

DIRECTIONS
for CARE and
CLEANING

12-14-18 24-30-36
Styles 1T and 1U

Sorts Casting Molds

STYLE 1T MOLD FOR CASTING SORTS,
HIGH AND LOW QUADS AND SPACES OF
ANY WIDTH SET-WAYS UP TO THIRTY-
SIX POINTS INCLUSIVE IN TWELVE-,
FOURTEEN-, AND EIGHTEEN-POINT
SIZES.

STYLE 1U MOLD FOR CASTING SORTS,
HIGH AND LOW QUADS AND SPACES OF
ANY WIDTH SET-WAYS UP TO THIRTY-
SIX POINTS INCLUSIVE IN TWENTY-
FOUR-, THIRTY-, AND THIRTY-SIX-
POINT SIZES.

TRADE MARK
MONOTYPE

Reg. U. S. Pat. Off.

LANSTON MONOTYPE
MACHINE COMPANY
PHILADELPHIA

Directions for Care and Cleaning

STYLES 1T AND 1U

SORTS CASTING MOLDS

1 The Styles 1T and 1U Molds are furnished with three BLADES each for casting, as sorts, type and high and low quads and spaces of any width set-ways up to thirty-six points inclusive and of any point-size as follows:

Style 1T MOLD for twelve-, fourteen-, and eighteen-point bodies.

Style 1U MOLD for twenty-four-, thirty-, and thirty-six-point bodies.

The twelve-point size in the 1T MOLD is used for quads and spaces and for a few very extended twelve-point faces made in Sorts MATRICKS. Composition MATRICKS cannot be used on these MOLDS. The earlier 1T MOLDS were equipped for casting twenty-point instead of twelve-point.

CAUTIONS

2 **Taking Apart:** As long as the MOLD produces good type let it alone. When necessary to clean the MOLD do so in accordance with the following directions.

3 **Assembling:** Be sure parts are of same point-size. These parts are clearly marked.

4 **Mold Blades** must be inserted or removed by sliding them along the SQUARING PLATE straight to the front or rear. Never lift the rear end of the BLADES when passing them between the TYPE BLOCKS nor try to force them over the NICK PIN. Following this caution prevents injury to the BLADES or to the NICK PIN.

5 **Fitting a Gate Pusher:** Do not attempt to fit a GATE PUSHER. This can be done only in our factory.

6 **Protect the Gate Pusher** by holding it in the CROSS BLOCK with the finger, while putting the CROSS BLOCK in place or taking it out.

7 **Insert the Gate Pusher** with beveled end to the rear.

8 **A new or repaired Mold** requires special attention until the CROSS BLOCK has found its true bearing against the TYPE BLOCKS while running under actual working conditions. After the MOLD has run an hour, test the setting of the CROSS BLOCK. If loose, readjust it. Repeat this test after the MOLD has run half a day and also a full

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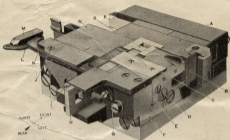


FIGURE 1

MOLD assembled ready for use.
Top view from rear left corner.

day. If this test be not made, the MOLD may become loaded, causing wear of the CROSS BLOCK and TYPE BLOCKS or forcing them out of alignment.

9 Screws holding left Type Block must never be loosened. This Block is adjusted in our factory.

10 Alterations: Never alter any part of the MOLD. These parts are made by experienced workmen trained for this special work and supplied with the finest gages and measuring instruments. When returning a MOLD for repairs always enclose with it samples of the type it produces and a memorandum giving details of the defects.

11 Water regulation: MOLDS are built to use as little water as possible; use just enough to avoid blistered bodies and bleeding feet. The water from the MOLD should be as hot as can be borne on the hand.

12 Water passages must be kept clean. Whenever the MOLD is taken off the machine, force all water out with the air blast and oil the water passages thoroughly by blowing oil through them.

