

fault isolation manual OLYMPIC AIRWAYS S.A.

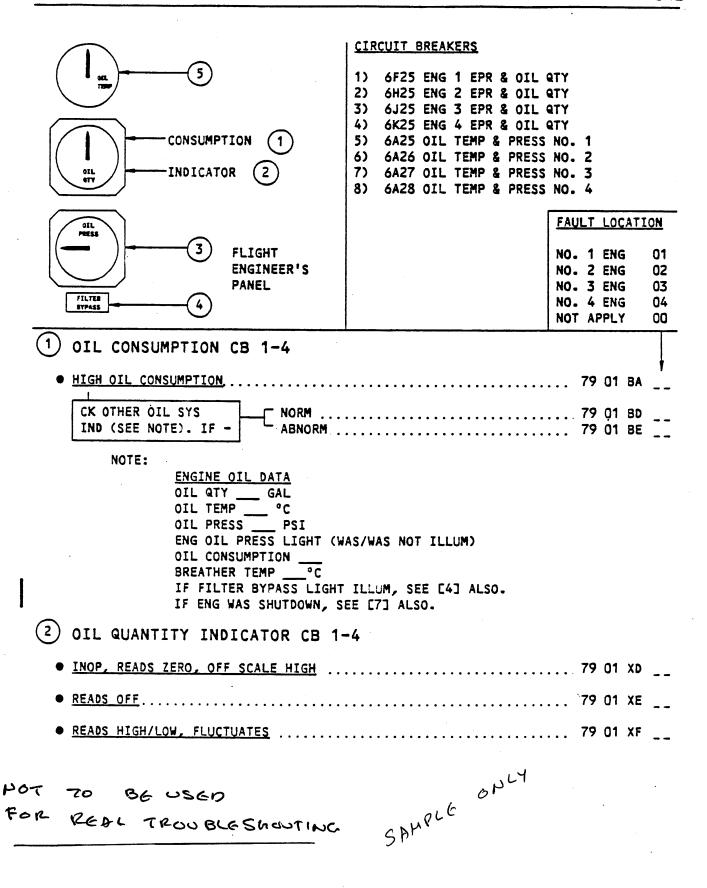
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ENGINE OIL

