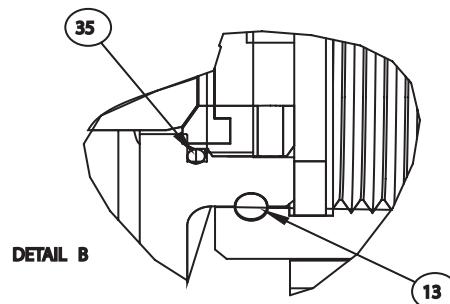
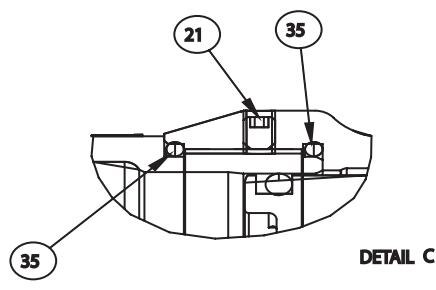
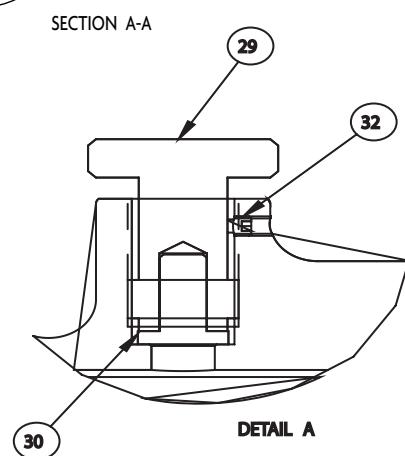
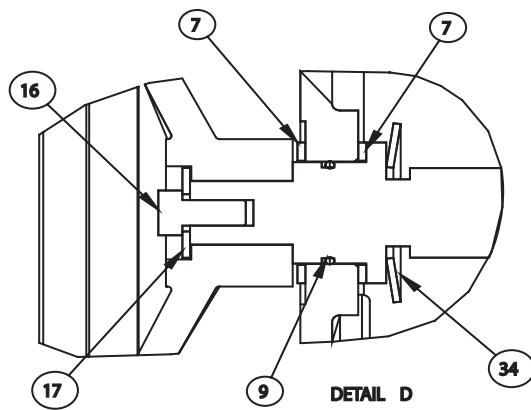
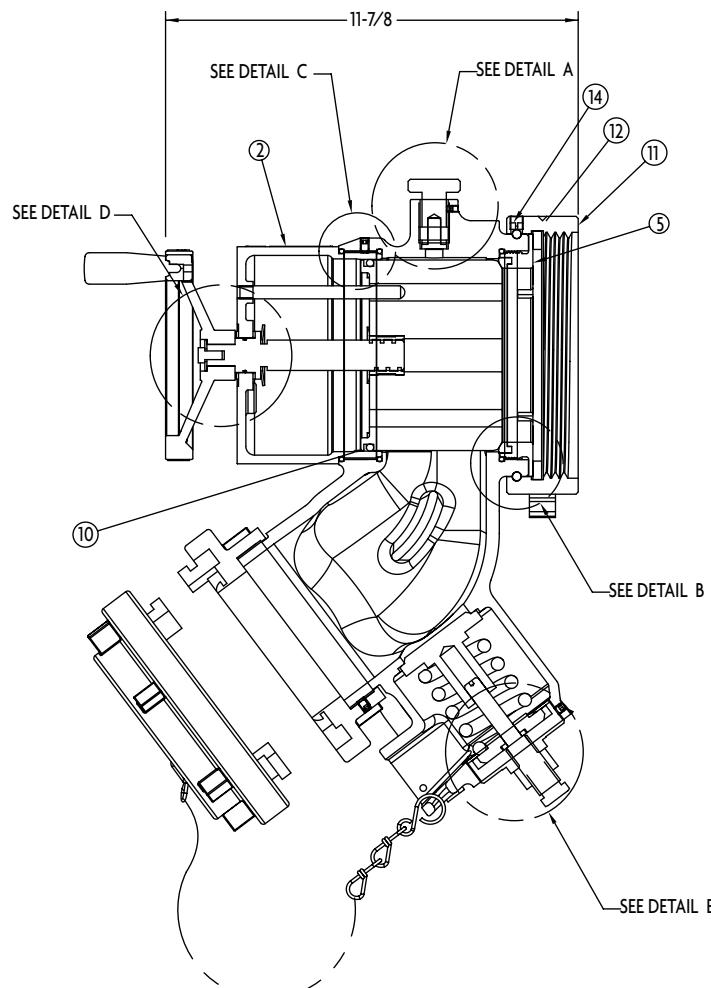
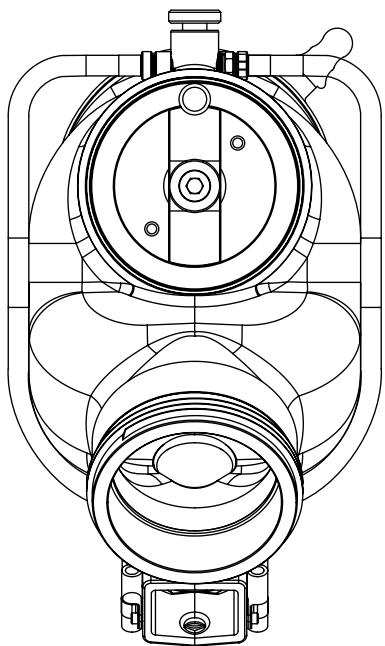




