Scandinavian Airlines System

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CHAPTER 79 - OIL

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CHAPTER 79 - OIL

TABLE OF CONTENTS

| FAULT CODE | 1. LOG BOOK REPORT<br>2. FAULT ISOLATION REFERENCE |
|---|---|
| 79 03 XA -- | 1. (01=L, 02=R) An oil indicating problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref Chapter 71 fault code diagram for flight crew actions.)<br>2. SSM 79-00-01. |
| 79 03 XB -- | 1. (01=L, 02=R) An oil temperature problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref Chapter 71 fault code diagram for flight crew actions.)<br>2. SSM 79-00-01. |
| 79 03 XC -- | 1. (01=L, 02=R) An oil pressure problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref Chapter 71 fault code diagram for flight crew actions.)<br>2. SSM 79-00-01. |
| 79 03 XD -- | 1. (01=L, 02=R) An oil shutdown problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref Chapter 71 fault code diagram for flight crew actions.)<br>2. SSM 79-00-01. |
| 79 03 XE -- | 1. (01=L, 02=R) An oil filter bypass problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref Chapter 71 fault code diagram for flight crew actions.)<br>2. SSM 79-00-01. |
| 79 03 01 00 | Not Used |
| 79 03 02 00 | Not Used |
| 79 03 03 00 | 1. EICAS msg L ENG A/O VALVE displayed. (Ref Chapter 31 fault code diagram.)<br>2. Do the PIMU BITE Procedure (71-PIMU MESSAGE INDEX). Look for the PIMU messages that follow:<br><br>EEC CH-A/B TFUEL RNG FAIL (352-20)<br>EEC CH-A/B AOC T/M W/A FAIL (351-18)<br>EEC CH-A/B AOC FD-BK FAIL (351-28)<br>EEC CH-A/B AOC TR-CK FAIL (351-23)<br>EEC A/B-CHAN FAIL (350-14)<br><br>Refer to PIMU Table 101 for corrective action for any of the above PIMU messages shown. |

| FAULT CODE | 1. LOG BOOK REPORT<br>2. FAULT ISOLATION REFERENCE |
|---|---|
| 79 03 04 00 | Not Used |
| 79 03 05 00 | Not Used |
| 79 03 06 00 | 1. EICAS msg R ENG A/O VALVE displayed. (Ref Chapter 31 fault code diagram.)<br>2. Do the PIMU BITE Procedure (71-EPCS MESSAGE INDEX). Look for the PIMU messages that follow:<br><br>EEC CH-A/B TFUEL RNG FAIL (352-20)<br>EEC CH-A/B AOC T/M W/A FAIL (351-18)<br>EEC CH-A/B AOC FD-BK FAIL (351-28)<br>EEC CH-A/B AOC TR-CK FAIL (351-23)<br>EEC A/B-CHAN FAIL (350-14)<br><br>Refer to PIMU Table 101 for corrective action for any of the above PIMU messages shown. |
| 79 03 07 -- | 1. (01=L, 02=R) eng oil temp display intermittent. Press & qty normal. (Ref Chapter 71 fault code diagram.)<br>2. Do the PIMU BITE Procedure (71-PIMU MESSAGE INDEX). Look for the PIMU messages that follow:<br><br>EEC CH-A/B TOIL RNG FAIL (352-21)<br>EEC CH-A/B TOIL CR-CK FAIL (353-21)<br>EEC A/B-CHAN FAIL (350-14)<br><br>Refer to PIMU Table 101 for corrective action for any of the above PIMU messages shown. |
| 79 03 08 -- | 1. (01=L, 02=R) eng oil temp display blank. Press & qty normal. (Ref Chapter 71 fault code diagram.)<br>2. Do the PIMU BITE Procedure (71-PIMU MESSAGE INDEX). Look for the PIMU messages that follow:<br><br>EEC CH-A/B TOIL RNG FAIL (352-21)<br>EEC A/B-CHAN FAIL (350-14)<br><br>Refer to PIMU Table 101 for corrective action for any of the above PIMU messages shown. |
| 79 03 09 -- | 1. (01=L, 02=R) eng oil press display intermittent. Temp & qty normal. (Ref Chapter 71 fault code diagram.)<br>2. FIM 79-32-00/101, Fig. 103, Block 1 |

| FAULT CODE | 1. LOG BOOK REPORT<br>2. FAULT ISOLATION REFERENCE |
|---|---|
| 79 03 10 -- | 1. (01=L, 02=R) eng oil press display blank. Temp & qty normal. (Ref Chapter 71 fault code diagram.)<br>2. FIM 79-32-00/101, Fig. 103, Block 1 |
| 79 03 11 -- | Not Used |
| 79 03 12 -- | 1. (01=L, 02=R) eng oil qty remains constant during flight. (Ref Chapter 71 fault code diagram.)<br>2. FIM 79-31-00/101, Fig. 103, Block 1 |
| 79 03 13 -- | 1. (01=L, 02=R) eng oil qty display intermittent. Press & qty normal. (Ref Chapter 71 fault code diagram.)<br>2. FIM 79-31-00/101, Fig. 103, Block 1 |
| 79 03 14 -- | 1. (01=L, 02=R) eng oil qty display zero. Press & temp normal. (Ref Chapter 71 fault code diagram.)<br>2. FIM 79-31-00/101, Fig. 103, Block 1 |
| 79 03 15 -- | 1. (01=L, 02=R) eng oil temp low, _____°. (Ref Chapter 71 fault code diagram.)<br>2. Do the PIMU BITE Procedure (71-PIMU MESSAGE INDEX). Look for the PIMU messages that follow:<br><br>EEC CH-A/B TOIL RNG FAIL (352-21)<br>EEC CH-A/B TOIL CR-CK FAIL (353-21)<br>EEC CH-A/B TFUEL RNG FAIL (352-20)<br>EEC CH-A/B AOC T/M W/A FAIL (351-18)<br>EEC CH-A/B AOC FD-BK FAIL (351-28)<br>EEC CH-A/B AOC TR-CK FAIL (351-23)<br>EEC A/B-CHAN FAIL (350-14)<br><br>Refer to PIMU Table 101 for corrective action for any of the above PIMU messages shown. |
| 79 03 16 -- | 1. (01=L, 02=R) eng oil temp high, _____°. (Ref Chapter 71 fault code diagram.)<br>2. FIM 79-21-00/101, Fig. 104, Block 1 |
| 79 03 17 -- | Not Used |
| 79 03 18 -- | Not Used |
| 79 03 19 -- | 1. (01=L, 02=R) ENG OIL PRESS lgt (illum above 80, extin below 65) PSI. (Ref Chapter 71 fault code diagram.)<br>2. FIM 79-33-00/101, Fig. 103, Block 1 |

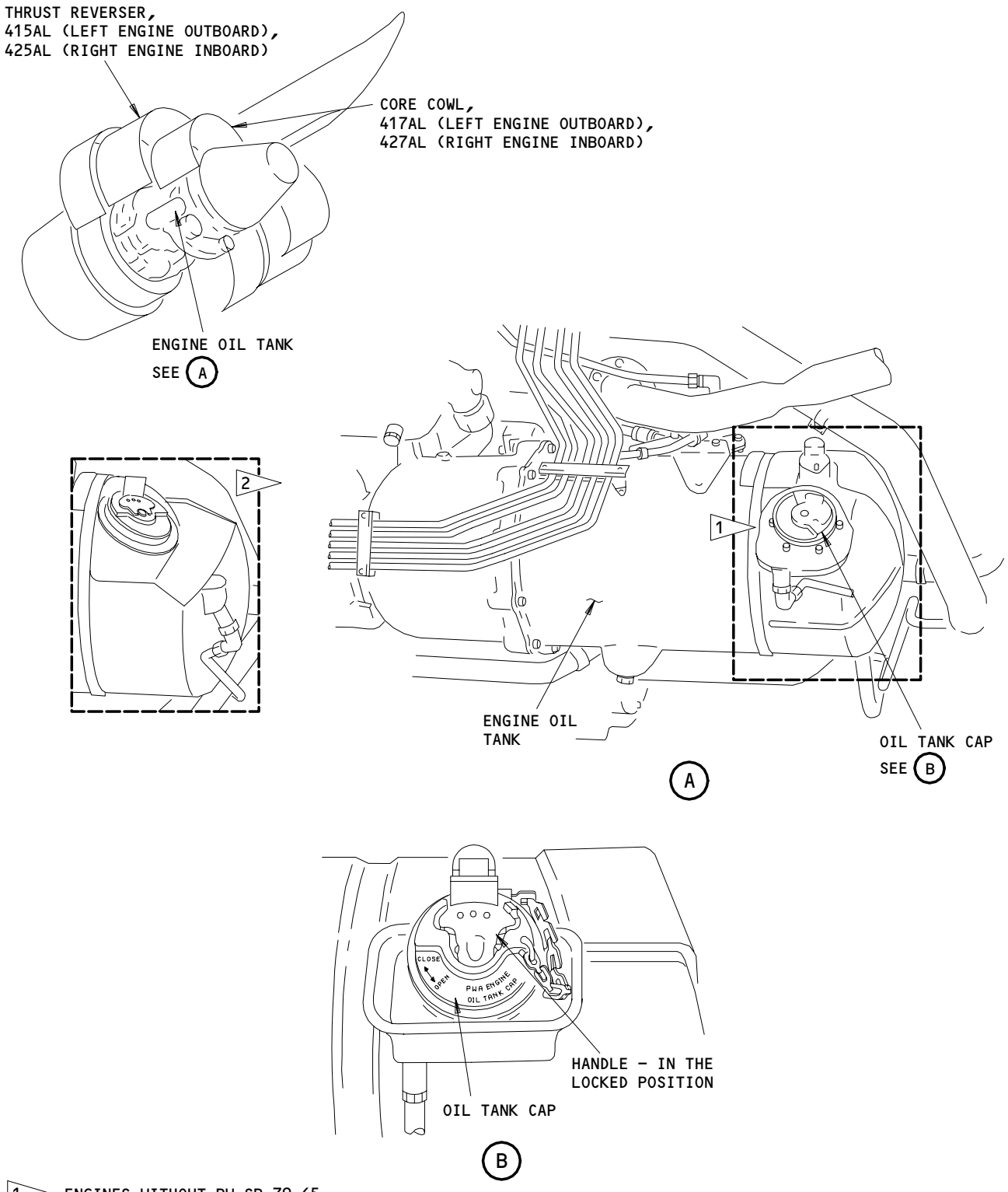
| FAULT CODE | 1. LOG BOOK REPORT<br>2. FAULT ISOLATION REFERENCE |
|---|---|
| 79 03 20 -- | 1. (01=L, 02=R) eng oil press (high, low, fluctuating, zero). Oil consumption was norm. (Ref Chapter 71 fault code diagram.)<br>2. FIM 79-32-00/101, Fig. 103, Block 1 |
| 79 03 21 -- | 1. EICAS msg (01=L, 02=R) OIL FILTER displayed. Message disappeared when thrust reduced. (Ref Chapter 71 fault code diagram.)<br>2. FIM 79-35-00/101, Fig. 103, Block 1 |
| 79 03 22 -- | 1. EICAS msg (01=L, 02=R) OIL FILTER displayed. Message remained when thrust reduced. After eng shutdown, message disappeared. (Ref Chapter 71 fault code diagram.)<br>2. FIM 79-35-00/101, Fig. 103, Block 1 |
| 79 03 23 -- | 1. EICAS msg (01=L, 02=R) OIL FILTER displayed. Message remained when thrust reduced & after eng shutdown. (Ref Chapter 71 fault code diagram.)<br>2. FIM 79-35-00/101, Fig. 103, Block 1 |
| 79 03 24 -- | 1. EICAS msg (01=L, 02=R) SCAV TEMP 1 displayed. (Ref Chapter 71 fault code diagram.)<br>2. FIM 79-21-00/101, Fig. 105, Block 1 |
| 79 03 25 -- | 1. EICAS msg (01=L, 02=R) SCAV TEMP 2 displayed. (Ref Chapter 71 fault code diagram.)<br>2. FIM 79-21-00/101, Fig. 105, Block 1 |
| 79 03 26 00 | 1. EICAS msg L SCAV TEMP 1 displayed. (Ref Chapter 31 fault code diagram.)<br>2. FIM 79-21-00/101, Fig. 105, Block 1 |
| 79 03 27 00 | 1. EICAS msg L SCAV TEMP 2 displayed. (Ref Chapter 31 fault code diagram.)<br>2. FIM 79-21-00/101, Fig. 105, Block 1 |

