Hammer lubrication pump
BEKA HAMAX 11

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1. General description

The hydraulically driven grease pump BEKA HAMAX 11 is mainly used for the lubrication of hydraulic hammers or other attachments at construction machines.
The compact construction enables a direct assembly at the attachment.

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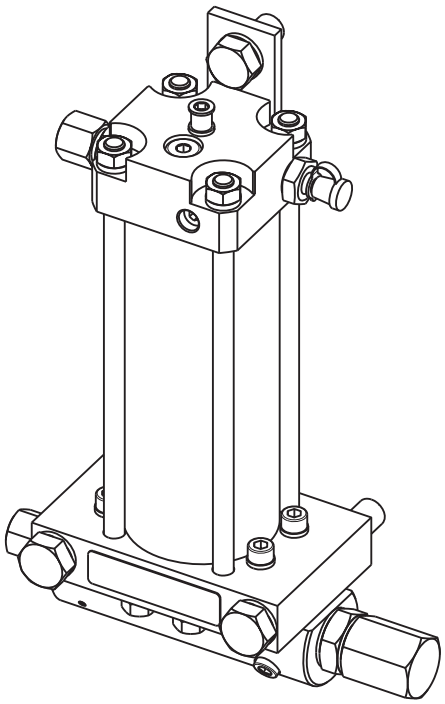
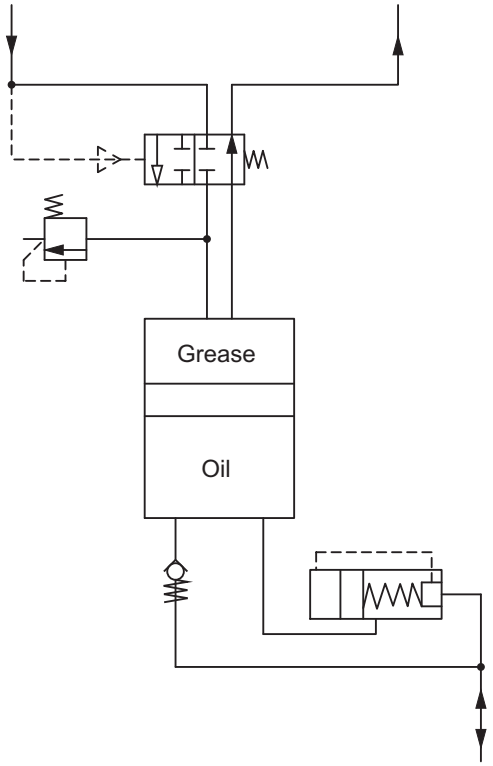


2. Hydraulic connection diagram



3. Technical data:

Drive:	hydraulic
No. of strokes:	1 stroke per pulse at hydraulic connection
Operating pressure:	min. 120 bar
	max. 300 bar
Counter press. of lube point:	max. 75 bar
Relief pressure:	max. 25 bar
Reservoir capacity:	100, 200 or 400 cm^3
Lubricant:	greases up to NLGI-cl. 2
Output rate:	0 or 0,25 to 1 cm^3/stroke
Output rate regulation:	infinitily variable
	(regulation distance 6 mm)
Operating temperature:	-25 °C to +80 °C
	(with suitable grease)
Installation position:	level indication pin showing upwards
Weight (without lubricant storage):	
at reservoir capacity 100 cm^3:	4,5 kg
at reservoir capacity 200 cm^3:	4,9 kg
at reservoir capacity 400 cm^3:	5,7 kg
Filling:	need connection to hydraulic system

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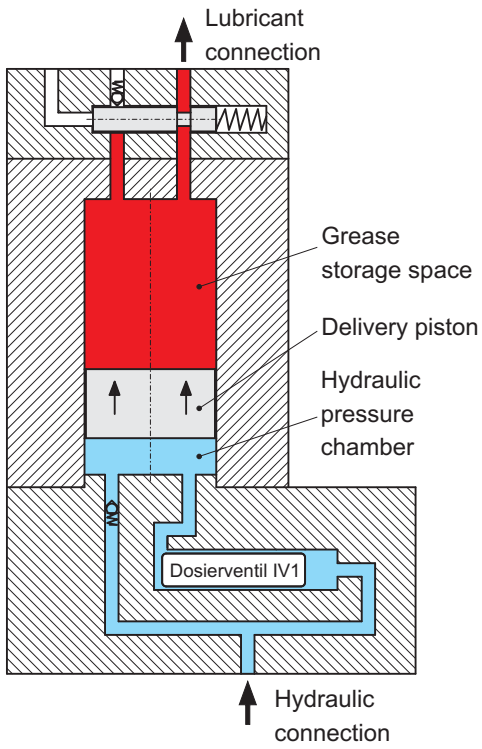
4. Functional description