SAUPLE ONLY



EFFECTIVITY

ALL

755

79-01-00

Feb 15/83

(3)	OIL PRESSURE CB 5-8	LOCATIO) —	\neg
•	ABNORMAL (HIGH, LOW, OR FLUCTUATING) (SEE NOTE)	79 0	1 CA	,
	CHANGE THRUST SETTING & CHECK OIL PRESS. DID OIL PRESS FOLLOW THRUST CHANGE?			
ı	NOTES: (ALSO SEE NOTES ON PREVIOUS PAGE)			
	IF ENG IS WINDMILLING WITH LESS THAN 5 PSI OIL PRESS INDICATED, RECORD TIME. IF OTHER OIL SYSTEM INDICATIONS ABNORM OIL QUANTITY LOW, SEE [1] FILTER BYPASS LIGHT ILLUM, SEE [4] BREATHER TEMP ABNORM, SEE [6] OIL TEMP FLUCTUATING, SEE [5] FUEL HEAT VALVE FAILURE, SEE 7301 [1]		HEAT	
•	IND INOP, READS LOW WITH NO LOW PRESS LIGHT ILLUM,	70.0		
. •	LIGHT ILLUM WITH ALL OTHER INDICATIONS NORMAL			
4	OIL FILTER BYPASS	() 0	ı An	
•	REMAINED ILLUM WITH ENGINE SHUTDOWN, LIGHT—EXTIN.	79 0	1 XJ	
5	OIL TEMP CB 5-8			
•		79 0°	I DA	
	OTHER ENG RETARD THRUST INCR TO EQUAL OTHERS HIGH.	79 01	DE	
•	INDICATOR INOP FLUCTUATES	79 01 79 01	XL IXM	
for re	CESHOOTING OPIN			
	ENGINE OIL - FAULT CODES	04	_	_
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'		
	CIRCUIT BREAKERS	
6 BREATHER TEMP	1) 6825 BREATHER TEMP NO. 1 2) 6826 BREATHER TEMP NO. 2	FAULT LOCATION
FLIGHT ENGINEER'S PANEL	3) 6B27 BREATHER TEMP NO. 3 4) 6B28 BREATHER TEMP NO. 4	NO. 1 ENG 01
7 SHUTDOWN IN FLIGHT		NO. 2 ENG 02 NO. 3 ENG 03 NO. 4 ENG 04 NOT APPLY 00
6 BREATHER TEMP CB 1-4		
• TEMP HIGH (SEE NOTE)	• • • • • • • • • • • • • • • • • • • •	79 O1 FA
210°C OR HIGHER — AL	L OTHER OIL SYS IND NORM E OR MORE OIL SYS IND ABNORM L OTHER OIL SYS IND NORM	79 01 FE
NOTE:	E OR MORE OIL SYS IND ABNORM	79 01 FG
ENGINE OIL DATA OIL QTY OIL TEMP°C	RECORD DATA DURING CLB BETWEEN 6000' & 10,000' AT CLB THRUST	
OIL PRESSPSI BREATHER TEMP°C		•
OIL CONSUMPTION/HR EPR TAT		
7 SHUTDOWN IN FLIGHT		
• ENG SHUTDOWN IN FLIGHT AND		
WINDMILLED WITH CONTINUO	US OIL PRESS OF 5 PSI	
OR HIGHER WINDMILLED WITH LESS THA LESS THAN 30 MIN OIL PRESS WAS LESS THAN		···· 79 01 X0
EXCESS OF WINDMILLING SP	EED OR BEFORE ENG	
WAS OPERATED AT OR ABOVE PRESS LESS THAN 5 PSI WINDMILLED WITH LESS THA	IDLE PWR WITH OIL	79 01 XP
		79 01 XQ
8 ENG OIL FAULTS NOT LIST	red	79 01 00
FOR REAL	oLE	
TROUBLESHOUTING	SAMPLE	
ENGINE	OIL - FAULT CODES	2 04 00
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1 - OIL CONSUMPTION

- BA NO. _ ENG OIL CONSUMPTION HIGH. (RECORD DATA)
- BD NO. _ ENG OIL CONSUMPTION HIGH, ALL OTHER OIL SYS IND NORM. (RECORD DATA)
- BE NO. _ ENG OIL CONSUMPTION HIGH, WITH OTHER OIL SYS IND ABNORM. (RECORD DATA)

2 - OIL QUANTITY INDICATOR

- XD NO. _ ENG OIL QTY IND (INOP, READS ZERO, OFF SCALE HIGH).
- XE NO. _ ENG OIL QTY IND READS OFF.

3 - OIL PRESSURE

- CA NO. _ ENG OIL PRESS (LOW, HIGH, FLUCTUATING, IN YELLOW BAND).
- CD NO. _ ENG OIL PRESS (LOW, HIGH, FLUCTUATING, IN YELLOW BAND).
 REMAINS CONSTANT WITH THRUST SETTING CHANGE.
- CE NO. _ ENG OIL PRESS (LOW, HIGH, FLUCTUATING, IN YELLOW BAND).
 PRESS FOLLOWS THRUST SETTING CHANGE.
- XG NO. _ ENG OIL PRESS IND (INOP, READS LOW WITH NO LOW PRESS LIGHT ILLUM, FLUCTUATES).
- XH NO. _ ENG OIL PRESS LIGHT ILLUM WITH ALL OTHER IND NORM.

MOT TO BE USED FOR REAL TROUBLESHOOTING

4 - OIL FILTER BYPASS

- XJ NO. _ ENG OIL FILTER BYPASS LIGHT ILLUM. LIGHT REMAINED ILLUM WITH THRUST LEVER REDUCED. WITH ENG SHUTDOWN, LIGHT EXTIN.
- XK NO. _ ENG OIL FILTER BYPASS LIGHT ILLUM. LIGHT EXTIN WITH THRUST LEVER REDUCED. ENG (WAS, WAS NOT) SHUTDOWN.
- XX NO. _ ENG OIL FILTER BYPASS LIGHT ILLUM. LIGHT REMAINED ILLUM WITH THRUST LEVER REDUCED. WITH ENG SHUTDOWN, LIGHT REMAINED ILLUM.

