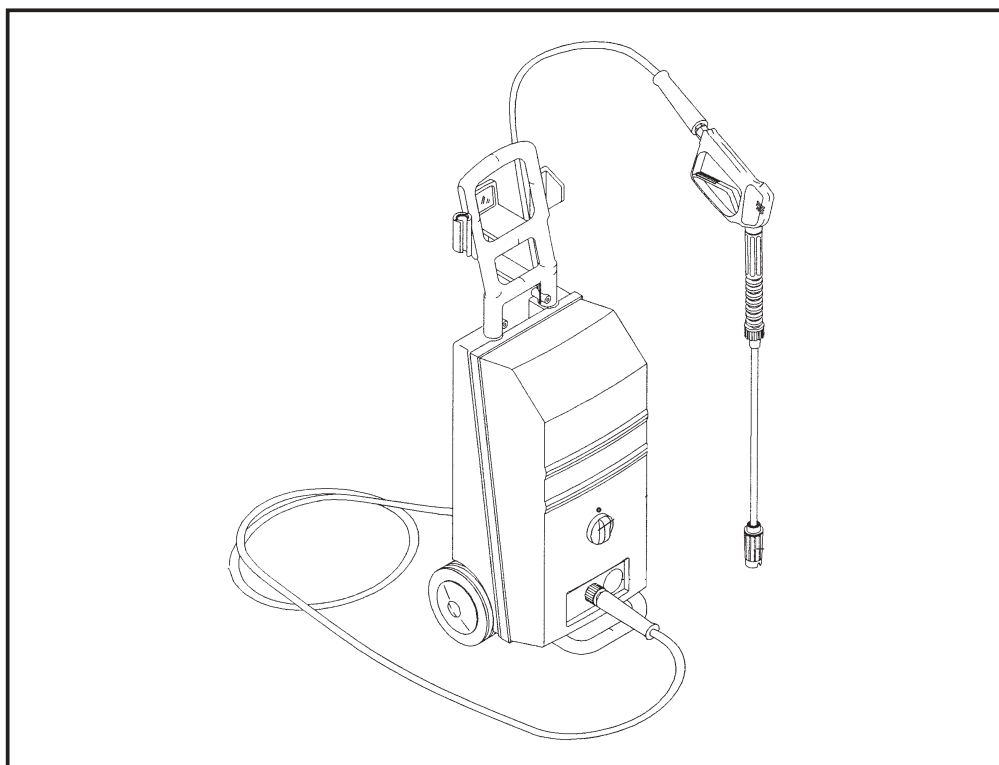
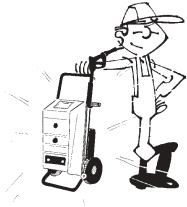


# **N/G-230A/250A/270A 240A Hi-flow**



|           |                                      |                  |
|-----------|--------------------------------------|------------------|
| <b>DK</b> | <b>Betjeningsvejledning .....</b>    | <b>side 2</b>    |
| <b>N</b>  | <b>Bruksanvisning .....</b>          | <b>side 11</b>   |
| <b>S</b>  | <b>Bruksanvisning .....</b>          | <b>sida 19</b>   |
| <b>GB</b> | <b>Operating guide .....</b>         | <b>page 27</b>   |
| <b>D</b>  | <b>Betriebsanleitung .....</b>       | <b>Seite 35</b>  |
| <b>F</b>  | <b>Mode d'emploi .....</b>           | <b>page 43</b>   |
| <b>NL</b> | <b>Gebruiksaanwijzingen .....</b>    | <b>pagina 51</b> |
| <b>E</b>  | <b>Instrucciones de manejo .....</b> | <b>pàgina 59</b> |
| <b>P</b>  | <b>Instruções para uso .....</b>     | <b>pàgina 66</b> |

