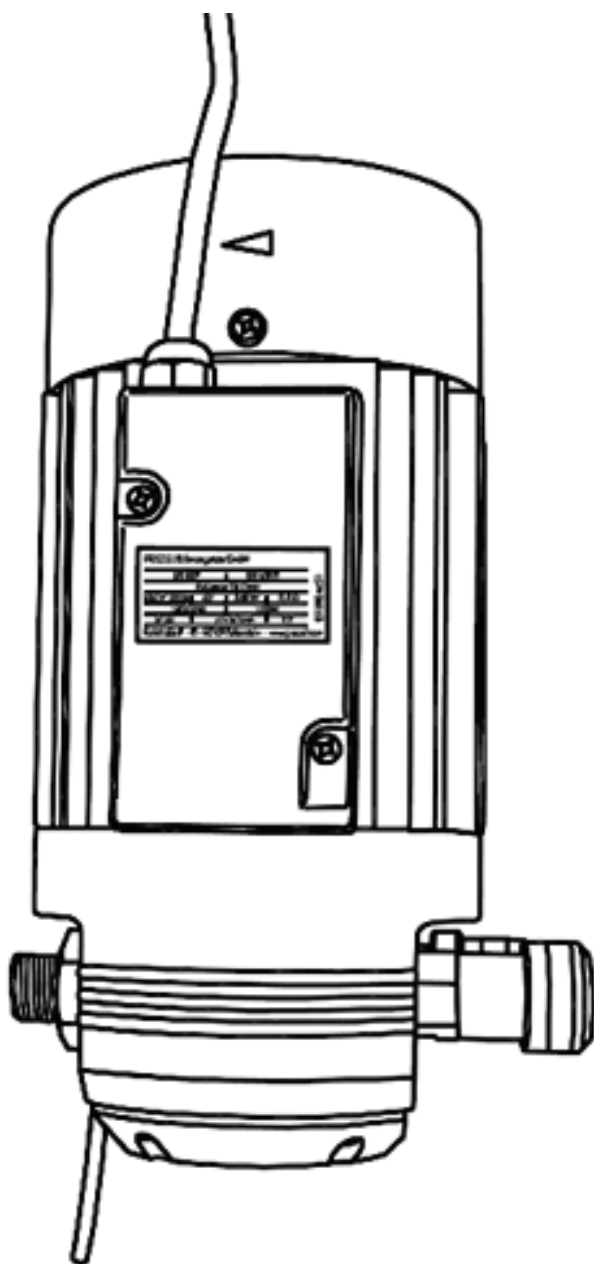

Oil Pump 10 l/min

230 V AC

Operating Instructions



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Explanation of Safety Advice

The safety advice provided in these operating instructions is categorised according to different danger levels. The different danger levels are identified within the instructions by the following symbols and identifying words:

Symbol	Indicates	Result if the safety requirements are not observed or applied
	Danger	Death or very serious injury
	Warning	Possible death or serious injury
	Caution	Possible slight or not serious injury or material damage

Tab. 1-1: Safety Advice Classification according to Danger Type and Severity

In addition, another symbol is used to indicate general tips about using the product.

Symbol	Indicates	Meaning
	Note	Background information or tips about how to use the product

Tab. 1-2: General Information



If the oil pump is incorrectly installed, or used for a purpose other than that originally intended for, it can result in personal injury or damage to equipment!

Before starting to use the oil pump, read through these operating instructions carefully and completely.

1. General Information

1.1 Usage Stipulations

- This oil pump can be used to deliver lubricating oil and similar neutral fluids.



Danger!

Never use it to deliver explosive fluids such as petrol, or other fluids with similar flashpoints!

- It must be connected only to a 230 Volt-AC-supply.
- To ensure that usage stipulations are met, read through the operating instructions completely before using the pump and observe all stipulations.
- Any departure from the usage stipulations (other fluid media, use of force) or user modifications (changes, use of non-original parts) can be dangerous and are considered as non-stipulated usage.
- The user is liable for any damage resulting from non-stipulated use.

- During repairs to any electrical components, the appropriate safety and test requirements are to be observed. Before any repair work on electrical components of the installation, switch off and disconnect the electrical supply.
- Before commencing any repair or maintenance work, release the pressure from the installation.
- Repairs and maintenance are only to be carried out by qualified specialists.
- Only original replacement parts are to be used for any repairs, otherwise the warranty will be invalidated.

1.2 Construction & Functional Description

- The oil pump can be fitted with a variety of FMT accessories.
- The oil pump consists of the electrically driven gear pump with bypass and manually operated venting valve.

