

TIN KNOCKER

TK 20 GA. PITTS ROLLFORMER

INSTRUCTIONS & PARTS DIAGRAM



RED RIVER MACHINERY
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TIN KNOCKER SAFETY RULES PITTSBURGH ROLL FORMER

1. **WARNING:**

Electrical Danger---Misuse or improper installation of machinery connected to a source of electricity may result in accidental shock that could cause injury or death. Installation must conform to National Electric Code (Article 250- Grounding, etc.)

A trained and qualified electrician must make electrical connections. Electrical characteristics shown on motor plate and control panel must match the power source; and all electrically powered equipment must be grounded.



2. **WARNING:**

Mechanical Danger- The power driven forming rolls rotate at all times when power is supplied to the motor. Never place any part of the body including loose clothing near or onto the rotating rolls. (KEEP HANDS AWAY). Failure to comply will lead to personal body injury.



3. Never clean forming rolls while rolls are rotating—turn power off to clean rolls.
4. 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.
5. Do not operate roll former without reading operator's Manual and without proper supervisory instructions.
6. Perform all installation and set-up operations before applying power for electrical start-up.
7. Never operate machine with any guard removed; i.e., all required guarding to be installed and effective. Do not override the safety features of the equipment. Do not remove, paint over, alter, or deface any machine-mounted warning and instruction plates and signs.
8. Never leave machine running unattended. When not in use, turn off electrical power.
9. Never adjust machine with power on.
10. Avoid accidental start-up.
11. Do not use machine if servicing is required.
12. Use safety glasses and required protective tools.
13. Keep work areas clean and in proper order.

14. 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.

WARRANTY

All new machines are sold with a one-year limited warranty, on factory defective parts. The warranty is limited to the original user. TAAG Machinery Co. at its option, will repair, replace or refund the purchase price of any part, tool or machine that fails during the warranty period. TAAG Machinery Co. will pay normal shipping charges for replacement parts. After 90 days from date of purchase, all express or overnight delivery charges are the responsibility of the customer. Purchaser must deliver to TAAG Machinery Co., at the address below, any written claim, with proof of original purchase. Replacement parts will be invoiced to purchaser and credit issued when the failed part is delivered to TAAG Machinery Co. Removal, reinstallation or replacement parts shall be at purchasers' / user's expense. Failure due to improper use of the machine voids the warranty.

NOTE: 1. This machine has been tested and adjusted prior to shipment, but can and often does require readjustment due to vibration and bouncing during transport. Following the procedures described within can easily do readjustment. These are procedures with which you, as a user, should be familiar, as you will use them repeatedly over the life use of the machine. If you have difficulty in performing these procedures, we are here to support you.

2. Opening rolls (for Philipsburg Lock) are consumable items and not subject to warranty.

Operating Instructions

Holding the material against the angle gauge slide it into the forming head, be sure that the material remains against the gauge until work is finished.

Note: This machine will handle 7" and longer. If shorter, leave on long piece- notch and cut later.

Make " Hold-Down Adjustment" to meet any variation in the material of your locality.

Do not adjust unless material slips, tends to leave gauge, or curls up at finish.

TO ADJUST:

1. Remove top cover.
2. Tighten hold-down studs until snug and then loosen them a quarter turn. (This setting will usually give proper adjustment for all thickness of material).
3. *If the material slips*, tighten the studs *equally* until the condition is overcome. *If the material curls up* after leaving the forming head, or shows *extremely heavy pressure marks*, loosen studs slightly.

If a wider or narrower hammer-over edge is desired, the angle gauge on the right hand side can be moved to give the desired width. When moving this gauge, be sure to move both ends the same distance, keeping it parallel to the front edge of the top plate to the machine. DO NOT MOVE ANGLE GAUGE ON THE LEFT OR FINISHING END OF THE MACHINE. THESE GAUGES ARE NOT INTENDED TO TOUCH THE MATERIAL AS IT COMES THROUGH.

It is very important that long sheets be fed into the machine flat and against the angle gauge for the start.

Important: If proper care is taken, the small knife-edge roll that holds the pocket of the Pittsburgh Lock open will not break. If burrs and twists from snip cuts are not flattened out, it will sometimes strike against the opening roll causing it to break. (Reminder: Opening rolls are a consumable item and not subject to warranty.)

SPECIFICATIONS

GENERAL: This 5 station Pittsburgh lock roll former is offered with choice of Drive Cleat Acme or Right Angle Flange rolls on the other outbound side. Powered by a 1 H.P. motor with V-belt drive, this machine is built for dependability.

CAPACITY: 20 Ga. – 26 Ga.

DIMENSIONS: 40”L x 24”W x 44”H

SPEED: Approx. 25 FPM

MOTOR: 1 HP, 115/230 Volt, 1800 RPM

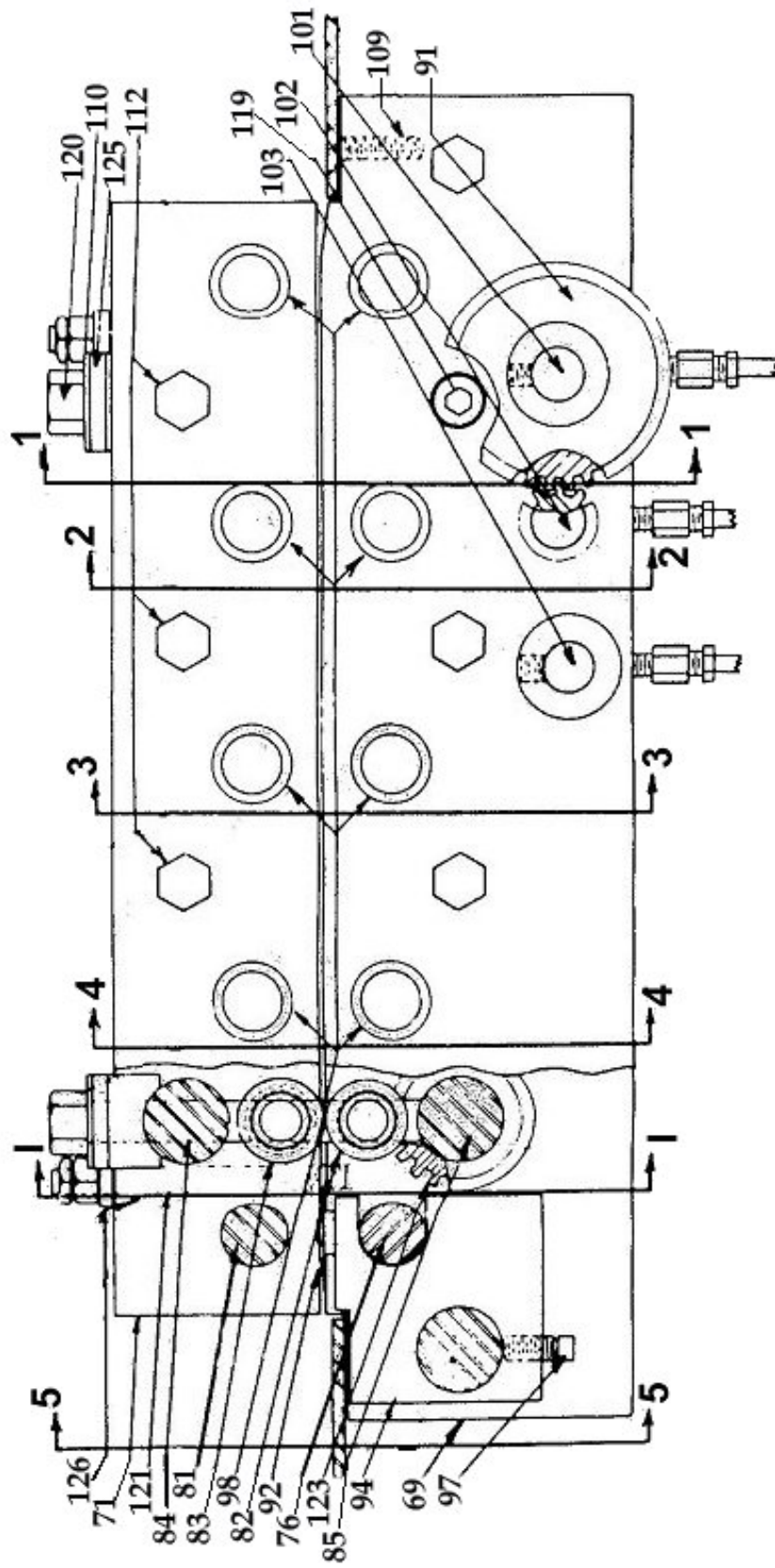
POCKET DEPTH: 5/16”

