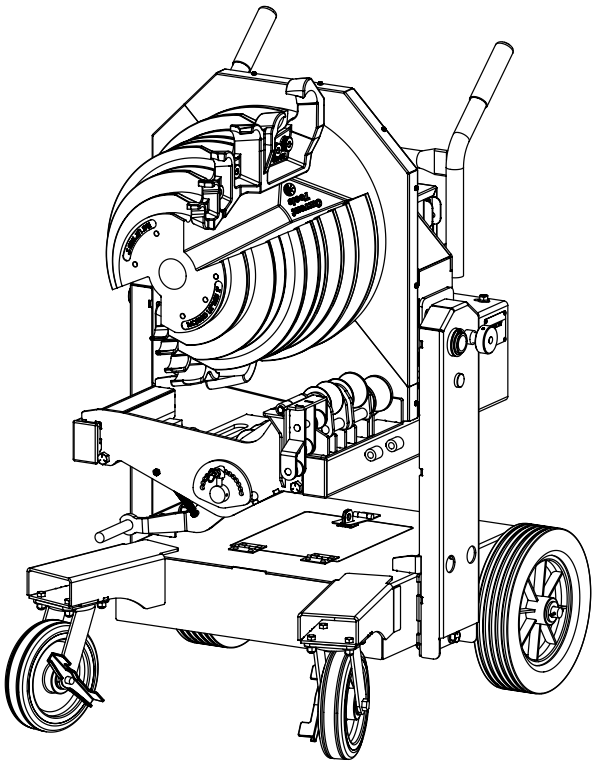
Current Tools

FOR THE PROFESSIONAL ELECTRICIAN

797 IQ Bender™

For bending 1/2" thru 2" RIGID – EMT – IMC
and 40 mil PVC coated Rigid conduit



Operating, Maintenance, Safety and Parts Manual

02/2026

Read and understand this material before operating or servicing this Bender. Failure to understand how to safely operate and service this unit may result in serious injury or death.

This manual is free of charge. All personnel who operate or service this Bender should have a copy of this manual and read and understand its contents. To request a copy, call, write to the address below or visit our website at www.currenttools.com. All information, specifications and product designs may change due to design improvements or updates and are subject to change without notice. Current Tools does not assume any liability for damages resulting from misuse or incorrect application of its products.

CURRENT TOOLS • P. O. BOX 17026 GREENVILLE, SC 29606
800.230.5421 or 864.721.4230 • FAX 864.721.4232
www.currenttools.com

TABLE OF CONTENTS

Safety Alert Symbol

THIS SAFETY SYMBOL is used to call your attention to instructions that concern your personal safety. It means: ATTENTION! BE AWARE! THIS IS AN IMPORTANT SAFETY INSTRUCTION!

Read, understand, and follow these safety instructions. Failure to follow these safety instructions may result in injury or death.

DANGER

Immediate hazards which, if not avoided, WILL result in serious personal injury or death.

WARNING

Hazards or unsafe practices which, if not avoided, COULD result in serious personal injury or death.

CAUTION

Hazards or unsafe practices which, if not avoided, COULD result in minor personal injury or property damage.

RETAIN SAFETY INFORMATION

This manual should be read and understood by all personnel who operate or service this Bender. Failure to understand how to safely operate and service this unit could result in serious injury or death. This unit should only be operated and serviced by qualified personnel.

IMPORTANT SAFETY INFORMATION

⚠ WARNING NEVER operate the bender in an explosive atmosphere.

⚠ WARNING NEVER operate the bender in wet or damp locations. DO NOT expose the bender to rain.

⚠ WARNING ALWAYS use 120 VAC, 20 amp ground fault protected receptacle for power supply that is properly installed and meets all applicable electrical codes. See grounding instructions on page 9.

⚠ WARNING ALWAYS inspect power cord before using bender. Replace damaged or worn cords. DO NOT modify the plug provided with the bender.

⚠ WARNING ALWAYS make sure the circuit breaker switch is in the "off" position before plugging in. This will reduce the risk of unintentional starting.

⚠ WARNING ALWAYS use 12-gauge extension cords that have three prong grounding type plugs and three-hole receptacles that accept the bender's plug. DO NOT use an adapter.

⚠ WARNING NEVER use an extension cord longer than 100 feet. NEVER use a damaged extension cord.

⚠ WARNING ALWAYS disconnect power to the bender before servicing or changing shoes, attachments or supports, and when not in use.

⚠ WARNING NEVER alter this equipment. Doing so will void the warranty and could cause serious injury or death.

⚠ WARNING NEVER remove guards, they are installed for your protection.

⚠ WARNING ALWAYS check for damaged or worn parts. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.

IMPORTANT SAFETY INFORMATION *continued . . .*

⚠ WARNING ALWAYS keep hands and feet away from pinch points such as bending shoes, rollers and conduit when bender is in use.

⚠ WARNING Operator must ALWAYS face the front of the bender and maintain a minimum of 3 feet distance while the conduit is being bent. All other personnel must remain out of the area while the bender is in operation.

⚠ WARNING If bending shoe will not turn, STOP unit and unplug before checking for any obstructions.

⚠ WARNING DO NOT use bender or attachments to do a job for which it was not designed.

⚠ WARNING ALWAYS keep the path of the bending conduit clear of obstructions. Make sure all obstructions are clear of the bending path BEFORE you bend the conduit.

⚠ WARNING NEVER stand on bender. Serious injury could occur if the bender is tipped or if the bending shoe is unintentionally contacted.

⚠ WARNING ALWAYS wear approved safety glasses when servicing or operating this bender.

⚠ WARNING ALWAYS wear proper apparel. Do not wear loose clothing, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.

⚠ WARNING ALWAYS tighten the position locking screw before lifting, rolling or any type of transport.

⚠ WARNING ONLY lift the bender by using the forklift pockets on the base of the frame, or the lifting tube located at the top of the frame.

⚠ CAUTION ALWAYS use appropriate shoe groove and roller support for the type and size conduit to be bent.

⚠ CAUTION ALWAYS keep conduit under control when unloading.

⚠ CAUTION Some accessories and components exceed 50 lbs. and will require more than one person to lift, transport and assemble.

⚠ CAUTION DO NOT bend over 100°. Doing so will cause the hook on the opposite side of the shoe to collide with the conduit.

⚠ CAUTION KEEP CHILDREN AWAY. All visitors should be kept at a safe distance from work area.

SPECIFICATIONS – 797 IQ™ BENDER

height	**47½"**
width	**30¼"**
length	**36⅝"**
weight	**585 lbs (with standard shoe group)**
power requirement	**120 Vac 20 amp GFCI protected circuit**
capacity	**½" thru 2" Rigid conduit** **½" thru 2" EMT conduit** **½" thru 2" IMC conduit** **½" thru 2" Rigid aluminum conduit** **½" thru 2" schedule 40 steel pipe** **½" thru 2" 40 mil PVC coated Rigid conduit —** **(with optional shoe and roller support)**

NOTE: The 797 IQ™ Bender is NOT to be used for bending any conduit or steel pipe with wall thickness above schedule 40.

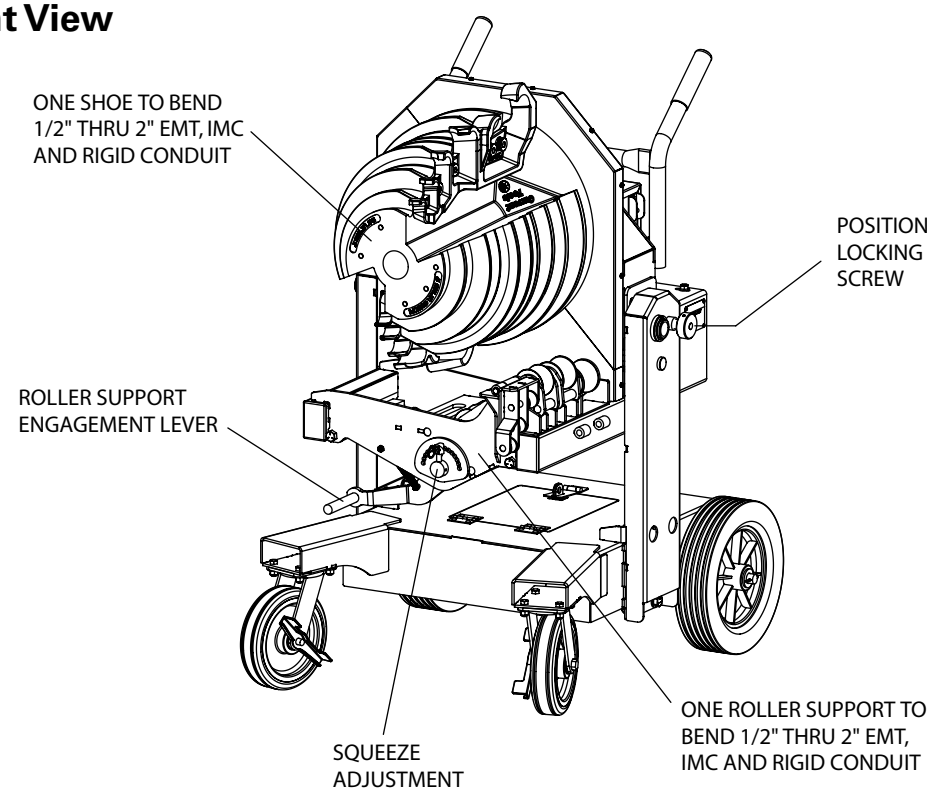
Bend Radius Chart

Size	EMT	IMC	Rigid	PVC Coated Rigid
1/2"	4-5/16"	4-1/4"	4-1/4"	4-1/4"
3/4"	5-1/2"	5-7/16"	5-7/16"	5-7/16"
1"	7"	6-15/16"	6-15/16"	6-15/16"
1 1/4"	8-1/4"	8-3/16"	8-3/16"	8-3/4"
1 1/2"	8-3/8"	8-1/4"	8-1/4"	8-1/4"
2"	9-1/4"	9"	9"	9"

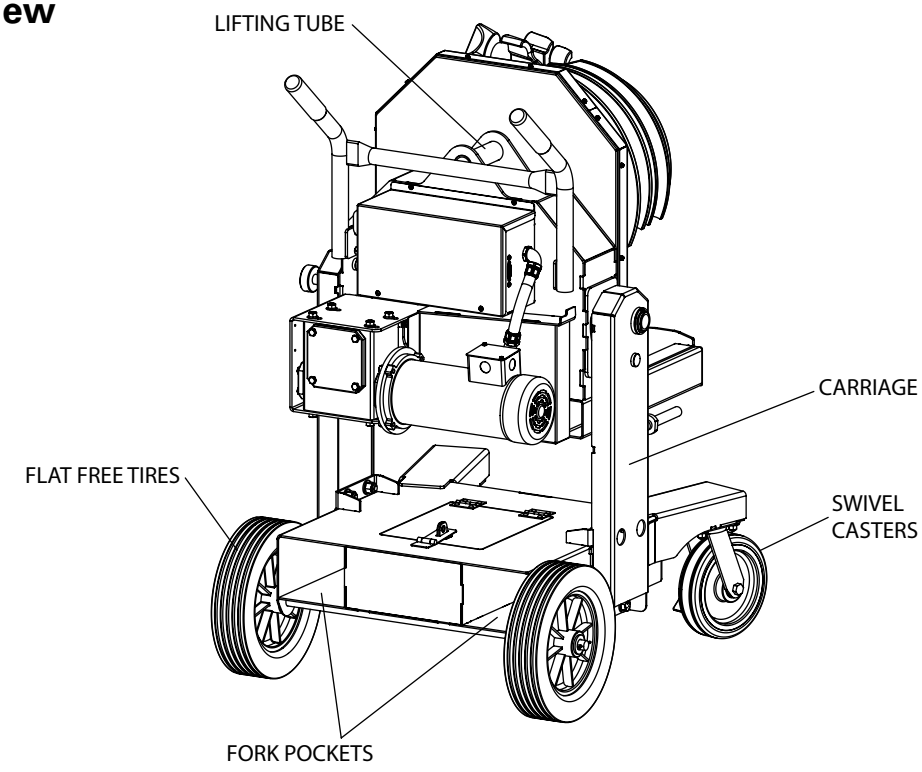
FEATURES

- Only one shoe needed to bend 1/2" to 2" Rigid, EMT and IMC conduit
- Optional shoe group bends 1/2" to 2" 40 mil PVC coated Rigid conduit.
- Proven electrical control system.
- Two large casters and two flat-free wheels for ease in moving.
- Programmable pendant for accurate repeat bends.
- Fork pockets for easy lifting.
- Tilts for horizontal bending in a table top position.
- Quick squeeze adjustment for EMT and IMC conduit support rollers.
- Position locking screw to remove excess play in bender power unit.

Front View

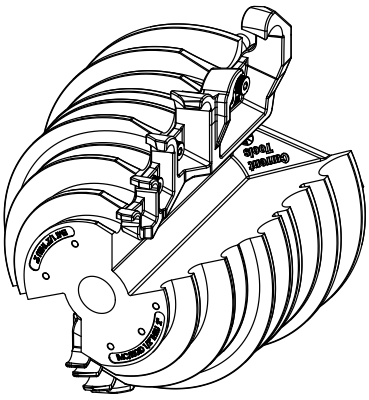


Rear View

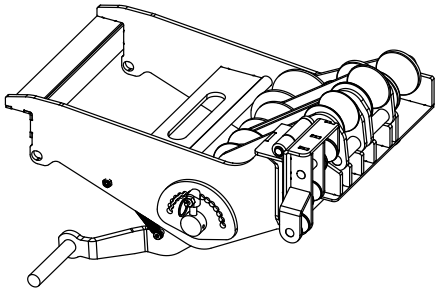


STANDARD SHOE GROUP

Standard Shoe Part # 797-104
Standard Roller Support Part # 797-400



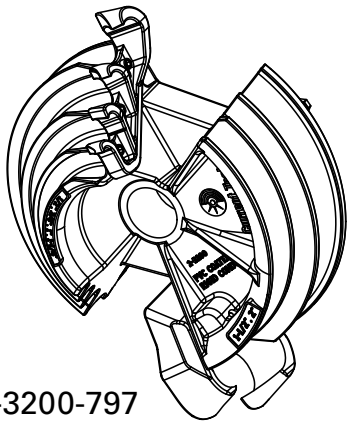
797-104



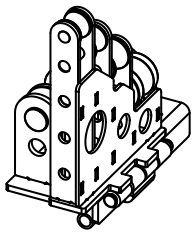
797-400

PVC COATED RIGID SHOE GROUP

PVC Coated Rigid Shoe Part # 2-3200-797
PVC Coated Rigid Roller Support # 2-4300-797



2-3200-797



2-4300-797

CONDUIT CENTERLINE BENDING RADII

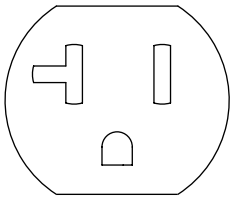
size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
EMT	4-5/16	5-1/2	7	8-1/4	8-3/8	9-1/4
IMC	4-1/4	5-7/16	6-15/16	8-3/16	8-1/4	9
RIGID	4-1/4	5-7/16	6-15/16	8-3/16	8-1/4	9
PVC COATED RIGID	4-1/4	5-7/16	6-15/16	8-3/4	8-1/4	9

GROUNDING INSTRUCTIONS

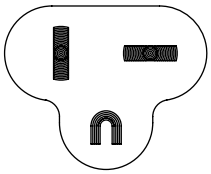
⚠ WARNING

ELECTRIC SHOCK HAZARD! Only connect the bender to a 20 amp GFCI protected circuit. Do NOT modify the plug which is provided with the unit. Failure to follow these warnings can result in serious injury or death.

