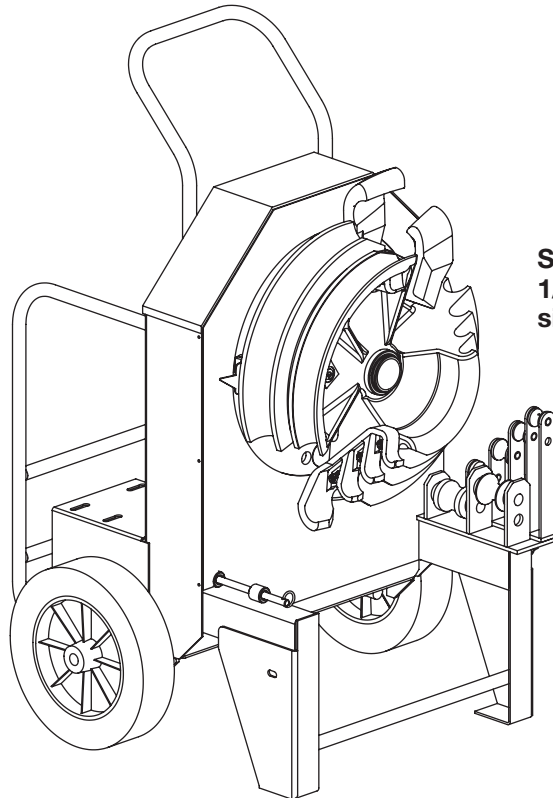


INSTRUCTION MANUAL



GREENLEE®

A Textron Company



Shown with optional
1/2" to 2" rigid
single-shoe group

555C

Electric Bender Classic

Serial Codes AFB and ADE



Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.

Register this product at www.greenlee.com

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Description

The Greenlee 555C Electric Bender Classic is intended to bend 1/2" to 2" conduit and pipe.

Bending shoe groups are available to accommodate the following types:

- Electrical Metallic Tubing
- Intermediate Metallic Conduit
- Rigid Conduit
- PVC-Coated Rigid Conduit
- Schedule 40 Pipe

The shoe groups are shown in the "Bending Attachment Groups" section of this manual.

Safety

Safety is essential in the use and maintenance of Greenlee tools and equipment. This instruction manual and any markings on the tool provide information for avoiding hazards and unsafe practices related to the use of this tool. Observe all of the safety information provided.

Purpose of this Manual

This manual is intended to familiarize personnel with the safe operation and maintenance procedures for the following Greenlee tool:

555C Electric Bender Classic
Serial Codes AFB and ADE

Keep this manual available to all personnel.

Replacement manuals are available upon request at no charge at www.greenlee.com.



Do not discard this product or throw away!

For recycling information, go to www.greenlee.com.

All specifications are nominal and may change as design improvements occur. Greenlee Textron Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

Loctite is a registered trademark of Henkel Corp.

Mobil is a registered trademark of Mobil Oil Corporation.

KEEP THIS MANUAL

IMPORTANT SAFETY INFORMATION



SAFETY ALERT SYMBOL

This symbol is used to call your attention to hazards or unsafe practices which could result in an injury or property damage. The signal word, defined below, indicates the severity of the hazard. The message after the signal word provides information for preventing or avoiding the hazard.

⚠ DANGER

Immediate hazards which, if not avoided, **WILL** result in severe injury or death.

⚠ WARNING

Hazards which, if not avoided, **COULD** result in severe injury or death.

⚠ CAUTION

Hazards or unsafe practices which, if not avoided, **MAY** result in injury or property damage.



⚠ DANGER

Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.

Failure to observe this warning will result in severe injury or death.



⚠ DANGER

Do not use this tool in a hazardous environment. Hazards include flammable liquids, gases, or other materials. Using this tool in a hazardous environment can result in a fire or explosion.

Failure to observe this warning will result in severe injury or death.

⚠ WARNING



Electric shock hazard:

- Connect the power cord to a 120 volt, 20 amp receptacle on a ground fault protected circuit only. See "Grounding Instructions."
- Do not modify the power cord or plug.
- Inspect the power cord before use. Repair or replace the cord if damaged.
- Disconnect from power before servicing.

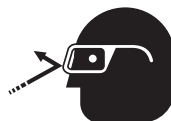
Failure to observe these warnings could result in severe injury or death.



⚠ WARNING

- Do not expose to rain.
- Do not use in wet or damp locations.

Failure to observe these warnings could result in severe injury or death.



⚠ WARNING

Wear eye protection when operating or servicing this tool.

Failure to wear eye protection could result in serious eye injury from flying debris.



⚠ WARNING

Do not remove guards.

Failure to observe this warning could result in severe injury or death.



IMPORTANT SAFETY INFORMATION

	⚠ WARNING Extension cords: • Use only three-wire, 12-gauge extension cords that have three-prong grounding-type plugs and three-hole receptacles that accept the tool's plug. • Do not use extension cords that are longer than 30 m (100'). • Repair or replace damaged extension cords. Failure to observe these warnings could result in severe injury or death.
---	---

⚠ WARNING Make sure that the handle is properly installed and secured with the safety spring clips and snap pins before lifting or moving the bender. An improperly installed handle could allow the bender to fall, injuring nearby personnel. Failure to observe this warning could result in severe injury or death.

	⚠ WARNING Pinch points: Keep hands away from bending shoe, rollers and conduit when bender is in use. Failure to observe this warning could result in severe injury or death.
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⚠ WARNING Unplug the bender before changing accessories. Accidental start-up could result in serious injury.

	⚠ CAUTION Do not use as a step or ladder. Failure to observe this precaution could result in injury or property damage.
---	---

⚠ CAUTION • Conduit moves rapidly as it is bent. The path of the conduit must be clear of obstructions. Be sure clearance is adequate before starting the bend. • Do not operate the bender while wearing loose clothing. Loose clothing can get caught in moving parts. • Inspect the bender before use. Replace worn, damaged or missing parts with Greenlee replacement parts. A damaged or improperly assembled component could break and strike nearby personnel. • Some bender parts and accessories are heavy and may require more than one person to lift and assemble. • Use this tool for the manufacturer's intended purpose only. Use other than that which is instructed in this manual can result in injury or property damage. Failure to observe these precautions could result in injury or property damage.
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Note: Keep all decals clean and legible, and replace when necessary.

Grounding Instructions

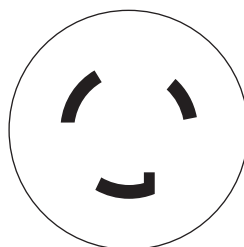
	⚠ WARNING Electric shock hazard: • Do not modify the plug provided with the tool. • Connect this tool to a grounded receptacle on a 20 amp ground fault protected circuit. Failure to observe these warnings could result in severe injury or death.
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This tool must be grounded. In the event of a malfunction or breakdown, an electrical ground provides a path of least resistance for the electric current. This path of least resistance is intended to reduce the risk of electric shock.

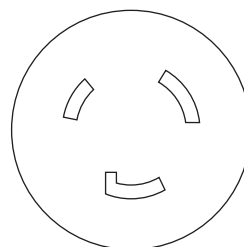
This tool's electric cord has a grounding conductor and a grounding plug as shown. Do not modify the plug. Connect the plug to a corresponding GFCI-protected receptacle that is properly installed and grounded in accordance with all national and local codes and ordinances.

Do not use an adapter.

NEMA L5-20 Twist-Lock 20 Amp/120 Volt Plug and Receptacle

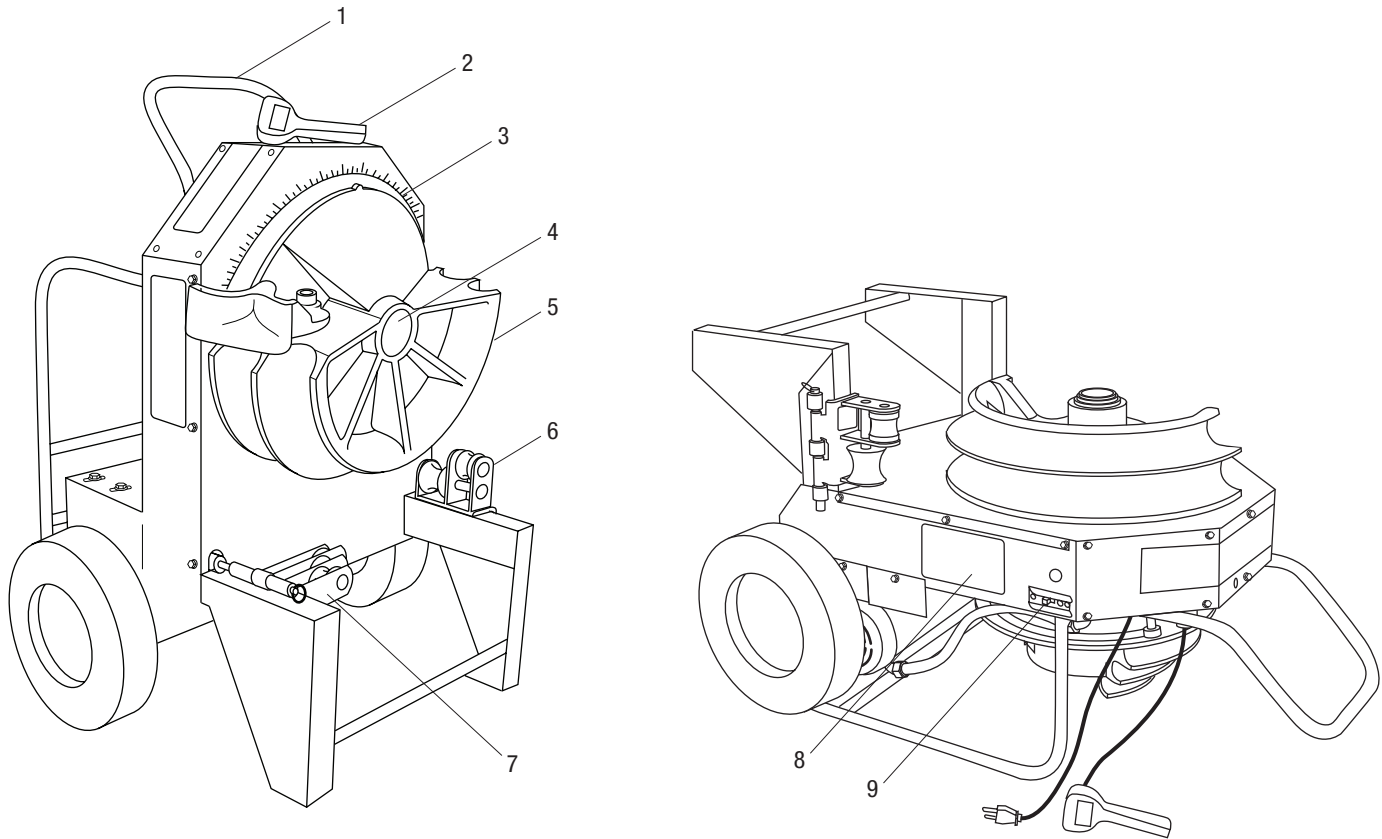


Plug



Receptacle

Identification



555RC Electric Bender (shown)

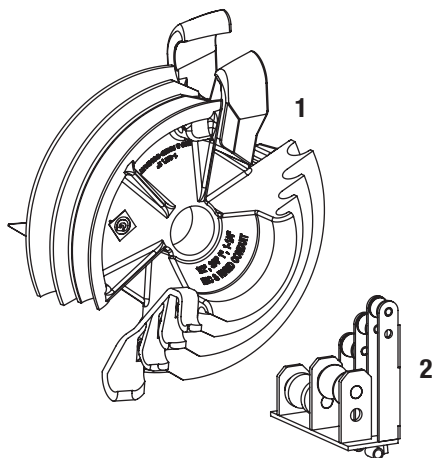
- | | |
|-----------------|--|
| 1. Handle | 6. 1-1/2" to 2" Roller Support |
| 2. Pendant | 7. 1/2" to 1-1/4" Roller Support (in storage position) |
| 3. Protractor | 8. Bending Instructions Decal |
| 4. Main Shaft | 9. Circuit Breaker (ON/OFF switch) |
| 5. Bending Shoe | |

Specifications

Height	1118 mm (44")
Width	724 mm (28.5")
Depth	521 mm (20.5")
Mass/Weight (bender without shoes or roller supports)	118 kg (260 lb)
Power Supply	120 VAC, 20 amp GFCI-protected receptacle
Operating Conditions	
Temperature	-20 °C to 49 °C (-5 °F to 120 °F)
Relative Humidity	0 to 98%
Capacity	1/2" to 2" conduit, schedule 40 pipe

Bending Attachment Groups

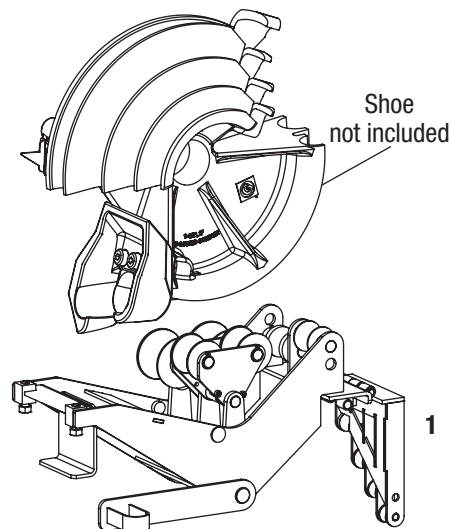
RIGID SINGLE SHOE



28008: 1/2" to 2" Rigid
1/2" to 1-1/4" IMC
1/2" to 2" Schedule 40 Pipe

Key	UPC No. 78-3310-	Description
1	02548	Bending shoe for 1/2" to 2"
2	02549	Roller support unit for 1/2" to 2"
	23818	Storage box

IMC SINGLE SHOE

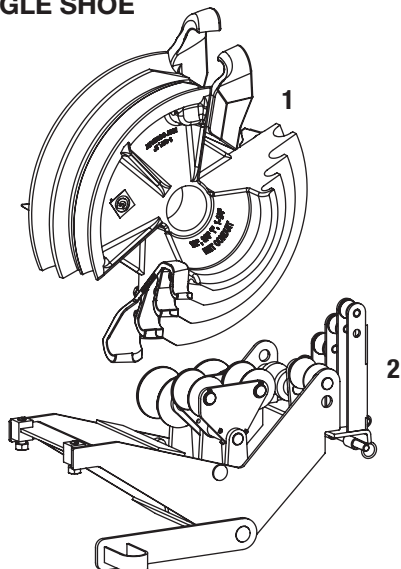


01323: 1/2" to 2" IMC

Key	UPC No. 78-3310-	Description
1	01323	Roller support assembly

Note: 02548 rigid/IMC shoe is required to use the 01323 roller support on the 555C bender.

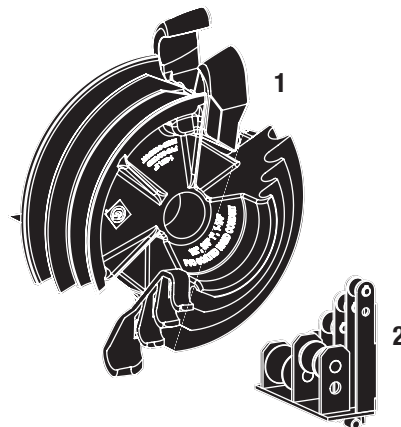
EMT SINGLE SHOE



23803: 1/2" to 2" EMT

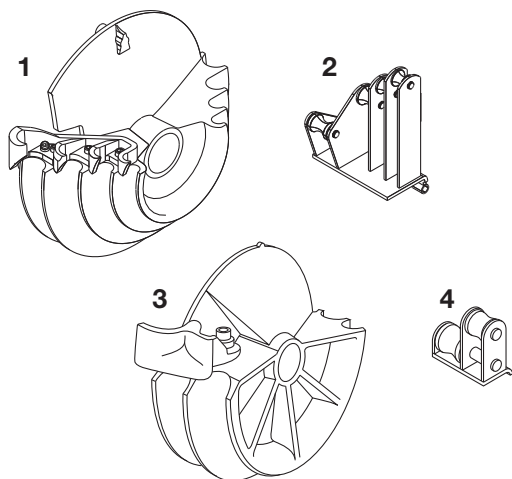
Key	UPC No. 78-3310-	Description
1	02543	Bending shoe for 1/2" to 2"
2	02544	Roller support unit for 1/2" to 2"
	23818	Storage box

PVC-COATED RIGID SINGLE SHOE



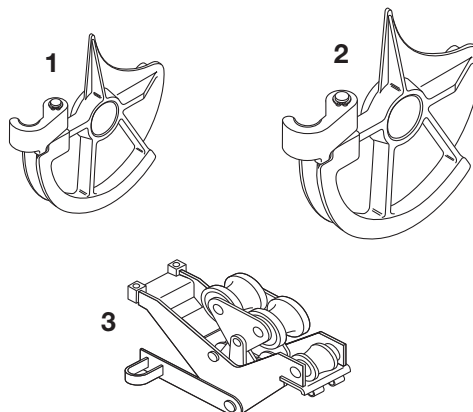
12586: 1/2" to 2" 40 Mil PVC-Coated Rigid

Key	UPC No. 78-3310-	Description
1	02553	Bending shoe for 1/2" to 2"
2	02554	Roller support unit for 1/2" to 2"
	23818	Storage box

Bending Attachment Groups (cont'd)
RIGID


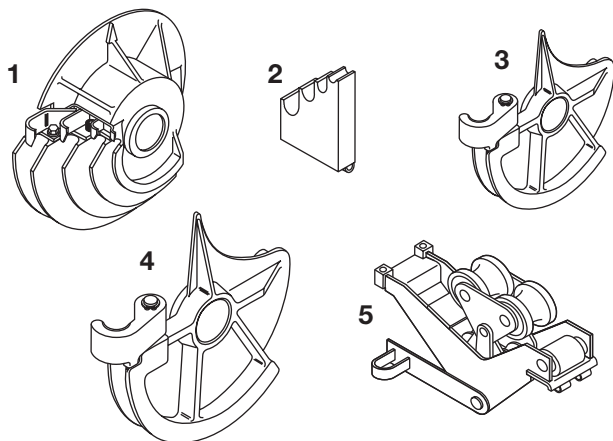
28007: 1/2" to 1-1/4" IMC
1/2" to 2" Rigid Steel
1/2" to 2" Schedule 40 Pipe

Key	UPC No. 78-3310-	Description
1	00571	Bending shoe for 1/2" to 1-1/4"
2	00936	Roller support unit for 1/2" to 1-1/4"
3	17937	Bending shoe for 1-1/2" to 2"
4	17984	Roller support unit for 1-1/2" to 2"

IMC


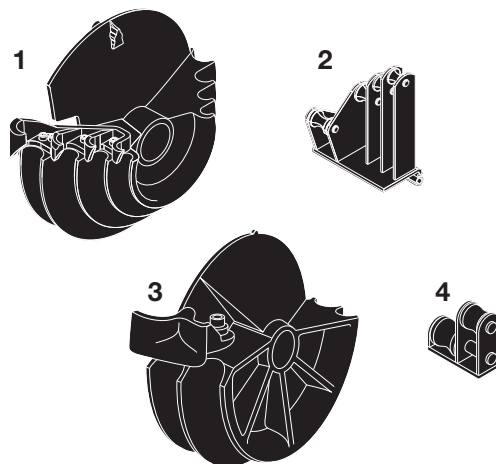
26330: 1-1/2" to 2" IMC

Key	UPC No. 78-3310-	Description
1	25263	Bending shoe for 1-1/2"
2	25268	Bending shoe for 2"
3	25273	Roller support unit for 1-1/2" to 2"
	23818	Storage box

EMT


23802: 1/2" to 2" EMT

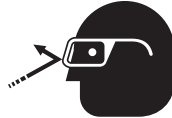
Key	UPC No. 78-3310-	Description
1	17944	Bending shoe for 1/2" to 1-1/4"
2	17986	Roller support unit for 1/2" to 1-1/4"
3	23499	Bending shoe for 1-1/2"
4	23505	Bending shoe for 2"
5	23541	Roller support unit for 1-1/2" to 2"
	23818	Storage box

PVC-COATED RIGID


37279: 1-1/2" to 2" 40 Mil PVC-Coated Rigid

Key	UPC No. 78-3310-	Description
1	00573	Bending shoe for 1/2" to 1-1/4"
2	00946	Roller support unit for 1/2" to 1-1/4"
3	37281	Bending shoe for 1-1/2" to 2"
4	37282	Roller support unit for 1-1/2" to 2"
	23818	Storage box

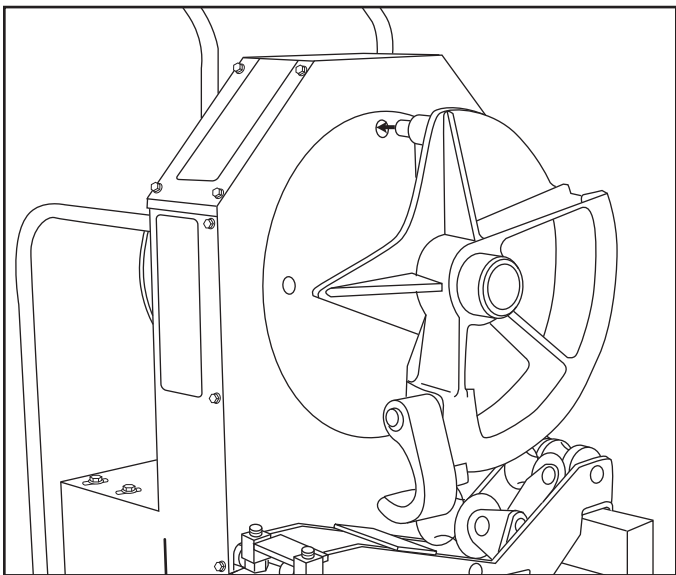
Setup

	⚠ WARNING Wear eye protection when operating or servicing this tool. Failure to wear eye protection could result in serious eye injury from flying debris.
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⚠ WARNING Unplug the bender before changing accessories. Accidental start-up could result in serious injury.

