

TIN KNOCKER

TK 1660 DUCT BEADER

INSTRUCTIONS & PARTS DIAGRAMS



RED RIVER MACHINERY
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TIN KNOCKER

SAFETY RULES

TK 1660 Duct Beader

1. Keep the work area well lighted, clean, neat, and orderly to avoid accidents. Do not use compressed air for cleaning debris or grit from yourself or the machine. Remove debris and grit from machine with a rake or brush – not your hands.

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 as well as the warnings and instructions mounted on the machine.
3. Use safety glasses and required protective tools.
4. Do not wear loose, hanging clothing or jewelry while operating or servicing the machine. Gloves, if worn, should be snug fitting so they won't be snagged by moving equipment.
5. Notify your supervisor whenever you feel there is a hazard involving the equipment or the performance of your job.
6. Report all injuries or illness, regardless of severity, to your supervisor.
7. Do not place speed above safety.
8. Never use a machine or tool for anything other than its intended purpose. Use the proper tool and equipment for the task.
9. Do not remove, paint over, alter, or deface any machine-mounted warning and instruction plates and signs.
10. Do not override the safety features of the equipment.
11. Do not operate the machine in excess of its rated capacity.
12. Inspect the machine before each use to ensure that it is in proper working condition. Check for cracks, chips, burrs, and other evidence of failure.
13. Report any damage to the machine to your supervisor.
14. Use only approved cleaning fluids.

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.



1. **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.
2. Never clean forming rolls while rolls are rotating—turn power off to clean rolls.
3. Do not operate roll bender without reading operator’s Manual and without proper supervisory instructions.
4. Perform all installation and set-up operations before applying power for electrical start-up.
5. Never leave machine running unattended. When not in use, turn off electrical power.
6. Never adjust machine with power on.
7. Avoid accidental start-up.
8. Do not use machine if servicing is required.
9. 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 for TK 1660 Duct Bearer

1. Plug machine in to 110 volt, single phase, 60 cycle grounded outlet. (For electricals other than standard, wire accordingly.)
2. Turn machine on and feed material against right or left hand gauge bar into rolls. Standard 6" from edge and on 12" beaded centers apply from either gauge bar, to adhere to smacna standards.
3. Adjust bead depth according to requirement. When bead depth is too great, down bow will result.

Note: Front feed rolls are present and spring loaded to accommodate all gauge materials, 16 gauge and lighter. Reference hold down stud setting; tighten all four studs and loosen 1 1/2 to 2 turns. If, on light gauge material, a stretch occurs in the sheet, loosen studs to remove stretch.

Bead rolls are heat treated and firmly affixed to support rolls by recessed dog point set screws.

4. Check lubrication in speed reducer and grease roll shaft bearings periodically. Suggest every 3 months.

TK 1660 Duct Bearer Bead Tooling Inversion Instructions

Step 1: Top Roller Assembly Removal

Remove cover. Remove (4) nuts affixing spreader to guide posts.
(See Sketch 1)

Pillow blocks and upper roll assembly may now be lifted off guide

posts. (See Sketch 2)

Step 2: Bottom Roller Removal

Remove (6) screws inside side plate (3) each plate on both sides of machine. Lower roll assembly may now be removed from stand.
(See Sketch 3)

To ease bottom roller disassembly remove top feed roll by loosening (4) screws in pillow blocks and lift feed roll assembly out of way.
(See Sketch 4)

