TIN KNOCKER

TK 1014 A POWER SHEAR

Parts Diagram & Operating Instructions

RED RIVER MACHINERY
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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

SPECIFICATIONS

Capacity	14-gauge mild steel 18-gauge stainless steel
Shipping weight	3775 lbs.
Cycle Speed	20 strokes per minute
Dimensions	144" x 40" x 64" (approx. 12ft x 4ft x 6ft)
Air Supply	80-gallon tank requires 90 psi at 14 CFM

NEVER PLACE HANDS OR OTHER APENDAGES BETWEEN SHEAR BLADES UNLESS THE AIR IS OFF AND THE BLADES ARE BLOCKED OPEN

RECEIVING THE MACHINE

Upon receipt and before signing the Bill of Landing carefully examine the machine for damage that may have occurred during shipping. Any loss or damage should be noted in detail on the delivery receipt and reported to your distributor immediately. Free replacement from TK International is dependent upon the notation and the Bill of Lading on delivery slip.

INSTALLING THE MACHINE

- Place the machine in a well-lit area on a solid, level floor.
- The machine must be securely bolted to the floor.
- Ensure that the machine is level on the floor.
- Check that there is enough clearance around the machine to access and service all sides of the machine.

CONNECTING AIR

- Clean and dry air is recommended for best performance and machine longevity
- The machine requires between 70 psi and 100 psi
- Incoming air line must not be smaller in diameter than the air inlet on the machine
- Connect shop air line to the air inlet for the foot valve.
- Shear action should be one continuous motion in either direction with no binding

LUBRICATION

- Ensure that all moving joints, tracks, and any other contacting metal are well oiled
- Clean out accumulated dirt periodically

SHEAR BLADES ADJUSTMENT

- The blades are adjusted to the correct gap before it is shipped.
- Blade gap should only be adjusted if blades are sharpened or become misaligned.
- **Before sharpening blades, record the positions on the adjustment blocks and the original thickness of the blades.**
- **The difference in blade thickness is the same distance that the blade gap should be adjusted.**
- The lower blade bed can be adjusted to move forward or backward via the adjustment blocks on either side.
- 4 large bolts on either side of the machine (8 total) must be loosened slightly be adjusting the blocks

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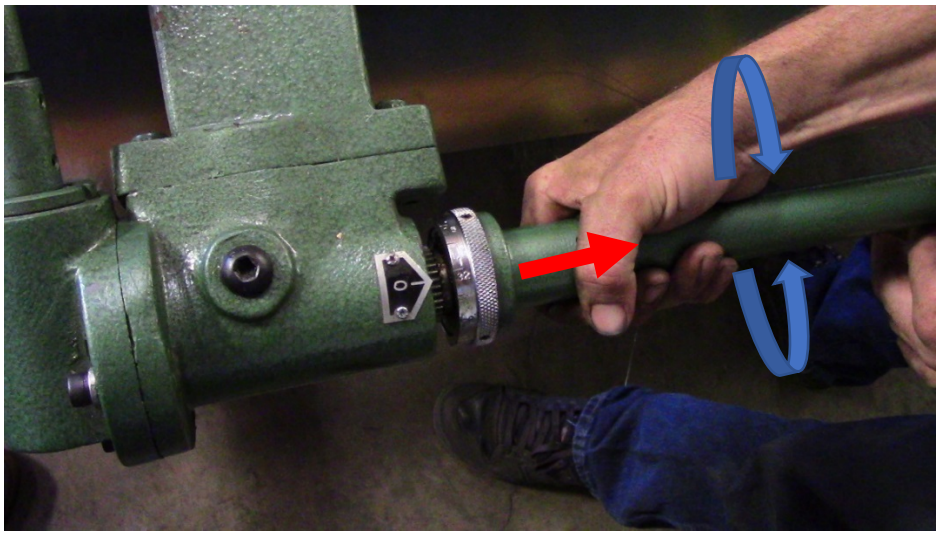
- The two hex bolts must be loosened and the square bolts are loosened or tightened to adjust the bed.
- Acceptable blade gap is achieved when light sheet metal can be cut with little to no burr. (about 0.1mm gap)

Calibrating Air shear back gauge

1. Make back gauge parallel to blades
    a. Crank out back gauge out to about 16 inches so it is easy to see and work with
    b. On the right-hand side of the shear, measure and record the distance from the bottom blade to the front edge of the back gauge
    c. 
    d. Then, on the left-hand side of the shear, take the same measurement.
    e. Adjust the left-hand side to match the right-hand side by disengaging the left-hand side and rotating the shaft.
    f. 

