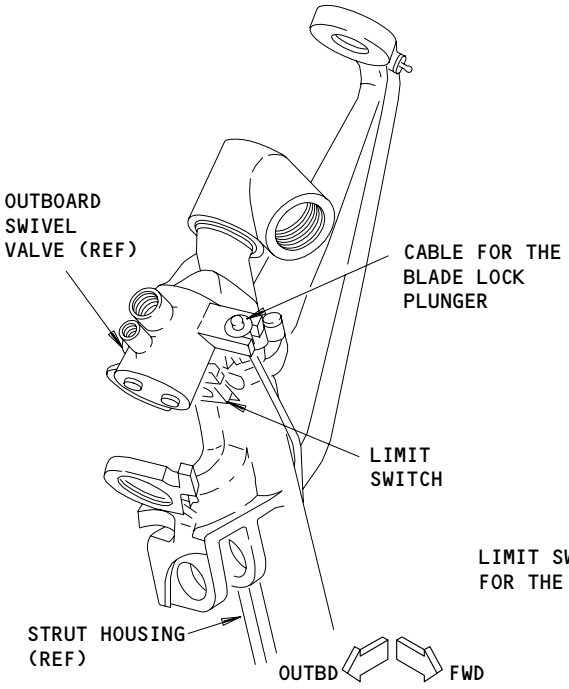
(D)

Ram Air Turbine (RAT) System – Component Location (Detail From Sht 2)
Figure 102 (Sheet 3)



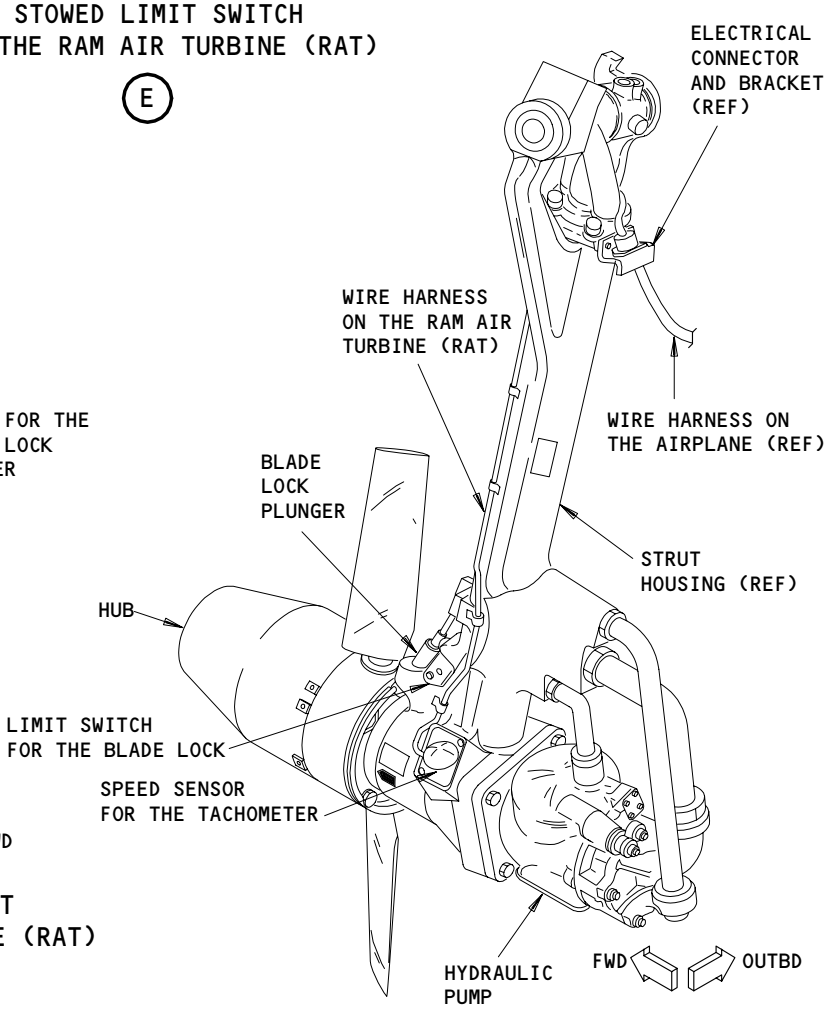

STOWED LIMIT SWITCH
FOR THE RAM AIR TURBINE (RAT)

(E)




LIMIT SWITCH FOR THE STRUT
POSITION OF THE RAM AIR TURBINE (RAT)

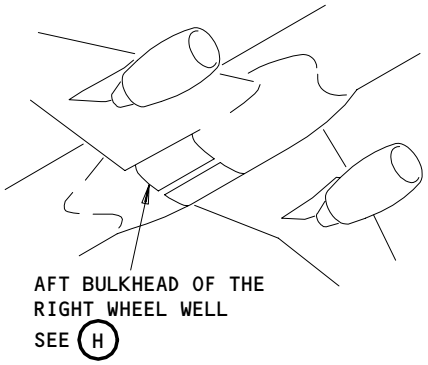
(F)

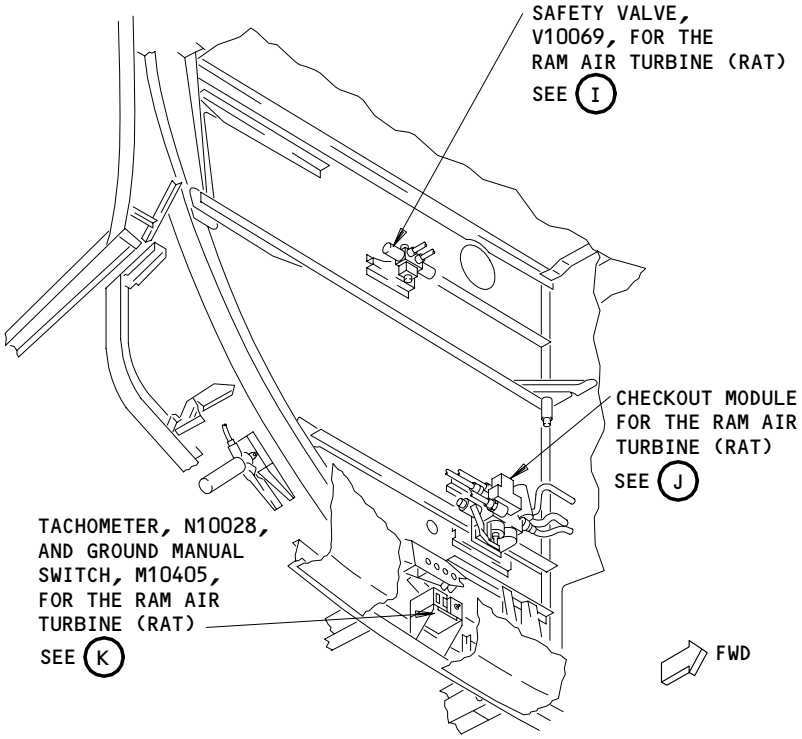



ASSEMBLY, M10148, OF THE
RAM AIR TURBINE (RAT)

(G)

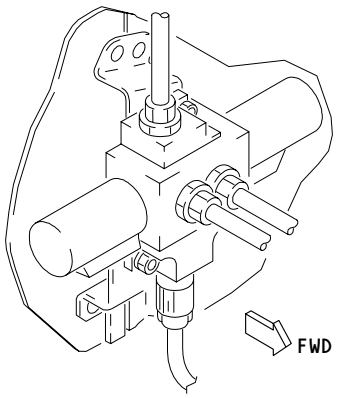
Ram Air Turbine (RAT) System – Component Location (Details from Sht 3)
Figure 102 (Sheet 4)



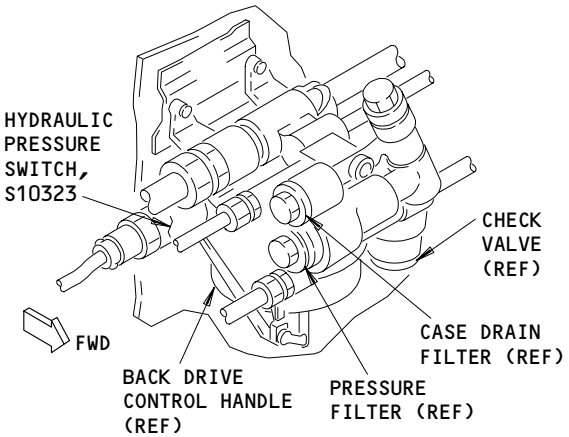

AFT BULKHEAD OF THE RIGHT WHEEL WELL

(H)



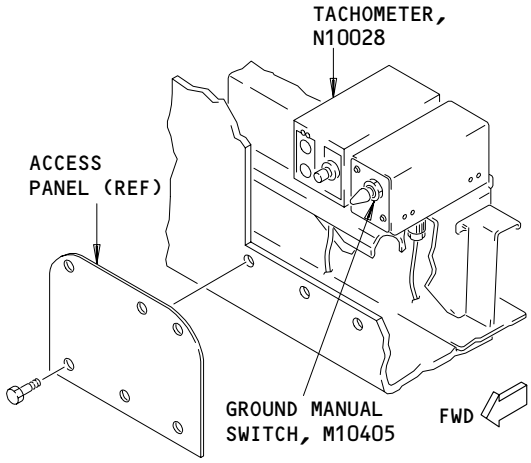

SAFETY VALVE, V10069, FOR THE
RAM AIR TURBINE (RAT)

(I)




CHECKOUT MODULE FOR THE
RAM AIR TURBINE (RAT)

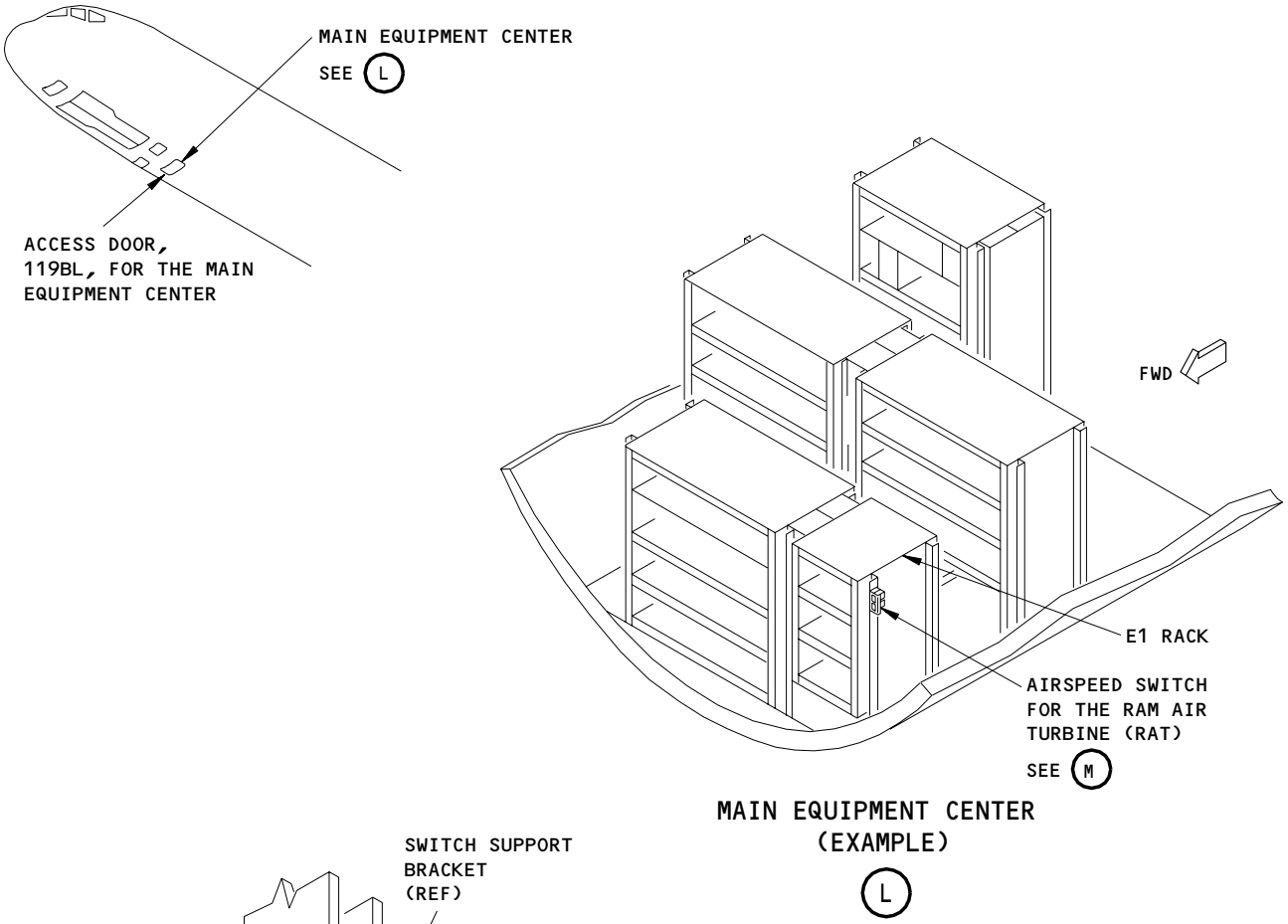
(J)




TACHOMETER, N10028, AND
GROUND MANUAL SWITCH, M10405, FOR
THE RAM AIR TURBINE (RAT)

(K)

Ram Air Turbine (RAT) System - Component Location
Figure 102 (Sheet 5)




Ram Air Turbine (RAT) System – Component Location
Figure 102 (Sheet 6)

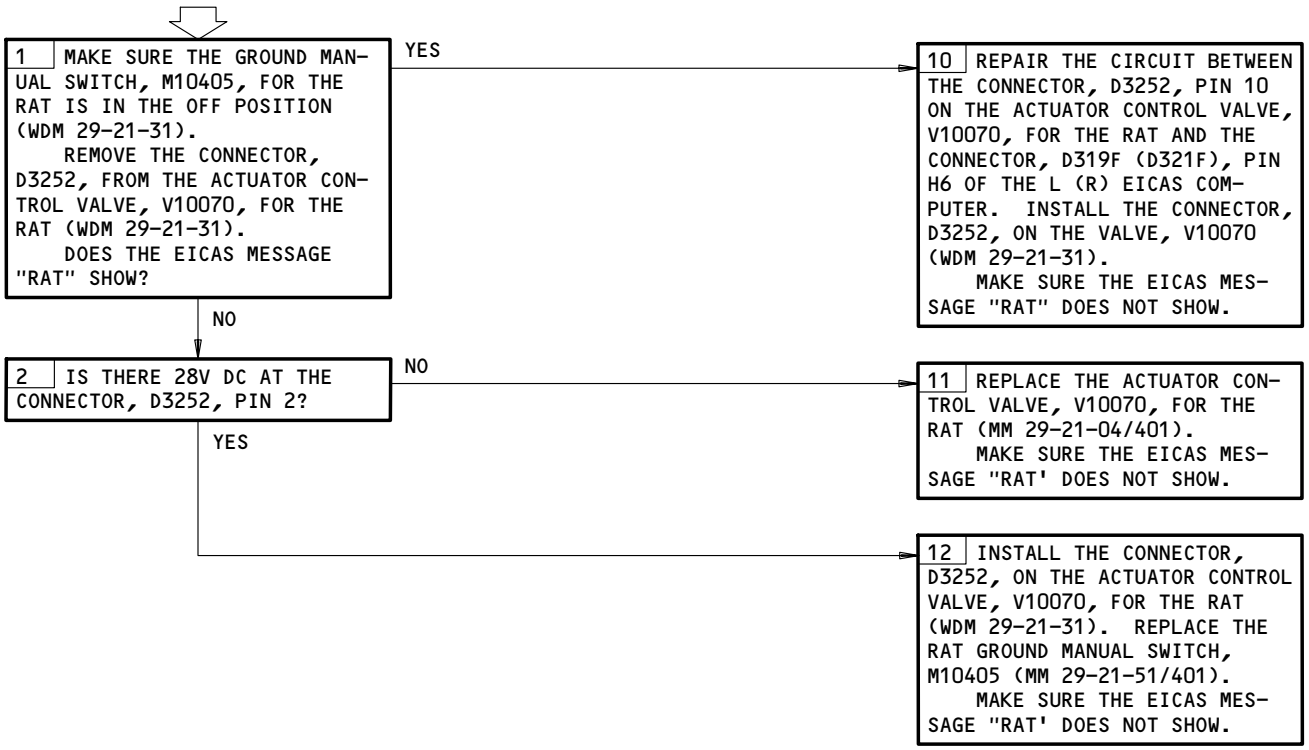
**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (MM 31-41-00/201)

MAKE SURE THIS CIRCUIT BREAKER IS CLOSED:
11D26

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (MM 24-22-00/201)

## "RAT" EICAS MESSAGE ILLUMINATED




RAT EICAS Message Illuminated
Figure 103

RAT PRESSURE LIGHT DID NOT ILLUMINATE WHEN BACK-DRIVE CONTROL HANDLE WAS RETURNED TO NORMAL

**PREREQUISITES**

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
- ELECTRICAL POWER IS ON (MM 24-22-00/201)
- THE CENTER HYDRAULIC SYSTEM IS PRESSURIZED (MM 29-11-00/201)

1 HOLD THE CONTROL HANDLE ON THE RAT CHECKOUT MODULE IN THE BACKDRIVE POSITION. WHEN THE SPEED OF THE RAT TURBINE HUB BECOMES STABLE RELEASE THE CONTROL HANDLE.
DOES THE SPEED OF THE RAT TURBINE HUB DECREASE TO ZERO?

NO → 5 REPLACE THE RAT CHECKOUT MODULE (MM 29-21-11/401).

YES → 6 REPLACE THE RAT PRESSURE SWITCH, S10323 (MM 29-21-11/401).
IF THE PROBLEM CONTINUES, REPLACE THE RAT HYDRAULIC PUMP (MM 29-21-01/401).

RAT Pressure Light Did Not Illuminate When Back-Drive Control Handle was Returned to Normal
Figure 104

## RAT TACHOMETER OVERSPEED AND GOV SPEED LIGHTS NOT ILLUMINATED, LIGHTS REMAIN OFF WITH LAMP TEST SWITCH ON

**PREREQUISITES**

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
- ELECTRICAL POWER IS ON (MM 24-22-00/201)
- THE CENTER HYDRAULIC SYSTEM IS PRESSURIZED (MM 29-11-00/201)

1 HOLD THE CONTROL HANDLE ON THE RAT CHECKOUT MODULE IN THE BACKDRIVE POSITION. MONITOR THE OPERATION OF THE RAT TURBINE HUB AND BLADES.
DOES THE RAT TURBINE HUB TURN FAST AND SMOOTHLY?

YES → 5 DISCONNECT THE ELECTRICAL CONNECTOR, D3254, AT THE TOP OF THE RAT STRUT (WDM 29-21-31). DO A CHECK OF THE RESISTANCE OF THE SPEED SENSOR FOR THE RAT TACHOMETER BETWEEN THE CONNECTOR, D3254, PINS 1 AND 2 ON THE RAT STRUT.
IS THE RESISTANCE 65 TO 80 OHMS?

NO → 10 REPLACE THE RAT WIRE HARNESS WHICH CONTAINS THE SPEED SENSOR (MM 29-21-18/401).

YES → 11 INSTALL THE ELECTRICAL CONNECTOR D3254 AT THE TOP OF THE RAT STRUT. ADJUST THE SPEED SENSOR FOR THE RAT TACHOMETER (MM 29-21-15/501).
IF THE PROBLEM CONTINUES, REPLACE THE RAT TACHOMETER, N10028 (MM 29-21-51/401).

NO → 2 RELEASE THE CONTROL HANDLE ON THE RAT CHECKOUT MODULE. DEPRESSURIZE THE CENTER HYDRAULIC SYSTEM (MM 29-11-00/201). MANUALLY TURN THE RAT TURBINE BLADES FROM THE COARSE TO THE FINE PITCH POSITION AND RELEASE.
DO THE RAT TURBINE BLADES TURN SMOOTHLY AND FREELY AND DO THEY GO BACK TO THE COARSE PITCH POSITION?

NO → 12 REPLACE THE RAT TURBINE HUB (MM 29-21-01/401).

YES → 3 REMOVE THE TURBINE HUB FROM THE RAT STRUT (MM 29-21-01/401). DO A CHECK OF THE BEARINGS ON THE HUB DRIVE SHAFT.
DO THE BEARINGS ON THE RAT TURBINE HUB TURN FREELY?

NO → 13 REPLACE THE TURBINE HUB (MM 29-21-01/401).

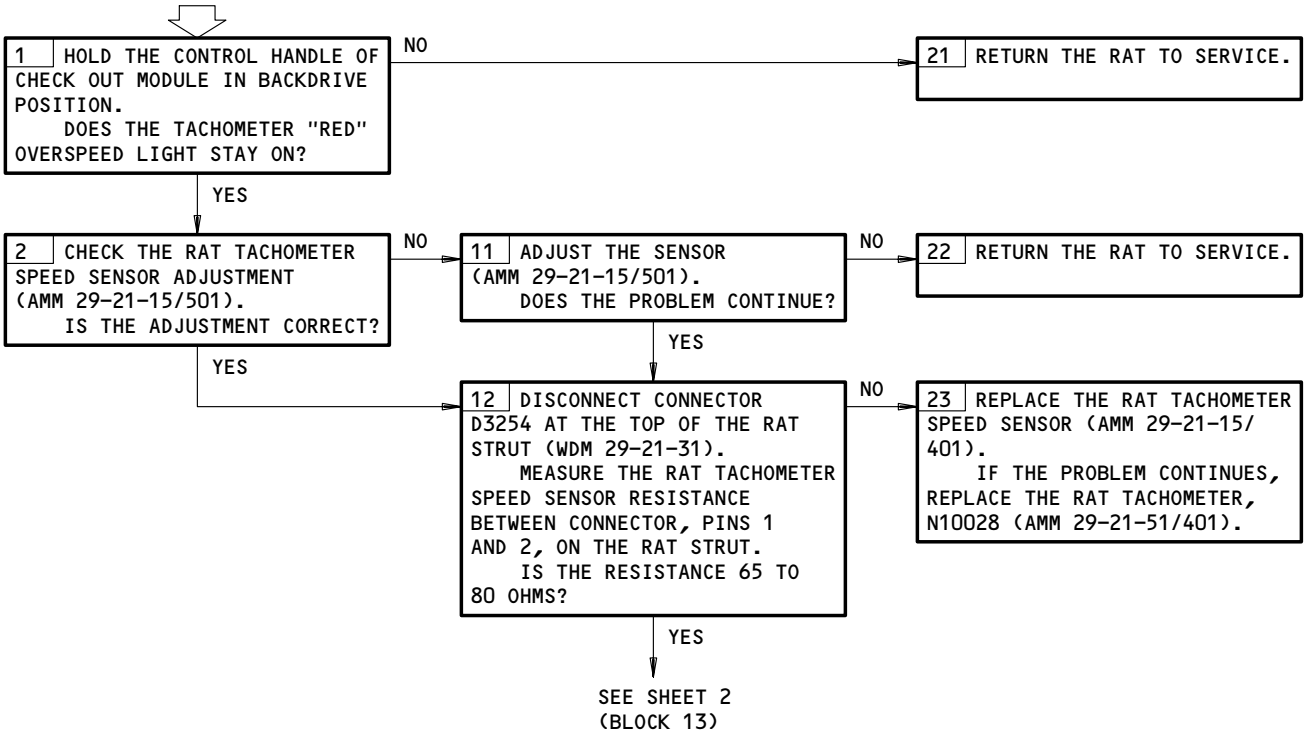
YES → 14 REPLACE THE RAT HYDRAULIC PUMP AND INSTALL THE TURBINE HUB (MM 29-21-01/401).
IF THE PROBLEM CONTINUES, REPLACE THE RAT CHECKOUT MODULE (MM 29-21-11/401).

RAT Tachometer Overspeed and Gov Speed Lights Not Illuminated, Lights Remain Off with Lamp Test Switch On
Figure 105

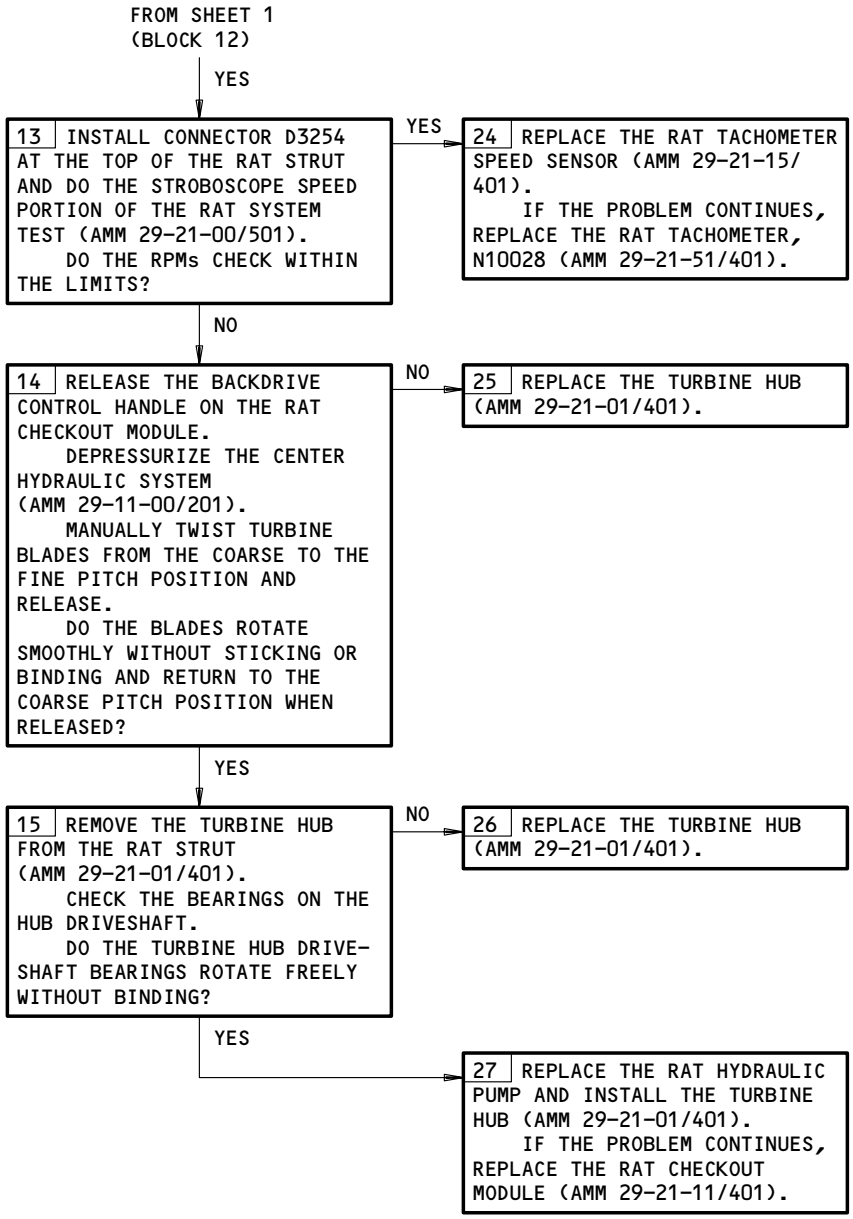
## RAT TACHOMETER OVERSPEED LIGHT REMAINS ON WHILE PERFORMING RAT SYSTEM TEST

**PREREQUISITES**

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
CENTER HYDRAULIC SYSTEM IS PRESSURIZED (AMM 29-11-00/201)




RAT Tachometer Overspeed Light Remains On While Performing RAT System Test
Figure 105A (Sheet 1)




RAT Tachometer Overspeed Light Remains On While Performing RAT System Test
Figure 105A (Sheet 2)

RAT TURBINE HUB DID NOT UNLOCK WHEN RAT DEPLOYED

**PREREQUISITES**

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
THE RAT IS IN THE EXTENDED POSITION
(AMM 29-21-00/201)

1 DOES THE BLADE LOCK PLUNGER ENGAGE THE HOLE IN THE RAT TURBINE HUB?

NO → 5 REPLACE THE RAT TURBINE HUB (AMM 29-21-01/401).

YES → 6 ADJUST OR REPLACE THE CABLE FOR THE BLADE LOCK PLUNGER (AMM 29-21-19/401).

