

NUMBERALL

STAMP & TOOL CO., INC.

USER MANUAL & PARTS LIST

MODEL

137

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MODEL 137 MOTORIZED BENCH NUMBERING PRESS

Uncrating Procedure

1. The Model 137 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 137 weighs 115 pounds and should be lifted with caution.
5. Bolt the press securely to a solid bench to avoid accidental upset.
6. The Model 137 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 137 is a versatile and compact press designed for stamping nameplates and small parts. The Model 137 is an ideal choice where bench space is restricted. It is intended for continuous, heavy-duty use.

Bench area is 14" x 19" x 15" high. The mounting base is 7" x 11-3/4" (outside dimensions). Throat depth is 3", maximum clearance between the ram and table is 4", and table travel is 2". The optional adjustable table requires a bench area of 17" x 21-1/2" x 15" high.

A 1/4 H.P. worm gear motor powers the Model 137. An overload switch protects the motor in most cases.

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. An optional single-stroke control allows the press to be cycled only once, when the operating handle is depressed.

Maximum Character Chart

The Model 137 can easily exert a 3-ton force. The following chart depicts the maximum number of characters the Model 137 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	2	2	4	12
3/16	2	4	5	16
5/32	3	5	8	30
1/8	4	6	13	40
3/32	4	7	15	50
1/16	6	11	24	80

Note: The above chart is based upon the maximum number of characters for a legible impression (.002”-.003” depth).

Function of Controls

1. OPERATING HANDLE (137-81) - **CAUTION: DO NOT PLUG THE PRESS IN BEFORE READING ALL OF THE INSTRUCTIONS. IT IS POSSIBLE TO DAMAGE THE PRESS IF NOT ADJUSTED PROPERLY.** When the operating handle is depressed, the clutch is activated and the press will stamp. Holding the handle down will allow the press to continually cycle. However, if the single stroke control is ordered, the press will only cycle once, until the handle is released and depressed again.
2. KNURLED KNOB (137-85) - The knurled knob can be attached to the press in two ways.
 - a. It can be placed on the press camshaft (137-51), with the short end of the key toward the press camshaft (137-51). This way, the camshaft can be easily manually rotated for setup.
 - b. Also, it can be placed on the camshaft with the long end of the key toward the press, extending into the keyway of the gearbox. This position engages the motor to the press.

3. MOTOR STARTER SWITCH - The motor starter switch turns the motor on and off and protects it against overload. If the motor becomes overloaded, the switch will move to the reset or neutral position and the motor will stop. In order to restart the motor, the switch must be turned off and then back on. The motor may have to cool down before the reset will work.
4. TABLE ELEVATION NUT (137-98) - 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 (137-17) - 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 (137-24) - 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.
7. MARKING DEVICE CLAMPING SCREW (137-92) - This brass screw, located on the right hand side of the dovetail ram (137-90), 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 (137-94) - This gib located between the dovetail ram (137-90) and the frame casting (137-144) 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 set screw (137-96) stationary, loosen the locking nut on each. Evenly tighten the two setscrews until left and right play is eliminated. Do not over tighten. While holding the two allen head set 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. Unplug the press or turn the motor off. Place the knurled knob (137-85) so that the short end of the key is towards the press; make sure that it is not engaged with the gearbox. You can now rotate the knurled knob and the ram head will move down. Once the ram head is down proceed as follows:

4. Raise the table until it touches the marking device.
5. Rotate the knurled knob until the ram head is in its up position. Place the knurled knob so that the long end of the key is engaged with the gearbox. Raise the table very slightly (1/16 of a turn at a time). Plug the press in and turn on the motor. Actuate the press, 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. Once adjusted, the Model 137 is ready for stamping. Minor adjustments may be required due to part thickness variations.
7. If the motor almost stalls or hesitates, the capacity of the press has been exceeded. Lower the table until the motor operates without stalling or hesitating.
8. If the press jams, turn off the motor immediately. The press can be un-jammed by two means.
 - a. By turning the table elevation nut (137-93) counter-clockwise, the table will lower and the press can then be cycled.
 - b. If it is difficult to turn the table elevation nut, than the knurled knob can be rotated clockwise with the supplied lever.