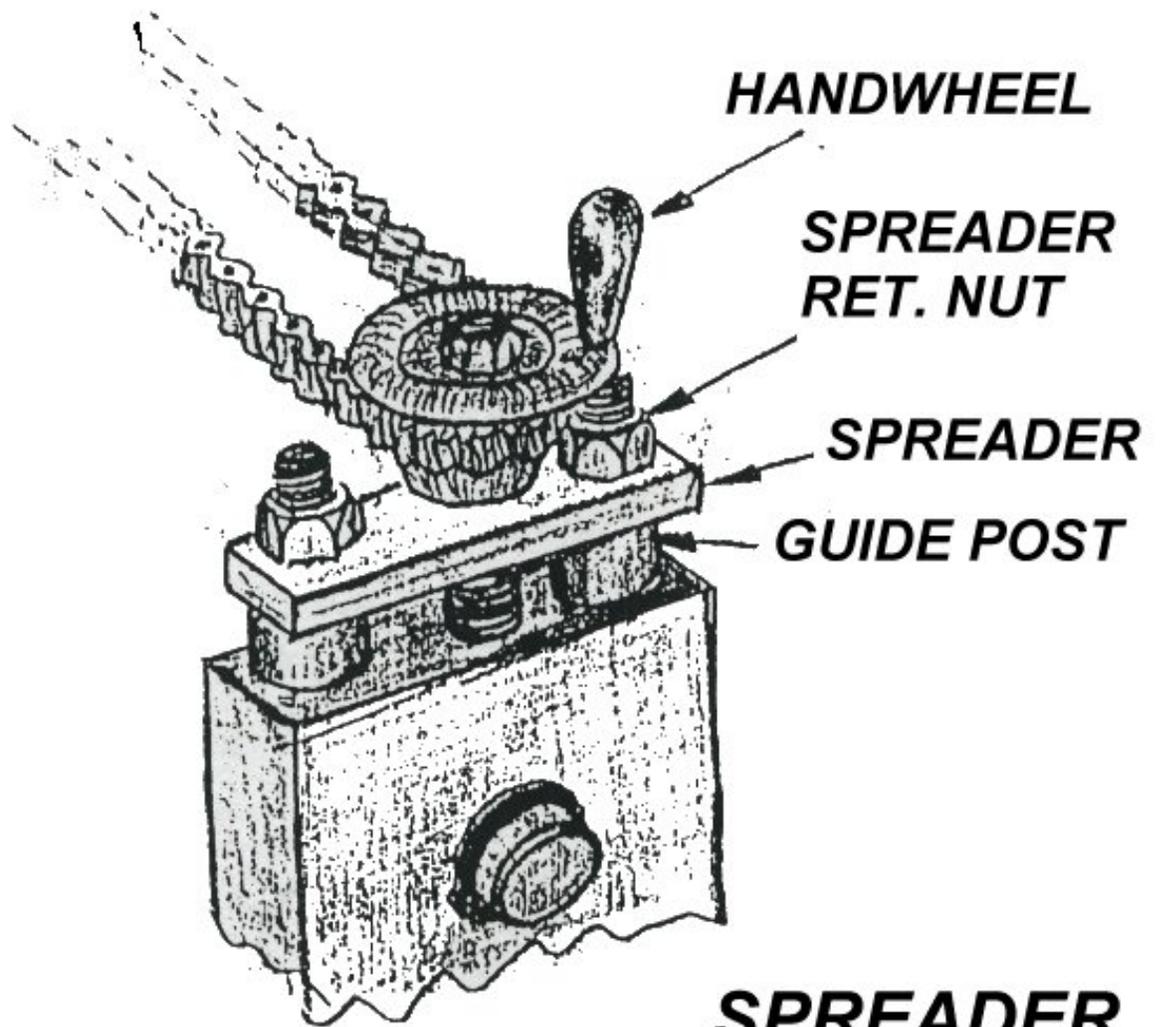
Step 3: Top and Bottom Roller Disassembly

Remove retaining rings on lower roll shafts extending outside side plates. Rolls may now be separated from side plates, and bead tooling may be removed.

