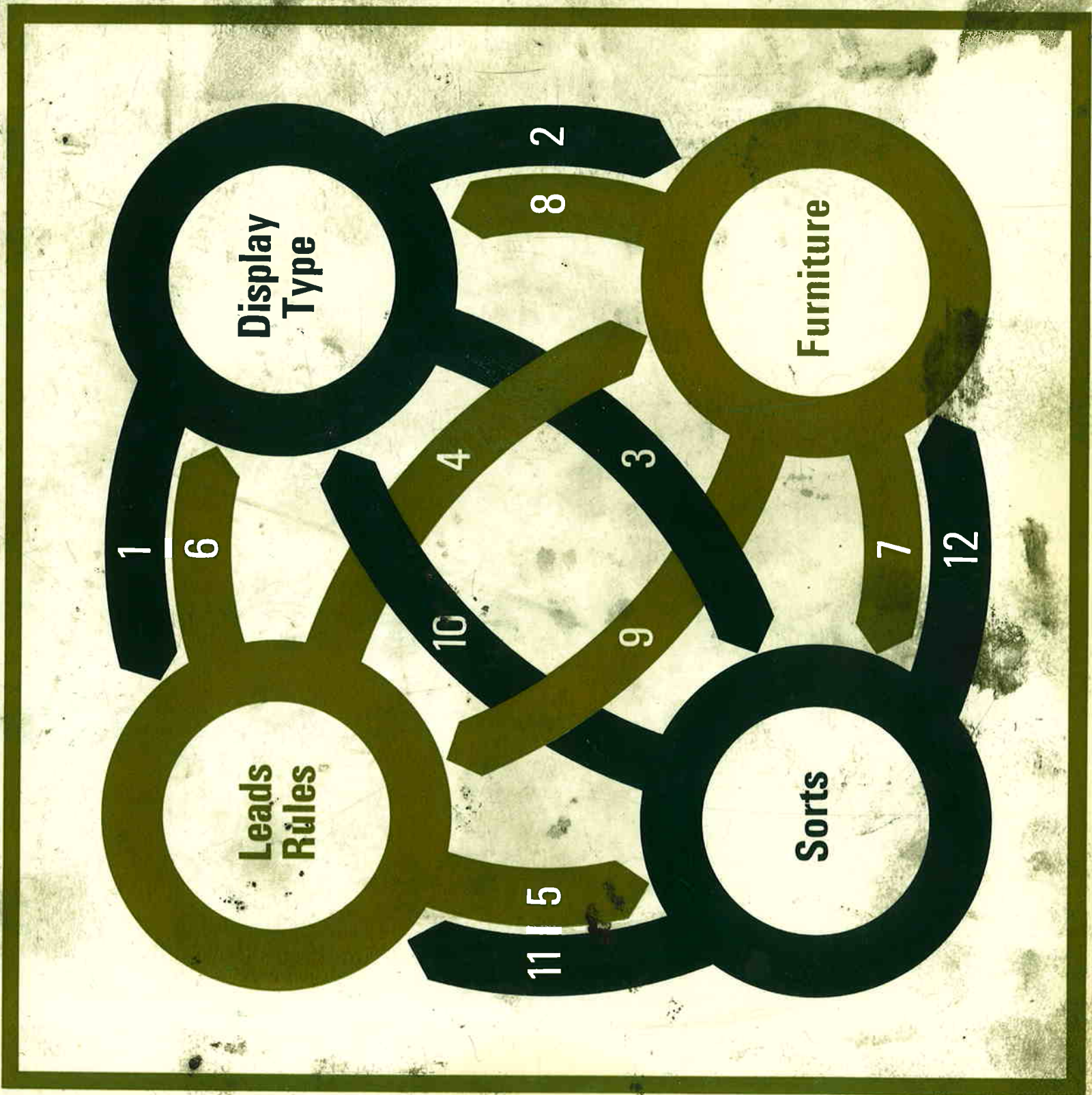
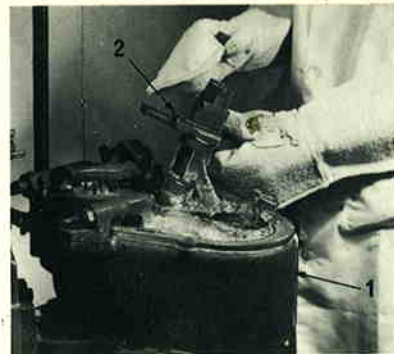


'Monotype' Super Caster

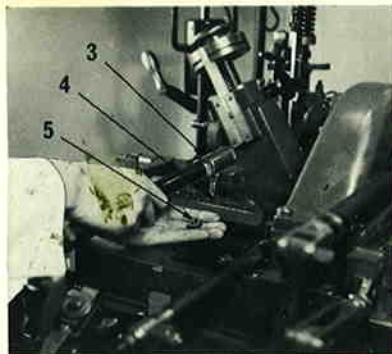
PRODUCT CHANGE-OVER PROCEDURE



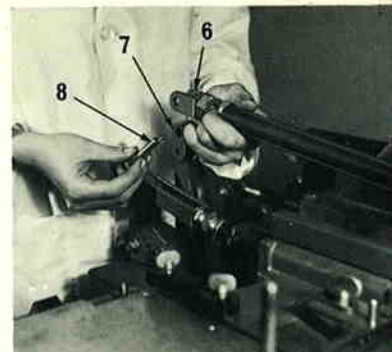
Changing from Display Type Casting, Quotations or Wooden Cored Quotations to Leads and Rules, Clumps or Continuous Borders and Dashes



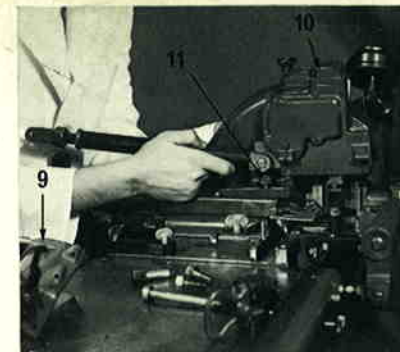
1. Switch off the electric motor; turn off the water supply; and place the gear control in the neutral position. Lower the pot (1) and if necessary, change the pump body (2) and nozzle so that they will be hot enough for casting when the change-over has been completed. These parts will be too hot to handle with safety unless adequate protective material is used.



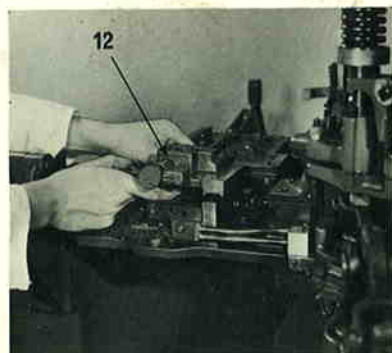
2. Disconnect the Mould Blade slide drive lever connecting tube ball end (3) from the intermediate lever (4), by removing the nut (5) from the ball end and lifting the tube clear. Replace the nut onto the ball stud to avoid loss.



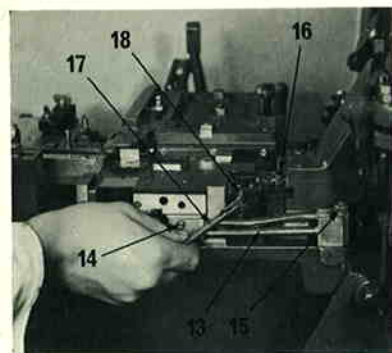
3. Remove the air nozzle holder from the cutter blade bracket; the matrix holder from the Display matrix head; and the matrix lifter lock wedge spring box yoke (6) from the matrix cam lever (7), by removing the connecting pin (8).



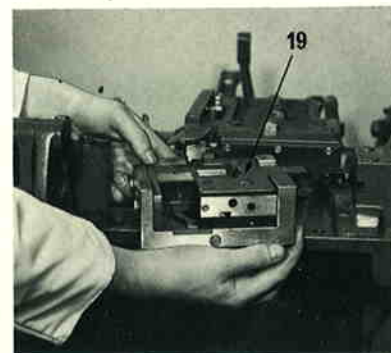
4. Withdraw the mould guard hinge pin and remove the guard (9) from the matrix head (10). Remove three screws securing the matrix head, and free the fourth screw (11), so that the matrix head may be lifted off.



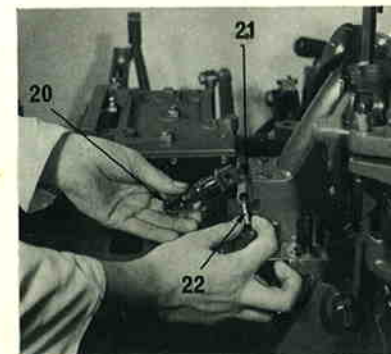
5. Take off the mould oiler, and then remove the three screws which secure the display matrix bridge. Having done this, lift off the bridge (12).



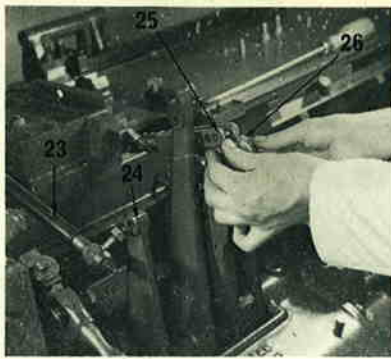
6. Disconnect the mould water supply piping (13), by removing the screw (14) into the mould, and the nut and washer (15) from the stud on the main stand. Take off the piping and replace the nut and washer on the stud. Slacken off the knurled lock nut and the knurled nut on the mould blade fork (16), and with the aid of a pin handle (17), remove the fork pin (18).



7. Turn the machine to 220°, remove the three screws from the mould base, and remove the clamps from the side and the front of the mould. Slide the mould (19) towards the melting pot to disengage the hook from the hook on the type carrier, and lift off the mould.

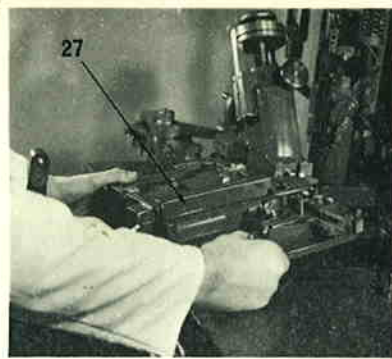


8. Remove the mould blade fork (20) from the mould blade slide by relaxing the pin locking screw (21) just sufficient to free the pin (22); take out the pin. Insert the locking screw again so that its head is just below the top surface of the mould blade slide.

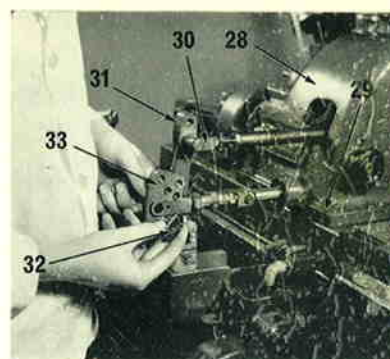


9. Remove the nut securing the type pusher lever connecting rod ball stud to the matrix cam lever, and disconnect the type pusher lever (23) from the cam lever (24). Replace the nut on the ball stud.

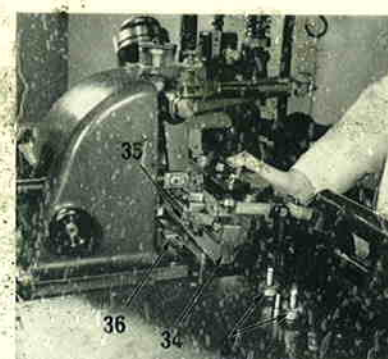
Detach the type carrier connecting rod yoke (25) from the type carrier cam lever, by removing the yoke pin (26) and yoke pin split pin.



10. Take out the three screws which hold the matrix heads base to the main stand. Grasp the matrix heads base (27) firmly in both hands and lift it off, complete with the type pusher lever connecting rod and the type carrier connecting rod. Wipe the main stand clean.

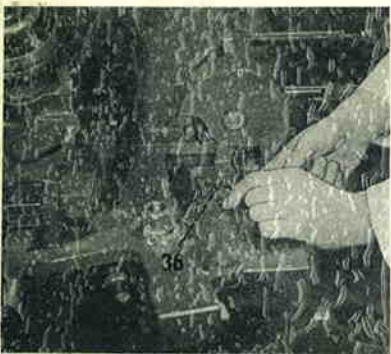


11. Place the counter mechanism head (28) in position on the main stand, and secure with its four screws (29). Connect the lead clamp intermediate lever (30) to the lower hole in the matrix cam lever (31), and the position pin on the jet block driving rod yoke (32) to the 12/12 position on the type carrier cam lever extension (33). Insert the yoke position pin screw to secure the pin in its location.



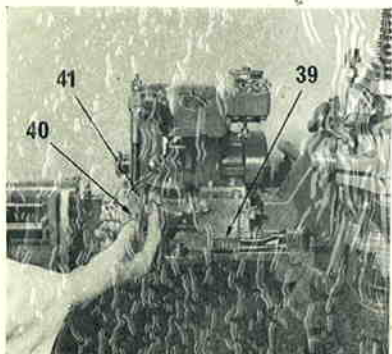
12. Before assembling the 1-3 point mould, take the blade connecting hook from the mould box and attach it to the mould blade slide by means of the eccentric pin. Tighten the lock screw to secure the pin in place. Place the slide in the backward position, turn the machine to 20°, and place the mould (34) on the main stand. Raise the mould to engage the hook on the jet block (35) with the hook on the jet block rod (36), and insert the clamps (37) to locate the mould, securing to the main stand with the four screws.

Attach the mould blade of the 4-18 point mould directly to the mould blade slide with the connecting pin; turn the pin clockwise until it grips and lock with the set screw.



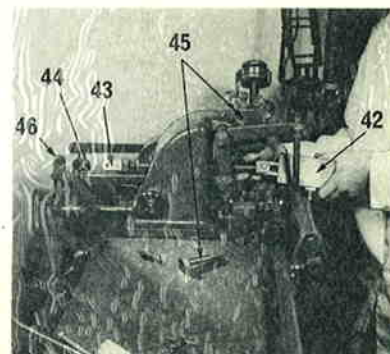
13. Hook the weight to the ratchet pin chain and allow it to hang inside the main stand. Disconnect the actuating rod eye from the housing by removing the pin; use the pin to connect the upper hole of the rod eye (38) to the actuating lever.

When preparing to cast clumps or dashes, the cutter blade must be taken out and reversed, even though the actuating lever is connected.

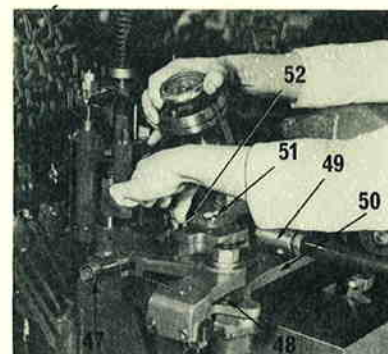


14. Attach the mould water supply piping (39) marked *LR and Furniture*; grease the locating faces, and secure to the mould with the screw and, to the main stand stud with the nut and washer.

Connect the intermediate lever rod yoke to the lead clamp lever with the pin (40); replace the clip (41) over the pin to retain in place.



15. When continuous borders and dashes are to be produced, assemble to the counter bracket the continuous border matrix lifter (42), sliding the spring box (43) through the gap alongside the lead clamp intermediate lever spring box (44). Fit the key on the matrix lifter into the keyway on the counter bracket, press the matrix lifter bracket firmly against the stop, and insert the bracket screw (45) to secure in place. Connect the spring box yoke to the upper hole of the matrix cam lever (46) with the pin.



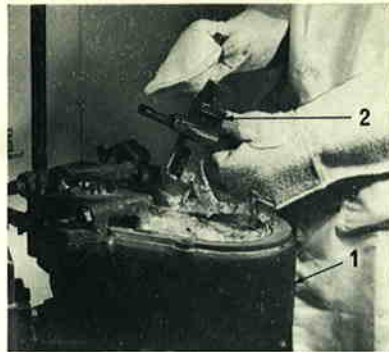
16. Position the cap abutment (47) with the large diameter end to the rear, and connect the spring plate by its upper hole to the spring post. Turn the eccentric fulcrum pin (48) to the *1-3 L and R* position.

Connect the tube ball end (49) to the *Leads* position on the intermediate lever (50). Set the stop lever handle (51) to the lowest position, except when casting clumps or dashes, when it will be set to indicate the length in ems required.

Use a 6-em border length gauge (52), as shown, between the abutment plate and the mould blade stop; screw the wedge down until the gauge fits accurately without binding. Release the nut in the wedge screw marked *L and R*, turn the scale to zero, and lock.

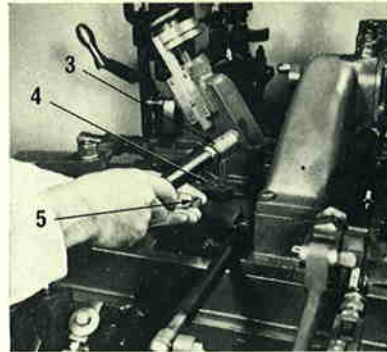


Changing from Display Type Casting, Quotations or Wooden Cored Quotations to Furniture



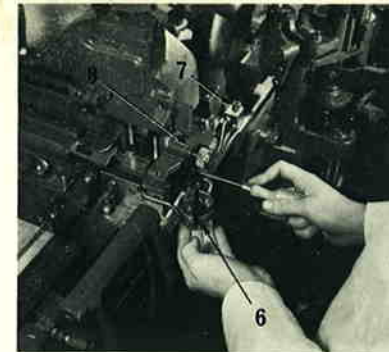
1. Switch off the electric motor; turn off the water supply; and place the gear control in the neutral position.

Lower the melting pot (1), and if necessary, change the pump body (2), nozzle, and piston so that they will be hot enough for casting when the change-over has been completed.

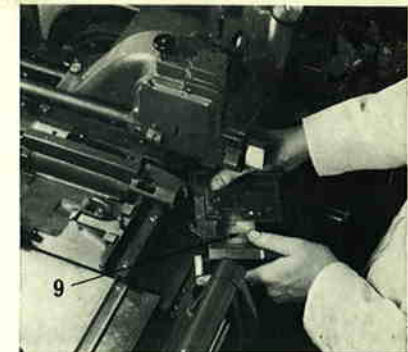


2. Disconnect the mould blade slide drive lever connecting tube ball end (3) from the intermediate lever (4), by removing the lock nut (5) from the ball end and lifting clear.

