



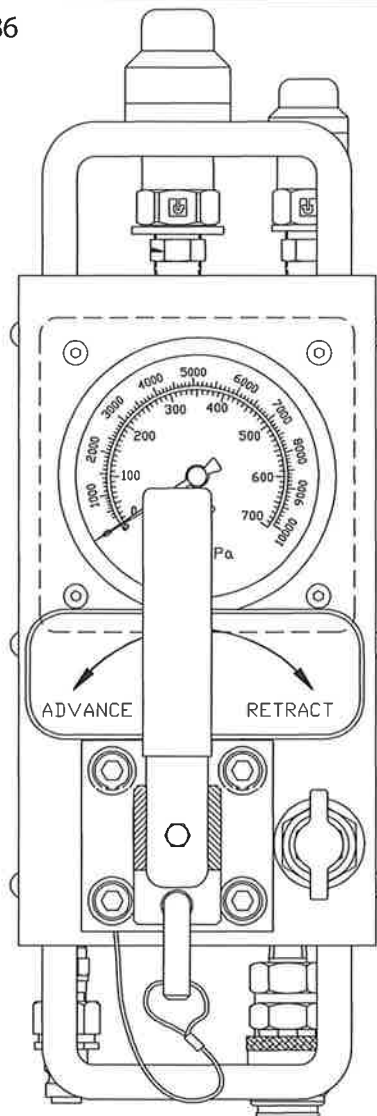
# PIT 4 HYDRAULIC INTENSIFIER

## OPERATING & MAINTENANCE INSTRUCTIONS

INSTRUCTIONAL SHEET #: 54186

REV. A

02/05



*SIMPLEX DIVISION OF TEMPLETON, KENLY & CO., INC.*  
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## **Operating Instructions**

Read carefully. Most malfunctions in new equipment are the result of improper operation and/or improper setup.

### **Inspection**

Visually inspect all components for shipping damage. If any damage is found, notify the carrier immediately.

Once in operation, a visual inspection for any wear or damage should be conducted each time. If any unusual wear or damage is noted, remove the tool from service and bring it to an authorized SIMPLEX Repair Center.

### **Hydraulic Connections**

Loosen lock nut and back out (turn counter-clockwise) relief valve until you hit the mechanical stop to prevent unintended pressure buildup at startup.

Make sure the hoses and quick coupler connections are tight and secure from the low pressure power supply (PTO) and Torque Wrench before operating.

**NOTE:** The coupled hoses for the Torque Wrench are color coded and are design to fit only one way so that the advance port can only be connected to the wrench advance port, and the retract port can be connected to the wrench retract port. An improper connection can cause harm to the tool and/or user.

### **PIT4 Setup**

Once the inspection and connections are made, follow these steps to ensure that the wrench is properly connected and desired torque setting is achieved.

1. Place the torque wrench on the ground in a secure location.
2. Place the manual valve in the neutral or center position.
3. Activate the low pressure power source (PTO). 2,000 PSI @ 5 gallons/min. is recommended.
4. Shift the control handle to the retract position. The gauge should read 1,500 PSI +/-200 PSI.
5. Bleed the intensifier by cycling the control handle back and forth several times to bleed the system. Make sure to leave it in each position for 2-3 seconds.
6. Shift the gauge to the advance position, the PSI reading on the gauge should be at zero, since we turned the relief valve counter clockwise to the mechanical stop under the hydraulic connections section. Gradually turn the adjusting knob clockwise and look for a pressure increase. Adjust it to the desired torque setting. Note: the shroud cover is laser engraved to

view PSI vs. Output Torque inch. Once the desired pressure output is achieved, cycle the wrench to retract and then back to advance to make sure that the pressure output is correct. Adjust accordingly until desired pressure is achieved.

7. Return the control handle back to the retract side.

## **Maintenance**

General Cleaning and wiping the couplers is recommended each time in service prior to coupling the unit to the hydraulic hoses.

Flushing the intensifier is only necessary if contamination has occurred. Refer to your Truck Body Maintenance for flushing procedures.