| FAULT CODE | 1. LOG BOOK REPORT<br>2. FAULT ISOLATION REFERENCE |
|---|---|
| 79 03 28 00 | 1. EICAS msg R SCAV TEMP 1 displayed. (Ref Chapter 31 fault code diagram.)<br>2. FIM 79-21-00/101, Fig. 105, Block 1 |
| 79 03 29 00 | 1. EICAS msg R SCAV TEMP 2 displayed. (Ref Chapter 31 fault code diagram.)<br>2. FIM 79-21-00/101, Fig. 105, Block 1 |
| 79 03 30 -- | 1. EICAS msg (01=L, 02=R) ENG A/O VAL displayed (Ref Chapter 71 fault code diagram).<br>2. Do the PIMU BITE Procedure (71-PIMU MESSAGE INDEX).<br>Look for the PIMU messages that follow:<br><br>EEC CH-A/B TFUEL RNG FAIL (352-20)<br>EEC CH-A/B AOC T/M W/A FAIL (351-18)<br>EEC CH-A/B AOC FD-BK FAIL (351-28)<br>EEC CH-A/B AOC TR-CK FAIL (351-23)<br>EEC A/B-CHAN FAIL (350-14)<br><br>Refer to PIMU Table 101 for corrective action for any of the above PIMU messages shown. |

ENGINE OIL STORAGE

| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | AMM REFERENCE |
|---|---|---|---|---|
| CAP - ENGINE OIL TANK FILLER | -- | 2 | 417BL, 427BL CORE COWL | 79-11-03 |
| TANK - ENGINE OIL | -- | 2 | 415AL, 425AL THRUST REVERSER | 79-11-01 |