Remove the matrix holder, and the mould guard attached by its hinge pin to the display matrix head.



3. Take off the air nozzle and holder, and the cutter blade bracket. Remove the mould oiler (6), and disconnect the mould water supply piping (7). Take out the three screws which secure the bridge (8), and lift it off.



4. Loosen the nuts on the mould blade fork, and using a pin handle, withdraw the fork pin.

Turn the machine to 220°, remove the three screws from the mould base, and then the clamps from the front and side.

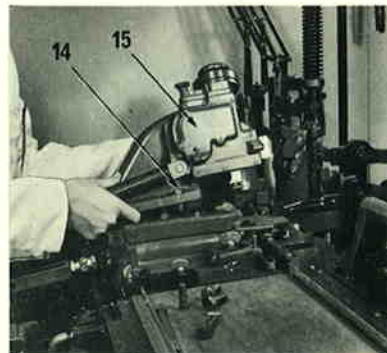
Slide the mould (9) towards the melting pot to disengage the hooks, and lift off.



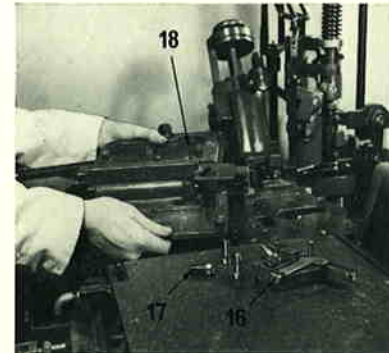
5. Disconnect the type pusher lever connecting rod ball stud (10) from the type pusher cam lever by removing the nut.

Disconnect the matrix lifter lock wedge spring box yoke (11) from the matrix cam lever by removing the pin.

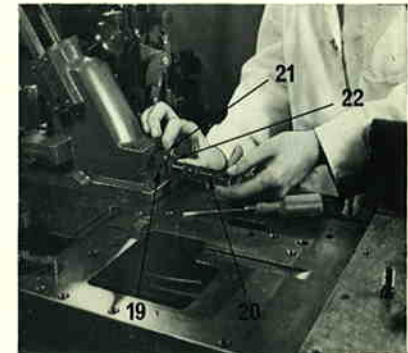
Disconnect the type carrier connecting rod yoke (12) from the type carrier cam lever extension (13) by removing first the split pin and then the connecting pin.



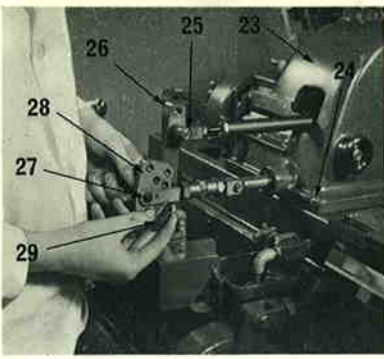
6. Remove three screws, and free the fourth screw (14), securing the display head (15). Take a firm hold on the head and lift it off.



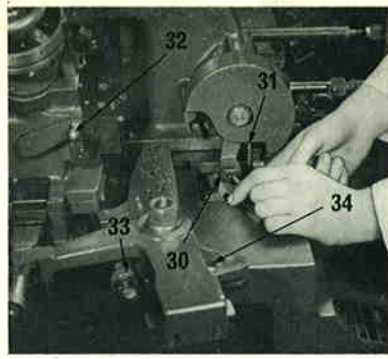
7. Loosen the thumb screw and remove the adjustable type channel block (16). Remove the three remaining screws (17) securing the matrix heads base (18) to the main stand, and lift the base clear of the machine.



8. Bring the mould blade slide (19) forward to expose completely the mould blade fork (20). Free the connecting pin by a half turn anti-clockwise of the locking screw (21), and then remove the pin (22) to disengage the fork. It is important to ensure that the head of the lock screw is not left protruding above the face of the mould blade slide, or it will be damaged when the slide is withdrawn.



9. Assemble the Counter Bracket (23) to the main stand, locating the keys in the keyways, and secure with the four screws (24). Connect the lead clamp intermediate lever spring box rod end (25) to the lower hole on the matrix cam lever (26). Connect the jet block driving rod connecting rod yoke (27) in the 12/12 position on the type carrier cam lever extension (28) with the position pin (29) and screw.

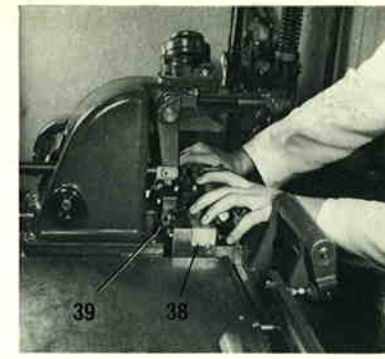


10. Disconnect the actuating rod eye from the rod housing, and re-connect it by its upper hole to the actuating lever (30) with the pin. Hang the weight on the hook of the ratchet pin chain (31). Place the lead mould blade stop lever handle (32) in the position marked *Leads*; turn the adjusting nut (33) on the mould blade slide drive lever, anti-clockwise to reduce the pressure of the spring, and set the plunger fulcrum pin (34) at the 1-3 *L and R* position.



11. Pull the intermediate lever (35) to the left to disconnect it from the plate (36), and then change the plate for the one marked *Furniture* by removing the two screws.

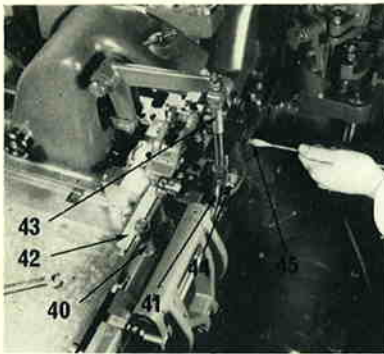
Place the intermediate lever back in position, and release the plunger by pulling the lock pin knob (37) downwards. Return the stop lever handle to its uppermost setting.



12. Turn the machine to 200° and place the mould blade slide in the backward position. Place the furniture mould (38) on the main stand and push the jetblock carefully out of the mould until the hook is clear. Slide the mould into position so that the hooks (39) engage.

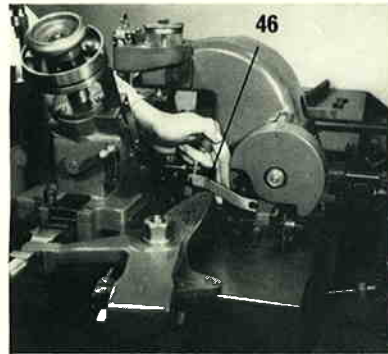
Secure the mould to the main stand with the clamps at the side and front, and four screws through the top of the mould.

Connect the mould blade to the slide, turning the pin clockwise until it grips, and locking with the set screw.

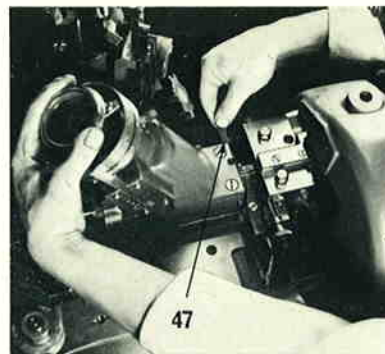


13. Assemble the furniture guide (40) to the main stand, using the cutter blade bracket screw collar, the long screw and washer, or the shorter screw with washer.

Release the lead clamp lever (41) so that a piece of product (42) can be inserted into the mould. Tighten the lever, and connect to it the lead clamp intermediate lever rod (43) by inserting the yoke pin (44). Having greased the faces, attach the mould water supply piping (45) with the screw to the mould, and the nut and washer to secure it to the main stand stud.

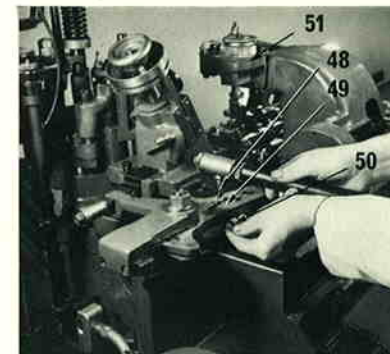


14. The actuating lever link (46) must now be attached. Slip the elongated eye over the actuating lever pin, and drop the hooked end over the fusing stop at the rear of the mould.



15. The mould blade slide driving block cap abutment must be positioned so that the large diameter end is toward the rear. Remove the end screw to reverse the abutment if necessary.

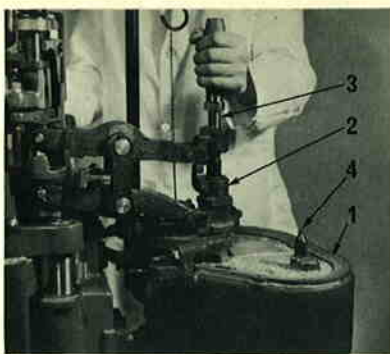
Adjust the wedge screw to indicate zero on the scale, using a 3 em gauge (47) between the fusing stop on the mould and the lower edge of the blade.



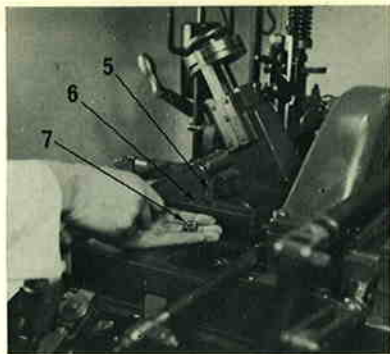
16. Connect the mould blade slide drive lever connecting tube ball end (48) to the hole marked *Furniture* on the intermediate lever (49), seating the snug pin into the groove and securing with the nut (50).

Connect the mould oiler piping and support to the mould oiler (51), lock with the knurled nut, and spring the piping into the locating holes in the mould.

Changing from Display Type
Casting, Quotations or Wooden
Core Quotations to Sorts
Casting for Small or Large Type
Composition

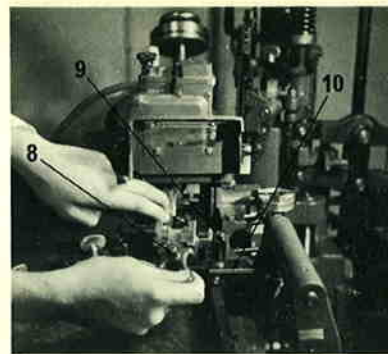


1. Switch off the electric motor; turn off the water supply; and place the gear control in the neutral position. Lower the melting pot (1), and if necessary, change the pump body (2), piston (3) and nozzle (4), so that they will be hot enough to begin casting when the change-over is complete. These parts will be too hot to handle with safety unless adequate protective material is used.



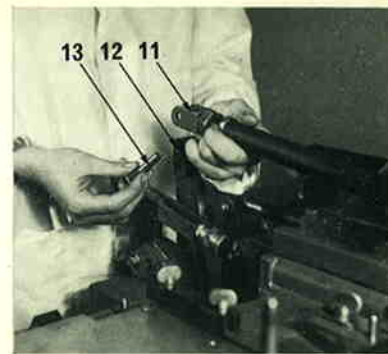
2. Disconnect the mould blade slide drive lever connecting tube ball end (5) from the intermediate lever (6), by removing the nut (7) from the ball end and lifting the tube clear.

Replace the nut on the ball end to avoid losing it during the change-over.



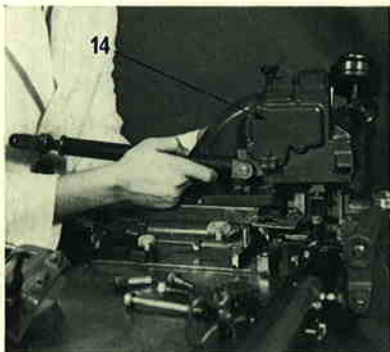
3. Remove the matrix holder (8) from the display matrix head, by pulling the small release lever with the fingers of the left hand, and withdrawing the holder with the right hand. After casting quotations, ensure that the matrix lifter handle is returned to its normal position by raising the lock pin knob on top of the matrix head.

Undo the long screw (9) securing the air nozzle holder to the cutter blade bracket (10), if it has been in use, and attach the holder to the galley bracket screw until it is required again.

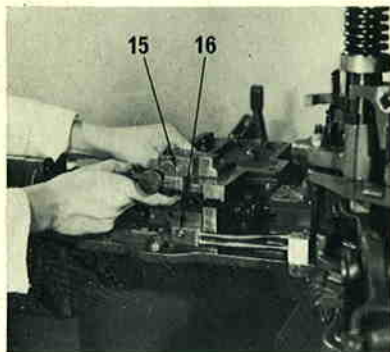


4. Disconnect the matrix lifter lock wedge spring box yoke (11) from the matrix cam lever (12) by removing the pin (13).

Pull out the hinge pin securing the mould guard to the head and remove the guard.

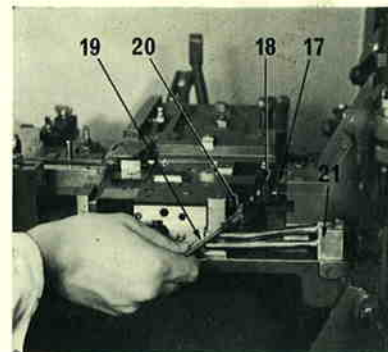


5. Remove the four screws securing the display matrix head (14) to the base. Take a firm grip on the head and lift it off the machine.



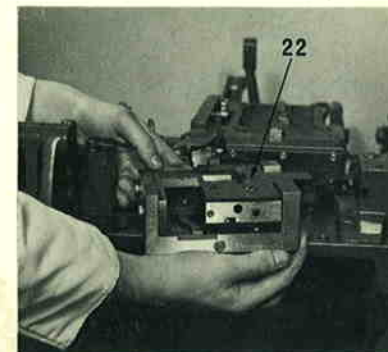
6. Remove the mould oiler from the mould.

Take out the three screws securing the matrix bridge (15) to the mould (16), and lift off the bridge.



7. Release the knurled lock nut (17) on the mould blade fork, and turn the knurled adjusting nut (18) until the fork pin is free. With the aid of a pin handle (19), remove the pin (20) from the fork.

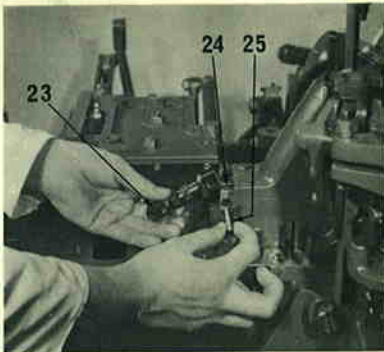
Take off the mould water supply piping (21), removing the nut and washer securing it to the main stand stud, and the screw into the mould.



8. Turn the machine to 220°, and remove the three screws from the mould base. Remove the clamps from the front and side of the mould.

Slide the mould (22) towards the melting pot to disengage the hook from the hook on the type carrier, and remove the mould from the machine.

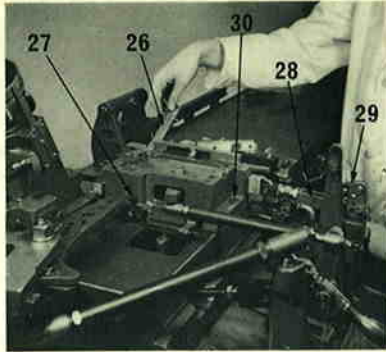
Remember to blow through the mould waterways, first with air and then with oil, before returning the mould to its box.



9. Substitute, if necessary, the mould blade fork (23) already connected for the one suitable for the product to be cast.

Place the mould blade slide in the forward position for either removal or connection of the fork; release the set screw (24); turn the pin (25) anti-clockwise to remove or clockwise to insert; re-tighten the set screw.

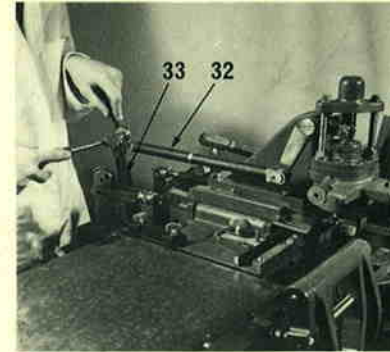
Air cooling of the composition mould should not be required, and so the cutter blade bracket can be removed from the main stand.



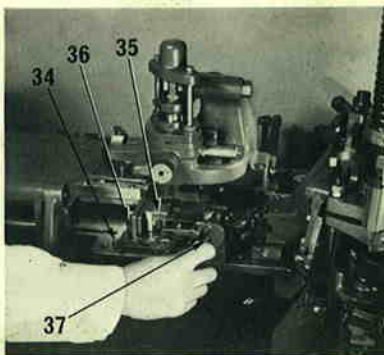
10. Substitute the fixed type channel block (26) for a block suitable for the point size of type to be produced. Two screws secure the fixed block to the type carrier cover. Reverse the locating key distance piece (27), if not already in the correct position. To do this it is necessary to disconnect the rod yoke (28) from the type carrier cam lever extension (29), connected by a pin and split pin, and to loosen the base securing screws (30). Release the clamp screw and reverse the distance piece. Re-tighten the clamp, and the base screws, and connect the rod yoke to the hole marked 72 on the cam lever extension. Note: Large type production will require the yoke to be connected in the hole marked 24.



11. Assemble the composition matrix head (31) on the matrix heads base, locating the keyways over the keys on the base. Secure in position with the one long screw and the three shorter screws.



12. Connect the matrix lifter lever connecting rod eye (32) to the upper of the two holes in the matrix cam lever (33), with the eye pin and nut.

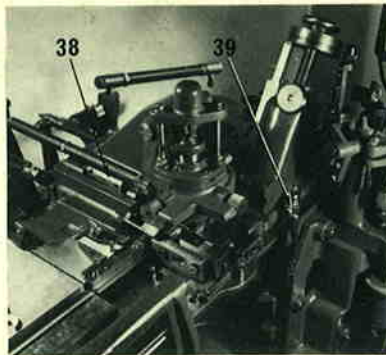


13. Assemble to the mould adaptor base first, the type clamp operating block, and then the composition mould, locating with the knurled screw (34) and securing with the base screw.

