SUBJECT:

Required maintenance for the Airframe Fuel Filter (P/N 130- 600004).

APPLICABILITY :

Aircraft with the subject modification embodied in accordance with TCCA STC No. SH02- 42 or any relevant foreign approvals:

The information and data contained in this document supersede or supplement that contained in the basic EC 130 Maintenance documentation in those areas listed herein. For procedures not contained in this document refer to the Approved Maintenance Manual or any other accepted supplemental Maintenance Manual Supplemental.

This ICA is to be used in conjunction with the Approved EC 130 Maintenance Manual for the aircraft with the subject design change incorporated.

The information and data contained in this document supersede or supplement that contained in the basic EC 130 Maintenance documentation in those areas listed herein. For procedures not contained in this document refer to the Approved Maintenance Manual or any other Supplemental Instructions for Continued Airworthiness.

The Supplemental ICA is to be used in conjunction with the Approved EC 130 Maintenance Manual for the aircraft with the subject design change incorporated.

The Airworthiness Limitations section is FAA approved and specifies maintenance required under 14 CFR Secs. 43.16 and 91.403 unless an alternative program has been FAA approved.

	NAME AND SIGNATURE	DATE	COMPANY DEPARTMENT
PREPARED BY:	D. Kerr	Digitally signed by D. Kerr Date: 2022.04.25 10:53:27 -04'00'	AHCA ENGINEERING
PREPARED BY:			
CHECKED BY:	J. Winfield	Digitally signed by J. Winfield Date: 2022.04.25 11:41:13 -04'00'	AHCA ENGINEERING
CHECKED BY:	Dan Kapuscinsky	Digitally signed by Dan Kapuscinsky Date: 2022.04.26 13:30:32 -04'00'	AHCA QUALITY ASSURANCE
REV. 10 ACCEPTED (Civil A/W Authority)	(As per ICA Compliance Check Sheet)		TCCA
REV. 10 RELEASED BY:	Loic Meuret	Digitally signed by Loic Meuret Date: 2022.06.07 16:45:54 -04'00'	AHCA ENGINEERING

RECORD OF REVISIONS

Rev.	Pages at this Revision	Description, Reason Changed Pages	Prepared (name and date)	Checked (name and date)	App'd/Acc'd (Civil A/W Authority) (name and date)	Released (name and date)
0	1 through 9	Original Issue	D. Kerr 27 May, 2004	C. Timmins 27 May, 2004	TCCA E. Cheung 28 May, 2004	R. Manson 28 May, 2004
1	1 through 12	Changes to pages 1 to 12. Text, placard illustrations and assembly revised (re- designed installation for lower filter position)	D. Kerr 29 July, 2004	C. Timmins 30 July, 2004	N/A	R. Manson 4 Aug., 2004
2	1 through 13	Changes to pages 1 to 13. General, and Troubleshooting revised as per TCCA request.	D. Kerr 8 Sept., 2004	C. Timmins 8 Sept., 2004	TCCA E. Cheung 8 Sept., 2004	R. Manson 8 Sept., 2004
3	1 through 16 A1 to A4	Format revised. Weight and Balance data, torqueing statement, and wiring diagram change incorporated. (Pages 4, 5, 7 - 16)	D. Kerr 22 February 2005	C. Timmins 2 March 2005	TCCA E. Cheung 24 March 2005	R. Manson 24 March 2005
4	1 through 22 A1 to A4	Format revised, Section 4 and 8 and Weight and Balance chart expanded. (Pages 3 to 6, 8 to 12, and 14 to 22)	D. Kerr 21 July 2006	C. Timmins 4 August 2006	TCCA Floyd Eaves 9 August 2006	R. Manson 9 August 2006
5	1 through 24 A1 to A4	Replaced "boost" pump reference with "fuel" pump in Sec. 4. Added placard to outboard side of Fuel Filter. Addition of page 24. (Pages 3 to 5, 8, 9, 11 to 16, 18, 20 to 24)	D. Kerr 28 March 2008	C. Timmins 28 March 2008	TCCA F. Eaves 7 April 2008	R. Manson 9 April 2008
6	1 through 25 A1 to A4	Revised format. Addition of 100 flight hour Press to Test. Increased 500 flight hour inspection to 600 flight hours and 1000 flight hours increased to 1200 flight hours. Wiring Diagram revised to incorporate wire changeover to laser printed. (Pages 4 to 9, 11 to 25)	D. Kerr 20 January 2012	C. Timmins 20 January 2012	N/A	R. Manson 20 April 2012
7	1 through 25 A1 to A4	Increased 100 flight hour to 150 flight hour. (Pages 4, 5, 9, 12, 16)	D. Kerr 31 May 2012	C. Timmins 31 May 2012	TCCA G. David 2012	R. Manson 21 December 2012
8	1 through 29 A1 to A4	Revised the Airworthiness Limitations statement in Section 2. Margins added to Section 4. Additional information added to Section 8. (Pages 7 to 14, 16 to 22, 24 to 29)	D. Kerr 2 April 2013	C. Timmins 2 April 2013	TCCA G. David 3 April 2013	P. Sharpe 8 April 2013

NOTE: Revisions to this document will be distributed to operators of this equipment by the STC holder.
NOTE: Revised portions of affected pages are identified by a vertical black line in the margin adjacent to the change.
NOTE: Minor changes are released in accordance with TCCA - ACCEPTED CAR 521 - 154 procedures (ref. DAPM - E - 0001).

Transport Canada - Accepted

RECORD OF REVISIONS (continued)

Rev.	Pages at this Revision	Description, Reason Changed Pages	Prepared (name and date)	Checked (name and date)	App'd/Acc'd (Civil A/W Authority) (name and date)	Released (name and date)
9	1 through 29 A1 to A4	Addition of new company logo. Template changes to pages 1, 2, 3 & 16. Revised the Airworthiness Limitations statement of Section 2. All references to ECL changed to AHCA. (Pages 10 to 13 & 16)	D. Kerr 17 July 2015	C. Timmins 17 July 2015	TCCA G. David 21 July 2015	P. Sharpe 21 July 2015
10	1 through 38 A1 to A4	General description revised. More information added to Figures including hardware part numbers. Combined Tables 4 and 5. Wiring diagrams for PRE and POST MOD's added to Section 6. Section 8 revised. Weight and Balance Chart revised to two decimal places. (Pages 7 to 37)	See page 1.	See page 1.	See page 1.	See page 1.

NOTE: Revisions to this document will be distributed to operators of this equipment by the STC holder.
NOTE: Revised portions of affected pages are identified by a vertical black line in the margin adjacent to the change.
NOTE: Minor changes are released in accordance with TCCA - ACCEPTED CAR 521 - 154 procedures (ref. DAPM - E - 0001).

Transport Canada - Accepted

CONTENTS

FIGURES

Transport Canada - Accepted

TABLES

Transport Canada - Accepted

Left blank intentionally

1. GENERAL

A. The Airframe Fuel Filter enables operation of the helicopter at low temperatures without the use of anti- ice additives in the fuel. The filter is designed to collect ice particles. The filters contains a bypass valve and a bypass delta pressure switch. Refer to Figure 1, General Layout.

An "A/F FUEL FILT" annunciator warning light located on the Instrument Panel will illuminate during flight indicating an impending bypass of the airframe fuel filter. Refer to Figure 1, VIEW Y.

The fuel filter unit is mounted on the transmission deck. A containment box surrounds the filter which has a removable maintenance cover.

For MOD OP 2938 - alternative hose routing is installed for rotorcraft with factory installed air conditioning system. Refer to Figure 5.

The Airframe Fuel Filter consists of the following main components:

Fixed Provisions

- Fuel Filter Support Assembly
- Floor Doubler
- Drain Pan Assembly
- Harness Assembly

Detachable Provisions

- Fuel Filter
- Cover Assembly
- Hose

The Airframe Fuel Filter is installed in accordance with Installation Procedure IP- ECL- 105.

B. These Instructions for Continued Airworthiness are applicable to aircraft with the subject modification embodied.

Transport Canada - Accepted

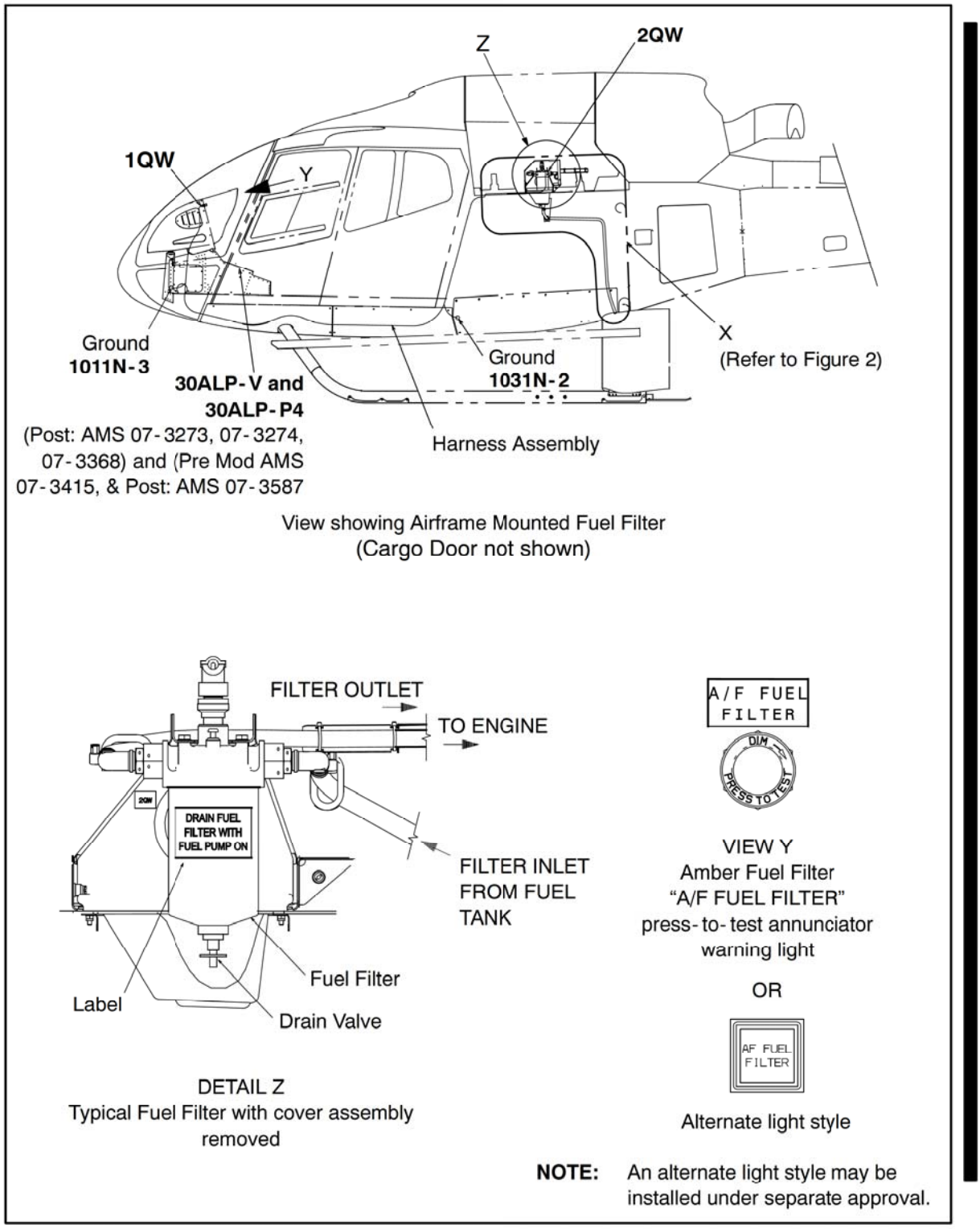
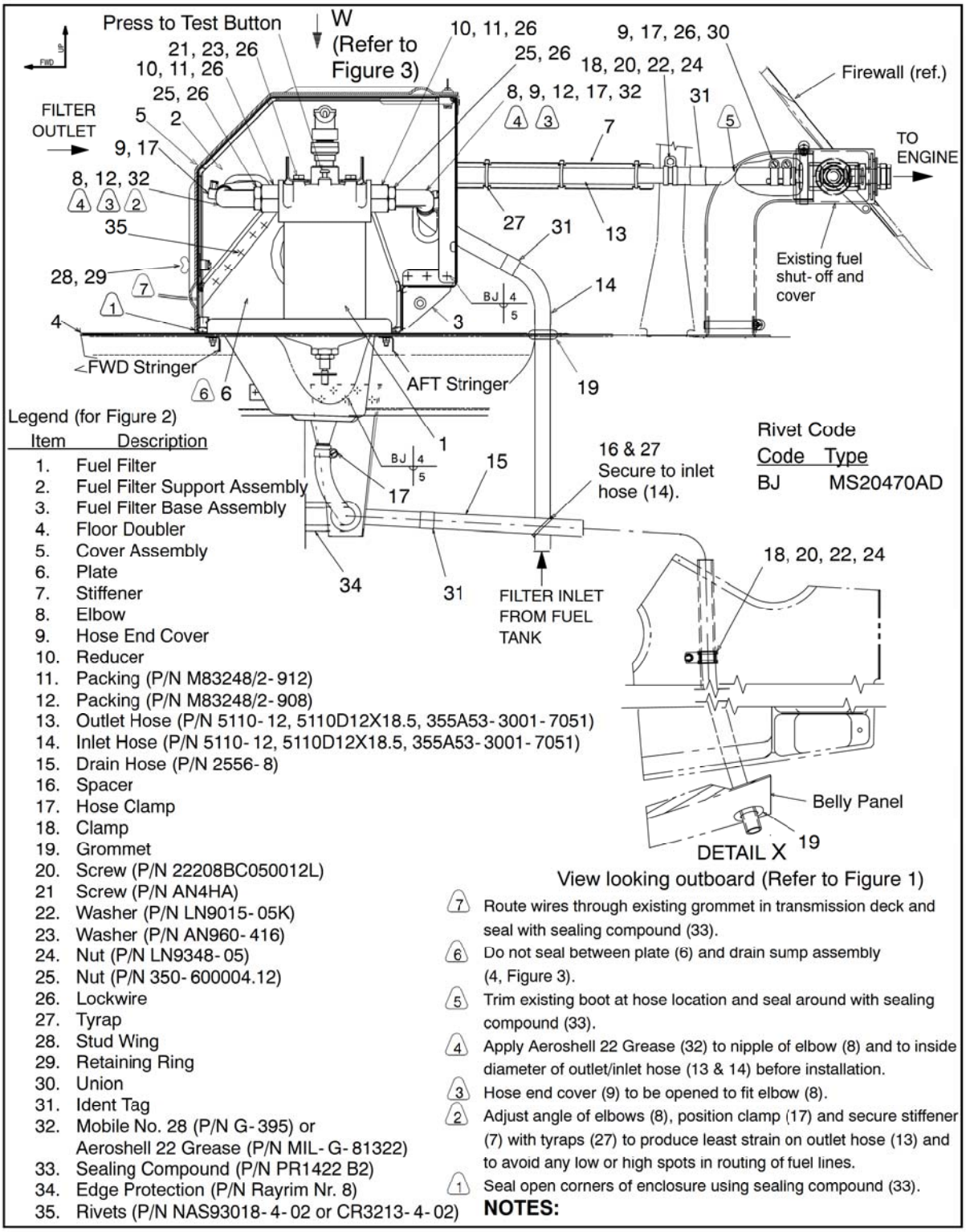