RAT Turbine Hub Did Not Unlock When RAT Deployed
Figure 106

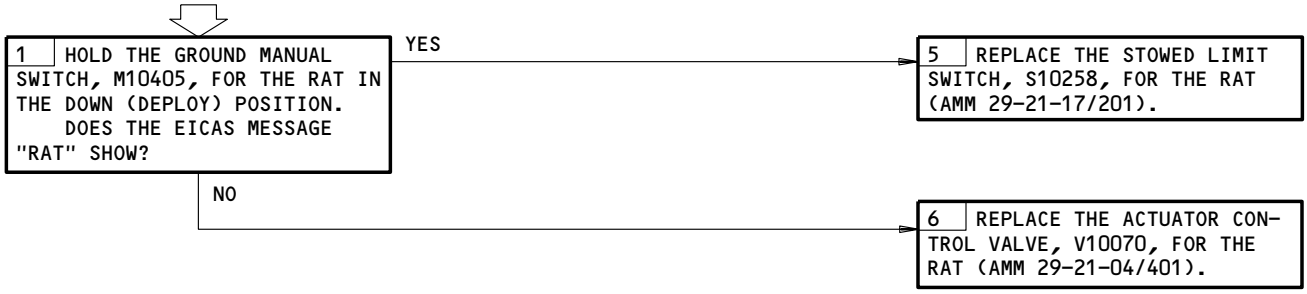
**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (AMM 31-41-00/201)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11D25,11D26

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
THE RAT IS IN THE EXTENDED POSITION (AMM 29-21-00/201)

## EICAS MESSAGE "RAT" WAS NOT DISPLAYED WITH RAT DEPLOYED



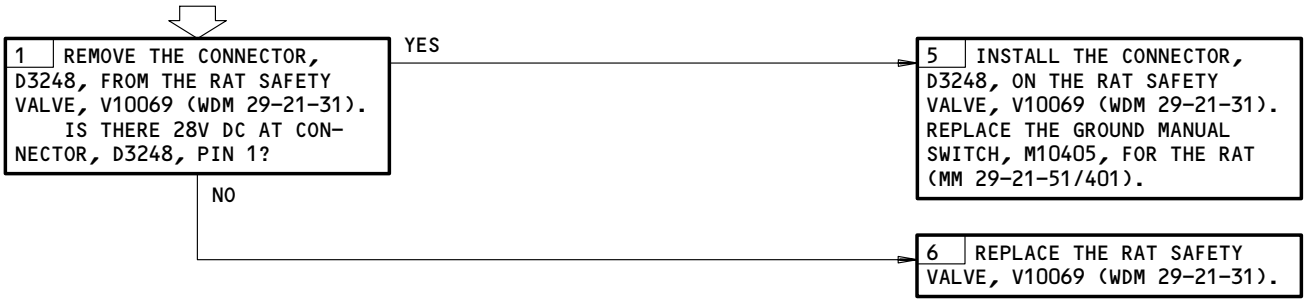

EICAS Message RAT Was Not Displayed with RAT Deployed
Figure 107

RAT DID NOT STOP DEPLOYING OR RETRACTING WHEN GROUND MANUAL SWITCH RETURNED TO CENTER-OFF POSITION

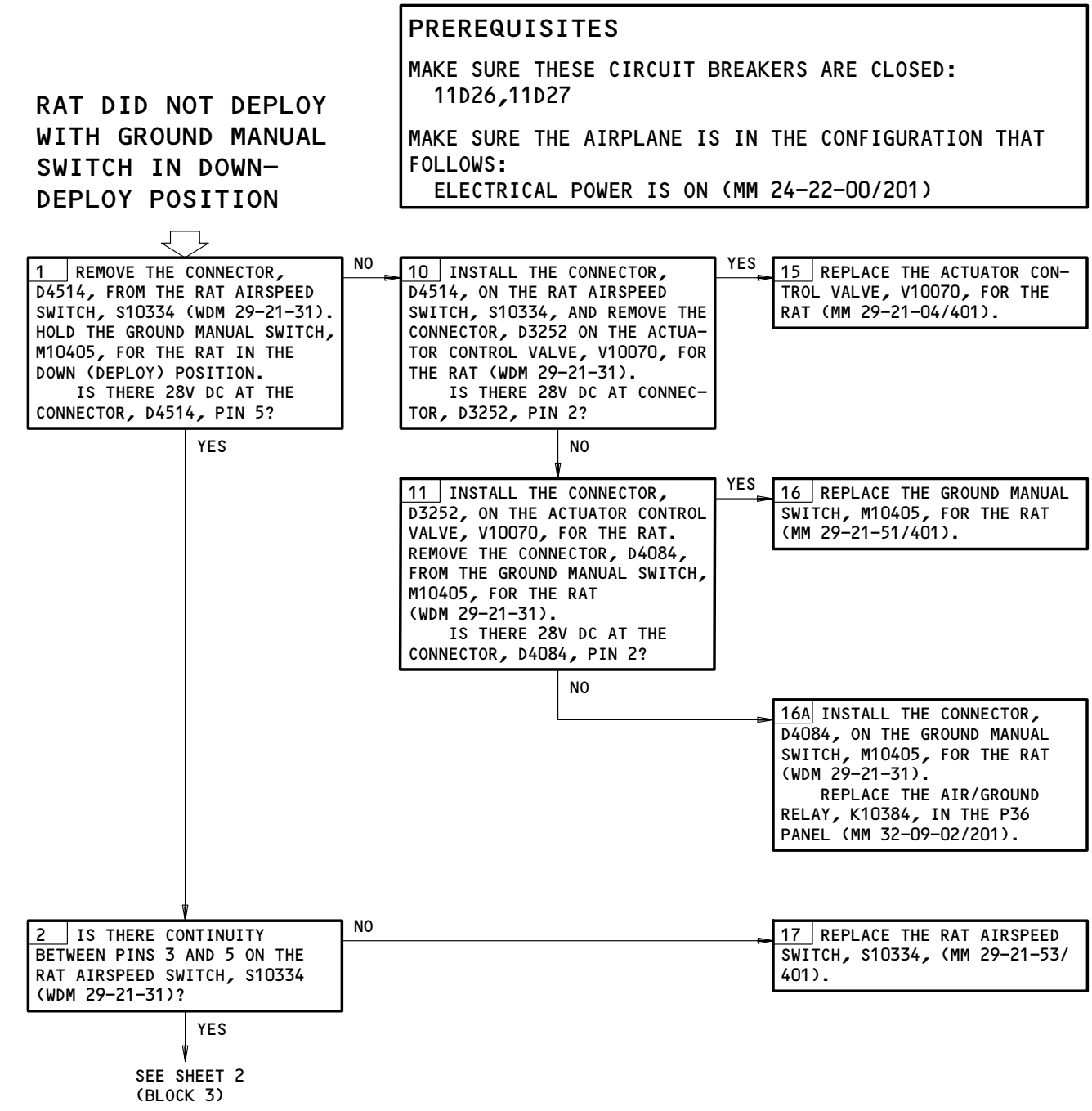
**PREREQUISITES**

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11D25,11D26

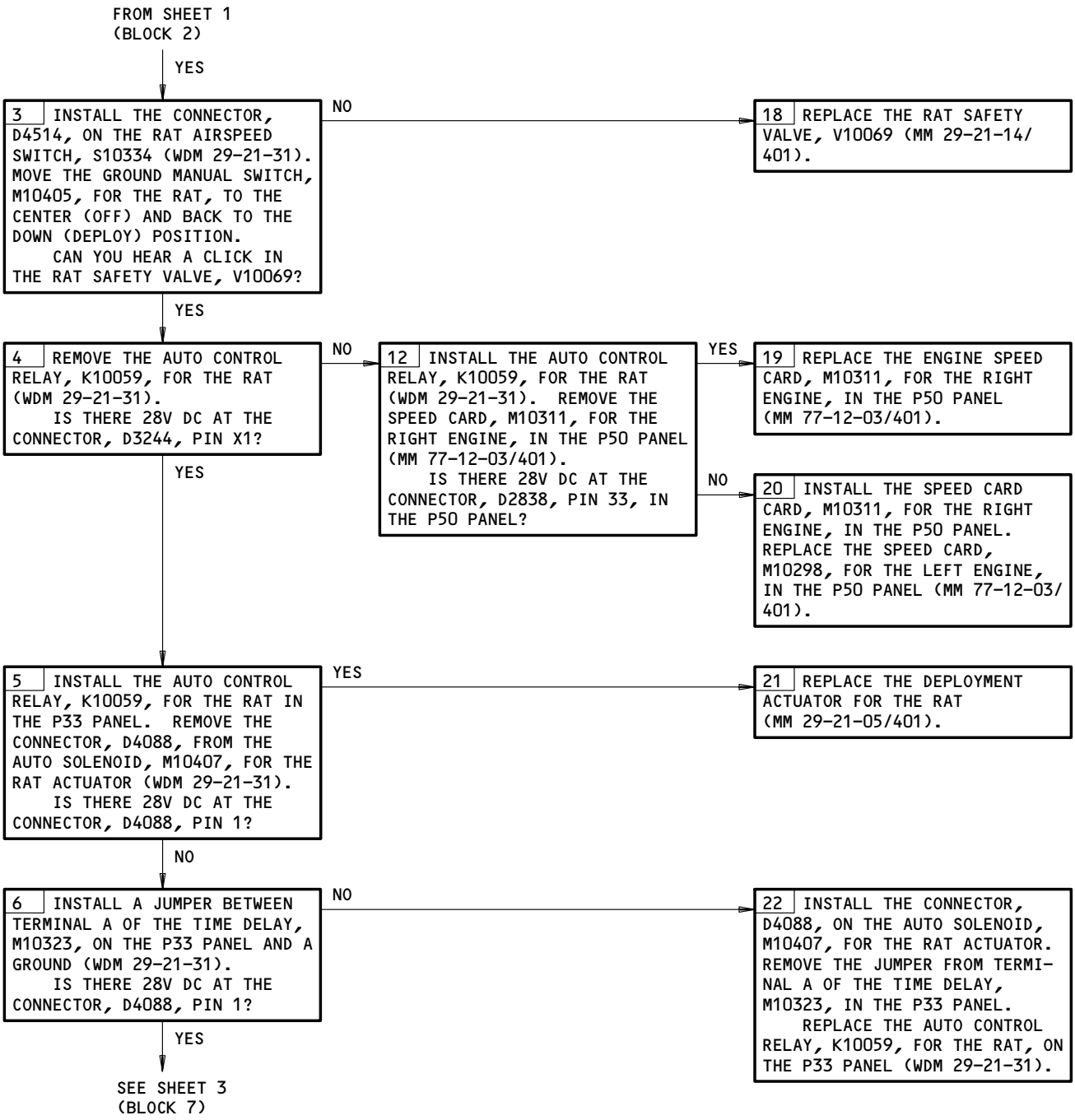
MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (MM 24-22-00/201)
THE RAT IS IN THE EXTENDED POSITION (MM 29-21-00/201)



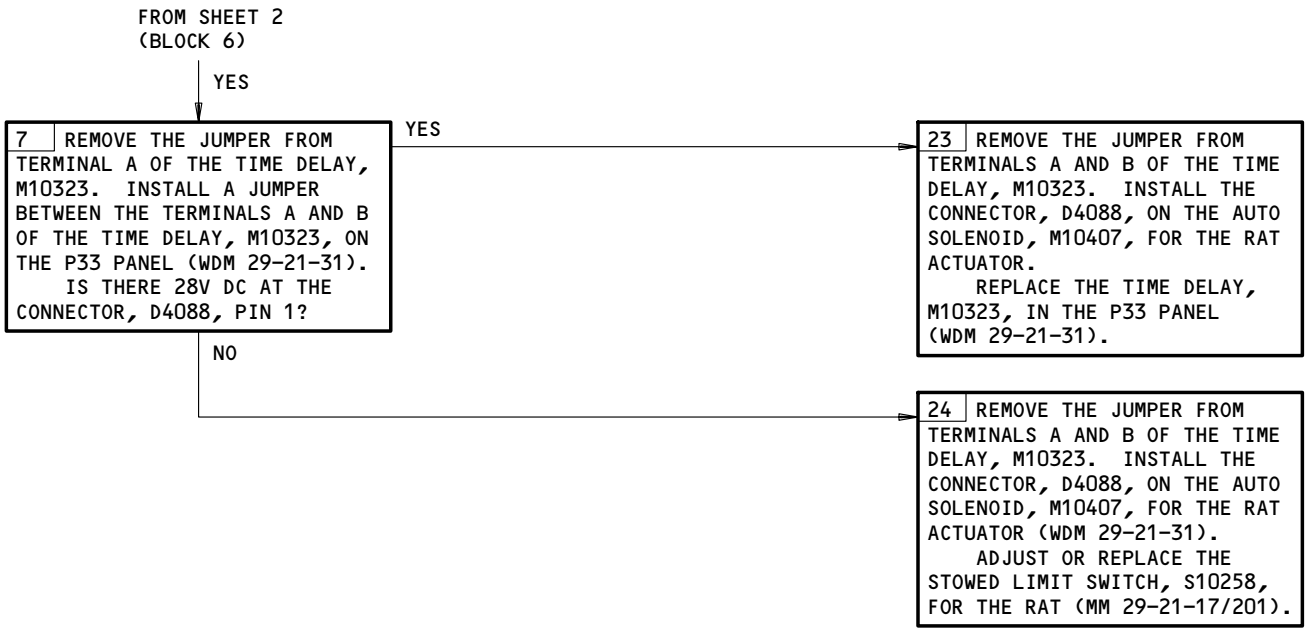

RAT Did Not Stop Deploying or Retracting When Ground Manual Switch Returned To Center-Off Position
Figure 108




RAT Did Not Deploy with Ground Manual Switch in Down-Deploy Position
Figure 109 (Sheet 1)




RAT Did Not Deploy with Ground Manual Switch in Down-Deploy Position
Figure 109 (Sheet 2)




RAT Did Not Deploy with Ground Manual Switch in Down-Deploy Position
Figure 109 (Sheet 3)

## EICAS MESSAGE "RAT" DISPLAYED WITH RAT RETRACTED. RAT UNLKD LIGHT NOT ILLUMINATED

**PREREQUISITES**

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11D25,11D26

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (MM 24-22-00/201)

1 PUT THE GROUND MANUAL SWITCH, M10405, FOR THE RAT, IN THE CENTER (OFF) POSITION. REMOVE THE CONNECTOR, D3252, FROM THE ACTUATOR CONTROL VALVE, V10070, FOR THE RAT (WDM 29-21-31).
IS THERE 28V DC AT CONNECTOR, D3252, PIN 3?

NO → 5 INSTALL THE CONNECTOR, D3252, ON THE ACTUATOR CONTROL VALVE, V10070, FOR THE RAT (WDM 29-21-31).
REPLACE THE GROUND MANUAL SWITCH, M10405, FOR THE RAT (MM 29-21-51/401).

YES → 6 REPLACE THE ACTUATOR CONTROL VALVE, V10070, FOR THE RAT (MM 29-21-04/401).

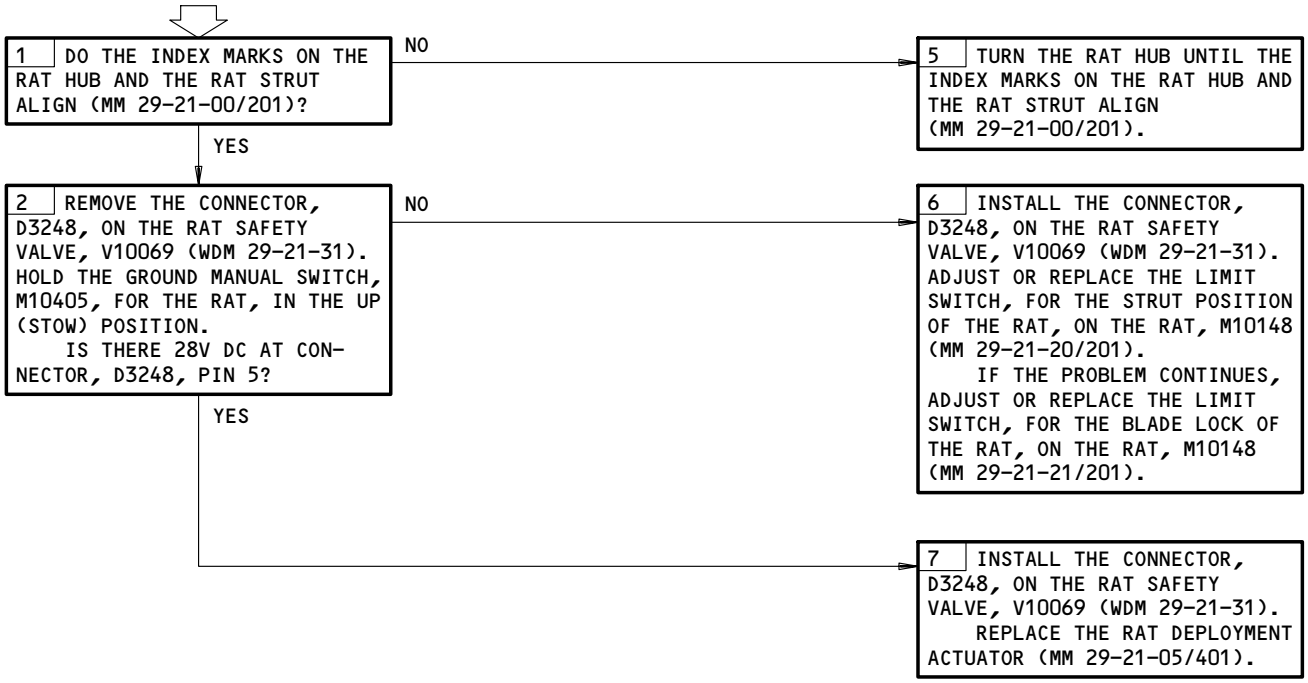
EICAS Message RAT Displayed with RAT Retracted, RAT UNLKD Light Not Illuminated
Figure 110

**PREREQUISITES**

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11D25,11D26

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (24-22-00/201)

## RAT DID NOT FULLY RETRACT



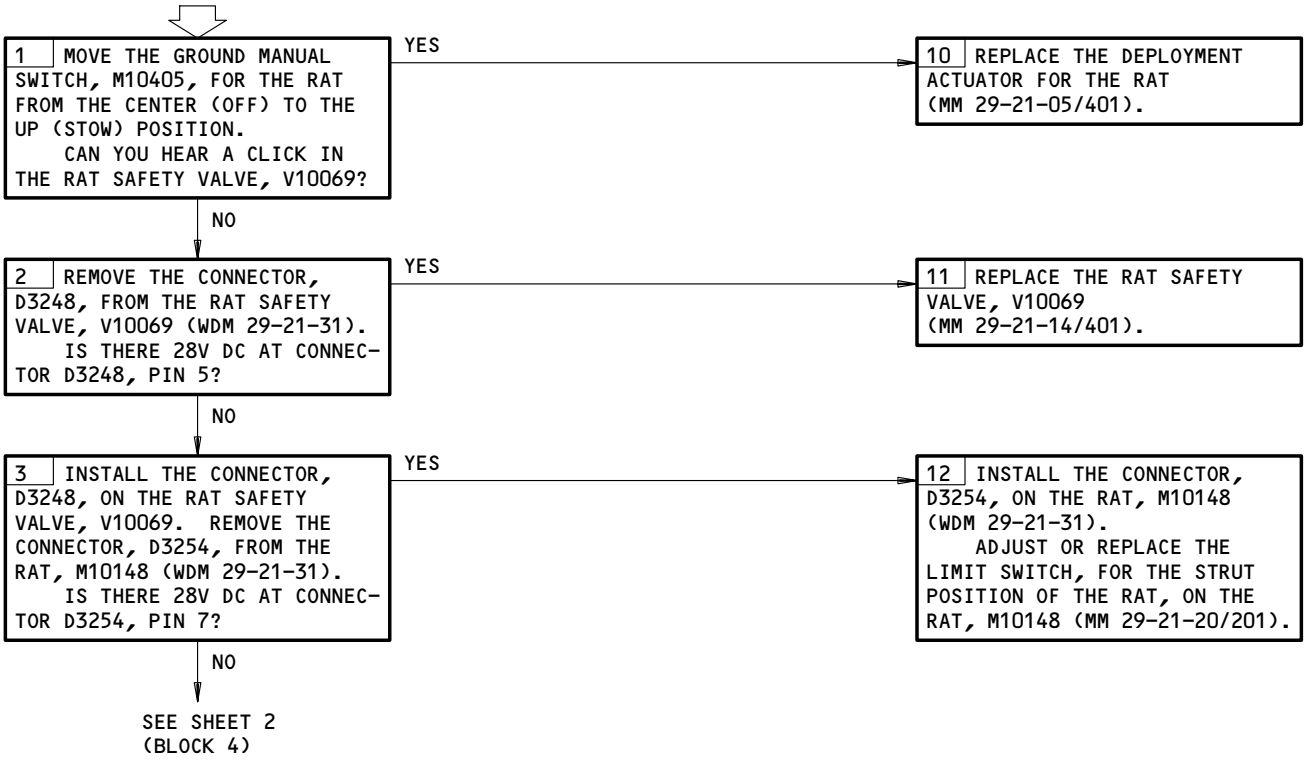

RAT Did Not Fully Retract
Figure 111

## RAT DID NOT RETRACT WITH GROUND MANUAL SWITCH IN UP-STOW POSITION

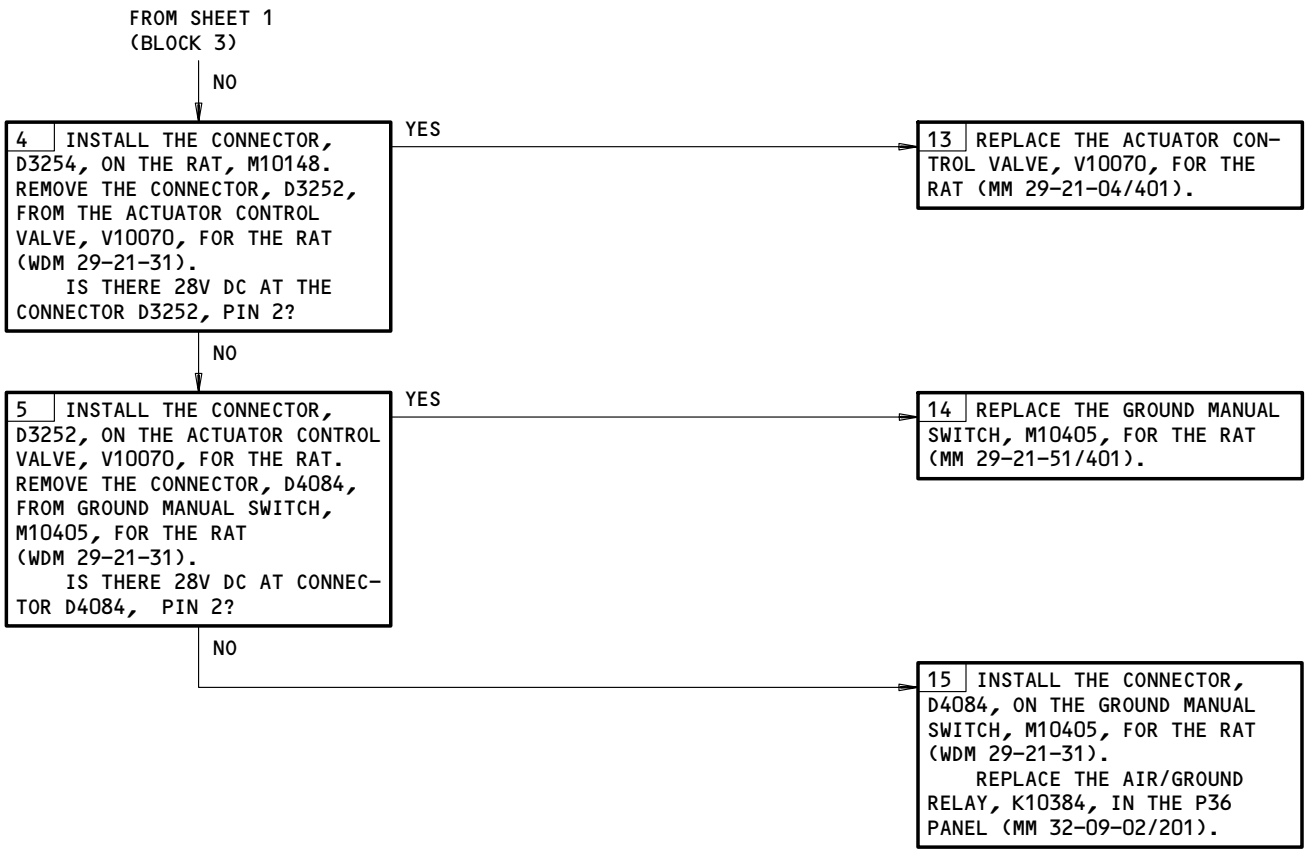
**PREREQUISITES**

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11D26,11D27

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (MM 24-22-00/201)




RAT Did Not Retract with Ground Manual Switch in Up-Stow Position
Figure 112 (Sheet 1)



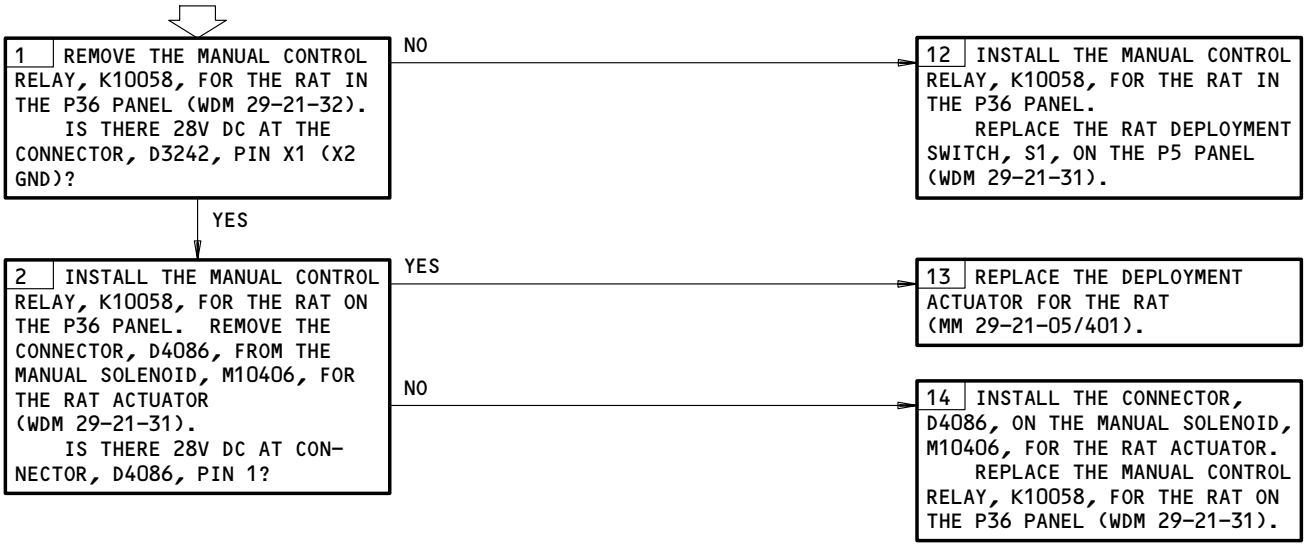

RAT Did Not Retract with Ground Manual Switch in Up-Stow Position
Figure 112 (Sheet 2)

**RAT DID NOT DEPLOY WITH DEPLOYMENT SWITCH IN DEPLOY POSITION**

**PREREQUISITES**

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
6F1,6F2

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (MM 24-22-00/201)




RAT Did Not Deploy with Deployment Switch in Deploy Position
Figure 113

RAT DID NOT DEPLOY WHEN AUX NO. 2 PITOT SYSTEM WAS PRESSURIZED ABOVE 80 KNOTS

**PREREQUISITES**

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11D26,11D27

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (MM 24-22-00/201)
THE AIR/GROUND RELAYS FOR SYSTEM NO. 1 ARE SIMULATED IN THE AIR MODE (MM 32-09-02/201)
THE AUXILIARY NO. 2 PITOT SYSTEM IS PRESSURIZED ABOVE 80 KNOTS (MM 34-11-00/201)

1 REMOVE THE AUTO CONTROL RELAY, K10059, FOR THE RAT IN THE P33 PANEL (WDM 29-21-31).
IS THERE 28V DC AT THE CONNECTOR, D3244, PIN X1?

YES → 10 INSTALL THE AUTO CONTROL RELAY, K10059, FOR THE RAT IN THE P33 PANEL. REMOVE THE CONNECTOR, D4088, FROM THE AUTO SOLENOID, M10407, FOR THE RAT ACTUATOR (WDM 29-21-31).
IS THERE 28V DC AT THE CONNECTOR, D4088, PIN 1?

YES → 20 REPLACE THE DEPLOYMENT ACTUATOR FOR THE RAT (MM 29-21-05/401).