Engine Oil Storage - Component Index
Figure 101




1 ENGINES WITHOUT PW SB 79-65

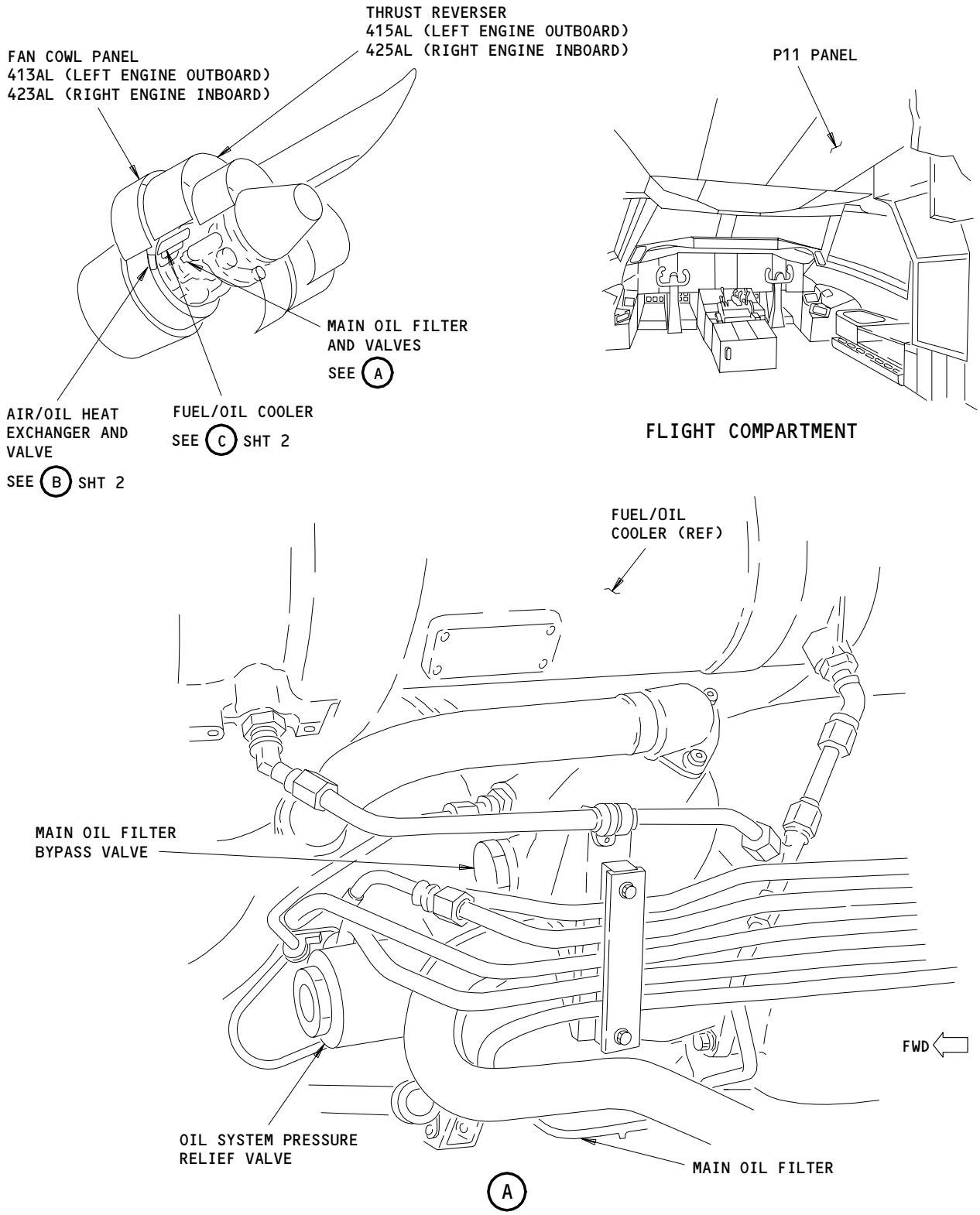
2 ENGINES WITH PW SB 79-65

Engine Oil Storage - Component Location
Figure 102

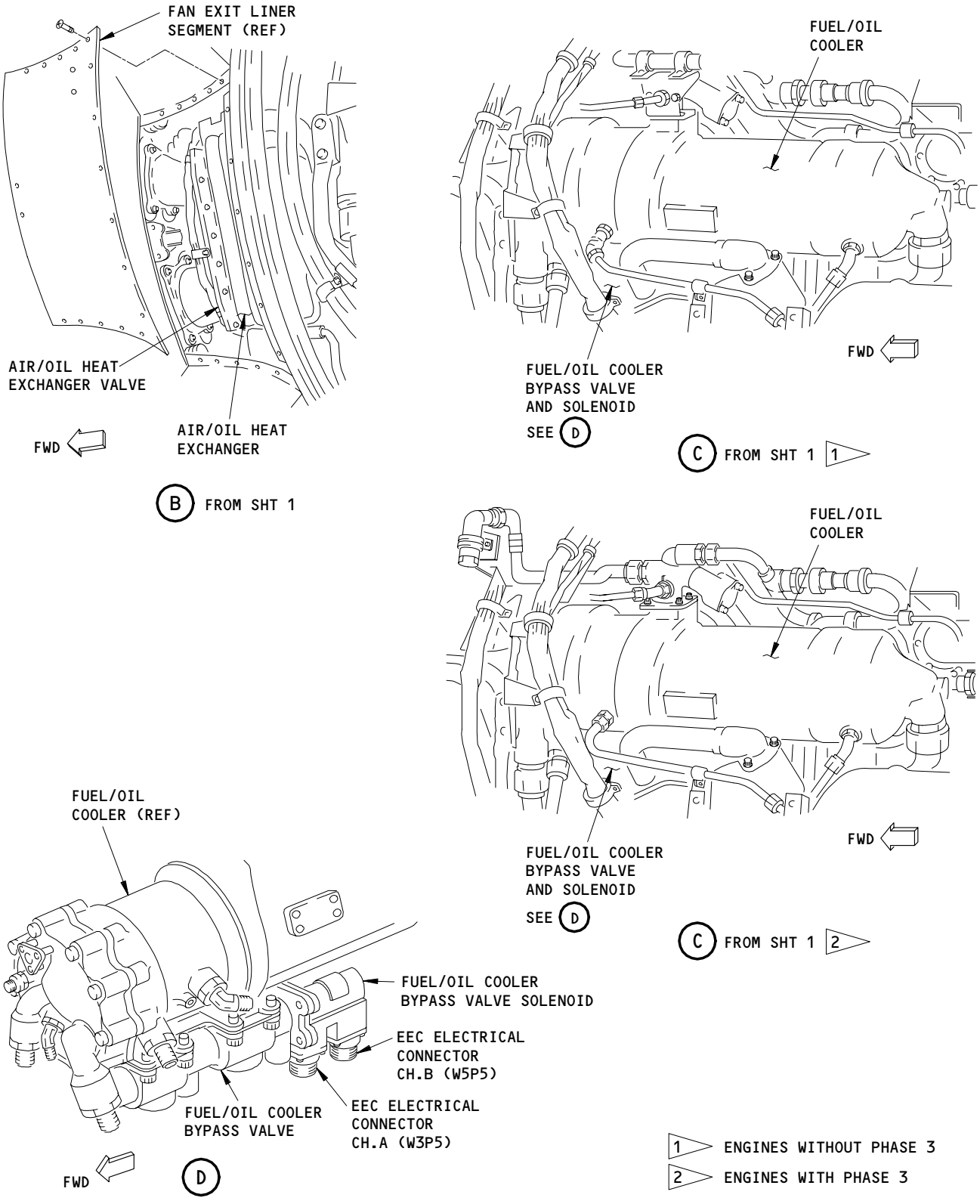
## ENGINE OIL DISTRIBUTION SYSTEM

| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | REFERENCE |
|---|---|---|---|---|
| CONTROL - (REF 73-21-00, FIG. 101) ELECTRONIC ENGINE, M7198 | | | | |
| COOLER - FUEL/OIL | 2 | 2 | 415AL,425AL, THRUST REVERSER | 79-21-01 |
| DETECTOR - ANGLE GEARBOX MAGNETIC CHIP | 4 | 2 | 415AL,416AR,425AL,426AR, THRUST REVERSER | 79-21-10 |
| DETECTOR - MAIN GEARBOX MAGNETIC CHIP | 4 | 2 | 415AL,416AR,425AL,426AR, THRUST REVERSER | 79-21-10 |
| DETECTOR - NO. 1,1.5,2 BEARING MAGNETIC CHIP | 4 | 2 | 415AL,416AR,425AL,426AR, THRUST REVERSER | 79-21-10 |
| DETECTOR - NO. 3 BEARING MAGNETIC CHIP | 4 | 2 | 415AL,416AR,425AL,426AR, THRUST REVERSER | 79-21-10 |
| DETECTOR - NO. 4 BEARING MAGNETIC CHIP | 4 | 2 | 415AL,416AR,425AL,426AR, THRUST REVERSER | 79-21-10 |
| DETECTOR - OIL TANK MAGNETIC CHIP | 4 | 2 | 415AL,425AL, THRUST REVERSER | 79-21-10 |
| FILTER - MAIN OIL | 1 | 2 | 415AL,425AL, THRUST REVERSER | 79-21-05 |
| HEAT EXCHANGER - AIR/OIL | 2 | 2 | 415AL,425AL, THRUST REVERSER | 79-21-09 |
| PUMP - LUBRICATION AND SCAVENGE OIL | 4 | 2 | 415AL,416AR,425AL,426AR, THRUST REVERSER | 79-21-04 |
| STRAINER - ANGLE AND MAIN GEARBOX LAST CHANCE OIL | 3 | 2 | 415AL,425AL, THRUST REVERSER | 79-21-16 |
| STRAINER - NO. 1,1.5,2 BEARING LAST CHANCE OIL | 3 | 2 | 415AL,425AL, THRUST REVERSER | 79-21-16 |
| STRAINER - NO. 3 BEARING LAST CHANCE OIL | 3 | 2 | 415AL,425AL, THRUST REVERSER | 79-21-16 |
| STRAINER - NO. 4 BEARING LAST CHANCE OIL | 3 | 2 | 417AL,427AL, CORE COWL PANELS | 79-21-16 |
| SOLENOID - FUEL/OIL COOLER BYPASS VALVE | 2 | 2 | 415AL,425AL, THRUST REVERSER | 79-21-03 |
| VALVE - AIR/OIL HEAT EXCHANGER | 2 | 2 | 415AL,425AL, THRUST REVERSER | 79-21-09 |
| VALVE - FUEL/OIL COOLER BYPASS | 2 | 2 | 415AL,425AL, THRUST REVERSER | 79-21-01 |
| VALVE - MAIN OIL FILTER BYPASS | 1 | 2 | 415AL,425AL, THRUST REVERSER | 79-21-06 |
| VALVE - OIL SYSTEM PRESS RELIEF | 1 | 2 | 415AL,425AL, THRUST REVERSER | 79-21-07 |

Engine Oil Distribution System - Component Index
Figure 101



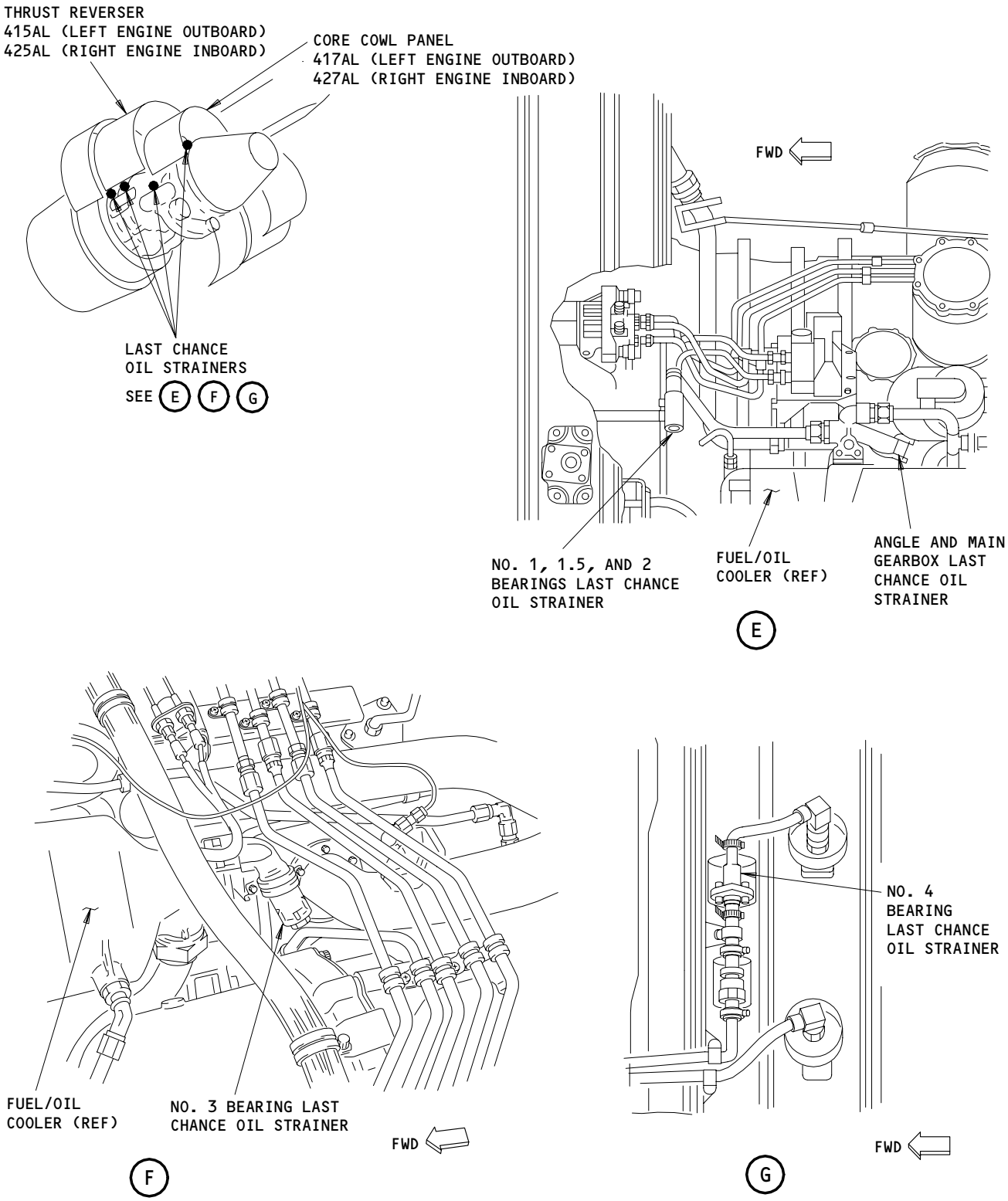

Engine Oil Distribution System – Component Location
Figure 102 (Sheet 1)



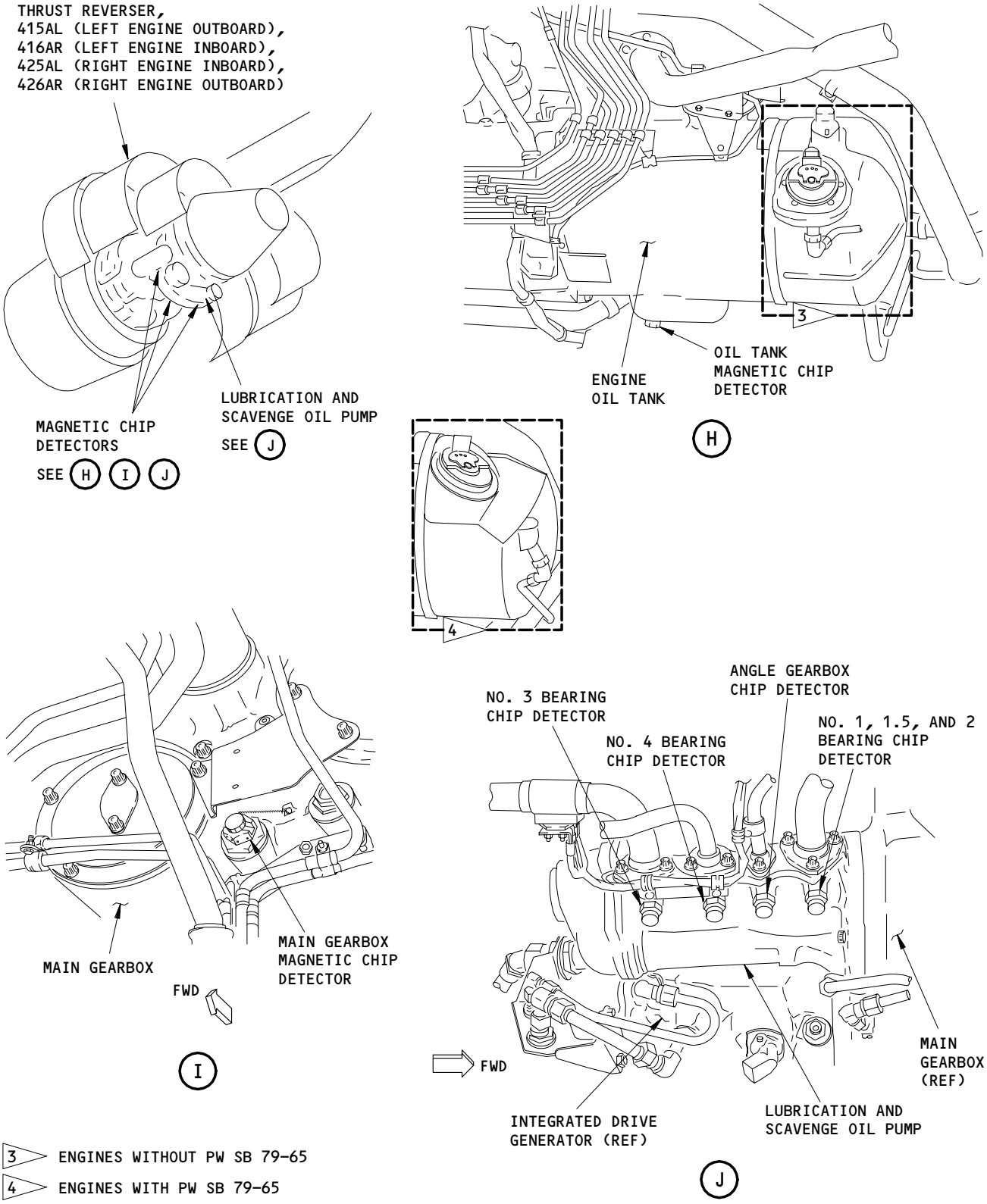

Engine Oil Distribution System – Component Location
Figure 102 (Sheet 2)



E36893




Engine Oil Distribution System – Component Location
Figure 102 (Sheet 3)




Engine Oil Distribution System - Component Location
Figure 102 (Sheet 4)

**PREREQUISITES**

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
(LEFT ENGINE) 11L19
(RIGHT ENGINE) 11L36

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

## ABNORMAL OIL PRESSURE

NOTE: IF AN IN-FLIGHT ENGINE SHUTDOWN OCCURRED, DO THE ENGINE WINDMILLING INSPECTION (AMM 72-00-00/601).

