TECALEMIT

Operating manual

HORNET

W 40, G 40/12, G 40/24

Item-No.: 104458475, 104428700, 104438700, 104448700, 104458475, 104458702, 104468702, 104468722, 104478702, 104478722, 104528700, 104538700, 104548700, 104558702, 104568702, 104568722, 104578702, 104578722

Translation of the original operating manual GB

Important!

The operating manual is always to be read before commissioning the equipment. No warranty claim will be granted for faults and damage to the equipment arising from insufficient knowledge of the operating manual.

Copyright

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1. Safety instructions

This device was manufactured taking into account the relevant laws and directives for ensuring security as well as the protection of the environment and health. Despite this, its use may result in hazards for persons and material assets. Hence, it is essential that the instructions in this manual are complied with.

Warning notices and symbols

In this operating manual, the following symbols are used to point out especially important information:

Specific details on the economic use of the device.

Specific details and/or instructions for damage prevention.

Details and/or instructions for preventing injury to persons or extensive material damages

Intended use

Use the device only when it is in perfect working condition and only for its intended purpose while observing all safety precautions and risks. In particular, all malfunctions that could pose a safety hazard are to be corrected immediately.

The device and its components are intended for use exclusively with the liquids listed and only for the purpose described. Any other use or additional manner of usage is not intended.

Organizational measures

This operating manual is to be kept within easy reach at the place of operation. The nameplate and the warning labels on the device must be observed and kept completely legible at all times.

Qualified personnel

The personnel for installation, commissioning, operation, and maintenance of the device must possess the relevant and adequate qualifications for these tasks. The operator must ensure that the contents of this manual are fully understood and implemented by the personnel.

Maintenance and repairs

⚠ Do not make any changes, extensions and/or modifications to the device without the manufacturer's permission. Replacement parts must conform to the technical specifications defined by the manufacturer. For original parts, this conformity is always guaranteed.

Hazardous substances

⚠ In exceptional cases, the components of this device may contain hazardous substances. In accordance with the requirements of the European REACH regulation, we provide current information on this on our homepage, in the download section.
Observe all safety regulations for the respective product when handling oils, greases, fuels and other chemical substances!

Water protection

⚠ The device has been constructed for use with water contaminants. It is to be operated such that bodies of water cannot be polluted by it. All applicable regulations at the place of operation are to be complied with!

Electrical energy

⚠ Work on electrical equipment is only to be performed by qualified electricians. De-energize the machine and system components before performing any work on the device.
The insulation on all live parts is to be inspected regularly for damage.

Hydraulics

⚠ Only personnel with special knowledge of and experience in hydraulics are allowed to perform work of any type on hydraulic equipment. Depressurize the device before performing any work on it. All pressure-bearing components are to be inspected regularly for leaks and damage.

2. General information

2.1. Description / Appropriate use

- The HORNET electrical pump is an electrically powered delivery pump specifically for use with diesel and heating oil that has a flash point of over 55°C. It can also be used with radiator antifreeze (undiluted concentrate).
- The pump is equipped with a certified, automatically closing nozzle A 2010 or a ZP19 type nozzle.
- To avoid environmental damage the pump has been equipped with an anti-siphon safety feature.
- The integrated priming pump means that the pump is always and quickly ready for use. When pump is operated for the first time, it must be filled by using the priming pump. The priming pump allows additionally emergency operation for delivery of smallest rates of liquid in case of power failure.
- The automatic self closing nozzle A2010 closes perfectly, when the tank to be filled is full, when the nozzle is held in a vertical position or when the nozzle falls to the ground with a fixed control lever.
- The pump casing is made of high-quality, impact resistant plastic.
- The Hornet 40 is delivered including hose set and self-closing and/or simple, not automatic nozzle.
- Alternatively a non-calibrated flow meter can be installed.

! Dry operation can cause damage of the shaft sea!

⚠ The HORNET electrical pump is intended solely for delivering diesel and heating oil with a flash point of over 55°C, plus radiator antifreeze (undiluted concentrate).

! The temperature of the flow liquid is not allowed to fall below or exceed - 10°C to +35°C.

⚠ Motor and switches are not explosion-proof.

⚠ Operation with flammable fuels (with a flash point below 55 °C) could cause explosions.
The electric pump must not be operated in potentially explosive atmospheres.

