

CENTRAL MACHINERY

®

BEAD ROLLER KIT

MODEL 34104

Distributed Exclusively by

**HARBOR FREIGHT
TOOLS**



®

3491 Mission Oaks Blvd., Camarillo, CA 93011

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



SAVE THIS MANUAL

You will need this manual for the safety instructions, assembly and operating instructions and parts list. Put it in a safe, dry place for future reference.

**READ ALL INSTRUCTIONS BEFORE
ASSEMBLING OR OPERATING THE
BEAD ROLLER.**

SAFETY WARNINGS & CAUTIONS

1. **KEEP WORK AREA CLEAN.** Cluttered areas invite injuries.
2. **KEEP CHILDREN AWAY.** All children should be kept away from the work area. Don't let them handle tool.
3. **DO NOT ASSEMBLE OR OPERATE THE BEAD ROLLER KIT IF UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.** Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not attempt to assemble or operate.
4. **AVOID MOVING PARTS DURING OPERATION.** Keep fingers and hands away from gears, rollers, dies, cutting plates and all moving parts.
5. **USE EYE PROTECTION.** Wear ANSI approved impact safety goggles. Goggles are available from Harbor Freight Tools.
6. **DRESS SAFELY:** Protective, gloves and non-skid footwear or safety shoes are recommended when working with sheet metal, sharp edges and operating the Bead Roller. Don't wear loose clothing or jewelry. They can get caught in moving parts. Also, wear a protective hair covering to prevent long hair from getting caught in Bead Roller.
7. **DON'T OVERREACH.** Keep proper footing and balance at all times.
8. **TWO PERSON OPERATION.** Two people are needed to safely operate this machine. One person is needed to feed the sheet metal, while a second person cranks the Bead Roller's handle.
9. **STAY ALERT.** Watch what you are doing. Use common sense. Do not operate any tool when you are tired.
10. **18 GAUGE LIMIT.** Do not use the Bead Roller on metal thicker than 18 Gauge.
11. **REPLACEMENT PARTS AND ACCESSORIES.** When servicing, use only identical replacement parts. Only use accessories intended for use with this Bead Roller. Approved accessories are available from Harbor Freight Tools.
12. **STORE IDLE EQUIPMENT.** When not in use, Bead Roller should be stored in a dry location to reduce rust. For safety, store the Bead Roller in a locked cabinet, out of reach of children.

UNPACKING

When unpacking the Bead Roller Kit, check to make sure the following parts are included. If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual.

Before you begin assembling your Bead Roller:

During assembly and operation, use a standard shop Vise to hold the Bead Roller Assembly. To securely hold the Bead Roller, ensure that the Vise is bolted or permanently fastened to a work-bench.

Item #	Description	Qty
1	Bead Roller Assembly	1
2	Handle	1
3	Dies (6 sets)	12

ASSEMBLY

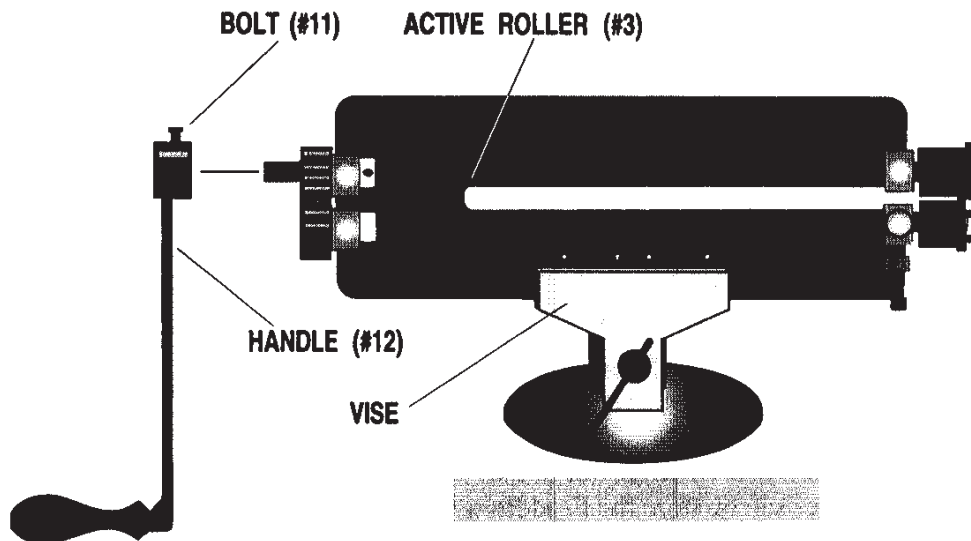
Step 1: Place the Bead Roller (#1) into a Vise as shown in Figure 1. Securely tighten the Vise to hold the machine.