This bender is intended for use on a circuit that has a receptacle that looks like the one illustrated below. The bender has a grounding plug that looks like the plug illustrated below.



RECEPTACLE



PLUG

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. The bender is equipped with an electric cord having an equipment grounding conductor and a grounding plug. Only connect the bender to a 20 amp GFCI protected receptacle which is properly installed and grounded to meet all applicable electrical codes. DO NOT use an adapter.

DO NOT modify the plug provided. If it will not fit the receptacle, have the proper receptacle installed by a qualified electrician.

Improper connection of the equipment grounding conductor can result in risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the bender is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the bender's plug.

Repair or replace damaged or worn cord immediately.

TRANSPORTING

⚠ WARNING

ALWAYS tighten the position locking screw before lifting, rolling or any type of transporting.

MOVING ON THE GROUND:

NOTE: Bender power unit should be in the secured, vertical position for ground transport.

1. If the bender power unit is in the horizontal position (see Figure 10a), unscrew the position locking screw until it clears the bender power unit.
2. Lift the handles of the bender power unit and rotate until the bender power unit is in the vertical position. (See Figure 10b).
3. Screw the position locking screw fully into the hole on the side of the bender power unit until tight. (See Figure 10c). The bender is now secured and ready to be moved on the ground.
4. Reverse the above steps to return the bender power unit to the horizontal position.

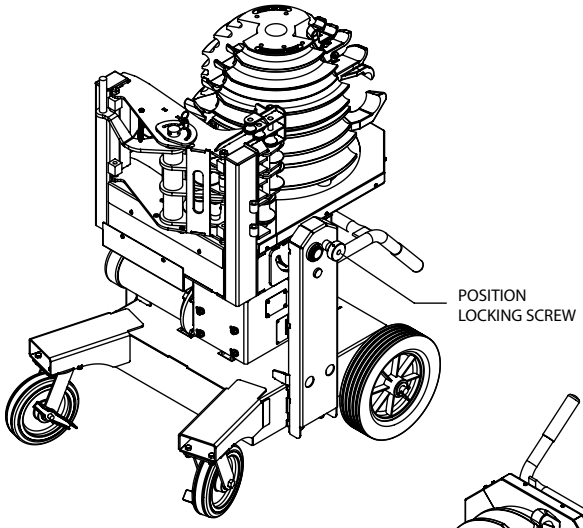


Figure 10a
(horizontal position)

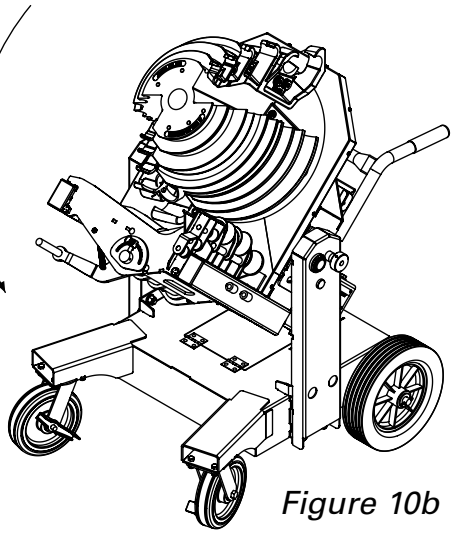


Figure 10b

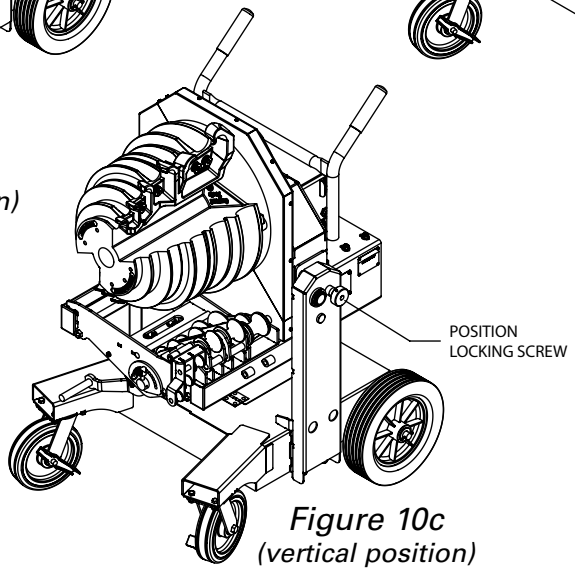


Figure 10c
(vertical position)

TRANSPORTING

⚠ WARNING

ALWAYS tighten the position locking screw before lifting, rolling or any type of transporting.

TRANSPORTING WITH A FORKLIFT:

1. Lock the two front swivel casters.
2. Rotate the bender power unit to the horizontal position and secure with the position locking screw (See Figure 10a).
3. Adjust the spacing of the forklift forks to match the bender fork pockets on the base of the frame.
4. Insert the forks from the back side of the bender until they make contact with the fork stops on the front side of the carriage (See Figure 11a). Lift the bender and tilt mast back for stability.

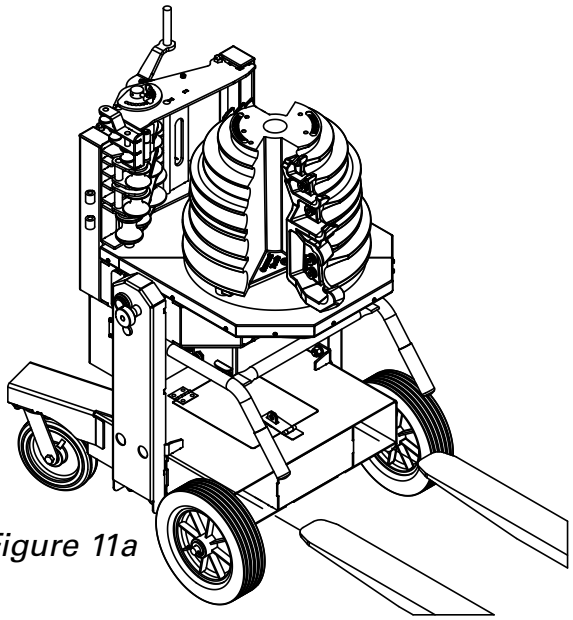


Figure 11a

TRANSPORTING WITH A CRANE:

1. 1. Rotate the bender power unit to the vertical position and secure with the position locking screw (See Figure 10c).
2. Use a sling with a minimum lifting capacity of 2,000 lbs. around the lifting tube on the back side of the bender power unit (see Figure 11b) and lift. **DO NOT** use handles to lift the bender.

⚠ WARNING

DO NOT use handles to lift the bender.

⚠ WARNING

Ensure that the bending shoe and roller support are secured prior to lifting.

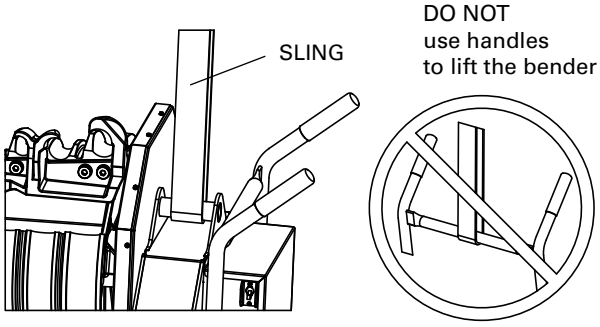


Figure 11b

TRANSPORTING

⚠ WARNING

ALWAYS tighten the position locking screw before lifting, rolling or any type of transporting.

TRANSPORTING ON A TRAILER:

1. Rotate the bender power unit to the horizontal position and secure with the position locking screw (See Figure 10a).
2. Place the bender on the trailer in the orientation shown in Figure 12a.
3. Chock the bender wheels.
4. Attach two straps (minimum 1,000 lb. capacity each) across the base of the bender to secure the bender to the trailer. (See Figure 12b).

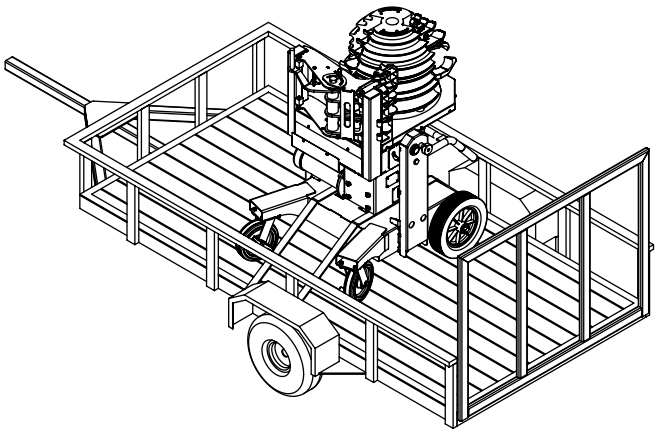


Figure 12a

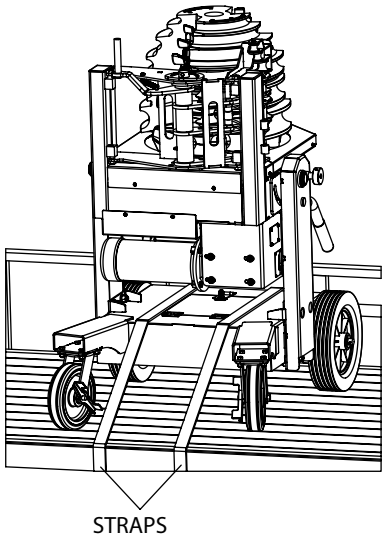


Figure 12b

SET-UP AND BENDING INSTRUCTIONS

⚠ WARNING

ALWAYS wear approved safety glasses when servicing or operating this bender.

1. Locate the bender on a firm, flat surface that will keep the path of the bending conduit clear of any obstructions. Make sure all obstructions are clear of the bending path BEFORE you bend the conduit.
2. Lock the two front swivel casters.
3. Rotate the bender power unit to the desired vertical or horizontal bending position (see rotating instructions in the TRANSPORTING section of this manual).
4. Ensure the circuit breaker switch is in the "OFF" position and plug the bender into a 120V, 20 AMP ground fault protected receptacle.
5. Plug the pendant assembly into the pendant receptacle located on the side of the electrical compartment.
6. Place the circuit breaker switch in the "ON" position.

1/2" TO 1" BENDING INSTRUCTIONS — EMT, IMC AND RIGID

1. For bending EMT, IMC or Rigid Conduit, the indicator light in the upper right hand corner of the pendant must be set to Standard (STD). The indicator light will be red when set to Standard. If the indicator light is green, the pendant is set for PVC Coated Rigid Conduit (PVC). To change to Standard, press and hold the CLEAR button on the pendant for 3 seconds. The indicator light will then change to red.

NOTE: For complete pendant instructions, see the section Pendant Operation on page 24.

2. Using the UNLOAD button on the pendant, rotate the bending shoe so that the hooks used for the type conduit you are bending approach the 7 o'clock position. (Blue hooks are used for Rigid and IMC conduit; Silver hooks are used for EMT conduit.) The bender will automatically stop at the load position, which is approximately (-6) deg.
3. Rotate the 1/2" to 1" Roller Support to the up position.
4. Mark conduit to the desired length. A minimum of 2" from the end of the conduit to the front edge of the hook is required to eliminate flattening the end of the conduit. **NOTE**: Stub-up and offset information can be found on pages 20-23 in this manual, or on the bending instruction decal located on the bender.
5. Load the conduit across the correct roller and through the groove of the bending shoe. The bending mark should be aligned with the front edge of the hook.

1/2" TO 1" BENDING INSTRUCTIONS — *CONTINUED*

6. Use the BUMP button on the pendant to snug the shoe hook to the conduit.
7. Consult the Conduit Springback Chart on page 21, or the Springback chart decal on the bender, and set the desired bend angle in the pendant (See "SETTING ANGLE STOP" in the Pendant Operation section on page 24 to set the desired bend angle). Bend the Conduit by holding down the BEND button until the bender automatically stops at the set degree. Release the "Bend" button. **NOTE**: The bend angle cannot be set higher than 100 degrees to protect components on the bender.

   To bend manually without setting the bend angle, press the CLEAR button on the pendant to clear out any set angle, then press the BEND button until your desired degree of bend is displayed on the pendant. **NOTE**: The maximum bend angle for manual bending is 100 degrees to protect components on the bender.
8. After the bend is complete, push the UNLOAD button on the pendant and remove the conduit, or adjust conduit for the next bend. **NOTE**: The ½" to 1" roller support can be rotated down to help with removal of the bent conduit.

⚠ WARNING

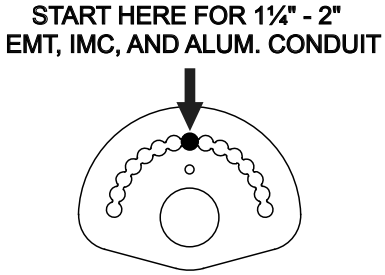
The conduit should be under control when unloading.
Failure to do so may result in injury or death.