SHIPPING WEIGHT: 305 lbs.

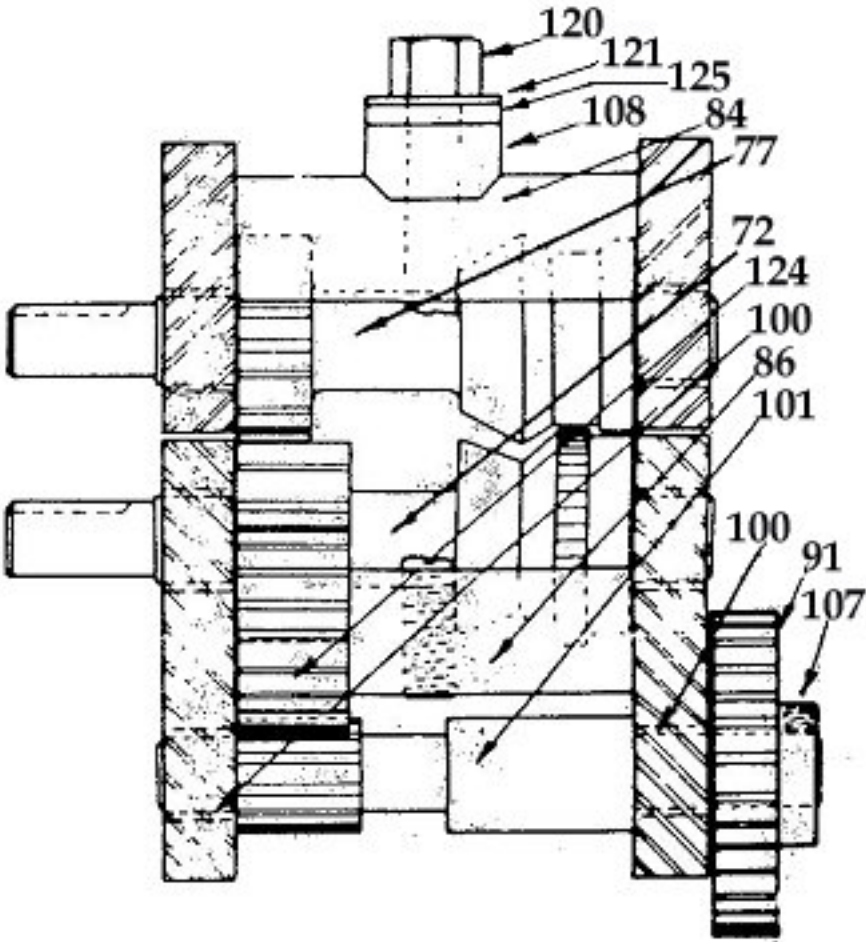
Lubrication

There are six grease fittings located on the side panel of the machine (auxiliary roll side). These fittings lubricate the main reduction bearings and should be lubricated after every four hours of operation. Recommended lubricant: Standard Viscous #3 (Product of the Standard Oil Company) or equivalent. The slow speed shafts do not require additional lubrication. Grease gears periodically or as needed. If machine is to be used out of doors, and oil or grease film will prevent rusting of surfaces. Rolls should be sprayed daily with a galvanize remover to prevent build up of galvanized material on the rolls.

