HOW TO KEEP YOUR HYDRAULIC ROCKBREAKER ATTACHMENT WORKING FOR YOU
A Maintenance Guide + Checklist

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BREAKER MAINTENANCE

When it comes to hardworking tools, the hydraulic breaker, also called hydraulic hammer, is one of the toughest in town. They are built for breaking, splitting, and cracking incredibly dense material, whether it's hard rock in aggregate and mining crushing applications or concrete in demolition and construction projects. It's inevitable the breaker will wear down with heavy use. To keep your rockbreaker attachment working for you, take a few preventative actions in your regular maintenance routine to optimize longevity.

GREASING

Proper lubrication is critical to extending the life of your rockbreaker. It's a painstaking but straightforward task to be repeated every two hours of continuous use, or when the tool becomes dry and shiny. Failure to grease regularly will significantly increase wear rates and reduce the lifespan of your tool, bushings, and f ronthead components.

Using general EP purpose grease is not recommended. It will melt and run down the tool, providing inadequate lubrication. Refer to page two to learn how to grease your machine.

Lubricating your machine will make your hammer work efficiently without possible issues, referring to DEHN hydraulic hammer principle and manual for details.

STORAGE

Operators may not consider proper storage as a means to extend the life of the attachments. Properly storing the rockbreaker attachment will significantly increase its lifespan.

It's so much easier to leave your excavator and rockbreaker in its place at the end of the workday, especially if you're coming back to do the same job tomorrow. However, if you leave the rockbreaker on an excavator overnight, or for an extended period, ensure the rockbreaker's position is vertical, and the tool is retracted.

Your rockbreaker can be stored either vertically or horizontally for long and short-term storage. Either way, the tool needs to be stored inside or covered with a tarp. The unit will require a cool, dark, dry, and environmentally-protected storage to shelter it from the elements (rain, snow, heat, sun, etc.). DEHN advises that the room is sealed from rodent infestation. If you want to store vertically, then you will need a safety stand. We recommends following its long and short- term storage procedures (on page four) or download our guide to long and short-term storage.

WEAR LIMITS

Using the rockbreaker with the parts exceeding wear tolerances can cause premature damage throughout the breaker. Prevent damage through regular inspection, and repair using factory replacement parts.

Check the diameter of the tool and bushings every 100 hours. Worn parts may cause misalignment between the tool and the piston.

If the value exceeds those shown in the table on page four, you may need to replace both front and rear bushings to prevent damage. Otherwise, you run the risk of damaging other component parts, such as the piston seals, piston, and cylinder body. Refer to page four for more information.

Treating your rockbreaker with care is key to protecting your investment. Use this guide and checklist to help you power your productivity and break into profitability with DEHN hydraulic rock breakers.
GREASING YOUR HYDRAULIC ROCKBREAKER

Firmly pressing the tool up inside the rockbreaker prevents excessive grease from entering the impact chamber. Excessive grease in the impact chamber will cause a hydraulic lock, which depending on the amount, can cause a lack of power or immediate seal failure and ingress of grease into the hydraulic system when the rockbreaker is fired.

- The rockbreaker must be in a vertical position to grease, with enough down-pressure to push the tool up inside the housing.
- Grease until clean grease oozes out around the tool and retainer pins.
- Grease the rockbreaker after every two hours of continuous use, or when the tool appears shiny where it rides inside the fronthead.
STORING YOUR HYDRAULIC ROCKBREAKER

SHORT-TERM STORAGE
Storing your breaker up to a week is considered short-term storage. Follow this procedure:
- If shut-off valves are used with the breaker, turn them to the OFF position.
- Disconnect the pressure and return lines. Plug the lines and the breaker ports to prevent contamination.
- Lay the breaker on wooden blocks with the mounting bracket end lying higher than the tool end. Support the breaker before proceeding.
- Disconnect the breaker from the carrier.
- Remove the tool and ensure the retaining pins, bushings and piston bottom (inside breaker) are well greased.
- Reinstall the tool and cover the breaker with a tarp. Use a waterproof cover if storing outdoors.