2.2. Product versions

Item.-No.	Version	Flow Meter	Nozzle
104 428 700	HORNET W 40		ZP 19 standard nozzle
104 438 700	HORNET G 40/12		ZP 19 standard nozzle
104 448 700	HORNET G 40/24		ZP 19 standard nozzle
104 458 475	HORNET W 40 FMT 3	FMT 3	ZP 19 standard nozzle
104 458 702	HORNET W 40 FMT 3	FMT 3	ZP 19 standard nozzle
104 468 702	HORNET G 40/12 FMT 3	FMT 3	ZP 19 standard nozzle
104 468 722	HORNET G 40/12 FMT 3	FMT 3	ZP 19 standard nozzle
104 478 702	HORNET G 40/24 FMT 3	FMT 3	ZP 19 standard nozzle
104 478 722	HORNET G 40/24 FMT 3	FMT 3	ZP 19 standard nozzle
104 528 700	HORNET W 40 A		Automatic nozzles A 2010
104 538 700	HORNET G 40/12 A		Automatic nozzles A 2010
104 548 700	HORNET G 40/24 A		Automatic nozzles A 2010
104 558 702	HORNET W 40 A FMT 3	FMT 3	Automatic nozzles A 2010
104 568 702	HORNET G 40/12 A FMT 3	FMT 3	Automatic nozzles A 2010
104 568 722	HORNET G 40/12 A FMT 3	FMT 3	Automatic nozzles A 2010
104 578 702	HORNET G 40/24 A FMT 3	FMT 3	Automatic nozzles A 2010
104 578 722	HORNET G 40/24 A FMT 3	FMT 3	Automatic nozzles A 2010

2.3. Technical data

Noise level: 70 db (A)
Medium temperature: -10° C bis +35° C
Protective system: IP 44
Nozzle hose: 4 m
Cable: 2 m

Max. head of suction 2 m
Max. length of nozzle hose 6 m
Drum- thread: M64x4 and G2“
suction hose: 1600 mm

Type Hornet	W40 Standard	W40 Automatic	G40/24 Standard	G40/24 Automatic	G40/12 Standard	G40/12 Automatic
Voltage	230V 50Hz	230V 50Hz	24V-	24V-	12V-	12V-
currency	1,2A	1,2A	7,5A	7,5A	12,5A	12,5A
Input power	250W	250W	180W	180W	150W	150W
Capacity [1]	approx 38 l/min	approx 32 l/min	approx 34 l/min	approx 27 l/min	approx 31 l/min	approx 24 l/min
Vertical rise	max. 13m	max. 13m	max. 9m	max. 9m	max. 8m	max. 8m
Weight	3,6 kg	4,5 kg	3,2 kg	4,5 kg	3,2 kg	4,5 kg

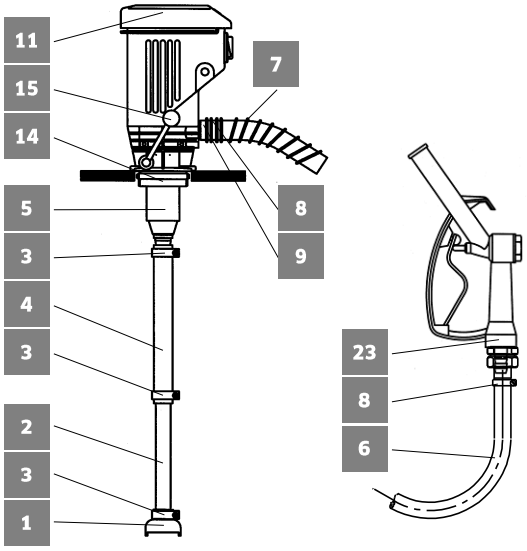
1 Values at: suction depth 1600 mm, delivery head 0, delivery hose DN19.

3. Assembly instructions

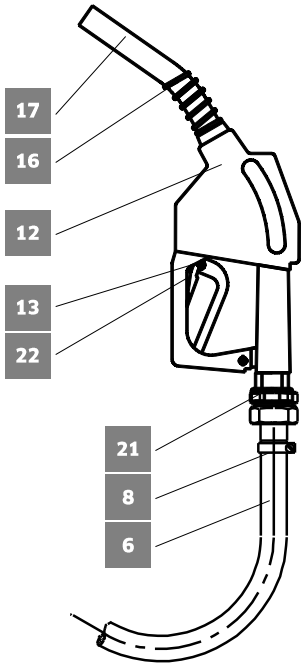
Fit suction filter (1) to suction pipe (2) and secure by means of light hose clamp (3). Slip transparent suction hose (4) approx. 30 mm on the suction pipe (2). Cut the delivery hose to required length and slide it on to the suction pipe socket (5) of the priming pump (14). Tighten both hose clamps (8) on the hose (6). Slip hose on pressure connection (9) of the pump. Slip angular wire end of anti-knik spring under the hose clamp. Tighten hose clamp (8). Fit nozzle ZP19 to other end of pressure hose (23) using the hose clamp.

The Hornet 40 Automatic is designed with an automatic nozzle valve A2010 instead of the nozzle ZP19. For that purpose fit supplied hose union (21) with clamp (8). Plug thread (21) on nozzle and tighten.
Tight pump into opening of tank, thus considering that the pump can only be placed and operated in a **vertical** position.
By twisting the motor casing (11) the pump outlet can be put into the wanted position.
Connect power supply.
For type Hornet G40 a direct currency socket is required according to DIN 72591 C or D.
The circuit cross section of the plug supply line at direct currency operation should amount to 2,5 qmm thus avoiding large voltage drop.

Model HORNET40 Standard



Model HORNET40 Automatic



3.1. Requirements for the location of installation.

Since the media handled by the pump are harmful to water, the HORNET pump must be positioned, maintained and operated such that contamination of water or other significant modification of its properties is avoided. The relevant local legislation must be complied with.