### DESCRIPTION:

THE OIL PRESSURE INDICATIONS ARE NOT IN THE SPECIFIED LIMITS.

### POSSIBLE CAUSES:

1. LOW OIL QUANTITY (AMM 12-13-03/301)
2. MAIN OIL FILTER IS CLOGGED (AMM 79-21-05/401)
3. ELECTRICAL CIRCUIT PROBLEMS (WDM 79-35-11)
4. OIL PRESSURE TRANSMITTER DEFECTIVE (FIM 79-32-00/101, FIG. 103)
5. OIL PRESSURE NOT IN ADJUSTMENT (AMM 71-00-00/501)
6. LUBE AND SCAVENGE OIL PUMP DEFECTIVE (AMM 79-21-04/401)
7. ENGINE OIL SYSTEM PROBLEMS.

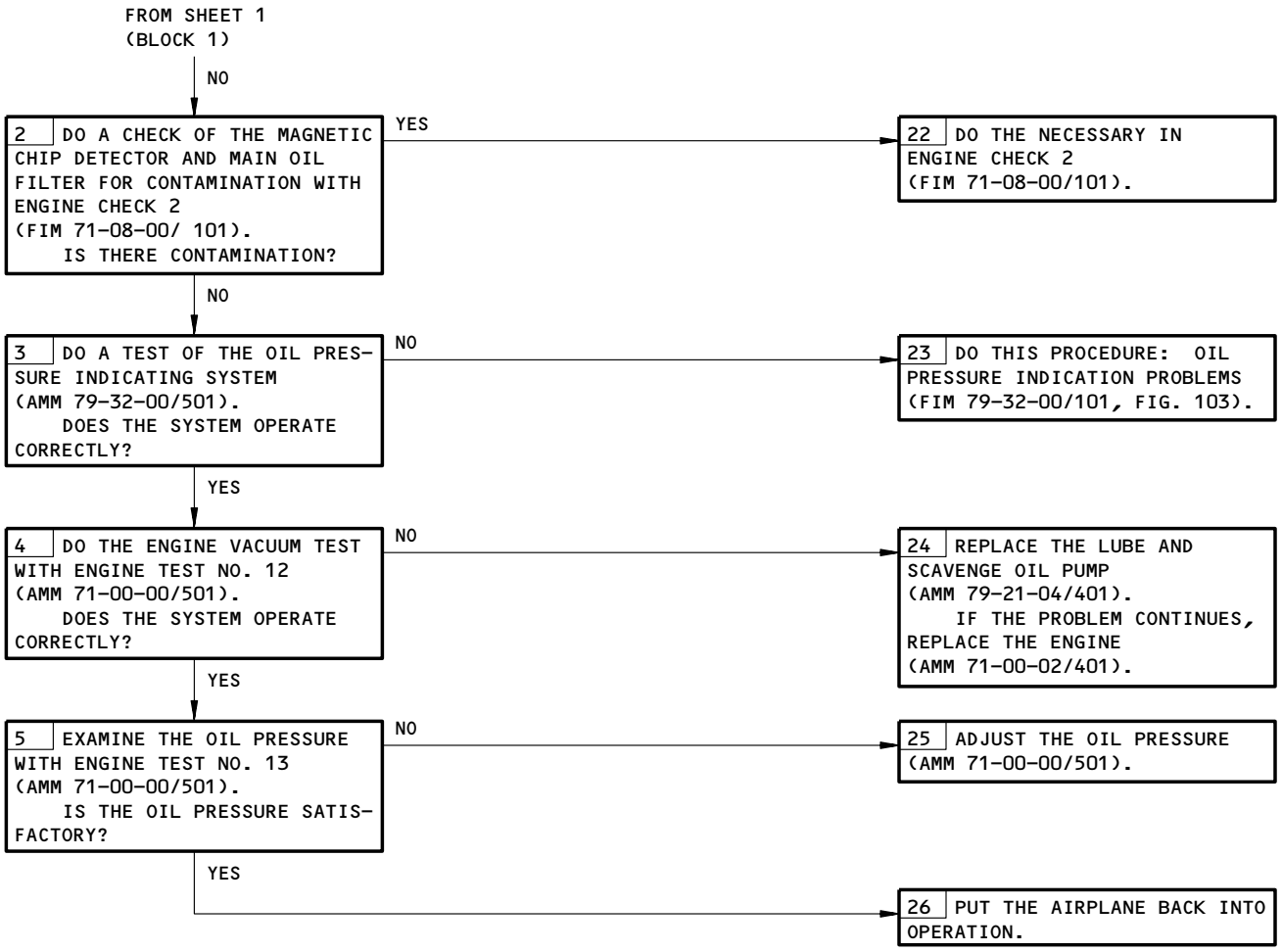
### NOTE:

IF THERE ARE REPORTS OF OIL HIDING, WITH NO TEMPERATURE INCREASE, DO THE FOLLOWING:
1. PERFORM A MAGNETIC CHIP DETECTOR INSPECTION PER THE AMM.
2. DO A VISUAL INSPECTION OF ALL ENGINE OIL SCAVENGE LINES TO LOOK FOR BENDS OR KINKS. REMOVE/REPLACE AS NECESSARY.
3. BORESCOPE INSPECT THE OIL SCAVENGE LINE BETWEEN THE MAIN OIL PUMP AND THE FRONT BEARING COMPARTMENT. CLEAN OR REPLACE AS NECESSARY.
4. IF NO OIL SCAVENGE LINE PROBLEMS ARE FOUND, REMOVAL/REPLACE THE MAIN OIL PUMP.
5. IF OIL HIDING PERSISTS, REMOVE THE ENGINE FROM SERVICE.

IF THERE ARE REPORTS OF OIL HIDING, WITH TEMPERATURE INCREASE, PERFORM A MAGNETIC CHIP DETECTOR INSPECTION PER THE AMM. REMOVE/REPLACE THE MAIN OIL PUMP. IF OIL HIDING PERSISTS, REMOVE THE ENGINE FROM SERVICE.

### FAULT ISOLATION:


Abnormal Oil Pressure
Figure 103 (Sheet 1)




Abnormal Oil Pressure
Figure 103 (Sheet 2)

**PREREQUISITES**

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11B36,11M5,11M32

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

NOTE: IF AN IN-FLIGHT ENGINE SHUTDOWN OCCURED, DO THE ENGINE WINDMILLING INSPECTION (AMM 72-00-00/601).

NOTE: HIGH OIL TEMPERATURE CAN BE CAUSED BY A TFUEL PROBLEM.

## ABNORMAL OIL TEMPERATURE

### DESCRIPTION:

THE OIL TEMPERATURE IS NOT IN THE SPECIFIED LIMITS.

### POSSIBLE CAUSES:

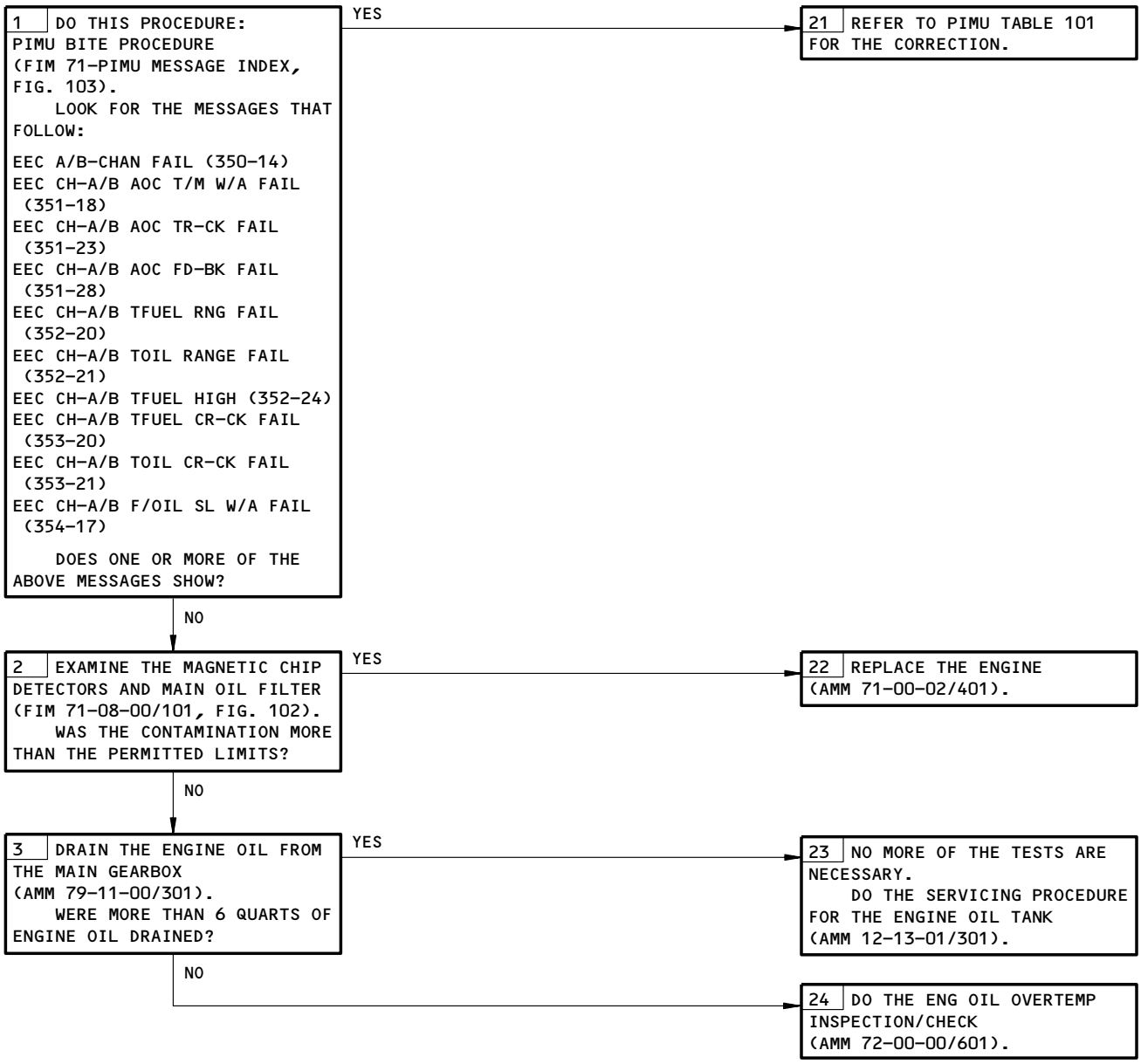
1. EPCS MESSAGES (FIM 71-PIMU MESSAGE INDEX)
2. ENGINE OIL SERVICE NOT IN THE LIMITS (AMM 12-13-01/301)
3. ENGINE OIL SYSTEM PROBLEMS.

