HIGHLIGHTS

REVISION NO. 54 May 01/08

Pages which have been revised are outlined below, together with the Highlights of the Revision

CH/SE/SU C PAGES	REASON FOR CHANGE	EFFECTIVITY
CHAPTER 79		
L.E.P. 1- 1	REVISED TO REFLECT THIS REVISION INDICATING NEW,REVISED, AND/OR DELETED PAGES	
79-00-00	EFFECTIVITY UPDATED	
202- 203, 242- 243	EFFECTIVITY UPDATED (THROUGHOUT THE TEXT)	201-225, 227-227, 229-275, 426-475, 551-599, 701-749,
79-40-00	EFFECTIVITY UPDATED	
202- 203, 207- 208	EFFECTIVITY UPDATED (THROUGHOUT THE TEXT)	201-225, 227-227, 229-275, 426-475, 551-599, 701-749,

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CHAPTER 79

OIL

LIST OF EFFECTIVE PAGES

N, R or D indicates pages which are New, Revised or Deleted respectively
Remove and insert the affected pages and complete the Record of Revisions and the Record of Temporary Revisions as necessary

CH/SE/SU	C	PAGE	DATE
RECORD			
OF TEMP.			
REVISION			
L.E.P.	R	1- 1	May01/08
T. of C.		1	Nov01/07
T. of C.		2	Aug01/06
T. of C.		3	Nov01/07
79-OBSV		101	Nov01/07
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R	ENG 1 - Amber XX instead of the oil quantity indication					790000 P 216 T 810 812
R	ENG 1 - Amber XX instead of the oil temp indication					790000 P 218 T 810 815
R	ENG 1 - Oil pressure indication flashes green					790000 P 206 T 810 807
R	ENG 1 - Oil pressure indication higher than the other engine					790000 P 230 T 810 823
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	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
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R	ENG 2 - Amber XX instead of the oil quantity indication					790000 P 216 T 810 812
R	ENG 2 - Amber XX instead of the oil temp indication					790000 P 218 T 810 815
R	ENG 2 - Oil pressure indication flashes green					790000 P 209 T 810 808
R	ENG 2 - Oil pressure indication higher than the other engine					790000 P 230 T 810 823
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R	ENG 2 - Oil quantity decreases faster than the other engine					790000 P 223 T 810 819
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R	ENG1 Oil - High oil consumption					790000 P 220 T 810 818

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
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R	ENG2 Oil - High oil consumption					790000 P 223 T 810 819

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
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		IDENT: ECAM 2				
R R		ECAM 1	SDAC1 : ENG1 OIL PRESS XMTR 4003EN	793315	3	315400 P 223 T 810 827
		ECAM 1	SDAC1 : ENG1 OIL QTY XMTR 4002EN	793115	3	315400 P 215 T 810 823
		ECAM 1	SDAC1 : ENG2 OIL PRESS XMTR 4003EN	793315	2	315400 P 225 T 810 829
		IDENT: ECAM 2				
R R		ECAM 1	SDAC1 : ENG2 OIL PRESS XMTR 4003EN	793315	3	315400 P 225 T 810 829
		ECAM 1	SDAC1 : ENG2 OIL PRESS XMTR 4004EN	793315	2	315400 P 225 T 810 829
		IDENT: ECAM 2				
		ECAM 1	SDAC1 : ENG2 OIL QTY XMTR 4002EN	793115	3	315400 P 219 T 810 825
		ECAM 1	SDAC2 : ENG1 OIL PRESS XMTR 4003EN	793315	2	315400 P 224 T 810 828
		IDENT: ECAM 2				
R R		ECAM 1	SDAC2 : ENG1 OIL PRESS XMTR 4003EN	793315	3	315400 P 224 T 810 828
		ECAM 1	SDAC2 : ENG1 OIL QTY XMTR 4002EN	793115	3	315400 P 217 T 810 824
		ECAM 1	SDAC2 : ENG2 OIL PRESS XMTR 4003EN	793315	2	315400 P 226 T 810 830
		IDENT: ECAM 2				

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
R R		ECAM 1	SDAC2 : ENG2 OIL PRESS XMTR 4003EN	793315	3	315400 P 226 T 810 830
		ECAM 1	SDAC2 : ENG2 OIL PRESS XMTR 4004EN	793315	2	315400 P 226 T 810 830
		IDENT: ECAM 2				
		ECAM 1	SDAC2 : ENG2 OIL QTY XMTR 4002EN	793115	3	315400 P 221 T 810 826
		ECAM 2	SDAC1 : ENG1 OIL PRESS XMTR 4003EN	793315	2	315400 P 223 T 810 827
		IDENT: ECAM 1				
R R		ECAM 2	SDAC1 : ENG1 OIL PRESS XMTR 4003EN	793315	3	315400 P 223 T 810 827
		ECAM 2	SDAC1 : ENG1 OIL QTY XMTR 4002EN	793115	3	315400 P 215 T 810 823
		ECAM 2	SDAC1 : ENG2 OIL PRESS XMTR 4003EN	793315	2	315400 P 225 T 810 829
		IDENT: ECAM 1				
R R		ECAM 2	SDAC1 : ENG2 OIL PRESS XMTR 4003EN	793315	3	315400 P 225 T 810 829
		ECAM 2	SDAC1 : ENG2 OIL PRESS XMTR 4004EN	793315	2	315400 P 225 T 810 829
		IDENT: ECAM 1				
		ECAM 2	SDAC1 : ENG2 OIL QTY XMTR 4002EN	793115	3	315400 P 219 T 810 825
		ECAM 2	SDAC2 : ENG1 OIL PRESS XMTR 4003EN	793315	2	315400 P 224 T 810 828
		IDENT: ECAM 1				
R R		ECAM 2	SDAC2 : ENG1 OIL PRESS XMTR 4003EN	793315	3	315400 P 224 T 810 828

WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
	SOURCE	MESSAGE	ATA	C	
	ECAM 2	SDAC2 : ENG1 OIL QTY XMTR 4002EN	793115	3	315400 P 217 T 810 824
	ECAM 2	SDAC2 : ENG2 OIL PRESS XMTR 4003EN	793315	2	315400 P 226 T 810 830
	IDENT: ECAM 1				
R R	ECAM 2	SDAC2 : ENG2 OIL PRESS XMTR 4003EN	793315	3	315400 P 226 T 810 830
	ECAM 2	SDAC2 : ENG2 OIL PRESS XMTR 4004EN	793315	2	315400 P 226 T 810 830
	IDENT: ECAM 1				
	ECAM 2	SDAC2 : ENG2 OIL QTY XMTR 4002EN	793115	3	315400 P 221 T 810 826
	EIU1FAD	CHECK OIL PRESS XMTR1 CIRCUIT 4003EN	793315	2	790000 P 233 T 810 824
	EIU1FAD	CHECK OIL QTY XMTR1 CIRCUIT 4002EN	793115	1	790000 P 216 T 810 812
	EIU1FAD	EOT SNSR, J13, ECU ENG1A	793140	S	793100 P 201 T 810 811
	EIU1FAD	EOT SNSR, J13, ECU ENG1A	793140	2	793100 P 201 T 810 811
	IDENT: EIU1FAD				
	EIU1FAD	EOT SNSR, J13, ECU ENG1B	793140	S	793100 P 207 T 810 817
	EIU1FAD	EOT SNSR, J13, ECU ENG1B	793140	2	793100 P 207 T 810 817
	IDENT: EIU1FAD				
	EIU1FAD	IDG, FRV(OIL TEMP) ENG1A	794000	S	794000 P 201 T 810 801
	EIU1FAD	OIL PRESS XMTR1 4003EN OR LOW PRESS 1SW 4001EN	793315	3	793300 P 201 T 810 807

WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
	SOURCE	MESSAGE	ATA	C	
	EIU2FAD	CHECK OIL PRESS XMTR2 CIRCUIT 4003EN	793315	2	790000 P 233 T 810 824
	EIU2FAD	CHECK OIL QTY XMTR2 CIRCUIT 4002EN	793115	1	790000 P 216 T 810 812
	EIU2FAD	EOT SNSR, J13, ECU ENG2A	793140	S	793100 P 204 T 810 812
	EIU2FAD	EOT SNSR, J13, ECU ENG2A	793140	2	793100 P 204 T 810 812
	IDENT: EIU2FAD				
	EIU2FAD	EOT SNSR, J13, ECU ENG2B	793140	S	793100 P 210 T 810 818
	EIU2FAD	EOT SNSR, J13, ECU ENG2B	793140	2	793100 P 210 T 810 818
	IDENT: EIU2FAD				
	EIU2FAD	IDG, FRV(OIL TEMP) ENG2A	794000	S	794000 P 206 T 810 802
	EIU2FAD	IDG, FRV(OIL TEMP) ENG2B	794000	S	794000 P 206 T 810 802
	EIU2FAD	OIL PRESS XMTR2 4003EN OR LOW PRESS2 SW 4001EN	793315	3	793300 P 203 T 810 808

TASK 79-00-00-810-805

Abnormal Oil Temperature on Engine 1 or on Engine 2

1. Possible Causes

- EIU-1 (1KS1)
R - IDG, FRV(Oil Temp)
R - L (R) OUT TEMP SENSOR (30QJ1(30QJ2))
R - L (R) INN TEMP SENSOR (29QJ1(29QJ2))
R - L (R) LO LEVEL SENSOR (38QJ1(38QJ2))
R - L(R) SURGE SENSOR (28QJ1(28QJ2))
R - FLSCU-1 (2) (7QJ (9QJ))
- oil/fuel heat exchanger
- SENSOR-OIL TEMP (4004EN)
- aircraft wiring
R - IDG, FRV(Oil temp)

2. Job Set-up Information

A. Referenced Information

	REFERENCE	DESIGNATION
R	28-46-00-810-812	L(R) Surge Tank Overflow Sensor 28QJ1(2)
R	28-46-00-810-813	L(R) Inner Temperature Sensor 29QJ1(2)
R	28-46-00-810-814	L(R) Outer Temperature Sensor 30QJ1(2)
R	28-46-00-810-815	L(R) IDG Shut Off Sensor 38QJ1(2)
R	28-46-00-810-818	FLSCU1(2) 7QJ(9QJ)
	AMM 71-51-43-000-001	Removal of the Left Side Harness (4216KS)
	AMM 71-51-43-400-001	Installation of the Left Side Harness (4216KS)
	AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
	AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
	AMM 79-21-10-210-002	Check of the Lubrication Unit Magnetic Plugs and Screens
	AMM 79-21-20-000-002	Removal of the Main Oil/Fuel Heat Exchanger
	AMM 79-21-20-400-002	Installation of the Main Oil/Fuel Heat Exchanger
	AMM 79-32-15-000-041	Removal of the Oil Temperature Sensor (Engine Condition Monitoring Sensor)
	AMM 79-32-15-400-041	Installation of the Oil Temperature Sensor (Engine Condition Monitoring Sensor)
	ASM 79-36/01	

3. Fault Confirmation

A. Test
Not applicable.

4. Fault Isolation

R **ON A/C 201-225, 227-227, 229-275, 426-475, 551-599, 701-749,

A. Procedure.

NOTE : The fault is triggered if:
-the oil temperature was between 140 and 155 deg. C for at least 15 minutes or has exceeded 155 deg. C.
Continuous operation with abnormal IDG high oil temperature may also cause engine oil temperature exceedance.

(1) Do a check of the PFR and the SMR for ECAM status EIU and/or for failure messages:

(a) If the failure message IDG, FRV(Oil Temp) is displayed:
- do the applicable trouble shooting procedure (TSM CFDS chapter 79).

(b) If one of the following failure messages relative to fuel system elements is displayed:

1 FUEL LEVEL SENSING L OUT TEMP SENSOR 30QJ1 or FUEL LEVEL SENSING R OUT TEMP SENSOR 30QJ2
- do the applicable trouble shooting procedure for L (R) OUT TEMP SENSOR (30QJ1(30QJ2)) (Ref. TASK 28-46-00-810-814).

2 FUEL LEVEL SENSING L INN TEMP SENSOR 29QJ1 or FUEL LEVEL SENSING R INN TEMP SENSOR 29QJ2
- do the applicable trouble shooting procedure for L (R) INN TEMP SENSOR (29QJ1(29QJ2)) (Ref. TASK 28-46-00-810-813).

3 FUEL LEVEL SENSING L LO LEVEL SENSOR 38QJ1 or FUEL LEVEL SENSING R LO LEVEL SENSOR 38QJ2
- do the applicable trouble shooting procedure for L (R) LO LEVEL SENSOR (38QJ1(38QJ2)) (Ref. TASK 28-46-00-810-815).

4 FUEL LEVEL SENSING L SURGE SENSOR 28QJ1 or FUEL LEVEL SENSING R SURGE SENSOR28QJ2
- do the applicable trouble shooting procedure for L(R) SURGE SENSOR (28QJ1(28QJ2)) (Ref. TASK 28-46-00-810-812).

5 FUEL LEVEL SENSING FLSCU1 7QJ or FUEL LEVEL SENSING FLSCU2 9QJ
- do the applicable trouble shooting procedure for FLSCU-1 (2) (7QJ (9QJ)) (Ref. TASK 28-46-00-810-818).

(2) If the IDG oil was also too high and/or if the warning IDG OIL OVHT has been triggered:
- do the trouble shooting of the IDG per applicable TSM for abnormal IDG oil temperature.

(3) If nothing is found or no warning IDG OIL OVHT was triggered:
- do a check of the lubrication unit magnetic plugs and screens for particles (Ref. AMM TASK 79-21-10-210-002).
- get a sample of oil from the engine oil tank

(a) if you can smell fuel presence in the oil:
- replace the oil/fuel heat exchanger (Ref. AMM TASK 79-21-20-000-002) and (Ref. AMM TASK 79-21-20-400-002).

(b) if you cannot smell fuel presence in the oil:
- do an oil analysis to make sure that the engine oil tank was not serviced with a non approved product.

1 If nothing is found:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(4) If the fault continues:
- replace the SENSOR-OIL TEMP (4004EN) (Ref. AMM TASK 79-32-15-000-041) and (Ref. AMM TASK 79-32-15-400-041).

(5) If the fault continues:
- Check carrefully electrical connector at the oil temperature sensor (4004EN) for looseness, damaged pins or contamination.

(a) If damage is found:
- repair or replace as necessary.

(b) If nothing is found:
- do a check of the aircraft wiring between the oil temperature sensor (4004EN) and the EIU (1KS1) for open or short to ground (Ref. ASM 79-36/01) pin AA/1 to pin AA/10F. Pay particular attention to engine to pylon connectors 4005VC-A, 405VC-A, 4006VC-A and 406VC-A and to ground wire connections (9951DC, 9956DC and 9957DC) on Engine Fan Case (check for looseness or contamination).

1 if damage is found:
- repair or replace the harness as necessary (Ref. AMM TASK 71-51-43-000-001) and (Ref. AMM TASK 71-51-43-400-001).

2 if nothing is found:
- repeat the fault isolation procedure.

R **ON A/C 276-299, 476-499, 503-549,

R A. Procedure.

R NOTE : The fault is triggered if:
R -the oil temperature was between 140 and 155 deg. C for at least
R 15 minutes or has exceeded 155 deg. C.
R Continuous operation with abnormal IDG high oil temperature may
R also cause engine oil temperature exceedance.

R (1) Do a check of the PFR and the SMR for ECAM status EIU and/or for
R failure messages:

R (a) If the failure message IDG, FRV(Oil temp) is displayed:
R - do the applicable trouble shooting procedure (TSM CFDS chapter
R 79).

R (b) If one of the following failure messages relative to fuel system
R elements is displayed:

R 1 FUEL LEVEL SENSING L TEMP SENSOR 29QJ1 or FUEL LEVEL SENSING R
R TEMP SENSOR 29QJ2
R - do the applicable trouble shooting procedure for L (R) INN
R TEMP SENSOR (29QJ1(29QJ2)) (Ref. TASK 28-46-00-810-813).

R 2 FUEL LEVEL SENSING L LO LEVEL SENSOR 38QJ1 or FUEL LEVEL
R SENSING R LO LEVEL SENSOR 38QJ2
R - do the applicable trouble shooting procedure for L (R) LO
R LEVEL SENSOR (38QJ1(38QJ2)) (Ref. TASK 28-46-00-810-815).

R 3 FUEL LEVEL SENSING L SURGE SENSOR 28QJ1 or FUEL LEVEL SENSING
R R SURGE SENSOR28QJ2
R - do the applicable trouble shooting procedure for L(R) SURGE
R SENSOR (28QJ1(28QJ2)) (Ref. TASK 28-46-00-810-812).

