AIRBUS

CUSTOMIZATION	AIRCRAFT TYPES	DOCTYPES	REVISION DATE	REVISION NUMBER	TITLE
DLH	A318 A321 A320 A319	AMM	01-Nov-2022	129	73-13-42-720-010-A02 - Functional Test of the Fuel Recirculation Cooling System without Barfield Tester and with AIDS
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***** ON A/C FSN 101-149, 151-153, 155-199, 351-399***

TASK 73-13-42-720-010-A02
Functional Test of the Fuel Recirculation Cooling System without Barfield Tester and with AIDS

WARNING: PUT THE SAFETY DEVICES AND THE WARNING NOTICES IN POSITION BEFORE YOU START A TASK ON OR NEAR:
- **THE FLIGHT CONTROLS**
- **THE FLIGHT CONTROL SURFACES**
- **THE LANDING GEAR AND THE RELATED DOORS**
- **COMPONENTS THAT MOVE.**

MOVEMENT OF COMPONENTS CAN KILL OR CAUSE INJURY TO PERSONS AND/OR CAN CAUSE DAMAGE TO THE EQUIPMENT.

WARNING: MAKE SURE THAT THE GROUND SAFETY-LOCKS ARE IN POSITION ON THE LANDING GEAR. THIS WILL PREVENT UNWANTED MOVEMENT OF THE LANDING GEAR, AND THUS POSSIBLE INJURY TO PERSONS AND DAMAGE TO THE AIRCRAFT AND/OR EQUIPMENT.

1. Reason for the Job
Self explanatory

2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE	QTY	DESIGNATION
No specific	AR	SAFETY BARRIER(S)
No specific	AR	WARNING NOTICE(S)
98D27803500001	1	LOCKING TOOL ZERO POS

B. Work Zones and Access Panels

ZONE/ACCESS	ZONE DESCRIPTION
211	COCKPIT
400	POWER PLANT, NACELLES AND PYLONS

C. Referenced Information

REFERENCE	DESIGNATION
Ref. 12-11-28-650-003-A	Pressure Refuel with Automatic Control
Ref. 12-11-28-650-004-A	Pressure Refuel with Manual Control
Ref. 27-50-00-866-008-A	Extension of the Flaps on the Ground
Ref. 27-50-00-866-008-A01	Extension of the Flaps/Slats on the Ground
Ref. 31-36-00-740-008-A	Access to the Parameter Call-Up Menus
Ref. 31-60-00-860-001-A	EIS Start Procedure
Ref. 71-00-00-710-012-B	Test No.3 : Idle Leak Check
Ref. TSM 73-22-00-810-843	Failure of the Heat Management System with Operation of the Mode 5 on Engine 1
Ref. TSM 73-22-00-810-844	Failure of the Heat Management System with Operation of the Mode 5 on Engine 2

3. Job Set-up

SUBTASK 73-13-42-941-054-A
A. Safety Precautions
(1) Make sure that the flap/slat control lever on panel 114VU is in the zero position Ref. AMM TASK 27-50-00-866-008.
(2) Make sure that the LOCKING TOOL ZERO POS (98D27803500001) is on the slat/flap control lever.
(3) On the center pedestal, on the ENG panel 115VU:
(a) Put a WARNING NOTICE(S) to tell persons not to start the engine.
(4) Put a WARNING NOTICE(S) on the throttle control lever to tell persons not to operate the reverse system.
(5) Put the SAFETY BARRIER(S) in position.

SUBTASK 73-13-42-865-056-A

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

PANEL	DESIGNATION	FIN	LOCATION
49VU	ENGINE/2/FADEC A/AND EIU 2	2KS2	A05
49VU	ENGINE/1/FADEC A/AND EIU 1	2KS1	A04
121VU	ENGINE/ENG2/FADEC B	4KS2	Q40
121VU	ENGINE/ENG1/FADEC B/AND EIU 1	4KS1	R41
121VU	FUEL/PUMPS/2/R CTL AND L IND	10QA	R29
121VU	FUEL/CTR TK/L&R XFR/CTL & IND	2QL	R26
121VU	FUEL/CTR TK/L&R XFR/CTL & IND	1QL	R25
121VU	FUEL/PUMPS/1/L CTL AND R IND	3QA	R23

SUBTASK 73-13-42-010-055-A
DELETED

4. Procedure

***** ON A/C FSN 157-199, 351-399***

SUBTASK 73-13-42-720-053-C

A. Functional Test of the Fuel Recirculation Cooling System

(1) Make sure that circuit breakers 1QL and 2QL are closed.

