SKF LAGM 1000E

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Manuale d'istruzioni
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使用说明书
Инструкция по эксплуатации

1. Application

The SKF Grease Meter LAGM 1000E accurately measures the amount of grease applied to a bearing or other lubrication point. The grease meter can be connected to grease pumps that are air driven, electrically driven or hand operated.

2. Description

The grease meter measures the grease quantity that passes through the meter. The grease quantity dispensed can be displayed as cm^3, gram, oz or fl oz (US). The grease meter is easily calibrated, and the display is equipped with a backlight for use in dark environments.
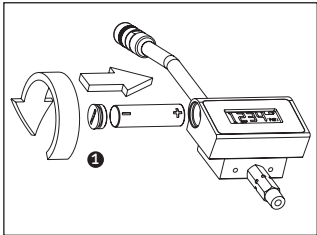
3. Technical data

Suitable grease consistency	NLGI 0 - NLGI 3
Maximum pressure	70 MPa (10 000 psi)
Thread connection	M10 × 1
Maximum flow	1 000 cm^3 /min (34 us fl oz/min)
Accuracy	± 3% up to 30 MPa (4 300 psi) ± 5% from 30 to 70 MPa (4 300 - 10 000 psi)
Weight	0.4 kg *(0.88 lb)*
Battery type	1 × AA (1,5 V)
Battery life	50 hours with backlight 2 000 hours without backlight 10 000 hours without displaying (in stand-by mode, see 6.5)
Low power indication	LOBAT
Operating conditions	–20 °C to +54 °C (–4°F to +130 °F) IP level 67

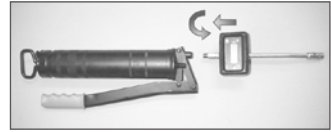## 4. Installing or replacing battery

Carefully remove the rubber protective sleeve.

Check polarity when inserting battery. Dispose of the batteries in accordance with local regulations.

5. Assembly instructions

Replace the lubrication pipe or high-pressure hose on your grease pump or grease gun with the grease meter assembly. If wanted the extension pipe with nozzle can be replaced by the extension hose (1077601).

6. How to use

Mobile installation with a grease gun or pump
There are two ways to start the Grease Meter. Either use it (pump grease through it) or press the ⊚ button to conitnue with the previous measurement:

The display lights up:

To reset the Grease Meter after each dispensing press the ⊚ button.
(The RESET text shows that in this menu the left button has the reset function.)

An alternative way to reset the meter is to wait untill the auto shut off time
(see chapter 6.5) has elapsed and restart the meter by pumping grease though it.

To light up the display when working in dark environments press the ⊛ button.
The light will automatically switch off 5 seconds after the grease flow has stopped.

The battery symbol indicates how much power is left in the batteries.

Permanent installation (in conjunction with an automatic lubrication systems)
Activate this mode by setting the auto shut off time to "stby" (see chapter 6.5).

In this mode the display don't activate when it detects grease flow.
The Grease Meter measures the amount passing through it.

Use the ⊚ button to turn the display on or off (>2 seconds to turn it off).

When this mode is active there is a "STBY"
in the lower right corner on the display.

This mode is for permanent installation on a pipe to check amount passing through the pipe. This mode is very battery efficient. The batteries can last several years.

6.1 Menu functionality

To enter the menu press the ⓞ and ⓘ buttons at the same time.

The first option in the menu is the sub total counter. Press ENTER (left button) to display this value and reset it if required or press NEXT (right button) for the following option in the menu.

```
 SUBTO
ENTER      NEXT
```

The second option in the menu is total counter. Press ENTER (left button) to display this value and reset it if required or press NEXT (right button) for the following option in the menu.

```
 TOTAL
ENTER      NEXT
```

The third option in the menu is for calibration of the grease meter. Press ENTER (left button) to display the calibration value and adjust it if required or press NEXT (right button) for the following option in the menu.

```
 CALIB
ENTER      NEXT
```