**STYLE 9168  
FIELD SERVICE KIT  
FOR  
7980 BLACK MAX™  
PISTON INTAKE VALVE**

# STYLE 7980 BLACK MAX™ PISTON INTAKE VALVE



## REPAIR PARTS LIST

ITEM NO.	DESCRIPTION	PART NUMBER	QUANTITY
5	SEAT/RING	123986	1
9	O-RING - SHAFT	757052	1
10	O-RING - PISTON	757314	1
30	SEAL - BLEED VALVE	770334	1
35	O-RING - SEAT	757303	3

## INSTRUCTIONS FOR REPAIRING A STYLE 7980 BLACK MAX™ PISTON INTAKE VALVE

**NOTE:** Akron Brass seat removal tool (Part # 79801047) is required to remove the seat and o-ring under the seat. Make sure you have access to this tool before starting repair.

### Disassembly of the Valve

Remove valve from truck and place on bench for repair.

### Piston Body and Hand Wheel Removal

1. Turn valve to open position.
2. Remove set screw (item 21) from housing.
3. Fasten Piston Intake housing in vise.
4. Remove Piston body (item 2) from body using a strap wrench.
5. Set piston body on bench. Turn handle as if closing valve. Turn until piston comes off shaft. Be sure not to lose Bellville washer (item 34) when removing piston. Note orientation of washer.
6. Remove o-rings on piston body (item 35) and o-ring on piston (item 10).
7. Remove cap (not shown) on center of handwheel using a screwdriver to pry it out.
8. Remove screw (item 16) from center of handwheel. Do not lose spacers (item 7) or washer (item 17).
9. Remove shaft from piston body. Remove o-ring (item 9).

**NOTE: Before continuing, see Appendix A for additional information.**

### Seat Removal

1. Turn valve body over and re-fasten in vise.
2. Remove swivel gasket (Item 12 Do Not Discard)
3. If the intake valve has a 6" outlet, proceed to step 4. Otherwise begin removal of the swivel (item 11) by the bearing retainer (item 14) and all of the 87 ball bearings behind it. The swivel should now come off.
4. Using Akron Brass seat removal tool (part # 79801047), remove seat from housing. Discard seat
5. Remove o-ring (item 35) from housing and discard.

### Bleed Valve Seal Removal

1. Loosen or remove set screw (item 32).
2. Unthread bleed valve (item 29) from housing.
3. Remove bleed valve seat (item 30).

## **Reassembly of the Valve**

Lubricate all o-rings in kit with Parker O-lube or equivalent. Inspect the piston for any damage or wear that could affect performance. Replace if needed. Inspect body for damage or wear.

1. Install two o-rings (item 35) on body and o-ring (item 10) on piston, o-ring (item 35) under seat and o-ring (item 9) on piston shaft.
2. Coat inside of bleed valve shaft with low temp Lubriplate and install new bleed valve seat into bleed valve shaft.