Place the low quad lever in the required position, and connect the spring plate to the mould blade lever.

Turn the wedge screw until a mould opening of 60 point is indicated on the scale, and turn the machine to 220°. Attach the mould (35) to the main stand, locating it against the matrix heads base with the hooks in engagement. Secure with the clamps (36) at the front and side, and the screws.

With the aid of a pin handle (37), connect the mould blade to the fork with the fork pin.



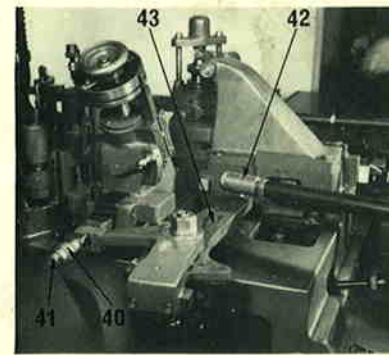
14. The type support spring cam bracket (38) should be used to produce all type up to 36-point body size and not more than 12-point set size.

Add the packing plate to the bracket to produce all type over 36-point body size and not more than 12-point set size.

Remove the bracket when type over 12-point set size is to be cast.

Grease the locating faces of the mould water supply piping (39); attach to the stud on the main stand with the nut and washer; screw the other end into contact with the mould.

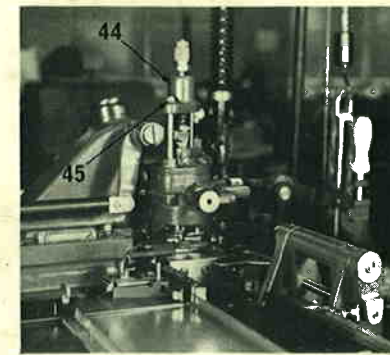
Attach the mould oiler to the mould and the crossblock oiler by its key to the keyway on the main stand, securing with the long screw and collar.



15. Check that the driving block cap abutment (40) is correctly positioned, the large diameter end towards the front of the machine to produce type in set sizes 12 points and below. To reverse the abutment, remove the hexagonal screw (41).

To produce small type, connect the lower lifting spring plate by the lower of its two holes to the swing frame post. For large type, connect by the upper hole.

Connect the ball end of the mould blade slide drive lever (42) to the 42-point hole of the intermediate lever (43), and secure it in position with the nut.



16. Sorts casting for large type composition will require the use of the centring pin auxiliary loading spring bridge (44) instead of the loading spring bridge normally in position on the composition matrix head.

Take off the bridge and the loading spring by removing the two support nuts (45) and washers, and the centring pin coupling head screw. Replace the head screw with the slightly shorter alternative screw designed for use with the auxiliary loading spring.

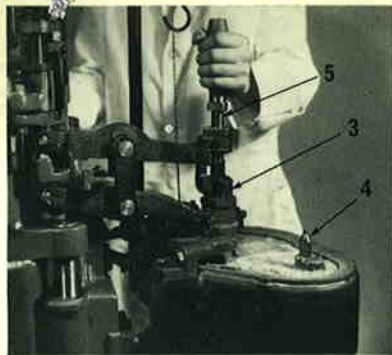
Replace the loading spring and assemble the auxiliary spring bridge on the supports, securing with the support nuts and washers.

Changing from Leads and Rules, Lumps or Continuous Borders and Dashes to Furniture

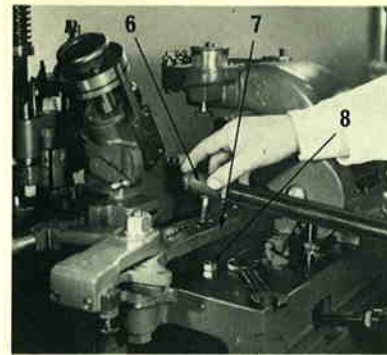


1. Switch off the electric motor; turn off the water supply; and place the gear control in the neutral position.

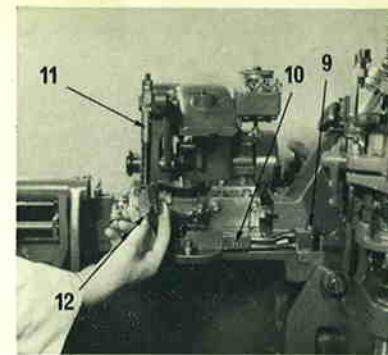
Lower the melting pot (1) and remove the piston, pump (2), and nozzle, remembering to use adequate protection for your hands.



2. Fit the pump (3), nozzle (4) and piston (5) required for the change of product, so that the parts have time to attain the working temperature whilst the change-over is being made.

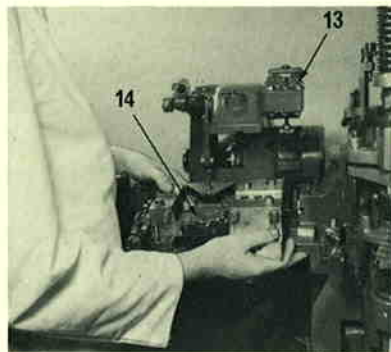


3. Disconnect the mould blade slide drive lever connecting tube ball end (6), from the intermediate lever (7), by removing the nut (8) and lifting the ball end free. Replace the nut onto the ball end and swing the tube clear of the intermediate lever.



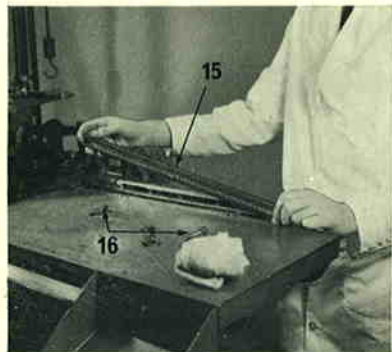
4. Disconnect the mould water supply piping by loosening the nut (9) on the main stand stud and withdrawing the screw (10) from the mould. Pivot the piping on the stud away from the mould so that it is ready for re-connection later.

Disconnect the lead clamp intermediate lever rod (11) from the mould by removing the yoke pin (12) and, swing it upwards out of the way.

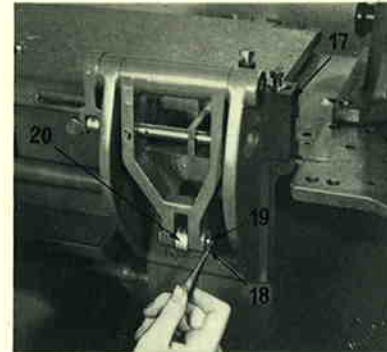


5. Place the oiler valve lifters (13) in the horizontal position, and disconnect the oiler piping and support. Turn the machine to 20° and remove the product from the mould. Raise the mould blade stop lever handle, and then pull the mould blade slide drive lever towards you. This will enable the pin to be removed, which will disconnect the mould blade slide from the mould blade.

Remove the four fixing screws and the mould clamps, and disengage the mould (14) from the main stand.



6. Take off the lead stacker bar (15) by removing two screws (16) and washers which hold it to the lead stacker. Replace the screws and washers in the bar to avoid loss. Release the lock screw to free the cutter actuating lever pin, and then remove the cutter blade. Take off also, the cutter blade bracket (17) (see picture 7), which is held by two screws, and the lead guide bracket.



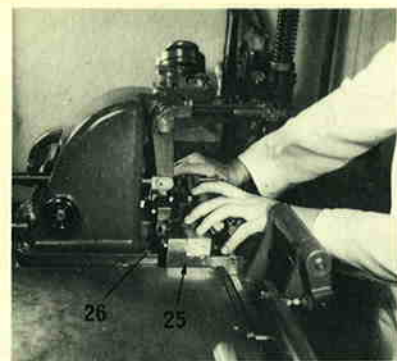
7. Disengage the cutter actuating lever from the cutter actuating plunger by first removing a split pin (18) from the link pin (19). The link pin can now be withdrawn sufficient to allow the actuating plunger (20) to drop free.



8. With the stop lever handle (21) in the low position marked *Leads*, turn the plunger spring adjusting nut anti-clockwise so that the spring will exert only minimum pressure. Set the fulcrum pin at the 1—3 L and R position.

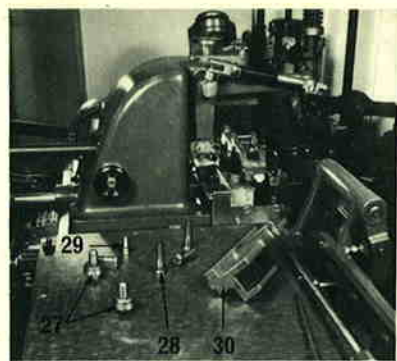
Grasp the intermediate lever (22) firmly in the right hand, and pull until it becomes disconnected from the slide drive lever plate (23).

Remove the plate from the slide drive lever, and screw in its place the alternative plate marked *Furniture*. Release the plunger in the intermediate lever by pulling down and turning, the plunger lock pin knob (24); do not use a tool to assist in releasing the pin. Return the stop lever handle to the top position.



9. Turn the machine to 200° and place the mould blade slide in the backward position.

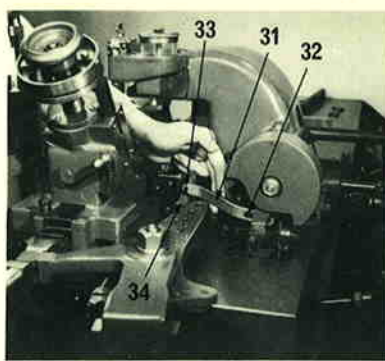
Lubricate the main stand with oil before lifting the furniture mould (25) into place. Push the jetblock carefully out of the mould so that the hook (26) is clear, and by sliding the mould from left to right engage this hook with the jet block driving rod hook.



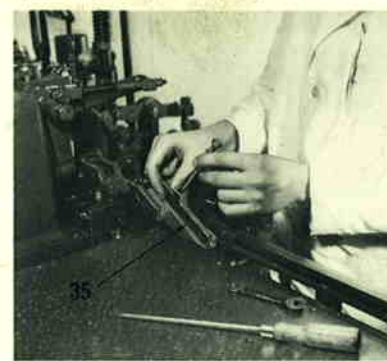
10. Secure the mould to the main stand with the clamps (27) at the front and side, and tighten so that it is brought firmly against the locating faces on the counter bracket and the wedge screw housing. Insert the four screws (28) into the top corners of the mould.

Connect the mould blade to the mould blade slide with the pin (29), and tighten the set screw.

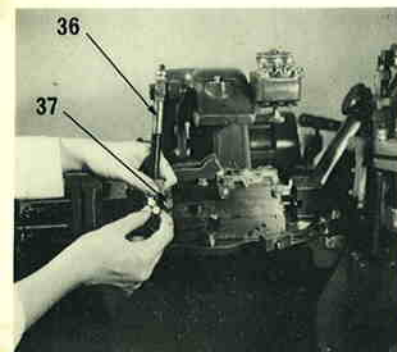
The furniture guide (30) is shown ready for assembly to the main stand.



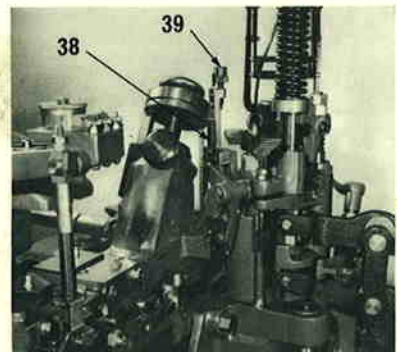
11. Attach the actuating lever link (31) by placing the elongated eye (32) over the pin on the actuating lever, and connecting the hook (33) at the other end to the fusing stop (34) on the mould.



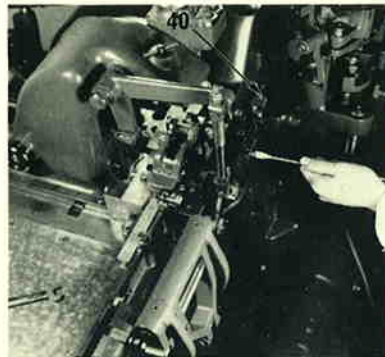
12. Fit the furniture guide (35) to the main stand, using the cutter blade bracket screw, the collar, long screw and washer. Release the lead clamp and insert a piece of product of the required size into the mould.



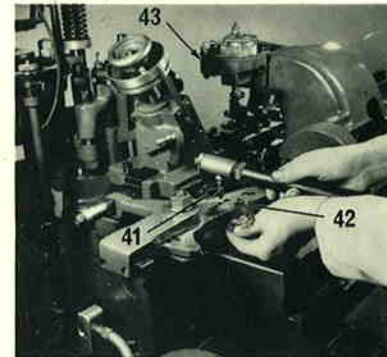
13. Re-connect the lead clamp intermediate lever rod (36) to the mould with the yoke pin. Make sure that the clip (37) is pressed back over the pin to hold it in place.



14. Engage the nozzle seating timing mechanism by lifting the release knob (39) and freeing the timing lever (38) with a flick of a finger.



15. Grease the locating faces of the mould water supply piping, and with one end on the main stand stud, swing into place and finger tighten the nut (40). Screw into the mould, and then further tighten the nut with a wrench.

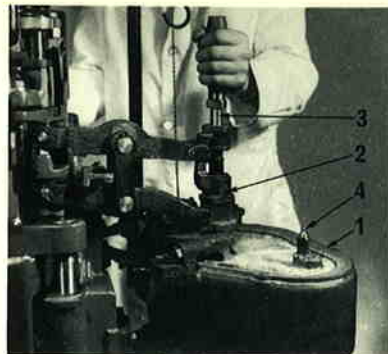


16. Connect the mould blade slide drive lever connecting rod ball end (41) to the intermediate lever (42) in the position marked *Furniture*, seating the snug pin in the groove, and securing with the nut. Place the 3 em setting gauge between the fusing stop and the lower edge of the blade, adjusting the wedge until it is lightly held. Set the scales on the wedge screw handwheel to zero.

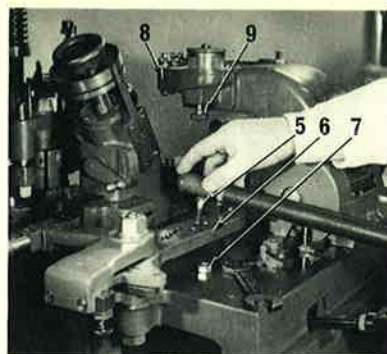
Attach the mould oiler piping and support to the underside of the mould oiler (43) and lock in position by tightening the knurled nut.



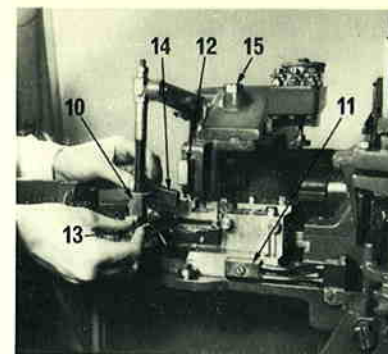
Changing from Leads and Rules, Clumps or Continuous Borders and Dashes to Sorts Casting for Small or Large Type Composition



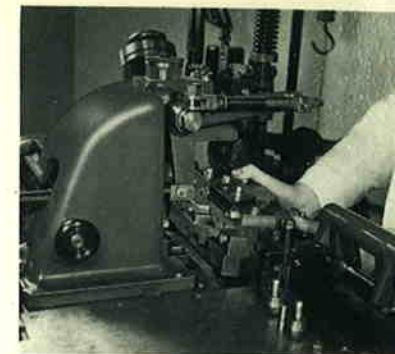
1. Switch off the electric motor; turn off the water supply; and place the gear control in the neutral position. Lower the melting pot (1), and if necessary, change the pump (2), piston (3) and nozzle (4) to that required for the next product to be cast. Remember to use adequate protection for your hands to prevent burns.



2. Disconnect the tube ball end (5) from the intermediate lever (6) by removing the nut (7) and lifting clear. Replace the nut on the tube ball end to avoid loss. Remove the mould oiler piping and support from the mould oiler (8), by placing the valve lifters in their horizontal positions and loosening the knurled nut (9). Remove the galley side wall from the galley plate.

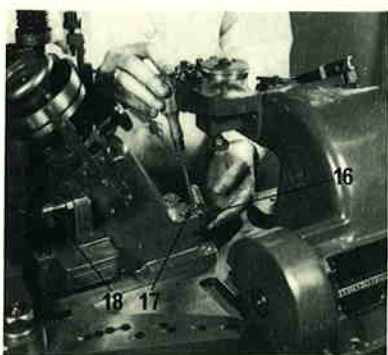


3. Remove the matrix holder from the matrix lifter. Disconnect the lever rod yoke (10) from the lead clamp lever and swing upwards, clear of the mould. Detach the mould water supply piping (11), by removing the nut and washer from the stud on the main stand and the screw into the mould. If the continuous border matrix lifter lever (12) has been in use, disconnect the matrix lifter wedge spring box yoke from the matrix cam lever by removing the pin. Remove the matrix clamp pad screw (13) and the guide cover (14), and take out the matrix lifter bracket screw (15). The continuous border matrix lever assembly can now be withdrawn from the counter bracket.

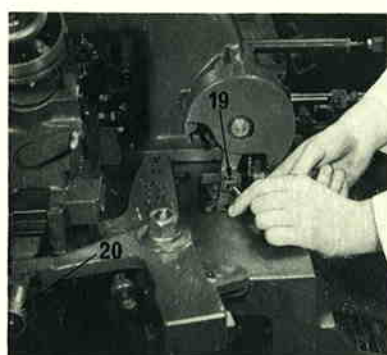


4. Turn the machine to 20°, raise the stop lever handle (18) to its highest position (see picture 5) and remove the product from the mould. Place the mould blade slide in its forward position to clear the blade connection from the wedge screw housing base, or with the 4—18 point mould, to disconnect the mould blade from the slide. Remove the four screws securing the mould to the main stand, and then the clamps from the side and the front.

Pull the mould towards the melting pot to disengage the mould blade from the blade connection, and to bring the jet block against the stop. Tilt the mould so that the hook on the jet block is disengaged from the driving rod, and take off the mould.