R 4 FUEL LEVEL SENSING FLSCU1 7QJ or FUEL LEVEL SENSING FLSCU2 9QJ
R - do the applicable trouble shooting procedure for FLSCU-1 (2)
R (7QJ (9QJ)) (Ref. TASK 28-46-00-810-818).

R (2) If the IDG oil was also too high and/or if the warning IDG OIL OVHT
R has been triggered:
R - do the trouble shooting of the IDG per applicable TSM for abnormal
R IDG oil temperature.

R (3) If nothing is found or no warning IDG OIL OVHT was triggered:
R - do a check of the lubrication unit magnetic plugs and screens for
R particles (Ref. AMM TASK 79-21-10-210-002).
R - get a sample of oil from the engine oil tank

R (a) if you can smell fuel presence in the oil:
R - replace the oil/fuel heat exchanger (Ref. AMM TASK 79-21-20-000-002) and (Ref. AMM TASK 79-21-20-400-002).

R (b) if you cannot smell fuel presence in the oil:
R - do an oil analysis to make sure that the engine oil tank was not serviced with a non approved product.

R 1 If nothing is found:
R - replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

R (4) If the fault continues:
R - replace the SENSOR-OIL TEMP (4004EN) (Ref. AMM TASK 79-32-15-000-041) and (Ref. AMM TASK 79-32-15-400-041).

R (5) If the fault continues:
R - Check carrefully electrical connector at the oil temperature sensor (4004EN) for looseness, damaged pins or contamination.

R (a) If damage is found:
R - repair or replace as necessary.

R (b) If nothing is found:
R - do a check of the aircraft wiring between the oil temperature sensor (4004EN) and the EIU (1KS1) for open or short to ground (Ref. ASM 79-36/01) pin AA/1 to pin AA/10F. Pay particular attention to engine to pylon connectors 4005VC-A, 405VC-A, 4006VC-A and 406VC-A and to ground wire connections (9951DC, 9956DC and 9957DC) on Engine Fan Case (check for looseness or contamination).

R 1 if damage is found:
R - repair or replace the harness as necessary (Ref. AMM TASK 71-51-43-000-001) and (Ref. AMM TASK 71-51-43-400-001).

R 2 if nothing is found:
R - repeat the fault isolation procedure.

R **ON A/C ALL

B. Test.

(1) Not applicable.

TASK 79-00-00-810-807

Failure of the Oil Pressure Indication on Engine 1

1. Possible Causes

- XMTR-OIL PRESS (4003EN)
- SDAC-1 (1WV1)
- SDAC-2 (1WV2)
- lubrication unit

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM 31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
AMM 71-00-00-000-042	Removal of the Power Plant
AMM 71-00-00-400-042	Installation of the Power Plant
AMM 71-00-00-710-006	Minimum Idle Check
AMM 72-31-00-290-002	Inspection of the High Pressure Compressor Rotor Assembly
AMM 72-56-00-000-001	Removal of the Flame Arrestor and Flange Assembly
AMM 72-56-00-400-001	Installation of the Flame Arrestor and Flange Assembly
AMM 79-00-00-210-002	Walk-around Inspection
AMM 79-00-00-281-002	Check of the Electrical Master Chip Detector for Particles
AMM 79-00-00-281-003	Check of FWD, AFT Sump, AGB, and TGB scavenge screens
AMM 79-21-10-000-004	Removal of the Lubrication Unit
AMM 79-21-10-400-004	Installation of the Lubrication Unit
AMM 79-33-15-000-041	Removal of the Oil Pressure Transmitter (4003EN)
AMM 79-33-15-400-041	Installation of the Oil Pressure Transmitter (4003EN)
AMM 79-35-00-040-042	Replacement of the Main Oil Supply Filter and Check of the Electrical Chip Detector Visual Indicator (pop-out)
ASM 79-36/01	

3. Fault Confirmation

A. Test

(1) Not applicable.

4. Fault Isolation

A. Do a visual inspection of the engine to make sure that there are no leaks (Ref. AMM TASK 79-00-00-210-002) .

(1) Do a check of the electric master magnetic chip detector visual indicator (Ref. AMM TASK 79-35-00-040-042) and the magnetic chip detector (Ref. AMM TASK 79-00-00-281-002) and the scavenge screen plugs (Ref. AMM TASK 79-00-00-281-003).

(a) If you find magnetic particles:
- follow the related instructions per (Ref. AMM TASK 79-00-00-281-002) and NDT Manual (section CHIP ANALYSIS).

(2) If nothing is found:
- do a check for cracks/leaks at oil tank, lubrication, external oil supply and scavenge lines.

(a) If there is sign of heavy oil discharge in the center vent tube:
- replace the engine (Ref. AMM TASK 71-00-00-000-042) and (Ref. AMM TASK 71-00-00-400-042).

(b) If nothing is found:
- do a check of the flame arrestor for clogging.

1 If confirmed:
- clean or replace it (Ref. AMM TASK 72-56-00-000-001) and (Ref. AMM TASK 72-56-00-400-001).

(3) If nothing is found:
- remove the TBG/AGB drain plug and do a check for abnormal oil quantity.

(a) If there is more than one quart:
- do a check for oil scavenge line blockage or replace the lubrication unit (Ref. AMM TASK 79-21-10-000-004) and (Ref. AMM TASK 79-21-10-400-004).

(4) If nothing is found:
- do a borescope inspection of the high pressure compressor stage 1 and 2 to see if they are wet with oil (Ref. AMM TASK 72-31-00-290-002),
- do an inspection of the fan blades and booster stage 1 at 6 o'clock to see if they are wet with oil,
- do an inspection of the frame struts and aft side of stage 4 low pressure blades to see if they are wet with oil.

(a) If there is oil:
- replace the engine (Ref. AMM TASK 71-00-00-000-042) and (Ref. AMM TASK 71-00-00-400-042).

B. If nothing is found:
- Replace the XMTR-OIL PRESS (4003EN) (Ref. AMM TASK 79-33-15-000-041) and (Ref. AMM TASK 79-33-15-400-041).

(1) If the fault continues:
- do a check of the electrical wiring between the ENG1 OIL PRESS XMTR (4003EN), the SDAC1 and the SDAC2 (Ref. ASM 79-36/01).

(2) If the fault continues:
- replace the SDAC-1 (1WV1) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001)

(3) If the fault continues:
- replace the SDAC-2 (1WV2) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001)

C. Do a minimum idle check (Ref. AMM TASK 71-00-00-710-006).

TASK 79-00-00-810-808

Failure of the Oil Pressure Indication on Engine 2

1. Possible Causes

- XMTR-OIL PRESS (4003EN)
- SDAC-1 (1WV1)
- SDAC-2 (1WV2)
- lubrication unit

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM 31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
AMM 71-00-00-000-042	Removal of the Power Plant
AMM 71-00-00-400-042	Installation of the Power Plant
AMM 71-00-00-710-006	Minimum Idle Check
AMM 72-31-00-290-002	Inspection of the High Pressure Compressor Rotor Assembly
AMM 72-56-00-000-001	Removal of the Flame Arrestor and Flange Assembly
AMM 72-56-00-400-001	Installation of the Flame Arrestor and Flange Assembly
AMM 79-00-00-210-002	Walk-around Inspection
AMM 79-00-00-281-002	Check of the Electrical Master Chip Detector for Particles
AMM 79-00-00-281-003	Check of FWD, AFT Sump, AGB, and TGB scavenge screens
AMM 79-21-10-000-004	Removal of the Lubrication Unit
AMM 79-21-10-400-004	Installation of the Lubrication Unit
AMM 79-33-15-000-041	Removal of the Oil Pressure Transmitter (4003EN)
AMM 79-33-15-400-041	Installation of the Oil Pressure Transmitter (4003EN)
AMM 79-35-00-040-042	Replacement of the Main Oil Supply Filter and Check of the Electrical Chip Detector Visual Indicator (pop-out)
ASM 79-36/01	

3. Fault Confirmation

A. Test

(1) Not applicable.

4. Fault Isolation

A. Do a visual inspection of the engine to make sure that there are no leaks (Ref. AMM TASK 79-00-00-210-002) .

(1) Do a check of the electric master magnetic chip detector visual indicator (Ref. AMM TASK 79-35-00-040-042) and the magnetic chip detector (Ref. AMM TASK 79-00-00-281-002) and the scavenge screen plugs (Ref. AMM TASK 79-00-00-281-003).

(a) If you find magnetic particles:
- follow the related instructions per (Ref. AMM TASK 79-00-00-281-002) and NDT Manual (section CHIP ANALYSIS).

(2) If nothing is found:
- do a check for cracks/leaks at oil tank, lubrication, external oil supply and scavenge lines.

(a) If there is sign of heavy oil discharge in the center vent tube:
- replace the engine (Ref. AMM TASK 71-00-00-000-042) and (Ref. AMM TASK 71-00-00-400-042).

(b) If nothing is found:
- do a check of the flame arrestor for clogging.

1 If confirmed:
- clean or replace it (Ref. AMM TASK 72-56-00-000-001) and (Ref. AMM TASK 72-56-00-400-001).

(3) If nothing is found:
- remove the TBG/AGB drain plug and do a check for abnormal oil quantity.

(a) If there is more than one quart:
- do a check for oil scavenge line blockage or replace the lubrication unit (Ref. AMM TASK 79-21-10-000-004) and (Ref. AMM TASK 79-21-10-400-004).

(4) If nothing is found:
- do a borescope inspection of the high pressure compressor stage 1 and 2 to see if they are wet with oil (Ref. AMM TASK 72-31-00-290-002),
- do an inspection of the fan blades and booster stage 1 at 6 o'clock to see if they are wet with oil,
- do an inspection of the frame struts and aft side of stage 4 low pressure blades to see if they are wet with oil.

(a) If there is oil:
- replace the engine (Ref. AMM TASK 71-00-00-000-042) and (Ref. AMM TASK 71-00-00-400-042).

B. If nothing is found:
- Replace the XMTR-OIL PRESS (4003EN) (Ref. AMM TASK 79-33-15-000-041) and (Ref. AMM TASK 79-33-15-400-041).

(1) If the fault continues:
- do a check of the electrical wiring between the ENG2 OIL PRESS XMTR (4003EN), the SDAC1 and the SDAC2 (Ref. ASM 79-36/01).

(2) If the fault continues:
- replace the SDAC-1 (1WV1) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001)

(3) If the fault continues:
- replace the SDAC-2 (1WV2) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001)

C. Do a minimum idle check (Ref. AMM TASK 71-00-00-710-006).

TASK 79-00-00-810-810

Oil Quantity Indication on Engine 1 Higher than on Engine 2

1. Possible Causes

- EIU-1 (1KS1)
- servo fuel heater
- main oil/fuel heat exchanger
- XMTR-OIL QTY (4002EN)
- aircraft wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-00-00-710-006	Minimum Idle Check
AMM 73-11-20-000-002	Removal of the Servo Fuel Heater
AMM 73-11-20-400-002	Installation of the Servo Fuel Heater
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 79-21-20-000-002	Removal of the Main Oil/Fuel Heat Exchanger
AMM 79-21-20-400-002	Installation of the Main Oil/Fuel Heat Exchanger
AMM 79-31-15-000-041	Removal of the oil Quantity Transmitter (4002EN)
AMM 79-31-15-400-041	Installation of the Oil Quantity Transmiter (4002EN)
ASM 79-36/01	

3. Fault Confirmation

A. Test

(1) Not applicable, the fault is evident.

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	ENGINE/ENG1/OIL/QTY	1EN1	N39

B. If the fault symptom is identified by the crew observation: ENG1-oil quantity indication higher than on engine 2:

(1) Do a check for overserviced tank. Drain unwanted oil quantity.

(2) Do a check to make sure that the oil tank level confirms the oil quantity indication on the lower ECAM display unit.

(a) If the check confirms the fault:
- smell the oil for signs of fuel in it.

1 If confirmed:
- replace the servo fuel heater (Ref. AMM TASK 73-11-20-000-002) and (Ref. AMM TASK 73-11-20-400-002)
- replace the main oil/fuel heat exchanger (Ref. AMM TASK 79-21-20-000-002) and (Ref. AMM TASK 79-21-20-400-002).

(b) If the check does not confirm the fault:
- replace the XMTR-OIL QTY (4002EN) (Ref. AMM TASK 79-31-15-000-041) and (Ref. AMM TASK 79-31-15-400-041).

1 If the fault continues:
- do a check and repair the aircraft wiring from the oil quantity transmitter (4002EN) to the SDAC1 (1WV1), SDAC2 (1WV2) and EIU1 (1KS1).

(c) If the oil quantity indication is replaced by amber XX on the lower ECAM display unit:
- do a check for 28VDC at the oil quantity transmitter (4002EN).

1 If there is no 28VDC:
- do a check of the aircraft wiring between the circuit breaker (1EN1) and the oil quantity transmitter (4002EN) (Ref. ASM 79-36/01).

2 If there is 28VDC:
- do a check and repair the aircraft wiring from the oil quantity transmitter (4002EN) to the EIU1 (1KS1): pins AA/3, 4 to pins AA/8F, 8H (Ref. ASM 79-36/01).

a If the fault continues:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

C. Do a minimum idle check (Ref. AMM TASK 71-00-00-710-006).

TASK 79-00-00-810-811

Oil Quantity Indication on Engine 2 Higher than on Engine 1

1. Possible Causes

- EIU-2 (1KS2)
- servo fuel heater
- main oil/fuel heat exchanger
- XMTR-OIL QTY (4002EN)
- aircraft wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-00-00-710-006	Minimum Idle Check
AMM 73-11-20-000-002	Removal of the Servo Fuel Heater
AMM 73-11-20-400-002	Installation of the Servo Fuel Heater
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 79-21-20-000-002	Removal of the Main Oil/Fuel Heat Exchanger
AMM 79-21-20-400-002	Installation of the Main Oil/Fuel Heat Exchanger
AMM 79-31-15-000-041	Removal of the oil Quantity Transmitter (4002EN)
AMM 79-31-15-400-041	Installation of the Oil Quantity Transmiter (4002EN)
ASM 79-36/01	

3. Fault Confirmation

A. Test

(1) Not applicable, the fault is evident.

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	ENGINE/ENG2/OIL/QTY	1EN2	N41

B. If the fault symptom is identified by the crew observation: ENG2-oil quantity indication higher that on engine 1:

(1) Do a check for overserviced tank. Drain unwanted oil quantity.

(2) Do a check to make sure that the oil tank level confirms the oil quantity indication on the lower ECAM display unit.

(a) If the check confirms the fault:
- smell the oil for signs of fuel in it.

1 If confirmed:
- replace the servo fuel heater (Ref. AMM TASK 73-11-20-000-002) and (Ref. AMM TASK 73-11-20-400-002)
- replace the main oil/fuel heat exchanger (Ref. AMM TASK 79-21-20-000-002) and (Ref. AMM TASK 79-21-20-400-002).

(b) If the check does not confirm the fault:
- replace the XMTR-OIL QTY (4002EN) (Ref. AMM TASK 79-31-15-000-041) and (Ref. AMM TASK 79-31-15-400-041).

1 If the fault continues:
- do a check and repair the aircraft wiring from the oil quantity transmitter (4002EN) to the SDAC1 (1WV1), SDAC2 (1WV2) and EIU2 (1KS2).

(c) If the oil quantity indication is replaced by amber XX on the lower ECAM display unit:
- do a check for 28VDC at the oil quantity transmitter (4002EN).

1 If there is no 28VDC:
- do a check of the aircraft wiring between the circuit breaker (1EN2) and the oil quantity transmitter (4002EN) (Ref. ASM 79-36/01).

2 If there is 28VDC:
- do a check and repair the aircraft wiring from the oil quantity transmitter (4002EN) to the EIU2 (1KS2): pins AA/3, 4 to pins AA/8F, 8H (Ref. ASM 79-36/01).

a If the fault continues:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

C. Do a minimum idle check (Ref. AMM TASK 71-00-00-710-006).

TASK 79-00-00-810-812

Oil Quantity Indication Replaced by Amber XX/Loss or fluctuation of the Oil Quantity Indication on Engine 1 or 2

1. Possible Causes

- XMTR-OIL QTY (4002EN)
- SDAC-1 (1WV1)
- SDAC-2 (1WV2)
- wiring
- EIU-1(2) (1KS1(2))

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM 31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU)
AMM 79-31-15-000-041	Removal of the oil Quantity Transmitter (4002EN)
AMM 79-31-15-400-041	Installation of the Oil Quantity Transmiter (4002EN)
ASM 79-36/01	

3. Fault Confirmation

A. Test

(1) Not applicable.