The hydraulic pump HAMAX system 11 is designed in a way that a lubrication process is made with each hydraulic pulse, e.g. actuation of the hydraulic hammer.

When the hydraulic connection (fig. 1) is pressurized, the hydraulic oil is metered in the adjusted quantity and passed on into the hydraulic pressure space.
The metered oil amount now shifts the delivery piston in the direction of the grease reservoir in the relation 1:1. The displaced grease amount is pressed out of the grease connection.

Delivering procedure

Fig. 1:



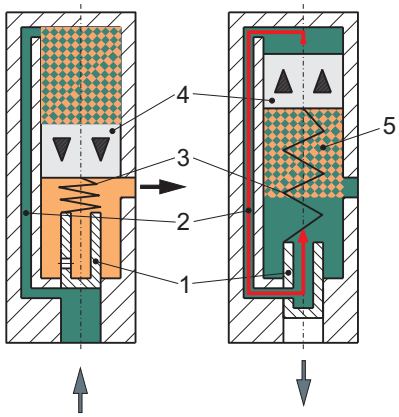
The regulation piston (fig. 2; pos. 1) is pushed upwards against the pressure of the return spring (fig. 2; pos. 3) by the hydraulic pressure, and opens the pressure line (fig. 2; pos. 2). The connected hydraulic pressure shifts the metering piston (fig. 2; pos. 4) downwards and displaces the hydraulic oil in the metering space (fig. 2; pos. 5).

When the hydraulic line is relieved, the return spring (fig. 3; pos. 3) pushes the regulation piston (fig. 3; pos. 1) back into its original position and opens the pressure line (fig. 3; pos. 2). With the pressure relief the metering piston (fig. 3; pos. 4) now can be pushed upwards by the return spring (fig. 3; pos. 3). The replaced hydraulic oil fills the metering space (fig. 3; pos.5) again through the opened pressure line (fig. 3; pos. 2).

Function of hydraulic control IV 1

Fig. 2
Filling and output

Fig. 3
Rearranging



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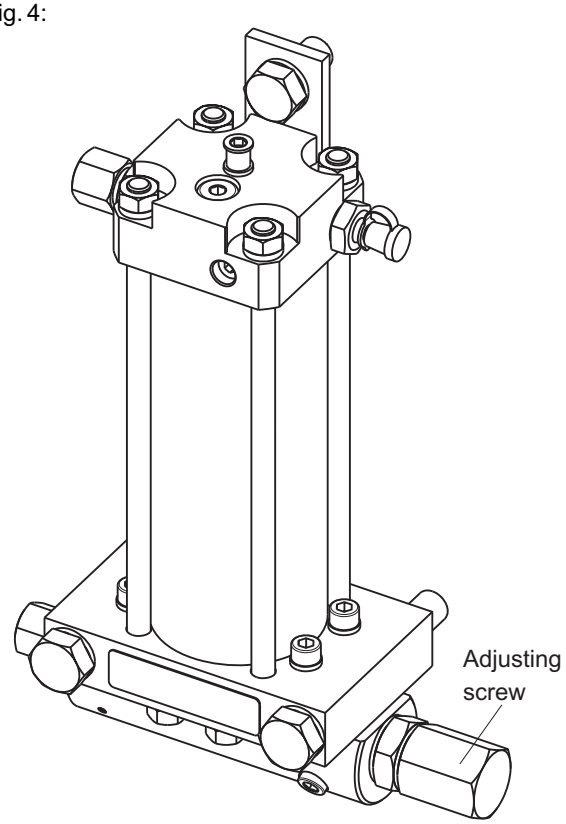
5. Adjusting the output rate

The pump is adjusted to max. output rate at delivery.

The output rate is infinitily variable from 0,25 cm³ up to 1 cm³ at the adjustment screw (fig. 4 or fig. 6, pos. 3).