1.3 Application Range

The oil pump is suitable only for the delivery of lubricating oils **up to 2000 CST**.

The temperature of the delivery fluids must be between $-10\text{ }^{\circ}\text{C}$ and $+60\text{ }^{\circ}\text{C}$. The temperature limits must not be exceeded.

Because the motor and switch are not explosion-protected, the pump must **not**

- be operated in an explosion risk area.
- be used to deliver fuels of danger classification A I, A II and B.

1.4 Technical Data

Type		230 V
Year of Manufacture		See Nameplate
Fluid temperature	$^{\circ}\text{C}$	+10 to +60
Connection thread	G	$\frac{1}{2}"$ o Pressure-, $\frac{3}{4}"$ o Suction side
Current	A	5,5
Power	W	500
Capacitor	μF	450 V – $20\text{ }\mu\text{F} \pm 5\%$
Bypass setting	bar	10
Max. Suction height	m	3,0
Nominal delivery rate*	L / min	10
Voltage	V / AC	230
Frequency	Hz	50
Revolution count	min^{-1}	1450
Safety type	IP	54
Power cable	m	2,0
Weight	kg	13
Efficiency	%	58
* under free discharge		

Tab. 1-3: Technical Data

1.5 Operational Area Requirements

Lubricating oils are water polluting substances. Therefore the country specific rules and regulations regarding the delivery and storage of such fluids must be obeyed.

According to § 19g WHG (Germany) the filling installation must be so constructed and built, maintained, and operated, such that water pollution and/or any other environmental damage is prevented.

The operator of such an installation is, according to § 19i WHG (Germany) responsible for continuous monitoring to ensure compliance with the above stated requirements at the installation.

The oil pump is intended for use within a building. The installation area must be selected such that correct operation is ensured.

2. General Safety Advice

2.1 Safe Working Advice

- The oil pump has been designed and manufactured according to the health and safety requirements of the relevant EC guidelines.
- Nevertheless, there can still be risks if the product is not set up or operated as stipulated.
- Therefore, before using the oil pump, read these operating instructions and pass them on to other users of the pump.
- When operating the oil pump, the local safety and accident prevention rules and regulations always apply, as well as the safety advice in the operating instructions.

2.2 Risks when Working with the Oil Pump



Danger!

Never work on a pump that is running!

- Mount or remove attachments and accessories only when the pump is switched off.
- For your own safety, disconnect the pump from the power supply.



Danger!

Do not pump contaminated fluids!

- Take special care to ensure that there is no contaminant in the fluid to be pumped.
- Install a strainer on the suction pipe.



Danger!

Damaged attachments and accessories can lead to personal injury and material damage!

- Suction and pressure pipes must not be kinked, twisted or stretched.
- Attachments and accessories must be checked for wear, splits or other damage at all times.
- Damaged attachments and accessories must be replaced immediately.
- With reference to the period of use, please note the details in ZH 1/A45.4.2 or DIN 20066 Part 5.3.2.

**Caution!****Spilled fuel can result in environmental damage!**

- Local and country rules and regulations relating to domestic water supplies and fuel storage must be obeyed.

3. Installation

- The oil pump can be used for delivery from original containers (e.g., barrels), or from tanks.
- 4 bolts, diameter less than 7 mm (not included) are required to attach the pump. Select bolts appropriate for the surface and/or foundations that the oil pump will be mounted on.
- When installing the pump, ensure that it is mounted on a stable surface. Select a secure location (protected from water spray, damage and theft).

**Note**

In accordance with regulations (WHG) Germany, the suction pipe must rise between the container and the pump. Therefore, before the installation, consider the height of the container and, if necessary, mount it on a storage unit.

- The connections to the electrical supply should be made by a qualified electrical technician, in accordance with the local regulations.
- Insert the suction connector pipe vertically into the barrel screw coupling of the oil container, and screw it into the suction connector of the pump.
- Attach the delivery hose to the connection (Fig. 12-1, Pos. 13).
- The pump is now ready for operation.

**Note**

Ensure cleanliness during installation, and that all accessories/attachments are correctly connected to the pump housing.

Use suitable sealing and jointing material (e.g., Teflon tape).

4. Preparing for Operation

4.1 Venting the Pump

- Switch the pump on.
- Run the venting hose (Fig. 12-1, Pos. 2) pipe into a suitable container.
- Using a screwdriver, slowly open the venting screw (Fig. 12-1, Pos. 3) between one, and a maximum of two turns.
- Wait until all the air has been vented from the pump, and only oil comes out of the venting hose.
- Close the venting screw.
- Open the nozzle valve over a suitable collecting container, until oil with no air comes out.