### NOTE:

IF THERE ARE REPORTS OF OIL HIDING, WITH TEMPERATURE INCREASE, PERFORM A MAGNETIC CHIP DETECTOR INSPECTION PER THE AMM. REMOVE/REPLACE THE MAIN OIL PUMP. IF OIL HIDING PERSISTS, REMOVE THE ENGINE FROM SERVICE.

Abnormal Oil Temperature
Figure 104 (Sheet 1)

FAULT ISOLATION:




Abnormal Oil Temperature
Figure 104 (Sheet 2)

**PREREQUISITES**

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
(LEFT ENGINE) 11B36,11L9,11M5
(RIGHT ENGINE) 11B36,11L36,11M32

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

## EICAS MSG "L (R) SCAV TEMP 1 (2)" SHOWN

NOTE: IF AN IN-FLIGHT ENGINE SHUTDOWN HAS OCCURRED, DO THE ENGINE WINDMILLING INSPECTION (AMM 72-00-00/601).

### DESCRIPTION:

THE OIL TEMPERATURE IS NOT IN THE SPECIFIED LIMITS.

### POSSIBLE CAUSES:

1. EPCS MESSAGES (FIM 71-PIMU MESSAGE INDEX)
2. OIL PRESSURE IS LOW (FIG. 103).

### FAULT ISOLATION:

1 EXAMINE THE MAGNETIC CHIP DETECTORS AND MAIN OIL FILTER (FIM 71-08-00/101, FIG. 102).
WAS THE CONTAMINATION MORE THAN THE PERMITTED LIMITS?

YES → 21 REPLACE THE ENGINE (AMM 71-00-02/401).

NO ↓

2 LOOK AT THE EICAS AUTO-EVENT MESSAGE FOR LOW ENGINE OIL PRESSURE (FIM 71-08-00/101, FIG. 101).
WAS THE OIL PRESSURE LOW?

YES → 22 DO THIS PROCEDURE: ABNORMAL OIL PRESSURE (FIG. 103).

NO ↓

3 DO THIS PROCEDURE: PIMU BITE PROCEDURE (FIM 71-PIMU MESSAGE INDEX, FIG. 103).
LOOK FOR THE MESSAGE THAT FOLLOWS:

EEC CH-A/B TOIL RANGE FAIL (352-21)
EEC CH-A/B DOT3 RANGE FAIL (352-23)
EEC CH-A/B TOIL CR-CK FAIL (353-21)
EEC CH-A/B DOT3 CR-CK FAIL (353-23)

DOES ONE OR MORE OF THE ABOVE MESSAGES SHOW?

YES → 23 REFER TO PIMU TABLE 101 FOR THE CORRECTION.

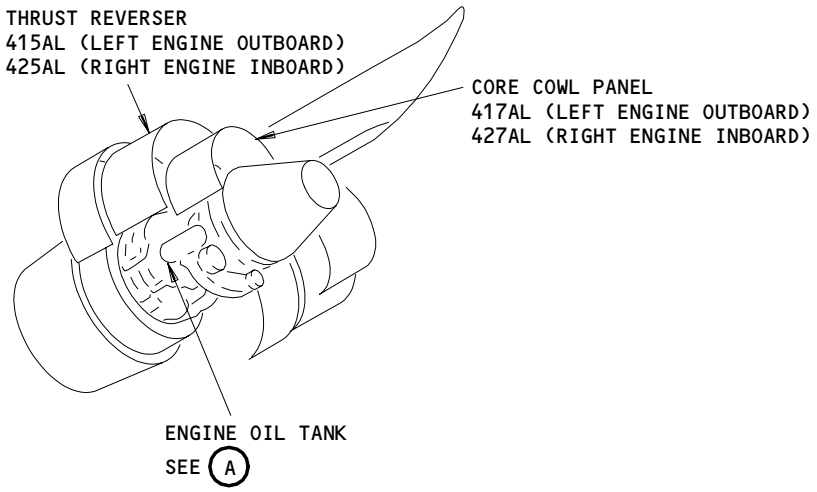
NO → 24 REPLACE THE ENGINE (AMM 71-00-02/401).

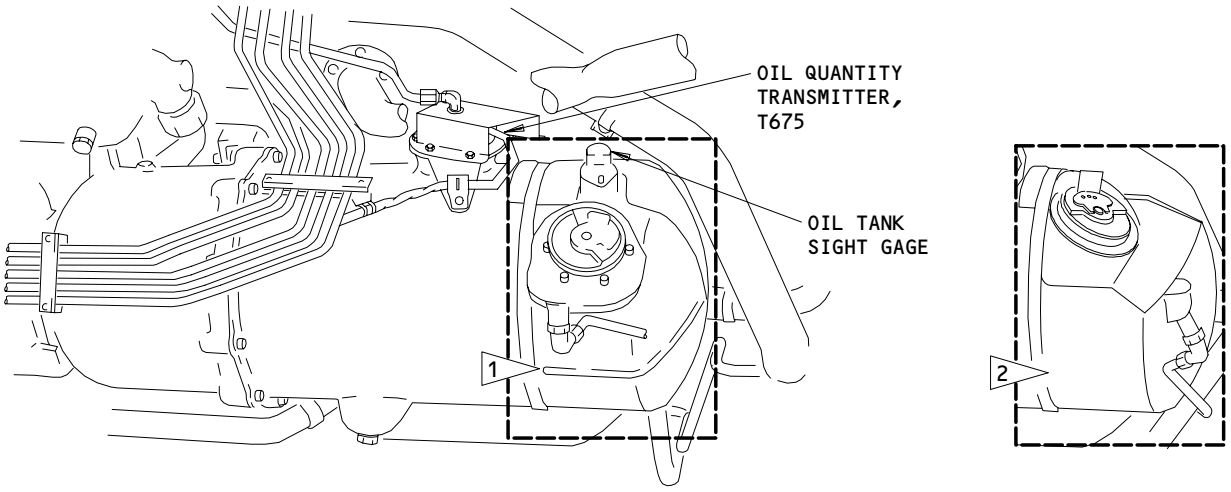
EICAS Msg L (R) SCAV TEMP 1 (2) Shown
Figure 105

OIL QUANTITY INDICATING SYSTEM

| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | AMM REFERENCE |
|---|---|---|---|---|
| COMPUTER - (FIM 31-41-00/101) | | | | |
| EICAS L, M10181 | | | | |
| EICAS R, M10182 | | | | |
| GAGE - OIL TANK SIGHT | -- | 2 | 417AL,427AL, CORE COWL PANEL | 79-31-02 |
| TRANSMITTER - OIL QUANTITY, T675 | -- | 2 | 415AL,425AL, THRUST REVERSER | 79-31-01 |

Oil Quantity Indicating System - Component Index
Figure 101




ENGINE OIL TANK
A

1 ENGINES WITHOUT PW SB 79-65
2 ENGINES WITH PW SB 79-65

Oil Quantity Indicating System - Component Location
Figure 102

## OIL QUANTITY INDICATION PROBLEMS

**PREREQUISITES**

NONE

**NOTE:**

IF THERE ARE REPORTS OF OIL HIDING, WITH NO TEMPERATURE INCREASE, DO THE FOLLOWING:

1. PERFORM A MAGNETIC CHIP DETECTOR INSPECTION PER THE AMM.
2. DO A VISUAL INSPECTION OF ALL ENGINE OIL SCAVENGE LINES TO LOOK FOR BENDS OR KINKS. REMOVE/REPLACE AS NECESSARY.
3. BORESCOPE INSPECT THE OIL SCAVENGE LINE BETWEEN THE MAIN OIL PUMP AND THE FRONT BEARING COMPARTMENT. CLEAN OR REPLACE AS NECESSARY.
4. IF NO OIL SCAVENGE LINE PROBLEMS ARE FOUND, REMOVAL/REPLACE THE MAIN OIL PUMP.
5. IF OIL HIDING PERSISTS, REMOVE THE ENGINE FROM SERVICE.

IF THERE ARE REPORTS OF OIL HIDING, WITH TEMPERATURE INCREASE, PERFORM A MAGNETIC CHIP DETECTOR INSPECTION PER THE AMM. REMOVE/REPLACE THE MAIN OIL PUMP. IF OIL HIDING PERSISTS, REMOVE THE ENGINE FROM SERVICE.

**FAULT ISOLATION:**

1 REPLACE THE OIL QUANTITY TRANSMITTER, T675 (MM 79-31-01/401). DO THIS PROCEDURE: ENGINE CHECK 1 - EICAS AUTO EVENT MESSAGE VERIFICATION/ERASE PROCEDURE (FIM 71-08-00/101, FIG. 101).

IF THE PROBLEM CONTINUES, REMOVE THE L (R) EICAS COMPUTERS, M10181 (M10182)(AMM 31-41-02/401).

EXAMINE AND REPAIR THE CIRCUIT FROM THE OIL QUANTITY TRANSMITTER, T675, CONNECTOR D10992, PIN 1,2,3,4 TO THE L (R) EICAS COMPUTER, M10181 (M10182), CONNECTOR, D881B (D883B), PIN J8, CONNECTOR D881E (D883E) PIN G13, AND CONNECTOR D881F (D883F) PIN G10 AT THE EICAS RACK E8 (WDM 79-31-11).

