
SERVICE BULLETIN

N° 139-622

DATE: December 14, 2020

REV. : /

TITLE

ATA 28 – KIT CLOSED CIRCUIT REFUELLING RECEIVER (CCRR)

REVISION LOG

First Issue

An appropriate entry should be made in the aircraft log book upon accomplishment.
If ownership of aircraft has changed, please, forward to new owner.

1. PLANNING INFORMATION

A. EFFECTIVITY

AB/AW139 helicopters from S/N 31005 onward and from S/N 41001 onward.

B. COMPLIANCE

At Customer's option.

C. CONCURRENT REQUIREMENTS

N.A.

D. REASON

This Service Bulletin is issued in order to provide the necessary instructions on how to perform the installation of the kit closed circuit refueling receiver P/N 4G2820F00111.

E. DESCRIPTION

The kit closed circuit refueling receiver (CCRR) is installed in the same position as the standard filler adapter between the filler ring and the filler neck flange of the tank Number 2. Unlike the basic receiver, the CCRR kit allows the tanks refueling choosing between the gravity mode and the pressure mode.

The CCRR kit P/N 4G2820F00111 is not compatible with the kit locked filler cap P/N 4G2810F00111

F. APPROVAL

The technical content of this Service Bulletin is approved under the authority of DOA nr. EASA.21.J.005. For helicopters registered under other Aviation Authorities, before applying the Service Bulletin, applicable Aviation Authority approval must be checked within Leonardo Helicopters customer portal.

EASA states mandatory compliance with inspections, modifications or technical directives and related time of compliance by means of relevant Airworthiness Directives. If an aircraft listed in the effectivity embodies a modification or repair not LHD certified and affecting the content of this Service Bulletin, it is responsibility of the Owner/Operator to obtain a formal approval by Aviation Authority having jurisdiction on the aircraft, for any adaptation necessary before incorporation of the present Service Bulletin.

G. MANPOWER

To comply with this Service Bulletin two (2) MMH are deemed necessary.

MMH are based on hands-on time and can change with personnel and facilities available.

H. WEIGHT AND BALANCE

| WEIGHT (kg) | | 0.812 |
|----------------------|----------|---------------|
| | ARM (mm) | MOMENT (kgmm) |
| LONGITUDINAL BALANCE | 6082 | 4938.584 |
| LATERAL BALANCE | 963 | 781.956 |

I. REFERENCES

1) PUBLICATIONS

| <u>DATA MODULE</u> | <u>DESCRIPTION</u> | <u>PART</u> |
|-------------------------------|--|-------------|
| DM01 39-A-00-20-00-00A-120A-A | Helicopter on ground for a safe maintenance | - |
| DM02 39-A-28-11-03-00A-520A-A | Number 2 tank filler cap - Remove procedure | - |
| DM03 39-A-28-11-04-00A-520A-A | Number 2 tank filler ring - Remove procedure | - |
| DM04 39-A-28-11-19-00A-520A-A | Number 2 tank filler adapter - Remove procedure | - |
| DM05 39-A-11-00-01-00A-720A-A | Decal - Install procedure | - |
| DM06 39-A-28-11-00-00A-364A-A | Fuel tank installation - Leak check | - |

2) ACRONYMS

| | |
|------|--|
| AMDI | Aircraft Material Data Information |
| AMP | Aircraft Maintenance Publication |
| CCRR | Closed Circuit Refueling Receiver |
| DM | Data Module |
| DOA | Design Organization Approval |
| EASA | European Aviation Safety Agency |
| IPD | Illustrated Parts Data |
| ITEP | Illustrated Tool and Equipment Publication |
| LHD | Leonardo Helicopters Division |
| MMH | Maintenance-Man-Hours |

3) ANNEX

N.A.

J. PUBLICATIONS AFFECTED

AW139 IPD

K. SOFTWARE ACCOMPLISHMENT SUMMARY

N.A.