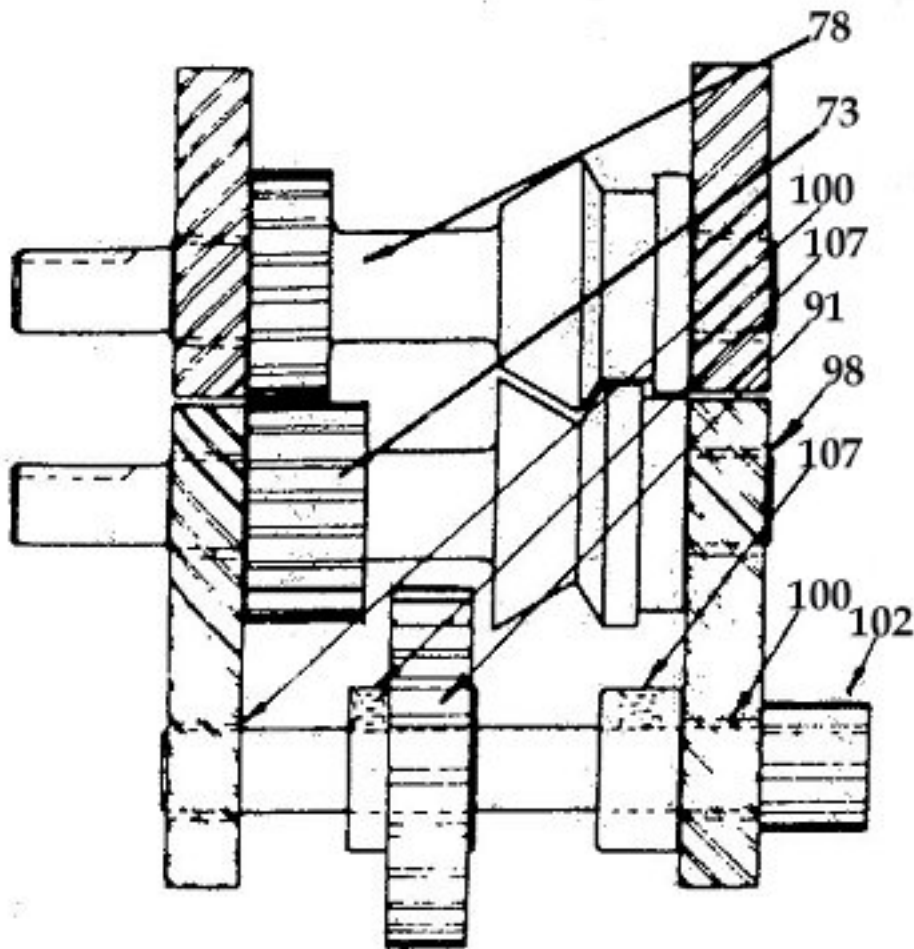
20 GAUGE ASSEMBLY



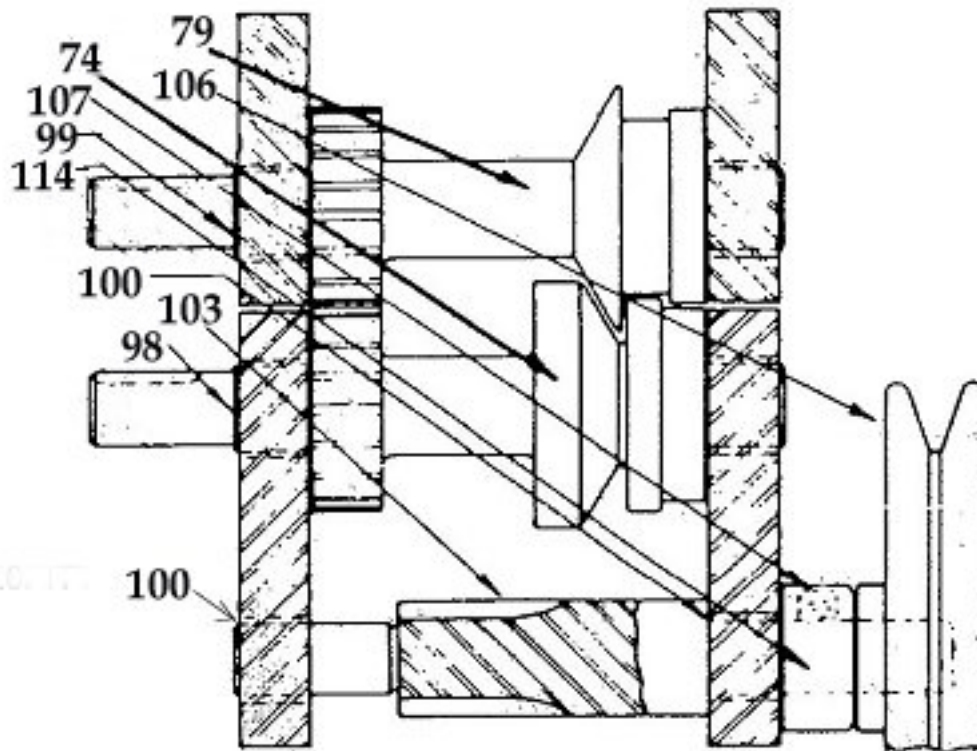
SHOWING ROLL SET "1"
AND 3RD DRIVE GEAR



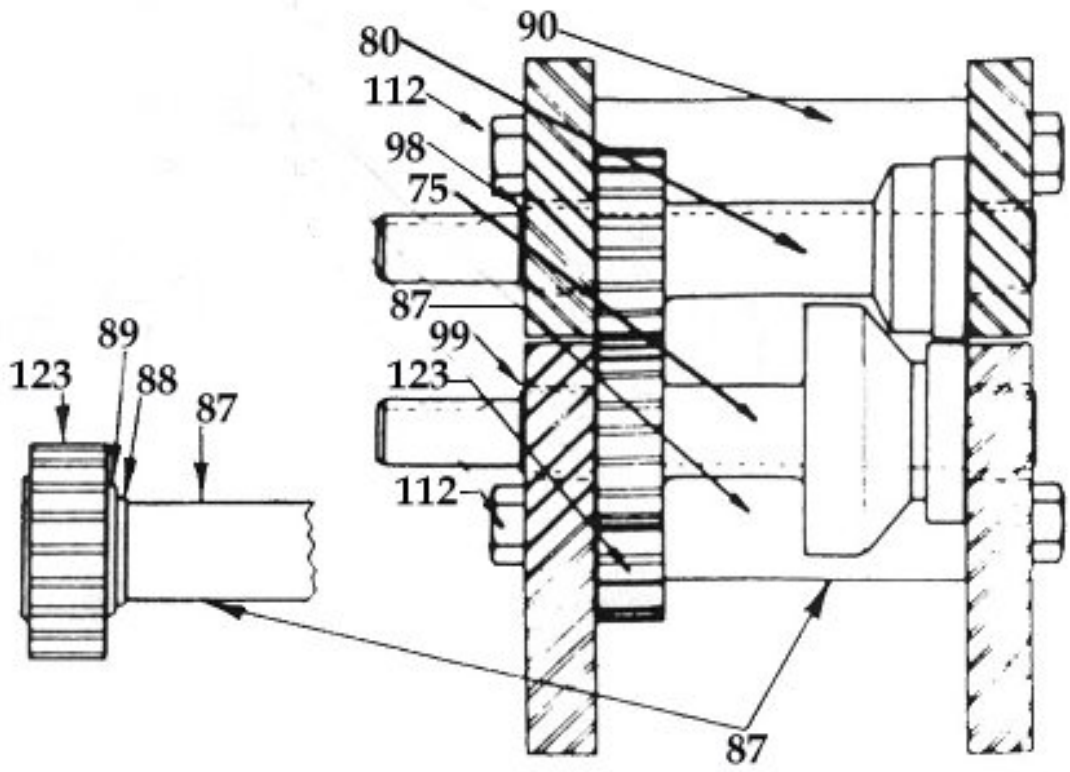
**SHOWING ROLL SET "2"
AND 2nd DRIVE GEAR**



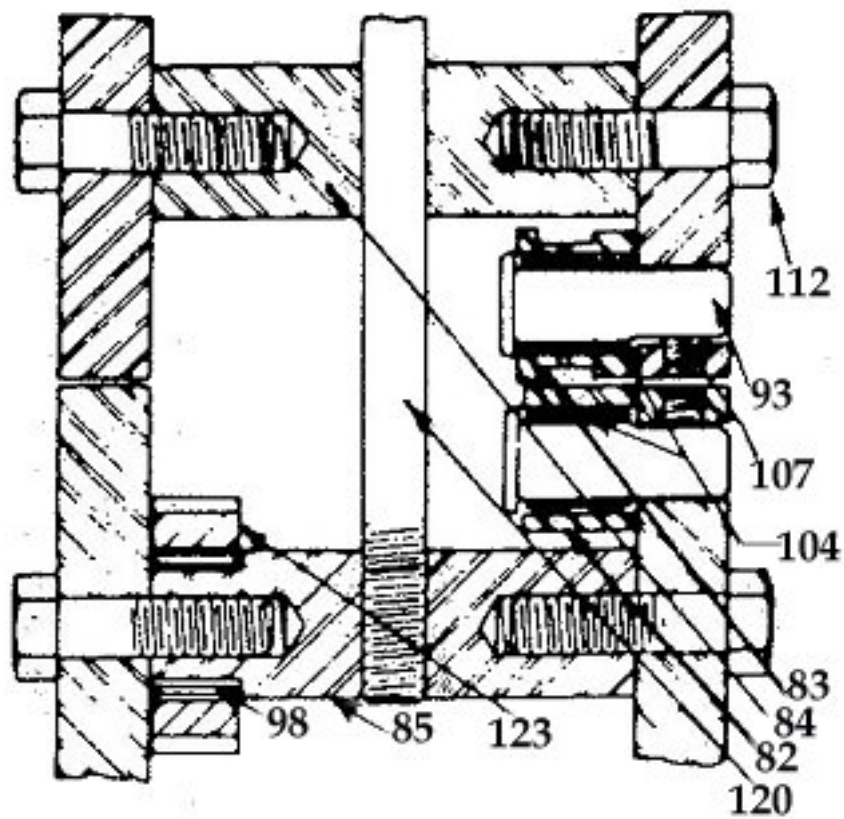
SHOWING, ROLL SET "3"
AND 1st DRIVE GEAR