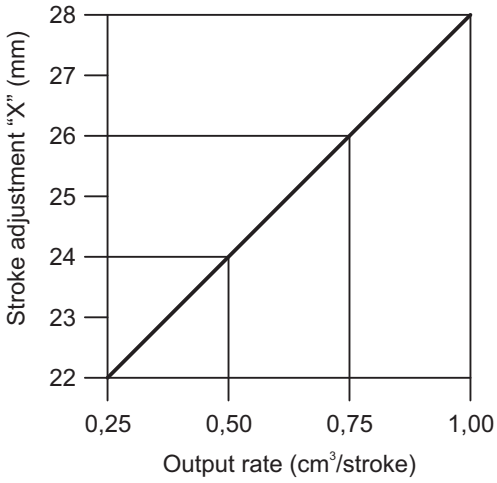
Fig. 4:



The total set distance of the stroke setting is 10 mm (see fig. 6). The output rate can be set within the range of 22 to 28 mm (see fig. 6); 1mm of set distance or 1 turn of the set screw is approx. 0,125 cm³ (see fig. 5).

If the stroke adjustment is set to 18 mm (see fig. 6) the output rate is 0 cm³.

Fig. 5:

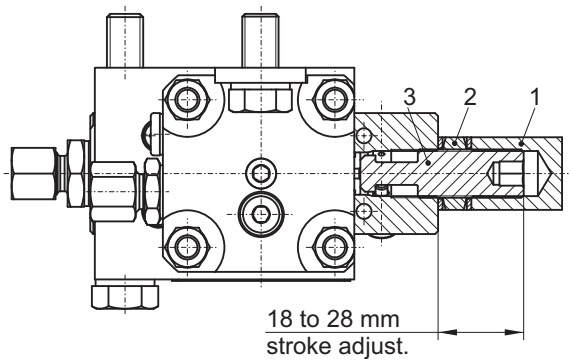


In order to adjust the output rate, remove the counter nut (fig. 6, pos. 1) and loosen the hexagon nut (fig. 6, pos. 2).

The requested output rate can be set acc. to the diagram (fig. 5) by means of the set screw (fig. 6, pos. 3).

After setting the output rate, tighten the set screw (fig. 6, pos. 3) with a hexagon nut (fig. 6, pos. 2). Also tighten the counter nut (fig. 6, pos. 1).

Fig. 6:



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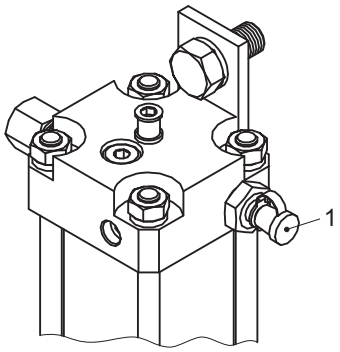
Filling of the pump and hand lever grease press

6. Filling of the pump:

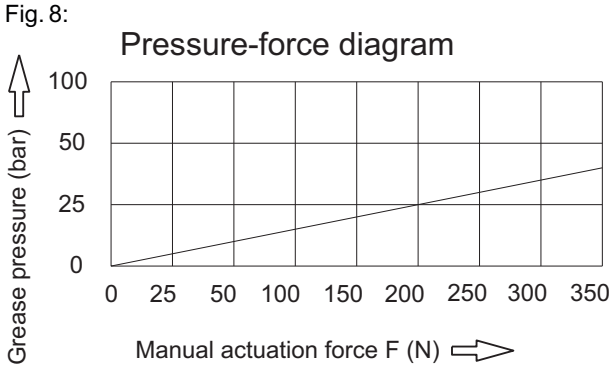
The pump is filled via the filling nipple (fig. 7, pos. 1) by means of a hand lever press (fig. 8).

