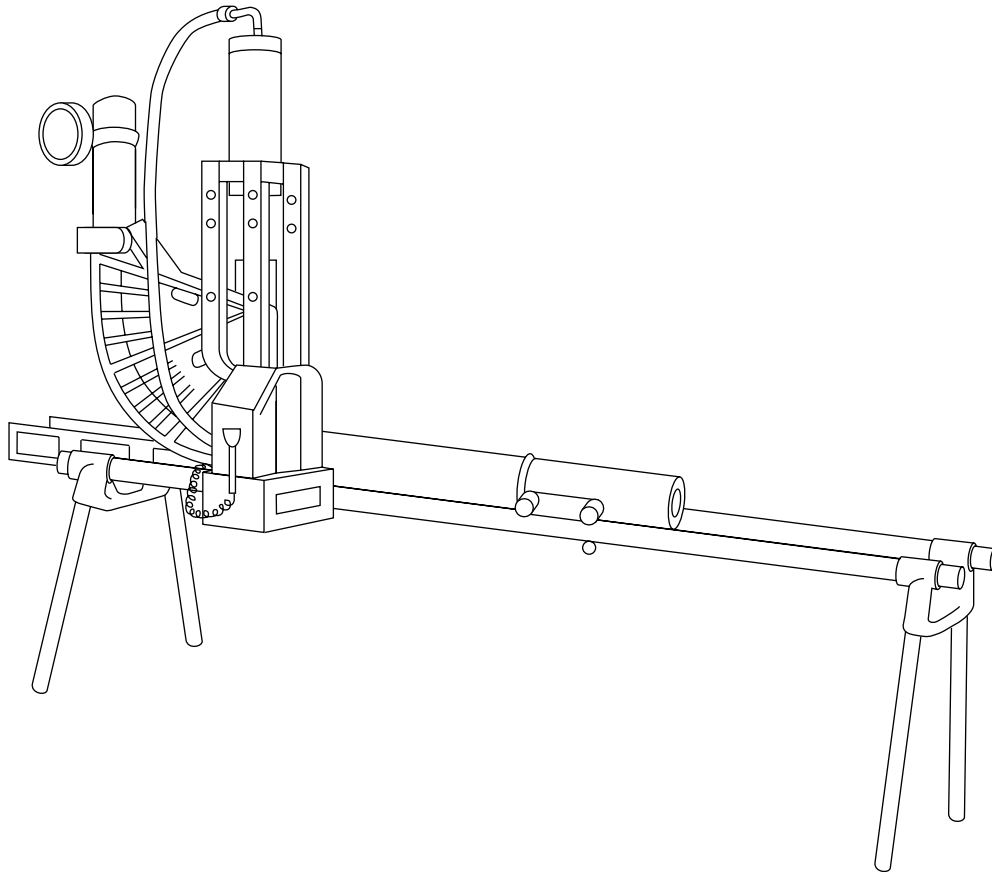


OPERATION, SERVICE AND PARTS INSTRUCTION MANUAL



1813 BENDING TABLE FOR 881 HYDRAULIC BENDER



Read and understand this material before operating or servicing this bender. Failure to understand how to safely operate this bender could result in an accident causing serious injury or death. This tool should only be operated by qualified personnel.

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Introduction

The Greenlee No. 1813 Bending Table is designed to make your Greenlee No. 881 Hydraulic Bender easier to use. Loading is faster and easier. The vertical, bench-high bending means greater control and freedom of movement for the operator and less fatigue, too. Use of the bending table also simplifies difficult bending operations, reducing bending time and increasing accuracy.



**SAFETY
ALERT
SYMBOL**

The symbol above is used to call your attention to instructions concerning your personal safety. Watch for this symbol. It points out important safety precautions. It means **“ATTENTION! Become alert! Your personal safety is involved!”** Read the message that follows and be alert to the possibility of personal injury or death.

⚠ DANGER

Immediate hazards which WILL result in severe personal injury or death.

