SKF Hydraulic Driven Lubricator

For hammers and breakers

Compact and robust pump to lubricate the hammer

Easy and reliable maintenance

As hydraulic hammers and breakers frequently operate in hostile environments, components like the chisel and bushings are exposed to dust, water and mud. So, the use of chisel paste lubrication is strongly recommended to prolong the life of the chisel. With the SKF Hydraulic Driven Lubricator, SKF has developed an innovative automatic lubrication solution with a patented internal design that can perform well with chisel paste and the prevailing environmental conditions in which hammers and breakers operate.

The lubricator is fitted directly on the hammer and delivers optimized lubrication during operation, eliminating the need for complicated and time-consuming manual re-lubrication procedures.

An additional advantage is that this solution reduces the need for the operator to work outside the cabin. These advantages result in the following benefits:

- increased machine availability
- reduced maintenance costs
- improved safety.

The pump is driven by the hydraulic oil itself. The new design eliminates the spring and associated concentric cam of conventional pumps. This innovation is a solution that offers higher reliability.
As its name implies, the SKF Hydraulic Driven Lubricator is hydraulically operated. The pump’s drive is provided by its drive piston (1). The latter is pressurized on an alternating basis by the machine’s hydraulic circuit via a hydraulic changeover valve (2). The piston (3) is either in a suction or delivery phase as long as the machine and/or attachment is in operation. As a result, the pump feeds lubricant to the attachments bearing in pulses.

When the hydraulic circuit is at rest, the lubricator comes to a stop and the lubrication pulse is interrupted. The delivery rate can be adjusted by way of a flow restrictor (4) and can be reset to meet the operating requirements of the machine. A manual lubricating aid (lubricating nipple) on the front of the pump enables emergency lubrication of the attachment in the event of a hydraulic circuit failure.

### Technical data

- **Cartridge**: 0.4 kg
- **Lubricant**: Grease, up to NLGI grade 2
- **Delivery rate, adjustable**: 0.5 to 3.0 cm³/min\(^1\), 1.5 to 6.0 cm³/min\(^2\)
- **Factory setting**: 1.4 cm³/min \(^1\), 3.0 cm³/min \(^2\)
- **Lubricant pressure**: max. 120 bar
- **Hydraulic pressure**: 90 to 200 bar
- **Operating temperature**: –25 to +75 °C
- **Weight**: 7.1 kg (incl. cartridge)

\(^1\) At a hydraulic pressure of 120 bar.
Specific to SAE20W20 hydraulic oil at 40 °C, operating viscosity ~68 mm²/s.

\(^2\) At a hydraulic pressure of 200 bar.
Specific to SAE20W20 hydraulic oil at 40 °C, operating viscosity ~68 mm²/s.
Easy to handle

Easy delivery rate adjustment
The delivery rate can be adjusted using an easily accessible throttle screw that is protected by a screw plug.

Diagram 3

Delivery rate adjustment

- a: 120 bar hydraulic operating pressure *)
- b: 200 bar hydraulic operating pressure *)

*) Specific to SAE20W20 hydraulic oil (at 40 °C, operating viscosity ~ 68 mm²/s)

Table 1

Standard kit HS04G0S/0001
- Incl. 1 cartridge, 1 welding plate, 2 screws M16×85 and 2 clamp sleeves
- Order No. 186–1560.31

Chisel paste HS04-S28
- (box of 28 cartridges, 400 g each)
- Order No. 3506–02–1146

*) Customized kit with adapter plate available on request.
4) Cartridge is prefilled with special SKF chisel paste.
Other greases available on request

Notice
The nominal width (DN) of the hydraulic hoses (provided by the customer) that will be connected to the pump must be below 25 mm as per EC Pressure Equipment Directive 97/23/EC.
The hydraulic hoses and their screw unions must be designed for the same system pressure as the carrier.

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Easy cartridge replacement
- Switch off the hydraulic unit
- Remove old cartridge
- Remove screw plug from new cartridge
- Insert new cartridge

Easy to install
- If the hammer has not been prepared for the lubricator, it can be installed using a mounting plate or a customized adapter plate
- Mount lubricator with 2 screws
- Connect hydraulic oil inlet and outlet as well as lubricant outlet

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Screw plug for restrictor screw
Hydraulic oil inlet
- P = G1/4
Hydraulic oil outlet
- R = G1/4
Chisel paste cartridge
Mounting holes for adapter plate
Venting plug
Lubricant outlet G1/4
Design option
Hydraulic oil inlet
Design option
Lubricant outlet
Changeover valve
Lubricating aid
The Power of Knowledge Engineering

Drawing on five areas of competence and application-specific expertise amassed over more than 100 years, SKF brings innovative solutions to OEMs and production facilities in every major industry worldwide. These five competence areas include bearings and units, seals, lubrication systems, mechatronics (combining mechanics and electronics into intelligent systems), and a wide range of services, from 3-D computer modelling to advanced condition monitoring and reliability and asset management systems. A global presence provides SKF customers uniform quality standards and worldwide product availability.

Important information on product usage

All products from SKF may be used only for their intended purpose as described in this brochure and the operating instructions. If operating instructions are supplied together with the products, they must be read and followed.

Not all lubricants can be fed using centralized lubrication systems. SKF can, on request, inspect the feedability of the lubricant selected by the user in centralized lubrication systems. Lubrication systems and their components manufactured by SKF are not approved for use in conjunction with gases, liquefied gases, pressurized gases in solution, vapors or such fluids whose vapor pressure exceeds normal atmospheric pressure (1 013 mbar) by more than 0,5 bar at their maximum permissible temperature.

In particular, we call your attention to the fact that hazardous materials of any kind, especially the materials classified as hazardous by EC Directive 67/548/EEC, Article 2, Para. 2, may only be filled into SKF centralized lubrication systems and components and delivered and/or distributed with the same after consultation with and written approval from SKF.