

ROPER WHITNEY.



MODELS NO. 390, 391, 392 SLIP ROLL FORMER OPERATION, PARTS & MAINTENANCE MANUAL

Model:	Purchased From:
Serial #:	Date Received:

USA  MADE

An American Tradition Since 1910

Roper Whitney / 2833 Huffman Blvd. / Rockford, IL 61103 / 815-962-3011 / Fax 815-962-2227
www.roperwhitney.com

FOREWORD

This manual has been prepared for the owner and operators of Roper Whitney No. 390, 391, 392 slip roll former. Its purpose, aside from operations instructions, is to promote safety through the use of accepted operating procedures. Read all instructions thoroughly before operating the roll former.

Also contained in this manual is the parts list for your roll former. It is recommended that only Roper Whitney or factory authorized parts be used as replacements.



Warranty Statement:

3 YEAR LIMITED WARRANTY

Roper Whitney ("Manufacturer") warrants, commencing with the date of shipment to first end-user ("Customer") and for a period of thirty-six (36) months thereafter, all machinery and parts manufactured by Manufacturer to be free of defects in workmanship and material. **This warranty remains in force for the above time period only if all of Manufacturer's operational procedures are followed and recommended maintenance is performed.** If, within such warranty period, any machinery or parts manufactured by Manufacturer shall be proved to Manufacturer's satisfaction to be defective, such machinery or parts shall be repaired or replaced, at Manufacturer's option. All warranty claims are made F.O.B Manufacturer's plant, providing such machinery or parts are returned freight prepaid to Manufacturer's plant or designated service center for Manufacturer's inspection. All failed parts or components must be returned to Manufacturer prepaid for inspection before credit will be issued for new parts or components. Manufacturer's obligation hereunder shall be confined to such repair or replacement and does not include any charges, direct or indirect, for removing or replacing defective machinery or parts. No warranty shall apply to machinery, or parts or accessories, which have been furnished, repaired, or altered by others so as, in Manufacturer's judgment, to affect the same adversely or which shall have been subject to negligence, accident or improper care, installation, maintenance, storage, or other than normal use or service, during or after shipment. No warranty shall apply to the cost of repairs made or attempted outside of Manufacturer's plant or designated service center without Manufacturer's authorization. No warranty shall apply with respect to machinery or part not manufactured by Manufacturer, including but not limited to motors, accessories, electrical and hydraulic components, if such machinery or part is subject to warranty by the manufacturer of such machinery or part. No warranty claims by Customer will be honored with respect to any machinery or part from which the name and date plate has been removed or is otherwise no longer located or exhibited on such machinery or part. **THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY AND IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. MANUFACTURER SHALL NOT BE SUBJECT TO ANY OTHER OBLIGATIONS OR LIABILITIES WHATSOEVER WITH RESPECT TO MACHINERY, PARTS, ACCESSORIES, OR SERVICES MANUFACTURED OR FURNISHED BY IT OR ANY UNDERTAKINGS, ACTS, OR OMISSIONS RELATING THERETO. UNDER NO CIRCUMSTANCES SHALL MANUFACTURER BE LIABLE FOR ANY CONSEQUENTIAL OR OTHER DAMAGES, EXPENSES, LOSSES, OR DELAYS HOW SO EVER CAUSED.**

THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

Note: Consumable tooling is not covered under the 3 year manufacturer's warranty.

RETURN OF THE PRODUCT REGISTRATION CARD FURNISHED WITH THE PRODUCT IS NECESSARY TO OBTAIN WARRANTY COVERAGE THEREON. CARD MUST BE FULLY COMPLETED, SIGNED BY THE PURCHASER, AND IF APPLICABLE, SIGNED BY THE DISTRIBUTOR. RETURN REGISTRATION CARD TO:

Roper Whitney 2833 Huffman Blvd. Rockford, IL 61103
815-962-3011 / Fax 815-962-2227
www.roperswhitney.com

SAFETY LABELS

Do not operate the machine without the proper safety labels in place. If your machine is missing the following labels, please contact Roper Whitney Co. or your authorized Roper Whitney distributor to order.