NO → SEE SHEET 2 (BLOCK 2)

NO → 11 INSTALL A JUMPER BETWEEN TERMINAL A OF THE TIME DELAY, M10323, ON THE P33 PANEL AND A GROUND.
IS THERE 28V DC AT THE CONNECTOR, D4088, PIN 1?

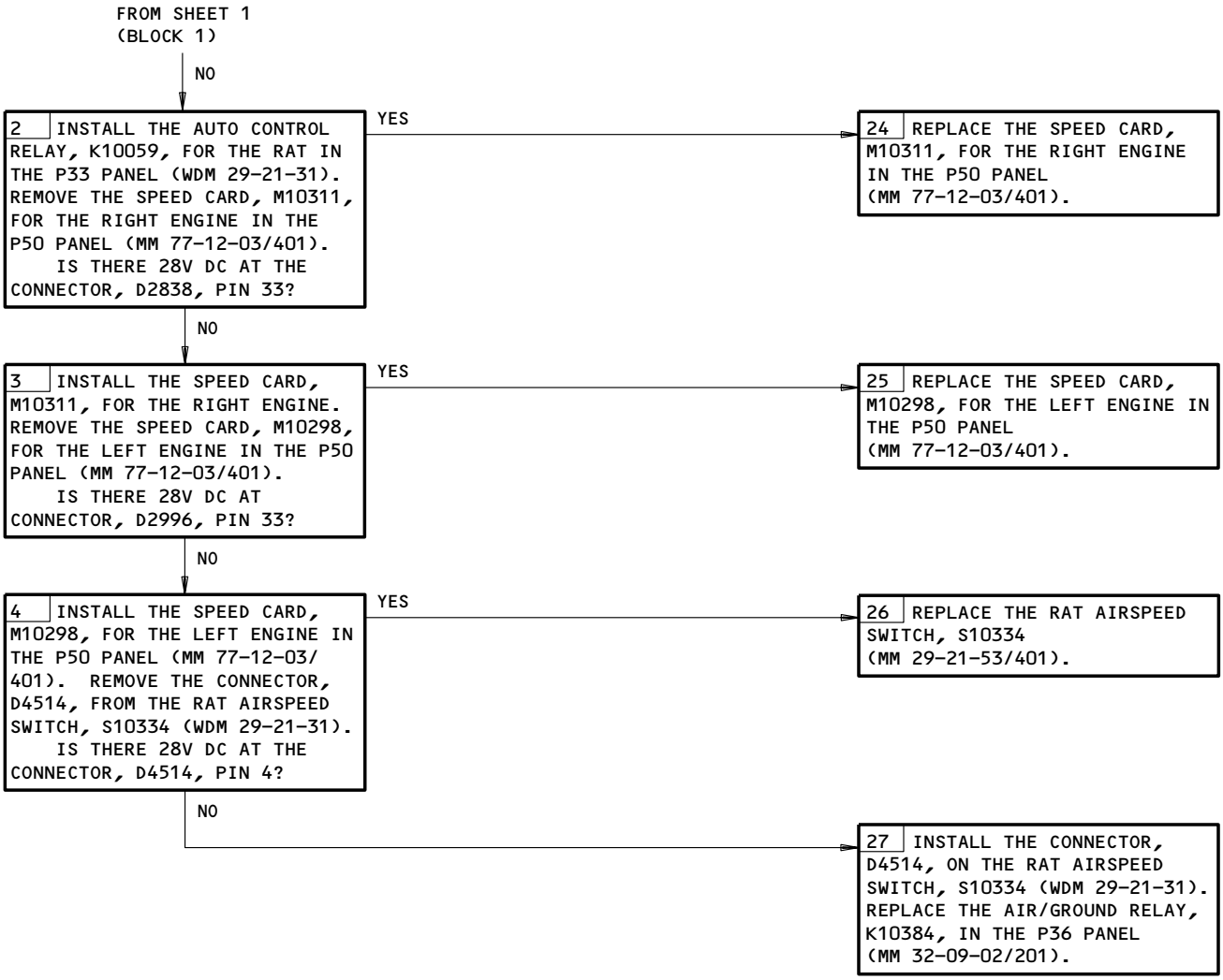
NO → 21 INSTALL THE CONNECTOR, D4088, ON THE AUTO SOLENOID, M10407, FOR THE RAT ACTUATOR. REMOVE THE JUMPER FROM TERMINAL A OF THE TIME DELAY, M10323, IN THE P33 PANEL.
REPLACE THE AUTO CONTROL RELAY, K10059, FOR THE RAT ON THE P33 PANEL (WDM 29-21-31).

YES → 12 REMOVE THE JUMPER FROM TERMINAL A OF THE TIME DELAY, M10323, ON THE P33 PANEL. INSTALL A JUMPER BETWEEN TERMINALS A AND B OF THE TIME DELAY, M10323 (WDM 29-21-31).
IS THERE 28V DC AT THE CONNECTOR, D4088, PIN 1?

YES → 22 REMOVE THE JUMPER FROM TERMINALS A AND B OF THE TIME DELAY, M10323, IN THE P33 PANEL. INSTALL THE CONNECTOR, D4088, ON THE AUTO SOLENOID, M10407, FOR THE RAT ACTUATOR.
REPLACE THE TIME DELAY, M10323, ON THE P33 PANEL (WDM 29-21-31).

NO → 23 REMOVE THE JUMPER FROM TERMINALS A AND B OF THE TIME DELAY, M10323, IN THE P33 PANEL. INSTALL THE CONNECTOR, D4088, ON THE AUTO SOLENOID, M10407, FOR THE RAT ACTUATOR (WDM 29-21-31).
ADJUST OR REPLACE THE STOWED LIMIT SWITCH, S10258, FOR THE RAT (MM 29-21-17/201).

RAT Did Not Deploy when Aux No. 2 Pitot System was Pressurized Above 80 Knots
Figure 114 (Sheet 1)




RAT Did Not Deploy when Aux No. 2 Pitot System was Pressurized Above 80 Knots
Figure 114 (Sheet 2)

## RAT "UNLKD" LIGHT AND RAT PRESSURE LIGHT ILLUMINATED

**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (MM 31-41-00/201)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
6F1,6F2,11D26,11D27

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (MM 24-22-00/201)

1 MAKE SURE THE RAT DEPLOYMENT SWITCH, S1, ON THE ENGINE START/RAT CONTROL PANEL, M10468, ON THE P5 PANEL IS IN THE OFF POSITION (WDM 29-21-31).
REMOVE THE CONNECTOR, D4088, FROM THE AUTO SOLENOID, M10407, FOR THE RAT ACTUATOR (WDM 29-21-31).
IS THERE 28V DC AT THE CONNECTOR, D4088, PIN 1?

YES → 20 REPLACE THE AUTO CONTROL RELAY, K10059, FOR THE RAT ON THE P33 PANEL (WDM 29-21-31).
INSTALL THE CONNECTOR, D4088, ON THE AUTO SOLENOID, M10407, FOR THE RAT ACTUATOR (WDM 29-21-31).

NO ↓

2 INSTALL THE CONNECTOR, D4088, ON THE AUTO SOLENOID, M10407, FOR THE RAT ACTUATOR (WDM 29-21-31).
REMOVE THE CONNECTOR, D3572, FROM THE ENGINE START/RAT CONTROL PANEL, M10468, ON THE P5 PANEL (WDM 29-21-31).
DO A CONTINUITY TEST BETWEEN THE CONNECTOR, D3572, PINS 7 AND 8.
IS THERE CONTINUITY BETWEEN THE CONNECTOR, D3572, PINS 7 AND 8?

YES → 21 REPLACE THE RAT DEPLOYMENT SWITCH, S1, ON THE ENGINE START/RAT CONTROL PANEL, M10468, ON THE P5 PANEL (WDM 29-21-31).
INSTALL THE CONNECTOR, D3572, ON THE ENGINE START/RAT CONTROL PANEL, M10468, ON THE P5 PANEL (WDM 29-21-31).

NO ↓

3 INSTALL THE CONNECTOR, D3572, ON THE ENGINE START/RAT CONTROL PANEL, M10468, ON THE P5 PANEL (WDM 29-21-31).
REMOVE THE CONNECTOR, D4086, FROM THE MANUAL SOLENOID, M10406, FOR THE RAT ACTUATOR (WDM 29-21-31).
IS THERE 28V DC AT THE CONNECTOR, D4086, PIN 1?

YES → 22 REPLACE THE MANUAL CONTROL RELAY, K10058, FOR THE RAT ON THE P36 PANEL (WDM 29-21-31).
INSTALL THE CONNECTOR, D4086, ON THE MANUAL SOLENOID, M10406, ON THE RAT ACTUATOR (WDM 29-21-31).

NO → 23 REPLACE THE DEPLOYMENT ACTUATOR FOR THE RAT (MM 29-21-05/401).

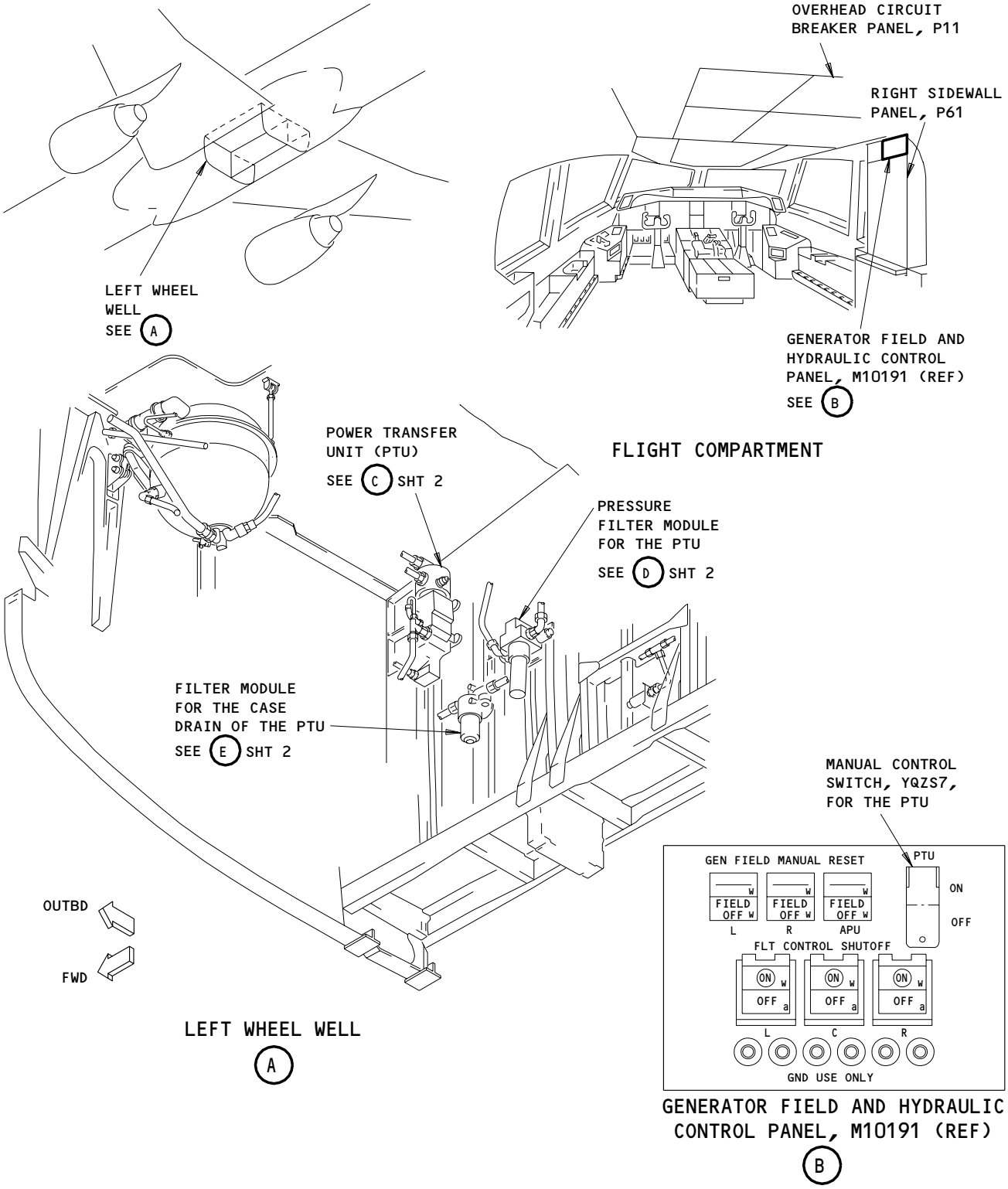
RAT UNLKD Light and RAT Pressure Light Illuminated
Figure 115

## HYDRAULIC POWER TRANSFER UNIT (PTU) SYSTEM

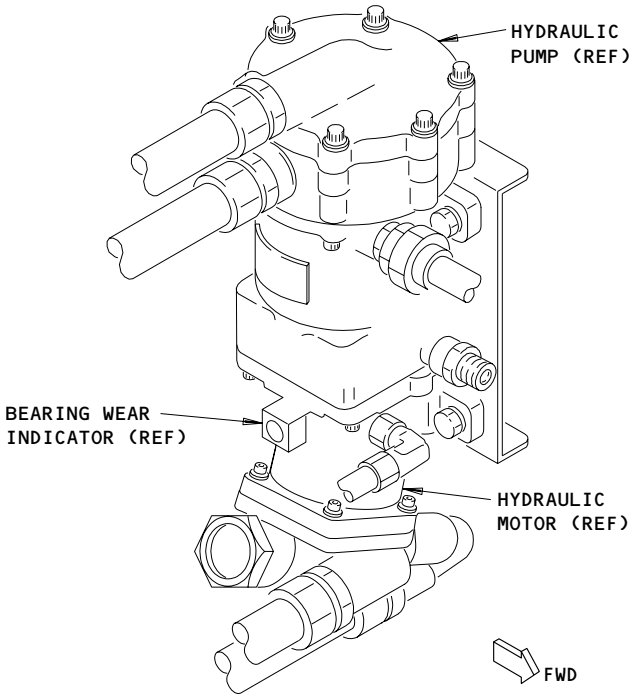
| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | REFERENCE |
|---|---|---|---|---|
| CIRCUIT BREAKER | 1 | | FLIGHT COMPARTMENT, P11 PANEL | |
| HYDRAULICS PTU CONT, C4054 | | 1 | 11D31 | |
| COMPUTER - (REF 31-41-00, FIG. 101) | | | | |
| EICAS L, M10181 | | | | |
| EICAS R, M10182 | | | | |
| DIODE - (REF 31-01-33, FIG. 101) | | | | |
| R10240 | | | | |
| DIODE - (REF 31-01-37, FIG. 101) | | | | |
| R10153 | | | | |
| MODULE - PTU CASE DRAIN FILTER | 1 | 1 | LEFT WHEEL WELL | 29-22-05 |
| MODULE - PTU PRESSURE FILTER | 1 | 1 | LEFT WHEEL WELL | 29-22-02 |
| PANEL - (REF 24-22-00, FIG. 101) | | | | |
| GENERATOR FIELD AND HYDRAULIC CONTROL, M10191 | | | | |
| RELAY - (REF 31-01-33, FIG. 101) | | | | |
| PTU ON, K10051 | | | | |
| RELAY - (REF 77-12-00, FIG. 101) | | | | |
| LEFT ENGINE OUT 2, K10338 | | | | |
| RIGHT ENGINE OUT 4, K10339 | | | | |
| RIGHT ENGINE OUT 5, K10444 | | | | |
| SWITCH - (REF 29-31-00, FIG. 101) | | | | |
| LEFT ENGINE-DRIVEN PUMP PRESSURE, S10540 | | | | |
| SWITCH - PTU CONTROL PRESSURE, S10129 | 2 | 1 | LEFT WHEEL WELL, PTU PRESSURE FILTER MODULE | 29-22-02 |
| SWITCH - PTU INDICATION PRESSURE, S10246 | 2 | 1 | LEFT WHEEL WELL, PTU PRESSURE FILTER MODULE | 29-22-02 |
| SWITCH - PTU MANUAL, YQZS7 | 1 | 1 | FLIGHT COMPARTMENT, P61 PANEL, GENERATOR FIELD AND HYDRAULIC CONTROL PANEL, M10191 | * |
| TIME DELAY - (REF 31-01-33, FIG. 101) | | | | |
| PTU INDICATION, M10146 | | | | |
| PTU ON, M10145 | | | | |
| UNIT - POWER TRANSFER (PTU) | 1 | 1 | LEFT WHEEL WELL | 29-22-01 |
| VALVE - PTU CONTROL, V10007 | 3 | 1 | RIGHT WHEEL WELL | 29-22-03 |

* SEE THE WDM EQUIPMENT LIST

Hydraulic Power Transfer Unit (PTU) System - Component Index
Figure 101

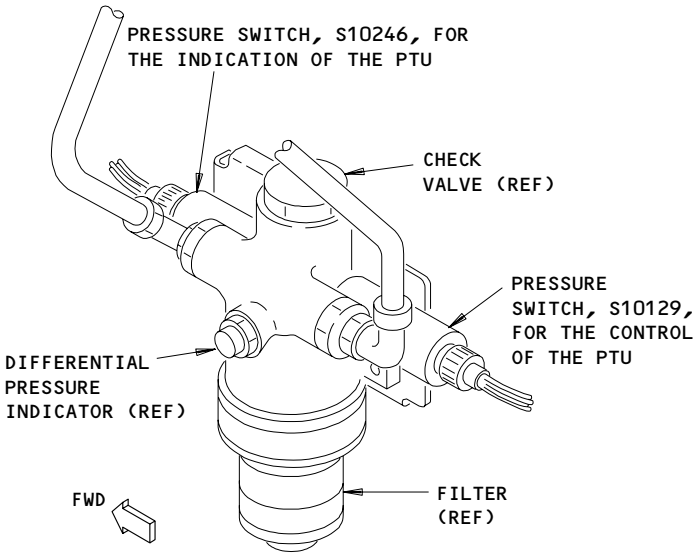



Hydraulic Power Transfer Unit (PTU) System – Component Location
Figure 102 (Sheet 1)



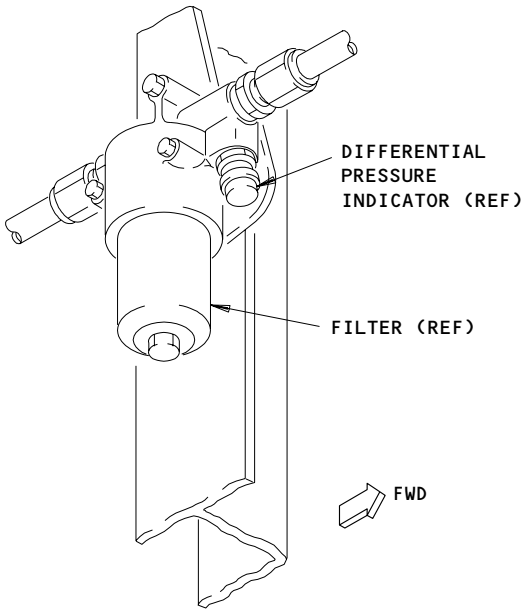

POWER TRANSFER UNIT (PTU)

C




PRESSURE FILTER MODULE FOR THE PTU

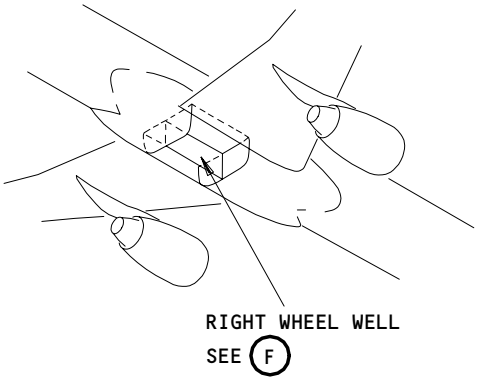
D

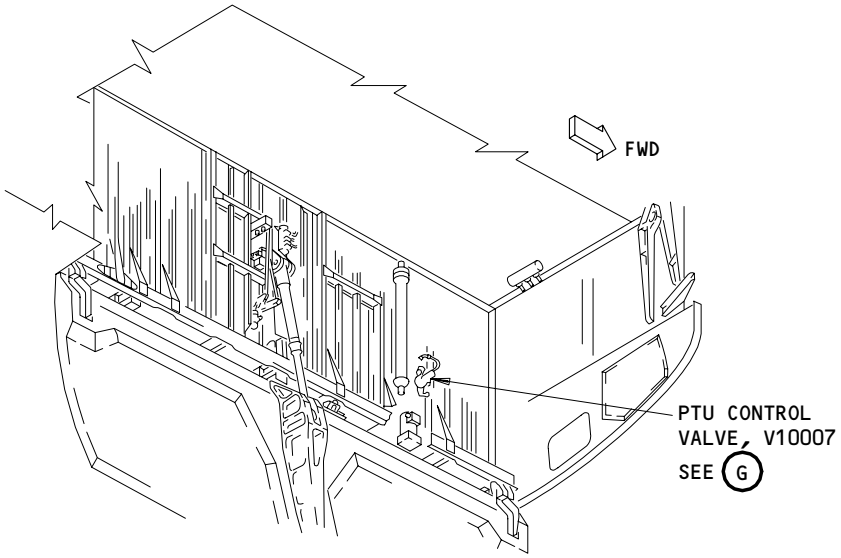



FILTER MODULE FOR THE CASE DRAIN OF THE PTU

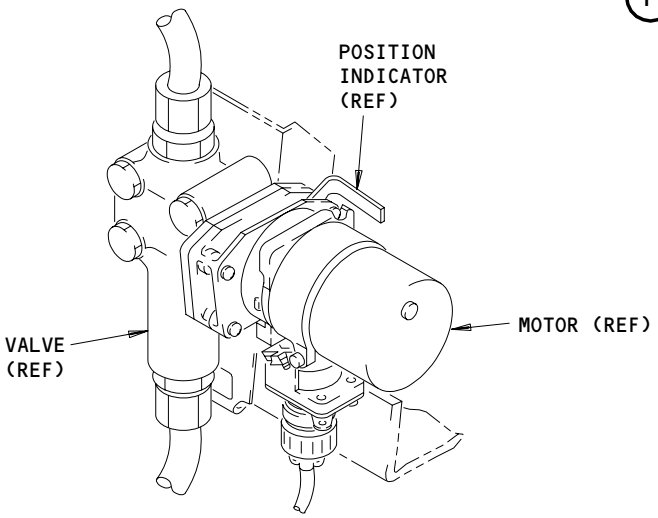
E

Hydraulic Power Transfer Unit (PTU) System – Component Location
(Details from Sht 1)
Figure 102 (Sheet 2)




RIGHT WHEEL WELL
(F)




PTU CONTROL VALVE, V10007
(G)

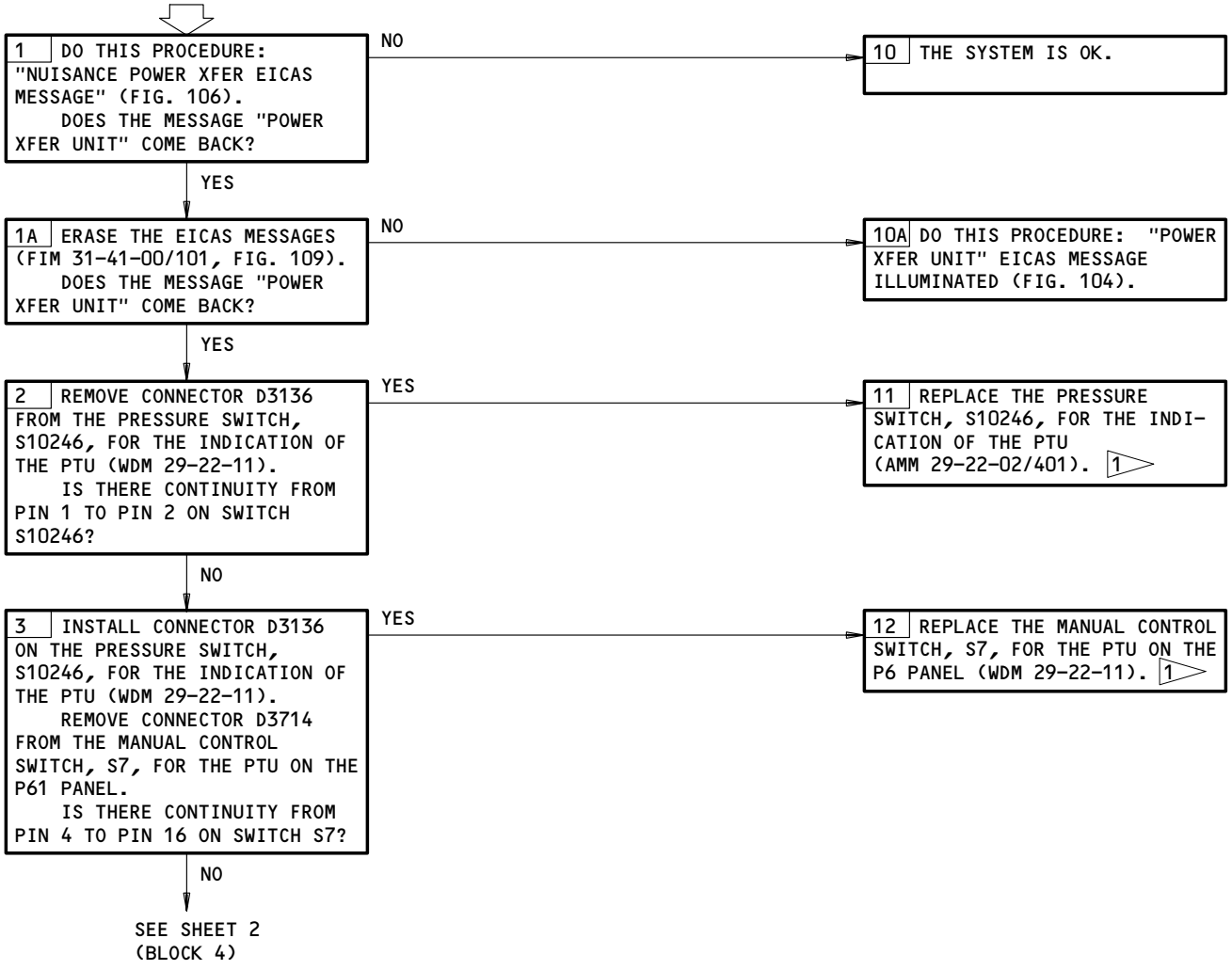
Hydraulic Power Transfer Unit (PTU) System – Component Location
Figure 102 (Sheet 3)

## "POWER XFER UNIT" EICAS MESSAGE SHOWN WITH AIRPLANE ON THE GROUND AND BOTH ENGINES OFF

**PREREQUISITES**

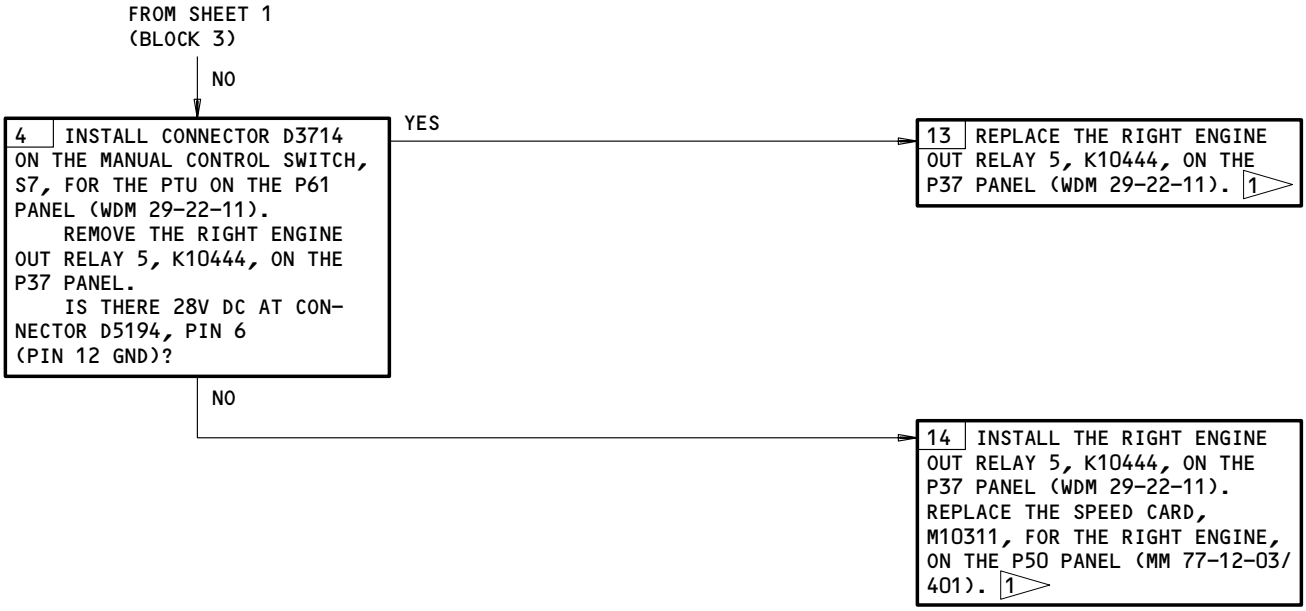
MAKE SURE THIS CIRCUIT BREAKER IS CLOSED:
11D31

