

NUMBERALL

STAMP & TOOL CO., INC.

USER MANUAL & PARTS LIST

MODEL

301A

S/N:

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MODEL 301A AIR-OPERATED ROLL MARKING PRESS

Uncrating Procedure

1. The Model 301A is shipped bolted to a wooden skid. It is covered with a cardboard box that is stapled and banded to the wooden skid.
2. Cut the plastic shipping bands. Cut the cardboard box all the way around, within a couple of inches of the top of the wooden skid.
3. Lift off the cardboard cover, remove the protective plastic bag and unbolt the press.
4. The Model 301A weighs 100 pounds and should be lifted with caution.
5. Bolt the press securely to a solid bench to avoid accidental upset.
6. The Model 301A is capable of **forces exceeding 2 tons. KEEP BOTH HANDS FREE OF THE TABLE AREA WHEN OPERATING THE PRESS HANDLE.**
7. Any shipping damage to the press must be reported immediately to the common carrier and to Numberall.

Product Description

The Model 301A is a versatile and compact press, designed for stamping small, round parts. By using a roller die flat parts can be stamped. The Model 301A is an ideal choice where bench space is restricted. It is intended for continuous, heavy-duty use.

Bench area is 10-1/2" x 24-1/2" x 19" high. The mounting base is 10-1/2" x 14" (outside dimensions). Platform area is 7-1/2" x 11". Maximum clearance between the ram and table is 5-3/4", and table vertical travel is 1-3/4". Lateral travel is 5-1/2".

An automatic tripping attachment is another option available, which when using the Model 50 Numbering Machine, allows the Model 50 to advance to the next consecutive number. A mounted filter, lubricator, regulator and gauge (FRL&G) package is available. Factory mounted two-hand operating controls can be provided.

Maximum Character Chart

For Models 301A, 301 Presses

The Model 301A can easily exert a 2-ton force. The following chart depicts the maximum number of characters the Model 301A is capable of stamping during each impression, based on character size and type of material. The chart is conservative, so the recommendations can be exceeded in many cases. Variations in the hardness of a material will affect stamping results.

Character Size	Mild Steel	Aluminum
1/4	1	2
3/16	2	2
5/32	2	3
1/8	3	3
3/32	3	3
1/16	3	3

Note: The above chart is based upon the maximum number of characters for a legible impression (.002”-.003” depth), and the Model 301A using 80 psi.

Function of Controls

1. AIR LEVEL VALVE (301A-450) - The air lever valve is located on the left side of the press. When activated the sliding head will move. **CAUTION: When experimenting with the air valve, KEEP HANDS CLEAR OF TABLE.** Moving the handle to the right will cause the sliding head to move to the right. Moving the handle to the left will cause the sliding head to move to the left. If the handle is centered the sliding head will stop. The motion of the sliding head is not always uniform. If the head encounters resistance, it may stop momentarily. When the pressure builds slightly, it will continue ahead.
2. VALVE MUFFLERS (301A-436) - The mufflers located in the front side of the air lever valve control the speed of the stroke. The right muffler controls the speed of the left stroke, while the left muffler controls the speed of the right stroke. To adjust the muffler, loosen the brass jam nut on the adjustment screw. Turning the adjustment screw inward will reduce the flow of exhaust

air, slowing the movement of the ram head. Tighten the brass jam nut after adjustment.