NOTE : It is normal that the oil quantity indication displayed on the ECAM can be subjected to variations/fluctuations. This phenomenon linked to gulping of oil in the tank is sensible during engine start, after engine power significant variations (ie TOGA), in that case it is inappropriate to perform trouble shooting for oil quantity indication failure. In the opposite, if the variations/fluctuations are experienced on ground when engine is not running or for engine stabilized operation, trouble shooting has to be performed.

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	ENGINE/ENG2/OIL/QTY	1EN2	N41
121VU	ENGINE/ENG1/OIL/QTY	1EN1	N39

B. Replace the XMTR-OIL QTY (4002EN) (Ref. AMM TASK 79-31-15-000-041) and (Ref. AMM TASK 79-31-15-400-041).

(1) If the fault continues:
- do a check and repair the electrical wiring between the oil quantity transmitter (4002EN), the EIU1(2) (1KS1(2)), the SDAC1 and the SDAC2 (Ref. ASM 79-36/01).

(2) If nothing is found:
- do a check of the electrical grounding of the oil quantity transmitter (4002EN) at the ground terminal on engine fan case (Ref. ASM 79-36/01).

(3) If nothing is found:
- do a check of the electrical wiring between the oil quantity transmitter (4002EN) and the circuit breaker 1EN1 or 1EN2 (Ref. ASM 79-36/01).
- repair the wiring or replace the circuit breaker as required.

(4) If the fault continues:
- replace the SDAC-1 (1WV1) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001)

(5) If the fault continues:
- replace the SDAC-2 (1WV2) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001)
- repair the wiring or replace the circuit breaker as required.

(6) If the fault continues:
- replace the EIU-1(2) (1KS1(2)) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

C. No additional maintenance action is required if the fault is not confirmed.

(1) Repeat the fault isolation procedure if the fault continues.

TASK 79-00-00-810-815

Loss of the Oil Temperature Indication on Engine 1 or 2

1. Possible Causes

- EIU-1 (1KS1)
- SENSOR-OIL TEMP (4004EN)
- aircraft wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 71-51-43-000-001	Removal of the Left Side Harness (4216KS)
AMM 71-51-43-400-001	Installation of the Left Side Harness (4216KS)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 79-32-15-000-041	Removal of the Oil Temperature Sensor (Engine Condition Monitoring Sensor)
AMM 79-32-15-400-041	Installation of the Oil Temperature Sensor (Engine Condition Monitoring Sensor)
ASM 79-36/01	

3. Fault Confirmation

A. Test

(1) Not applicable.

4. Fault Isolation

A. Procedure.

NOTE : The fault is triggered if the oil temperature sensor output signal is lost either at the EIU input or at the EIU output.

(1) Check carrefully electrical connector at the oil temperature sensor (4004EN) for looseness, damaged pins or contamination.

(a) If damage is found:
- repair or replace as necessary.

(b) If nothing is found:
- replace the SENSOR-OIL TEMP (4004EN) (Ref. AMM TASK 79-32-15-000-041) and (Ref. AMM TASK 79-32-15-400-041).

(2) If the fault continues:
- do a check of the aircraft wiring between the oil temperature sensor (4004EN) and the EIU (1KS1) for open or short to ground (Ref. ASM 79-36/01) pin AA/1 to pin AA/10F. Pay particular attention to engine to pylon connectors 4005VC-A, 405VC-A, 4006VC-A and 406VC-A and to ground wire connections (9951DC, 9956DC and 9957DC) on Engine Fan Case (check for looseness or contamination).

(a) if damage is found:
- repair or replace the harness as necessary (Ref. AMM TASK 71-51-43-000-001) and (Ref. AMM TASK 71-51-43-400-001).

(b) if nothing is found:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

B. Test.

(1) With A/C electrical network supplied (Ref. AMM TASK 24-41-00-861-002) check that the oil temperature indication is back to normal on the lower ECAM.

TASK 79-00-00-810-818

Incorrect Oil Quantity Level on Engine 1

1. Possible Causes

- ENGINE-1 (1000EM1)
- EIU-1 (1KS1)
- lubrication unit
- XTMR-OIL QTY (4002EN)
- wiring
- wiring between the circuit breaker (1EN1) and the oil quantity transmitter (4002EN)
- wiring from the oil quantity transmitter (4002EN) to the EIU1 (1KS1)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-00-00-000-042	Removal of the Power Plant
AMM 71-00-00-400-042	Installation of the Power Plant
AMM 71-00-00-710-006	Minimum Idle Check
AMM 72-31-00-290-002	Inspection of the High Pressure Compressor Rotor Assembly
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 79-21-10-000-004	Removal of the Lubrication Unit
AMM 79-21-10-400-004	Installation of the Lubrication Unit
AMM 79-31-15-000-041	Removal of the oil Quantity Transmitter (4002EN)
AMM 79-31-15-400-041	Installation of the Oil Quantity Transmiter (4002EN)
ASM 79-36/01	

3. Fault Confirmation

A. Test

(1) Make sure that the oil tank level confirms the oil indication on the lower ECAM display unit.

4. Fault Isolation

A. If the oil tank level confirms the oil indication:

NOTE : Refer to CFM SB 79-021 covering HTS Oil coking issues. Trend instructions to monitor oil pressure trend and implement Inspection and Cleaning procedures if necessary.

(1) Do a minimum idle check to make sure there are no leaks (Ref. AMM TASK 71-00-00-710-006).

(2) Do a check of the magnetic chip detector for abnormal debris.

(3) Do a check of the oil tank, lubrication unit, external oil supply and scavenge lines, for cracks/leaks.

(4) Do a check for heavy oil discharge in the center vent tube.

(a) If confirmed:
- replace the ENGINE-1 (1000EM1) (Ref. AMM TASK 71-00-00-000-042) and (Ref. AMM TASK 71-00-00-400-042).

(5) Do a check to see if the flame arrestor is clogged.

(a) If confirmed:
- clean or replace it.

(6) Remove TGB/AGB drain plug and do a check for abnormal oil quantity. If greater than one quart:
- do a check for blockage of the oil scavenge line or replace the lubrication unit (Ref. AMM TASK 79-21-10-000-004) and (Ref. AMM TASK 79-21-10-400-004).

(7) Do a borescope inspection of the high pressure compressor stage 1 and 2 to see if they are covered with oil (Ref. AMM TASK 72-31-00-290-002).

(8) Do an inspection of the fan blades and booster stage 1 at 6 o'clock to see if they are covered with oil.

(9) Do an inspection of the frame struts and aft side of stage 4 low pressure blades to see if they are covered with oil.

(a) If there is oil:
- replace the ENGINE-1 (1000EM1) (Ref. AMM TASK 71-00-00-000-042) and (Ref. AMM TASK 71-00-00-400-042).

B. If the oil tank level does not confirm the oil quantity:
- replace the XTMR-OIL QTY (4002EN) (Ref. AMM TASK 79-31-15-000-041) and (Ref. AMM TASK 79-31-15-400-041).

(1) If the fault continues:
- do a check and repair the wiring from the oil quantity transmitter (4002EN) to the SDAC-1 (1WV1), SDAC-2 (1WV2 and EIU1 (1KS1).

C. If there are amber XX at the oil quantity indication location on the lower ECAM DU:
- do a check for 28VDC at the oil quantity transmitter (4002EN).

(1) If there is no 28VDC:
- do a check of the wiring between the circuit breaker (1EN1) and the oil quantity transmitter (4002EN) (Ref. ASM 79-36/01).

(2) If there is 28VDC:
- do a check and repair the wiring from the oil quantity transmitter (4002EN) to the EIU1 (1KS1) pins AA/3, 4 to pins AA/8F, 8H (Ref. ASM 79-36/01).

(a) If the fault continues:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

D. Do a minimum idle check (Ref. AMM TASK 71-00-00-710-006).

TASK 79-00-00-810-819

Incorrect Oil Quantity Level on Engine 2

1. Possible Causes

- ENGINE-2 (1000EM2)
- EIU-2 (1KS2)
- lubrication unit
- XTMR-OIL QTY (4002EN)
- wiring
- wiring between the circuit breaker (1EN2) and the oil quantity transmitter (4002EN)
- wiring from the oil quantity transmitter (4002EN) to the EIU2 (1KS2)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-00-00-000-042	Removal of the Power Plant
AMM 71-00-00-400-042	Installation of the Power Plant
AMM 71-00-00-710-006	Minimum Idle Check
AMM 72-31-00-290-002	Inspection of the High Pressure Compressor Rotor Assembly
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 79-21-10-000-004	Removal of the Lubrication Unit
AMM 79-21-10-400-004	Installation of the Lubrication Unit
AMM 79-31-15-000-041	Removal of the oil Quantity Transmitter (4002EN)
AMM 79-31-15-400-041	Installation of the Oil Quantity Transmiter (4002EN)
ASM 79-36/01	

3. Fault Confirmation

A. Test

(1) Make sure that the oil tank level confirms the oil indication on the lower ECAM display unit.

4. Fault Isolation

A. If the oil tank level confirms the oil indication:

NOTE : Refer to CFM SB 79-021 covering HTS Oil coking issues. Trend instructions to monitor oil pressure trend and implement Inspection and Cleaning procedures if necessary.

(1) Do a minimum idle check to make sure there are no leaks (Ref. AMM TASK 71-00-00-710-006).

(2) Do a check of the magnetic chip detector for abnormal debris .

(3) Do a check of the oil tank, lubrication unit, external oil supply and scavenge lines, for cracks/leaks.

(4) Do a check for heavy oil discharge in the center vent tube.

(a) If confirmed:
- replace the ENGINE-2 (1000EM2) (Ref. AMM TASK 71-00-00-000-042) and (Ref. AMM TASK 71-00-00-400-042).

(5) Do a check to see if the flame arrestor is clogged.

(a) If confirmed:
- clean or replace it.

(6) Remove TGB/AGB drain plug and do a check for abnormal oil quantity. If greater than one quart:
- do a check for blockage of the oil scavenge line or replace the lubrication unit (Ref. AMM TASK 79-21-10-000-004) and (Ref. AMM TASK 79-21-10-400-004).

(7) Do a borescope inspection of the high pressure compressor stage 1 and 2 to see if they are covered with oil (Ref. AMM TASK 72-31-00-290-002).

(8) Do an inspection of the fan blades and booster stage 1 at 6 o'clock to see if they are covered with oil.

(9) Do an inspection of the frame struts and aft side of stage 4 low pressure blades to see if they are covered with oil.

(a) If there is oil:
- replace the ENGINE-2 (1000EM2) (Ref. AMM TASK 71-00-00-000-042) and (Ref. AMM TASK 71-00-00-400-042).

B. If the oil tank level does not confirm the oil quantity:
- replace the XTMR-OIL QTY (4002EN) (Ref. AMM TASK 79-31-15-000-041) and (Ref. AMM TASK 79-31-15-400-041).

(1) If the fault continues:
- do a check and repair the wiring from the oil quantity transmitter (4002EN) to the SDAC-1 (1WV1), SDAC-2 (1WV2) and EIU2 (1KS2).

C. If there are amber XX at the oil quantity indication location on the lower ECAM DU:
- do a check for 28VDC at the oil quantity transmitter (4002EN).

(1) If there is no 28VDC:
- do a check of the wiring between the circuit breaker (1EN2) and the oil quantity transmitter (4002EN) (Ref. ASM 79-36/01).

(2) If there is 28VDC:
- do a check and repair the wiring from the oil quantity transmitter (4002EN) to the EIU2 (1KS2) pins AA/3, 4 to pins AA/8F, 8H (Ref. ASM 79-36/01).

(a) If the fault continues:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

D. Do a minimum idle check (Ref. AMM TASK 71-00-00-710-006).

TASK 79-00-00-810-820

Oil Filter Clogged on Engine 1

1. Possible Causes

- SW-OIL FILTER DIFF PRESS (4001EN)
- oil scavenge filter element
- engine
- aircraft wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-00-00-710-003	Engine Automatic Start
AMM 71-00-00-710-004	Engine Manual Start
AMM 71-00-00-710-006	Minimum Idle Check
AMM 71-00-00-710-028	Engine Shutdown
AMM 79-00-00-281-002	Check of the Electrical Master Chip Detector for Particles
AMM 79-00-00-281-003	Check of FWD, AFT Sump, AGB, and TGB scavenge screens
AMM 79-21-10-920-002	Remove and Discard Supply Filter
AMM 79-35-15-000-003	Removal of the Oil Filter Differential Pressure Switch
AMM 79-35-15-400-003	Installation of the Oil Filter Differential Pressure Switch

3. Fault Confirmation

A. Test

(1) Start the engine 1 by the normal engine automatic start procedure (Ref. AMM TASK 71-00-00-710-003) or the normal engine manual start procedure (Ref. AMM TASK 71-00-00-710-004).

(2) When the oil temperature is more than 40 deg. C (104 deg. F) and the engine is at stabilised idle conditions, check if the ENG OIL FILTER CLOG indication is displayed on the ENGINE page lower display unit.

NOTE : If the warning is triggered temporarily during engine start with low engine oil temperature (lower than 40 deg. C or 104 deg. F) no maintenance action is required. Check for correct operation after the next start with oil temperature above 40 deg. C (104 deg. F).

(3) Do a shutdown of the engine 1 (Ref. AMM TASK 71-00-00-710-028).

4. Fault Isolation

A. The ECAM warning is triggered if a clogging of the oil scavenge filter element is detected.

NOTE : If the warning is triggered temporarily during engine start with low engine oil temperature (lower than 40 deg.C (104 deg.F)), no maintenance action is required. Check for correct operation after next start with oil temperature above 40 deg.C (104 deg.F).

(1) Do the following checks:
R - do a check of the Electrical Master Chip Detector for particles
R (Ref. AMM TASK 79-00-00-281-002),
R - do a check of FWD, AFT Sump, AGB, and TGB scavenge screens (Ref. AMM TASK 79-00-00-281-003).
R

(2) Remove and replace the main oil supply filter (Ref. AMM TASK 79-21-10-920-002).

(3) If the fault continues:
- replace the SW-OIL FILTER DIFF PRESS (4001EN) (Ref. AMM TASK 79-35-15-000-003) and (Ref. AMM TASK 79-35-15-400-003).

(4) If the fault continues:

(a) Do a check of the aircraft wiring between the oil filter differential pressure switch (4001EN) and SDAC1/SDAC2 for short to ground:
- repair or replace the wiring as required.

B. Do a minimum idle leak check (Ref. AMM TASK 71-00-00-710-006).

(1) No additional maintenance action is required if the fault is not confirmed.

(2) Repeat the fault isolation procedure if the fault continues.

TASK 79-00-00-810-821

Oil Filter Clogged on Engine 2

1. Possible Causes

- SW-OIL FILTER DIFF PRESS (4001EN)
- oil scavenge filter element
- engine
- aircraft wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-00-00-710-003	Engine Automatic Start
AMM 71-00-00-710-004	Engine Manual Start
AMM 71-00-00-710-006	Minimum Idle Check
AMM 71-00-00-710-028	Engine Shutdown
AMM 79-00-00-281-002	Check of the Electrical Master Chip Detector for Particles
AMM 79-00-00-281-003	Check of FWD, AFT Sump, AGB, and TGB scavenge screens
AMM 79-21-10-920-002	Remove and Discard Supply Filter
AMM 79-35-15-000-003	Removal of the Oil Filter Differential Pressure Switch
AMM 79-35-15-400-003	Installation of the Oil Filter Differential Pressure Switch

3. Fault Confirmation

A. Test

(1) Start the engine 2 by the normal engine automatic start procedure (Ref. AMM TASK 71-00-00-710-003) or the normal engine manual start procedure (Ref. AMM TASK 71-00-00-710-004).

(2) When the oil temperature is more than 40 deg. C (104 deg. F) and the engine is at stabilised idle conditions, check if the ENG OIL FILTER CLOG indication is displayed on the ENGINE page lower display unit.

NOTE : If the warning is triggered temporarily during engine start with low engine oil temperature (lower than 40 deg. C or 104 deg. F) no maintenance action is required. Check for correct operation after the next start with oil temperature above 40 deg. C (104 deg. F).

(3) Do a shutdown of the engine 2 (Ref. AMM TASK 71-00-00-710-028).