1 1/4" TO 2" BENDING INSTRUCTIONS — EMT, IMC AND RIGID

1. For bending EMT, IMC or Rigid Conduit, the indicator light in the upper right hand corner of the pendant must be set to Standard (STD). The indicator light will be red when set to Standard. If the indicator light is green, the pendant is set for PVC Coated Rigid Conduit (PVC). To change to Standard, press and hold the CLEAR button on the pendant for 3 seconds. The indicator light will then change to red.
2. Using the UNLOAD button on the pendant, rotate the bending shoe so that the hooks used for the type conduit you are bending approach the 7 o'clock position. (Blue hooks are used for Rigid and IMC conduit; silver hooks are used for EMT conduit.) The bender will automatically stop at the load position, which is approximately (-6) deg.
3. Mark conduit to the desired length. A minimum of 2" from the end of the conduit to the front edge of the hook is required to eliminate flattening the end of the conduit. **NOTE**: Stub-up and offset information can be found on pages 20-23 in this manual, or on the bending instruction decal located on the bender.
4. Load the conduit across the correct roller and through the groove of the bending shoe. The bending mark should be aligned with the front edge of the hook.

1 1/4" TO 2" BENDING INSTRUCTIONS — *CONTINUED*

5. For EMT, IMC and aluminum conduit ONLY, push the roller support lever to lift the rollers. For rigid steel conduit, the roller supports remain in the down position. **DO NOT** use the support lever when bending rigid steel conduit. **NOTE**: The roller support for 1 1/4" thru 2" EMT, IMC and aluminum rigid conduit has a squeeze adjustment feature. Recommended starting points for the type and size conduit being bent are shown below, as well as on a decal located beside the squeeze adjustment plate on the bender.



6. Use the BUMP button on the pendant to snug the shoe hook to the conduit. NOTE: For EMT, IMC, and aluminum conduit ONLY, keep pressure on the roller support lever until shoe hook is snug to the conduit.
7. Consult the Conduit Springback Chart on page 21, or the Springback chart decal on the bender, and set the desired bend angle in the pendant (See ANGLE SELECT in the PENDANT OPERATION section on page 24 to set the desired bend angle). Bend the Conduit by holding down the BEND button until the bender automatically stops at the set degree. Release the BEND button. **NOTE**: The bend angle cannot be set higher than 100 degrees to protect components on the bender.
   To bend manually without setting the bend angle, press the CLEAR button on the pendant to clear out any set angle, then press the BEND button until your desired degree of bend is displayed on the pendant. **NOTE**:
   The maximum bend angle for manual bending is 100 degrees to protect components on the bender.
8. After the bend is complete, push the UNLOAD button on the pendant and remove the conduit, or adjust conduit for the next bend. **NOTE**: The 1 1/4" to 2" roller support assembly will return to its starting position when the shoe is turned in the UNLOAD direction for easy removal of conduit.

⚠ WARNING

The conduit should be under control when unloading.
Failure to do so may result in injury or death.

9. After removal of conduit, inspect it for wrinkling or excessive side marking.

For EMT and IMC conduit:

- If the EMT or IMC conduit wrinkles when bending, the squeeze adjustment is set too loose. Pull the ring on the squeeze adjustment pin and rotate the pin clockwise to the next hole. This will INCREASE the squeeze on the conduit. Continue this process until the wrinkling is eliminated.
- If side marking occurs on EMT or IMC conduit, the squeeze adjustment may be set too tight. Pull the ring on the squeeze adjustment pin and rotate the pin counterclockwise to the next hole. This will REDUCE the squeeze on the conduit. Continue this process until the side marking is eliminated. If side marking cannot be eliminated, or side marking and wrinkling are occurring simultaneously, the supports may be out of alignment. See the section **ADJUSTING THE SUPPORTS** below.

ADJUSTING THE SUPPORTS:

1. Rotate the bender to the horizontal position and secure with the position locking screw (see Figure 10a on page 10).
2. Remove Bottom Chain Shield (See item 41 on page 35).
3. Using an open-end wrench, loosen the two Front Adjusting Screws.
4. Turn the two Rear Adjusting Screws until the rollers are aligned with the grooves of the shoe and the roller support frame is parallel to the bender frame.
5. Tighten the two Front Adjusting Screws.

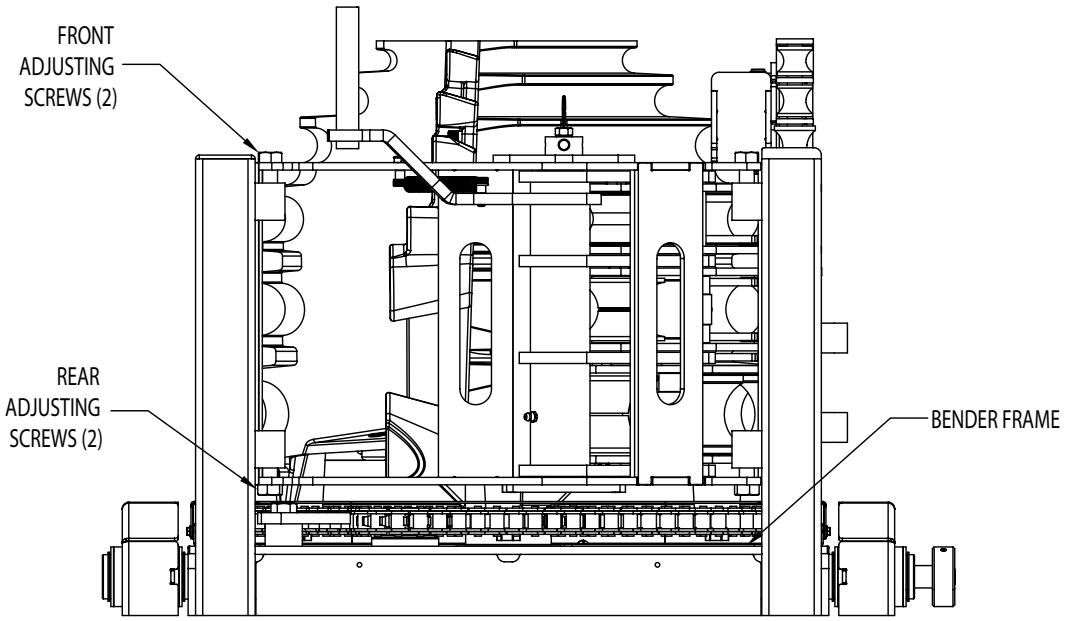


Figure 16

1/2" TO 2" BENDING INSTRUCTIONS — PVC COATED RIGID

NOTE: Bending PVC Coated Rigid Conduit on the 797 bender requires an optional shoe (part # 2-3200-797) and roller support (part # 2-4300-797).

1. Switch the circuit breaker to the “off” position and disconnect the bender from the power source
2. While pulling the shoe lock pin, slide the standard bending shoe off of the nose of the bender. **NOTE**: The bending shoe weighs more than 50 lbs. and will require two people to remove.

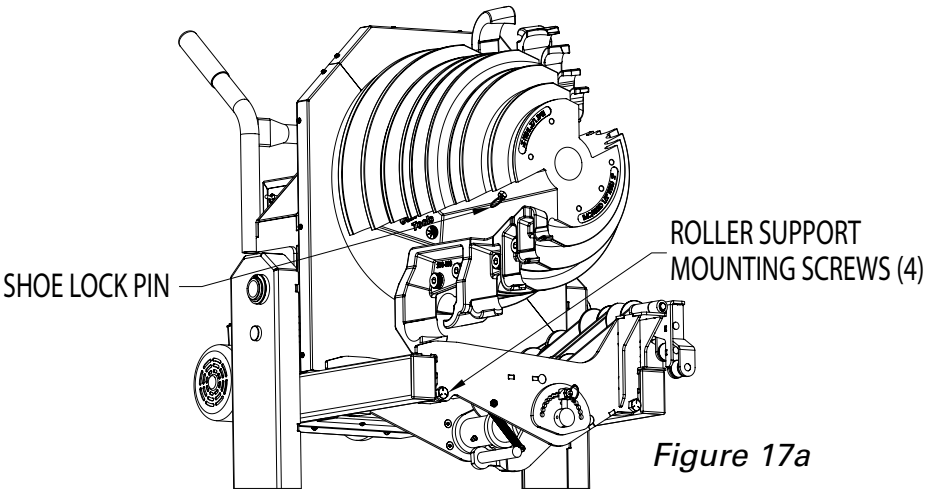


Figure 17a

3. Remove the four mounting screws securing the roller support to the bender and remove the roller support (see Figure 17a).
4. Place the optional bending shoe for PVC Coated Rigid Conduit onto the nose of the bender and slide completely down the nose, making sure that the large drive stud on the back of the shoe aligns with the large hole in the drive sprocket (see Figure 17b).

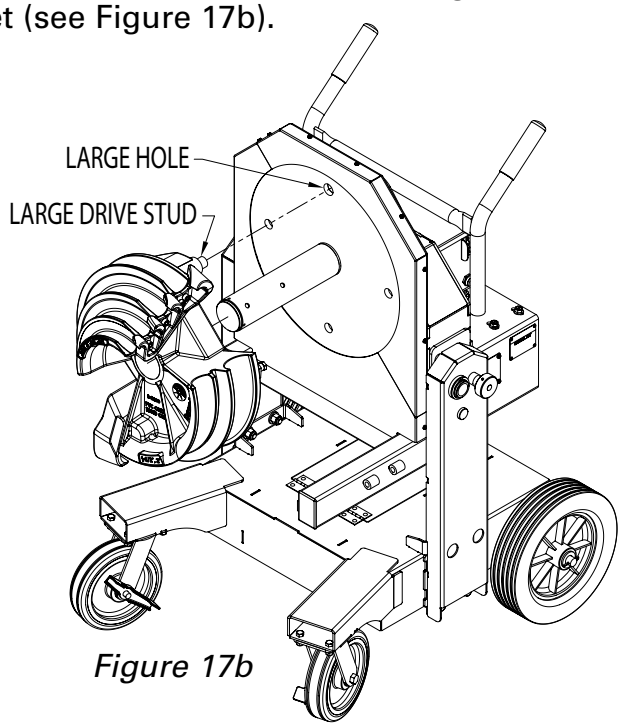


Figure 17b

5. Slide the shoe locking collar onto the nose of the bender and secure by aligning the lock pin with the collar retaining hole as shown (see Figure 18a).

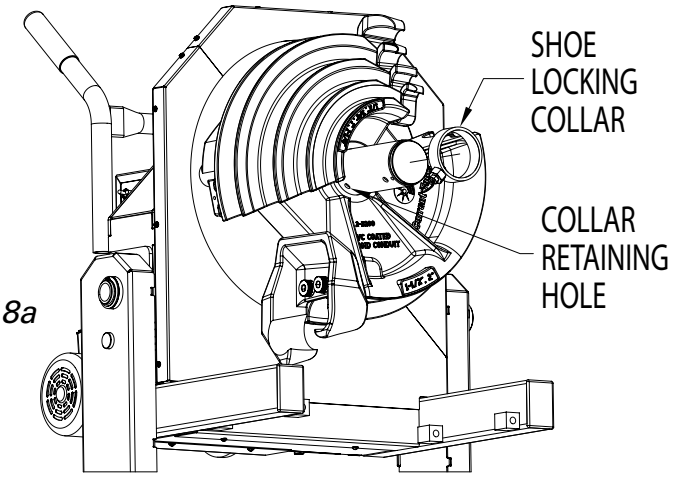


Figure 18a

6. Next, install the roller support (part # 2-4300-797) onto the leg of the bender using the roller support pin as shown (see Figure 18d).

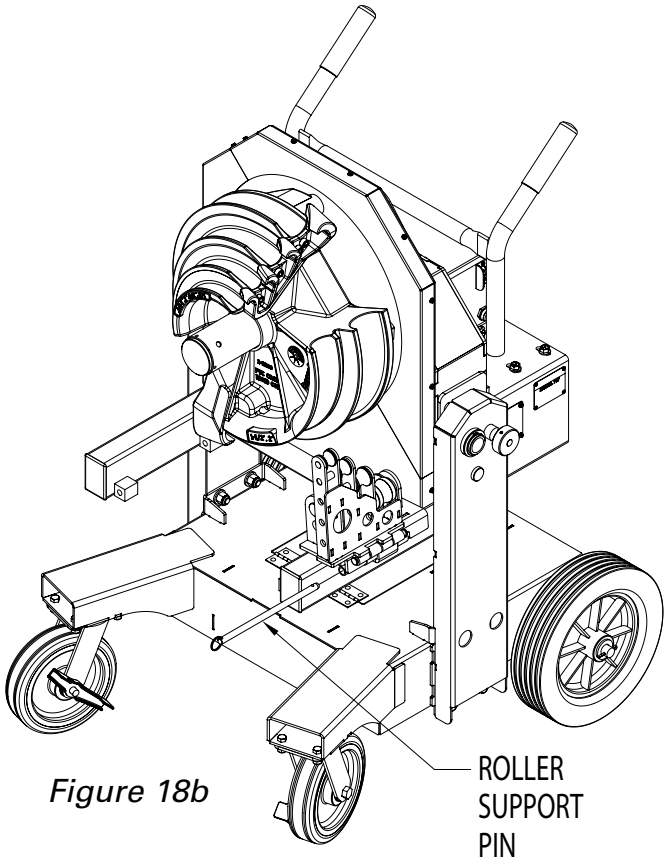


Figure 18b

7. For ½" thru 1 ¼" PVC Coated Rigid Conduit, rotate the four-roller assembly of the roller support to the up position. For 1 ½" and 2", rotate the four-roller assembly down and use the two-roller assembly.
8. Mark conduit to the desired length. A minimum of 2" from the end of the conduit to the front edge of the hook is required to eliminate flattening the end of the conduit. **NOTE**: Stub-up and offset information can be found on pages 20-23 in this manual, or on the bending instruction decal located on the bender.
9. Load the conduit across the correct roller and through the groove of the bending shoe. The bending mark should be aligned with the front edge of the hook.
10. Use the "BUMP" button on the pendant to snug the shoe hook to the conduit.
11. Consult the Conduit Springback Chart on page 21, or the Springback Chart decal on the bender, and set the desired bend angle in the pendant (See " ANGLE SELECT" in the Pendant Operation section on page 24 to set the desired bend angle). Bend the Conduit by holding down the "BEND" button until the bender automatically stops at the set degree. Release the "BEND" button. **NOTE**: The maximum bend angle cannot be set higher than 100 degrees to protect components on the bender.

    To bend manually without setting the bend angle, press the "CLEAR" button on the pendant to clear out any set angle, then press the "BEND" button until your desired degree of bend is displayed on the pendant. **NOTE**: The maximum bend angle for manual bending is 100 degrees to protect components on the bender.
12. After the bend is complete, push the "UNLOAD" button on the pendant and remove the conduit, or adjust conduit for the next bend. **NOTE**: The ½" – 1 ¼" roller assembly can be rotated down to help with removal of bent conduit.

⚠ WARNING

The conduit should be under control when unloading.
Failure to do so may result in injury or death.