3. FILTER, LUBRICATOR, REGULATOR (FRL) & GAUGE (301A-178) The FRL&G allows adjustment of the air pressure to the press, while cleaning, filtering and lubricating the air components. To adjust air pressure, release the small red plastic lock knob before adjusting the control knob. Turning the adjustment knob inward will increase air pressure up to line pressure. Turning the adjustment knob outward will decrease pressure to the press. When reducing pressure it will be necessary to cycle the press in order to get an accurate gauge reading. Tighten the locking knob after adjustment. The drain cock of the filter should be regularly checked for water. **CAUTION: NEVER REMOVE SEDIMENT OR LUBRICATE THE BOWL BEFORE DEPRESSURIZING THE SYSTEM.** The lubricator bowl should be supplied with non-synthetic, light oil, at all times. Oil flow can be adjusted by means of the oil flow adjustment screw on the air lubricator. A clean air supply is absolutely essential for long life of the air components.
4. DEPTH OF IMPRESSION ADJUSTMENT KNOB (301A-388) - The depth of impression adjustment knob is located on the top of the sliding head. Turning the knob counter-clockwise raises the marking device and turning the knob clockwise lowers the marking device.
5. TORQUE BAR GIBS (301A-400) - These gibs, located above and below the torque bar (301A-398), allow vertical adjustment of the sliding head. If play develops in the sliding head, or the dovetail slide is not perpendicular to the base plate, it will be necessary to adjust these gibs. Loosen all four jam nuts. Evenly screw the top two set screws in or out as required, while evenly turning the bottom two set screws in the opposite direction. **DO NOT OVERTIGHTEN.** The gibs are adjusted correctly when the dovetail slide is perpendicular to the base, and the sliding head has no play. Re-tighten the jam nuts, while holding the set screws stationary.
6. DOVETAIL GIB (301A-394) - This gib, located between the dovetail ram (301A-402) and the sliding head (301A-392), eliminates play in the dovetail slide. If the dovetail slide develops left and right play, it will be necessary to tighten the gib. While holding the two allen head set screws (301A-396) stationary, loosen the jam nuts on each set screw. Evenly tighten the two set screws until left and right play is eliminated. Do not over-tighten. While holding the two allen head set screws stationary, re-tighten the jam nuts. This adjustment may be required after initial break-in.
7. MARKING DEVICE MOUNTING SCREW (301A-404) - This button-head machine screw holds the marking device against the dovetail slide.
8. MARKING DEVICE ALIGNING SCREWS - These two allen set screws are located near the bottom of the dovetail slide on the left and right hand sides.

They serve to adjust and tighten the marking device. By turning one set screw in, while turning the other out, the angle of the marking device, relative to the base, can be changed. Both should be tight for marking.

9. ADJUSTABLE HOLDING FIXTURE - This fixture is mounted with four cap screws to the base plate. The axes of the rolls must be parallel to the end-plate casting in order to produce satisfactory roll marking. After squaring the edge of the fixture with the end plate, only tighten the two right-hand cap screws. These should remain tight unless the fixture needs to be re-aligned. The two left-hand cap screws are tightened after the roll spacing has been adjusted to the diameter of the part to be marked. The rolls should remain as close as practical, since it minimizes press force. Tighten the left-hand cap screws after adjustment.

Adjustments for Stamping

1. Keep both hands free of the base area when moving the operating handle.
2. Set up the adjustable holding fixture.
3. Attach the marking device to the dovetail slide, tightening the mounting screw and two set screws.
4. Turn the depth of impression adjustment knob counter-clockwise until the marking device is higher than the part.
5. Move the air lever valve, slowly, to the center position, making sure the marking device clears the part.
6. Position the air lever valve in the center, when the marking device is above the part. Slowly rotate the depth of impression adjustment knob until it touches the part. Actuate the air lever valve, until the sliding head stops at the end of the stroke. Rotate the knob 1/16 of a turn and try a sample stamping. It may be necessary to repeat this until a satisfactory depth is obtained.
7. The marking device should not chatter violently as it passes over the part. If it does, reduce the depth of impression.
8. If the work creeps fore and aft in the adjustable holding fixture, then the fixture needs to be aligned.
9. If the impression is uneven back to front, the dovetail slide is not perpendicular to the base and needs to be aligned.
10. If the impression is uneven, beginning to end, around the circumference, the marking device set screws need adjustment.

11. The press is designed to run at 80 psi.

Lubrication

1. Oil holes are provided in the following places:
 - a. On the sliding head, just below the depth of impression adjustment knob.
 - b. On the sliding head, just above the sliding head shaft, left and right.
 - c. On the cannon, just above the cannon pivot screw.

Use a few drops of light oil in these places if the surface appears dry. Oil daily if the press is in continuous service.

2. Place a few drops of oil on the dovetail slides and the surfaces of the torque bar, if these surfaces appear dry. Oil weekly if the press is in continuous use.
3. The air supply lubricator should be kept supplied with a non-synthetic oil.
CAUTION: DO NOT REMOVE THE LUBRICATOR BOWL UNTIL THE SYSTEM HAS BEEN DEPRESSURIZED.

