HOW TO BLEED AIR OUT OF THE OILER SYSTEM ON THE MODEL 210B-2 SRA

IMPORTANT:

To prevent air from getting into the oiler system, make sure that the oil tank is never run dry or allowed to empty completely out. Fill the oil reservoir daily (see “Recommended Specifications for Rock Drill Lubricant”).

If the oil tank does run out of oil while the drills are running, air will get into the system and cause an air lock. Simply adding oil to the oil tank will not overcome the air lock. You will have to “bleed” the system before the oil injection system will work properly again.

(Note: running the tank empty will cause damage to the rock drills)

E-Z DRILL'S OIL INJECTION SYSTEM

The oil injector is seen here. It is located under the control panel of the machine near the oil reservoir tank.

The two black knobs will come from the factory set to "maximum". The screw in the black block adjusts the frequency of the pulse. It should be set to pulse every 12-20 seconds. Turning the screw clockwise increases the frequency while turning the screw counterclockwise decreases the frequency.

ACCESSING THE OIL INJECTION SYSTEM

Remove the bolts from the control panel, and raise the panel as shown in the picture.

ADJUSTING THE AIR PRESSURE IN THE OIL TANK

Next to the oil injector, you will see a small regulator with a gauge. This pressurizes the oil reservoir tank. The gauge should read approximately 35-50 psi. Adjust the pressure by raising the grey knob on top of the regulator, then turning clockwise to increase the pressure or counter-clockwise to decrease the pressure.

For normal operations, **do not exceed 50 psi,** or the oil injector system will not work properly.

BLEEDING THE OIL INJECTION SYSTEM

If the oil reservoir runs dry, air will get into the system. Simply adding oil to the reservoir will not overcome the air in the system. You will need to “bleed” the air from the system. Before attempting to bleed the oil injection system, fill the oil reservoir (see “Recommended Specifications for Rock Drill Lubricant”).

First connect the air supply to the Model 210B-2 SRA. Next, place the levers on the rock drills in the position as shown in the photo at right. This will prevent the rock drills from coming on when the system is powered up.

(Important: After the oil injection system is working properly, be sure to place these levers back in the original position)

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.

BLEEDING THE OIL INJECTION SYSTEM

Turn the two power toggle switches on the control panel to the “OFF” position.

BLEEDING THE OIL INJECTION SYSTEM

Pull up on the regulator knob and turn clockwise to increase the pressure until the gauge reads 120 psi.

Wait approximately 30 – 60 seconds for air bubbles to move through the 1/8” clear lines to each pilot pressure valve.

BLEEDING THE OIL INJECTION SYSTEM

Turn the regulator pressure back down to 50 psi.

Turn on either of the power lever toggle switches. Turn the screw to increase the frequency of the pulse. Watch for air bubbles in the either or both lines. As soon as all the air bubbles have moved through the line to the pilot pressure valves, turn that toggle switch off, and turn the other toggle switch on. Again, watch for air bubbles as they move through the lines.

BLEEDING THE OIL INJECTION SYSTEM

Repeat this process until all air bubbles have moved down to the pilot pressure valves, and you don't see any more forming.

Before turning the toggle switch off, reduce the frequency of the pulse back to every 12-20 seconds.

Allow the system to keep pulsing until you are certain all air bubbles are removed.

BLEEDING THE OIL INJECTION SYSTEM

Reset the oil tank regulator pressure to between 35-50 psi.

Turn both toggle switches off, lower the control panel and replace all bolts.

Return both the levers on the drill motors to their original position.

The bleeding process should now be complete and ready for normal operation.