NOTE: If the related DC BUS is not powered and the circuit breakers not closed, the applicable Fuel Level Sensing Control Unit (FLSCU) cannot supply and IDG/FRV open command via the Engine Interface Unit (EIU) to the Electronic Engine Control (EEC).

(2) Do the Electronic Instrument System (EIS) start procedure (ECAM only) Ref. AMM TASK 31-60-00-860-001.

(3) On the ECAM control panel, push the FUEL pushbutton switch.

(4) On the ECAM lower Display Unit (DU), make sure that the FUEL page is shown.

(5) On the lower ECAM DU, monitor the FUEL system display and make sure that:

- all the fuel pumps are shown green in-line
- the L(R) inner wing temperature is less than 52.5 deg.C
- the L(R) outer cell temperature is less than 55 deg.C
- the L(R) wing tank contains more than 290 kg (639.34 lb) of fuel to make sure that the IDG shut off sensor 38QJ1(2) is wet. Refuel if necessary Ref. AMM TASK 12-11-28-650-003 or Ref. AMM TASK 12-11-28-650-004
- the cross-feed valve is open.

(6) Do the functional test of the recirculation cooling system:

(a) Do the idle leak check Ref. AMM TASK 71-00-00-710-012:

1 Before you start the test, make sure that the engine oil temperature is 30 deg.C (86.00 deg.F). You can read this value on the lower ECAM DU.

NOTE: Fuel recirculation is not possible if engine oil temperature is less than 30 deg.C (86.00 deg.F).

2 On the upper ECAM DU make sure that the fuel flow is less than 4410 lbs/h and the fuel temperature is more than 5 deg.C (41.00 deg.F).

NOTE: Fuel recirculation is not possible if fuel flow is more than 4410 lbs/h and/or fuel temperature is less than 5 deg.C (41.00 deg.F).

3 Do this test:

a Get access to the parameter label call-up menu through the MCDU Ref. AMM TASK 31-36-00-740-008.

ACTION	RESULT
1.On the LABEL CALL-UP page, set with the MCDU keyboard: 07C/1/245/01 for engine 1. 07C/2/245/10 for engine 2.	
2.Push the line key 1L.	07C, 1, 245, 01 (07C, 2, 245, 10) come into view in their related box with the label 245 bits.

4 Decode the fuel return value position as follows

a Read the label 245 bits 28 to 14.

b Refer to the following table to find the value of each significant bit (set to 1 bit).

Bit number	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14
value of the bit when set to 1	16384	8192	4096	2048	1024	512	256	128	64	32	16	8	4	2	1

c Add all the significant bit values and calculate the position of the fuel return valve (in percent) with the following equation:

$$\text{Valve position} = \frac{\text{addition of the value of the significant bits}}{32768} \text{ X } 128$$

- Example: date transmitted on bits 14 to 28 of label 245

000111111010000
28----------14

.Value of the significant bits = 2048+1024+512+256+128+64+16 = 4048

$$\text{.Therefore valve position} = \frac{4048}{32768} \times 128 = 15.8 \text{ percent.}$$

5 Make sure that the calculated valve position is more than 10 percent.

(7) If the above procedure is not satisfactory, continue the troubleshooting using Ref. TSM 73-22-00-810-843 or Ref. TSM 73-22-00-810-844 to further isolate the reason for the test failure.

***** ON A/C FSN 101-149, 151-153, 155-199, 351-399***

5. Close-up

SUBTASK 73-13-42-410-054-A
DELETED

SUBTASK 73-13-42-942-055-A

A. Removal of Equipment

(1) Make sure that the work area is clean and clear of tools and other items.

(2) Remove the SAFETY BARRIER(S).

(3) Remove the LOCKING TOOL ZERO POS (98D27803500001) from the flap/slat lever on panel 114VU.

(4) Remove the WARNING NOTICE(S).

(5) Remove the access platform(s).

(6) Remove the ground support and maintenance equipment, the special and standard tools and all other items.