SAMPLE

ENGINE OIL - LOG BOOK REPORTS

EFFECTIVITY

ALL

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5 - OIL TEMP

- DA NO. _ ENG OIL TEMP (HIGH-ABOVE LIMITS, HIGHER THAN OTHER ENG-WITHIN LIMITS, LWR THAN OTHER ENG).
- DD NO. _ ENG OIL TEMP LWR THAN OTHER ENG. WHEN THRUST LEVER WAS RETARDED, OIL TEMP INCREASED TO SAME TEMP AS OTHER ENG. (RECORD DATA)
- DE NO. _ ENG OIL TEMP LWR THAN OTHER ENG. WHEN THRUST LEVER WAS RETARDED, OIL TEMP REMAINED LWR THAN OTHER ENG. (RECORD DATA)
- DF NO. _ ENG OIL TEMP (HIGH-ABOVE LIMITS, HIGHER THAN OTHER ENG-WITHIN LIMITS). ENG (WAS, WAS NOT) SHUTDOWN. (RECORD DATA)
- XL NO. _ ENG OIL TEMP IND INOP.
- XM NO. _ ENG OIL TEMP IND FLUCTUATES.

6 - BREATHER TEMPERATURE

- FA NO. _ ENG BREATHER TEMP HIGH AT (T/O, T/O & CLIMB, CLIMB, CRUISE, ALL) THRUST SETTING.
- FD NO. _ ENG BREATHER TEMP HIGH, LESS THAN 210°C AT (T/O, T/O & CLIMB, CLIMB, CRUISE, ALL) THRUST SETTING. ALL OTHER OIL SYS IND NORM.
- FE NO. _ ENG BREATHER TEMP HIGH, LESS THAN 210°C AT (T/O, T/O & CLIMB, CLIMB, CRUISE, ALL) THRUST SETTING. (HIGH OIL CONSUMPTION, HIGH OIL TEMP, OIL PRESS OUT OF LIMITS) WAS ALSO NOTED. (RECORD DATA)
- FF NO. _ ENG BREATHER TEMP HIGH, 210°C OR MORE AT (T/O, T/O & CLIMB, CLIMB, CRUISE, ALL) THRUST SETTING. ALL OTHER OIL SYS IND NORM.

FG NO. _ ENG BREATHER TEMP HIGH, 210°C OR MORE AT (T/O, T/O & CLIMB, CLIMB, CRUISE, ALL) THRUST SETTING. (HIGH OIL CONSUMPTION, HIGH OIL TEMP, OIL PRESS OUT OF LIMITS) WAS ALSO NOTED. (RECORD DATA)