STUB-UP BENDING INFORMATION AND CHARTS

To locate bending marks and springback of 15, 30, 45, 60, and 90 degree bends for a desired stub:

1. Check Chart A, B, C or C1 on Page 21 for deduct length. Note that minimum stub length is deduct length plus 2".
2. Measure and mark desired stub length on conduit (stub length mark). Subtract “Deduct Length" from this mark and make a second mark (bending mark). See Fig 20a and 20b. Place bending mark at front edge of shoe hook. See Figure 20c. Check Chart A, B, C or C1 on Page 21 for springback of desired degree of bend. Bender should be advanced to this degree to obtain desired degree of bend.

Figure 20a

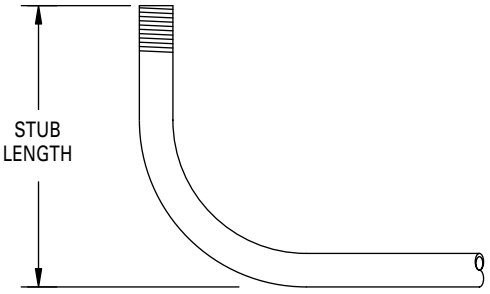


Figure 20b

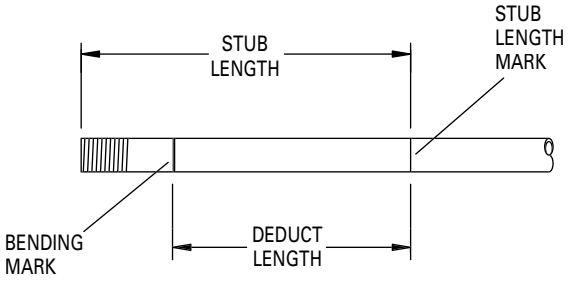


Figure 20c

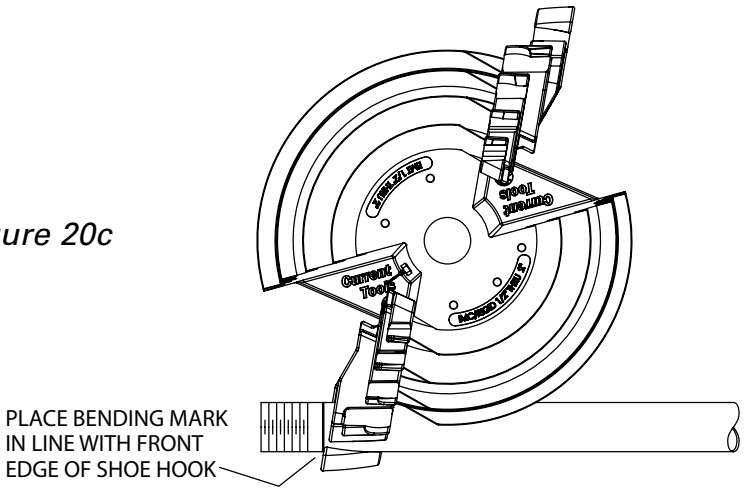


Chart A – RIGID Conduit/Schedule 40 Pipe

Rigid Size	Deduct Length	Springback				
		15°	30°	45°	60°	90°
1/2	7-3/4"	19	34	49	65	96
3/4	9-3/4"	18	33	49	65	96
1	12-1/4"	17	33	48	63	95
1-1/4	14-1/2"	18	34	49	64	95
1-1/2	15-1/4"	17	33	48	64	95
2	16-1/2"	18	33	48	64	94

Chart B – EMT

EMT Size	Deduct Length	Springback				
		15°	30°	45°	60°	90°
1/2	7-3/4"	18	34	49	64	95
3/4	9-5/8"	17	33	48	64	94
1	11-3/4"	17	33	48	64	94
1-1/4	14-1/8"	18	33	49	65	95
1-1/2	15-1/8"	17	32	48	63	93
2	16-1/2"	18	35	49	64	95

Chart C – IMC Conduit

IMC Size	Deduct Length	Springback				
		15°	30°	45°	60°	90°
1/2	7-3/4"	21	36	51	67	98
3/4	9-3/4"	20	35	51	67	98
1	12-1/4"	19	35	50	65	97
1-1/4	14-1/2"	20	36	51	66	97
1-1/2	15-1/4"	19	35	50	66	97
2	16-1/2"	20	35	50	66	96

Chart C1 – PVC Coated Rigid Conduit

PVC Size	Deduct Length	Springback				
		15°	30°	45°	60°	90°
1/2	7-1/2"	16	31	47	62	93
3/4	9"	15	31	46	62	93
1	11"	16	32	47	63	94
1-1/4	13-5/8"	15	30	46	61	92
1-1/2	14-7/8"	18	33	49	64	95
2	16-1/8"	19	34	50	65	96

NOTE: Springback figures are approximate.

Minimum Stub Length = Deduct Length plus 2"

OFFSET BENDING INFORMATION AND CHARTS

To locate bending marks for a desired offset:

1. Measure distance from end of conduit to start of bend and mark conduit. (Mark 1) See Figure 22a and 22b.
2. Refer to chart E for measurement “X" (see page 23) and deduct this distance from Mark 1 and place Mark 2 on conduit. (See Figure 22b).
3. Refer to chart D (see page 23) for center-to-center distance between marks. Measure this distance from Mark 2 and place Mark 3 on conduit.
4. Layout of bends is now complete. Next, place Mark 2 in line with front edge of shoe hook and make first bend. (See Figure 22c).
5. Rotate conduit 180 degrees. Place Mark 3 in line with front edge of shoe hook and complete second bend.

Figure 22a

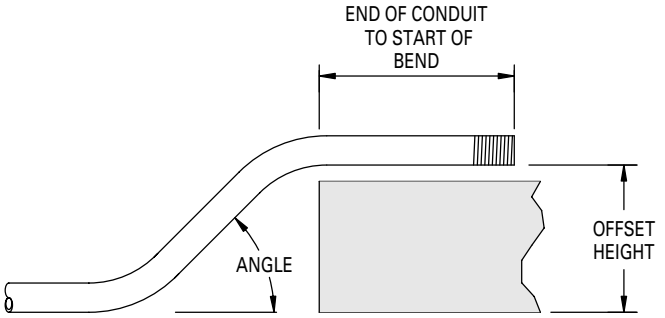


Figure 22b

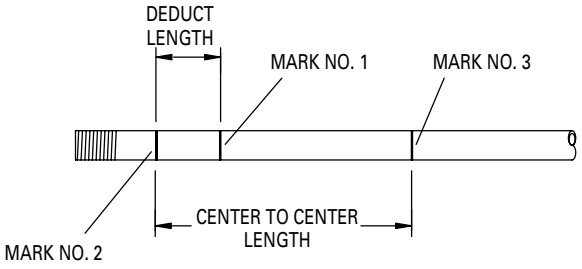


Figure 22c

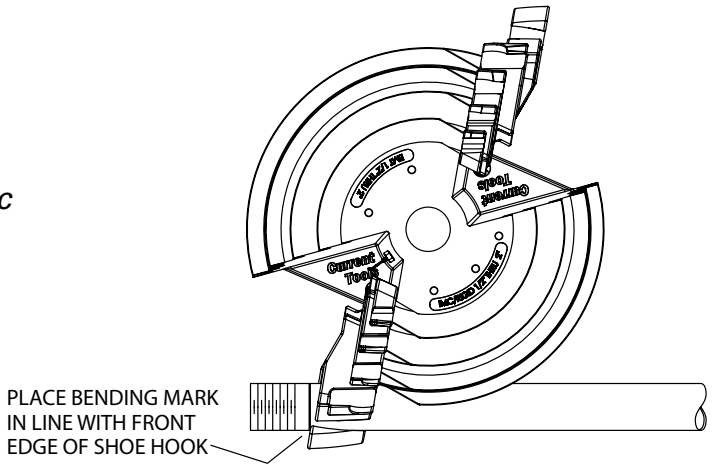


Chart D — Offset Height *Figures are approxiate.*

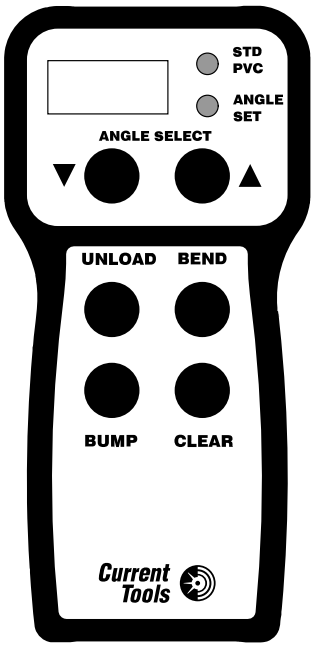
Offset Height		2	4	6	8	10	12	14	16	18	20	22
15°	Max Conduit Size	1-1/4"	2"	2" and smaller								
	Center-to-Center	7-3/4"	15-7/16"	23-3/16"	30-15/16"	38-5/8"	46-3/8"	54-1/16"	61 13/16"	69-9/16"	77-1/4"	85"
30°	Max Conduit Size		1"	2"	2" and smaller							
	Center-to-Center		7-15/16"	11-15/16"	15-15/16	19-15/16"	23-15/16"	27-15/16"	31-15/16"	35-15/16"	39-15/16"	43-15/16"
45°	Max Conduit Size			3/4"	1"	2"	2" and smaller					
	Center-to-Center			8-3/16"	11"	13-13/16"	16-11/16"	19-1/2"	22-5/16"	25-1/8"	28"	30-13/16"

To locate center-to-center distance of offset bending marks other than those listed in Chart D, use the following multipliers. Multiply the height of offset desired by 3.86 on 15 degree bends, 2 on 30 degree bends, and 1.4 on 45 degree bends.

Chart E *Figures are approximate.*

Conduit Size	1/2	3/4	1	1 1/4	1 1/2	2
"x"	2-15/16"	3-1/2"	3-15/16"	5-1/16"	5-11/16"	6-1/8"

PENDANT OPERATION



FEATURE	FUNCTION
STD/PVC LIGHT	Color indicates the active bending mode. RED – STD – Standard Shoe GREEN – PVC - PVC-Coated Shoe
ANGLE SET	Red light illuminates when the programmed angle stop is active.
ANGLE SELECT	Sets the programmed angle stop for bending. Press: Increments by 1° Hold: Increments by 5°
UNLOAD	Rotates the bending shoe in the unload (counter-clockwise) direction until the load angle (-6°) is reached.
BEND	Rotates the bending shoe in the bend (clockwise) direction up to the maximum bend angle (100°) or the programmed angle stop (if set)
BUMP	Incrementally rotate the bending shoe in the bend (clockwise) direction.
CLEAR	Press: Removes the programmed angle stop. Hold: Switches between standard and PVC-coated bending modes

MODE SELECTION

To switch the bender mode between standard (STD) and PVC-coated (PVC), press and hold CLEAR until the the STD/PVC light changes color and the display shows the mode text (STD or PVC). Ensure the bending mode matches the shoe being used for bending.

SHOE SIDE SELECTION

To change the working side of the bending shoe, first press and hold UNLOAD until the shoe reaches the load angle (-6°). Release UNLOAD. Then, press and hold UNLOAD again until the shoe reaches the load angle of the desired side of the bending shoe. The displayed angle will automatically adjust to the working side of the bending shoe.

SETTING ANGLE STOP

To set the programmed angle stop, press either ▼or ▲ ANGLE SELECT buttons. ANGLE SET will illuminate red indicating the programmed angle stop is active. Continue using ▼ and ▲ until the desired stop angle is displayed. After 3 seconds, the display will return to the current shoe angle. The bender will now stop at the programmed angle. To remove the programmed angle stop, press CLEAR. ANGLE SET will turn off, indicating the programmed angle stop is inactive.

CALIBRATION

⚠ CAUTION

Do not operate the bender if the pendant is not properly calibrated. Poor or improper calibration may cause the overbend protection to be ineffective and could result in personal injury or damage to the equipment.

The calibration process is used to train the pendant to accurately read the position of the drive sprocket. Calibration must be performed anytime the pendant is replaced with a different pendant or maintenance is performed that involves removing the Sensor Cap (see item 49 on page 34).

CHECKING CALIBRATION:

1. To check calibration, first prepare the bender according to the section SET-UP AND BENDING INSTRUCTIONS on page 13.

1. Ensure the pendant is in STD bending mode and rotate the shoe until the blue Rigid/IMC hook is in the 6 o'clock position. See MODE SELECTION on page 24 for instructions on how to change the active bending mode.

2. Load a section of 2" Rigid conduit across the 2" support roller and through the 2" Rigid hook. Using the BUMP button, incrementally rotate the bending shoe until the conduit just becomes snug with the hook (see Figure 25a).

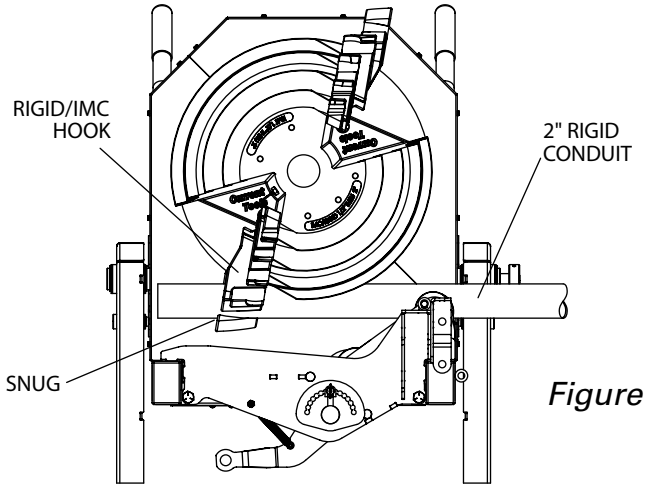


Figure 25a

3. Check the angle displayed on the pendant. If the display reads "0", the pendant is properly calibrated. If the display does not read "0", refer to section PERFORMING CALIBRATION for instructions on calibrating the pendant.

PERFORMING CALIBRATION

⚠ CAUTION

Calibration mode disables the bend direction maximum angle stops. DO NOT bend conduit in calibration mode and ensure the roller supports are in the fully retracted position when calibrating.