13 Oiling: Our MOLD OILER, regulated to give a drop every two or three minutes, will give sufficient oiling, except for the CROSS-BLOCK COUPLING which must be oiled by hand.

14 Temperature: The temperature of the metal should never be over 725 degrees nor cooler than 675 degrees; the larger bodies (that is, the ones requiring the most metal) take the lower temperature. This is for standard MONOTYPE metal. For metals other than this,

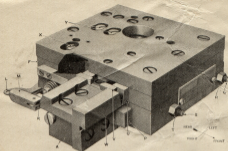


FIGURE 2

Bottom view with Cross Block partly drawn out to show GATE PUSHER.

special care should be taken to obtain the proper temperature by trial.

15 Bridge Setting: Test this setting before putting the MOLD on the MACHINE. This setting, when once made with the CARRYING-FRAME ADJUSTING GAGE, is correct for all MOLDS and MATRICES, but make sure that no adjustments have worked loose and that the MATRICES bear lightly on the MOLD without hammering it.

16 Matrix Holder containing Matrix must always be in position whether casting characters or high or low quads or spaces.

17 First Cast: Be sure the MOLD is up against its proper bearings; turn machine over by hand to see that everything is working properly—then start the machine, not before.

18 Bodies more than twelve points in width set-ways require that the MOLD-BLADE-CAM-LEVER COMPOUND LEVER be adjusted to give the increased stroke to the MOLD-BLADE; for bodies twelve points, or less, set-ways the normal stroke is used.

19 Thirty-six points set-ways is the limit for casting type with these MOLDS. Do not attempt to cast a body wider than this for to do so will strain or break the MOLD-BLADE.

20 When replacing the upper Mold Blade be sure it rests flat on the lower MOLD-BLADE at the rear. If not in this position it will be broken or badly sprung when the



FIGURE 3

MOLD BLADES and POINT BLOCK.

MOLD-BLADE SHIELD and MOLD-BLADE TOP GUIDE are put in place.

21 Adjustment of the Front-abutment Shoe should never be broken. If it works loose, adjust it as given in the following directions (¶41).

22 Bodies containing more than 144 square points, require proportionately slower speed than 140 r.p.m.; the PUMP capacity must be increased and the CENTERING PIN must exert an extra pressure on the MATRIX (all of which are provided by the Display-type Attachment).

23 The stroke of the Type Carrier must be increased.

24 The display Type Channel Blocks must be used in place of the standard Type Channels Blocks.

TAKING APART: Re-read Cautions

(See the "direction arrow" on each figure)

25 Prepare a suitable place for taking the MOLD apart. Spread down a clean sheet of paper and as the parts are taken off the MOLD, place them on this paper. Have the hands clean and free from particles of metal.

26 Slide the CROSS BLOCK (A) out of the MOLD to the right being careful not to drop its GATE PUSHER (V). Take out the FRONT-ABUTMENT SHOE (P).

27 Swing the SPRING BOX (M) out to the right so that it is not operative. Remove MOLD-BLADE-LEVER FULCRUM STUD (J); MOLD-BLADE LEVERS (K) and (L); MOLD-BLADE SHIELD (E); MOLD-BLADE STOP (G); MOLD-BLADE TOP GUIDE (C); upper MOLD BLADE (O).

28 Turn the MOLD upside-down and take out one long SCREW (X) and two short SCREWS (Y) which hold the right

TYPE BLOCK (N) to the SQUARING PLATE (F). Turn the MOLD right side up and take out two SCREWS (I) (one nearest the MOLD BLADE has a WASHER on it) which hold the right TYPE BLOCK (N) to the SQUARING PLATE (F) in the rear. Take out the SCREW (D).

29 Slide the lower MOLD BLADE (H) with the POINT BLOCK (Z) out from the rear of the MOLD. CAUTION: Do not lift the BLADE up between the TYPE BLOCKS as this would injure the NICK PIN. Swing the left end of the right TYPE BLOCK (N) to the front and slide it off the SQUARING PLATE toward the right.

