

NUMBERALL **STAMP & TOOL CO., INC.**

USER MANUAL & PARTS LIST

MODEL

131A

S/N:

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MODEL 131A AIR-OPERATED BENCH MARKING PRESS

Uncrating Procedure

- 1. The Model 131A 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 131A weighs 135 pounds and should be lifted with caution.
- 5. Bolt the press securely to a solid bench to avoid accidental upset.
- 6. The Model 131A is capable of **forces exceeding 4 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 131A is a versatile and compact press, designed for stamping nameplates and small parts. The Model 131A is an ideal choice where bench space is restricted. It is intended for continuous, heavy-duty use.

Bench area is 11" x 20-1/2" x 17" high. The mounting base is 7-3/8" x 15-5/8" (outside dimensions). Throat depth is 6-1/2", maximum clearance between the ram and table is 3-3/4", and table vertical travel is 2-1/2". The optional adjustable table requires a bench are for the press of 15" x 25" x 17" high.

An adjustable table is available as an option. It permits left, right, fore and aft movement of a clamped part. 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. This provides convenient air control and cylinder protection. A foot-operated air valve is another option. Factory-mounted two-hand operating controls can also be provided.

Maximum Character Chart

For Models 131, 131A & 133 Presses

The Model 131A can easily exert a 4-ton force. The following chart depicts the maximum number of characters the Model 131A 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 | Steel RC 30 | Mild Steel | Soft Brass | Aluminum 1100 H26 |
|-------------------|-------------|------------|------------|----------------------|
| 1/4 | 3 | 5 | 7 | 12 |
| 3/16 | 4 | 7 | 11 | 16 |
| 5/32 | 6 | 8 | 17 | 36 |
| 1/8 | 9 | 12 | 25 | 48 |
| 3/32 | 10 | 13 | 30 | 63 |
| 1/16 | 12 | 20 | 48 | 96 |

Note: The above chart is based upon the maximum number of characters for a legible impression (.002"-.003" depth), and the Model 131 using 80 psi.

Function of Controls

- AIR LEVEL VALVE (131A-174) The air lever valve is located on the left side of the press. By depressing the valve the ram head lowers. CAUTION: When experimenting with the handle, KEEP HANDS CLEAR OF TABLE. MAKE SURE THERE IS PROPER CLEARANCE BETWEEN THE TABLE TOP AND MARKING DEVICE. Depressing the handle will cause the ram head to lower. The lever should be held down until the ram head stops in the down position. The lever is spring loaded to the up position. Once released the ram head will return to the up position.
- 2. VALVE MUFFLERS (131A-220) The mufflers, located to the left side of the air lever valve, control the speed of the up and down stroke. The top muffler controls the speed of the upstroke, while the bottom muffler controls the speed of the down 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 (131A-178) -Located on the left hand side of the press, 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 BOWL BEFORE DEPRESSURIZING THE SYSTEM. The lubricator bowl should be kept supplied with non-synthetic, light oil. 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. TABLE ELEVATION NUT (131A-98) This nut on the large threaded rod beneath the table, adjusts the vertical position of the table. Counter-clockwise rotation lowers the table and clockwise rotation raises the table.
- 5. TABLE INSERT CLAMP (131A-17) This clamp, located on the left hand side of the table, secures the table insert. After loosening the brass screw, the insert can be moved fore and aft. Engraved markings on the left hand edge of the insert are provided for reference purposes. Each increment measures 1/16". An arrow index is stamped on the left hand guide rail.
- 6. TABLE LOCKING ASSEMBLY (131A-24) The table locking assembly located beneath the table in the front center, secures the table. After loosening the wing nut, the table may be moved left or right. Tighten the wing nut after adjustment.
- MARKING DEVICE CLAMPING SCREW (131A-92) This brass screw located on the right hand side of the dovetail ram (131A-90), secures the marking device. The dovetail and clamping screw only serve to hold the marking device in position. The press force bears on the ram head bottom.
- 8. DOVETAIL RAM GIB (131A-94) This gib located between the dovetail ram (131A-90) and the frame casting (131A-142) eliminates play in the ram head. If the ram head develops left and right play, it will be necessary to tighten the gib. While holding the two allen head setscrews (131A-96) stationary, loosen the locking nut on each. Evenly tighten the two set crews until left and right play is eliminated. Do not over-tighten. While holding the two allen head sets screws stationary, retighten the locking nuts. This adjustment may be required after initial break-in.

