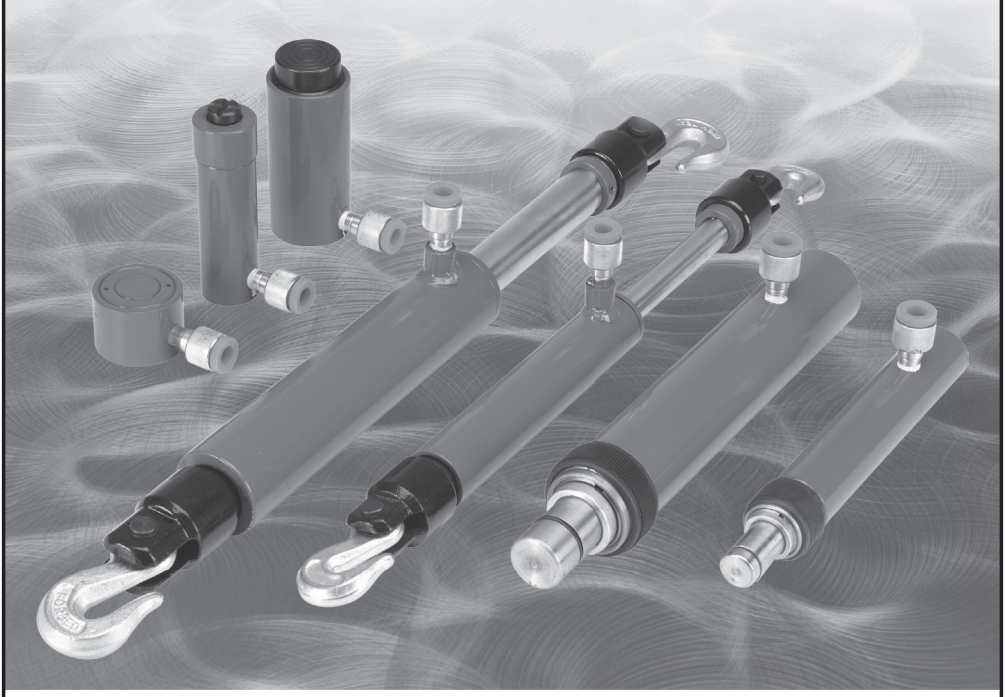
Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

PITTSBURGH® AUTOMOTIVE

ITEM 60726

Hydraulic Auto Body/Frame REPAIR KIT



Visit our website at: http://www.harborfreight.com
Email our technical support at: tech@harborfreight.com

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-800-444-3353 as soon as possible.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools. Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

⚠WARNING

Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.

Specifications

	Length		Operating Pressure	Capacity	Diameter
	Min	Max			
2-Ton Hydraulic Push Ram (with Saddle)	5 3/8″	8 3/8″	5700 PSI	4400 lb.	1 5/8″
4-Ton Hydraulic Push Ram	1 11/16″	2 3/8″	5700 PSI	8800 lb.	2″
4-Ton Hydraulic Push Ram (with Spring)	10 1/2″	15 3/8″	8000 PSI	8800 lb.	1 5/8″
10-Ton Hydraulic Push Ram (w/Saddle & Spring)	5″	7 1/2″	8800 PSI	22000 lb.	2 3/16″
10-Ton Hydraulic Push Ram (with Spring)	14″	19 5/8″	8800 PSI	22000 lb.	2 1/8″
2-Ton Hydraulic Pull Ram (with Spring)	9 1/2″	14 1/2″	7800 PSI	4400 lb.	1 1/2″
5-Ton Hydraulic Pull Ram (with Spring)	11 3/4″	17 3/4″	8800 PSI	11000 lb.	2 3/8″

Note: This equipment requires a compatible Hydraulic Pump, hydraulic hoses, and hydraulic fittings to operate properly. None of this equipment is provided, and all of it must be properly rated for use with this kit.