7 - SHUTDOWN IN FLIGHT

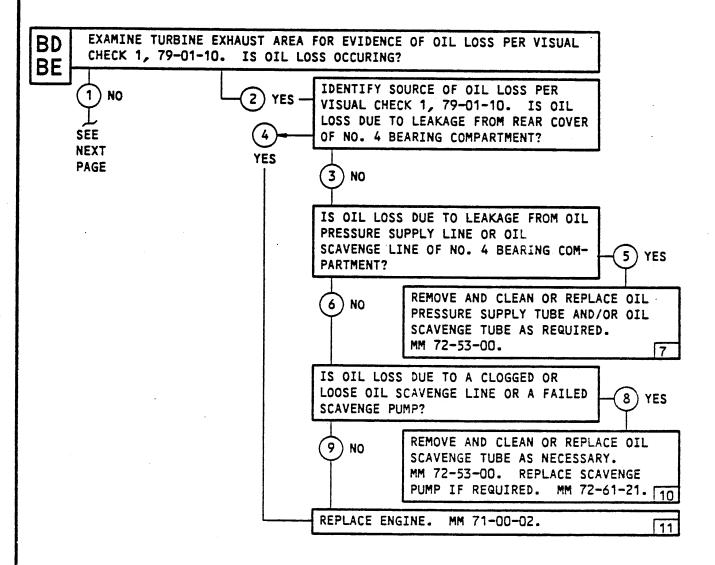
- XO NO. _ ENG WAS SHUTDOWN IN FLT. ENG
 (WINDMILLED WITH CONTINUOUS OIL
 PRESS OF 5 PSI OR HIGHER, WINDMILLED WITH LESS THAN 5 PSI OIL
 PRESS FOR LESS THAN 30 MIN).
- XP NO. _ ENG WAS SHUTDOWN IN FLT. ENG (OIL PRESS WAS LESS THAN 5 PSI AT SPEED IN EXCESS OF WINDMILLING, OIL PRESS WAS LESS THAN 5 PSI. BEFORE ENG DECEL TO WINDMILL SPEED, WAS OPERATED AT OR ABOVE IDLE PWR WITH OIL PRESS LESS THAN 5 PSI).
- XQ NO. _ ENG WAS SHUTDOWN IN FLT. ENG WINDMILLED WITH LESS THAN 5 PSI OIL PRESS FOR MORE THAN 30 MIN.
 - 8 ENGINE OIL FAULTS NOT LISTED
- OO FAULT NOT LISTED, DESCRIBE IN DETAIL.

POT TO BE USED FOR REPL TROUBLESHOOTINE

SAMPLE

ENGINE OIL - LOG BOOK REPORTS

PREREQUISITES: ENGINE OPERATION



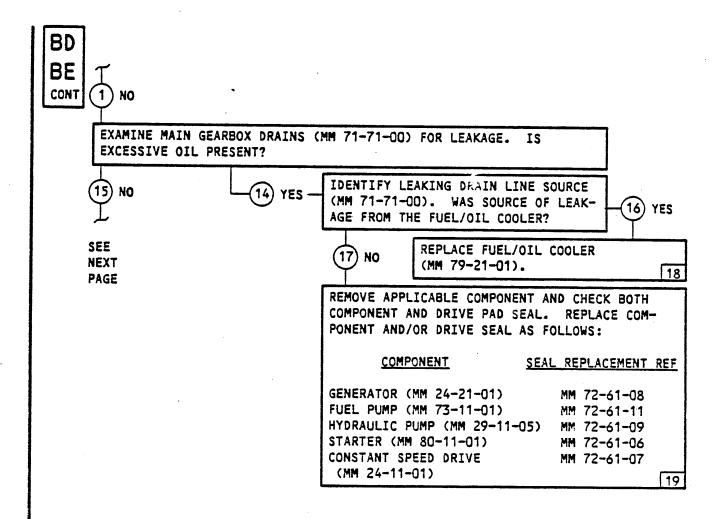
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SPAPLE

7901 - ENGINE OIL FAULT ISOLATION

EFFECTIVITY
ALL 755

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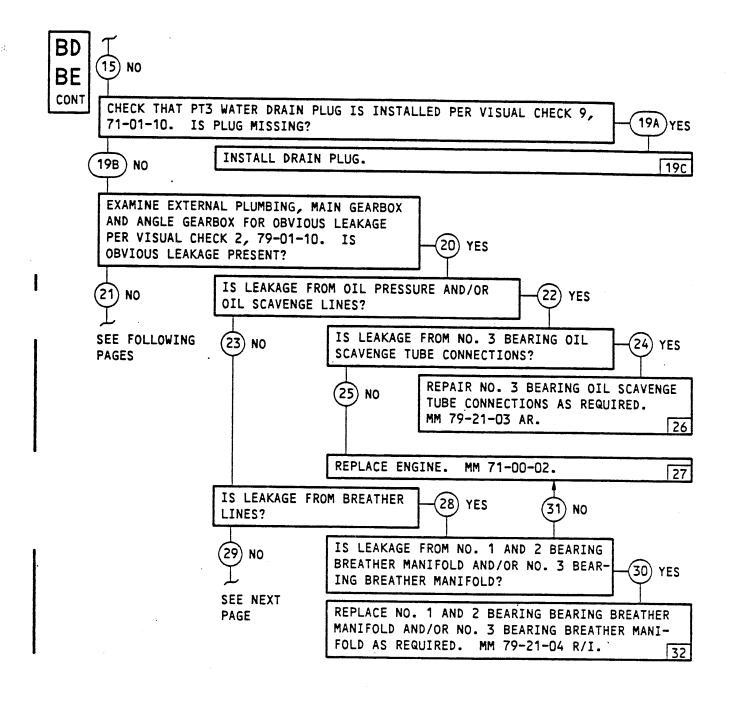
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SPAPLE

