



**Facet Filter No: 574997**  
**Boeing Part No: 10-3332-1**

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# **Service and Technical Manual**

**E707, Revision C**

**March 1996**

# Facet Filter No.: 574997

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### 1. Purpose:

This Service bulletin provides the necessary instructions to convert Facet filter No. 574997 assembly, through the use of Conversion Kit (Part No. 054050), to Boeing Part Number 10-3332-6 (Purolator part No. 574997-01).

### 2. Work Area:

Remove original unit from aircraft to a test area having a hydraulic source of 200 psi and 40 gpm minimum flow with BMS 3-11 approved fluid.

### 3. Disassemble Unit Shown in Figure 1 as Follows:

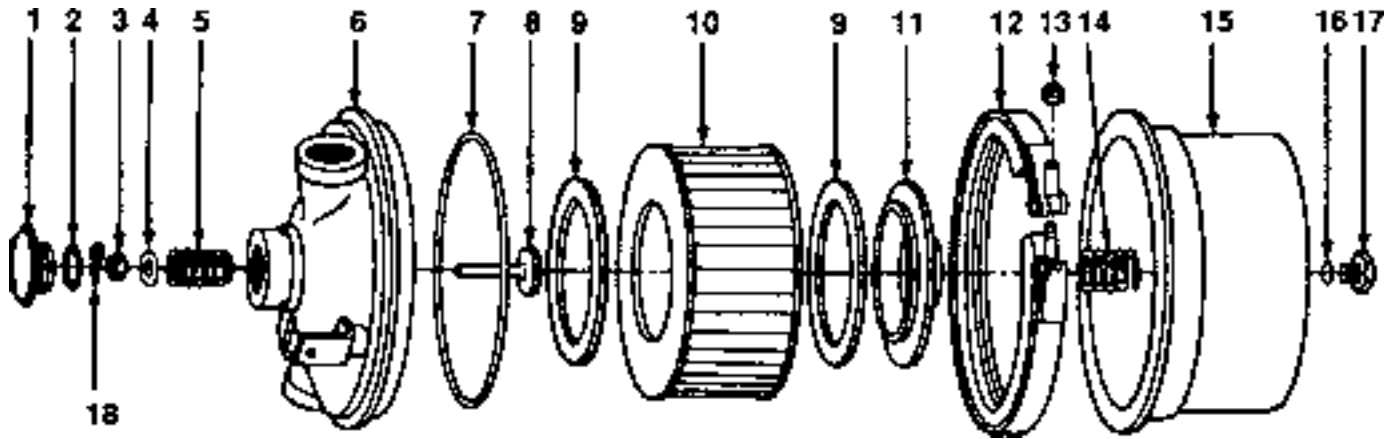
- A. Unscrew nut (Item 13) from V-band coupling (Item 12) and remove coupling and bowl (Item 15) with element (Item 10) from head (Item 6). Do not pry or wedge the V-band coupling in any way during disassembly. Remove gasket (Item 9) from head.
- B. Disassemble valve parts from top of head in the order of position shown by first removing plug and O-ring (Items 1 and 2), cotter pin (Item 18), nut (Item 3 - hold valve with screwdriver, using slot on bottom of valve), guide (Item 4), and spring (Item 5). Remove the valve (Item 8) from inside the head.
- C. Remove all parts except head (Item 6) and V-band coupling (Items 12 and 13) from work area.

### 4. Clean and Inspect Unit as Follows:

- A. Wash head thoroughly with a suitable solvent such as trichloroethylene, carbon tetrachloride, stoddard solvent, etc. Dry with lint-free cloth or by blowing with prefiltered air.
- B. Inspect valve seat. It must be free from all nicks or irregularities. If any are observed, seat should be lapped using tool 054054-01 with screwdriver and lapping compound, Federal Specification SS-C-614 or equivalent, until seat is smooth and seat edge is sharp. Insert valve (Item 9) and lap with light pressure using 6 to 8 short rotating motions. Clean head thoroughly after completion.

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**Figure 1**

Fig No.	Item No.	Part No.	Nomenclature	Units per Assy	Fig No.	Item No.	Part No.	Nomenclature	Units per Assy
1	1	031658	Plug - Head	1	1	10	031324	Element - Filter	1
1	2	051048	O-ring (NAS1612-16)	1	1	11	031656	Retainer - Element	1
1	3	569146	Nut - Casel (AN121577)	1	1	12	031601	Coupling - V-band	1
1	4	031662	Guide - Valve	1	1	13	AN363-524	Nut - Self-locking	1
1	5	031657	Spring - Valve	1	1	14	565595	Spring - Bowl	1
1	6	031602	Head	1	1	15	031602	Bowl	1
1	7	049413	O-ring (NAS1611-259)	1	1	16	051047	O-ring (NAS1612-4)	1
1	8	031663	Valve	1	1	17	031699	Plug - Drain (MS 9015-04)	1
1	9	049736	Gasket	1	1	18	039856	Cotter Pin (AN381-2-7)	1

### Parts List

**5. Reassemble Unit Shown in Figure 2 as Follows:**

- A. Assemble valve parts in order shown, by first inserting valve in head from bottom, assemble springs (Items 5 and 6) and retain with guide (prevent valve from turning with screwdrive slot on bottom of valve). Adjust valve by means of guide (Item 4). To obtain a spring preload of 60 pounds, lock with nut (Item 3). Install plug (Item 1) and torque to 50 inch pounds.