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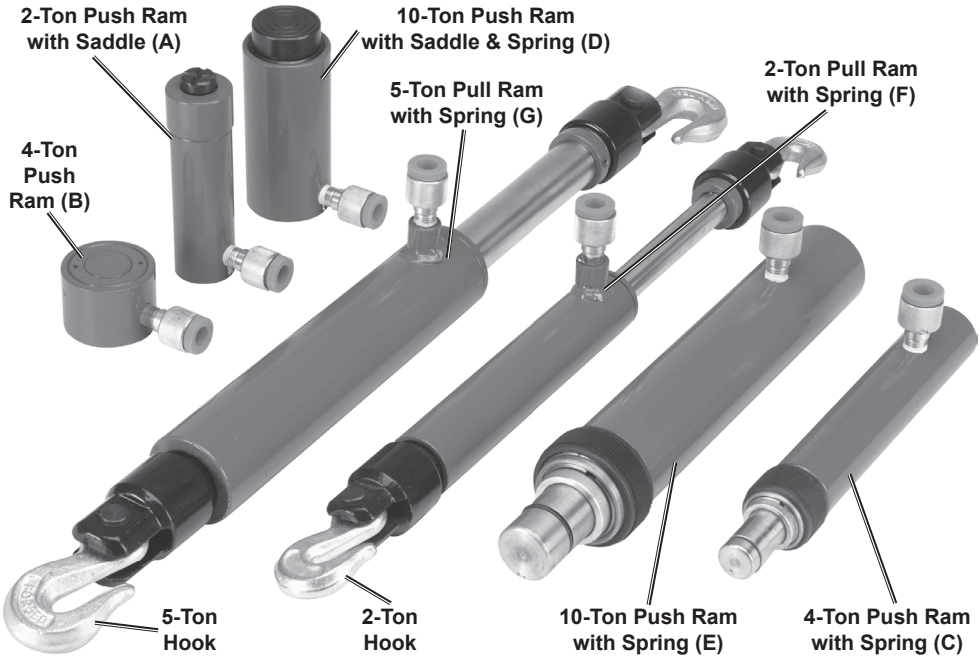
Important Safety Information

1. **Do not exceed operating pressure or maximum length for any ram, refer to Specifications chart.**
2. **Use as intended only. Do not use this item to raise or move a vehicle.**
3. **Use according to vehicle's service instructions only.**
   It is beyond the scope of this manual to discuss body/frame repair guidelines. It is the responsibility of the user to consult a body/frame repair technical manual for full instructions.
4. Wear ANSI-approved safety goggles and heavy-duty work gloves during setup and use.
5. Stay clear of Rams during operation. Position body as far away as practical when Ram is under load. Ram can slip suddenly, causing injury.
6. Keep work area clean and well lit.
7. Keep bystanders out of the work area.
8. Do not use when tired or when under the influence of alcohol, drugs or medication.
9. This product is not a toy. Do not allow children to play with or near this item.
10. Inspect before every use; do not use if parts are loose or damaged.
11. Maintain product labels and nameplates. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
12. Use compressed hydraulic fluid only. Do not use any other power source or fluid to operate this product.
13. Read and understand Hydraulic Pump instructions before use.
14. Before working on a vehicle, set the parking brake and block the tires.
15. Avoid off-center loads. If the Hydraulic Pump (not included) unit seems unusually hard to pump, immediately stop the operation. Adjust the Hydraulic Ram unit to eliminate or diminish an off-center load.
16. The results you achieve with these tools will depend upon your skill and experience at using tools of this type. **Harbor Freight Tools is not responsible for damage to vehicles caused by misuse of these tools.**
17. Keep the Hose Couplers protected when the Hydraulic Rams are not in use. Screw Dust Caps into all Hose Couplers when not in use to keep Ram internal mechanisms clean.
18. The warnings and cautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.



SAVE THESE INSTRUCTIONS.

