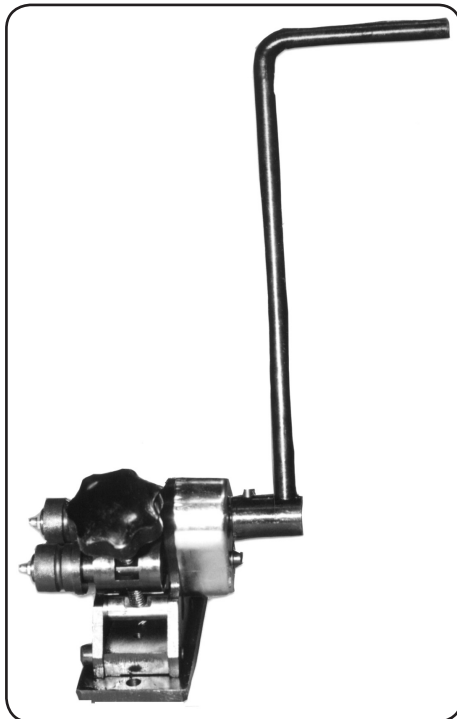


METAL PLANETARY RING ROLLER

Model 36790

ASSEMBLY AND OPERATION INSTRUCTIONS



Due to continuing improvements, actual product may differ slightly from the product described herein.



3491 Mission Oaks Blvd., Camarillo, CA 93011

Visit our website at: <http://www.harborfreight.com>

**TO PREVENT SERIOUS INJURY, READ AND UNDERSTAND
ALL WARNINGS AND INSTRUCTIONS BEFORE USE.**

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

THANK YOU for choosing a **HARBOR FREIGHT TOOLS** product. For future reference, please complete the owner's record below:

Model _____ **Serial No.** _____ **Purchase Date** _____

SAVE THE RECEIPT, WARRANTY AND THESE INSTRUCTIONS. It is important that you read the entire manual to become familiar with the unit BEFORE you begin assembly.

Specifications

Construction	5/16" Steel
Rockwell Hardness	26 RC
Ring Capacity	Unlimited
Flat Stock Capacity	3/16" x 1"
Round Stock Capacity	1/4" Diameter
Drive	Gear
Rollers	Heat Treated Steel
Handle	13-1/2" Long
Weight	13.25 lb.



IMPORTANT SAFETY INSTRUCTIONS!



READ ALL INSTRUCTIONS BEFORE USING THIS PRODUCT!

Warning: The warnings, cautions and instructions discussed in this instruction 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.**

The Operator

PLEASE REMEMBER:

Do not operate the product if under the influence of alcohol or drugs. Read warning labels on prescriptions to determine if your judgment/reflexes might be impaired.

Do not wear loose clothing or jewelry as they can be caught in moving parts.

Protective gloves and non-skid footwear are recommended.

Wear restrictive hair covering to contain long hair.

Use eye and ear protection. Always wear ANSI approved impact safety goggles.

Maintain proper footing and balance at all times.

Use the right tool for the job. Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. Do not modify this tool and do not use this tool for a purpose for which it was not intended.

For your own safety, maintenance should be performed regularly by a qualified technician.

WARNING: The brass components of this product contain lead, a chemical known to the State of California to cause birth defects (or other reproductive harm). (California Health & Safety code § 25249.5, *et seq.*)

Work Area

TO AVOID RISK OF PERSONAL INJURY, EQUIPMENT DAMAGE, FIRE AND SHOCK, MAKE SURE YOUR **WORK AREA IS:**

Free of damp, wet or rainy conditions.

Free of children (never let them handle tools or machinery).

Well-lit.

Clean and uncluttered.

Before Operating

Make sure all clamps, locks and bolts are tight, and that the Ring Roller is securely fastened to the appropriate mounting surface.

Assembly

Your Ring Roller will require minor assembly prior to operation. It is important that you read the entire manual to become familiar with the unit **BEFORE** you assemble and use the Ring Roller. Before assembling your Ring Roller be sure that you have all parts described in the Parts List.

When assembling your Ring Roller, it will be helpful to refer to each of the operational Figures as well as to the Parts List and Assembly Diagram on the last pages of this manual.