WARNING:
The Bead Roller is heavy. Use two (2) people when lifting or moving it.

Step 2: Slide the HANDLE (#12) onto the ACTIVE ROLLER (#3).

Step 3: Using a 3/8" open end wrench, tighten BOLT (#11) securely. Ensure that BOLT (#11) is positioned over the flat on the ACTIVE ROLLER (#3).

Figure 1 — Bead Roller Assembly & Setup



ALIGNMENT

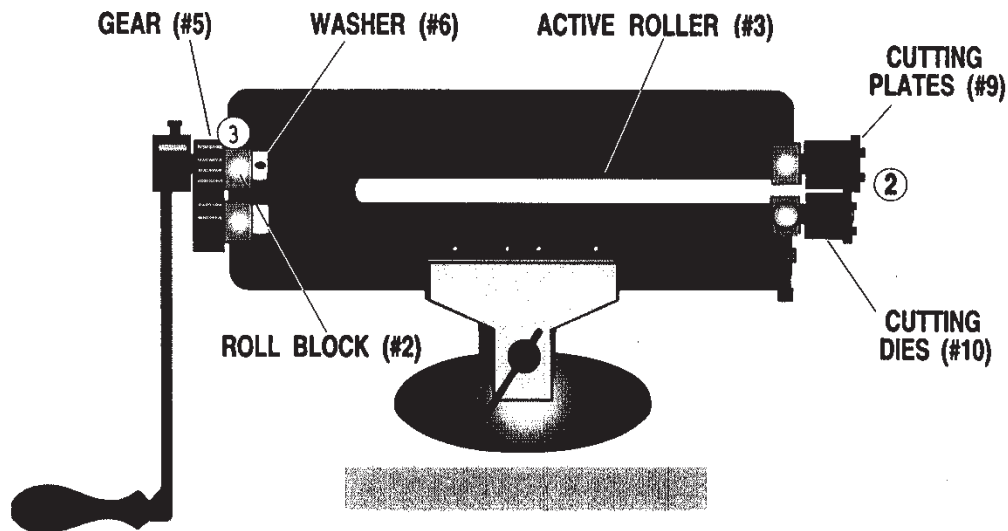
The Bead Roller usually needs no alignment by the operator. However, poor alignment will affect the quality of metal forming and the ability of the machine to cut sheet metal. If you experience either of these problems, perform the following alignment steps.

Note (Step 2):

If the edges are touching and the machine does not cut material properly, adjust the roller tension as discussed in the section titled: ADJUSTING ROLLER TENSION.

- Step 1: Setup the Bead Roller with CUTTING DIES (#10) and CUTTING PLATES (#9) as shown in Figure 2.
- Step 2: Inspect the CUTTING PLATES (#9), as shown in Figure 2, location 2. When the Bead Roller is properly aligned, the edges of the CUTTING PLATES (#9) should be touching (or almost touching). If they are not, perform the following steps.
- Step 3: Using a 5/32" Hex Key wrench, loosen the two (2) Hex Bolts securing GEAR (#5) and WASHER (#6) to the ACTIVE ROLLER (#3), at location 3.
- Step 4: Slide the ACTIVE ROLLER (#3) until the edges of the CUTTING PLATES (#9) are touching.
- Step 5: By hand, move WASHER (#6) so its edge is touching the ROLL BLOCK (#2) and tighten its Hex Bolts, location 3.
- Step 6: Move GEAR (#5) so its side is touching the ROLL BLOCK (#2) and tighten its Hex Bolts.