Product Components



Assembly Instructions

Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this document including all text under subheadings therein before set up or use of this product.

Refer to instructions provided with pump, hoses, and fittings for proper hydraulic line purging, preparation, and connection procedures.

PITTSBURGH® AUTOMOTIVE

Operation Instructions

Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this document including all text under subheadings therein before set up or use of this product.

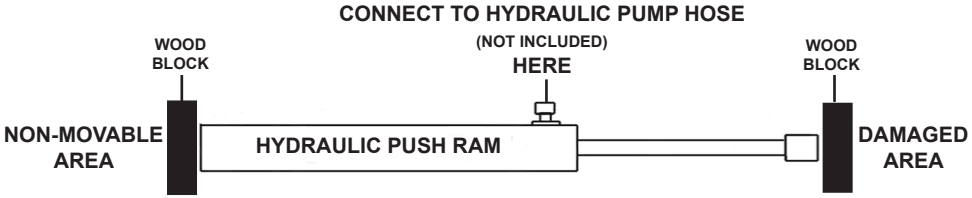
Note: In most cases, the Push and Pull Hydraulic Rams in this Kit will only be capable of returning vehicle body and frame parts to their approximate, original position. Additional work may be required to completely repair the vehicle part.

Pushing

1. Use the larger Push Rams where greater force is needed and where there is sufficient room to operate.
2. Use the smaller Push Rams where less force is required.

Note: The Push Rams require a solid, non-movable base directly across from the damaged area and in line with the direction the damaged area needs to be bent.

3. When positioning the Push Ram, place a block of wood or other material behind the base of the Push Ram and on the side that is to be bent for protection and to spread the Push Ram pressure over a greater area.

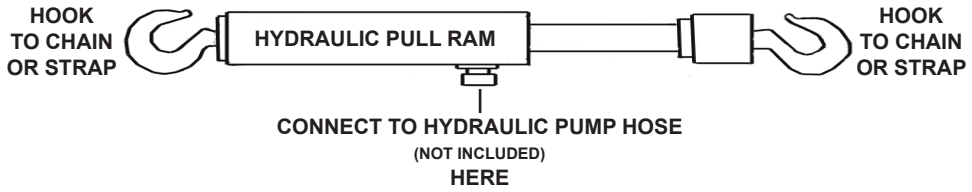


Pulling

1. Use the larger Pull Ram where greater force is needed and where there is sufficient room to operate.
2. Use the smaller Pull Ram where less force is required.

Note: The Hydraulic Pull Rams may be used in either horizontal or vertical positions. The Hooks will turn to accept hooking from different angles.

3. Hook one end of the Pull Ram to the object to be moved and the other end of the Pull Ram to a stable, unmovable base.
4. A chain or strap may be used on either end to provide a hooking surface. **Make sure the chain or strap is rated to support the pulling weight.**



Inspection, Maintenance, and Cleaning

Procedures not specifically explained in this manual must be performed only by a qualified technician.

⚠WARNING

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:
Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

1. **BEFORE EACH USE,** inspect the general condition of the tool. Check for:
   - loose hardware,
   - misalignment or binding of moving parts,
   - cracked or broken parts, and
   - any other condition that may affect its safe operation.
2. **AFTER USE,** wipe external surfaces of the tools with clean cloth.
3. Keep the Auto Body/Frame Repair Kit in its Carrying Case and in a clean, dry, safe location out of reach of children and other unauthorized people.