INSTALL THE EICAS COMPUTERS. DO THIS PRECEDURE: ENGINE CHECK 1 - EICAS AUTO EVENT MESSAGE VERIFICATION/ERASE PROCEDURE (FIM 71-08-00/101, FIG. 101).

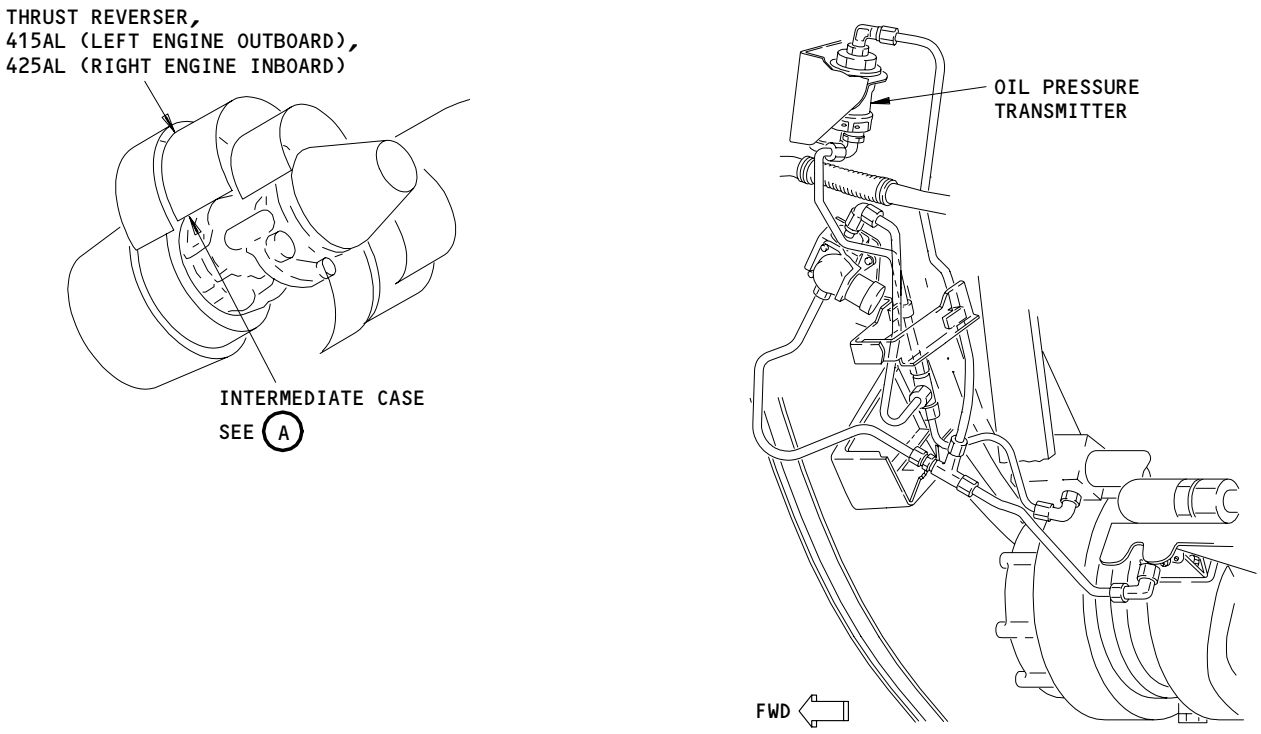
Oil Quantity Indication Problems
Figure 103

OIL PRESSURE INDICATING SYSTEM

| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | AMM REFERENCE |
|---|---|---|---|---|
| CIRCUIT BREAKER – | | | FLT COMPT, P11 | |
| L ENG OIL PRESS EICAS REF, C1498 | -- | 1 | 11L9 | * |
| R ENG OIL PRESS EICAS REF, C1499 | -- | 1 | 11L36 | * |
| COMPUTER – (FIM 31-41-00/101) | | | | |
| EICAS L, M10181 | | | | |
| EICAS R, M10182 | | | | |
| TRANSMITTER – OIL PRESSURE, T679 | -- | 2 | 415AL,425AL, THRUST REVERSER, INTERMEDIATE CASE | 79-32-01 |

* SEE THE WDM EQUIPMENT LIST

Oil Pressure Indicating System – Component Index
Figure 101




Oil Pressure Indicating System - Component Location
Figure 102

## OIL PRESSURE INDICATION PROBLEMS

**PREREQUISITES**

NONE

| | |
|---|---|
| 1 | REPLACE THE OIL PRESSURE TRANSMITTER, T679 (MM 79-32-01/401). DO THE EICAS AUTO EVENT MESSAGE VERIFICATION/ERASE PROCEDURE (71-08-00, FIG. 101).<br>IF THE PROBLEM CONTINUES, REMOVE THE L (R) EICAS COMPUTERS, M10181 (M10182)(MM 31-41-02/401).<br>EXAMINE AND REPAIR THE CIRCUIT FROM THE OIL PRESSURE TRANSMITTER, T679, CONNECTOR D10982, PIN 1,2,3,4 TO THE L (R) EICAS COMPUTER, M10181 (M10182), CONNECTOR D881D (D883D), PIN F15, CONNECTOR D881B (D883B), PIN G1 AND H2, CONNECTOR D881E (D883E), PIN H11 AT THE EICAS RACK, E8 (WDM 79-32-11).<br>INSTALL THE EICAS COMPUTERS. DO THE EICAS AUTO EVENT MESSAGE VERIFICATION/ERASE PROCEDURE (71-08-00, FIG. 101). |

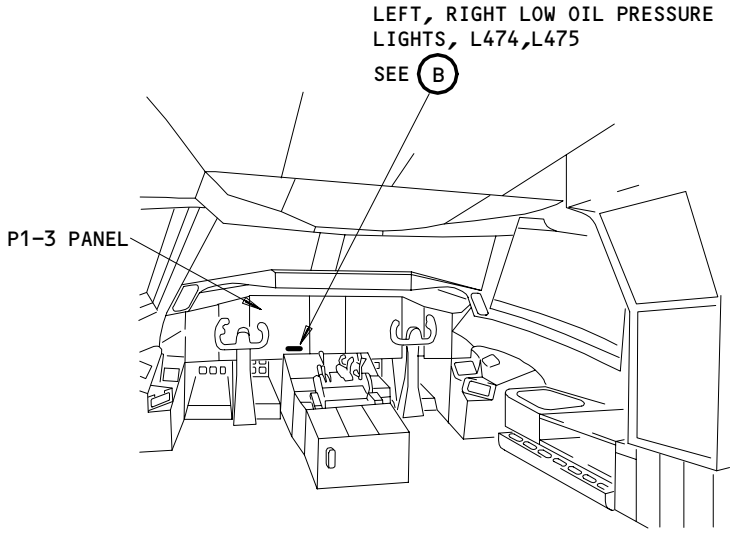
Oil Pressure Indication Problems
Figure 103

LOW OIL PRESSURE WARNING SYSTEM

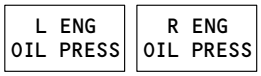
| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | AMM REFERENCE |
|---|---|---|---|---|
| COMPUTER - (FIM 31-41-00/101)<br>EICAS L, M10181<br>EICAS R, M10182 | | | | |
| LIGHT - LOW OIL PRESSURE, L474 | -- | | FLT COMPT, P1-3 | * |
| LIGHT - LOW OIL PRESSURE, L475 | -- | | FLT COMPT, P1-3 | * |
| SWITCH - LOW OIL PRESSURE, S1584 | -- | 2 | 415AL,425AL, THRUST REVERSER, INTERMEDIATE CASE | 79-33-01 |

* SEE THE WDM EQUIPMENT LIST

Low Oil Pressure Warning System - Component Index
Figure 101

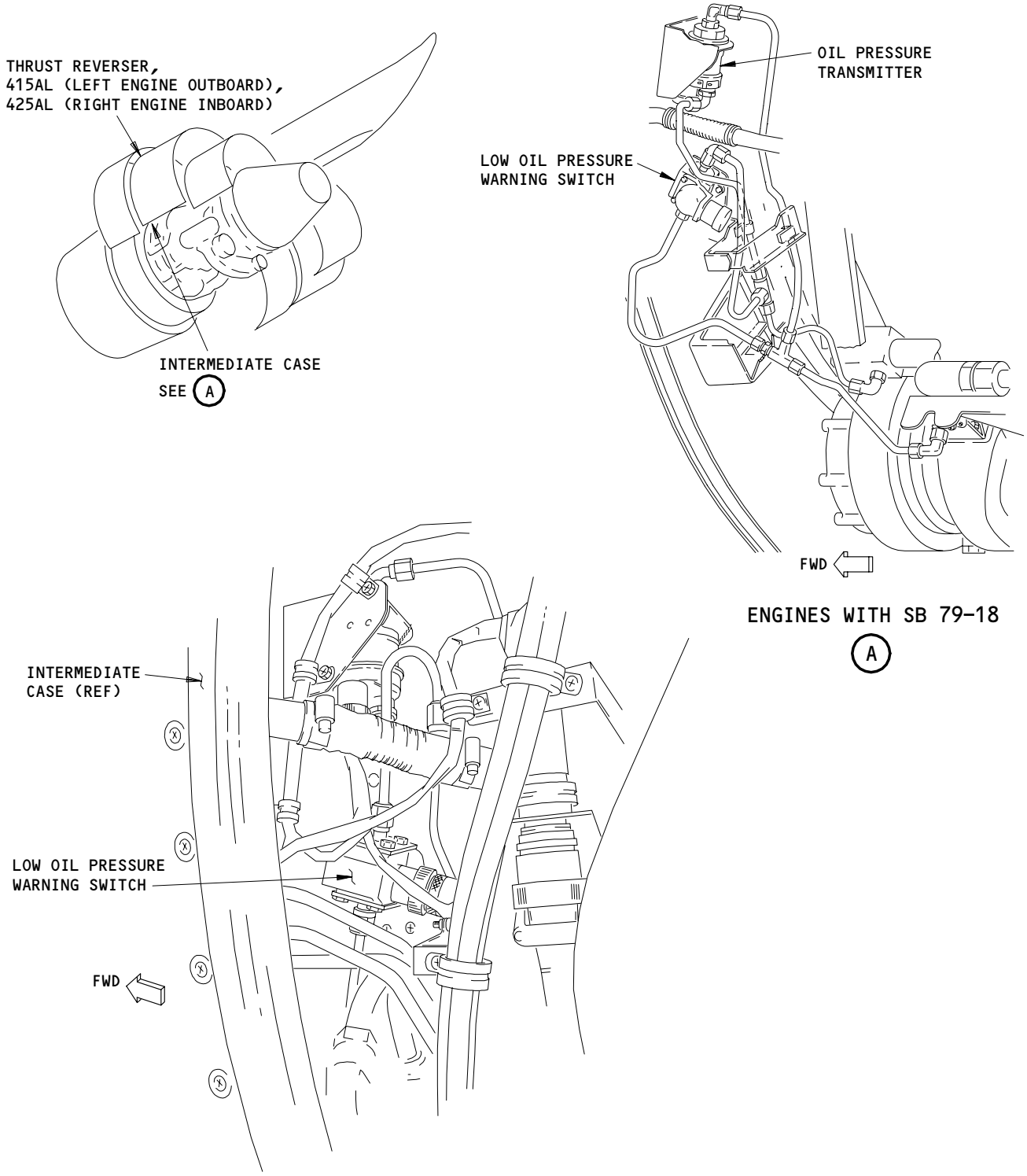



FLIGHT COMPARTMENT




LEFT, RIGHT LOW OIL
PRESSURE LIGHTS, L474,L475
B

Low Oil Pressure Warning System - Component Location
Figure 102 (Sheet 1)