4.2 Bypass

- The pump is set for an operating pressure of either 10 bar. Depending on the viscosity of the oil, or the length of the hose line, it might be necessary to adjust the pressure.
- Use the knurled nut (Fig. 12-1, Pos. 1) to do this.
 - Clockwise = Increase pressure
 - Anticlockwise = Reduce pressure



Caution!

Adjust the knurled nut very carefully, because a small adjustment can result in a large pressure change.

5. Operation



Note

To ensure that the tank can be completely emptied, the suction hose must reach to the bottom of the tank.

- Operate the rocker switch to switch on the pump.



Caution!

Never operate the pump without delivery fluid. There is a danger of your oil pump being damaged if operated dry.

- Adjust the nozzle valve lever pressure according to the delivery rate required, or lock it in position for constant flow.



Caution!

Oil pump does not switch off automatically, therefore when filling, never leave the pump running without supervision.

- To finish a pumping session, release the nozzle valve control lever.
- Operate the rocker switch to switch off the pump.
- Position the nozzle valve so that no lubricating oil can pollute the environment.

5.1 Changing a Barrel

- Withdraw the suction pipe with return pipe from the empty barrel.
- You can avoid contamination by inserting the suction line directly into the new oil container.

6. Maintenance

The oil pump is very easy to maintain and service.

Due to the operator responsibilities according to § 19i WHG (German rules), the following components must be regularly checked and replaced as necessary, to minimise the possibility of environmental or equipment damage, or personal injury:

- Pump housing
- Delivery hose
- Nozzle valve
- Connection lines

7. Accessories

- Dual-Suction pipe, 2 m, No. 19 511
- Suction pipe, for oil, 2 m, G 3/4" I, G 3/4" o, No. 19 512
- Suction tube, G 3/4" I, G 2" o, SRL 860, for 200/220 l container, No. 19 522
- Suction tube, G 3/4" I, G 2" o, SRL 860, for 200/220 l container, with foot valve, No. 19 523
- Suction tube, G 3/4" I, G 2" o, SRL 1600, for tank mounting, with foot valve, No. 19 523 001
- Suction tube, G 3/4" I, G 2" o, SRL 2100, for tank mounting, with foot valve, No. 19 523 954
- Suction set, G 3/4" I, G 2" o, SRL 1600, for tank mounting, No. 19 523 002

8. Spare Parts

You can order the following original spare parts for your oil pump through the FMT-Service:

- Bypass, No. 85 001
- Venting valve, No. 85 006



Note

Only with original-FMT spare parts is perfect operation of your oil pump guaranteed! To avoid faulty operation and danger, please use only original spare parts.

9. Fault Finding

Fault	Cause	Solution
The oil pump runs, but no oil delivered when nozzle valve opened.	The oil container is empty.	Change the barrel, or fill the tank.
The oil pump fails to draw in fluid.	There is air in the suction line.	Tighten the suction tube screw connector, or improve the seal.
		Vent the system through the venting valve (See Chap. 4.1).

The delivery rate is too low.	The temperature of the delivery fluid is too low.	Store the containers (barrels) in heated rooms.
	The bypass is blocked.	Clean the bypass.
	The nozzle valve filter is blocked.	Clean the filter.
	The bypass is set to low.	Readjust the bypass (see Chap. 4.2).
The oil pump does not run.	There is no electrical supply.	Check the power cable and the fuse.
	The safety switch is switched off.	Switch on the safety switch/ wait until the safety switch switches on again.

Tab. 9-1: Fault Finding

If the solutions given in Tab. 9-1 for solving faults do not solve the problem, please contact our customer service (Address, See Chap. 10).

10. Repairs/Service

The oil pump was developed and produced according to the highest quality standards.

Should a problem develop, despite all quality controls, please contact our customer service:

FMT Swiss AG
 Tel +49 911 32 441-35
 Fax +49 911 32 441-65
 danina.steiningger@fmtag.ch

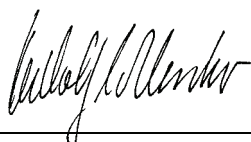
11. EC Declaration of Conformity

We hereby declare that the product described here, its concept and construction, including this particular model, complies with the EC requirements. Any change to the product, not approved by us, will invalidate the declaration.