Troubleshooting

Problem	Possible Cause	Possible Solution
Hydraulic Ram will not push or pull the load.	1. Release Valve on Hydraulic Pump (not included) not tightly closed.	1. Close Release Valve tightly.
	2. Overload condition.	2. Do not exceed maximum PSI or range of travel for Hydraulic Ram.
	3. Air trapped in Hydraulic Pump system.	3. Purge air from Hydraulic Pump system.
	4. Hydraulic Pump oil level low.	4. Add oil to proper level.
	5. Loose connection from Hydraulic Pump to Hydraulic Ram.	5. Make sure connection from Hydraulic Pump to Hydraulic Ram is secure.
Hydraulic Ram will push or pull, but will not maintain pressure.	1. Release Valve on Hydraulic Pump (not included) not tightly closed.	1. Close Release Valve tightly.
	2. Overload condition.	2. Do not exceed maximum PSI or range of travel for Hydraulic Ram.
	3. Hydraulic Pump or Hydraulic Ram malfunction.	3. Have a qualified service technician check out the Hydraulic Pump and/or Hydraulic Ram.

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS DOCUMENT AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Record Serial Number Here:_____

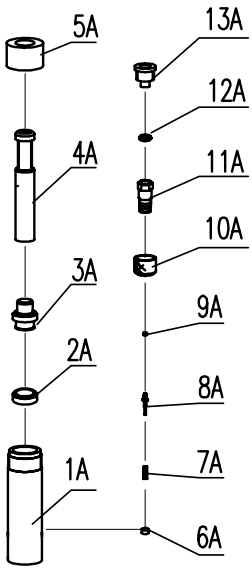
Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

Parts Lists and Diagrams

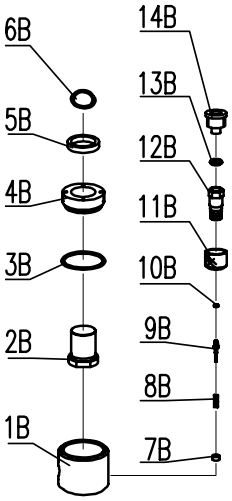
Parts List and Diagram A - 2 Ton Push Ram with Saddle

Part	Description	Qty
1A	Cylinder	1
2A	Seal Ring	1
3A	Piston Ring	1
4A	Piston	1
5A	Saddle	1
6A	Nut	1
7A	Spring	1
8A	Valve Pin	1
9A	O Ring	1
10A	Connection Nut	1
11A	Screw	1
12A	O Ring	1
13A	Dust Cover	1



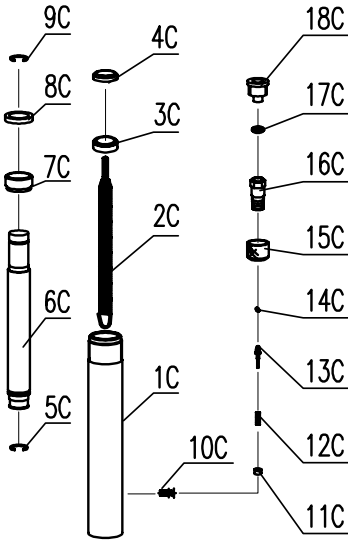
Parts List and Diagram B - 4 Ton Push Ram

Part	Description	Qty
1B	Cylinder	1
2B	Piston	1
3B	O Ring	1
4B	Nut	1
5B	Seal Ring	1
6B	O Ring	1
7B	Nut	1
8B	Spring	1
9B	Valve Pin	1
10B	O Ring	1
11B	Connection Nut	1
12B	Screw	1
13B	O Ring	1
14B	Dust Cover	1



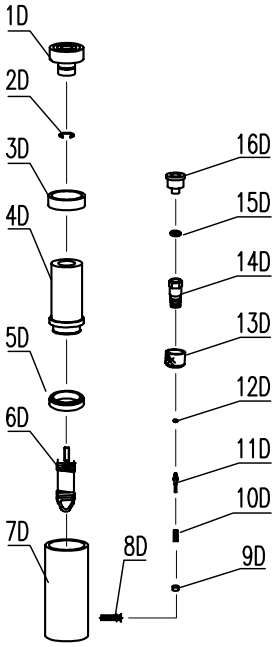
Parts List and Diagram C - 4 Ton Push Ram with Spring

