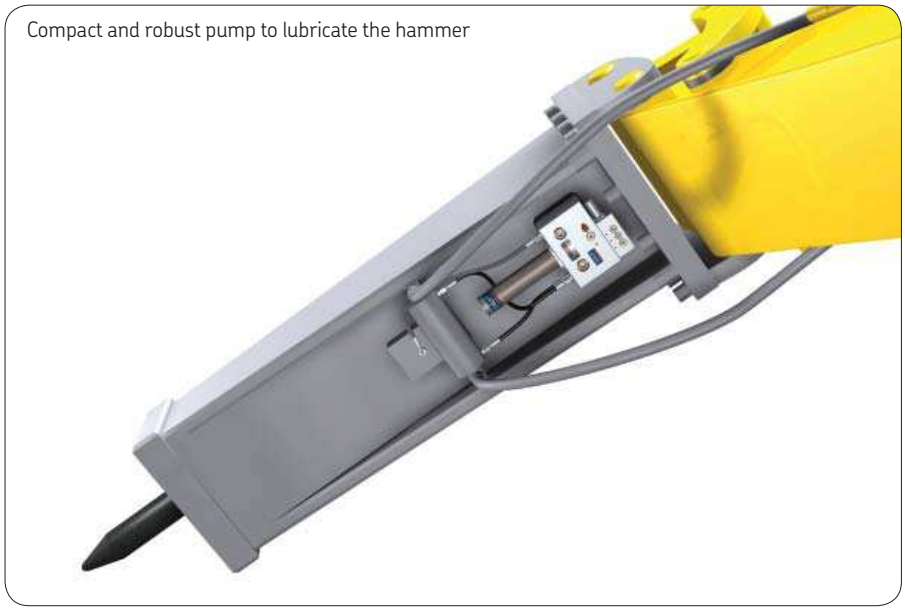
SKF Hydraulic Driven Lubricator

For hammers



Compact and robust pump to lubricate the hammer

Easy and reliable maintenance

As hydraulic hammers 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 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.

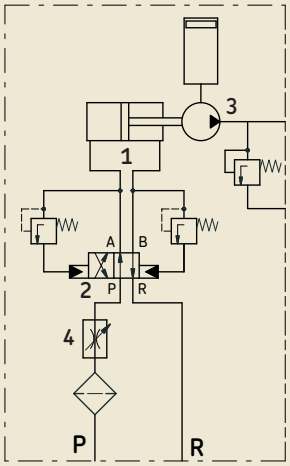
Innovative design with hydraulic control

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.

Fig. 1

Functional diagram HS04



Technical data

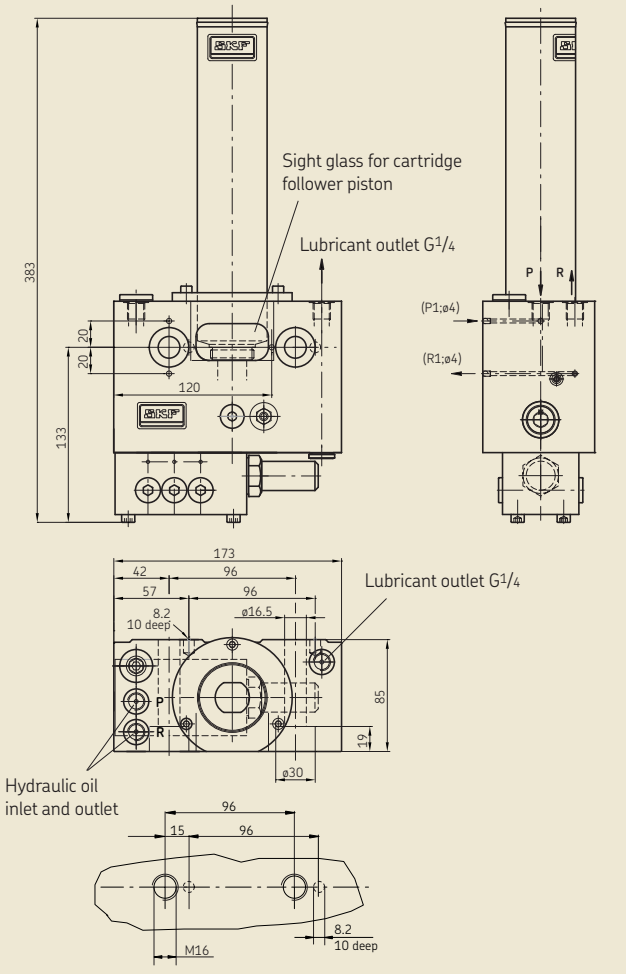
Cartridge	0.4 kg
Lubricant	Grease, up to NLGI grade 2
Delivery rate, adjustable	0.4 to 2.1 cm³/min[1)]
	0.8 to 4.0 cm³/min[2)]
	2.0 to 6.7 cm³/min[3)]
Factory setting	1.1 cm³/min[1)]
	2.2 cm³/min[2)]
	4.2 cm³/min[3)]
Lubricant pressure	max. 120 bar
Hydraulic operating pressure	90 to 315 bar
Operating temperature	–25 to +75 °C
Weight	7.1 kg (incl. cartridge)

[1)] At a hydraulic pressure of 120 bar.
Specific to ISO VG 46 hydraulic oil at 33 °C, operating viscosity ~67 mm²/s.

[2)] At a hydraulic pressure of 200 bar.
Specific to ISO VG 46 hydraulic oil at 33 °C, operating viscosity ~67 mm²/s.

[3)] At a hydraulic pressure of 315 bar.
Specific to ISO VG 46 hydraulic oil at 33 °C, operating viscosity ~67 mm²/s.

