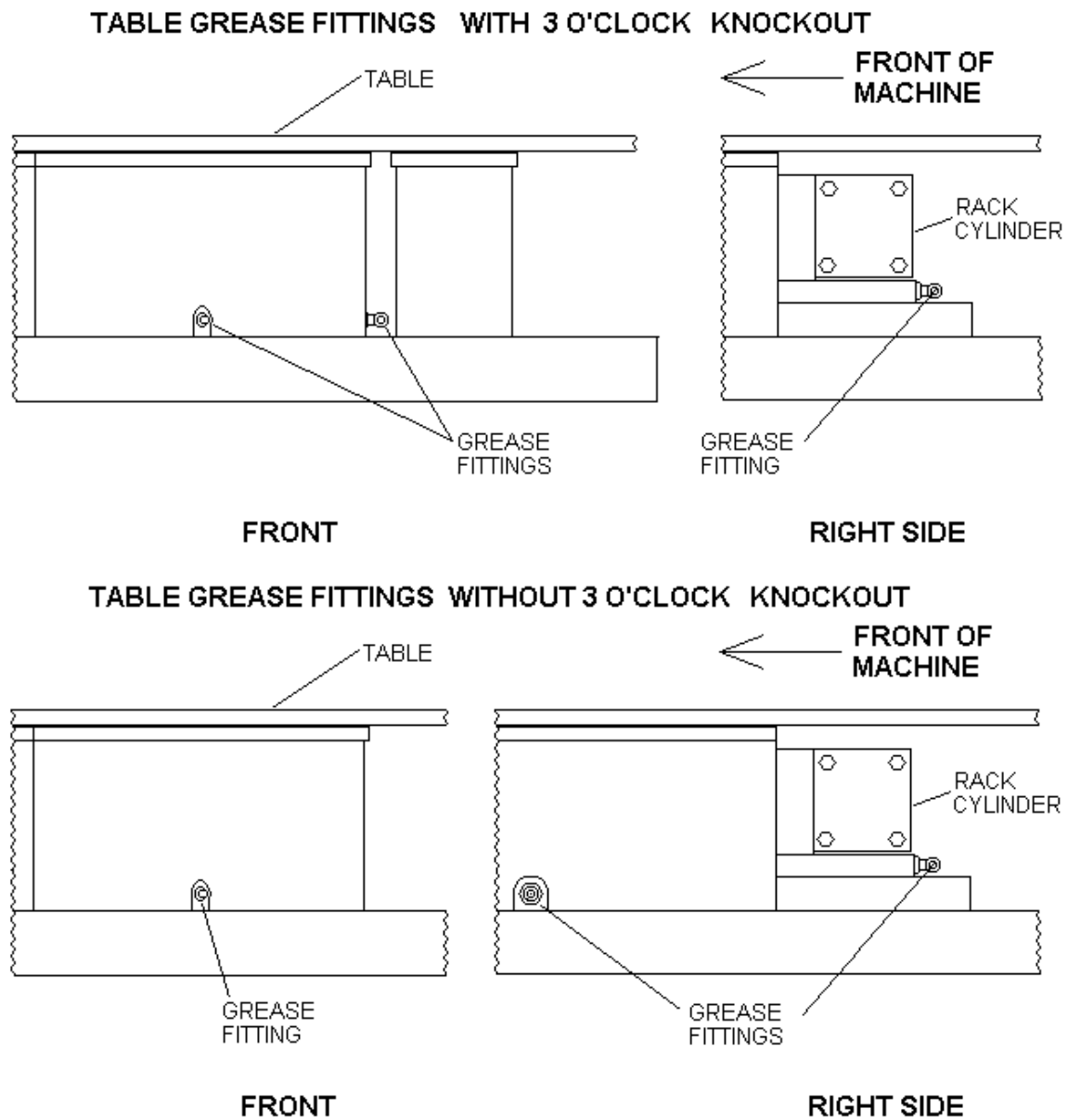

Section 5- MAINTENANCE PROCEDURES

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GREASING THE TABLE

There are 3 GREASE FITTINGS that should be lubricated with good quality industrial grade grease: once a month for 1-shift operations.