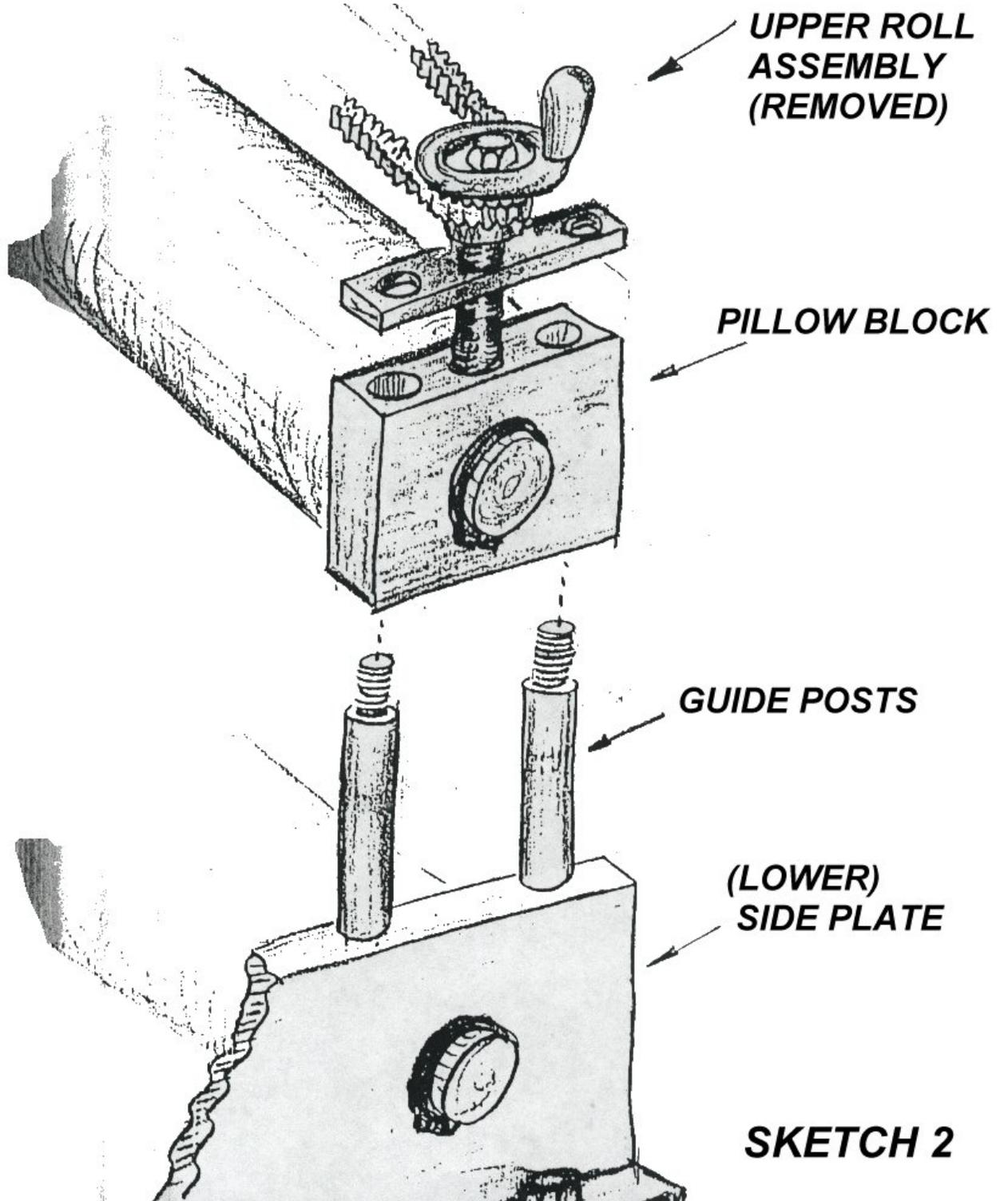
Step 4: Collar Removal and Inversion Procedure