Lubrication

1. Oil holes are provided in the following places:
 - a. On the top of the ram head (137-90)
 - b. On the rocker arm (137-40), above the rocker arm shaft (137-62).
 - c. On the frame casting just inside of the operating handle.

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. **CAUTION: DO NOT LUBRICATE THE CAM OR CLUTCH ASSEMBLIES.** Oil and accumulated dirt in this area can jam the clutch pin (137-156), preventing engagement of the clutch.
3. Use graphite as a lubricant on the table insert guides and the table dovetail guide. Oil should not be used, as it may accumulate dirt and bind the parts.
4. Place a few drops of oil on the table elevation nut if it appears dry. Oil weekly if the press is in continuous service.

5. 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.
6. **IMPORTANT: Check the lubricant level in the gearbox.** The manufacturers instructions are attached to the gearbox.

INSTALLATION OF OPTIONAL TRIPPING ATTACHMENT

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

1. 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.
6. 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.

FREE-MOTION ROD ADJUSTMENT

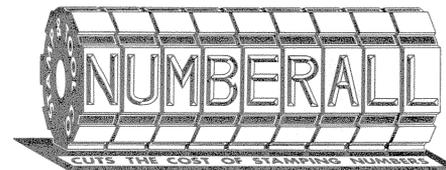
The following instructions apply to Numberall's Models 133 and 137.

1. Disconnect power from the press.
2. Loosen the setscrew on the collar, on the right hand side of the gear reduction box, which secures the knurled knob (*-85).
3. Pull the knurled knob out of the rear reduction shaft. Place the knurled knob back on the shaft with the short end of the key toward the gearbox, without engaging the gearbox. This will enable you to turn the press mechanism without rotating the gearbox.
4. Rotate the knob (counter-clockwise facing the shaft end) until the tripping arm is at its lowest point. The operating handle (*-81) may have to be depressed to engage the mechanism.
5. Loosen the locking nut on the ball-end fitting, which is secured to the tripping arm (*-119).
6. Screw the tripping rod into the ball end as far as it will go, without forcing it.
7. Slide the numbering machine into the dovetail ram head (*-90), while simultaneously inserting the tripping rod into the free-motion connecting link (*-128).
8. If the Model 50P will not slide into the ram head all the way to the stop pin, the tripping rod will have to be shortened by cutting. With the rod screwed all the way into the ball end and the Model 50P inserted all the way into the ram head, the rod should be about 3/16" shorter than the length which would force the Model 50P arms to its lowest position.
9. When the Model 50P is inserted into the ram head, make sure the clamping screw is tight.
10. Rotate the knurled knob (*-85) about one turn counter-clockwise until the tripping arm reaches its lowest point again.
11. Very slowly, screw the rod out of the rod end until a click is heard from the Model 50P. This means the wheels have indexed to the next position.
12. Screw the rod out 1/4 of a turn more and tighten the locknut on the ball end.
13. If the rod is adjusted properly you should be able to push the arms of the marking head slightly further, until they reach the stop pins.

