



Aerospace Group  
Conveyance Systems Division  
Carter® Brand Ground Fueling Equipment

**SM428MISC**  
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Applicable addition manuals:  
SM61428 NOZZLE  
SM64348 NOZZLE

## **Maintenance & Repair Manual**

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### **Miscellaneous Male Adapters To Mate Nozzle Models 61428 & 64348**

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## MAINTENANCE, OVERHAUL & TEST INSTRUCTIONS MISCELLANEOUS CARTER MALE HALF ADAPTERS

### 1.0 INTRODUCTION

This manual furnishes detailed instructions covering the maintenance and overhaul of Carter® brand Models 44509 and 44694 Male Half Adapters. These

adapters are utilized to mate different Carter® or Whittaker female half quick disconnects.

### 2.0 EQUIPMENT DESCRIPTION

The two Carter brand male half adapters are designed to mate Carter brand Model 61428 or 64348 nozzles to allow the units to be

connected to either a mating Carter® female quick disconnect half or a Whittaker F582 or F577 quick disconnect.

### 3.0 DISASSEMBLY

3.1 Remove the adapter assembly from the nozzle following the appropriate instructions in either SM61428 or SM64348, as appropriate. Skip to paragraph 3.2 or 3.3 as appropriate.

3.3 44694 Whittaker Male Half Adapter - Remove and discard Quad Ring (8). Do not remove Wear Ring (7) unless it is to be replaced. Replace it if the adjacent metal surfaces show signs of galling or the part itself is damaged. Do not remove Race Rings (9) unless they are to be replaced. Replace only if visible wear is apparent.

3.2 44509 - 60427 Accessory Adapter - The Teflon Seal (3) and O-ring (4) should only be removed if the Seal (3) is damaged. The O-ring (4) is a fluorsilicone compound and is not affected by age. To remove it use an "O-ring pick" being careful not to damage the Adapter (2). Once removed, the Seal (3) must be replaced as well as the O-ring (4).

### 4.0 INSPECTION

It is recommended that the Quad Ring (8) be replaced at each repair or overhaul. Inspect all metal parts for dings, gouges, abrasions, etc. 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. The Ball Race Rings (9) should be checked for noticeable wear. Replace if wear is apparent.

### 5.0 REASSEMBLY

5.1 Reassemble in reverse order of disassembly (Refer to Figure 1), observing the following:

interior or exterior surfaces. Wash all parts with cleaning solvent, Federal Specification P-D-680 or equivalent, and dry thoroughly with a clean, lint-free cloth or compressed air.

5.1.1 Make certain all components are clean and free from oil, grease, or any other corrosion resistant compound on all

**WARNING:**

**Use cleaning solvent in a well-ventilated area. Avoid breathing of fumes and excessive solvent contact with skin. Keep away from open flame.**

5.1.2 NOTE: A light coat of petrolatum, Federal Specification VV-P-236 or equivalent commercial quality, can be applied to all O-rings and screws for ease of installation.

Install O-ring (4) in groove in Adapter (2). Carefully expand Seal (3) over end of Adapter (2) and place it into the appropriate groove over the O-ring (4).

Install Quad Ring (8) into the groove in Adapter (5) adjacent to Wear Ring (7). Be sure that the Quad Ring (8) is placed near the round end of the Adapter (5). If Wear Ring (7) is to be replaced do not over stretch it while installing.

If Ball Race Rings (9) are to be replaced, be careful not to scratch adjacent surfaces of the Adapter (5).

6.0 TEST

6.1 The Unit shall be tested as a part of a completed nozzle or coupler as instructed in SM61428 or SM64348.

7.0 ILLUSTRATED PARTS CATALOG

Table 1.0 tabulates the parts and sub-assemblies comprising the 44509 and 44694 Male Half Adapter Assemblies.

The item numbers of the table are keyed to the exploded view of the units diagrammed in Figure 1.

TABLE 1.0

<u>Item</u>	<u>Part Number</u>	<u>Description</u>	<u>Units Per Assembly</u>	<u>Used on Option</u>	<u>Spares/10 Units/Yr</u>
1	44509	60427 Adapter .....	1	61428/64348J	-
2	208196	Adapter .....	1	61428/64348J	-
3	207807	Seal.....	1	61428/64348J	5
4	M25988/1-040	O-ring.....	1	61428/64348J	5
5	44694	Whittaker Adapter .....	1	61428/64348T	-
6	210065	Adapter .....	1	61428/64348T	-
7	2803082-101	Wear Ring.....	1	61428/64348T	5
8	210174-231	Quad Ring.....	1	61428/64348T	10
9	207364	Race Ring.....	2	61428/64348T	2
3	207807	Seal.....	1	61428/64348J	5
4	M25988/1-040	O-ring.....	1	61428/64348J	5

Notes:

1. The recommended spare parts shown above are the number required to support 10 Units for one year or each overhaul whichever is sooner. These quantities do not include replacement spares for intermediate replacement of parts required by abuse or misuse of the equipment. 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.

