

Installation Instructions for 81568

Slip Roll

24" Maximum Width

Introduction

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage. Retain instructions for future reference.

This hand operated 24" slip roll is made of a heavy duty steel plate base with a cast iron frame and ground high carbon steel rolls. The slip roll uses three adjustable rolls to fabricate straight cylinders, as small as the diameter of the rolls, and cones of limited dimensions. There are wire forming grooves on the rolls which are used to form wire loops & curves of various thickness and diameters, and cylinders form metal with wired edges. Closed cylinders, cones and wire loops can be removed from the machine without distortion by a pivotal top roll.

Unpacking

Refer to the parts diagram

Check for shipping damage and completeness. Immediately report missing parts to JEGS.

WARNING: Be careful not to touch overhead power lines, piping, lighting, etc. If lifting equipment is used. See specifications below for weight. Proper tools, equipment and qualified personnel should be employed in all phases of unpacking and installation.

The slip rolls come assembled as one unit. The crank handle assembly needs to be fastened to the tool and should be located and accounted for before assembling.

Important: Rolls are coated with a protectant. To ensure proper fit and operation, remove coating. Coating is easily removed with mild solvents, such as mineral spirits, and a soft cloth.

Avoid getting cleaning solution on paint or any of the rubber or plastic parts. Solvents may deteriorate these finishes. Use soap and water on paint, plastic or rubber components. After cleaning, cover all exposed surfaces with a light coating of oil.

WARNING: Never use highly volatile solvents. Non-flammable solvents are recommended to avoid potential fire hazard.

Specifications

Model	Max thickness (ga)	Max width (in)	Dia of Roll (in)	Min.cylinder size formed (in)	Wire groove diameter (mm)	G.W/N.W (lbs)	Packing Dimension (in)
555-81568	20	24	38	1.50	2.4, 3.2, 4	88/81	37.4x10.6x15

General Safety Information

WARNING: For your own safety, read all of the instructions and precautions before operating tool.

CAUTION: Always follow proper operating procedures as defined in this manual even if you are familiar with use of this or similar tools. Remember that being careless for even a fraction of a second can result in severe personal injury.

BE PREPARED FOR THE JOB

1. Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of machine.
2. Wear protective covering to contain long hair.
3. Wear safety shoes with non-skid soles
4. Wear ANSI approved glasses. Prescription glasses are not safety glasses.
5. Be alert and think clearly. Never operate tools when tired, intoxicated or when taking medications that cause drowsiness.



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PREPARE WORK AREA FOR JOB

1. Keep work area clean. Cluttered work areas invite accidents.
2. Work area should be properly lit.
3. Keep visitors at a safe distance from work area.
4. Keep children out of workplace. Make workshop childproof. Use locks to prevent any unintentional use of tools.

TOOL SHOULD BE MAINTAINED

1. Keep tool lubricated and clean for safest operation.
2. Remove adjusting tools. Form habit of checking to see that adjusting tools are removed before using machine.
3. Keep all parts in working order. Check to determine that the guard or other parts will operate properly and perform their intended function.
4. Check for damaged parts. Check for alignment of moving parts, binding, breakage and mounting or any other condition that may affect a tool's operation.
5. A guard or other damaged part should be properly repaired or replaced. Do not perform makeshift repairs.

KNOW HOW TO USE THE TOOL

1. Use the right tool for the job. Do not force tool or attachment to do a job for which it was not designed.
2. Keep hands and clothing clear of roller nip joints.
3. Do not exceed capacity of the machine. Exceeding capacity may be dangerous to operator and damage the machine.
4. Bolt machine to floor or sturdy stand that is bolted to the floor to prevent sliding or tipping the machine.

Assembly

Refer to the parts diagram.

Remove crank arm assembly (11-13) from bottom roll (19) by loosening set screw (13). Reverse position and replace onto roll, then tighten bolt securely.

Installation

The machine should be installed on a level surface, with proper lighting. It is to be stand-mounted or bench-mounted. Be sure to provide clearance for crank arm rotation. Use the four mounting holes in the base to bolt machine securely to bench or stand. Fasteners not included. Area around the machine should be clear of scraps, oil & dirt. Apply a suitable non-skid material to the floor. Allow approximately three feet of clearance on all sides of the slip rolls for ease of operation.