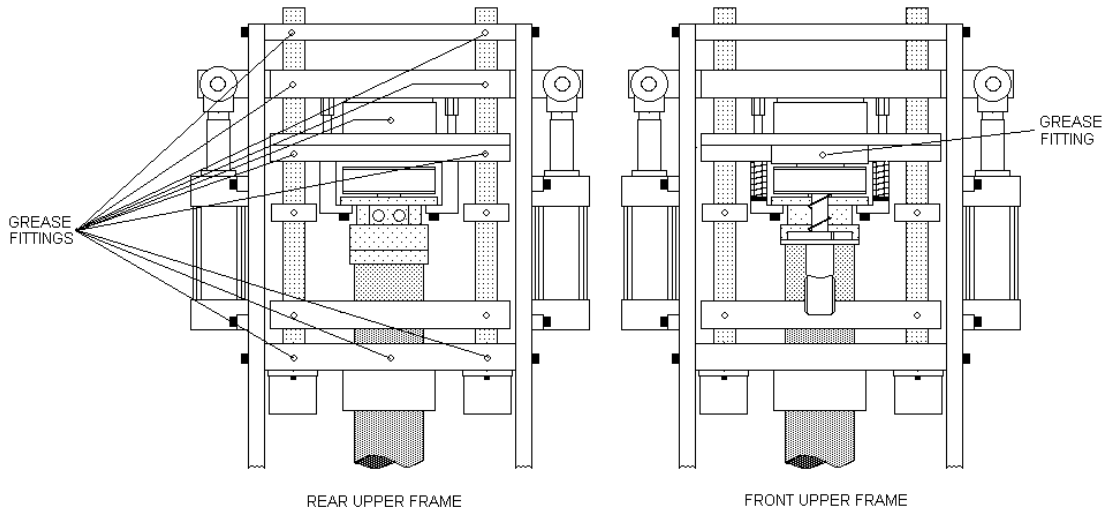


The end of the rack should be greased: once a month for 1-shift operations.

1. Remove the three screws for top of table.
2. Knock the two dowel pins through table.
3. Remove table.
4. Grease then end of rack.
5. Replace table, dowel pins and screws.

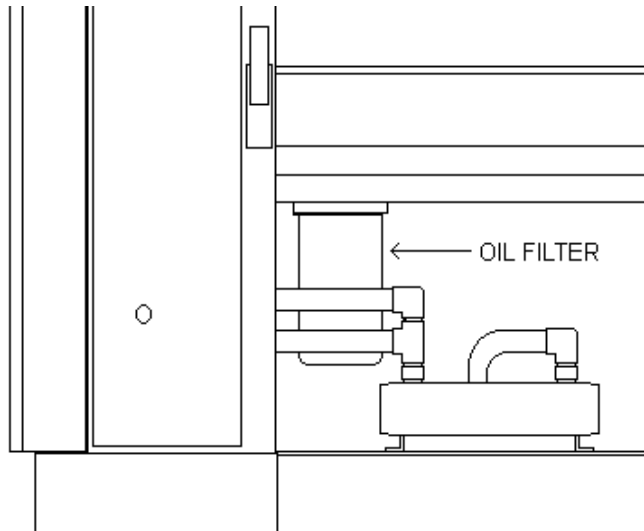
GREASING THE UPPER FRAME

There are 11 grease fittings on the upper frame. Ten (10) are found from the back of machine and one (1) from the front.



OIL FILTER

The spin-off OIL FILTER is located on the left side, as seen from front, of the hydraulic power unit. Replace it every 4 months for one-shift operations. To remove, just turn counter-clockwise as viewed from bottom of filter.

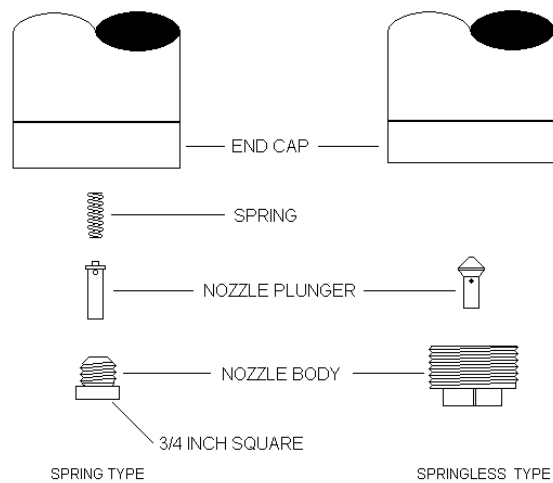


CLEANING THE NOZZLE

After prolonged use, the NOZZLE may develop a leak of drool, indication that cleaning is necessary.