1. Prepare the bender according to the section SET-UP AND BENDING INSTRUCTIONS on page 13.
2. To enter calibration mode, first press and hold CLEAR until the STD/PVC light changes color and the bending mode is displayed. While still holding CLEAR, press and hold BUMP until AbS appears on the display. Release both buttons.
   NOTE: Calibration mode is universal and does not need to be entered from a specific bending mode or shoe position.
3. Using the BEND or UNLOAD buttons, rotate the shoe until the blue Rigid/IMC hook is in the 6 o'clock position.
4. Load a section of 2" Rigid conduit across the 2" support roller and through the 2" Rigid hook. Using the BUMP button, incrementally rotate the bending shoe until the conduit just becomes snug with the hook (see Figure 25a).
5. Press and hold CLEAR until CAL is displayed. The pendant is now calibrated and ready for use. NOTE: Entering calibration mode may change the active bending mode. See MODE SELECTION on page 24 for instructions on how to change the active bending mode.

⚠ WARNING

ALWAYS disconnect power supply before removing any guards or covers and before servicing this bender. Failure to do so may result in serious injury or death.

1. The Gear Box is filled with oil at the factory and should not require periodic flushing. If the Gear Box is opened for repair, flush by filling the unit with an AGMA #7 oil. Next, run the unit with no load for 3 minutes. Then, drain and refill the unit with 28 fluid ounces of an AGMA #7 oil such as the ones listed below.

   Amoco – Amoco Worm Gear Oil
   Chevron – Cylinder Oil 460X
   Exxon – CYLESSTIC TK460
   Mobil – 600 W Cylinder Oil
   Shell – Sun Gear Oil 7C

2. To inspect FRONT #60 chain tension:
   - Remove face plate.
   - To adjust, loosen hex screw with ¾" wrench and rotate chain tensioner toward chain as shown until chain moves no more than a total of ¼". See Figure 27 below.
   - Grease chain periodically with a good quality MP grease.

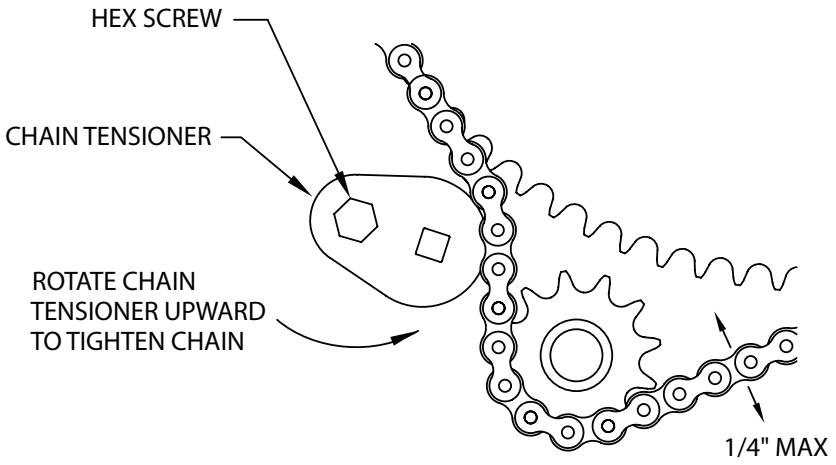


Figure 27

3. To inspect REAR #40 chain tension:
   - Check chain tension after an initial break-in period of 2 - 3 hours of use and tighten per the instructions below. See Figure 28. Thereafter, inspect monthly.
   - Remove the chain guard by taking out the 2 mounting screws.
   - Loosen 8 bolts (4 on top and 4 on bottom) that hold the gear box in position.
   - To tighten chain, move the gear box to the left and re-tighten bolts.
   - For correct tension, chain should deflect approximately ⅛".

     NOTE: Be sure to keep the gear box and motor in line with the bender.
   - Grease chain periodically with a good quality MP grease.

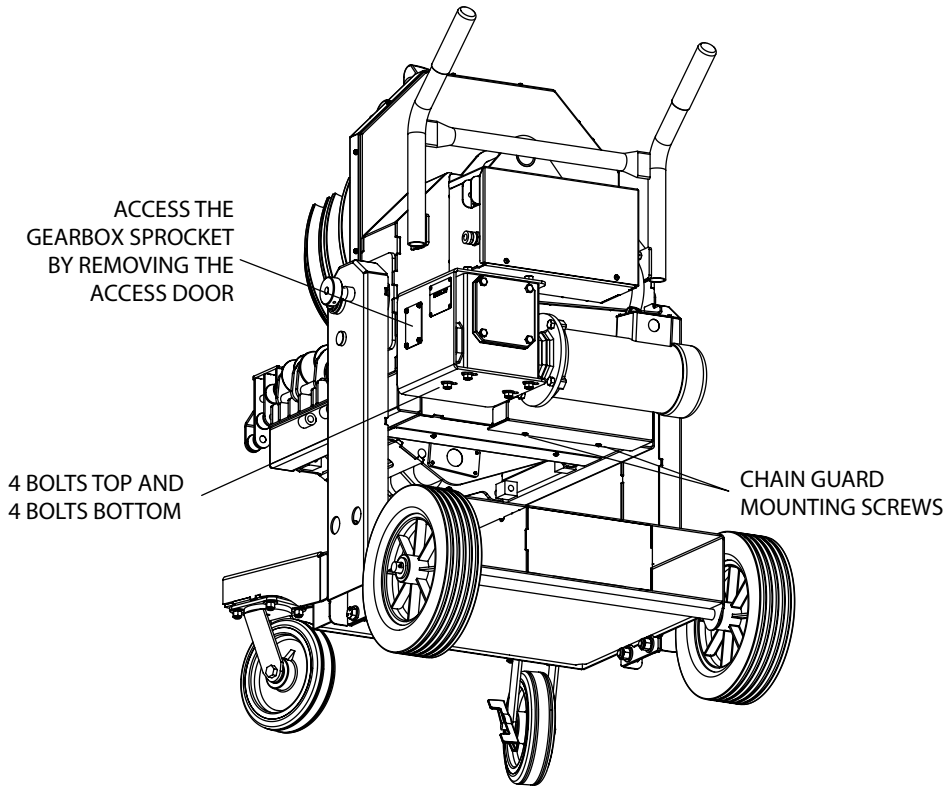


Figure 28

4. Roller Supports:
   We recommend lubrication of the roller support system every 6 months using a good quality MP grease.

Lubricating the rollers:

1. Detach the extension spring from the lever arm and raise the rollers to the upright position (see Figure 29a).
2. Loosen the set screws from the two axle stops and remove the two support axles and three roller assemblies.
3. Disassemble, clean, and apply grease to the locations noted in the parts breakdowns on pages 41-43.
4. Reassemble rollers, noting the roller specific assembly instructions shown in the parts breakdowns on pages 41-43.
   NOTE: Always use new o-rings when reassembling rollers.
5. Reinstall roller assemblies and axles, securing with the two axle stops. Reattach spring.

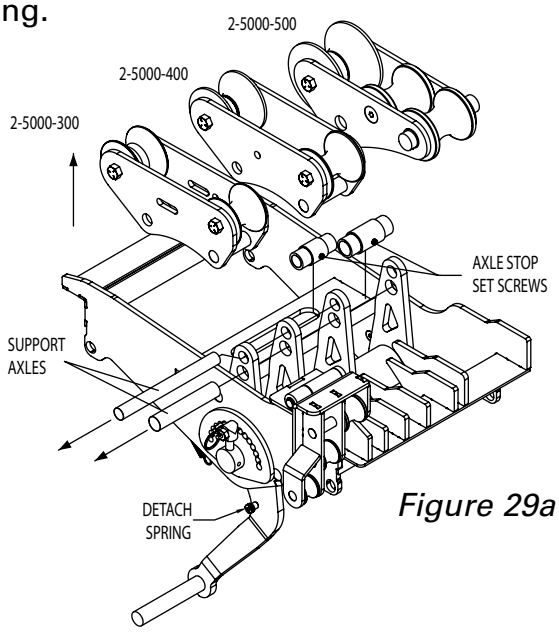


Figure 29a

Lubricating the squeeze components:

Attach a grease gun filled with a good quality MP grease to the grease fitting found on the underside of the roller support arm weldment (see Figure 29). Pump grease into the arm weldment until clean grease can be seen between the ends of the arm weldment and the side plates of the roller support frame.

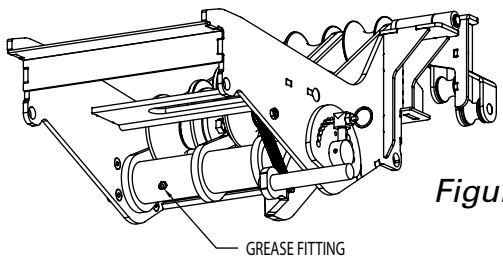


Figure 29b

TROUBLESHOOTING

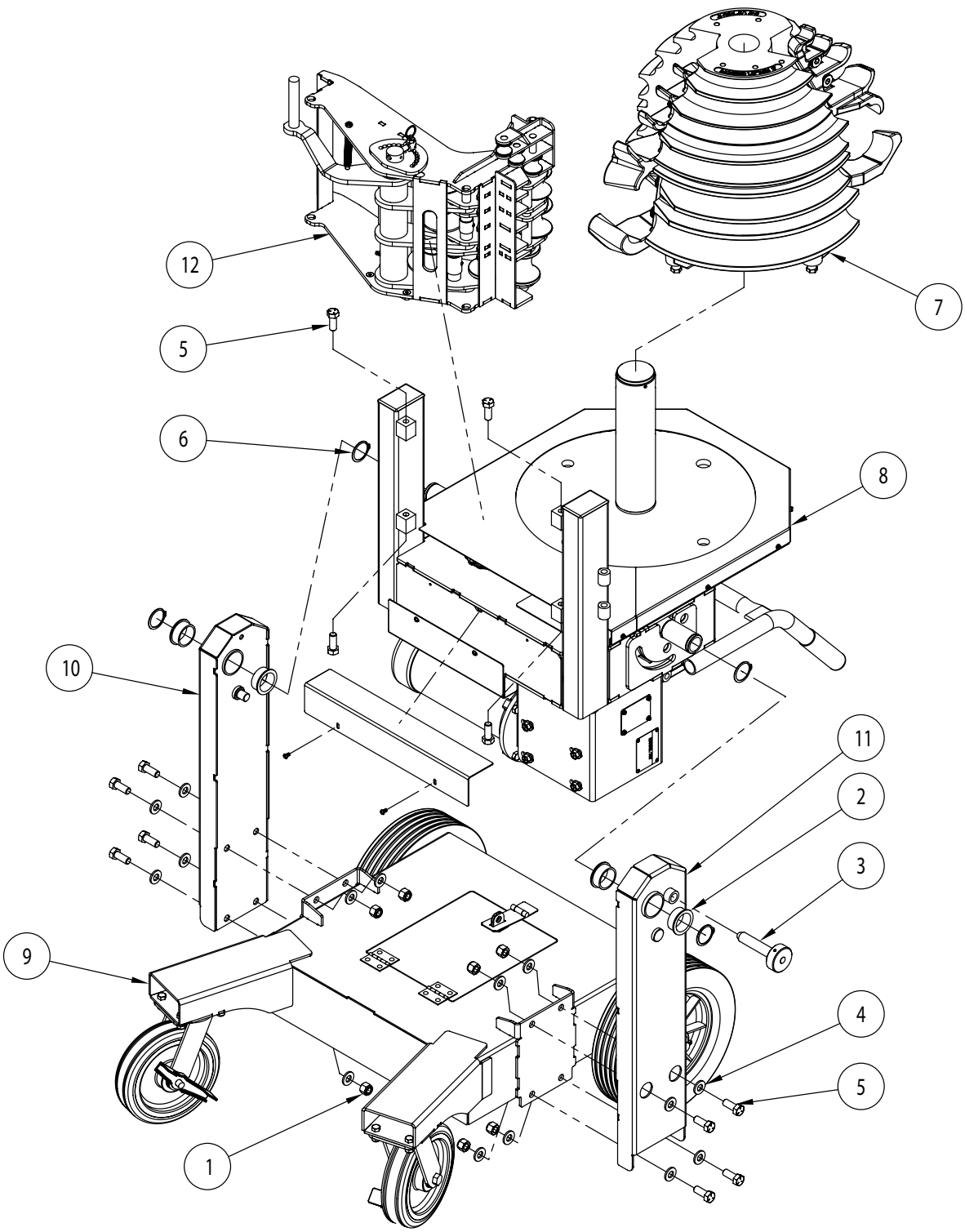
⚠ WARNING

ALWAYS disconnect power supply before removing any guards or covers and before servicing this bender. Failure to do so may result in serious injury or death.

	Problem	Cause	Diagnosis	Cure
1.	Bender will not operate	Power source	Check for voltage at power source	If power is on, go to (#3)
2.	No power at bender	Bad power cord	Ohm cord for broken wire	Replace cord
3.	Power to bender but will not operate	Circuit break /power switch in the off position	Check power on load side of breaker to neutral with volt meter	Turn circuit breaker on. If on, go to the next step.
		Fuse blown	Ohm circuit for short	Replace
		Control Transformer bad	Check voltage in and out, if input but no output	Replace
		Contactor bad	Check contacts and ohm coil for open circuit	Replace
		Bridge rectifier bad	Check with ohm meter	Replace
		Switch bad	Check with ohm meter	Replace
		Motor bad	Check brushes and ohm for open or short armature	Replace
4.	Motor runs but will not bend	Chain from gear box to jack shaft broken	Remove cover and visually check for broken parts	Replace
		Bad gear box	Motor running but no output through gear box	Replace
		Chain from jack shaft to shoe sprocket broken	Remove cover and visually check for broken parts	Replace
		Key between motor and gear box missing	Remove motor from gear box	Replace key
		Key missing from gearbox sprocket	Remove access cover and inspect sprocket for key	Replace key
5.	Bender operates in one direction only	Bad contactor	Check contact and ohm for open circuit	Replace
6.	Contactors chatter	Low power to bender	Check with amp meter	Do not use long drop cords