## **Troubleshooting**

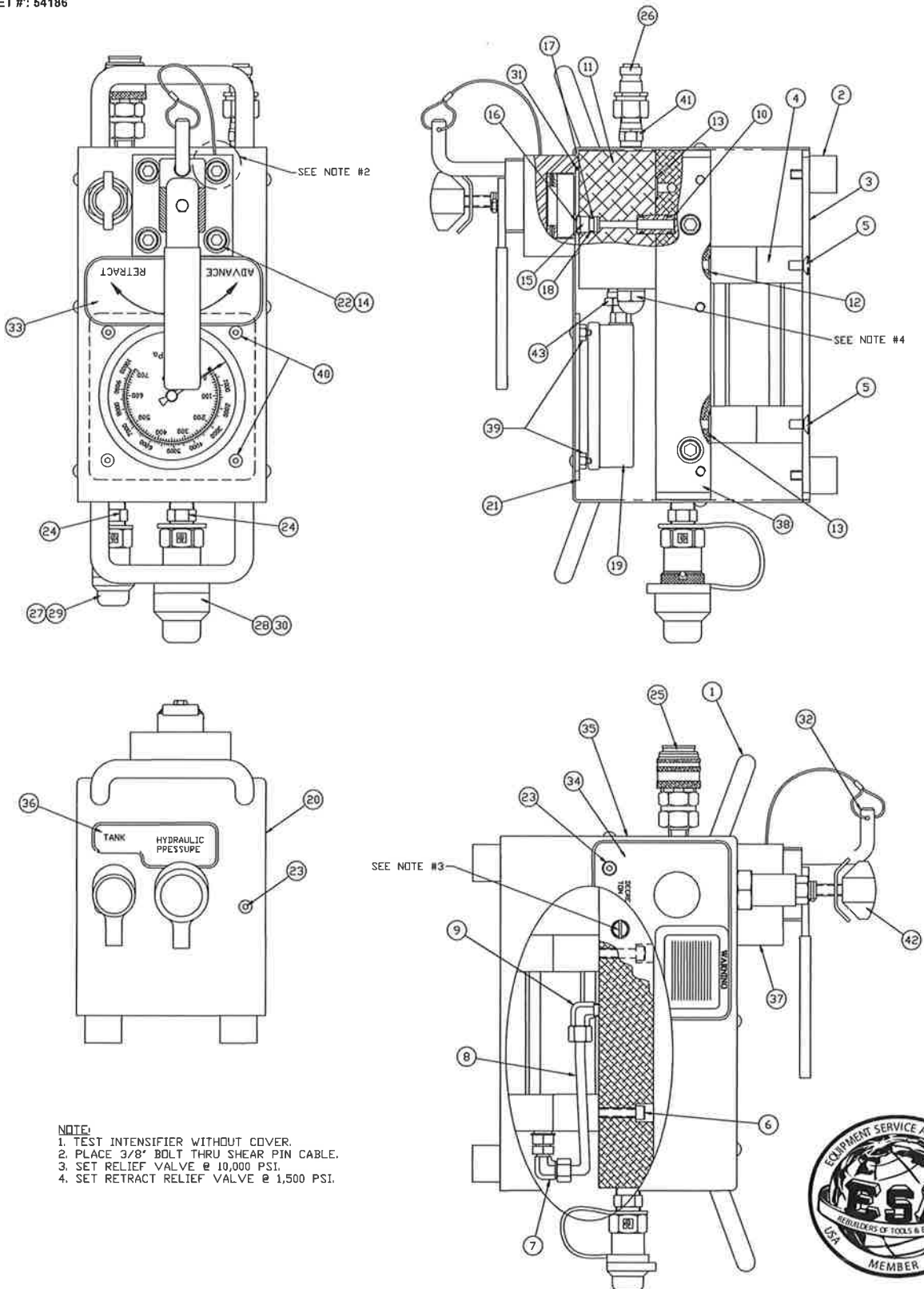
Problem	Cause - Solution
Intensifier Fails to operate	<ul style="list-style-type: none"> <li>• Make sure the PTO is turned on.</li> <li>• Check pressure and tank connections at the PTO (2,000PSi @ 5Gal/min flow).</li> <li>• Check for a loose connection at the hydraulic hose connections.</li> <li>• Take the unit into a SIMPLEX Repair Center for further testing.</li> </ul>
Intensifier Operates, but fails to build pressure	<ul style="list-style-type: none"> <li>• Incorrect pressure off the PTO, check pressure at the PTO (2,000PSi @ 5Gal/min flow).</li> <li>• Check for a loose connection at the hydraulic hose connections.</li> <li>• Is the control handle in the advance position?</li> <li>• Is the adjusting knob turned all the way out counter clockwise? If so, turn clockwise to increase desired pressure setting.</li> <li>• Take the unit into a SIMPLEX Repair Center for further testing.</li> </ul>