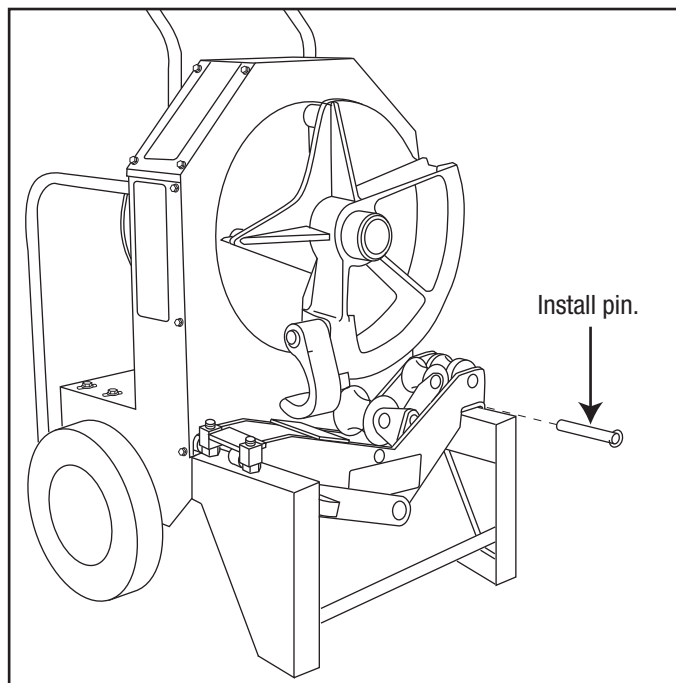
1. Slide the appropriate bending shoe onto the shaft of the main sprocket, as shown. Align the four drive studs on the back of the shoe with the four holes in the main sprocket.

Note: 1-1/2" and 2" EMT and IMC single-groove bending shoes have only three drive studs.

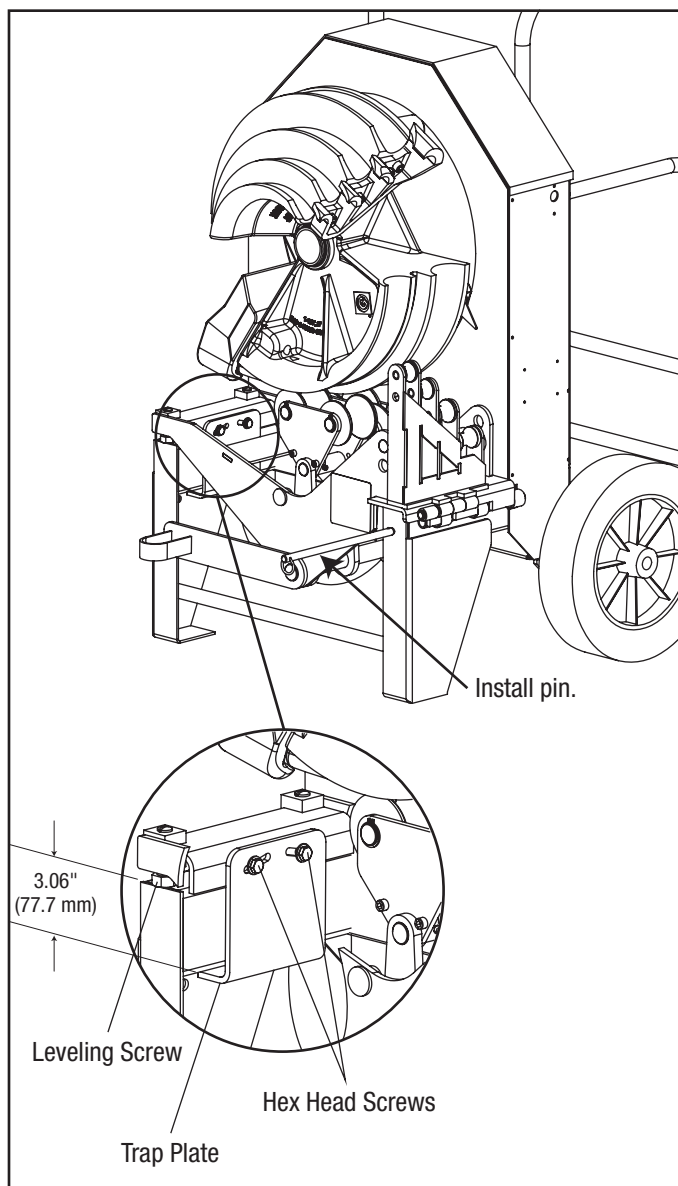


Installing a Bending Shoe

2. Mount the appropriate support unit onto the leg of the bender and install the hinge pin, as shown.



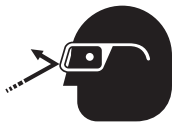
Roller Support Unit Installed

Setup (cont'd)**IMC Single-Shoe Roller Support Unit Installed**

Note: The IMC single-shoe roller support has a trap plate that may require adjustment to properly fit around the leg of the bender. Verify that the trap plate is 3.06" (77.7 mm) below the leveling screws. If necessary, loosen the two hex head screws and adjust the distance. Retighten the screws.

3. Mark the conduit. See the decals on the bender or the "Additional Bending Instructions" section of this manual.
4. Place the bender in either the vertical or horizontal bending position.

Operation

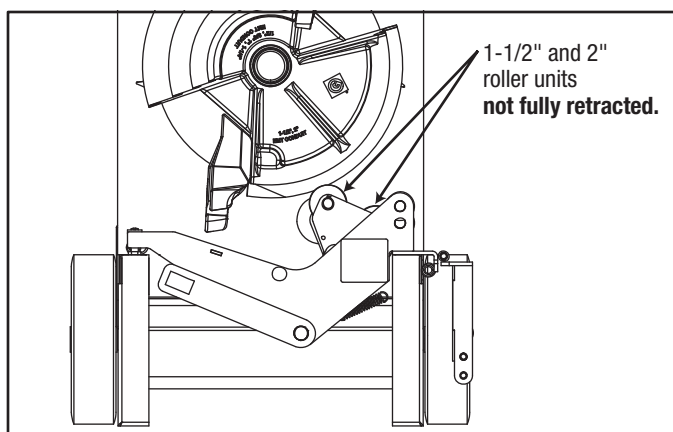
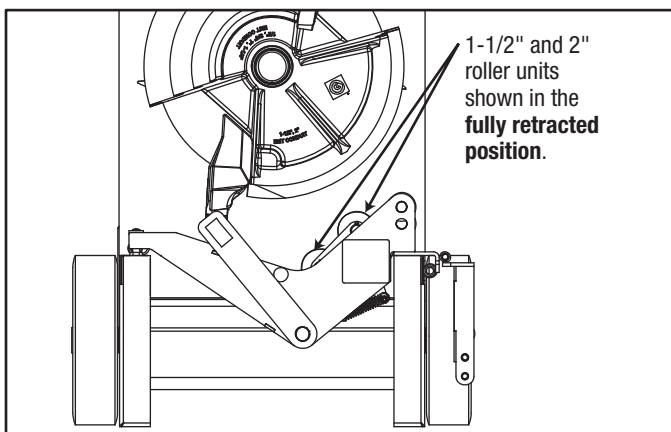
	⚠ WARNING Wear eye protection when operating or servicing this tool. Failure to wear eye protection could result in serious eye injury from flying debris.
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	⚠ WARNING Pinch points: Keep hands away from bending shoe, rollers and conduit when bender is in use. Failure to observe this warning could result in severe injury or death.
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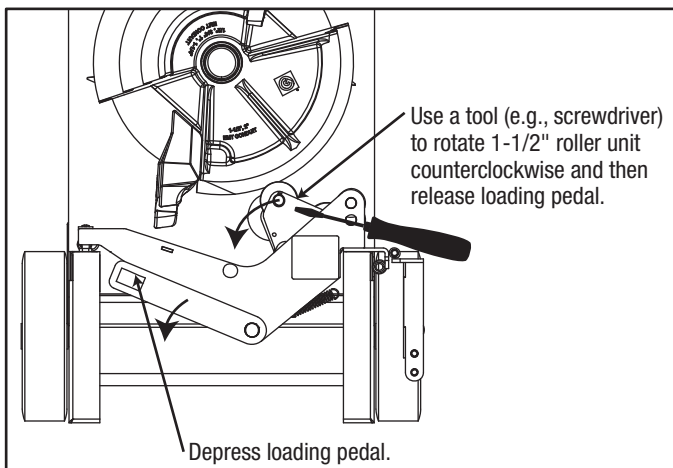
⚠ WARNING Do not operate the bender while wearing loose clothing. Loose clothing can get caught in moving parts. Failure to observe this warning could result in severe injury or death.
--

RETRACTING 1-1/2" AND 2" ROLLER UNITS

Note: The 02544 EMT bridge unit and 01323 IMC/rigid bridge unit have a spring to properly engage the 1-1/2" and 2" roller units when the loading pedal is depressed. Before loading conduit or rotating the shoe hook past the rollers, check that the 1-1/2" and 2" roller units are in the fully retracted position as shown.



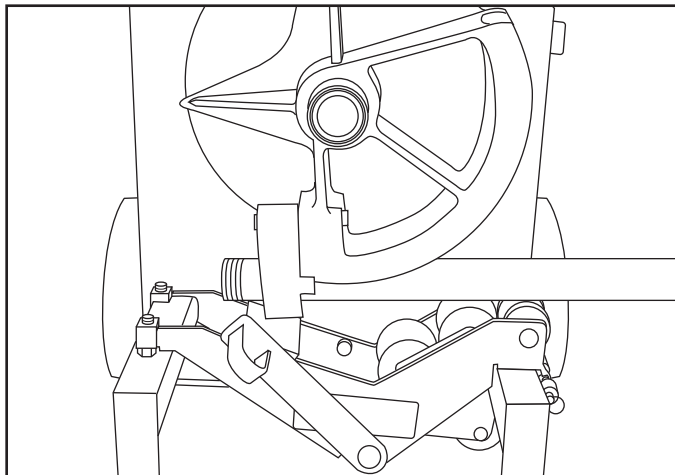
To fully retract the rollers, depress the loading pedal until the arm contacts the stop and remove your foot from the loading pedal. The 1-1/2" and 2" roller units should drop into the fully retracted position. If not, use one hand to slightly press the loading pedal, and use a tool (e.g., screwdriver) to adjust the roller so that both rollers rotate counterclockwise to the retracted position. Using a tool to adjust the roller will keep hands and fingers clear from any potential pinch points.



Operation (cont'd)

BENDING CONDUIT

1. Plug the cord into an appropriate receptacle. See "Grounding Instructions."
2. Press BEND or UNLOAD until the shoe is 5° to 10° before the 0° starting point.
3. Load the conduit so that the bending mark is aligned with the front edge of the shoe hook, as illustrated.



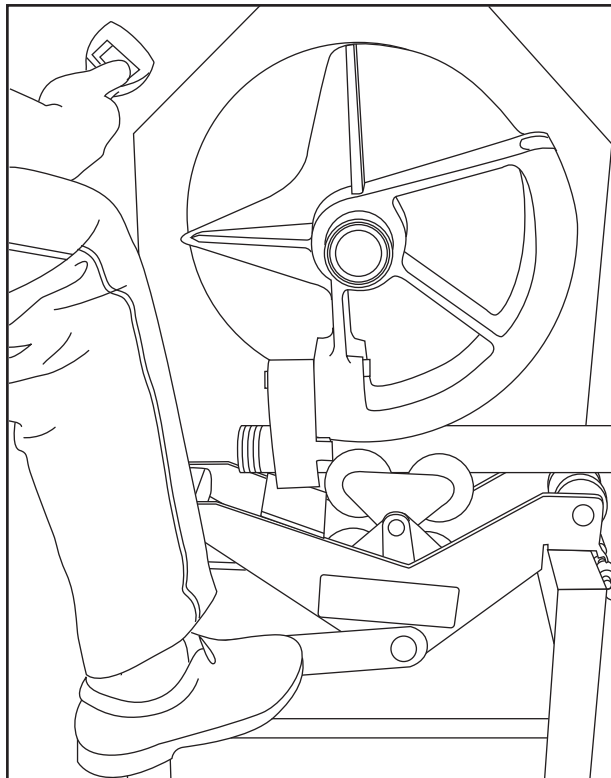
Loading the Conduit

4. See the instruction decal for the appropriate bend angle.

5. Bend the conduit:

If bending 1-1/2" to 2" EMT or IMC:

- a. Place one foot on the loading pedal, as shown.



**Engaging the Loading Pedal
(for 1-1/2" to 2" EMT or IMC only)**

- b. Press and hold BEND. The bender will pull up the roller support. When the roller support contacts the stop, remove your foot from the loading pedal.
- c. Release the switch as you approach the desired angle of bend.
- d. Press BEND momentarily until the bend is complete.

If bending any other size or type of conduit:

- a. Press and hold BEND.
- b. Release the switch as you approach the desired angle of bend.
- c. Press BEND momentarily until the bend is complete.
6. Press UNLOAD. The shoe will rotate backward.
Note: If bending EMT or IMC, the roller support unit will drop to its original position.
7. Twist the conduit to release it from the hook. Remove the conduit.
8. Press and hold UNLOAD until the shoe has rotated back to 0°.

Operation (cont'd)

ADJUSTING THE SQUEEZE

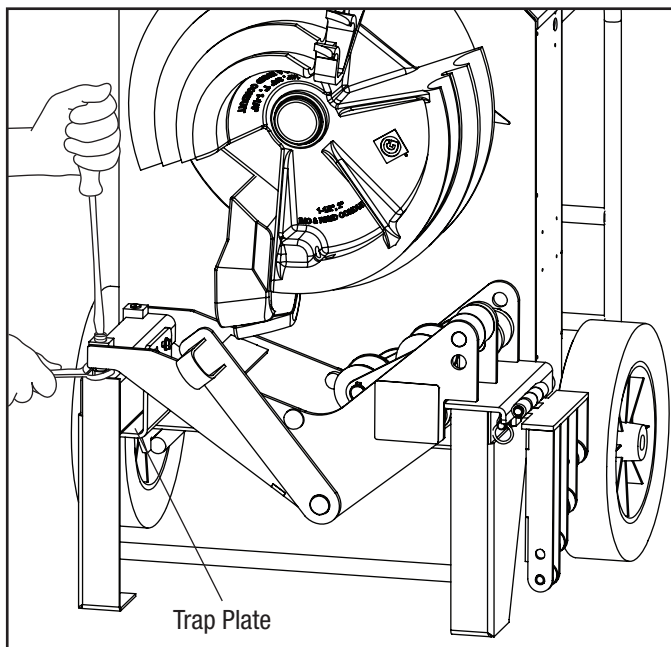
When bending 1-1/2" to 2" EMT or IMC, the roller support must be engaged so that it contacts the conduit; the pressure against the conduit is the "squeeze."

Due to variations in conduit, the standard adjustment may provide too much or too little squeeze. If the conduit develops excessive side marking when bent, the squeeze is set too high. If the conduit becomes excessively oval or wrinkled, the squeeze is set too low.

1. Use a screwdriver to loosen the set screws.
2. Use a wrench to rotate both adjusting bolts 1/2 turn clockwise to INCREASE squeeze or 1/2 turn counterclockwise to DECREASE squeeze.

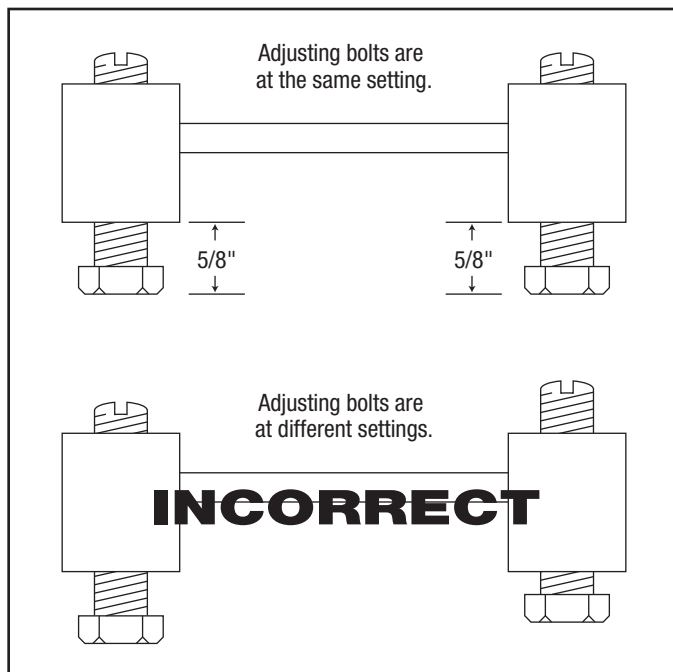
Note: In order to distribute the load evenly, adjust both bolts to the same setting. See the illustration.

3. Tighten the set screws.



Adjusting the Squeeze

Note: The IMC single-shoe roller support has a trap plate that may require adjustment to allow an increase in squeeze. Refer to the trap plate adjustment procedures under "Setup."

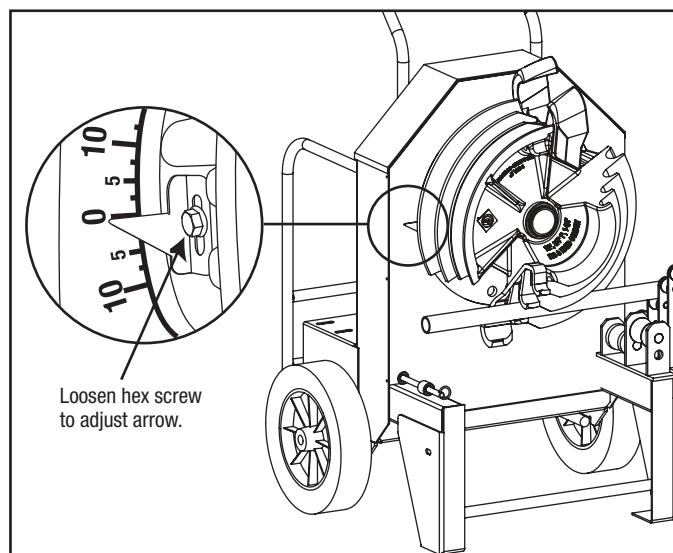


Standard Squeeze Setting

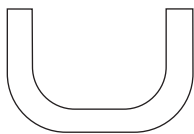
ARROW ADJUSTMENT

The arrows on the single shoes can be adjusted to compensate for variations in conduit.