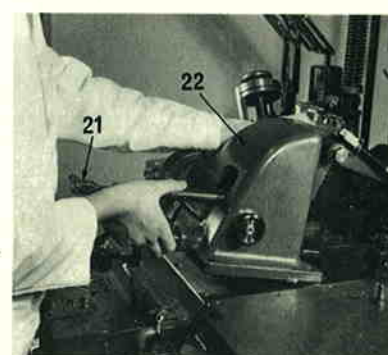


5. After removal of the 1—3 point mould, and with the blade connection (16) still clear of the wedge screw housing base, release the set screw (17) and remove the pin so that the blade connection can be taken off. Replace the pin in the mould blade slide, and tighten the set screw so that its head is below the top surface of the slide. This will prevent damage if the slide should be withdrawn.



6. Detach the weight from the ratchet pin chain, and disconnect the actuating rod eye (19) from the actuating lever by removing the pin. Use the same pin to connect the lower hole of the rod eye to the actuating rod housing.

See that the driving block cap abutment (20) is correctly positioned for the set size of type to be cast, i.e. for set sizes 12 point and below the large diameter end should be towards the front. To reverse the abutment, take out the retaining screw.



7. Disconnect the jet block driving rod connecting rod yoke from the type carrier cam lever extension by removing the screw and the yoke position pin. Replace the pin and screw in the yoke, after disconnection, to avoid loss.

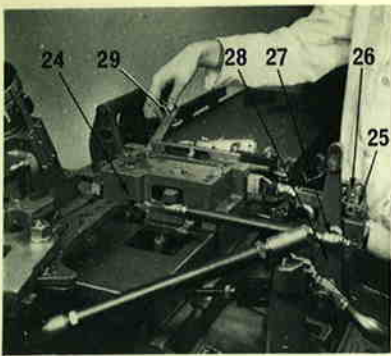
Disconnect the spring box rod end (21) from the matrix cam lever by removing the nut and pin. Again, the pin and nut should be retained on the rod end.

Remove the four screws securing the counter bracket (22), and lift it off.

Remove the lead guide (left hand) bracket from the main stand, after taking out the two securing screws.



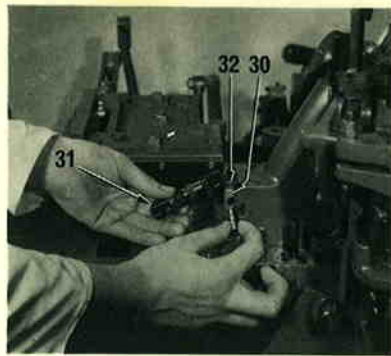
8. Place the matrix heads base (23) in position on the main stand, locating the keys in the keyways. Check that the locating key distance piece (24) (see picture 9) is in the correct position for 5—36 point. Secure the matrix heads base to the main stand using the three base screws.



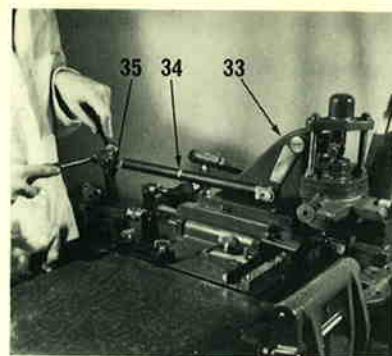
9. Connect the type carrier connecting rod yoke (25) to the hole on the cam lever extension (26) marked 12 for small type, or 24 for large type, using the pin and split pin.

Connect the type pusher lever connecting rod ball stud (27) to the type pusher cam lever (28), securing with the stud nut.

Select the fixed type channel block (29) suitable for the product to be cast, and attach it to the type carrier cover with the two screws. Attach also the adjustable type channel block, and having adjusted it with a piece of type of the size to be cast, secure it with the washer and screw.



10. With the mould blade slide (30) in the forward position, attach to it the appropriate mould blade fork (31). Insert the connecting pin, and twist until it is felt to grip; at this point, tighten the set screw (32).



11. Assemble the composition matrix head (33) on the matrix heads base, and secure it in place with the three short screws and one long screw.

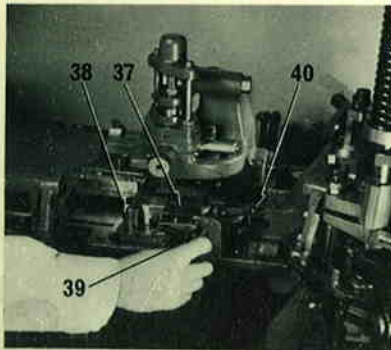
Connect the matrix lifter lever (34) by its rod eye to the upper hole of the matrix cam lever (35), using the rod eye pin and nut.

Make use of the auxiliary loading spring bridge when large type composition is to be produced.



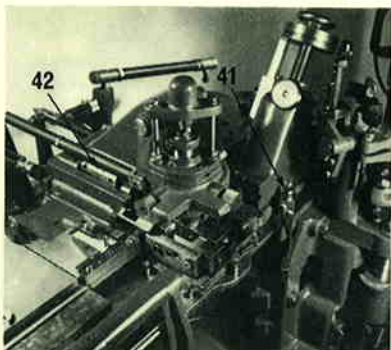
12. Position the mould on the adaptor base and secure it with the locating screw. Position the low quad lever for either high or low product, and connect the spring plate to the mould blade lever. Screw the type clamp operating block to the adaptor base.

Turn the wedge screw until a mould opening of 60 point is indicated on the scale (36), and then turn the machine to 220°.



13. Attach either the large or the small composition mould and adaptor base assembly (37) to the main stand, engaging the mould coupling hook with the hook on the type carrier. Locate the adaptor base against the matrix heads base with the two clamps (38), and secure to the main stand by means of the long, medium, and short screws in their respective holes.

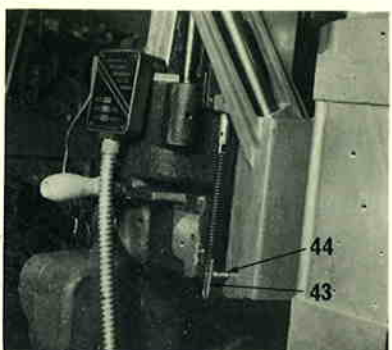
Use a pin handle (39) to connect the mould blade to the fork with the fork pin, adjusting and locking by means of the knurled nuts (40).



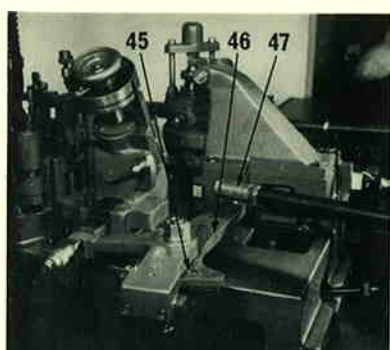
14. Grease the locating faces of the mould water supply piping (41) marked 'A.B.' and attach to the main stand stud. Screw the piping to the mould and then affix the washer and nut to the main stand stud.

Assemble the type support spring cam bracket (42) for the production of type under 12 point set size. Use also the packing plate for type over 36 point body size, but not more than 12 point set size.

Remove the cutter blade bracket; and with the washer, collar, and long screw, attach the crossblock oiler, when preparing to cast small type. The bracket may be left in place for large type, to accommodate the air nozzle holder, if required.



15. Attach the mould oiler to the mould, and then connect the pump body lifting spring plate (43) to the swing frame post (44) by its lower hole for small type, or the upper hole for large type.



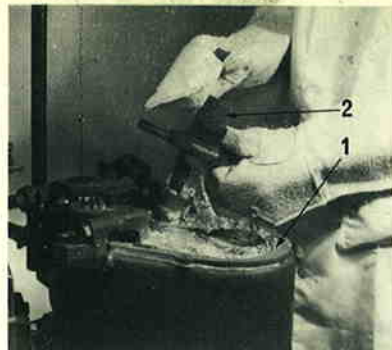
16. Set the eccentric lever fulcrum pin (45) on the mould blade slide drive lever (46) to the required position marked 5-36 type.

Connect the mould blade slide drive lever tube ball end (47) to the hole marked *Type to 42 point* on the intermediate lever, seating the pin in the groove and securing with the nut.

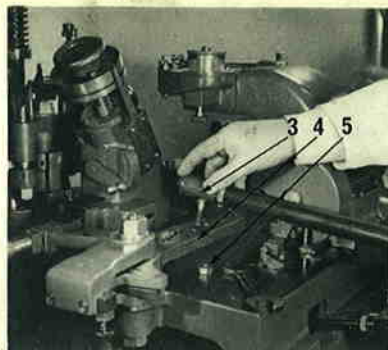
Place the required matrix in the matrix holder, and slide the holder into the matrix lifter.



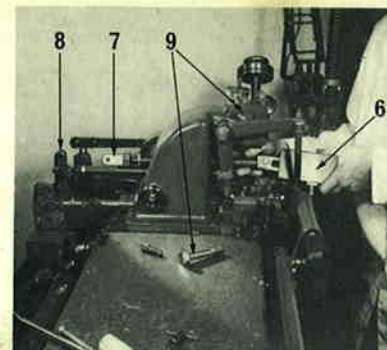
Changing from Leads and Rules, Clumps or Continuous Borders and Dashes to Display Type Casting, Quotations or Wooden Cored Quotations



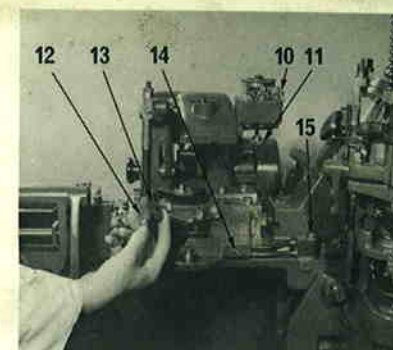
1. Switch off the electric motor; turn off the water supply; place the gear control in the neutral position. Lower the melting pot (1), and if necessary, change the pump, body (2), piston, and nozzle so that by the time the change is complete the parts will be hot enough to commence casting. These parts will be too hot to handle with safety unless adequate protective material is used.



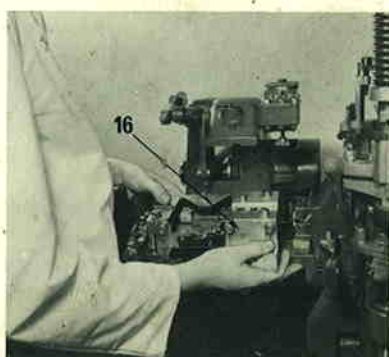
2. Disconnect the mould blade slide drive lever connecting tube ball end (3) from the intermediate lever (4) by removing the locking nut (5). Replace the nut on the ball end to avoid loss. Remove the galley side wall from the galley plate.



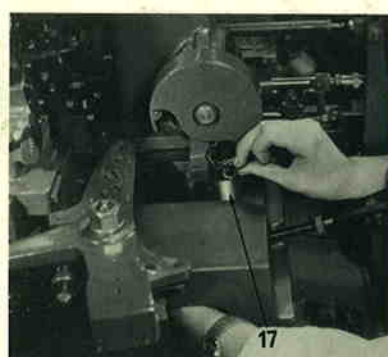
3. Remove the continuous border matrix lifter (6) from the machine, if attached, in the following manner. Disconnect the matrix lifter wedge spring box yoke (7) from the top hole of the cam lever (8) by removing the pin. Remove the matrix lifter bracket screw (9) situated on top of the counter bracket, and withdraw the continuous border matrix lifter from the assembly.



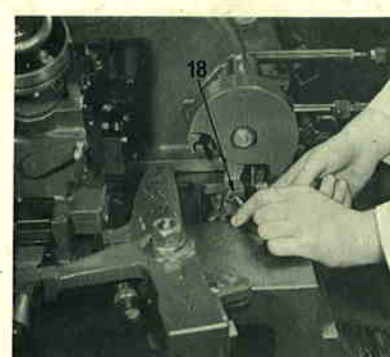
4. Take off the mould oiler piping and support, by first setting the valve lifters (10) in the horizontal position, and then loosening the knurled nut (11). Disconnect the lead clamp lever from the intermediate lever rod yoke (12); flip back the clip (13) and remove the connecting pin. Remove the screw (14) from the mould water supply piping; unscrew the nut (15) and washer on the main stand stud, and detach the piping.



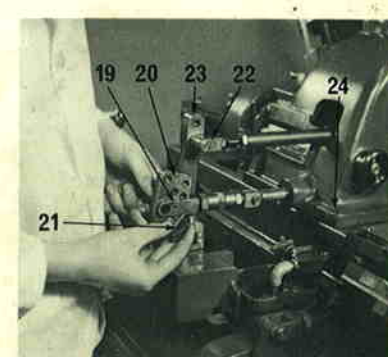
5. Turn the machine to 20°, and remove the product from the mould. Place the mould blade slide in the forward position so that the blade connection of the 1—3 point mould, or the connecting pin for the 4—18 point mould, is clear of the wedge housing. The pin may be removed at this point, and the set screw tightened to prevent damage. Remove the screws from the main stand, and the clamps from the front and side of the mould. Slide off the mould (16), lifting the hook on the jet block out of engagement with the driving rod. Disconnect the 1—3 point mould blade connection from the slide.



6. Since the counter mechanism will not be required for production of display material, the counter bracket will need to be removed. First, disconnect the weight (17) from the hook on the ratchet pin chain. This may be left inside the main stand so that it is convenient for re-connection when next required.



7. Remove the pin to disconnect the actuating rod eye from the actuating lever (18). Connect the rod by the lower of the two holes to the rod housing, using the same pin as before.



8. Disconnect the jet block driving rod connecting rod yoke (19) from the cam lever extension (20) by removing the screw and position pin (21). Disconnect the lead clamp intermediate lever spring box rod end (22) from the matrix cam lever (23) by removing the nut and pin. Take out the four screws (24) which secure the counter bracket to the main stand, and lift off the assembly.

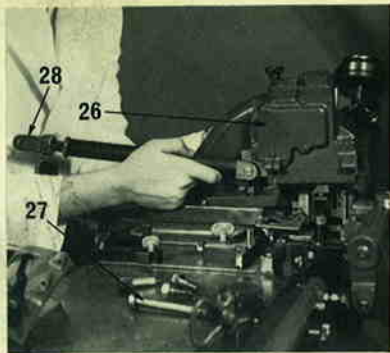


9. Place the matrix heads base (25) on the main stand, locating the keys in the keyways. Release the locating key distance piece clamp screw and place the distance piece in the required point size position. Tighten the clamp screw.

Secure the matrix heads base in position on the main stand with the three base screws.

Connect the type pusher lever connecting rod ball stud to the cam lever, securing with the nut.

Connect the type carrier connecting rod yoke in the required point size position on the cam lever extension. Insert a split pin to secure the yoke pin in place.



10. Place the display matrix head (26) in position on the matrix heads base.

Insert the long matrix heads base screw (27) and the three shorter screws, and tighten down.

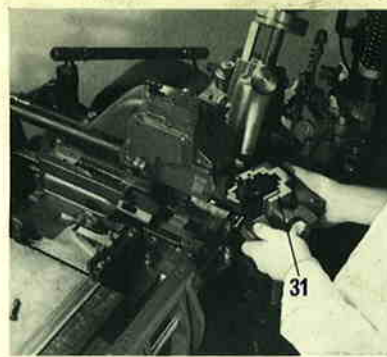
Connect the matrix lifter lock wedge spring box yoke (28) to the matrix cam lever with the pin.



11. Place the mould blade slide in the forward position and attach the mould blade fork, of the required point size, with the pin. Turn the pin clockwise until it grips and then tighten the screw.

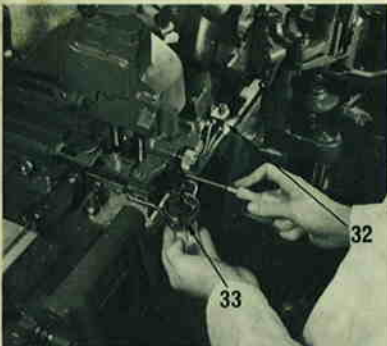
Turn the machine to 220° and rotate the wedge screw until a mould opening of about 60 point is indicated on the scale.

Oil the main stand, and slide the mould (29) into position engaging the coupling hook with the hook on the type carrier. Insert the two clamps (30) and tighten until the mould is correctly located against the matrix base, and then secure with the three screws to the main stand. *(before start)*



12. Connect the mould blade to the fork, inserting the pin with the aid of a pin handle. Draw back the mould blade, by turning the knurled nut, until the pin is contacted and then tighten the knurled lock nut.

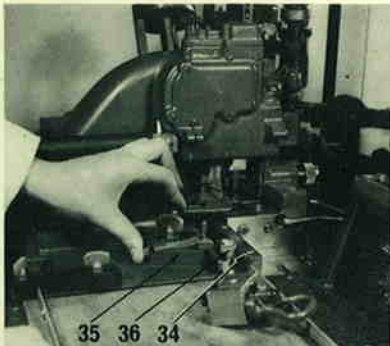
Attach the bridge (31) to the mould and secure with the three screws.



13. Cover the locating faces of the mould water supply piping (32) with grease, and fit over the stud on the main stand. Tighten the screw into the mould, and then tighten the nut and washer on the main stand stud.

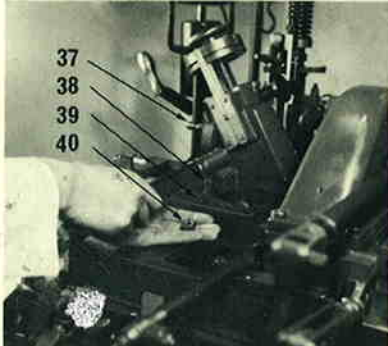
Attach the mould oiler (33), correct for the mould in use, to the mould.

Use the type support spring cam bracket to produce type up to 36-point body size and not more than 12-point set size. Use the packing plate in addition to the bracket for type over 36-point body size and not more than 12-point set size.