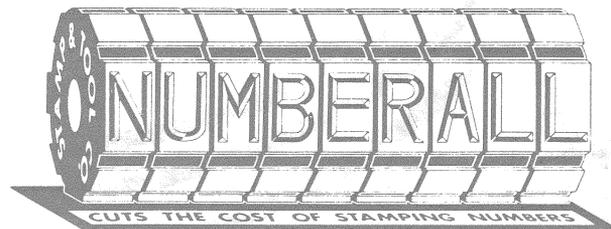
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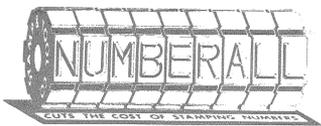
WHEN ORDERING PARTS SPECIFY
SERIAL AND MODEL NUMBER

PARTS LIST MODEL 301A

- 301A-178 FILTER REGULATOR LUBRICATOR
- 301A-214 DOVETAIL GIB NUTS - 1/4 X 20 (2 REQ'D)
- 301A-214 TORQUE BAR GIB NUTS - 1/4 X 20 (4 REQ'D)
- 301A-386 KNOB RETAINING PIN - 5/32 X 3/4 ROLL PIN
- 301A-388 DEPTH OF IMPRESSION ADJUSTMENT KNOB
- 301A-390 DEPTH OF IMPRESSION ADJUSTMENT SCREW
- 301A-392-A SLIDING HEAD
- 301A-394 DOVETAIL GIB
- 301A-396 DOVETAIL GIB SCREWS - 1/4 X 1 DOG PT. SOCKET SET SCREWS (2 REQ'D)
- 301A-396 TORQUE BAR GIB SCREWS - 1/4 X 1 DOG PT. SOCKET SET SCREWS (4 REQ'D)
- 301A-398 TORQUE BAR
- 301A-400 TORQUE BAR GIBS (2 REQ'D)
- 301A-402 DOVETAIL SLIDE
- 301A-404 MARKING DEVICE MTG. SCREW - 3/8-16 X 3/4 BUTTON HD. SOCKET SCREW
- 301A-406 SLIDING HEAD SHAFT
- 301A-416 PISTON ROD SCREW - 3/8 X 1 SOCKET HD. SHOULDER SCREW
- 301A-418 TORQUE BAR MTG. SCREWS - 1/4 X 1 SOCKET HD. CAP SCREWS (4 REQ'D)
- 301A-420 TORQUE BAR DOWEL PINS - 1/4 X 1 (2 REQ'D)
- 301A-422 CASTING END PLATE MTG. SCREWS-1/2 X 1 3/4 HEX HD. CAP (2 REQ'D EACH END)
- 301A-424 CASTING END PLATE DOWEL PINS - 5/16 X 1 3/4 (2 REQ'D EACH END)
- 301A-426 BASE PLATE CASTING
- 301A-428 RIGHT END PLATE CASTING
- 301A-432 LEFT END PLATE CASTING
- 301A-434 AIR HOSE FITTING - ELBOW (2 REQ'D)
- 301A-436 MUFFLER/SPEED CONTROL FITTING (2 REQ'D)
- 301A-438 AIR HOSE FITTING - STRAIGHT (3 REQ'D)
- 301A-440 AIR HOSE FITTING - ELBOW (1 REQ'D)
- 301A-442 FIL./REG./LUB. MTG. BRACKET SCREWS-1/4-20X1/2 SKT. HD. CAP (2 REQ'D)
- 301A-444 FIL./REG./LUB. MTG. BRACKET
- 301A-446 CYLINDER MOUNTING SCREWS - 5/16-24 X 1 SOCKET HD. CAP SCREWS (4 REQ'D)
- 301A-448 PISTON ROD
- 301A-450 AIR VALVE
- 301A-452 AIR VALVE MTG. SCREWS - 1/4-20 X 3/4 HEX HD. SCREWS (2 REQ'D)
- 301A-454 AIR VALVE MTG. PLATE
- 301A-456 AIR VALVE MTG. PLATE SCREWS - 1/2 X 1 BUTTON HD. SOCKET SCREWS (2 REQ'D)
- 301A-458 SET OF TUBING



REPLACEMENT PARTS MODEL 301A

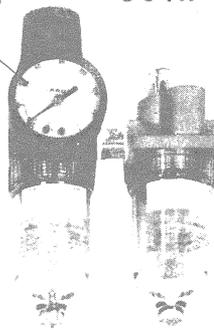
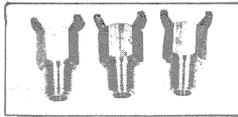
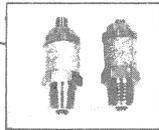


