



Model R22 Shown

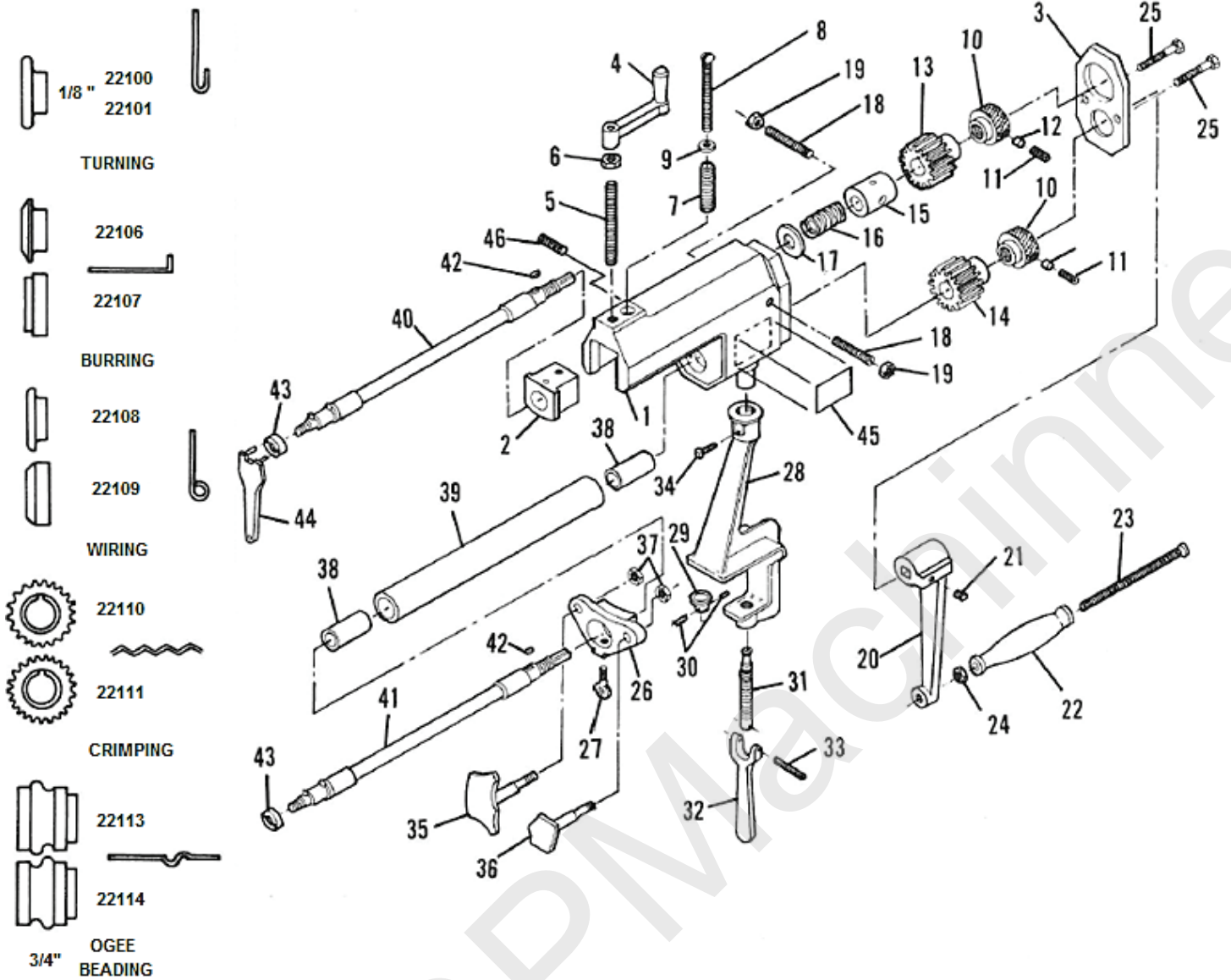
R22 Rotary Machine

Operation, Parts, and Maintenance Manual

Model:	Purchased From:
Serial #:	Date Received:

USA  MADE

R22 Parts Breakdown



ITEM NO.	PART NO.	DESCRIPTION	NO. REQ.	ITEM NO.	PART NO.	DESCRIPTION	NO. REQ.
1	27-40	MAIN HOUSING	1	24	27-63	NUT, HANDLE BOLT	1
2	27-41	FRONT UPPER BLOCK	1	25	27-64	SCREW, COVER PLATE	2
3	27-42	COVER PLATE	1	26	27-65	HOLDER, GAUGE	1
4	27-43	ADJ. LEVER	1	27	27-66	THUMB SCREW, GAGE HOLDER	1
5	27-44	ADJ. SCREW	1	28	27-67	BENCH STAND	1
6	27-45	NUT, ADJ. SCREW	1	29	27-68	SWIVEL, CLAMP	1
7	27-46	SPRING, FRONT BLOCK	1	30	27-69	PIN, CLAMP SWIVEL	2
8	27-47	SCREW, FRONT BLOCK SPRING	1	31	27-70	SCREW, CLAMP	1
9	27-48	WASHER, SPRING SCREW	1	32	27-71	HANDLE, CLAMP	1
10	27-49	NUT, ARBOR ADJ.	2	33	27-72	PIN, CLAMP HANDLE	1
11	27-50	SCREW, ARBOR ADJ. NUT LOCK	2	34	27-73	SET SCREW, BENCH STAND	1
12	27-51	SHIM, LOCK SCREW	2	35	27-74	GAUGE, TYPE "A"	1
13	27-52	GEAR, UPPER ARBOR	1	36	27-75	GAUGE, TYPE "B"	1
14	27-53	GEAR, LOWER ARBOR	1	37	27-76	LOCK NUT, GAUGE	2
15	27-54	ROCKING BOX	1	38	27-77	BUSHING, QUILL	2
16	27-55	SPRING, ARBOR	1	39	27-78	QUILL	1
17	27-56	WASHER, ARBOR SPRING	1	40	27-79	UPPER ARBOR	1
18	27-57	PIVOT SCREW, ROCKING BOX	2	41	27-80	LOWER ARBOR	1
19	27-58	NUT, PIVOT SCREW LOCK	2	42	27-81	WOODRUFF KEY, ARBOR	2
20	27-59	HANDCRANK	1	43	27-82	RETAINER NUT, ARBOR	2
21	27-60	SCREW, HANDCRANK LOCK	1	44	27-83	SPANNER WRENCH	1
22	27-61	HANDLE, HANDCRANK	1	45	27-84	NAME PLATE	1
23	27-62	BOLT, HANDLE	1	46	27-85	SCREW, QUILL LOCK	1

FORWARD

This manual has been prepared for the owner and operators of the TENNSMITH R22 Rotary machine. Its purpose, aside from operational instructions, is to promote safety through the use of accepted operating procedures. Read all instructions thoroughly before operating the R22 rotary machine.

Also contained in this manual is the parts list for your rotary machine. It is recommended that only TENNSMITH or factory authorized parts be used for replacement parts.

SAFETY PRECAUTIONS

1. Know the safety and operating instructions contained in this brochure. Become familiar with and understand the limitations of this rotary machine. Always practice safety.
2. Wear approved eye safety protection such as glasses, goggles, etc. when operating the cleat bender to protect your eyes.
3. Wear protective foot wear or safety shoes. Jewelry such as rings and watches should be removed when operating the machine.
4. Keep your hands clear of the forming rolls when operating the machine.
5. Be certain that the bench stand is securely clamped to the work bench and that the machine is securely bolted into the bench stand. The work bench on which the bench stand is mounted should be bolt to the floor.
6. Keep the work area around the machine clear and clean to avoid slipping or tripping.
7. Do not exceed the capacity of this machine which is 22 gauge (0.030 inches) mild steel.



RECEIVING THE MACHINE

Upon receipt closely examine the R22 rotary machine for damage during shipment. Any loss or damage should be noted in detail on the delivery receipt and reported to your distributor immediately.

