

Drill Maintenance Chart

Item	Frequency	Action
Check oil level	At start up, between holes, and after every hour of continuous drilling.	Verify casing is half full of SAE 80-90 weight gear oil
Inspect all seal areas		Verify no residue exiting from vents or port holes
Grease all seals		Grease with EP2 grease
Inspect hoses and lines		Verify no damage and no leaks
Wire rope inspection		Verify no kinks and or fraying
<p>FOR GREATER DETAIL – REFER TO THE DRILL MANUAL For additional information not found in drill manual, call Berminghammer at 1-800-668-9432.</p>		



Drill Pocket Manual

Web Version 1.0

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Maintenance

Oil & Grease

Oil

Ensure the drill casing is maintained half full with SAE 80-90 weight gear oil (roughly nine 20L pails). With the drill head upright and level, regularly check the drills sight glass and add oil as necessary via the filler pipe plug located on the top of the drill casing.

Grease

EP2 grease is the approved seals lubricant.

Greasing should be performed with the drill being operated at a slow speed (5 rpm), to ensure sufficient grease distribution.

Greasing can be performed with a manual or electric grease gun. All seals must be regularly greased per the intervals of the drill manual,

electric grease gun procedure and/or this pocket manual.

Ensure grease nipples and gun are kept clean to prevent grease contamination and/or plugging of grease nipples.

Manual Grease Gun

Grease each nipple with 15 pumps at the start of the shift, at the start of each hole, and after every hour of continuous drilling. See drill manual for exact numbers and locations of grease nipples.

Electric Grease Gun

Grease each nipple at the start of the shift, at the start of each hole, and after every hour of continuous drilling. The amounts of grease pumped using an electric grease gun is measured in 1 minute intervals. Refer to the Ground Greasing Procedure in the Drill Manual or Grease Gun Case.

Operation

Air Vent

Ensure the casings air vent is installed before drilling. If the air vent was removed because the drill was previously on its side or back, be sure to re-install the vent.

Drill Direction

The correct drilling direction is clockwise, which is determined by looking down at the drill.

NOTE: the oil pump only operates when the drill rotates clockwise, therefore limit drilling in reverse (such as to free a jam).

NOTE: extra caution must be taken with reverse operation of the drill when using API drill string as the drill string connections could loosen.

Seals Inspection

During drill operation, regularly inspect the Discharge Indicator Hole (see diagram for location) for any runny discharge. Discharge means the seals have worn out and need to be changed before the lower seal is damaged, which could allow grit or slurry from the drilling operation to enter the drill casing and cause damage. Check the vent hole in Swivel for oil and/or air leaks, and replace seals if a leak is found.

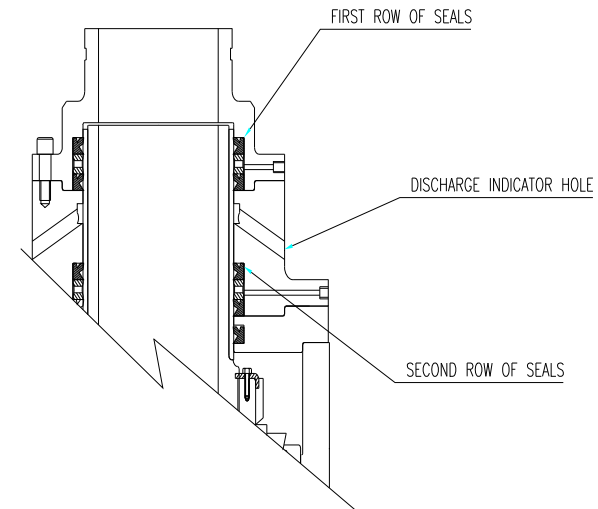
The hydraulic motor also has seals which could wear causing the drill casing to fill with hydraulic fluid. Therefore always monitor the drill cas-

ing oil level, and replace the seals as necessary.

Seals Replacement

All seals must be installed with their outside diameter seated in silicone. This includes all seals in the swivel housings as well. Contact Berminghammer for replacement seals.

Seals location diagram



Hoses & Lines Inspection

Regularly inspect all hoses and lines to ensure there is no damage and/or leaks and replace any necessary.

Post Operation Inspection

At job completion, inspect the oil for contamination caused by water, rock or other debris. When necessary drain casing via the drain hole located at the bottom of one of the side plates.