Figure 1 General Layout

Transport Canada - Accepted



Legend (for Figure 2)

Item	Description
1.	Fuel Filter
2.	Fuel Filter Support Assembly
3.	Fuel Filter Base Assembly
4.	Floor Doubler
5.	Cover Assembly
6.	Plate
7.	Stiffener
8.	Elbow
9.	Hose End Cover
10.	Reducer
11.	Packing (P/N M83248/2-912)
12.	Packing (P/N M83248/2-908)
13.	Outlet Hose (P/N 5110-12, 5110D12X18.5, 355A53-3001-7051)
14.	Inlet Hose (P/N 5110-12, 5110D12X18.5, 355A53-3001-7051)
15.	Drain Hose (P/N 2556-8)
16.	Spacer
17.	Hose Clamp
18.	Clamp
19.	Grommet
20.	Screw (P/N 22208BC050012L)
21	Screw (P/N AN4HA)
22.	Washer (P/N LN9015-05K)
23.	Washer (P/N AN960-416)
24.	Nut (P/N LN9348-05)
25.	Nut (P/N 350-600004.12)
26.	Lockwire
27.	Tyrap
28.	Stud Wing
29.	Retaining Ring
30.	Union
31.	Ident Tag
32.	Mobile No. 28 (P/N G-395) or Aeroshell 22 Grease (P/N MIL-G-81322)
33.	Sealing Compound (P/N PR1422 B2)
34.	Edge Protection (P/N Rayrim Nr. 8)
35.	Rivets (P/N NAS93018-4-02 or CR3213-4-02)

NOTES:

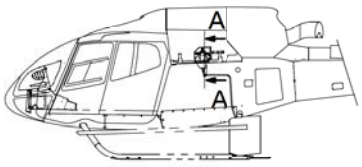
7. Route wires through existing grommet in transmission deck and seal with sealing compound (33).
6. Do not seal between plate (6) and drain sump assembly (4, Figure 3).
5. Trim existing boot at hose location and seal around with sealing compound (33).
4. Apply Aeroshell 22 Grease (32) to nipple of elbow (8) and to inside diameter of outlet/inlet hose (13 & 14) before installation.
3. Hose end cover (9) to be opened to fit elbow (8).
2. Adjust angle of elbows (8), position clamp (17) and secure stiffener (7) with tyraps (27) to produce least strain on outlet hose (13) and to avoid any low or high spots in routing of fuel lines.
1. Seal open corners of enclosure using sealing compound (33).

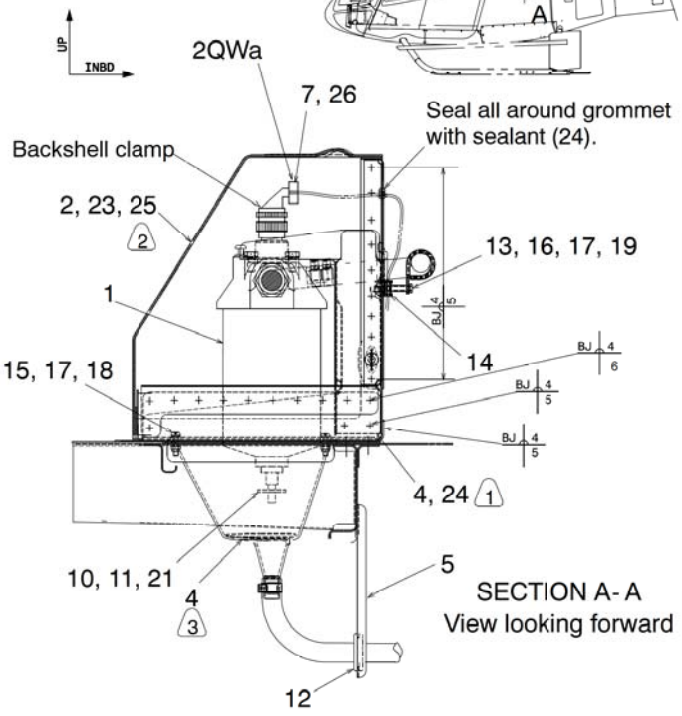
Figure 2 Airframe Fuel Filter Installation

Transport Canada - Accepted

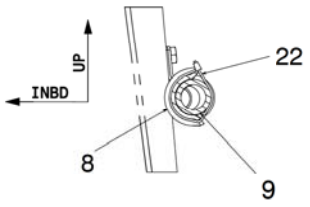
Legend (for Figure 3)

Item	Description
1.	Fuel Filter
2.	Cover Assembly
3	Fuel Filter Base Assembly
4.	Drain Sump Assembly
5.	Drain Bracket
6.	Gusset
7.	Wiring (P/N WD 130-600004)
8.	Hose Stiffener
9.	Outlet Hose
10.	Drain Valve
11.	Packing (P/N MS29513-012)
12.	Grommet
13.	Clamp (P/N MS21919WDG13)
14.	Clamp (P/N MS21919WDG3)
15.	Screw (P/N LN9139M4X18)
16.	Screw (P/N LN9037-04036)
17.	Washer (P/N LN9016-04K)
18.	Nut (P/N LN9348-04)
19.	Spacer
20.	Spiral Wrap
21.	Lockwire
22.	Tyrap
23.	Rubber Seal (P/N 130-600124.20)
24.	Sealing Compound (P/N PR 1422 B2)
25.	Adhesive (P/N EC-847)
26.	Strip N Stick Tape

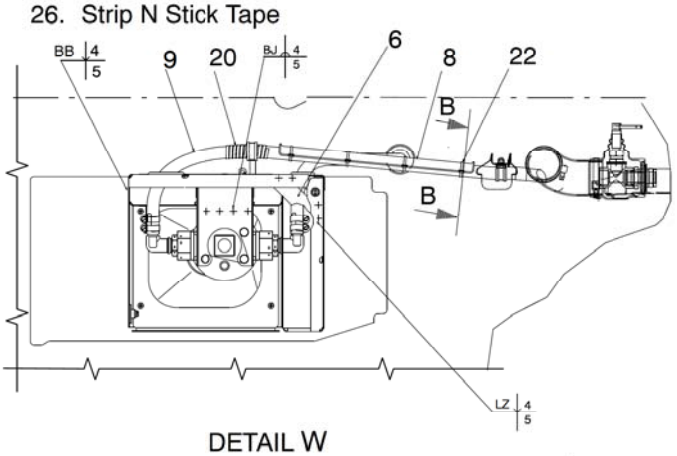




SECTION A-A
View looking forward



SECTION B-B
Looking aft



DETAIL W
Looking down on Fuel Filter
(Refer to Figure 2)

Rivet Code

Code	Type
BB	MS20426AD
BJ	MS20470AD
LZ	NAS1097AD

3 Seal faying surface of drain sump assembly (4) with sealing compound (24).

2 Rubber seal (23) is bonded to Cover (2) with adhesive (25).

1 Fillet seal all around drain sump assembly (4) with sealant (24).

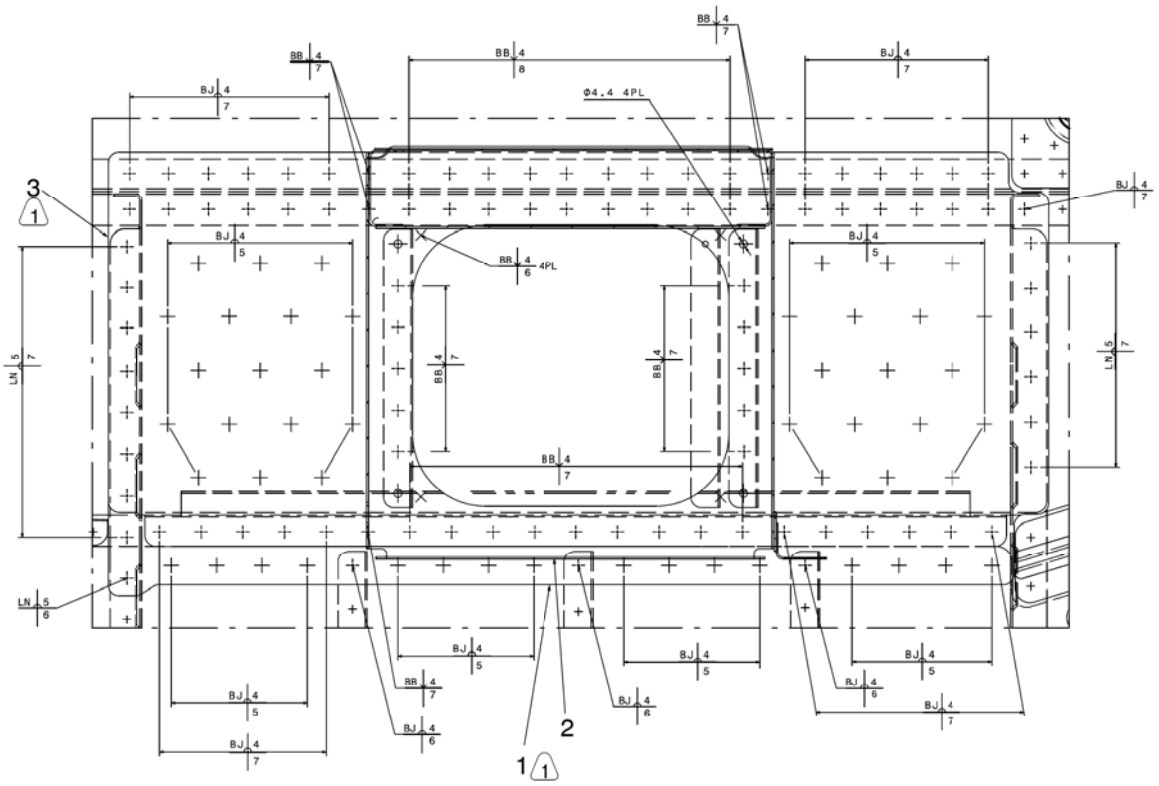
NOTES:

Figure 3 Airframe Fuel Filter Installation (continued)

Transport Canada - Accepted

Legend (for Figure 4)

Item	Description
1.	Floor Doubler
2.	Fuel Filter Base Assembly
3.	Floor Shim
4.	Sealing Compound (P/N PR 1422 B2)



View looking down on Transmission Deck
Cover Assembly, Drain Sump Assembly
and Fuel Filter not shown.

Rivet Code

Code	Type
BB	MS20426AD
BJ	MS20470AD
LN	MS20615- ( ) M

(1) Seal faying surfaces and fillet seal edge of floor doubler (1) and floor shim (3) to transmission deck using sealant (4).