Fig. 7:



7. Hand lever grease press:

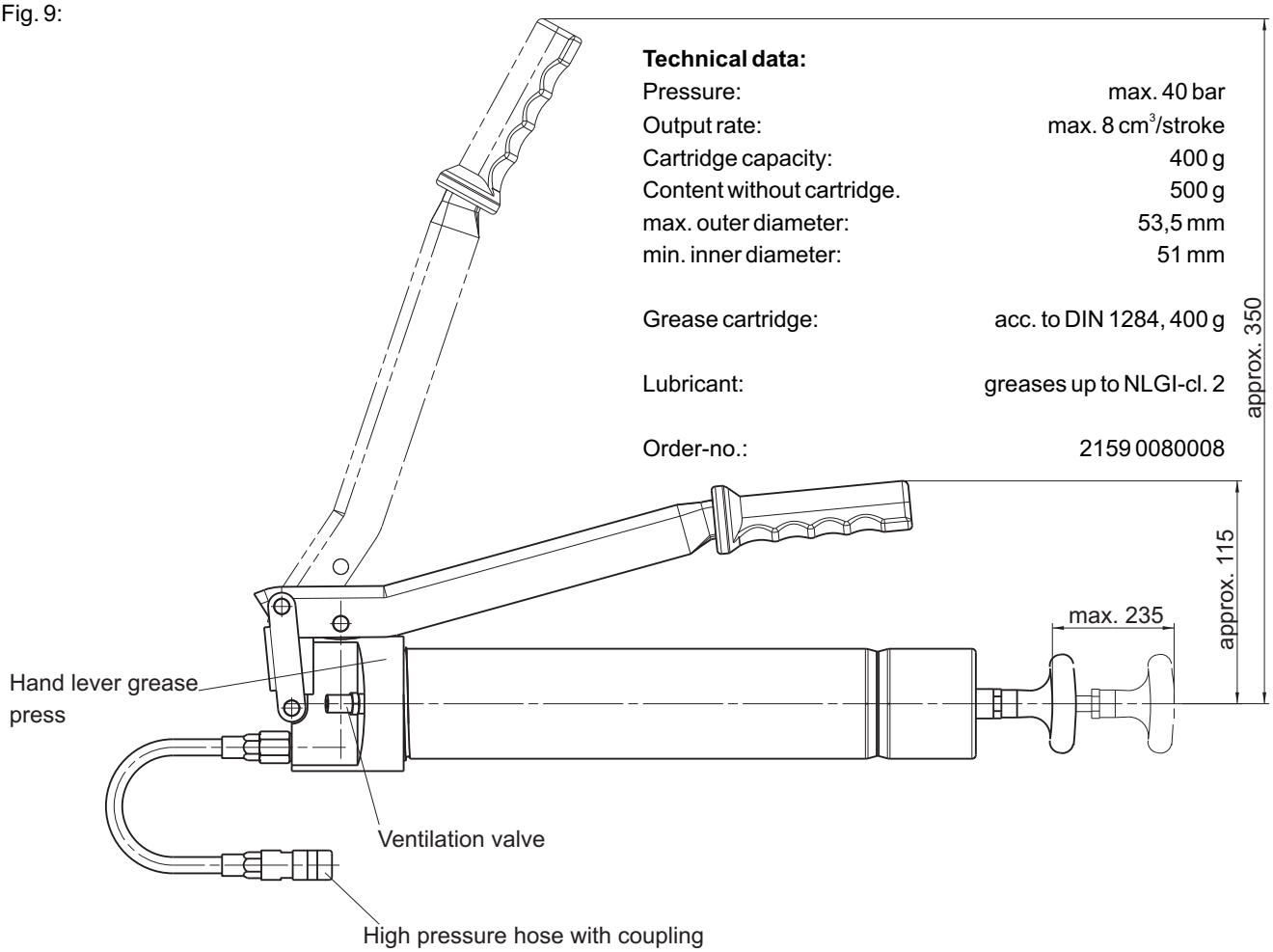
Fig. 8:



We developed a hand lever grease press with a higher delivery capacity for this purpose (fig. 8).

With this hand lever grease press the pump can be filled with the same effort but only 1/4 of the pressure strokes of a normal grease press.

Fig. 9:



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8. Installation, Connection and installation dimensions

8. Installation:

The pump is fixed at the attachment with two fastening screws at the additional device (fig. 10). Special lock washers prevent them from loosening.
With the additional retaining plate, the pump can be fastened at a third point.