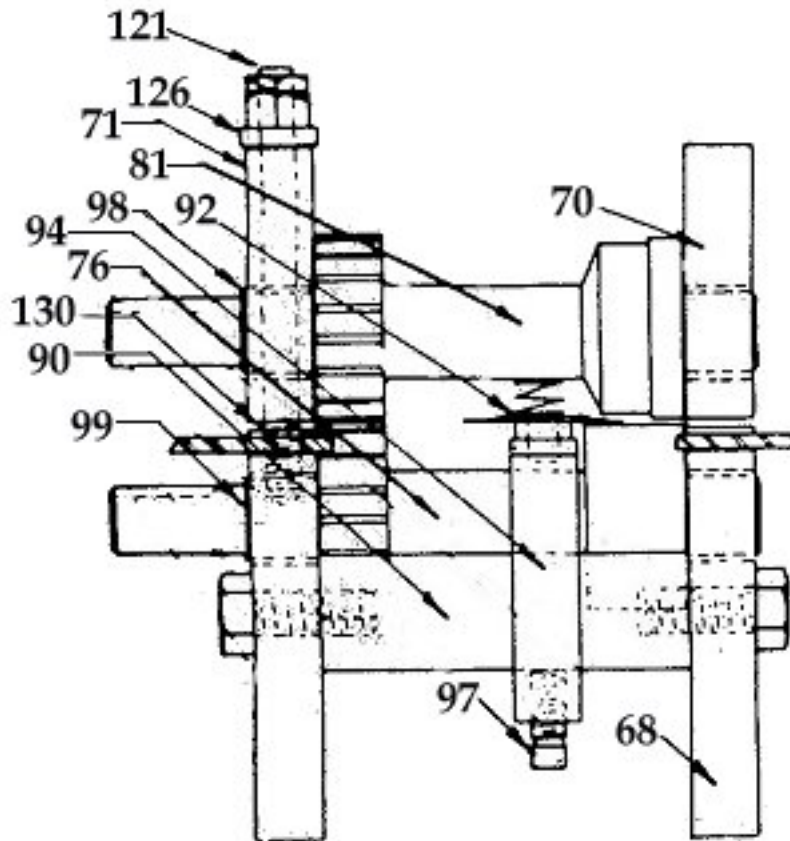
SHOWING ROLL SET "4"
AND PLAIN & STEPPED
SPACERS



**SHOWING IDLER ROLL SET "I"
AND GEAR, STEPPED SPACER
AND HOLD DOWN STUD**



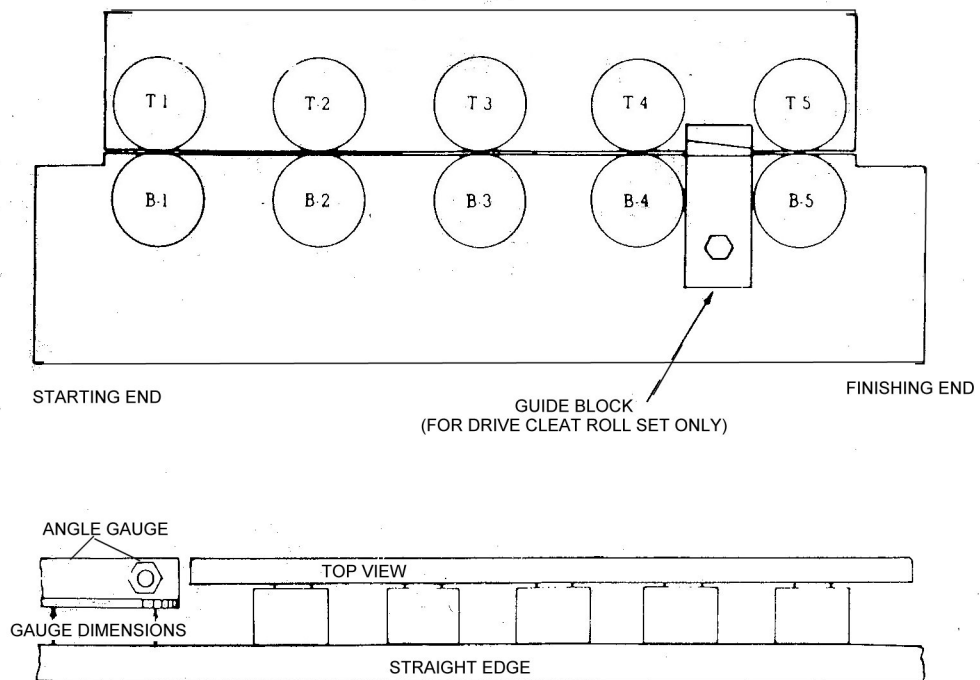
SHOWING ROLL SET "5"
AND OPENING ROLL



Instructions for Installing Auxiliary Rolls

Acme or Straight Right Angle Flange Rolls

1. Remove top cover.
2. Remove rear section of top plate. This will expose the extended shafts on which the rolls are to be mounted.
3. Select the first pair of rolls, which are marked "T1" and "B1", and slip them on the shafts at the left, or feed side of the machine, placing "T1" on the upper shaft and "B1" on the lower. Repeat this procedure with rolls "T2" and "B2"; "T3" and "B3"; "T4" and "B4"; "T5" and "B5" until all rolls have been mounted. All rolls marked "T" should be on the top shafts and "B" rolls on the bottom shafts, in numerical order, reading from left to right, facing shafts. **THE NUMBERED SIDES MUST FACE OUTWARD, OR TOWARD THE OPERATOR.**
4. Fasten rolls to shafts with cap screws and special washers, which are provided.
5. Mount gauge on starting side of machine, using slotted holes provided in top plate. The position of this gauge is shown on the next page (Gauge Dimensions). The angle gauge on the finishing side should be flush against the metal as it emerges from the rolls.
6. Replace back plate and top cover.
7. Hold material against gauge and feed in to machine.



GAUGE DIMENSIONS ARE:

For Acme Rolls1 1/8 inch

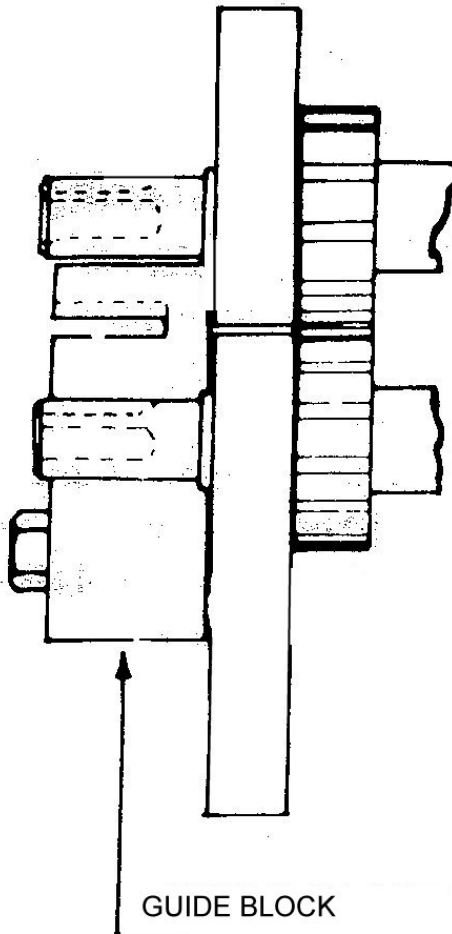
For right angle flange rolls....1-1/16 inch

For drive cleat rolls install guide block with it inner edge in line with outer edge of rolls.