1. Load the conduit into the proper shoe groove.
2. Press BEND momentarily until the shoe rotates enough so that the conduit is snug in the hook.
3. Verify that the arrow position is aligned with 0° on the front protractor scale. If necessary, loosen the hex head screw and adjust the arrow to align with 0°. Retighten the hex head screw, as shown.

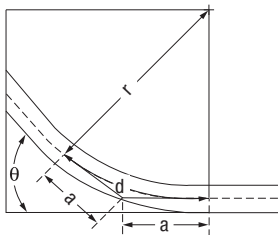


Illustrated Bending Glossary



back-to-back bend — any U-shaped bend formed by two parallel 90° bends with a straight section of conduit or pipe between the bends.

center-to-center distance — the distance between the successive bends that make up an offset or a three-bend saddle.



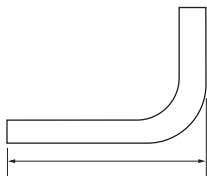
developed length — the actual length of pipe that will be bent; refer to distance “d” in the illustration at left.

gain — the difference between the straight-line distance ($a + a$) and the shorter radial distance, (d) where:

θ = angle of bend

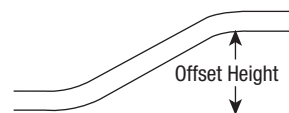
r = the centerline bending radius of the bending shoe

kick — single bend of less than 90°

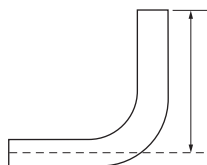


leg length — the distance from the end of a straight section of conduit or pipe to the bend; measured from the end to the outside edge of the conduit or pipe.

offset bend — two opposite bends with the same degree of bend; used to avoid an obstruction.



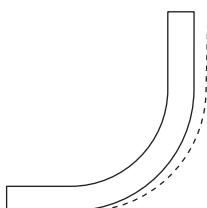
offset height — the distance between the two legs of an offset bend, measured perpendicular to the two legs; also called amount of offset and depth of offset.



rise — the distance from the end of a straight section of conduit or pipe to the bend; measured from the end to the center line of the conduit or pipe. Also called stub or stub-up.

saddle — a three-bend or four-bend combination; used to avoid an obstruction.

shrink — the amount of conduit “lost” when laying out an offset bend working toward an obstruction.



springback — the amount, measured in degrees, that a conduit or pipe tends to straighten after being bent.

Bending Instructions

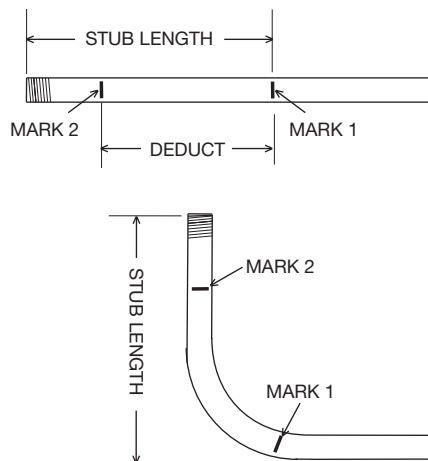
90° STUBS

1. Measure the length of the required stub.
2. See the Minimum Stub Length formula on the Deduct Table. The required stub must be equal to or longer than the Minimum Stub Length.
3. Measure and mark the stub length on the conduit. This is Mark 1. Subtract the Deduct from this mark and make a new mark. This is Mark 2.
4. Align Mark 2 with the front edge of the hook and bend the conduit.

Notes:

When the operator presses **UNLOAD**, the conduit may spring back a few degrees. Compensate by overbending as shown in the Scale Reading Table.

The shoes in the 28007 and 37279 groups can make a 180° bend in one shot. All other shoes bend to 90° maximum.

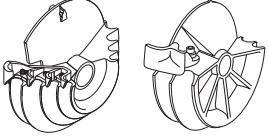
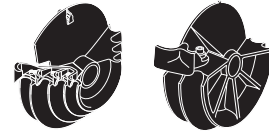


Deduct Table

SIZE		1/2	3/4	1	1-1/4	1-1/2	2
DEDUCT	RIGID/PVC	7-1/2	9	11	14	14-1/4	16-1/8
	EMT	7	8-7/8	10-3/4	13-1/8	13-7/8	15-3/8
	IMC	7-1/2	9	11	14	13-3/4	15-1/4
MINIMUM STUB LENGTH = DEDUCT PLUS 2 INCHES							

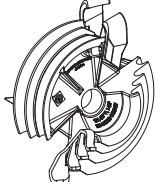
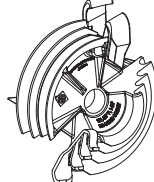
Figures are approximate.

Scale Reading Table

CONDUIT SIZE																				
	RIGID					EMT					IMC					PVC-COATED				
	15°	30°	45°	60°	90°	15°	30°	45°	60°	90°	15°	30°	45°	60°	90°	15°	30°	45°	60°	90°
1/2	18-3/4	35	50	66-1/4	96-1/4	16-1/4	32-1/2	47-1/2	63-3/4	95	20	36-1/4	51-1/4	67-1/2	98-3/4	17-1/2	33-3/4	48-3/4	65	95
3/4	17-1/2	32-1/2	47-1/2	63-3/4	95	17-1/2	33-3/4	48-3/4	63-3/4	95	20	36-1/4	51-1/4	67-1/2	97-1/2	17-1/2	33-3/4	48-3/4	63-3/4	95
1	17-1/2	33-3/4	48-3/4	65	95	17-1/2	32-1/2	48-3/4	65	95	21-1/4	36-1/4	51-1/4	66-1/4	97-1/2	17-1/2	32-1/2	47-1/2	63-3/4	95
1-1/4	18-3/4	33-3/4	48-3/4	63-3/4	95	17-1/2	33-3/4	48-3/4	65	95	18-3/4	33-3/4	50	65	96-1/4	18-3/4	33-3/4	50	65	95
1-1/2	18-3/4	33-3/4	48-3/4	65	95	16-1/4	31-1/4	46-1/4	61-1/4	92-1/2	17-1/2	33-3/4	48-3/4	63-3/4	95	18-3/4	33-3/4	48-3/4	65	95
2	20	35	48-3/4	63-3/4	96-1/4	17-1/2	33-3/4	48-3/4	63-3/4	95	20	35	50	65	96-1/4	20	35	48-3/4	63-3/4	96-1/4

Figures are approximate.

Scale Reading Table—Single-Shoe Groups

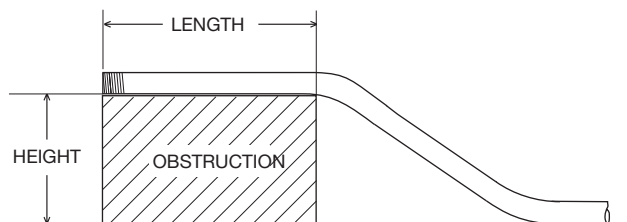
CONDUIT SIZE																				
	RIGID					EMT					IMC					PVC-COATED RIGID				
	15°	30°	45°	60°	90°	15°	30°	45°	60°	90°	15°	30°	45°	60°	90°	15°	30°	45°	60°	90°
1/2	17	33	49	64	96	16	32	48	63	95	20	36	51	67	98	16	31	47	62	93
3/4	17	33	48	64	95	17	33	48	64	95	19	35	50	66	97	15	31	46	62	93
1	17	32	48	63	94	17	32	48	63	94	19	35	50	66	97	16	32	47	63	94
1-1/4	17	32	48	63	94	17	32	48	63	94	19	35	50	66	97	15	30	46	61	92
1-1/2	17	32	48	63	94	19	35	50	66	97	17	33	49	64	96	18	33	49	64	95
2	17	32	48	63	94	19	34	50	65	96	19	34	50	65	96	19	34	50	65	96

Figures are approximate. Note: Due to varying conduit material properties, 1-1/2" or 2" aluminum rigid may require IMC squeeze rollers for bending. If flattening occurs, reduce the squeeze setting two positions and use IMC bending procedures.

Bending Instructions (cont'd)

Offsets

1. Measure the height and length of the obstruction. Select the angle to be used.
2. See the Offset Table. The height of the obstruction must be equal to or greater than the minimum offset.
3. Refer to the X Table to find the X dimension. Refer to the Offset Table to find the center-to-center distance.
Note: If the center-to-center distance is not shown, calculate it by using the multipliers shown in the Offset Table.
4. Mark the conduit as shown.
5. Insert the conduit into the bender. Align Mark 1 with the front edge of the hook and bend the conduit.
6. Align Mark 2 with the front edge of the hook. Without removing the conduit from the bender, rotate the conduit 180°. Make the second bend.



Offset Table

OFFSET ▶		2	4	6	8	10
15°	Max. Conduit Size	3/4	1-1/2	2		
	Center-to-Center	7-3/4	15-7/16	23-3/16	30-15/16	38-5/8
30°	Max. Conduit Size		3/4	1	1-1/2	2
	Center-to-Center		8	12	16	20
45°	Max. Conduit Size			1/2	1	1-1/4
	Center-to-Center			8-1/2	11-5/16	14-1/8

OFFSET ▶		12	14	16	18	20	22
15°	Max. Conduit Size	2					
	Center-to-Center	46-3/8	54-1/16	61-13/16	69-9/16	77-1/4	85
30°	Max. Conduit Size	2					
	Center-to-Center	24	28	32	36	40	44
45°	Max. Conduit Size	1-1/2	2				
	Center-to-Center	16-15/16	19-13/16	22-5/8	25-7/16	28-1/4	31-1/8

CENTER-TO-CENTER DISTANCE = OFFSET HEIGHT x MULTIPLIER					
OFFSET ANGLE	10°	15°	22-1/2°	30°	45°
MULTIPLIER	5.8	3.9	2.6	2.0	1.4

Figures are approximate

X Table

CONDUIT SIZE	1/2	3/4	1	1-1/4	1-1/2	2
"X"	3-1/16	3-1/16	3-3/16	4	4-1/4	4-1/2

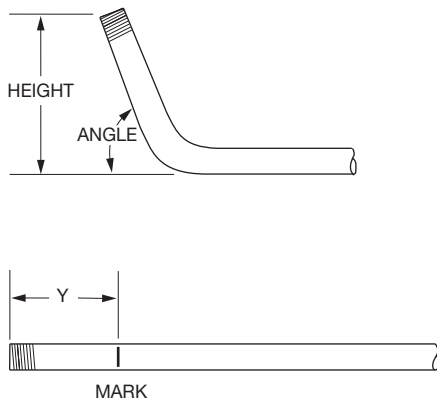
Figures are approximate

Additional Bending Instructions

The following drawings and bending tables are intended to provide the information necessary to accomplish the most common types of bends. The Bending Tables contain conduit marking information.

STUBS

1. Select the size and type of conduit. Determine the height of stub and the angle to be used.
2. Find the table that corresponds to the size and type of conduit selected in Step 1.
3. Under the column labeled ANGLE, find the appropriate angle.
4. Find the row labeled Y. In the row at the top of the page, find the height (H) of the stub. The number shown at the intersection of row Y and column H is the distance Y. Place the bending mark Y inches from the end of the conduit.
5. Bend the conduit.



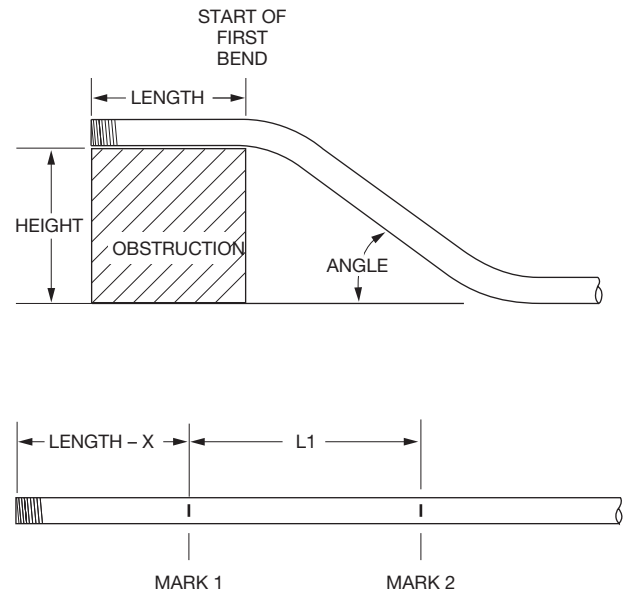
OFFSETS

An offset is used to route the conduit around an obstruction. To make an offset, two equal bends are required. The distance between the two bends is the center-to-center distance.

When working past an obstruction, it is necessary to determine the location of the first bend. The center-to-center distance is then used to determine the location of the second bend. When working toward an obstruction, it is necessary to determine the location of the second bend. The center-to-center distance is then used to determine the location of the first bend.

Working Past an Obstruction

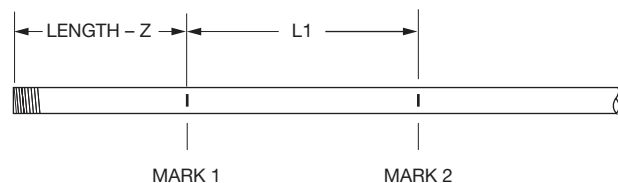
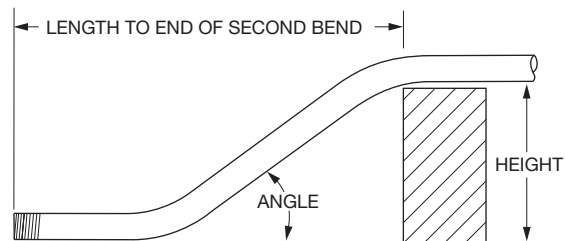
1. Select the size and type of conduit. Measure the height of the obstruction and the distance labeled LENGTH. Determine the angle to be used.
2. Find the table that corresponds to the size and type of conduit selected in Step 1.
3. To the right of the size and type of conduit, find the dimension labeled X. Subtract X from LENGTH. Place the first bending mark this distance from the end of the conduit.
4. Under the column labeled ANGLE, find the appropriate angle. Find the row labeled L1. In the row at the top of the page, find the height (H) of the offset. The number shown at the intersection of row L1 and column H is L1. Place the second bending mark L1 inches from the first bending mark.
5. Bend the conduit.



Additional Bending Instructions (cont'd)

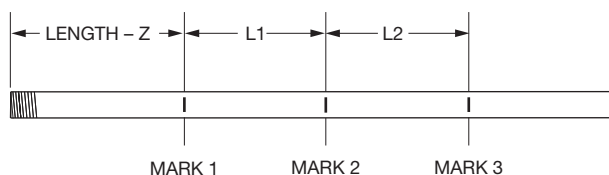
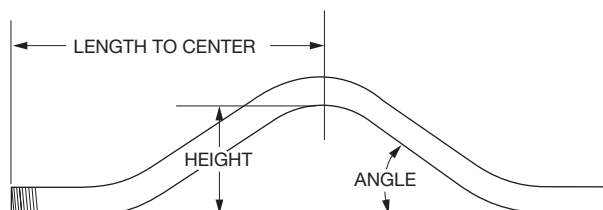
Working Toward an Obstruction

1. Select the size and type of conduit. Measure the height of the obstruction and the distance labeled **LENGTH TO END OF SECOND BEND**. Determine the angle to be used.
2. Find the table that corresponds to the size and type of conduit selected in Step 1.
3. Under the column labeled **ANGLE**, find the appropriate angle. Find the row labeled **Z**. In the row at the top of the page, find the height (**H**) of the offset. The number shown at the intersection of the **Z** row and the **H** column is **Z**. Subtract **Z** from **LENGTH TO THE END OF SECOND BEND**. Place the first bending mark this distance from the end of the conduit.
4. In the same column, find the row labeled **L1**. Place the second bending mark **L1** inches from the first bending mark.
5. Bend the conduit.



THREE-BEND SADDLE

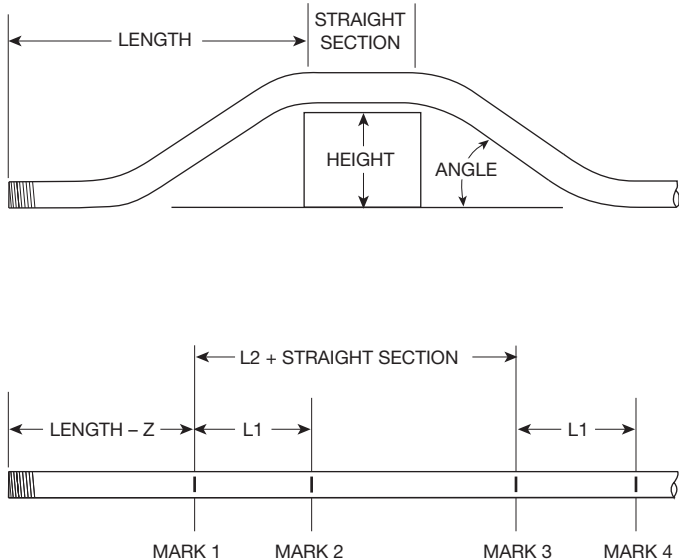
1. Select the size and type of conduit. Measure the height of the obstruction and the distance from the end of the conduit to the center (**LENGTH TO CENTER**) of the bend. Determine the angle to be used.
2. Find the table that corresponds to the size and type of conduit selected in Step 1.
3. Under the column labeled **ANGLE**, find the appropriate angle. Find the row labeled **Z**. In the row at the top of the page, find the height (**H**) of the offset. The number shown at the intersection of the **Z** row and the appropriate **H** column is **Z**. Subtract **Z** from the **LENGTH TO CENTER**. Place the first bending mark this distance from the end of the conduit.
4. In the same column, find the row labeled **L1**. Place the second bending mark **L1** inches from the first bending mark.
5. In the same column, find the row labeled **L2**. Place the third bending mark **L2** inches from the second bending mark.
6. Bend the conduit.



Additional Bending Instructions (cont'd)

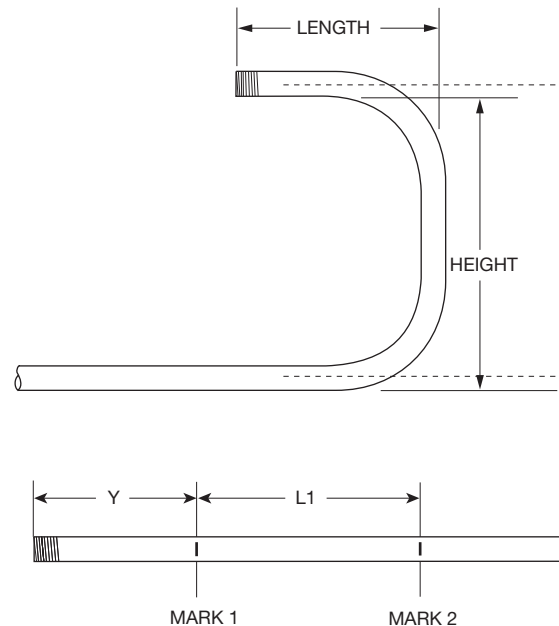
FOUR-BEND SADDLE

1. Select the size and type of conduit. Measure the height of the obstruction, the distance labeled **LENGTH**, and the distance labeled **STRAIGHT SECTION**. Determine the angle to be used.
2. Find the table that corresponds to the size and type of conduit selected in Step 1.
3. Under the column labeled **ANGLE**, find the appropriate angle. Find the row labeled **Z**. In the row at the top of the page, find the height (**H**) of the offset. The number shown at the intersection of the **Z** row and the appropriate **H** column is **Z**. Subtract **Z** from the **LENGTH**. Place the first bending mark this distance from the end of the conduit.
4. In the same column, find the row labeled **L1**. Place the second bending mark **L1** inches from the first bending mark.
5. In the same column, find the row labeled **L2**. Add **L2** to the **STRAIGHT SECTION**. Place the third bending mark this distance from the first bending mark.
6. Make the final bending mark **L1** inches from the third bending mark.
7. Bend the conduit.



U-BENDS

1. Select the size and type of conduit. Determine the **LENGTH** and the **HEIGHT**.
2. Find the table that corresponds to the size and type of conduit selected in Step 1.
3. Under the column labeled **ANGLE**, find 90° .
4. Find the row labeled **Y**. In the row at the top of the page, find the height (**H**) that corresponds to the **LENGTH**. The number shown at the intersection of the **Y** row and the appropriate **H** column is the distance **Y**. Place the bending mark **Y** inches from the end of the conduit.
5. Find the row labeled **L1**, and go to the right to find the height (**H**) that corresponds to the **HEIGHT**.
6. The number shown at the intersection of the **L1** row and the appropriate **H** column is **L1**. Place the second bending mark **L1** inches from the first mark.
7. Bend the conduit.