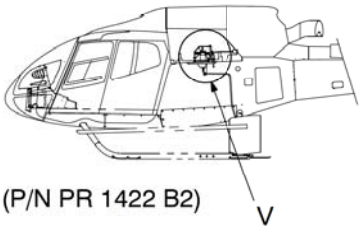
NOTES:

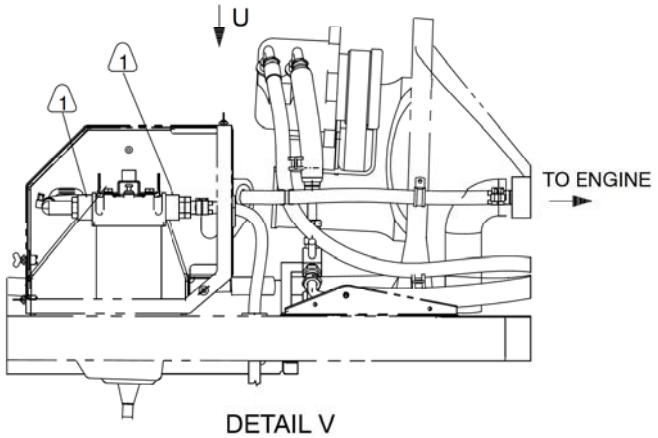
Figure 4 Floor Doubler and Fuel Filter Base Assembly on Transmission Deck

Transport Canada - Accepted

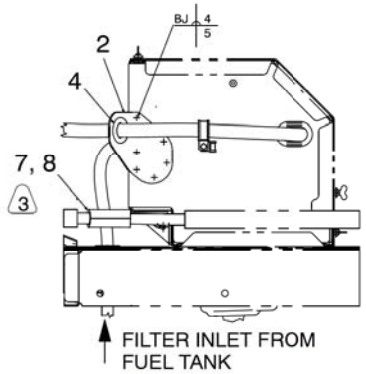
Legend (for Figure 5)

Item	Description
1.	Doubler
2.	Clip
3	Straight Adapter
4.	Grommet (P/N DHS751-160.58)
5.	Grommet (P/N DHS751-160.60)
6.	Spacer
7.	Sheath
8.	Tyrap
9.	Lockwire
10.	Sealing Compound (P/N PR 1422 B2)

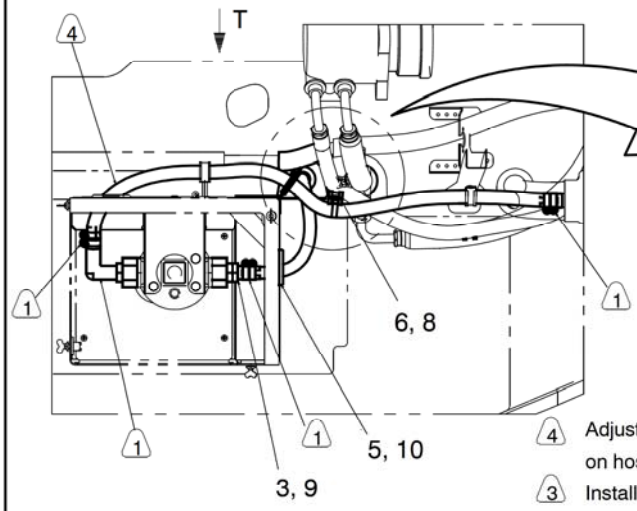




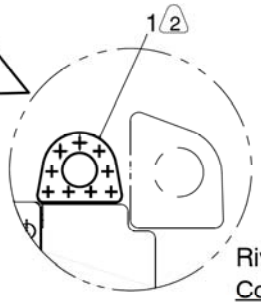
DETAIL V
View looking inboard at Fuel Filter with OEM air conditioning system



VIEW T
Outboard view of Fuel Filter Support Assembly



VIEW U
Looking down Fuel Filter with OEM air conditioning system



Rivet Code

Code	Type
BJ	MS20470AD

(4) Adjust position of clip (2) and spacer (6) to produce the least strain on hose and avoid low or high spots in routing fuel line.

(3) Install sheath (7) onto uninsulated P2 piping adjacent to inlet hose . Sheath may be slit along length for installation. Secure with tyraps (8, 3 places)

(2) Seal faying surfaces and fillet edges of doubler (1) to transmission deck with sealing compound (10)

(1) Use existing parts supplied with 130-600004.

NOTES:

Figure 5 Airframe Mounted Fuel Filter Alternative hose routing with OEM air conditioning system

Transport Canada - Accepted

C. **REFERENCES**

DOCUMENT	DOCUMENT TITLE
AC 43.13 - 1B	Advisory Circular, Acceptable Methods,Techniques and Practices - Aircraft Inspection and Repair
AMM	Aircraft Maintenance Manual
IP- ECL- 105	Installation Procedure, Airframe Fuel Filter
Manual Number 1743640- 01	"Operating and Design Specifications", Fuel Filter Assembly, Purolator Products Company
MTC	Standard Practices Manual

D. **ABBREVIATIONS & DEFINITIONS**

ABBREVIATION	DEFINITION
Acc'd	Accepted
A/F	Airframe
AHCA	Airbus Helicopters Canada Limited
App'd	Approved
A/W	Airworthiness
CAR	Canadian Aviation Regulations
DAPM	Design Approval Procedure Manual
D.BAT	Direct Battery
ECL	Eurocopter Canada Limited
EPU	External Power Unit
EXT PWR BAT	External Power Battery
FILT	Filter
ICA	Instructions for Continued Airworthiness
No.	Number
P/N	Part Number
Rev.	Revision
STC	Supplemental Type Certificate
TCCA	Transport Canada Civil Aviation

E. **UNITS OF MEASUREMENT**

ABBREVIATION/SYMBOL	UNIT OF MEASUREMENT
D	Days
FH	Flight Hours
in	inch
kg	kilogram
lb	pound
m	meter
M	Months

Transport Canada Accepted

2. AIRWORTHINESS LIMITATIONS

Canadian Approval
The Airworthiness Limitations section is approved by the Minister of Transport and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister.

FAA Approval
The Airworthiness Limitations section is FAA approved per Article II of the Bilateral Aviation Safety Agreement (BASA 2000) and Section III, Para. 3.2.2 of the implementation procedures, 2008 and specifies inspections and other maintenance required under Sections 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

EASA Approval
The Airworthiness Limitations section is approved and variations must also be approved.

No airworthiness limitations associated with this installation.

3. CONTROL AND OPERATION

Apart from the following, control and operation of the aircraft remains unchanged.

The Airframe Fuel Filter is an additional filter forward of the existing engine mounted fuel filter. The "A/F FUEL FILTER" annunciator warning light on the Instrument panel will illuminate signaling an impending by-pass. Refer to Figure 1. A partially blocked filter element will cause the differential pressure switch in the head assembly to close and the "A/F Fuel Filter" annunciator to illuminate. If the filter becomes fully blocked, a differential pressure activated valve will permit fuel to by-pass the filter.

For information on operating the "Purolator/Parker"Fuel Filter, refer to the "Purolator/Parker" Operating and Design Specifications Fuel Filter Assembly Manual, Document Number 1743640-01 (Appendix A).

4. INSPECTION SCHEDULE AND MAINTENANCE ACTION

NOTE: Filter Element can be replaced more frequently if operational requirements dictate.

NOTE: Should the A/F FUEL FILTER annunciator light illuminate, the fuel filter element must be replaced.

Refer to Section 8 if removing or replacing any parts.

Refer to the "Purolator/Parker" Operating Instructions, Fuel Filter Assembly, Document Number 1743640-01, dated December 29, 2020 (or latest version). Refer to Appendix A of this document.

NOTE: Use torque per MTC, Chapter 20.02.05.404, unless otherwise specified

NOTE: Remove Fuel Filter Cover Assembly to gain access to filter assembly and re-install after inspection/maintenance.

4.1. INSPECTION SCHEDULE

4.1.1. Before the first flight of each day:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
A	- Ensure fuel pump is off and check Fuel Filter (1) and lines, shown in Figures 3, 4 and 5 for:	
	a. debris in drain sump assembly (4, refer to Figure 3), below the filter and/or on the transmission deck. (Refer to Figure 2)	a. Remove debris and clean as necessary.
	b secure mounting and connection of fuel filter (1), inlet hose (14) and outlet hose (13). Refer to Figure 2.	b. Secure as required.
B	- Turn on fuel pump and check for water residing in fuel filter unit. If OAT>0°C, open drain valve (10) and purge any water from the filter unit. Close drain valve and check fuel filter (1) and lines, shown in Figure 3 for:	
	a. leaks and security	a. Check valve seating, replace packing (11, P/N MS29513-012) as necessary. Secure as required.

Table 1 Inspection Schedule and Maintenance Action
Before the first flight of each day

NOTE: The "Before the first flight of each day" task can be carried out by a suitably trained pilot or maintenance personnel.

Transport Canada - Accepted

4. **INSPECTION SCHEDULE AND MAINTENANCE ACTION** (continued)

4.1.2. Pre- Flight Check:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
A	- Push A/F FUEL FILTER by- pass Press- to- Test caution light:	
	a. apply power to 4 Alpha Warning Panel (master/Battery switch to ON and push Press to Test A/F FUEL FILTER annunciator- lamp must illuminate	a. If lamp fails to illuminate, refer to Chapter 6, Troubleshooting, item 1, in this document.

Table 2 Inspection Schedule and Maintenance Action
Pre- Flight Check

NOTE: The "Pre- Flight Check" task can be carried out by a suitably trained pilot or maintenance personnel.

4.1.3. Every 150 FH or 12 M (Margin: 15 FH or 36 D) to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
A	- Push the Press- to- test button located on the inboard side of the Fuel Filter (1), shown in Figure 2 for:	
	a. The "A/F FUEL FILTER" annunciator - lamp must illuminate.	a. If lamp fails to illuminate, refer to Chapter 6, Troubleshooting, item 1, in this document.
	b. Ensure light goes out when Press- to- Test button is released.	b. If lamp fails to go out, do the fault isolation procedure of the Caution and Warning Panel. Refer to EC 130 B4, AMM Chapter 31- 51- 00, 1- 1.
B	- Visually inspect wiring (7), shown in Figure 3 for:	
	a. cracks, fraying, burns and chaffing	a. Contact AHCA for replacement wiring.
	b. security	b. Secure as required.
C	- Check hardware at ground locations (1011N- 3 & 1031N- 2), shown in Figure 1 for:	
	a. security	a. Secure as required.

Table 3 Inspection Schedule and Maintenance Action
Every 150 FH or 12 M, to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first
(continued on following page)

4. **INSPECTION SCHEDULE AND MAINTENANCE ACTION** (continued)

4.1.3. Every 150 FH or 12 M (Margin: 15 FH or 36 D) to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
D	- Check inlet hose (14) outlet hose (13) and drain hose (15), shown in Figure 2 for:	
	a. leaks	a. If leaks are found, contact AHCA for replacement hose. Refer to Figure 2 for part numbers.
	b. cracking	b. No cracking is allowed. If cracking is found, contact AHCA for replacement parts. **NOTE:** Remove stiffener (7) from outlet hose (13) before inspection. Secure stiffener (7) to outlet hose (13) using tyraps (27, 4 places) before putting aircraft back in service.
	c. check hose clamps (17) for security.	c. Secure as required.
E	- Check fuel filter support assembly, (2), fuel filter base assembly (3) and floor doubler (4), in Figure 2 for:	
	a. cracks, corrosion or deformation	a. No cracks, corrosion or deformation are allowed. If cracks, corrosion or deformation are found, contact AHCA for replacement parts. **NOTE** If removal of floor doubler (4) is required, inspect floor shim (3, refer to Figure 4) as well.
F	- Check cover assembly (2) shown in Figure 3 for:	
	a. cracking	a. No cracks are allowed. If cracks are found, contact AHCA for replacement parts.
G	- Check rubber seal (23) inside cover assembly (2) shown in Figure 3 for:	
	a. wear	a. Replace rubber seal (23) if signs of deterioration or damage is present. Bind using adhesive (25). Trim rubber seal ∅12.7 to clear retaining rings (29, 4 places shown in Figure 2).

Table 3 Inspection Schedule and Maintenance Action
Every 150 FH or 12 M, to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first
(continued on following page)

Transport Canada - Accepted

4. **INSPECTION SCHEDULE AND MAINTENANCE ACTION** (continued)

4.1.3. Every 150 FH or 12 M (Margin: 15 FH or 36 D) to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
H	- Check drain bracket (5), in Figure 3 for:	
	a. cracks, corrosion or deformation	a. No cracks, corrosion or deformation are allowed. If cracks, corrosion or deformation are found, contact AHCA for replacement parts.
I	- Check drain sump assembly, item 4, shown in Figure 3 for:	
	a. cracks or deformation	a. No cracks or deformation are allowed. If cracks or deformation are found, contact AHCA for replacement parts.
J	- Check edge protection (34) on AFT panel in cargo compartment, shown in Figure 2 for:	
	a. wear on slotted area of AFT panel.	a. Replace edge protection (34) if signs of deterioration or damage is present.
K	- Check drain hose (15), shown in Figure 2 for:	
	a. leaks	a. If leaks are found, contact AHCA for replacement hose. Refer to Figure 2 for part number.
	b. cracking	b. No cracking is allowed. If cracking is found, contact AHCA for replacement parts.
	c. Check clamp (17) for security.	c. Secure as required.
L	- Check placards and markings in Figures 9 to 13 (Section 10) for:	
	a. legibility	a. If placards and markings have become illegible, contact AHCA for replacement parts.
	b. secure mounting	b. Secure, reattach placards as required.

