

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.

20j



10 TON HYDRAULIC LOG SPLITTER



Visit our website at: <http://www.harborfreight.com>
Email our technical support at: productsupport@harborfreight.com

67090

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

Copyright© 2014 by Harbor Freight Tools®. All rights reserved.
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.

Important Safety Information

In this manual, on the labeling, and all other information provided with this product:



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to personal injury.

CAUTION

CAUTION, without the safety alert symbol, is used to address practices not related to personal injury.



WARNING! Read all instructions. Failure to follow all instructions listed below may result in fire, serious injury and/or DEATH.

The warnings and precautions 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

Important Safety Precautions

1. Set up and use only on a flat, level, outdoor, well-ventilated area.
2. Wear ANSI-approved safety glasses under a full face shield, NIOSH-approved dust mask/respirator, heavy-duty work gloves, hard hat, and steel-toe work boots during set up and use.
3. Keep children away from the equipment, especially while it is operating.
4. Do not leave the equipment unattended when it is running. Turn off the equipment before leaving the work area.
5. Use only accessories that are recommended by Harbor Freight Tools for your model. Accessories that may be suitable for one piece of equipment may become hazardous when used on another piece of equipment.
6. Stay alert, watch what you are doing and use common sense when operating this piece of equipment. Do not use this piece of equipment while tired or under the influence of drugs, alcohol or medication.
7. Do not overreach. Keep proper footing and balance at all times. This enables better control of the equipment in unexpected situations.
8. Dress properly. Do not wear loose clothing or jewelry. Keep hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.


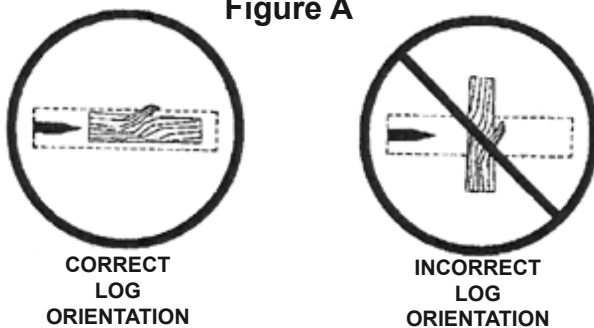
9. Keep the equipment and surrounding area clean at all times.
10. Use the equipment, accessories, etc., in accordance with these instructions and in the manner intended for the particular type of equipment, taking into account the working conditions and the work to be performed. Use of the equipment for operations different from those intended could result in a hazardous situation.
11.  Moving parts can crush and cut hands and fingers. Keep hands clear of the Ram Plate, Wedge, and logs while splitting.
12. Be thoroughly familiar with all controls and with the proper use of the Log Splitter. Know how to stop the Log Splitter and relieve system pressure quickly if needed.
13. Make sure all fittings are tight before applying pressure.
14. Be aware of the added length of the Log Splitter when transporting.
15. If a log becomes jammed in the Wedge, back off pressure and remove log with a pry bar.
18. Always relieve the system pressure before inspecting, cleaning, adjusting, or repairing the Log Splitter.
19. When spills of fuel or oil occur, they must be cleaned up immediately. Dispose of fluids and cleaning materials as per any local, state, or federal codes and regulations. Store oil rags in a bottom-ventilated, covered, metal container.
20. Keep hands and feet away from moving parts. Do not reach over or across equipment while operating.
21. Before use, check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the equipment's operation. If damaged, have the equipment serviced before using. Many accidents are caused by poorly maintained equipment.
22. Use the correct equipment for the application. Do not modify the equipment and do not use the equipment for a purpose for which it is not intended.
23. Keep all safety guards in place and in proper working order.
24. Never add attachments to the Log Splitter, except for authorized accessories supplied by the manufacturer with instructions for safe installation and use.
25. Use the Log Splitter only in daylight so you can see what you are doing.
26. Never attempt to change the height or speed of the splitting Wedge.
27. Maintain labels and nameplates on the Log Splitter. These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
28. Have the Log Splitter serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the equipment is maintained. Do not attempt any service or maintenance