14. Rotate the knurled knob several revolutions and examine the Model 50P, making sure the wheels are indexing properly.

15. Return the knurled knob to its original position to permit powered press operation and tighten the setscrew.

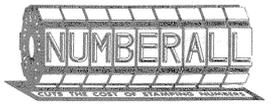
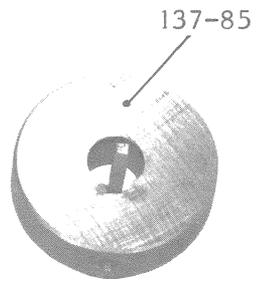
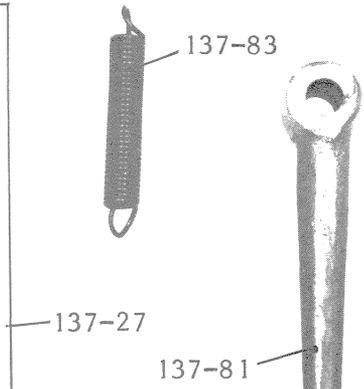
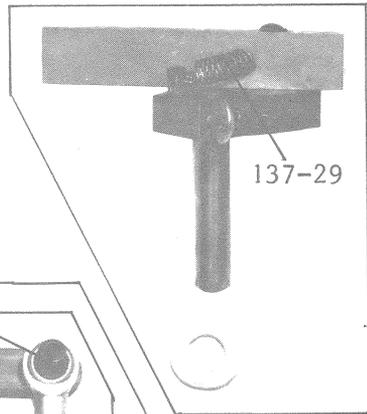
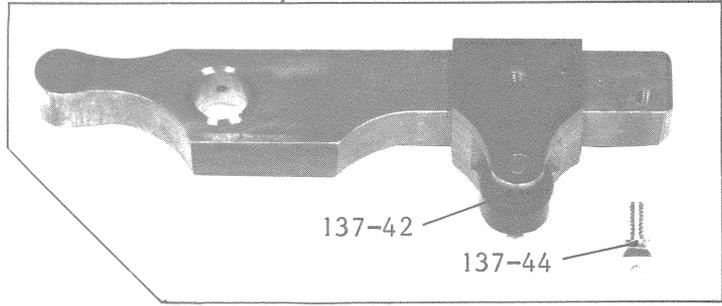
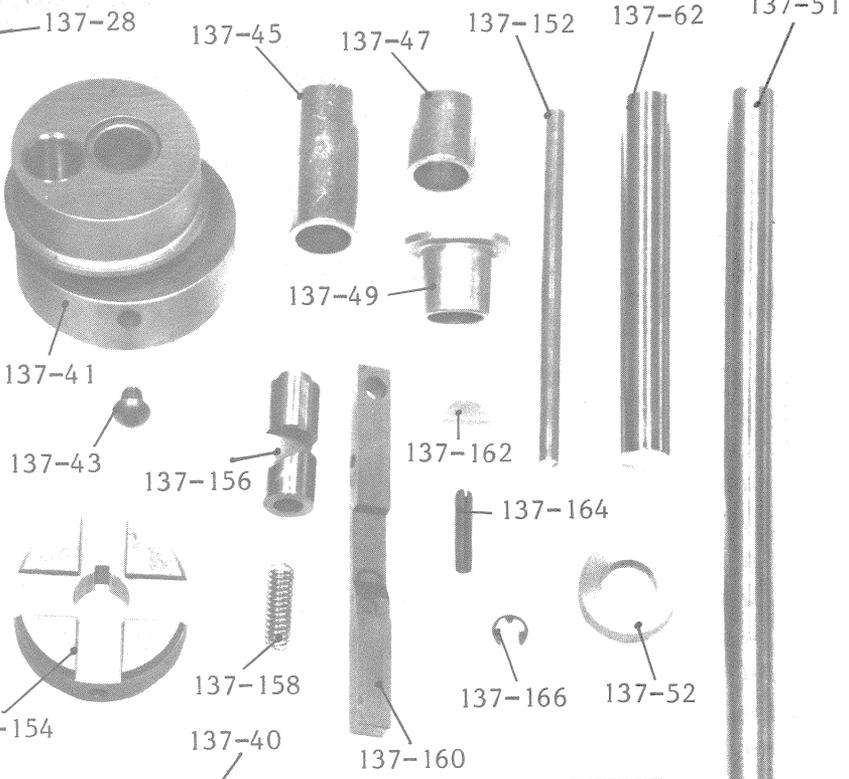
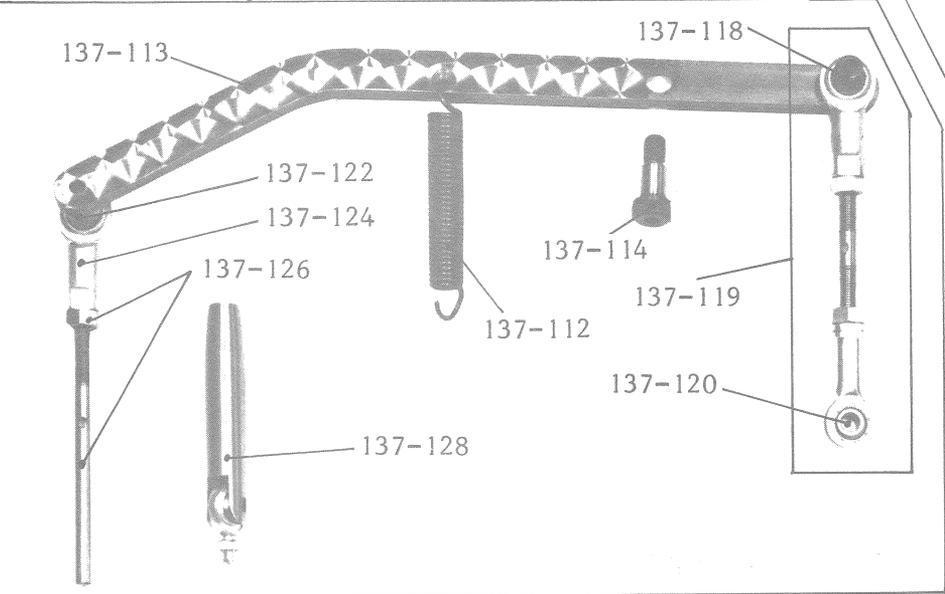
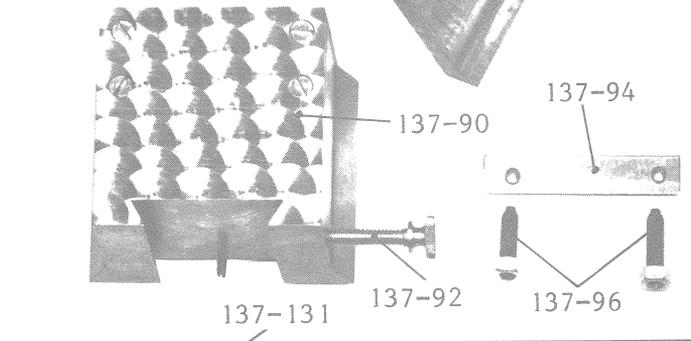
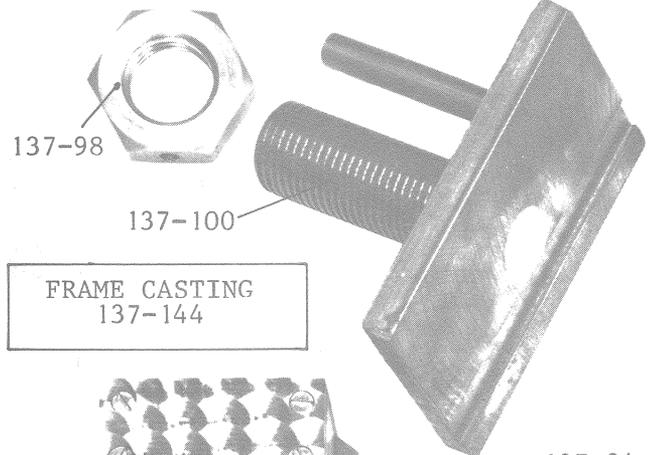
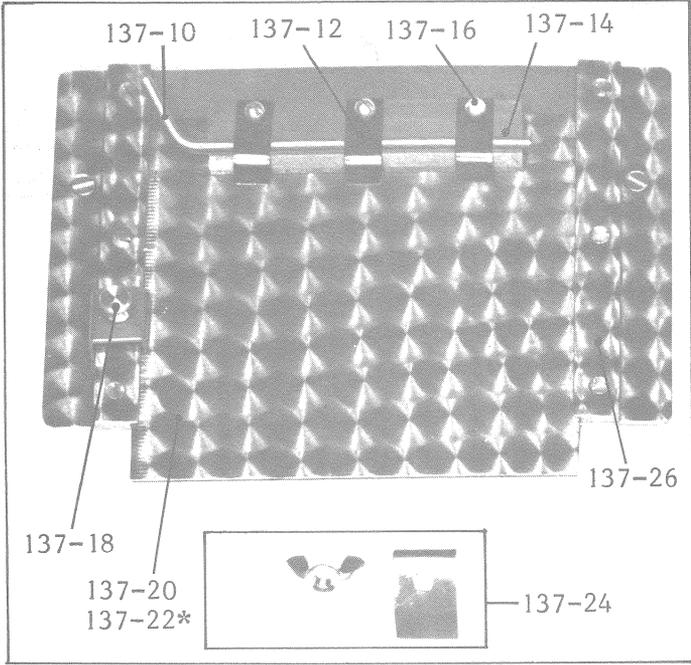
* Denotes the model number of the press for which you are installing the attachment.