refer to **PARTS LIST** *on page 32*

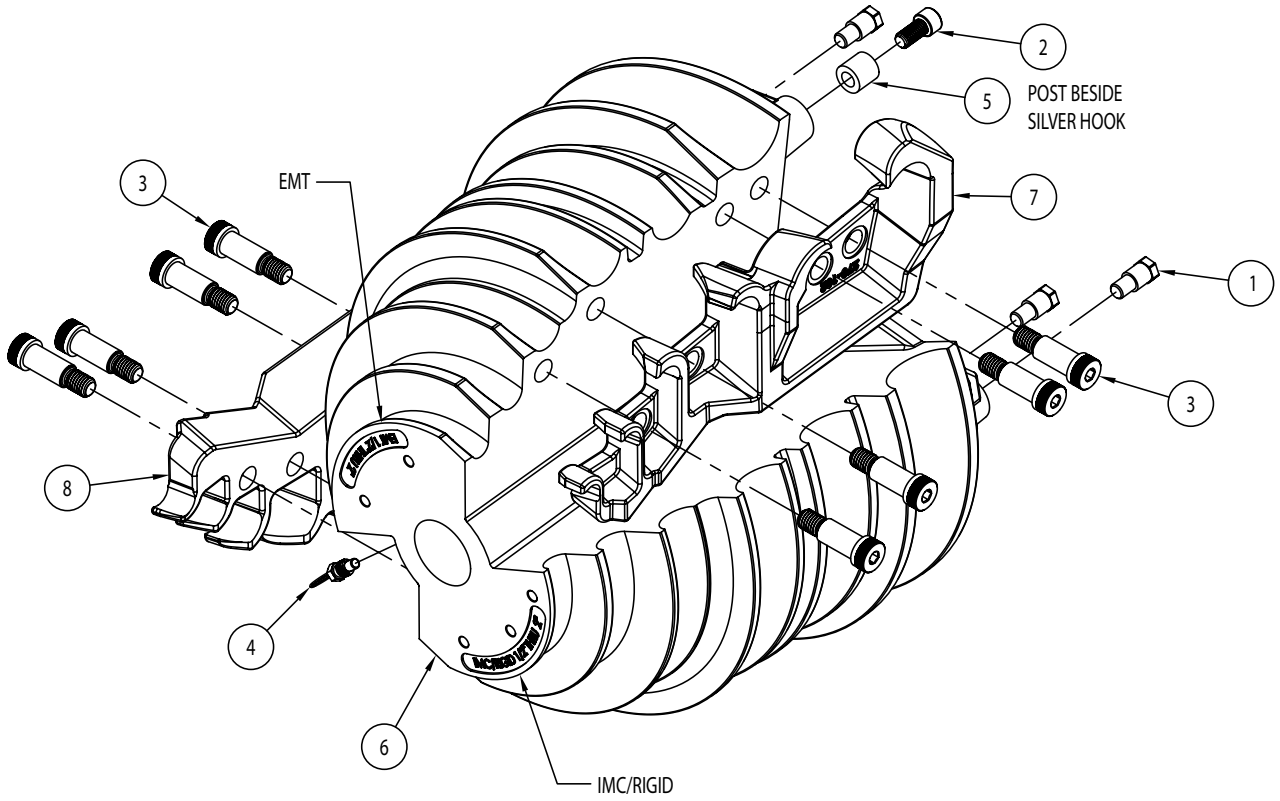
EXPLODED VIEWS 797-100 MAIN ASSEMBLY



PARTS LIST — 797-100 MAIN ASSEMBLY

ITEM #	PART NUMBER	DESCRIPTION	QTY.
1	333-7	NUT-HEX NYLON INSERT (1/2-13)	8
2	747-3	BUSHING - 1-1/2" ID, 1-3/4" OD X 3/4" LONG	4
3	747-927	SCREW ASSEMBLY-LOCKING	1
4	77-017A	WASHER-FLAT SAE ZINC (1/2)	16
5	77-025	"SCREW-HEX HEAD CAP GR5 (1/2-13 X 1.25)"	12
6	77-067	RING-RETAINING EXTERNAL 1-1/2"	4
7	797-104	SHOE ASSEMBLY	1
8	797-200	POWER UNIT ASSEMBLY	1
9	797-300	CARRIAGE ASSEMBLY	1
10	797-362	ARM WELDMENT - LH	1
11	797-365	ARM WELDMENT - RH	1
12	797-400	ROLLER SUPPORT	1

EXPLODED VIEWS 797-104 STANDARD BENDING SHOE

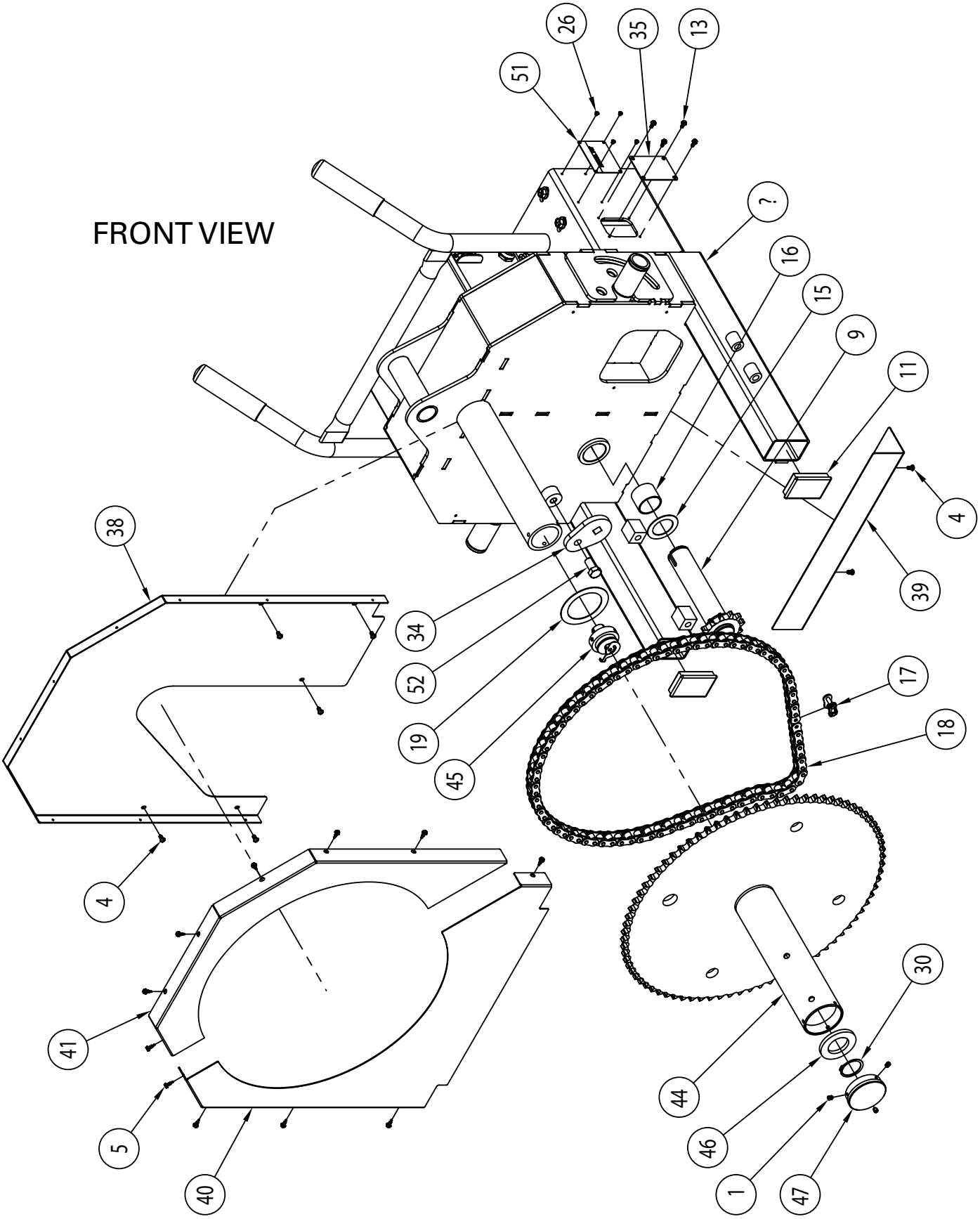


PARTS LIST 797-104 STANDARD BENDING SHOE

ITEM #	PART NUMBER	DESCRIPTION	QTY.
1	2-1304	STUD-BENDER	3
2	2-2202-2	SCREW-SOCKET HEAD CAP (1/2-13 X 1)	1
3	2-2301-2	SCREW-SHOULDER SOCKET (3/4 X 1.5)	8
4	747-2	PLUNGER-SPRING	1
5	747-930	SHOE STUD ADAPTER	1
6	797-101	SHOE, 1/2" - 2" EMT/IMC/RIGID, MACHINED	1
7	797-102	HOOK, 797 EMT - MACHINED	1
8	797-103	HOOK, 797 RIGID/IMC - MACHINED	1