7901 - ENGINE OIL FAULT ISOLATION

EFFECTIVITY ALL

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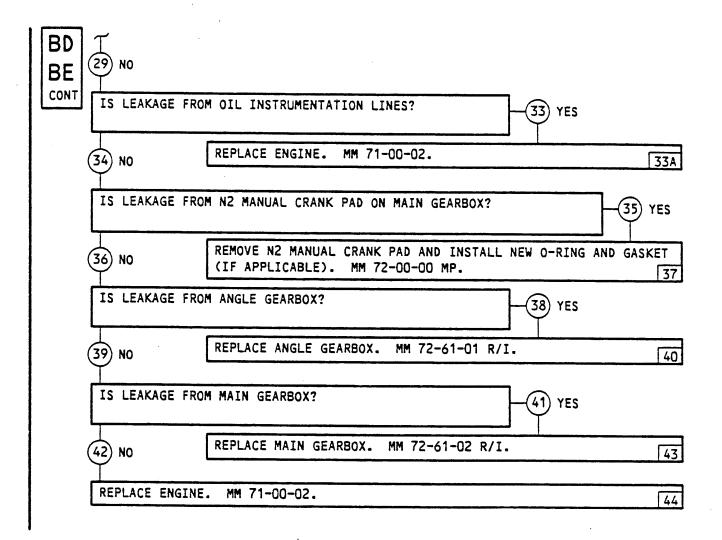
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SAMPLE

ENGINE OIL FAULT ISOLATION

EFFECTIVITY
ALL 735

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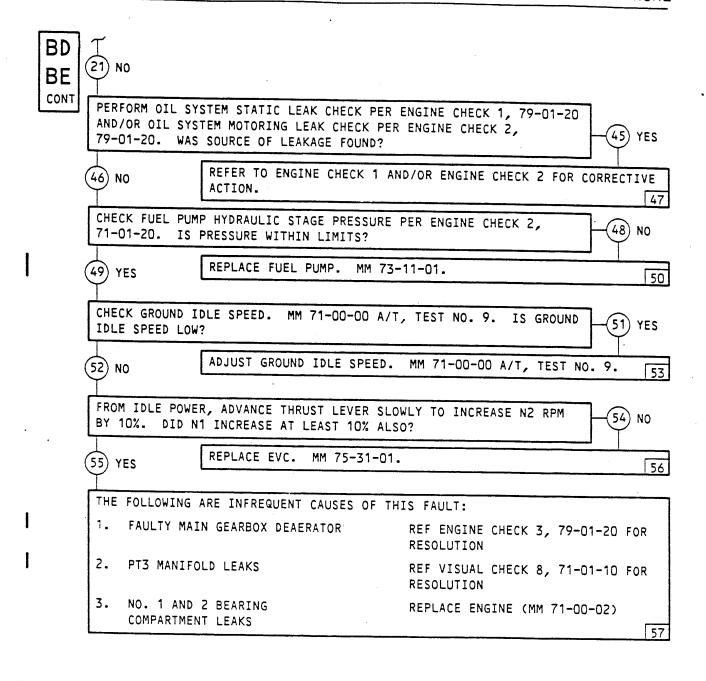
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SPUPLY

ENGINE OIL FAULT ISOLATION

EFFECTIVITY
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POR REAL TROUBLESHOOTING