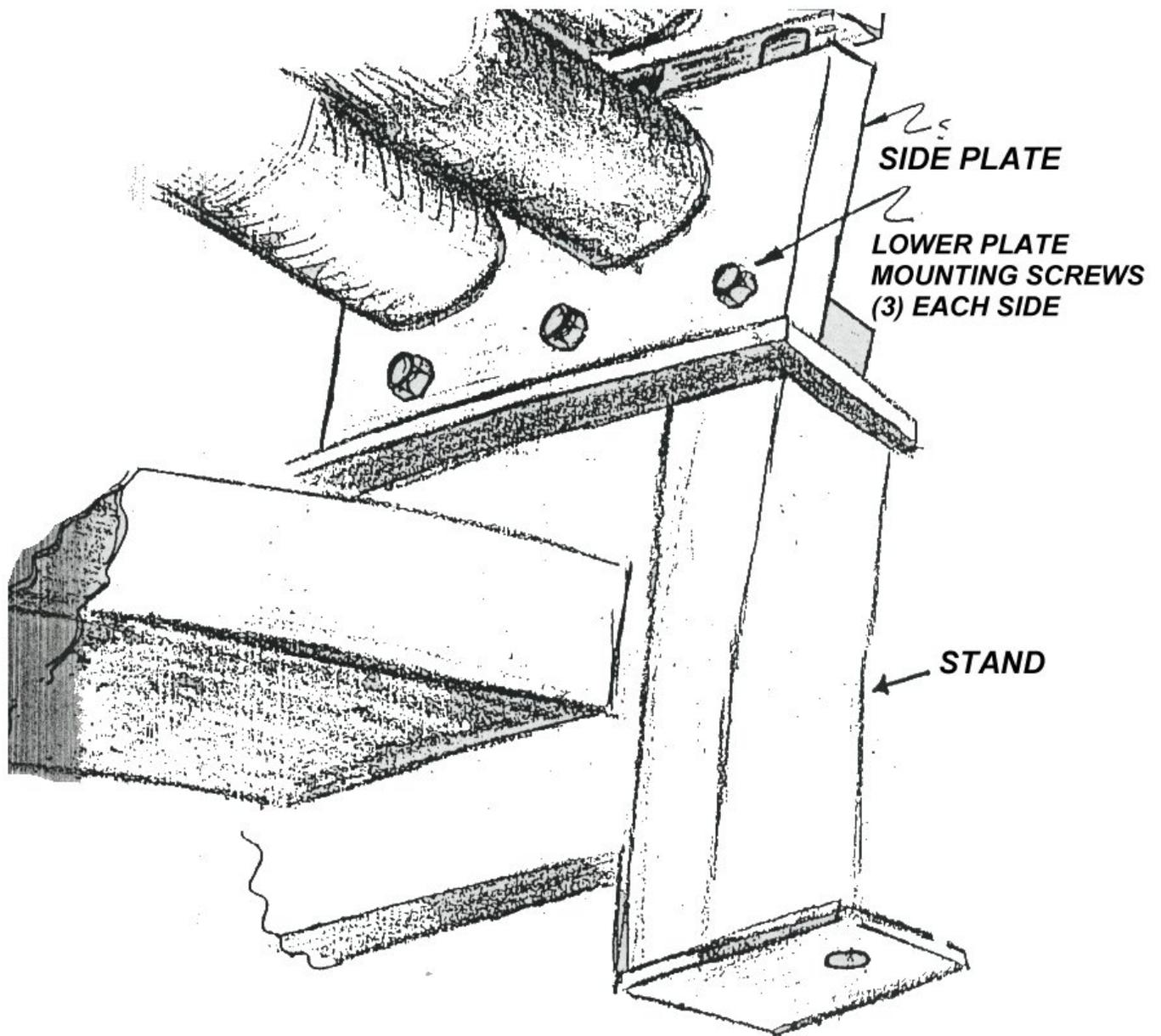
Loosen set screws and slide all top bead tooling off top roller replacing them with bottom bead tooling. Put top bead tooling on bottom shaft and re-assemble machine.

Note: Due to differences in dimensions between upper and lower bead tooling, mating set screw holes in rollers will not align properly. After determining proper bead tooling position, it will be necessary to re-drill new holes to accept "dog" point of set screws. (See Sketch 5)