INSTALLING THE MACHINE

Locate the machine in a well lighted area on a solid work bench which is bolted to the floor. Clamp the bench stand (27-67) to the work bench using the clamp handle (27-71). Place the main housing (27-40) boss into the cup on the top of the bench stand and tighten the set screw (27-73) to hold the machine in place.

ADJUSTING THE MACHINE

The R22 can be used for turning, burring, wiring, crimping and beading. The rolls are mounted on the arbors (27-29, 27-80) and are secured in place by the arbor retaining nuts (27-82). Use the spanner wrench (27-83) to tighten/loosen the arbor retaining nuts.

The hand crank assembly (27-59) is mounted on the end of the upper arbor (27-79) for burring and wiring operations. The hand crank assembly is mounted on the lower arbor (27-80) for crimping, beading and turning operations. The hand crank can be secured in place by tightening the set screw (27-60).

The adjusting screw and lever (27-43, 27-44) is used to move the upper arbor (27-79) and upper roll toward or away from the work piece and the lower roll. This adjustment controls the forming pressure of the rolls.

The upper arbor is laterally adjustable by loosening the set screw (27-50) and turning the arbor adjusting nut (27-49) clockwise or counter clockwise until the rolls are aligned. Be certain to retighten the set screw after the adjustments are made. End play of the lower arbor can be eliminated by a similar adjustment of the set screw and adjusting nut on the lower arbor.

The upper arbor (27-50) is also adjustable from side to side for alignment of the meshing of the crimping rolls. Loosen the pivot screw lock nuts (27-58) and turn the rocking box pivot screws (27-57) to align the crimping rolls. Retighten the lock nuts after the adjustment is made.

OPERATING THE MACHINE

The R22 is equipped with two gauges. The type "A" gauge (27-74) is used with the crimping rolls (22110 22111). The type "B" gauge is for use with all other rolls. Only one gauge should be installed on the gauge holder (27-65) during operation.

The gauge position is adjustable by positioning the gauge holder on the quill (27-78) and securing in place by tightening the thumb screw (27-66).

With the rolls for the desired operation in place on the upper and lower arbors feed the work piece between the rolls while turning the hand crank (27-59). Adjust the forming pressure with the adjusting lever (27-43). The material may be passed through the rolls several times to achieve the desired result.

PRECAUTIONS

ALWAYS keep the machine securely bolted in to the bench stand.

DO NOT try to force material through the rolls as damage to the machine may result. Use progressive pressure and repeated passes as necessary.

MAINTENANCE

Set up a weekly maintenance program for your rotary machine. Check all nuts, bolts, and set screws for tightness. Examine all moving parts for adequate lubrication. The moving parts of the rotary machine should be lubricated periodically and as necessary to maintain ease of operation and prolong the life of your machine. The gears should be oiled with a good grade of 30 weight machine oil.

ORDERING PARTS

When ordering parts please furnish the model number and the serial number of you machine.



Model R22 Rotary Machine Specification

Model	R22
Maximum capacity, mild steel	22 ga / 0,75 mm
Throat	7 in / 177 mm
Distance, shaft center to center	2 in / 50 mm
Shipping Weight	67 lbs / 30 kg

3-YEAR LIMITED WARRANTY

TENNSMITH machinery and component parts are carefully inspected at various stages of production and are tested and inspected prior to shipment. We agree that for a period of twelve (12) months from the date of delivery from our authorized distributor to replace, at our option, any machine (or component part thereof) proving defective within the above period. Additionally, we agree that for a period of thirty-six (36) months from date of delivery to replace component parts proving defective within the stated period. All warranty claims are made F.O.B. our plant, providing such machine (or component part) is returned freight prepaid to our plant, or a designated service center of the undersigned, for our examination. This warranty does not include repair or replacement required because of misuse, abuse, or because of normal wear and tear; or electrical components which are warranty by their manufacturer. Further, we cannot be responsible for the cost of repairs made or attempted outside our factory or designated service center without our authorization. No claims for defects will be honored if the name and data plate has been removed. This warranty is made expressly in place of all other warranties or guarantees express or implied, with respect to fitness, merchantability, quality or operative ness. This warranty becomes effective only when the accompanying warranty card is fully and properly filled out returned to the factory within ten (10) days from date of delivery.