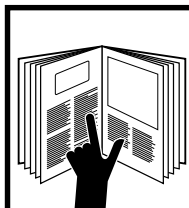
⚠ WARNING

Hazards or unsafe practices which COULD result in severe personal injury or death.

⚠ CAUTION

Hazards or unsafe practices which COULD result in minor personal injury or property damage.

Safety is a critical factor in the design of Greenlee equipment. The best program starts with a safety-conscious operator. The information highlighted in this bulletin describes operating practices for the benefit of the workers who will use our equipment in their daily jobs. Comments from users are appreciated.




⚠ WARNING

A person who has not read and does not understand all operating instructions is not qualified to operate this tool.

Failure to read and understand safety instructions may result in severe injury or death.

SAVE THESE INSTRUCTIONS

	⚠ WARNING
	<ul style="list-style-type: none">• Operate the power pump only at the correct voltage and frequency marked on the nameplate. Use a properly grounded outlet.• Turn off and unplug the power pump when changing accessories, performing service and when idle.• Do not operate with a damaged cord set or with hydraulic hoses which are abraded or cracked.• Do not operate the power pump in the rain or wet locations.

⚠ WARNING
<ul style="list-style-type: none">• Read all operating instructions.• Clean hydraulic quick-change couplers before making connections. Hand-tighten firmly to engage all threads. Do not use a wrench.• Place hydraulic control lever on power pumps in the return position before starting the motor.• Do not operate power equipment unattended.• Do not operate hydraulic rams beyond (their recommended) extended length.• Properly position and engage all pins and rollers before operating hydraulic bending equipment.• Follow recommended service procedures.• Operate power equipment in uncluttered areas providing good footing and support.• Keep others a safe distance from the work area.• Use only original equipment or Greenlee specified replacement parts and accessories. <p>Failure to observe these warnings could result in severe injury or death.</p>

Setup

Note: Two 10-foot lengths of 2" galvanized conduit are required for the table bed. These are not furnished with the No. 1813 Bending Table.

1. Insert each of the four legs (7) into the sockets of the two leg supports (1), and tighten each of the four pipe mounting screws (2).
2. Keeping one of the leg assemblies to your right, insert the two 10-foot lengths of 2" galvanized conduit into that assembly and tighten the four pipe mounting screws (2).
3. With the vise to your left, slide the pipe vise unit (3) onto the two lengths of conduit. Now slide the bending mounting unit (4) onto the conduit, keeping the connecting and follow bar guides to your left, as well as the word START stamped in the unit.
4. Lift the left ends of the 2" conduit and insert each into the left leg assembly, being certain to properly tighten the pipe mounting screws (2).
5. Position the bending mounting unit (4) 15 inches from the left leg assembly and tighten the pipe mounting screws.
6. Mount the two pump support units (5) to the bending table as follows: Hang two each of the conduit clamps (8) on each pipe of the table bed, then space the pump support units the approximate distance between the mounting holes of the pump base. Do not fully tighten the clamps, as yet.

Note: At this point, make certain your bending table is level or you may develop wows in your bends as a result.

Mounting the 881 Bender

1. Refer to Bulletin IM-881 to assembly the 881 ram connecting bars and roller with the proper pins and spring clips.
2. Position the assembled 881 bender into the bender mounting unit (4) with the ram scale toward the side of table where you will be operating the unit.
3. After removing the casters from the pump base, insert the pump mounting hardware; screws, nuts, and washers (12-15), through the pump base and pump mounting brackets (6). Loosen clamping screws on the pump mounting brackets and slide the brackets attached to the pump, onto the pump table supports (5). When the pump is in proper position, tighten the clamping screws on the pump mounting brackets. Now you may fully tighten all four of the conduit clamps (8).
4. Attach the 90° coupling (9) to the ram coupling of the bender, then connect the pump to the ram, using the high pressure hose supplied with your bender.