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON AND THE STANDBY POWER SWITCH, ON THE P5 PANEL, IS IN THE AUTO POSITION (AMM 24-22-00/201)
LEFT AND RIGHT HYDRAULIC SYSTEM POWER IS OFF (AMM 29-11-00/201)
THE TWO ENGINES ARE OFF (AMM 71-00-00/201)




1 ERASE THE MESSAGE "POWER XFER UNIT" (FIM 31-41-00/101, FIG. 109)

POWER XFER UNIT EICAS Message Shown with Airplane on the Ground and Both Engines off
Figure 103 (Sheet 1)




1 ERASE THE MESSAGE "POWER XFER UNIT" (31-41-00, FIG. 109)

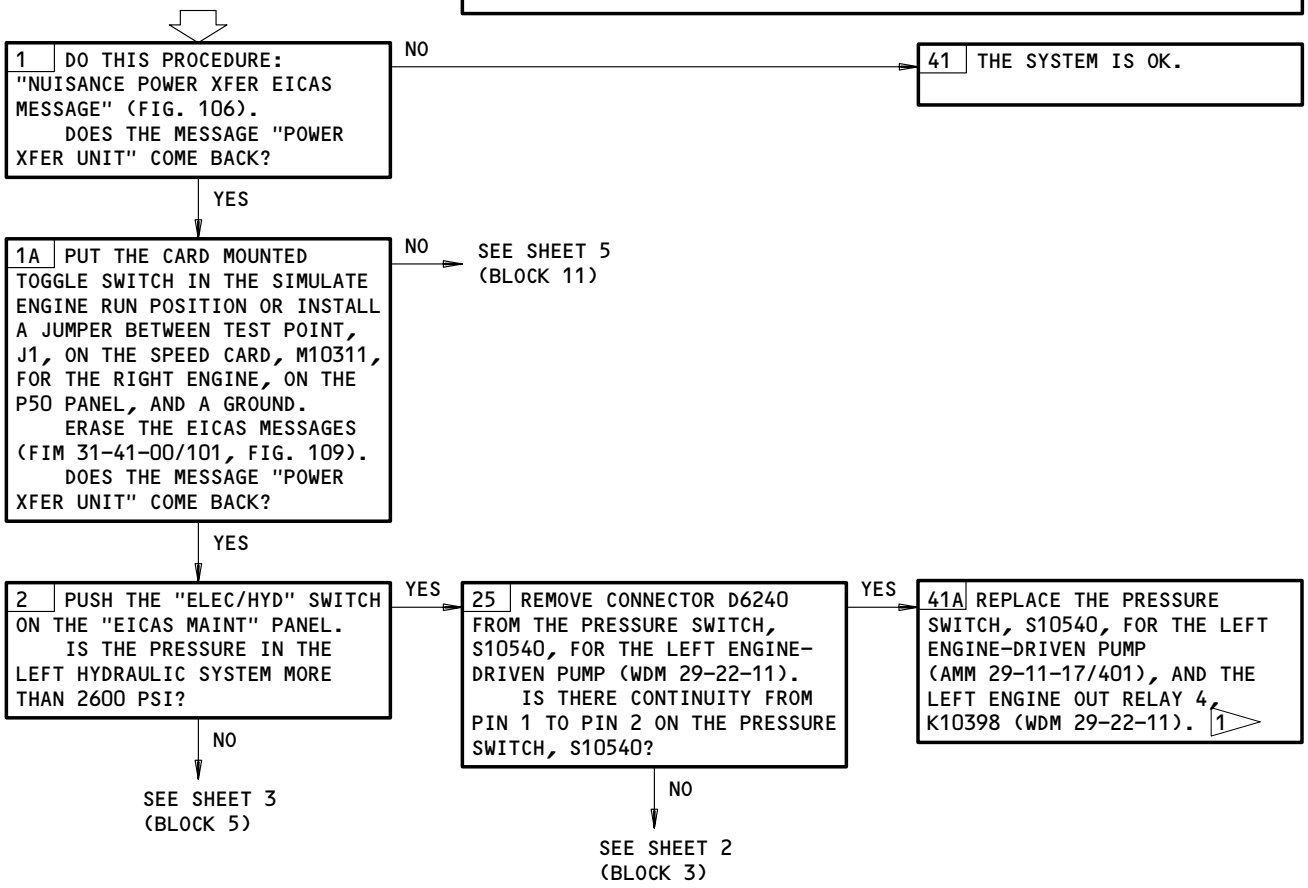
POWER XFER UNIT EICAS Message Shown with Airplane on the Ground and Both Engines off
Figure 103 (Sheet 2)

## "POWER XFER UNIT" EICAS MESSAGE ILLUMINATED

**PREREQUISITES**

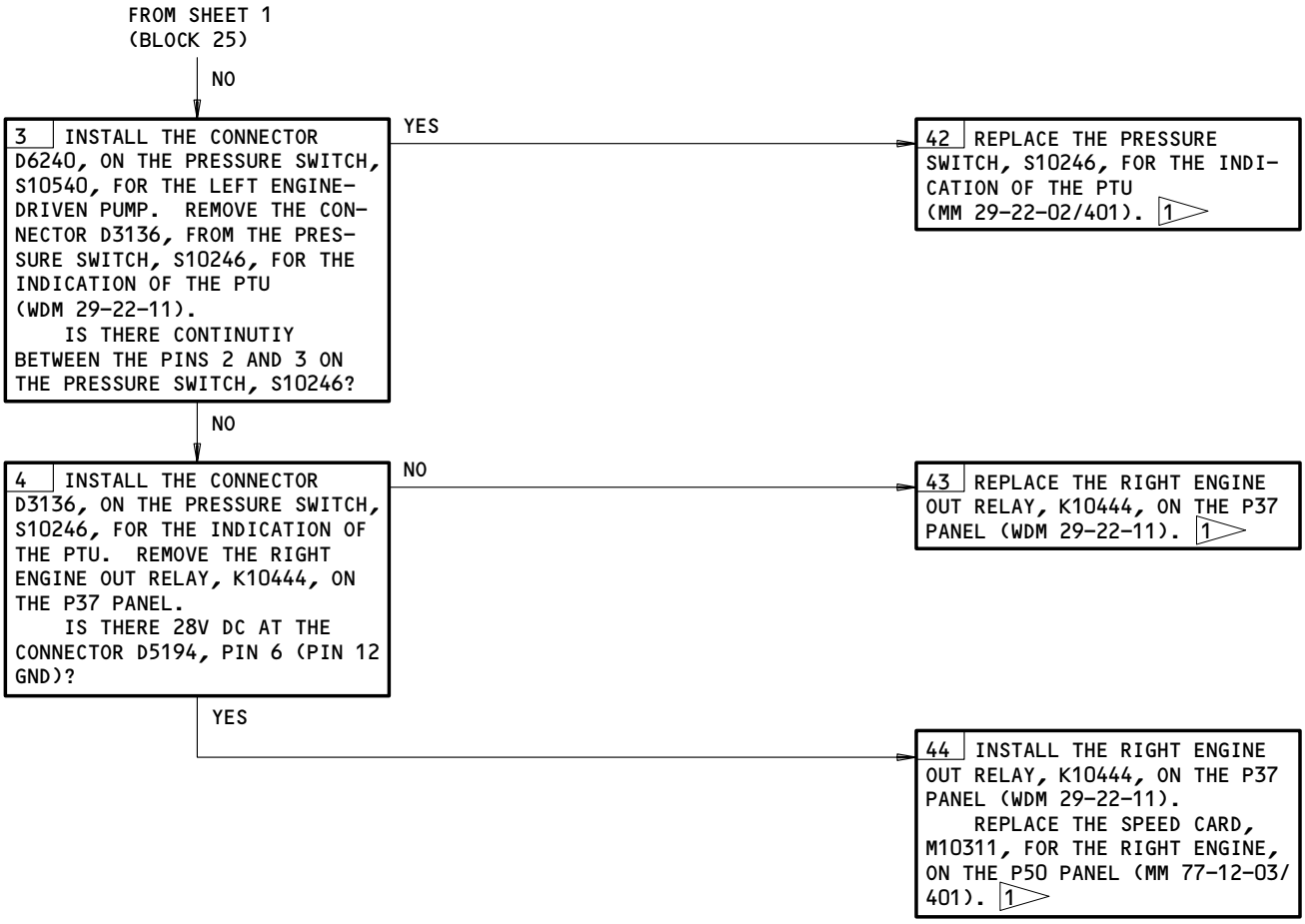
MAKE SURE THIS CIRCUIT BREAKER IS CLOSED:
11D31

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON AND THE STANDBY POWER SWITCH, ON THE P5 PANEL, IS IN THE AUTO POSITION (AMM 24-22-00/201)
THE LEFT HYDRAULIC SYSTEM POWER IS OFF (AMM 29-11-00/201)
THE RIGHT HYDRAULIC SYSTEM IS PRESSURIZED WITH A HYDRAULIC SERVICE CART (AMM 29-11-00/201)
THE TWO ENGINES ARE OFF (AMM 71-00-00/201)
THE PTU MANUAL SWITCH IS IN THE OFF POSITION

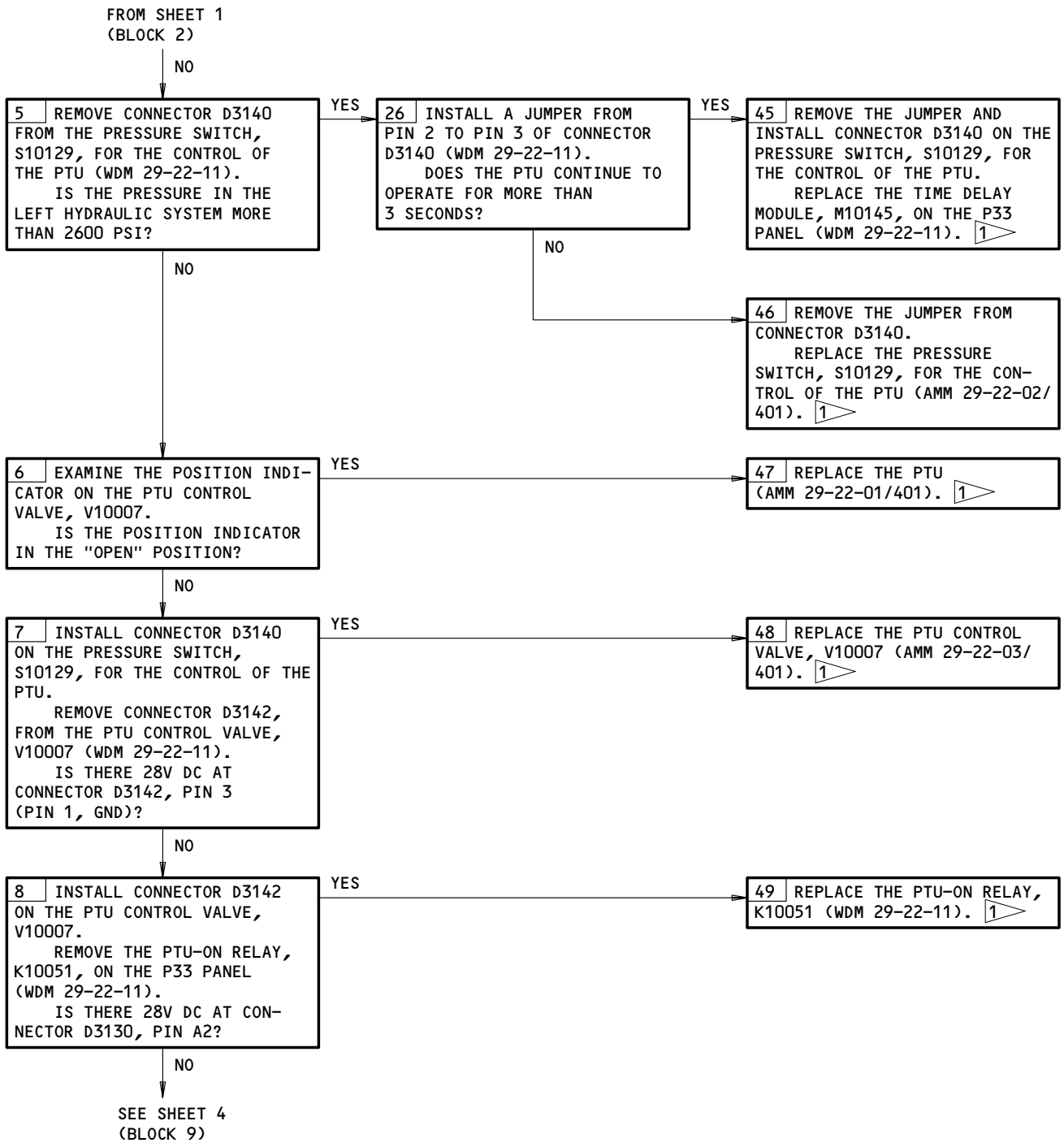



1 RETURN THE CARD MOUNTED TOGGLE SWITCH TO THE NORMAL POSITION OR REMOVE THE JUMPER FROM THE TEST POINT, J1, ON THE SPEED CARD, M10311, FOR THE RIGHT ENGINE ON THE P50 PANEL. ERASE THE MESSAGE "POWER XFER UNIT" (FIM 31-41-00/101, FIG. 109).

POWER XFER UNIT EICAS Message Illuminated
Figure 104 (Sheet 1)

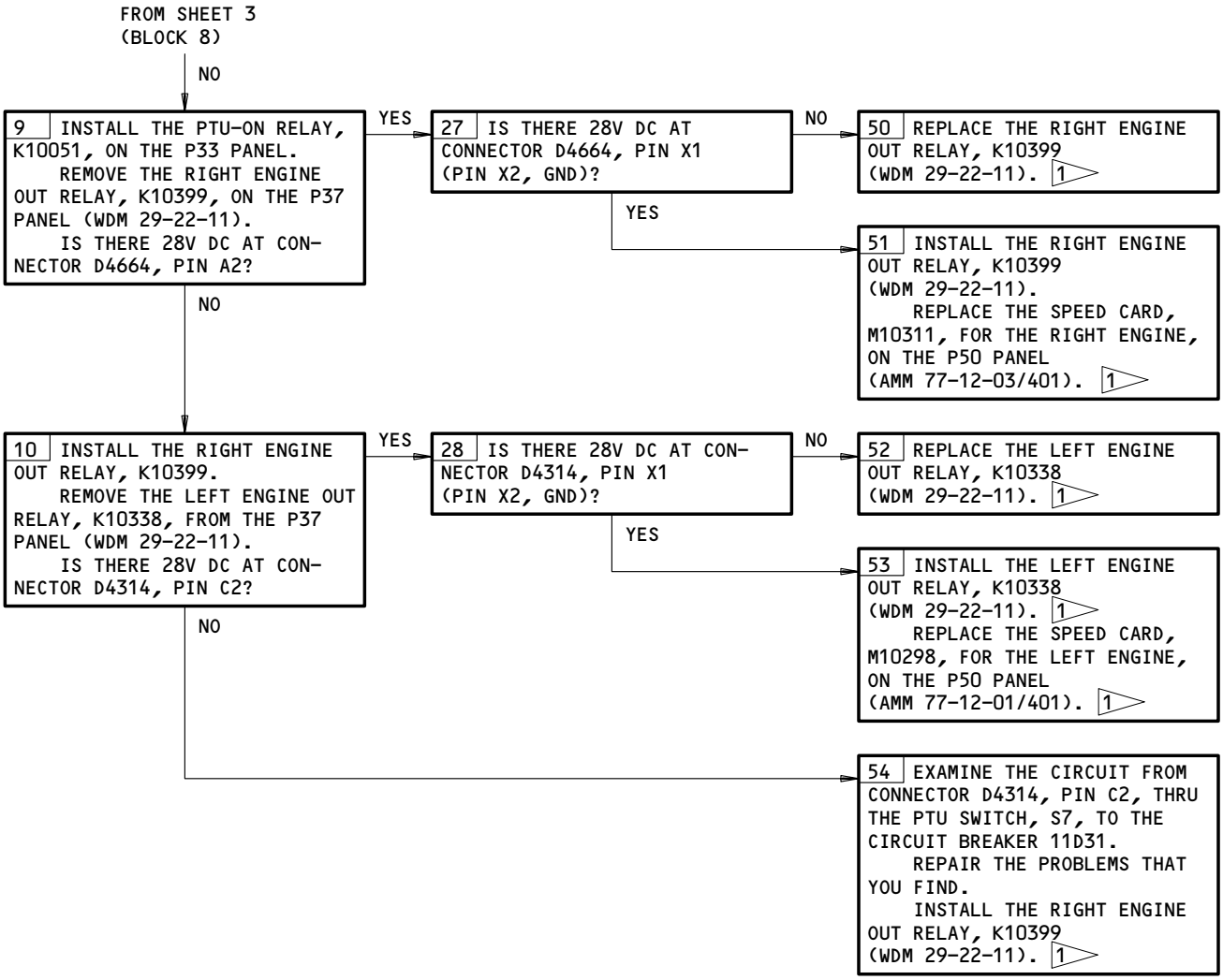



POWER XFER UNIT EICAS Message Illuminated
Figure 104 (Sheet 2)



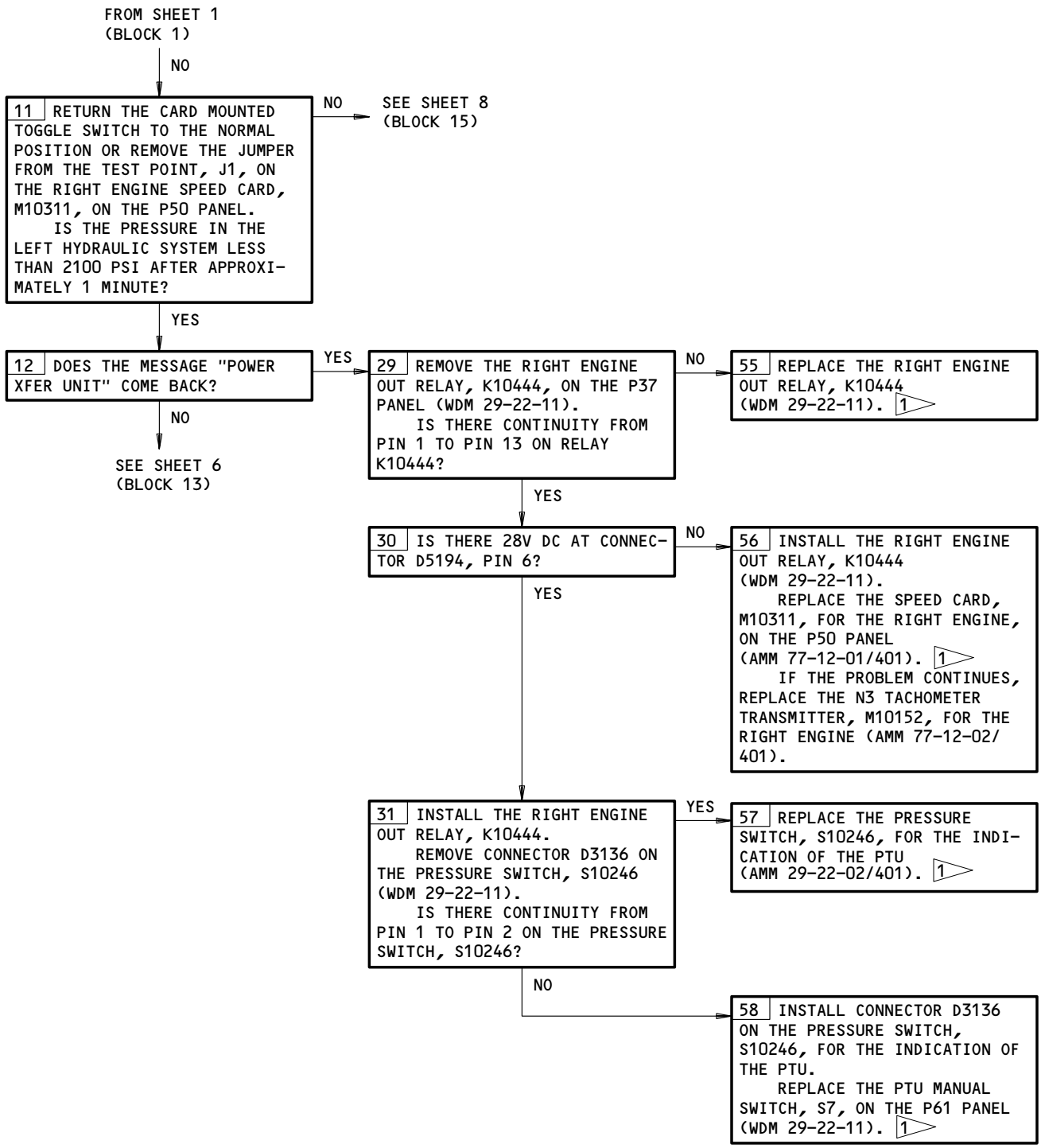

1 RETURN THE CARD MOUNTED TOGGLE SWITCH TO THE NORMAL POSITION OR REMOVE THE JUMPER FROM THE TEST POINT, J1, ON THE SPEED CARD, M10311, FOR THE RIGHT ENGINE ON THE P50 PANEL. ERASE THE MESSAGE "POWER XFER UNIT" (FIM 31-41-00/101, FIG. 109).

POWER XFER UNIT EICAS Message Illuminated
Figure 104 (Sheet 3)



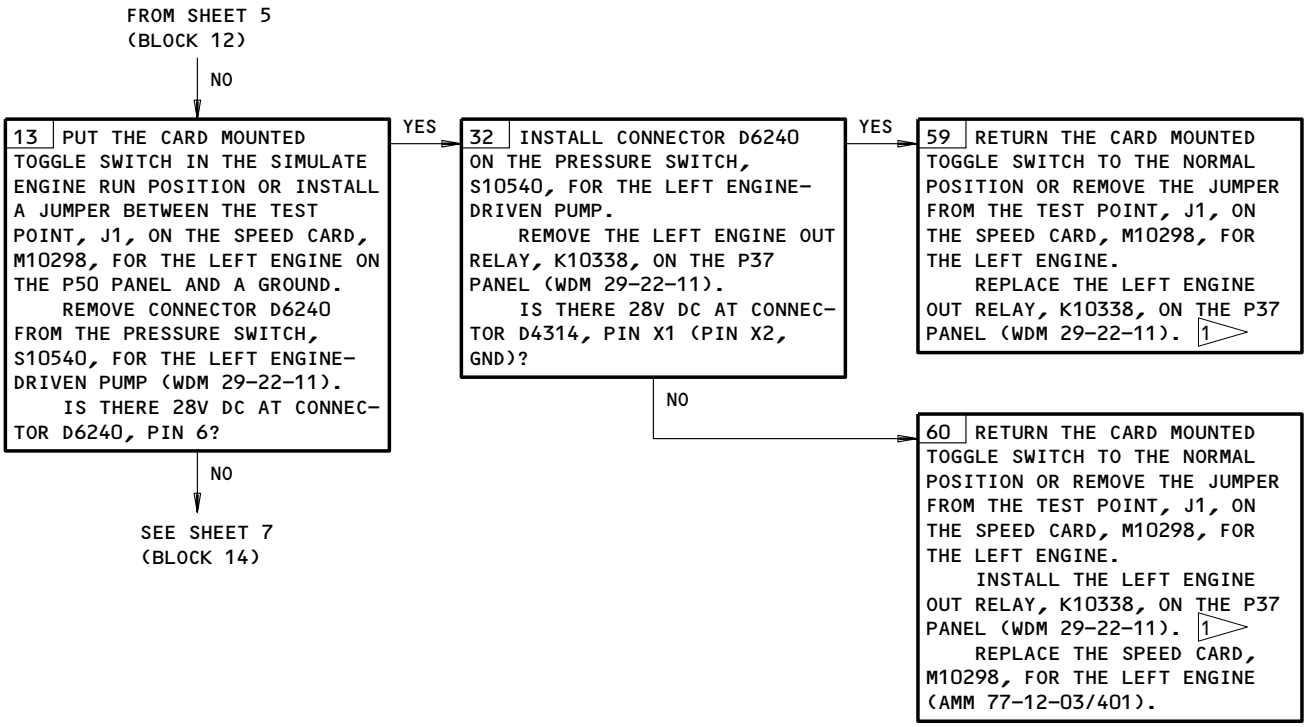

1 RETURN THE CARD MOUNTED TOGGLE SWITCH TO THE NORMAL POSITION OR REMOVE THE JUMPER FROM THE TEST POINT, J1, ON THE SPEED CARD, M10311, FOR THE RIGHT ENGINE ON THE P50 PANEL. ERASE THE MESSAGE "POWER XFER UNIT" (FIM 31-41-00/101, FIG. 109).

POWER XFER UNIT EICAS Message Illuminated
Figure 104 (Sheet 4)




1 RETURN THE CARD MOUNTED TOGGLE SWITCH TO THE NORMAL POSITION OR REMOVE THE JUMPER FROM THE TEST POINT, J1, ON THE SPEED CARD, M10311, FOR THE RIGHT ENGINE ON THE P50 PANEL. ERASE THE MESSAGE "POWER XFER UNIT" (FIM 31-41-00/101, FIG. 109).

POWER XFER UNIT EICAS Message Illuminated
Figure 104 (Sheet 5)




POWER XFER UNIT EICAS Message Illuminated
Figure 104 (Sheet 6)

FROM SHEET 6
(BLOCK 13)

NO

14 RETURN THE CARD MOUNTED TOGGLE SWITCH TO THE NORMAL POSITION OR REMOVE THE JUMPER FROM THE TEST POINT, J1, ON THE SPEED CARD, M10298, FOR THE LEFT ENGINE ON THE P50 PANEL.
REMOVE THE PRESSURE FROM THE LEFT AND RIGHT HYDRAULIC SYSTEMS (AMM 29-11-00/201).
DISCONNECT THE PRESSURE HOSE FOR THE LEFT ENGINE-DRIVEN PUMP (AMM 29-11-05/401).
CONNECT THE HYDRAULIC SERVICE CART TO THE PRESSURE HOSE FOR THE LEFT ENGINE-DRIVEN PUMP AND THE RETURN CONNECTION FOR THE GROUND POWER OF THE LEFT HYDRAULIC SYSTEM (AMM 29-11-00/201).
PRESSURIZE THE LEFT SYSTEM TO 3000 PSI WITH THE SERVICE CART.
DO A CONTINUITY CHECK FROM PIN 5 TO PIN 6 ON THE PRESSURE SWITCH, S10540, FOR THE LEFT ENGINE-DRIVEN PUMP (WDM 29-22-11).
IS THERE CONTINUITY FROM PIN 5 TO PIN 6 ON THE PRESSURE SWITCH, S10540?