Adjustments for Stamping

- 1. Lower the table by rotating the elevation nut counter-clockwise until the marking device can easily be inserted in the dovetail ram.
- 2. Place the material to be stamped or trial sample in the nameplate clamp or fixture.
- 3. KEEPING BOTH HANDS CLEAR OF THE TABLE, depress the air lever valve. Hold the lever in the down position until the arm head stops. If the marking device begins to touch the surface, lower the table further, until the ram head is in its full down position.
- 4. With the lever still depressed, raise the table until it touches the marking device. Release the lever.
- 5. Raise the table very slightly (1/16 of a turn at a time). Depress the air valve lever. Release and check the impression. If the impression is not deep enough, keep rotating the elevation nut and checking the impression until a satisfactory stamp is achieved.
- 6. The air pressure can be lowered to obtain a satisfactory stamping once the above is accomplished. This will protect the work piece in the event the table is raised too high. The air pressure should not exceed 80 psi. Once the above is done at 80 psi, back off the air pressure until a satisfactory stamping is produced. If the table is accidentally moved up, the press will stall at this pressure, and the part will be stamped without any damage.
- 7. Once adjusted the Model 131A is ready for stamping. Minor adjustments may be required due to variations in the thickness of the part.

Lubrication

Lubrication

- 1. Oil holes are provided in the following places:
 - a. On the top of the ram head (131A-90)
 - b. On the rocker arm (131A-180), as follows: above the rocker arm shaft (131A-62) and above the piston rod yoke shaft (131A-190).

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

- The air cylinder has a permanent grease coating. If you use an FRL and add oil to the lubricator, the cylinder must be continuously lubricated from then on. As oil will wash away the grease coating. If you do add oil to the lubricator, it should be kept supplied with light non-synthetic oil. CAUTION: DO NOT REMOVE THE LUBRICATOR BOWL UNTIL THE SYSTEM HAS BEEN DEPRESSURIZED.
- 3. On the table insert guides and the table dovetail guide, use graphite as a lubricant. Oil should not be used, as it may accumulate dirt and bind the parts.
- 4. Place a few drops of oil on the ram head dovetail slides if the surfaces appear dry. Oil weekly if the press is in continuous service.
- 5. On the table insert guides and the table dovetail guide, use the graphite as a lubricant. Oil should not be used, as it may accumulate dirt and bind the parts.

INSTALLATION OF OPTIONAL TRIPPING ATTACHMENT

The following instructions apply to any of Numberall's bench presses: Models 131, 131A, 133, 136, 136A, and 137.