Table 3 Inspection Schedule and Maintenance Action
Every 150 FH or 12 M, to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first

Transport Canada - Accepted

4. **INSPECTION SCHEDULE AND MAINTENANCE ACTION** (continued)

4.1.4. Every 600 FH or 24 M (Margin: 60 FH or 73 D) to coincide with the 600 FH or 24 M helicopter inspection, whichever occurs first:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
A	Perform Operational Test - Fuel Filter Switch and Bypass Valve	See Operational Test Instructions in Section 4.1.5. Of this document.
B	Replace Fuel Filter Element	See Replacement Instructions in Section 4.1.6. Of this document.

Table 4 Inspection Schedule and Maintenance Action
Every 600 FH or 24 M, to coincide with the 600 FH or 24 M helicopter inspection, whichever occurs first

4. INSPECTION SCHEDULE AND MAINTENANCE ACTION (continued)

4.1.5. Operational Test - Fuel Filter Switch and Bypass Valve

NOTE: This test simulates a clogged filter test.

a. Observe FUEL SYSTEM General Safety Instructions. Refer to AMM, Chapter 28-00-00, 3-1.

b. Remove cover from enclosure.

c. Apply power to annunciator panel. Press the differential pressure switch Test Button on the top of the fuel filter," AF F FILT" annunciator (or alternate, depending on configuration) must illuminate.

d. Drain filter bowl into a container.

e. Replace filter element with clean dummy element (P/N 1741185) and re-install filter bowl.

f. Turn on fuel pump and start engine. Failure to start engine may indicate improper bypass valve functioning.

g. The "AF F FILT" annunciator (or alternate) should illuminate.

h. When test is successfully completed, shut down engine, turn off fuel pump and drain filter bowl into a container. Remove dummy element and install filter element. Follow instructions given in Section 4, 4.1.5. Replacement - Fuel Filter Element.

i. Open fuel filter bowl drain valve and operate fuel pump until all air is purged. Close fuel filter drain valve and ensure there are no leaks.

j. Replace cover of enclosure.

4.1.6. Replacement - Fuel Filter Element

a. Observe FUEL SYSTEM General Safety Instructions. Refer to AMM, Chapter 28-00-00, 3-1.

b. Remove cover from enclosure.

c. Drain fuel from filter bowl into a container.

d. Refer to Appendix A "Operating Instructions" Parker Aerospace Filtration Division for Fuel Filter Element Change.

e. Once fuel filter is installed, operate fuel pump and open fuel filter bowl drain valve until all air is purged.

NOTE: The Purolator Parker Filter Assembly (Part No. 1743640-01) Replacement Element Kit is also available, Parker Aerospace Filtration Division No. 1743645.02. This kit consists of a seal, an O-ring and an element assembly.

Transport Canada - Accepted

5. REPLACEMENT COMPONENTS AND REPAIR / OVERHAUL INFORMATION

Contact AHCA for replacement parts. No overhaul information required for this installation.

For replacement components or repair information:

Airbus Helicopters Canada Limited
1100 Gilmore Road, P.O. Box 250
Fort Erie, Ontario L2A 5M4 Canada
Telephone (905) 871-7772

www.airbushelicopters.ca

6. TROUBLESHOOTING

For electrical system troubleshooting, refer to Figures 6 to 14, Airframe Fuel Filter, Wiring Diagram.

Remove cover to gain access to filter assembly and re-install after maintenance.

ITEM	TROUBLE SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
1	"A/F FUEL FILTER" lamp does not illuminate during either the "Before the first flight of each Day Inspection", "150 flight hours check" or the "Operational Test (600 flight hours check)".	Break or short in annunciator circuit	Perform circuit continuity check and repair/replace wiring as applicable in accordance with AC 43.13-1B, Chapter 11, Section 1.
		Warning Caution Panel	Do the fault isolation procedure for the warning caution panel. Refer to EC 130 B4 AMM, Chapter 21-51-00, 1-1.
		Fuel Filter Head Assembly defective	Replace Head Assembly, refer to the Purolator/Parker Documentation
2	"A/F FUEL FILTER" illuminates during operations.	Excessive contamination in fuel supply.	Check quality of fuel supply.
		Filter is blocked.	Replace filter element.
		Short in annunciator circuit.	Perform circuit continuity check and repair/replace wiring as applicable in accordance with AC 43.13-1B, Chapter 11, Section 1.