YES

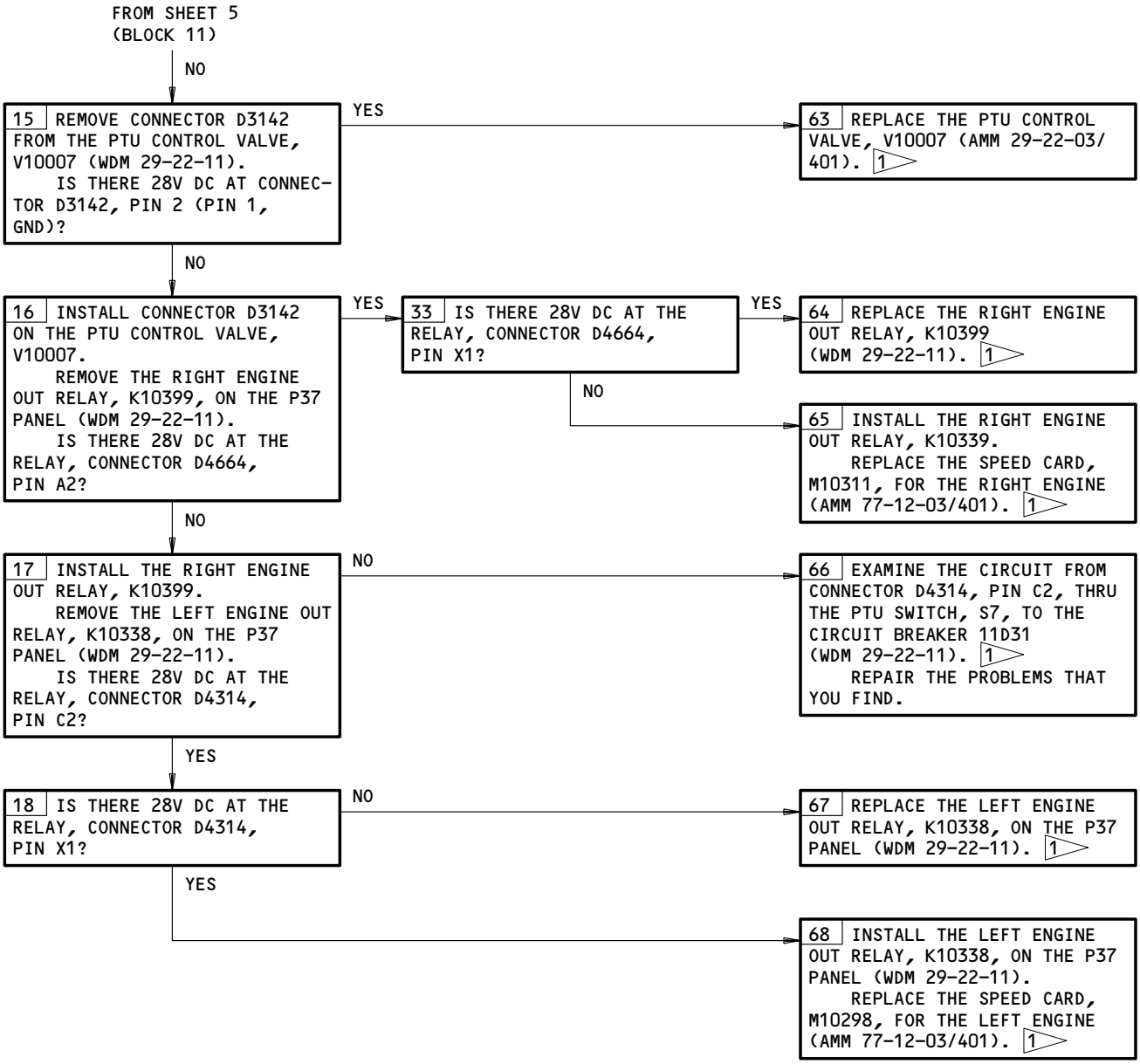
61 REMOVE THE HYDRAULIC SERVICE CART (AMM 29-11-00/201).
INSTALL THE PRESSURE HOSE FOR THE LEFT ENGINE-DRIVEN PUMP (AMM 29-11-05/401).
REPLACE THE PRESSURE SWITCH, S10540, FOR THE LEFT ENGINE-DRIVEN PUMP (WDM 29-22-11). 1

NO

62 REMOVE THE HYDRAULIC SERVICE CART (AMM 29-11-00/201).
INSTALL THE PRESSURE HOSE FOR THE LEFT ENGINE-DRIVEN PUMP (AMM 29-11-05/401).
INSTALL CONNECTOR D6240 ON THE PRESSURE SWITCH, S10540 (WDM 29-22-11).
THE SYSTEM IS OK. 1

1 RETURN THE CARD MOUNTED TOGGLE SWITCH TO THE NORMAL POSITION OR REMOVE THE JUMPER FROM THE TEST POINT, J1, ON THE SPEED CARD, M10311, FOR THE RIGHT ENGINE ON THE P50 PANEL. ERASE THE MESSAGE "POWER XFER UNIT" (FIM 31-41-00/101, FIG. 109).

POWER XFER UNIT EICAS Message Illuminated
Figure 104 (Sheet 7)




1 RETURN THE CARD MOUNTED TOGGLE SWITCH TO THE NORMAL POSITION OR REMOVE THE JUMPER FROM THE TEST POINT, J1, ON THE SPEED CARD, M10311, FOR THE RIGHT ENGINE ON THE P50 PANEL. ERASE THE MESSAGE "POWER XFER UNIT" (FIM 31-41-00/101, FIG. 109).

POWER XFER UNIT EICAS Message Illuminated
Figure 104 (Sheet 8)

## "POWER XFER UNIT" EICAS MESSAGE ILLUMINATED WITH PTU SWITCH ON

**PREREQUISITES**

MAKE SURE THIS CIRCUIT BREAKER IS CLOSED:
11D31

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON AND THE STANDBY POWER SWITCH, ON THE P5 PANEL, IS IN THE AUTO POSITION (AMM 24-22-00/201)
THE LEFT HYDRAULIC SYSTEM POWER IS OFF (AMM 29-11-00/201)
THE RIGHT HYDRAULIC SYSTEM IS PRESSURIZED WITH A HYDRAULIC SERVICE CART OR THE RIGHT ACMP (AMM 29-11-00/201)
THE TWO ENGINES ARE OFF (AMM 71-00-00/201)
THE PTU MANUAL SWITCH IS IN THE OFF POSITION

1 DO THIS PROCEDURE: "NUISANCE POWER XFER EICAS MESSAGE" (FIG. 106).
DOES THE MESSAGE "POWER XFER UNIT" COME BACK?

NO → 10 THE SYSTEM IS OK.

YES ↓

1A PUT THE PTU MANUAL SWITCH, S7, ON THE P61 PANEL TO THE "ON" POSITION.
PUSH THE "ELEC/HYD" SWITCH ON THE "EICAS MAINT" PANEL.
IS THE PRESSURE IN THE LEFT HYDRAULIC SYSTEM MORE THAN 2600 PSI?

YES → 10A REMOVE CONNECTOR D3136 ON THE PRESSURE SWITCH, S10246, FOR THE INDICATION OF THE PTU (WDM 29-22-11).
IS THERE CONTINUITY FROM PIN 2 TO PIN 3 ON PRESSURE SWITCH, S10246?

YES → 15 REPLACE THE PRESSURE SWITCH, S10246, FOR THE INDICATION OF THE PTU (AMM 29-22-02/401). 1

NO → 16 INSTALL CONNECTOR D3136 ON THE PRESSURE SWITCH, S10246, FOR THE INDICATION OF THE PTU.
REPLACE THE PTU MANUAL SWITCH, S7, ON THE P61 PANEL (WDM 29-22-11). 1

NO ↓

2 REMOVE CONNECTOR D3140 FROM THE PRESSURE SWITCH, S10129, FOR THE CONTROL OF THE PTU (WDM 29-22-11).
IS THE PRESSURE IN THE LEFT HYDRAULIC SYSTEM MORE THAN 2600 PSI?

YES → 11 INSTALL A JUMPER FROM PIN 2 TO PIN 3 OF CONNECTOR D3140 (WDM 29-22-11).
DOES THE PTU CONTINUE TO OPERATE FOR MORE THAN 3 SECONDS?

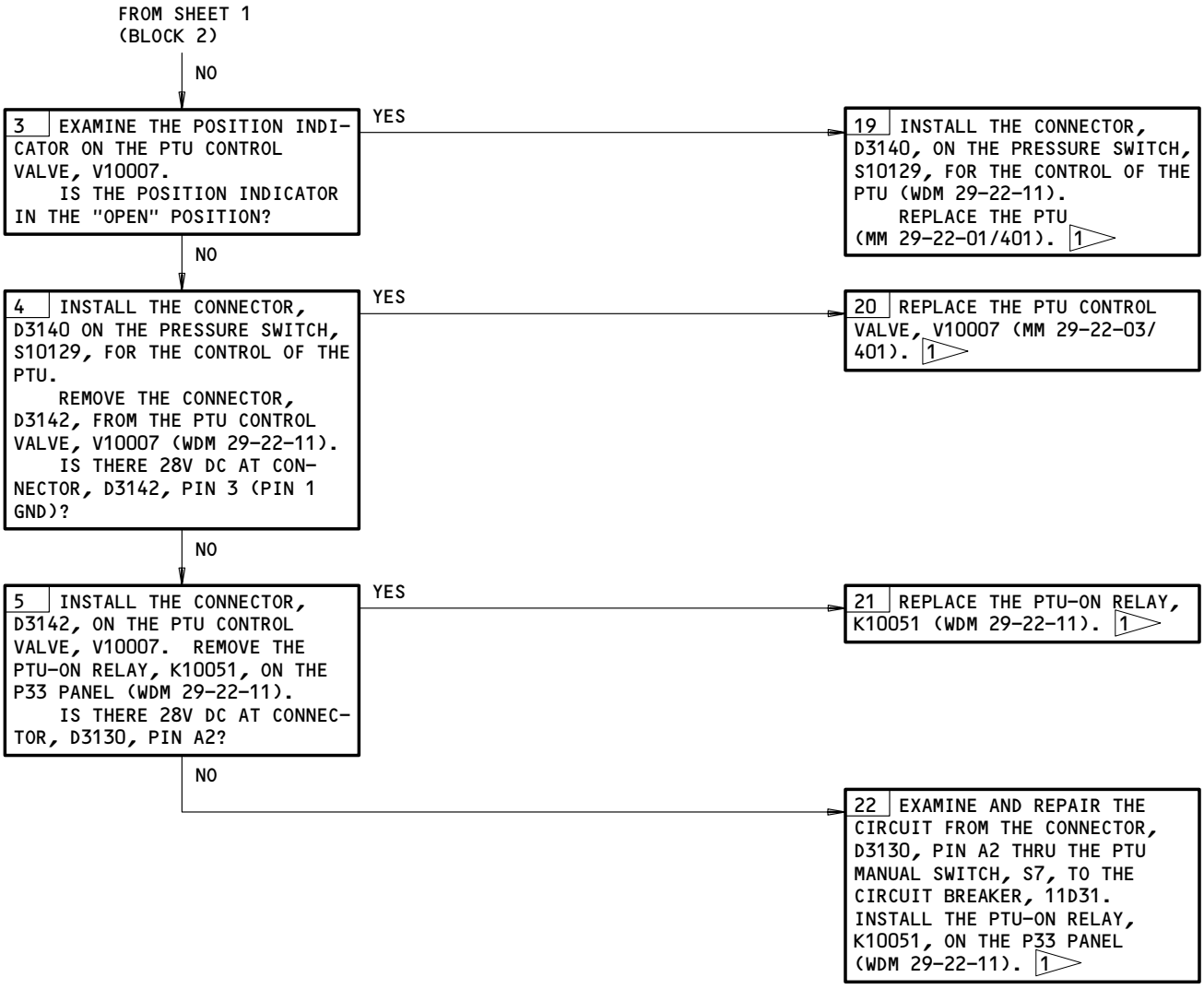
YES → 17 REMOVE THE JUMPER AND INSTALL CONNECTOR D3140 ON THE PRESSURE SWITCH, S10129, FOR THE CONTROL OF THE PTU.
REPLACE THE TIME DELAY MODULE, M10146, ON THE P33 PANEL (WDM 29-22-11). 1

NO → 18 REMOVE THE JUMPER FROM CONNECTOR D3140.
REPLACE THE PRESSURE SWITCH, S10129, FOR THE CONTROL OF THE PTU (AMM 29-22-02/401). 1

NO ↓

SEE SHEET 2 (BLOCK 3)

POWER XFER UNIT EICAS Message Illuminated with PTU Switch ON
Figure 105 (Sheet 1)




1 ERASE THE MESSAGE "POWER XFER UNIT" (31-41-00, FIG. 109)

POWER XFER UNIT EICAS Message Illuminated with PTU Switch ON
Figure 105 (Sheet 2)

**PREREQUISITES**

MAKE SURE THIS CIRCUIT BREAKER IS CLOSED:
11D31

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON AND THE STANDBY POWER SWITCH, ON THE P5 PANEL, IS IN THE AUTO POSITION (AMM 24-22-00/201)
LEFT AND RIGHT HYDRAULIC SYSTEM POWER IS OFF (AMM 29-11-00/201)
THE TWO ENGINES ARE OFF (AMM 71-00-00/201)

## NUISANCE POWER XFER EICAS MESSAGE

1 SET THE LEFT ACMP SWITCH TO "OFF" POSITION.
CHECK THAT NO HYDRAULIC PRESSURE IS INDICATED ON EICAS.
ERASE THE EICAS MESSAGES (FIM 31-41-00/101, FIG. 109).
START THE RIGHT ENGINE AND RUN AT STABLE IDLE.
DOES THE MESSAGE "POWER XFER UNIT" COME BACK?

YES → 10 THE PROBLEM IS NOT A NUISANCE MESSAGE. SHUT DOWN ENGINES AND RETURN AIRPLANE TO NORMAL CONDITION.
RETURN TO ORIGINAL "POWER XFER UNIT" MESSAGE, FIG. 103, 104 OR 105, AND CONTINUE FAULT ISOLATION.

NO ↓

2 ENSURE THE RIGHT HYDRAULIC SYSTEM IS PRESSURIZED.
DOES THE MESSAGE "POWER XFER UNIT" COME BACK?

YES → 11 THE PROBLEM IS NOT A NUISANCE MESSAGE. SHUT DOWN ENGINES AND RETURN AIRPLANE TO NORMAL CONDITION.
RETURN TO ORIGINAL "POWER XFER UNIT" MESSAGE, FIG. 103, 104 OR 105, AND CONTINUE FAULT ISOLATION.

NO ↓

3 MAKE SURE LEFT HYDRAULIC PRESSURE INDICATION FOR THE LEFT ENGINE ON EICAS IS NOT LESS THAN 2600 PSI.
START LEFT ENGINE AND RUN AT STABLE IDLE.
DOES THE MESSAGE "POWER XFER UNIT" COME BACK?

YES → 12 THE PROBLEM IS NOT A NUISANCE MESSAGE. SHUT DOWN ENGINES AND RETURN AIRPLANE TO NORMAL CONDITION.
RETURN TO ORIGINAL "POWER XFER UNIT" MESSAGE, FIG. 103, 104 OR 105, AND CONTINUE FAULT ISOLATION.

NO ↓

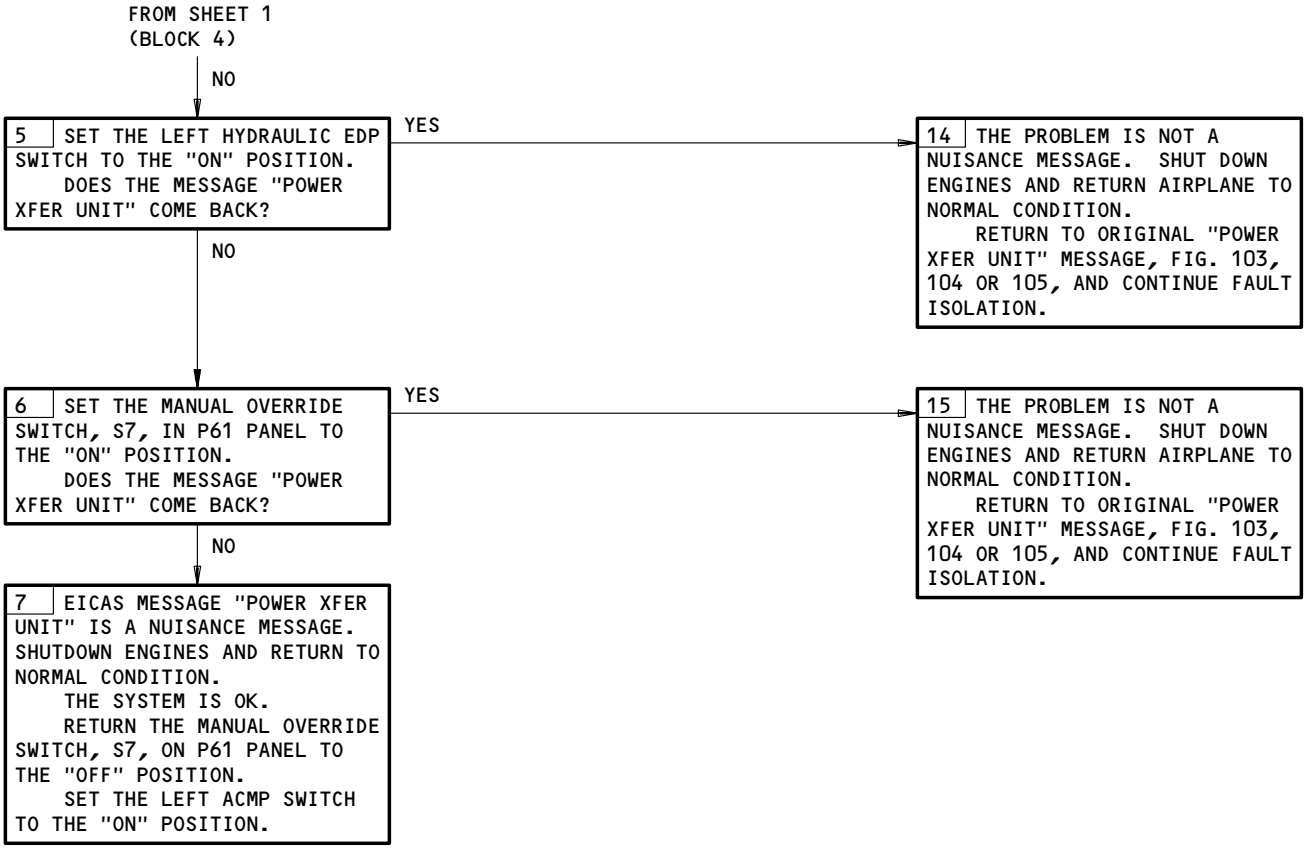
4 SET THE LEFT HYDRAULIC EDP SWITCH TO THE "OFF" POSITION.
DOES THE MESSAGE "POWER XFER UNIT" COME BACK?

YES → 13 THE PROBLEM IS NOT A NUISANCE MESSAGE. SHUT DOWN ENGINES AND RETURN AIRPLANE TO NORMAL CONDITION.
RETURN TO ORIGINAL "POWER XFER UNIT" MESSAGE, FIG. 103, 104 OR 105, AND CONTINUE FAULT ISOLATION.

NO ↓

SEE SHEET 2
(BLOCK 5)

NUISANCE POWER XFER EICAS Message
Figure 106 (Sheet 1)




NUISANCE POWER XFER EICAS Message
Figure 106 (Sheet 2)

## HYDRAULIC PRESSURE INDICATING SYSTEM

| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | REFERENCE |
|---|---|---|---|---|
| CIRCUIT BREAKERS | 1 | | FLIGHT COMPARTMENT, P11 PANEL | |
| SYSTEM PRESS CENTER, C1082 | | 1 | 11K18 | * |
| SYSTEM PRESS LEFT, C1080 | | 1 | 11K17 | * |
| SYSTEM PRESSURE RIGHT, C1081 | | 1 | 11K26 | * |
| COMPUTER - (REF 31-41-00, FIG. 101) | | | | |
| EICAS L, M10181 | | | | |
| EICAS R, M10182 | | | | |
| LIGHT - CENTER SYSTEM LOW PRESSURE INDICATOR, YQTL5 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| LIGHT - LEFT SYSTEM LOW PRESSURE INDICATOR, YQTL1 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| LIGHT - RIGHT SYSTEM LOW PRESSURE INDICATOR, YQTL3 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| MODULE - (REF 29-11-00, FIG. 101) | | | | |
| CENTER SYSTEM ACMP PRESSURE/CASE DRAIN FILTER | | | | |
| LEFT SYSTEM ACMP PRESSURE/CASE DRAIN FILTER | | | | |
| LEFT SYSTEM EDP PRESSURE/CASE DRAIN FILTER | | | | |
| RIGHT SYSTEM ACMP PRESSURE/CASE DRAIN FILTER | | | | |
| RIGHT SYSTEM EDP PRESSURE/CASE DRAIN FILTER | | | | |
| PANEL - (REF 29-11-00, FIG. 101) | | | | |
| HYDRAULIC CONTROL, M10050 | | | | |
| SWITCH - CENTER SYSTEM ACMP C1 PRESSURE, S10003 | 5 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING, CENTER SYSTEM ACMP PRESSURE/CASE DRAIN FILTER MODULE | * |
| SWITCH - CENTER SYSTEM ACMP C2 PRESSURE, S10016 | 5 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING, CENTER SYSTEM ACMP PRESSURE/CASE DRAIN FILTER MODULE | * |
| SWITCH - CENTER SYSTEM PRESSURE, S10002 | 5 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING, CENTER SYSTEM ACMP PRESSURE/CASE DRAIN FILTER MODULE | * |
| SWITCH - LEFT SYSTEM ACMP PRESSURE, S25 | 4 | 1 | LEFT WHEEL WELL, LEFT SYSTEM ACMP PRESSURE/CASE DRAIN FILTER MODULE | * |

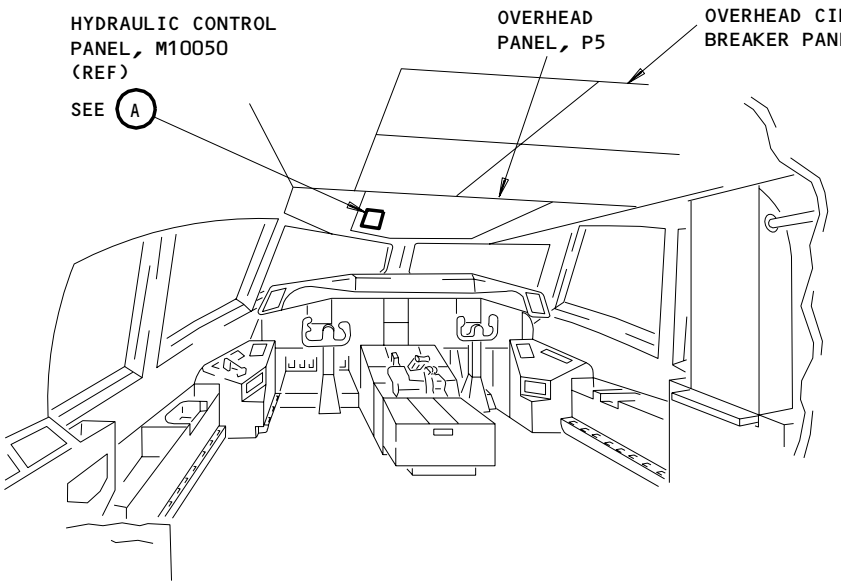
* SEE THE WDM EQUIPMENT LIST

Hydraulic Pressure Indicating System - Component Index
Figure 101 (Sheet 1)

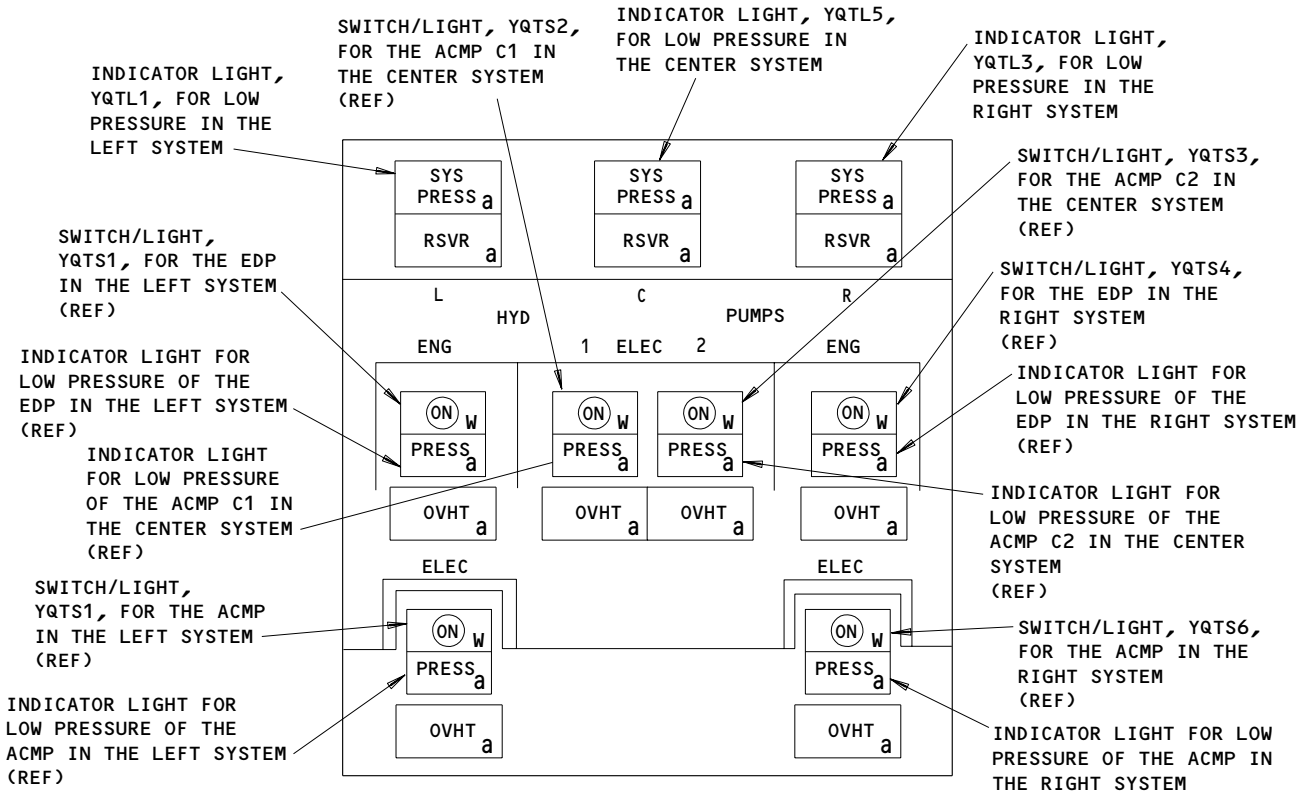
| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | REFERENCE |
|---|---|---|---|---|
| SWITCH – LEFT SYSTEM EDP PRESSURE, S10540 | 3 | 1 | 434AL, LEFT NACELLE STRUT – AFT FAIRING, LEFT SYSTEM EDP PRESSURE/CASE DRAIN FILTER MODULE | * |
| SWITCH – LEFT SYSTEM PRESSURE, S27 | 3 | 1 | 434AL, LEFT NACELLE STRUT – AFT FAIRING, LEFT SYSTEM EDP PRESSURE/CASE DRAIN FILTER MODULE | * |
| SWITCH – RIGHT SYSTEM ACMP PRESSURE, S30 | 4 | 1 | RIGHT WHEEL WELL, RIGHT SYSTEM PRESSURE/CASE DRAIN FILTER MODULE | * |
| SWITCH – RIGHT SYSTEM EDP PRESSURE, S10541 | 3 | 1 | 444AL, RIGHT NACELLE STRUT – AFT FAIRING, RIGHT SYSTEM EDP PRESSURE/CASE DRAIN FILTER MODULE | * |
| SWITCH – RIGHT SYSTEM PRESSURE, S32 | 3 | 1 | 444AL, RIGHT NACELLE STRUT – AFT FAIRING, RIGHT SYSTEM EDP PRESSURE/CASE DRAIN FILTER MODULE | * |
| SWITCH/LIGHT – (REF 29-11-00, FIG. 101) | | | | |
| CENTER SYSTEM ACMP C1, YQTS2 | | | | |
| CENTER SYSTEM ACMP C2, YQTS3 | | | | |
| LEFT SYSTEM ACMP, YQTS5 | | | | |
| LEFT SYSTEM EDP, YQTS1 | | | | |
| RIGHT SYSTEM ACMP, YQTS6 | | | | |
| RIGHT SYSTEM EDP, YQTS4 | | | | |
| TIME DELAY – (REF 31-01-33, FIG. 101) | | | | |
| LEFT SYSTEM ACMP PRESSURE LIGHT, M10557 | | 1 | | * |
| LEFT SYSTEM PRESSURE LIGHT, M10558 | | 1 | | * |
| TIME DELAY – (REF 31-01-36, FIG. 101) | | | | |
| RIGHT SYSTEM ACMP PRESSURE LIGHT, M10559 | | 1 | | * |
| RIGHT SYSTEM PRESSURE LIGHT, M10560 | | 1 | | * |
| TRANSMITTER – CENTER SYSTEM PRESSURE, M342 | 2 | 1 | LEFT WHEEL WELL | 29-31-01 |
| TRANSMITTER – LEFT SYSTEM PRESSURE, M341 | 2 | 1 | LEFT WHEEL WELL | 29-31-01 |
| TRANSMITTER – RIGHT SYSTEM PRESSURE, M343 | 2 | 1 | RIGHT WHEEL WELL | 29-31-01 |

