



# SKF TMJL 100

Instructions for use  
Mode d'emploi  
Bedienungsanleitung  
Instrucciones de uso  
Manuale d'istruzioni

Bruksanvisning  
Gebruiksaanwijzing  
Instruções de uso  
使用说明书  
Инструкция по эксплуатации

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**Original instructions**

## EC Declaration of conformity

We,  
SKF Maintenance Products  
Kelvinbaan 16  
3439 MT Nieuwegein  
The Netherlands

herewith declare that the following product:

**SKF Hydraulic Pump  
TMJL 100**

which this declaration refers to, is in accordance with the conditions of the following directive:

**Machinery Directive 2006/42/EC**

and is in conformity with the following standards:

EN-ISO 12100:2010

EN-ISO 4413

Nieuwegein, The Netherlands,  
September 2013



Sébastien David  
Manager Product Development and Quality



### **READ THIS FIRST** **Safety precautions**

Read this instruction for use fully. Follow all safety precautions to avoid personal injury or property damage during equipment operation. SKF cannot be responsible for damage or injury resulting from unsafe product use, lack of maintenance or incorrect equipment operation. In case of any uncertainties as regards the use of the equipment contact SKF.

Failure to comply with the following could cause equipment damage and personal injury.

- Do ensure that the equipment is only operated by trained personnel.
- Do wear proper personal protective gear, such as eye protection and protective gloves, when operating the equipment.
- Do inspect the equipment and all accessories carefully before use.
- Do not use damaged components or modify the equipment.
- Do use clean recommended hydraulic oils (SKF LHM 300, LHDF 900 or similar).
- Do not use glycerin or water based fluids as a pressure medium. Premature equipment wear or damage can result.
- Do not use the equipment above the stated maximum hydraulic pressure.
- Do not adjust safety valves to work at pressures above the maximum working pressure.
- Do not extend the handle in order to reduce the required force to reach maximum pressure. Use hand pressure only.
- Do not use the pumps with accessories, which are rated below the maximum working pressure of the pump.
- Do use a pressure gauge to monitor the oil outlet pressure.
- Do ensure that all the air has been removed from the hydraulic system before pressurising the hydraulic system.
- Do prevent the workpiece (e.g. bearing, gearwheel or similar item) from being forcibly ejected upon sudden release of pressure (e.g. by use of retaining nut).
- Do not use damaged hoses. Avoid sharp bends and kinks when connecting hoses. Sharp bends and kinks will internally damage the hose leading to premature failure. Applying pressure to a damaged hose may cause it to rupture.
- Do not lift the equipment by the hoses or couplings.
- Do follow local safety regulations.
- Do service the equipment by a qualified hydraulic technician or SKF Repair Centre.
- Do replace worn or damaged parts with genuine SKF parts.

## 1. Description

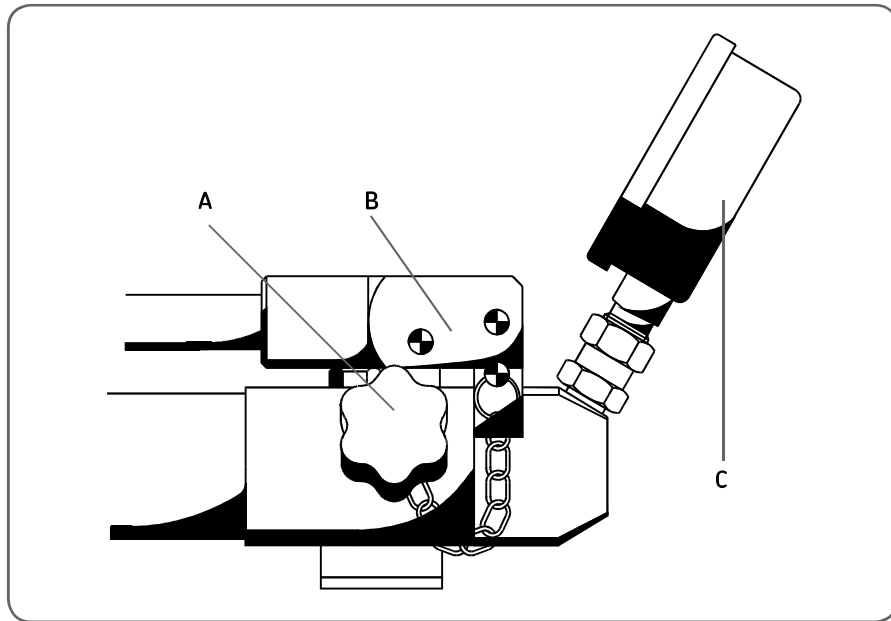
The TMJL 100 has a maximum pressure of 100 MPa (14 500 psi) and delivers a volume per stroke of 1 cm<sup>3</sup> (0.06 in<sup>3</sup>). It is mainly intended for use on HMV nuts, bolt tensioners, hydraulic pullers etc, but is also suitable for other oil injection applications where a maximum pressure of 100 MPa (14 500 psi) is required. The pump is supplied with a 3 metre long, high pressure hose with quick connection coupling. Mating quick connection nipple for attachment to the workpiece is included. The pump is filled with SKF mounting fluid LHM 300 and comes with an additional 1 litre can with the same fluid. Everything is packed in a sturdy case. The pump has an over-pressure valve and a pressure gauge. The release valve is an integrated part of the pump head.