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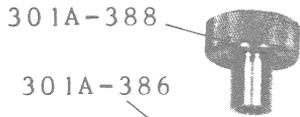
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301A-440

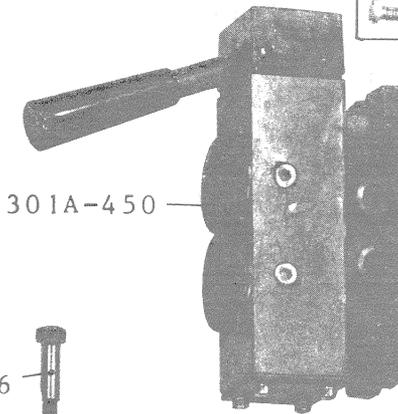
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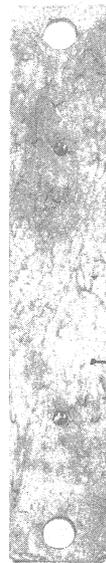
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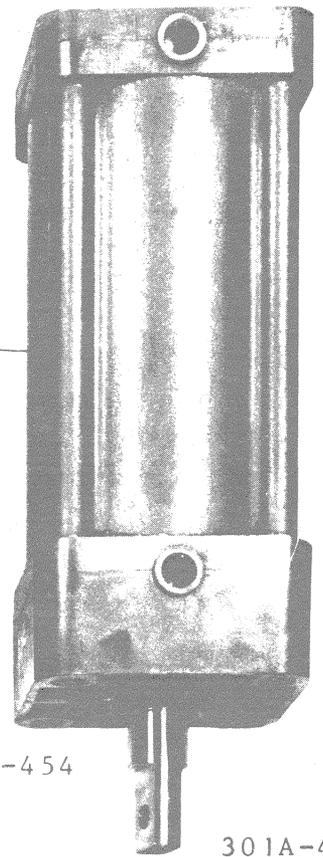
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301A-450



301A-454



301A-446

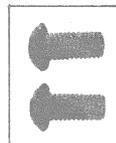
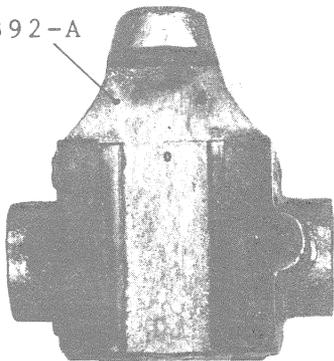
FOR FRAME CASTINGS SEE REVERSE OF SHEET

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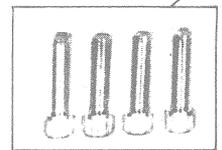


301A-392-A

301A-214



301A-456

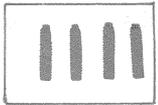


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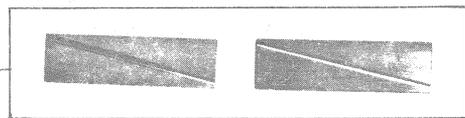
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301A-394

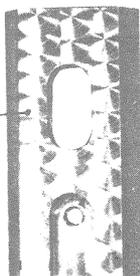
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301A-400

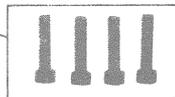


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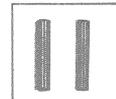
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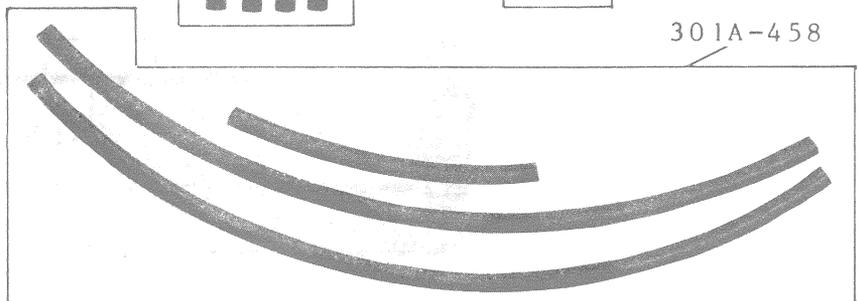
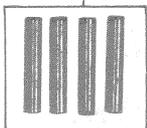
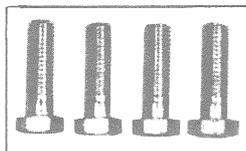
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