



Operating manual

HORNET

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

Item-No.: 104 428 700, 104 438 700, 104 448 700, 104 458 701,
104 468 701, 104 478 701, 104 528 700, 104 538 700,
104 548 700, 104 558 701, 104 568 701, 104 578 701

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.

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1. Safety instructions

The device is a state of the art piece of equipment and has been constructed according to recognised safety specifications. It is nevertheless possible that use of the device will present hazards to the operator or to third parties, or may damage the device or other property. It is therefore essential to act in accordance with these safety instructions, and in particular with those sections identified as warnings.

Warning notices and symbols

In the operating manual, the following signs are used for highlighting important information.



Special information for economical use of the equipment.



Special information or "dos and don'ts" for damage prevention.



Information or "dos and don'ts" for the prevention of damage to persons or equipment.

Appropriate use



The device may only be used if it is in perfect condition, and then only for its intended purpose, in compliance with all safety regulations, with an awareness of the potential risks, and according to the operating manual. Any faults that may impair the safety must be rectified immediately.



The device and its components are only to be used for handling the liquids listed and the purpose described. Using the machine for any other purpose would constitute inappropriate use. The manufacturer is not responsible for any loss arising as a result of this, the risk for this is borne only by the operating company.


Organisational measures

- ! This operating manual should always be kept readily available at the site of operation! Each person concerned with the assembly, commissioning, maintenance and operation of the equipment must have read and understood the entire operating manual. It is essential that the type plate and the warning notices attached to the device are observed, and are maintained in a fully readable condition.


Qualified personnel

- ! The operating, maintenance and assembly personnel must be appropriately qualified for their work. The areas of responsibility, competences and supervision of the personnel must be precisely regulated by the operating company. If the personnel do not have the required knowledge, they must be trained and instructed. The operating company must also ensure that the contents of the operating manual are properly understood by the personnel.


Waters protection

-  The device has been designed to handle water hazardous substances. The regulations on the operating place (e.g. Water Resources Act WHG, = ordinance on installations for handling of substances hazardous to water VAWS) must be adhered to.


Hydraulics

-  Only persons with special knowledge and experience with hydraulic systems may carry out work on hydraulic parts and equipment. All lines, hoses and screw joints should regularly be checked for leaks and visible external damage. Any damage must be rectified immediately. Any oil spurting out can cause injuries and fire. The relevant safety regulations for the product must be followed when handling oils, greases or other chemical substances!

Maintenance and Service

-  According to the regulations of the water resources law only authorized services may work on devices for flammable and/or water endangering substances. During such works, appropriate tools are to be used (avoid sparking). Before any kind of work on the device, all fuel lines are to be completely emptied and aerated. Do not make any changes. Modifications or additions to the device which may affect the safety cannot be carried out without consent of the manufacturer. Exclusively genuine spare parts made by the manufacturer may be used.

Electric power

-  Work on the electrical equipment may only be carried out by a qualified electrician or by trained persons under the guidance and supervision of a qualified electrician according to electro-technical guidelines. Machine or system components, on which inspection, maintenance or repair work is to be carried out must be de-energised.

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 seal!



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.	Ausführung	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
104 458 701	HORNET W 40 FMT II	FMT II	ZP 19 standard nozzle
104 468 701	HORNET G 40/12 FMT II	FMT II	ZP 19 standard nozzle
104 478 701	HORNET G 40/24 FMT II	FMT II	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
104 558 701	HORNET W 40 A FMT II	FMT II	Automatic nozzles A 2010
104 568 701	HORNET G 40/12 A FMT II	FMT II	Automatic nozzles A 2010
104 578 701	HORNET G 40/24 A FMT II	FMT II	Automatic nozzles A 2010

2.3. Technical data

Noise level:	70 db (A)	Max. head of suction	2 m
Medium temperature:	-10° C bis +35° C	Max. length of nozzle hose	6 m
Protective system:	IP 44	Drum- thread:	M64x4 and G2"
Nozzle hose:	2000 mm	suction hose:	1600 mm
Cable:	2 m		

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-knirk spring under the hose clamp. Tighten hose clamp (8). Fit nozzle ZP19 to other end of pressure hose (23) using the hose clamp.