Additional Bending Tables

	DIM	ANGLE	2"	4"	6"	8"	10"	12"	15"	18"	24"	36"
1/2" EMT												
	Y	15	3.74	11.47	19.20	26.92	34.65	42.38	53.97	65.56	88.74	135.11
	L1	15	7.72	15.45	23.18	30.90	38.63	46.36	57.95	69.54	92.72	139.09
	L2	15	8.94	16.66	24.39	32.12	39.84	47.57	59.16	70.75	93.94	140.30
	Z	15	10.70	18.16	25.62	33.09	40.55	48.02	59.21	70.41	92.80	137.59
MINIMUM H = 0.84												
	Y	22.5	1.37	6.60	11.82	17.05	22.28	27.50	35.34	43.18	58.86	90.22
	L1	22.5	5.20	10.43	15.65	20.88	26.11	31.33	39.17	47.01	62.69	94.05
	L2	22.5	7.02	12.25	17.48	22.70	27.93	33.16	41.00	48.83	64.51	95.87
	Z	22.5	8.68	13.51	18.34	23.17	28.00	32.83	40.07	47.31	61.80	90.77
MINIMUM H = 1.48												
	Y	30	0.04	4.04	8.04	12.04	16.04	20.04	26.04	32.04	44.04	68.04
	L1	30		7.94	11.94	15.94	19.94	23.94	29.94	35.94	47.94	71.94
	L2	30		10.37	14.37	18.37	22.37	26.37	32.37	38.37	50.37	74.37
	Z	30		11.42	14.89	18.35	21.82	25.28	30.48	35.67	46.07	66.85
MINIMUM H = 2.25												
	Y	45		1.23	4.05	6.88	9.71	12.54	16.78	21.02	29.51	46.48
	L1	45			8.29	11.11	13.94	16.77	21.01	25.26	33.74	50.71
	L2	45			11.93	14.76	17.59	20.42	24.66	28.90	37.39	54.36
	Z	45			11.85	13.85	15.85	17.85	20.85	23.85	29.85	41.85
MINIMUM H = 4.14												
	Y	60			1.83	4.14	6.45	8.76	12.22	15.69	22.62	36.47
	L1	60				8.74	11.05	13.36	16.82	20.29	27.21	41.07
	L2	60				13.60	15.91	18.22	21.68	25.14	32.07	45.93
	Z	60				11.99	13.14	14.30	16.03	17.76	21.22	28.15
MINIMUM H = 6.38												
	Y	90				1.00	3.00	5.00	8.00	11.00	17.00	29.00
	L1	90						10.01	13.01	16.01	22.01	34.01
	L2	90						17.30	20.30	23.30	29.30	41.30
	Z	90						11.29	11.29	11.29	11.29	11.29
MINIMUM H = 11.29												
3/4" EMT												
	Y	15	2.35	10.07	17.80	25.53	33.26	40.98	52.58	64.17	87.35	133.71
	L1	15	7.72	15.45	23.17	30.90	38.63	46.36	57.95	69.54	92.72	139.08
	L2	15	9.17	16.90	24.62	32.35	40.08	47.81	59.40	70.99	94.17	140.54
	Z	15	11.79	19.26	26.72	34.19	41.65	49.11	60.31	71.51	93.90	138.68
MINIMUM H = 1.12												
	Y	22.5	0.05	5.28	10.50	15.73	20.95	26.18	34.02	41.86	57.54	88.90
	L1	22.5	5.20	10.42	15.65	20.88	26.10	31.33	39.17	47.01	62.69	94.04
	L2	22.5	7.37	12.60	17.83	23.05	28.28	33.50	41.34	49.18	64.86	96.22
	Z	22.5	9.90	14.73	19.56	24.39	29.22	34.04	41.29	48.53	63.02	91.99
MINIMUM H = 1.94												
	Y	30		2.72	6.72	10.72	14.72	18.72	24.72	30.72	42.72	66.72
	L1	30		7.93	11.93	15.93	19.93	23.93	29.93	35.93	47.93	71.93
	L2	30		10.83	14.83	18.83	22.83	26.83	32.83	38.83	50.83	74.83
	Z	30		12.77	16.23	19.70	23.16	26.62	31.82	37.02	47.41	68.19
MINIMUM H = 2.92												
	Y	45			2.67	5.50	8.33	11.15	15.40	19.64	28.12	45.09
	L1	45			8.25	11.08	13.90	16.73	20.97	25.22	33.70	50.67
	L2	45			12.60	15.43	18.25	21.08	25.33	29.57	38.05	55.02
	Z	45			13.46	15.46	17.46	19.46	22.46	25.46	31.46	43.46
MINIMUM H = 5.27												
	Y	60			0.33	2.64	4.95	7.26	10.72	14.18	21.11	34.97
	L1	60					10.95	13.26	16.72	20.19	27.12	40.97
	L2	60					16.75	19.06	22.53	25.99	32.92	46.78
	Z	60					15.04	16.20	17.93	19.66	23.12	30.05
MINIMUM H = 8.03												
	Y	90					1.13	3.13	6.13	9.13	15.13	27.13
	L1	90							*12.62	15.62	21.62	33.62
	L2	90							21.32	24.32	30.32	42.32
	Z	90							13.95	13.95	13.95	13.95
MINIMUM H = 13.95*												

*MINIMUM H on U-bends = 16.25 on EMT single shoe

Additional Bending Tables (cont'd)

	DIM	ANGLE	2"	4"	6"	8"	10"	12"	15"	18"	24"	36"
1" EMT												
	Y	15	1.35	9.07	16.80	24.53	32.26	39.98	51.57	63.16	86.35	132.71
	L1	15	7.72	15.44	23.17	30.90	38.63	46.35	57.95	69.54	92.72	139.08
	L2	15	9.54	17.26	24.99	32.72	40.45	48.17	59.76	71.36	94.54	140.90
	Z	15	12.51	19.98	27.44	34.91	42.37	49.83	61.03	72.23	94.62	139.40
MINIMUM H = 1.31												
	Y	22.5		4.33	9.56	14.78	20.01	25.24	33.07	40.91	56.59	87.95
	L1	22.5		10.42	15.64	20.87	26.10	31.32	39.16	47.00	62.68	94.04
	L2	22.5		13.15	18.37	23.60	28.82	34.05	41.89	49.73	65.41	96.77
	Z	22.5		15.64	20.47	25.30	30.13	34.96	42.20	49.44	63.93	92.90
MINIMUM H = 2.29												
	Y	30		1.75	5.75	9.75	13.75	17.75	23.75	29.75	41.75	65.75
	L	30		7.91	11.91	15.91	19.91	23.91	29.91	35.91	47.91	71.91
	L2	30		11.55	15.55	19.55	23.55	27.55	33.55	39.55	51.55	75.55
	Z	30		13.87	17.34	20.80	24.27	27.73	32.92	28.12	48.51	69.30
MINIMUM H = 3.47												
	Y	45			1.56	4.39	7.22	10.05	14.29	18.53	27.02	43.99
	L1	45				11.01	13.84	16.67	20.91	25.16	33.64	50.61
	L2	45				16.47	19.30	22.13	26.37	30.62	39.10	56.07
	Z	45				16.98	18.98	20.98	23.98	26.98	32.98	44.98
MINIMUM H = 6.35												
	Y	60				1.33	3.64	5.95	9.42	12.88	19.81	33.67
	L1	60					10.80	13.11	16.57	20.04	26.97	40.82
	L2	60					18.08	20.39	23.85	27.32	34.24	48.10
	Z	60					17.02	18.17	19.91	21.64	25.10	32.03
MINIMUM H = 9.74												
	Y	90						1.25	4.25	7.25	13.25	25.25
	L1	90								15.02	21.02	33.02
	L2	90								25.93	31.93	43.93
	Z	90								17.12	17.12	17.12
MINIMUM H = 17.12												
1-1/4" EMT												
	Y	15	0.26	7.99	15.72	23.45	31.17	38.90	50.49	62.08	85.27	131.63
	L1	15	7.71	15.44	23.17	30.90	38.62	46.35	57.94	69.53	92.72	139.08
	L2	15	10.07	17.80	25.52	33.25	40.98	48.71	60.30	71.89	95.07	141.44
	Z	15	13.20	20.66	28.12	35.59	43.05	50.52	61.71	72.91	95.30	140.09
MINIMUM H = 1.48												
	Y	22.5		3.33	8.55	13.78	19.01	24.23	32.07	39.91	55.59	86.95
	L1	22.5		10.41	15.63	20.86	26.09	31.31	39.15	46.99	62.67	94.03
	L2	22.5		13.94	19.17	24.40	29.62	34.85	42.69	50.53	66.21	97.56
	Z	22.5		16.60	21.43	26.26	31.09	35.91	43.16	50.40	64.89	93.86
MINIMUM H = 2.66												
	Y	30		0.72	4.72	8.72	12.72	16.72	22.72	28.72	40.72	64.72
	L1	30			11.89	15.89	19.89	23.89	29.89	35.89	47.89	71.89
	L2	30			16.61	20.61	24.61	28.61	34.61	40.61	52.61	76.61
	Z	30			18.58	22.04	25.51	28.97	34.17	39.37	49.76	70.54
MINIMUM H = 4.09												
	Y	45			0.33	3.15	5.98	8.81	13.05	17.30	25.78	42.75
	L1	45				10.93	13.75	16.58	20.83	25.07	33.55	50.52
	L2	45				18.00	20.83	23.66	27.90	32.14	40.63	57.60
	Z	45				18.82	20.82	22.82	25.82	28.82	34.82	46.82
MINIMUM H = 7.65												
	Y	60					2.11	4.42	7.89	11.35	18.28	32.14
	L1	60						12.89	16.35	19.82	26.74	40.60
	L2	60						22.32	25.79	29.25	36.18	50.04
	Z	60						20.69	22.42	24.16	27.62	34.55
MINIMUM H = 11.92												
	Y	90							1.88	4.88	10.88	22.88
	L1	90									20.13	32.13
	L2	90									34.29	46.29
	Z	90									21.38	21.38
MINIMUM H = 21.38												

Additional Bending Tables (cont'd)

	DIM	ANGLE	2"	4"	6"	8"	10"	12"	15"	18"	24"	36"
1-1/2" EMT												
	Y	15		6.26	13.99	21.72	29.44	37.17	48.76	60.35	83.53	129.90
	L1	15	7.71	15.44	23.17	30.90	38.62	46.35	57.94	69.53	92.72	139.08
	L2	15	9.95	17.68	25.40	33.13	40.86	48.58	60.18	71.77	94.95	141.31
	Z	15	14.42	21.88	29.35	36.81	44.28	51.74	62.94	74.13	96.53	141.31
MINIMUM H = 1.81												
	Y	22.5		1.77	7.00	12.22	17.45	22.68	30.52	38.36	54.03	85.39
	L1	22.5		10.41	15.64	20.86	26.09	31.31	39.15	46.99	62.67	94.03
	L2	22.5		13.76	18.98	24.21	29.44	34.66	42.50	50.34	66.02	97.38
	Z	22.5		17.76	22.59	27.42	32.25	37.07	44.32	51.56	66.04	95.02
MINIMUM H = 3.11												
	Y	30			3.26	7.26	11.26	15.26	21.26	27.26	39.26	63.26
	L1	30			11.90	15.90	19.90	23.90	29.90	35.90	47.90	71.90
	L2	30			16.36	20.36	24.36	28.36	34.36	40.36	52.36	76.36
	Z	30			19.67	23.14	26.60	30.07	35.26	40.46	50.85	71.64
MINIMUM H = 4.64												
	Y	45				1.84	4.67	7.50	11.74	15.98	24.47	41.44
	L1	45					13.78	16.60	20.85	25.09	33.57	50.54
	L2	45					20.47	23.30	27.55	31.79	40.27	57.24
	Z	45					21.78	23.78	26.78	29.78	35.78	47.78
MINIMUM H = 8.33												
	Y	60					0.91	3.22	6.68	10.15	17.07	30.93
	L1	60							16.40	19.87	26.80	40.65
	L2	60							25.34	28.80	35.73	49.58
	Z	60							23.22	24.95	28.42	35.34
MINIMUM H = 12.61												
	Y	90							0.89	3.89	9.89	21.89
	L1	90									20.34	32.34
	L2	90									33.74	45.74
	Z	90									21.77	21.77
MINIMUM H = 21.77												
2" EMT												
	Y	15		5.15	12.87	20.60	28.33	36.05	47.65	59.24	82.42	128.78
	L1	15	7.71	15.44	23.17	30.90	38.62	46.35	57.94	69.53	92.71	139.08
	L2	15	10.19	17.92	25.64	33.37	41.10	48.83	60.42	72.01	95.19	141.56
	Z	15	14.77	22.24	29.70	37.17	44.63	52.10	63.29	74.49	96.88	141.66
MINIMUM H = 1.89												
	Y	22.5		0.88	6.11	11.33	16.56	21.79	29.62	37.46	53.14	84.50
	L1	22.5		10.40	15.63	20.86	26.08	31.31	39.15	46.99	62.67	94.02
	L2	22.5		14.12	19.35	24.57	29.80	35.02	42.86	50.70	66.38	97.74
	Z	22.5		18.24	23.07	27.90	32.73	37.55	44.80	52.04	66.52	95.50
MINIMUM H = 3.28												
	Y	30			2.45	6.45	10.45	14.45	20.45	26.45	38.45	62.45
	L1	30			11.88	15.88	19.88	23.88	29.88	35.88	47.88	71.88
	L2	30			16.84	20.84	24.84	28.84	34.84	40.84	52.84	76.84
	Z	30			20.28	23.75	27.21	30.67	35.87	41.07	51.46	72.24
MINIMUM H = 4.94												
	Y	45				1.02	3.85	6.68	10.92	15.16	23.65	40.62
	L1	45					13.74	16.56	20.81	25.05	33.53	50.50
	L2	45					21.16	23.99	28.24	32.48	40.96	57.93
	Z	45					22.66	24.66	27.66	30.66	36.66	48.66
MINIMUM H = 8.95												
	Y	60					0.00	2.31	5.77	9.23	16.16	30.02
	L1	60							16.30	19.77	26.70	40.55
	L2	60							26.21	29.67	36.60	50.46
	Z	60							24.40	26.14	29.60	36.53
MINIMUM H = 13.63												
	Y	90								2.62	8.62	20.62
	L1	90									19.94	31.94
	L2	90									34.80	46.80
	Z	90									23.74	23.74
MINIMUM H = 23.74												

Additional Bending Tables (cont'd)

	DIM	ANGLE	2"	4"	6"	8"	10"	12"	15"	18"	24"	36"
1/2" IMC, Rigid, and 40 Mil PVC-Coated Rigid												
	Y	15	3.03	10.76	18.48	26.21	33.94	41.67	53.26	64.85	88.03	134.39
	L1	15	7.72	15.45	23.18	30.90	38.63	46.36	57.95	69.54	92.72	139.09
	L2	15	8.87	16.59	24.32	32.05	39.78	47.50	59.10	70.69	93.87	140.23
	Z	15	11.12	18.58	26.05	33.51	40.97	48.44	59.63	70.83	93.22	138.01
MINIMUM H = 0.95												
	Y	22.5	.77	5.98	11.21	16.44	21.66	26.89	34.73	42.57	58.25	89.60
	L1	22.5	5.20	10.43	15.66	20.88	26.11	31.34	39.17	47.01	62.69	94.05
	L2	22.5	6.92	12.15	17.38	22.60	27.83	33.06	40.89	48.73	64.41	95.77
	Z	22.5	9.07	13.90	18.73	23.56	28.38	33.21	40.46	47.70	62.18	91.15
MINIMUM H = 1.62												
	Y	30		3.49	7.49	11.49	15.49	19.49	25.49	31.49	43.49	67.49
	L1	30		7.95	11.95	15.95	19.95	23.95	29.95	35.95	47.95	71.95
	L2	30		10.24	14.24	18.24	22.24	26.24	32.24	38.24	50.24	74.24
	Z	30		11.78	15.24	18.70	22.17	25.63	30.83	36.02	46.42	67.20
MINIMUM H = 2.42												
	Y	45			3.59	6.41	9.23	12.06	16.30	20.55	29.03	46.00
	L1	45			8.30	11.13	13.95	16.78	21.02	25.27	33.75	50.72
	L2	45			11.74	14.57	17.39	20.22	24.46	28.71	37.19	54.16
	Z	45			12.13	14.13	16.13	18.13	21.13	24.13	30.13	42.13
MINIMUM H = 4.33												
	Y	60			1.42	3.73	6.04	8.34	11.81	15.27	22.20	36.06
	L1	60				8.77	11.08	13.39	16.85	20.31	27.24	41.10
	L2	60				13.35	15.66	17.97	21.44	24.90	31.83	45.69
	Z	60				12.18	13.33	14.49	16.22	17.95	21.41	28.34
MINIMUM H = 6.55												
	Y	90				.71	2.71	4.71	7.71	10.71	16.70	28.70
	L1	90						10.12	13.12	16.12	22.12	34.12
	L2	90						17.00	20.00	23.00	29.00	41.00
	Z	90						11.26	11.26	11.26	11.26	11.26
MINIMUM H = 11.26												
3/4" IMC, Rigid, and 40 Mil PVC-Coated Rigid												
	Y	15	1.86	9.58	17.31	25.04	32.77	40.49	52.08	63.68	86.86	133.22
	L1	15	7.72	15.45	23.17	30.90	38.63	46.36	57.95	69.54	92.72	139.08
	L2	15	9.19	16.91	24.64	32.37	40.09	47.82	59.41	71.00	94.19	140.55
	Z	15	12.06	19.53	26.89	34.46	41.92	49.38	60.58	71.78	94.17	138.95
MINIMUM H = 1.19												
	Y	22.5		4.85	10.08	15.31	20.53	25.76	33.60	41.44	57.12	88.47
	L1	22.5		10.42	15.65	20.88	26.10	31.33	39.17	47.01	62.69	94.04
	L2	22.5		12.62	17.85	23.08	28.30	33.53	41.37	49.21	64.89	96.24
	Z	22.5		15.01	19.84	24.67	29.49	34.32	41.57	48.81	63.29	92.26
MINIMUM H = 2.05												
	Y	30		2.33	6.33	10.33	14.33	18.33	24.33	30.33	42.33	66.33
	L1	30		7.93	11.93	15.93	19.93	23.93	29.93	35.93	47.93	71.93
	L2	30		10.86	14.86	18.86	22.86	26.86	32.86	38.86	50.86	74.86
	Z	30		13.05	16.52	19.98	23.45	26.91	32.11	37.30	47.70	68.48
MINIMUM H = 3.06												
	Y	45			2.31	5.13	7.96	10.79	15.03	19.28	27.76	44.73
	L1	45			8.24	11.07	13.90	16.73	20.97	25.21	33.70	50.67
	L2	45			12.64	15.47	18.30	21.13	25.37	29.61	38.10	55.07
	Z	45			13.76	15.76	17.76	19.76	22.76	25.76	31.76	43.76
MINIMUM H = 5.49												
	Y	60				2.28	4.59	6.90	10.36	13.83	20.75	34.61
	L1	60					10.94	13.25	16.72	20.18	27.11	40.97
	L2	60					16.81	19.12	22.58	26.05	32.98	46.83
	Z	60					15.36	16.52	18.25	19.88	23.45	30.38
MINIMUM H = 8.31												
	Y	90					.76	2.76	5.76	8.76	14.76	26.76
	L1	90							*12.60	15.60	21.60	33.60
	L2	90							21.39	24.39	30.39	42.39
	Z	90							14.33	14.33	14.33	14.33
MINIMUM H = 14.33*												

*MINIMUM H on U-bends = 16.62 on single shoes

Additional Bending Tables (cont'd)