DRIVE CLEAT ROLLS

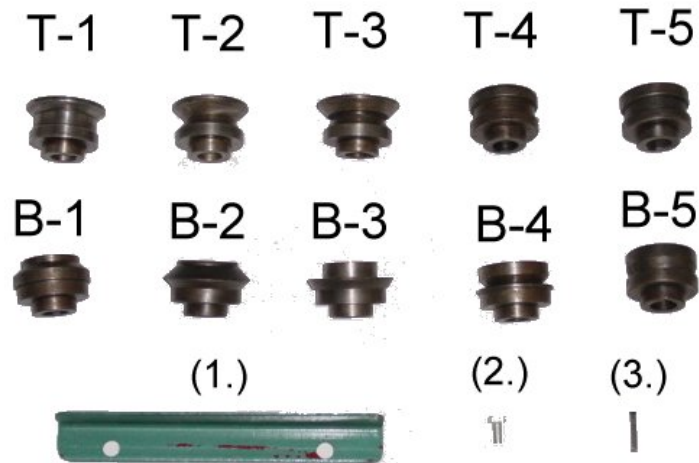
1. Proceed as instructed for Acme Rolls, but leave roll "T-2" loose. This roll centers itself and should not be held in place with cap screw. Square keys are used in all cases, however.
2. Remove stud indicated by arrow at right (this is located between "B4" and "B5") and place the slide block in position, securing it with the 3" stud furnished. **CAUTION: ALWAYS REMOVE THE SLIDE BLOCK AND REPLACE THE SHORT STUD WHEN TAKING THE DRIVE CLEAT ROLLS OFF THE MACHINE.**
3. Mount the feed gauge on left hand slide so that it is exactly centered on the rolls. **THIS IS VERY IMPORTANT!** If it is not centered, the cleat will not be perfect.
4. Tighten small hold-down studs so that "T5" and "B5" do not separate when drive cleats are passing through.

IMPORTANT: Be sure to cut your material a full 2 1/8" wide to insure a perfect cleat.



Kit number: 695000592

ACME Rolls Kit.



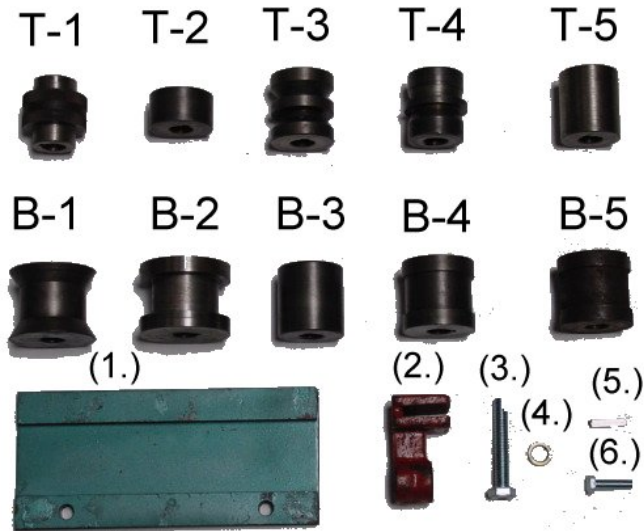
1. Angle Guide Bracket
2. Hex Bolt M8-1.25 x 15 mm (qty.10)
3. Key 33.0mm long (qty.10)

ACME:

695000592	ACME ROLLS KIT
795000150	T-1 ACME ROLL
795000151	T-2 ACME ROLL
795000152	T-3 ACME ROLL
795000153	T-4 ACME ROLL
795000154	T-5 ACME ROLL
795000155	B-1 ACME ROLL
795000156	B-2 ACME ROLL
795000157	B-3 ACME ROLL
795000158	B-4 ACME ROLL
795000159	B-5 ACME ROLL
795200148	ANGLE GUIDE BRACKET
695012772	HEX BOLT M8-1.25 X 15MM
795530149	KEY 33.0MM LONG
20PITTS2012	Moon Washers

KIT NUMBER
695000591

Drive Cleat Rolls Kit

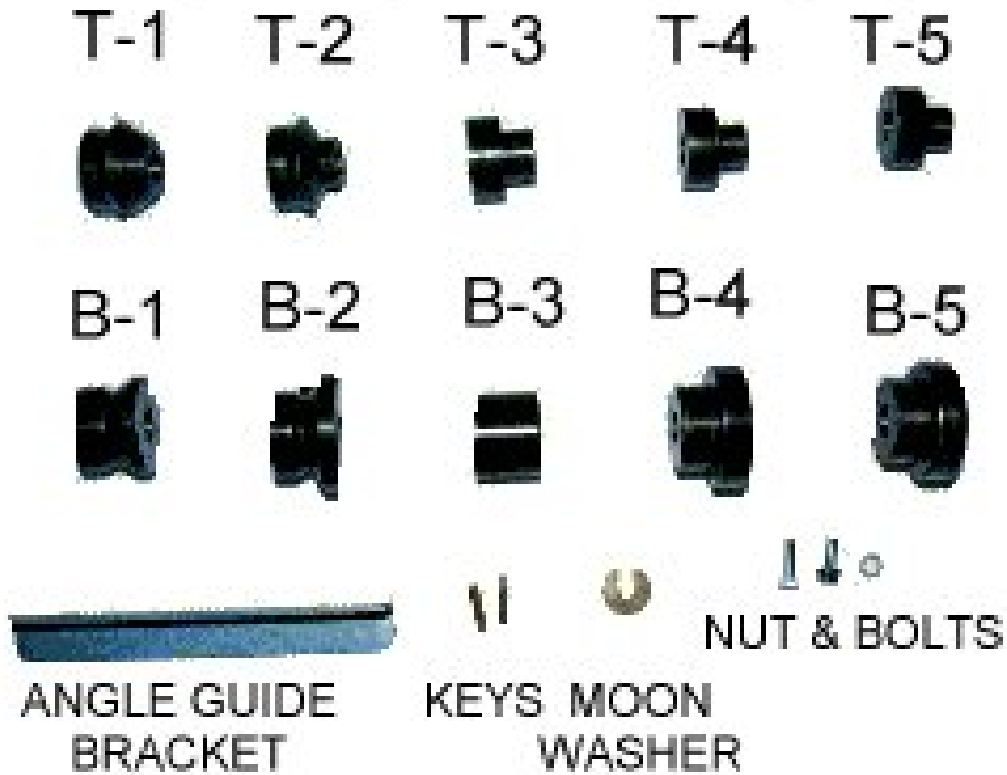


1. Guide Bracket
2. Cleat Roll Guide Bracket
3. Hex Bolt M12-1.5 x 70 mm (qty.1)
4. Lock Washer 12 mm (qty.1)
5. Key 33.0mm long (qty.10)
6. Hex Bolt M8-1.25 x 30mm (qty.10)

DRIVE CLEAT:

695000591 DRIVE CLEAT ROLLS KIT
795000138 T-1 DRIVE CLEAT ROLL
795000139 T-2 DRIVE CLEAT ROLL
795000140 T-3 DRIVE CLEAT ROLL
795000141 T-4 DRIVE CLEAT ROLL
795000142 T-5 DRIVE CLEAT ROLL
795000143 B-1 DRIVE CLEAT ROLL
795000144 B-2 DRIVE CLEAT ROLL
795000145 B-3 DRIVE CLEAT ROLL
795000146 B-4 DRIVE CLEAT ROLL
795000147 B-5 DRIVE CLEAT ROLL
795200135 GUIDE BRACKET
795200136 CLEAT ROLL GUIDE BRACKET
695012803 HEX BOLT M12-1.5 X 70MM
686033185 LOCK WASHER 12MM
795530137 KEY 33.0MM LONG
668012793 HEX BOLT M8-1.25 X 30MM
20PITTS2012 Moon Washers

KIT NUMBER: TK20PITTS2001
 RIGHT ANGLE FLANGE ROLLS



RIGHT ANGLE ROLLS:

TK20PITTS2001	RIGHT ANGLE ROLL KIT	
TK20PITTS2002	T-1 RIGHT ANGLE ROLL	
TK20PITTS2003	T-2 RIGHT ANGLE ROLL	
TK20PITTS2004	T-3 RIGHT ANGLE ROLL	
TK20PITTS2005	T-4 RIGHT ANGLE ROLL	
TK20PITTS2006	T-5 RIGHT ANGLE ROLL	
TK20PITTS2007	B-1 RIGHT ANGLE ROLL	
TK20PITTS2008	B-2 RIGHT ANGLE ROLL	
TK20PITTS2009	B-3 RIGHT ANGLE ROLL	
TK20PITTS2010	B-4 RIGHT ANGLE ROLL	
TK20PITTS2011	B-5 RIGHT ANGLE ROLL	
795200148	ANGLE GUIDE BRACKET	qty. 2
795530149	KEY 33.0 mm LONG	qty. 10
TK20PITTS2012	MOON WASHERS	qty. 10
695012772	HEX BOLT M8-1.25 X 15mm	qty. 10
TK20PITTS2013	HEX BOLT M8-1.25 X 10mm	qty. 4
TK20PITTS2014	HEX NUTS M8-1.25	qty. 4

Flanging Attachment 20 GAUGE PARTS LIST

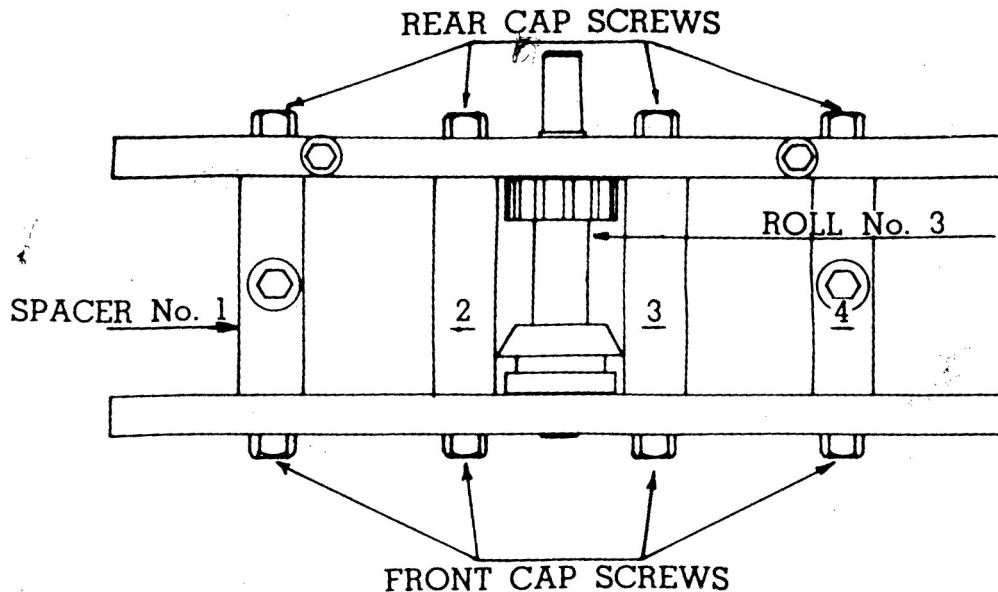


Flanging Attachment for Tin Knocker Model 20

To Install Power Flanging Attachment

1. Remove top cover from Tin Knocker
2. Loosen front cap screws on spacers No. 1 and 4
3. Remove spacers No. 2 and 3 by taking out front and back caps screws
4. Set flanging attachment over the forming head so that the combination bevel and spur gear meshes with the gear on Pittsburgh Lock roll No. 3
5. Fasten flanging attachment with the cap screws which held spacers No. 2 and 3 in place

CAUTION: Be sure to tighten all cap screws!

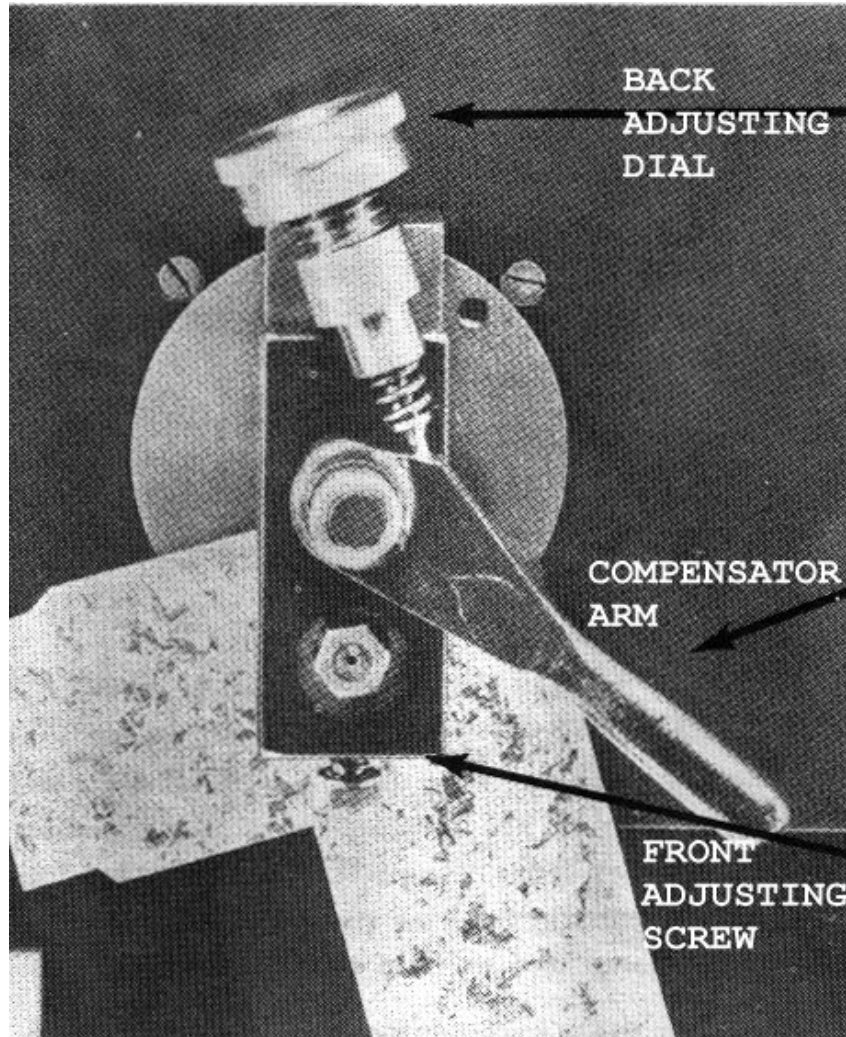


To Operate Power Flanging Attachment

Adjust Unit For Gauge Material To Be Used

To adjust clearance between flanging rolls, tighten the adjusting screw on the front of the block of the machine all the way, then loosen the screw approximately one eighth of a turn. (This setting is usually correct for 26-gauge material) Do not set front gauge adjusting screw too tight. It should be set just tight enough to draw the metal through the rolls. Too tight a setting will stretch and wrinkle the material.