2. MATERIAL INFORMATION

A. REQUIRED MATERIALS

1) PARTS

| # | P/N | ALTERNATIVE P/N | DESCRIPTION | Q.TY | LVL | NOTE | LOG P/N |
|---|---------------|--------------------------------------|---------------------------------------|------|-----|---------|------------------------|
| 1 | 4G2820F00111 | | CLOSED CIRCUIT REFUELLING RECEIVER | REF | . | | |
| 2 | 750000-15 | | Adapter | 1 | .. | | 139-622L1 139-622L2 |
| 3 | MS29513-156 | | O-Ring | 1 | .. | | 139-622L1 139-622L2 |
| 4 | MS29513-164 | | O-Ring | 1 | .. | | 139-622L1 139-622L2 |
| 5 | AN525-416R10 | | Screw | 2 | .. | | 139-622L1 139-622L2 |
| 6 | A954AD080EN | A499AHD125E01N00 A499AHD125E04N00 | Stencil | 1 | .. | (1) (2) | 139-622L1 |
| 7 | A954AP065EN | A499AHP028E01N00 A499AHP028E04N00 | Stencil | 1 | .. | (1) (3) | 139-622L1 |
| 8 | AW001DSD040EQ | AW003DBHD080E00Q AW003DBHD080E01Q | Stencil | 1 | .. | (4) (5) | 139-622L2 |
| 9 | AW001DSP015EQ | AW003DBHP025E01Q AW003DBHP025E00Q | Stencil | 1 | .. | (4) (6) | 139-622L2 |

2) CONSUMABLES

Refer also to AMDI for the consumable materials required to comply with the AMP DM referenced in the accomplishment instructions.

3) LOGISTIC MATRIX

In order to apply this Service Bulletin, the following Logistic P/N can be ordered in accordance with the applicable notes:

| LOGISTIC P/N | Q.TY (PER HELO) | NOTE | PART |
|--------------|-----------------|------|------|
| 139-622L1 | 1 | (1) | - |
| 139-622L2 | 1 | (2) | - |

NOTE

- (1) Applicable for AW139 helicopters from S/N 31005 to S/N 31699 and from S/N 41001 to S/N 41499.
- (2) As an alternative to the stencil P/N A954AD080EN it is possible to install together both the decals P/N A499AHD125E01N00 and P/N A499AHD125E04N00.
- (3) As an alternative to the stencil P/N A954AP065EN it is possible to install together both the decals P/N A499AHP028E01N00 and P/N A499AHP028E04N00.
- (4) Applicable for AW139 helicopters from S/N 31700 onward and from S/N 41501 onward.
- (5) As an alternative to the stencil P/N AW001DSD040EQ it is possible to install

together both the decals P/N AW003DBHD080E00Q and
P/N AW003DBHD080E01Q.

- (6) As an alternative to the stencil P/N AW001DSP015EQ it is possible to install
together both the decals P/N AW003DBHP025E01Q and
P/N AW003DBHP025E00Q.

B. SPECIAL TOOLS

Refer also to ITEP for the special tools required to comply with the AMP DM referenced
in the accomplishment instructions.

C. INDUSTRY SUPPORT INFORMATION

Customization.