**REFER TO TORQUE WRENCH OPERATING INSTRUCTIONS FOR WRENCH PROCEDURES.**



# PIT4 - TORQUE WRENCH INTENSIFIER REPAIR PART SHEET

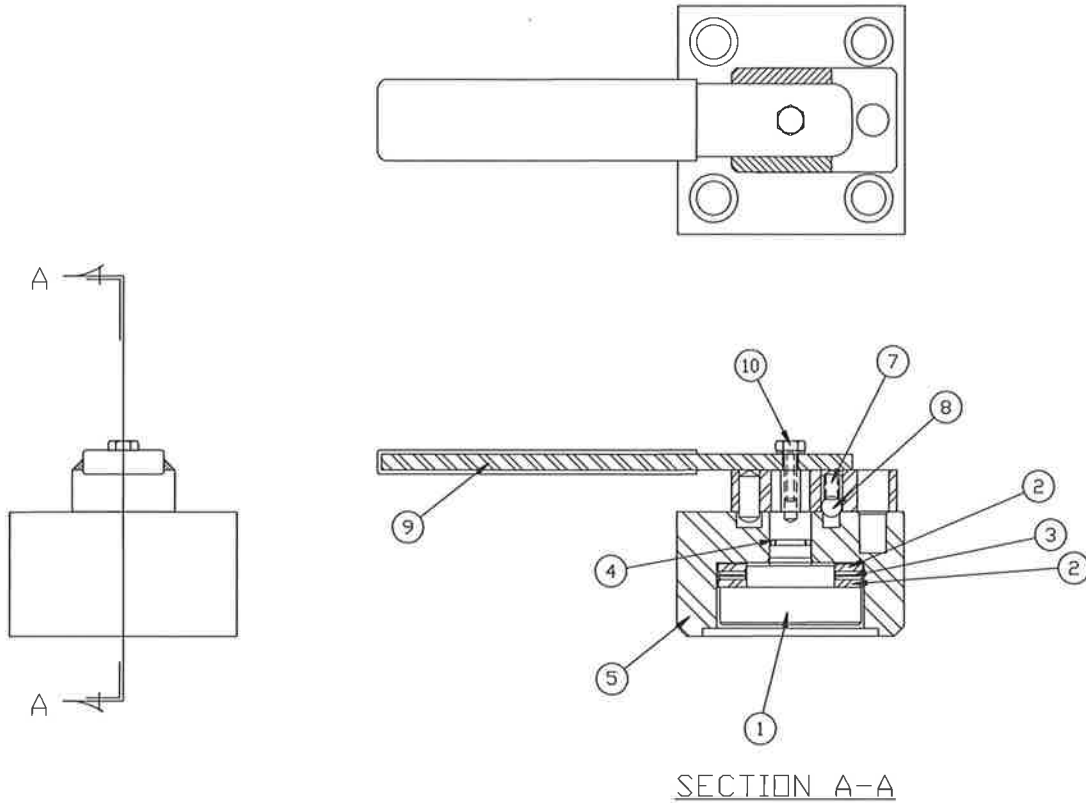
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- NOTE:**
1. TEST INTENSIFIER WITHOUT COVER.
  2. PLACE 3/8" BOLT THRU SHEAR PIN CABLE.
  3. SET RELIEF VALVE @ 10,000 PSI.
  4. SET RETRACT RELIEF VALVE @ 1,500 PSI.