4. Fault Isolation

A. The ECAM warning is triggered if a clogging of the oil scavenge filter element is detected.

NOTE : If the warning is triggered temporarily during engine start with low engine oil temperature (lower than 40 deg.C (104 deg.F)), no maintenance action is required. Check for correct operation after next start with oil temperature above 40 deg.C (104 deg.F).

(1) Do the following checks:
R - do a check of the Electrical Master Chip Detector for particles
R (Ref. AMM TASK 79-00-00-281-002),
R - do a check of FWD, AFT Sump, AGB, and TGB scavenge screens (Ref. AMM TASK 79-00-00-281-003).
R

(2) Remove and replace the main oil supply filter (Ref. AMM TASK 79-21-10-920-002).

(3) If the fault continues:
- replace the SW-OIL FILTER DIFF PRESS (4001EN) (Ref. AMM TASK 79-35-15-000-003) and (Ref. AMM TASK 79-35-15-400-003).

(4) If the fault continues:

(a) Do a check of the aircraft wiring between the oil filter differential pressure switch (4001EN) and SDAC1/SDAC2 for short to ground:
- repair or replace the wiring as required.

B. Do a minimum idle leak check (Ref. AMM TASK 71-00-00-710-006).

(1) No additional maintenance action is required if the fault is not confirmed.

(2) Repeat the fault isolation procedure if the fault continues.

TASK 79-00-00-810-823

Oil Pressure Difference between Engine 1 and Engine 2

1. Possible Causes

- engine
- XMTR-OIL PRESS (4003EN)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM 31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
AMM 71-00-00-000-042	Removal of the Power Plant
AMM 71-00-00-400-042	Installation of the Power Plant
AMM 72-56-00-000-001	Removal of the Flame Arrestor and Flange Assembly
AMM 72-56-00-400-001	Installation of the Flame Arrestor and Flange Assembly
AMM 79-00-00-210-002	Walk-around Inspection
AMM 79-00-00-210-003	Visual Inspection of the Oil System
AMM 79-00-00-281-002	Check of the Electrical Master Chip Detector for Particles
AMM 79-00-00-281-003	Check of FWD, AFT Sump, AGB, and TGB scavenge screens
AMM 79-21-10-000-004	Removal of the Lubrication Unit
AMM 79-21-10-400-004	Installation of the Lubrication Unit
AMM 79-33-15-000-041	Removal of the Oil Pressure Transmitter (4003EN)
AMM 79-33-15-400-041	Installation of the Oil Pressure Transmitter (4003EN)
AMM 79-35-00-040-042	Replacement of the Main Oil Supply Filter and Check of the Electrical Chip Detector Visual Indicator (pop-out)

3. Fault Confirmation

A. Test

(1) Not applicable.

4. Fault Isolation

A. If the fault symptom is identified by the crew observation OIL pressure higher or lower than on the other engine:

NOTE : Refer to CFM SB 79-021 covering HTS Oil coking issues. Trend instructions to monitor oil pressure trend and implement Inspection and Cleaning procedures if necessary.

- do a check of the electric master magnetic chip detector visual indicator (Ref. AMM TASK 79-35-00-040-042) and the magnetic chip detector (Ref. AMM TASK 79-00-00-281-002) and the scavenge screen plugs (Ref. AMM TASK 79-00-00-281-003).

(1) If you find magnetic particles:
- follow the related instructions per (Ref. AMM TASK 79-00-00-281-002) and NDT Manual (section CHIP ANALYSIS).

(2) If nothing is found:
- do a visual check for external leaks (Ref. AMM TASK 79-00-00-210-002).

(a) If there is sign of heavy oil discharge in the center vent tube:
- replace the engine (Ref. AMM TASK 71-00-00-000-042) and (Ref. AMM TASK 71-00-00-400-042).

(b) If nothing is found:
- do a check of the flame arrestor for clogging:

1 If confirmed:
- clean or replace as required (Ref. AMM TASK 72-56-00-000-001) and (Ref. AMM TASK 72-56-00-400-001).

2 If nothing is found:
- do a check for the oil scavenge line for blockage (Ref. AMM TASK 79-00-00-210-003).

a If nothing if found:
- replace the XMTR-OIL PRESS (4003EN) (Ref. AMM TASK 79-33-15-000-041) and (Ref. AMM TASK 79-33-15-400-041).
  * If the fault continues
- do a continuity check of the electrical wiring between the ENG1 OIL PRESS XTRM(4003EN) and the SDAC1 (1WV1), pin 15C/15D (ASM 79-36/01)
  ** If nothing is found
- do a continuity check of the electrical wiring between the ENG1 OIL PRESS XTRM(4003EN) and the SDAC2 (1WV2), pin 15C/15D (ASM 79-36/01)
  *** If nothing is found
- open circuit breaker 3WV
- visually check the oil pressure indication on the ECAM display
  **** If both engines oil pressure indications become approximately the same
- replace the SDAC1 (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001)
  **** If the fault continues
- open circuit breaker 2WV
- visually check the oil pressure indication on the ECAM display

***** If both engines oil pressure indications become approximately the same
- replace the SDAC2 (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001)

***** If the fault continues:
- replace the engine lubrication unit (Ref. AMM TASK 79-21-10-000-004) and (Ref. AMM TASK 79-21-10-400-004).

B. No additional maintenance action is required if the fault is not confirmed.

(1) Repeat the fault isolation procedure if the fault continues.

TASK 79-00-00-810-824

Loss of the Oil Pressure Indication on Engine 1 or 2

1. Possible Causes

- XMTR-OIL PRESS (4003EN)
- SDAC-1 (1WV1)
- SDAC-2 (1WV2)
- wiring
- EIU-1(2) (1KS1(2))
- 1KS1(2)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM 31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU)
AMM 79-33-15-000-041	Removal of the Oil Pressure Transmitter (4003EN)
AMM 79-33-15-400-041	Installation of the Oil Pressure Transmitter (4003EN)
ASM 79-36/01	

3. Fault Confirmation

A. Test

(1) Not applicable.

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	ENGINE/ENG1/OIL/PRESS	2EN1	N40

B. Replace the XMTR-OIL PRESS (4003EN) (Ref. AMM TASK 79-33-15-000-041) and (Ref. AMM TASK 79-33-15-400-041).

(1) If the fault continues:
- do a check of the electrical wiring between the ENG1(2) OIL PRESS XMTR (4003EN), the EIU-1(2) (1KS1(2)), the SDAC1 and the SDAC2 (Ref. ASM 79-36/01).

(2) If the fault continues:
- do a check of the electrical grounding of the ENG1(2) OIL PRESS XMTR (4003EN) at the ground terminal on the engine fan case (Ref. ASM 79-36/01).

(3) If the fault continues:
- do a check of the electrical wiring between the ENG1(2) OIL PRESS XMTR (4003EN) and circuit breaker 2EN1(2) (Ref. ASM 79-36/01),
- repair wiring or replace circuit breaker as required.

(4) If the fault continues:
- replace the SDAC-1 (1WV1) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001)

(5) If the fault continues:
- replace the SDAC-2 (1WV2) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001)

(6) If the fault continues:
- replace the 1KS1(2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

C. No additional maintenance action is required if the fault is not confirmed.

(1) Repeat the fault isolation procedure if the fault continues.

TASK 79-00-00-810-833

The Electrical Master Chip Detector indication is popped out - Engine 1

1. Possible Causes

2. Job Set-up Information

A. Consumable Materials

REFERENCE	DESIGNATION
Material No. CP2010	* white spirit (Ref. 70-30-00)
Material No. CP2011	* stoddart solvant (Ref. 70-30-00)

B. Referenced Information

REFERENCE	DESIGNATION
AMM 79000020000100	
AMM 79-00-00-281-002	Check of the Electrical Master Chip Detector for Particles
AMM 79-00-00-281-003	Check of FWD, AFT Sump, AGB, and TGB scavenge screens
AMM 79-00-00-480-001	Installation of a Magnetic Bar in the Scavenge Screen Plugs (OPTIONAL)
AMM 79-21-30-000-001	Removal of the Visual Indicator
AMM 79-21-30-400-001	Installation of the Visual Indicator
AMM 79-21-30-440-001	Resetting of the Visual Indicator
ASM 79-36/00	

3. Fault Confirmation

A. Test.

(1) Not applicable.

NOTE : The visual indicator is popped out if a magnetic particule is or has been captured by the Electrical Magnetic Chip Detector (EMCD).

NOTE : Nuisance detections can be experienced during early revenue service operation (up to 1000 hours since engine new or since shop visit). Residual machining debris can be present in the engine oil system. Whenever a magnetic debris is dislodged (usually during early revenue service), it will be transported

by the oil and captured by the Electrical Master Chip Detector.
In this case, it's not abnormal that no contamination is found on the magnetic chip detector at the time of the inspection since an isolated particule may have been dislodged from the chip detector magnet between the time it was captured and the time of the inspection.

4. Fault Isolation

A. Do this procedure:

(1) If the Visual Indicator has popped out:

NOTE : In order to reduce burden for nuisance EMCD pop out indication, the inspection of the Electrical Master Chip Detector can be defeered to the next convenient maintenance opportunity where trained personnel can performed the inspection without interfering with revenue service operation.

- Do a check of the Master Magnetic Chip Detector for particule (Ref. AMM TASK 79-00-00-281-002).

(a) If you find particule(s):
- do maintenance action as per procedure (Ref. AMM TASK 79-00-00-281-002) and per CFMI NDT Manual - Part 10 (chip analysis),
- do a check of the scavenge screens plugs for debris (Ref. AMM TASK 79-00-00-281-003).
If you cannot isolate the engine sump, the contamination is coming from , you can install (if available - Optionnal Kit) the Magnetic Bars in the scavenge screen plugs (Ref. AMM TASK 79-00-00-480-001).
- reset the visual indicator (Ref. AMM TASK 79-21-30-440-001).

(b) If you find no particule:
- Even if no particule/debris is visible, do a cleaning of chip detector magnet using a clean cloth with stoddart solvant (Material No. CP2011) or white spirit (Material No. CP2010).
- Reset the visual indicator (Ref. AMM TASK 79-21-30-440-001).
- No further maintenance action is required.

(c) If the indicator pop out detections are repetitive and no particule is never found:

NOTE : Following maintenance is to be done only if pop out indications are too repetitives and repeated cleaning on the chip detector were not successfull.

- Inspect/ check the electrical magnetic chip detector system (Ref. AMM 79000020000100).

(2) If the EMCD circuit breaker 4EN has tripped Off in the cockpit on panel 121VU:
- Replace the visual indicator (Ref. AMM TASK 79-21-30-000-001) and (Ref. AMM TASK 79-21-30-400-001).

(a) If the circuit breaker trips again:
- replace the electronic master chip detector 4007EN

1 if the circuit breaker trips again:
- check the electrical wiring between EMCD 4007EN and circuit breaker 4EN (Ref. ASM 79-36/00)

B. Check the Electrical Master Chip Detector visual indication after the next flight.

(1) No additional maintenance action is required if the fault is not confirmed .

(2) Repeat the fault isolation procedure if the fault continues.

TASK 79-00-00-810-834

The Electrical Master Chip Detector indication is popped out - Engine 2

1. Possible Causes

2. Job Set-up Information

A. Consumable Materials

REFERENCE	DESIGNATION
Material No. CP2010	* white spirit (Ref. 70-30-00)
Material No. CP2011	* stoddart solvant (Ref. 70-30-00)

B. Referenced Information

REFERENCE	DESIGNATION
AMM 79-00-00-200-001	Operational Check of the Master Chip Detector Remote indication
AMM 79-00-00-281-002	Check of the Electrical Master Chip Detector for Particles
AMM 79-00-00-281-003	Check of FWD, AFT Sump, AGB, and TGB scavenge screens
AMM 79-00-00-480-001	Installation of a Magnetic Bar in the Scavenge Screen Plugs (OPTIONAL)
AMM 79-21-30-000-001	Removal of the Visual Indicator
AMM 79-21-30-400-001	Installation of the Visual Indicator
AMM 79-21-30-440-001	Resetting of the Visual Indicator
ASM 79-36/00	

3. Fault Confirmation

A. Test.

(1) Not applicable.

NOTE : The visual indicator is popped out if a magnetic particule is or has been captured by the Electrical Magnetic Chip Detector (EMCD).

NOTE : Nuisance detections can be experienced during early revenue service operation (up to 1000 hours since engine new or since shop visit). Residual machining debris can be present in the engine oil system. Whenever a magnetic debris is dislodged (usually during early revenue service), it will be transported

by the oil and captured by the Electrical Master Chip Detector.
In this case, it's not abnormal that no contamination is found on the magnetic chip detector at the time of the inspection since an isolated particule may have been dislodged from the chip detector magnet between the time it was captured and the time of the inspection.

4. Fault Isolation

A. Do this procedure:

(1) If the Visual Indicator has popped out:

NOTE : In order to reduce burden for nuisance EMCD pop out indication, the inspection of the Electrical Master Chip Detector can be defeered to the next convenient maintenance opportunity where trained personnel can performed the inspection without interfering with revenue service operation.

- Do a check of the Master Magnetic Chip Detector for particule (Ref. AMM TASK 79-00-00-281-002).

(a) If you find particule(s):
- do maintenance action as per procedure (Ref. AMM TASK 79-00-00-281-002) and per CFMI NDT Manual - Part 10 (chip analysis),
- do a check of the scavenge screens plugs for debris (Ref. AMM TASK 79-00-00-281-003).
If you cannot isolate the engine sump, the contamination is coming from, you can install (if available - Optionnal Kit) the Magnetic Bars in the scavenge screen plugs (Ref. AMM TASK 79-00-00-480-001).
- reset the visual indicator (Ref. AMM TASK 79-21-30-440-001).

(b) If you find no particule:
- Even if no particule/debris is visible, do a cleaning of chip detector magnet using a clean cloth with stoddart solvant (Material No. CP2011) or white spirit (Material No. CP2010).
- Reset the visual indicator (Ref. AMM TASK 79-21-30-440-001).
- No further maintenance action is required.

(c) If the indicator pop out detections are repetitive and no particule is never found:

NOTE : Following maintenance is to be done only if pop out indications are too repetitives and repeated cleaning on the chip detector were not successfull.

- Inspect/ check the electrical magnetic chip detector system (Ref. AMM TASK 79-00-00-200-001)

(2) If the EMCD circuit breaker 4EN has tripped Off in the cockpit on panel 121VU:
- Replace the visual indicator (Ref. AMM TASK 79-21-30-000-001) and (Ref. AMM TASK 79-21-30-400-001).

(a) If the circuit breaker trips again:
- replace the electronic master chip detector 4007EN

1 if the circuit breaker trips again:
- check the electrical wiring between EMCD 4007EN and circuit breaker 4EN (Ref. ASM 79-36/00).

B. Check the Electrical Master Chip Detector visual indication after the next flight.

(1) No additional maintenance action is required if the fault is not confirmed .

(2) Repeat the fault isolation procedure if the fault continues.

TASK 79-00-00-810-835

The oil temperature of engine 1 and engine 2 are significantly different

1. Possible Causes

- IDG
- fuel return valve
- oil/fuel heat exchanger
- low fuel level
- fuel in surge tank
- boost pumps off
- L (R) OUT TEMP SENSOR (30QJ1 (30QJ2))
- L (R) INN TEMP SENSOR (29QJ1 (29QJ2))
- L (R) LO LEVEL SENSOR (38QJ1 (38QJ2))
- L(R) SURGE SENSOR (28QJ1 (28QJ2))
- FLSCU-1 (2) (7QJ (9QJ))
- oil temperature sensor (4004EN)
- EIU
- engine oil temperature sensor

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
28-46-00-810-812	L(R) Surge Tank Overflow Sensor 28QJ1(2)
28-46-00-810-813	L(R) Inner Temperature Sensor 29QJ1(2)
28-46-00-810-814	L(R) Outer Temperature Sensor 30QJ1(2)
28-46-00-810-815	L(R) IDG Shut Off Sensor 38QJ1(2)
28-46-00-810-818	FLSCU1(2) 7QJ(9QJ)
AMM 71-00-00-710-006	Minimum Idle Check
AMM 71-51-43-000-001	Removal of the Left Side Harness (4216KS)
AMM 71-51-43-400-001	Installation of the Left Side Harness (4216KS)
AMM 73-11-50-000-002	Removal of the Fuel Return Valve (FRV)
AMM 73-11-50-360-002	Leak Check and Functional Test of the Fuel Return Valve
AMM 73-11-50-400-002	Installation of the Fuel Return Valve
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)
AMM 73-29-00-710-040	Operational Test of the FADEC on the ground (with Engine Motoring)
AMM 79-21-10-210-002	Check of the Lubrication Unit Magnetic Plugs and Screens
AMM 79-21-20-000-002	Removal of the Main Oil/Fuel Heat Exchanger
AMM 79-21-20-400-002	Installation of the Main Oil/Fuel Heat Exchanger
AMM 79-31-40-000-002	Removal of the Oil Temperature Sensor (IDG Cooling System Control Sensor)

REFERENCE	DESIGNATION
AMM 79-31-40-400-002	Installation of the Oil Temperature Sensor (IDG Cooling System Control Sensor)
AMM 79-32-15-000-041	Removal of the Oil Temperature Sensor (Engine Condition Monitoring Sensor)
AMM 79-32-15-400-041	Installation of the Oil Temperature Sensor (Engine Condition Monitoring Sensor)
ASM 79-36/01	

3. Fault Confirmation

A. Test

(1) Not applicable.