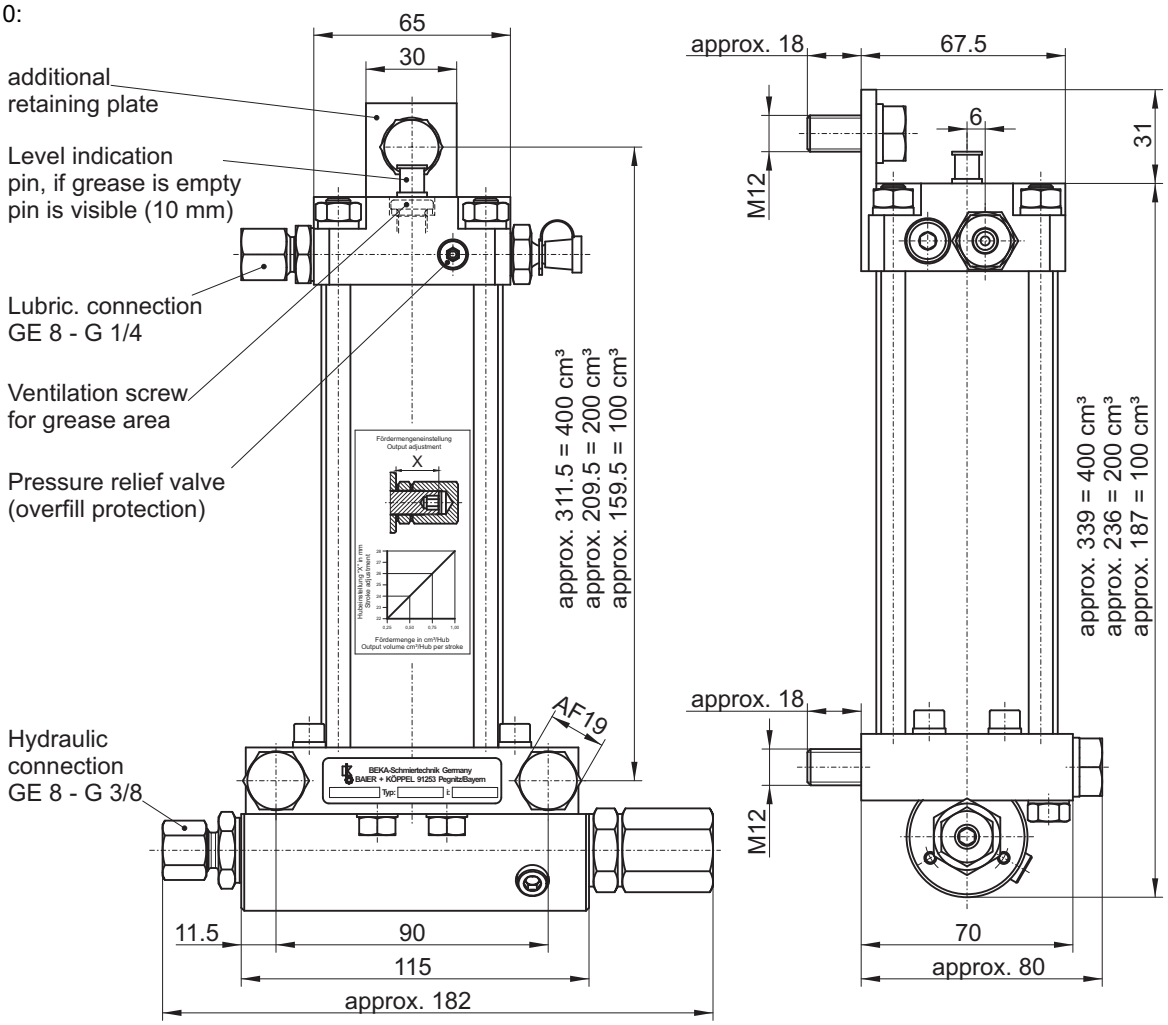
Connection

The hydraulic connection of the pump (fig. 10) can be connected via a bypass line to the hydraulic system of the supporting device.

The lubrication point has to be connected with the pump's lubrication connection (fig. 9) via a pressure line.

9. Installation dimensions:

Fig. 10:



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Order key

10. Order key:

Type-no. — **2592 . XX . 01 . 01 . X . XXX**

Reservoir capacity	100 cm^3	200 cm^3	400 cm^3
Code-no.	10	20	40

Hydraulic connection	G3/8"; Ø8
Code-no.	01

Lubrication connection	G3/8"; Ø8
Code-no.	01

Additional retaining plate	without	with
Code-no.	0	1

Special version	standard
Code-no.	000

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