	DIM	ANGLE	2"	4"	6"	8"	10"	12"	15"	18"	24"	36"
1" IMC, Rigid, and 40 Mil PVC-Coated Rigid												
	Y	15	1.08	8.81	16.52	24.25	31.97	39.70	51.29	62.88	86.07	132.43
	L1	15	7.72	15.44	23.17	30.90	38.63	46.35	57.94	69.54	92.72	139.08
	L2	15	9.59	17.32	25.04	32.77	40.50	48.23	59.82	71.41	94.59	140.95
	Z	15	12.53	20.00	27.46	34.93	42.39	49.86	61.05	72.25	94.64	139.43
MINIMUM H = 1.31												
	Y	22.5		4.13	9.35	14.58	19.81	25.03	32.87	40.71	56.39	87.75
	L1	22.5		10.42	15.64	20.87	26.09	31.32	39.16	47.00	62.68	94.04
	L2	22.5		13.22	18.45	23.68	28.90	34.13	41.97	49.81	65.49	96.84
	Z	22.5		15.69	20.52	25.35	30.18	35.01	42.25	49.49	63.98	92.95
MINIMUM H = 2.31												
	Y	30		1.58	5.58	9.58	13.58	17.58	23.58	29.58	41.58	65.58
	L1	30		7.91	11.91	15.91	19.91	23.91	29.91	35.91	47.91	71.91
	L2	30		11.66	15.66	19.66	23.66	27.66	33.66	39.66	51.66	75.66
	Z	30		13.95	17.41	20.88	24.34	27.81	33.00	38.20	48.59	69.38
MINIMUM H = 3.51												
	Y	45			1.42	4.24	7.06	9.89	14.14	18.38	26.86	43.83
	L1	45				11.01	13.83	16.66	20.91	25.15	33.63	50.60
	L2	45				16.62	19.45	22.28	26.52	30.76	39.25	56.22
	Z	45				17.11	19.11	21.11	24.11	27.11	33.11	45.11
MINIMUM H = 6.44												
	Y	60				1.17	3.48	5.79	9.25	12.71	19.64	33.49
	L1	60					10.78	13.09	16.55	20.02	26.94	40.80
	L2	60					18.27	20.58	24.04	27.50	34.43	48.29
	Z	60					17.22	18.37	20.11	21.84	25.30	32.23
MINIMUM H = 9.91												
	Y	90						1.01	4.01	7.01	13.01	25.01
	L1	90								14.93	20.93	32.93
	L2	90								26.16	32.16	44.16
	Z	90								17.49	17.49	17.49
MINIMUM H = 17.49												
1-1/4" IMC, Rigid, and 40 Mil PVC-Coated Rigid												
	Y	15		7.15	14.87	22.60	30.33	38.06	49.65	61.24	84.42	130.78
	L1	15	7.71	15.44	23.17	30.90	38.62	46.35	57.94	69.53	92.72	139.08
	L2	15	10.07	17.80	25.53	33.25	40.98	48.71	60.30	71.89	95.07	141.44
	Z	15	13.77	21.24	28.70	36.17	43.63	51.09	62.29	73.49	95.88	140.66
MINIMUM H = 1.63												
	Y	22.5		2.57	7.80	13.02	18.25	23.47	31.31	39.15	54.83	86.19
	L1	22.5		10.41	15.63	20.86	26.09	31.31	39.15	46.99	62.67	94.03
	L2	22.5		13.94	19.17	24.40	29.62	34.85	42.69	50.53	66.21	97.56
	Z	22.5		17.18	22.01	26.84	31.66	36.49	43.73	50.98	65.46	94.43
MINIMUM H = 2.88												
	Y	30			4.00	8.00	12.00	16.00	22.00	28.00	40.00	64.00
	L1	30			11.89	15.89	19.89	23.89	29.89	35.89	47.89	71.89
	L2	30			16.61	20.61	24.61	28.61	34.61	40.61	52.61	76.61
	Z	30			19.16	22.62	26.09	29.55	34.75	39.94	50.33	71.12
MINIMUM H = 4.38												
	Y	45				2.48	5.31	8.14	12.38	16.62	25.11	42.08
	L1	45					13.75	16.58	20.83	25.07	33.55	50.52
	L2	45					20.83	23.66	27.90	32.14	40.63	57.60
	Z	45					21.40	23.40	26.40	29.40	35.40	47.40
MINIMUM H = 8.06												
	Y	60					1.46	3.77	7.23	10.69	17.62	31.48
	L1	60							16.35	19.82	26.74	40.60
	L2	60							25.79	29.25	36.18	50.04
	Z	60							23.00	24.73	28.20	35.13
MINIMUM H = 11.32												
	Y	90							1.23	4.23	10.23	22.23
	L1	90									20.13	32.13
	L2	90									34.29	46.29
	Z	90									21.96	21.96
MINIMUM H = 21.96												

Additional Bending Tables (cont'd)

	DIM	ANGLE	2"	4"	6"	8"	10"	12"	15"	18"	24"	36"
1-1/2" Rigid and 40 Mil PVC-Coated Rigid												
	Y	15		5.87	13.59	21.32	29.05	36.77	48.37	59.96	83.14	129.50
	L1	15	7.71	15.44	23.17	20.90	38.62	46.35	57.94	69.53	92.72	139.08
	L2	15	9.94	17.67	25.39	33.12	40.85	48.58	60.17	71.76	94.94	141.31
	Z	15	14.50	21.97	29.43	36.89	44.36	51.82	63.02	74.21	96.61	141.39
MINIMUM H = 1.82												
	Y	22.5		1.48	6.71	11.93	17.16	22.38	30.22	38.06	53.74	85.10
	L1	22.5		10.41	15.64	20.86	26.09	31.31	39.15	46.99	62.67	94.03
	L2	22.5		13.75	18.97	24.20	29.43	34.65	42.49	50.33	66.01	97.37
	Z	22.5		17.84	22.67	27.50	32.32	37.15	44.39	51.64	66.12	95.09
MINIMUM H = 3.13												
	Y	30			3.02	7.02	11.02	15.02	21.02	27.02	39.02	63.02
	L1	30			11.90	15.90	19.90	23.90	29.90	35.90	47.90	71.90
	L2	30			16.35	20.35	24.35	28.35	34.35	40.35	52.35	76.35
	Z	30			19.75	23.21	26.68	30.14	35.34	40.53	50.92	71.71
MINIMUM H = 4.68												
	Y	45				1.65	4.48	7.31	11.55	15.79	24.28	41.25
	L1	45					13.78	16.60	20.85	25.09	33.58	50.55
	L2	45					20.45	23.28	27.52	31.77	40.25	57.22
	Z	45					21.84	23.84	26.84	29.84	35.84	47.84
MINIMUM H = 8.37												
	Y	60					0.74	3.05	6.52	9.98	16.91	30.76
	L1	60							16.41	19.87	26.80	40.66
	L2	60							25.31	28.77	35.70	49.56
	Z	60							23.28	25.01	28.47	35.40
MINIMUM H = 12.66												
	Y	90							0.75	3.75	9.75	21.75
	L1	90									20.35	32.35
	L2	90									33.70	45.70
	Z	90									21.80	21.80
MINIMUM H = 21.80												
2" Rigid and 40 Mil PVC-Coated Rigid												
	Y	15		4.42	12.15	19.87	27.60	35.33	46.92	58.51	81.69	128.06
	L1	15	7.71	15.44	23.17	30.89	38.62	46.35	57.94	69.53	92.71	139.08
	L2	15	10.27	18.00	25.73	33.46	41.18	48.91	60.50	72.09	95.27	141.64
	Z	15	15.20	22.66	30.13	37.59	45.06	52.52	63.72	74.91	97.30	142.09
MINIMUM H = 2.00												
	Y	22.5		0.24	5.47	10.70	15.92	21.15	28.99	36.83	52.51	83.86
	L1	22.5		10.40	15.63	20.85	26.08	31.31	39.15	46.99	62.66	94.02
	L2	22.5		14.24	19.47	24.70	29.92	35.15	42.99	50.83	66.51	97.86
	Z	22.5		18.71	23.54	28.36	33.19	38.02	45.26	52.51	66.99	95.96
MINIMUM H = 3.47												
	Y	30			1.84	5.84	9.84	13.84	19.84	25.84	37.84	61.84
	L1	30			11.88	15.88	19.88	23.88	29.88	35.88	47.88	71.88
	L2	30			17.00	21.00	25.00	29.00	35.00	41.00	53.00	77.00
	Z	30			20.79	24.26	27.72	31.19	36.38	41.58	51.97	71.75
MINIMUM H = 5.20												
	Y	45				0.42	3.25	6.08	10.32	14.57	23.05	40.02
	L1	45					13.72	16.55	20.79	25.04	33.52	50.49
	L2	45					21.40	24.23	28.47	32.72	41.20	58.17
	Z	45					23.26	25.26	28.26	31.26	37.26	49.26
MINIMUM H = 9.38												
	Y	60						1.68	5.14	8.61	15.54	29.39
	L1	60							16.27	19.73	26.66	40.52
	L2	60							26.51	29.97	36.90	50.76
	Z	60							25.11	26.85	30.31	37.24
MINIMUM H = 14.25												
	Y	90								1.87	7.87	19.87
	L1	90										31.80
	L2	90										47.16
	Z	90										24.72
MINIMUM H = 24.72												

Additional Bending Tables (cont'd)

	DIM	ANGLE	2"	4"	6"	8"	10"	12"	15"	18"	24"	36"
1-1/2" IMC												
	Y	15		6.41	14.14	21.87	29.60	37.32	48.91	60.51	83.69	130.05
	L1	15	7.71	15.44	23.17	30.90	38.62	46.35	57.94	69.53	92.72	139.00
	L2	15	9.95	17.68	25.40	33.13	40.86	48.58	60.18	71.77	94.94	141.31
	Z	15	13.99	21.45	28.92	36.38	43.85	51.31	62.51	73.70	96.10	140.88
MINIMUM H = 1.69												
	Y	22.5		2.02	7.24	12.47	17.69	22.92	30.76	38.60	54.28	85.64
	L1	22.5		10.41	15.64	20.86	26.09	31.31	39.15	46.99	62.67	94.03
	L2	22.5		13.76	18.98	24.21	29.44	34.66	42.50	50.34	66.02	97.38
	Z	22.5		17.33	22.16	26.99	31.82	36.64	43.89	51.13	65.61	94.59
MINIMUM H = 2.94												
	Y	30			3.55	7.55	11.55	15.55	21.55	27.55	39.55	63.55
	L1	30			11.90	15.90	19.90	23.90	29.90	35.90	47.90	71.90
	L2	30			16.36	20.36	24.36	28.36	34.36	40.36	52.36	76.36
	Z	30			19.24	22.71	26.17	29.64	34.83	40.03	50.42	71.21
MINIMUM H = 4.43												
	Y	45				2.17	5.00	7.83	12.07	16.31	24.80	41.77
	L1	45					13.78	16.60	20.85	25.09	33.57	50.54
	L2	45					20.47	23.30	27.55	31.79	40.27	57.24
	Z	45					21.35	23.35	26.35	29.35	35.35	47.35
MINIMUM H = 8.02												
	Y	60					1.26	3.56	7.03	10.49	17.42	31.28
	L1	60							16.40	19.87	26.80	40.65
	L2	60							25.34	28.80	35.73	49.58
	Z	60							22.79	24.52	27.99	34.91
MINIMUM H = 12.24												
	Y	90							1.25	4.25	10.25	22.25
	L1	90									20.34	32.34
	L2	90									33.74	45.74
	Z	90									21.34	21.34
MINIMUM H = 21.34												
2" IMC												
	Y	15		5.04	12.77	20.50	28.22	35.95	47.54	59.13	82.31	128.68
	L1	15	7.71	15.44	23.17	30.90	38.62	46.35	57.94	69.53	92.71	139.00
	L2	15	10.19	17.92	25.64	33.37	41.10	48.83	60.42	72.01	95.19	141.56
	Z	15	14.56	22.03	29.49	36.96	44.42	51.89	63.00	74.28	96.67	141.45
MINIMUM H = 1.84												
	Y	22.5		0.88	6.10	11.33	16.56	21.78	29.62	37.46	53.14	84.50
	L1	22.5		10.40	15.63	20.86	26.08	31.31	39.15	46.99	62.67	94.02
	L2	22.5		14.12	19.35	24.57	29.80	35.02	42.86	50.70	66.38	97.74
	Z	22.5		18.03	22.86	27.69	32.52	37.34	44.59	51.83	66.31	95.29
MINIMUM H = 3.20												
	Y	30			2.50	6.50	10.50	14.50	20.50	26.50	38.50	62.50
	L1	30			11.88	15.88	19.88	23.88	29.88	35.88	47.88	71.88
	L2	30			16.84	20.84	24.84	28.84	34.84	40.84	52.84	76.84
	Z	30			20.07	23.54	27.00	30.46	35.66	40.86	51.25	72.03
MINIMUM H = 4.84												
	Y	45				1.12	3.94	6.77	11.02	15.26	23.74	40.71
	L1	45					13.74	16.56	20.81	25.05	33.53	50.50
	L2	45					21.16	23.99	28.24	32.48	40.96	57.93
	Z	45					22.45	24.45	27.45	30.45	36.45	48.45
MINIMUM H = 8.80												
	Y	60					0.11	2.42	5.89	9.35	16.28	20.13
	L1	60							16.30	19.77	26.70	20.55
	L2	60							26.21	29.67	36.60	50.46
	Z	60							24.19	25.93	29.39	26.32
MINIMUM H = 13.45												
	Y	90								2.75	8.75	20.75
	L1	90									19.94	31.94
	L2	90									34.80	46.80
	Z	90									23.53	23.53
MINIMUM H = 23.53												

Handle Removal and Replacement

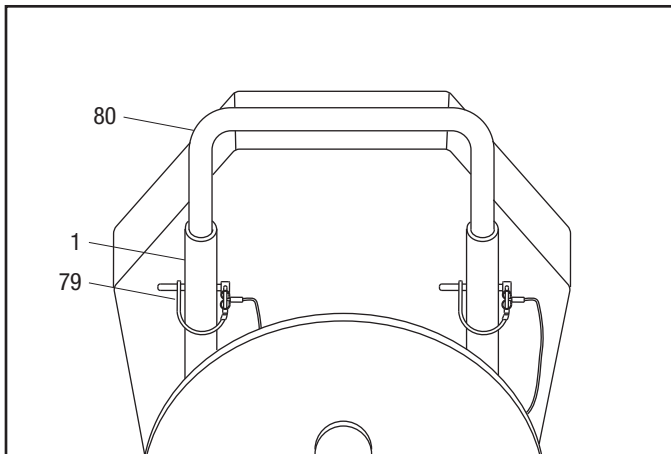
The handle of the 555C is designed to be removable. This feature is convenient when performing complex bending, and makes it easy to replace a damaged handle.

Removal

1. Place the bender in the upright position.
2. Release the spring clip on the safety snap pin (79).
3. Remove the pin from the handle (80) and the sleeve of the frame (1).
4. Repeat Steps 1 through 3 for the other end of the handle.
5. Lift the handle to remove.

Replacement

1. Insert the handle (80) into the sleeves of the frame (1).
2. Align the holes in the handle with the holes in the sleeves.
3. Insert the safety snap pin (79). Ensure that the pin goes through the handle and the sleeve on the frame (1).
4. Engage the safety spring clip over the end of the pin. Ensure that the loop on the clip is completely around the pin.
5. Repeat Steps 2 through 4 for the other end of the handle.



Removing or Replacing Handle

Transportation

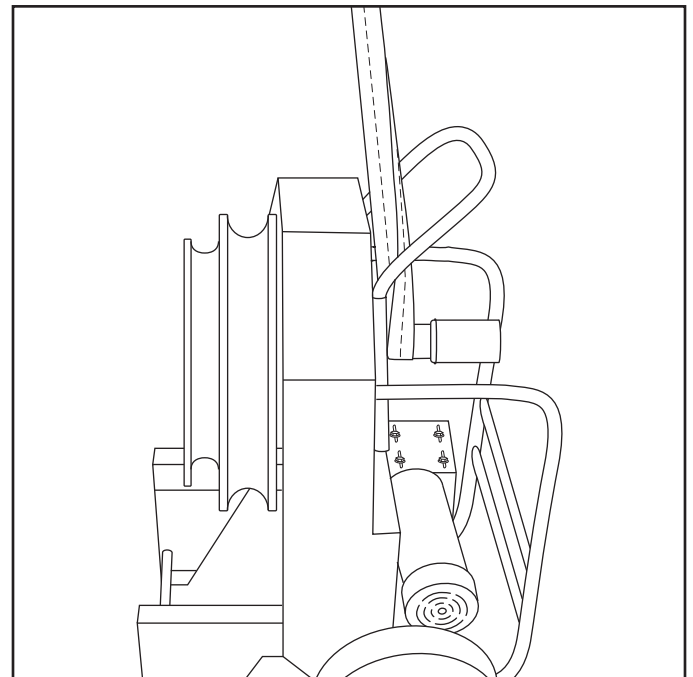
⚠ WARNING

Make sure that the handle is properly installed and secured with the safety spring clips and snap pins before lifting or moving the bender. An improperly installed handle could allow the bender to fall, injuring nearby personnel.

Failure to observe this warning could result in severe injury or death.

The only proper way to lift this bender is by attaching a nylon or polyester sling around the storage spindle. The sling should extend between the handle and main frame of the bender so that the handle acts as a guide for the sling, as shown.

Make sure that all components used to lift this bender are properly rated for the 159 kg (350 lb) weight. Use a ramp to load and unload from a truck or other vehicle that is not equipped with a lift gate.



Transporting Bender

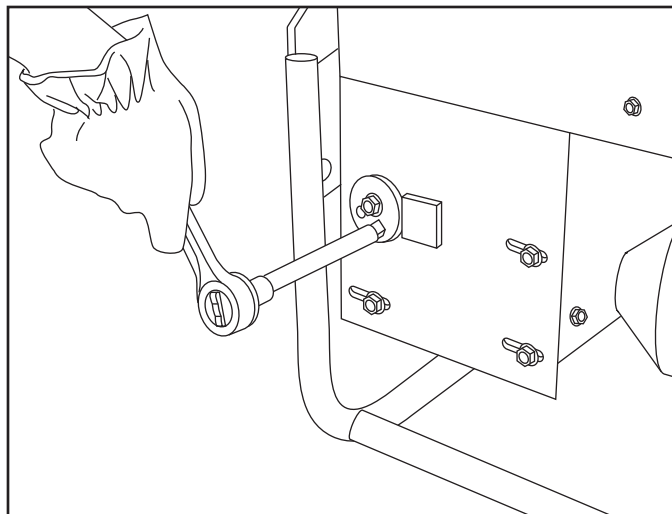
Maintenance

There is no need for periodic flushing and replacing of lube in the bender gear box since it is sealed and locked tight. However, if the box is opened for repair and the lube is lost or contaminated by dirt, then the box and parts should be flushed out and filled with 26 fluid ounces of Mobil® 634 synthetic oil.

Flushing should be accomplished with kerosene, which is a petroleum hydrocarbon that does not affect seals.

Note: Aromatic hydrocarbons such as benzene, chlorinated solvents such as carbon-tetrachloride, and ketones such as acetone should never be used for flushing as they are solvents for rubber. They are also harmful to the environment.