SAFETY INSTRUCTIONS

1. Be sure that the machine is securely bolted onto the pedestal or to the customer supplied bench. Pedestal or work bench should be bolted to the floor.
2. Machine to be operated by authorized personnel who have been trained by their supervisor with the working and safety features of the machine, and by reading and understanding the operator's manual.
3. Do not misuse the slip rolls by using them for other than their intended use.
4. Always keep hands clear of entry area to rolls while operating.
5. Do not remove, paint over, alter, or deface any machine-mounted warning and instruction plates and signs.
6. Do not use machine if servicing is required.
7. Use safety glasses and required protective tools. Wear protective foot wear or safety shoes. Jewelry such as rings and watches should be removed when operating the machine.
8. Be alert to all potential hazards. Notify your supervisor whenever you feel there is a hazard involving the equipment or the performance of your job.

INSTALLATION

Receiving

Immediately upon receiving the machine, check it very carefully for damage or loss of parts in transit. Since all equipment is sold F.O.B., the Roper Whitney plant, our responsibility for transit damage ceases when the transportation company signs the bill of lading indicating that it has received all of the items listed on the bill of lading in good condition. Report any loss or damage to the delivering carrier promptly to insure proper handling of your claim.

Leveling

Be sure machine is solid and reasonably level on all four points so there is no camber or twist to the machine. If machine is shipped on a pallet, be sure to remove from pallet and place directly on flooring. Machine must be securely bolted to bench. Bolt holes are provided in base of machine.

Cleaning

In spite of precautions taken in preparing the machine for shipment, dirt and foreign material may accumulate on machine and other parts during transit, and can cause considerable damage unless thoroughly cleaned. It is extremely important to inspect and thoroughly clean off any dirt and foreign material that may have accumulated. DO NOT attempt to blow dirt out with an air hose as this may force some foreign material into undesirable areas. Remove rust proofing compound with an acceptable solvent.

PEXTO FORMING MACHINES

Forming Machines, or Slip Roll formers, are intended for rolling sheet metal or forming cylinders of various diameters.

The two pinch rolls feed the sheet against the rear roll, curving the sheet and forming the cylinder. The rear or forming roll can be adjusted by screws on the rear of left and right end housings, varying the diameter of the required cylinder. Pinch rolls can be adjusted for stock thickness by screws on the front end of the housings.

The capacity ratings of **PEXTO** forming machines are based on forming mild steel, fully annealed, the full length of the rolls and are considered as standard by the sheet metal trade for forming rolls of a specified diameter and length. Definite capacities, however, depend upon the diameter and length of the cylinder to be formed and the number of passes through the rolls to obtain a given diameter. Stiffness of material and uniformity desired are also factors. When a forming machine is overloaded, the immediate result will be deflection in the center of the rolls, resulting in cylinders bulged in the center.

Three inch diameter forming rolls have longitudinal grooves in the rear forming roll to assist in starting the sheet. Forming rolls 3" in diameter and larger have all three rolls driven as standard. Three roll drive for rolls under 3" in diameter at extra cost.

In order to reduce the number of rear roll adjustments when sheets are of light gauge, proceed as follows:

1. Insert the sheet between two pinch rolls.
2. Bend the sheet upwards and slightly around the top roll.
3. Continue to pass the sheet through the machine.

This will also reduce the flat spot on the leading edge of the sheet.

The right-hand housing is provided with a hinged journal cap and lifting latch. After the cylinder is formed, the latch is lifted and the lever is pressed down. This raises the top roll and the cylinder can be slipped off the roll without distortion.

Forming machines are provided with grooves in the right end of the lower and rear rolls to allow for forming cylinders with a wired edge.

WARNING: Before operating, machines **must** be bolted to the work bench. If the floor stand has been provided, machine must be bolted to the floor stand with bolts provided. Stand **must** be securely lagged to the floor.

SLIP ROLL FORMERS 390, 391, 392



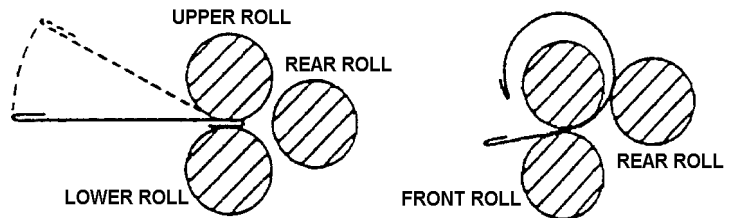
These machines are available in three different sizes. All three models offer the standard front roll drive. These units may be mounted directly to a sturdy work bench or to an optional fabricated pedestal, designed specifically for each unit.