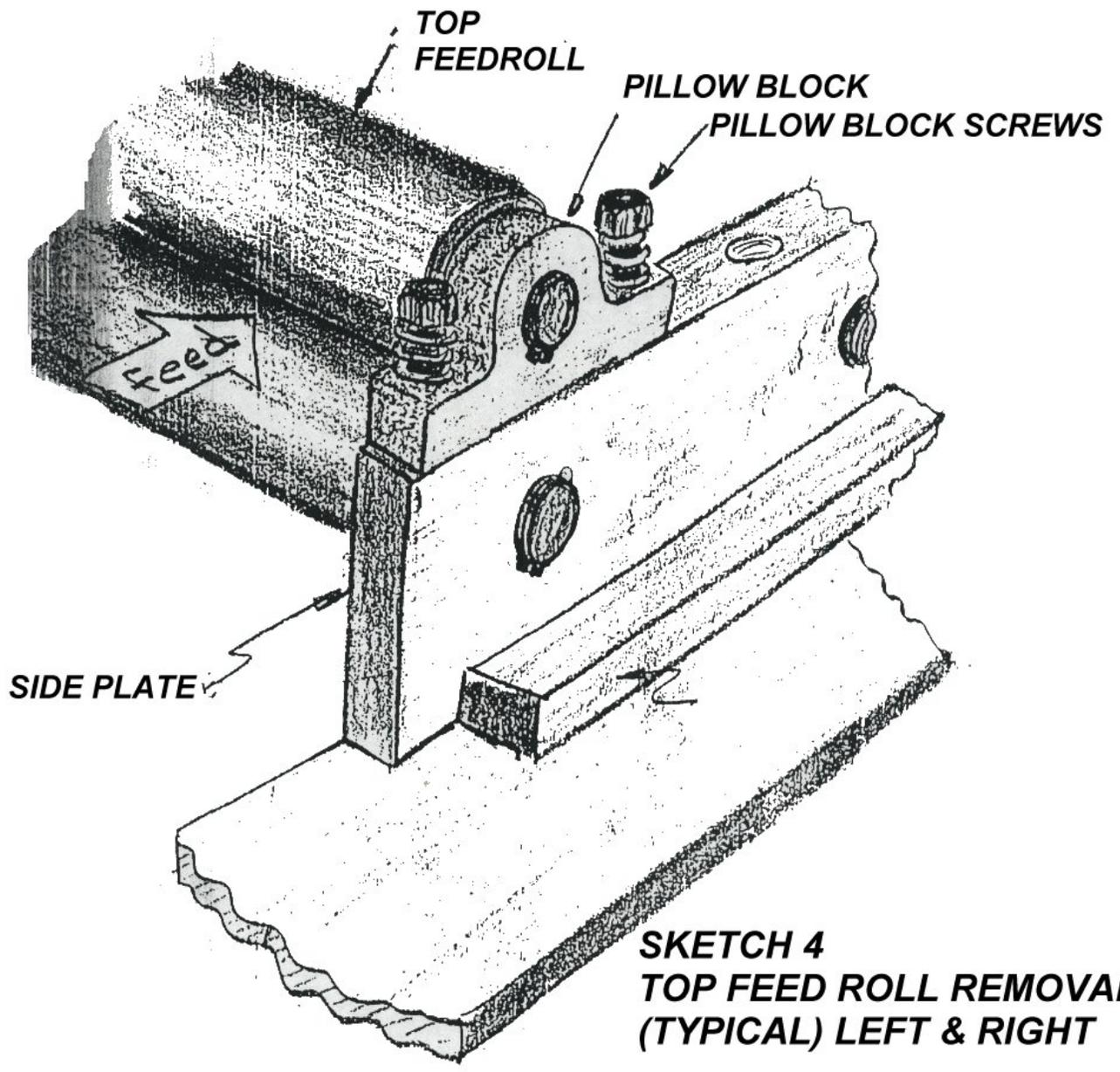


**SPREADER
ASS'Y
SKETCH 1**





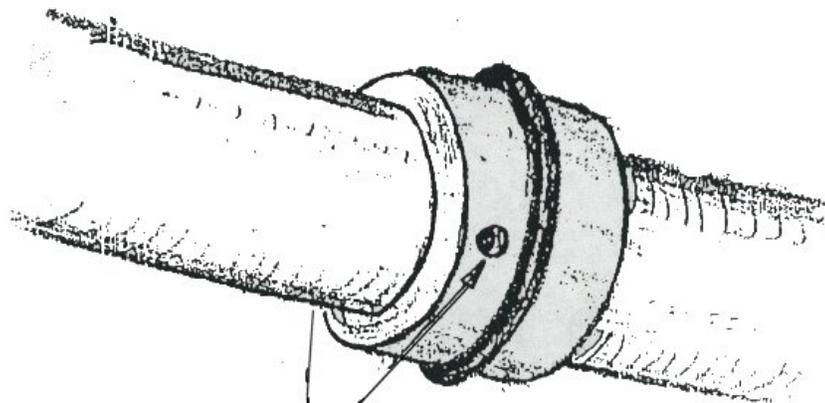
**VIEWED FROM INSIDE BOTTOM (LEFT HAND REAR)
SKETCH 3**



NOTE:

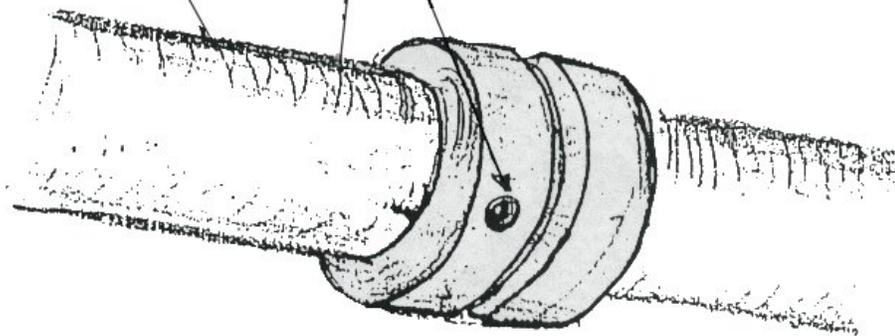
Due to differences in dimensions between upper and lower bead tooling, mating set screw holes in rollers will not align properly. After determining proper bead tooling position, it will be necessary to re-drill new holes to accept "dog" point of set screws.

ROLLER



**TYPICAL "TOP" BEAD TOOLING
(MALE)**

ROLLER



**"DOG POINT"
SETSCREWS (ALL ROLLS)
(2) PER ROLL @ 180**

**TYPICAL "BOTTOM" BEAD TOOLING
(FEMALE)**

SKETCH 5

Motor Assembly



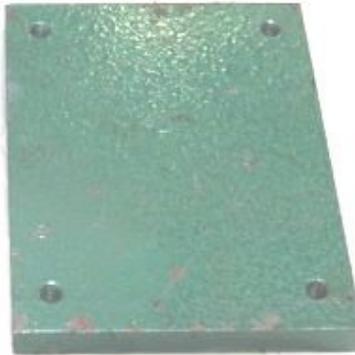
Beader0033



Beader0034

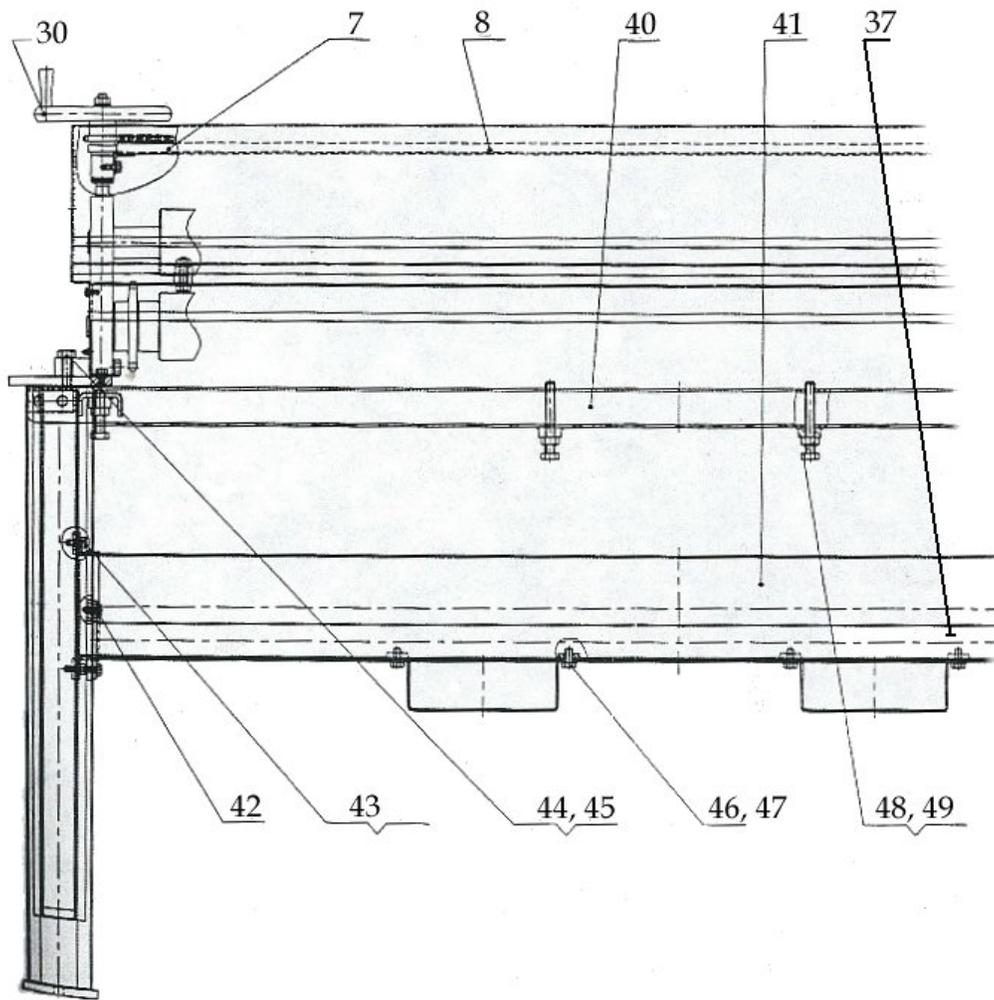


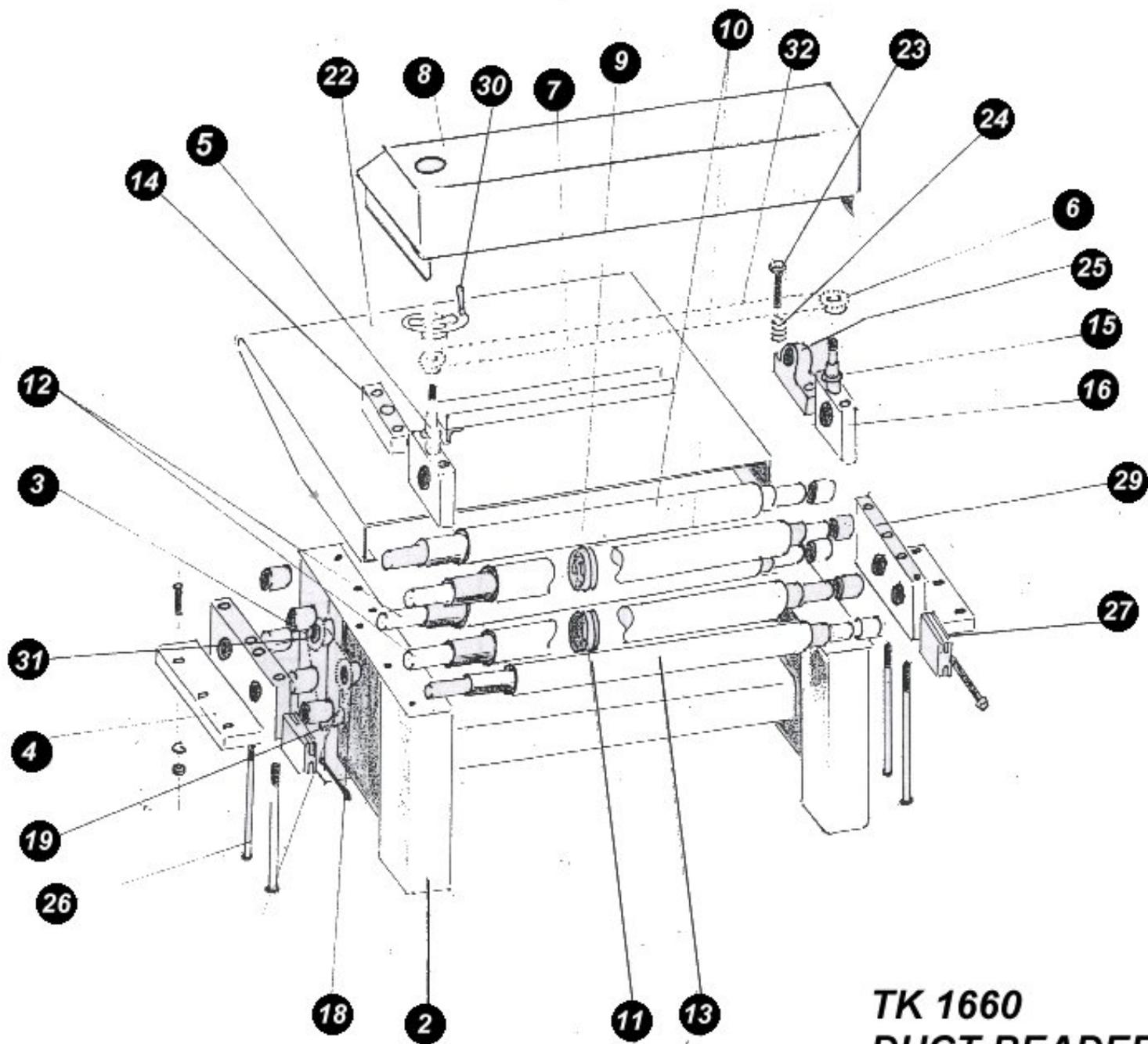
Beader0035



Beader0036







**TK 1660
DUCT BEADER**

Parts For 1660 Duct Bearer

Fine No.	Part No.	Description	No. REQ'D.