Operation

1. Adjust the bottom roll position for material thickness. Insert the workpiece between the top and bottom rolls (19, 21). Turn the bottom roll adjusting knobs (10) until the workpiece fits tightly between the rolls.
2. Adjust the rear roll (20) for the diameter of cylinder to be formed. The position of the rear roll controls the size of the cylinder that will be formed. Setting roll lower forms a larger diameter cylinder, setting the roll higher forms a smaller diameter cylinder. Because material spring back varies with the type of metal being formed, several test workpieces may need to be formed to obtain correct adjustment of the rear roll. Turn the rear roll adjusting knobs (15) to raise or lower the rear roll. Turn crank arm (12) clockwise, until workpiece is through the rolls. Check diameter of test workpiece and adjust the rear roll if necessary. Repeat until the correct adjustments are obtained. Rolls must be adjusted parallel or the workpiece will spiral during the rolling process.
3. When the cylinder has been formed completely it can be removed without distortion. Grasp the pivot sleeve (22) and pull out from the frame (16) Pulling the pivot sleeve forward will move the top roll out of the frame.
4. When rolling a workpiece near capacity thickness and length it may be necessary to pass the workpiece through rolls several times to reduce cylinder to the desired diameter. Adjust rear roll so that the workpiece can pass through the rolls without difficulty. Slightly raise the rear roll before each succeeding pass until the desired diameter is obtained.



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- To form cylinders which have diameters that are approximately the same size as the rolls, reverse rolling is employed. Insert the workpiece from the rear side over the rear roll (lower roll if necessary) and into the top and bottom rolls. Secure the workpiece by turning the bottom roll adjusting knobs (10). Bend the workpiece as far as possible by raising the rear roll using the rear roll adjusting knobs. Rotate crank arm (12) counterclockwise to form cylinder.
- To reduce the flat spot on the starting edge of thicker materials, reverse the workpiece after the first pass. Feed the edge of the workpiece that passed through the rolls last, first on the next pass.

Equivalency Chart

For use when working with materials other than mild steel:

Material	22-gauge
Mild steel	.030"
SAE 1050 cold-rolled steel	.024"
Stainless steel	.020"
Aluminum	.054"
Soft brass	.046"
1/2 hard brass	.030"
Annealed phosphor bronze	.034"
Soft copper	.046"
Hard copper	.034"
ABS plastic	.095"

Maintenance

Monthly

- Use medium weight, non-detergent oil and multi-purpose or bearing grease.
- Oil the rolls through the oil holes located in the guide blocks (17) and on top of the pivot block (33). Coat the rolls with light oil to prevent rusting.
- Grease the bearing surface of the right side of the top roll.
- Grease the gears (28, 32).