Figure 2 — Bead Roller Alignment



CHANGING ROLLERS

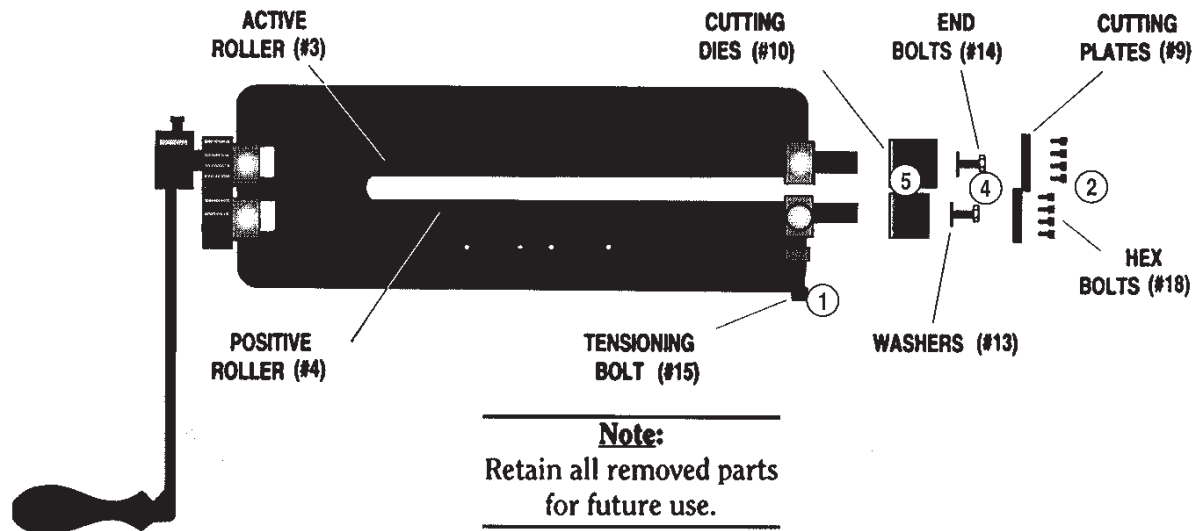
The Bead Roller Kit comes with a variety of bead and flange dies, as well as the cutting dies & plates that are assembled to the machine before shipping. Use the following instructions when you change dies.

Removing the Cutting Dies and Plates:

Step 1: Using a 3/8" wrench, loosen TENSIONING BOLT (#15). See Figure 3, location 1.

Step 2: Using a 3/16" Hex Key wrench, remove the eight HEX BOLTS (#18) securing the CUTTING PLATES (#9) to the CUTTING DIES (#10). See Figure 3, location 2.

Figure 3 — Cutting Wheel Assembly / Disassembly



Step 3: Remove CUTTING PLATES (#9).

Step 4: Using a 14mm wrench, remove the two END BOLTS (#14) securing the CUTTING DIES (#10) to the ACTIVE ROLLER (#3) and POSITIVE ROLLER (#4). Remove the WASHERS (#13).

Step 5: Using a 5/32" Hex Key wrench, loosen the HEX BOLTS (#16) that lock the CUTTING DIES (#10) onto the rollers, at location 5.