CLEANING

30 Clean carefully all parts of the MOLD which have been removed and also the parts which have been left assembled, being especially careful to remove all particles of metal. Use a clean white cloth for this purpose. Do not use waste, as this will leave lint which is very hard to remove. In case little particles of metal stick to any part of the MOLD so that they cannot be wiped off they must be carefully scraped off with a wooden stick or piece of brass rule.

31 Be sure that all the corners in around the left TYPE BLOCK where the MOLD BLADE works are perfectly clean.

32 Thoroughly clean the GATE PUSHER (V) and its slot between the CROSS-BLOCK GATE BLOCKS (U) and (W).

ASSEMBLING

33 Be sure all parts are clean. (Re-read the preceding directions under the heading "Cleaning".) Be sure the hands are clean and free from particles of metal.

34 Slide the right TYPE BLOCK (N) into position putting a slight pressure on it to remove any dirt from the surfaces of the SQUARING PLATE (F). Remove the TYPE BLOCK (N), wipe it off and replace it, this time keeping it in position. Slide in the lower MOLD BLADE (H) from the rear *without* the POINT BLOCK (Z) while with the thumb and first two fingers the right TYPE BLOCK (N) is held so that the BLADE (H) can just be pushed through. Have the BLADE (H) flat down on the SQUARING PLATE and push it forward to remove any particles of dirt. Take out BLADE (H) and, while still holding the right TYPE BLOCK (N) in position, insert the two SCREWS (I) in the back, bringing them just up to bearing (be sure the SCREW with the WASHER is nearest the MOLD BLADE). Wipe the lower MOLD BLADE (H) clean and slide it in from the rear

with the POINT BLOCK (Z) in place. CAUTION: Be careful not to damage the corners of the MOLD BLADE (H), and do not force the MOLD BLADE over the NICK PIN. Turn the MOLD bottom up and insert the three SCREWS (X) and (Y) in the bottom of the right TYPE BLOCK (N). Bring them just up to bearing. See that the MOLD BLADE (H) does not bind. Insert the SCREW (D) and bring it up to bearing. Tighten the five SCREWS (I), (X), and (Y) of the right TYPE BLOCK (N) alternately. Tighten the SCREW (D).

35 Put on the upper MOLD BLADE (O) being careful to get it resting properly on the lower BLADE (H) at the rear. The best way to do this is to slide the upper BLADE (O) in until its rear end drops into the slot in the top of the lower BLADE (H). Work the BLADES (H) and (O) back and forth separately to be sure no dirt is between them.

36 Put on the MOLD-BLADE TOP GUIDE (C) and tighten its SCREWS. Put on the MOLD-BLADE STOP (G), making sure it is on square. Test the BLADES; if they bind, loosen the TOP GUIDE (C). If this does not free them, there is dirt in the MOLD. If it does free them, there is dirt between the BLADES or between the TOP BLADE and GUIDE (C) or between GUIDE (C) and TYPE BLOCK (B) at the left end.

37 Put on the MOLD-BLADE SHIELD (E). Test the BLADES again to see that they are free. Push the BLADES in. Put on the MOLD-BLADE LEVERS (K) and (L), having the LEVER (K), with SPRING BOX (M) attached, on top (these LEVERS will not work if in any other position). Insert and tighten the LEVER FULCRUM STUD (J).

38 By loosening the SCREWS holding the right CROSS-BLOCK GATE BLOCK (W), the GATE PUSHER (V) may be adjusted. Adjust so that the PUSHER will move smoothly but without looseness, and so that it will be flush with the GATE BLOCKS on the bottom edge.

39 Make sure the CROSS BLOCK (A) (complete) and its bearings are clean. Put the FRONT-ABUTMENT SHOE (P) in position in the MOLD and slide in the CROSS BLOCK from the right.