Adjusting Ram Position (2-1/2" through 4" Conduit)

Setup

1. The ram positioner (10) is used to adjust the position of the ram for the size of conduit you are going to bend. Refer to the markings stamped on the connecting bars for the proper ram positions for each size of conduit.
2. Attach the yoke to the ram, using the large spring clip as shown, in Fig. 5. Then rotate the yoke 90° from its normal position and place the ram positioner (10) between the connecting bars as shown in Fig. 1. Mounting tabs of ram positioner should be up as shown in Fig. 5.
3. Apply pressure to gradually extend the ram until the holes of the ram positioner line up with the holes of the yoke. Then attach the ram positioner to the yoke with the yoke pin as shown in Fig. 2.



Figure 1



Figure 2

Changing Ram Positions

1. Remove the small spring clips from each of the cylinder head pins and then remove each pin as shown in Fig. 3. You may need to apply or release pressure on the ram in order to free the pins from the cylinder block.
2. Use the pump to extend the ram if you wish to raise the cylinder block—or release the pressure to lower the block—to align it with proper set of holes in the connecting bars for the size of conduit you are bending. Again you may need to apply or release pressure in short bursts in order to properly align the holes before you can re-insert the cylinder head pins as shown in Fig. 4.

Note: Be very careful that you do not elevate the ram unit above the top of the connecting bars when positioning for 4" conduit.



Figure 3



Figure 4



Figure 5



Figure 6

Bending

1. Install the proper shoe and follow bar for the conduit size to be bent. To make sure the follow bar is properly centered between the connecting bars, push the foot of the follow bar against one of the locating guides on the side of the bender mounting unit (4) as shown in Fig. 7. Do not allow the follow bar to make contact with either of the bender connecting bars.
2. Load the conduit into the bender and position for the required bend. Attach the saddle to the shoe, being sure to align the bending mark with the front of the saddle.
3. Attach the Greenlee No. 1805 Bending Degree Protractor (11) to the portion of the conduit projecting in front of the saddle. Be certain the protractor is properly zeroed before you start each bend.
4. Strap down the other end of the conduit, using the chain vise on the pipe vise assembly (3). Always locate this assembly as close as possible to the end of the conduit being bent. When bending short lengths of conduit, be very careful to maintain enough distance between the pipe vise assembly and the pump support units (5). **DO NOT ALLOW THESE UNITS TO MAKE CONTACT DURING A BEND.**
5. Now make the desired bend, referring to the bending degree protractor (11) as you do so.

Note: Pipe vise assembly is designed to allow only a 1° maximum variation between bends of various conduit sizes from 2-1/2 to 4".