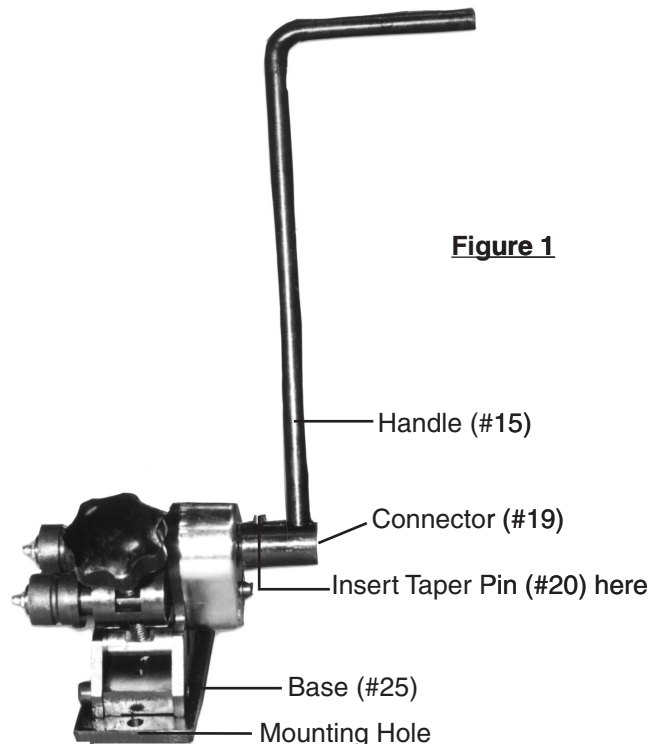
Assemble attachments based on the intended use of the Ring Roller only.

Mounting Surface: The mounting surface must be flat, level and capable of supporting the weight of the Roller combined with the materials to be rolled. **Mount the Ring Roller on a solid mounting surface that is capable of supporting the weight of the Ring Roller and the leverage force of the Handle movement.**

Step 1) Slide the Connector (#19) onto the Drive Shaft II (#17) - see Figure 1. Once the Connector (#19) is slid in place on the Drive Shaft II (#17), make certain that the holes in the Connector (#19) line up with the holes in the Drive Shaft II (#17).

Step 2) Slide the Handle (#15) into the hole in the Connector (#19) and Drive Shaft II (#17) - see Figure 1.

Step 3) Secure the Connector (#19) to the Drive Shaft II (#17) using the Taper Pin (#20). Insert the



Taper Pin (#20) into the hole as seen in Figure 1. If necessary, lightly tap the Taper Pin (#20) into place.

Mounting

Step 1) Set the Roller on your appropriate mounting surface as desired.

Warning: The Metal Planetary Ring Roller must be securely mounted to an appropriate work surface prior to use!

Step 2) Make certain that you can operate the Handle (#15) comfortably.

Step 3) Mark the appropriate mounting surface through the two holes located at the far ends of the Base (#25).

Step 4) Remove the Metal Planetary Ring Roller from the appropriate mounting surface. Drill holes through the mounting surface at the marked locations.

Step 5) Mount the unit using two bolts, lock washers, washers and nuts (in that order) sold separately.

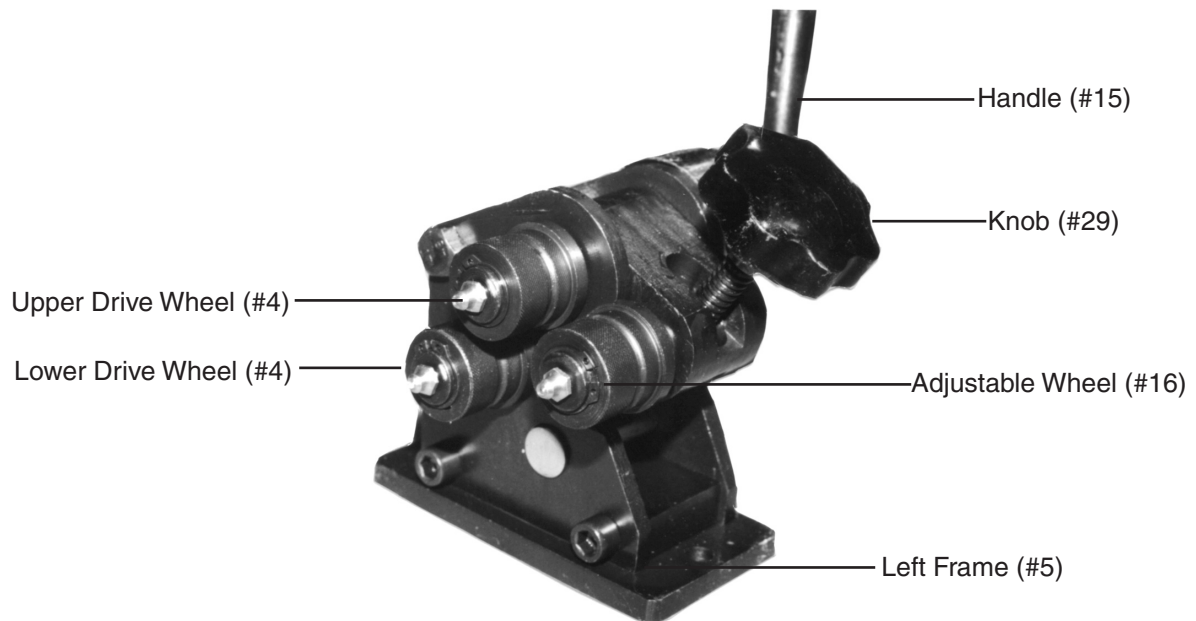


Figure 2

Operation

When operating your Metal Planetary Ring Roller, it may be helpful to refer to each of the operational Figures as well as to the Parts List and Assembly Diagram located on the last pages of this manual.

