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PALL Aerospace Halon Filter Assemblies or Manifolds

1. Purpose and Scope

1.1 This document provides guidance on disposal and recycling of the component parts within Pall Halon Filter Assemblies on completion of the serviceable life.

1.2 This document, when read in conjunction with the relevant component maintenance manuals (CMM) for the unit, provides unit material guidance and disassembly procedures.

1.3 This document identifies and gives separate instructions for disposal of electrical or electronic components, batteries, motors and other components in accordance with applicable local legislation and regulatory requirements, including those of European Directive 2012/19/EU (UK Waste Electrical and Electronic Equipment Regulations (2013)). (2013 **WEEE** Regulations)

2. Tools Required

Tools included in a standard aircraft maintenance tool kit plus those listed within the relevant CMM will be necessary to accomplish this task.

3. Disassembly Method

3.1 Isolate and remove the filter assembly from the aircraft in accordance with relevant AMM instructions.

This will include isolation of unit from fluid supply, electrical connections and mounting arrangements

3.2 Dis-assemble the filter assembly in accordance with “Disassembly” section of relevant CMM.

Ensure consideration is made to the materials or substances that the equipment may have been in contact with during use. The equipment must be decontaminated appropriately in accordance with local health and safety and environmental requirements to ensure safe handling during disassembly.

Comply with all of those requirements, plus the following requirements for safe work and any other requirements specific to the working location before dismantling this equipment, including:

- Observe all safety instructions and warnings.
- Comply with all safe handling and accident prevention measures.
- Ensure that no unauthorised person performs the disassembly and / or disposition operations.
- Wear appropriate personal protective equipment.

3.3 Dispose of components in accordance with the materials of construction and hazard classification of the contaminants present.

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4. Materials of Construction and Disposition Guidance: Halon Filter Assembly

The assemblies shown and Figures 1 and 2 are illustrative examples only.

The filter head and manifold are shown as simple blocks, however the actual assembly may have an alternative profile that will be machined.

The equipment in your system will be a variant of the generic example(s) shown.

4.1 Halon Filter Assembly – see Figure 1

- This shows a filter head (represented as a simple generic block) with assembled parts exploded to show typical locations.

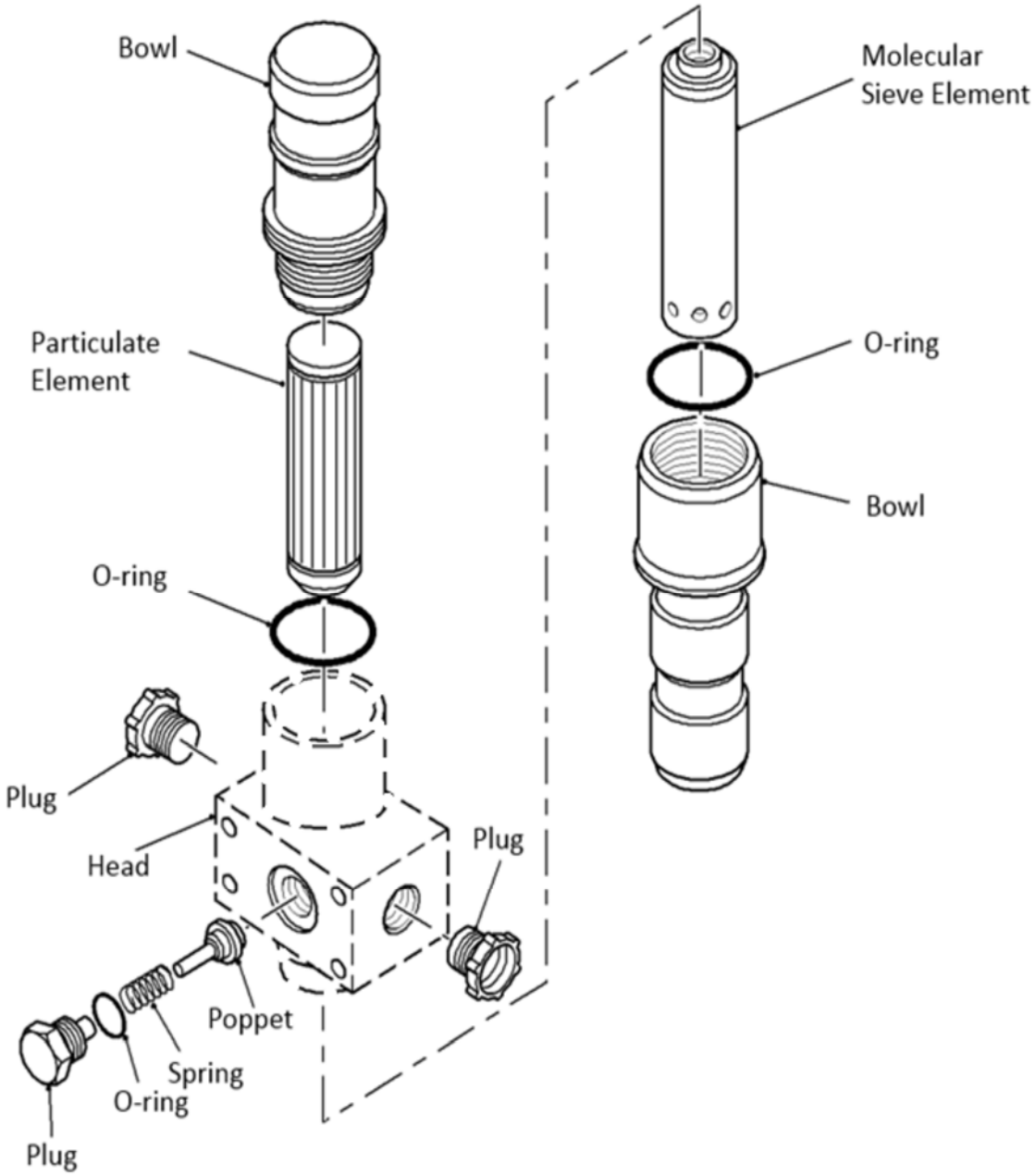
- Table A provides a generic list of materials and disposition guidance for the Filter Assembly components.

