DIRECTIONS *for* CARE *and* CLEANING

Styles 1T and 1U

(Also Styles 2T and 2U)

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

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LANSTON MONOTYPE MACHINE COMPANY

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Directions *for* Care *and* Cleaning
STYLES 1T AND 1U SORTS CASTING MOLDS

(Also for 2T and 2U Molds—see ¶44 and ¶45)

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 MATRICES. Composition MATRICES 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

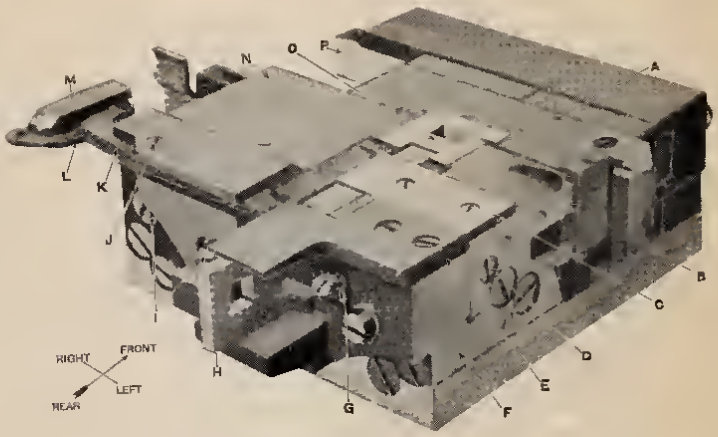


FIGURE 1

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

day. If this test be not made, the MOLD may become leaded, 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, about 130 degrees.

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. Use Monotype Type Mold Oil.

14 Temperature: The temperature for standard MONOTYPE METAL should be about 725 degrees to 750 degrees, the larger bodies (that is, the ones requiring the most metal) taking the lower temperature. For other metals special care should be taken to obtain the proper

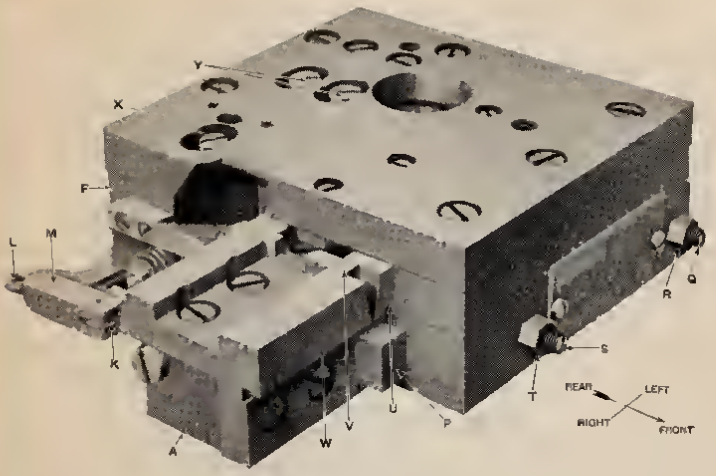


FIGURE 2

Bottom view with CROSS BLOCK partly drawn out to show GATE PUSHER.

temperature by trial, starting with a low temperature and gradually raising it until the best results are obtained. Too high temperatures may injure MATRICES and MOLDS.

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

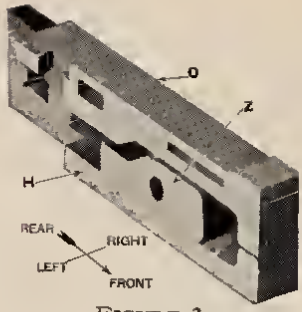


FIGURE 3

MOLD BLADES and POINT BLOCK

in this position it will be broken or badly sprung when the 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 larger than 144 square points** (the size of a 12 point quad) 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 Channel 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 towards 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) at the back, bringing them just up to hearing (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 and tighten the SCREW (D). Tighten the five SCREWS (I), (X), and (Y) of the right TYPE BLOCK (N) alternately.

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 tbe 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) attacbed, on top (these LEVERS will not work if in any otber position). Insert and tigbten the LEVER FULCRUM STUD (J).

38 By loosening the SCREWS holding tbe right CROSS-BLOCK GATE BLOCK (W), the GATE PUSHER (V) may be adjusted. Adjust tbe SCREW in the end of the CROSS BLOCK, turning it in or out, so tbat the PUSHER (V) will move smoothly but without looseness, and will be flush with the GATE BLOCK (W) on the bottom edge. This must be tested after the SCREWS holding the right GATE BLOCK (W) have been tightened.