4. Fault Isolation

R **ON A/C 201-225, 227-227, 229-275, 426-475, 551-599, 701-749,

A. A too high oil temperature can be due to one of the following failures:
- too high IDG oil temperature,
- fuel return valve failure (closed),
- oil/fuel heat exchanger failure,
- engine oil temperature sensor failure (input parameter for fuel return valve control),
- aircraft oil temperature sensor failure (cockpit indication),
- forced fuel return valve closure in case of too high fuel temperature in the tank (above 55 deg. C or 131 deg. F), too low fuel level in the tank(s), presence of fuel in surge tank or boost pumps off.

NOTE : Do the following trouble shooting on the engine exhibiting the highest oil temperature unless the oil temperature on one engine is significantly lower compared to previous flights trend indications.

NOTE : In case the idle speed on one engine is higher than other engine (engine running in modulated engine mode), do the following trouble shooting on the engine running with the highest idle.

(1) Read the post flight report (PFR) and check for failure messages:

(a) If you find any message(s) including the following words: FRV, IDG, EOT SNSR, SENSOR OIL TEMP do the trouble shooting related to the failure message(s) displayed (TSM CFDS chapter 73 and 79).

(b) If one of the following failure messages relative to fuel system elements is displayed:

1 FUEL LEVEL SENSING L OUT TEMP SENSOR 30QJ1 or FUEL LEVEL SENSING R OUT TEMP SENSOR 30QJ2
- do the applicable trouble shooting procedure for L (R) OUT TEMP SENSOR (30QJ1 (30QJ2)) (Ref. TASK 28-46-00-810-814).

2 FUEL LEVEL SENSING L INN TEMP SENSOR 29QJ1 or FUEL LEVEL SENSING R INN TEMP SENSOR 29QJ2
- do the applicable trouble shooting procedure for L (R) INN TEMP SENSOR (29QJ1 (29QJ2)) (Ref. TASK 28-46-00-810-813).

3 FUEL LEVEL SENSING L LO LEVEL SENSOR 38QJ1 or FUEL LEVEL SENSING R LO LEVEL SENSOR 38QJ2
- do the applicable trouble shooting procedure for L (R) LO LEVEL SENSOR (38QJ1 (38QJ2)) (Ref. TASK 28-46-00-810-815).

4 FUEL LEVEL SENSING L SURGE SENSOR 28QJ1 or FUEL LEVEL SENSING R SURGE SENSOR 28QJ2
- do the applicable trouble shooting procedure for L(R) SURGE SENSOR (28QJ1 (28QJ2)) (Ref. TASK 28-46-00-810-812).

5 FUEL LEVEL SENSING FLSCU1 7QJ or FUEL LEVEL SENSING FLSCU2 7QJ
- do the applicable trouble shooting procedure for FLSCU-1 (2) (7QJ (9QJ)) (Ref. TASK 28-46-00-810-818).

(2) If the engine oil temperature is higher than the IDG oil outlet temperature (on ECAM ELEC page):
- replace the oil temperature sensor (4004EN) (Ref. AMM TASK 79-32-15-000-041) and (Ref. AMM TASK 79-32-15-400-041).

(a) If the fault continues:
- check the electrical wiring between the oil temperature sensor 4004EN and the EIU for abnormal resistance (too high, more than 2 ohms). Pay particular attention to electrical connector at engine to pylon interface and to ground wire connections 9951DC, 9956DC, and 9957DC on Engine Fan Case (Ref. AMM TASK 71-51-43-000-001) and (Ref. AMM TASK 71-51-43-400-001) for looseness or contamination (Ref. ASM 79-36/01).

(3) If the IDG oil outlet temperature is also too high and/or the IDG OIL OVHT warning has been triggered:
- do the related trouble shooting procedure.

(4) If no IDG related fault is present and if the IDG oil outlet temperature is normal:

(a) Get a sample of oil from the engine oil tank. If you can smell fuel presence in the engine oil:
- replace the oil/fuel heat exchanger (Ref. AMM TASK 79-21-20-000-002) and (Ref. AMM TASK 79-21-20-400-002).

(b) Do a check of the lubrication unit magnetic plugs and screens (Ref. AMM TASK 79-21-10-210-002):
- if no fault is found:

1 do a functional test of the fuel return valve (Ref. AMM TASK 73-11-50-360-002):
- if the fuel return valve operates as expected:
. no maintenance action is required,
- if the fuel return valve does not operate during the test:
. replace the valve (Ref. AMM TASK 73-11-50-000-002) and (Ref. AMM TASK 73-11-50-400-002).

2 if no fault is found:
- replace the engine oil temperature sensor (Ref. AMM TASK 79-31-40-000-002) and (Ref. AMM TASK 79-31-40-400-002).

3 if the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

4 if the fault continues:
- replace the main oil/fuel heat exchanger (Ref. AMM TASK 79-21-20-000-002) and (Ref. AMM TASK 79-21-20-400-002).

5 if the fault continues:
- do an oil analysis to make sure the engine oil tank was not serviced with a non approved product.

(5) Do an operational test of the FADEC with engine motoring (Ref. AMM TASK 73-29-00-710-040).

(a) If the fuel return valve operates as expected, no maintenance action is required.

(b) If the fuel return valve does not operate during the test, replace the valve (Ref. AMM TASK 73-11-50-000-002) (Ref. AMM TASK 73-11-50-400-002).

**ON A/C 276-299, 476-499, 503-549,

A. A too high oil temperature can be due to one of the following failures:
- too high IDG oil temperature,
- fuel return valve failure (closed),
- oil/fuel heat exchanger failure,
- engine oil temperature sensor failure (input parameter for fuel return valve control),
- aircraft oil temperature sensor failure (cockpit indication),
- forced fuel return valve closure in case of too high fuel temperature in the tank (above 55 deg. C or 131 deg. F), too low fuel level in the tank(s), presence of fuel in surge tank or boost pumps off.

NOTE : Do the following trouble shooting on the engine exhibiting the highest oil temperature unless the oil temperature on one engine is significantly lower compared to previous flights trend indications.

NOTE : In case the idle speed on one engine is higher than other engine (engine running in modulated engine mode), do the following trouble shooting on the engine running with the highest idle.

(1) Read the post flight report (PFR) and check for failure messages:

(a) If you find any message(s) including the following words: FRV, IDG, EOT SNSR, SENSOR OIL TEMP do the trouble shooting related to the failure message(s) displayed (TSM CFDS chapter 73 and 79).

(b) If one of the following failure messages relative to fuel system elements is displayed:

1 FUEL LEVEL SENSING L TEMP SENSOR 29QJ1 or FUEL LEVEL SENSING R TEMP SENSOR 29QJ2
- do the applicable trouble shooting procedure for L (R) INN TEMP SENSOR (29QJ1 (29QJ2)) (Ref. TASK 28-46-00-810-813).

2 FUEL LEVEL SENSING L LO LEVEL SENSOR 38QJ1 or FUEL LEVEL SENSING R LO LEVEL SENSOR 38QJ2
- do the applicable trouble shooting procedure for L (R) LO LEVEL SENSOR (38QJ1 (38QJ2)) (Ref. TASK 28-46-00-810-815).

3 FUEL LEVEL SENSING L SURGE SENSOR 28QJ1 or FUEL LEVEL SENSING R SURGE SENSOR 28QJ2
- do the applicable trouble shooting procedure for L(R) SURGE SENSOR (28QJ1 (28QJ2)) (Ref. TASK 28-46-00-810-812).

4 FUEL LEVEL SENSING FLSCU1 7QJ or FUEL LEVEL SENSING FLSCU2 7QJ
- do the applicable trouble shooting procedure for FLSCU-1 (2) (7QJ (9QJ)) (Ref. TASK 28-46-00-810-818).

(2) If the engine oil temperature is higher than the IDG oil outlet temperature (on ECAM ELEC page):
- replace the oil temperature sensor (4004EN) (Ref. AMM TASK 79-32-15-000-041) and (Ref. AMM TASK 79-32-15-400-041).

(a) If the fault continues:
- check the electrical wiring between the oil temperature sensor 4004EN and the EIU for abnormal resistance (too high, more than 2 ohms). Pay particular attention to electrical connector at engine to pylon interface and to ground wire connections 9951DC, 9956DC, and 9957DC on Engine Fan Case (Ref. AMM TASK 71-51-43-000-001) and (Ref. AMM TASK 71-51-43-400-001) for looseness or contamination (Ref. ASM 79-36/01).

(3) If the IDG oil outlet temperature is also too high and/or the IDG OIL OVHT warning has been triggered:
- do the related trouble shooting procedure.

(4) If no IDG related fault is present and if the IDG oil outlet temperature is normal:

(a) Get a sample of oil from the engine oil tank. If you can smell fuel presence in the engine oil:
- replace the oil/fuel heat exchanger (Ref. AMM TASK 79-21-20-000-002) and (Ref. AMM TASK 79-21-20-400-002).

(b) Do a check of the lubrication unit magnetic plugs and screens (Ref. AMM TASK 79-21-10-210-002):
- if no fault is found:

1 do a functional test of the fuel return valve (Ref. AMM TASK 73-11-50-360-002):
- if the fuel return valve operates as expected:
. no maintenance action is required,
- if the fuel return valve does not operate during the test:
. replace the valve (Ref. AMM TASK 73-11-50-000-002) and (Ref. AMM TASK 73-11-50-400-002).

2 if no fault is found:
- replace the engine oil temperature sensor (Ref. AMM TASK 79-31-40-000-002) and (Ref. AMM TASK 79-31-40-400-002).

3 if the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

4 if the fault continues:
- replace the main oil/fuel heat exchanger (Ref. AMM TASK 79-21-20-000-002) and (Ref. AMM TASK 79-21-20-400-002).

5 if the fault continues:
- do an oil analysis to make sure the engine oil tank was not serviced with a non approved product.

(5) Do an operational test of the FADEC with engine motoring (Ref. AMM TASK 73-29-00-710-040).

(a) If the fuel return valve operates as expected, no maintenance action is required.

(b) If the fuel return valve does not operate during the test, replace the valve (Ref. AMM TASK 73-11-50-000-002) (Ref. AMM TASK 73-11-50-400-002).

B. Do a minimum idle check (Ref. AMM TASK 71-00-00-710-006).

(1) No additionnal maintenance action is required if the fault is not confirmed.

(2) Repeat the fault isolation procedure if the fault continues.

TASK 79-00-00-810-836

Low Oil Pressure Indication on Engine 1

1. Possible Causes

- SW-LOW OIL PRESS (4000EN)
- engine
- oil tank
- lubrication unit
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-00-00-710-006	Minimum Idle Check
AMM 71-00-00-790-002	Fuel or Hydraulic or Oil Leakage Limits
AMM 72-00-00-200-008	Inspection/Check After the Engine has Exceeded the Operational Limits
AMM 72-56-00-000-001	Removal of the Flame Arrestor and Flange Assembly
AMM 72-56-00-210-002	Inspection/Check of the Turbine Frame Assembly
AMM 72-56-00-400-001	Installation of the Flame Arrestor and Flange Assembly
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU)
AMM 79-00-00-281-002	Check of the Electrical Master Chip Detector for Particles
AMM 79-11-10-000-005	Removal of the Oil Tank
AMM 79-11-10-400-005	Installation of the Oil Tank
AMM 79-21-10-000-004	Removal of the Lubrication Unit
AMM 79-21-10-400-004	Installation of the Lubrication Unit
AMM 79-34-15-000-041	Removal of the Low Oil Pressure Switch (4000EN)
AMM 79-34-15-400-041	Installation of the Low Oil Pressure Switch (4000EN)
ASM 79-36/01	

3. Fault Confirmation

A. Not Applicable

4. Fault Isolation

A. The ECAM warning is triggered if the low oil pressure switch output indicates an oil pressure lower than 13 PSI while the engine speed is above idle.

(1) If actual low oil pressure is confirmed by the crew report (oil pressure indication flashing green on lower ECAM):
- do an inspection (Ref. AMM TASK 72-00-00-200-008) after the engine has exceeded the operational limits.

(a) If the engine is still operable:
- do the following checks:

1 Do a check for external oil leak and oil dripping from the drain mast (Ref. AMM TASK 71-00-00-790-002).

2 Do a check for heavy oil discharge from the center vent tube through the flame arrestor into the center body.

a If an excessive oil discharge from the center vent is confirmed and the oil consumption is also excessive:
- do the trouble shooting as per TSM entry: ATA79 HIGH OIL CONSUMPTION.

3 Do a check of the lubrication unit magnetic plugs and screens (Ref. AMM TASK 79-00-00-281-002).

a If nothing is found:
- remove the AGB drain plug,
- do a check for abnormal oil quantity.

b If there is more than one quart of oil in the AGB:
- do a check for oil scavenge line blockage.

c If the AGB oil scavenge line is found blocked:
- clean or repair as required.

d If the AGB oil scavenge line is not found blocked:
- do a check for obstruction of the aft sump flame arrestor (Ref. AMM TASK 72-56-00-210-002).

e If obstruction of the grid is greater than 50%:
- replace the flame arrestor (Ref. AMM TASK 72-56-00-000-001) and (Ref. AMM TASK 72-56-00-400-001).

f If nothing is found on flame arrestor:
- check the oil tank strainer for blockage.

g If the strainer is blocked:
- replace the oil tank (Ref. AMM TASK 79-11-10-000-005) and (Ref. AMM TASK 79-11-10-400-005).

h If nothing is found in the strainer:
- replace the lubrication unit (Ref. AMM TASK 79-21-10-000-004) and (Ref. AMM TASK 79-21-10-400-004).

(2) If actual low oil pressure is not confirmed (indicating system failure):
- replace the SW-LOW OIL PRESS (4000EN) (Ref. AMM TASK 79-34-15-000-041) and (Ref. AMM TASK 79-34-15-400-041).
- do a check of the wiring between the low oil pressure switch (4000EN) and the EIU-1 (1KS1) pin AA/7A (Ref. ASM 79-36/01) for short to ground,
- repair, clean or replace wiring or connectors as required.

(a) If the fault continues:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

B. Do a minimum idle check (Ref. AMM TASK 71-00-00-710-006).

(1) No additional maintenance action is required if the fault is not confirmed.

(2) Repeat the fault isolation procedure if the fault continues.

TASK 79-00-00-810-837

Low Oil Pressure Indication on Engine 2

1. Possible Causes

- SW-LOW OIL PRESS (4000EN)
- engine
- oil tank
- lubrication unit
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-00-00-710-006	Minimum Idle Check
AMM 71-00-00-790-002	Fuel or Hydraulic or Oil Leakage Limits
AMM 72-00-00-200-008	Inspection/Check After the Engine has Exceeded the Operational Limits
AMM 72-56-00-000-001	Removal of the Flame Arrestor and Flange Assembly
AMM 72-56-00-210-002	Inspection/Check of the Turbine Frame Assembly
AMM 72-56-00-400-001	Installation of the Flame Arrestor and Flange Assembly
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU)
AMM 79-00-00-281-002	Check of the Electrical Master Chip Detector for Particles
AMM 79-11-10-000-005	Removal of the Oil Tank
AMM 79-11-10-400-005	Installation of the Oil Tank
AMM 79-21-10-000-004	Removal of the Lubrication Unit
AMM 79-21-10-400-004	Installation of the Lubrication Unit
AMM 79-34-15-000-041	Removal of the Low Oil Pressure Switch (4000EN)
AMM 79-34-15-400-041	Installation of the Low Oil Pressure Switch (4000EN)
ASM 79-36/01	

3. Fault Confirmation

A. Not Applicable

4. Fault Isolation

A. The ECAM warning is triggered if the low oil pressure switch output indicates an oil pressure lower than 13 PSI while the engine speed is above idle.