Table 5 Troubleshooting Guide

Transport Canada - Accepted

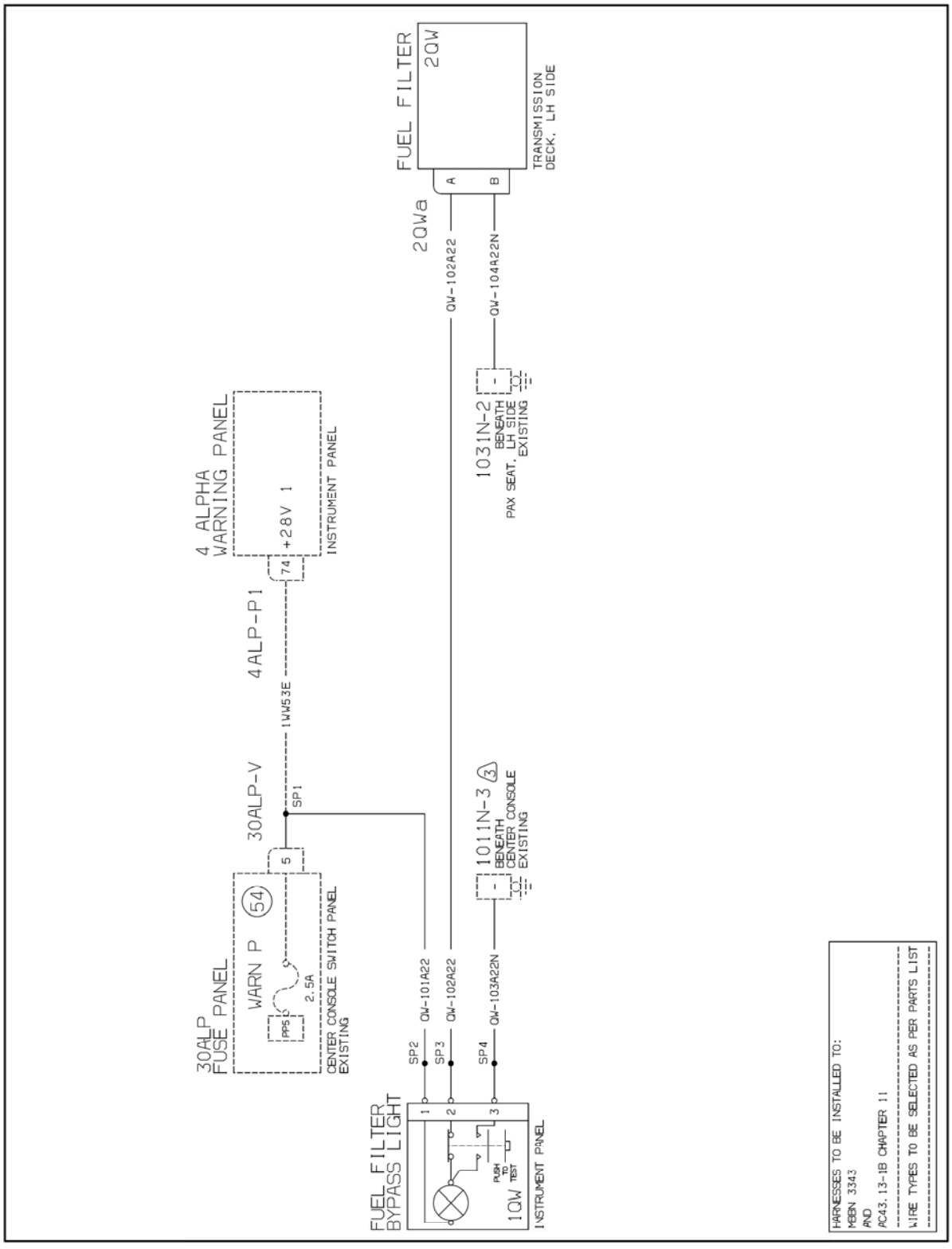


Figure 6 Airframe Fuel Filter, Sheet 1, Rev. A, Wiring Diagram

Transport Canada - Accepted

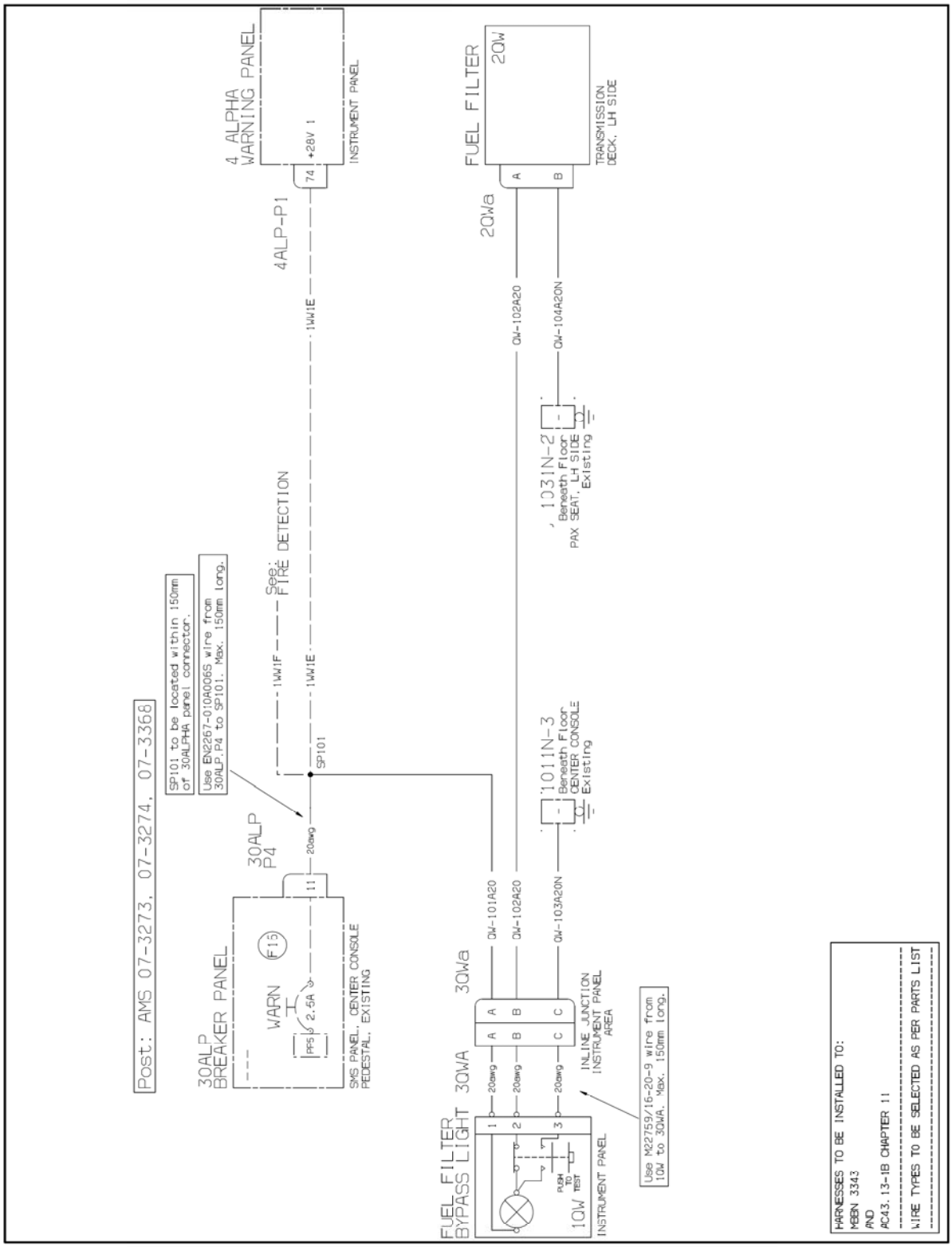


Figure 7 Airframe Fuel Filter, Sheet 2, Rev. A, Wiring Diagram

Transport Canada - Accepted

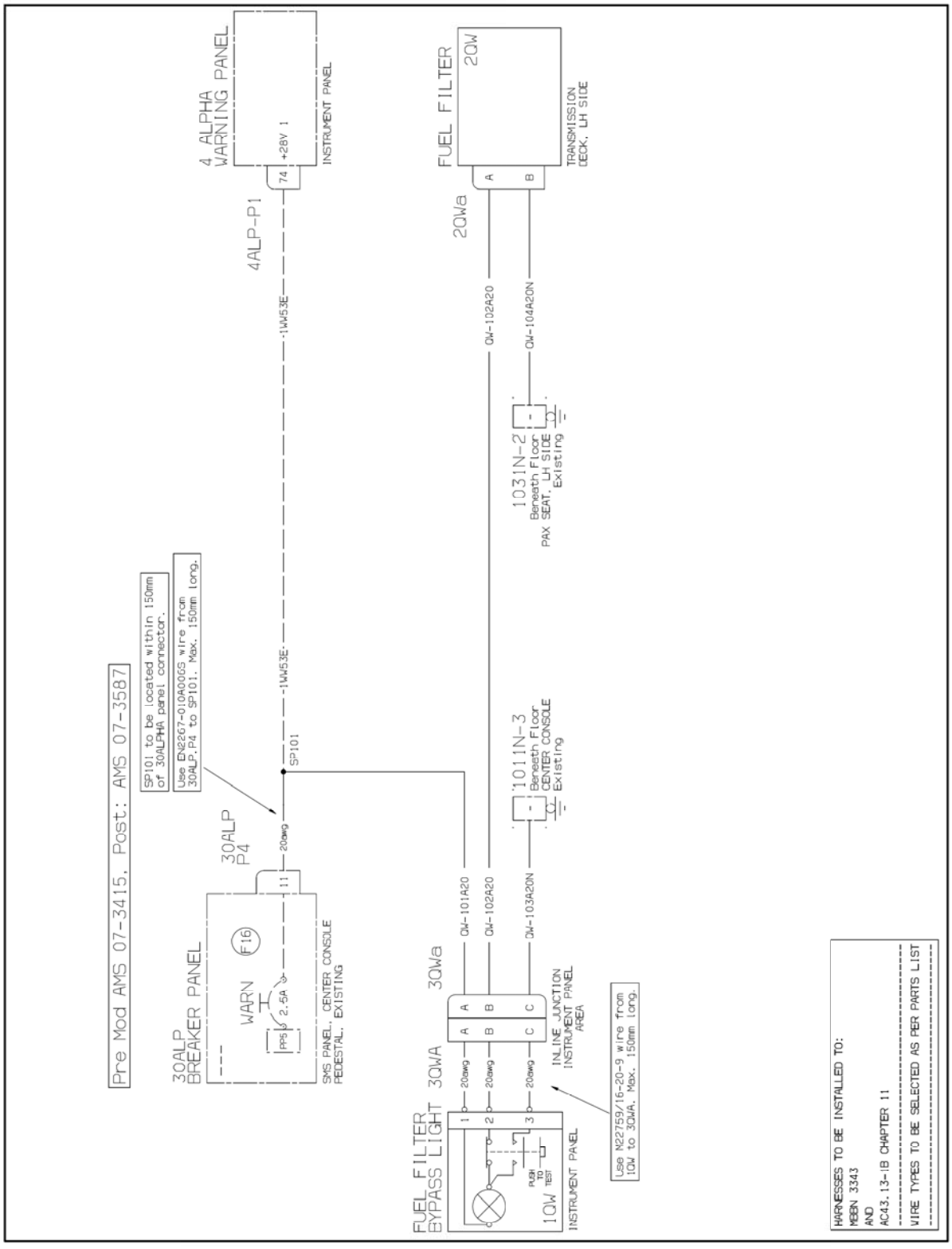


Figure 8 Airframe Fuel Filter, Sheet 3, Rev. A, Wiring Diagram

Transport Canada - Accepted

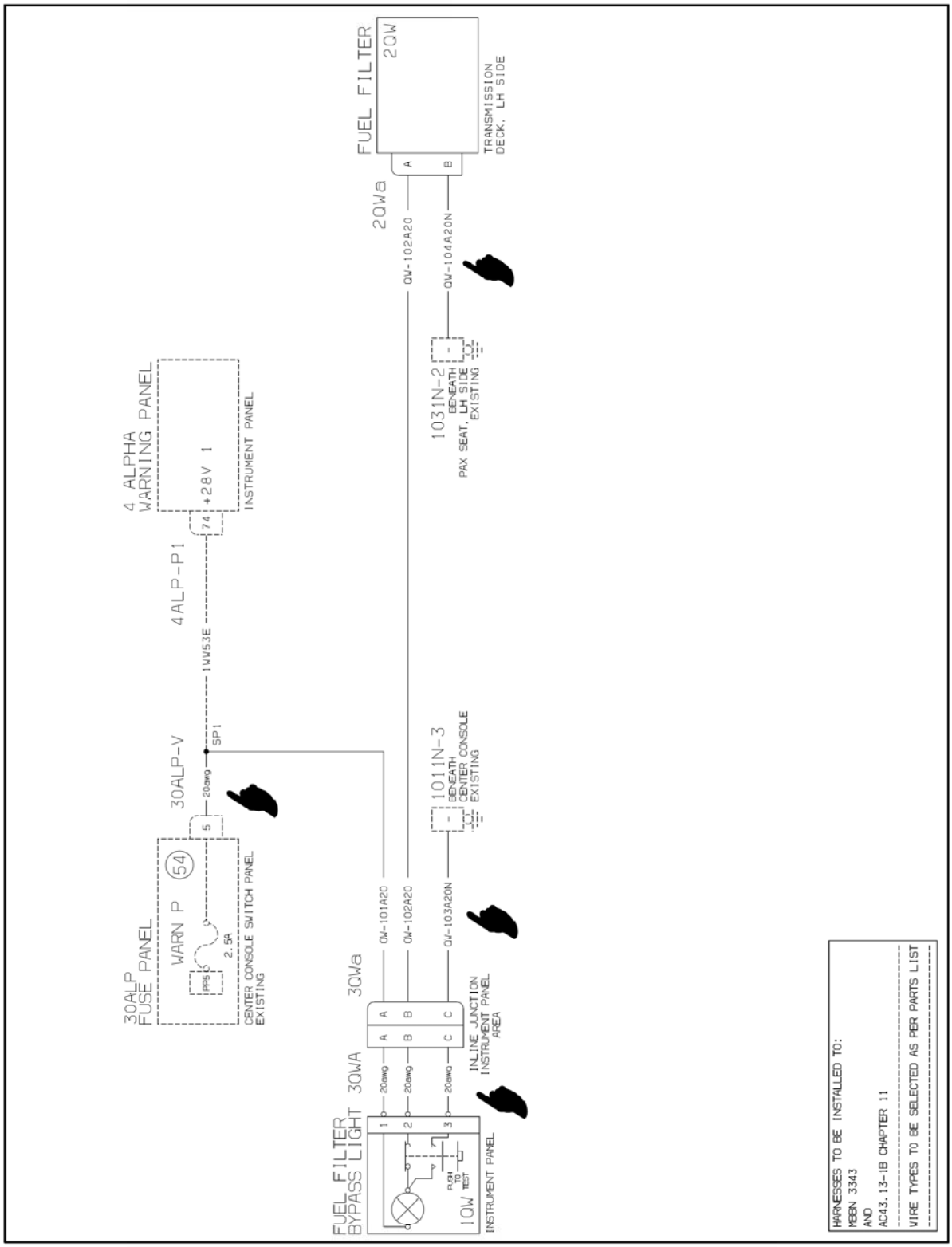


Figure 9 Airframe Fuel Filter, Sheet 1, Rev. B, Wiring Diagram

Transport Canada - Accepted

7. SPECIAL TOOLING

No special test equipment or tools are required. Standard tools are adequate.

8. REMOVAL AND REPLACEMENT

- Before working on the fuel system, comply with General Safety Instructions - Fuel System in accordance with EC 130 B4 AMM, Chapter 28-00-00, 3-1.
- Defuel the helicopter in accordance with Filling/Draining-Servicing EC 130 B4 AMM Chapter 12-10-00, 3-2.
- Comply with General Safety Instructions - Mechanical assemblies in accordance with EC 130 B4 AMM Chapter 60-00-00, 3-1.
- Read General Safety Instruction - Electrical Power Supply System, EC 130 B4 AMM, Chapter 24-00-00, 3-1.
- Disconnect the external power in accordance with EC 130 B4 AMM, Chapter 24-00-00, 2-1.
- Disconnect the battery in accordance with EC 130 B4 AMM, Chapter 24-33-00, 4-1.
- Open the LH MGB cowling
- Remove lateral cargo hold door in accordance with EC 130 B4 AMM 52-31-00, 4-1.
- Remove the FWD and AFT panels in the LH cargo compartment.
- Remove fuel filter cover assembly (2) to gain access to the fuel filter. Refer to SECTION A-A in Figure 3.
- If removing inlet hose (14, refer to Figure 2), disconnect at fuel tank location. Refer to Removal - Fuel pump, EC 130 B4 AMM Chapter 28-21-00, 4-1.
- Observe General Repair Instructions Unriveting Principle - MTC, Chapter 20-03-01-102.

A. REMOVAL

1) FUEL FILTER WIRING (Refer to Figures 1, 3, 6 to 9)

   a) If removing harness assembly (2QWa) (7), disconnect connector (2QWa), remove backshell, strip n stick tape (26) and disconnect wires. Refer to SECTION A-A in Figure 3.

   b) Remove screw (16), washer (17), and spacer (19), clamp (14) and clamp (13) securing harness assembly (7).

   c) Remove harness (7) from under cabin floor along the LH side of the aircraft and disconnect (1QW) at the Instrument Panel. Refer to View showing Airframe Mounted Fuel Filter in Figures 1, 6, 7 and 8.

   d) Disconnect ground wires (1031N-2) and (1011N-3) and retain hardware. Refer to View showing Airframe Mounted Fuel Filter in Figures 1, 6 to 9.

Transport Canada - Accepted

8. **REMOVAL AND REPLACEMENT** (continued)

2) HOSES (Refer to Figures 2, 3 & 5)

OUTLET HOSE (Refer to Figures 2, 3 & 5)

a) On the outlet side of fuel filter (1) remove hose clamps (17, 2 places) and disconnect outlet hose (13). Retain hardware for reinstallation. Refer to Figure 2.

NOTE If outlet hose (13) is not being replaced, position hose out of work area and close hose end cover (9). (Stiffener (7) may need to be removed).

If hose is being replaced:

NOTE Retain hose end cover (9).

b) Remove tyraps (27, 4 places) securing stiffener (7) to outlet hose. Retain stiffener (7) for reinstallation.

c) Remove clamp (13) securing outlet hose (9) to inboard side of fuel filter support assembly (2, refer to Figure 2). Retain hardware for reinstallation. Refer to SECTION A- A in Figure 3.

d) Remove spiral wrap (20) from outlet hose (9) and retain for reinstallation. Refer to DETAIL W in Figure 3.

e) Remove screw (20), washers (22, 2 places) and nut (24) that secure clamp (18) to the aircraft frame. Retain hardware for reinstallation. Refer to Figure 2.

f) Remove existing clamp securing boot over fuel shut off cover and pull boot back to expose clamps (17, 2 places).

g) Remove hose clamps (17, 2 places) and remove outlet hose (13). Retain hardware for reinstallation.

h) For OEM Air Conditioning System

Remove tyrap (10) securing spacer (6) to outlet hose. Retain spacer (6) for reinstallation. Refer to VIEW U in Figure 5.

i) Discard Ident tag (31) if outlet hose (13) is being replaced.

INLET HOSE (Refer to Figure 2)

a) On the inlet side of the fuel filter (1) remove hose clamps (17, 2 places) and disconnect inlet hose (14). Retain hardware for reinstallation. Refer to Figure 2.

NOTE If inlet hose (14) is not being replaced, position hose out of work area and close hose end cover (9).

If hose is being replaced:

NOTE Retain hose end cover (9).

b) Cut tyrap (27) securing spacer (16) to drain hose (15). Retain spacer (16) for reinstallation.

c) Disconnect inlet hose (14) from fuel pump located at fuel tank. Refer to Installation - Fuel pump, EC 130 B4, Chapter 28- 21- 00, 4- 1.

d) Retain existing clamps, hose end cover and spiral wrap.

e) Discard Ident tag (31) if inlet hose (14) is being replaced.

Transport Canada - Accepted

8. **REMOVAL AND REPLACEMENT** (continued)

A. REMOVAL (continued)

3) FUEL FILTER (Refer to Figure 2)

NOTE Fuel Filter hoses and wiring must be disconnected.

a) Cut lockwire (26), remove screws (21, 3 places) and washers (23, 3 places) securing fuel filter (1) and place on work bench. Retain hardware for reinstallation. Retain fuel filter if not being replaced.

b) If fuel filter is being replaced cut and remove lockwire between nut (25, 2 places) and elbow (8, 2 places). Retain nut and elbow for reinstallation.

c) Cut and remove lockwire between reducer (10, 2 places) and fuel filter (1). Retain reducer for reinstallation.

d) Remove packing (12) from elbow (8, 2 places). Remove packing (11) from reducer (10, 2 places). Discard packing. Retain hardware for reinstallation.