40 The FRONT-ABUTMENT ADJUSTING SCREWS (Q) and (S) should not be loosened or their adjustment changed in any way; if, however, they become loosened so that the adjustment must be made proceed as follows:

41 If the CROSS BLOCK does not fit properly readjust the FRONT-ABUTMENT SHOE as follows: Remove the GATE PUSHER (V) so that any tightness in its action will not interfere with the feel of the CROSS BLOCK sliding. Loosen the LOCK NUTS (R) and (T) and slack off the SCREWS (Q)

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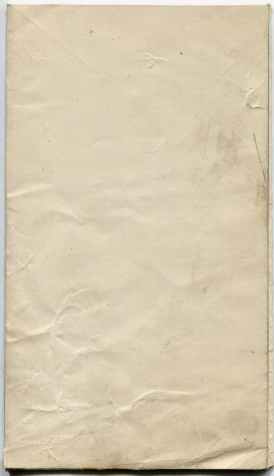
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and (S) until the Cross Block slides freely. Slide the Cross Block to the left so that its left end comes flush with the left side of the MOLD and set up the left SCREW (Q) until the Cross Block requires some little pressure of the fingers to slide it. Now slide the Cross Block to the right until its right end comes flush with the right side of the MOLD and set up the right SCREW (S) in the same way. After sliding the Cross Block back and forth a few times to settle it to bearing repeat the above adjustment of the SCREWS until the Cross Block fits very tightly, requiring all the pressure the operator can bring to bear upon it with his fingers to slide it; be careful, however, to note that it has an even bearing and does not bind at any point. Lock the SCREWS (S) and (Q) with their LOCK NUTS (T) and (R), holding the SCREWS to keep them from turning. Try the Cross Block again to see that this has not affected its adjustment. Don't forget to replace the GATE PUSHER (V) as described in ¶38.

CHANGING MOLD BLADES

42. To change from one point-size to another requires that the upper and lower MOLD BLADES (O) and (H) with their POINT BLOCK (Z), the MOLD-BLADE STOP (G), MOLD-BLADE SHIELD (E), and MOLD-BLADE TOP GUIDE (C) be changed.

43. To make this change proceed as under "Taking Apart" up to the removal of the SCREWS holding the right TYPE BLOCK to the SQUARING PLATE (¶25, ¶26 and ¶27). Instead of removing these SCREWS, as described in ¶28, only loosen them. Then take out the lower MOLD BLADE (H) with its POINT BLOCK. To remove any particles of dirt slide the lower MOLD BLADE of the point-size desired into position (without the POINT BLOCK) while at the same time holding the TYPE BLOCK (N) up against it. Remove the MOLD BLADE, wipe it clean, and replace it with the POINT BLOCK in position. CAUTION: Be careful not to damage the corners of the MOLD BLADE and never force the MOLD BLADE over the NICK PIN. Insert SCREW (D) and bring it up to bearing, then bring SCREWS (I), (X), and (Y) up to bearing; tighten first the SCREW (D) and then the SCREWS (I), (X), and (Y). Continue with ¶35 under "Assembling," substituting the upper MOLD BLADE (O), the MOLD-BLADE SHIELD (E), MOLD-BLADE TOP GUIDE (C), and MOLD-BLADE STOP (G) of the point-size to be used for those just removed.



Names *and* Symbols of Parts of the Styles 1T *and* 1U Molds

This list is for all styles 1T and 1U Molds.

The names in the following list are alike for both 1T and 1U Molds but the symbols here given are for the 1T Mold; when ordering a part for the 1U Mold change the letter **T** to the letter **U** in the symbol.

All parts which can be furnished for applying to a Mold outside our factory are designated by an asterisk (*) preceding the symbol. (See also special note following CROSS-BLOCK COUPLING 1MB1T2 and MOLD-BLANK STOP 7MC1T1.)