	⚠ WARNING Disconnect this tool when not in use, before servicing or adjusting, and when changing shoes or conduit rollers and supports. Failure to observe this warning could result in severe injury or death.
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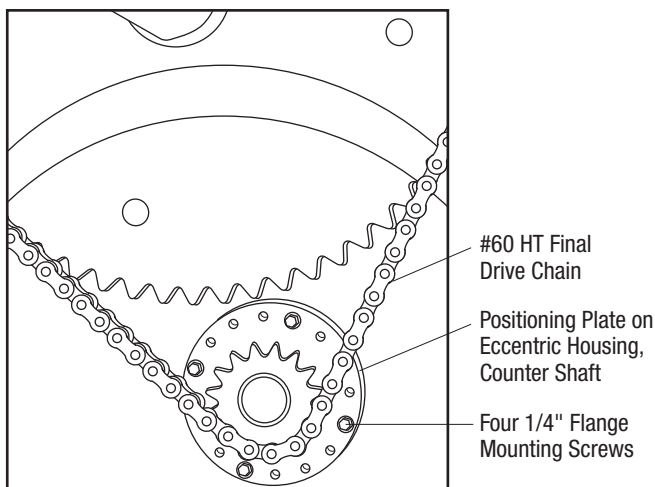
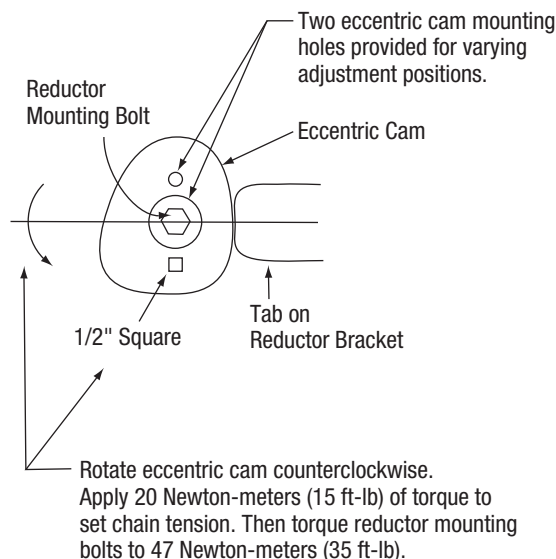


With the eight reductor mounting bolts (22, 24) loose, rotate the eccentric cam with a 1/2" square drive to tension the chain. Torque the eight reductor mounting bolts to 47 Newton-meters (35 ft-lb).

Chain Adjustment

Both chains have to be adjusted if the final drive #60 chain is to be reset. Refer to the Exploded View and Parts List.

1. Remove the front cover (38) and upper rear guard (37).
2. Loosen the eight mounting bolts for the reductor (19). Remove the eccentric cam and move the reductor to create chain slack.
3. Remove the four retaining screws for eccentric adjustment. Rotate to remove slack from the chain and align with one of the two sets of holes in the frame. Remount the eccentric with the four bolts.
4. Slide the reductor in slotted mounting holes to the retension chain. Set tension with the eccentric cam.



Troubleshooting

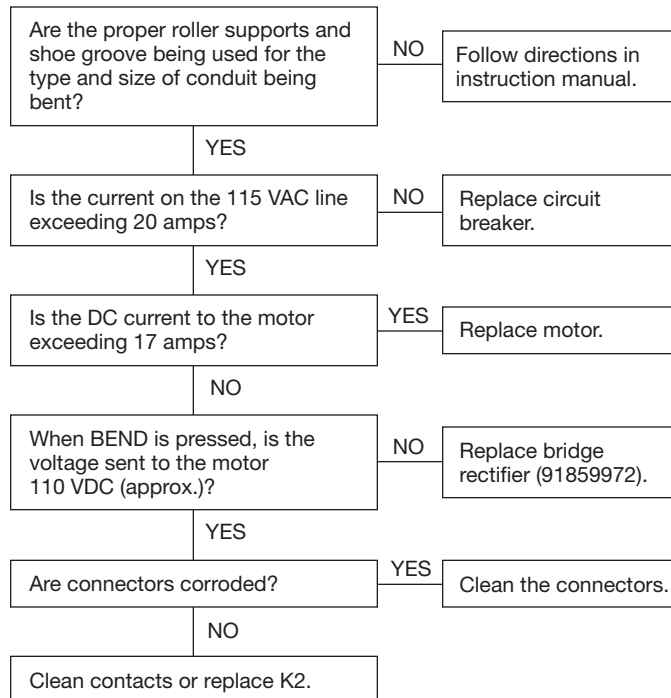
Problem	Probable Cause	Possible Remedy
Bender will not operate.	No voltage.	Check supply voltage circuit operation.
		Check that switch is on.
Bends are overbent a few degrees.	Too much squeeze on 1-1/2" or 2" EMT or IMC conduit.	Back squeeze off per adjustment instructions.
	Unusual conduit characteristics.	Bend smaller angle to compensate.
Bends are underbent a few degrees.	Too little squeeze on 1-1/2" or 2" EMT or IMC conduit.	Increase squeeze per adjustment instructions.
	Unusual conduit characteristics.	Bend larger angle to compensate.

Troubleshooting (cont'd)

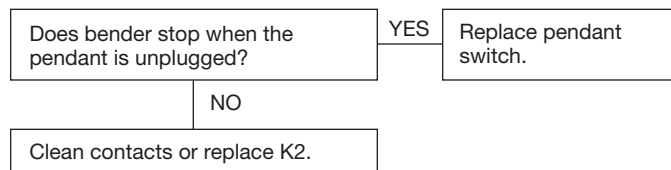
The following flow charts show the suggested troubleshooting procedures for some bender problems. They by no means encompass all possible problems or solutions.

	⚠ WARNING
	Electric shock hazard: • Contact with live circuits can result in severe injury or death. • Some troubleshooting steps require power to the bender. This type of troubleshooting step should only be performed at authorized Greenlee service centers by personnel who are familiar with safe troubleshooting procedures. Failure to observe these warnings could result in severe injury or death.

Trips 555C switch/circuit breaker

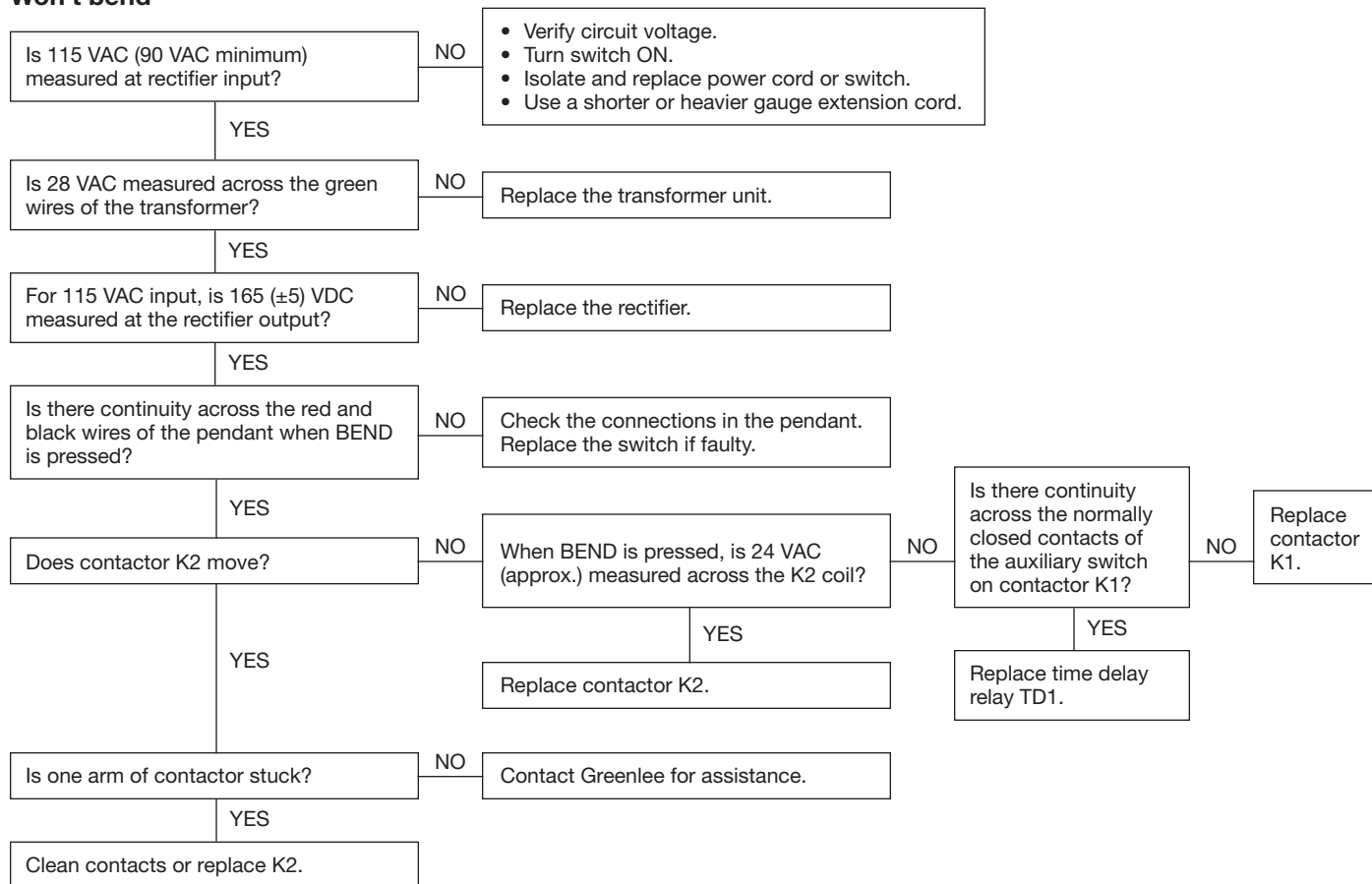


Won't stop

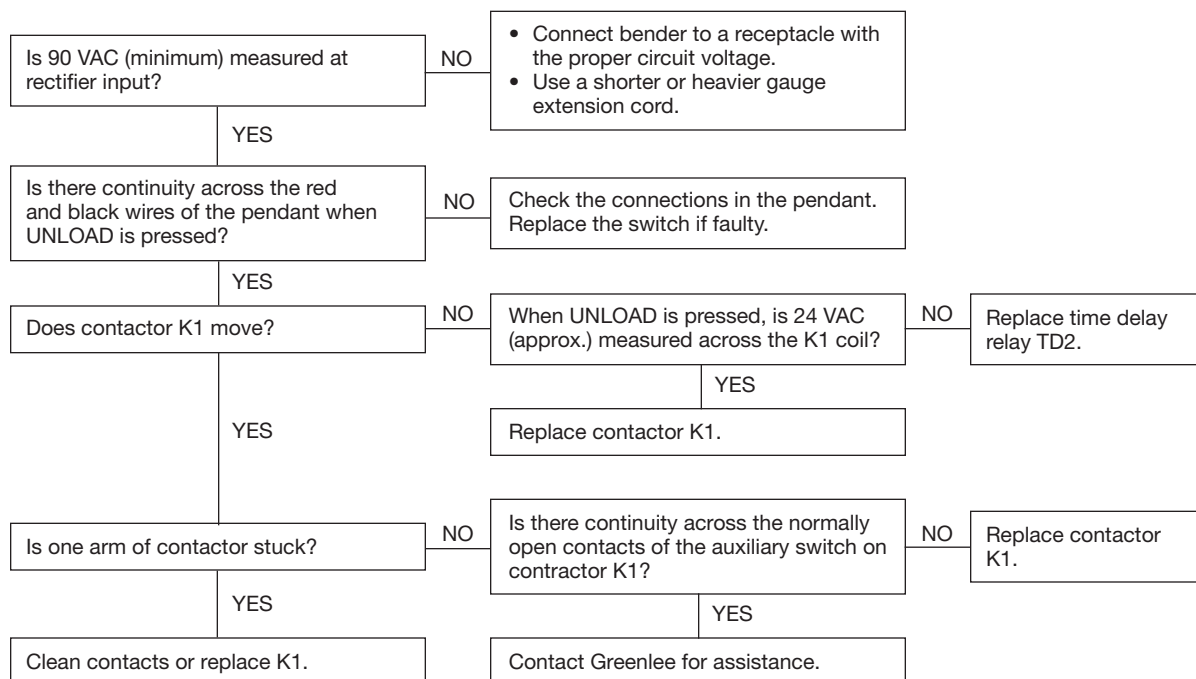


Troubleshooting (cont'd)

Won't bend



Bender runs only in the BEND direction





This diagram is an exploded view of a mechanical assembly, likely a pump or motor component. It shows the relationship between various parts, including a main housing (1), a motor (25), a drive shaft (32), and various gears (3, 12, 13, 21, 42). The parts are numbered 1 through 82. Two callouts provide additional information:

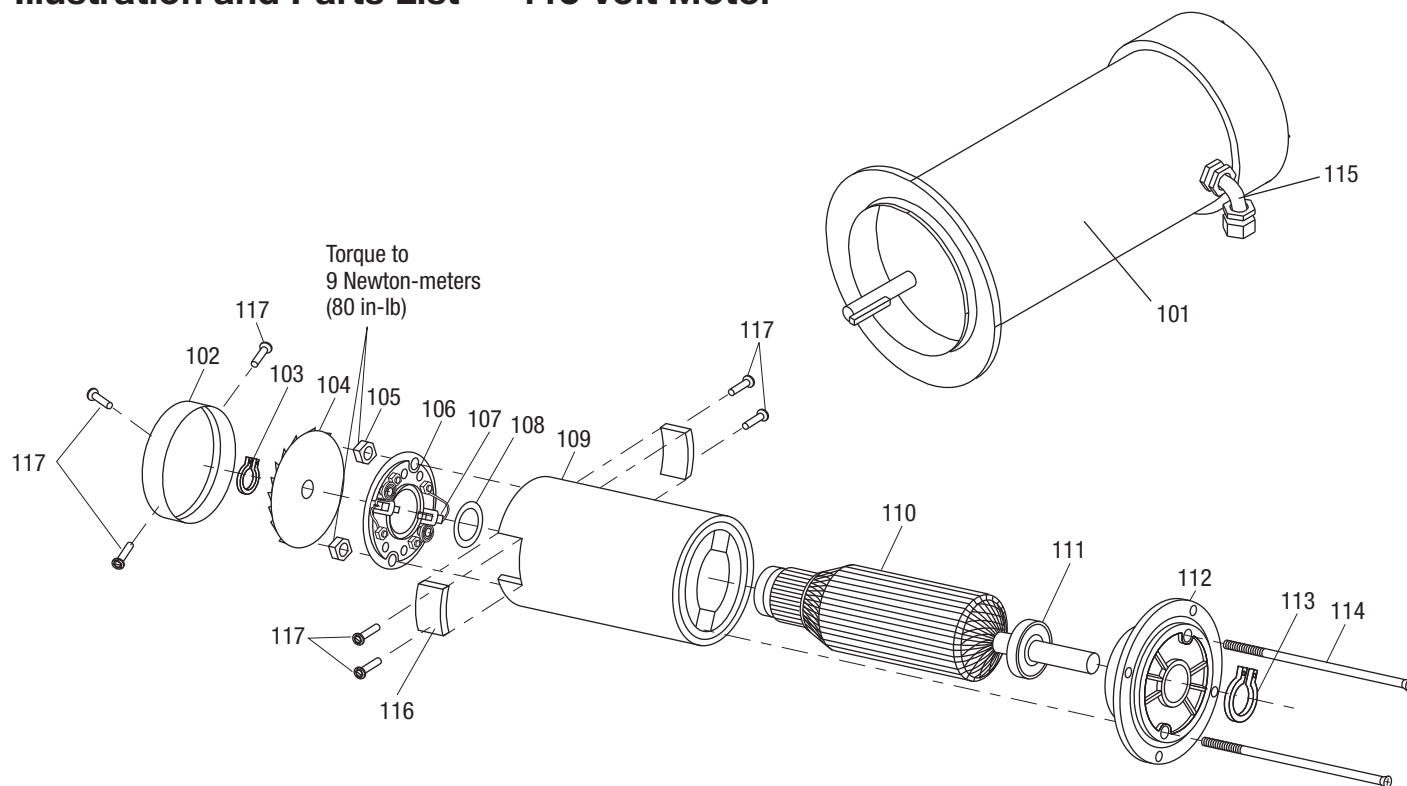
- Top Callout:** "Note: Key supplied with item #19 (reductor)." This points to a key (24) that fits into a shaft (19).
- Bottom Callout:** "Note: Key 81 required when replacing pendants on benders made before 3/1/05." This points to a key (81) that fits into a pendant (62A).

The assembly includes various components such as:

- Motor/Actuator:** Item 25, which drives the system.
- Drive Shaft:** Item 32, which transmits power from the motor.
- Gears:** Items 3, 12, 13, 21, and 42, which provide the necessary gear reduction.
- Housing and Components:** Items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62A, 62B, 62C, 62D, 62E, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82.

Parts List — 555C Electric Bender Classic

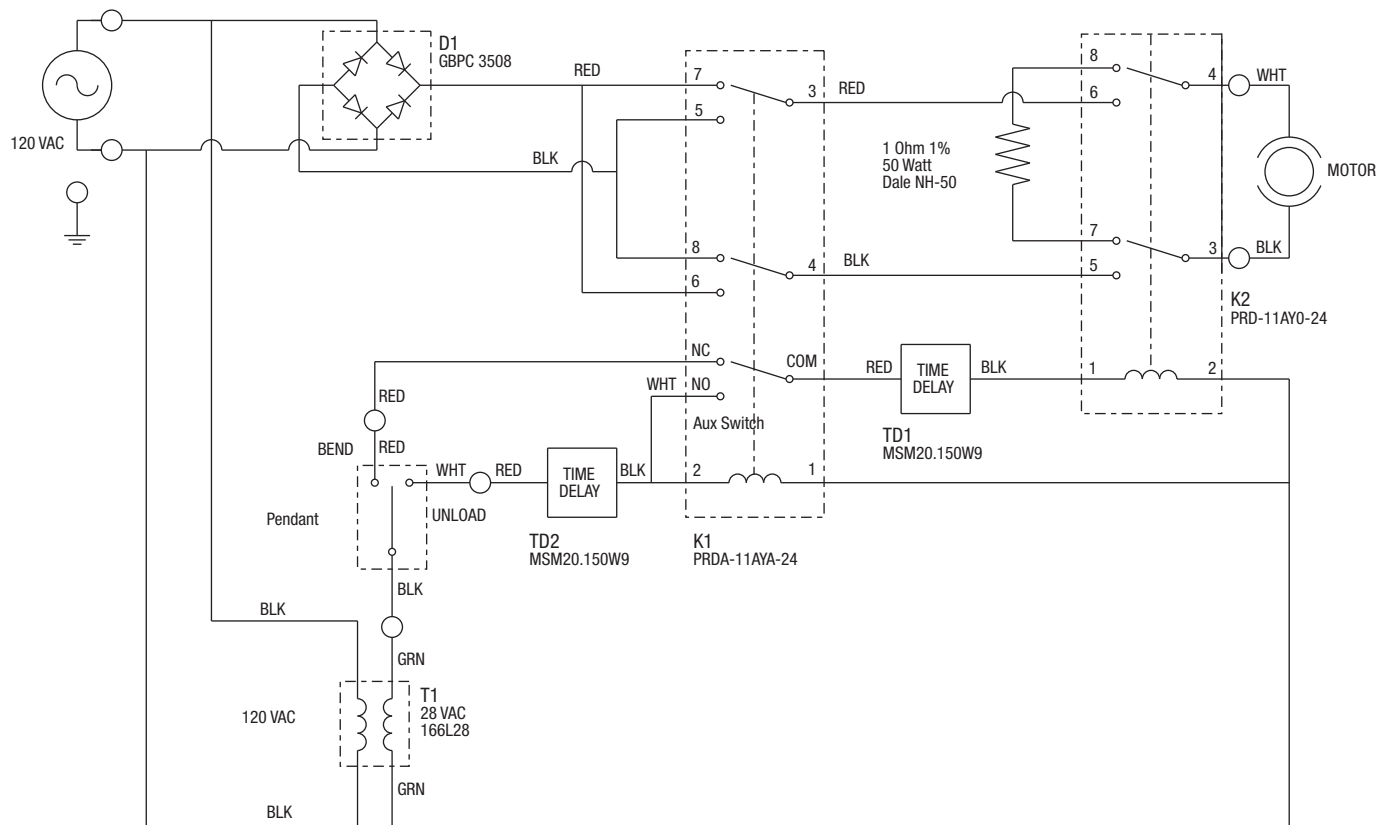
Key	Part No.	Description	Qty	Key	Part No.	Description	Qty
1	50397427	Weldment, main frame	1	40	90504305	Screw, #6–32 x .375 Phillips	2
2	50234528	Washer, fiber.....	1	41	91863856	Switch, air pax.....	1
3	50328964	Weldment, sprocket unit	1	42	50297082	Guard, switch	1
4	90524098	Bearing, Fiberglide® ø2.625 x 2.5 long....	1	43	50069055	Nameplate	1
5	90524101	Bearing, Fiberglide ø2.625 x 3.75 long ...	1	44	90530012	Rivet, pop 1/8 x 1/8 drive	4
6	90524144	Ring, retaining #5100-237	1	46	50303929	Decal, damp warning	1
7	90524128	Bearing, Fiberglide ø1.625 x 1.00 long ...	2	47	50397591	Cover, top.....	1
8	50397630	Weldment, countershaft	1	49	90533895	Pin, hitch	2
9	90540239	Ring, retaining #5100-250	1	50	90525019	Ring, retaining #5100-287	1
10	50397648	Countershaft	1	52	90545524	Lanyard	3
11	90524136	Bearing, thrust Fiberglide	2	53	90545451	Pin, hitch	1
12	90545486	Sprocket, #40 60T.....	1	54	90543351	Screw, 1/4 x .37 thread-forming.....	6
13	90542533	Sprocket, #60 14T.....	1	57	50339370	Decal, squeeze adjust	1
14	50397656	Key, countershaft	2	58	50389742	Decal, circuit breaker	1
15	90545460	Chain, #60 87P.....	1	59	90553233	Pin, DRIV-LOK®, 1/8 x 1/2.....	1
16	90542517	Masterlink, #60.....	1	61	50079123	Power cord, Twist-Lock 20 Amp.....	1
17	90545478	Sprocket, #40 13T.....	1	62	50398393	Switch, pendant (complete assembly with Molex plug).....	1
18	50084313	Key, reductor sprocket	1	62A	91864496	Switch, center OFF.....	1
19	90523881	Reductor, worm gear.....	1	62B	50319027	Handle, right half	1
20	90527879	Masterlink, #40.....	1	62C	90534417	Screw, #6–20 x .625 pan head, self-tapping.....	3
21	90545516	Chain, #40 87P.....	1	62D	50319019	Handle, left half.....	1
22	90545680	Bolt, 3/8–16 UNC x .75	7	62E	50398377	Cord	1
23	50397583	Eccentric	1	62F	50354876	Decal, faceplate	1
24	90542371	Bolt, 3/8–16 UNC x 1.00	5	70	90517407	Washer, flat.....	2
25	91869730	Motor	1	71	52066299	Decal, instruction	1
26	90545494	Conduit, Sealtight.....	1	77	50068890	Electronic control assembly	1
27	91852145	Elbow, Sealtight.....	1	78	90510518	Ring, retaining #5100-150.....	2
28	91866839	Strain relief	1	79	90552687	Pin, safety snap.....	2
29	90511700	Nut, 3/4 conduit lock.....	1	80	50397486	Handle, upper.....	1
30	91867673	Strain relief, pendant switch.....	1	81	50120620	Adapter, with Molex plug (required when replacing pendant switch on units made prior to 3/1/05)	1
31	91862639	Nut, 1/2 conduit lock.....	1	82	52025721	Decal, safety/warning.....	1
32	50397575	Axle	1				
34	90515285	Ring, retaining #5160-75.....	2				
35	90533909	Wheel	2				
36	50397680	Guard, rear lower.....	1				
37	50397699	Guard, rear upper.....	1				
38	50397605	Cover, front.....	1				
39	90516559	Screw, #10–16 x .50 hex head	31				