* SEE THE WDM EQUIPMENT LIST

Hydraulic Pressure Indicating System – Component Index
Figure 101 (Sheet 2)



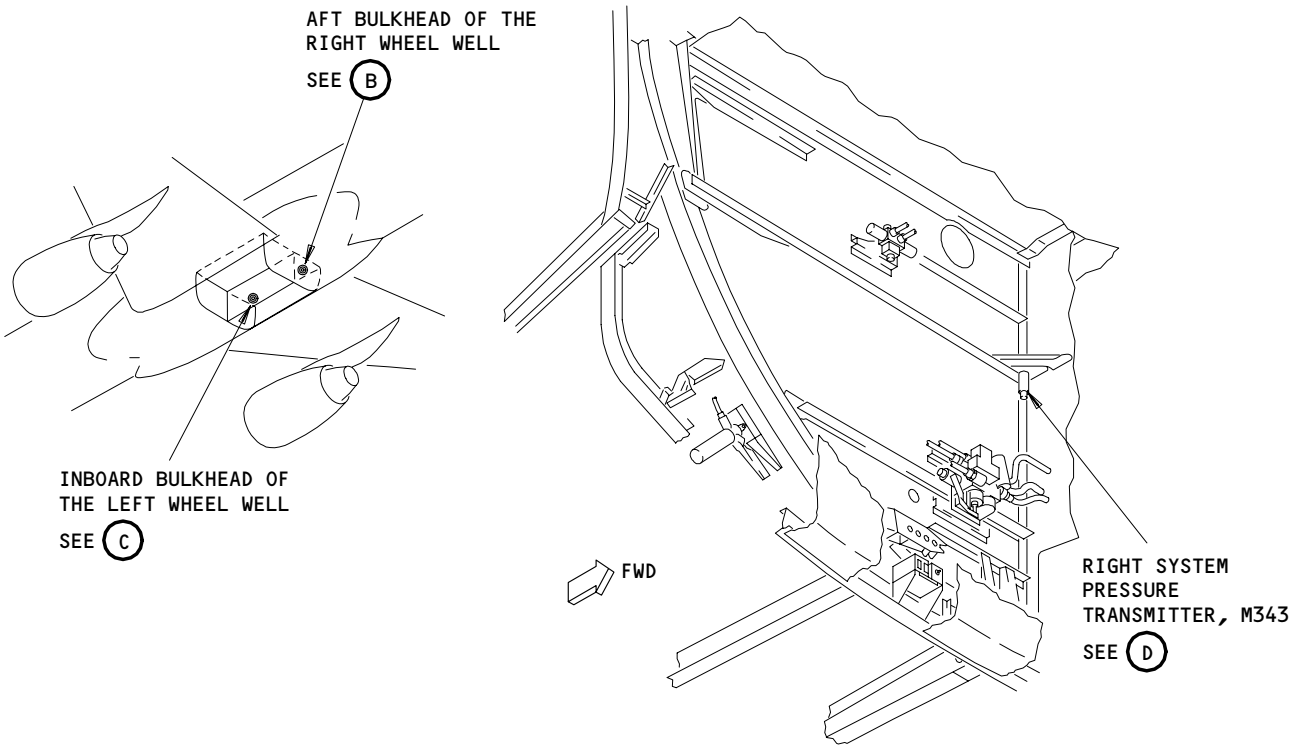

FLIGHT COMPARTMENT




HYDRAULIC CONTROL PANEL, M10050 (REF)

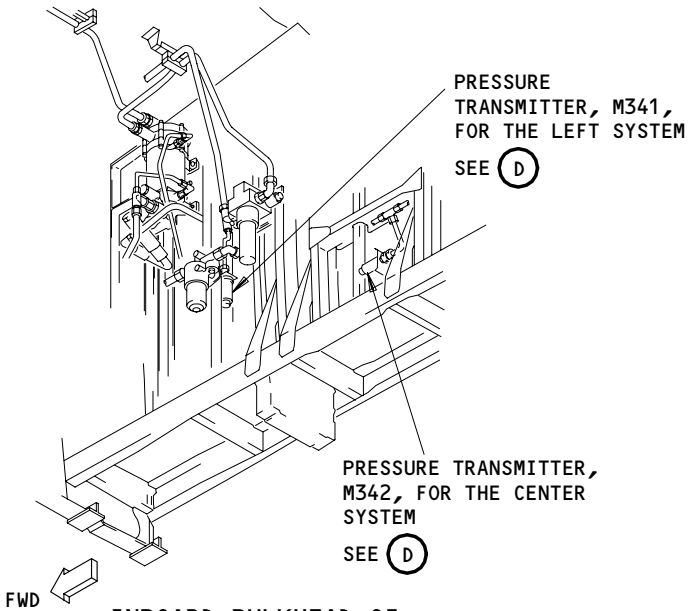
A

Hydraulic Pressure Indicating System – Component Location
Figure 102 (Sheet 1)



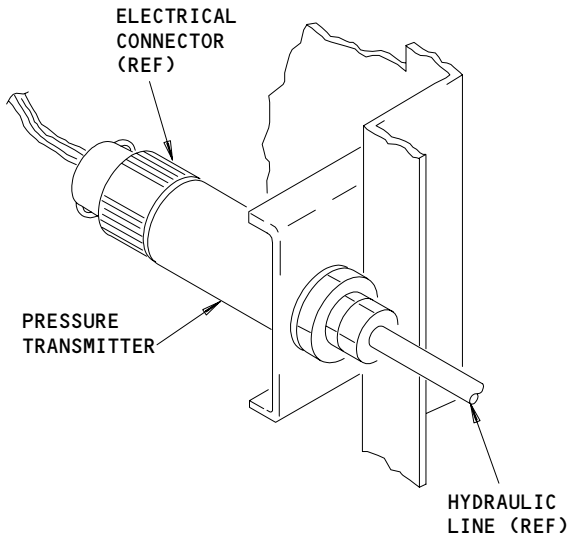

AFT BULKHEAD OF THE RIGHT WHEEL WELL

B




INBOARD BULKHEAD OF THE LEFT WHEEL WELL

C



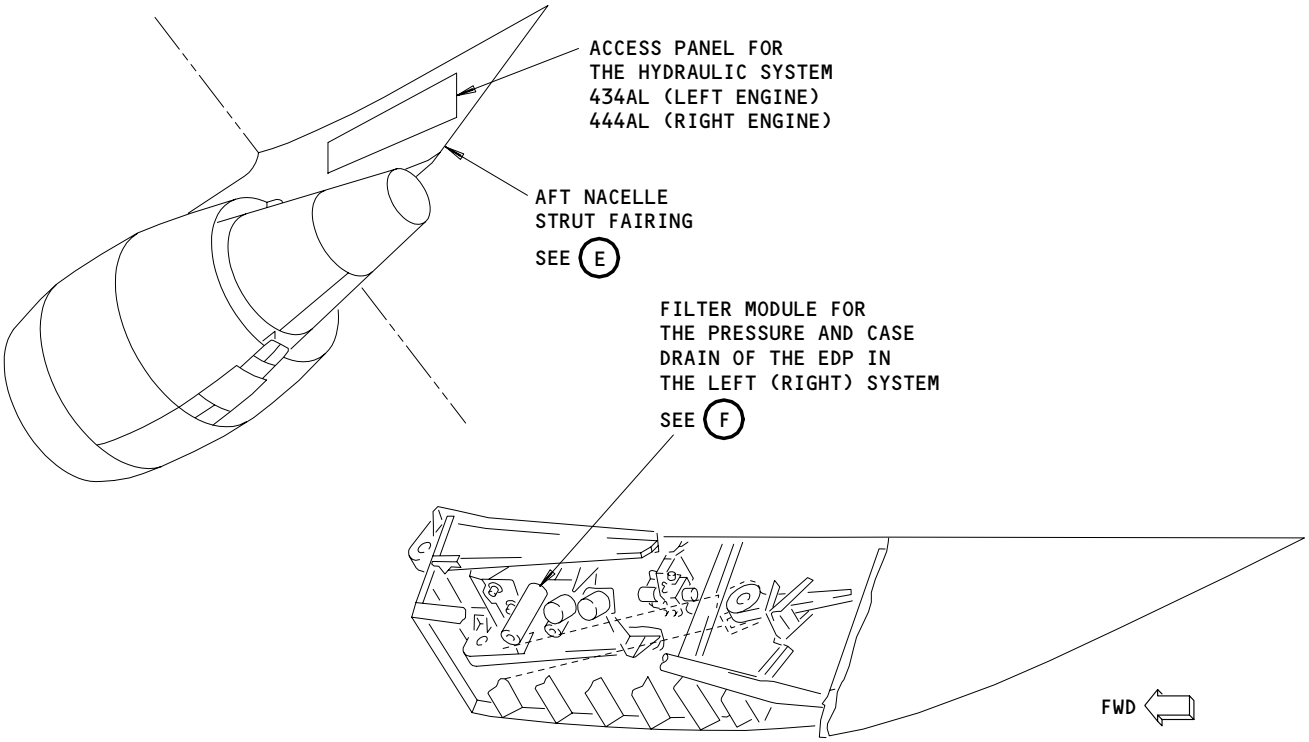

PRESSURE TRANSMITTER (EXAMPLE)

D

Hydraulic Pressure Indicating System - Component Location
Figure 102 (Sheet 2)

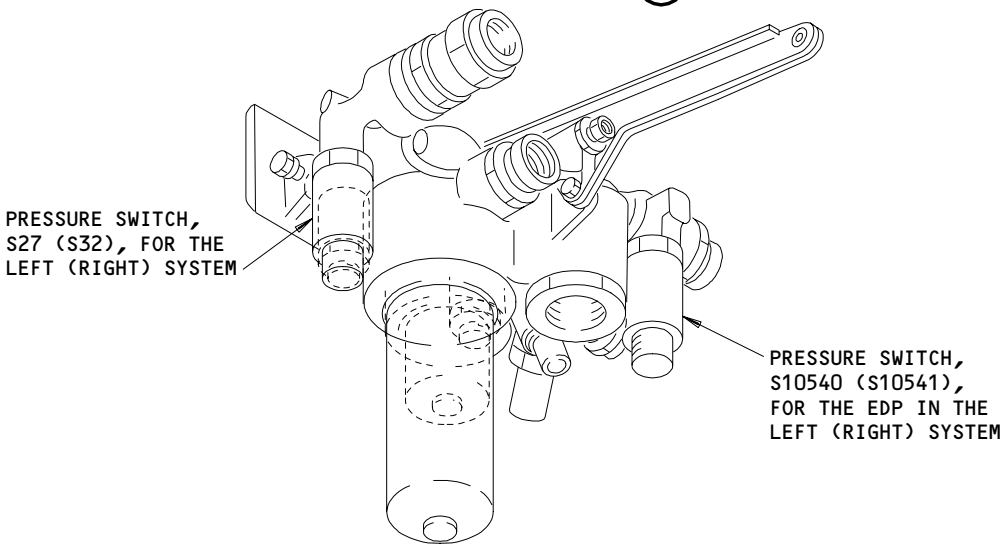


55842




AFT NACELLE STRUT FAIRING
(EXAMPLE)

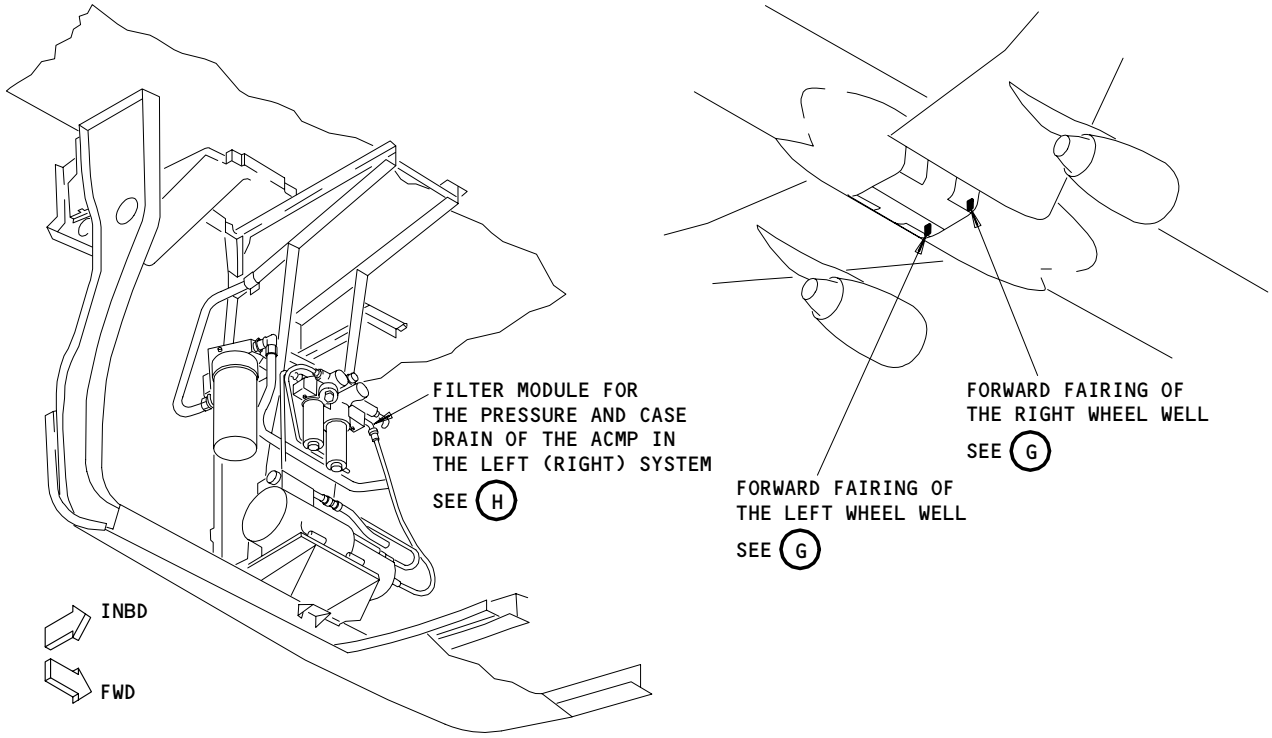
E




FILTER MODULE FOR THE PRESSURE AND CASE DRAIN
OF THE EDP IN THE LEFT (RIGHT) SYSTEM

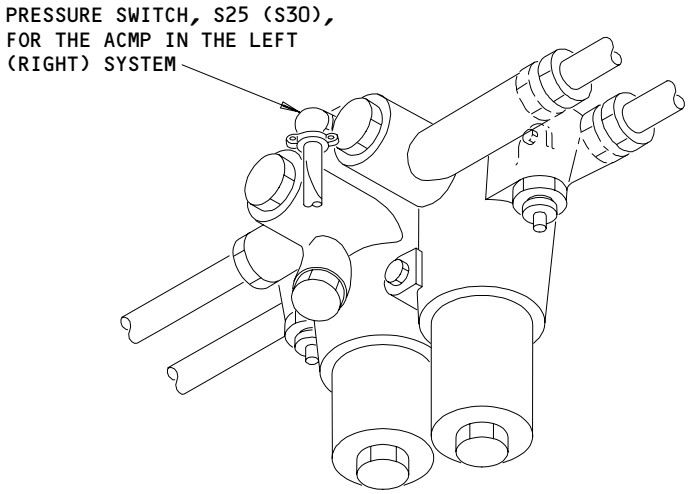
F

Hydraulic Pressure Indicating System - Component Location
Figure 102 (Sheet 3)




FORWARD FAIRING OF THE LEFT WHEEL WELL
(THE FORWARD FAIRING OF THE RIGHT WHEEL WELL IS OPPOSITE)

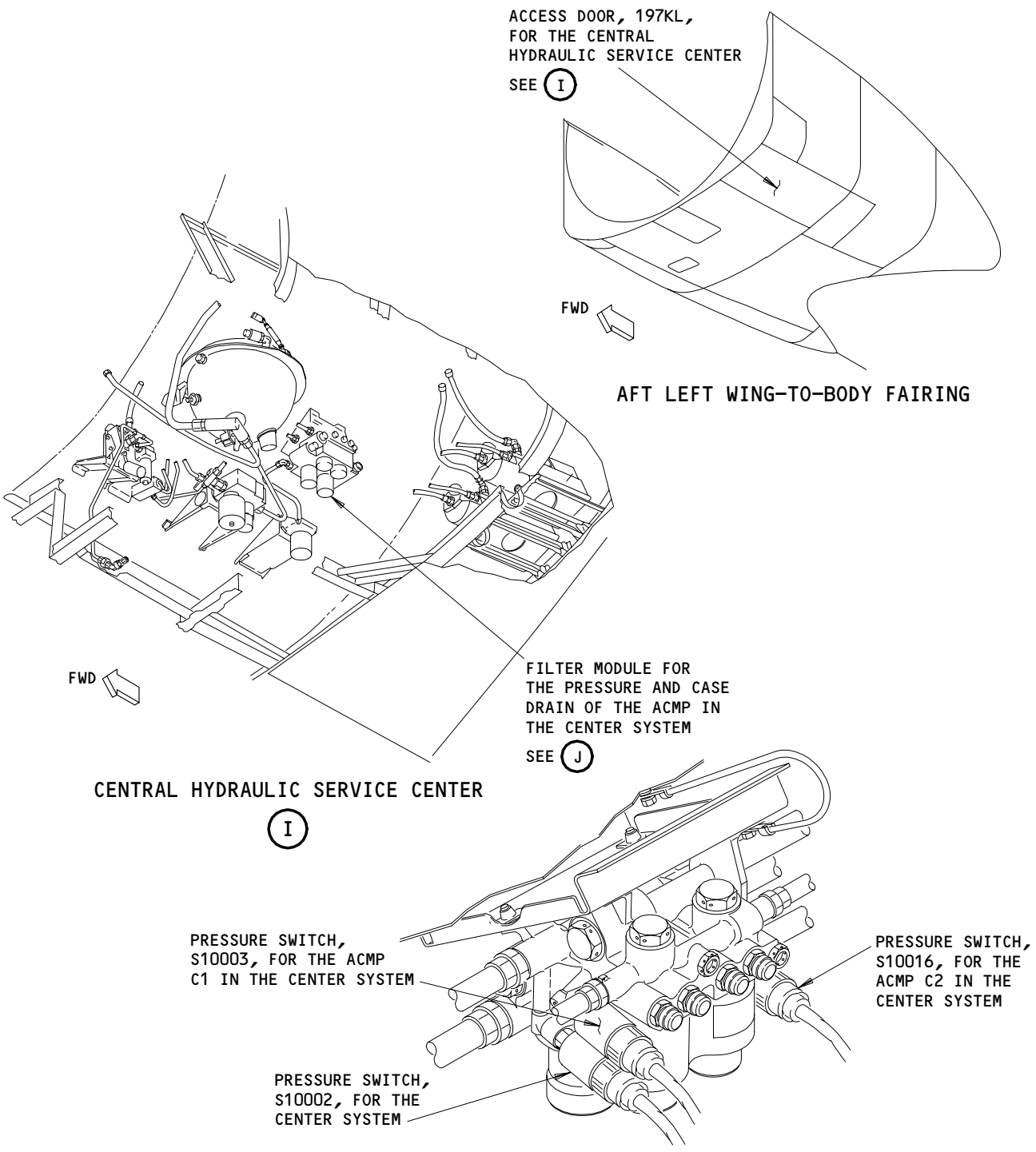
G




FILTER MODULE FOR THE PRESSURE AND
CASE DRAIN OF THE ACMP IN THE LEFT (RIGHT) SYSTEM

H

Hydraulic Pressure Indicating System - Component Location
Figure 102 (Sheet 4)




Hydraulic Pressure Indicating System - Component Location
Figure 102 (Sheet 5)

## HYDRAULIC FLUID TEMPERATURE INDICATING SYSTEM

| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | REFERENCE |
|---|---|---|---|---|
| COMPUTER - (REF 31-41-00, FIG. 101) | | | | |
| EICAS L, M10181 | | | | |
| EICAS R, M10182 | | | | |
| LIGHT - CENTER SYSTEM ACMP C1 OVERHEAT INDICATOR, YQTL8 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| LIGHT - CENTER SYSTEM ACMP C2 OVERHEAT INDICATOR, YQTL9 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| LIGHT - LEFT SYSTEM ACMP OVERHEAT INDICATOR, YQTL11 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| LIGHT - LEFT SYSTEM EDP OVERHEAT INDICATOR, YQTL7 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| LIGHT - RIGHT SYSTEM ACMP OVERHEAT INDICATOR, YQTL12 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| LIGHT - RIGHT SYSTEM EDP OVERHEAT INDICATOR, YQTL10 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| MODULE - (REF 29-11-00, FIG. 101) | | | | |
| LEFT SYSTEM EDP PRESSURE/CASE DRAIN FILTER | | | | |
| RIGHT SYSTEM EDP PRESSURE/CASE DRAIN FILTER | | | | |
| PANEL - (REF 29-11-00, FIG. 101) | | | | |
| HYDRAULIC CONTROL, M10050 | | | | |
| PUMP (ACMP) - (REF 29-11-00, FIG. 101) | | | | |
| CENTER SYSTEM ALTERNATING CURRENT MOTOR C1, M10029 | | | | |
| CENTER SYSTEM ALTERNATING CURRENT MOTOR C2, M10030 | | | | |
| LEFT SYSTEM ALTERNATING CURRENT MOTOR, M231 | | | | |
| RIGHT SYSTEM ALTERNATING CURRENT MOTOR, M234 | | | | |
| RESERVOIR - (REF 29-11-00, FIG. 101) | | | | |
| CENTER SYSTEM HYDRAULIC | | | | |
| LEFT SYSTEM HYDRAULIC | | | | |
| RIGHT SYSTEM HYDRAULIC | | | | |

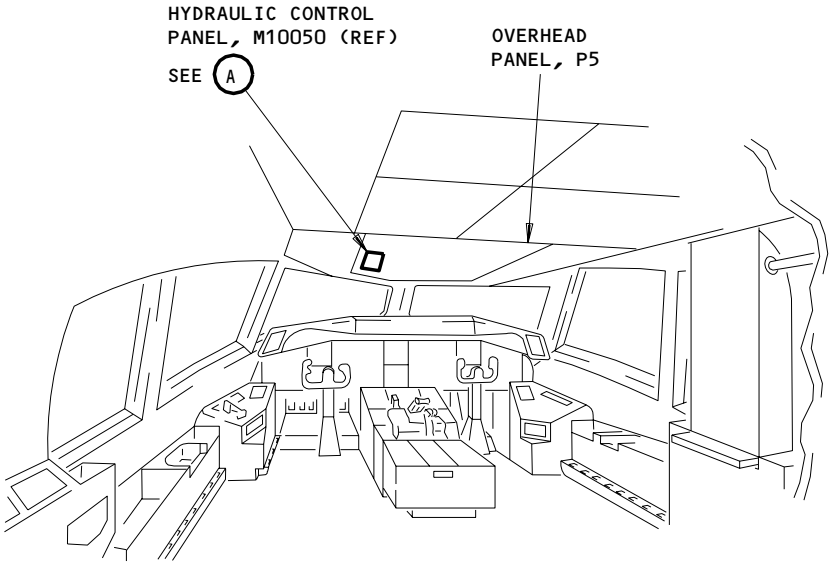
* SEE THE WDM EQUIPMENT LIST

Hydraulic Fluid Temperature Indicating System - Component Index
Figure 101 (Sheet 1)

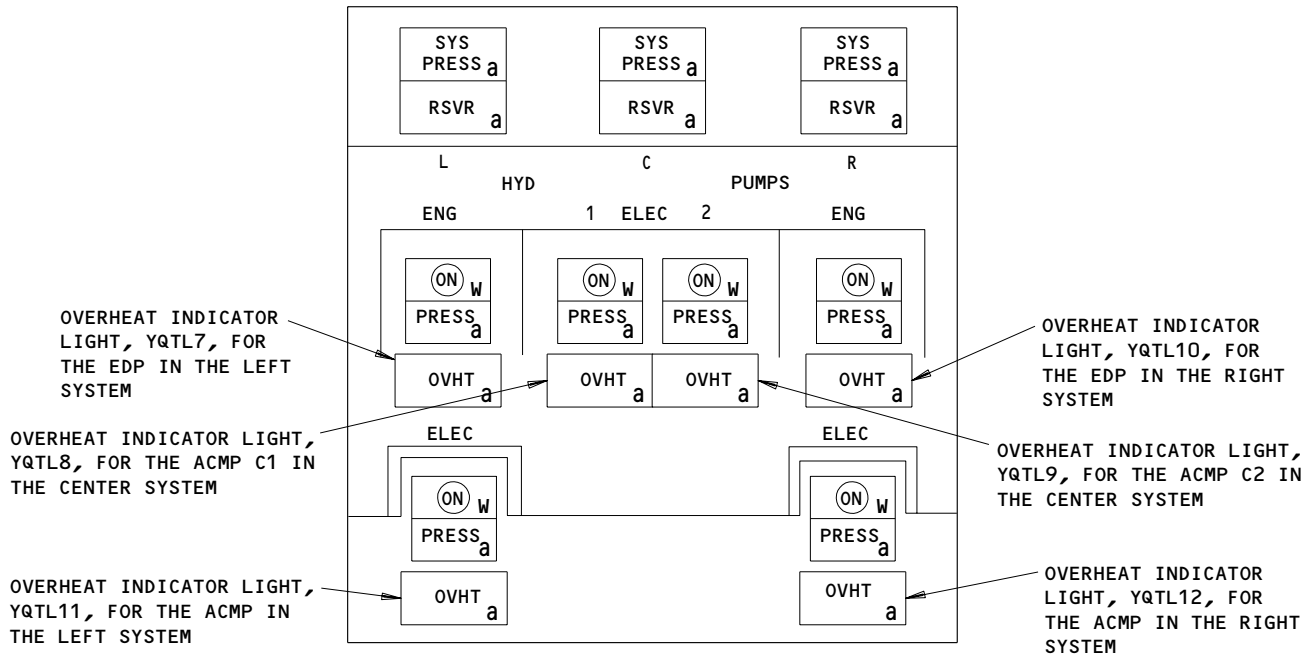
| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | REFERENCE |
|---|---|---|---|---|
| SWITCH – CENTER SYSTEM ACMP C1 CASE DRAIN TEMPERATURE | | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING, CENTER SYSTEM ACMP C1, M10029 | * |
| SWITCH – CENTER SYSTEM ACMP C2 CASE DRAIN TEMPERATURE | | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING, CENTER SYSTEM ACMP C2, M10030 | * |
| SWITCH – LEFT SYSTEM ACMP CASE DRAIN TEMPERATURE | | 1 | LEFT WHEEL WELL, LEFT SYSTEM ACMP, M231 | * |
| SWITCH – LEFT SYSTEM EDP CASE DRAIN TEMPERATURE, S10006 | 2 | 1 | 434AL, LEFT NACELLE STRUT – AFT FAIRING, LEFT SYSTEM EDP PRESS-URE/CASE DRAIN FILTER MODULE | 29-32-01 |
| SWITCH – RIGHT SYSTEM ACMP CASE DRAIN TEMPERATURE | | 1 | RIGHT WHEEL WELL, RIGHT SYSTEM ACMP, M234 | * |
| SWITCH – RIGHT SYSTEM EDP CASE DRAIN TEMPERATURE, S10007 | 2 | 1 | 444AL, RIGHT NACELLE STRUT – AFT FAIRING, RIGHT SYSTEM EDP PRESS-URE/CASE DRAIN FILTER MODULE | 29-32-01 |
| TRANSMITTER – CENTER SYSTEM FLUID TEMPERATURE, TS5194 | 4 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING, CENTER SYSTEM HYDRAULIC RESERVOIR | 29-32-03 |
| TRANSMITTER – LEFT SYSTEM FLUID TEMPERATURE, TS5193 | 3 | 1 | LEFT WHEEL WELL, LEFT SYSTEM HYDRAULIC RESERVOIR | 29-32-03 |
| TRANSMITTER – RIGHT SYSTEM FLUID TEMPERATURE, TS5195 | 3 | 1 | RIGHT WHEEL WELL, RIGHT SYSTEM HYDRAULIC RESERVOIR | 29-32-03 |

* SEE THE WDM EQUIPMENT LIST

Hydraulic Fluid Temperature Indicating System – Component Index
Figure 101 (Sheet 2)