For 1U Molds change
letter **T** to letter **U**.

| | |
|--------------------------------------|---------------|
| BASE PLATE..... | a1MA1T1 |
| bushing ($\frac{1}{8}$ " long)..... | a1MA1T2 |
| " ($\frac{1}{16}$ " long)..... | a1MA1T3 |
| BASE-PLATE FRONT ABUTMENT.....* | 2MA1T1 |
| adjusting screw (left, blunt)..... | 2157.* 2MA1T2 |
| " " (right, pointed)..... | 2193.* 2MA1T3 |
| " " lock nut (2)..... | 386.* 2MA1T4 |
| screw (3)..... | 221.* 2MA1T5 |
| BASE-PLATE-FRONT-ABUTMENT NUMBER | |
| PLATE..... | 3MA1T1 |
| screw (2)..... | 251.* 3MA1T2 |
| BASE-PLATE-FRONT-ABUTMENT PACKING | |
| BLOCK..... | 4MA1T1 |
| BASE-PLATE-FRONT-ABUTMENT SHOE.....* | 5MA1T1 |
| BASE-PLATE-GATE-PUSHER CAM.....* | 6MA1T1 |
| screw (3)..... | 2210.* 6MA1T2 |
| CROSS BLOCK..... | 1MB1T1 |
| coupling..... | † 1MB1T2 |

† NOTE: If the Cross-block Coupling 1MB1T2 (or 1MB1U2) be broken this part can be replaced by returning to us the broken piece of the COUPLING, provided these broken pieces are in such condition that the required measurements can be obtained from them.

* Can be applied without returning the Mold to our factory.

For 1U Molds change
letter T to letter U.

Cross Block (continued)

| | | |
|---|---------|---------|
| coupling screw..... | 2165..* | 1MB1T3 |
| dowel (to 3MB1T1)..... | | 1MB1T4 |
| screw (to adjust 2MB1T1)..... | 2167..* | 1MB1T5 |
| CROSS-BLOCK GATE BLOCK (right)..... | | 2MB1T1 |
| screw (4)..... | 236..* | 2MB1T2 |
| CROSS-BLOCK GATE BLOCK (left)..... | | 3MB1T1 |
| oil pad (felt).....* | | 3MB1T2 |
| screw (4)..... | 236..* | 3MB1T3 |
| CROSS-BLOCK GATE PUSHER..... | | 4MB1T1 |
| MOLD BLADE (bottom) (give point-size) | | 1MC1T1 |
| MOLD BLADE (top) (give point-size)..... | | 2MC1T1 |
| MOLD-BLADE POINT BLOCK (give point-size) | | 5MC1T1 |
| MOLD-BLADE SHIELD..... | | 6MC1T1 |
| screw (2)..... | 2208..* | 6MC1T2 |
| MOLD-BLADE STOP..... | ‡ | 7MC1T1 |
| screw (2)..... | 246..* | 7MC1T2 |
| ‡ NOTE: If the MOLD-BLADE STOP 7MC1T1 (or 7MC1U1) be broken, this part can be replaced by returning to us the broken pieces of the STOP, provided these broken pieces are in such condition that the required measurements can be obtained from them. | | |
| MOLD-BLADE TOP GUIDE (designate point-size of MOLD BLADE)..... | | 8MC1T1 |
| screw (2)..... | 2220..* | 8MC1T2 |
| MOLD-BLADE LEVER (lower).....* | | 12MC1T1 |
| (upper).....* | | 12MC1T2 |
| spring | 6152..* | 12MC1T3 |
| " box.....* | | 12MC1T4 |
| " " pin.....* | | 12MC1T5 |
| " " plug.....* | | 12MC1T6 |
| MOLD-BLADE-LEVER FULCRUM STUD.....* | | 13MC1T1 |
| MOLD-BLADE-LEVER-SPRING-BOX PLATE.....* | | 14MC1T1 |
| screw (2)..... | 247..* | 14MC1T2 |