4.2 Alternative Halon Filter Assembly – see Figure 2

- The alternative Halon Filter Assembly example shows a manifold (represented as a generic block with extra ports for mounting additional equipment), assembled parts exploded with an alternative pressure indicator.

- You will need to review the “Description and Operation” section as contained in the relevant CMM for your product, to determine which optional equipment is included.

- Table B provides a list of materials and disposition guidance for components within the alternative Halon Filter Assembly.



Exploded view of typical Halon Filter Assembly

Figure 1

NOTE: Unit can incorporate either a particulate element or a molecular sieve element, OR both particulate element and molecular sieve element

Example: QA06120 incorporates a particulate element, QA06113 incorporates a molecular sieve element. QA06753 series incorporates both particulate and molecular sieve elements.

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Halon Filter Assembly (Figure 1)		
Components	**Material Type or Information (options that may be included)**	**Disposition Information**
Filter Head	Anodised aluminium alloy. (Some components may be bonded together with Loctite242 or Loctite 542)	Anodised aluminium components (if not otherwise contaminated) are inherently recyclable and should be processed as if a pure material. Stainless steel components can be recycled unless permanently contaminated or coated. Disposition should reflect the materials of construction and any contaminants present as the result of use. Dispose of in line with local and national legislation and guidelines.
Plug, Transit (disposable item)	Aluminium alloy, plastic	
Bowl	Anodised Aluminium Alloy	
Spring	Stainless Steel	
Poppet	Stainless Steel, Anodised aluminium alloy, elastomer, screw, Loctite adhesive	
Particulate Element (Non-recoverable constituent parts)	Anodised aluminium alloy, stainless steel and aluminium alloy meshes, epoxy resin bonded glass fibres, epoxy resin adhesive	Disposition should reflect the materials of construction and any contaminants present as the result of use. Dispose of as a single unit in line with local and national legislation and guidelines.
Molecular Sieve Element (Non-recoverable constituent parts)	Anodised Aluminium, Stainless Steel, Molecular Sieve, Epoxy Resin	
O-ring	Elastomer (options of: Fluorocarbon, Ethylene Propylene, Nitrile – dependent upon application)	Dispose of in line with local and national legislation and guidelines for sealing materials.
Note: Obtain copies of Material Safety Data Sheets to allow decision on disposal instructions as appropriate for review in accordance with local Environmental, Health and Safety procedures.		

Materials of Construction and Disposition guidance for typical Halon Filter Assembly