4) DRAIN SUMP ASSEMBLY, FUEL FILTER SUPPORT ASSEMBLY, FUEL FILTER BASE ASSEMBLY AND DRAIN BRACKET (Refer to Figures 2, 3 and 4)

NOTE Remove fuel filter and ensure harness assemblies and hoses are disconnected.

a) Remove FWD and AFT panels in cargo compartment.

b) Disconnect hose clamp (17) securing drain hose (15) to drain sump assembly (4, refer to Figure 3). Refer to DETAIL X in Figure 2 and SECTION A- A in Figure 3.

c) If replacing fuel filter support assembly (2), drill out rivets securing plate (6) and retain for reinstallation. Refer to Figure 2.

d) Drill out rivets securing gusset (6) to fuel filter base assembly (3) and fuel filter support assembly (2) and retain for reinstallation. Refer to DETAIL W in Figure 2.

e) Drill out rivets securing the fuel filter support assembly (2) onto fuel filter base assembly (3) and discard damaged part(s). Retain clip (2, refer to Figure 5) if aircraft equipped with OEM air conditioning. Refer to Figure 2.

f) If replacing drain sump assembly (4), remove screws (15, 4 places), washers (17, 8 places) and nuts (18, 4 places) and discard damaged part. Retain hardware for reinstallation. Refer to SECTION A- A in Figure 3.

g) If replacing drain bracket (5), pull drain hose (15, refer to Figure 2) through grommet (12). Drill out rivets securing drain bracket (5) to X frame and discard. Retain grommet (12) for reinstallation. Refer to Figure 3.

h) If replacing fuel filter base assembly (2), remove rivets securing fuel filter base assembly (2) and discard damaged part. Retain existing fwd and aft stringers for reinstallation. Refer to Figures 2 and 4.

i) If drain hose (15) is being replaced cut tyrap (27) securing spacer (16). Remove nut (24), screw (20) and washer (22) securing clamp (18). Retain hardware for reinstallation. Refer to Figure 2.

5) FLOOR DOUBLER (Refer to Figures 2 and 4)

NOTE Remove fuel filter support and drain sump assembly.

a) Drill out rivets securing the floor doubler (1) and shim (3) to the transmission deck and discard damaged part. Refer to Figures 2 and 4.

Transport Canada - Accepted

8. **REMOVAL AND REPLACEMENT** (continued)

B. REPLACEMENT

NOTE Use torque per MTC, Chapter 20.02.05.404, unless otherwise specified.

Observe General Safety Instructions - Fuel System, refer to EC 130 B4, AMM, Chapter 28-00-00, 3-1.

Comply with general safety instructions for mechanical assemblies - AMM, Chapter 60-00-00, 3-1.

General methods of applying sealing compounds - MTC, Chapter 20-05-01-102

General rules for bonding with adhesives - MTC, Chapter, 20-06-01-101

Safetying with Lockwire - MTC, Chapter 20-02-06-402.

Application of PR 1422 class B sealant - MTC, Chapter 20-05-01-206.

Electrical Bonding - MTC, Chapter 20.02.07.401.

1) FLOOR DOUBLERS, DRAIN BRACKET, DRAIN SUMP ASSEMBLY, FUEL FILTER BASE ASSEMBLY, FUEL FILTER SUPPORT ASSEMBLY (Refer to Figures 2, 3 and 4)

a) If replacing drain bracket (5), locate onto rear bulkhead and secure using rivets (MS20470AD4-5, 5 places [refer to Figure 2]). If drain bracket (5) was replaced, reinstall grommet (12). Refer to Figure 3.

b) Reposition floor shim (3) onto transmission deck. If replacing floor shim (3), position new floor shim (3) onto transmission deck. Align opening and back drill holes from transmission deck into floor shim (3). Open 4 holes to ∅4.4 mm as shown in Figure 4. Debur holes.

c) Reposition floor doubler (1) onto transmission deck. If replacing floor doubler (1) position new floor doubler onto transmission deck. Align opening and back drill holes from transmission deck into floor doubler (1). Open 4 holes to ∅4.4 mm as shown in Figure 4. Debur holes.

d) Reposition floor shim (3) and floor doubler (1) onto transmission deck and temporarily secure.

e) Reposition fuel filter base assembly (3) onto floor doubler. If replacing fuel filter support assembly (2) or fuel filter base assembly (3), back drill holes from floor doubler into fuel filter base assembly (3). Position fuel filter support assembly (2) onto base aligning pilot holes. Open up any pilot holes, match drill remaining holes.

f) If aircraft equipped with OEM Air Conditioning System and replacing fuel filter support assembly or fuel filter base assembly (Refer to Figures 2, 3 and 5)

1 If replacing fuel filter support assembly (2, in Figure 2), determine location of clip (2). To locate clip (2), use previously removed fuel filter support assembly (2) as a template and mark rivet hole location onto new support. Ensure minimum edge distance of 6mm. Refer to VIEW T in Figure 5.

2 Drill rivet holes for clip (2) and deburr holes.

3 Apply fay sealant (10) and wet install clip (2), secure using rivets (8 places [MS20470AD4-5]). Apply fillet seal to outer edge of clip (2) using sealing compound (10).

4 Install and trim grommet (4) into clip (2).

5 To determine location for grommet (5), use previously removed fuel filter base assembly (3, refer to Figure 2) as a template and mark grommet hole location onto new base assembly. Refer to VIEW U in Figure 5.

6 If replacing fuel filter base assembly, cut opening in new fuel filter base assembly (3, refer to Figure 2) and beburr holes. Install grommet (5) and seal with sealing compound (10). Refer to VIEW U.

Transport Canada - Accepted

8. **REMOVAL AND REPLACEMENT** (continued)

B. REPLACEMENT (continued)

g) If replacing drain sump assembly (4), locate drain sump assembly (4) into fuel filter base assembly (3). Temporarily place the fuel filter and fuel filter support assembly (2). The drain sump assembly must be positioned to enable the removal of the fuel filter. Back drill 4 holes into drain sump assembly (3). Refer to SECTION A-A in Figure 3.

h) Align gusset (6) and back drill 2 holes into fuel filter base assembly (3) and fuel filter support assembly (2, refer to Figure 2). Refer to DETAIL W and Figure 3.

i) Remove gusset, drain sump assembly, fuel filter support assembly, fuel filter base assembly, floor doubler and floor shim from the transmission deck and deburr all newly drilled holes.

j) Clean debris from transmission deck. Touch up alodine and prime rivet holes.

k) Apply fay sealant and wet install floor shim (3), floor doubler (1) and fuel filter base assembly (2) onto transmission deck. Secure the stringers to their locations FWD and AFT of the floor cut-out. Secure using rivets. Refer to NOTE 1 in Figure 4.

l) Apply fay sealant (24) and wet install drain sump assembly (4) onto the fuel filter base assembly (3). Secure using screws (15, 4 places), washers (17, 8 places and nuts (18, 4 places). Refer to Figure 3.

m) Locate fuel filter support assembly (2) onto fuel filter base assembly (3) and secure into place using rivets (MS20470AD4-5 3 places, shown in Figure 2) and rivets (MS20470AD4-5, 10 places and MS20470AD4-6, 2 places, shown in Figure 3).

n) Locate gusset (6) and secure using rivets (NAS1097AD4-5, 4 places). Refer to Figure 3, DETAIL W.

o) Seal open corners of enclosure using sealant (34). Refer to NOTE 1 in Figure 2.

p) Fillet seal all around drain sump assembly with sealant (24). Refer to NOTE 1 in Figure 3.

q) Reposition plate (6) onto the fuel filter support assembly (2) and secure using rivets (34, 17 places refer to Figure 2), and (MS20426AD4-5, 4 places). Refer to SECTION A-A and DETAIL W in Figure 3.

NOTE: Do not seal between plate (6) and drain sump assembly (9).

Transport Canada - Accepted

8. **REMOVAL AND REPLACEMENT** (continued)

B. REPLACEMENT (continued)

2) FUEL FILTER (Refer to Figures 2 and 3)

a) If fuel filter (1) is being replaced, install drain valve (10) with new packing (11). Safety using lockwire (21). Refer to SECTION A-A in Figure 3.

b) Install reducers (10, 2 places) and new packing (11) into both sides of fuel filter (1). Safety using lockwire (26). If operating with OEM air conditioning do this on outlet side only.

c) Install nuts (25, 2 places) and new packing (12) on elbows (8, 2 places). Install elbows (8, 2 places) into reducers (10, 2 places). Safety using lockwire (26) on inlet side only. Refer to Figure 2. If operating with OEM air conditioning do this on outlet side only.

d) If OEM air conditioned is installed

1 Install nut (25) and packing (12) on straight adapter (3, refer to Figure 5). Install straight adapter (3) into reducer (10) on inlet side of fuel filter. Safety using lockwire (9, refer to Figure 5).

e) Position fuel filter (1) into channel of support assembly and secure using screws (21, 3 places), and washers (23, 3 places). Safety using lockwire (26). Refer to Figure 2.

f) If a new fuel filter has been installed, ensure ident label is installed facing outboard. Refer to DETAIL Z in Figure 1.

3) HOSES

OUTLET HOSE (Refer to Figures 2, 3 and 5)

a) If replacing outlet hose (13), reuse existing hose end cover (9). Route hose (13) through grommet to fwd elbow (8) on outlet side of fuel filter (1) and secure using hose clamps (17, 2 places). Refer to NOTE 3 in DETAIL X in Figure 2.

NOTE: Apply grease (32) to the nipple of elbow (8) and to the inside diameter of the hose (13) before installation. Refer to NOTE 4 in Figure 2.

b) If operating with OEM Air Conditioning System

1 If fuel filter support was replaced, secure clip (4) using rivets (MS2047AD4-5, 8 places).Refer to VIEW T in Figure 5. Feed opposite end of outlet hose (13) through grommet (4) of clip (2) on inboard side of fuel filter support assembly. Refer to VIEW T in Figure 5.

c) Trim opposite end of outlet hose (13) to the required length to connect it to the existing fuel shut off valve. Install existing hose cover (9) onto opposite end of outlet hose (13). Secure using clamps (17, 2 places) and safety using lockwire (26).

NOTE: Seal between outlet (13) and existing boot with sealing compound (33). Refer to NOTE 5 in Figure 2.

d) Apply spiral wrap (20) to outlet hose (9) at point of contact with clamp (13). Refer to DETAIL W and SECTION A-A in Figure 3.

e) Position clamp (13) onto spiral wrapped outlet hose and secure to inboard side of fuel filter support assembly (2, refer to Figure 2) using screw (16), washer (17) and spacer (19). Refer to SECTION A-A in Figure 3.

f) Secure outlet hose (13) to aircraft using clamp (18), screw (20), washer (22) and nut (24). Refer to DETAIL X in Figure 2.

g) Adjust elbow (8) to reduce low and high spots in outlet hose (13). Safety using lockwire (26).

Transport Canada - Accepted

8. **REMOVAL AND REPLACEMENT** (continued)

B. REPLACEMENT (continued)

h) If removed, reinstall stiffener (7) and secure using tyraps (27, 4 places).

i) If operating with OEM Air Conditioning System

1 Stiffener (7) is not part of the installation for rotorcraft with OEM air conditioning system. Secure spacer (6) between outlet hose and air conditioning hose and secure using tyrap (10). Refer to VIEW U in Figure 5.

j) If outlet hose (13) was replaced, attach new ident tag (31).

NOTE: Adjust angle of elbow (8), position clamps (17) and install stiffener (7) and tyraps (27, 4 places) to produce least strain on outlet hose (13) and to avoid any low or high spots in routing of the fuel lines. Refer to NOTE 2 in Figure 2.

INLET HOSE (Refer to Figure 2)

a) If inlet hose (14) is being replaced, connect hose at fuel tank location and route hose to transmission deck in accordance with EC 130 B3 AMM. Refer to Installation - Fuel Pump EC 130 B4 AMM, Chapter 28-21-00, 4-1.

b) If drain hose is not being replaced, secure spacer (16) between inlet hose (14) and drain hose (15) and and secure using tyrap (27).

c) Route inlet hose (14) from the fuel tank, through grommet (19) in the transmission deck.

d) Install existing hose end cover (9) onto new inlet hose (14). Secure inlet hose (14) to elbow (8) on inlet side of fuel filter (1) and secure using hose clamps (17, 2 places) and safety using lockwire (26). Refer to NOTE 3 and DETAIL X.

NOTE: Apply grease (32) to the nipple of elbow (8) and to the inside diameter of the hose (14) before installation. Refer to NOTE 4 in Figure 2.

e) If operating with OEM Air Conditioning System

1 Route new inlet hose (14) through grommet on aft side of fuel filter base assembly. Secure inlet hose (14) to straight adapter (3, refer to Figure 5) on aft side of fuel filter using hose clamps (17, 2 places). Refer to Figure 2.

f) If inlet hose (14) was replaced, attach new ident tag (31).