To adjust the spring tension on the compensator arm, tighten the adjusting dial on the backside of the flanger to the stop and then turn back to the proper gauge setting shown on the adjusting dial.



Turn Up A "Starting Flange"

on the material before inserting it into the rolls. This is done by inserting the leading edge of the work to be flanged in the slot cut into the table and bending the piece away from the operator approximately 45°. Start the leading edge of the material into the rolls. As the material passes through the rolls, the compensator arm will make contact with the material and guide it through the rolls. If the material pulls out of the rolls, it is an indication that either the front adjusting screw is too loose or the back adjusting dial is not tight enough.

Important

When starting a partially formed section that contains an inside curve, push the compensator arm back until it locks out of position. Feed partially formed section into the rolls and the machine will pull the material through. As the rolls approach the section that is not formed, bring the compensator arm to the material holding the spring tension off the piece until the unformed section comes to the rolls; then bear pressure to the piece until the flange picks up, then release compensator arm so that "automatic" guiding is resumed.

Parts For 20 Gauge Pitts

Machine Name	Fine No.	Part No.	Description	No. REQ'D.
TK20 PITTS	1	20P668012793	Hex Bolt M8-1.25 x 30 mm	10
TK20 PITTS	2	20P686033185	Lock washer 12 mm	1
TK20 PITTS	3	20P695000591	DRIVE CLEAT ROLLS KIT	1
TK20 PITTS	4	20P695000592	ACME ROLLS KIT	1
TK20 PITTS	5	20P695012772	HEX BOLT M8-1.25 X 15MM	10
TK20 PITTS	6	20P695012803	HEX BOLT M12-1.5 X 70MM	1
TK20 PITTS		20P79503003	FEED GAUGE BAR 1	1
TK20 Pitts	7	20P795000138	T-1 DRIVE CLEAT ROLL	1
TK20 PITTS	8	20P795000139	T-2 DRIVE CLEAT ROLL	1
TK20 PITTS	9	20P795000140	T-3 DRIVE CLEAT ROLL	1
TK20 PITTS	10	20P795000141	T-4 DRIVE CLEAT ROLL	1
TK20 PITTS	11	20P795000142	T-5 DRIVE CLEAT ROLL	1
TK20 PITTS	12	20P795000143	B-1 DRIVE CLEAT ROLL	1
TK20 PITTS	13	20P795000144	B-2 DRIVE CLEAT ROLL	1
TK20 PITTS	14	20P795000145	B-3 DRIVE CLEAT ROLL	1
TK20 PITTS	15	20P795000146	B-4 DRIVE CLEAT ROLL	1
TK20 PITTS	16	20P795000147	B-5 DRIVE CLEAT ROLL	1
TK20 PITTS	17	20P795000150	T-1 ACME ROLL	1
TK20 PITTS	18	20P795000151	T-2 ACME ROLL	1
TK20 PITTS	19	20P795000152	T-3 ACME ROLL	1
TK20 PITTS	20	20P795000153	T-4 ACME ROLL	1
TK20 PITTS	21	20P795000154	T-5 ACME ROLL	1
TK20 PITTS	22	20P795000155	B-1 ACME ROLL	1
TK20 PITTS	23	20P795000156	B-2 ACME ROLL	1
TK20 PITTS	24	20P795000157	B-3 ACME ROLL	1
TK20 PITTS	25	20P795000158	B-4 ACME ROLL	1
TK20 PITTS	26	20P795000159	B-5 ACME ROLL	1
TK20 PITTS	27	20P795200135	GUIDE BRACKET	1
TK20 PITTS	28	20P795200136	CLEAT ROLL GUIDE BRACKET	1
TK20 PITTS	29	20P795200148	ANGLE GUIDE BRACKET	2
TK20 PITTS	30	20P795530137	Key 33.0 mm Long	10
TK20 PITTS	31	20P795530137A1	Key 33.0 mm Long, Modified	10
TK 20 PITTS	31	20P795530149	KEY 33.0 mm Long	10
TK20 PITTS	32	20PITTS001	Cast Iron Base	1
TK20 PITTS	33	20PITTS002	Steel Forming Head	1
TK20 PITTS	34	20PITTS003	Thumb Head Screw	1
TK20 PITTS	35	20PITTS004	Special Machine Key -	1
TK20 PITTS	36	20PITTS005	Compression Spring 3/8 ID	1
TK20 PITTS	37	20PITTS006	Cover	1
TK20 PITTS	38	20PITTS007	Gear Bevel	1
TK20 PITTS	39	20PITTS008	Gear Comb. Spur & Bevel	1
TK20 PITTS	40	20PITTS009	Lifter Plug	1
TK20 PITTS	41	20PITTS010	Knurled Forming Roll	1
TK20 PITTS	42	20PITTS011	Plain Forming Roll	1
TK20 PITTS	43	20PITTS012	Spacer Plate	1
TK20 PITTS	44	20PITTS013	Dowel Pin 15.875 x 57.15 mm	1
TK20 PITTS	45	20PITTS014	Hex Bolt M10-1.5 x 40 mm	2