Low Oil Pressure Warning System - Component Location
Figure 102 (Sheet 2)

## OIL PRESS LIGHT ILLUMINATED

**PREREQUISITES**

NONE

| | |
|---|---|
| 1 | REPLACE THE WARNING SWITCH, S1584, FOR THE LOW OIL PRESSURE (MM 79-33-01/401).<br>IF THE PROBLEM CONTINUES, EXAMINE AND REPAIR THE CIRCUIT FROM THE WARNING SWITCH S1584, CONNECTOR D10988, PIN 1 TO THE PANEL P1-3 CONNECTOR D4285P, PIN 42 (CONNECTOR D5107P, PIN 13)(WDM 79-33-11). |

OIL PRESS Light Illuminated
Figure 103

## OIL PRESS LIGHT FAILED TO ILLUMINATE WITH OIL PRESS BELOW 68 PSI

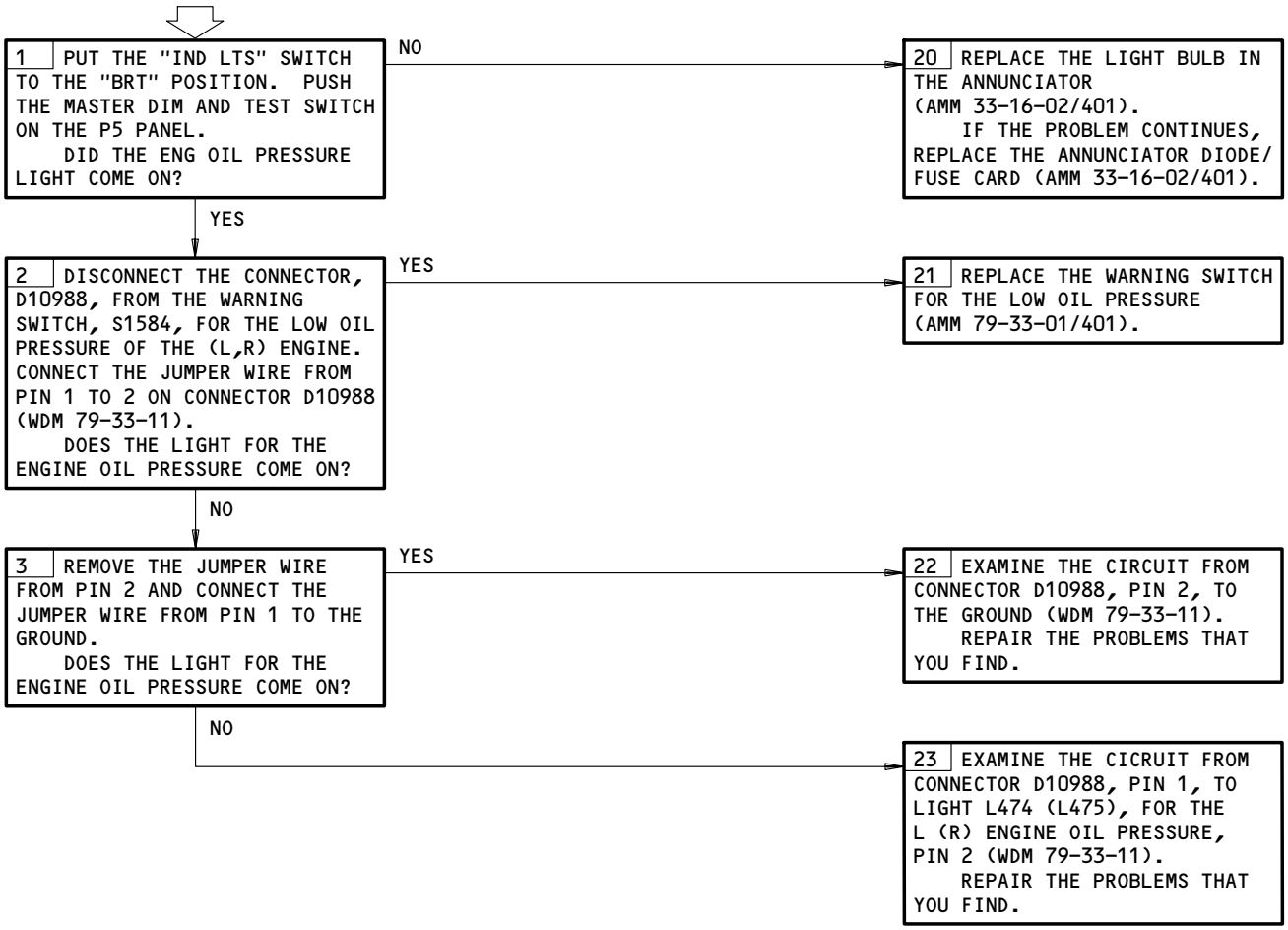
**PREREQUISITES**

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
- ELECTRICAL POWER IS ON (AMM 24-22-00/201)
- MASTER DIM AND TEST (AMM 33-16-00/201)

POSSIBLE CAUSES:

1. THE LIGHT BULB IN THE ANNUNCIATOR (AMM 33-16-02/401)
2. THE ANNUNCIATOR DIODE/FUSE CARD (AMM 33-16-02/401)
3. THE LOW OIL PRESSURE WARNING SWITCH (AMM 29-33-01/401)
4. ELECTRICAL CIRCUIT PROBLEMS (WDM 79-33-11).

FAULT ISOLATION:




OIL PRESS Light Failed to Illuminate with Oil Press Below 68 PSI
Figure 104

L/R OIL PRESS MSG WITH OIL PRESS ABOVE 70 PSI.

**PREREQUISITES**

NONE

1 WAS THE OIL PRESSURE LIGHT ON?

NO → 21 EXAMINE THE CIRCUIT FROM CONNECTOR D5306P, PIN 43 (CONNECTOR D5326P, PIN 35), TO CONNECTOR D6208P, PIN A11 (CONNECTOR D6214P, PIN A11)√ (WDM 79-33-11).
REPAIR THE PROBLEMS THAT YOU FIND.

YES

2 REPLACE THE WARNING SWITCH, S1584, FOR THE LOW OIL PRESSURE (AMM 79-33-01/401).
DOES THE PROBLEM CONTINUE?

YES → 22 EXAMINE THE CIRCUIT FROM THE WARNING SWITCH, S1584, CONNECTOR D10988, PIN 1, TO CONNECTOR D5306P, PIN 42 (CONNECTOR D5326P, PIN 36), AND CONNECTOR D5360P, PIN 51 (CONNECTOR D5374P, PIN 51) (WDM 79-33-11).
REPAIR THE PROBLEMS THAT YOU FIND.

NO

3 THE SYSTEM IS OK.

L/R Oil Press Msg with Oil Press Above 70 PSI.
Figure 105

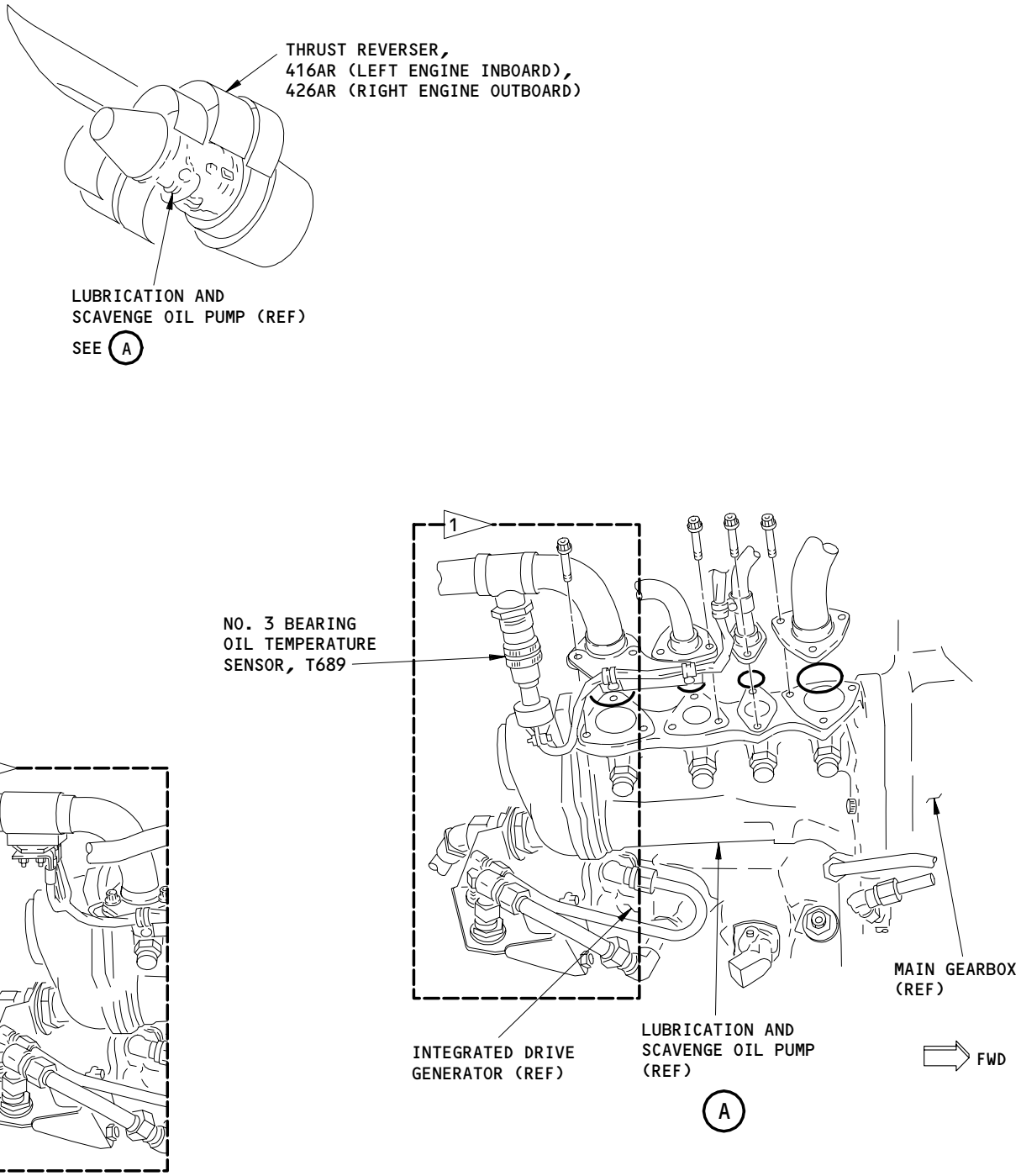
OIL TEMPERATURE INDICATING SYSTEM

| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | AMM REFERENCE |
|---|---|---|---|---|
| COMPUTER - (FIM 31-41-00/101)<br>EICAS L, M10181<br>EICAS R, M10182<br>CONTROL - (FIM 73-21-00/101)<br>ELECTRONIC ENGINE, M7198<br>SENSOR - NO. 3 BEARING OIL TEMP, T689<br><br>THERMOCOUPLE - (FIM 73-21-00/101)<br>EEC OIL TEMPERATURE, T690 | -- | 2 | 416AR,426AR, THRUST REVERSER, LUB AND SCAVENGE OIL PUMP | 79-34-01 |

