










SETTING UP THE MODEL 20 UTL



SAFETY PRECAUTIONS FOR THE MODEL 20 UTL

-  **System Under Pressure:** Shut off air supply and disconnect air hose before disassembling or disconnecting parts.
-  **Flying Debris:** During boring, chips may be ejected. Stay behind control panel and wear safety glasses to prevent eye injury.
-  **Pinch Points:** Keep hand clear of carriage assembly. Hands or fingers caught between carriage and frame may be seriously injured.
-  **Moving Parts:** When moving drill unit, use carriage lock to prevent assembly from sliding onto hands or fingers.
-  **Heavy Load:** Use handles to reposition the drill unit. Weight of the drill unit may cause back strain if improperly lifted.

SAFETY PRECAUTIONS FOR THE MODEL 20 UTL (continued)

-  **Loud Noise:** Wear ear protection to prevent eardrum damage from air compressor.
-  **Dust:** Wear a dust protection mask to protect from concrete dust.
-  **High Pressure:** High pressure from the air compressor can damage the drill, and can void the warranty.
-  **Lifting The Drill Unit:** when using a lifting device to pick up the drill unit, use a strap or chain which is rated for the proper weight, and attach to the lifting bale on the drill unit. Be sure carriage lock is in place.

INSTALLING THE DRILL BIT



System Under Pressure: Shut off air supply and disconnect air hose before disassembling or disconnecting parts.

(to remove pressure from system, have air supply disconnected from drill unit, and turn the power switch to the "On" position)

- **IMPORTANT:** The chuck size of the drill bits must match the chuck size of the drill. Look for the decal on the side of the drill motor to confirm the chuck size. Most E-Z Drill models come standard with 7/8" x 3 1/4" chuck. However, a 7/8" x 4 1/4" chuck and 1" x 4 1/4" chuck are available on request.
- All Model 20 UTL's with 7/8" x 3 1/4" chuck size use 6" of the usable length of the bit (i.e. a 24" bit will drill up to 18" deep; an 18" bits will drill up to 12" deep.



INSTALLING THE DRILL BIT

- **IMPORTANT:** You must have the correct bit guide bushing to match the bit you will be using:

For drilling a:

5/8" diameter hole, use 1108 MCP

3/4" diameter hole, use 1109 MCP

7/8" diameter hole, use 1110 MCP

1" diameter hole, use 1111 MCP

1 1/8" or larger diameter hole, use 1112 MCP

- Part numbers above will fit bits with either 7/8" x 3 1/4" or 7/8" x 4 1/4" chucks. For 1" x 4 1/4" chucks, see parts book.



INSTALLING THE DRILL BIT

- To install a drill bit, loosen the swivel bolt until you can swing it out away from the lower bit guide.



INSTALLING THE DRILL BIT

- Pull down on the retainer latch on the drill motor.



Pinch point



INSTALLING THE DRILL BIT

- Place the bit into the chuck, close the retainer latch, and close the bit guide and tighten the swivel bolt.



INSTALLING THE DRILL BIT

- You may have to adjust the return stop rod so that the end of the bit clears the bit guide.



INSTALLING THE DRILL BIT

- To adjust the return stop rod, loosen the stop rod nuts. Move the stop rod in the direction needed to the required location and re-tighten the nuts.



SETTING THE DRILL DEPTH

- To adjust the drill unit to drill to the desired depth, you will adjust the stop rod on the other side of the carriage. After releasing the carriage lock, lower the carriage down until the bit contacts the surface, then measure from the head of the stop rod to the stop pad. This will be the drill depth. Then make the adjustments to the stop rod to the desired drill depth.



CHECKING THE IN-LINE OILER

⚠ WARNING DO NOT REMOVE CAP UNDER PRESSURE !

(to remove pressure from system, have air supply disconnected from drill unit, and turn the power switch to the "On" position)

- Remove the oiler cap from the oiler.
- Oiler must be filled with proper rock drill oil (see "Recommended Specifications for Rock Drill Lubricant")



RECOMMENDED SPECIFICATIONS FOR ROCK DRILL LUBRICANT

The use of synthetic oils is NOT RECOMMENDED due to possible damage to seals, "O" rings, hoses, blades, and polycarbonate oiler/filter bowls. Use only a non-detergent, Class 2, pneumatic lubricating oil (viscosity 100-200 S.S.U. @ 100° F and minimum aniline point of 200°F); which contains no synthetic additives; and which is compatible with Buna-N, Neoprene, Urethane, Silicone, and Hytrel components.

Consistency shall be such that the oil will adhere readily to metallic surfaces under extreme pressure conditions that exist in a rock drill.

| | | |
|--------------------------------------|------------|-----|
| Flash, Cleveland open cup..... | 380°F Min. | (a) |
| Carbon Residue..... | 0-30% Max. | |
| Viscosity at Atmospheric Temperature | | |
| Below 20°F..... | SAE #10 | |
| 20° to 40°F..... | SAE #20 | |
| 40° to 80°F..... | SAE #30 | |
| 80° to 110°F..... | SAE #40 | |
| Above 100°F..... | SAE #50 | |
| Mineral Activity..... | None | |
| Free Fatty Acid (as Oleic %)..... | 0.40% Max. | |
| ASTM Steam Emulsion No..... | 600 Max. | (b) |
| Metallic Soaps..... | None | |
| Pour Point F..... | +10 Max. | (c) |
| Film Strength PSI | | |
| Almen Test..... | 12,000 | (d) |
| Weeks Test..... | 8,000 | (d) |

(a) Where lower than normal viscosity oil is used at extreme low temperature, 350°F flash point permissible.

(b) 1200+ desired where moisture is a major factor. Operator must compensate for foaming when filling the lubricator.

(c) For below normal atmospheric temperature operation, lower pour test product may be required.

(d) Desired values, not minimum. Rock drill oils must have appreciably greater load carrying ability than straight mineral oils of like viscosity. High film strength is required by the heavy rotational loads present in drilling conditions. Additives which impart extreme pressure characteristics to the oil must be non-corrosive to the drill mechanism.

CHECKING THE IN-LINE OILER

- Fill the oiler to the top of the adjustment screw. The oiler should run approximately four hours before needing refilled.
- If you need to make an adjustment to the flow, use a screwdriver to turn the screw to a higher number for more flow, or to a lower number for less flow.
- Note: factory setting will be close to “4”.
- Replace and tighten oiler cap.



DRILL MOTOR LEVER

- Always ensure the drill motor lever is in the position as shown in the picture at right. This lever should always be parallel to the drill motor to ensure proper operation. Turning the lever down will shut off the air to the motor.