LONG-TERM STORAGE
Storing the breaker over a week is considered long-term storage.

Breaker Stored Lying Down
Use the following procedure:
- Release the cushion chamber gas pressure.
- Lay the breaker on wooden blocks. Mounting bracket end should lie higher than the tool end.

Hammer Stored Standing Up
If the breaker is to be stored standing up, place in a safety stand. Use the following procedure:
- Release the cushion chamber gas pressure.
- Remove the tool and liberally grease the piston bottom, retaining pins and inside the front head.
- Ensure hose ports are open to allow piston to move up to the top.
- Push the piston up inside the breaker and reinstall the tool.
- Cover the breaker with a tarp (waterproof if outdoors).
To check your breaker's wear limits, remove the tool to check its diameter. Measure the diameter of the tool and the bushing. Refer to the chart for maximum wear limits of each the tool and bushing.

**RULE OF THUMB**

If the value exceeds those shown in the table, replace the front bushings only the first time. The second time, replace both front and rear bushings. For every two front bushings you replace, replace one rear bushing.
PRE-SHIFT

☑ Verify correct operation of all machine functions. Check for leaks, damaged hoses, or clamps.
☑ Check that all electrical components are in operational condition.
☑ Grease the breaker tool, retainer pins and plugs with Chisel Paste. If equipped with auto lube system, ensure there is adequate grease in the reservoir.
☑ Check hydraulic oil level in carrier reservoir.

EVERY TWO HOURS

☑ Verify correct operation of all machine functions.
☑ Grease breaker tool bushings. Pump grease in until it is visible around tool and retainer pins.
☑ On Rockbreaker Systems, check that all electrical components are in operational condition.

EVERY EIGHT HOURS - DAILY

☑ Check all hardware for tightness.
☑ Check hydraulic oil level in carrier reservoir. Check lubrication system.

EVERY 50 HOURS

☑ Check torque on all fasteners every 50 hours of operation or after any major maintenance.
☑ Take hydraulic oil sample to provide baseline, then sample every 500 hours.
☑ Check mounting pins for wear.
☑ Check impact surface of tool for deformation.
☑ Remove the breaker tool and retaining pins. Inspect the wearing surfaces. Remove any burrs before reinstalling. Refer to Service section of owner's manual if scuffing marks are found on the tool. Inspect upper isolator.
☑ Remove the top mount. Use a hammer to ping (knock) the tie rods. The same tone will resonate if the tie rods are torqued equally. A loose tie rod will be immediately evident.
EVERY 100 HOURS
- Remove the breaker tool and inspect the wearing surface. Remove any burrs before reinstalling.
- Inspect the tool retainer pins. Remove the pins, rotate 180 degrees and reinstall.
- After initial 100 hours of operation, change hydraulic pressure and return line filter elements.
- Check tool bushing clearance.
- Check that the pressure/return filter indicators on the carrier hydraulic system are functioning correctly and not in by-pass.

EVERY 500 HOURS
- Take a sample of the hydraulic oil. Review the results and determine if an increase in filter change interval and/or oil change is required. File the results.
- Check cushion chamber nitrogen gas pressure. Refer to “Cushion Chamber Gas Pressure” in owner’s manual.
- Check accumulator nitrogen gas pressure. Refer to “Accumulator Gas Pressure” in owner’s manual.
- Perform all breaker checks above as required.
- Check that the retainer pins, cross pins and stopper plugs are not damaged and are in place.
- Check that the upper isolator and tie rod nuts are in place and tight. Check for wear.

EVERY 1000 HOURS
- Replace the retainer pins.
- Perform all breaker checks listed above as required.
- Disassemble the breaker to replace all seals. Replace upper and lower breaker isolators inside the housing.
- Measure the wear limit on the Front and Rear Bushings. Replace each bushing if the allowable tolerances are exceeded.
- Check Hydraulic flow to breaker and operating pressure. Adjust as necessary.

Note: This is a condensed summary of the more important aspects for regular breaker maintenance. Consult your owners/operators manual for details.