Figure A



16. This Log Splitter is designed to split logs up to **18" long and 6-1/2" in diameter, lengthwise *with the grain* only. (See Figure A.)**
17. Always operate the Log Splitter with all safety equipment in place and in proper working order, and all controls properly adjusted for safe operation.

procedures not explained in this manual or any procedures that you are uncertain about your ability to perform safely or correctly.

the Splitter. The Log Splitter owner should instruct all operators in safe Log Splitter operation.

29. Do not allow anyone to operate the Log Splitter who has not read this manual or has not been instructed on the safe use of

30. Store equipment out of the reach of children and other unauthorized persons.

SAVE THESE INSTRUCTIONS.

Specifications

Log Cutting Capacity (Maximum)	18" L / 6-1/2" Dia.
Minimum Log Length	13-1/2" L
Ram Stroke	8-1/16"

Initial Tool Set Up/Assembly



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

Note: For additional information regarding the parts listed in the following pages, refer to the Assembly Diagrams near the end of this manual.

Note: The Log Splitter is heavy; use care and proper lifting techniques when move the Log Splitter.

Assembly

1. To assemble, insert one Jack Handle (3) into each of the sockets on the Ram (9). See Figure B.

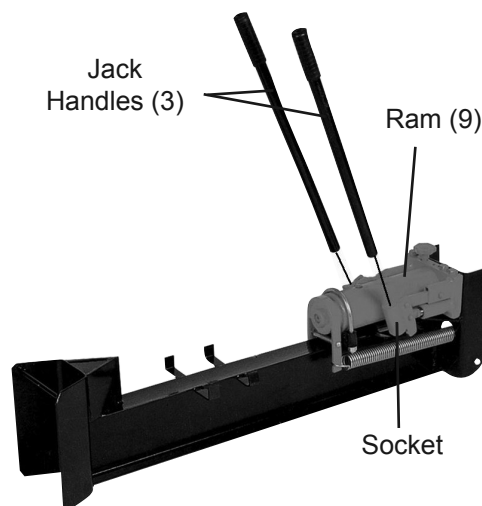


Figure B

Operating Instructions



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual before use of this product.

The Splitting Operation - Additional Safety Instructions:

1. Hold the bark side of logs when loading or positioning, never the ends. Never place your hands or any body parts between a log and any part of the Log Splitter.
2. Never load or unload logs while the Ram (9) is moving.
3. Do not pile logs to be split in a place that will make you reach across the Log Splitter in order to load them.
4. Log ends that are not cut square can slide out while splitting and cause a safety hazard or cause excessive force to Log Splitter components. Use a chainsaw (not included) to cut logs square on each end before attempting to split them.
5. Never attempt to split more than one log at a time. A piece of log can unexpectedly be thrown from the machine, causing severe personal injury.
6. Do not use the Log Splitter to split logs across the grain. Doing so will damage the Log Splitter and could also cause pieces of log to be thrown, injuring the operator or bystanders.

Note: Many accidents occur when there is more than one person involved in loading and operating the Log Splitter. Only one person should operate at a time. If a second person is assisting in loading logs, NEVER allow an assistant to hold the log in place while the operator pulls on the Jack Handles.

To Operate:

