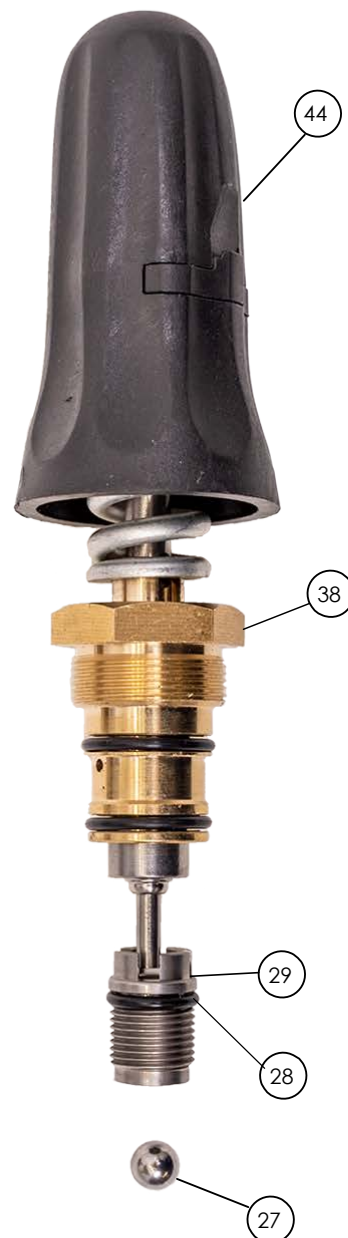


Replacing an unloader with seat:

AAA Pumps using 7108747, 7110152, 5140182-86 with 7108752 manifolds:

#93

1. Remove the complete unloader from the pump (#93). To do this, turn the black knob (#44) counterclockwise until it stops.
2. Remove the complete unloader by turning the unloader's brass nut (#38) counterclockwise with a 15/16 wrench until the unloader is removed.
 - a. The unloader passage is at the bottom. There is a stainless-steel unloader valve base seat. Underneath the seat is a stainless-steel ball bearing that sometimes gets stuck and prevents the pump from producing pressure.
 - b. If the ball bearing is not severely corroded into the seat, you can use compressed air to dislodge the ball bearing without removing the seat. Be sure to wear eye and hand protection for this step.
 - c. If the removal of the seat is required, you will need to turn the seat (#29) counterclockwise with a tool that has a very tight 3MM fit within the unloader seat.
3. You will need to remove this unloader seat (#29) from the brass head and remove the ball bearing (#27) to check for corrosion or debris that could be causing the ball bearing to get stuck in the unloader seat.
 - a. There is no tool for removing a seat, so we made one from a ½ inch hexagon shaft chisel by grinding down the end to the 3MM required. We used this chisel to get a wrench on the tool to remove the seat from the pump.



4. Clean out any debris or corrosion from the unloader valve passage before starting the reassembly process.
5. Install the stainless-steel ball bearing (#27) base seat and O-ring (#28) and (#29) back into the brass manifold by applying a thin coat of grease on the O-ring and then torque the unloader seat to 10 FT-LB.
6. Reinstall the complete unloader assembly (#93) by applying a thin coat of grease on the O-rings and then torque the unloader securely to 15 FT-LB.

UNLOADER BREAKDOWN

REF	PART #	DESCRIPTION
27	7105710	BALL
28	7106705	O-RING
29	7106706	UNLOADER VALVE SEAT
30	REF 93	BACK UP RING
31		O-RING 9X1.8
32		STEM ASSEMBLY
33		LOCK PIN
34		O-RING 5.6X1.8
35		BACK UP RING
36		O-RING 14X1.8
37		O-RING 15X1.8
38		UNLOADER VALVE CAP
39		UNLOADER SPRING
40		UNLOADER NUT
41		SET SCREW
42		SCREW
43		NUT M6
44		UNLOADER CAP
45		CAP LOCKER
93	7108747	UNLOADER KIT