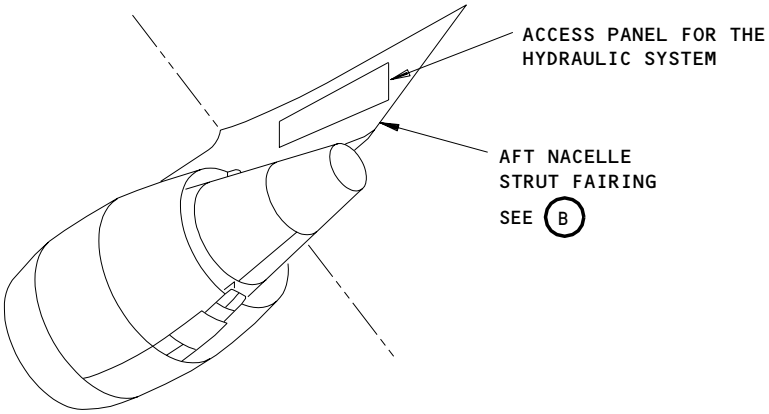


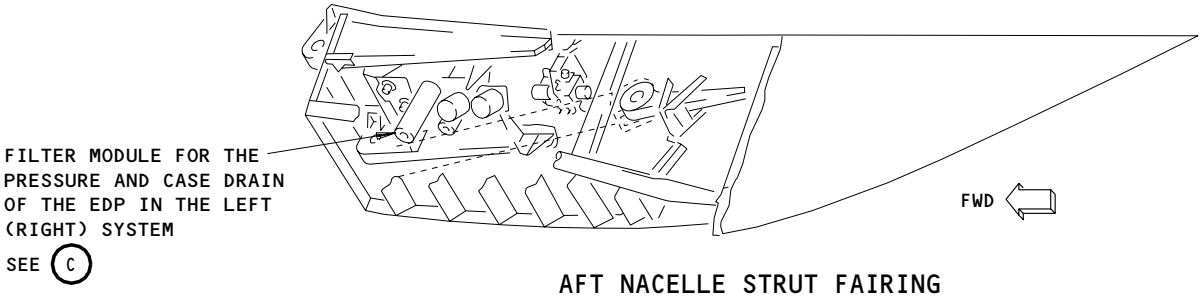

FLIGHT COMPARTMENT




HYDRAULIC CONTROL PANEL, M10050 (REF)
A

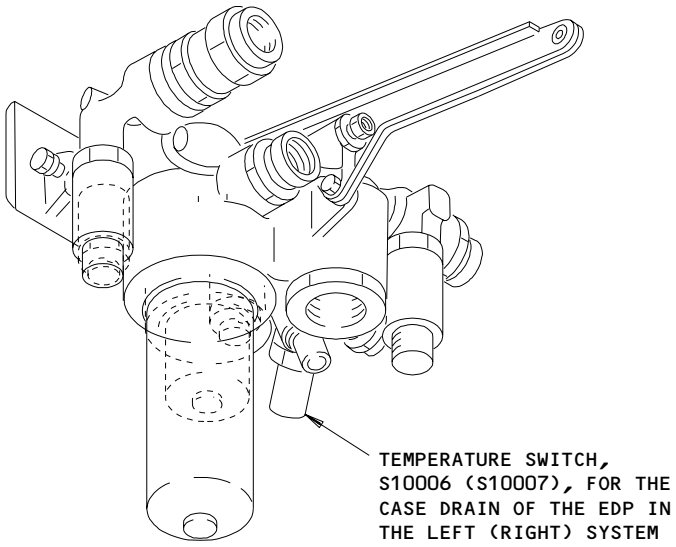
Hydraulic Fluid Temperature Indicating System – Component Location
Figure 102 (Sheet 1)




AFT NACELLE STRUT FAIRING

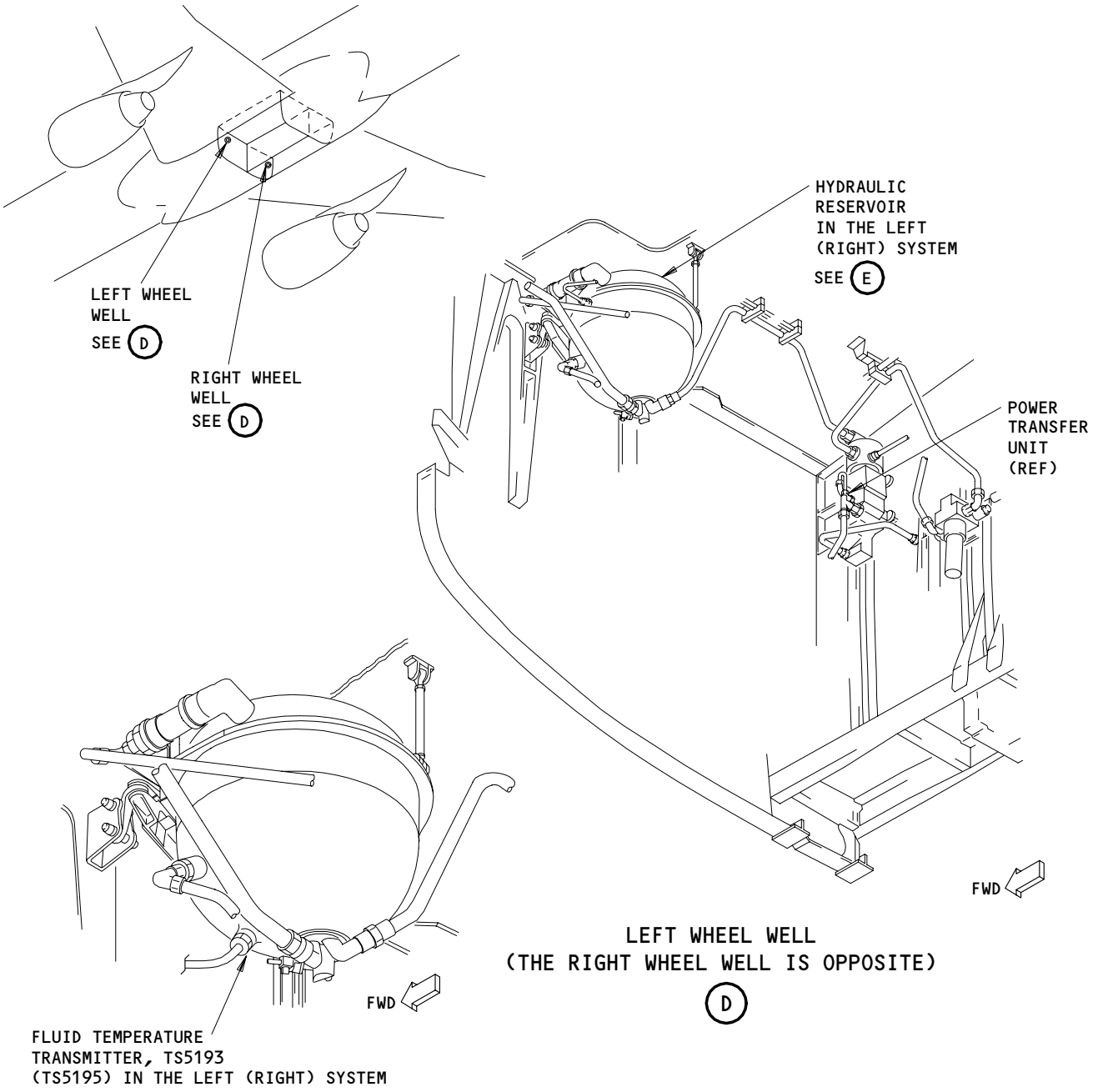
B




FILTER MODULE FOR THE PRESSURE AND CASE DRAIN OF THE EDP IN THE LEFT (RIGHT) SYSTEM

C

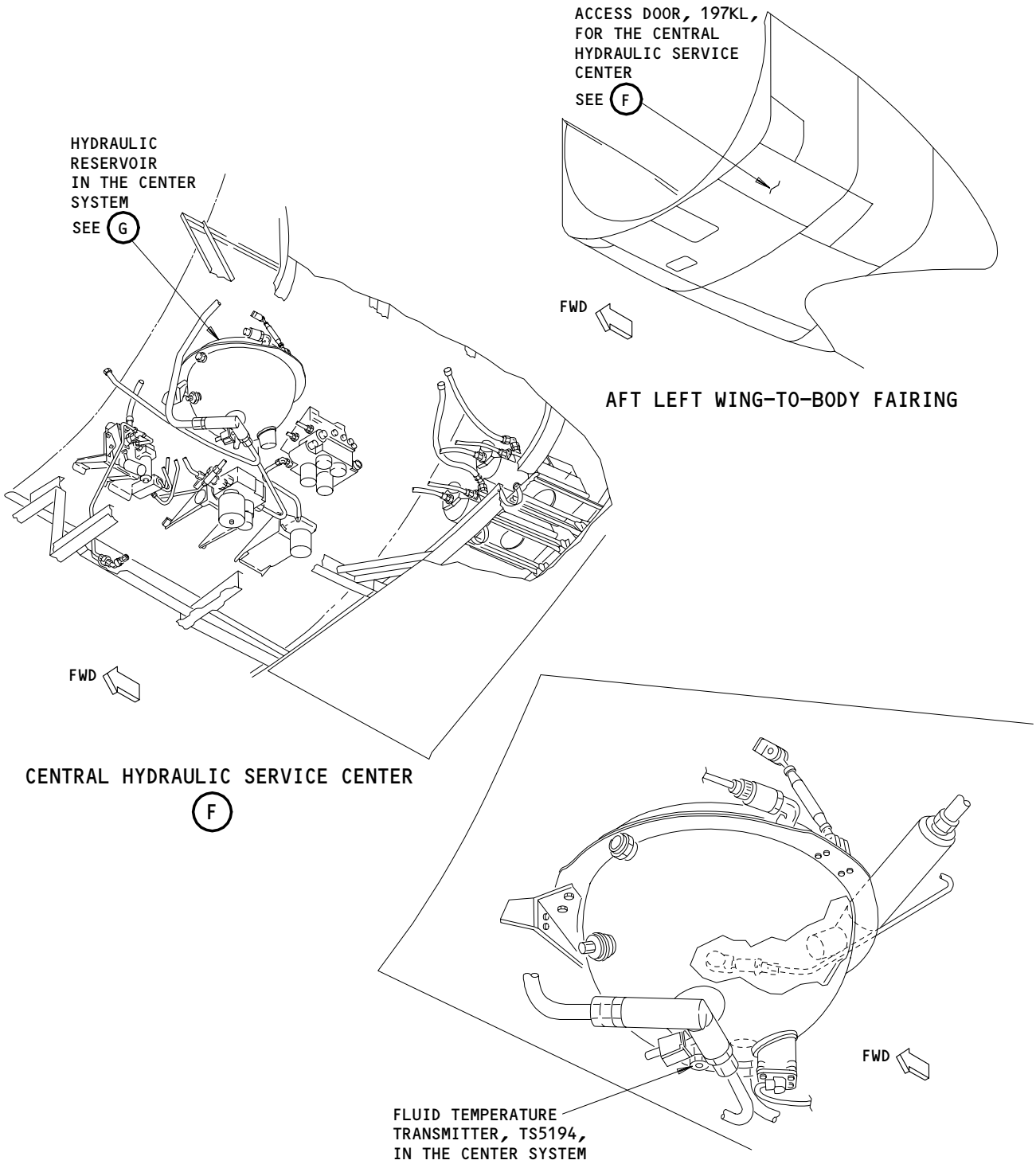
Hydraulic Fluid Temperature Indicating System – Component Location
Figure 102 (Sheet 2)




LEFT WHEEL WELL
(THE RIGHT WHEEL WELL IS OPPOSITE)
D

HYDRAULIC RESERVOIR IN THE LEFT (RIGHT) SYSTEM
E

Hydraulic Fluid Temperature Indicating System – Component Location
Figure 102 (Sheet 3)




Hydraulic Fluid Temperature Indicating System - Component Location
Figure 102 (Sheet 4)

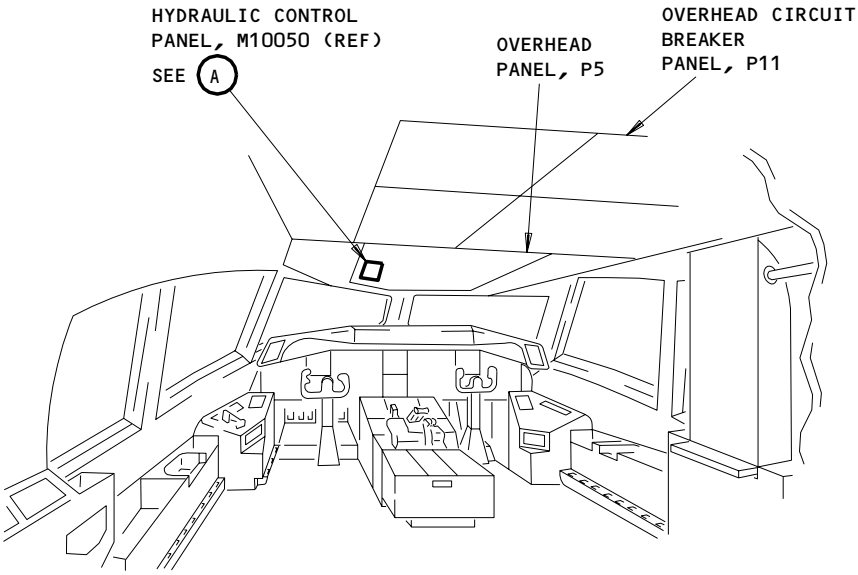
## HYDRAULIC FLUID QUANTITY INDICATING SYSTEM

| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | AMM REFERENCE |
|---|---|---|---|---|
| CIRCUIT BREAKER/- | 1 | | FLIGHT COMPARTMENT, P11 PANEL | |
| HYDRAULICS QTY CTR, C4192 | | 1 | 11K19 | * |
| HYDRAULICS QTY LEFT, C1101 | | 1 | 11K20 | * |
| HYDRAULICS QTY RIGHT, C4193 | | 1 | 11K21 | * |
| COMPUTER - (FIM 31-41-00/101) | | | | |
| EICAS L, M10181 | | | | |
| EICAS R, M10182 | | | | |
| DIODE - (FIM 31-01-36/101) | | | | |
| CENTER SYSTEM - HYDRAULIC QUANTITY ISOLATION, R10195 | | | | |
| LEFT SYSTEM - HYDRAULIC QUANTITY ISOLATION, R10194 | | | | |
| RIGHT SYSTEM - HYDRAULIC QUANTITY ISOLATION, R10196 | | | | |
| INDICATOR - (FIM 29-18-00/101) | | | | |
| RESERVOIR FILL, N29 | | | | |
| LIGHT - CENTER SYSTEM LOW QUANTITY/RESERVOIR PRESSURE INDICATOR, YQTL6 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| LIGHT - LEFT SYSTEM LOW QUANTITY/RESERVOIR PRESSURE INDICATOR, YQTL2 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| LIGHT - RIGHT SYSTEM LOW QUANTITY/RESERVOIR PRESSURE INDICATOR, YQTL4 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| PANEL - (FIM 29-11-00/101) | | | | |
| HYDRAULIC CONTROL, M10050 | | | | |
| RESERVOIR - (FIM 29-11-00/101) | | | | |
| CENTER SYSTEM HYDRAULIC | | | | |
| LEFT SYSTEM HYDRAULIC | | | | |
| RIGHT SYSTEM HYDRAULIC | | | | |
| SIGHT GLASS - CENTER SYSTEM RESERVOIR | 3 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING, CENTER SYSTEM HYDRAULIC RESERVOIR | 29-33-00 |
| SIGHT GLASS - LEFT SYSTEM RESERVOIR | 3 | 1 | LEFT WHEEL WELL, LEFT SYSTEM HYDRAULIC RESERVOIR | 29-33-00 |
| SIGHT GLASS - RIGHT SYSTEM RESERVOIR | 3 | 1 | RIGHT WHEEL WELL, RIGHT SYSTEM HYDRAULIC RESERVOIR | 29-33-00 |
| SWITCH - (FIM 29-18-00/101) | | | | |
| HYDRAULIC QUANTITY, S341 | | | | |
| TRANSMITTER - CENTER SYSTEM HYDRAULIC FLUID QUANTITY, M339 | 3 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING, CENTER SYSTEM HYDRAULIC RESERVOIR | 29-33-01 |
| TRANSMITTER - LEFT SYSTEM HYDRAULIC FLUID QUANTITY, M338 | 3 | 1 | LEFT WHEEL WELL, LEFT SYSTEM HYDRAULIC RESERVOIR | 29-33-01 |
| TRANSMITTER - RIGHT SYSTEM HYDRAULIC FLUID QUANTITY, M340 | 3 | 1 | RIGHT WHEEL WELL, RIGHT SYSTEM HYDRAULIC RESERVOIR | 29-33-01 |
| UNIT - HYDRAULIC FLUID QUANTITY MONITOR, M122 1 | 3 | 1 | NO. 2 (AFT) CARGO DOOR, 822, AFT CARGO COMPARTMENT, AFT EQUIPMENT CENTER, E6 | 29-33-51 |
| UNIT - HYDRAULIC FLUID QUANTITY MONITOR, M122 1 | 4 | 1 | 119BL, MAIN EQUIPMENT CENTER, E3 | 29-33-51 |

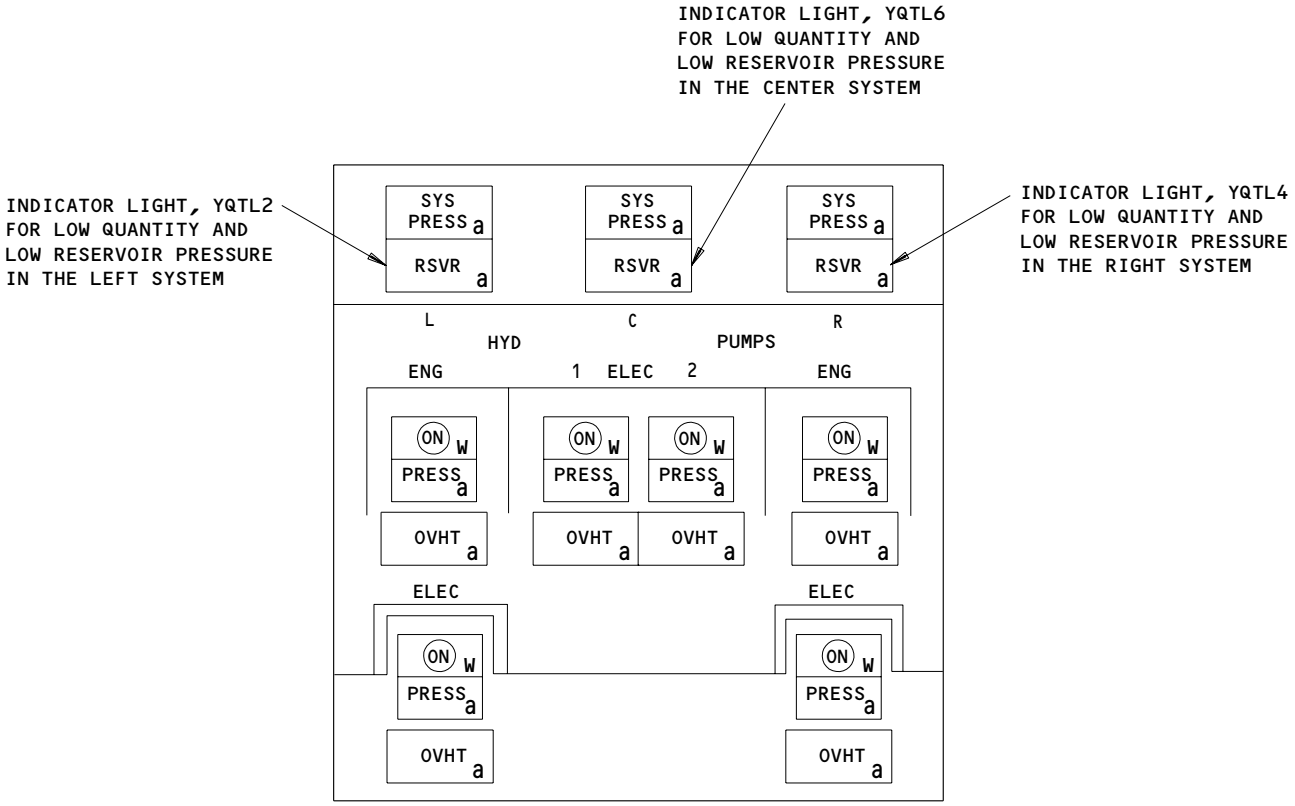
* SEE THE WDM EQUIPMENT LIST

1 THE FLUID QUANTITY MONITOR UNIT IS INSTALLED IN THE AFT EQUIPMENT CENTER OR THE MAIN EQUIPMENT CENTER.

Hydraulic Fluid Quantity Indicating System - Component Index
Figure 101



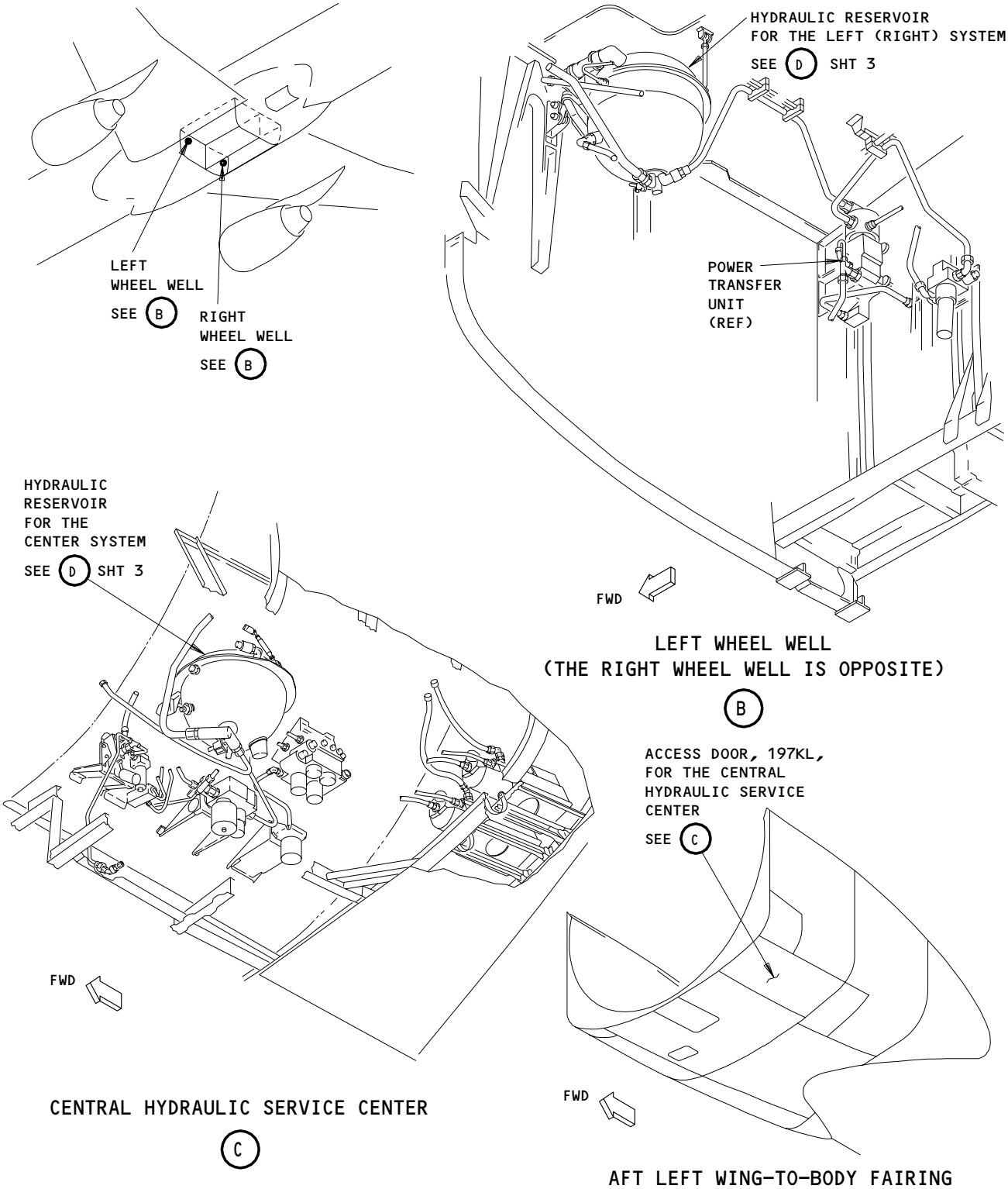

FLIGHT COMPARTMENT



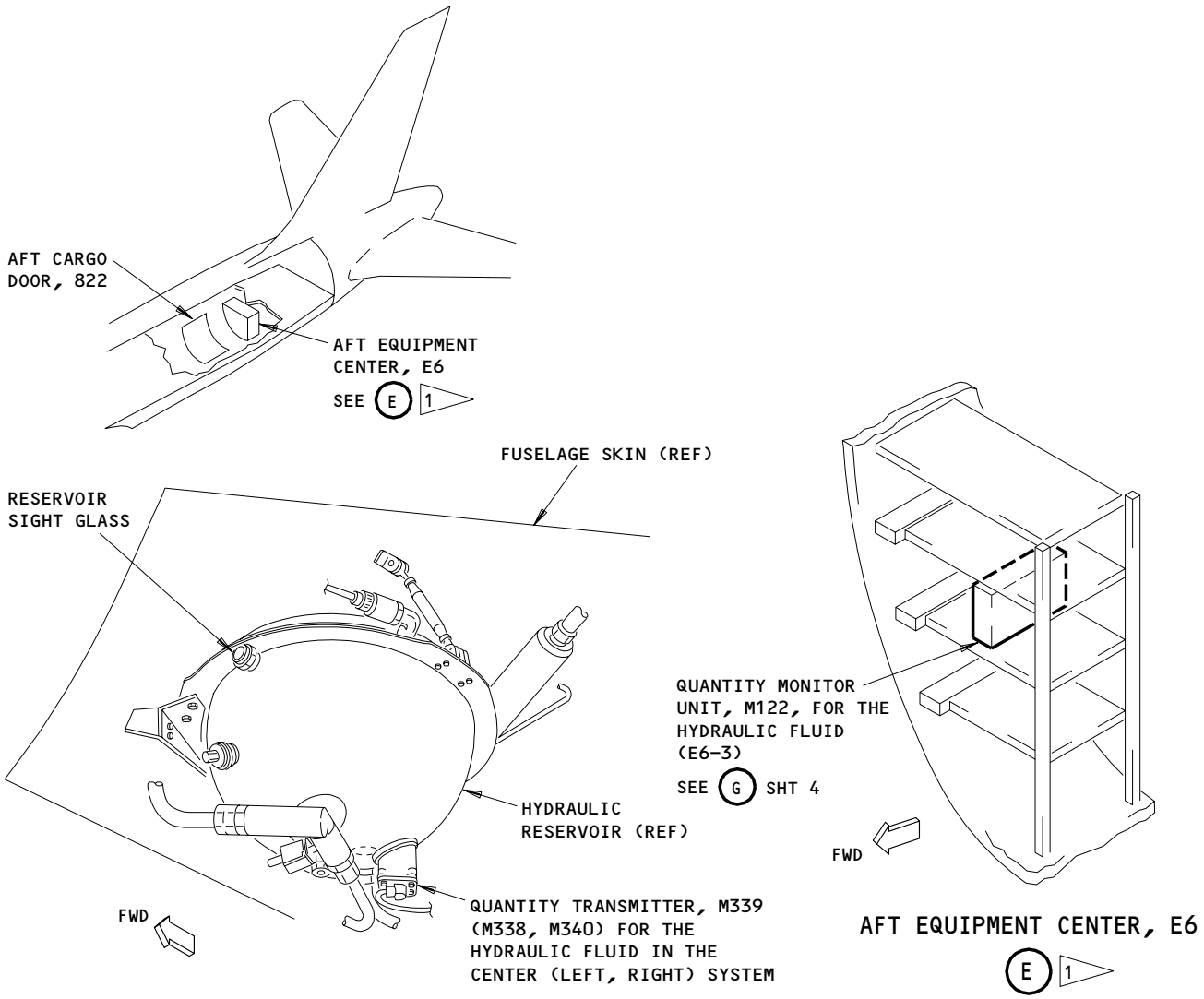

HYDRAULIC CONTROL PANEL, M10050 (REF)

A

Hydraulic Fluid Quantity Indicating System – Component Location
Figure 102 (Sheet 1)




Hydraulic Fluid Quantity Indicating System - Component Location
Figure 102 (Sheet 2)

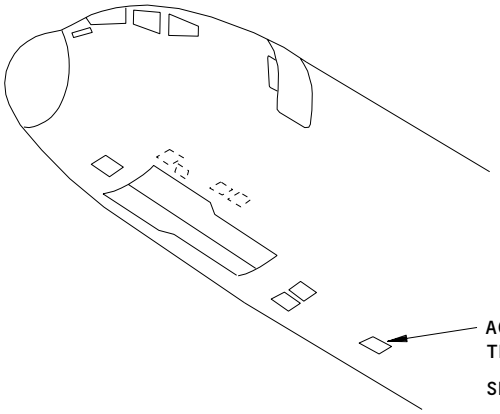


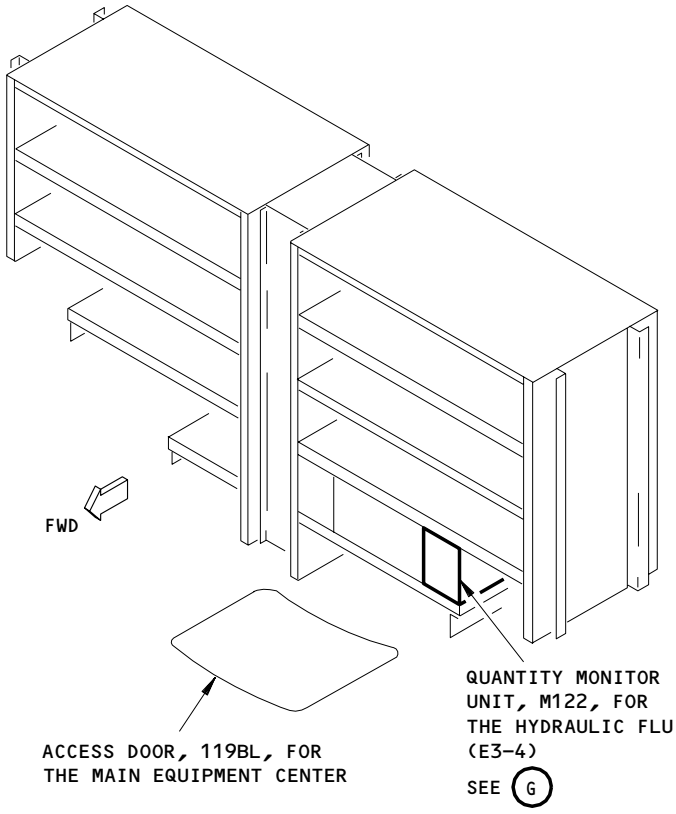

HYDRAULIC RESERVOIR IN THE CENTER SYSTEM IS SHOWN
(THE HYDRAULIC RESERVOIRS IN THE LEFT AND RIGHT SYSTEMS ARE ALMOST THE SAME)

D FROM SHT 2

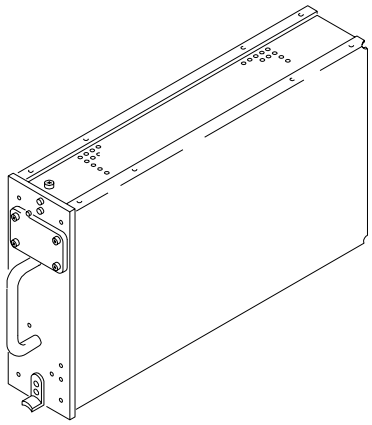
1 IT IS POSSIBLE THE QUANTITY MONITOR UNIT IS INSTALLED IN THE MAIN EQUIPMENT CENTER.