CAUTION: All necessary safety precaution should be in effect before proceeding. E.G. Gloves and safety glasses. During the following procedure it is possible for hot material to spray out.

1. It is first necessary to bring system heat almost up to molding temperature.
2. Unscrew the nozzle assembly (body and plunger) from the end cap.
3. Remove the nozzle die spring from up inside the end cap.
4. Clean all material from nozzle, separating the nozzle plunger and nozzle body. Clean parts thoroughly with wire brush or emery cloth. Be sure the nozzle plunger will slide freely up and down in the nozzle body.
5. Clean nozzle die spring. Or replace spring, if weak.
6. Place spring on nozzle assembly and then replace in end cap.



SCREW OR BARREL REMOVAL AND CLEANING

The following shows the components that must be disassembled in order to remove the screw. If possible purge through a purging compound or polypropylene material.

Preliminary Procedure

- 1). Remove INJECTION CYLINDER and SCREW MOTOR GUARDS. Fig. 1

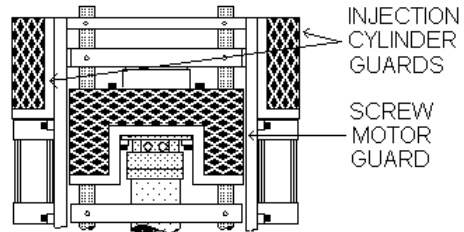


FIG. 1

- 2). Remove the TOP PLATE by removing the 4 SCREWS holding the TOP PLATE to UPPER FRAME. Fig. 2 & 3

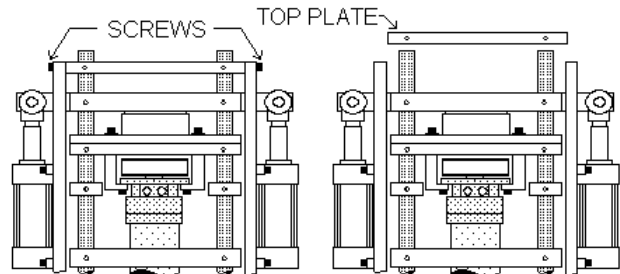


FIG. 2

FIG. 3

- 3). Holding SCREW MOTOR, remove the 2 SCREWS holding the motor to the motor plate. Fig. 4
- 4). Slip off DRIVE BELT and place motor on floor or on a table.

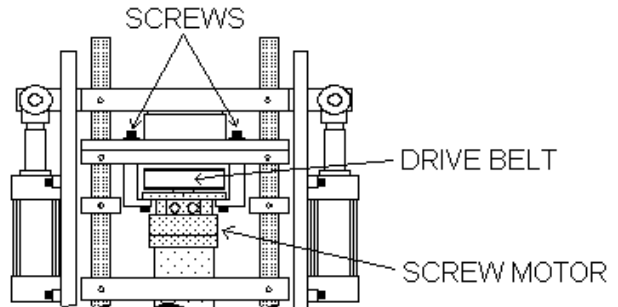


FIG. 4

- 5). Remove 2 STRIPPER BOLTS AND SPRINGS. Fig. 5

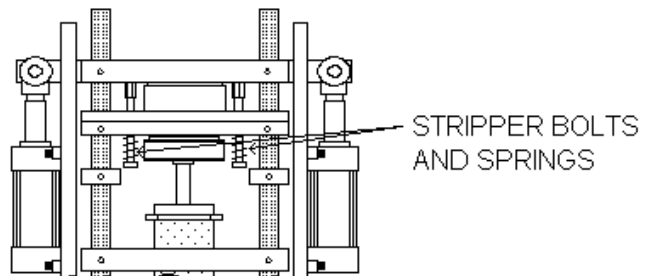
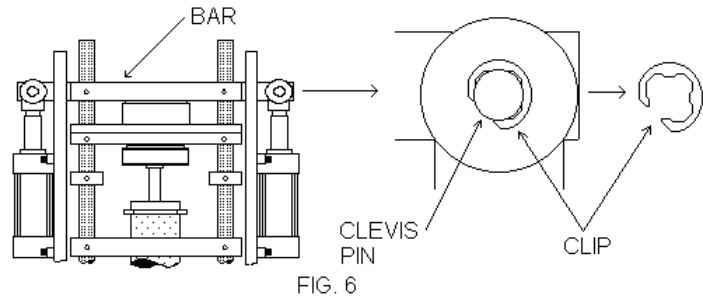


FIG. 5

- 6). Remove 2 CLIPS from rear of clevis pins. Fig. 6
- 7). Remove 2 CLEVIS PINS. Fig. 6
- 8). Remove BAR. Fig 6.