## 2. Technical data

Maximum pressure	100 MPa (14 500 psi)
Volume per stroke	1 cm <sup>3</sup> (0.06 in <sup>3</sup> )
Oil container capacity	800 cm <sup>3</sup> (49 in <sup>3</sup> )
Handle force at 100 MPa	320 N (70 lbf ft)
Pressure hose	3 m (10 ft) long with quick connection coupling
Connection nipple	G 1/4, external or internal thread
Oil viscosity of mounting fluid	300 mm <sup>2</sup> /s (1 400 SUS) at 20 °C
Weight (filled with oil)	13 kg (29 lb)
Designation	TMJL 100

## 3. Operating instructions

- a) Check oil level by unthreading the container plug on the rear end of the container. Make sure there is enough of oil for your complete operation. For mounting bearings with the SKF Oil Injection Method, or by means of an hydraulic nut, it is recommended to use an oil with a viscosity of approximately 300 mm<sup>2</sup>/s (1 400 SUS) at the operating temperature. For dismounting bearings, we recommend to use an oil with a viscosity of approx 900 mm<sup>2</sup>/s (4 100 SUS) at operating temperature.
- b) Hold the pump horizontally or slightly tilted forwards in order to secure oil supply.
- c) Close the release valve on the right hand side of the pump without using force.
- d) Screw the quick connection nipple (G 1/4) into the application.
- e) Connect the hose to the nipple by gently withdrawing the snap-ring on the quick connector. The hose is disconnected in the same manner.
- f) Continue pumping until necessary pressure is reached for your application. Maximum pressure is 100 MPa (14 500 psi) at which pressure the safety valve will open.
- g) Open the release valve not more than one turn, allowing superfluous oil to return to the oil container.



- A Oil release valve
- B Handle block pin
- C Pressure gauge

## 4. Maintenance

### 4.1 Replacing the oil

When replacing the oil or after maintenance, make sure no air is trapped in the system. This should be checked before attaching the hose to the application by making sure only air-free oil comes out of the hose when pumping. Only use clean, recommended hydraulic oils.

### 4.2 Cleanliness

Keep the pump clean from dirt and metal particles in order to avoid excessive wear.

### 4.3 Replacement parts

Designation	Description
TMJL 100-1	Hand-pump (sub-assembly)
TMJL 100-2	Repair kit
TMJL 100-3	Gauge connection nipple
728245/3A	Carrying case
729831 A	Quick connection coupling, G 1/4
729832 A	Quick connection nipple, G 1/4
729834	High pressure hose
1077587	Pressure gauge (120 MPa, 100 mm)
THGD 100	Precision digital gauge*
TMJL 100-5	Nipple for digital pressure gauge*

Items marked \* are ONLY for TMJL 100DU.

### 4.4 Accessories

Designation	Description
LHMF 300/5	Mounting fluid (5 litre, 300 mm <sup>2</sup> /s at 20 °C)
LHDF 900/5	Dismounting fluid (5 litre, 900 mm <sup>2</sup> /s at 20 °C)