## **Piston Housing and Hand Wheel Reassembly**

1. Insert hand wheel shaft back into body. Be sure to assemble spacers and Bellville washer as shown in parts breakdown Detail D.
2. Apply Permabond LM113 or Loctite 222 to hand wheel screw (item 16) and reinstall handwheel to shaft.
3. Reinstall cap over top of screw.
4. Lubricate piston shaft (item 6) with low temp lubriplate. Install piston back into piston housing by turning the handwheel towards open position while guiding the piston back into the housing. Be sure to line up one of the holes on the piston with the alignment rod in piston housing.
5. Apply Never-seez marine grade to the piston housing threads. Install piston housing back into body. Tighten with strap wrench until set screw hole lines up with dimple in threads.
6. Lightly apply Permabond LM113 or Loctite 222 to housing set screw (item 21) and install. Set screw should tighten into dimple on threads in piston body.

## **Seat Installation**

1. Apply Never-seez marine grade to the seat ring threads. Install seat ring into body. Tighten with seat tool until snug against body.
2. Reinstall swivel, bearings and bearing retainer.
3. Replace swivel gasket

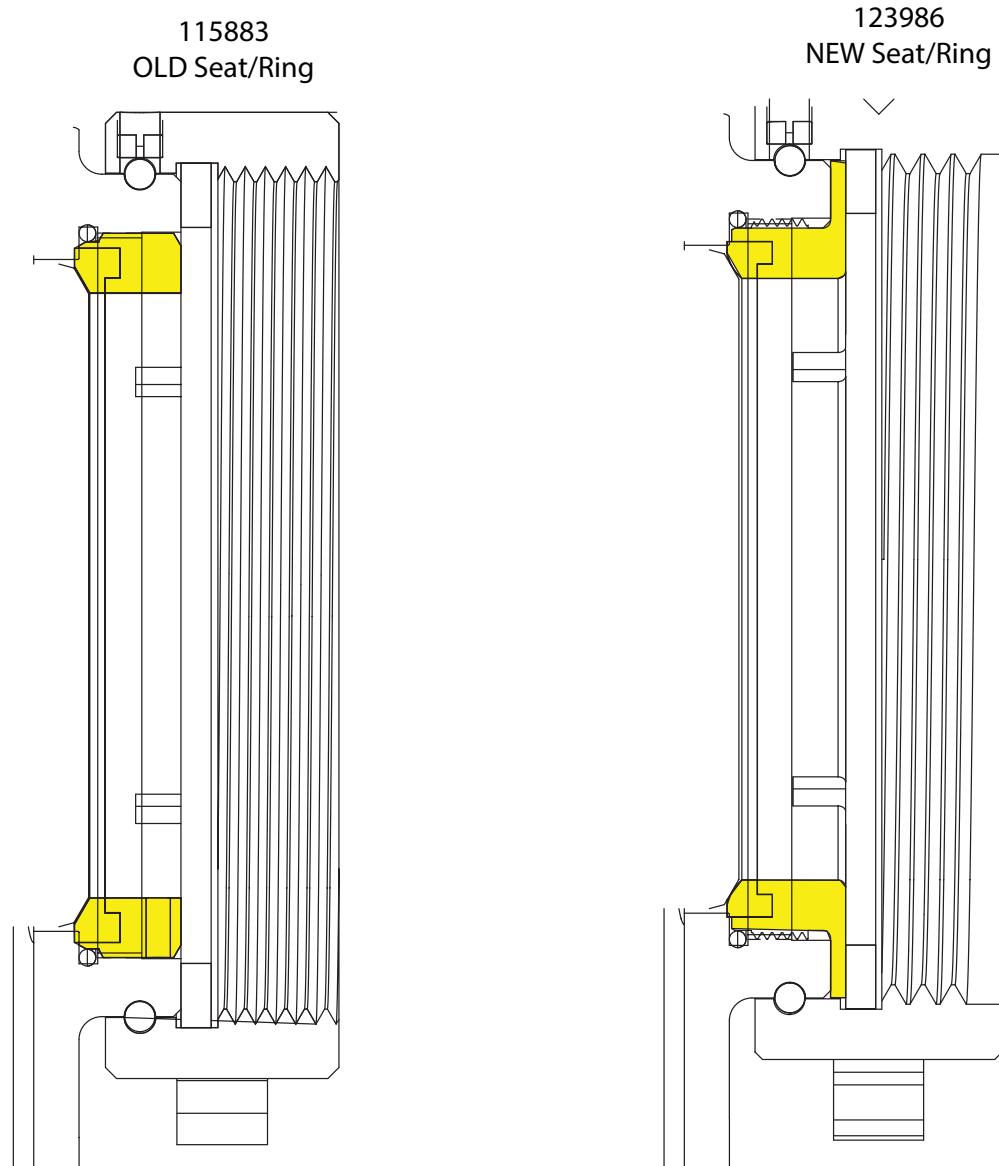
## **Bleed Valve Reassembly**

1. Install bleed valve (item 29) into housing.
2. Apply Permabond LM113 or Loctite 222 to set screw (item 32). Install in body. Tighten screw all the way in and then back out  $\frac{1}{4}$  turn.

