Powering Business Worldwide

Aerospace Group
Conveyance Systems Division
Carter® Brand Ground Fueling Equipment

SM60505
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Applicable additional manuals:

None

Maintenance Manual

Adapters

Model 60505
Model 61526

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Maintenance, Overhaul & Test Instructions
Carter® Brand Adapters
Models 60505 & 61526

1.0 INTRODUCTION

This manual furnishes detailed instructions covering the maintenance and overhaul of Eaton's Carter brand Model 60505 & 61526 Adapters. Both of these adapters utilize the API 1584 type connection and both have 4" ANSI flanges.

2.0 EQUIPMENT DESCRIPTION

This type of adapter is suited for bottom loading or hydrant system applications. The only differences between the two models lie in the material of the bodies of the two units. Model 60505 is made of ductile iron and Model 61526 is made of aluminum.

3.0 TABLE OF OPTIONS

Each of the adapters may be obtained in various configurations by adding one or more of the options listed in the table below.

Option Letter	Description	Comments
A	Adds Product Selection (41801)	6-position selectivity in accordance with API 1584
E	Adds plastic dust cap (41579)	

4.0 DISASSEMBLY

Refer to Figure 1 for an exploded view of the Unit.

4.1 Remove Dust Cap Assembly (1) from unit only if it is to be replaced or it is more convenient to work on the unit with it removed. If the Dust Cap (1) is in good shape, do not replace.

4.2 Remove Retainer Ring (5) from flanged end of the unit. This will then make it possible to remove Poppet Retainer (6) and Poppet Assembly (8).

4.3 Remove Seal (18) and Ring (19) from Poppet Assembly (8). Discard Seal (18).

4.4 Remove Retainer (9), Spring (10), Poppet (11) and Seal (12). Note the direction in which the Seal (12) is installed for reassembly purposes.

Do not disassemble Poppet Assembly (8) further unless one of the remaining parts needs replacing. Remove Ring (13) and disassemble Shroud (14) from Poppet (15A or B).

4.5 On option A, do not remove product selection Bolts (21), Washers (22 and 24) and Nuts (25) unless replacement is needed.

5.0 INSPECTION

5.1 Check Cap (1) for aging cracks or other damage. Replace as needed.

5.4 Replace Seal (18).

5.5 Inspect sealing surface of adapter Body (26 or 27) for nicks or damage. Sealing surface is the recessed surface radiating from the hole in the center of the API 1584 connection to the ridged area. Nicks or chips of the coating on Body (26) in the ridged area are of no consequence. Body (26) is made of ductile iron and coated with an epoxy. If the chips are apparent in the various sealing areas, it is necessary to strip and recoat the part. This can be accomplished by E/M Corporation, 6940 Farmdale Ave., North Hollywood, CA 91605, phone (213) 875-0101. The product is Everslik 1201 and is applied .001 to .005 thick. If this product is not available, an equal epoxy coating would be suitable provided the thickness is controlled to the above limits. Limited repairs to the surfaces that are not utilized for sealing purposes can be accomplished by using the process outlined in the following paragraphs.

- Degrease the entire area to be repaired, plus approximately one (1) inch (25 mm) beyond, with a good commercial degreasing solvent.

- With an abrasive media, emery paper or steel wool, abrade the previously cleaned area, to the bare metal if practical.
- With a paint brush, apply one coat of Henco-Phos 1326 Base (E/M Corporation) in accordance with the manufacturers instructions, and allow to air cure, approximately one hour.
- Utilizing a mixing dish and utensil, mix the two part epoxy kit, Everlube 13-509 (E/M Corporation), in accordance with instructions provided with the kit.
- Within a four hour period, liberally apply the mixed Everlube 13-509 coating to the prepared surface, with a paint brush in accordance with instructions provided with the kit. Make certain the entire prepared surface is coated. Allow to air cure until completely dry. Keep away from fuel or other solvents for at least 8 hours.

Body (27) is made of aluminum. Use 320 grit paper to smooth and remove sharp edges. Replace any part with damage exceeding 15% of local wall thickness. Use alodine 1200 to touch up bared aluminum.