2	BEADER0002	LEFT & RIGHT STAND LEGS	1
3	BEADER0003	16T SPROCKET	1
4	BEADER0004	PLATE	2
5	BEADER0005	DRIVE ADJUSTING SCREW	1
6	BEADER0006	12T SPROCKET	2
7	BEADER0007	CHAIN GUARD	1
8	BEADER0008	HOOD	1
9	BEADER0009	ROLL COLLAR, MALE	5
10	BEADER0010	TOP & 2ND FEED ROLLS	2
11	BEADER0011	ROLL COLLAR, FEMALE	5
12	BEADER0012	BOTTOM & 2ND FEED ROLL	2
13	BEADER0013	EXIT ROLL	1
14	BEADER0014	SPREADER	2
15	BEADER0015	DRIVEN ADJUSTMENT SCREW	1
16	BEADER0016	PILLOW BLOCK	2
18	BEADER0018	22T SPROCKET	1
19	BEADER0019	13T SPROCKET	1
22	BEADER0022	TABLE TOP	1
23	BEADER0023	PILLOW BLOCK SCREW	4
24	BEADER0024	SPRING	4
25	BEADER0025	PILLOW BLOCK	2
26	BEADER0026	GUIDE POST	4
27	BEADER0027	ADJUSTING BLOCK	2
29	BEADER0029	LEFT & RIGHT SIDE PLATE	2