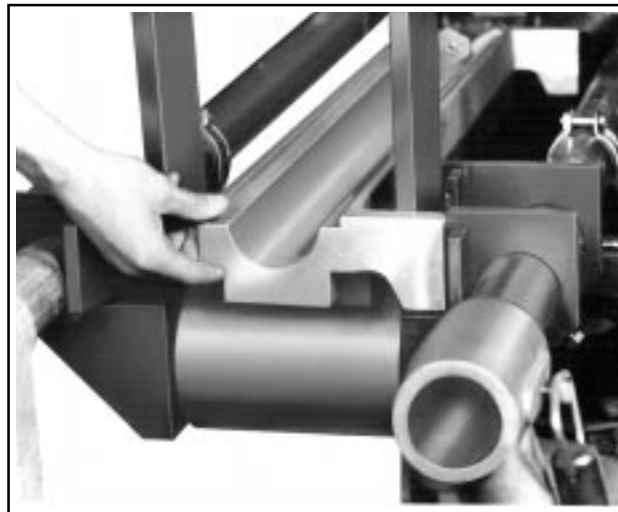
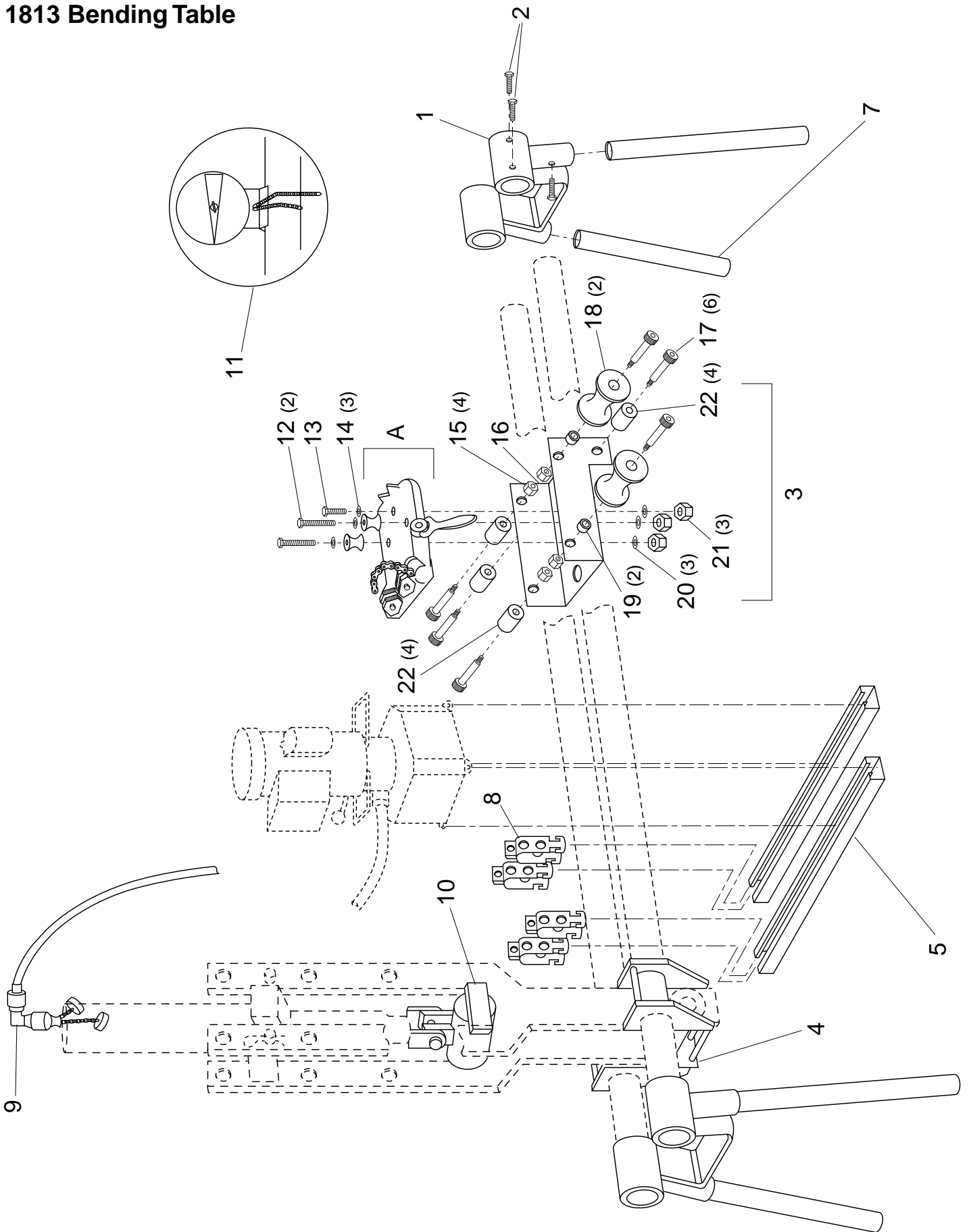