6.0 REASSEMBLY

6.1 Reassembly is accomplished in essentially the reverse order of disassembly noting the following:

6.2 Light lubrication of all seals, using petroleum jelly is recommended to facilitate installation.

6.3 If removed during disassembly, replace the product selection set of Bolts (21), Washers (22 and 24) and Nuts (25). Note, of the eight holes provided on the flange for the product selection, six are numbered one through six. Two are not numbered. Two of the Bolts (21) are installed in the two unmarked holes. The third Bolt (21) is placed in the appropriate hole of the position desired. That is, if position "4" is desired, place the Bolt (21) in the hole marked "4". The head of the Bolt (21) is assembled toward the API flanged end of the unit. Five of the thicker Washers (22) and one of the thinner Washers (24) are placed under the head of the Bolt (21). One of the Washers (22) is used under the Nut (25) on the under side of the flange in the Body (26 or 27). On some older units a tag, the thickness of Washer (22) was used to mark the location of the selection position. It can be discarded and replaced by Washer (22).

6.4 Place Seal (18) over the outer diameter of the Poppet (15A or B) and install Ring (19) inside of Seal (18). Assemble Shroud (14) and retain with Ring (13).

Note that Seal (12) has two molded "beads" or ridges of rubber, one near the outer diameter and one near the inner diameter. Place the Seal (12) with the outer diameter bead placed toward the recess in the Poppet (11) leaving the inner bead exposed. Place the Poppet (11) against the Seal (12) followed by the Spring (10) and Retainer (9).

6.6 With Body (26 or 27) placed on a bench turned such that the ANSI flange is upward, carefully insert either the Poppet Assembly (8) into unit. Assembly Spring (7) and Poppet Retainer (6) into unit. Compress sufficiently to insert Retainer Ring (5) into groove to retain parts.

6.7 If Dust Cap Assembly (1) was removed replace in by hooking Clip (4) to hole in Body (26 or 27).

7.0 TEST

7.1 The following test procedures will be accomplished after overhaul:

7.2 Test conditions

7.2.1 Test media shall be Stoddard Solvent (Federal Specification P-D-680), MIL-C-7024 Calibrating Fluid, JP-4 per MIL-J-5624D at 75° ± 15°F, Jet A or equivalent.

7.3 Functional Test

7.3.1 Attach adapter to a 120 psi fluid pressure source through the outlet (flanged or threaded end). Attach a Carter 61525, 60700-1 or 60600 Coupler to the API connection. The coupler shall be plugged at the inlet end with a plug and a small petcock or hand valve. With the nozzle and petcock open, slowly increase the pressure into the adapter outlet to fully bleed the air from the test unit. Close the petcock and increase the test pressure to 120 psi. Check for external leakage from the joint between the coupler and adapter and from the adapter housing.

7.3.2 Bleed the pressure from the test unit and remove the coupler.

8.0 ILLUSTRATED PARTS CATALOG

Table 1.0 tabulates the parts and sub-assemblies comprising the various adapters covered by this manual. The item numbers of the table are keyed to the exploded views of the Units diagrammed in Figure 1.

TABLE 1.0

Item	Part Number	Description	Number Required	Spares/10 Units/Yr.	Used on
1	41579	Dust Cap Assembly	1	-	E
2	Left intentionally blank				
3	Left intentionally blank				
4	GF29523-1	Clip	1	-	E
5	29493	Retainer Ring	1	-	All
6	200847-1	Poppet Retainer	1	-	All
7	28618	Spring	1	-	All
8	43795	Poppet Assembly	1	-	60505 All
	42249	Poppet Assembly	1	-	61526 All
9	200012	Retainer	1	-	All
10	200014	Spring	1	-	All
11	200011	Poppet, Press. Equalizing	1	-	All
12	221170	Seal	1	2	All
13	RS-156-S	Ring	1	-	All
14	200849	Shroud	1	-	All
15A	210284	Poppet	1	-	60505 All
15B	200848-1	Poppet	1	-	61526 All
16-17	Left intentionally blank				
18	29486	Seal	1	-	All
19	29472	Ring	1	-	All
20	41801	Product Selection Set	1	-	A
21	GF6-13	Bolt	3	-	A
22	GF960-616	Washer	18	-	A
23	Left intentionally blank				
24	GF960-616L	Washer	3	-	A
25	GF21083N6	Nut	3	-	A
26	29487	Body	1	-	60505 All
27	210182	Body	1	-	61526 All

Notes:
1. All part numbers beginning with "GF" are interchangeable with those beginning with either "AN" or "MS". If the "GF" is followed by three numbers it is interchangeable with and "AN" part, otherwise it is interchangeable with an "MS" part of the same number.
2. The recommended spare parts shown above are the number required to support 10 Units for one year. The recommended quantities are based on the ratio of spare parts sold for each unit during a one year period of time. The actual quantity required will vary from location to location.