Oil Temperature Indicating System - Component Index
Figure 101



E66677




1 ENGINES WITHOUT PW SB 73-84

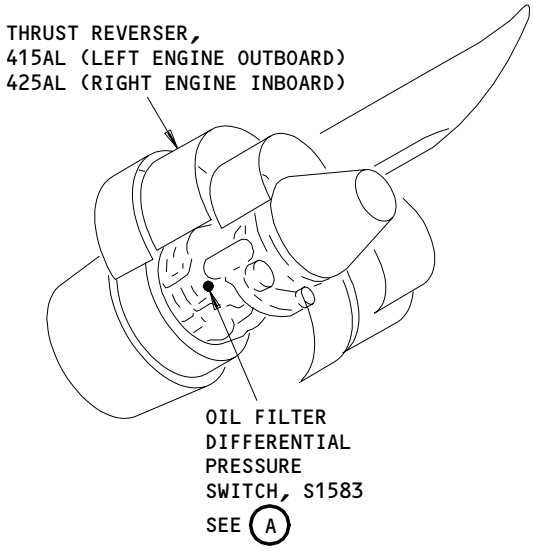
2 ENGINES WITH PW SB 73-84

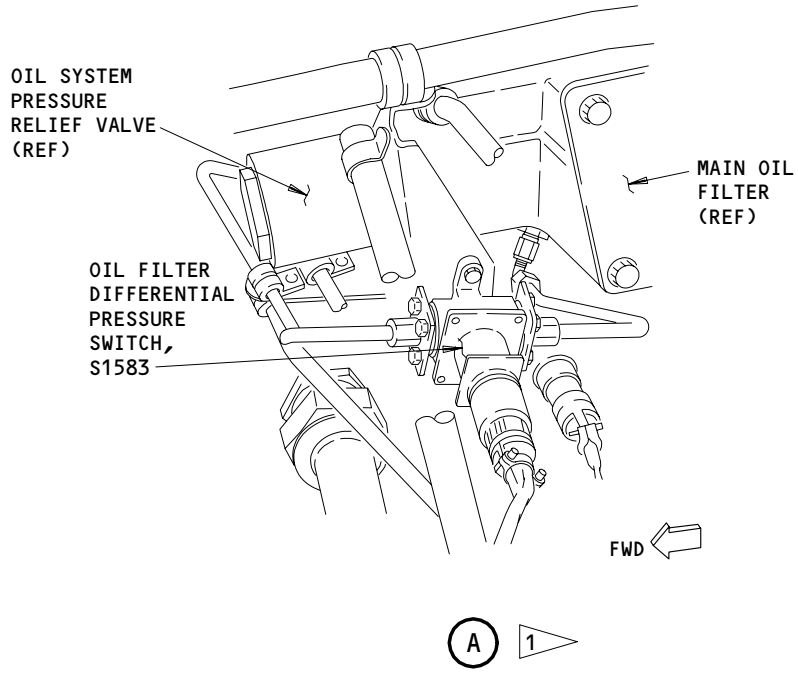
Oil Temperature Indicating System - Component Location
Figure 102

OIL FILTER BYPASS WARNING SYSTEM

| COMPONENT | FIG. 102 SHT | QTY | ACCESS/AREA | AMM REFERENCE |
|---|---|---|---|---|
| COMPUTER - (FIM 31-41-00/101)<br>L EICAS, M10181<br>R EICAS, M10182<br>SWITCH - OIL FILTER DIFF PRESS, S1583 | -- | 2 | 415AL,425AL, THRUST REVERSER | 79-35-01 |

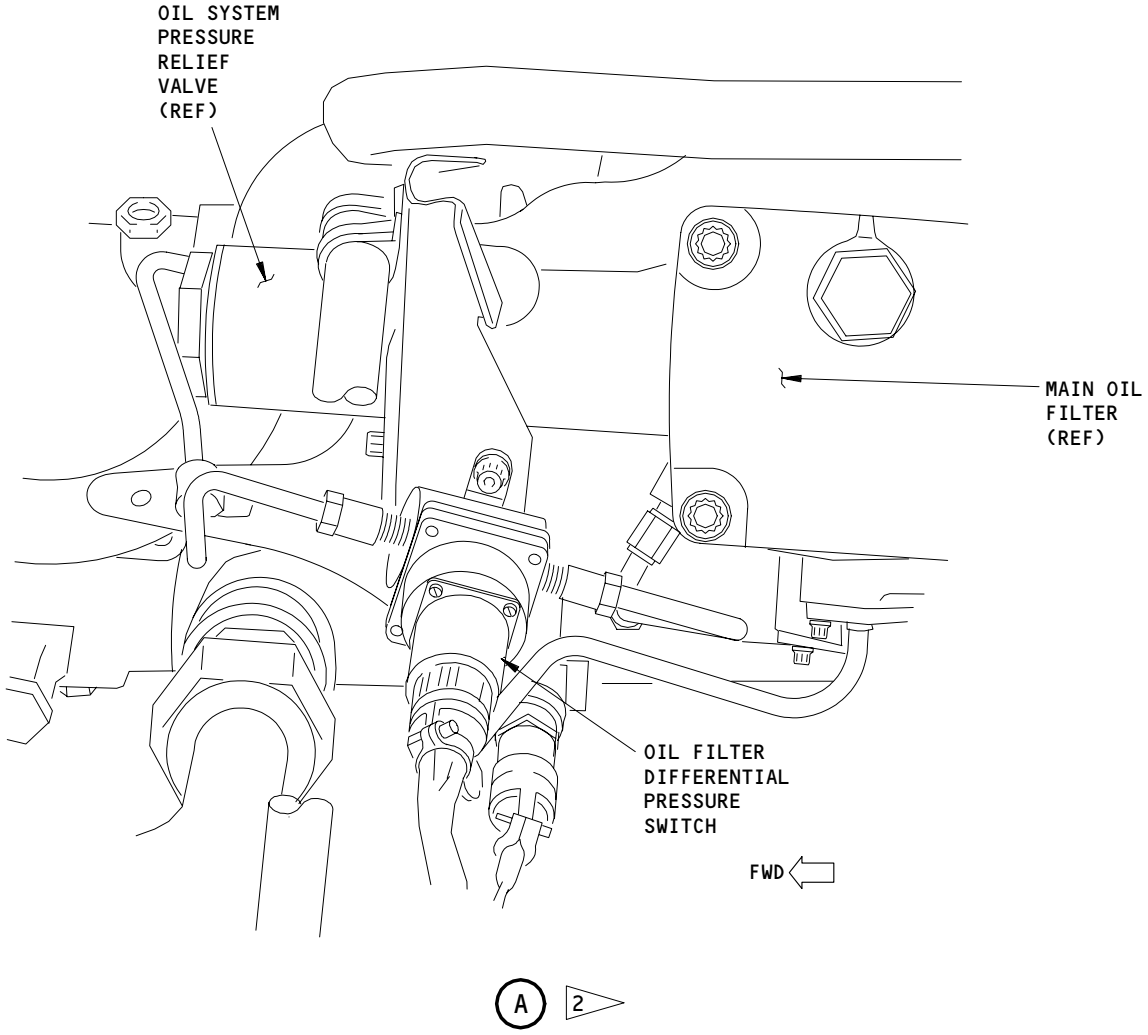
Oil Filter Bypass Warning System - Component Index
Figure 101




1 ENGINES WITHOUT PW SB 79-70
2 ENGINES WITH PW SB 79-70

Oil Filter Bypass Warning System - Component Location
Figure 102 (Sheet 1)




Oil Filter Bypass Warning System - Component Location
Figure 102 (Sheet 2)

## OIL FILTER MESSAGE SHOWN

**PREREQUISITES**

NONE

**POSSIBLE CAUSES:**

1. MAIN OIL FILTER IS CLOGGED (AMM 79-21-05/401)
2. DIFFERENTIAL PRESSURE SWITCH FAILURE (AMM 79-35-01/401)
3. ELECTRICAL CIRCUIT PROBLEMS (WDM 79-35-11).

**FAULT ISOLATION:**

1 EXAMINE THE MAGNETIC CHIP DETECTORS FOR CONTAMINATION WITH ENGINE CHECK 2 (FIM 71-08-00/101).
WERE METAL PARTICLES FOUND?

YES → 41 DO THE NECESSARY CORRECTION IN ENGINE CHECK 2 (FIM 71-08-00/101).

NO

2 REPLACE THE MAIN OIL FILTER (AMM 79-21-05/401).
DOES THE FAULT CONTINUE?

NO → 42 RETURN ENGINE TO SERVICE.

YES

3 EXAMINE THE CONNECTORS AND CIRCUITS AROUND THE DIFFERENTIAL PRESSURE SWITCH (WDM 79-35-11).
DOES THE FAULT CONTINUE?

NO → 43 RETURN ENGINE TO SERVICE.

YES

4 REPLACE THE DIFFERENTIAL PRESSURE SWITCH (AMM 79-35-01/401).
DOES THE FAULT CONTINUE?

NO → 44 RETURN ENGINE TO SERVICE.

YES → 45 IF THE PROBLEM CONTINUES, EXAMINE THE MAINTENANCE HISTORY RECORD. DO THE NECESSARY CORRECTIVE ACTION.

Oil Filter Message Shown
Figure 103