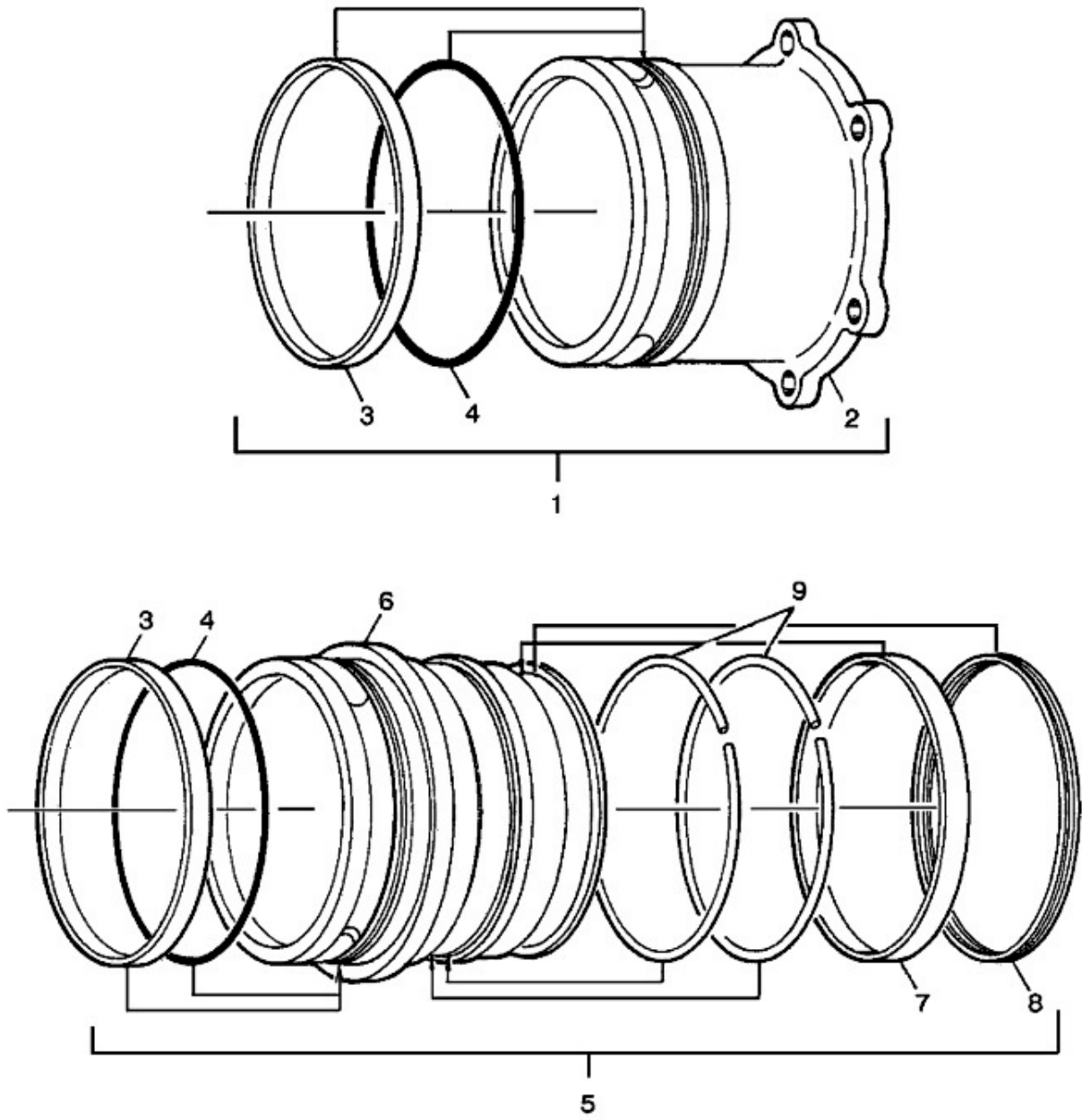


Figure 1

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