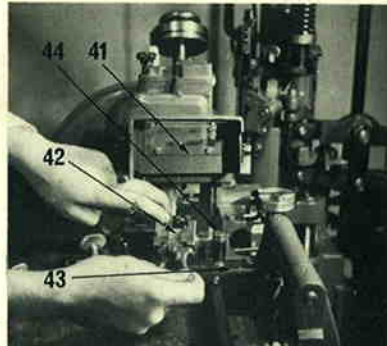
14. Check that the fixed type channel block (34) is correct for the product to be cast, and change if necessary.

Loosen the thumb screw on the adjustable type channel block (35) and insert a piece of the correct point size of product (36) between the blocks to adjust the channel. Tighten the thumb-screw at the required opening.



15. Place the stop lever handle (37) in the uppermost position. Turn the eccentric fulcrum pin to indicate the required point size of type. Check that the driving block cap abutment is set for the set size of type to be cast, i.e. for set sizes above 12 point the large diameter end should be towards the rear of the machine.

Connect the mould blade slide drive lever connecting tube ball end (38) to the intermediate lever (39), seating the snug pin in the groove of the hole for the set size to be cast. Secure in place by screwing the nut (40) to the ball end.



16. Attach the display mould guard (41) to the matrix head cover by inserting the hinge pin through the hinges.

Place a matrix in the matrix holder, the designation being towards the handle, and insert the holder (42) in the bridge by pulling back the lever with the fingers of the left hand.

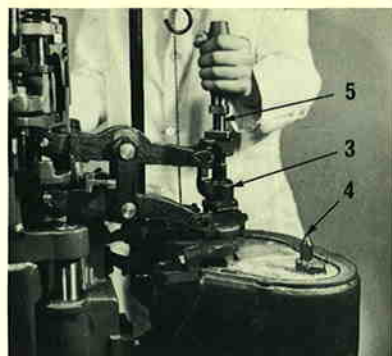
If required, attach the air nozzle holder and the air nozzle to the cutter blade bracket (43) with the tong screw (44) and washer, but omitting the spacing collar.





1. Switch off the electric motor; turn off the water supply; and place the gear control in the neutral position.

Lower the melting pot (1) and remove the piston, pump (2), and nozzle, remembering to use adequate protection for your hands.

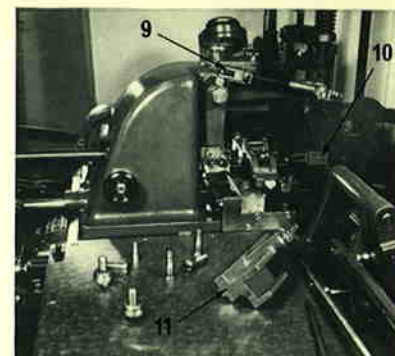


2. Fit the pump (3), nozzle (4) and piston (5) required for the change of product, so that the parts have time to attain the working temperature whilst the change-over is being made.



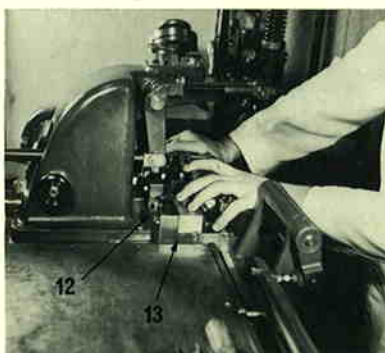
3. Unscrew the lock nut (6) and disconnect the mould blade slide drive lever connecting tube ball end (7) from the furniture position on the intermediate lever (8).

Pivot the tube to one side, and replace the nut to avoid loss during the change-over.

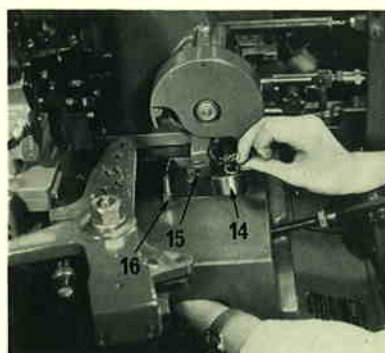


4. Remove the product from the mould. Disconnect the lead clamp intermediate lever rod (9) from the mould by removing the yoke pin, and pivoting upwards. Disengage the mould water supply piping (10), and take off the furniture guide (11) from the main stand.

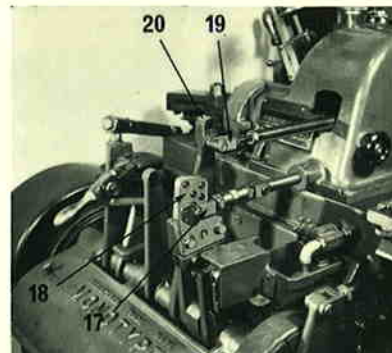
Changing from Furniture to Sorts Casting for Small or Large Type Composition



5. Turn the machine to 200° and pull back the fusing stop to place the mould blade slide in the forward position. Remove the pin connecting the mould blade to the mould blade slide, and disconnect the actuating lever link. Take out the screws securing the mould to the main stand, and remove the clamps. Push the jet block a little way out of the mould to provide a clearance, disengage the hooks (12), and remove the mould (13).

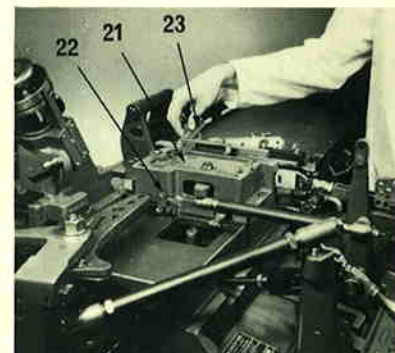


6. Unhook the weight (14) from the ratchet pin chain of the counter bracket. Disconnect the actuating rod eye from the actuating lever (15) by removing the pin (16). Re-connect the lower hole of the rod eye to the rod housing with the same pin. Loosen the machine.



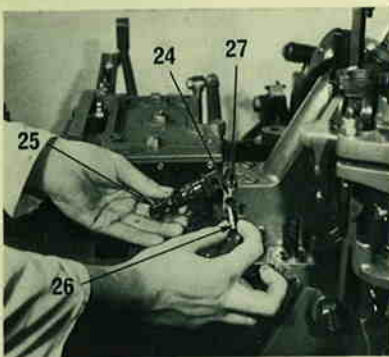
7. Disconnect the jet block driving rod connecting rod yoke (17) from the type carrier cam lever extension (18) by removing the screw and the yoke position pin.

Disconnect the lead clamp intermediate lever spring box end (19) from the matrix cam lever (20) by removing the nut and pin which, again, should be replaced in the rod end.



8. Lift off the counter bracket after removing the four screws, and in its place put the matrix heads base (21), locating the keys in the keyways. Check that the locating key distance piece (22) is facing correctly for the point size of type to be cast, then secure the base in position with three of the four screws; the remaining long screw will be used when the matrix head is assembled.

Change the fixed type channel block (23) to suit the type size to be produced.

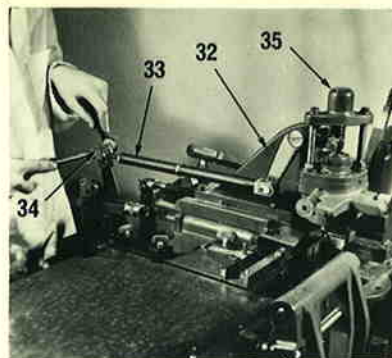


9. Place the mould blade slide (24) in the forward position and connect to it the mould blade fork (25). The connecting pin (26) should be inserted with a clockwise twist until it is just gripped in the yoke of the mould blade slide; in this position, tighten the small screw (27) to retain it in place.



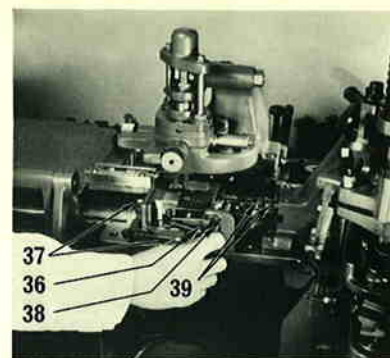
10. Connect the type pusher lever connecting rod ball stud (28) to the type pusher cam lever (29), securing with the nut.

Connect the type carrier connecting rod yoke (30) to the hole marked 12 on the type carrier cam lever extension to produce small type, or to the hole marked 24 to cast large type. Secure with the pin (31) and split pin.



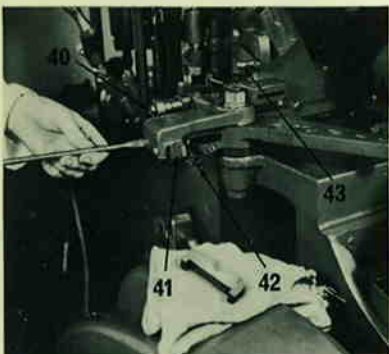
11. Attach the composition matrix head (32) to the matrix heads base and secure with three screws and the one long screw. Connect the matrix lifter lever connecting rod (33) to the top hole of the matrix cam lever (34) with the rod eye pin and nut.

If it is intended to cast from large type composition matrices, the centring pin loading spring bridge (35) should be changed for the centring pin auxiliary loading spring bridge to compensate for the increased pressure on the matrix.



12. Secure the composition mould to its adaptor base; place the low quad lever spring lever in the required position, and connect the spring plate (36) to the mould blade lever. Place the type clamp block in position and secure with its two screws.

Turn the wedge screw to indicate 60 point, and with the machine at 220° attach the mould to the main stand. Slide the mould coupling hook into the hook on the type carrier, and locate the mould in position with the two clamps (37). Insert the three special mould screws into their respective holes. Connect mould blade to the fork, inserting the pin with a pin handle (38). Bring the blade into contact with the pin, and tighten nuts (39) with pin wrenches.

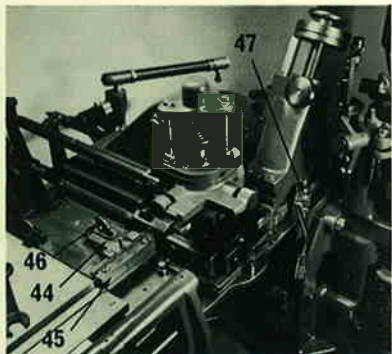


13. Check that the mould blade slide driving block cap abutment (40) is correctly positioned, and reverse if necessary. For set sizes 12 point and below, the end having the large diameter should be towards the front.

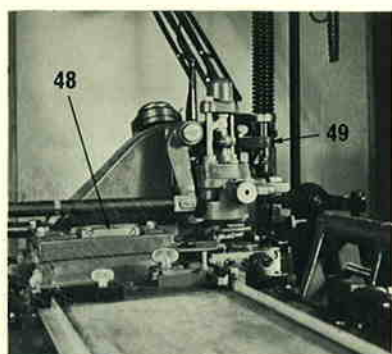
Take off the mould blade slide drive lever plate (41) marked *Furniture* by removing the two screws, and replace it with the alternative plate marked *Top*.

Turn the knurled plunger lock pin knob (42) anti-clockwise to set back the head of the guide rod. Reposition the intermediate lever and release the plunger by pulling the lock pin knob downwards.

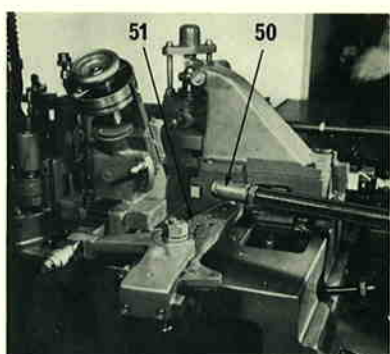
Move the fulcrum pin to indicate *small type* and ensure that the handle (43) is in its uppermost position.



14. Close up the adjustable type channel block (44) to the fixed block (45), and secure to the type carrier cover with the screw and washer (46). Grease the locating faces of the mould water supply piping (47), and connect the piping to the mould. Attach the mould oiler to the mould (not shown), and insert the matrix holder complete with a matrix into the matrix lifter.

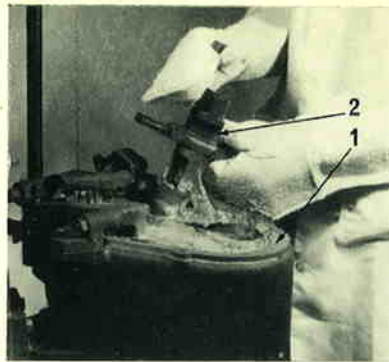


15. Attach the type support spring cam bracket (48) to the matrix heads base for type up to 12 point set size, and add also the packing plate for type over 36 point body size. Remove the upper and lower plates (49), and lift up the nozzle seating device to place it out of action. Connect the pump body lifting spring plate to the spring post by the lower hole for small type, or the upper hole for large type.

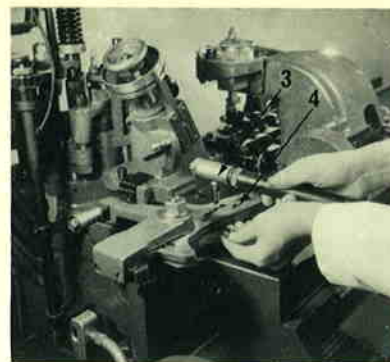


16. Connect the mould blade slide drive lever connecting tube ball end (50) to the hole marked *Type to 42 point* on the intermediate lever (51), making certain the snug pin seats into the groove. Lock in position with the nut previously retained on the ball end.

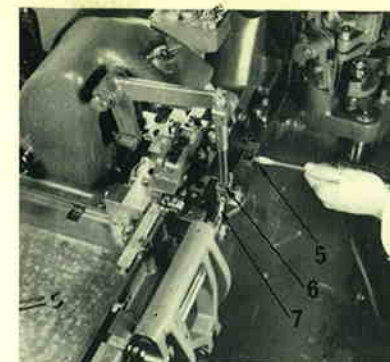




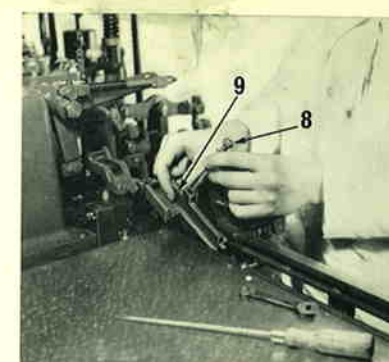
1. Switch off the electric motor; turn off the water supply; and place the gear control in the neutral position. Lower the melting pot (1) and, if necessary, change the pump body (2), piston, and nozzle so that these parts will be hot enough to commence casting when the change-over has been completed. Hands must be adequately protected when handling hot metallic parts.



2. Remove the mould oiler piping and support from the underside of the mould and disconnect the mould blade slide drive lever connecting tube ball end (3) from the intermediate lever (4), by removing the nut securing the ball end in place.

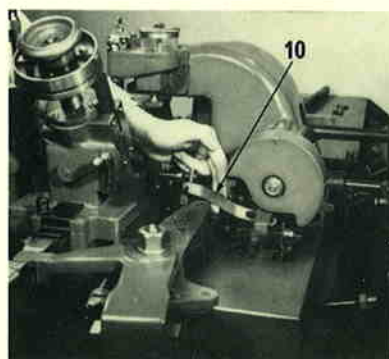


3. Remove the screw securing the water supply piping (5) to the mould, and remove the nut and washer securing the other end of the piping to the main stand stud. Take off the piping. Unclip and remove the pin to disconnect the lead clamp intermediate lever rod yoke (6) from the lead clamp lever (7). Swing the intermediate lever upwards away from the mould.

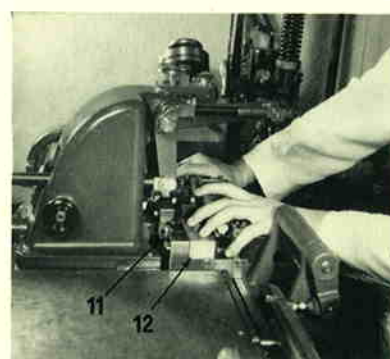


4. Remove the product from the mould, and take out the cutter blade bracket screw (8) holding the furniture guide (9) in place. Take off the furniture guide.

Changing from Furniture to Display Type Casting, Quotations or Wooden Cored Quotations



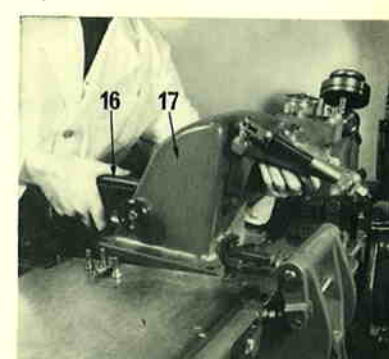
5. Unhook the actuating lever link (10) from the fusing stop on the mould and disconnect the elongated eye from the pin on the actuating lever. Remove the link from the machine.



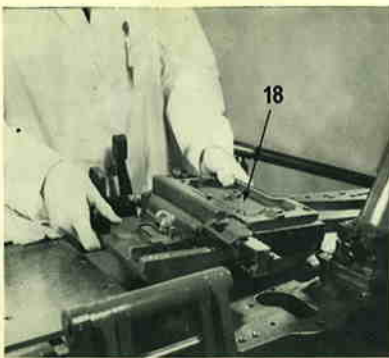
6. Turn the machine to 200° and pull back the fusing stop to place the mould blade slide in the forward position. Disconnect the mould blade from the slide by releasing the set screw and removing the pin. Re-tighten the set screw. Remove the four screws securing the mould to the main stand, and take off the clamps at the side and the front. Raise the mould slightly to disengage the hook on the jet block (11) from that on the driving rod, before attempting to remove the mould (12) from the machine.



7. Unhook the weight (13) from the ratchet pin chain and lay it on the shelf inside the main stand, convenient for reconnection. Disconnect the actuating rod eye from the actuating lever (14) by removing the pin (15) from the upper hole, and secure it to the rod housing, inserting the pin into the lower hole.

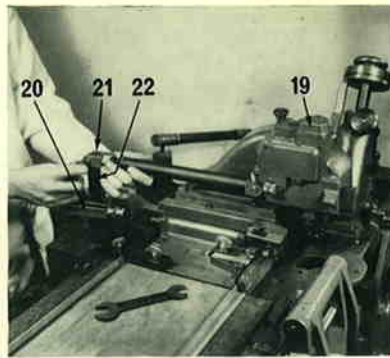


8. Disconnect the rod yoke from the type carrier cam lever extension by removing the screw and position pin. Disconnect the spring box rod end (16) from the matrix cam lever by removing the nut and pin. Take out the four screws securing the counter bracket (17), and lift off the assembly.