30	BEADER0030	HAND WHEEL	1
31	BEADER0031	CHAIN 19,05	1
32	BEADER0032	CHAIN 12,7	1
33	BEADER0033	IDLER ROLL CROSSMEMBER	1
34	BEADER0034	MOTOR DRIVE GEAR	1
35	BEADER0035	IDLER ROLL	1
36	BEADER0036	MOTOR MOUNTING PLATE	1
37	BEADER0037	BACK SUPPORT BAR	1
38	BEADER0070	H352525 WT CHS 70 25.1	1
39	BEADER1800	H660011 MOTOR, 1HP, 1800RPM	1
40	BEADER0040	UPPER SUPPORT BAR	1
41	BEADER0041	MAIN SUPPORT BAR	1
42	BEADER0042	BACK SUPPORT BAR BOLTS	4
43	BEADER0043	MAIN SUPPORT BAR BOLTS	12
44	BEADER0044	PLATE BOLTS	6

45	BEADER0045	PLATE BOLTS LOCK WASHERS	6
46	BEADER0046	STIRRUP BOLTS	8
47	BEADER0047	STIRRUP BOLTS LOCK WASHERS	8
48	BEADER0048	UPPER SUPPORT BAR BOLTS	2
49	BEADER0049	Upper Support Bar Bolts Lock Nut	2
50	BEADER6006	BEARING FOR BEADER 6006-2ZSFK	