4) DRAIN HOSE (Refer to Figures 2 and 3)

a) If replacing drain hose (15, refer to Figure 2), run drain hose through existing grommet (12) in drain bracket (5), connect to drain sump assembly and secure using clamp (17). Refer to Figure 3.

b) Route drain hose (15) behind cargo panel and secure using clamp (18), through existing grommet (19) in belly panel and trim as required. Refer to Figure 2.

c) If drain hose (15) was replaced, secure spacer (16) between drain hose (15) and inlet hose (14) using tyrap (27).

d) Attach new tag (31) on replaced drain hose (15) and reposition FWD and AFT panels.

5) FUEL FILTER WIRING (Refer to Figures 1, 2, 6 to 9)

a) Refer to Airframe Fuel Filter, Wiring Diagrams in this document to replace damaged components or wiring. Refer to Figures 6 to 9.

Transport Canada - Accepted

8. **REMOVAL AND REPLACEMENT** (continued)

B. REPLACEMENT (continued)

5) FUEL FILTER WIRING (Refer to Figures 1, 2, 6 to 9) (continued)

b) Install in accordance with AC43.13-1B, Chapter 11.

c) Attach connector (2QWa) to top of fuel filter. Refer to SECTION A-A in Figure 3. Refer to SECTION A-A.

d) Reconnect wire (2Qwa) (7) through back of fuel filter support assembly (2) and secure to backshell (2QWa) using strip n stick tape (26).

e) Secure the wiring to the rear of the fuel filter assembly to clamp (13), using screw (16), washer (17) and spacer (19).

f) Run wire (7) under transmission deck and route under cabin floor along the LH side of the aircraft following the existing harness. Secure using tyraps and lacing cord as required.

g) Locate ground wires (1031N-2) and (1011N-3) picking up on existing holes and secure using existing hardware. Refer to Figures 1, 6 to 9.

h) Reseal grommet at wiring location in the transmission deck and back of fuel filter support assembly (2, Figure 2) with sealing compound (24 & 33 respectively). Refer to Figures 2 and 3.

i) Secure opposite end of wires to (1QW) in the Instrument Panel.

j) Use an ohmmeter, point to point check all connections to ensure correct installation.

6) Check After Maintenance Work - Fuel System in accordance with EC 130 B4 AMM, Chapter 28-00-01, 6-2.

7) Comply with General Safety Instruction - Electrical Power Supply System, EC 130 B4, AMM, Chapter 24-00-00, 3-1.

8) Close all areas opened for service in the PRELIMINARIES paragraph of this section.

9) Refuel the helicopter in accordance with Filling/Draining-Servicing EC 130 B4, Chapter 12-10-00, 3-2.

10) Re-connect battery, EC 130 B4, AMM, Chapter 24-33-00, 4-1

11) Re-connect external power unit, EC 130 B4, AMM, Chapter 24-00-00, 2-1.

12) Reference functional test - DC Power Supply System in accordance with EC 130 AMM, Chapter 24-30-00, 5-1.

13 Complete checks as per Section 4.1.5 Operational Test - Fuel Filter Switch and Bypass Valve of this document.

14) Install the fuel filter element (P/N 1743645-01) and perform a leak check on runup.

15) Perform operational check of all systems that were serviced in accordance with the EC 130 B4 procedures and the system's installation/operation manual.

16) Secure the fuel filter cover asssembly over the enclosure and lock into place.

17) Close the LH side MGB engine cowling.

18) Install LH baggage FWD and AFT interior panels

19) Install LH lateral cargo hold door in accordance with Installation - 52-31-00, 4-1.

20) Reinstall Fuel Filter Cover Assembly.

Transport Canada - Accepted

9. WEIGHT AND BALANCE DATA

A. Removed Items

DESCRIPTION	WEIGHT		ARM		MOMENT	
	kg	lbs	m	in	kg m	lb in
Floor Cut- out	0.09	0.20	3.44	136.60	0.31	27.32
Total	- 0.09	- 0.20	3.44	136.60	- 0.31	- 27.33

B. Added Items

DESCRIPTION	WEIGHT		ARM		MOMENT	
	kg	lbs	m	in	kg m	lb in
Airframe Fuel Filter	4.20	9.26	3.47	136.61	14.57	1265.01
Total	4.20	9.26	3.47	136.61	14.57	1265.01

Transport Canada - Accepted

10. **PLACARDS AND MARKINGS**

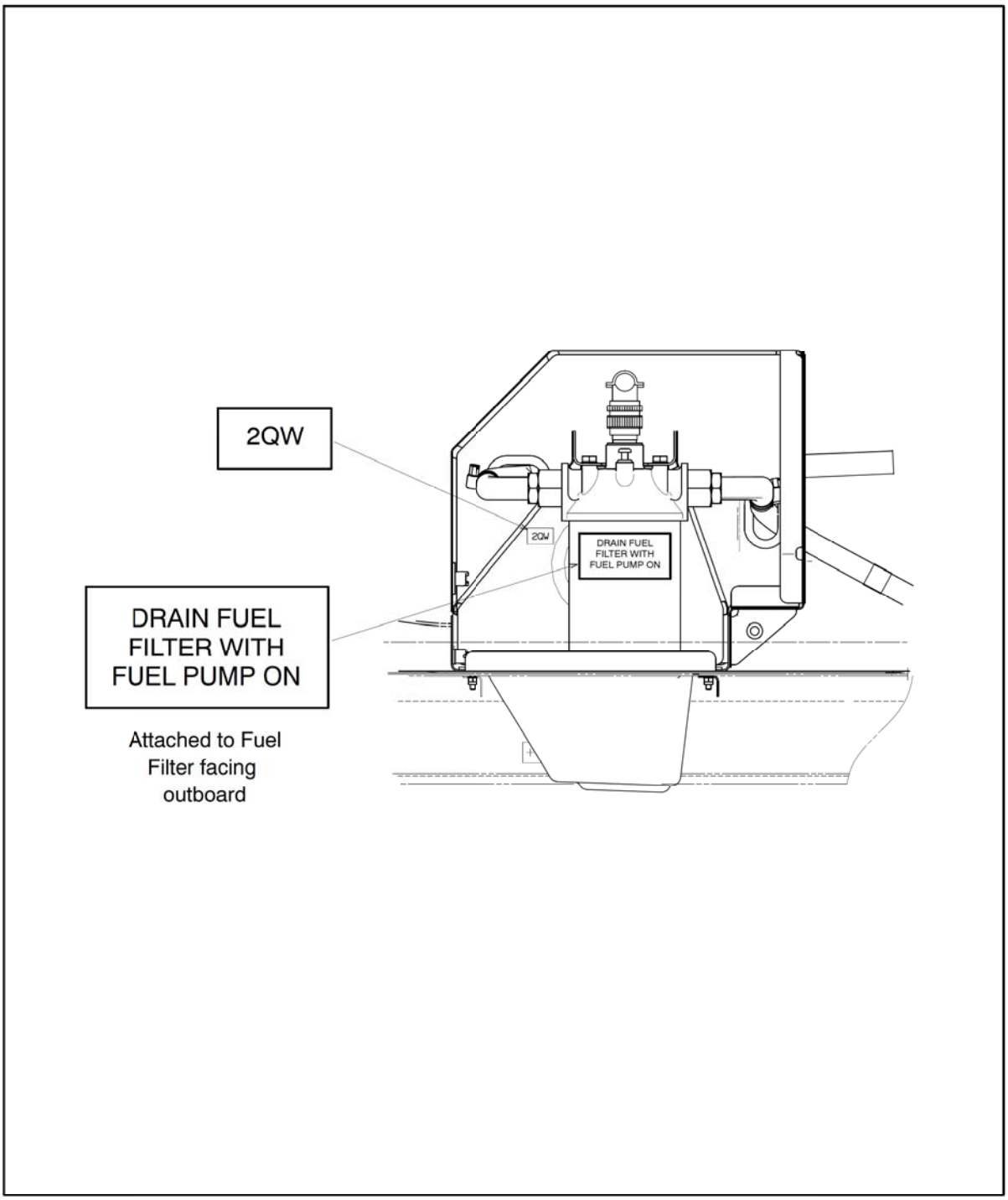


Figure 10 Typical label locations on the Fuel Filter and Support Assembly

Transport Canada - Accepted

10. **PLACARDS AND MARKINGS** (continued)

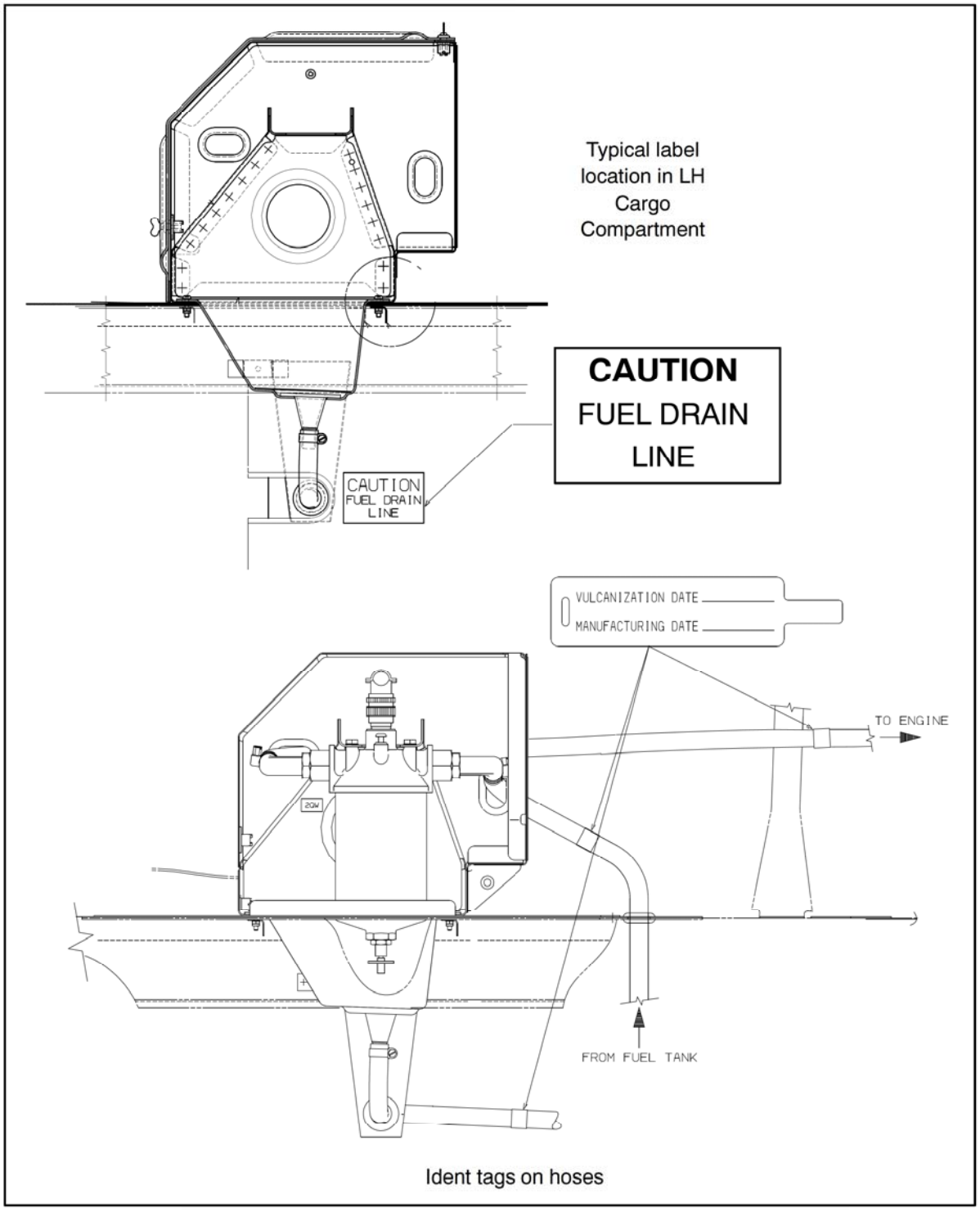


Figure 11 Typical label and tag locations

Transport Canada - Accepted

10. **PLACARDS AND MARKINGS** (continued)