1. Grip one Handle in each hand and pump the Handles in a back-and-forth stroke motion. See Figure C.

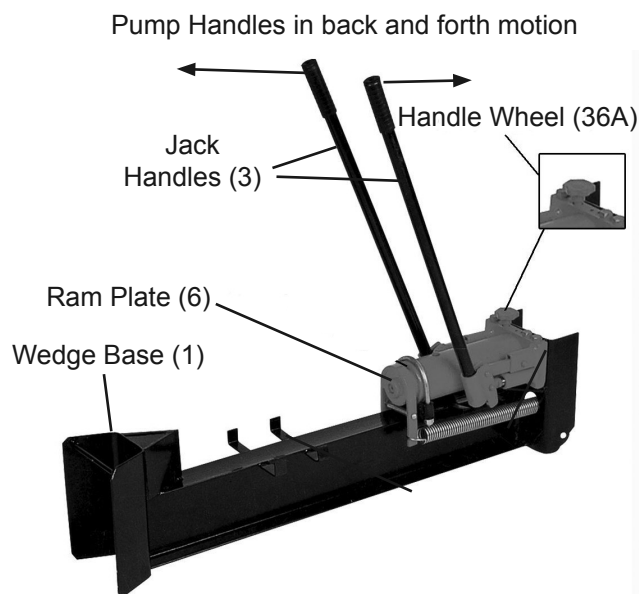


Figure C

2. This action will force the log against the Wedge Base and split the log.
3. Remove the split pieces.
4. Turn Handle Wheel (36A) counterclockwise no more than one full turn to retrieve the Ram. See Figure C.
5. Turn Handwheel clockwise until snug.
6. When finished, store the Log Splitter with the Hand Wheel turned counterclockwise one turn to relieve the hydraulic pressure built up during use.

To Remove A Stuck Log:

1. A log can be stuck on the Wedge Base if the Wedge becomes embedded in the log and the log doesn't completely split and separate. This can happen if the log is too stringy or tough to split completely. If this happens, follow the directions below.

2. **WARNING!** Never attempt to remove a stuck log by doing the following:
 - Using the hydraulic force of the Log Splitter.
 - Modifying the Log Splitter.
 - Adding attachments to the Log Splitter.
3. **WARNING!** Serious personal injury could result from log or metal pieces flying out at high speed toward the operator or bystanders, or the Log Splitter could become damaged.
4. Fully retract the Ram.
5. Remove the stuck log from the Wedge manually with a pry bar.
6. **IMPORTANT:** Be extremely careful as log pieces may fly off as they separate from the Wedge.
7. Do not attempt to re-split a stuck log once it has been removed from the Wedge. Manually split with a maul, or cut with a chainsaw.

WARNING! Remove Split Logs: Move each split log away from the Log Splitter. Split logs left near the Log Splitter are a tripping hazard.

To Bleed the Log Splitter:

1. Extend Ram to its maximum length.
2. Remove the Oil Plug (6A) and top off oil. See Figure D.

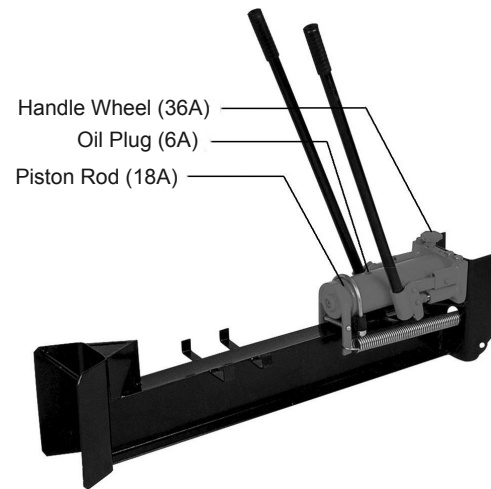


Figure D

3. Turn Handwheel counterclockwise as fast as possible. Piston Rod (18A) will retract into Ram and push air out of Cylinder (23A) via Oil Plug hole. Top off oil as needed.
4. Replace the Oil Plug and repeat steps 1-3 as needed.
5. To add oil, remove the Oil Plug and add oil to just below the Fill Plug. Then Replace Oil Plug.



Maintenance

⚠️ WARNING TO PREVENT SERIOUS
INJURY FROM
EQUIPMENT FAILURE:

Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

Many maintenance procedures, including those not detailed in this manual, will need to be performed by a qualified technician for safety.

If you have any doubts about your ability to safely service the Log Splitter, have a qualified technician service the equipment instead.