Figure 7

1813 Bending Table



Parts List

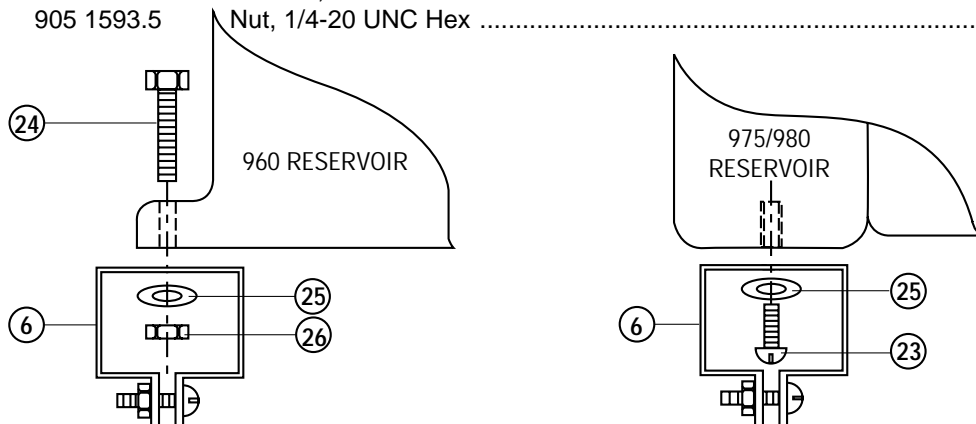
KEY	PART NO.	DESCRIPTION	QTY
1	502 1345.8	Leg Support	2
2	905 1787.3	Cap Screw, 1/2-13 UNC x 1" Hex Hd. Cap	12
3	502 8900.4	Vise Unit, Pipe (Includes Keys 12-22 and A)	1
4	502 8885.7	Bender Mount Unit	1
5	502 9004.5	Support, Pump Table	2
6	905 3824.2	Bracket, Pump Mounting	4
7	502 1346.6	Leg	4
8	905 3014.4	Clamp, Steel Conduit	4
9	502 9014.2	Coupling, Fitting Unit	1
10	502 9022.3	Positioner, Ram Unit	1
11	502 1318.0	No. 1805 Bending Degree Protractor	1
	502 3274.6	Storage Box (Not Shown)	
12	905 2471.3	Screw, Cap 1/2-13 x 3.25" Hex Hd.	2
13	905 0544.1	Screw, Cap 1/2-13 x 1.50" Hex Hd.	1
14	905 1510.2	Washer, Flat .531" x 1.06" x .093"	3
15	905 2610.4	Nut, Hex 5/8-11 Lock Hd. Thin	4
16	502 8893.8	Carriage Unit	1
17	905 1788.1	Screw, Shoulder .750" x 2.75" x 5/8-11	6
18	502 4720.4	Roller .767" x 2.50" x 2.12" 2" Pipe (1813)	2
19	502 1351.2	Spacer .824" x 1.05" x .38"	2
20	905 0507.7	Washer, Lock .516" x .871" x .099" Spr.	3
21	905 2794.1	Nut, Hex 1/2-13 Zinc Plated	3
22	502 4765.4	Roller .767" x 1.50" x 2.68 Str. (1802)	4
A	502 7994.7	Vise Unit, Bench	1
	502 7316.7	Table, Bench Vise	1
	905 0638.3	Nut 5/16" Hexagon Steel Regular full	2
	905 3160.4	Pin, 3/8" x 1 3/4" Type-C Driv-Lok	1
	502 4985.1	Roller	1
	502 4987.8	Spacer	1
	502 5550.9	Handle Unit, Vise	1
	905 0420.8	Rollpin, 1/8" x 1.00", No. 59-028-125-1000	1
	502 5553.3	Screw, Chain	1
	502 6430.3	Pin, Chain	1
	502 9003.7	Jaw, Vise	4
	502 4971.1	Chain, Vise	1
	905 1166.2	Screw, 5/16-18 NC x 2" Long SAE Grade 5, Hexagon Head Cap	2

Mounting Hardware for 975/980 Pumps

12	905 1185.9	Screw, 1/4-20 UNC x 1/2 Rd. Hd. Slotted Mach.	4
14	905 0504.2	Washer, 1/4 Lock	4

Mounting Hardware for 960 Pumps

13	905 0975.7	Screw, 1/4-20 UNC x 1" Long Hex Hd. Mach.	4
14	905 1674.5	Washer, 1/4 Lock	4
15	905 1593.5	Nut, 1/4-20 UNC Hex	4



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Printed in U.S.A.