Carter
Option X Valve connector assembly

Maintenance manual

Powering Business Worldwide

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1.0 Introduction

This manual furnishes detailed instructions covering the maintenance and overhaul of Eaton's Carter brand 47576 Valve-Connector assembly.

Note: SM47576 is a supplemental manual and is intended to be used in conjunction with SM60554, SM61524, and SM61654.

Note: This manual is created to be an aid while repairing equipment pertaining to this manual. This is not a replacement for applicable site safety guidelines or other site procedures.

1.1 Safety equipment and procedure

- Wear approved personal protection equipment at all times. Protective clothing, gloves, eye protection, etc. should be used pursuant established guidelines of the applicable establishment or governing agencies
- Handling and disposal of hazardous waste should comply with local and national governing agencies
- Have fire extinguishing equipment on hand at all times
- Follow all safety guidelines applicable prior to working on any equipment
- Conduct maintenance at your own risk

1.2 Maintenance safety alerts

Maintenance safety alerts related to the repair of the outlined product will be noted in this publication. Each alert will be boxed and will contain a point of caution.

Example:
Caution: Please follow for your safety guideline and be aware of the safety of others.

2.0 Equipment description and operation

47576 Valve-Connector assembly (Hydrant Valve Option X) is installed within the main valve body of Eaton's Carter brand hydrant pit valves. A normally closed valve stem in the assembly is mechanically opened by a 64230 or 64280 quick disconnect remote actuator, which allows the hydrant pit valve to become active. Once the actuator is deactivated or removed from the valve connector, the valve will be allowed to return to the normally closed position.

3.0 Repair instructions for Option X (47576)

3.1 Disassembly

Tools: ½" SAE wrench or socket, O-ring pick, drain pan and special tool T221790

Note: The following instructions assume that the hydrant valve assembly has been removed from service and is located in a shop area where all necessary tools and equipment are available.

1. Relieve trapped pressure from the hydrant valve by placing a shop towel over the pressure equalization poppet and depressing it

Caution: Residual pressure may be present in the valve. Take precautions to prevent injury.

2. Depress the main poppet and insert a small piece of rubber hose to hold it open

3. Leaving the short piece of hose in place, turn the valve over with the top down into a drain pan to remove fuel trapped inside the valve
4. Wipe off the area around the pilot to prevent debris from falling into the hydrant valve upon removal. Using a ½" wrench remove the two bolts and washers securing the pilot to the hydrant valve

5. Remove the connector and two O-rings

6. Using tool T221790, remove the valve stem assembly from housing

7. Remove O-ring from valve stem assembly and discard O-ring

3.2 Inspection

- Clean all parts and inspect for damage or excessive wear and replace as required
- It should be noted that valve stem assembly is not repairable. The valve stem seat is a bonded seal and is not replaceable
- Ensure all sealing surfaces are free of damage and debris has been completely removed prior to reassembly
- Connector should not present excessive wear. If excessive wear is observed then it is recommended to replace this item. Measure the outside diameter in regions with greatest wear.
  Minimum O.D. 0.60" (15.24 mm)

3.3 Assembly

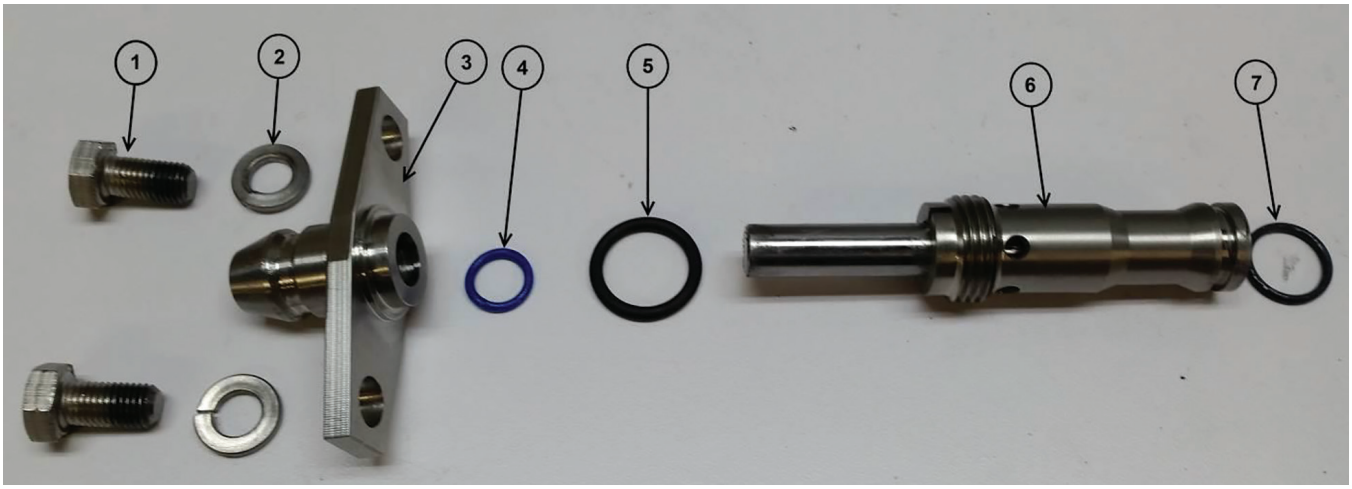
- Assembly is accomplished in the reverse order as disassembly
- Install all replaceable O-rings and apply a light coating of petroleum jelly as needed to reduce the possibility of damage to O-rings during installation
- Replace valve stem assembly and tighten no more than what can be applied with the special tool by hand
- Using other tools to gain additional leverage for a tighter fit is not required
- Install O-ring over valve stem assembly
- Replace the connector, two washers, and two bolts. Torque bolts to 120 inch-lbs. (138 cm-kg)
- Remove the small piece of hose holding the poppet open on the hydrant valve
- Test valve as recommended in service manual SM60554, SM61524 or SM61654

4.0 Illustrated parts list

Table 1. Remote Pilot Connection Option X

Fig	Item	Part number	Description	Qty. Per Assy.
1	1	GF35308-330	Screw, Hex Head	2
1	2	GF960-516	Washer	2
1	3	221791	Connector	1
1	4	M25988/1-012	O-ring	1
1	5	MS29513-114	O-ring	1
1	6	47574	Valve stem assembly	1
1	7	201201-014	O-ring	1

Figure 1. Remote Pilot Connection Option X



5.0 Troubleshooting

Table 2. Troubleshooting

	Failure	Check
1	Fuel leaking externally between shaft and connector.	O-ring item 4 is no longer sealing between connector and shaft.
2	Fuel leaking externally between connector and hydrant valve.	O-ring item 5 is no longer sealing between connector and hydrant valve lower housing.
3	Hydrant valve remaining pressurized when pilot is not actuated "hot pit".	Valve Stem Assembly and/or O-ring item 7 is leaking or main valve needs repair. Ensure O-ring is seated properly. Refer to SM60554, SM61524 or SM61654 for additional hot pit related failures.

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