3. ACCOMPLISHMENT INSTRUCTIONS

GENERAL NOTES

- a) Place an identification tag on all components that are re-usable, including the attaching hardware that has been removed to gain access to the modification area and adequately protect them until their later re-use.
 - b) Protect properly all equipment not removed from area affected by the modification during installation procedure.
 - c) All lengths are in mm.
-
1. In accordance with AMP DM 39-A-00-20-00-00A-120A-A prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.
 2. With reference to Figure 1, gain access to the area affected by the installation and install the kit closed circuit refuelling receiver P/N 4G2820F00111 as described in the following procedure:
 - 2.1 In accordance with AMP DM 39-A-28-11-03-00A-520A-A and with reference to Figure 1 Detail A, remove the filler cap P/N 3G2810V00431.
 - 2.2 In accordance with AMP DM 39-A-28-11-04-00A-520A-A and with reference to Figure 1 Detail A, remove the external filler ring P/N 504333 by removing the 12 screws P/N AN525-416R8 that attach the filler neck to the airframe and retain them for later reuse.
 - 2.3 In accordance with AMP DM 39-A-28-11-19-00A-520A-A and with reference to Figure 1 Detail A, remove the filler adapter P/N 503522-1.
 - 2.4 With reference to Figure 1 Section B-B, lightly push the filler neck to the inner until the O-ring groove is in view and carefully install the O-Ring P/N MS29513-164 in its position.
 - 2.5 With reference to Figure 1 Section B-B, keep the filler neck in its position on the structure and install the O-Ring P/N MS29513-156 on the filler neck.
 - 2.6 With reference to Figure 1 Detail A and Section B-B, carefully insert the adapter P/N 750000-15 into the filler neck, ensuring that the arrow on the outside of the fuel adapter is facing upward.
 - 2.7 With reference to Figure 1 Detail A and Section B-B, fix the external filler ring P/N 504333 to the filler neck by means of n°10 existing screws P/N AN525-416R8.

- 2.8 With reference to Figure 1 Detail A, install the filler cap of the adapter P/N 750000-15 by means of n°2 screws P/N AN525-416R10.

NOTE

Perform the following step only for AW139 helicopters from S/N 31201 to S/N 31699 and from S/N 41201 to S/N 41499.

- 2.9 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 1 view looking inboard right side, install the stencil P/N A954AD080EN and the stencil P/N A954AP065EN.

NOTE

Perform the following step only for AW139 helicopters from S/N 31700 onward and from S/N 41501 onward.

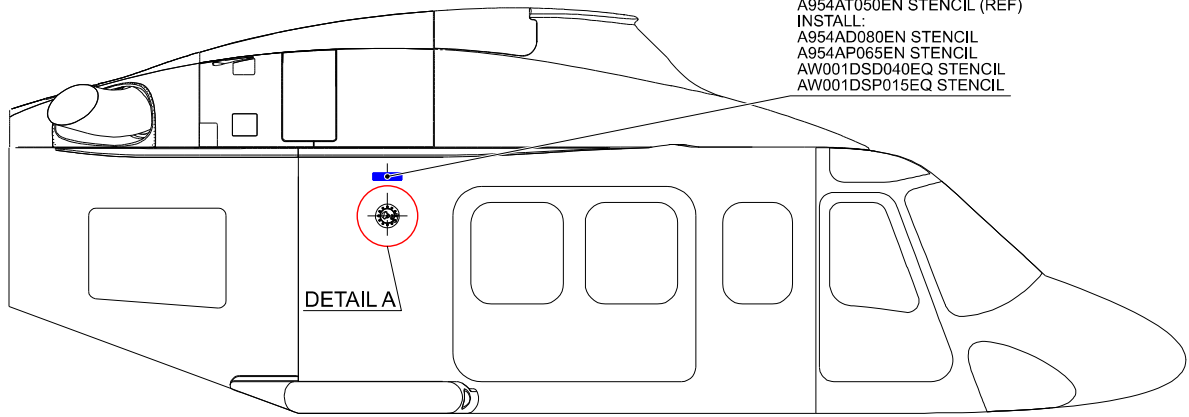
- 2.10 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 1 view looking inboard right side, install the stencil P/N AW001DSD040EQ and the stencil P/N AW001DSP015EQ.
3. In accordance with AMP DM 39-A-28-11-00-00A-364A-A perform the general leakage check to test the seal of the cap.
4. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
5. Return the helicopter to flight configuration and record for compliance with this Service Bulletin on the helicopter logbook.
6. Send the attached compliance form to the following mail box:

engineering.support.lhd@leonardocompany.com

As an alternative, gain access to My Communications section on Leonardo WebPortal and compile the “Service Bulletin Application Communication”.