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 tbe 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) 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.

STYLES 2T and 2U
SINGLE POINT SIZE
SORTS CASTING MOLDS

44 The Styles 2T and 2U MOLDS differ from Styles 1T and 1U MOLDS in that they have but one BLADE each, and a large nick placed low on the body. There is one MOLD for each point-size, the 14 and 18 point being 2T MOLDS and the 24, 30 and 36 point being 2U MOLDS. These MOLDS are not adjustable for different point sizes and each BLADE can be used only in its own MOLD.

45 The directions in this circular apply to the Styles 2T and 2U MOLDS just the same as they apply to the 1T and 1U MOLDS except where change of point size is mentioned as in ¶1, 3, 42 and 43 which should be disregarded for 2T and 2U MOLDS.

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-BLADE STOP 7MC1T1.)

			For 1U MOLDS change letter T to letter U.
BASE PLATE			a1MA1T1
bushing (short)			a1MA1T2
" (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 pieces 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**	*	7MC1T3

‡ 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

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

For 1U Molds change letter T to letter U.

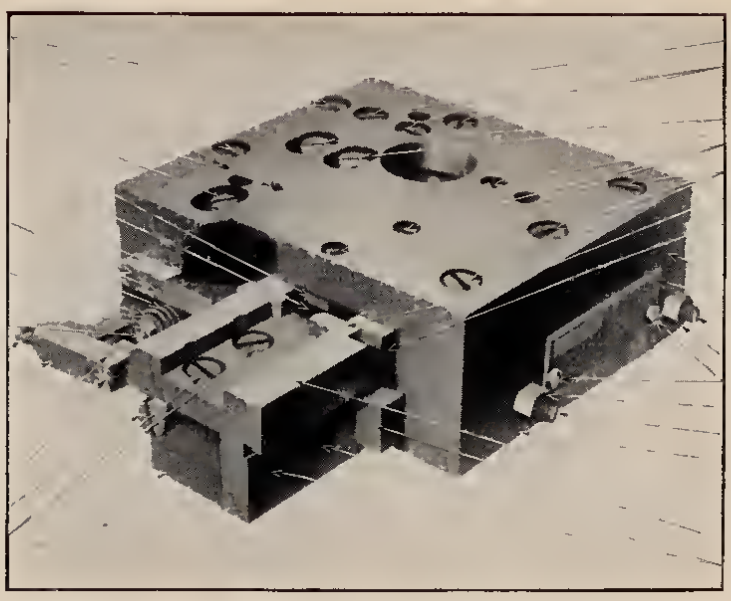
Type Block (right)			a1MD1T1
bushing (2)			1MD1T16
oil pad		*	1MD1T5
plug screw (3)	2239	*	1MD1T7
" " (5)	2235	*	1MD1T8
pin (for 3MD1T1)		*	1MD1T9
screw (from 9MD1T1, short)		*	1MD1T10
" (from 1MA1T1, short) (2)	2162	*	1MD1T11
" (from 9MD1T1, long)	231	*	1MD1T12
" (from 1MA1T1, long)	231	*	1MD1T13
" washer (4)	435	*	1MD1T14
Type Block (left)			a2MD1T1
plug screw (3)	2239		2MD1T6
screw (from 1MA1T1) (3)	2162		2MD1T7
" (from 9MD1T1, rear)	231		2MD1T9
" washer	435		a2MD1T24
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 Squaring Plate			9MD1T1
adjusting screw (6)	2159		9MD1T2
bushing (¼ long)			9MD1T4
" (⅛ 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.**

Names *and* Symbols *of* Parts *of the* Styles 2T *and* 2U Molds

Use the list of parts given for 1T and 1U MOLDS, but for 12, 14 and 18 point MOLDS substitute 2T, and for 24, 30, and 36 point MOLDS substitute 2U in place of 1T as given in the symbols.