9. Place the matrix heads base (18) in position on the main stand, locating the keys in the keyways. Check that the base locating key distance piece is in the required point size position, and reverse if necessary.

Secure the base to the main stand with three screws, the longer fourth screw not being used at this stage.



10. Assemble the display matrix head (19) to the matrix heads base, securing with the three screws and also the long screw into the main stand.

Connect the type carrier connecting rod yoke (20) to the cam lever extension, securing in the required point size position with the pin and the split pin.

Connect the type pusher lever ball stud to the type pusher cam lever, and secure with the nut.

Connect the rod yoke (21) of the matrix lifter lock wedge spring box to the matrix cam lever (22), by means of the yoke pin through the upper hole.



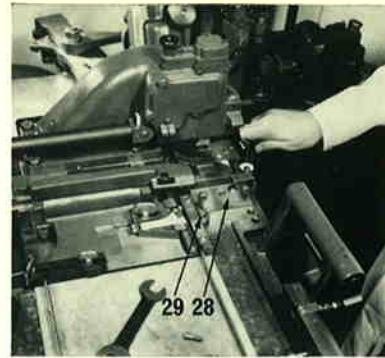
11. Place the stop lever handle (23) in the low position. Slacken off the spring adjusting nut. Set the fulcrum pin at the 1-3 L and R position.

Disconnect the intermediate lever (24) from the plate (25) by pulling it to the position shown above; the plunger will be held by the lock pin (26).

Unscrew the plate marked *Furniture* and replace it with the alternative plate.

Place the intermediate lever back in position and release the plunger by pulling the lock pin knob downwards. Return the stop lever handle to its uppermost position; set the fulcrum pin at the required point size.

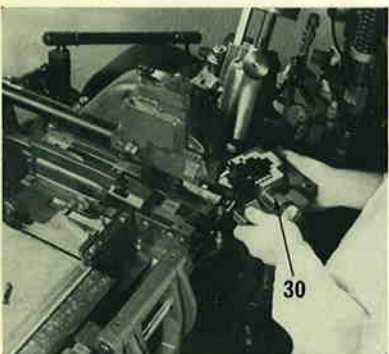
The driving block cap abutment (27) must be in the correct position for the set size of type to be cast.



12. Place the mould blade slide in the forward position and attach to it the mould blade fork correct for the required point size.

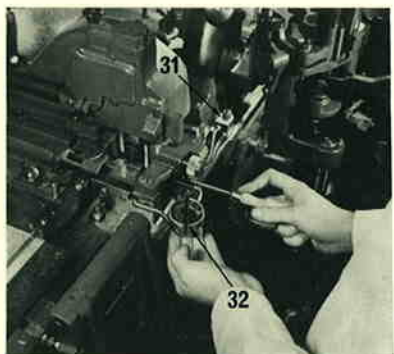
Turn the machine to 220° and adjust the wedge screw to indicate a mould opening of approximately 60 point.

Place the mould (28) on the main stand, and slide it into position, engaging the mould coupling hook with the hook on the type carrier. Locate the mould against the matrix heads base with the clamps (29) at the side and front, and secure it to the main stand with the three screws.



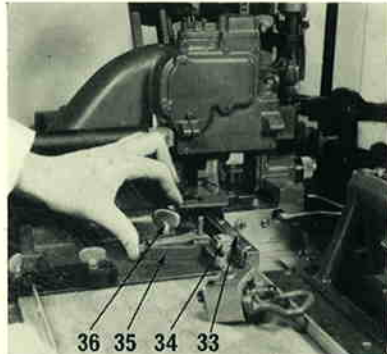
13. Connect the mould blade to the fork, inserting the pin with a pin handle. Turn the knurled nut until the mould blade contacts the pin, and then tighten the lock nut, using pin wrenches.

Attach the bridge (30) to the mould and secure it with the three screws.



14. Cover the locating faces of the mould water supply piping (31) with grease, fasten one end to the main stand stud with the washer and nut, and the other end to the mould with the screw. Tighten the screw before the nut and washer.

Attach the correct mould oiler (32) to the mould, securing with the screw.

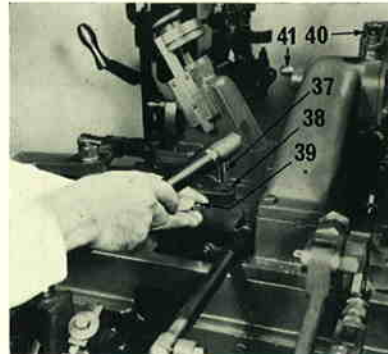


15. Substitute, if necessary, the fixed type channel block (33) on the type carrier cover for the one suitable for the product to be cast.

Insert a piece of product (34) in the type channel, and set the adjustable type channel block (35) to suit. Tighten the screw (36) to retain in position.

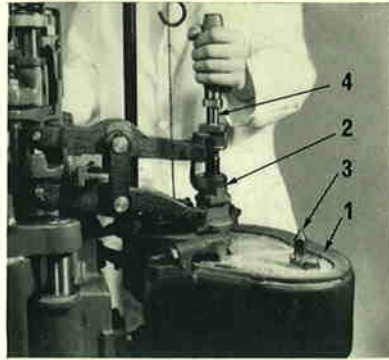
For type up to 36-point body size and not more than 12-point set size, use the type support spring cam bracket without packing. For type over 36-point body size and up to 12-point set size, use also the packing plate.

Remove the bracket when producing type over 12-point set size.

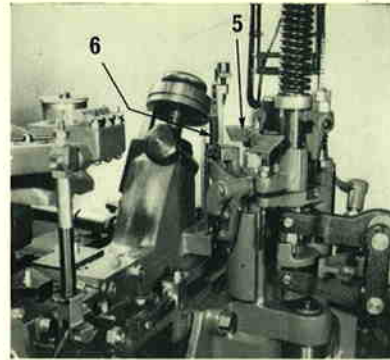


16. Connect the mould blade slide drive lever connecting tube ball end (37) to the required hole in the intermediate lever (38) for the set size to be cast. Seat the snug pin in the groove and secure with the nut (39).

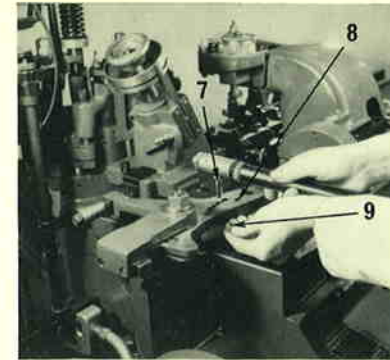
Should it be intended to cast quotations, air cooling will be required. Attach the cutter blade bracket, locating the key in the keyway on the main stand, and secure with the washer and long screw through the front hole of the bracket. Assemble the air nozzle holder and nozzle to the bracket. Lift the locking pin knob (40) at the top of the matrix head and turn the matrix lifter shaft lever handle (41) to the top centre position, locking by releasing the knob.



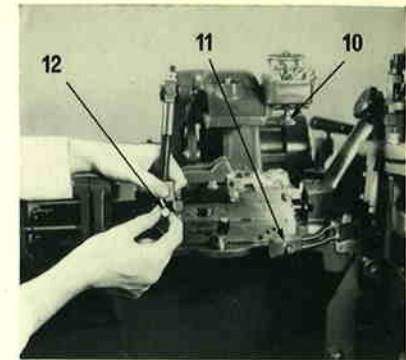
1. Switch off the electric motor; turn off the water supply; and place the gear control in the neutral position. Lower the melting pot (1) and, if necessary, change the pump body (2), nozzle (3), and piston (4) so that they will be at the correct temperature for casting when the change-over has been completed.



2. At the same time, set the trip plates (5) and stop plates — known as upper and lower leaves — for the required product; adjust the piston spring rod nut, and check the nozzle seating timing device (6). The timing device, as a general rule, is used whenever the 1½" pump is in operation, together with the No. 5 nozzle and speeds from 4½ to 12 r.p.m.

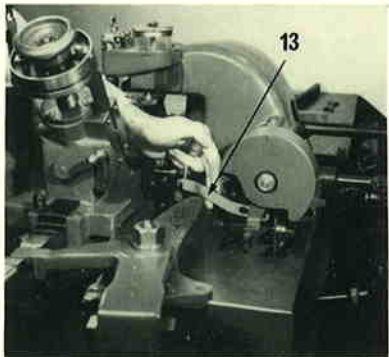
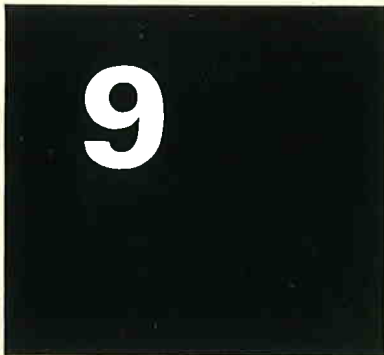


3. Disconnect the mould blade slide drive lever connecting tube ball end (7) from the intermediate lever (8), by removing the nut (9) from the ball end, and lifting the tube clear. Replace the nut on the ball end, after removal of the tube, to avoid losing it.

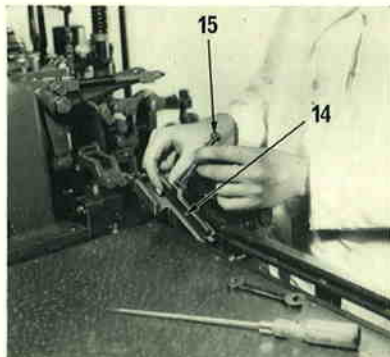


4. Remove the mould oiler piping and support from the underside of the mould oiler by releasing the knurled nut (10). Disconnect the mould water supply piping (11) from the mould, and loosen the nut on the main stand stud so that the piping can be pivoted aside.

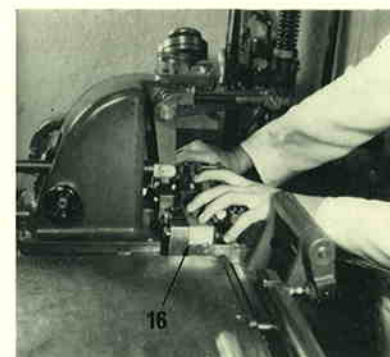
Remove the pin (12) to disconnect the lead clamp intermediate lever rod yoke from the lead clamp lever, and swing the rod upwards to rest along the top of the counter bracket.



5. Take off the actuating lever link (13) by unhooking it from the fusing stop on the mould, and releasing the eye from the pin on the actuating lever.



6. Remove the furniture guide (14) from the main stand, by releasing the cutter blade bracket screw (15) which has been used to secure it in position.



7. Turn the machine to 200° and pull back the fusing stop to place the mould blade slide in the forward position. Loosen the set screw in the slide and remove the pin to disconnect the blade from the blade slide.

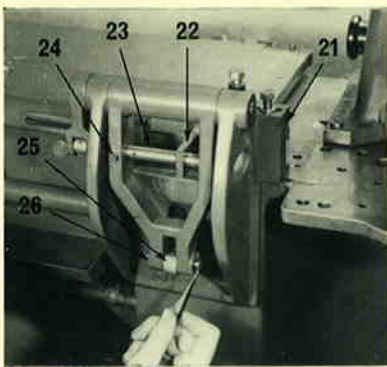
Remove the mould securing screws from the main stand, and the clamps from the side and front. Raise the mould (16) until the hook on the jet block is clear of the driving rod, and lift off the mould. Blow through the mould waterways with air and oil to prevent corrosion.



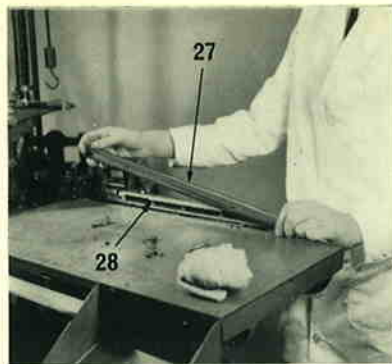
8. Place the lead mould blade stop lever handle (17) in the position marked *Leads*. Turn the adjusting nut anti-clockwise so that minimum spring pressure is exerted. Set the fulcrum pin at the 1—3 *L and R* position. Disconnect the intermediate lever (18) from the plate by pulling it towards the cams.

Unscrew the mould blade slide drive lever plate (19) marked *Furniture* and replace it with the alternative plate marked *Top*. Secure with screws.

Set the intermediate lever back in position, and release the plunger by pulling the lock pin knob (20) downwards.

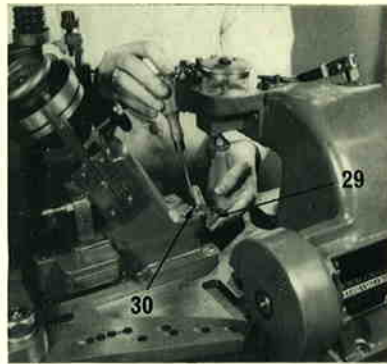


9. Attach the cutter blade bracket (21) and the lead guide bracket, to the main stand with the washer, collar and the long screw, and use also the short screw and washer when casting 18 point. Connect the cutter blade (22) to the actuating lever pin (23), and tighten the lock screw (24). Connect the cutter actuating plunger link (25) to the actuating lever (26) with the pin, and secure with the split pin. When casting 18 point material the pin must be connected in the outer hole of the actuating plunger link.



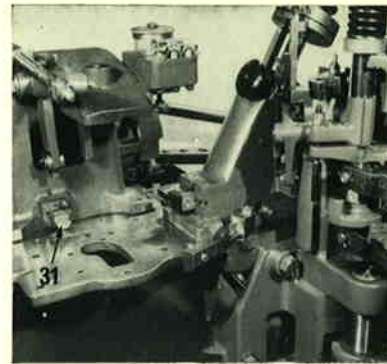
10. Attach the lead stacker bar (27) to the lead stacker (28) with the two screws and washers.

Locate the key of the galley side wall in the keyway on the shear block, and the opposite end on the locating stud. (Neither the galley side wall nor the galley is illustrated).

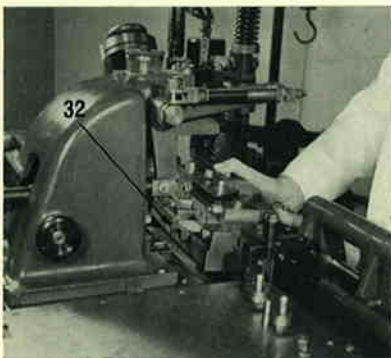


11. Turn the machine to 20°. If the 1—3 point mould is to be used, attach the special blade connection (29) which is stored in the mould box, to the mould blade slide with the pin (turning clockwise until it grips) and tighten the set screw (30).

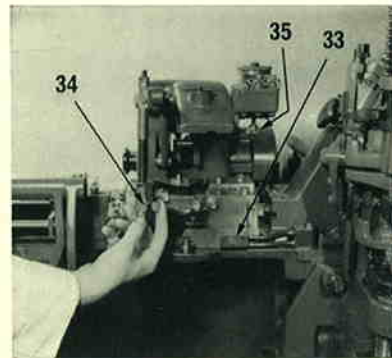
Place the slide in the backward position to allow room for the mould to be assembled.



12. Bring the jet block driving rod forward so that its hook (31) is clear of the counter bracket. This will make it easier to locate the hook on the jet block in position over the hook on the driving rod when the mould is assembled on the machine.

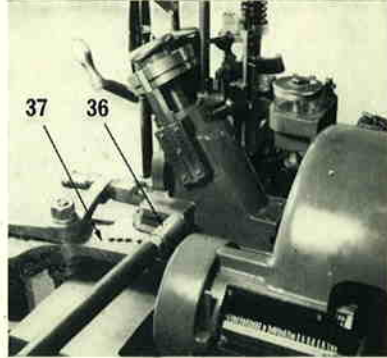


13. Support the mould on the main stand, and carefully push the jet block forward until the hook (32) is clear of the mould. Tilt the mould, so that the hooks can be positioned one over the other, and then slide the mould to connect the mould blade to the mould blade slide. Secure the mould to the main stand with the clamps at the front and side, and the four screws through the top of the mould.



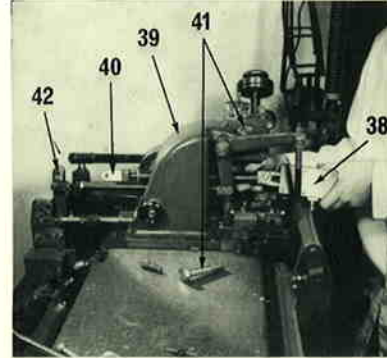
14. Grease the locating faces of the mould water supply piping (33) and connect to the mould with the screw. Tighten the nut on the main stand stud.

Connect the lead clamp intermediate lever rod yoke (34) to the lead clamp lever with the pin. Press the clip over the pin to secure in position. Connect the mould oiler piping and support to the mould and the mould oiler, and lock with the knurled nut (35).



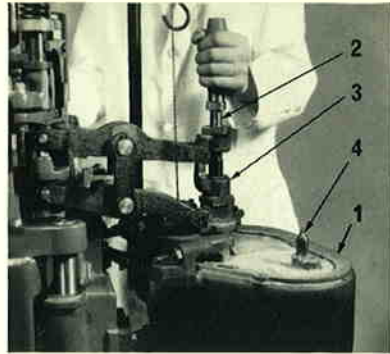
15. Connect the mould blade slide drive lever connecting tube ball end (36) to the hole marked *Leads* on the intermediate lever (37); seat the snug pin into the groove and secure with the nut.

For *clumps or dashes* set the mould blade stop lever handle to the scale mark corresponding with the length in ems required. Reverse the blade in the cutter blade bracket.