Part	Description	Qty
1C	Cylinder	1
2C	Spring	1
3C	Seal Ring	1
4C	Piston Ring	1
5C	Retaining Ring	1
6C	Piston	1
7C	Nut	1
8C	Saddle	1
9C	Retaining Ring	1
10C	Screw	1
11C	Nut	1
12C	Spring	1
13C	Valve Pin	1
14C	O Ring	1
15C	Connection Nut	1
16C	Screw	1
17C	O Ring	1
18C	Dust Cover	1



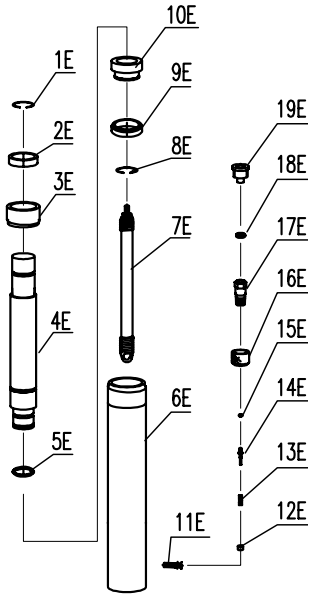
Parts List and Diagram D - 10-Ton Push Ram with Saddle & Spring

Part	Description	Qty
1D	Saddle	1
2D	Retaining Ring	1
3D	Nut	1
4D	Piston	1
5D	Seal Ring	1
6D	Spring	1
7D	Cylinder	1
8D	Screw	1
9D	Nut	1
10D	Spring	1
11D	Valve Pin	1
12D	O Ring	1
13D	Connection Nut	1
14D	Screw	1
15D	O Ring	1
16D	Dust Cover	1



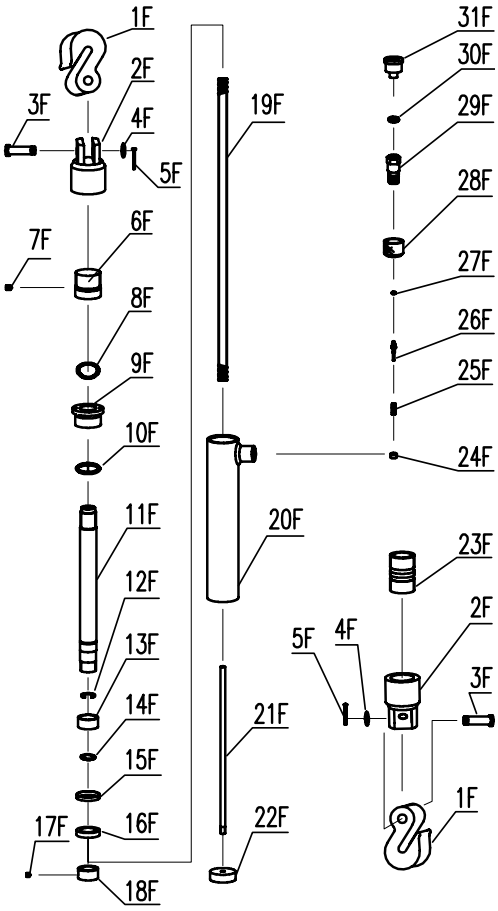
Parts List and Diagram E - 10 Ton Push Ram with Spring

Part	Description	Qty
1E	Retaining Ring	1
2E	Saddle	1
3E	Nut	1
4E	Piston	1
5E	O Ring	1
6E	Cylinder	1
7E	Spring	1
8E	Retaining Ring	1
9E	Seal Ring	1
10E	Piston Ring	1
11E	Screw	1
12E	Nut	1
13E	Spring	1
14E	Valve Pin	1
15E	O Ring	1
16E	Connection Nut	1
17E	Screw	1
18E	O Ring	1
19E	Dust Cover	1