1. BEFORE EACH USE: Inspect the Log Splitter and verify that there are loose or damaged parts.
2. AFTER EACH USE: Wipe down Log Splitter with a clean, soft cloth, making sure to clean up any excess or spilled hydraulic oil.
3. WHEN STORING: Retract the Ram to and turn the Handwheel counterclockwise by one turn to keep the Hydraulic Cylinder Rod protected from corrosion.
4. Store the Log Splitter in a clean, dry, safe location away from children and other unauthorized persons.

Troubleshooting

Problem	Possible Cause	Possible Solution
Ram will not move.	<ol style="list-style-type: none"> 1. Handwheel is open. 2. Wedged wood under Ram. 3. Blocked hydraulic lines. 4. Blocked control valve. 5. Damaged control valve. 6. Damaged cylinder piston. 	<ol style="list-style-type: none"> 1. Turn Handwheel clockwise until snug. 2. Remove any foreign objects from below Ram. 3. Flush and clean the Splitter's hydraulic system. 4. Flush and clean the Splitter's hydraulic system. 5. Have a qualified service technician repair/replace control valve. 6. Have a qualified service technician repair/replace cylinder piston.
Slow Ram speed when extending or retracting.	<ol style="list-style-type: none"> 1. Slow pumping of Jack Handles. 2. Air in oil. 3. Damaged control valve. 4. Internal control valve leak. 5. Internally damaged cylinder. 	<ol style="list-style-type: none"> 1. Move Jack Handles at a faster pace. 2. Purge air from Splitter's hydraulic system. 3. Have a qualified service technician repair/replace control valve. 4. Have a qualified service technician repair/replace control valve. 5. Have a qualified service technician repair/replace cylinder.
Wood will not split, or splits extremely slowly.	<ol style="list-style-type: none"> 1. Air in oil. 2. Excessive control valve inlet vacuum. 3. Low control valve setting. 4. Internal control valve leak. 5. Internally damaged cylinder. 	<ol style="list-style-type: none"> 1. Check for excessive air in hydraulic reservoir. 2. Check control valve inlet hose for blockage or kinks. 3. Have a qualified service technician adjust control valve with a pressure gauge. 4. Have a qualified service technician repair/replace control valve. 5. Have a qualified service technician repair/replace cylinder.