MODEL	390	391	392
Capacity.....ga.	16-18	18-20	20-22
Max Length.....ins.	36	42	48
Roll Diameter.....ins.	2 1/2	2 1/2	2 1/2
Shipping Weight Boxed..lbs.	457	500	540

INSTRUCTIONS

CAUTION: Be sure that the machine is securely bolted onto the pedestal or to the customer supplied bench. Pedestal or work bench should be bolted to the floor.

- Adjust the Lower Roll to grip the metal firmly and evenly but without straining the machine. The Lower Roll is adjusted up or down with the two lower Adjusting Screws (19).
- Adjust the Rear Roll to form the metal up as it travels through the rollers. The Rear Roll is adjusted up or down with the two rear Adjusting Screws (21). Be sure the Rear Roll is parallel with the Lower Roll. If the rolls are not parallel, the formed metal will be conical in shape instead of cylindrical.
- Feed the stock to the rolls only from the front.
- As the front rolls grip the stock, lift the rear end of the metal upward. This will help reduce the flat spot on the leading edge of the sheet and will also cause the leading edge to pass over the rear roll readily.
- The diameter of the formed cylinder is determined by the position of the Rear Roll. To increase the diameter of a cylinder, lower the Rear Roll by turning the two rear Adjusting Screws (21) counter clockwise. To reduce the diameter of a formed cylinder, raise the Rear Roll by turning the two rear Adjusting Screws (21) clockwise. The two rear Adjusting Screws (21) should be turned an equal number of turns in order to keep the Rear Roll parallel with the front gripping rolls.
- To remove a cylindrical piece without distorting it, lift up the Locking Handle (29), raise the Right Hand Housing Cap (28) and turn the Cam Handle (33) down. This raises the outboard end of the Upper Roll and allows the formed cylinder to be slipped off of the Upper Roll.
- The Lower Roll and the Rear Roll have grooves of varying widths in one end. These are for the purpose of accommodating a wired edge when forming a shape or when forming wire into a ring.



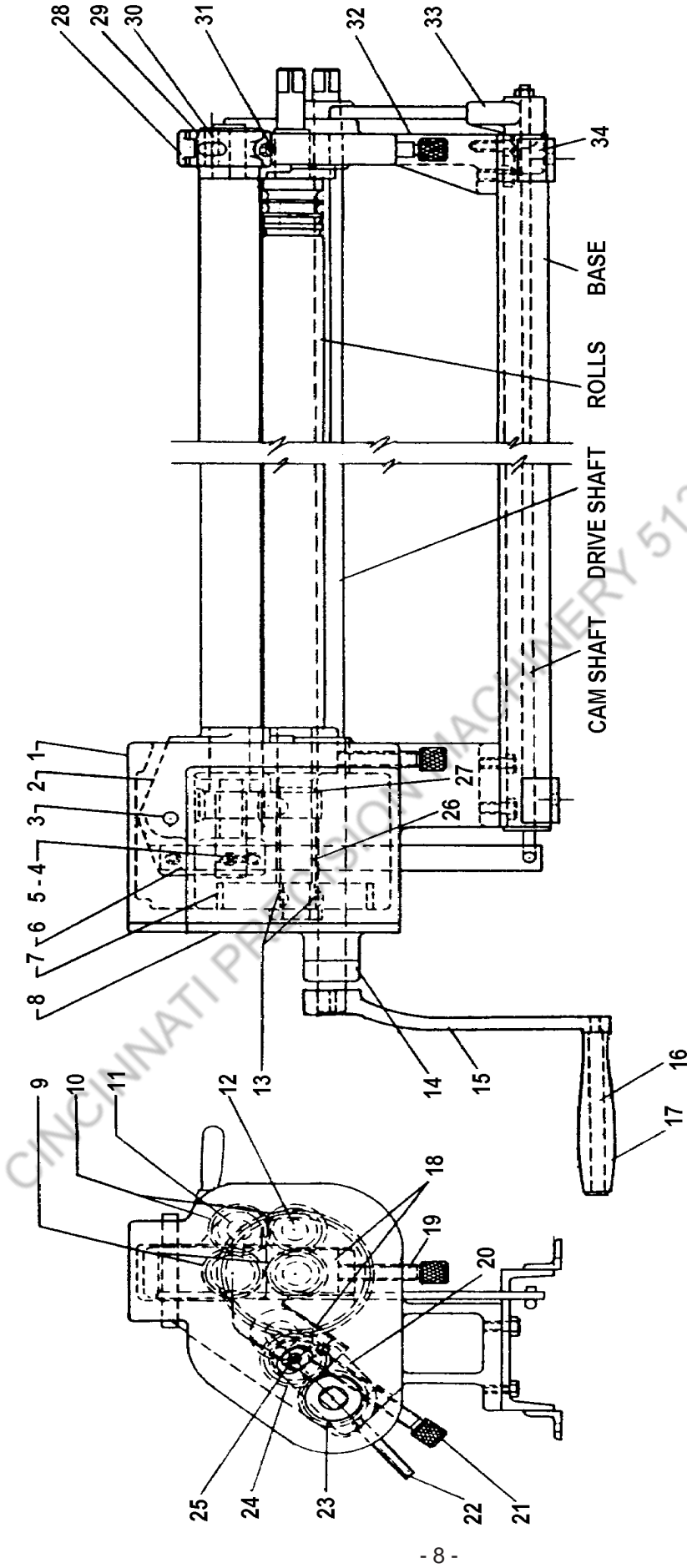
INTERCHANGEABLE PARTS LIST ---- 390, 391, 392