Parts List and Diagram F - 2 Ton Pull Ram with Spring

Part	Description	Qty
1F	Hook	2
2F	Hook Coupler	2
3F	Pin	2
4F	Carrier Ring	2
5F	Split Pin	2
6F	Nut	1
7F	Screw	1
8F	O Ring	1
9F	Nut	1
10F	O Ring	1
11F	Piston	1
12F	Retaining Ring	1
13F	Spacing Ring	1
14F	O Ring	1
15F	Carrier Ring	1
16F	Piston Ring	1
17F	Screw	1
18F	Nut	1
19F	Spring	1
20F	Cylinder	1
21F	Nut	1
22F	Cover	1
23F	Connector	1
24F	Nut	1
25F	Spring	1
26F	Valve Pin	1
27F	O Ring	1
28F	Connection Nut	1
29F	Screw	1
30F	O Ring	1
31F	Dust Cover	1

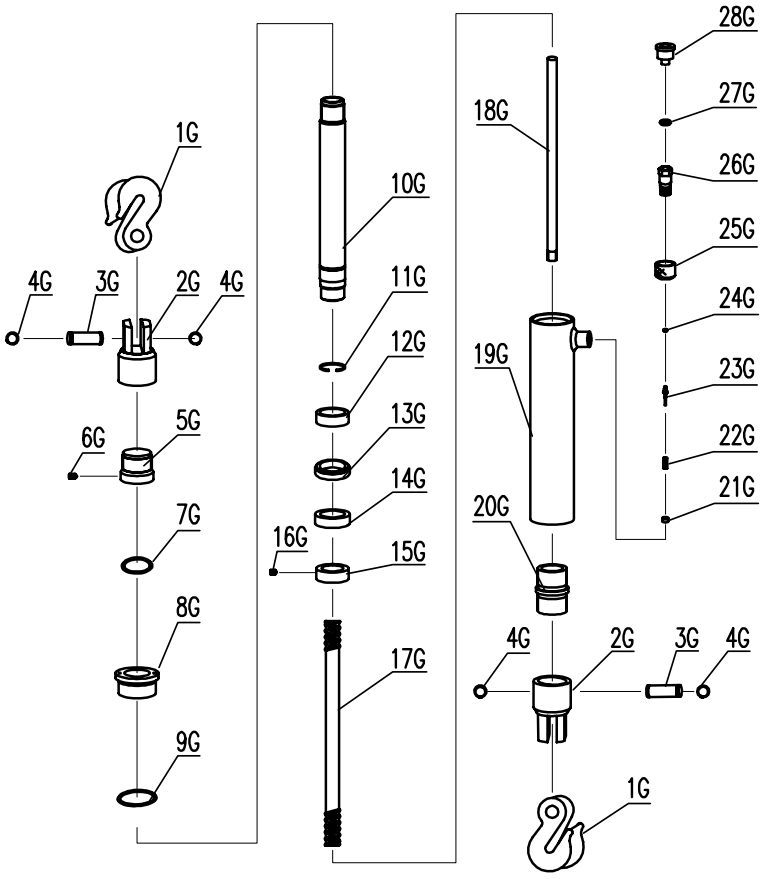


 For technical questions, please call 1-800-444-3353.

Parts List and Diagram G - 5 Ton Pull Ram with Spring

Part	Description	Qty
1G	Hook	2
2G	Hook Coupler	2
3G	Pin	2
4G	Retaining Ring	4
5G	Nut	1
6G	Screw	1
7G	O Ring	1
8G	Nut	1
9G	O Ring	1
10G	Piston	1
11G	Retaining Ring	1
12G	Spacing Ring	1
13G	Seal Ring	1
14G	Piston Ring	1

Part	Description	Qty
15G	Piston Screw	1
16G	Screw	1
17G	Spring	1
18G	Nut	1
19G	Cylinder	1
20G	Connector	1
21G	Nut	1
22G	Spring	1
23G	Valve Pin	1
24G	O Ring	1
25G	Connection Nut	1
26G	Screw	1
27G	O Ring	1
28G	Dust Cover	1



Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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