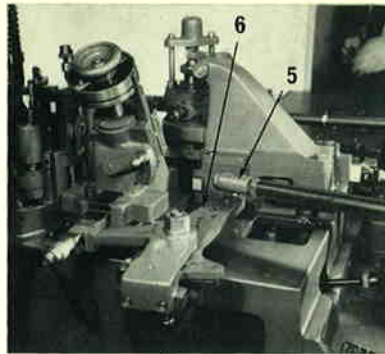
16. The continuous border matrix lifter (38) is required for casting Continuous Borders and Dashes. Attach it to the counter bracket (39) by passing the rod yoke (40) and spring box through the aperture shared with the lead clamp intermediate lever spring box; fit the key in the lifter bracket into the keyway on the counter bracket and press firmly into position against the stop. Insert the bracket screw (41) and tighten in place. Connect the yoke to the upper hole of the matrix cam lever (42), with the pin; place the required matrix in the matrix holder; and attach the holder to the matrix lifter. Using a border length gauge between the abutment plate and the mould blade stop, screw the wedge down to fit, and set the scales to zero.



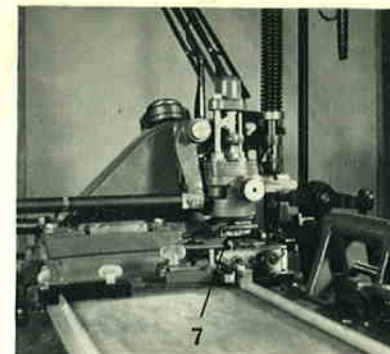


1. Switch off the electric motor; turn off the water supply; and place the gear control in the neutral position.

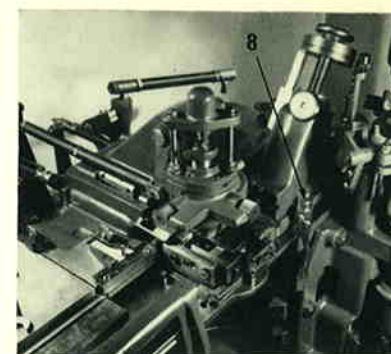
Lower the melting pot (1), and if necessary, change the piston (2), pump (3), or nozzle (4) so that they will be heated to working temperature while the change is being made.



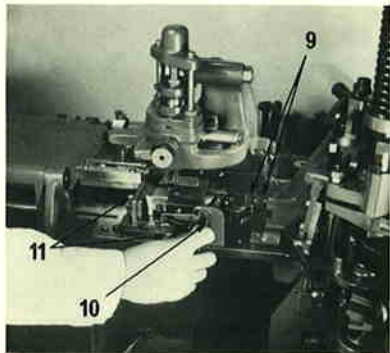
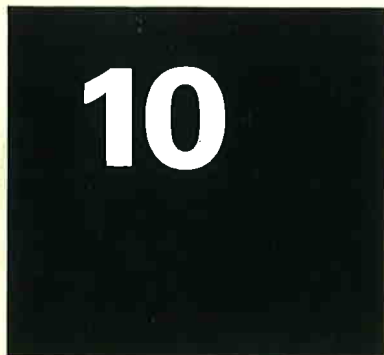
2. Disconnect the mould blade slide drive lever connecting tube ball end (5) from the intermediate lever (6), by removing the nut. Lift the lever out of engagement and pivot to one side, replacing the nut on the ball end to avoid loss.



3. Remove the matrix holder (7) from the matrix lifter. Disconnect the air nozzle holder, air nozzle and collar, and the crossblock oiler from the main stand by removing the long screw and its washer.

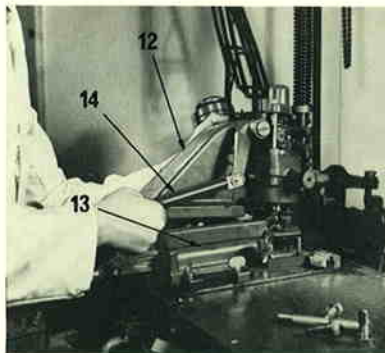


4. Disconnect the mould oiler from the mould; and also the water supply piping (8) which is held by a screw into the mould and a nut and washer on the main stand stud.

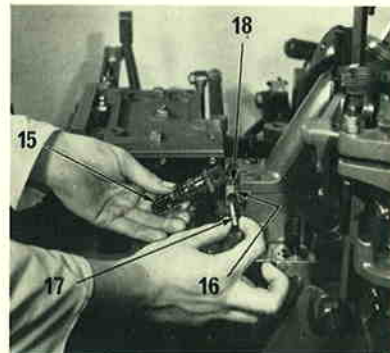


5. Release the nuts (9) on the mould blade fork and, with the aid of a pin handle (10), remove the fork pin, disengaging the fork from the mould.

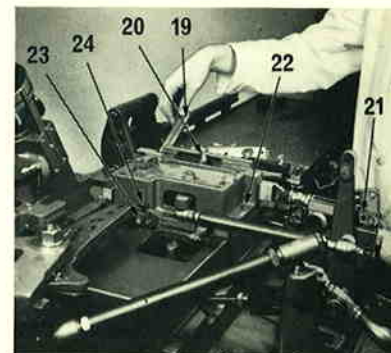
Turn the machine to 220°; set the wedge screw to 60 point; remove mould screws and clamps (11); and sliding the type carrier hook out of engagement, lift off the mould and adaptor base complete.



6. Remove the Composition matrix head (12) from the matrix heads base (13), by disconnecting the matrix lifter connecting rod (14) from the matrix cam lever, and removing the three short screws and one long screw.



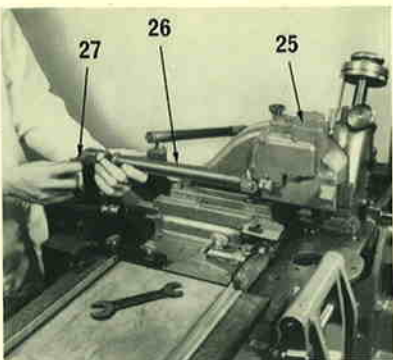
7. Assemble the mould blade fork (15), of the point size required in the following manner. Place the mould blade slide (16) in the forward position, and connect it to the fork with the pin (17), which should be inserted and turned clockwise until it is felt to grip. At this point, tighten the set screw (18).



8. Substitute, if necessary, the fixed type channel block (19) for a block suitable for the product to be cast.

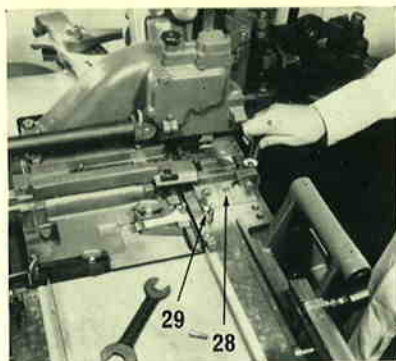
To cast type of not more than 12 point set size, the type support spring cam bracket (20) should be used. Type also greater than 36 point body size requires the bracket together with the packing plate. Neither bracket nor packing plate is required for type over 12 point set size.

Disconnect the yoke (21) from the cam lever extension, loosen the matrix heads base screws (22) and the clamp screw (23), and reverse the locating key distance piece (24), if necessary. Tighten the screws, and re-connect the rod yoke in the required position on the cam lever extension.



9. Assemble the Display matrix head (25) to the matrix heads base, locating the keyways on the head over the keys on the base. Secure with the four screws.

Connect the matrix lifter lock wedge spring box rod yoke (26) to the matrix cam lever with the pin (27).



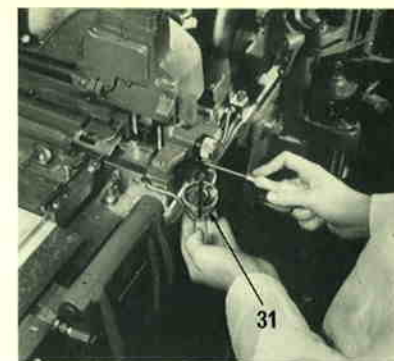
10. With the machine set at 220° and the micrometer wedge indicating a mould opening of 60 point, attach the mould (28) to the main stand by sliding the type carrier hook into engagement, and then locating it against the matrix heads base. Secure to the main stand with the clamps (29) at the side and front, and the three mould screws underneath.

Use a pin handle to insert the pin to connect the mould blade to the mould blade fork, drawing the mould blade back by means of the knurled nut.

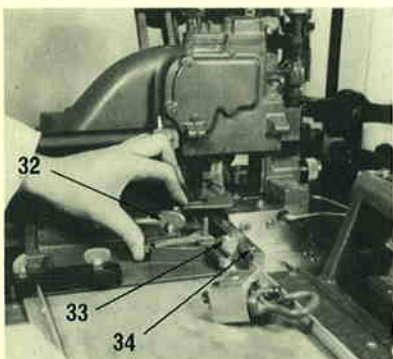


11. Attach the display matrix bridge (30) to the mould and secure in position with the three hexagonal screws.

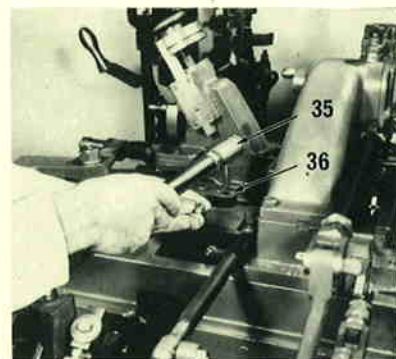
Grease the locating faces of the water supply piping, and fasten one end to the main stand stud with a nut and washer, and the other end to the mould with the screw. Tighten first the mould screw and then the nut on the main stand stud.



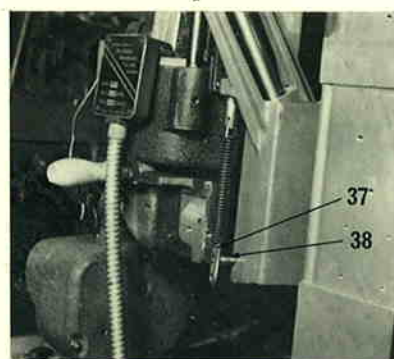
12. Select the mould oiler (31) suitable for the mould being used, and attach it to the mould.



13. Loosen the thumbscrew (32) on the adjustable type channel block and insert a piece of product (33) to set it for size. Having adjusted the block, tighten the screw again. *Note: When casting over 84 point set size, remove the fixed type channel block (34).*

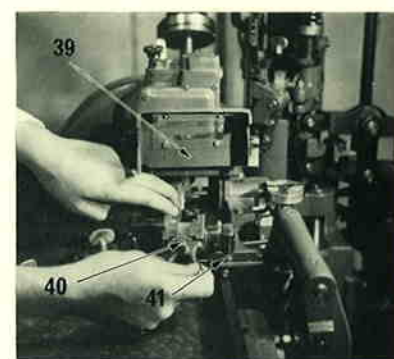


14. Connect the mould blade slide drive lever (35) to the required hole on the intermediate lever (36) making sure that the snug pin is seated in the groove before securing with the nut.

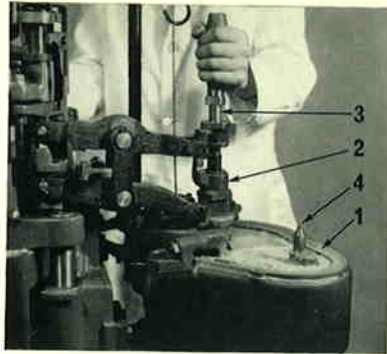


15. Connect the lower pump body lifting spring plate (37) by the upper one of its two holes to the swing frame spring post (38).

Zero the scales on the micrometer adjustment head, and then re-set it to indicate the set size of product to be cast.

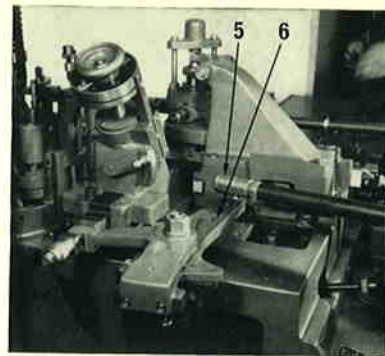


16. Attach the mould guard (39) to the matrix head cover by means of the hinge pin. Place a matrix into the matrix holder, and insert the holder (40) into the matrix lifter. Attach the cutter blade bracket (41), locating its key into the keyway on the main stand, and securing with the washer and long screw through the front locating hole. Assemble to the bracket the air nozzle holder and air nozzle.



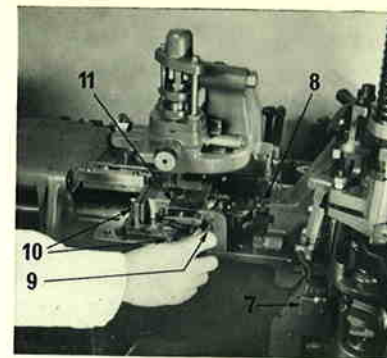
Changing from Sorts Casting for Small or Large Type Composition to Leads and Rules, Clumps or Continuous Borders and Dashes

1. Switch off the electric motor; turn off the water supply; and place the gear control in the neutral position. Lower the melting pot (1), and if necessary, change the pump body (2), piston (3) and nozzle (4), so that they will be hot enough to begin casting when the change-over is complete. These parts will be too hot to handle with safety unless adequate protective material is used.



2. Disconnect the mould blade slide drive lever connecting tube ball end (5) from the intermediate lever (6), by removing the nut holding it in place. To avoid losing the nut, replace it on the ball end.

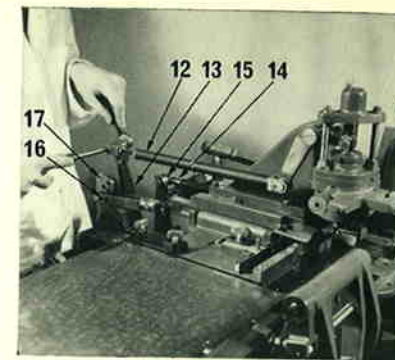
Remove the crossblock oiler from the main stand, by removing the long screw and its washer. Take off also, the air nozzle and holder, if in use, and attach the holder to the galley bracket screw.



3. Remove the mould oiler from the mould, and disconnect the water supply piping (7). Release the knurled nuts (8) on the mould blade fork, and with the aid of a pin handle (9), remove the fork pin.

Turn the machine to 220° and turn the wedge screw until a mould opening of about 60 points is indicated on the scale.

Remove the three screws from the mould base, and the clamps (10) from the front and the side of the adaptor base. Slide the mould (11) towards the melting pot to disengage the hooks, and lift off the mould and adaptor base. Blow out the waterways before replacing the mould in its box.

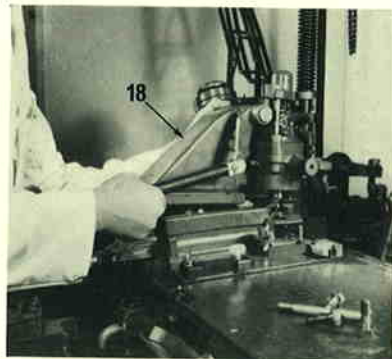


4. Remove the mould blade fork from the slide by releasing the screw and withdrawing the pin. Re-tighten the screw.

Disconnect the matrix lifter lever connecting rod eye (12) from the matrix cam lever (13), by removing the nut and eye pin.

Disconnect the type pusher lever connecting ball stud (14) from the cam lever (15), by removing the nut.

Disconnect the type carrier connecting rod yoke (16) from the cam lever extension (17) by removing the split pin and connecting pin.



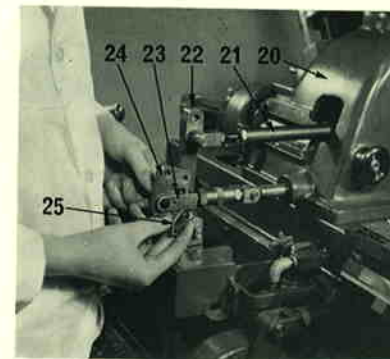
5. Remove the three screws which secure the matrix head (18) to the base, and take out the long screw holding both the head and the base to the main stand.

Taking a firm grip on the matrix head, and supporting the matrix lifter lever connecting rod against the head, remove it from the machine.



6. Release the three remaining screws which secure the matrix heads base (19) to the main stand, and remove the base from the machine.

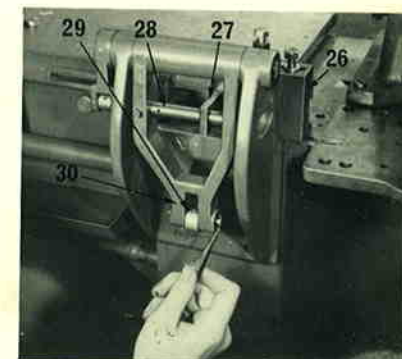
Clean the main stand, and lubricate it with oil before starting to reassemble the machine for casting the next product.



7. Assemble the counter bracket (20) to the main stand, locating the keys in the keyway. Insert the four screws to secure the bracket to the machine.

Connect the lead clamp intermediate lever spring box rod end (21) to the lower hole on the matrix cam lever (22), by means of the pin and nut.

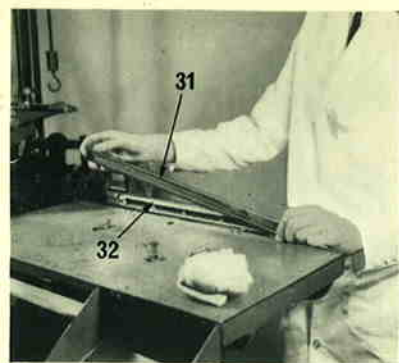
Connect the jet block driving rod connecting rod yoke (23) to the hole marked 72 on the cam lever extension (24) with the position pin (25); secure in the required point size with the position pin screw.



8. Attach the lead guide bracket and then locate the key of the cutter blade bracket (26) in the keyway on the main stand, and secure it in place with the long screw, collar and washer. Insert also, the short screw with washer when 18-point product is to be cast.

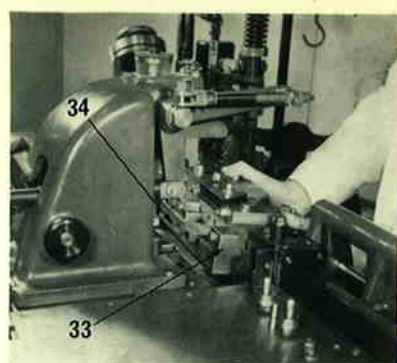
Connect the cutter blade (27) to the actuating lever pin (28), and tighten the lock screw. When preparing to cast clumps or dashes the cutter blade must be taken out and reversed.

