OPERATING INSTRUCTIONS FOR THE MODEL 210-3, -4 , and -5 EQ MT

SAFETY PRECAUTIONS FOR THE MODEL 210-3, -4, -5 EQ MT

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

Flying Debris: During boring, chips may be ejected. Remain behind control panel and wear safety glasses to prevent eye injury.

Pinch Points: Keep hands clear of carriage assembly. Hands or fingers caught between carriage and frame may be seriously injured.

Moving Parts: When moving the drill unit, use the carriage lock to prevent the carriage assembly from sliding onto hands or fingers.

Transporting: Ensure all carriage locks are in place, and the swivel brake is engaged.

SAFETY PRECAUTIONS FOR THE MODEL 210-3, -4, -5 SRA (continued)

Loud Noise: Wear ear protection to prevent eardrum damage potentially caused from the air compressor.

Dust: Wear a dust protection mask to protect from concrete dust.

High Pressure: High air pressure from the air compressor can damage the drill and can void the warranty.

POSITIONING THE DRILL

- When the backhoe is ready to position the drill on the slab, first put the “Brake” toggle switch in the “off” position.

- This unlocks the swivel to allow the drill operator to swing the drill into place.

CAUTION: Heavy load. Keep the drill frame level to keep it balanced.

POSITIONING THE DRILL

- Unlock all carriage locks.

POSITIONING THE DRILL

- Using the backhoe to position the drill on the slab, make sure that the box frame on the slab is level, and the drill frame is pulled up against the slab. The drill operator on the ground should signal the backhoe operator to help him locate the drill on the slab close to where the first set of holes are to be drilled.

POSITIONING THE DRILL

- Again, make sure the drill unit is “snug” up against the concrete slab. The backhoe should position close to the first set of holes to be drilled.

- The “side-shift” feature allows the drill operator to now move the drill frame laterally right or left to the exact drilling location.

- NOTE: The “side-shift” feature has approximately 14” of travel.

“SIDE SHIFT” FEATURE

- Use the side-shift lever to move the drill frame either right or left.

- This feature, in cases where there is 12” spacing between holes, allows you to drill two sets of holes without moving the entire drill unit. To do this, the spacing would have to be set at 24”. You would line up the first set of holes, drill and retract. Then side-shift over 12” to the next set of holes and drill them. After retracting, the backhoe will then pick up the drill unit and re-position.

POSITIONING THE DRILL

- At this point, the guide plates on the main frame should both be touching the face of the concrete. If one or both are not touching the concrete, the backhoe operator needs to pull the drill unit to meet the concrete slab.

SETTING AND ADJUSTING THE FEED PRESSURE

NOTE: For the drills to drill properly, and at optimum drilling speed, you may have to make some adjustments to the feed pressure on each drill. To begin with, it easier to make this adjustment one drill at a time. After making the desired adjustments to all drills, you can then start running all drills simultaneously.

SETTING AND ADJUSTING THE FEED PRESSURE

- To make the feed pressure adjustment to the first drill, place the Feed Control Valve into the “In” position. All drills will move forward until the bits make contact the concrete.

SETTING AND ADJUSTING THE FEED PRESSURE

- Check all gauges on the control panel. All gauges should read approximately 20 psi.

SETTING AND ADJUSTING THE FEED PRESSURE

- To make an adjustment on the Regulator, lift the regulator knob, and turn it clockwise to increase the feed pressure, and turn it counter-clockwise to decrease the feed pressure. After you finish, push the knob down until it clicks.

SETTING AND ADJUSTING THE FEED PRESSURE

With all the individual power switches in the “Off” position, place the Main Power Switch in the “On” position.

SETTING AND ADJUSTING THE FEED PRESSURE

- Turn the first drill on by placing the individual power switch into the “On” position. The corresponding drill will start drilling. The drill should move forward into the concrete with a slight “quiver” as it drills. If it is “bouncing”, it means it does not have enough feed pressure. Lift up and slowly turn the regulator knob clockwise until the “bouncing” stops and you still have good rotation on the bit.

⚠ ***Flying Debris***: During boring, chips may be ejected. Remain behind the control panel and wear safety glasses to prevent eye injury.

⚠ ***Loud Noise***: Wear ear protection to prevent eardrum damage potentially caused from the air compressor.

⚠ ***Dust***: Wear a dust protection mask to protect from concrete dust.

SETTING AND ADJUSTING THE FEED PRESSURE

- If the bit is not turning freely, you will need to decrease the feed pressure by slowly turning the regulator knob counter-clockwise until the bit is turning freely.

- After setting the feed pressure at the appropriate level, push the regulator knob back down to lock it into place.

SETTING AND ADJUSTING THE FEED PRESSURE

- Repeat this procedure with each drill. After all drills have been adjusted properly, you can now run all drills simultaneously by placing each drill switch in the “On” position and using the Main Power Switch to turn them on and off. If the need arises, you can always run each drill individually.

- Note: If you need to keep an individual drill from drilling, simply turn the corresponding power switch to the “Off” position. The drill will still feed up to the concrete, but it will not drill.

DRILLING OPERATION

- After all adjustments have been made and you are now ready for production drilling, follow the next steps in proper order to ensure maximum production and prevent unnecessary damage to the drill.

- Place the Feed Control Valve in the “In” position.

DRILLING OPERATION

- After the bits contact the concrete, place the Main Power Switch in the “On” position. All drills will start drilling.

⚠ ***Flying Debris***: During boring, chips may be ejected. Remain behind the control panel and wear safety glasses to prevent eye injury.

⚠ ***Loud Noise***: Wear ear protection to prevent eardrum damage potentially caused from the air compressor.

⚠ ***Dust***: Wear a dust protection mask to protect from concrete dust.

DRILLING OPERATION

- After each drill reaches its preset drill depth, it will shut off automatically. When all drills have shut off, place the Main Power Switch to the “Off” position.

DRILLING OPERATION

- Place the Feed Control Valve into the “Out” position.

DRILLING OPERATION

IMPORTANT: DO NOT TURN THE DRILLS ON BEFORE THEY ARE IN CONTACT WITH THE CONCRETE OR LEAVE THEM ON WHILE RETRACTING. THIS CAUSES “DRY-FIRING” (drills are running with no pressure against the bit). THIS WILL CAUSE EXTREME DAMAGE TO THE DRILL UNIT.

DRILLING OPERATION

- If you are using the side-shift feature to drill two sets of holes without moving the drill unit, use the side-shift lever to move the drill laterally to the next set of holes, and repeat the process of feeding the drills in and turning them on.

- If the drill unit requires re-positioning, the backhoe operator must move and re-position as before.

DRILLING OPERATION

- If you have finished drilling the entire “patch” and are ready to transport to the next “patch”, lock the swivel by placing the “brake” toggle switch to the “on” position. As the backhoe picks the unit up, swing the drill unit until the lock engages.

WARNING *Failure to lock the swivel brake can cause injury to anyone standing near the drill or be a danger to any traffic in an adjacent lane.*

DRILLING OPERATION
MODEL 210-3, -4, -5 EQ MT (continued)

- When drilling is complete and the air supply from the air compressor is going to be shut off, ensure all carriage locks are in place, and the swivel brake is on.

⚠WARNING *Failing to place all locks in the proper places will cause the drills to drop when the air supply is disconnected.*