Nozzle hose must have a resistance of > 10 Ω in order to avoid a static boost load.

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.

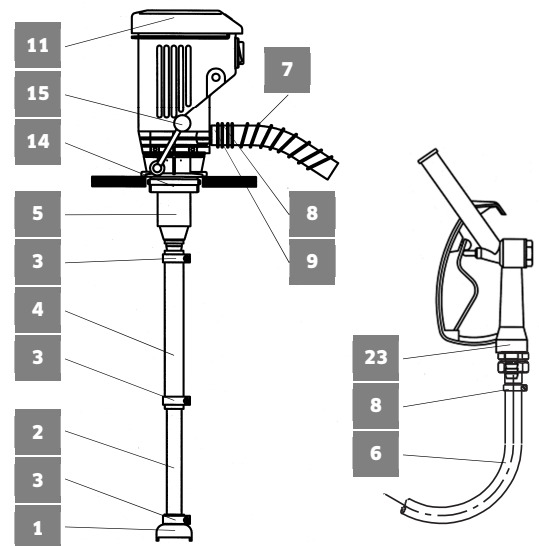
By twisting the motor casing (11) the pump outlet can be put into the wanted position.

Connect power supply.

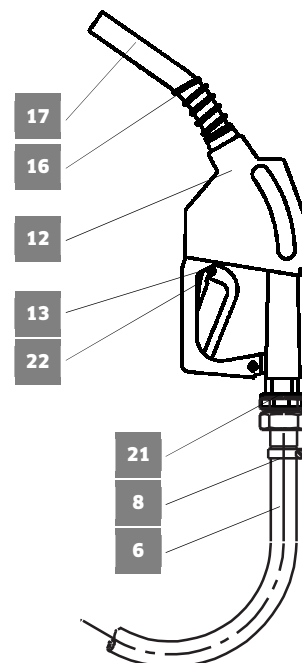
For type Hornet G40 a direct currency socket is required according to DIN 72591 C or D.

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 ($Q_{min} = 12 \text{ l/min}$). 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 dismantled 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.

8. Declaration of conformity

Konformitätserklärung Declaration of conformity

Hiermit erklären wir, dass das nachfolgend beschriebene Gerät in seiner Konzipierung und Bauart sowie in der von uns in Verkehr gebrachten Ausführung der EG-Richtlinie entspricht. Bei einer mit uns nicht abgestimmten Änderung des Gerätes verliert diese Erklärung ihre Gültigkeit.

Herewith we declare that the below mentioned equipment in it's conception and design and in the execution was manufactured by us in conformity with the provisions of the EC directive. Any modification to the equipment made without our consent will render this declaration invalid.

Bezeichnung des Gerätes: HORNET 40
Description:

Gerätetyp: Elektro-Motorpumpe
Type: Elektro-motorpumpe

Baujahr, Werk-Nr. : siehe Geräteprägung
Year of construction: se prægning på apparatet

Zutreffende EG-Richtlinien / Applied EC-directives:

EG-Niederspannungsrichtlinie (73/23/EWG)
EC- Low voltage guidelines (73/23/EWG)

EG-Richtlinie Elektromagnetische Verträglichkeit (89/336/EWG) i.d.F. 93/31/EWG
EC-directive electromagnetic compability (89/336/EWG) version 93/31/EEC

Angewandte harmonisierte Normen / Applied harmonized standards:
EN 55 014 EN 60 335-1

Angewandte Nationale Normen / Applied national standards:
DIN VDE 0843 T1 DIN VDE 700 T1

Datum/Unterschrift
Date / signature

14.08.2007


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