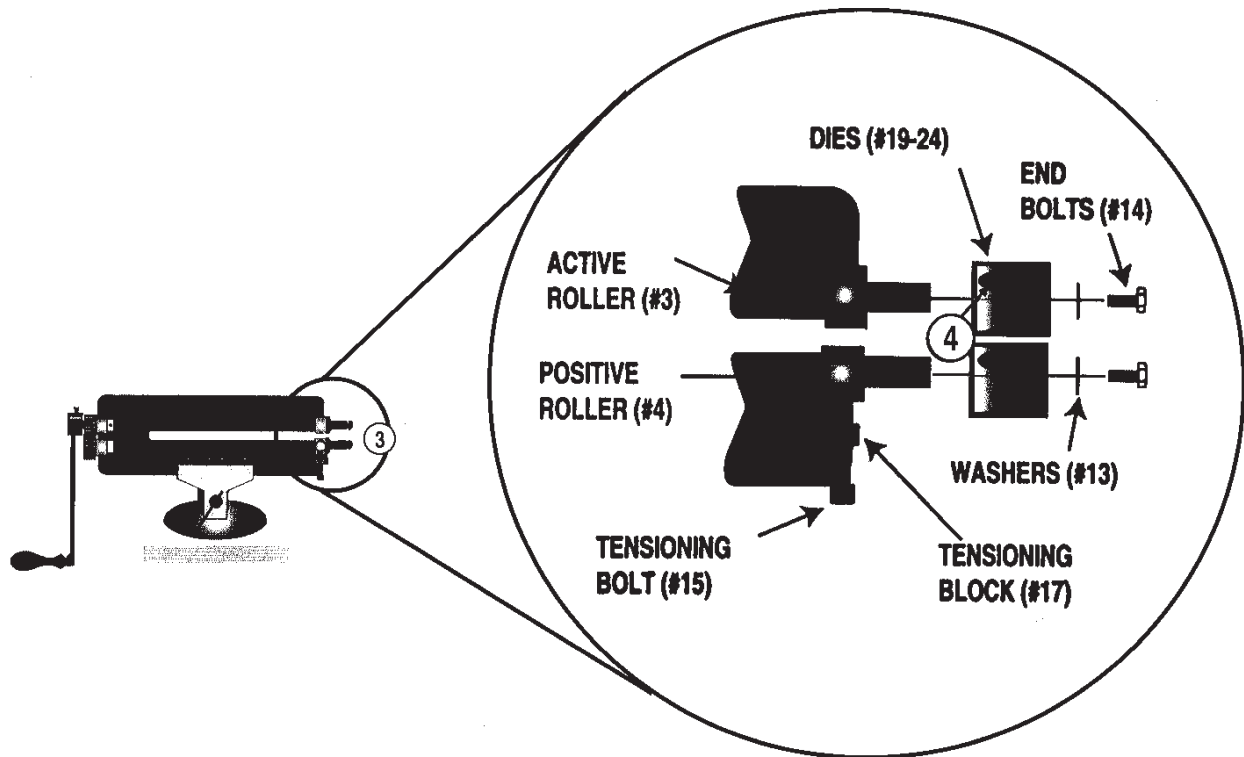
Step 6: Remove the CUTTING DIES (#10).

Installing Bead and Flange Dies:

Step 1: Select the correct bead or flange dies for the job you are going to do.

Step 2: Slide both dies onto the ACTIVE ROLLER (#3) and POSITIVE ROLLER (#4) at the same time (see Figure 4). Ensure that the HEX BOLTS (#16) are positioned over the flat on the ACTIVE ROLLER (#3) and POSITIVE ROLLER (#4).

Figure 4 — Installing Bead & Flange Dies (Close-up View)



Step 3: By hand, install the two END BOLTS (#14) and WASHERS (#13), location 3. Tighten END BOLTS (#14) with a 14mm wrench.

Step 4: Tighten the two HEX BOLTS (#16), shown at location 4.

Adjusting Roller Tension:

Step 1: Adjust TENSIONING BOLT (#15) finger tight. See Figure 4.

Step 2: Using a 3/8" wrench, tighten 1 to 3 turns, depending on desired results.