(1) If actual low oil pressure is confirmed by the crew report (oil pressure indication flashing green on lower ECAM):
- do an inspection (Ref. AMM TASK 72-00-00-200-008) after the engine has exceeded the operational limits.

(a) If the engine is still operable:
- do the following checks:

1 Do a check for external oil leak and oil dripping from the drain mast (Ref. AMM TASK 71-00-00-790-002).

2 Do a check for heavy oil discharge from the center vent tube through the flame arrestor into the center body.

a If an excessive oil discharge from the center vent is confirmed and the oil consumption is also excessive:
- do the trouble shooting as per TSM entry: ATA79 HIGH OIL CONSUMPTION.

3 Do a check of the lubrication unit magnetic plugs and screens (Ref. AMM TASK 79-00-00-281-002).

a If nothing is found:
- remove the AGB drain plug,
- do a check for abnormal oil quantity.

b If there is more than one quart of oil in the AGB:
- do a check for oil scavenge line blockage.

c If the AGB oil scavenge line is found blocked:
- clean or repair as required.

d If the AGB oil scavenge line is not found blocked:
- do a check for obstruction of the aft sump flame arrestor (Ref. AMM TASK 72-56-00-210-002).

e If obstruction of the grid is greater than 50%:
- replace the flame arrestor (Ref. AMM TASK 72-56-00-000-001) and (Ref. AMM TASK 72-56-00-400-001).

f If nothing is found on flame arrestor:
- check the oil tank strainer for blockage.

g If the strainer is blocked:
- replace the oil tank (Ref. AMM TASK 79-11-10-000-005) and (Ref. AMM TASK 79-11-10-400-005).

h If nothing is found in the strainer:
- replace the lubrication unit (Ref. AMM TASK 79-21-10-000-004) and (Ref. AMM TASK 79-21-10-400-004).

(2) If actual low oil pressure is not confirmed (indicating system failure):
- replace the SW-LOW OIL PRESS (4000EN) (Ref. AMM TASK 79-34-15-000-041) and (Ref. AMM TASK 79-34-15-400-041).
- do a check of the wiring between the low oil pressure switch (4000EN) and the EIU-2 (1KS2) pin AA/7A (Ref. ASM 79-36/01) for short to ground,
- repair, clean or replace wiring or connectors as required.

(a) If the fault continues:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

B. Do a minimun idle check (Ref. AMM TASK 71-00-00-710-006).

(1) No additional maintenance action is required if the fault is not confirmed.

(2) Repeat the fault isolation procedure if the fault continues.

TASK 79-00-00-810-840

Engine Oil External leakage

1. Possible Causes

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-00-00-790-002	Fuel or Hydraulic or Oil Leakage Limits
AMM 79-00-00-210-002	Walk-around Inspection
AMM 79-00-00-210-003	Visual Inspection of the Oil System

3. Fault Confirmation

A. Not applicable, the fault is evident.

4. Fault Isolation

A. If you fing sign of extermal leakage on the engine Refer to (Ref. AMM TASK 71-00-00-790-002) and (Ref. AMM TASK 79-00-00-210-002) and (Ref. AMM TASK 79-00-00-210-003).

TASK 79-31-00-810-811

R Loss of the Signal of the FADEC Oil Temperature Sensor to the ECU on Engine 1
R Channel A

1. Possible Causes

R
- oil temperature sensor
R - harness HJ13
- ECU (4000KS)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 73-21-50-000-046	Removal of the HJ13 Harness
AMM 73-21-50-210-001	Visual Inspection of the Wiring Harness
AMM 73-21-50-400-046	Installation of the HJ13 Harness
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
AMM 79-31-40-000-001	Removal Oil Temperature Sensor (IDG Cooling System Control Sensor)
AMM 79-31-40-400-001	Installation Oil Temperature Sensor (IDG Cooling System Control Sensor)
ASM 73-25/18	

3. Fault Confirmation

A. Do the operational test of the FADEC 1A on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

R A. This fault message is generated if the output signal is lost from the ECU
R dedicated oil temperature sensor used for the fuel return valve control.

R NOTE : This sensor is not used for the oil temperature indication in the
R cockpit.

R (1) If the test gives the maintenance message EOT SNSR, J13, ECU:
R - disconnect the connector of the harness HJ13 from the oil temperature sensor and do a resistance check of the sensor (Ref. ASM 73-25/18) between:
R . pins 1 and 2 (0.5 to 10 ohms)
R . pins 3 and 4 (0.5 to 10 ohms)
R . pins 2 and 5 (>1 megohm)
R . pins 3 and 5 (>1 megohm)
R . pin 1 and the ground (>1 megohm)
R . pin 4 and the ground (>1 megohm).

R (a) If the resistance values are out of the specified limits:
R - replace the oil temperature sensor (Ref. AMM TASK 79-31-40-000-001) and (Ref. AMM TASK 79-31-40-400-001).

R (b) If the resistance values are in the specified limits:
R - connect the harness HJ13 to the oil temperature sensor again,
R - disconnect the connector of the harness HJ13 from the ECU (4000KS) and do a resistance check (Ref. ASM 73-25/18) between:
R . pins 10 and 22 (0.5 to 10 ohms)
R . pins 9 and 20 (0.5 to 10 ohms)
R . pins 9 and 21 (>1 megohm)
R . pins 10 and 21 (>1 megohm)
R . pin 9 and the ground (>1 megohm)
R . pin 10 and the ground (>1 megohm).

R 1 If the resistance values are out of the specified limits:
R - replace the harness HJ13 (Ref. AMM TASK 73-21-50-000-046) and (Ref. AMM TASK 73-21-50-400-046).

R 2 If the resistance values are in the specified limits:
R - replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

R (2) If the test does not give the maintenance message EOT SENS, J13, ECU:
R - do a check of the connectors on the harness HJ13 between the ECU and the oil temperature sensor for absence of loosening, contamination, corrosion or damaged pins or sockets,
R - clean, retighten or replace the harness HJ13 as required (Ref. AMM TASK 73-21-50-210-001).

R (a) If nothing is found:
R - replace the oil temperature sensor (Ref. AMM TASK 79-31-40-000-001) and (Ref. AMM TASK 79-31-40-400-001).

R 1 If the fault continues:
R - replace the harness HJ13 (Ref. AMM TASK 73-21-50-000-046) and (Ref. AMM TASK 73-21-50-400-046).

R a If the fault continues:
R - replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

R

B. Do the test given in Para. 3.

(1) No additional maintenance action is required if the fault is not confirmed.

(2) Repeat the fault isolation procedure if the fault continues.

TASK 79-31-00-810-812

R Loss of the Signal of the FADEC Oil Temperature Sensor to the ECU on Engine 2
R Channel A

1. Possible Causes

R
- oil temperature sensor
R - harness HJ13
- ECU (4000KS)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 73-21-50-000-046	Removal of the HJ13 Harness
AMM 73-21-50-210-001	Visual Inspection of the Wiring Harness
AMM 73-21-50-400-046	Installation of the HJ13 Harness
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
R AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
R AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
R AMM 79-31-40-000-001	Removal Oil Temperature Sensor (IDG Cooling System Control Sensor)
R AMM 79-31-40-400-001	Installation Oil Temperature Sensor (IDG Cooling System Control Sensor)
ASM 73-25/18	

3. Fault Confirmation

A. Do the operational test of the FADEC 2A on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

R A. This fault message is generated if the output signal is lost from the ECU
R dedicated oil temperature sensor used for the fuel return valve control.

R NOTE : This sensor is not used for the oil temperature indication in the
R cockpit.

R (1) If the test gives the maintenance message EOT SNSR, J13, ECU:
R - disconnect the connector of the harness HJ13 from the oil temperature sensor and do a resistance check of the sensor (Ref. ASM 73-25/18) between:
R . pins 1 and 2 (0.5 to 10 ohms)
R . pins 3 and 4 (0.5 to 10 ohms)
R . pins 2 and 5 (>1 megohm)
R . pins 3 and 5 (>1 megohm)
R . pin 1 and the ground (>1 megohm)
R . pin 4 and the ground (>1 megohm).

R (a) If the resistance values are out of the specified limits:
R - replace the oil temperature sensor (Ref. AMM TASK 79-31-40-000-001) and (Ref. AMM TASK 79-31-40-400-001).

R (b) If the resistance values are in the specified limits:
R - connect the harness HJ13 to the oil temperature sensor again,
R - disconnect the connector of the harness HJ13 from the ECU (4000KS) and do a resistance check (Ref. ASM 73-25/18) between:
R . pins 10 and 22 (0.5 to 10 ohms)
R . pins 9 and 20 (0.5 to 10 ohms)
R . pins 9 and 21 (>1 megohm)
R . pins 10 and 21 (>1 megohm)
R . pin 9 and the ground (>1 megohm)
R . pin 10 and the ground (>1 megohm).

R 1 If the resistance values are out of the specified limits:
R - replace the harness HJ13 (Ref. AMM TASK 73-21-50-000-046) and (Ref. AMM TASK 73-21-50-400-046).

R 2 If the resistance values are in the specified limits:
R - replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

R (2) If the test does not give the maintenance message EOT SENS, J13, ECU:
R - do a check of the connectors on the harness HJ13 between the ECU and the oil temperature sensor for absence of loosening, contamination, corrosion or damaged pins or sockets,
R - clean, retighten or replace the harness HJ13 as required (Ref. AMM TASK 73-21-50-210-001).

R (a) If nothing is found:
R - replace the oil temperature sensor (Ref. AMM TASK 79-31-40-000-001) and (Ref. AMM TASK 79-31-40-400-001).

R 1 If the fault continues:
R - replace the harness HJ13 (Ref. AMM TASK 73-21-50-000-046) and (Ref. AMM TASK 73-21-50-400-046).

R a If the fault continues:
R - replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

R

B. Do the test given in Para. 3.

(1) No additional maintenance action is required if the fault is not confirmed.

(2) Repeat the fault isolation procedure if the fault continues.

TASK 79-31-00-810-817

R Loss of the Signal of the FADEC Oil Temperature Sensor to the ECU on Engine 1
R Channel B

1. Possible Causes

R
- oil temperature sensor
R - harness HJ13
- ECU (4000KS)

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
R AMM	73-21-50-000-046	Removal of the HJ13 Harness
AMM	73-21-50-210-001	Visual Inspection of the Wiring Harness
R AMM	73-21-50-400-046	Installation of the HJ13 Harness
AMM	73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM	73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM	73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
AMM	79-31-40-000-001	Removal Oil Temperature Sensor (IDG Cooling System Control Sensor)
AMM	79-31-40-400-001	Installation Oil Temperature Sensor (IDG Cooling System Control Sensor)
ASM	73-25/18	

3. Fault Confirmation

A. Do the operational test of the FADEC 1B on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

R A. This fault message is generated if the output signal is lost from the ECU
R dedicated oil temperature sensor used for the fuel return valve control.

R NOTE : This sensor is not used for the oil temperature indication in the
R cockpit.

R (1) If the test gives the maintenance message EOT SNSR, J13, ECU:
R - disconnect the connector of the harness HJ13 from the oil
R temperature sensor and do a resistance check of the sensor (Ref.
R ASM 73-25/18) between:
R . pins 1 and 2 (0.5 to 10 ohms)

R . pins 3 and 4 (0.5 to 10 ohms)
R . pins 2 and 5 (>1 megohm)
R . pins 3 and 5 (>1 megohm)
R . pin 1 and the ground (>1 megohm)
R . pin 4 and the ground (>1 megohm).

R (a) If the resistance values are out of the specified limits:
R - replace the oil temperature sensor (Ref. AMM TASK 79-31-40-000-001) and (Ref. AMM TASK 79-31-40-400-001).

R (b) If the resistance values are in the specified limits:
R - connect the harness HJ13 to the oil temperature sensor again,
R - disconnect the connector of the harness HJ13 from the ECU (4000KS) and do a resistance check (Ref. ASM 73-25/18) between:
R . pins 10 and 22 (0.5 to 10 ohms)
R . pins 9 and 20 (0.5 to 10 ohms)
R . pins 9 and 21 (>1 megohm)
R . pins 10 and 21 (>1 megohm)
R . pin 9 and the ground (>1 megohm)
R . pin 10 and the ground (>1 megohm).

R 1 If the resistance values are out of the specified limits:
R - replace the harness HJ13 (Ref. AMM TASK 73-21-50-000-046) and (Ref. AMM TASK 73-21-50-400-046).

R 2 If the resistance values are in the specified limits:
R - replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

R (2) If the test does not give the maintenance message EOT SENS, J13, ECU:
R - do a check of the connectors on the harness HJ13 between the ECU and the oil temperature sensor for absence of loosening, contamination, corrosion or damaged pins or sockets,
R - clean, retighten or replace the harness HJ13 as required (Ref. AMM TASK 73-21-50-210-001).

R (a) If nothing is found:
R - replace the oil temperature sensor (Ref. AMM TASK 79-31-40-000-001) and (Ref. AMM TASK 79-31-40-400-001).

R 1 If the fault continues:
R - replace the harness HJ13 (Ref. AMM TASK 73-21-50-000-046) and (Ref. AMM TASK 73-21-50-400-046).

R a If the fault continues:
R - replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).
R

R B. Do the test given in Para. 3.

R (1) No additional maintenance action is required if the fault is not
R confirmed.

R (2) Repeat the fault isolation procedure if the fault continues.
R

TASK 79-31-00-810-818

R Loss of the Signal of the FADEC Oil Temperature Sensor to the ECU on Engine 2
R Channel B

1. Possible Causes

R
- oil temperature sensor
R - harness HJ13
- ECU (4000KS)

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
R AMM	73-21-50-000-046	Removal of the HJ13 Harness
AMM	73-21-50-210-001	Visual Inspection of the Wiring Harness
R AMM	73-21-50-400-046	Installation of the HJ13 Harness
AMM	73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM	73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM	73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
AMM	79-31-40-000-001	Removal Oil Temperature Sensor (IDG Cooling System Control Sensor)
AMM	79-31-40-400-001	Installation Oil Temperature Sensor (IDG Cooling System Control Sensor)
ASM	73-25/18	

3. Fault Confirmation

A. Do the operational test of the FADEC 2B on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

R A. This fault message is generated if the output signal is lost from the ECU
R dedicated oil temperature sensor used for the fuel return valve control.

R NOTE : This sensor is not used for the oil temperature indication in the
R cockpit.

R (1) If the test gives the maintenance message EOT SNSR, J13, ECU:
R - disconnect the connector of the harness HJ13 from the oil
R temperature sensor and do a resistance check of the sensor (Ref.
R ASM 73-25/18) between:
R . pins 1 and 2 (0.5 to 10 ohms)

R . pins 3 and 4 (0.5 to 10 ohms)
R . pins 2 and 5 (>1 megohm)
R . pins 3 and 5 (>1 megohm)
R . pin 1 and the ground (>1 megohm)
R . pin 4 and the ground (>1 megohm).

R (a) If the resistance values are out of the specified limits:
R - replace the oil temperature sensor (Ref. AMM TASK 79-31-40-000-001) and (Ref. AMM TASK 79-31-40-400-001).

R (b) If the resistance values are in the specified limits:
R - connect the harness HJ13 to the oil temperature sensor again,
R - disconnect the connector of the harness HJ13 from the ECU (4000KS) and do a resistance check (Ref. ASM 73-25/18) between:
R . pins 10 and 22 (0.5 to 10 ohms)
R . pins 9 and 20 (0.5 to 10 ohms)
R . pins 9 and 21 (>1 megohm)
R . pins 10 and 21 (>1 megohm)
R . pin 9 and the ground (>1 megohm)
R . pin 10 and the ground (>1 megohm).

R 1 If the resistance values are out of the specified limits:
R - replace the harness HJ13 (Ref. AMM TASK 73-21-50-000-046) and (Ref. AMM TASK 73-21-50-400-046).

R 2 If the resistance values are in the specified limits:
R - replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

R (2) If the test does not give the maintenance message EOT SENS, J13, ECU:
R - do a check of the connectors on the harness HJ13 between the ECU and the oil temperature sensor for absence of loosening, contamination, corrosion or damaged pins or sockets,
R - clean, retighten or replace the harness HJ13 as required (Ref. AMM TASK 73-21-50-210-001).

R (a) If nothing is found:
R - replace the oil temperature sensor (Ref. AMM TASK 79-31-40-000-001) and (Ref. AMM TASK 79-31-40-400-001).