Connect the cutter actuating plunger link (29) to the actuating lever (30) with the pin, and insert a split pin to secure. Connect the pin in the outer hole of the plunger link when casting 18 point.



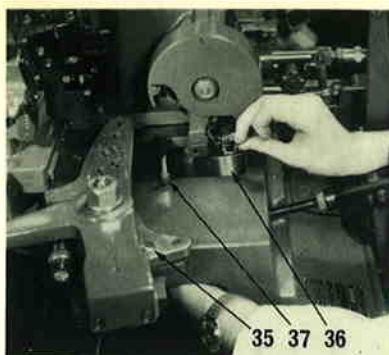
9. Attach the lead stacker bar (31) to the lead stacker (32), with the two screws and washers already in position on the stacker.

Turn the machine to 20°, and if the 4—18 point mould is to be used, place the mould blade slide in the *backward* position. Bring the slide to the *forward* position for 1—3 point, and attach the blade connection to the mould blade slide with the fork pin.

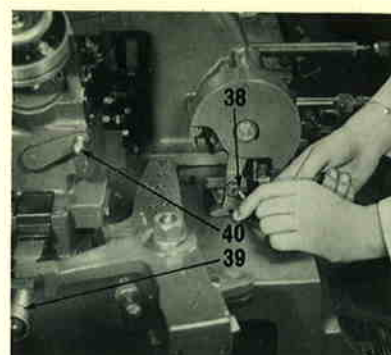


10. Place the mould (33) on the main stand, raising the back slightly so that the hook (34) on the jet block will engage the hook on the driving rod. Insert the clamps at the front and side of the mould, tightening until it is brought into correct location against the faces of the counter bracket and the wedge screw housing. Secure to the main stand with the four screws.

Connect the mould blade, of the 4—18 point mould, to the mould blade slide, turning the pin clockwise until it grips and then securing by tightening the set screw.



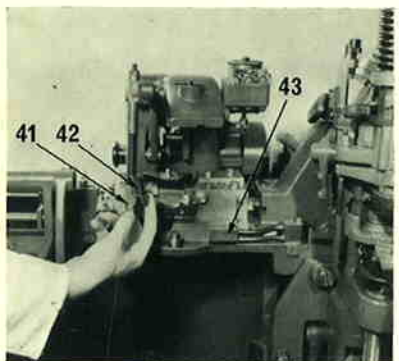
11. Turn the eccentric plunger lever fulcrum pin (35) to the 1—3 *L and R* position. Hang the weight (36) from the hook on the ratchet pin chain, and remove the pin (37) which connects the actuating rod to the housing.



12. Connect the upper hole of the actuating rod eye to the actuating lever (38), using the pin previously removed.

Make sure that the driving block cap abutment (39) is positioned with the large diameter end towards the rear.

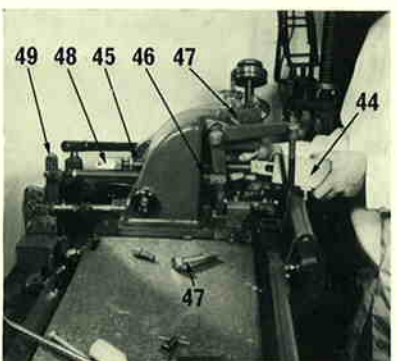
Place the stop lever handle (40) in the lowest or *Leads* position, unless preparing to cast clumps or dashes when it should be moved to the scale mark indicating the length in ems required.



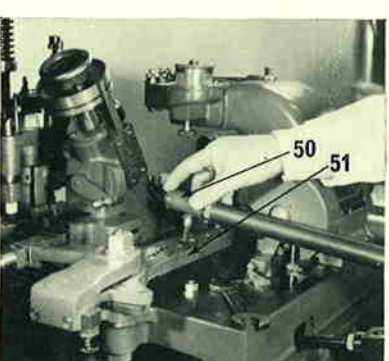
13. Connect the lead clamp intermediate lever rod yoke (41) to the lead clamp lever with the pin. Replace the clip (42) over the pin to secure in position.

Select the mould water supply piping (43) marked *L.R. and Furniture* and grease the locating faces. Assemble the piping onto the stud on the main stand, screw into the mould, and tighten down on the stud, with the nut and washer.

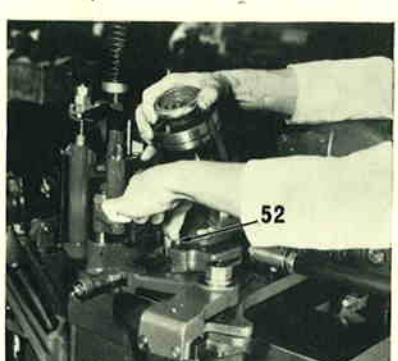
Attach the mould oiler piping and support to the underside of the mould oiler on the counter bracket.



14. When continuous borders and dashes are to be produced, assemble to the counter bracket the continuous border matrix lifter (44). Slide the spring box (45) through the gap alongside the lead clamp intermediate lever spring box (46). Fit the key on the matrix lifter into the keyway on the counter bracket, press the matrix lifter bracket firmly against the stop, and secure in place with the bracket screw (47). Connect the spring box yoke (48) to the upper hole of the matrix cam lever (49).



15. Connect the spring plate by the upper of the two holes to the swing frame post. Connect the mould blade slide drive lever connecting tube ball end (50) to the hole marked *Leads* on the intermediate lever (51).

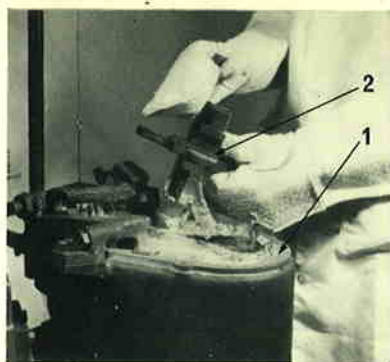


16. Use a 6-em border length gauge (52) as shown between the abutment plate and the mould blade stop; screw the wedge down until the gauge fits without binding; turn the scale to zero, and lock.

Assemble the galley side wall on the galley plate by locating the key in the keyway on the shear block and the opposite end on the galley side wall locating stud.

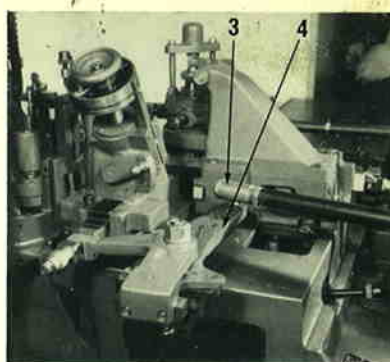


Changing from Sorts Casting for Small or Large Type Composition to Furniture

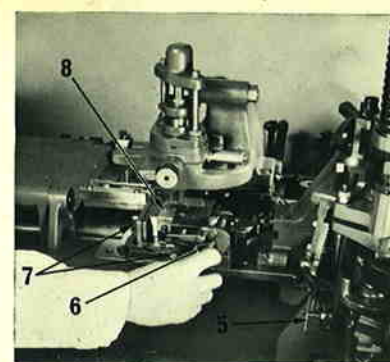


1. Switch off the electric motor; turn off the water supply; and place the gear control in the neutral position.

Lower the melting pot (1) and, if necessary, change the pump body (2), piston, and nozzle so that these parts will be hot enough to commence casting when the change-over is completed. Adequate protection should be provided for the handling of hot metallic parts.

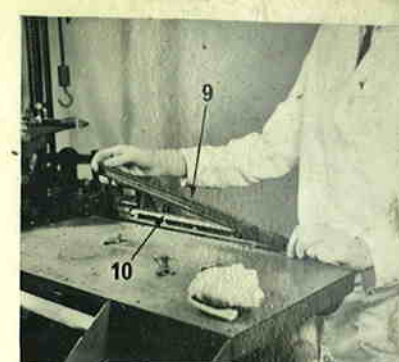


2. Disconnect the mould blade slide drive lever connecting tube ball end (3) from the intermediate lever (4), by removing the stud nut from the underside of the lever and lifting the ball end out of the hole. Move the tube to one side so that it is clear of the top of the machine.



3. Remove the air nozzle and holder; the crossblock oiler, and the mould oiler. Disconnect the mould water supply piping (5), and after releasing the knurled lock nuts remove the mould blade fork pin with a pin handle (6).

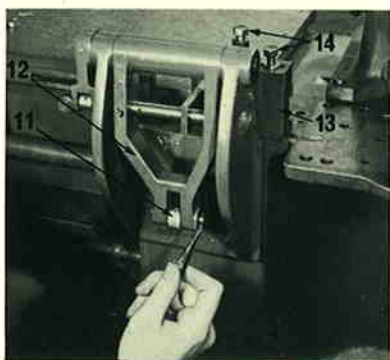
Turn the machine to 220° and turn the wedge screw until a mould opening of 60 point is indicated on the scale. Remove the three screws from the mould base, and also the clamps (7) from the side and the front of the adaptor base. Slide the mould to the right to disengage the hooks, and lift off both the mould (8) and the adaptor base.



4. Remove the two screws and washers, securing the lead stacker bar (9) to the lead stacker (10), and lift it off. The lead stacker bar does not need to be taken off the machine except for the production of Furniture.

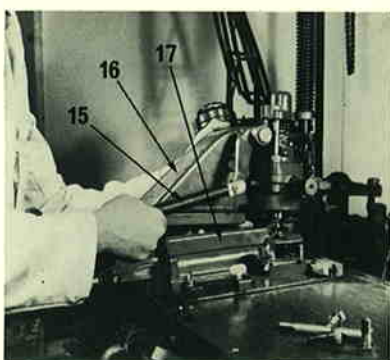
Remove the lead guide bracket (left-hand) from the main stand.

12



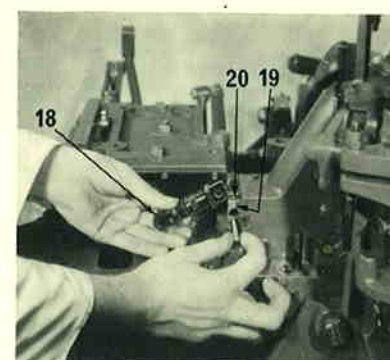
5. Disconnect the cutter actuating plunger link (11) from the cutter actuating lever (12) by removing first the split pin and then the cutter actuating pin.

If the cutter blade bracket (13) is in position, having been used during the casting of sorts for Large Type Composition, remove it by releasing the lock-screws (14).



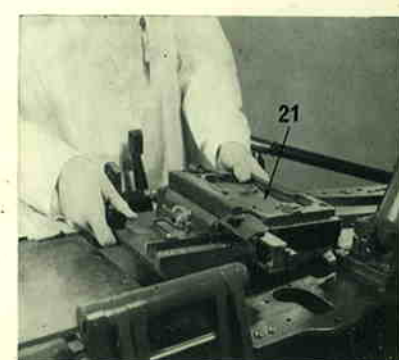
6. Disconnect the matrix lifter lever connecting rod yoke (15) from the cam lever by removing the nut and eye pin.

Release the one long screw and the three shorter screws securing the matrix head (16) to the base (17), and, taking a firm hold, lift the head off the machine.



7. Disconnect the mould blade fork (18) from the mould blade slide (19) by slackening off the set screw (20) just sufficient to remove the connecting pin.

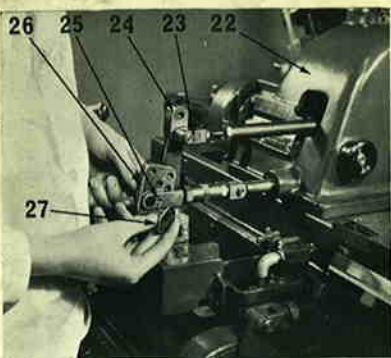
To avoid damage, re-tighten the set screw so that it is seated below the top face of the mould blade slide.



8. Disconnect the type pusher lever from the cam lever, by removing the nut and freeing the stud from the eye.

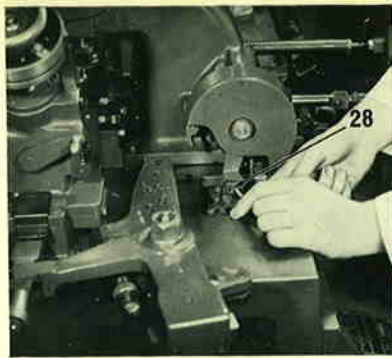
Disconnect the type carrier connecting rod from the cam lever extension by removing the split pin and the yoke connecting pin.

Remove the three remaining screws securing the matrix heads base (21), and lift it clear of the main stand.



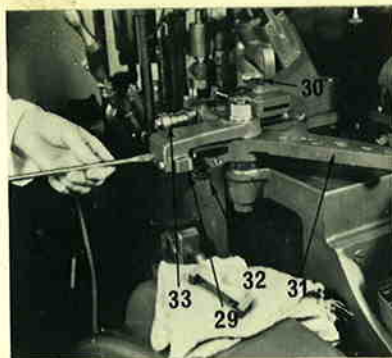
9. Assemble the counter bracket (22) to the main stand, locating the keys in the keyways, and securing with the four screws.

Connect the lead clamp intermediate lever spring box rod end (23) to the lower hole of the matrix cam lever (24) with the pin and nut, and connect the jet block driving rod connecting rod yoke (25) to the hole marked 12 on the type carrier cam lever extension (26), with the yoke position pin (27). Secure in the 12 point position pin with the pin screw.



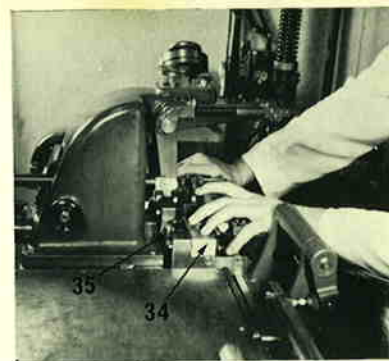
10. Disconnect the actuating rod eye from the rod housing by removing the pin. Use this pin to reconnect the upper eye of the rod (28) to the actuating lever.

Hook the weight onto the ratchet pin chain and allow it to hang inside the main stand.



11. Change the mould blade slide drive lever plate (29), for the alternative plate marked *Furniture*. To remove the plate, place the stop lever handle (30) in its lowest position and slacken off the spring adjusting nut. Set the eccentric fulcrum pin at the 1—3 *L and R* position. Disconnect the intermediate lever (31) by pulling it in the position shown above. The lock pin (32) is now holding the plunger. Remove the two screws, and change the plate. Place the intermediate lever back in position and release the plunger by pulling the lock pin knob downwards. Raise the stop lever handle.

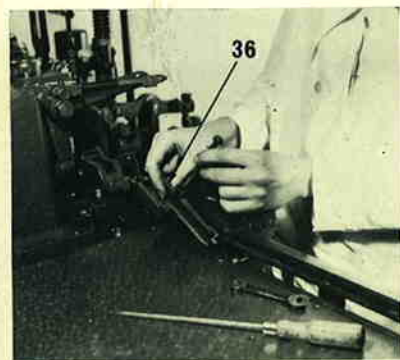
Check the driving block cap abutment (33); the large diameter end should be towards the rear.



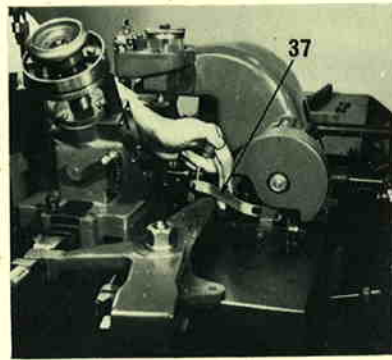
12. Turn the machine to 200° and place the mould blade slide in the backward position.

Place the mould (34) on the main stand, but before locating it in position push the jet block forward so that the hook (35) is clear of the mould. Lift the mould and engage the hook on the jet block over the hook on the driving rod. Secure the mould to the main stand with the clamps, locating it correctly against the counter bracket and the wedge screw housing base. Insert the four screws and tighten down.

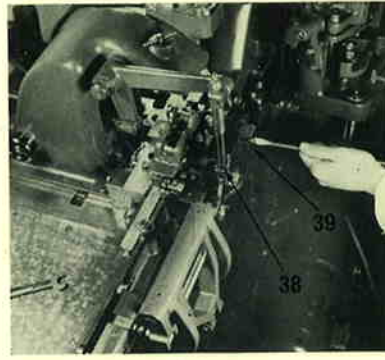
Connect the mould blade to the slide with the pin; turning until it is felt to grip. Tighten the set screw to secure.



13. Attach the furniture guide (36) to the main stand with the long screw, washer and collar from the cutter blade bracket.



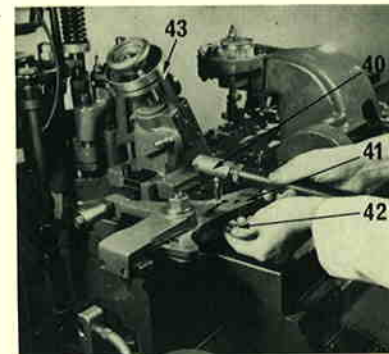
14. Attach the actuating lever link (37) by placing the elongated eye over the pin on the actuating lever, and hooking the other end to the fusing stop on the mould.



15. Connect the lead clamp intermediate lever rod yoke (38) to the lead clamp lever, unclipping the pin to make the connection, and re-clipping after having done so.

Grease the locating faces of the mould water supply piping (39), and fasten one end to the main stand stud with the nut and washer, and the other end to the mould with the screw.

Attach the mould oiler to the rear of the counter bracket with two screws, and the mould oiler piping and support to the underside of the mould oiler, locking with the knurled nut.



16. Connect the lower pump body lifting spring plate by the upper hole to the swing frame post.

Connect the mould blade slide drive lever tube ball end (40) to the hole marked *Furniture* on the intermediate lever (41), seating the snug pin in the groove, and securing with the nut (42).

Using a 3-em gauge between the fusing stop on the mould and the lower edge of the blade, adjust the wedge screw to indicate zero on the scale (43).

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