Never force the tool or attachment to do the work of a larger industrial tool. It is designed to do the job better and more safely at the rate for which it was intended.

Step 1) Determine the size ring you wish to obtain.

Warning: **Do not use flat stock larger than 3/16" x 1".**
Do not use Round stock larger than 1/4"

Step 2) Move the Adjustable Wheel (#16) up or down (as desired) by turning the Knob (#29) - see Figure 2.

Step 3) To obtain small size rings (approximately 1"), the Adjustable Wheel (#16) must be in its uppermost position.

Step 4) To obtain 2" rings, the Adjustable Wheel (#16) must be in the middle position.

Step 5) To obtain larger rings, the Adjustable Wheel (#16) must be in its lowest position.

It is recommended that you practice on scrap stock to find the correct wheel adjustment to make the desired size ring.

Step 6) Insert the stock between the Upper Drive Wheel (#4) and between both the Adjustable Wheel (#16) and lower Drive Wheel (#4) - see Figure 2.

Step 7) Turn the Knob (#29) clockwise to clamp the stock between the Wheels.

Warning After stock has been clamped between the Wheels, keep hands and fingers clear of the Wheels while the handle is being rotated.

Step 8) Rotate the Handle (#15) counterclockwise to process the ring.

Step 9) To remove the completed rings, turn the Knob (#29) counterclockwise to loosen the clamping action.

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.

IF THERE IS ANY QUESTION ABOUT A CONDITION BEING SAFE OR UNSAFE, DO NOT OPERATE THE TOOL.

Maintenance

CLEANING: Regularly clean the work surface using a non-toxic solvent.

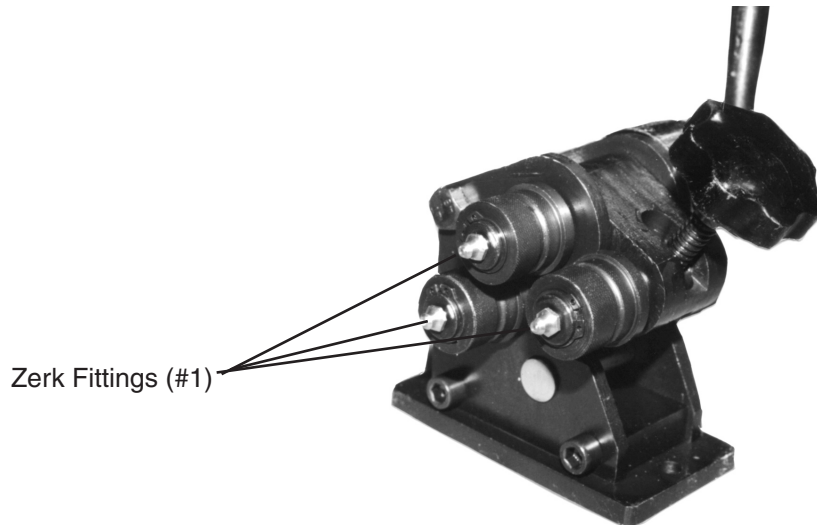


Figure 3

LUBRICATION: Your three lubrication points are the Drive Shaft I (#9), Drive Shaft II (#17) and the Adjustable Shaft (#18). Grease using the Zerk Fittings (#1) - see Figure 3 above.

STORAGE: Store in a dry area out of the reach of children.

Unpacking

When unpacking your Metal Planetary Ring Roller, check to make sure the following parts are included. If any parts are missing or broken, please call **HARBOR FREIGHT TOOLS** at **1-800-444-3353**.

Parts List

Part	Description	Q'ty
1	Zerk Fitting M8 x 1	3
2	# 10 C-Ring	5
2A	#22 C-Ring	1
3	Hex Bolt M 10 x 60	1
4	Drive Wheel	2
5	Left Frame	1
6	Copper Bushing	2
7	Stand	1
8	Bushing	1
9	Drive Shaft I	1
10	Key 4 x 25	4
11	Right Frame	1
12	Gear	2
13	Cover	1
14	Hex Key Screw M6 x 45	1

Part	Description	Q'ty
15	Handle	1
16	Adjustable Wheel	1
17	Drive Shaft II	1
18	Adjustable Shaft	1
19	Connector	1
20	Taper Pin 8 x 28	1
21	Hex Key Screw M10 x 60	2
22	Shaft (w/hole)	1
23	Hex Key Screw M10 x 16	2
24	Pin 3 x 12	1
25	Base	1
26	Mounting Plate	1
27	Lead Screw	1
28	Locking Screw M6 x 6	1
29	Knob	1

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

Assembly Diagram