137-10	NAMEPLATE CLAMP RELEASE LEVER
137-12	NAMEPLATE CLIP SPRINGS (3 REQUIRED)
137-14	NAMEPLATE CLAMP BASE
137-16	NAMEPLATE CLAMP SCREWS (3 REQUIRED)
137-18	TABLE INSERT CLAMP ASSEMBLY (CLAMP, SCREW, SPRING)
137-20	TABLE INSERT
137-22*	TABLE INSERT (HARDENED)
137-24	TABLE LOCKING ASSEMBLY (WASHER, WING NUT, CLAMP)
137-26	COMP. TABLE BASE INCL. GUIDE RAILS AND DOVETAIL (DOVETAIL NOT SHOWN)
137-27	NON-REPEAT ASSEMBLY (INCLUDES SPRING AND SPACING WASHER)
137-28	ENTIRE TABLE ASSEMBLY (137-10 THROUGH 137-26)
137-29	NON-REPEAT SPRING
137-40	ROCKER ARM ASSEMBLY (INCLUDES CAM ROLLER, SCREW, ROCKER ARM)
137-41	CAM (INCLUDES 137-43 AND 137-45)
137-42	CAM ROLLER
137-43	CAM NON-REPEAT SCREW
137-44	SCREW
137-45	CAM BEARING
137-47	CAMSHAFT BEARING
137-49	CAMSHAFT BEARING
137-51	CAMSHAFT
137-52	CAMSHAFT COLLAR
137-62	ROCKER ARM SHAFT
137-81	OPERATING HANDLE
137-83	OPERATING HANDLE RETURN SPRING
137-85	KNURLED KNOB
137-90	DOVETAIL RAM
137-92	MARKING DEVICE CLAMPING SCREW
137-94	DOVETAIL RAM GIB
137-96	GIB NUTS AND SCREWS
137-98	ELEVATION NUT
137-100	CAST TABLE ASSEMBLY
137-112	SPRING
137-113	TRIPPING ARM
137-114	SHOULDER SCREW
137-118	UPPER TURNBUCKLE CAP SCREW
137-119	TURNBUCKLE ASSEMBLY
137-120	LOWER TRUNBUCKLE CAP SCREW (SCREW NOT SHOWN)
137-122	SPACER BUSHING AND SCREW (SCREW NOT SHOWN)
137-124	ROD END
137-126	FREE MOTION ROD AND NUT
137-128	FREE MOTION CONNECTING LINK ASSEMBLY (INCLUDES ROD END)
137-131	COMPLETE TRIPPING ATTACHMENT (137-113 THROUGH 137-128)
137-144	FRAME CASTING
137-152	CLUTCH RELEASE LEVER SHAFT
137-154	CLUTCH PLATE
137-156	CLUTCH PIN
137-158	CLUTCH SPRING
137-160	CLUTCH RELEASE LEVER
137-162	CLUTCH PLATE WOODRUFF KEY
137-164	SPRING PIN
137-166	CLUTCH RELEASE LEVER SHAFT SNAP RING (4 REQUIRED)

WHEN ORDERING PARTS SPECIFY
SERIAL AND MODEL NUMBER

REPLACEMENT PARTS MODEL 137



Numberall Stamp & Tool Co., Inc.

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