OPERATIONS

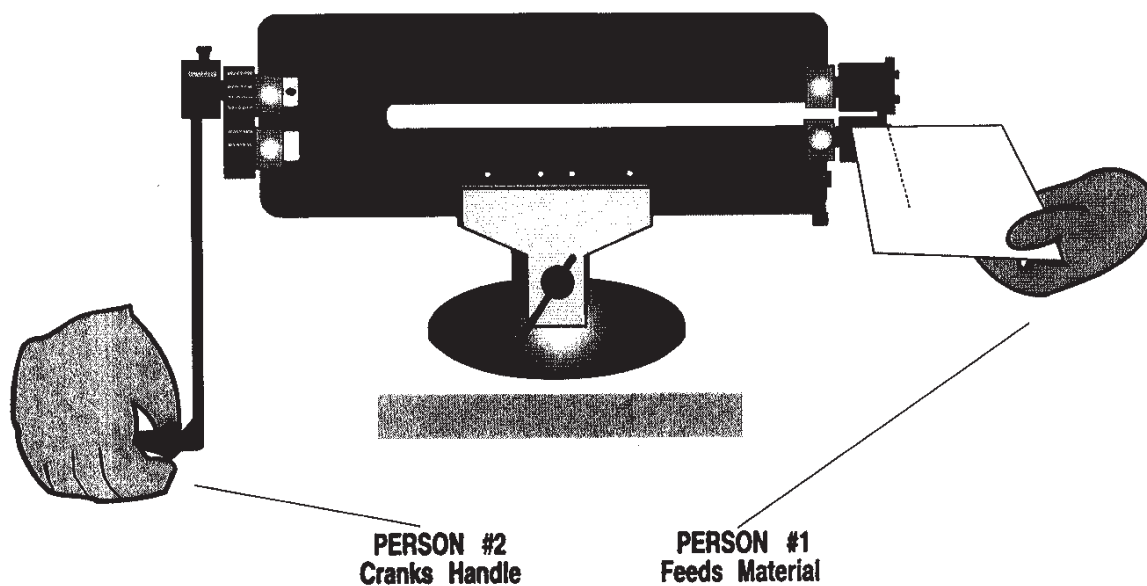
Always use two people to operate the Bead Roller. One person should guide the metal along the roller while a second person cranks the handle of the Bead Roller. Metal forming is an art that requires good communication between the person cranking and the one guiding the metal - particularly on corners.

WARNING:
CAPACITY:
18 GAUGE

Step 1: Mark your rib, flange pattern or cut-line on the material.

Step 2: Insert and guide the metal through the dies while another person cranks the machine (see Figure 5).

Figure 5 — Operating the Bead Roller





Parts List

Part No.	Description	Qty	Part No.	Description	Qty
1	Base	1	17	Busing	1
2	Roll Blocks	4	18	Hex Bolts M6x10	8
3	Active Roller	1	19-1	1/2" Half-Round Die (Convex)	1
4	Positive Roller	1	19-2	1/2" Half-Round Die (Concave)	1
5	Gears	2	20-1	3/8" Half-Round Die (Convex)	1
6	Washers	2	20-2	3/8" Half-Round Die (Concave)	1
7	Roller Block Bolts M14x30	4	21-1	1/4" Half-Round Die (Convex)	1
8	Flat Washers 14mm	4	21-2	1/4" Half-Round Die (Concave)	1
9	Cutting Plates	2	22-1	1/4" Flange Die	1
10-1	Long Cutting Die	1	22-2	1/4" Flange Die	1
10-2	Short Cutting Die	1	23-1	1/8" Flange Die	1
11	Bolt M10x30	1	23-2	1/8" Flange Die	1
12	Handle	1	24-1	1/16" Flange Die	1
13	Washers 10mm	2	24-2	1/16" Flange Die	1
14	End Bolts M10x20	2	25	Spring Washers 6mm	8
15	Tensioning Bolt M10x50	1	26	Hex Key Wrench 5mm	1
16	Hex Bolts M8x10	18	27	Hex Key Wrench 4mm	1

PART SELECTION GUIDE

Note: Items are larger than shown in this illustration

**1/4" ROUND
DIE (#21)**



**3/8" ROUND
DIE (#20)**



**1/2" ROUND
DIE (#19)**



**1/16" FLANGE
DIE (#24)**



**1/8" FLANGE
DIE (#23)**



**1/4" FLANGE
DIE (#22)**



PLEASE READ THE FOLLOWING CAREFULLY

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Diagram