NOTE: The barrel must be hot enough to melt the molding material.

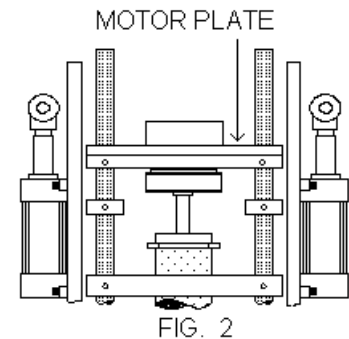
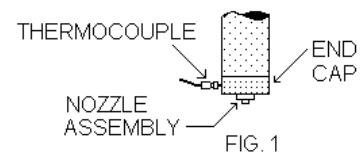
CAUTION: All necessary safety precaution should be in effect before proceeding. E.G. Gloves and safety glasses. During the next steps it is possible for hot material to spray out.

If the molding material was successfully purged, continue with SCREW REMOVAL PROCEDURE. If molding material is burnt follow BARREL AND SCREW REMOVAL PROCEDURE.

For removing barrel continue with BARREL AND SCREW REMOVAL PROCEDURE.

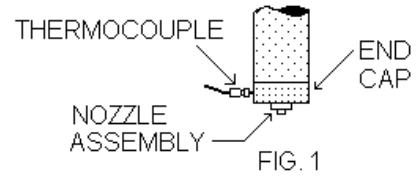
SCREW REMOVAL PROCEDURE

- 1). Remove NOZZLE ASSEMBLY and spring. Fig. 1 Refer to CLEANING THE NOZZLE for more details.
- 2). Unplug bottom Heater band and remove bottom THERMOCOUPLE. Fig. 1
- 3). Remove END CAP (held by 6 Screws). Fig. 1
- 4). Pull up and out, the MOTOR PLATE and Screw together. If the Screw hangs up, you should push the assembly back down and allow it to heat up more. Fig. 8 If this doesn't work you may have to continue with BARREL AND SCREW REMOVAL PROCEDURE.
- 5). Clean all parts with copper gauze, silicon jell and brass putty knife. Propane heat can also be used as long as care is used not to overheat screw; as this could warp it.
- 6). Reassemble.



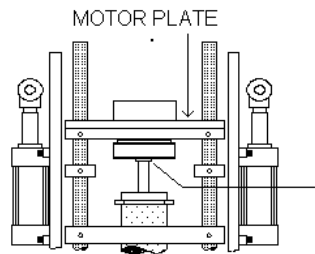
BARREL AND SCREW REMOVAL PROCEDURE

- 1). Turn off heat.
- 2). Remove NOZZLE ASSEMBLY and spring. Fig. 1
Refer to CLEANING THE NOZZLE for more details.
- 3). Unplug bottom Heater band and remove bottom THERMOCOUPLE. Fig. 1