R 1 If the fault continues:
R - replace the harness HJ13 (Ref. AMM TASK 73-21-50-000-046) and (Ref. AMM TASK 73-21-50-400-046).

R a If the fault continues:
R - replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).
R

R B. Do the test given in Para. 3.

R (1) No additional maintenance action is required if the fault is not
R confirmed.

R (2) Repeat the fault isolation procedure if the fault continues.
R

R

TASK 79-32-00-810-821

R Loss of the Oil Temperature Signal from Sensor 4004EN or Disagree with Oil
R Temperature Signal from ECU Oil Temperature Sensor on Engine 1

1. Possible Causes

- EIU-1 (1KS1)
- SENSOR-OIL TEMP (4004EN)
R - aircraft wiring
R

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
R AMM	71-51-43-000-001	Removal of the Left Side Harness (4216KS)
R AMM	71-51-43-400-001	Installation of the Left Side Harness (4216KS)
R		
AMM	73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM	73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM	73-25-34-710-040	Operational Test of the Engine Interface Unit (1KS1,1KS2)
R AMM	79-32-15-000-041	Removal of the Oil Temperature Sensor (Engine Condition Monitoring Sensor)
R AMM	79-32-15-400-041	Installation of the Oil Temperature Sensor (Engine Condition Monitoring Sensor)
R ASM	79-36/01	

3. Fault Confirmation

R A. Not applicable.
R

4. Fault Isolation

R A. Procedure.

R NOTE : The fault is triggered if the oil temperature sensor (4004EN) indicates a temperature greater than 140 deg. C while the ECU temperature sensor indicates a temperature in between - 55 deg. C and 135 deg. C. This is indicative of a faulty output of oil temperature sensor (4004EN).

R (1) Check carrefully electrical connector at the oil temperature sensor (4004EN) for looseness, damaged pins or contamination.

R (a) If damage is found:
R - repair or replace as necessary.

R (b) If nothing is found:
R - replace the SENSOR-OIL TEMP (4004EN) (Ref. AMM TASK 79-32-15-000-041) and (Ref. AMM TASK 79-32-15-400-041).

R (2) If the fault continues:
R - do a check of the aircraft wiring between the oil temperature sensor (4004EN) and the EIU (1KS1) for open or short to ground (Ref. ASM 79-36/01) pin AA/1 to pin AA/10F. Pay particular attention to engine to pylon connectors 4005VC-A, 405VC-A, 4006VC-A and 406VC-A and to ground wire connections (9951DC, 9956DC and 9957DC) on Engine Fan Case (check for looseness or contamination).

R (a) if damage is found:
R - repair or replace the harness as necessary (Ref. AMM TASK 71-51-43-000-001) and (Ref. AMM TASK 71-51-43-400-001).

R (b) if nothing is found:
R - replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).
R

R B. Do the operational test of the Engine Interface Unit (EIU) through the CFDS (Ref. AMM TASK 73-25-34-710-040).
R

R (1) Check that failure message ECU1 4000KS OR OIL TEMP SENSOR 1 4004EN is no longer present.

TASK 79-32-00-810-822

Loss of the Oil Temperature Signal from Sensor 4004EN or Disagree with Oil Temperature Signal from ECU Oil Temperature Sensor on Engine 2

1. Possible Causes

R
- EIU-2 (1KS2)
- SENSOR-OIL TEMP (4004EN)
- aircraft wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-51-43-000-001	Removal of the Left Side Harness (4216KS)
AMM 71-51-43-400-001	Installation of the Left Side Harness (4216KS)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-710-040	Operational Test of the Engine Interface Unit (1KS1,1KS2)
AMM 79-32-15-000-041	Removal of the Oil Temperature Sensor (Engine Condition Monitoring Sensor)
AMM 79-32-15-400-041	Installation of the Oil Temperature Sensor (Engine Condition Monitoring Sensor)
ASM 79-36/01	

3. Fault Confirmation

A. Not applicable.

4. Fault Isolation

A. Procedure.

NOTE : The fault is triggered if the oil temperature sensor (4004EN) indicates a temperature greater than 140 deg. C while the ECU temperature sensor indicates a temperature in between - 55 deg. C and 135 deg. C. This is indicative of a faulty output of oil temperature sensor (4004EN).

(1) Check carrefully electrical connector at the oil temperature sensor (4004EN) for looseness, damaged pins or contamination.

(a) If damage is found:
- repair or replace as necessary.

(b) If nothing is found:
- replace the SENSOR-OIL TEMP (4004EN) (Ref. AMM TASK 79-32-15-000-041) and (Ref. AMM TASK 79-32-15-400-041).

(2) If the fault continues:
- do a check of the aircraft wiring between the oil temperature
R sensor (4004EN) and the EIU (1KS2) for open or short to ground
R (Ref. ASM 79-36/01) pin AA/1 to pin AA/10F. Pay particular attention to engine to pylon connectors 4005VC-A, 405VC-A, 4006VC-A and 406VC-A and to ground wire connections (9951DC, 9956DC and 9957DC) on Engine Fan Case (check for looseness or contamination).

(a) if damage is found:
- repair or replace the harness as necessary (Ref. AMM TASK 71-51-43-000-001) and (Ref. AMM TASK 71-51-43-400-001).

(b) if nothing is found:
R - replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

B. Do the operational test of the Engine Interface Unit (EIU) through the CFDS (Ref. AMM TASK 73-25-34-710-040).

R (1) Check that failure message ECU2 4000KS OR OIL TEMP SENSOR 2 4004EN is
R no longer present.

TASK 79-33-00-810-807

Disagree between the Oil Pressure Transmitter and the Low Oil Pressure Switch on Engine 1

1. Possible Causes

- SW-LOW OIL PRESS (4000EN)
- XMTR-OIL PRESS (4003EN)
- wiring from the EIU 1 (1KS1) to the low oil pressure switch (4000EN)
- wiring from the EIU 1 (1KS1) to the oil pressure transmitter (4003EN)
R - EIU-1 (1KS1)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-710-044	Read the Class 3 Faults
AMM 79-33-15-000-041	Removal of the Oil Pressure Transmitter (4003EN)
AMM 79-33-15-400-041	Installation of the Oil Pressure Transmitter (4003EN)
AMM 79-34-15-000-041	Removal of the Low Oil Pressure Switch (4000EN)
AMM 79-34-15-400-041	Installation of the Low Oil Pressure Switch (4000EN)
ASM 79-36/01	

R

3. Fault Confirmation

A. Test

(1) Do the operational test of the Engine Interface Unit (EIU) through the Centralized Fault Display System (CFDS) to read the Class 3 Faults (Ref. AMM TASK 73-25-34-710-044).

4. Fault Isolation

A. If the test gives the maintenance message OIL PRESS XMTR 1 4003EN OR LOW PRESS 1 SW 4000EN:
- replace the SW-LOW OIL PRESS (4000EN) (Ref. AMM TASK 79-34-15-000-041) and (Ref. AMM TASK 79-34-15-400-041).

(1) If the fault continues:
- replace the XMTR-OIL PRESS (4003EN) (Ref. AMM TASK 79-33-15-000-041) and (Ref. AMM TASK 79-33-15-400-041).

R

R (2) If the fault continues:
R - do a check of the wiring from the EIU 1 (1KS1) to the low oil
R pressure switch (4000EN) and the wiring from the EIU 1 (1KS1) to
R the oil pressure transmitter (4003EN) pins AA/8D, 8B to pins AA/3,
R 4 (Ref. ASM 79-36/01),
R
R - repair or replace as required.

R (3) If the fault continues:
R - replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref.
R AMM TASK 73-25-34-400-040).

B. Do the test given in Para. 3.A.

R (1) No additional maintenance action is required if the fault is not
R confirmed.

R (2) Repeat the fault isolation procedure if the fault continues.

TASK 79-33-00-810-808

Disagree between the Oil Pressure Transmitter and the Low Oil Pressure Switch on Engine 2

1. Possible Causes

- SW-LOW OIL PRESS(4000EN)
- XMTR-OIL PRESS (4003EN)
- wiring from the EIU 2 (1KS2) to the low oil pressure switch (4000EN)
- wiring from the EIU 2 (1KS2) to the oil pressure transmitter (4003EN)
- EIU-2 (1KS2)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-710-044	Read the Class 3 Faults
AMM 79-33-15-000-041	Removal of the Oil Pressure Transmitter (4003EN)
AMM 79-33-15-400-041	Installation of the Oil Pressure Transmitter (4003EN)
AMM 79-34-15-000-041	Removal of the Low Oil Pressure Switch (4000EN)
AMM 79-34-15-400-041	Installation of the Low Oil Pressure Switch (4000EN)
ASM 79-36/01	

3. Fault Confirmation

A. Test

(1) Do the operational test of the Engine Interface Unit (EIU) through the Centralized Fault Display System (CFDS) to read the Class 3 Faults (Ref. AMM TASK 73-25-34-710-044).

4. Fault Isolation

A. If the test gives the maintenance message OIL PRESS XMTR 2 4003EN OR LOW PRESS 2 SW 4000EN:
- replace the SW-LOW OIL PRESS(4000EN) (Ref. AMM TASK 79-34-15-000-041) and (Ref. AMM TASK 79-34-15-400-041).

(1) If the fault continues:
- replace the XMTR-OIL PRESS (4003EN) (Ref. AMM TASK 79-33-15-000-041) and (Ref. AMM TASK 79-33-15-400-041).

(2) If the fault continues:
- do a check of the wiring from the EIU 2 (1KS2) to the low oil pressure switch (4000EN) and the wiring from the EIU 2 (1KS2) to the oil pressure transmitter (4003EN) pins AA/8D, 8B to pins AA/3, 4 (Ref. ASM 79-36/01),
- repair or replace as required.

(3) If the fault continues:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

B. Do the test given in Para. 3.A.

(1) No additional maintenance action is required if the fault is not confirmed.

(2) Repeat the fault isolation procedure if the fault continues.

R TASK 79-33-00-810-814

R Failure of the Oil Pressure Transmitter on Engine 1

R 1. Possible Causes

R - XMTR-OIL PRESS (4003EN)
R - wiring from the oil pressure transmitter (4003EN) pins A/4,3 to the first
R terminal block

R 2. Job Set-up Information

R A. Referenced Information

REFERENCE	DESIGNATION
AMM 31-50-00-710-001	Ground Scanning of the Central Warning System
AMM 79-33-15-000-041	Removal of the Oil Pressure Transmitter (4003EN)
AMM 79-33-15-400-041	Installation of the Oil Pressure Transmitter (4003EN)
ASM 79-36/01	
ASM 79-36/01	

R 3. Fault Confirmation

R A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT. LOCATION
121VU	ENGINE/ENG1/OIL/PRESS	2EN1 N40

R B. Test
Do the operational test of the central warning systems (SDAC) (Ref. AMM
TASK 31-50-00-710-001).

R 4. Fault Isolation

R A. If the test gives the maintenance message SDAC1 : ENG1 OIL PRESS XMTR
4004EN and SDAC2 : ENG1 OIL PRESS XMTR 4004EN:
- replace the XMTR-OIL PRESS (4003EN) (Ref. AMM TASK 79-33-15-000-041)
and (Ref. AMM TASK 79-33-15-400-041).

(1) If the fault continues:
- do a check and repair the wiring from the oil pressure transmitter
(4003EN) pins A/4,3 to the first terminal block (Ref. ASM 79-36/01)
and (Ref. ASM 79-36/01).

R B. Do the test given in Para. 3.

R TASK 79-33-00-810-815

R Failure of the Oil Pressure Transmitter on Engine 2

R 1. Possible Causes

R - XMTR-OIL PRESS (4003EN)
R - wiring from the oil pressure transmitter (4003EN) pins A/4,3 to the first
R terminal block

R 2. Job Set-up Information

R A. Referenced Information

REFERENCE	DESIGNATION
AMM 31-50-00-710-001	Ground Scanning of the Central Warning System
AMM 79-33-15-000-041	Removal of the Oil Pressure Transmitter (4003EN)
AMM 79-33-15-400-041	Installation of the Oil Pressure Transmitter (4003EN)
ASM 79-36/01	
ASM 79-36/01	

R 3. Fault Confirmation

R A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	ENGINE/ENG2/OIL/PRESS	2EN2	N42

R B. Test
R Do the operational test of the central warning systems (SDAC) (Ref. AMM
R TASK 31-50-00-710-001).

R 4. Fault Isolation

R A. If the test gives the maintenance message SDAC1 : ENG2 OIL PRESS XMTR
R 4004EN and SDAC2 : ENG1 OIL PRESS XMTR 4004EN:
R - replace the XMTR-OIL PRESS (4003EN) (Ref. AMM TASK 79-33-15-000-041)
R and (Ref. AMM TASK 79-33-15-400-041).

R (1) If the fault continues:
R - do a check and repair the wiring from the oil pressure transmitter
R (4003EN) pins A/4,3 to the first terminal block (Ref. ASM 79-36/01)
R and (Ref. ASM 79-36/01).

R B. Do the test given in Para. 3.

TASK 79-40-00-810-801

Engine 1 oil temperature read by the FADEC sensor is higher than 135 deg.C (275 deg.F)

1. Possible Causes

- IDG
- EIU
- fuel return valve
R - L (R) OUT TEMP SENSOR (30QJ1(30QJ2))
R - L (R) INN TEMP SENSOR (29QJ1(29QJ2))
R - L (R) LO LEVEL SENSOR (38QJ1(38QJ2))
R - L(R) SURGE SENSOR (28QJ1(28QJ2))
R - FLSCU-1 (2) (7QJ (9QJ))
- IDG oil/fuel heat exchanger
- FADEC oil temperature sensor (not 4004EN)
- ECU (4000KS)
- pressure-holding valve (124QM)
- fuel recirculation check-valve

2. Job Set-up Information

A. Referenced Information

	REFERENCE	DESIGNATION
R	28-46-00-810-812	L(R) Surge Tank Overflow Sensor 28QJ1(2)
R	28-46-00-810-813	L(R) Inner Temperature Sensor 29QJ1(2)
R	28-46-00-810-814	L(R) Outer Temperature Sensor 30QJ1(2)
R	28-46-00-810-815	L(R) IDG Shut Off Sensor 38QJ1(2)
R	28-46-00-810-818	FLSCU1(2) 7QJ(9QJ)
	AMM 28-16-41-000-001	Removal of the Pressure-Holding Valve 124QM (125QM)
	AMM 28-16-41-400-001	Installation of the Pressure-Holding Valve 124QM (125QM)
	AMM 28-16-42-000-001	Removal of the Fuel Recirculation Check-valve
	AMM 28-16-42-400-001	Installation of the Fuel Recirculation Check-valve
	AMM 71-00-00-710-006	Minimum Idle Check
	AMM 73-11-50-000-002	Removal of the Fuel Return Valve (FRV)
	AMM 73-11-50-210-002	Inspection/Check of the Fuel Return Valve
	AMM 73-11-50-400-002	Installation of the Fuel Return Valve
	AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)
	AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)
	AMM 79-21-10-210-002	Check of the Lubrication Unit Magnetic Plugs and Screens
	AMM 79-21-20-000-002	Removal of the Main Oil/Fuel Heat Exchanger
	AMM 79-21-20-400-002	Installation of the Main Oil/Fuel Heat Exchanger

REFERENCE	DESIGNATION
AMM 79-31-40-000-002	Removal of the Oil Temperature Sensor (IDG Cooling System Control Sensor)
AMM 79-31-40-400-002	Installation of the Oil Temperature Sensor (IDG Cooling System Control Sensor)

3. Fault Confirmation

A. Test

(1) Not applicable.

4. Fault Isolation

R **ON A/C 201-225, 227-227, 229-275, 426-475, 551-599, 701-749,

A. Check the log book/crew report and Post Flight Report (PFR) for IDG failure warning or message.
This failure is triggered if the engine oil temperature goes beyond 135 deg.C (275 deg.F) possibly caused by too high IDG oil temperature.

(1) If IDG failure warning or messages are present, do the related trouble shooting procedure (TSM CFDS chapter 79).

(2) If no IDG failure warning or messages are present:

(a) Check the PFR and look for failure messages including the following words: FRV, J7 and/or FRV, J8; EIU; EIU (031) for possible causes of forced closure of the fuel return valve.
- If messages are present, do the related trouble shooting procedure (TSM CFDS chapter 21, 73 and 79).