SAMPEG

7901 - ENGINE OIL FAULT ISOLATION

EFFECTIVITY
ALL 735

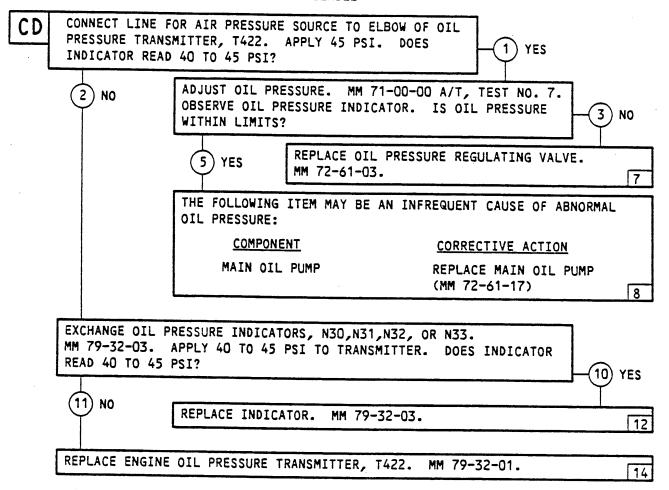
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SAMPLY

PREREQUISITES: 26V AC POWER AVAILABLE



NOT TO BE USED FOR

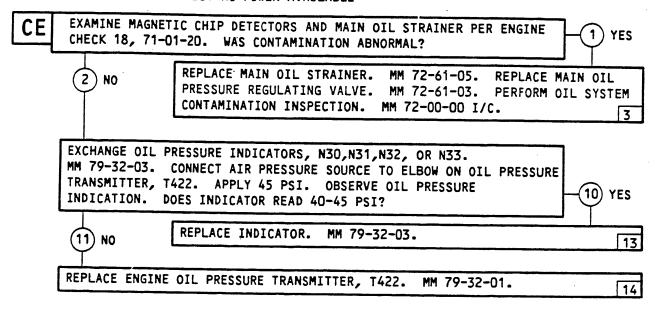
SAMBLE

Feb 15/84

ENGINE OIL FAULT ISOLATION

EFFECTIVITY

79-01-00 Page 212 PREREQUISITES: 28V AC POWER AVAILABLE



NOT TO BE USED FOR REAL TROUBLESHOOTING

SPARCE

ENGINE OIL FAULT ISOLATION

EFFECTIVITY ALL

79-01-00 Page 213 Feb 15/84

DD	EXAMINE FUEL/ EVIDENCE OF O	OIL COOLER INLET AND DISCHARGE PORTS. IS THERE BSTRUCTION?	
	1 YES	REPLACE FUEL/OIL COOLER FLOW CONTROL THERMOSTAT (BY VALVE). MM 79-21-05.	PASS 7
	CAN OBSTRUCTION	ON BE REMOVED?	4 NO
	5 YES	CLEAN OR REPLACE FUEL/OIL COOLER. MM 79-21-01.	9
	REMOVE OBSTRUC	TION AND CLEAN FUEL/OIL COOLER.	10
	PREREQUISITES:	26V AC POWER AVAILABLE	
DE	CONNECTOR, T41	NECTOR FROM OIL TEMPERATURE BULB ELECTRICAL O. ATTACH DECADE RESISTOR TO PINS 1 AND 3 OF TED FROM BULB. SET DECADE RESISTOR TO THE ES:	
		<u>ISTOR OHMS</u> <u>INDICATOR READING</u> 129	-
	OBSERVE OIL TE	170 ± 4°C	— 1 YES
1	2 NO	REPLACE OIL TEMPERATURE BULB T410. MM 79-34-01.	4
	REPLACE OIL TE	MPERATURE INDICATOR N18,N19,N20 OR N21. MM 79-34-02.	6