Product Description:	Oil Pump 10 l/min 230 V 1~AC
Product Type:	Electric Pump
Year of Manufacture:	See Nameplate
Applicable EC-Directives:	EN 292-1 EN 292-2 EN 294 EN 50081-1 EN 50082-1 EN 55014
Applicable National Standards:	DPR 547-55 (German)

15.06.2007

FMT Swiss AG



Dipl.-Ing. Rudolf Schlenker

12. Exploded view

no.	description	art.no.
1	Overflow valve	85 001 / 230 V
2	Ventilation hose	80 327
3	Ventilation valve with screw	85 006
4	Anti-twist protection pin	00 358
5	Gear housing	89 370
6	Gear ring 11 gears	89 367
7	Gear ring 9 gears	89 374
8	O-ring 78 x 3	00 290
9	Pump cover	89 373
10	Screws M 5 x 16	00 236
11	Connection for suction tube G 3/4" male	00 926
12	Engine IMB 3 230 V	85 200
13	Connection for discharge tube G 1/2" male	00 928

Tab. 12-1: Explanation for exploded view. 12-1

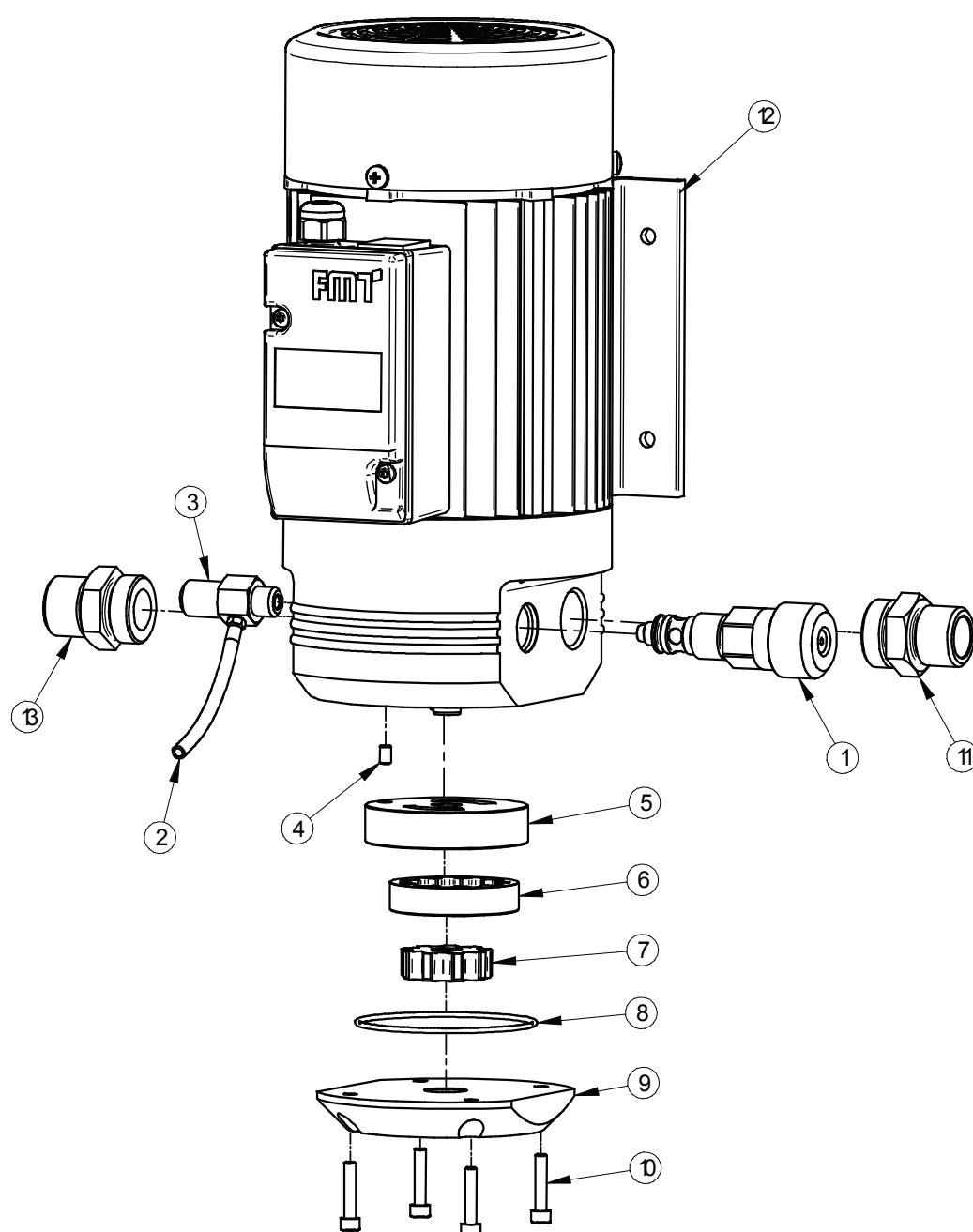


Fig. 12-1: Exploded View of the Oil Pump

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