Illustration and Parts List — 115 Volt Motor

Pacific Scientific

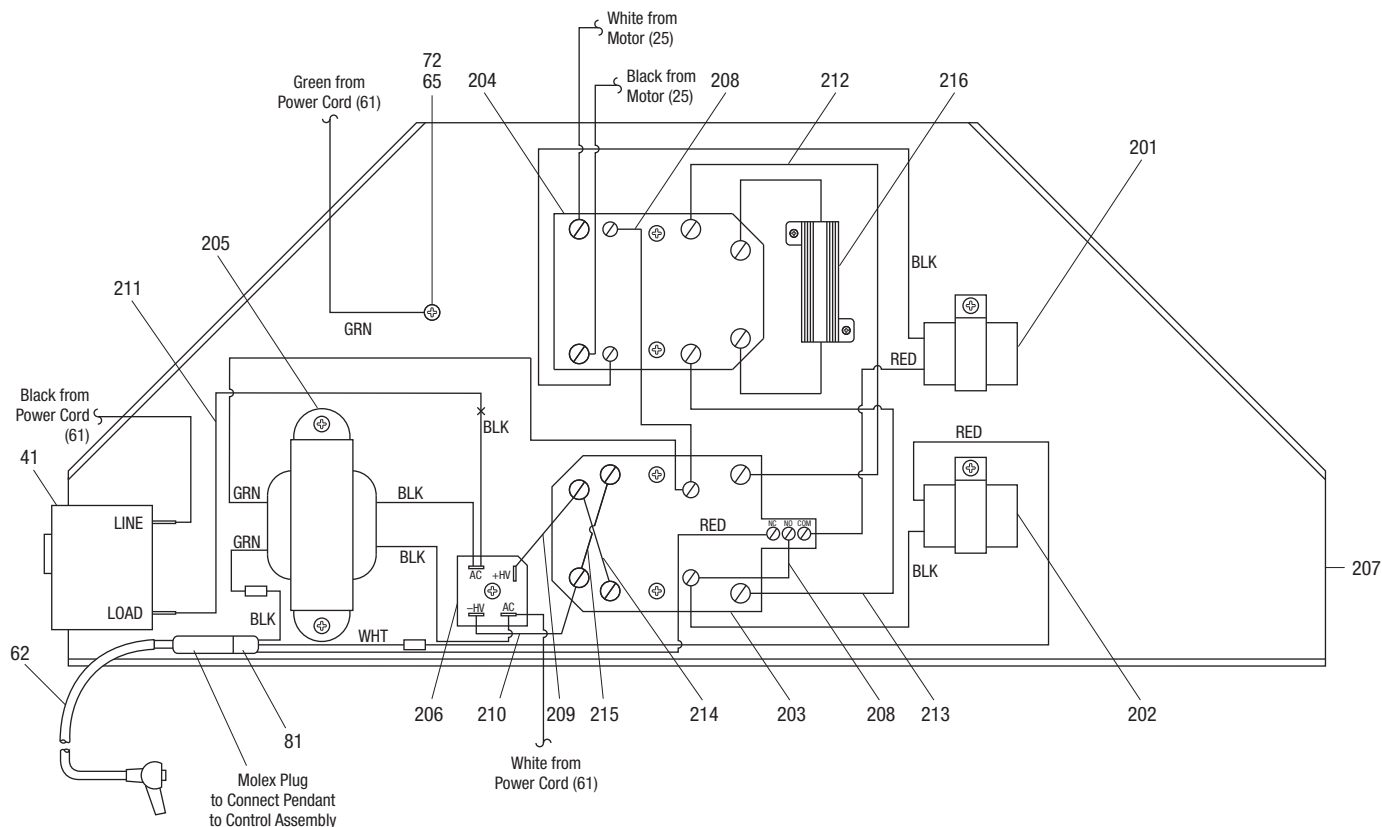
Key	Part No.	Description	Qty
101	91869730	Motor (SRF-3648-5532-7-56C).....	1
*	91864178	Motor, 115 Volt (standard) (SRF-3745-4676-2-56C).....	1
102	91864712	Fan cover	1
103	90550714	Retaining ring	1
104	91864321	Fan	1
105	91864283	End bell nut	2
106	91864194	Bell, rear end	1
107	91864208	Brush.....	2
108	91864224	Thrust washer	1
109	91869757	Shell and magnet assembly.....	1
*	91864275	Shell and magnet assembly, 115V.....	1
110	91869749	Armature	1
*	91864259	Armature, 115V	1
111	91864216	Bearing kit	2
112	91864186	Bell, front end.....	1
113	91864240	Retaining ring	1
114	91864267	Tie bolt, 115V	2
115	91858763	90° Connector.....	1
116	91864305	Brush cover.....	2
117	91864313	Cover screw	7

**Note: Alternate motor
Check motor part number before ordering magnet shell or armature.*

Schematic Diagram



Control Assembly



Electronic Control Assembly — Part No. 50068890

Key	Schematic Reference	Part No.	Description	Qty
201	TD1	50069152	Timer assembly, 150 ms ON Delay	1
202	TD2	50069071	Timer assembly, 150 ms ON Delay	1
203	K1	91869668	Relay, power, DPDT (with switch)	1
204	K2	91869676	Relay, power, DPDT	1
205	T1	50069080	Transformer assembly.....	1
206	D1	91859972	Bridge rectifier.....	1
207		50068954	Bracket, electrical mounting	1
208		50068962	Wire harness, 14 AWG	2
209		50060341	Wire harness, 12 AWG (RED)	1
210		50060350	Wire harness, 12 AWG (BLK)	1
211		50069160	Wire unit, BLK Rectifier.....	1
212		50068989	Wire harness, 12 AWG (RED)	1
213		50068997	Wire harness, 12 AWG (BLK)	1
214		50060481	Wire harness, 12 AWG (RED)	1
215		50060490	Wire harness, 12 AWG (BLK)	1
216		50060511	Resistor unit with leads.....	1
65		90543297	Screw, #8–32 x .37 ground	1
72		90537246	Washer, internal tooth lock.....	1
81		50120620	Adapter with Molex Plug.....	1

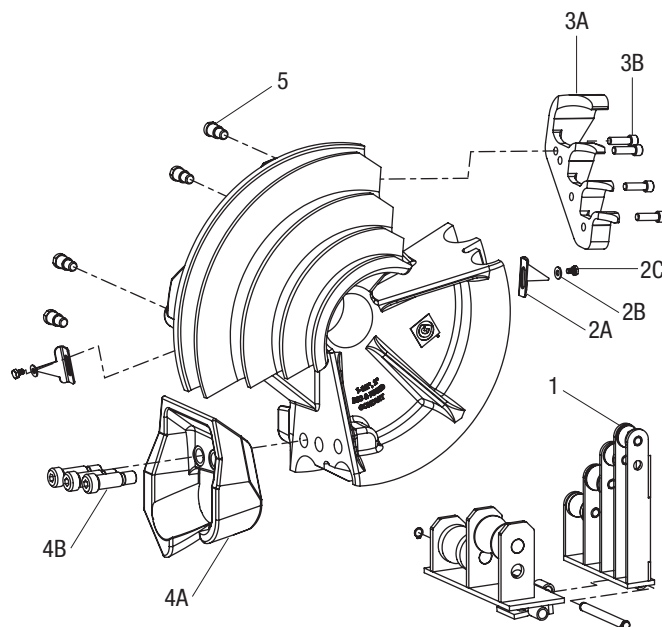
Bending Shoes and Roller Supports

28008 BENDING SHOE AND ROLLER SUPPORT

1/2" to 2" Rigid Conduit

1/2" to 1-1/4" IMC Conduit

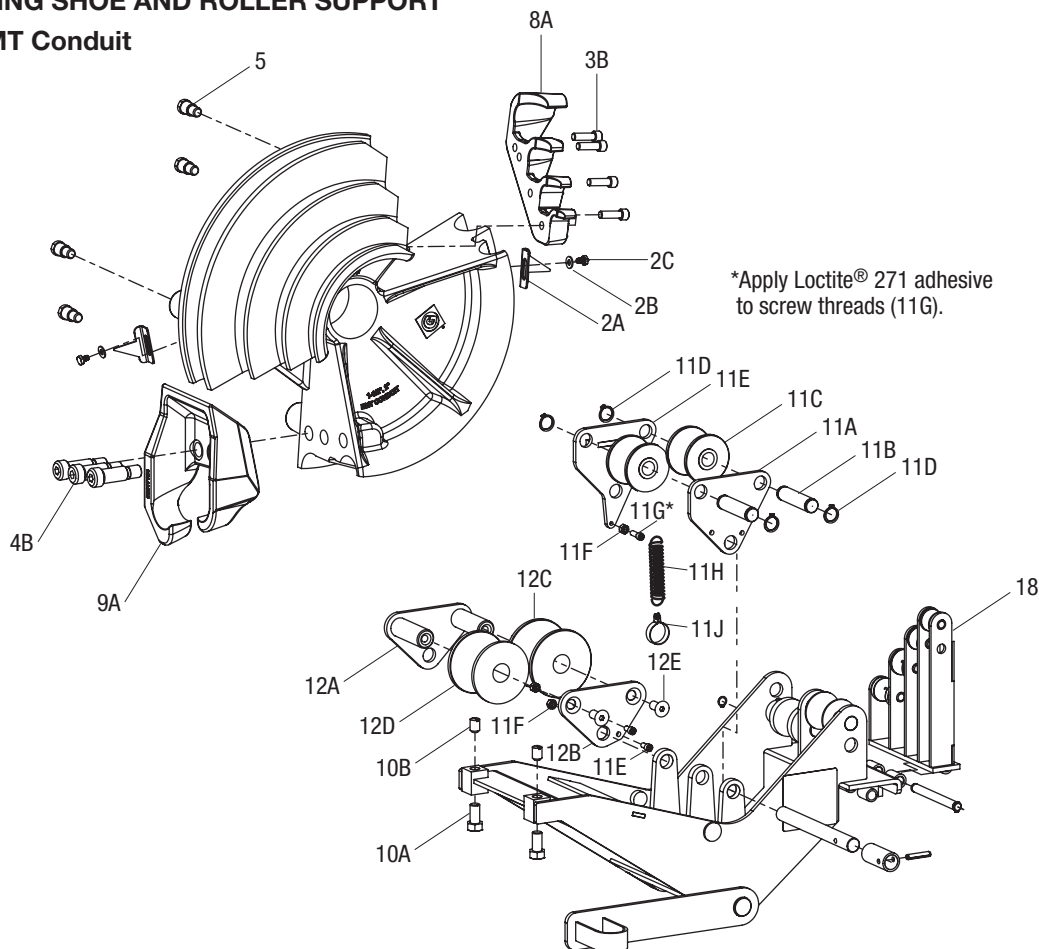
Key	Part No.	Description	Qty
	52066935	Shoe unit, 1/2"-2" rigid/IMC	1
	52066936	Roller support unit, 1/2"-2" rigid.....	1
1	52066937	Roller support, 1/2"-1-1/4"	1
2	52065278	Pointer kit (includes one each 2A-2C)	
2A		Point.....	2
2B		Washer, 1/4" standard.....	2
2C		Screw, 1/4-20 x 3/8 hex hd cap	2
3	52065279	Hook kit, 1/2"-1-1/4" rigid/IMC	
3A		Hook, 1/2"-1-1/4" rigid/IMC	1
3B		Screw, 3/8-16 x 1-1/4 skt hd cap.....	4
4	52065280	Hook kit, 1-1/2"-2" rigid/IMC	
4A		Hook, 1-1/2"-2" rigid/IMC	1
4B		Shoulder screw, ϕ .75 x 1.50 x 5/8-11	3
5	52066933	Drive pin	4



Bending Shoes and Roller Supports (cont'd)

23803 BENDING SHOE AND ROLLER SUPPORT

1/2" to 2" EMT Conduit



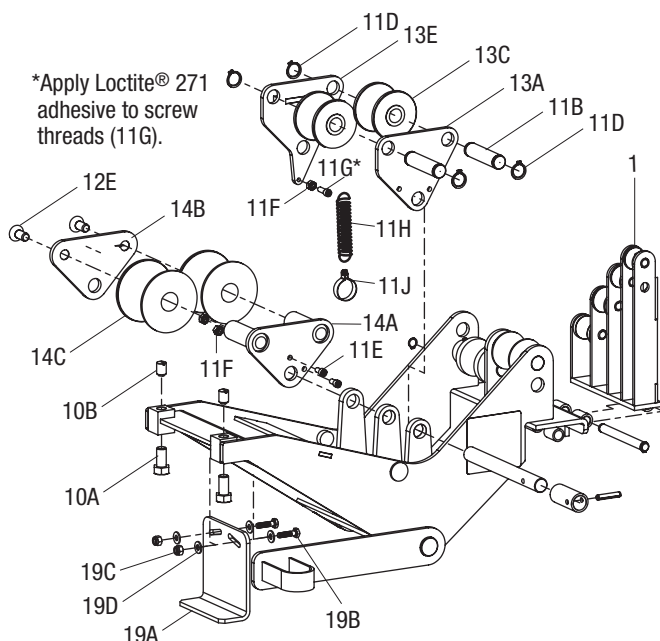
Key	Part No.	Description	Qty
	52066931	Shoe unit, 1/2"-2" EMT.....	1
	52066932	Bridge unit, 1/2"-2" EMT	1
2	52065278	Pointer kit (includes one each 2A-2C)	
2A		Point.....	2
2B		Washer, 1/4" standard.....	2
2C		Screw, 1/4-20 x 3/8 hex hd cap.....	2
8	52065321	Hook kit, 1/2"-1-1/4" EMT	
8A		Hook, 1/2"-1-1/4" EMT.....	1
3B		Screw, 3/8-16 x 1-1/4 skt hd cap.....	4
9	52065322	Hook kit, 1-1/2"-2" EMT	
9A		Hook, 1-1/2"-2" EMT	1
4B		Shoulder screw, ø.75 x 1.50 x 5/8-11	3
5	52066933	Drive pin	4
10	52065273	Screw kit (includes one each 10A-10B)	
10A		Screw, 1/2-13 x 1 hex hd cap	2
10B		Screw, 1/2-13 x 3/4 slotted set.....	2

Key	Part No.	Description	Qty
11	52065274	Roller kit, 1-1/2" EMT	
11A		Pivot plate	1
11B		Pin, 1-1/2" EMT roller.....	2
11C		Roller, 1-1/2" EMT	2
11D		Retaining ring, Truarc #5160 EX.....	4
11E		Pivot plate, rear	1
11F		Hex nut, 1/4-20	1
11G		Screw, 1/4-20 x 3/4 skt hd cap.....	1
11H		Spring, extension	1
11J		Clamp, loop type.....	1
12	52065275	Roller kit, 2" EMT	
12A		Support weldment, 2" EMT.....	1
12B		Plate, 2" EMT	1
12C		Roller, 2" EMT back (larger OD)	1
12D		Roller, 2" EMT front (smaller OD)	1
12E		Screw, 7/16-14 x 1 flat hd cap	2
11E		Screw, 1/4-20 x 1/2 skt hd cap.....	2
11F		Hex nut, 1/4-20	2
18	52066934	Roller support, 1/2"-1-1/4" EMT.....	1

Bending Shoes and Roller Supports (cont'd)

01323 BRIDGE UNIT

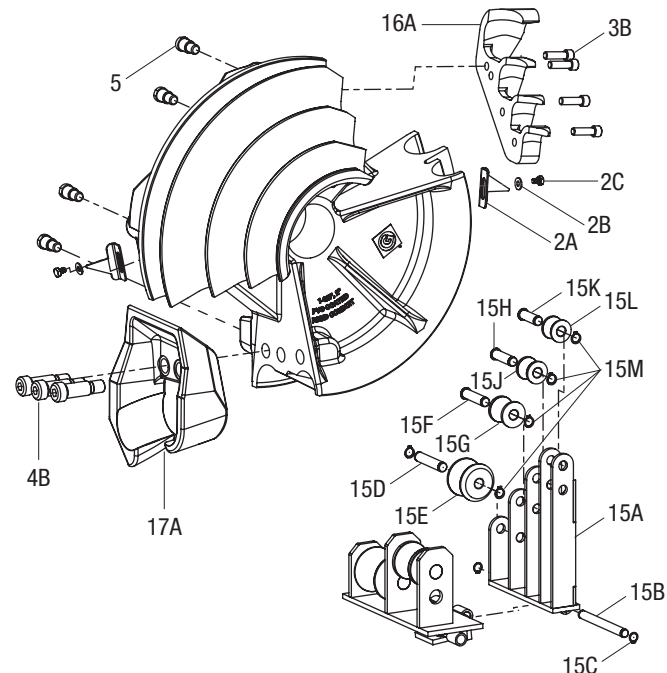
1/2" to 2" IMC and Rigid Conduit



Key	Part No.	Description	Qty
	52064757	Bridge unit, 1/2"-2" IMC/rigid	1
10	52065273	Screw kit (includes one each 10A-10B)	
10A		Screw, 1/2-13 x 1 hex hd cap	2
10B		Screw, 1/2-13 x 3/4 slotted set	2
13	52065276	Roller kit, 1-1/2" IMC	
13A		Pivot plate	1
11B		Pin, 1-1/2" EMT roller	2
13C		Roller, 1-1/2" IMC	2
11D		Retaining ring, Truarc #5160 EX	4
13E		Pivot plate, rear	1
11F		Hex nut, 1/4-20	1
11G		Screw, 1/4-20 x 3/4 skt hd cap	1
11H		Spring, extension	1
11J		Clamp, loop type	1
14	52065277	Roller kit, 2" IMC	
14A		Support weldment, 2" IMC	1
14B		Plate, 2" IMC	1
14C		Roller, 2" IMC	2
12E		Screw, 7/16-14 x 1 flat hd cap	2
11E		Screw, 1/4-20 x 1/2 skt hd cap	2
11F		Hex nut, 1/4-20	2
1	52066937	Roller support, 1/2"-1-1/4" IMC/rigid	1
19	52066949	Plate kit (includes 19A-19D)	
19A		Plate, bridge trap	1
19B		Screw, 1/4-20 x 1-1/4 hex hd cap	2
19C		Lock nut, 1/4-20	2
19D		Washer, 1/4" standard	4