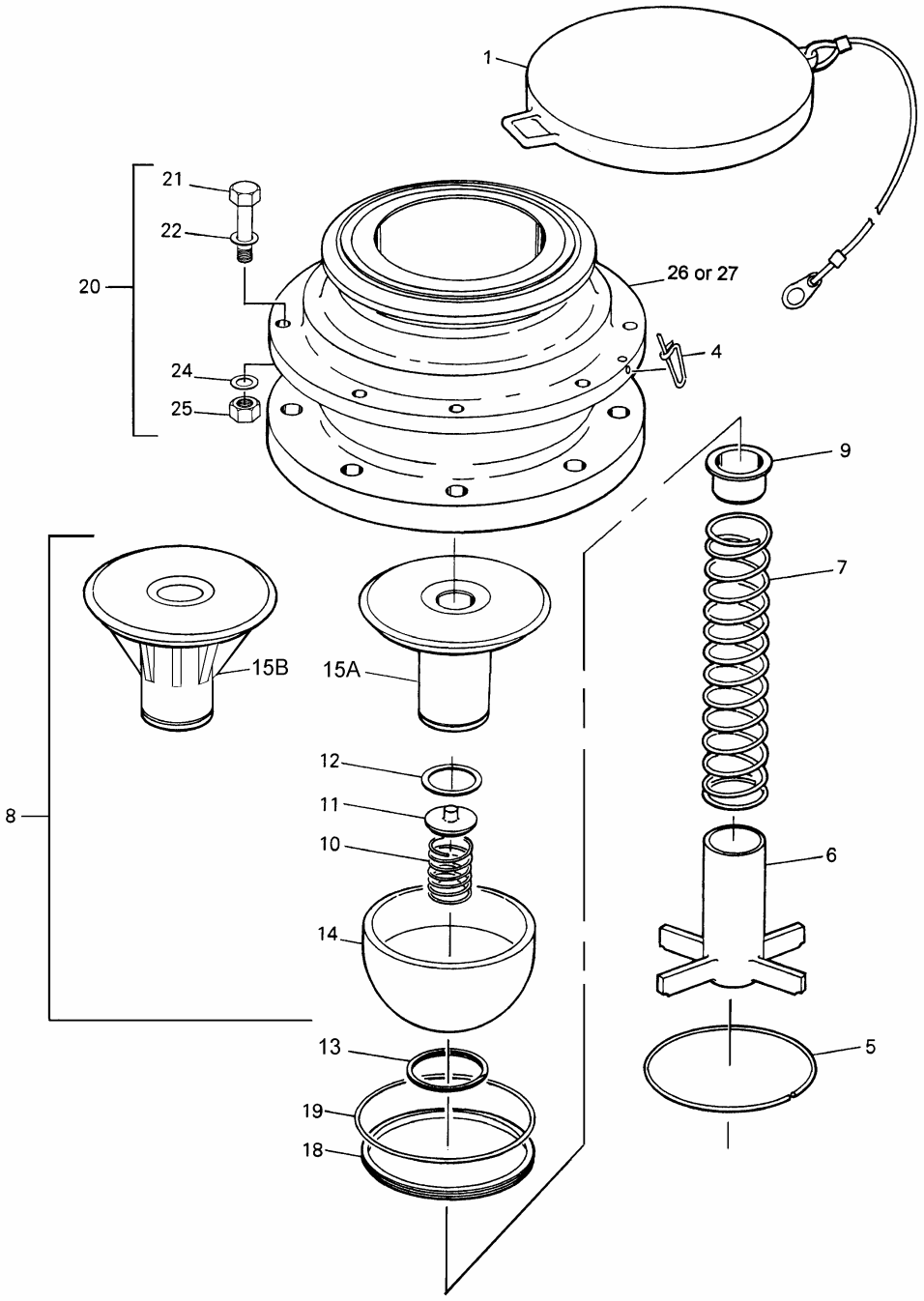

Figure 1

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