TK20 PITTS	46	20PITTS015	Inner Race Assembly	1
TK20 PITTS	47	20PITTS016	Roll Shaft	1
TK20 PITTS	48	20PITTS017	Bearing B1020	2
TK20 PITTS	49	20PITTS018	Hex Nut M12-1.75	1
TK20 PITTS	50	20PITTS019	Adjustable Guide Roll	1
TK20 PITTS	51	20PITTS020	Hex Bolt M10-1.5 x 50 mm	4
TK20 PITTS	52	20PITTS021	Gear	2
TK20 PITTS	53	20PITTS022	Lock Washer 10 mm	4
TK20 PITTS	54	20PITTS023	Washer 10mm	2
TK20 PITTS	55	20PITTS024	Phillips Head Stove Bolt M6-1 x15mm	4
TK20 PITTS	56	20PITTS025	Key 4.76 SQ. x 38.1 mm	1
TK20 PITTS	57	20PITTS029	Bearing Torr. B108	4
TK20 PITTS	58	20PITTS030	61 Woodruff Key Modified	1
TK20 PITTS	59	20PITTS031	Compensator Arm	1
TK20 PITTS	60	20PITTS032	Tension Screw Nut	1
TK20 PITTS	61	20PITTS033	Gauge Dial	1
TK20 PITTS	62	20PITTS034	Tension Screw	1
TK20 PITTS	63	20PITTS035	Tension Spring Push Rod	1
TK20 PITTS	64	20PITTS037	Spring	1
TK20 PITTS	65	20PITTS040	Collar 15.875 mm	1
TK20 PITTS	66	20PITTS043	Steel Washer 15.875 x 1.5875 mm	2
TK20 PITTS	67	20PITTS044	Sensory Casting	1
TK20 PITTS	68	20PITTS060	Lower Front Plate	1
TK20 PITTS	69	20PITTS061	Lower Back Plate	1
TK20 PITTS	70	20PITTS062	Upper Front Plate	1
TK20 PITTS	71	20PITTS063	Upper Back Plate	1
TK20 PITTS	72	20PITTS064	Bottom Forming Roll # 1	1
TK20 PITTS	73	20PITTS065	Bottom Forming Roll # 2	1
TK20 PITTS	74	20PITTS066	Bottom Forming Roll # 3	1
TK20 PITTS	75	20PITTS067	Bottom Forming Roll # 4	1
TK20 PITTS	76	20PITTS068	Bottom Forming Roll # 5	1
TK20 PITTS	77	20PITTS069	Top Forming Roll # 1	1
TK20 PITTS	78	20PITTS070	Top Forming Roll # 2	1
TK20 PITTS	79	20PITTS071	Top Forming Roll # 3	1
TK20 PITTS	80	20PITTS072	Top Forming Roll # 4	1
TK20 PITTS	81	20PITTS073	Top Forming Roll # 5	1
TK20 PITTS	82	20PITTS074	Lower Idler Roll	1
TK20 PITTS	83	20PITTS075	Upper Idler Roll	1
TK20 PITTS	84	20PITTS076	Plain Spacer Drilled	2
TK20 PITTS	85	20PITTS077	Step Spacer Drilled and Tapped	2
TK20 PITTS	86	20PITTS078	Main Step Spacer	1
TK20 PITTS	87	20PITTS079	Spacer Gear Stud	2
TK20 PITTS	88	20PITTS080	Retaining Ring	2
TK20 PITTS	89	20PITTS081	Washer	2
TK20 PITTS	90	20PITTS082	Plain Spacer	4
TK20 PITTS	91	20PITTS083	32T Drive Gear	2
TK20 PITTS	92	20PITTS084	Opening Roll	1
TK20 PITTS	93	20PITTS085	Idler Roll Pin	2
TK20 PITTS	94	20PITTS086	Opening Roll Holder Assembly	1
TK20 PITTS	95	20PITTS087	Opening Roll Holder Pin	1
TK20 PITTS	96	20PITTS088	3/8" x 7/8" Dowel	1

TK20 PITTS	97	20PITTS089	3/8 – 16 x 3/4" sq. HSS	1
TK20 PITTS	98	20PITTS090	Bearing (B-1412 TORR)	23
TK20 PITTS	99	20PITTS091	Bearing Main Idler (B-1416 TORR)	1
TK20 PITTS	100	20PITTS092	Bearings (B-1212 OH TORR Rdc'n)	6
TK20 PITTS	101	20PITTS093	3 Drive Shaft	1
TK20 PITTS	102	20PITTS094	2 Drive Shaft	1
TK20 PITTS	103	20PITTS095	1 Drive Shaft	1
TK20 PITTS	104	20PITTS096	Bearing (B-1012 TORR)	2
TK20 PITTS	105	20PITTS099	Exit and Entrance Gauges	2
TK20 PITTS	106	20PITTS100	Machine Pulley (6B 3/4" Shv.)	1
TK20 PITTS	107	20PITTS104	5/16-18 x 3/32" SSS	5
TK20 PITTS	108	20PITTS105	Saddle Washer	2
TK20 PITTS	109	20PITTS106	3/8 – 16 x 1" FH SCS	4
TK20 PITTS	110	20PITTS107	5/8" x 3/32" Washer	2
TK20 PITTS	111	20PITTS108	1/2 - 13 x 1 3/4" HHC Screw HT	19
TK20 PITTS	112	20PITTS109	1/2" Lockwasher	19
TK20 PITTS	113	20PITTS110	3/8- 16 x 1" Carriage Bolt	8
TK20 PITTS	114	20PITTS111	3/4" Thrust Collar	2
TK20 PITTS	115	20PITTS112	Connector (88L Female Coupling)	6
TK20 PITTS	116	20PITTS113	Half Union (886L)	6
TK20 PITTS	117	20PITTS114	Plastic Tubes 3-11"	33"
TK20 PITTS	118	20PITTS115	Plastic Tube 3-16"	48"
TK20 PITTS	119	20PITTS116	1/2" – 13x 1" SHCS	1
TK20 PITTS	120	20PITTS117	Hold Down Stud 5/8-11x6"	2
TK20 PITTS	121	20PITTS118	Hold Down Stud 3/8-16 x 4 3/4"	2
TK20 PITTS	122	20PITTS119	Extensions Cord	1
TK20 PITTS	123	20PITTS120	Idler Gear (Need S090 Bearing)	3
TK20 PITTS	124	20PITTS121	Main Idler Gear (Need S091 Bearing)	1
TK20 PITTS	125	20PITTS122	5/8" Blvl. Washer	8
TK20 PITTS	126	20PITTS123	3/8" Blvl. Washer	12
TK20 PITTS	127	20PITTS124	Stand	1
TK20 PITTS	128	20PITTS125	Forming Head Cover	1
TK20 PITTS	129	20PITTS126	Set Screw	1
TK20 PITTS	130	20PITTS127	Spacer Washer- 3/8" .052	2
TK20 PITTS	131	20PITTS128	Flanger Guard	1
TK20 PITTS	132	20PITTS129	1PH 1 HP Motor	1
TK20 PITTS	133	20PITTS150	B 52 Belt	1
TK20 PITTS	134	20PITTS151	Drive Cleat Deflector	1
TK20 PITTS		20PITTS152	ON OFF SWITCH	1
TK20 PITTS	135	20PITTS2001	RIGHT ANGLE ROLL KIT	1
TK20 PITTS	136	20PITTS2002	T-1 RIGHT ANGLE ROLL	1
TK20 PITTS	137	20PITTS2003	T-2 RIGHT ANGLE ROLL	1
TK20 PITTS	138	20PITTS2004	T-3 RIGHT ANGLE ROLL	1
TK20 PITTS	139	20PITTS2005	T-4 RIGHT ANGLE ROLL	1
TK20 PITTS	140	20PITTS2006	T-5 RIGHT ANGLE ROLL	1
TK20 PITTS	141	20PITTS2007	B-1 RIGHT ANGLE ROLL	1
TK20 PITTS	142	20PITTS2008	B-2 RIGHT ANGLE ROLL	1
TK20 PITTS	143	20PITTS2009	B-3 RIGHT ANGLE ROLL	1
TK20 PITTS	144	20PITTS2010	B-4 RIGHT ANGLE ROLL	1
TK20 PITTS	145	20PITTS2011	B-5 RIGHT ANGLE ROLL	1
TK20 PITTS	146	20PITTS2012	Moon Washers	10

TK20 PITTS		20P795530186	4.7625 SQ. x 22.225 KEY	1
TK20 PITTS	148	20PITTS2013	HEX BOLT M8-1.25 X 10mm	4
TK20 PITTS	149	20PITTS2014	HEX NUTS M8-1.25	4
TK20 PITTS	150	20PITTS300	Complete 20 Gauge Pitts Head	1
TK20 PITTS		20PK0875-C-062	Belleville Washer .875 X .406 X .062	
TK20 PITTS		20PK1375-H-067	Belleville Washer 1.375 x .692 x .067	