The fourth option in the menu is for displayed units. Press ENTER (left button) to display or change the used unit or press NEXT (right button) for the following option in the menu.

```
 UNITS
ENTER      NEXT
```

The fifth option in the menu is the auto shut off time. Press ENTER (left button) to display or change the auto shut off time or NEXT (right button) for the following option in the menu.

```
 POWTO
ENTER      NEXT
```

The last option in the menu is to set the light level of backlight. Press ENTER (left button) to display or change the light level of backlight or NEXT (right button) for the first option in the menu.

```
 BACKL
ENTER      NEXT
```

It is always possible to exit the menus and return to normal measuring state by pressing the ⓞ and ⓘ buttons at the same time.

6.2 Sub total and total counter

The grease meter is equipped with a SUB TOTAL and TOTAL counter that can be reset.
Go to the counter option in the menu (see 6.1) to display this value and possibly reset it.

The display shows:

```
 SUBTO
ENTER      NEXT
```

Press ENTER (the left button).
The display shows:

```
1234 cm³
EXIT      ZERO
```

This shows you the SUB TOTAL amount of grease
that has passed the meter since the last reset.

To reset the sub total counter, press ZERO (right button).
To exit the menu press EXIT (left button).

The TOTAL counter is set in the same manner.

6.3 Calibration of the meter

The grease meter can be calibrated for different grease types, characteristics and densities.

6.3.1 Calculate the correction factor

Correction factor = real quantity / shown quantity

Example:
500 grams of grease have been dispensed.
The grease meter shows 485 GRAM.

Correction factor = 500 / 485 = 1,03

6.3.2 Calculate the calibration factor

The new calibration factor = the old calibration factor × the correction factor.

Example:
The old calibration factor is 700.
The correction factor is calculated as 1,03.
The new calibration factor = 700 × 1,03 = 721

6.3.3 Change the calibration factor

Go to the calibration option in the menu (see 6.1) to display and change the calibration factor.

Press ENTER (left button). The display shows the current calibration factor:

The highlighted digit can be stepped up by pressing STEP (right button):

To highlight the next digit, press ENTER (left button):

Continue to press STEP and ENTER to set the correct calibration factor.

When the last digit has been accepted by pressing ENTER, the display shows:

Press ENTER (left button) to accept and save the new calibration or press CANCEL (right button) to cancel the changes and return to the old calibration factor.

6.4 Change the displayed units

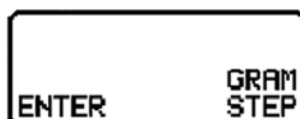The grease meter can show the grease amount in four different units cm^3, gram, oz, and fl oz (US).

Go to the unit option in the menu (see 6.1) to display and change the used unit.

```
 UNITS
ENTER      NEXT
```

Press ENTER (left button), the display shows:

```
           CM³
ENTER     STEP
```

Press STEP (right button) to step to next unit:

Press ENTER (left button) to accept and save the new unit.

```
          GRAM
ENTER     STEP
```

6.5 Change auto shut off time

The grease meter can set to automatically shut off after 2 seconds, 4 seconds, 1 minute, 4 minutes or 8 minutes or work in STANDBY mode.

Press ENTER (left button): the display will show:

```
 POWTO
ENTER      NEXT
```

Press STEP (right button) to move forward to the next time or STANDBY mode.

```
 2  SEC
ENTER     STEP
```

Press ENTER (left button) to accept and save the new time.

```
 8  MIN
ENTER     STEP
```

6.6 Change backlight

The backlight of the grease meter can be set to low or how power setting.

Press ENTER (left button): the display will show:

```
BACKL
ENTER        NEXT
```

Press ENTER (left button) to choose low power setting
or press STEP (right button) to change to:

```
LOW
ENTER        STEP
```

Press ENTER (left button) to choose high power setting
or press STEP (right button) to go back to previous
choice.

```
HIGH
ENTER        STEP
```

7. Spare part

Designation	Description
LAGM 1000E-1	Repair kit gear wheel