Fig. 2



Minimum installation clearance for cartridge replacement 275 mm

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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.

Easy cartridge replacement

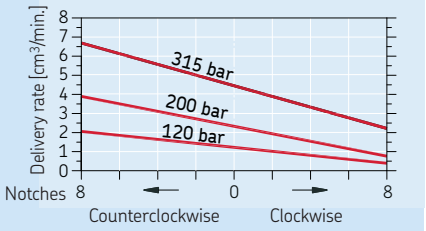
- Switch off the hydraulic unit
- Remove old cartridge
- Remove screw plug from new cartridge
- Insert new cartridge

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

Diagram 1

Delivery rate adjustment



Specific to ISO VG 46 hydraulic oil
(at 33 °C, operating viscosity ~ 67 mm²/s)

Table 1

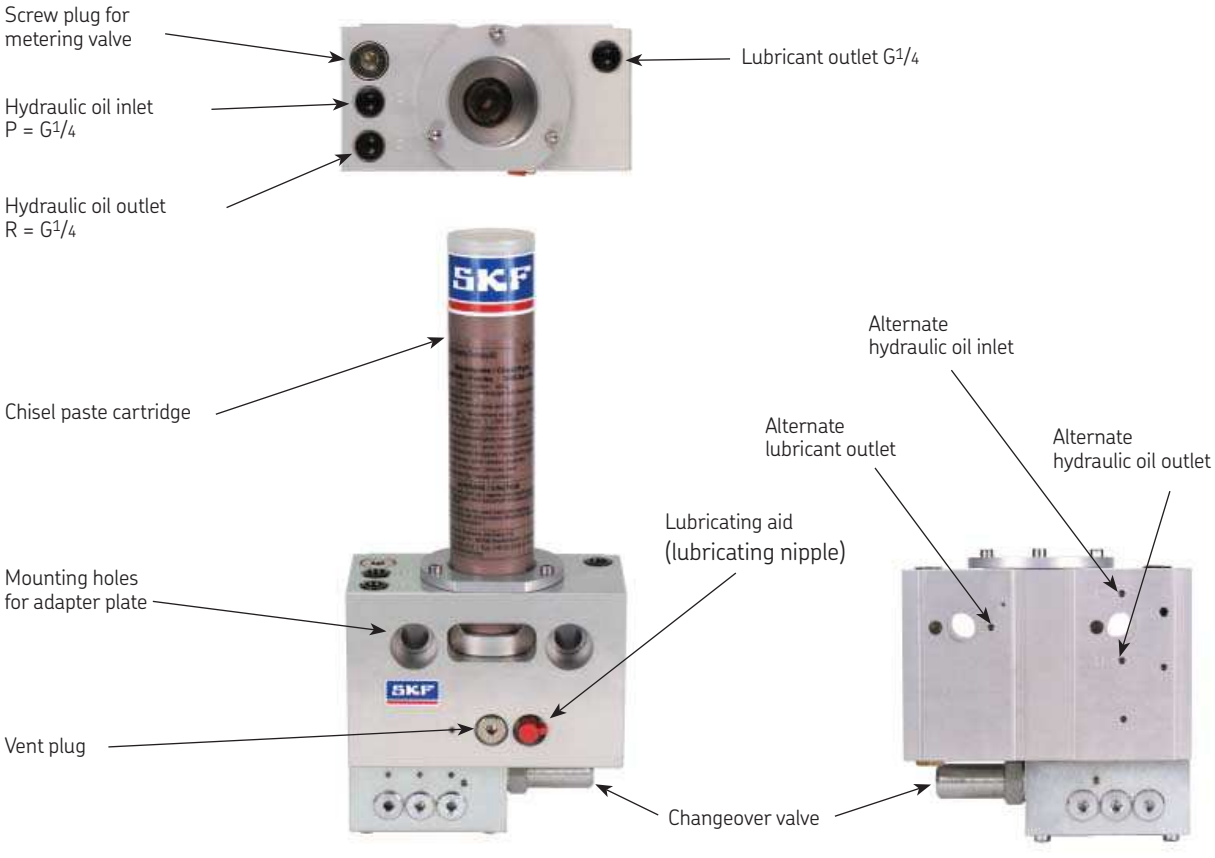
Standard kit HS04G0F/0001 [1]
Incl. 1 cartridge, 1 welding plate,
2 screws M16×85 and 2 clamp sleeves
Order No. 186-1231.31

Chisel paste HS04 [2]
(box of 12 cartridges, 400 g each)
Order No. 3506-02-1175

[1] Customized kit with adapter plate available on request.
[2] Cartridge is prefilled with special SKF chistel 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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The Power of Knowledge Engineering

Combining products, people, and application-specific knowledge, SKF delivers innovative solutions to equipment manufacturers and production facilities in every major industry worldwide. Having expertise in multiple competence areas supports SKF Life Cycle Management, a proven approach to improving equipment reliability, optimizing operational and energy efficiency and reducing total cost of ownership.

These competence areas include bearings and units, seals, lubrication systems, mechatronics, and a wide range of services, from 3-D computer modelling to cloud-based condition monitoring and asset management services.

SKF's global footprint provides SKF customers with uniform quality standards and worldwide product availability. Our local presence provides direct access to the experience, knowledge and ingenuity of SKF people.

Important information on product usage
SKF and Lincoln lubrication systems or their components are not approved for use with gases, liquefied gases, pressurized gases in solution and fluids with a vapor pressure exceeding normal atmospheric pressure (1 013 mbar) by more than 0,5 bar at their maximum permissible temperature.

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