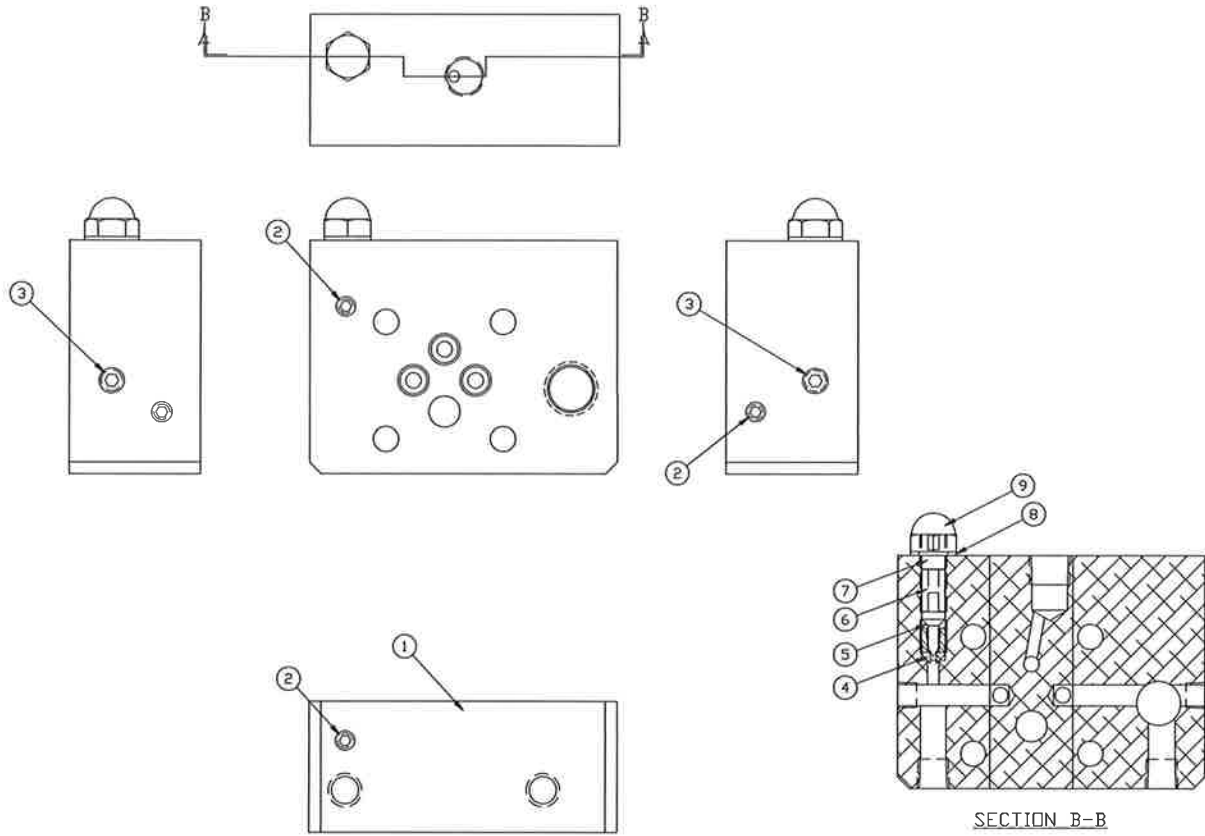


# 43964 4 WAY VALVE ASSEMBLY



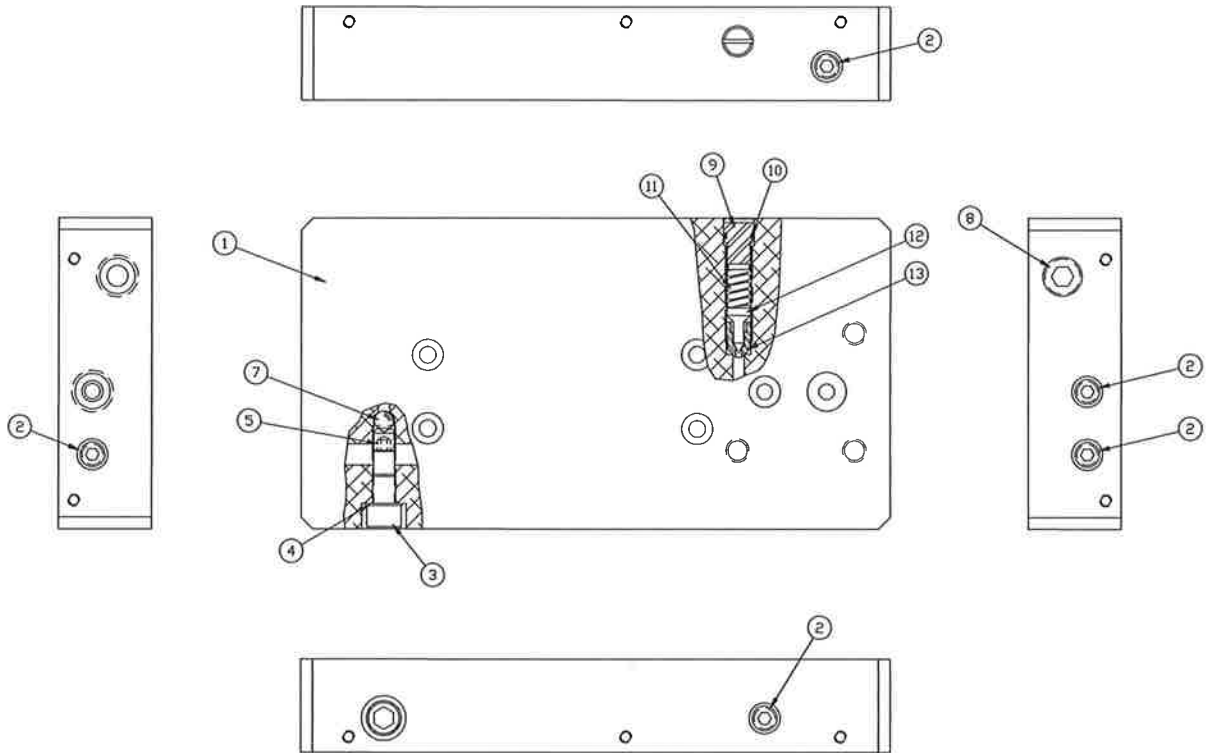
ITEM	PART #	DESCRIPTION	QTY
01	43762	VALVE ROTOR	1.00
02	68026	THRUST WASHER	2.00
03	68155	THRUST BEARING	1.00
04	5602012	O-RING 3/8X1/2	1.00
05	43962	UPPER VALVE BLOCK	1.00
07	68025	DETENT SPRING	1.00
08	92549	BALL 1/4"	1.00
09	45040	VALVE HANDLE RAIL PULLER	1.00
10	45172	HHCS 10-24X1/2 WITH LOCK WASHER	1.00