INDEX	CATALOG NO.	NAME	OLD PART NO.
1	267940021	L.H. Housing Assembly	16944
2	767170147	Rocking Box	11492
3	767160166	Pin	16946
4	767650045	Screw	11271
5	649023006	Nut	
6	767030162	Lifting Lever	11508
7	767380155	Gear	11500
8	767220146	Cover	16945
9	767380151	Conn. Gears	11496
10	267940022	Compensating Gears	11497
11	767680158	Stud	11503
12	767680159	Stud	11504
13	600123913	#12 Woodruff Keys	
14	767260161	Collars	11506
15	767210150	Hand Crank	11495
16	767210051	Stale	11266
17	767460052	Handle	11267
18	767170148	Roll Boxes	11493
19	767650175	Adj. Screws - Lower	10849
20	767010156	Idler Holder	11501
21	767650173	Adj. Screws - Rear	
22	767460160	Handle - Idler Holder	11505
23	767380153	Drive Pinion	11498
24	767380154	Idler Pinion	11499
25	767680157	Idler Pin	11502
28	267940020	Hinge Cap (Included in R.H. Housing Assy)	11510
29	767460163	Locking Handle	11511
30	767160063	Hinge Pin	11512
31	690012366	Locking Handle Screw	
32	267940020	R.H. Housing Assembly	11490
33	767210105	Cam and Handle	10848
34	767210104	Cam	10847

INDIVIDUAL PARTS LIST --- 390, 391, 392

MACH.	ROLLS			DRIVE SHAFT	CAM SHAFT	BASE
	UPPER	LOWER	REAR			
390	767630139	767630135	767630141	767680129	767030094	767060131
391	11529	11517	11520	11523	10877	11526
392	767630140	767630136	767630142	767680130	767030095	767060132