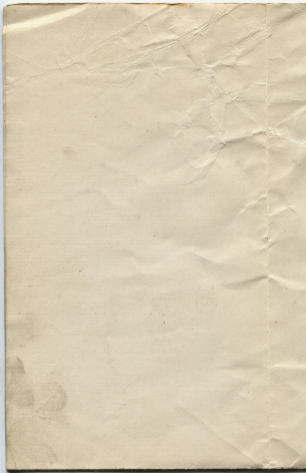
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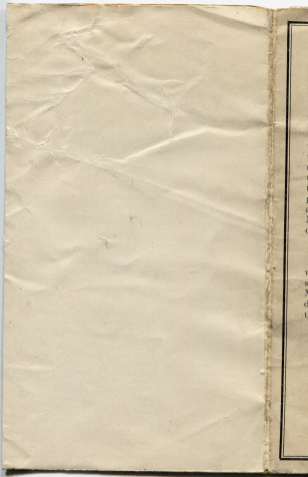
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For 1U Means change
letter T to letter U.

| | | |
|----------------------------------|------|-----------|
| TYPE BLOCK (large)..... | | a1MD1T1 |
| bushing (2)..... | | 1MD1T16 |
| oil pad..... | * | 1MD1T5 |
| plug screw (3)..... | 2239 | * 1MD1T7 |
| " " (5)..... | 2235 | * 1MD1T8 |
| pin (for 3MD1T1)..... | | * 1MD1T9 |
| screw (from 9MD1T1, short)..... | | * 1MD1T10 |
| " (from 1MA1T1, short) (2)..... | 2162 | * 1MD1T11 |
| " (from 9MD1T1, long)..... | 231 | * 1MD1T12 |
| " (from 1MA1T1, long)..... | 231 | * 1MD1T13 |
| " washer (5)..... | 435 | * 1MD1T14 |
| | | |
| TYPE BLOCK (small)..... | | a2MD1T1 |
| plug screw (3)..... | 2239 | 2MD1T6 |
| screw (from 1MA1T1) (3)..... | 2162 | 2MD1T7 |
| " (from 9MD1T1, rear)..... | 231 | 2MD1T9 |
| nick pin..... | | 2MD1T18 |
| " " plug..... | | 2MD1T19 |
| | | |
| TYPE-BLOCK CLAMP BOLT..... | * | 3MD1T1 |
| nut..... | 31 | * 3MD1T2 |
| spring..... | 6155 | * 3MD1T3 |
| washer..... | 436 | * 3MD1T4 |
| | | |
| TYPE-BLOCK-CLAMP-BOLT SCREW..... | * | 4MD1T1 |
| | | |
| TYPE-BLOCK GATE KNOCK OFF..... | | 6MD1T1 |
| screw (2)..... | 247 | 6MD1T2 |
| | | |
| TYPE-BLOCK SQUARING PLATE..... | | 9MD1T1 |
| adjusting screw (6)..... | 2159 | 9MD1T2 |
| bushing (3/4" long)..... | | 9MD1T4 |
| " (1/4" long)..... | | 9MD1T9 |
| " (2)..... | | 9MD1T10 |
| plug screw (3)..... | 2235 | * 9MD1T6 |
| screw (2) (from 1MA1T1)..... | 2161 | 9MD1T8 |

*Can be applied without returning the Mold to our factory.





Mold Repairs

It is not possible for operators to repair MOLDS for they have neither the special tools nor the necessary training.

If any defects occur in the type produced by this MOLD, that cannot be corrected by following the directions in this folder, the *complete Mold* should be at once returned to us with samples of the defective type; enclose these in the box with the *Mold and all its parts* (be sure to include all parts for all point-sizes), prepay express charges and write us stating (a) point size and number of MOLD; (b) date of shipment and route; (c) details of trouble.

IMPORTANT

This MOLD is held in its box by two SCREWS which pass through the bottom of the box. Preserve this box and its SCREWS for returning MOLD. In reshipping reverse the lid; our address is printed on the under side. Do not nail the cover—tie it on.

LANSTON MONOTYPE
MACHINE COMPANY

PHILADELPHIA