4. Operation

4.1. Commissioning and re-commissioning

! **During commissioning the pump must be filled through repeated pumping action with the hand lever (15) at the suction stage (14). After prolonged periods of non-use the integrated siphon protection may cause the liquid column to drop, so that the pump may have to be primed again.**

1. Put nozzle into a tank, the backflow of the canister or into a collecting basin. Open nozzle at the nozzle lever.
2. Fill up pump by actuating the nozzle lever (15) until liquid comes forth out of the nozzle.
3. Switch on pump and press down nozzle lever.

! **In order to avoid an exceeding of the admissible temperature, the electric pump should not deliver more than 5 minutes against a closed nozzle.**

4.2. Normal operation

! **Avoid dry-running.**

! **A damaged hose may cause spillages.**

! **The hose (6) may not be left lying on the ground in order to avoid damages to the hose.**

4.2.1. Normal operation of type with nozzle ZP 19

a) Switch on electric pump.
b) Hold nozzle into filling container and/or put nozzle into vehicle tank and press nozzle lever according to quantity required.
c) Switch off electric pump and put nozzle back onto the tank

4.2.2. Normal operation of type with automatic nozzle A 2010

a) Switch on electric pump.
b) Hold automatic nozzle (12) into filling container and/or put nozzle into vehicle tank and press nozzle lever (13) according to quantity required or lock it with clamp (22). Automatic nozzle A 2010 switches off automatically when the tank is full (Q min = 12 l/min. Do you wish to stop the filling, release nozzle (13) and/or pull up the nozzle lever briefly and then release it.
c) Switch off electric pump and put nozzle back onto the tank.

4.3. Emergency operation

In case of power failure it is possible to pump small quantities by actuating the lever (15) thus holding open the automatic nozzle and/or the nozzle.

4.4. Automatic nozzle 2010 (option)

- The nozzle A 2010 comes with a general building authority test certificate (P-TÜ7-01340). The test certificate is available on request.
- An automatic disconnection follows when the tank is full, the nozzle is held in vertical position or when the nozzle (13) falls to the ground with a fixed nozzle lever.
- The nozzle (13) can be fixed during filling of tank by using the holder fixture.
- The spring surrounding the outlet (16) secures a safe adjustment of the nozzle (12) in a tank filler inlet.

! **The automatic disconnection of the nozzle does only works when the outlet and the feeler jet, (17) which is situated in the outlet, has not been contaminated and the flow volume is not less than 12 l/min.**

5. Demontage

In case the pump has to be dismounted from barrel or container

1. Pull plug out of socket.
2. Unscrew pump with priming pump from drum-, resp. container-thread.
3. Take out pump slowly of container (liquid flows entirely out of suction pipe) and place it in an oil-proof basin.
4. Release discharge hose (6) at pressure connection (9) and let liquid flow out into oilproof basin.

6. Maintenance

- The HORNET pump is designed for low maintenance.
- The pump housing, the pressure hose and the nozzle must be checked for damage at regular intervals in order to prevent environmental damage.
- The pressure hose can be replaced by simply releasing the hose clamps (8) (see also section 3, Assembly instructions).

7. Disposal

The device is to be emptied completely and the liquids properly disposed of in case it is taken out of service.
The equipment is to be disposed of properly when taken permanently out of service:

- Return old metal for recycling.
- Return plastic parts for recycling.
- Return electronic waste for recycling.

The water legal regulations are to be followed.

7.1. Return of batteries

Batteries must not be disposed of with the domestic waste. Batteries can be returned free of charge via a suitable collecting point or to the dispatch stores. Consumers are legally obliged to return used batteries.
Batteries that contain harmful substances are marked with a crossed out dustbin (see above) and the chemical symbol (Cd, Hg or Pb) of the heavy metal that is decisive for the classification as containing harmful substances:
1. “Cd” stands for cadmium.
2. “Pb” stands for lead.
3. “Hg” stands for mercury.

8. Declaration of conformity

TECALEMIT

Konformitätserklärung
Declaration of Conformity

TECALEMIT GmbH & Co. KG
Munketoft 42 24937 Flensburg Deutschland/*Germany*

Hiermit erklären wir, dass die Bauart
We herewith declare that the construction type

Typ: *Type:*	**HORNET 40**
Bezeichnung: *Designation:*	**Elektrisches Fördersystem** ***Electric delivery system***
Artikel-Nummer: *Item Number:*	**912680001, 912680002, 912680003**

in der von uns gelieferten Ausführung folgenden einschlägigen Bestimmungen entspricht:
in the form as delivered by us complies with the following applicable regulations:

- Maschinenrichtlinie *Machinery directive*	2006/42/EG *2006/42/EC*
- EMV-Richtlinie *EMC directive*	2014/30/EU *2014/30/EU*
- RoHS-Richtlinie *RoHS directive*	2011/65/EU *2011/65/EU*

Angewendete harmonisierte Normen / *Applied harmonised standards:*

EN ISO 12100 EN 60204-1 EN IEC 63000

18.11.2021
Datum
Date

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