- The tripping attachment is shipped assembled but will need adjustment. All mounting holes in the press have been pre-drilled. The hand clearances inside the casting are very tight and some patience is required. CAUTION: WHEN WORKING WITH THE CASTING, MAKE SURE ALL POWER SOURCES HAVE BEEN DISCONNECTED. The tripping attachment is easily installed if the press is lying on its side.
- 2. The linkage will attach to the press with the turnbuckle assembly (*-116) toward the rear. It is located on the right hand side of the frame casting, bolting to the rocker arm and frame casting.
- 3. Loosen the two jam nuts on the turnbuckle assembly. One is a left hand thread and one is a right hand thread.
- 4. Insert the 1/4" cap screw through the lower ball end and thread it into the 1/4" hole in the right rear inside of the frame casting.
- 5. Insert the shoulder screw (*-114) through the tripping arm from the right. Slide the spacer over the shoulder screw. Start the shoulder screw into the threaded hold near the back of the rocker arm. Tighten the shoulder screw.
- Adjust the rear turnbuckle assembly by rotating the center rod until 3/4" of clearance exists between the tripping arm and the top of the dovetail ram. Tighten both turnbuckle jam nuts while holding the turnbuckle rod stationary.
- 7. Tighten the free motion connecting link assembly into the Model 50 Automatic Numbering Machine. Tighten the jam nut so that the ball end is aligned vertically.
- 8. Start the free-motion rod into the free-motion connecting link.
- 9. By rotating the actuating arms away from the numbering machine, it will be possible to simultaneously feed the free motion rod into the free motion linkage and slide the numbering machine into the dovetail ram. Tighten the marking device clamping screw.
- 10. After the press has been properly adjusted for the impression depth, cycle the press. If the numbering machine is not advancing properly, it will be necessary to screw the free motion rod either in or out of the upper ball end. Loosen the jam nut first. Adjust the rod until the numbering machine clicks into its advance position. Make sure the press makes a full cycle. If it does

not, then the adjustment to the tripping attachment will not be correct. Tighten the jam nut.

- 11. The tripping attachment is now ready for use. Do not operate a press with the tripping attachment, unless it is connected to an automatic numbering machine or the free motion rod and ball end have been removed, otherwise damage to the tripping attachment may occur.
- * Denotes the model number of the press for which you are installing the attachment.

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Model 131-A Press Parts List PARTS LIST

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- Nameplate Clamp Release Lever **Marketon** 131A-10
 - Nameplate Clip Springs (3 req'd) 131A-12
 - Nameplate Clamp Base I31A-14
- Nameplate Clamp Screws (3 reg'd) 131A-16
- Table Clamp Thumb Screw & Washer 31A-17
 - Table Insert (Standard) and the second 131A-20
 - Table Insert **Heat Treated** 31A-22
- Table Locking Assembly (Washer/Wing Nut/Clamp) 131A-24
 - Comp. Table Base Incl'g Guide Rails & Dovetail 131A-26
 - Entire Table Assembly (131A-10 through 131A-26) 131A-28
 - Rocker Arm Shaft 131A-62
- Rocker Arm Shaft Set Screw 131A-63
- Dovetail Ram 131A-90
- Marking Device Clamping Screw 131A-92

 - Dovetail Ram Gib 31A-94
- Gib Screws & Nuts (2 sets-2pc.p.set req'd) 31A-96
 - **Elevation Nut** 131A-98 · --
- Cast Table Assembly 31A-100 -
 - Tripping Arm 31A-111
- Shoulder Screw & Spacer I 31A-115
- 31A-117 -
- 31A-118 Upper Turnbuckle Cap Screw

Spacer Bushing and Screw 31A-124 - Rod-End No. 31A-125

- Lower Turnbuckle Cap Screw

31A-120

- Free Motion Rod and Nut I 31A-126
- Complete Tripping Attachment (131A-111/128) Free Motion Connecting Link Assembly ł 1 31A-128
 - -
- Air Cylinder Attachment Bolts (2 reg'd)
- Valve Mounting Plate w/Screws 31A-176
 - - Rocker Arm 31A-180
- Piston Rod Yoke I31A-188

- Piston Rod Yoke Shaft Set Screw Till State 31A-191
 - Set of Tubing Conservation of the local distribution of th 31A-200
 - - Valve Mufflers (2 req'd) 31A-220

- Frame Casting Air Cylinder 31A-174 - Lever Valve 131A-170 31A-172 131A-129 31A-142

- Filter/Reg./Lub./Gauge
 - 31A-178
- - Piston Rod Stud
 - 31A-186

- 31A-190 Piston Rod Yoke Shaft
- 31A-210 Brass Fittings (5 req'd)
 - - - **Turnbuckle Assembly**



Numberall Stamp & Tool Co., Inc.

For extra copies of this manual please call or visit our website.

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