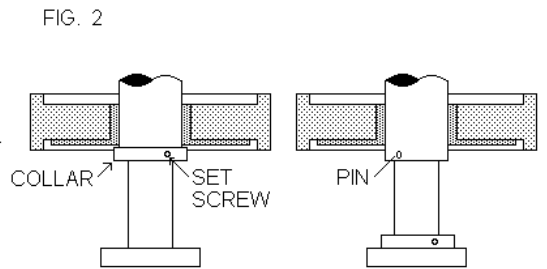


- 4). Remove end cap (held by 6 Screws). Fig. 1

- 5). Loosen set screw on COLLAR. Fig. 2



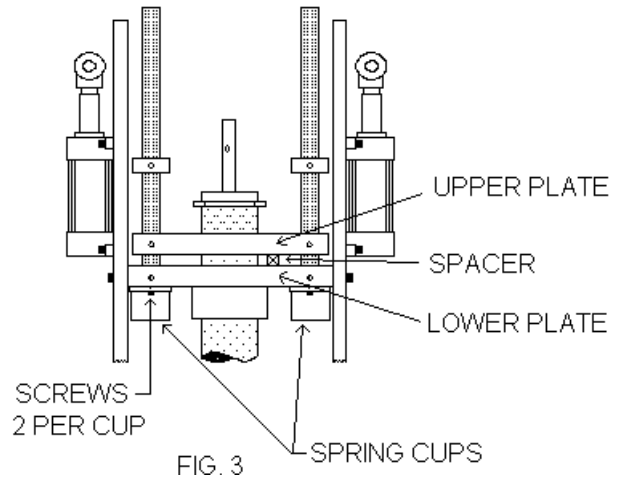
- 6). Slide COLLAR down and remove PIN from under former collar position. Fig. 2



- 6). Lift off the MOTOR PLATE assembly. Fig. 2

- 7). Put a SPACER between UPPER PLATE AND LOWER PLATE. Fig. 3

- 8). Remove 4 SCREWS from two SPRING CUPS. Fig. 3

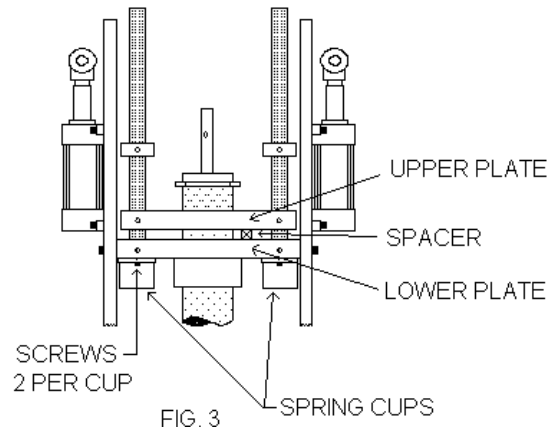


- 9). Remove 2 SCREWS and SPRING RETAINER from end of guide rods. Fig. 4

- 9). Allow barrel to cool down.

- 10). Remove thermocouples and heater bands.

- 11). Clean off surface of barrel.



12). Remove barrel by pulling up on UPPER PLATE with barrel still attached. Fig. 5

13). Secure in vise.

14). Apply heat.

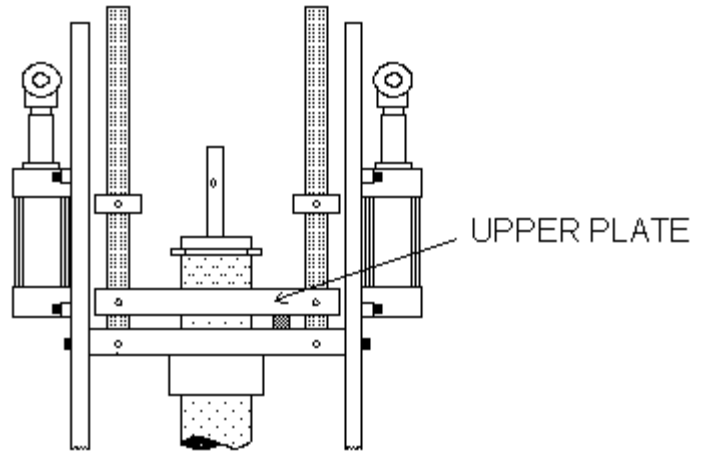


FIG. 5

15). Push out screw from lower end of barrel. It may be necessary to fasten a special tool to the bottom of the barrel in order to remove the screw.

16). Clean all parts with copper gauze, silicon jell and/or brass putty knife. Propane heat can also be used as long as care is used not to overheat screw; as this could warp it.

17). Reassemble.

CONTROL PANEL

Periodically clean the membrane keyboard. Use a mild detergent. **DO NOT USE SOLVENTS.**

BATTERY REPLACEMENT

Approximately every year the batteries may need to be replaced. To replace the batteries use the following procedure:

- 1). Make note of which Bank the machine is in. Refer to Section 3 - How to Use Memory Banks.
- 2). Turn off machine.
- 3). Open up the rear wire way cover.
- 4). Remove old batteries.
- 5). Install new batteries, noting proper polarity.
- 6). REBOOT. Refer to Section 3 - How to Reboot

If any problems are encountered refer to section 6 - Testing Batteries and Charger.