KIT CLOSED CIRCUIT REFUELLING RECEIVER
4G2820F00111

A954AF080EN STENCIL (REF)
A954AT050EN STENCIL (REF)
INSTALL:
A954AD080EN STENCIL
A954AP065EN STENCIL
AW001DSD040EQ STENCIL
AW001DSP015EQ STENCIL



VIEW LOOKING INBOARD RIGHT SIDE

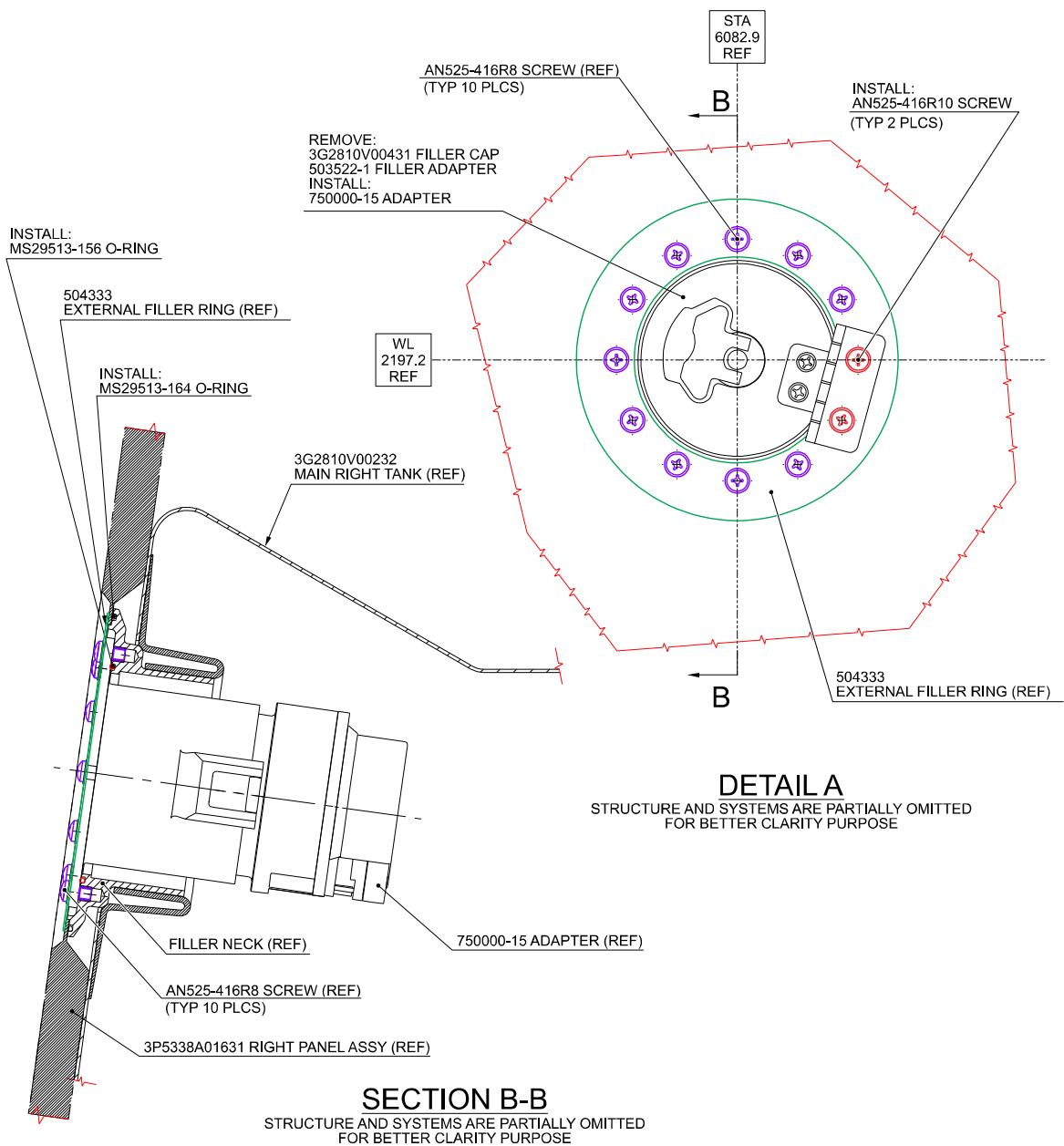


Figure 1