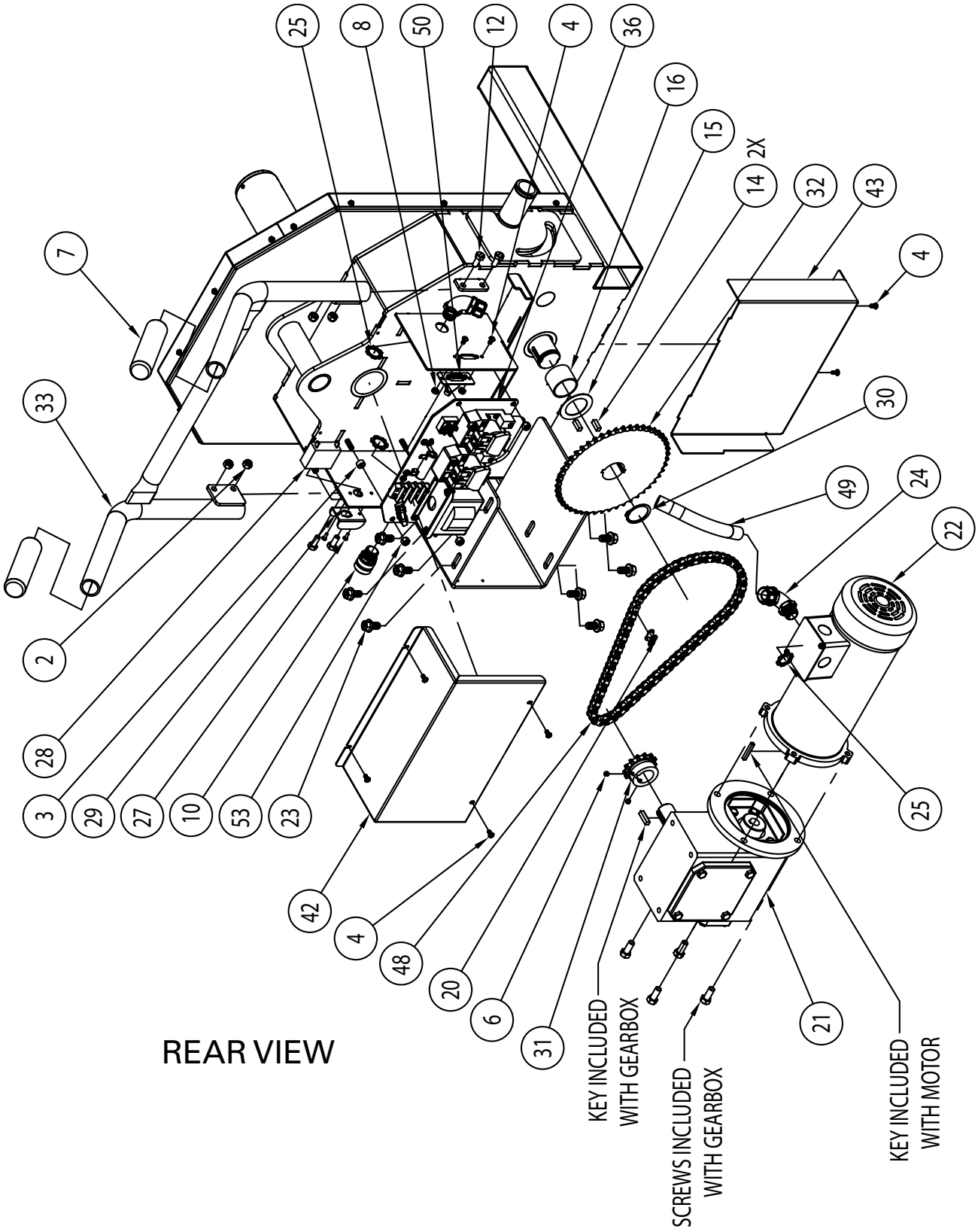
refer to **PARTS LIST** *on page 35*

EXPLODED VIEWS 797-200 POWER UNIT ASSEMBLY



refer to **PARTS LIST** *on page 35*

EXPLODED VIEWS 797-200 POWER UNIT ASSEMBLY



PARTS LIST — 797-200 POWER UNIT ASSEMBLY

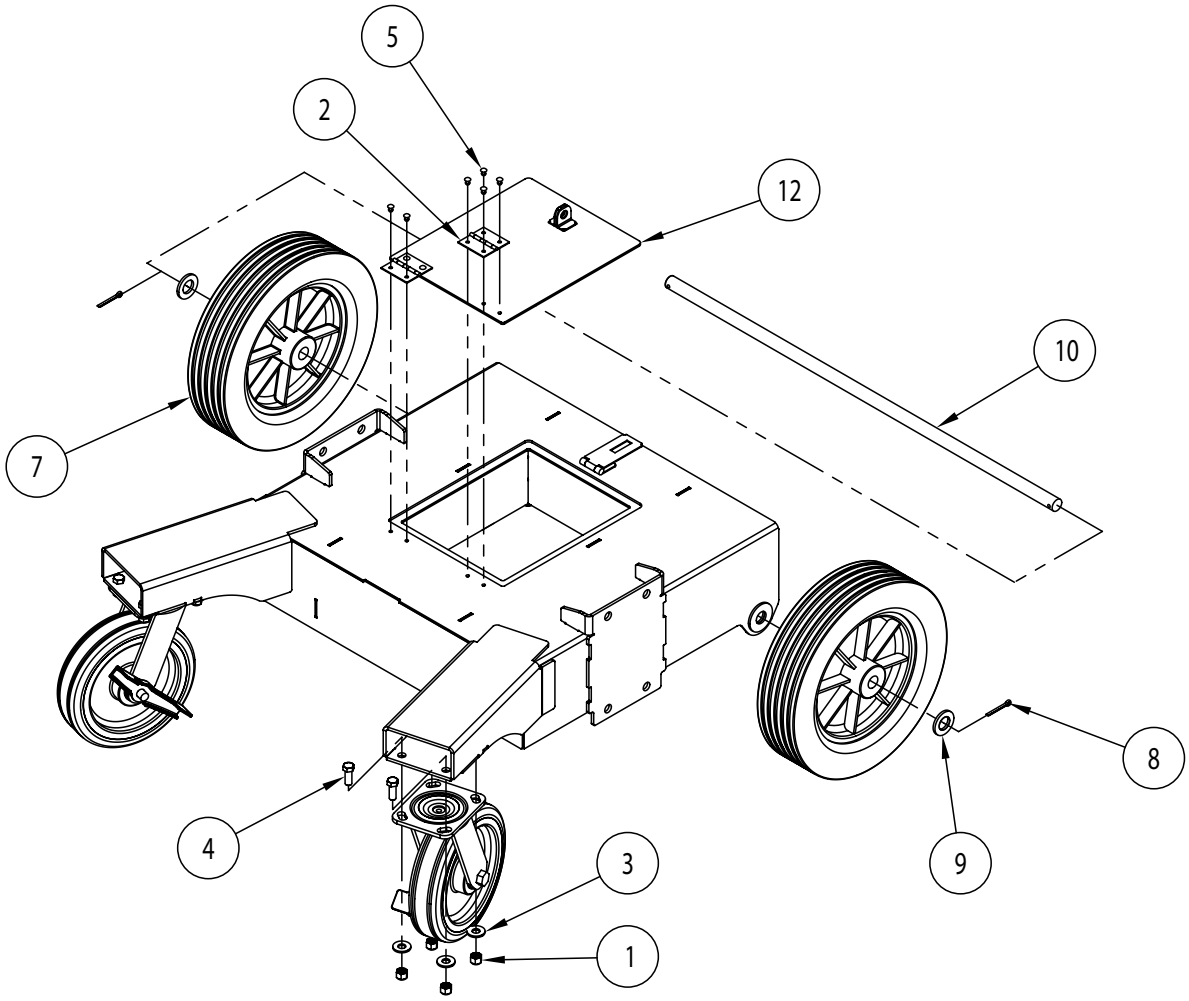
ITEM #	PART NUMBER	DESCRIPTION	QTY.
1	1700-13	SCREW-SET CONE PT (1/4-20 X 3/8)	3
2	2-1301-4	NUT-HEX NYLON INSERT (5/16"-18)	4
3	450-20	SPACER, ELEC. BOX	4
4	451-22	SCREW-PAN PHILLIPS (10-32 X 3/8")	15
5	452-6A	SCREW-SELF DRILL (#8 X 1/2)	11
6	453-19	SCREW-SET CUP PT (1/4-20 X 1/4)	2
7	504-1	GRIP	2
8	747-34	NUT-HEX NYLON INSERT THIN (#10-32)	2
9	747-825	SPROCKET-SHAFT 12T #60 X 7.75"LG	1
10	7529K422	STRAIN RELIEF	1
11	753-002	PLASTIC CAP	2
12	77-002D1	SCREW-HEX HEAD CAP GR5 ZINC (5/16-18 X 3/4)	4
13	77-004A	SCREW-TC (8-32 X 3/8)	4
14	77-006A	KEY-1/4" X 3/4" LONG	2
15	77-008	WASHER-PHENOLIC 0.047" X 2.250""OD X 1.510" ID	2
16	77-009	SLEEVE BEARING	2
17	77-010	MASTER LINK, #60	1
18	77-011A	#60 ROLLER CHAIN - 63.75" LONG PIN TO PIN	1
19	77-014	WASHER-PHENOLIC 0.047" X 3.500" OD X 2.515" ID	1
20	77-032	MASTER LINK - #40	1
21	77-037	GEARBOX	1
22	77-039	MOTOR - ELECTRIC BENDER	1
23	77-040	SCREW-HEX FLANGE ZINC (3/8-16 X 3/4)	8
24	77-041	CONNECTOR-LIQUIDTITE T&B 90 DEG	2
25	77-041A	NUT-LOCK CONDUIT 1/2	3
26	77-044	RIVET, ALUM, BUTTONHEAD (1/8")	4
27	77-061	SCREW - PAN HEAD SLOT (6-32 X 3/8)	2
28	77-062	ON/OFF SWITCH	1
29	77-063 BENT	SWITCH GUARD	1
30	77-067	RING-RETAINING EXTERNAL 1.5	2
31	77-237	SPROCKET-40B13, BORED W/SS	1
32	77-288	SPROCKET-40B48	1
33	77-346	BENDER HANDLE	1
34	77-413	CHAIN TENSIONER	1
35	77-714	ACCESS COVER	1
36	77-CONTROLS	ELECTRICAL BOARD ASSEMBLY	1
37	797-210	POWER UNIT WELDMENT - COMPLETE	1
38	797-222 BENT	BACK CHAIN SHIELD	1

PARTS LIST — 797-200 – *CONTINUED*

39	797-223B BENT	BOTTOM CHAIN SHIELD	1
40	797-223L BENT	LOWER CHAIN SHIELD	1
41	797-223U BENT	UPPER CHAIN SHIELD	1
42	797-224 BENT	ELECTRICAL COVER - 797	1
43	797-226 BENT	REAR CHAIN SHIELD	1
44	797-228	DRIVE SPROCKET ASSEMBLY	1
45	797-232	ENCODER ASSEMBLY	1
46	797-233	STOP WASHER	1
47	797-234	SENSOR CAP	1
48	797-247	#40 ROLLER CHAIN - 35.5" LONG PIN TO PIN	1
49	797-248	1/2" FLEX CONDUIT - 6.5" LONG	1
50	797-510	WIRING HARNESS ASSEMBLY, 797	1
51	797-SNPLATE	SERIAL NUMBER PLATE	1
52	8092-2	SCREW-HEX HEAD CAP GR5 ZINC (1/2-13 X 1)	1
53	9518SR-12	NUT-HEX NYLON INSERT (1/4-20)	4
53	797-SNPLATE	SERIAL NUMBER PLATE	1

refer to **PARTS LIST** *on page 38*

EXPLODED VIEWS 797-300 CARRIAGE ASSEMBLY

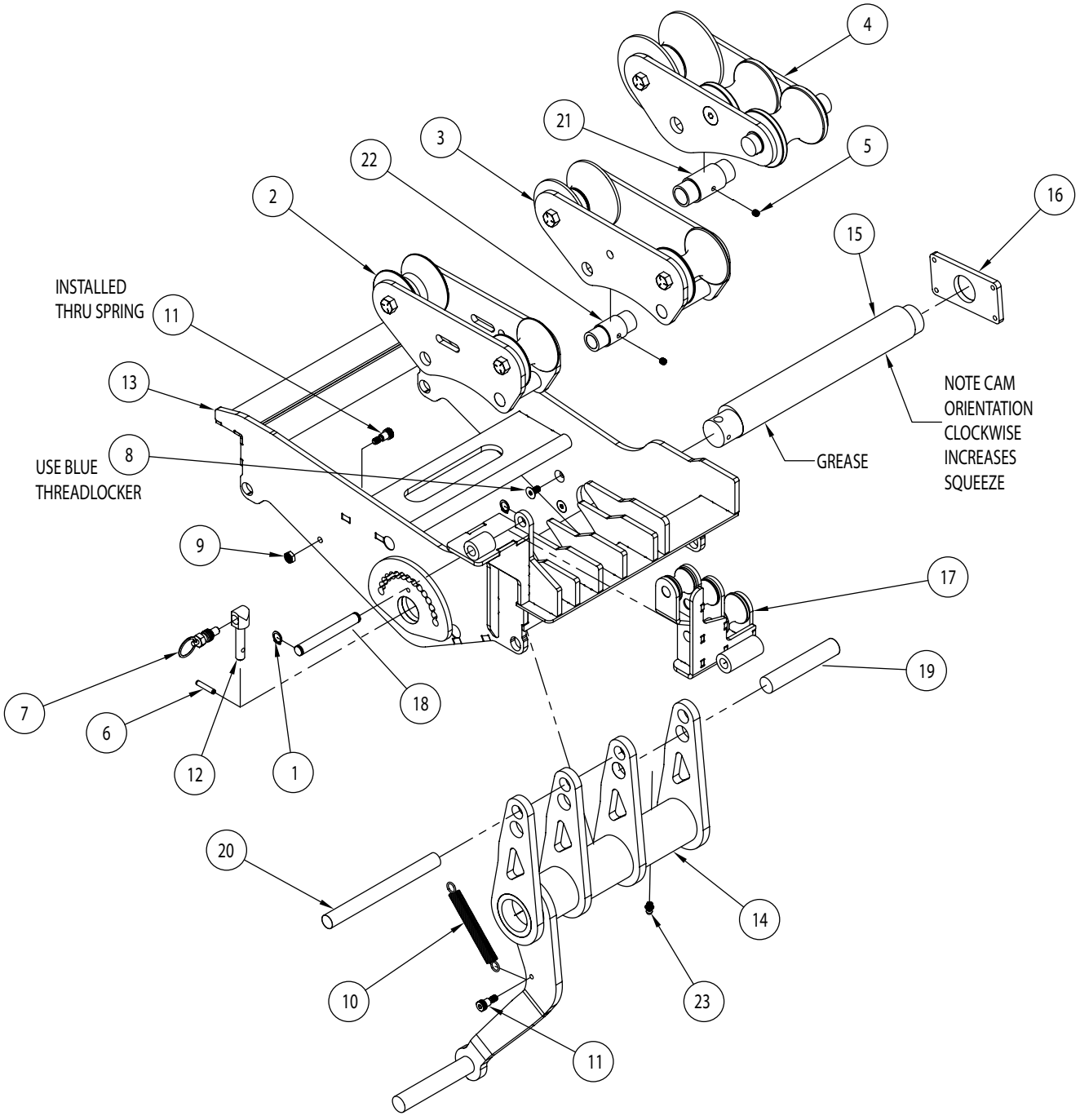


PARTS LIST — 797-300 CARRIAGE ASSEMBLY

ITEM #	PART NUMBER	DESCRIPTION	QTY.
1	2-5000-301	ROLLER, 1-1/4" - LEAD	1
2	2-5000-302	ROLLER, 1-1/4" -TAIL	1
3	2-5000-303	GUIDE PIN - 1-1/4 ROLLER	1
4	2-5000-310	FRONT PLATE - 1-1/4"	1
5	2-5000-313 MACH	BACK PLATE WELDMENT - 1-1/4"	1
6	99-30	"SCREW-HEX HEAD CAP GR5 ZINC (7/16-14 X 1)"	2
7	797-102	HOOK, 797 EMT - MACHINED	1
8	797-103	HOOK, 797 RIGID/IMC - MACHINED	1

refer to **PARTS LIST** *on page 39*

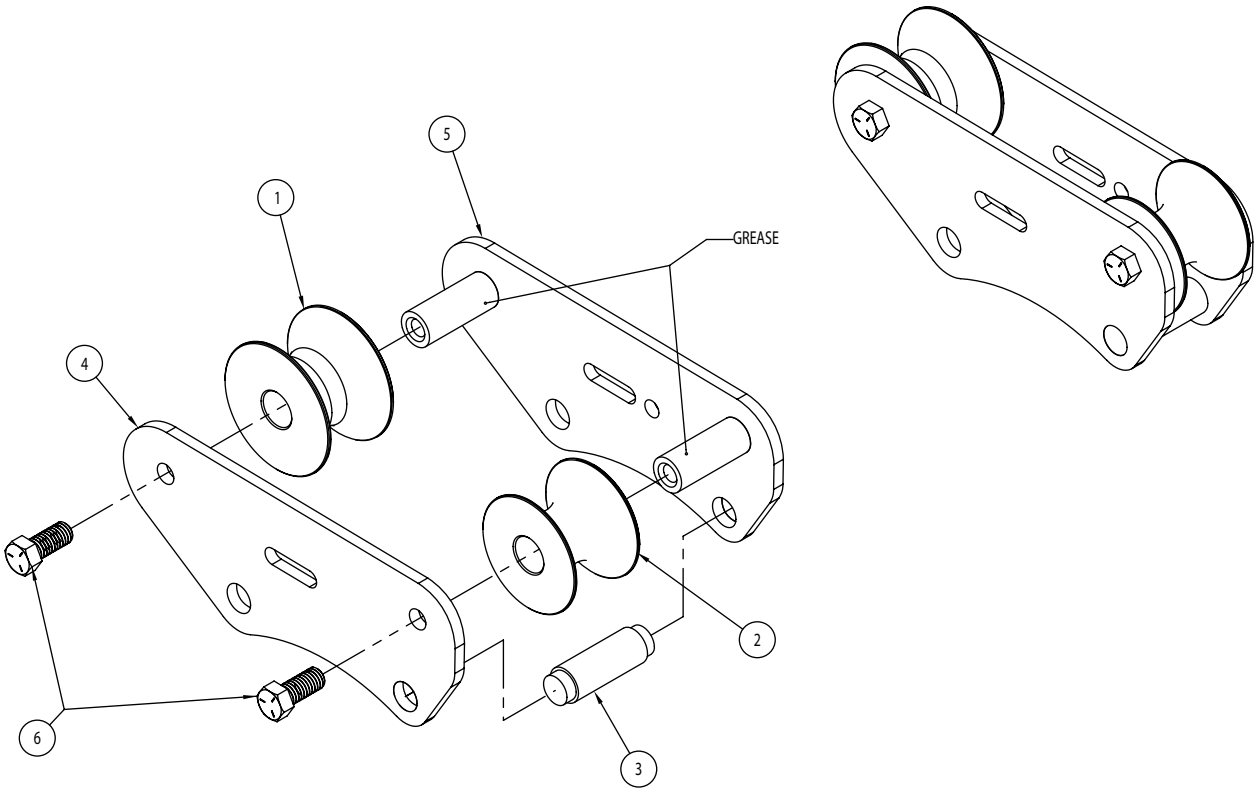
EXPLODED VIEWS 797-400 ROLLER SUPPORT ASSEMBLY



PARTS LIST — 797-400 ROLLER SUPPORT ASSEMBLY

ITEM #	PART NUMBER	DESCRIPTION	QTY.
1	2-4000-123	7/16" RETAINER RING	2
2	2-5000-300	ROLLER ASSEMBLY - 1-1/4"	1
3	2-5000-400	ROLLER ASSEMBLY - 1-1/2"	1
4	2-5000-500	ROLLER ASSEMBLY - 2"	1
5	453-19	SCREW-SET CUP PT (1/4-20 X 1/4)	2
6	747-18	3/16 X 1 LG ROLL PIN	1
7	747-2	PLUNGER-SPRING	1
8	747-20	SCREW-FLAT SOC. 1/4-20 X 1/2" LONG	4
9	747-30	NUT-HEX NYLON INSERT THIN (1/4-20)	1
10	747-37	SPRING, EXTENSION	1
11	747-38	SCREW-SHOULDER SOCKET (5/16 X 5/16)	2
12	747-852	PIN - CAM	1
13	797-405	FRAME WELDMENT - ROLLER SUPPORT	1
14	797-415	ARM WELDMENT	1
15	797-416	CAM SHAFT - ROLLER SUPPORT	1
16	797-417 MACH	CAMSHAFT CAP PLATE	1
17	797-428	ROLLER WELDMENT - 1/2", 3/4", 1"	1
18	797-434	SUPPORT SHAFT - 1/2", 3/4", 1"	1
19	797-446	ROLLER SUPPORT AXLE - 2"	1
20	797-449	ROLLER SUPPORT AXLE - 1-1/4" & 1-1/2"	1
21	797-452	AXLE STOP - 3/4"	1
22	797-454	AXLE STOP - 5/8"	1
23	88-39	FITTING-GREASE 1/4-28 (1641B)	1