NOT TO BE USEN
FOR REAL TROUBLESHOOTING

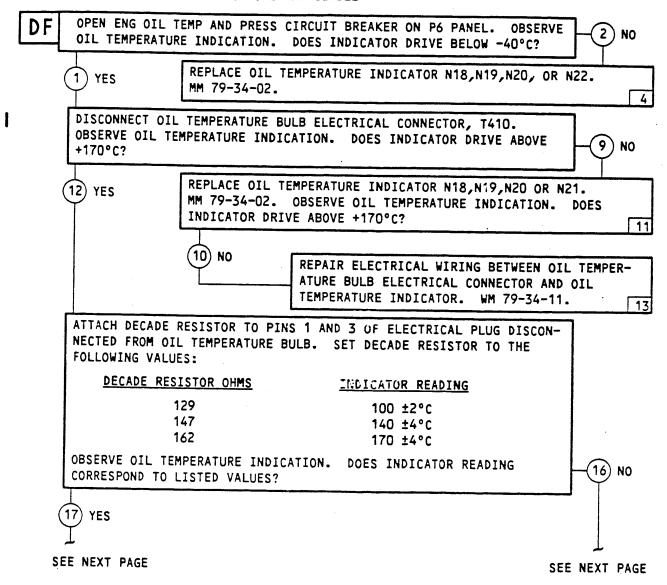
SPURLE

ENGINE OIL FAULT ISOLATION

EFFECTIVITY
ALL 702

79-01-00

PREREQUISITES: 26V AC POWER AVAILABLE



REAL TROUBLESHOOTING

SAMPLE

ENGINE OIL FAULT ISOLATION

702

EFFECTIVITY ALL

79-01-00 Page 215 Feb 15/85 DF T CONT (17) YES

T 16) NO

REPLACE OIL TEMPERATURE INDICATOR N18,N19,N20, OR N21.
MM 79-34-02. ATTACH DECADE RESISTOR TO PINS 1 AND 3 OF
ELECTRICAL PLUG DISCONNECTED FROM OIL TEMPERATURE BULB. SET
DECADE RESISTOR TO THE FOLLOWING VALUES:

DECADE RESISTOR OHMS	INDICATOR READING
. 129	100 ±2°c
147	140 ±4°C
162	170 +4°c

OBSERVE OIL TEMPERATURE INDICATION. DOES INDICATOR READING CORRESPOND TO LISTED VALUES?

-(22) NO

REPAIR ELECTRICAL WIRING BETWEEN OIL TEMPERATURE BULB ELECTRICAL CONNECTOR T426 AND OIL TEMPERATURE INDICATOR. WM 79-34-11.

MEASURE TEMPERATURE OF FUEL/OIL COOLER ADJACENT TO OIL TEMPERATURE BULB. MEASURE RESISTANCE BETWEEN ELECTRICAL TERMINALS ON BULB T426. RESISTANCE SHOULD BE AS FOLLOWS:

TEMPERATURE (°C)	OHMS RESISTANCE
- 20	83.77 ±0.40
- 10	87.04 ±0.40
0	90.38 ±0.40
10	93.80 ±0.40
20	97.31 ±0.40
30	100.91 ±0.40
40	104.60 ±0.40
50	108.39 ±0.40
60	112.28 ±0.50
70	116.27 ±0.50

INTERPOLATE RESISTANCE VALUES FOR TEMPERATURES BETWEEN THOSE GIVEN. DO TEMPERATURE AND RESISTANCE VALUES AGREE?

(26) NO

27) YES

REPLACE OIL TEMPERATURE BULB T426. MM 79-34-01.

29

REPLACE FUEL/OIL COOLER FLOW CONTROL THERMOSTAT (BYPASS VALVE). MM 79-21-05.