Hydraulic Fluid Quantity Indicating System - Component Location
Figure 102 (Sheet 3)




MAIN EQUIPMENT CENTER
F 2



QUANTITY MONITOR UNIT, M122,
FOR THE HYDRAULIC FLUID
G

2 IT IS POSSIBLE THE QUANTITY MONITOR UNIT
IS INSTALLED IN THE AFT EQUIPMENT CENTER.

Hydraulic Fluid Quantity Indicating System - Component Location
Figure 102 (Sheet 4)

## L (R, C) HYDRAULIC QUANTITY READS HIGH

**PREREQUISITES**

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11K19, 11K20, 11K21

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)

1 DO A CHECK OF THE FLUID LEVEL IN THE L (R, C) SYSTEM RESERVOIR WITH THE SIGHT GLASS ON THE RESERVOIR (AMM 12-12-01/301).
IS THE FLUID LEVEL ABOVE THE CENTER OF THE SIGHT GLASS ON THE RESERVOIR?

YES → 20 DRAIN THE FLUID FROM THE L (R, C) SYSTEM RESERVOIR UNTIL THE RESERVOIR FILL INDICATOR AT THE CENTRAL HYDRAULIC SERVICE CENTER SHOWS AT THE FULL LEVEL (AMM 12-12-01/301).
DOES THE PROBLEM CONTINUE?

NO → 30 THE SYSTEM IS OK.

YES → 31 REPLACE THE QUANTITY MONITOR UNIT, M122, FOR THE HYDRAULIC FLUID (AMM 29-33-51/ 401).
IF THE PROBLEM CONTINUES, REPLACE THE QUANTITY TRANSMITTER, M338 (M340, M339), FOR THE HYDRAULIC FLUID IN THE LEFT (RIGHT, CENTER) SYSTEM (AMM 29-33-01/401).
IF THE LEFT OR RIGHT QUANTITY INDICATION SYSTEM IS FOUND TO FUNCTION CORRECTLY BUT FLUID QUANTITY IN EITHER THE LEFT OR RIGHT HYDRAULIC SYSTEM INCREASES, DO THIS PROCEDURE: LEFT (RIGHT) HYDRAULIC SYSTEM QUANTITY INCREASED, RIGHT (LEFT) SYSTEM QUANTITY DECREASED (FIM 29-11-00/101, FIG. 121, TO CHECK FOR POSSIBLE LEAKAGE IN THE ANTISKID SHUTTLE VALVES.

NO → 31

L (R,C) Hydraulic Quantity Reads High
Figure 103

## L (R,C) HYDRAULIC QUANTITY INDICATES RF (REFILL) NEXT TO QUANTITY READING

**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (MM 31-41-00/201)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11K19,11K20,11K21

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:
ELECTRICAL POWER IS ON (MM 24-22-00/201)

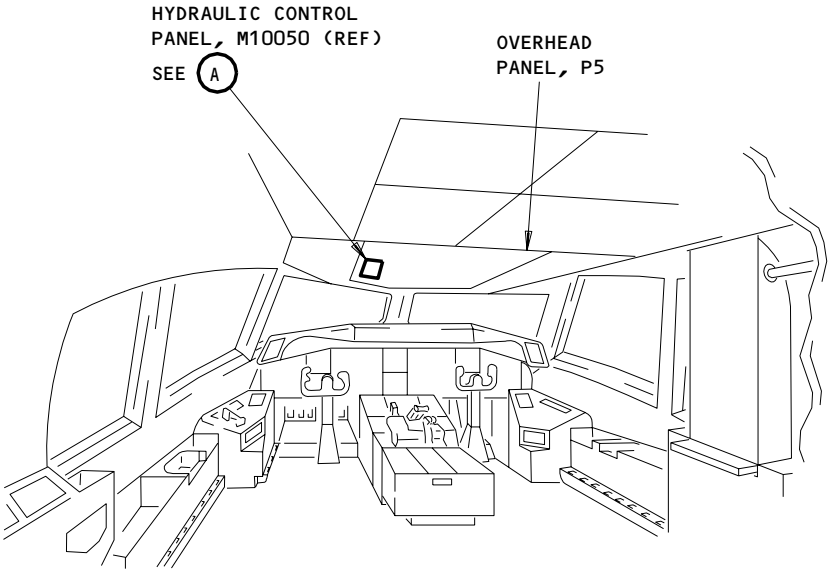

L (R,C) Hydraulic Quantity Indicates RF (Refill) Next to Quantity Reading
Figure 104

## HYDRAULIC RESERVOIR PRESSURE INDICATION SYSTEM

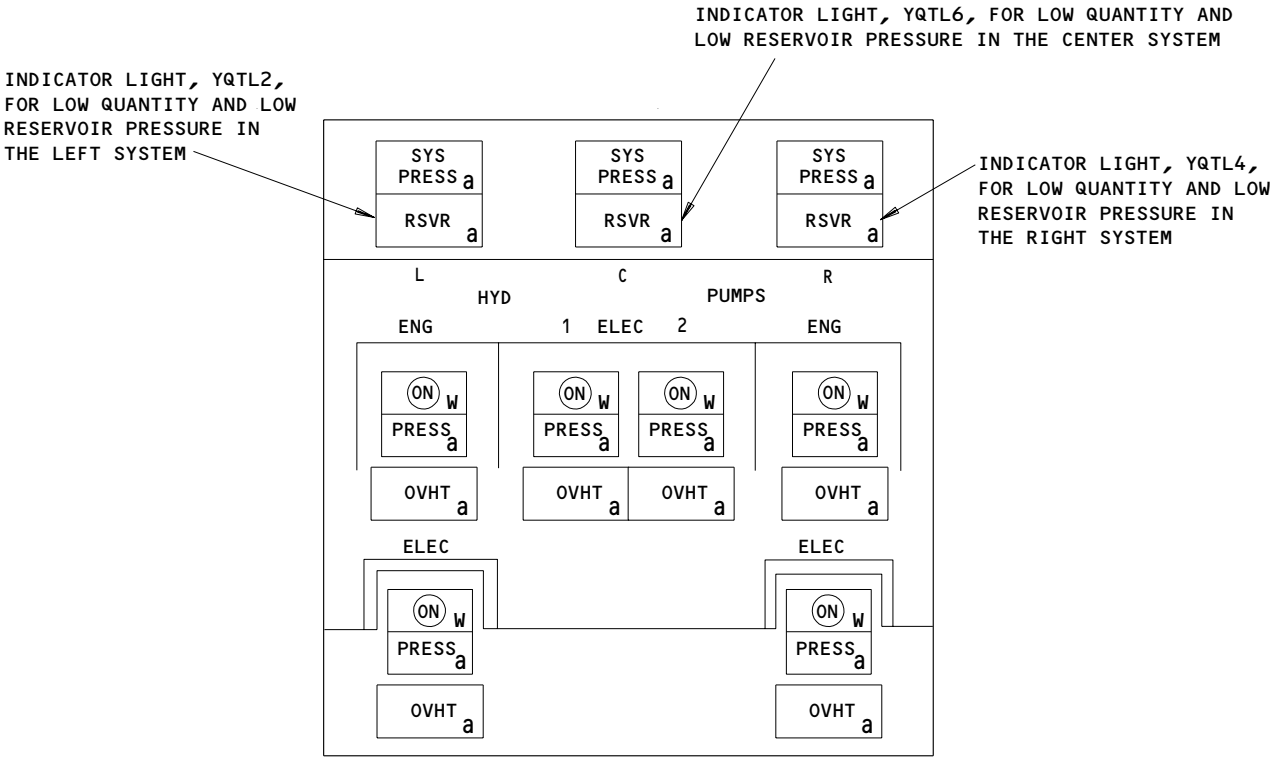
| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | REFERENCE |
|---|---|---|---|---|
| COMPUTER - (REF 31-41-00, FIG. 101)<br>EICAS L, M10181<br>EICAS R, M10182 | | | | |
| DIODE - (REF 31-01-37, FIG. 101)<br>CENTER SYSTEM - RESERVOIR PRESSURE ISOLATION, R10198<br>LEFT SYSTEM - RESERVOIR PRESSURE ISOLATION, R10197<br>RIGHT SYSTEM - RESERVOIR PRESSURE ISOLATION, R10199 | | | | |
| LIGHT - CENTER SYSTEM LOW QUANTITY/RESERVOIR PRESSURE INDICATOR, YQTL6 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| LIGHT - LEFT SYSTEM LOW QUANTITY/RESERVOIR PRESSURE INDICATOR, YQTL2 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| LIGHT - RIGHT SYSTEM LOW QUANTITY/RESERVOIR PRESSURE INDICATOR, YQTL4 | 1 | 1 | FLIGHT COMPARTMENT, P5 PANEL, HYDRAULIC CONTROL PANEL, M10050 | * |
| SWITCH - CENTER SYSTEM HYDRAULIC RESERVOIR PRESSURE, S10033 | 3 | 1 | 197KL, AFT LEFT WING-TO-BODY FAIRING, CENTER SYSTEM HYDRAULIC RESERVOIR | 29-35-01 |
| SWITCH - LEFT SYSTEM HYDRAULIC RESERVOIR PRESSURE, S10032 | 3 | 1 | LEFT WHEEL WELL, LEFT SYSTEM HYDRAULIC RESERVOIR | 29-35-01 |
| SWITCH - RIGHT SYSTEM HYDRAULIC RESERVOIR PRESSURE, S10034 | 3 | 1 | RIGHT WHEEL WELL, RIGHT SYSTEM HYDRAULIC RESERVOIR | 29-35-01 |

* SEE THE WDM EQUIPMENT LIST

Hydraulic Reservoir Pressure Indication System - Component Index
Figure 101



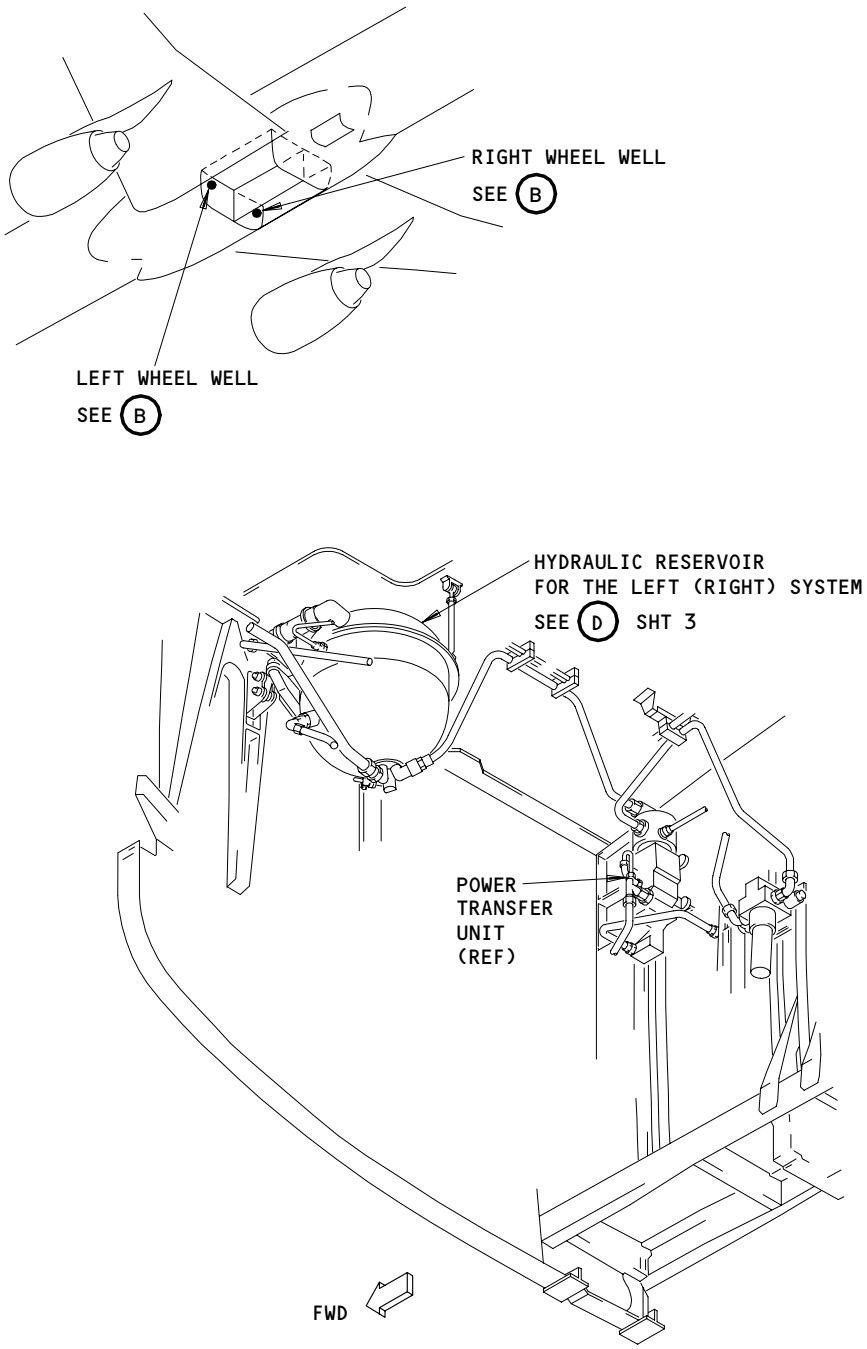

FLIGHT COMPARTMENT




HYDRAULIC CONTROL PANEL, M10050 (REF)

A

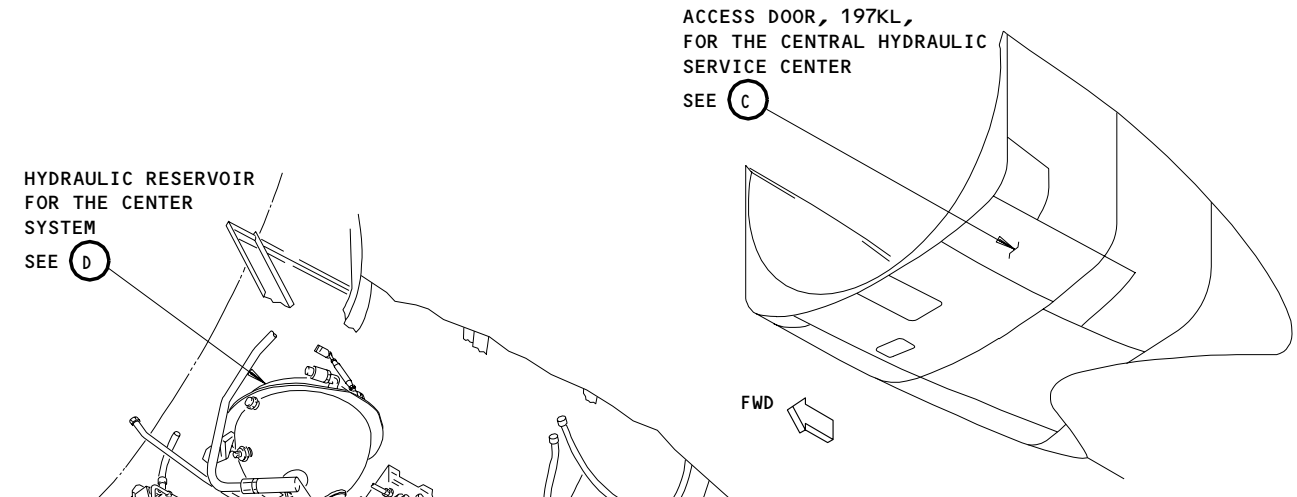
Hydraulic Reservoir Pressure Indication System – Component Location
Figure 102 (Sheet 1)




LEFT WHEEL WELL
(THE RIGHT WHEEL WELL IS OPPOSITE)

(B)

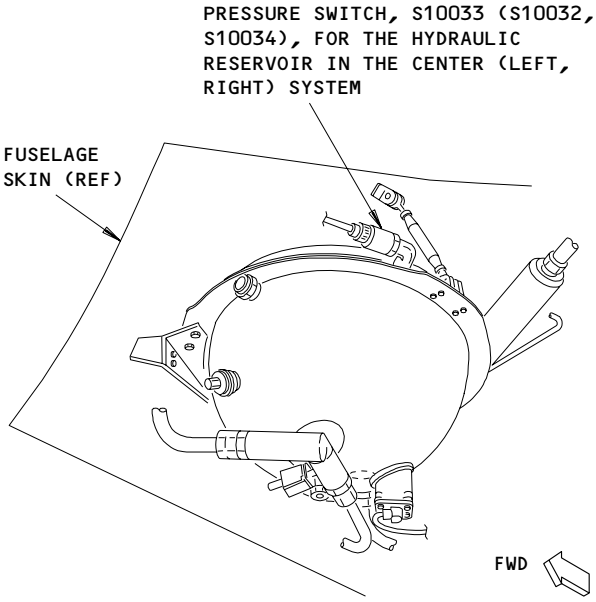
Hydraulic Reservoir Pressure Indication System – Component Location
Figure 102 (Sheet 2)




AFT LEFT WING-TO-BODY FAIRING

CENTRAL HYDRAULIC SERVICE CENTER

C




HYDRAULIC RESERVOIR IN THE CENTER SYSTEM IS SHOWN
(THE HYDRAULIC RESERVOIRS IN THE LEFT AND RIGHT
SYSTEMS ARE ALMOST THE SAME)

D

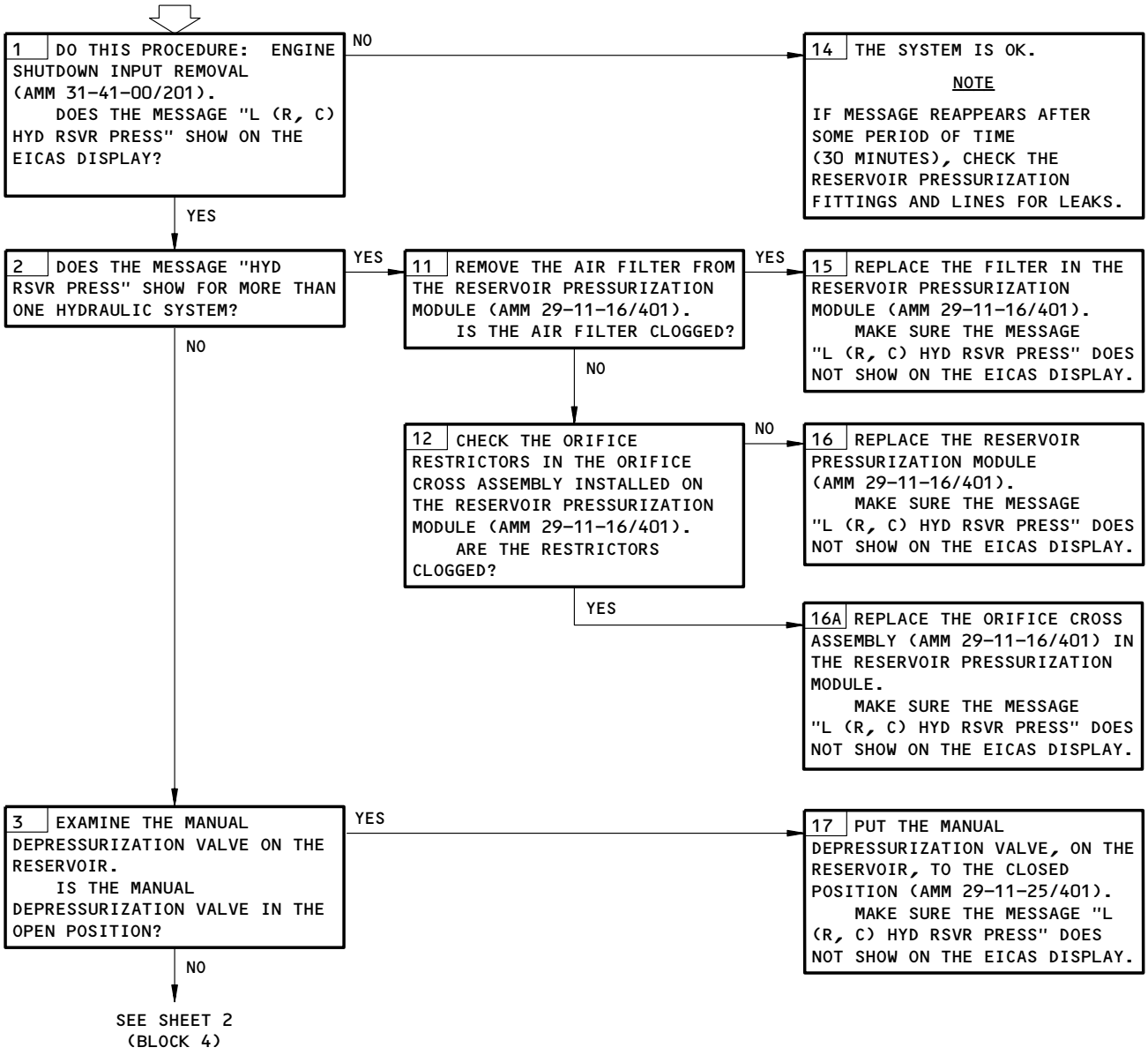
Hydraulic Reservoir Pressure Indication System - Component Location
Figure 102 (Sheet 3)

## "L (R, C) HYD RSVR PRESS" EICAS ADVISORY MESSAGE ILLUMINATED, "HYD QTY" IS NORMAL

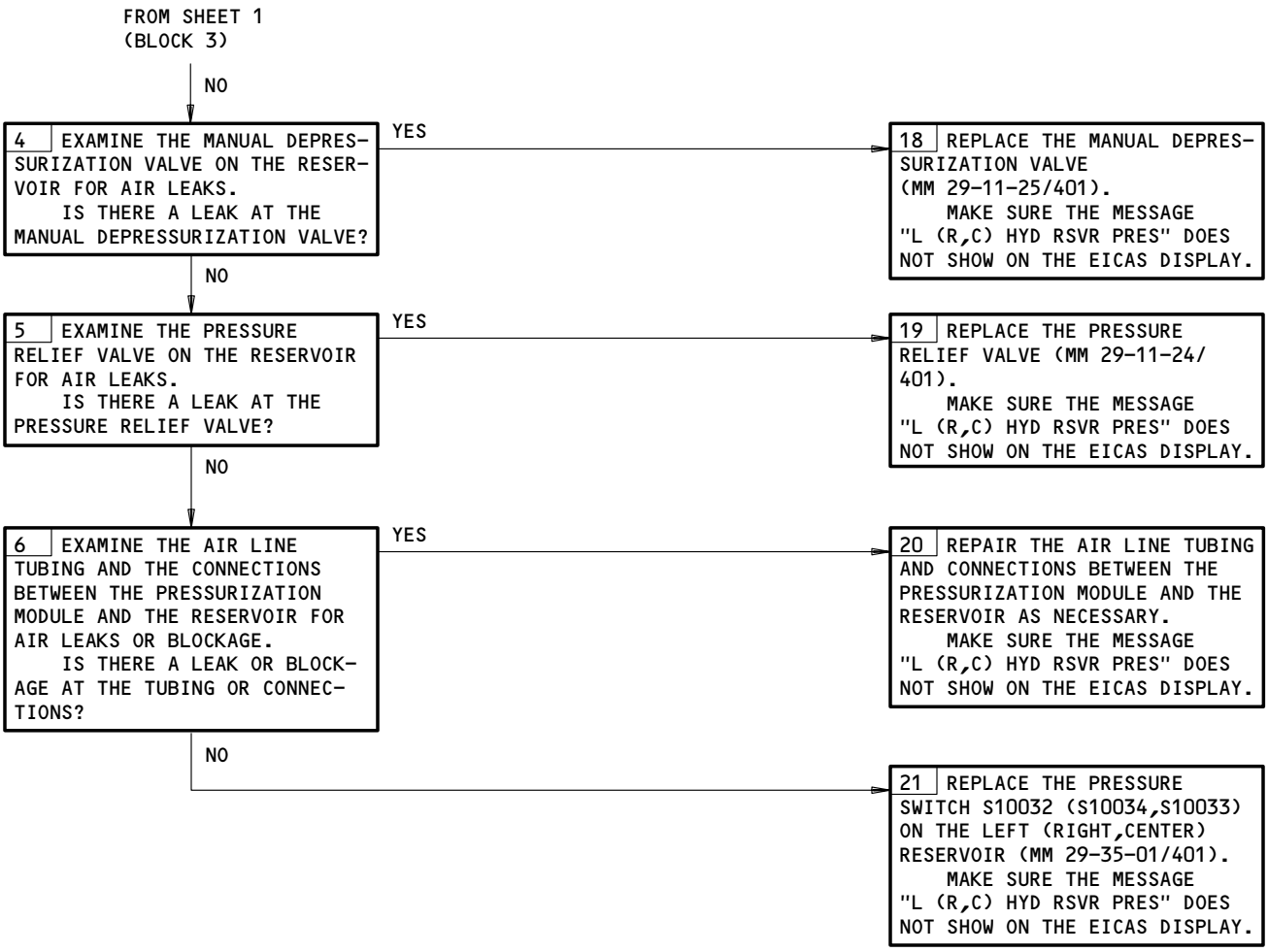
**PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (AMM 31-41-00/201)

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
PNEUMATIC POWER IS ON (THE DUCT PRESSURE MUST BE MORE THAN 17 PSI) (AMM 36-00-00/201)




L (R, C) HYD RSVR PRES EICAS Advisory Message Illuminated, HYD QTY is Normal
Figure 103 (Sheet 1)




L (R,C) HYD RSVR PRES EICAS Message Illuminated, HYD QTY is Normal
Figure 103 (Sheet 2)