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- B. Install additional components as follows: Install O-ring (Item 8) on head. Install O-ring (Item 13) in retainer (Item 14) and install in bowl retaining with ring (Item 12). Lubricate all parts with BMS3-11 approved fluid.
- C. Do not install element (Item 11). Use a dummy test element No. 054025-02. Install two gaskets (Item 10) and push bowl into head. Lubricate inside of V-band clamp with Skydrol 500 and clamp bowl to head using a torque of  $150 \pm 10$  in. pounds.

### Note

Indicator Assembly (Items 20 through 23) has been previously installed and tested. Do not disturb this assembly.

### 6. Test Valve as Follows:

- A. Install assembled unit on test stand with outlet port open to atmosphere.
- B. Slowly increase pressure at inlet port in 2 psi increments until a pressure of 49 psi is reached. Leakage from outlet port after 5 minutes should not exceed 3 cc per minute (differential indicator should have actuated at pressure of  $45 \pm 5$  psid).

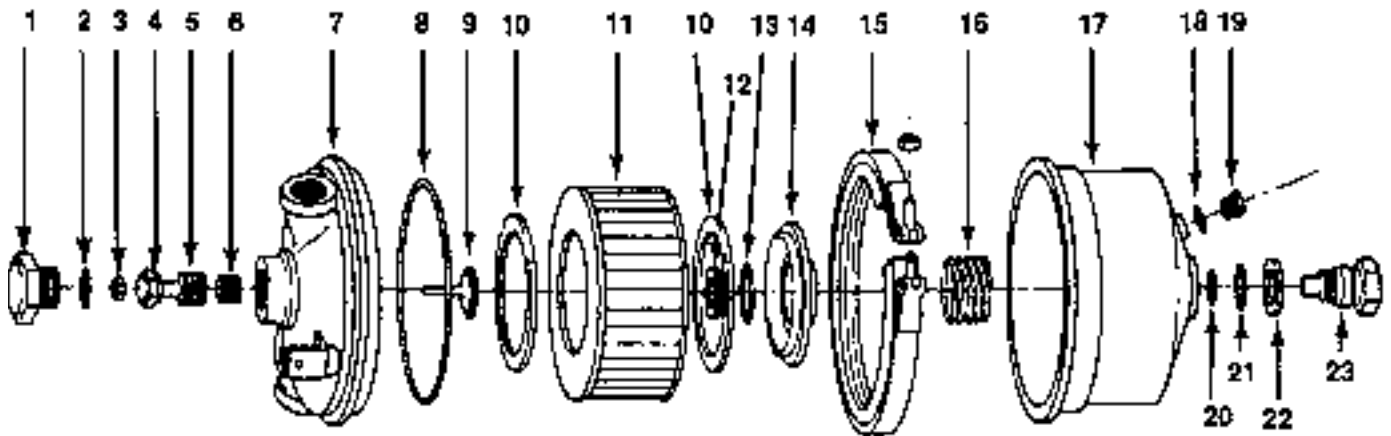


Figure 2

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Fig No.	Item No.	Part No.	Nomenclature	Units per Assy	Fig No.	Item No.	Part No.	Nomenclature	Units per Assy
2	1*	053947	Plug - Head	1	2	13*	049404	O-ring(NAS1611-121)	1
2	2	051048	O-ring(NAS1612-16)	1	2	14*	049077	Element - Retainer	1
2	3	569146	Nut	1	2	15	031601	Coupling - V-band	
2	4*	053946	Guide - Valve	1	2	16*	047236	Spring	
2	5*	054008	Spring - Valve	1	2	17*	053945	Bowl(Aluminum Anodized)	1
2	6*	054006	Spring - Valve	1	2	18	051047	O-ring(NAS1612-4)	1
2	7	031602	Head(Aluminum Anodized)	1	2	19	031699	Plug - Bowl Drain	1
2	8	049413	O-ring(NAS1611-259)	1	2	20*	052493	O-ring(NAS1611-013)	1
2	9	054054	Valve	1	2	21*	052494	O-ring(NAS1611-016)	1
2	10	049736	Gaskets	2	2	22	910721	Backup Ring(MS28774-016)	1
2	11*	054025-01	Element - Filter	1	2	23*	051389	Indicator Assembly	1
2	12*	054007	Retainer	1					

### Parts List

- C. If cracking pressure is not within tolerance, release pressure, remove plug (Item 1) and nut (Item 3) and tighten guide (Item 4) approximately one turn if pressure is too low or loosen one turn if pressure is too high.

#### 7. Preparation for Aircraft Installation:

- A. Repeat Step 1A, replace dummy test element (P/N 054025-02) with element (Item 11). Reassemble per Step 3C.
- B. Proof pressure test with outlet plugged at 200 psi (no allowable leakage).
- C. Lockwire plug (Item 1) to head, reset indicator button by turning and pushing in (as described on indicator fitting face). Unit is now ready for aircraft installation.
- D. Remark name plate by adding "-01" to part No. 574997 and changing Boeing part number from 10-3332-1 to 10-3332-6.