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2. Zero the DD52-E position indicator (for more in-depth information see DD52R-E instruction manual)
    a. Move backgauge inward, as close to the blade as possible.
    b. Cycle the ABS-REL button until “ABS” is displayed
    c. Hold the “Circle” button for about one second then while still holding the “circle” button, click the ABS-REL button.
    d. The DD52R-E position indicator should now be zeroed.

BASIC SHEAR OPERATION

- Never exceed the capacity of the shear
- Never attempt to shear work that is not securely clamped down
    - If the work is not clamped down, the work may fold or bend instead of being cut
- Accurate cuts are affected by:
    - Work material
    - Width of cut
    - Proper use of gages
    - Proper blade alignment and adjustment
    - Proper blade sharpness or keenness
- Work with internal stresses should be rough cut to a larger size to allow for a trim cut when stress is relieved by initial cut
- Shearing narrow strips is more difficult than shearing long sheets
    - Strip edges may distort, curl, or become misaligned

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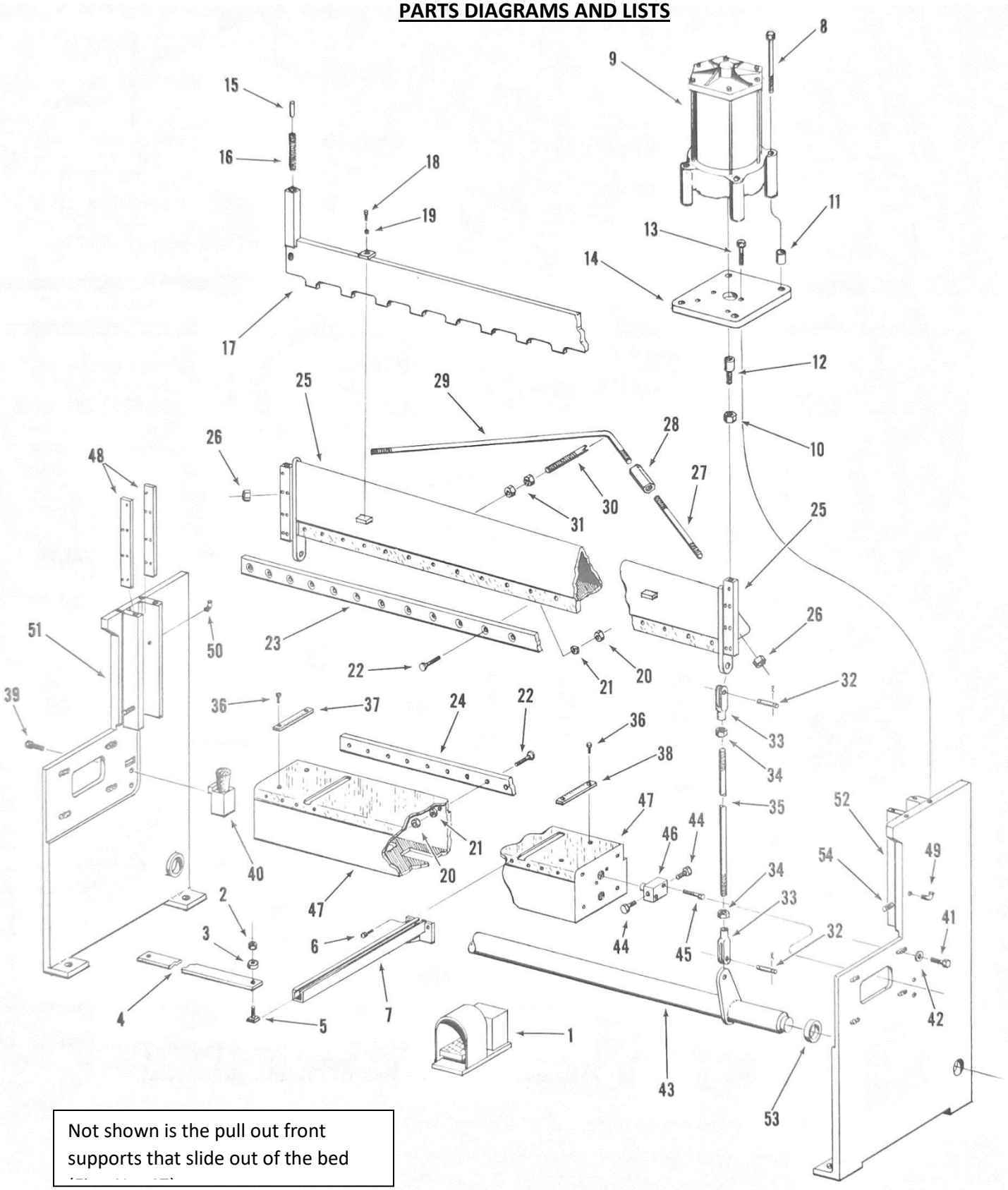
PARTS DIAGRAMS AND LISTS