Screw (2)	9MD1T8
Bushing	a1MA1T3
Bushing	a1MA1T2
Screw	1MD1T13
Cam	6MA1T1
Screw (4)	3MB1T3
Obsolete	6MD1T1
Obsolete	6MD1T2
Spring	3MD1T3
Washer	3MD1T4
Nut	3MD1T2
Clamp Bolt	3MD1T1
Lever	12MC1T1
Spring Box	12MC1T4
Spring	12MC1T3
Plug	12MC1T6
Pin	12MC1T5
Lever	12MC1T2
Screw	1MB1T5
Screw (4)	2MB1T2
Cross Block	1MB1T1

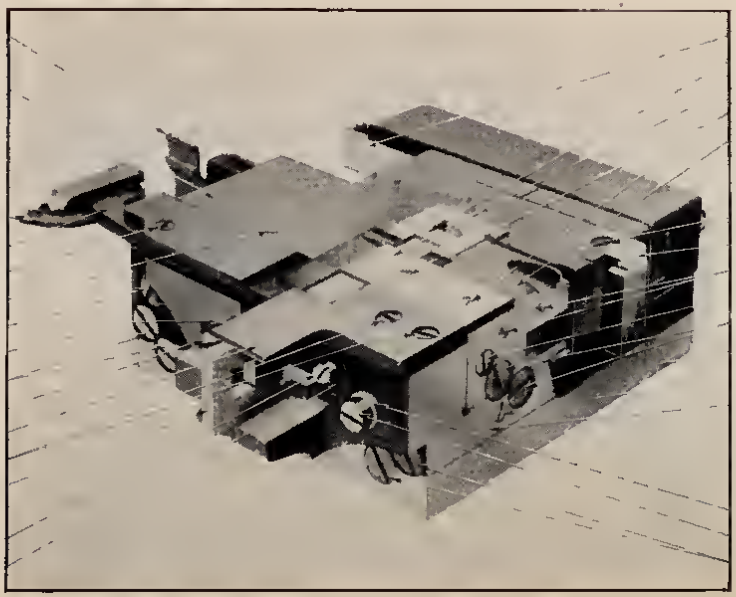


a1MA1T1	Base Plate
2MD1T7	Plug Screw (3)
1MD1T14	Washer (4)
1MD1T11	Screw (2)
6MA1T2	Screw (3)
2MA1T5	Screw (3)
4MB1T1	Gate Pusher
3MB1T1	Gate Block
3MB1T2	Oil Pad
4MA1T1	Packing Block
3MA1T1	Number Plate
2MA1T2	Screw
2MA1T4	Lock Nut (2)
3MA1T2	Screw (2)
2MA1T4	Lock Nut (2)
2MA1T3	Screw
2MA1T1	Abutment
1MB1T4	Dowel
2MB1T1	Gate Block
5MA1T1	Shoe
2MB1T2	Screw (4)

For Style T Mold, use the symbols as given.
For Style U Mold, change "T" to "U" in each symbol.

For Style T Mold, use the symbols as given.
For Style U Mold, change "T" to "U" in each symbol.

Plate	14MC1T1
Screw (2)	14MC1T2
Type Block	a1MD1T1
Oil Pad	1MD1T5
Plug Screw (3)	1MD1T7
Plug Screw (5)	1MD1T8
Bushing (2)	1MD1T16
Lever	12MC1T1
Lever	12MC1T2
Fulcrum Stud	13MC1T1
Pin	1MD1T9
Screw	1MD1T10
Washer (4)	1MD1T14
Screw (6)	9MD1T2
Screw	1MD1T12
Shield	6MC1T1
Screw (2)	6MC1T2
Mold Blade	1MC1T1
Point Block	5MC1T1
Screw (2)	7MC1T3
Stop	7MC1T1



5MA1T1	Shoe
2MC1T1	Mold Blade
8MC1T1	Top Guide
8MC1T2	Screw (2)
a2MD1T1	Type Block
a2MD1T18	Nick Pin
a2MD1T19	Nick-pin Plug
1MB1T3	Screw
1MB1T2	Coupling
2MD1T6	Plug Screw (3)
4MD1T1	Screw
9MD1T2	Screw (6)
a1MA1T1	Base Plate
9MD1T6	Plug Screw (3)
9MD1T1	Squaring Plate
9MD1T4	Bushing
9MD1T9	Bushing
9MD1T10	Bushing (2)
2MD1T24	Washer
2MD1T9	Screw
9MD1T2	Screw (6)

For Style T Mold, use the symbols as given.
For Style U Mold, change "T" to "U" in each symbol.

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.

RESTORING TO HEIGHT

When a MOLD is returned to our factory, for any reason whatever, and we find after careful inspection, that it will not true up to produce a high quad above the low limit, the MOLD is restored to height, unless we are advised specifically by the customer to the contrary.

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 do not nail the cover—tie it on.

LANSTON MONOTYPE
MACHINE COMPANY
PHILADELPHIA 3, PA.