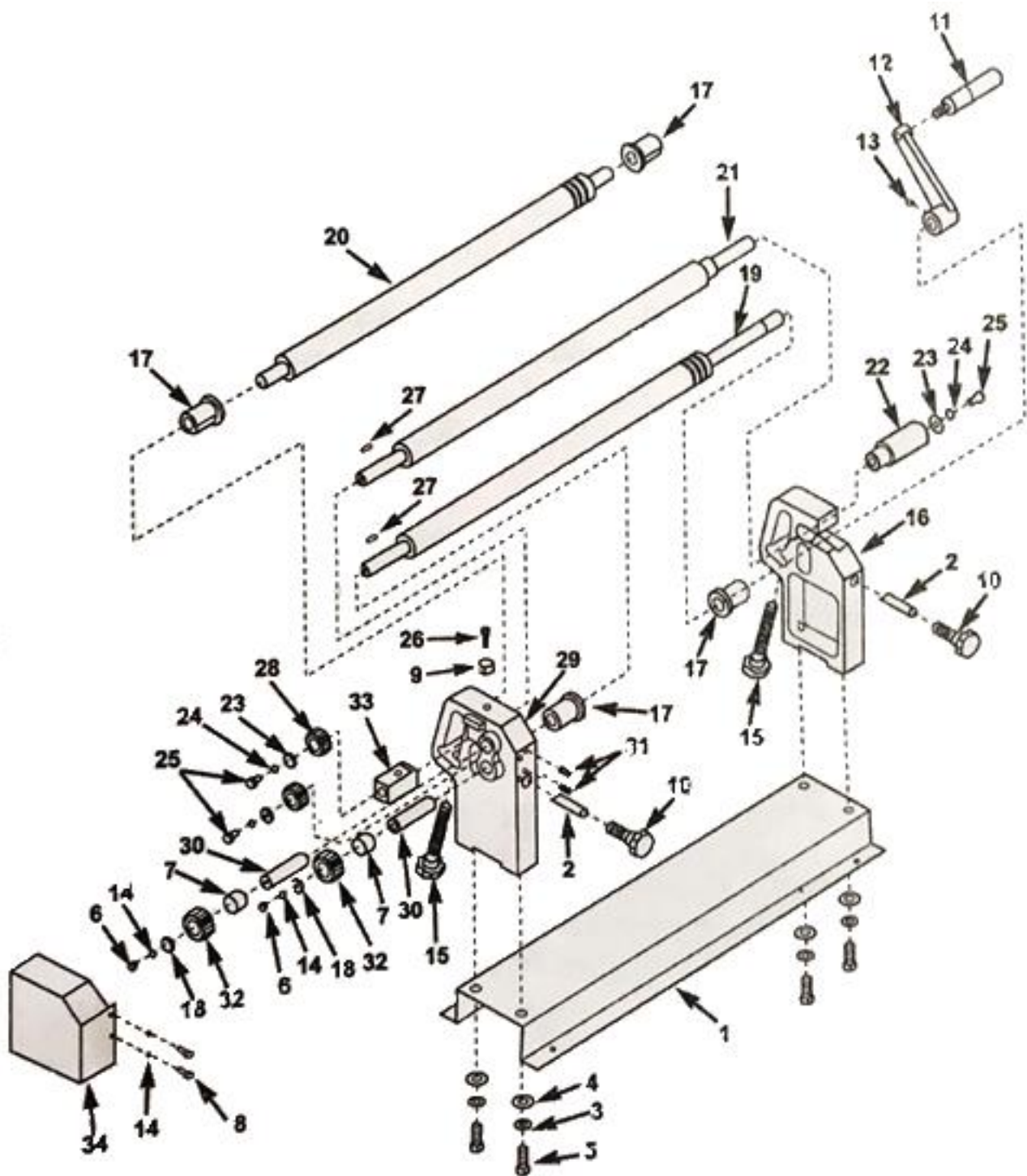
Troubleshooting

Symptom	Possible Causes	Corrective Action
Crank handle difficult to rotate	<ol style="list-style-type: none"> Workpiece material too thick. Top and bottom rolls too tight. Improper lubrication. Curvature too severe for workpiece thickness. 	<ol style="list-style-type: none"> Do not exceed machine capacity. Loosen bottom roll adjusting knob. Lubricate properly, as above. Adjust rear roll lower for less curvature, pass workpiece through rolls several times, increasing the curvature with each successive pass.
Workpiece spirals or deforms	Rolls are not parallel	Adjust rolls parallel, see Operation.



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Parts Diagram



Parts List

No.	Description	Qty.	No.	Description	Qty.
1	Base	1	18	Spacer	2
2	Roll wedge	2	19	Bottom roll	1
3	12 mm lock washer	4	20	Rear roll	1
4	12 mm flat washer	4	21	Top roll	1
5	12-1.75 x 30 mm hex head bolt	4	22	Pivot sleeve	1
6	6-1.0 x 10 mm hex head bolt	2	23	Spacer	3
7	7842/20 needle bearing	2	24	8 mm lock washer	3
8	6-1.0 x 16 mm socket head bolt	2	25	8-1.25 x 16 mm hex head bolt	3
9	12-1.75 mm hex nut	1	26	12-1.75 x 36 mm hex head bolt	1
10	Bottom roll adjusting knob	2	27	4 x 4 x 19 mm key	2
11	Crank handle	1	28	15T gear	2
12	Crank arm	1	29	Left frame	1
13	6-1.0 x 8 mm cone point set screw	1	30	Gear shaft	2
14	6 mm lock washer	4	31	8-1.25 x 30 mm cone point set screw	2
15	Rear roll adjusting knob	2	32	19T gear	2
16	Right frame	1	33	Pivot block	1
17	Roll guide block	4	34	Gear cover	1



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