Not shown is the pull out front supports that slide out of the bed

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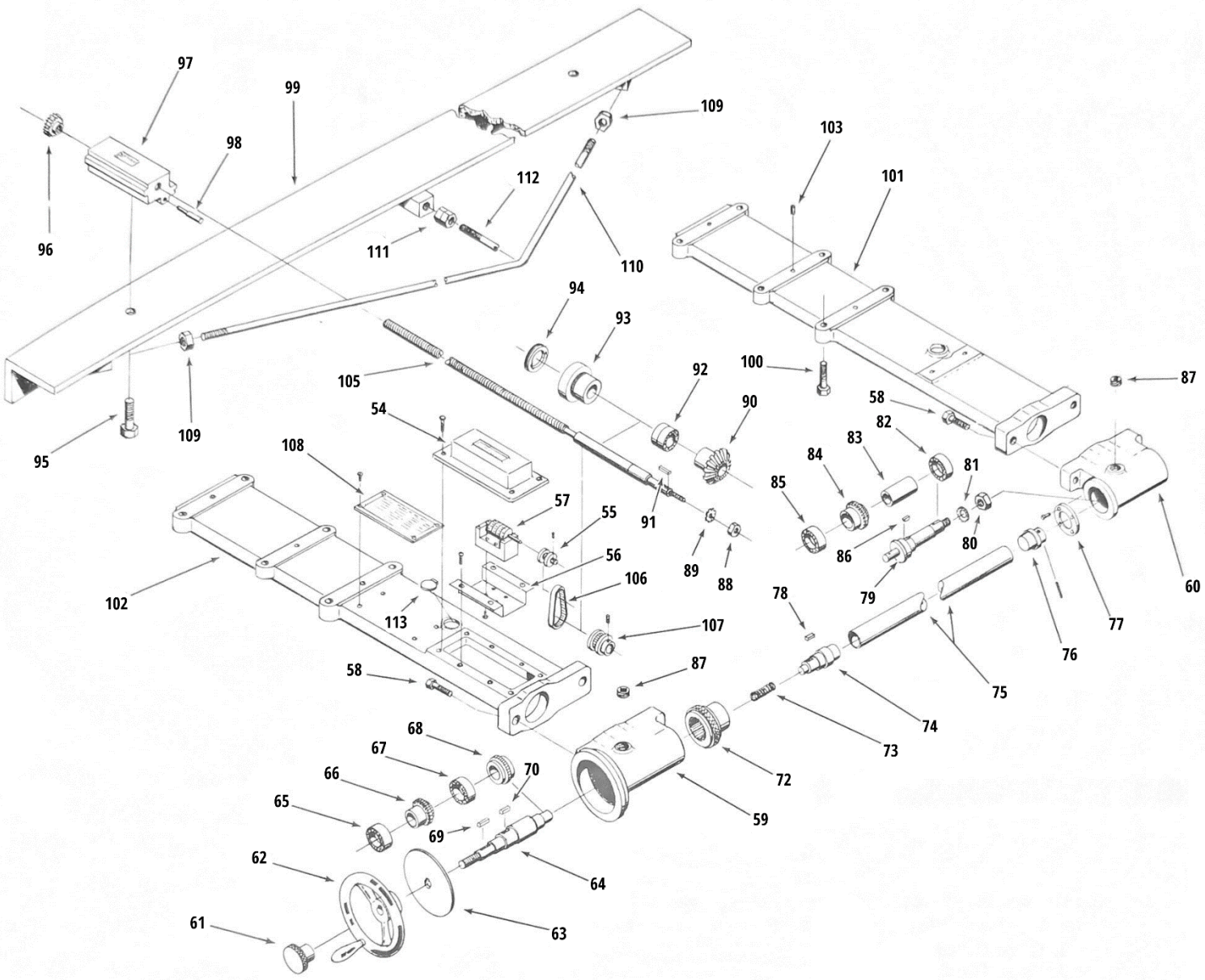

This diagram shows an outdated version of the gauge handwheel position.