Table A

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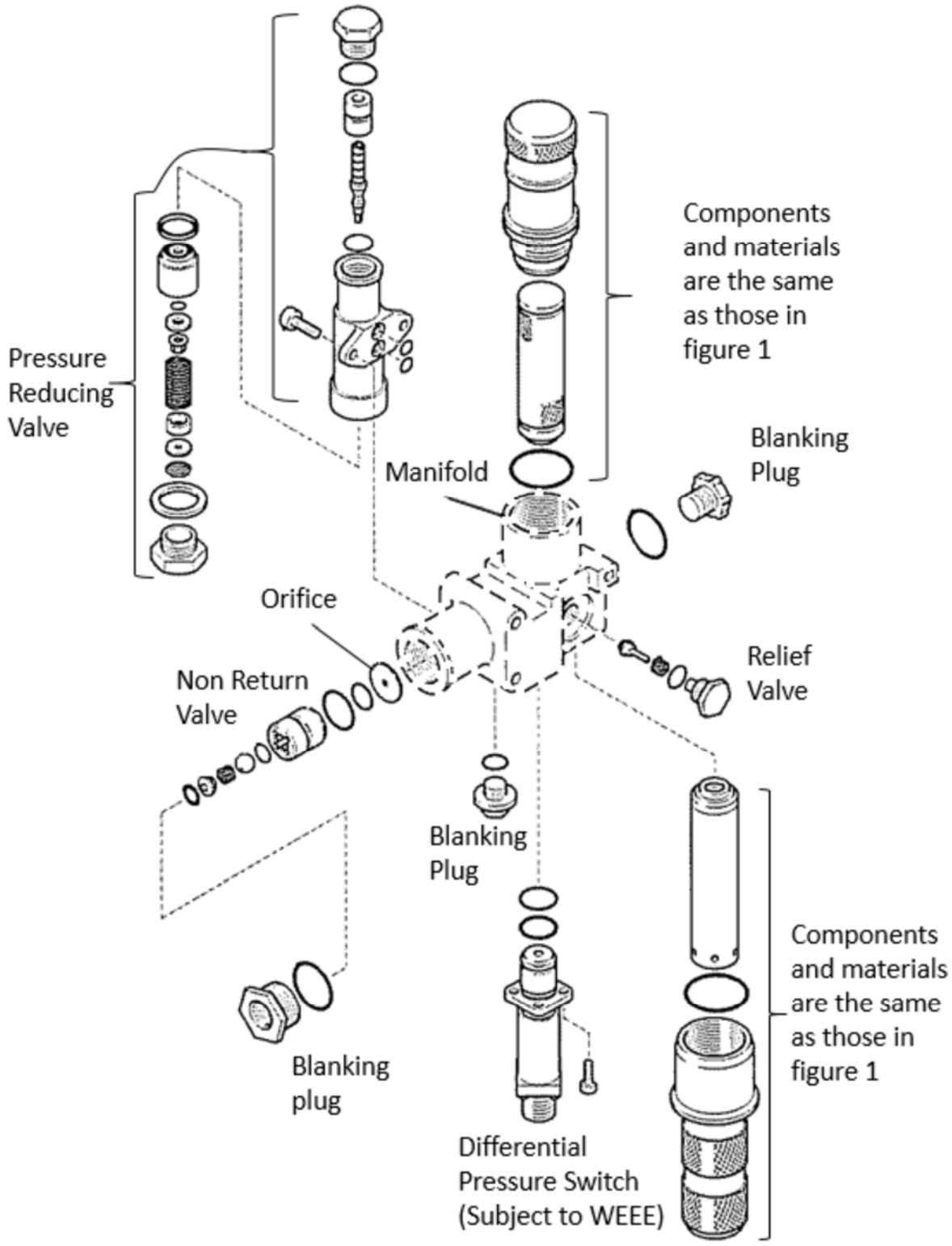

Exploded view of alternative Halon Filter Assembly

Figure 2

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Halon Filter Assembly (Figure 2)		
Components	**Material Type or Information (options that may be included)**	**Disposition Information**
Orifice	Anodised Aluminium Alloy	Anodised aluminium components (if not otherwise contaminated) are inherently recyclable and should be processed as if a pure material. Stainless steel and aluminium bronze components can be recycled unless permanently contaminated or coated. Disposition should reflect the materials of construction and any contaminants present as the result of use. Dispose of in line with local and national legislation and guidelines.
Blanking Plug	Aluminium alloy, plastic	
Relief Valve	Anodised Aluminium alloy, Stainless Steel, Nitrile / Fluorocarbon seals.	
Pressure Reducing Valve	Anodised Aluminium alloy, Aluminium Bronze alloy, Stainless Steel. PTFE, Nitrile / Fluorocarbon seals	
Non Return Valve	Anodised Aluminium alloy, Stainless Steel, Aluminium oxide, Nitrile / Fluorocarbon seals.	
Differential Pressure Switch	Contains "**WEEE**"	Dispose of as waste electrical or electronic equipment after consideration and removal of any contaminants present as the result of use. Pall provides information on recycling of Pall **WEEE** in various European countries at: https://www.pall.com/en/about-pall/corporate-sustainability/weee-compliance.html.
Manifold	Anodised Aluminium alloy, Loctite 242, Resin sealant	Anodised aluminium components (if not otherwise contaminated) are inherently recyclable and should be processed as if a pure material. Disposition should reflect the materials of construction and any contaminants present as the result of use. Dispose of as a single unit in line with local and national legislation and guidelines.
Note: Obtain copies of Material Safety Data Sheets to allow decision on disposal instructions as appropriate for review in accordance with local Environmental, Health and Safety procedures.		

Materials of Construction and Disposition guidance for Alternative Halon Filter Assembly

Table B