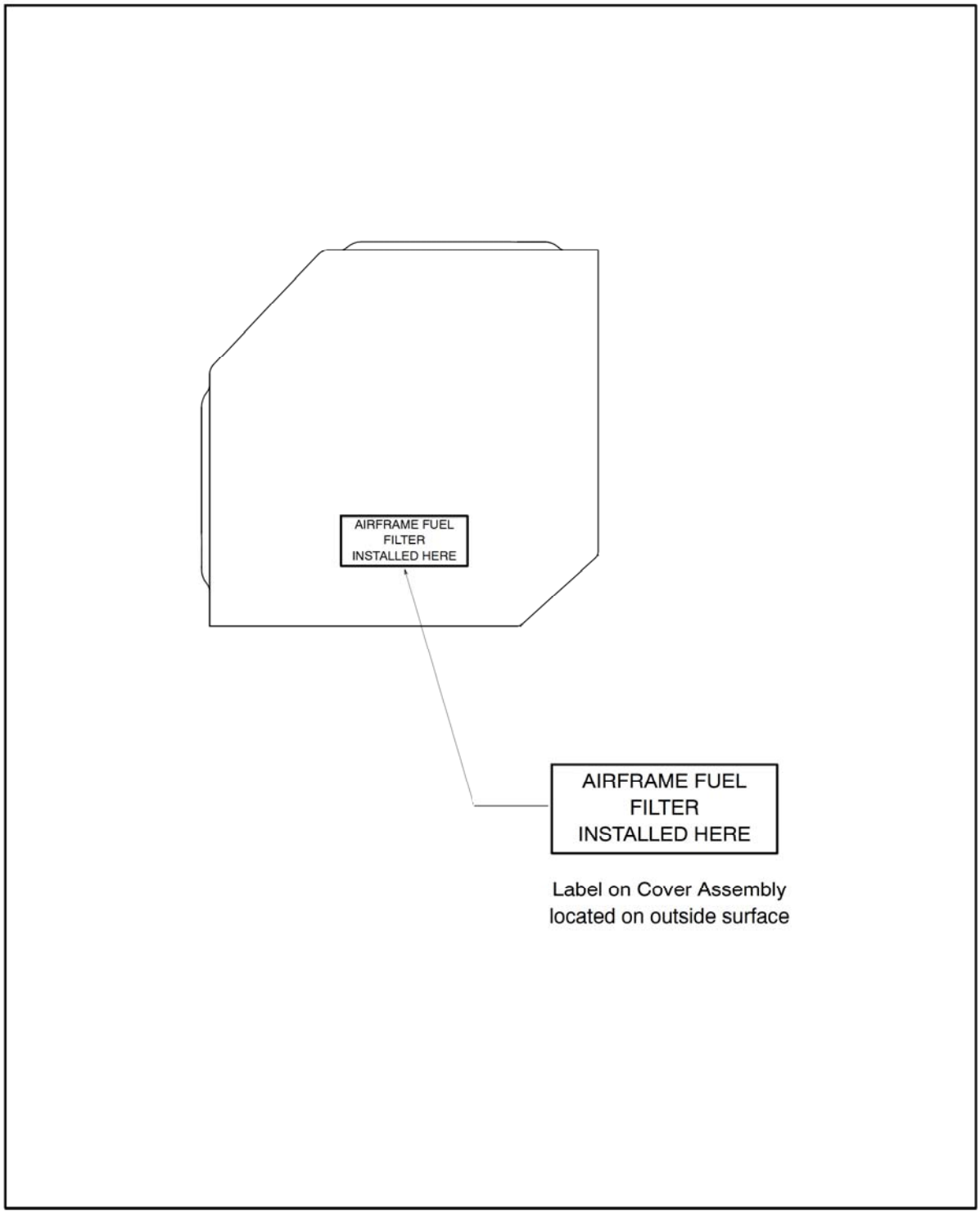


Figure 12 Typical label location on Cover Assembly

Transport Canada - Accepted

10. **PLACARDS AND MARKINGS** (continued)

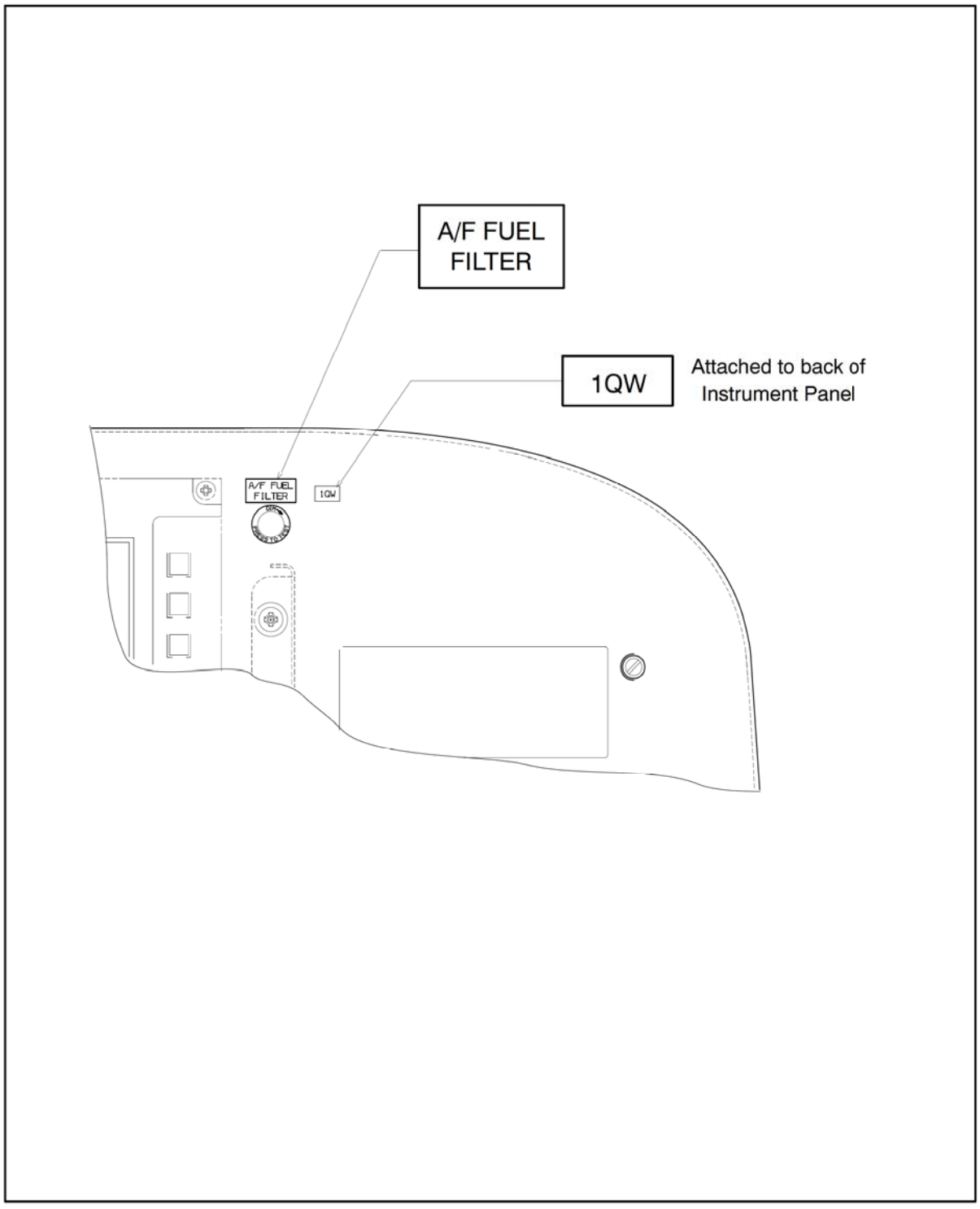


Figure 13 Typical label locations on the Instrument Panel

Transport Canada - Accepted

Operating Instructions
Fuel Filter Assembly
Part Number: 1743640-01

Contents:

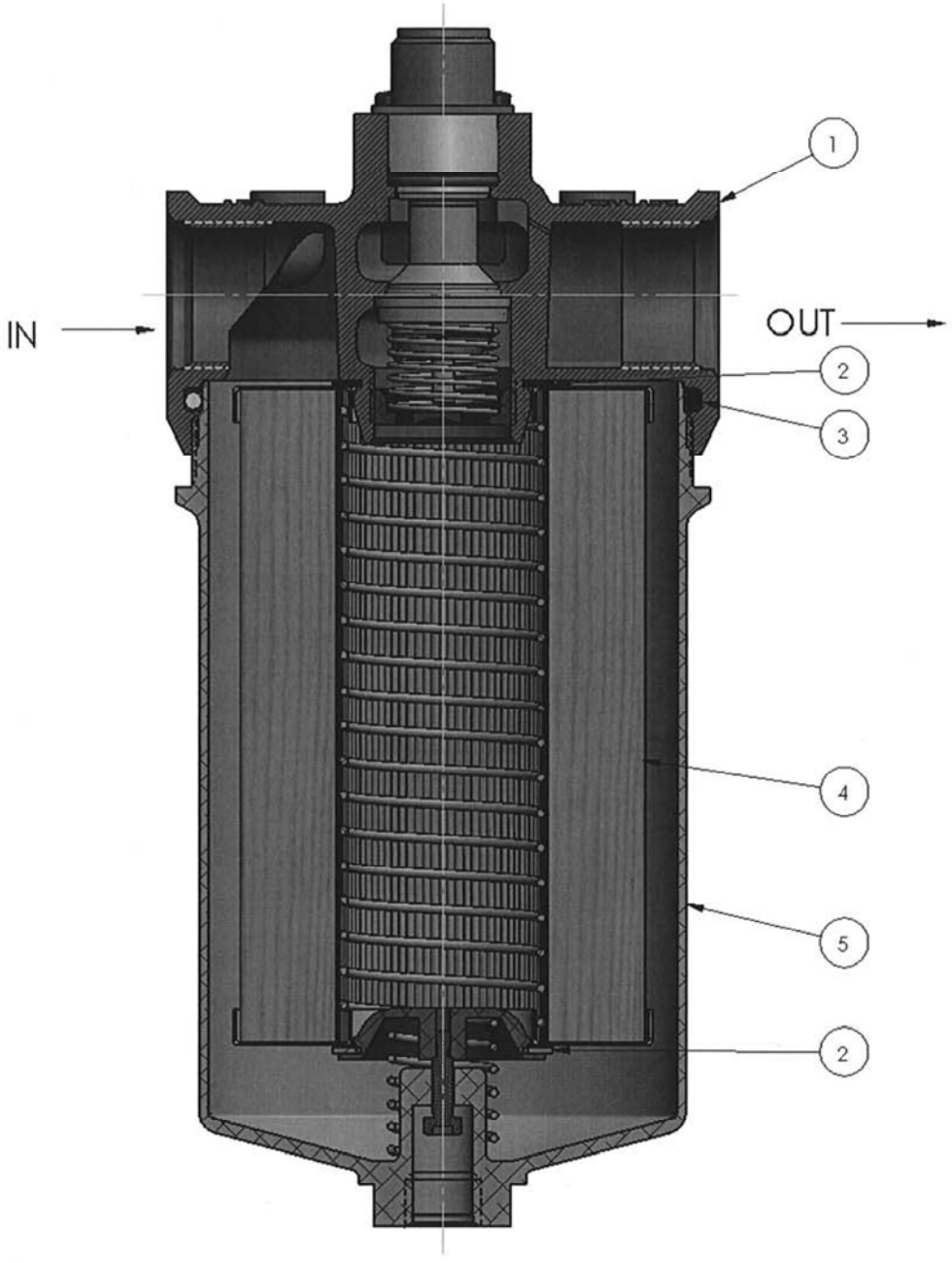
Operating & Design Specifications:

Parker Aerospace Filtration Div.
Purolator Facet Inc.
8439 Triad Drive
Greensboro, NC 27409-9621
(336) 668-4444, Fax (336) 668-4452

Record of Revisions

Revision No	Description	Date
A	Item 1 Replacement part (page 4) was 1744990-01	Dec. 29, 2020

Fuel Filter Assembly
Part No. 1743640-01



Replacement Parts for Filter Assembly Part No. 1743640-01

Item No.	Qty. Req.	Part No.	Description:
1.	1	2177100-30	Head Assembly
2.	2	1743629-01	Seal
3.	1	034921-01	O-Ring
4.	1	1743645-01	Element Assembly
5.	1	1745011	Bowl Assembly

NOTE: **Purolator replacement element kit part no. 1743645-02 consists of items 2, 3 & 4**

Operating Instructions:

Preflight Inspection Procedure Change:

1. Follow aircraft manufacturers recommended preflight instructions.

Scheduled Maintenance:

1. Fuel Filter Element Change:

   A. Replace element at the intervals specified by the aircraft manufacturer.

   B. Remove lockwire and unscrew filter bowl.

   C. Remove used element.

   D. Remove O-Ring and flat seals from filter head and inside of bottom of filter bowl.

   E. Install new seals P/N: 1743629-01 on the nipple of the filter head and retainer in the filter bowl.

   F. Install new filter element p/n: 1743645-01.

   G. Install new O-Ring P/N: 034921-01 in the filter head.

   H. Re-install filter bowl and torque to 130 ±20 inch pounds.

   I. Secure filter head to filter bowl with lock wire.

Purolator Fuel Filter Assembly
Part Number 1743640-01

Design Specifications:

1. Filtration Rating: 10 Micometres Nominal
2. Fluid: Mil-T 5624 Gr. JP-4, JP-5, ASTM-D-1655 Type A, A1or B.
3. Temperature Range: -65°F to +160°F.
4. Bypass valve cracking Pressure: 3.75 PSID.
5. Microdelta® Differential Pressure Switch actuates at 0.875 PSID
6. Pressures:
   - Operating: 60 PSI
   - Proof: 90 PSI
   - Burst: 180 PSI
7. Rated Flow: 0.5 GPM
8. Weight: 1.75 lbs. Max.