## 45677 - MAINFOLD ASSEMBLY



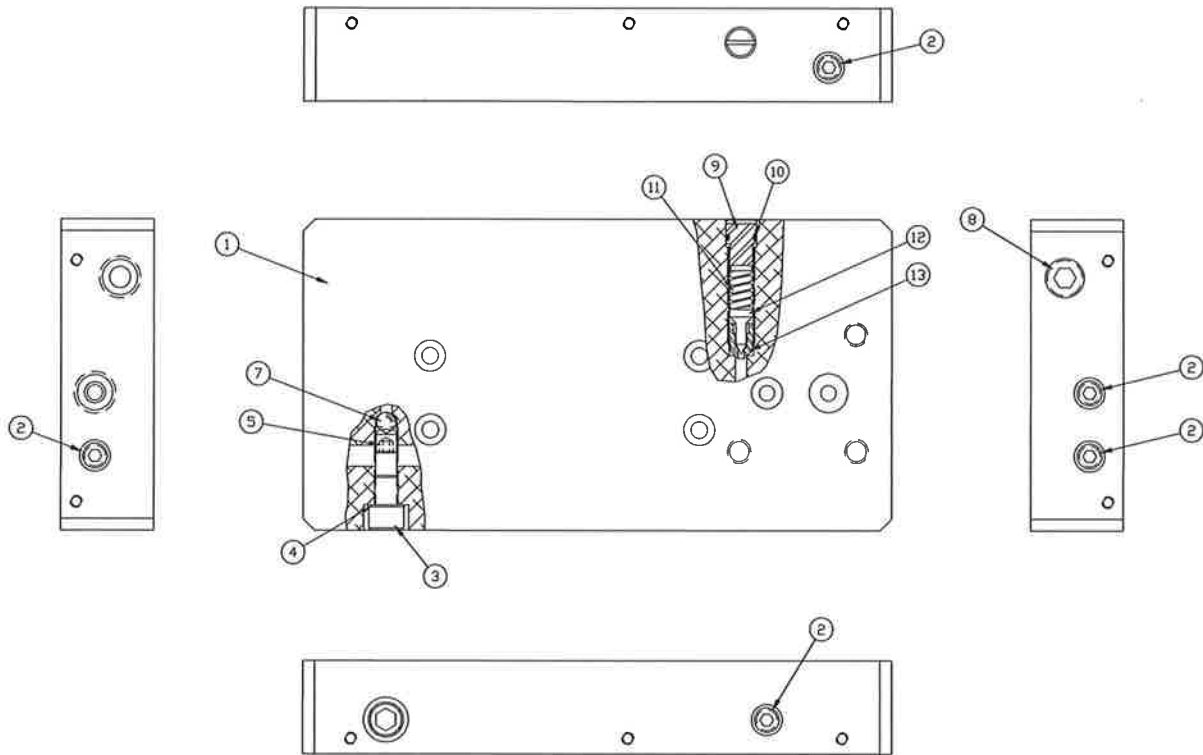
ITEM	PART #	DESCRIPTION	QTY
01	45675	MANIFOLD TORQUE WRENCH INTENSIFIER	1.00
02	40049	1/16 PIPE PLUG-FLUSH	4.00
03	81093	PIPE PLUG 1/8" FLUSH	2.00
04	68004	SEAT - EXT RELIEF	1.00
05	68003	CONE - EXT RELIEF	1.00
06	66085	SPRING - RELIEF VALVE	1.00
07	66083	RELIEF VALVE ADJUSTING SCREW	1.00
08	86269	GASKET 29/64 X 5/8	1.00
09	69105	ACORN NUT 7/16-20 PL	1.00

## 45678 - MANIFOLD SUB-ASSEMBLY



ITEM	PART #	DESCRIPTION	QTY
01	42773	MANIFOLD BLOCK INT.	1.00
02	81093	PIPE PLUG 1/8" FLUSH	5.00
03	68245	SHCS 3/8-24X 1/2 LG	1.00
04	85726	GASKET 25/64X19/32	1.00
05	45679	SET SCREW 3/8-24 x 3/8"	1.00
07	91701	BALL 5/16"	1.00
08	84084	PIPE PLUG 3/8" FLUSH	1.00
09	43274	POW'R BUD ADJ SCREW	1.00
10	5602012	O-RING 3/8X1/2	1.00
11	66085	SPRING - RELIEF VALVE	1.00
12	68003	CONE - EXT RELIEF	1.00
13	68004	SEAT - EXT RELIEF	1.00

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11	66085	SPRING - RELIEF VALVE	1.00
12	68003	CONE - EXT RELIEF	1.00
13	68004	SEAT - EXT RELIEF	1.00



SIMPLEX products are warranted to be free of defects in materials and workmanship under normal use for as long as the original purchaser owns them, subject to the guidelines and limitations listed. This warranty does not cover: normal wear & tear, cosmetic items, abuse, overloading, alterations, improper fluid, or use in a manner for which they are not intended. If the customer believes a product is defective, the product must be delivered, or shipped freight prepaid, to the nearest SIMPLEX Authorized Service Center for evaluation and repair.

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