The gauge handwheel has been repositioned to the front of the machine on current model. It serves the same function, but with more convenience.

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Fine No.	Part No.	Name
1	APS001	foot valve
2	APS002	gage nut
3	APS003	gage washer
4	APS004	front gage bar
5	APS005	front gage bolt
6	APS006	front braket screw
7	APS007	front bracket
8	APS008	air cylinder mounting screw
9	APS009	air cylinder
10	APS010	piston rod jam nut
11	APS011	air cylinder spacers
12	APS012	piston rod extension
13	APS013	support screw
14	APS014	R.H. cylinder support
14.a	APS015	L.H. cylinder support
15	APS016	holddown spring pin
16	APS017	holddown spring
17	APS018	holddown
18	APS019	holddown adjusting screw
19	APS020	adjusting screw jam nut
20	APS021	plow bolt nut
21	APS022	blade washer
22	APS023	plow bolts
23	APS024	upper blade
24	APS025	lower blade
25	APS026	crosshead
26	APS027	brace rod nuts
27	APS028	crosshead brace rod
28	APS029	coupling
29	APS030	brace rod nuts
30	APS031	brace rod bolt
31	APS032	brace rod bolt jam nuts
32	APS033	yoke pins with cotter pins
33	APS034	yokes
34	APS035	treadle rod jam nuts
35	APS036	treadle rod
36	APS037	side gage screws
37	APS038	L.H. side gage
38	APS039	R.H. side gage
39	APS040	bumper screw

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40	APS041	crosshead bumper
41	APS042	bed mounting screw
42	APS043	washer
43	APS044	treadle
44	APS045	bed adjusting screw
45	APS046	adjusting piece screw
46	APS047	adjusting piece
47	APS048	bed
48	APS049	gib liners
49	APS050	oil cup
50	APS051	oil cup
51	APS052	L.H. leg
52	APS053	R.H. leg
53	APS054	clamping stud
54	APS055	counter cover
55	APS056	counter pulley
56	APS057	counter bracket
57	APS058	counter
58	APS059	gear case mounting screws
59	APS060	R.H. gear case
60	APS061	L.H. gear case
61	APS062	knurled knob
62	APS063	handwheel
63	APS064	friction plate
64	APS065	R.H. shaft gear case
65	APS066	R.H. shaft bearing
66	APS067	R.H. gear case bevel gear
67	APS068	L.H. shaft bearing
68	APS069	coupling gear
69	APS070	key
70	APS071	key
71	APS072	coupling sleeve scale
72	APS073	coupling sleeve
73	APS074	spring
74	APS075	R.H. connection shaft trunnion
75	APS076	connection shaft
76	APS077	L.H. connection shaft trunnion
77	APS078	L.H. gear case ring
78	APS079	key
79	APS080	L.H. gear case shaft

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80	APS081	nut
81	APS082	washer
82	APS083	R.H. shaft bearing
83	APS084	spacing collar
84	APS085	L.H. gear case bevel gear
85	APS086	L.H. sahft bearing
86	APS087	key
87	APS088	pipe plugs
88	APS089	nut
89	APS090	washer
90	APS091	adjusting screw bevel gear
91	APS092	key
92	APS093	adjusting screw bearing
93	APS094	retaining bushing
94	APS095	retaining bushing nut
95	APS096	slide fastening screw
96	APS097	slide nut
97	APS098	slide
98	APS099	stop pin
99	APS100	backgage bar
100	APS101	bracket fastening screws
101	APS102	L.H. backgage bracket
102	APS103	R.H. backgage bracket
103	APS104	bracket dowels
104	APS105	L.H. adjusting screw
105	APS106	R.H. adjusting screw
106	APS107	timing belt
107	APS108	timing belt pulley
108	APS109	decimal equivalent and lubrication plate
109	APS110	brace rod nuts
110	APS111	backgage brace rod
111	APS112	jam nuts
112	APS113	brace rod bolt
113	APS114	oil hold cover
	APS115	squaring arm assembly
	APS116	front support assembly
	APS117	Squaring arm drop stops

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