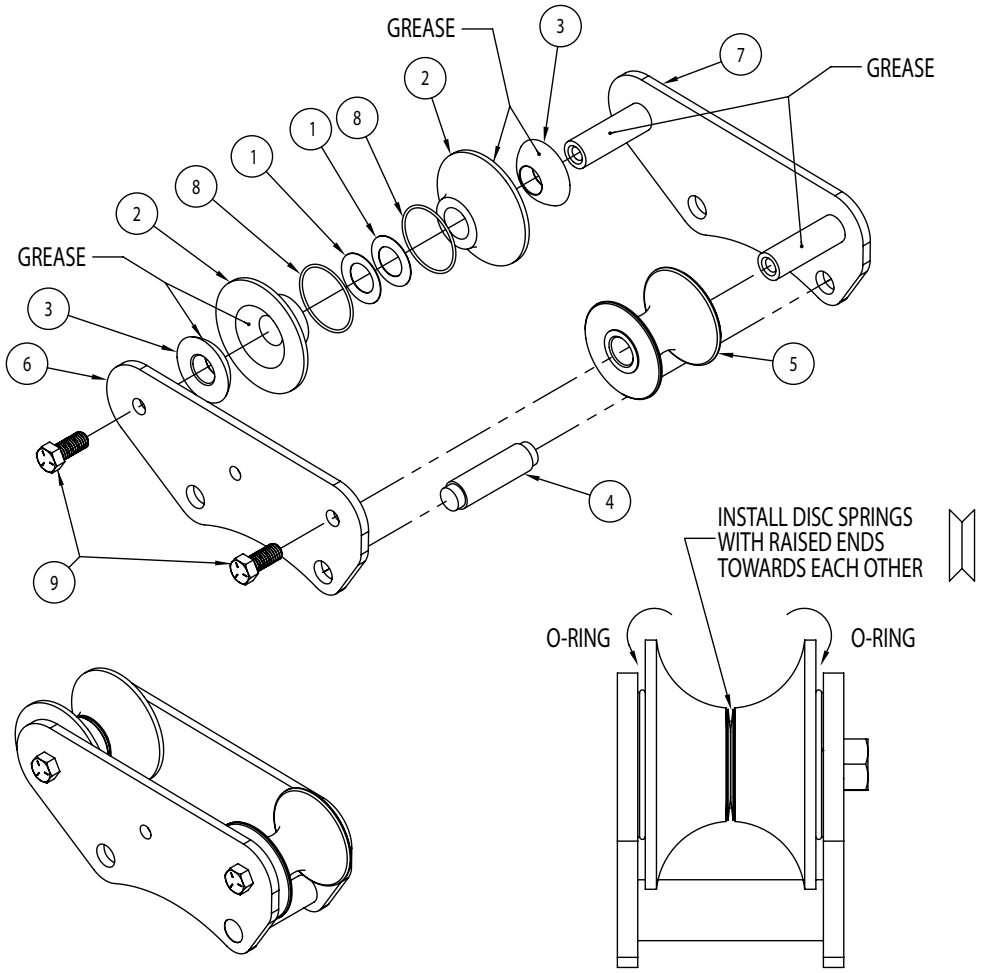
EXPLODED VIEWS 2-5000-300 ROLLER ASSEMBLY – 1-1/4"



PARTS LIST — 2-5000-300 ROLLER ASSEMBLY – 1-1/4"

ITEM #	PART NUMBER	DESCRIPTION	QTY.
1	2-5000-301	ROLLER, 1-1/4" - LEAD	1
2	2-5000-302	ROLLER, 1-1/4" -TAIL	1
3	2-5000-303	GUIDE PIN - 1-1/4 ROLLER	1
4	2-5000-310	FRONT PLATE - 1-1/4"	1
5	2-5000-313 MACH	BACK PLATE WELDMENT - 1-1/4"	1
6	99-30	SCREW-HEX HEAD CAP GR5 ZINC (7/16-14 X 1)	2

EXPLODED VIEWS 2-5000-400 ROLLER ASSEMBLY – 1-1/2"



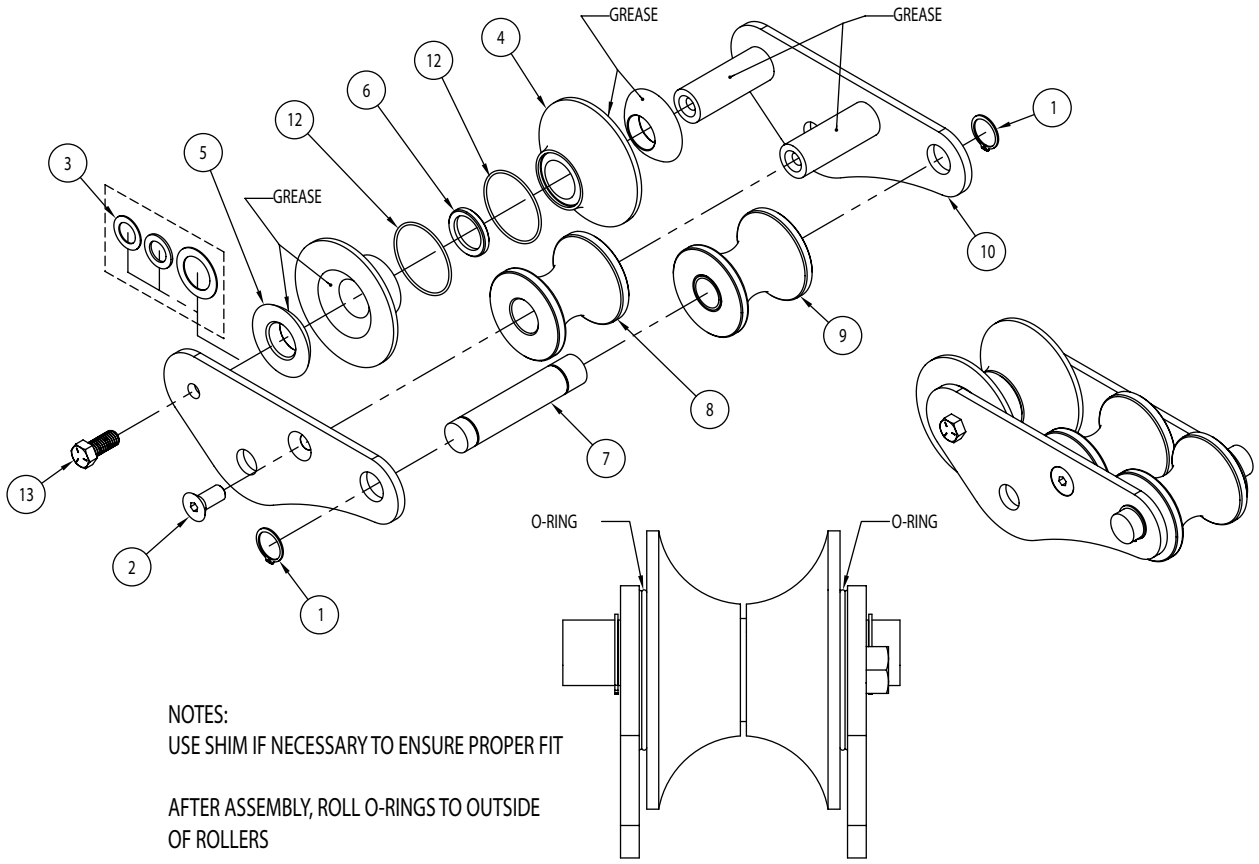
NOTES:
ASSEMBLE ROLLERS WITH O-RINGS LOOSELY IN MIDDLE

AFTER ASSEMBLY, ROLL O-RINGS TO OUTSIDE OF ROLLERS

PARTS LIST — 2-5000-400 ROLLER ASSEMBLY - 1-1/2"

ITEM #	PART NUMBER	DESCRIPTION	QTY.
1	2-5000-001	DISC SPRING WASHER	2
2	2-5000-401	ROLLER, 1-1/2" SPLIT	2
3	2-5000-402	PIVOT, 1-1/2" ROLLER	2
4	2-5000-403	GUIDE PIN - 1-1/2 ROLLER	1
5	2-5000-404	ROLLER - 1-1/2" SUPPORT	1
6	2-5000-410	FRONT PLATE - 1-1/2"	1
7	2-5000-413 MACH	BACK PLATE WELDMENT - 1-1/2"	1
8	797-017	O-RING, DASH 029, BUNA-N	2
9	99-30	SCREW-HEX HEAD CAP GR5 ZINC (7/16-14 X 1)	2

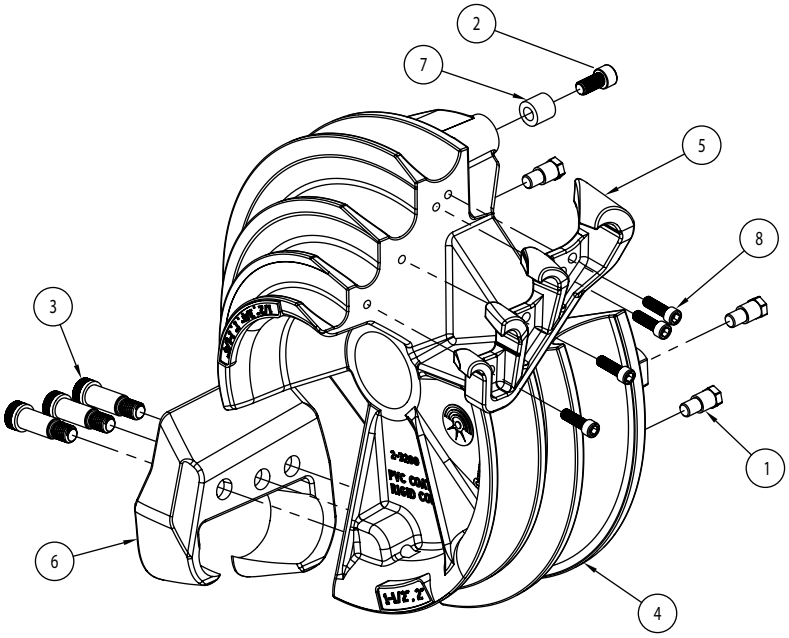
EXPLODED VIEWS 2-5000-500 ROLLER ASSEMBLY - 2"



PARTS LIST — 2-5000-500 ROLLER ASSEMBLY - 2"

ITEM #	PART NUMBER	DESCRIPTION	QTY.
1	100-026	7/8 RETAINING RING - EXTERNAL	2
2	2-1118	SCREW - FLAT SOCKET (7/16-14 X 1)	1
3	2-5000-004	SHIM KIT - 2" ROLLER	1
4	2-5000-501	ROLLER, 2" SPLIT	2
5	2-5000-502	PIVOT, 2" ROLLER	2
6	2-5000-503	SPACER - 2"	1
7	2-5000-507	GUIDE PIN - 2" ROLLER	1
8	2-5000-508	ROLLER, 2" - MIDDLE	1
9	2-5000-510	ROLLER ASSEMBLY, 2" SUPPORT	1
10	2-5000-513 MACH	BACK PLATE WELDMENT - 2"	1
11	2-5000-514 MACH	FRONT PLATE - 2"	1
12	797-018	O-RING, DASH 031, BUNA-N	2
13	99-30	SCREW-HEX HEAD CAP GR5 ZINC (7/16-14 X 1)	1

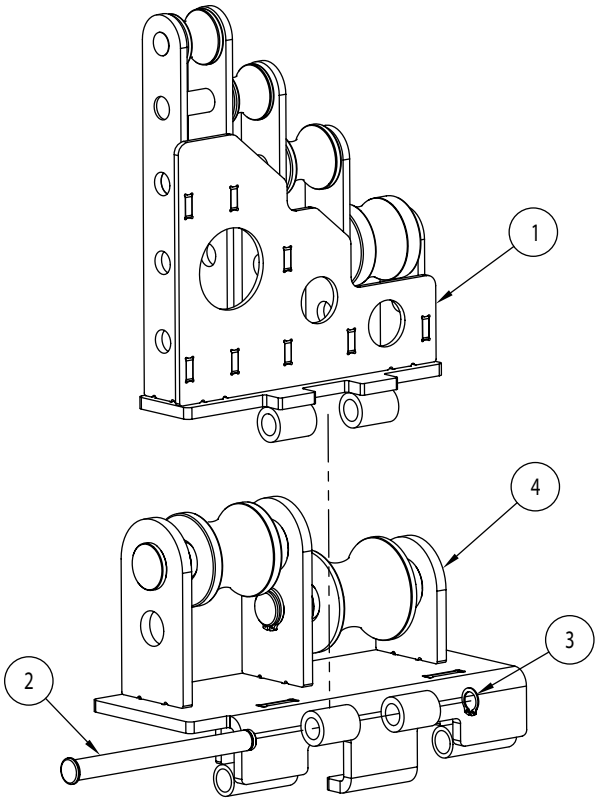
EXPLODED VIEWS 2-3200-797 PVC COATED BENDING SHOE



PARTS LIST — 2-3200-797 PVC COATED BENDING SHOE

ITEM #	PART NUMBER	DESCRIPTION	QTY.
1	2-1304	STUD-BENDER	3
2	2-2202-2	SCREW-SOCKET HEAD CAP (1/2-13 X 1)	1
3	2-2301-2	SCREW-SHOULDER SOCKET (3/4 X 1.5)	3
4	2-3200-101	2-3200 SHOE MACHINING	1
5	Feb-02	HOOK-MACHINED 1/2" - 1.25" PVC	1
6	Feb-03	HOOK-MACHINED 1.5" - 2" PVC	1
7	747-930	SHOE STUD ADAPTER	1
8	99-59	3/8-16 X 1-1/4 LG SHCS	4

EXPLODED VIEWS 2-4300-797 PVC COATED ROLLER SUPPORT



PARTS LIST 2-4300-797 PVC COATED ROLLER SUPPORT

ITEM #	PART NUMBER	DESCRIPTION	QTY.
1	2-4000-107B	.50" - 1.25" ROLLER, WELDMENT	1
2	2-4000-122	HINGE PIN, UPPER	1
3	2-4000-123	7/16" RETAINER RING	1
4	2-4300-103	1.50" - 2.00" PVC SUB ASSM.	1

ELECTRICAL SYSTEM DIAGRAM