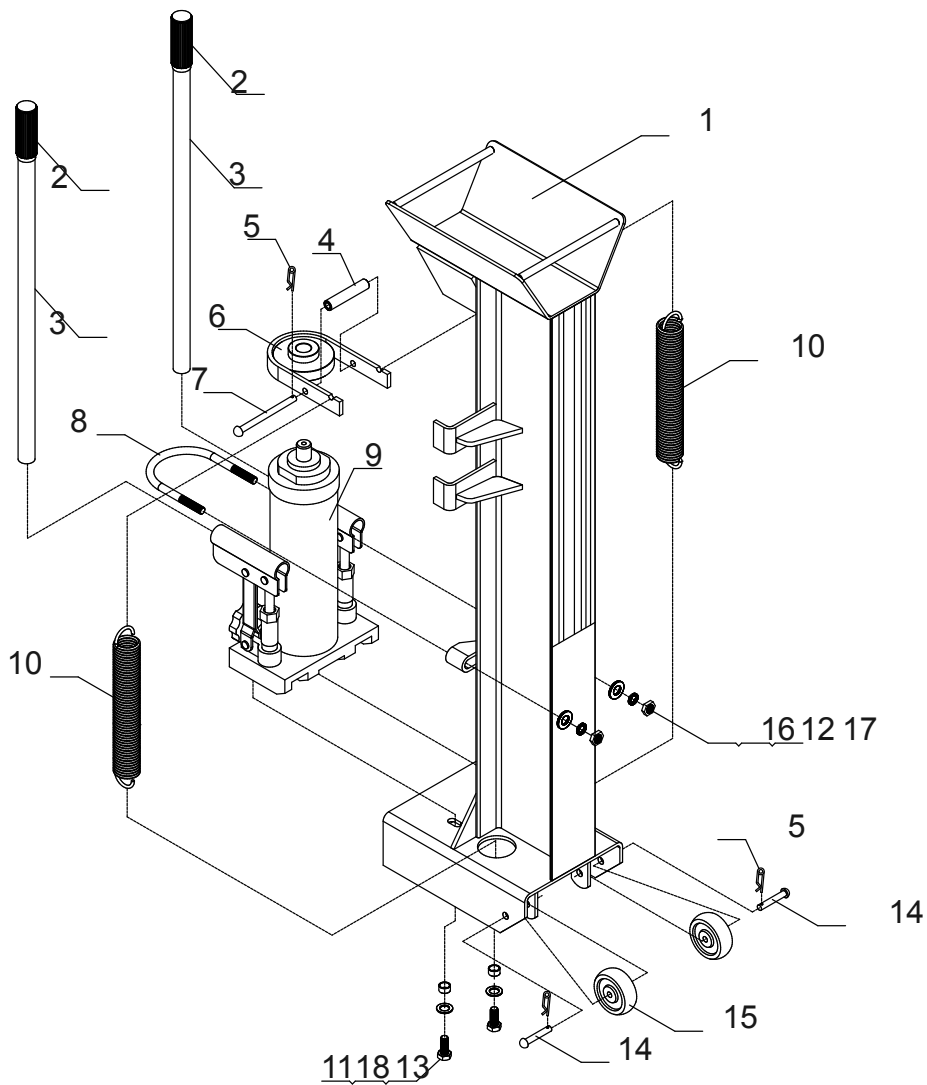


Follow all safety precautions whenever diagnosing or servicing the equipment.

Parts List and Assembly Diagram

Part	Description	Qty.
1	Wedge Base	1
2	Handle Grip	2
3	Jack Handle	2
4	Spacer	1
5	Lock Spring	3
6	Ram Plate	1
7	Pin	1
8	U-Bolt	1
9	Ram	1