(b) Check the PFR and look for the following failure messages relative to fuel system elements :

1 FUEL LEVEL SENSING L OUT TEMP SENSOR 30QJ1 or FUEL LEVEL SENSING R OUT TEMP SENSOR 30QJ2
- do the applicable trouble shooting procedure for L (R) OUT TEMP SENSOR (30QJ1(30QJ2)) (Ref. TASK 28-46-00-810-814).

2 FUEL LEVEL SENSING L INN TEMP SENSOR 29QJ1 or FUEL LEVEL SENSING R INN TEMP SENSOR 29QJ2
- do the applicable trouble shooting procedure for L (R) INN TEMP SENSOR (29QJ1(29QJ2)) (Ref. TASK 28-46-00-810-813).

3 FUEL LEVEL SENSING L LO LEVEL SENSOR 38QJ1 or FUEL LEVEL SENSING R LO LEVEL SENSOR 38QJ2

- do the applicable trouble shooting procedure for L (R) LO LEVEL SENSOR (38QJ1(38QJ2)) (Ref. TASK 28-46-00-810-815).

4 FUEL LEVEL SENSING L SURGE SENSOR 28QJ1 or FUEL LEVEL SENSING R SURGE SENSOR 28QJ2
- do the applicable trouble shooting procedure for L(R) SURGE SENSOR (28QJ1(28QJ2)) (Ref. TASK 28-46-00-810-812).

5 FUEL LEVEL SENSING FLSCU1 7QJ or FUEL LEVEL SENSING FLSCU2 9QJ
- do the applicable trouble shooting procedure for FLSCU-1 (2) (7QJ (9QJ)) (Ref. TASK 28-46-00-810-818).

(c) If no failure messages are present:
- get a sample of oil from the engine oil tank.

1 If you can smell fuel presence in the engine oil:
- replace the IDG oil/fuel heat exchanger (Ref. AMM TASK 79-21-20-000-002) and (Ref. AMM TASK 79-21-20-400-002),
- do a check of the lubrication unit magnetic plugs and screens (Ref. AMM TASK 79-21-10-210-002).

2 If nothing is found:
- do a functional check of the fuel return valve to make sure that it operates correctly (Ref. AMM TASK 73-11-50-210-002)

a If the valve does not operate correctly:
- replace the valve (Ref. AMM TASK 73-11-50-000-002) and (Ref. AMM TASK 73-11-50-400-002).

b If the valve operates correctly:
- replace the FADEC oil temperature sensor (not 4004EN) (Ref. AMM TASK 79-31-40-000-002) and (Ref. AMM TASK 79-31-40-400-002).

3 If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

4 If the fault continues:
- replace the pressure-holding valve (124QM) (Ref. AMM TASK 28-16-41-000-001) and (Ref. AMM TASK 28-16-41-400-001).

5 If the fault continues:
- replace the fuel recirculation check-valve (Ref. AMM TASK 28-16-42-000-001) and (Ref. AMM TASK 28-16-42-400-001).

R **ON A/C 276-299, 476-499, 503-549,

R A. Check the log book/crew report and Post Flight Report (PFR) for IDG
R failure warning or message.
R This failure is triggered if the engine oil temperature goes beyond 135
R deg.C (275 deg.F) possibly caused by too high IDG oil temperature.

R (1) If IDG failure warning or messages are present, do the related
R trouble shooting procedure (TSM CFDS chapter 79).

R (2) If no IDG failure warning or messages are present:

R (a) Check the PFR and look for failure messages including the
R following words: FRV, J7 and/or FRV, J8; EIU; EIU (031) for
R possible causes of forced closure of the fuel return valve.
R - If messages are present, do the related trouble shooting
R procedure (TSM CFDS chapter 21, 73 and 79).

R (b) Check the PFR and look for the following failure messages
R relative to fuel system elements :

R 1 FUEL LEVEL SENSING L TEMP SENSOR 29QJ1 or FUEL LEVEL SENSING R
R TEMP SENSOR 29QJ2
R - do the applicable trouble shooting procedure for L (R) INN
R TEMP SENSOR (29QJ1(29QJ2)) (Ref. TASK 28-46-00-810-813).

R 2 FUEL LEVEL SENSING L LO LEVEL SENSOR 38QJ1 or FUEL LEVEL
R SENSING R LO LEVEL SENSOR 38QJ2
R - do the applicable trouble shooting procedure for L (R) LO
R LEVEL SENSOR (38QJ1(38QJ2)) (Ref. TASK 28-46-00-810-815).

R 3 FUEL LEVEL SENSING L SURGE SENSOR 28QJ1 or FUEL LEVEL SENSING
R R SURGE SENSOR 28QJ2
R - do the applicable trouble shooting procedure for L(R) SURGE
R SENSOR (28QJ1(28QJ2)) (Ref. TASK 28-46-00-810-812).

R 4 FUEL LEVEL SENSING FLSCU1 7QJ or FUEL LEVEL SENSING FLSCU2 9QJ
R - do the applicable trouble shooting procedure for FLSCU-1 (2)
R (7QJ (9QJ)) (Ref. TASK 28-46-00-810-818).

R (c) If no failure messages are present:
R - get a sample of oil from the engine oil tank.

R 1 If you can smell fuel presence in the engine oil:
R - replace the IDG oil/fuel heat exchanger (Ref. AMM TASK 79-
R 21-20-000-002) and (Ref. AMM TASK 79-21-20-400-002),
R - do a check of the lubrication unit magnetic plugs and
R screens (Ref. AMM TASK 79-21-10-210-002).

R 2 If nothing is found:
R - do a functional check of the fuel return valve to make sure
R that it operates correctly (Ref. AMM TASK 73-11-50-210-002)

R a If the valve does not operate correctly:
R - replace the valve (Ref. AMM TASK 73-11-50-000-002) and
R (Ref. AMM TASK 73-11-50-400-002).

R b If the valve operates correctly:
R - replace the FADEC oil temperature sensor (not 4004EN)
R (Ref. AMM TASK 79-31-40-000-002) and (Ref. AMM TASK 79-
R 31-40-400-002).

R 3 If the fault continues:
R - replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001)
R and (Ref. AMM TASK 73-21-60-400-001).

R 4 If the fault continues:
R - replace the pressure-holding valve (124QM) (Ref. AMM TASK
R 28-16-41-000-001) and (Ref. AMM TASK 28-16-41-400-001).

R 5 If the fault continues:
R - replace the fuel recirculation check-valve (Ref. AMM TASK
R 28-16-42-000-001) and (Ref. AMM TASK 28-16-42-400-001).

R **ON A/C ALL

B. Test

(1) Do a minimum idle check (Ref. AMM TASK 71-00-00-710-006).

(2) Repeat the fault isolation procedure if the fault continues.

TASK 79-40-00-810-802

Engine 2 oil temperature read by the Fadec sensor is higher than 135 deg.C (275 deg.F)

1. Possible Causes

- IDG
- EIU
- fuel return valve
R - L (R) OUT TEMP SENSOR (30QJ1(30QJ2))
R - L (R) INN TEMP SENSOR (29QJ1(29QJ2))
R - L (R) LO LEVEL SENSOR (38QJ1(38QJ2))
R - L(R) SURGE SENSOR (28QJ1(28QJ2))
R - FLSCU-1 (2) (7QJ (9QJ))
- IDG oil/fuel heat exchanger
- FADEC oil temperature sensor (not 4004EN)
- ECU (4000KS)
- pressure-holding valve (125QM)
- fuel recirculation check-valve

2. Job Set-up Information

A. Referenced Information

	REFERENCE	DESIGNATION
R	28-46-00-810-812	L(R) Surge Tank Overflow Sensor 28QJ1(2)
R	28-46-00-810-813	L(R) Inner Temperature Sensor 29QJ1(2)
R	28-46-00-810-814	L(R) Outer Temperature Sensor 30QJ1(2)
R	28-46-00-810-815	L(R) IDG Shut Off Sensor 38QJ1(2)
R	28-46-00-810-818	FLSCU1(2) 7QJ(9QJ)
	AMM 28-16-41-000-001	Removal of the Pressure-Holding Valve 124QM (125QM)
	AMM 28-16-41-400-001	Installation of the Pressure-Holding Valve 124QM (125QM)
	AMM 28-16-42-000-001	Removal of the Fuel Recirculation Check-valve
	AMM 28-16-42-400-001	Installation of the Fuel Recirculation Check-valve
	AMM 71-00-00-710-006	Minimum Idle Check
	AMM 73-11-50-000-002	Removal of the Fuel Return Valve (FRV)
	AMM 73-11-50-210-002	Inspection/Check of the Fuel Return Valve
	AMM 73-11-50-400-002	Installation of the Fuel Return Valve
	AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)
	AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)
	AMM 79-21-10-210-002	Check of the Lubrication Unit Magnetic Plugs and Screens
	AMM 79-21-20-000-002	Removal of the Main Oil/Fuel Heat Exchanger
	AMM 79-21-20-400-002	Installation of the Main Oil/Fuel Heat Exchanger
	AMM 79-31-40-000-002	Removal of the Oil Temperature Sensor (IDG Cooling System Control Sensor)

REFERENCE	DESIGNATION
AMM 79-31-40-400-002	Installation of the Oil Temperature Sensor (IDG Cooling System Control Sensor)

3. Fault Confirmation

A. Test

(1) Not applicable.

4. Fault Isolation

R **ON A/C 201-225, 227-227, 229-275, 426-475, 551-599, 701-749,

A. Check the log book/crew report and Post Flight Report (PFR) for IDG failure warning or message.
This failure is triggered if the engine oil temperature goes beyond 135 deg.C (275 deg.F) possibly caused by too high IDG oil temperature.

(1) If IDG failure warning or messages are present, do the related trouble shooting procedure (TSM CFDS chapter 79).

(2) If no IDG failure warning or messages are present:

(a) Check the PFR and look for failure messages including the following words: FRV, J7 and/or FRV, J8; EIU; EIU (031) for possible causes of forced closure of the fuel return valve.
- If messages are present, do the related trouble shooting procedure (TSM CFDS chapter 21, 73 and 79).

(b) Check the PFR and look for the following failure messages relative to fuel system elements:

1 FUEL LEVEL SENSING L OUT TEMP SENSOR 30QJ1 or FUEL LEVEL SENSING R OUT TEMP SENSOR 30QJ2
- do the applicable trouble shooting procedure for L (R) OUT TEMP SENSOR (30QJ1(30QJ2)) (Ref. TASK 28-46-00-810-814).

2 FUEL LEVEL SENSING L INN TEMP SENSOR 29QJ1 or FUEL LEVEL SENSING R INN TEMP SENSOR 29QJ2
- do the applicable trouble shooting procedure for L (R) INN TEMP SENSOR (29QJ1(29QJ2)) (Ref. TASK 28-46-00-810-813).

3 FUEL LEVEL SENSING L LO LEVEL SENSOR 38QJ1 or FUEL LEVEL SENSING R LO LEVEL SENSOR 38QJ2
- do the applicable trouble shooting procedure for L (R) LO LEVEL SENSOR (38QJ1(38QJ2)) (Ref. TASK 28-46-00-810-815)

4 FUEL LEVEL SENSING L SURGE SENSOR 28QJ1 or FUEL LEVEL SENSING R SURGE SENSOR 28QJ2
- do the applicable trouble shooting procedure for L(R) SURGE SENSOR (28QJ1(28QJ2)) (Ref. TASK 28-46-00-810-812).

5 FUEL LEVEL SENSING FLSCU1 7QJ or FUEL LEVEL SENSING FLSCU2 9QJ
- do the applicable trouble shooting procedure for FLSCU-1 (2) (7QJ (9QJ)) (Ref. TASK 28-46-00-810-818).

(c) If no failure messages are present:
- get a sample of oil from the engine oil tank.

1 If you can smell fuel presence in the engine oil:
- replace the IDG oil/fuel heat exchanger (Ref. AMM TASK 79-21-20-000-002) and (Ref. AMM TASK 79-21-20-400-002),
- do a check of the lubrication unit magnetic plugs and screens (Ref. AMM TASK 79-21-10-210-002).

2 If nothing is found:
- do a functional check of the fuel return valve to make sure that it operates correctly (Ref. AMM TASK 73-11-50-210-002)

a If the valve does not operate correctly:
- replace the valve (Ref. AMM TASK 73-11-50-000-002) and (Ref. AMM TASK 73-11-50-400-002).

b If the valve operates correctly:
- replace the FADEC oil temperature sensor (not 4004EN) (Ref. AMM TASK 79-31-40-000-002) and (Ref. AMM TASK 79-31-40-400-002).

3 If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

4 If the fault continues:
- replace the pressure-holding valve (125QM) (Ref. AMM TASK 28-16-41-000-001) and (Ref. AMM TASK 28-16-41-400-001).

5 If the fault continues:
- replace the fuel recirculation check-valve (Ref. AMM TASK 28-16-42-000-001) and (Ref. AMM TASK 28-16-42-400-001).

R **ON A/C 276-299, 476-499, 503-549,

R A. Check the log book/crew report and Post Flight Report (PFR) for IDG
R failure warning or message.
R This failure is triggered if the engine oil temperature goes beyond 135
R deg.C (275 deg.F) possibly caused by too high IDG oil temperature.

R (1) If IDG failure warning or messages are present, do the related
R trouble shooting procedure (TSM CFDS chapter 79).

R (2) If no IDG failure warning or messages are present:

R (a) Check the PFR and look for failure messages including the
R following words: FRV, J7 and/or FRV, J8; EIU; EIU (031) for
R possible causes of forced closure of the fuel return valve.
R - If messages are present, do the related trouble shooting
R procedure (TSM CFDS chapter 21, 73 and 79).

R (b) Check the PFR and look for the following failure messages
R relative to fuel system elements:

R 1 FUEL LEVEL SENSING L TEMP SENSOR 29QJ1 or FUEL LEVEL SENSING R
R TEMP SENSOR 29QJ2
R - do the applicable trouble shooting procedure for L (R) INN
R TEMP SENSOR (29QJ1(29QJ2)) (Ref. TASK 28-46-00-810-813).

R 2 FUEL LEVEL SENSING L LO LEVEL SENSOR 38QJ1 or FUEL LEVEL
R SENSING R LO LEVEL SENSOR 38QJ2
R - do the applicable trouble shooting procedure for L (R) LO
R LEVEL SENSOR (38QJ1(38QJ2)) (Ref. TASK 28-46-00-810-815)

R 3 FUEL LEVEL SENSING L SURGE SENSOR 28QJ1 or FUEL LEVEL SENSING
R R SURGE SENSOR 28QJ2
R - do the applicable trouble shooting procedure for L(R) SURGE
R SENSOR (28QJ1(28QJ2)) (Ref. TASK 28-46-00-810-812).

R 4 FUEL LEVEL SENSING FLSCU1 7QJ or FUEL LEVEL SENSING FLSCU2 9QJ
R - do the applicable trouble shooting procedure for FLSCU-1 (2)
R (7QJ (9QJ)) (Ref. TASK 28-46-00-810-818).

R (c) If no failure messages are present:
R - get a sample of oil from the engine oil tank.

R 1 If you can smell fuel presence in the engine oil:
R - replace the IDG oil/fuel heat exchanger (Ref. AMM TASK 79-
R 21-20-000-002) and (Ref. AMM TASK 79-21-20-400-002),
R - do a check of the lubrication unit magnetic plugs and
R screens (Ref. AMM TASK 79-21-10-210-002).

R 2 If nothing is found:
R - do a functional check of the fuel return valve to make sure
R that it operates correctly (Ref. AMM TASK 73-11-50-210-002)

R a If the valve does not operate correctly:
R - replace the valve (Ref. AMM TASK 73-11-50-000-002) and
R (Ref. AMM TASK 73-11-50-400-002).

R b If the valve operates correctly:
R - replace the FADEC oil temperature sensor (not 4004EN)
R (Ref. AMM TASK 79-31-40-000-002) and (Ref. AMM TASK 79-
R 31-40-400-002).

R 3 If the fault continues:
R - replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001)
R and (Ref. AMM TASK 73-21-60-400-001).

R 4 If the fault continues:
R - replace the pressure-holding valve (125QM) (Ref. AMM TASK
R 28-16-41-000-001) and (Ref. AMM TASK 28-16-41-400-001).

R 5 If the fault continues:
R - replace the fuel recirculation check-valve (Ref. AMM TASK
R 28-16-42-000-001) and (Ref. AMM TASK 28-16-42-400-001).

R **ON A/C ALL

B. Test

(1) Do a minimum idle check (Ref. AMM TASK 71-00-00-710-006).

(2) Repeat the fault isolation procedure if the fault continues.