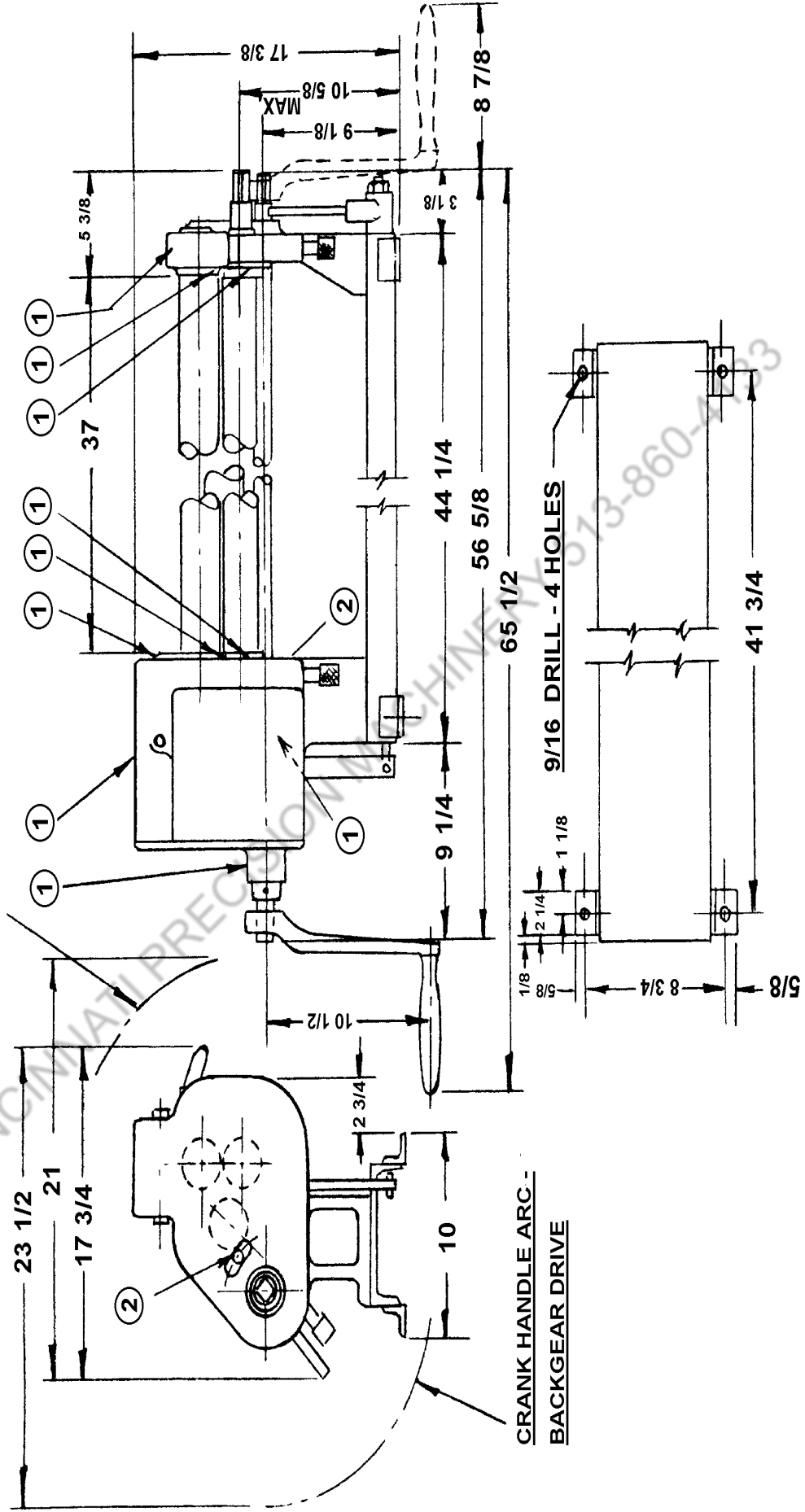
PARTS IDENTIFICATION CHART - SLIP ROLL FORMERS 390, 391, 392



WARNING: Before operating, machine must be bolted to work bench. If floor stand has been provided, machine must be bolted to floor stand with bolts provided. Stand must be securely lagged to floor.

FOUNDATION PLAN - 390 FORMER

- NOTE:** ROLL DIA 2 - 1/2"
CRANK HANDLE ARC - DIRECT DRIVE
- ① OIL HOLES - USE SAE #30 OIL
 - ② GREASE CUPS - ALEMITE #33 OR EQUAL



WEIGHT - 405 LBS.

LUBRICATION

All roll and gear bearing surfaces are equipped with standard grease fittings. Some of these grease fittings are only accessible by removing the top cover plate and the rear cover plate. These areas should be lubricated using a grease gun once each week. We recommend a good multipurpose grease. After every thirty days of operation, apply grease to the gears by removing the top cover plate and main housing end plate. Inspect all bolts and set screws on a regular basis to insure that they are secure.

We recommend that the rolls be lightly oiled when not in use to prevent rusting.

CINCINNATI PRECISION MACHINERY 513-860-4133