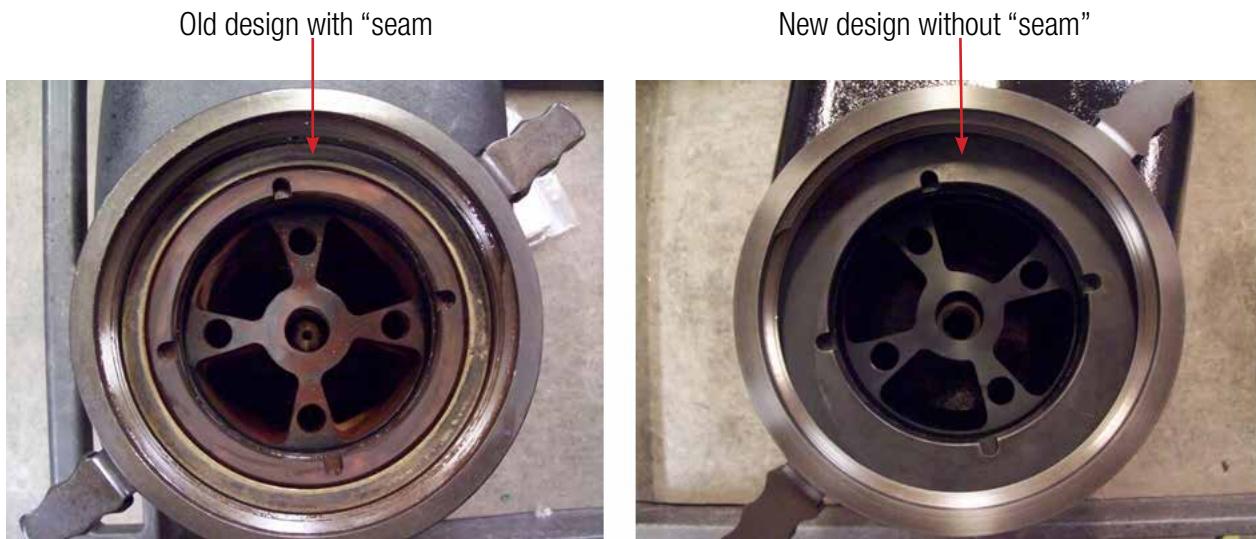
Check to make sure piston moves in and out smoothly. Re-attach Piston Intake Valve and test.

## Appendix A

- Seat Ring part number 115883 is no longer available as a replacement part for style 7980 Black Max Piston Intake Valves.
  - Replaced by 123986 new seat ring
    - To replace a 115883 seat ring, this requires that the swivel on the outlet side (truck attachment side) also be changed to a new part number to accommodate the fit of the new seat/ring.
- 3 new Field Service Kits are set up for upgrading to the new seat/ring:
  - 79803015: Replacement 5"NH RL Swivel + New seat/ring
  - 79803016: Replacement 6"NH RL Swivel + New seat/ring
  - 79803017: Replacement 6"NH LH Swivel + New seat/ring



- To determine if you have the old or the new seat/ring:  
 -Remove the gasket and look at the seat/ring in the valve. A seam is visible on the OLD design.  
 This seam is not present on the new design.



- To determine if you have the old or the new swivel:  
 -There is an identification dimple visible on the NEW swivel, which is not present on the old design.



- The new seat/ring (no seam visible) must always be paired with a swivel which has the identification dimple present.
- Reference Technical Service Parts Lists Sheets  
 -For 7980 valves made before Jan 2014: 122021  
 -For 7980 valves made Jan 2014 and after: 123987



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