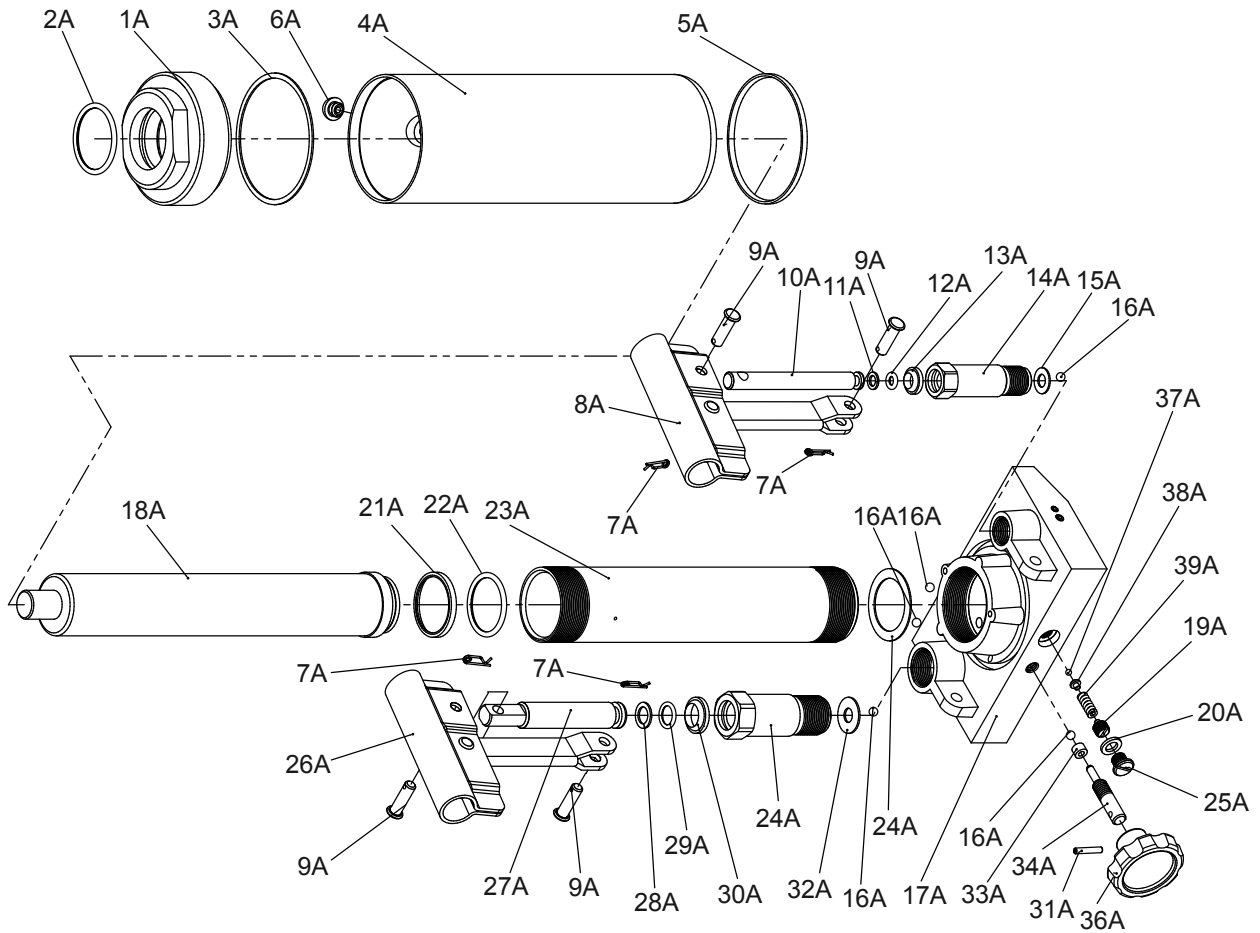
Part	Description	Qty.
10	Ram Return Spring	2
11	Hex Bolt M8x20	2
12	Lock Washer Ø10	2
13	Flat Washer Ø8	2
14	Wheel Axle	2
15	Wheel	2
16	Large Flat Washer Ø10	2
17	nut M10	2
18	Spacer	2



Pump Parts List and Assembly Diagram

Part	Description	Qty.
1A	Cap	1
2A	O-Ring	1
3A	Rectangle Ring	1
4A	Cylinder Jacket	1
5A	Rectangle Ring	1
6A	Oil Plug	1
7A	Lock Spring	4
8A	Right Socket	1
9A	Axis Pin 8x28	4
10A	Pump Core	1
11A	Split Washer	1
12A	O-Ring 6.6x3	1
13A	J-Dust Ring	1
14A	Small Pump Cylinder	1
15A	Small Pump Washer	1
16A	Steel Ball Ø6	5
17A	Base	1
18A	Piston Rod	1
19A	Pressure Adjusting Screw	1
20A	O Ring	1

Part	Description	Qty.
21A	Bowl Washer	1
22A	O Ring	1
23A	Cylinder	1
24A	Cylinder Washer	1
25A	Safety Valve Screw	1
26A	Left Socket	1
27A	Big Pump Core	1
28A	Retainer Ring	1
29A	O Ring 12x3.5	1
30A	J-Dust Ring	1
31A	Big Pump Cylinder	1
32A	Big Pump Washer	1
33A	Rectangle Ring	1
34A	Release Valve Rod	1
35A	Spring Pin 4x22	1
36A	Handle Wheel	1
37A	Steel Ball Ø4	1
38A	Spring Base	1
39A	Adjusting Spring	1



PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL 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 Product's 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. Reference UPC 193175334763.

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.



26541 Agoura Road • Calabasas, CA 91302 • 1-888-866-5797