12586 PVC BENDING SHOE AND ROLLER SUPPORT

1/2" to 2" 40 MIL PVC-Coated Rigid Conduit



Key	Part No.	Description	Qty
	52066939	Shoe unit, 1/2"-2" PVC-coated rigid	
	52066940	Roller support unit, 1/2"-2"	
15	52065272	Roller support, 1/2"-1-1/4"	
15A		Support weldment	1
15B		Pivot pin	1
15C		Retaining ring, Truarc #5160-42 EX	2
15D		Axle, 1-1/4" roller	1
15E		Roller, 1-1/4"	1
15F		Axle, 1" roller	1
15G		Roller, 1"	1
15H		Axle, 3/4" roller	1
15J		Roller, 3/4"	1
15K		Axle, 1/2" roller	1
15L		Roller, 1/2"	1
15M		Retaining ring, Truarc #5160-50 EX	5
2	52065278	Pointer kit (includes one each 2A-2C)	
2A		Point	2
2B		Washer, 1/4" standard	2
2C		Screw, 1/4-20 x 3/8 hex hd cap	2
16	52065323	Hook kit, 1/2"-1-1/4" PVC	
16A		Hook, 1/2"-1-1/4" PVC	1
3B		Screw, 3/8-16 x 1-1/4 skt hd cap	4
17	52065324	Hook kit, 1-1/2"-2" PVC	
17A		Hook, 1-1/2"-2" PVC	1
4B		Shoulder screw, ø.75 x 1.50 x 5/8-11	3
5	52066933	Drive pin	4

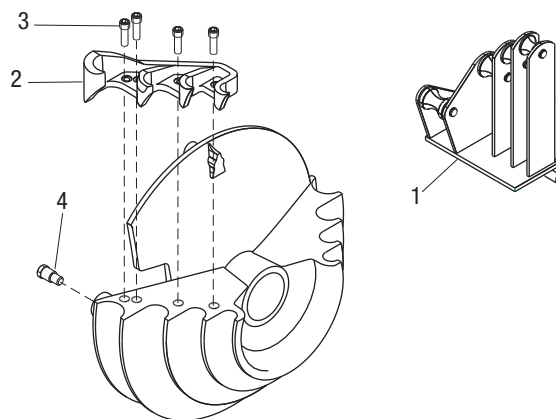
Bending Shoes and Roller Supports (cont'd)

BENDING SHOE AND ROLLER SUPPORT

1/2" to 1-1/4" IMC and Rigid Conduit

Key	Part No.	Description	Qty
1	50009362	Roller support, 1/2" to 1-1/4" IMC and rigid.....	1
	50005715	Bending shoe assembly (includes 2-4)	1
2	50005693	Hook.....	1
3		Screw, 3/8-16 UNC x 1-1/4" socket head cap.....	4
4	50234226	Stud, drive	3

Shoe not available separately.

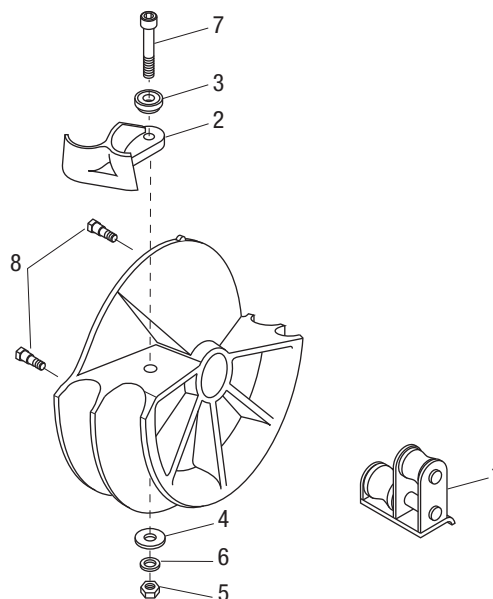


BENDING SHOE AND ROLLER SUPPORT

1-1/2" to 2" Rigid Conduit

Key	Part No.	Description	Qty
1	50179845	Roller support, 1-1/2" to 2" rigid conduit	1
	50179373	Bending shoe assembly, 1-1/2" to 2" rigid conduit (includes 2-8).....	1
2	50179691	Pipe hook	1
3	50179748	Pivot	1
4	90526759	Washer, 5/8 flat.....	1
5	90515692	Nut, 5/8-11 UNC hex	1
6	90509056	Lock washer, 5/8 split	1
7	90524268	Screw, 5/8-11 UNC x 4" socket head cap.....	1
8	50234226	Stud, drive.....	4

Shoe not available separately.

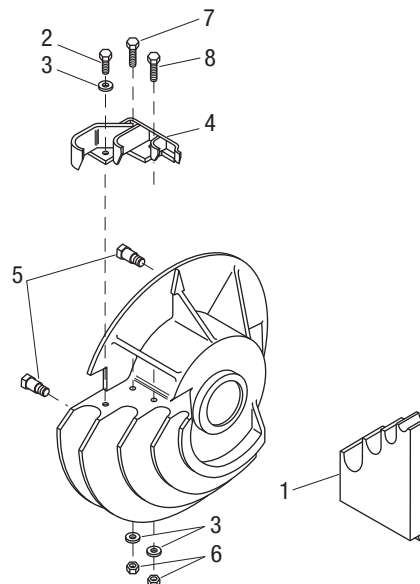


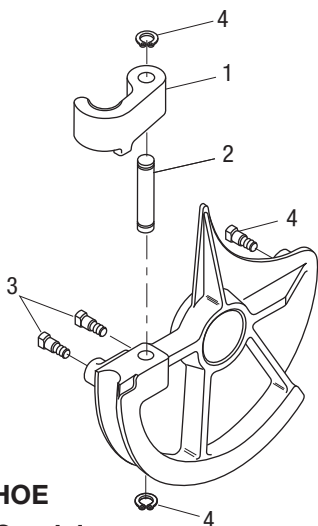
BENDING SHOE AND PIPE REST

1/2" to 1-1/4" EMT Conduit

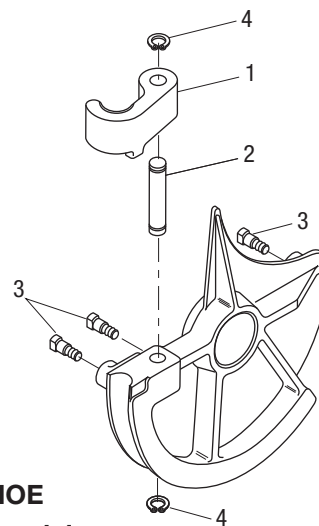
Key	Part No.	Description	Qty
1	50179861	Pipe rest assembly for 1/2" to 1-1/4" EMT conduit.....	1
	50179446	Bending shoe assembly for 1/2" to 2-1/4" EMT conduit (includes 2-8).....	1
2		Screw, 3/8-16 UNC x 1" socket head cap.....	1
3		Lock washer, 3/8 split	3
4	50245554	Pipe hook	1
5	50234226	Stud, drive.....	4
6		Nut, 3/8-16 UNC hex, cad.-plated.....	2
7		Screw, 3/8-16 UNC x 1-1/4 SAE grade 5 socket head cap.....	1
8		Screw, 3/8-16 UNC x 1-1/4 socket head	1

Shoe not available separately.

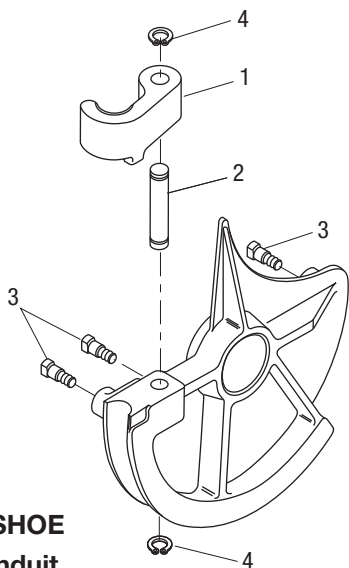


Bending Shoes and Roller Supports (cont'd)

BENDING SHOE
1-1/2" EMT Conduit

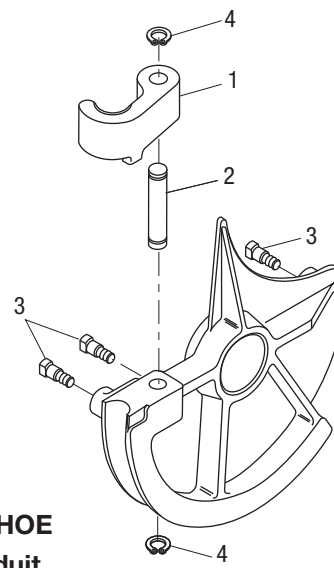
Key	Part No.	Description	Qty
	50234994	Shoe unit, 1-1/2" EMT (includes 1-4).....	1
1	50188208	Hook, 1-1/2" EMT	1
2	50188410	Pin, 1-1/2" EMT hook.....	1
3	50234226	Stud, drive.....	3
4	90515293	Ring, Tru-Arc #5160-87 retaining	2


BENDING SHOE
1-1/2" IMC Conduit

Key	Part No.	Description	Qty
	50253631	Shoe unit, 1-1/2" IMC (includes 1-4)	1
1	50188119	Hook, 1-1/2" IMC	1
2	50188372	Pin, 1-1/2" IMC	1
3	50234226	Stud, drive.....	3
4	90515285	Ring, Tru-Arc retaining.....	2

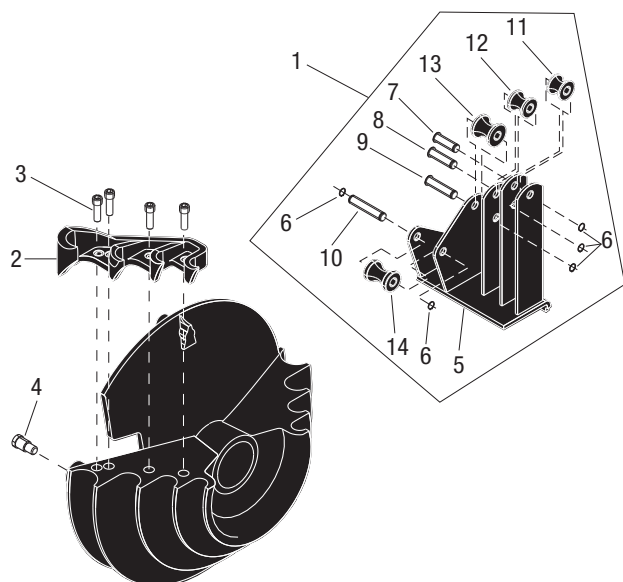

BENDING SHOE
2" EMT Conduit

Key	Part No.	Description	Qty
	50235052	Shoe unit, 2" EMT conduit (includes 1-4)	1
1	50188186	Hook, 2" EMT	1
2	50188429	Pin, 2" EMT hook	1
3	50234226	Stud, drive.....	3
4	90515293	Ring, Tru-Arc #5160-87, retaining	2


BENDING SHOE
2" IMC Conduit

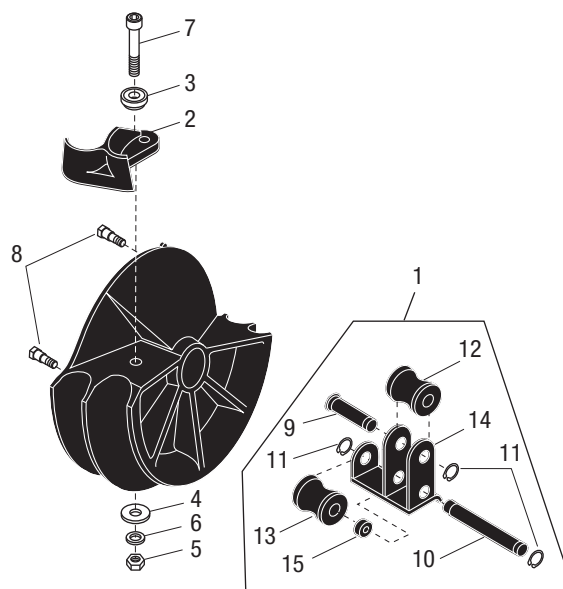
Key	Part No.	Description	Qty
	50252682	Shoe unit, 2" IMC (includes 1-4)	1
1	50001957	Hook, 2" IMC.....	1
2	50188429	Pin, 2" IMC	1
3	50234226	Stud, drive.....	3
4	90515293	Ring, Tru-Arc retaining.....	2

Bending Shoes and Roller Supports (cont'd)



BENDING SHOE AND ROLLER SUPPORT 1/2" to 1-1/4" 40 Mil PVC-Coated Rigid Conduit

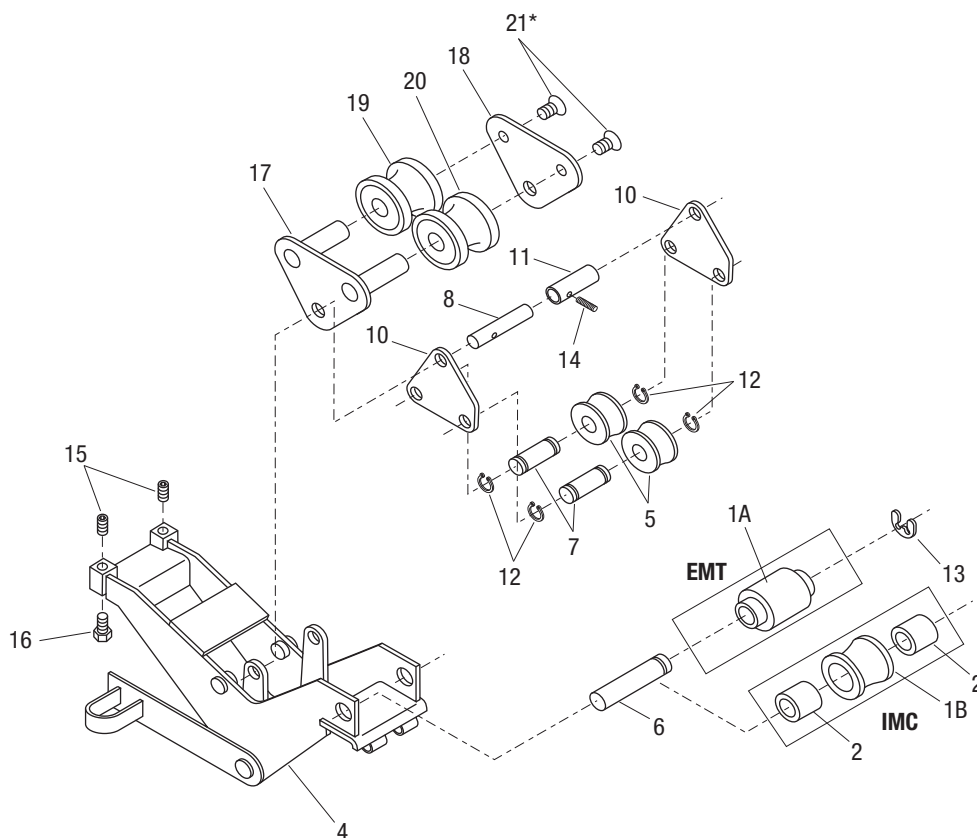
Key	Part No.	Description	Qty
1	50009460	Roller support, 1/2" to 1-1/4" PVC-coated rigid (includes 5-14).....	1
	50005731	Bending shoe assembly, 1/2" to 1-1/4" PVC-coated rigid (includes 2-4)	1
2	50005707	Hook.....	1
3	90510887	3/8-16 UNC x 1-1/4" Socket head cap screw.....	4
4	50234226	Stud, drive.....	3
5	50009451	Support weldment, roller.....	1
6	90513533	Retaining ring	5
7	50009230	1/2" Roller axle.....	1
8	50009249	3/4" Roller axle.....	1
9	50009257	1" Roller axle	1
10	50009265	1-1/4" Roller axle	1
11	50009273	1/2" Roller	1
12	50009281	3/4" Roller	1
13	50009290	1" Roller.....	1
14	50009303	1-1/4" Roller.....	1



BENDING SHOE AND ROLLER SUPPORT 1-1/2" to 2" 40 Mil PVC-Coated Rigid Conduit

Key	Part No.	Description	Qty
1	50372823	Roller support, 1-1/2" to 2" PVC-coated rigid (includes 9-15).....	1
	50372815	Bending shoe assembly, 1-1/2" to 2" PVC (includes 2-8)	1
2	50024990	Hook.....	1
3	50179748	Pivot	1
4	90526759	5/8" Flat washer	1
5	90515692	5/8-11 UNC Hex nut.....	1
6	90509056	5/8" Lock washer	1
7	90524268	5/8-11 UNC x 4" socket head cap screw	1
8	50234226	Stud, drive.....	4
9	50376624	1-1/2" Shaft.....	1
10	50376616	2" Shaft	1
11	90515285	Retaining ring	3
12	50372840	1-1/2" Roller.....	1
13	50372831	2" Roller.....	1
14	50376640	Support weldment.....	1
15	50320254	Spacer.....	1

Bending Shoes and Roller Supports (cont'd)



EMT ROLLER SUPPORT UNIT

Key	Part No.	Description	Qty
	50235419	Support unit, 1-1/2" and 2" EMT roller (includes all of the following).....	1
1A	50279831	Roller unit, cushioned.....	1
4	50235397	Frame unit	1
5	50235109	Roller, 1-1/2" EMT	2
6	50235117	Pin, roller support.....	1
7	50239325	Pin, 1-1/2" EMT roller.....	2
8	50235176	Pin, roller pivot	1
10	50235249	Plate, 1-1/2" EMT pivot.....	2
11	50237934	Spacer	1
12	90515285	Ring, retaining	4
13	90524640	Ring, Tru-Arc #X5133-98 external series "E" retaining	1
14	90514912	Rollpin, #59, -040-187-1250	1
15	90528484	Screw, 1/2-13 UNC x 3/4 cup point socket set.....	2
16	90505425	Screw, 1/2-13 UNC x 1, hex head cap ...	2
17	50349643	Support weldment, 2" roller	1
18	50349651	Plate, 2" inner roller support	1
19	50235192	Roller, 2" EMT front	1
20	50237926	Roller, 2" EMT back.....	1
21*	90533941	Screw, 7/16-14 UNC x 1, flat head.....	2

IMC ROLLER SUPPORT UNIT

Key	Part No.	Description	Qty
	50252739	Support unit, 1-1/2" and 2" IMC roller (includes 1 and 2)	1
1B	50283340	Roller	1
2	50283359	Spacer	2
4	50263250	Frame unit	1
5	50252747	Roller, 1-1/2" IMC.....	2
6	50235117	Pin, roller support.....	1
7	50239325	Pin, 1-1/2" IMC roller.....	2
8	50235176	Pin, roller pivot	1
10	50235249	Plate, 1-1/2" IMC pivot.....	2
11	50237934	Spacer	1
12	90515285	Ring, retaining	4
13	90524640	Ring, Tru-Arc #X5133-98 external series "E" retaining	1
14	90514912	Rollpin, #59, -040-187-1250	1
15	90528484	Screw, 1/2-13 UNC x 3/4 cup point socket set.....	2
16	90505425	Screw, 1/2-13 UNC x 1, hex head cap ...	2
17	50349643	Support weldment, 2" roller	1
18	50349651	Plate, 2" inner roller support	1
19	50252798	Roller, 2" IMC	2
21*	90533941	Screw, 7/16-14 UNC x 1, flat head.....	2

*Key No. 21 must be torqued to 54 to 61 Newton-meters (40 to 45 ft-lb).



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