30

not to be usen

FOR REAL

TROUBLESHOOTING ENGINE OIL FAULT ISOLATION

SAMPLY

EFFECTIVITY

ALL

702

79-01-00

Jun 15/84

XJ	EXAMINE MAGNETIC PLUGS AND MAIN OIL STRAINER PER ENGINE CHECK 18, 71-01-20. WAS CONTAMINATION ABNORMAL?
XK	PERFORM OIL SYSTEM CONTAMINATION INSPECTION. MM 72-00-00 I/C. 3
	REPLACE MAIN OIL STRAINER. MM 72-61-05. IF FAULT PERSISTS - REPLACE OIL FILTER DIFFERENTIAL PRESSURE SWITCH. MM 79-35-01.
	PREREQUISITES: 26V AC POWER AVAILABLE
XL	EXCHANGE OIL TEMPERATURE INDICATORS N18, N19, N20 OR N21. MM 79-34-02. OBSERVE OIL TEMPERATURE INDICATION AND COMPARE WITH OTHER ENGINES. IS OIL TEMPERATURE INDICATION WITHIN LIMITS? 1 YES
	2 NO REPLACE FAULTY OIL TEMPERATURE INDICATOR. MM 79-34-02.
	CLOSE ENG OIL TEMP & PRESS CIRCUIT BREAKER ON P6 PANEL. DOES OIL TEMPERATURE INDICATOR POINTER CLIMB TO MAXIMUM (HIGH) STOP?
	6 NO SEE NEXT PAGE
	REMOVE OIL TEMPERATURE INDICATOR N18,N19,N20 OR N21. MM 79-34-02. CHECK VOLTAGE AT SOCKETS 3 AND 4 OF PLUG DISCONNECTED FROM INDI- CATOR. IS 26V AC PRESENT?
	PRESS CIRCUIT BREAKER ON P6 PANEL. WM 79-34-11.
	INSTALL OIL TEMPERATURE INDICATOR. MM 79-34-02. REMOVE ELECTRI- CAL PLUG FROM OIL TEMPERATURE BULB T410. OBSERVE OIL TEMPERATURE INDICATION. DOES INDICATION GO TO MAXIMUM (HIGH) STOP?
	14) NO REPLACE OIL TEMPERATURE BULB T410. MM 79-34-01.
	REPAIR SHORT IN WIRING BETWEEN OIL TEMPERATURE INDICATOR N18,N19,N20 OR N21 AND OIL TEMPERATURE BULB T410. WM 79-34-11.
	REAL TROJBLESHOOTING

ENGINE OIL FAULT ISOLATION

EFFECTIVITY 707

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CONT YES DISCONNECT ELECTRICAL PLUG FROM OIL TEMPERATURE BULB T410. INSTALL JUMPER BETWEEN PINS 1 AND 3 OF PLUG DISCONNECTED FROM BULB. OBSERVE OIL TEMPERATURE INDICATION. DOES INDICATION GO (21) YES TO LOW (-40°C) STOP? REPLACE OIL TEMPERATURE BULB T410. MM 79-34-01. (20) NO 22 REPAIR OPEN CIRCUIT IN WIRING BETWEEN OIL TEMPERATURE INDICATOR N18,N19,N20 OR N21 AND OIL TEMPERATURE BULB T410. WM 79-34-11. 24 PREREQUISITES: 26V AC POWER AVAILABLE EXCHANGE OIL TEMPERATURE INDICATORS N18, N19, N20 OR N21. XM MM 79-34-02. OBSERVE OIL TEMPERATURE INDICATION. DOES INDICATOR 2) NO POINTER FLUCTUATE? REPLACE FAULTY OIL TEMPERATURE INDICATOR. MM 79-34-02. 4 1) YES EXCHANGE OIL TEMPERATURE BULB T410 WITH AN OPERABLE UNIT. MM 79-34-01. OBSERVE OIL TEMPERATURE INDICATION. DOES INDICATOR 6) NO POINTER FLUCTUATE? REPLACE OIL TEMPERATURE BULB T410. 8 7) YES DISCONNECT ELECTRICAL PLUG FROM OIL TEMPERATURE INDICATOR. MEASURE RESISTANCE BETWEEN SOCKETS 5 AND 6 OF PLUG DISCONNECTED 10) NO FROM INDICATOR. IS RESISTANCE 100 ±20 OHMS? REPAIR AIRPLANE WIRING BETWEEN OIL TEMPERATURE BULB T410 AND (12) YES OIL TEMPERATURE INDICATOR N18,N19,N20 OR N21. WM 79-34-11. 15 REPAIR ENGINE WIRING BETWEEN SPLICE (SM1) AND GROUND STRIP (T317) AND REPAIR OR REPLACE DISCONNECTED ELECTRICAL PLUG. WM 79-34-11. BE USE 10 FOR TROJ BLESNOOTING ENGINE OIL FAULT ISOLATION

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