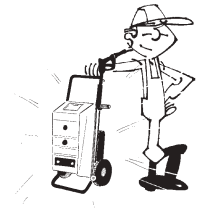


|   |  |
|---|--|
| <p><b>DK</b></p> <p>Type: 200/230/240/250/270</p> <p>Maskinen er fremstillet i overensstemmelse med følgende direktiver:</p> <p>Maskindirektiv: 98/37/EØF<br/>EMC-direktiv: 89/336/EØF<br/>Lavspændingsdirektiv: 73/23/EØF<br/>Støjemissionsdirektiv: 2000/14/EC</p>  | <p><b>F</b></p> <p>Type: 200/230/240/250/270</p> <p>Cette machine a été fabriquée conformément aux directives suivantes:</p> <p>Réglementation machine: 98/37/CEE<br/>Réglementation CEM: 89/336/CEE<br/>Règlement basse tension: 73/23/CEE<br/>Règlement la émission acoustique: 2000/14/EC</p>               |
| <p><b>N</b></p> <p>Type: 200/230/240/250/270</p> <p>Maskinen er fremstilt i overensstemmelse med følgende direktiver:</p> <p>Maskindirektiv: 98/37/EØS<br/>EMC-direktiv: 89/336/EØS<br/>Lavspændingsdirektiv: 73/23/EØS<br/>Lydtrykknivådirektiv: 2000/14/EC</p>  | <p><b>NL</b></p> <p>Type: 200/230/240/250/270</p> <p>Deze machine is vervaardigd overeenkomstig de volgende richtlijnen:</p> <p>Machine richtlijn: 98/37/EEC<br/>EMC-richtlijn: 89/336/EEC<br/>Laagspanning richtlijn: 73/23/EEC<br/>CE Richtlijn peil van akoestische: 2000/14/EC</p>                         |
| <p><b>S</b></p> <p>Typ: 200/230/240/250/270</p> <p>Maskinen är framställd i överensstämmelse med följande direktiv:</p> <p>Maskindirektiv: 98/37/EEC<br/>EMC-direktiv: 89/336/EEC<br/>Lågspänningsdirektiv: 73/23/EEC<br/>Ljudtryknivådirektiv: 2000/14/EC</p>  | <p><b>E</b></p> <p>Tipo: 200/230/240/250/270</p> <p>Esta máquina ha sido fabricada en conformidad a las siguientes normativas:</p> <p>Normativa de la máquina: 98/37/CEE<br/>Normativa EMC: 89/336/CEE<br/>Normativa sobre baja tensión: 73/23/CEE<br/>Normativa sobre emisión acústica: 2000/14/EC</p>        |
| <p><b>UK</b></p> <p>Type: 200/230/240/250/270</p> <p>This machine was manufactured in conformity with the following directives:</p> <p>Machine directive: 98/37/EEC<br/>EMC-directive: 89/336/EEC<br/>Low voltage directive: 73/23/EEC<br/>Sound pressure level directive: 2000/14/EC</p>   | <p><b>P</b></p> <p>Tipo: 200/230/240/250/270</p> <p>Esta máquina foi fabricada em conformidade com as seguintes directrizes:</p> <p>Directriz de maquinaria: 98/37/CEE<br/>Directriz EMC: 89/336/CEE<br/>Directriz de baixa voltagem: 73/23/CEE<br/>Directriz sobre nivel de potência acústica: 2000/14/EC</p> |
| <p><b>D</b></p> <p>Typ: 200/230/240/250/270</p> <p>Diese Maschine wurde gemäß den folgenden Richtlinien hergestellt:</p> <p>Maschinenrichtlinie: 98/37/EWG<br/>EMV-Richtlinie: 89/336/EWG<br/>Niederspannungsrichtlinie: 73/23/EWG<br/>Schalldruckpegelrichtlinie: 2000/14/EC</p>   | <p><b>G</b></p> <p>Τύπος: 200/230/240/250/270</p> <p>Το μηχάνημα έχει κατασκευαστεί σύμφωνα με τις παρακάτω προδιαγραφές:</p> <p>Προδιαγραφή μηχανήματος: 98/37/CEE<br/>Προδιαγραφή-EMC: 89/336/CEE<br/>Προδιαγραφή χαμηλής τάσεως: 73/23/CEE<br/>Προδιαγραφή στάθμης θορύβου: 2000/14/EC</p>                  |
| <p><b>FIN</b></p> <p>Typ: 200/230/240/250/270</p> <p>Laite on valmistettu seuraavissa direktiveissä olevien määrittelyjen mukaisesti</p> <p>Laitedirektiivi: 98/37/EU</p> <p>Direktiivi, joka käsittelee sähkömagneettista yhteensopivuutta: 89/336/EU<br/>Pienjännitedirektiivi: 73/23/EU<br/>Direktiivi taattu äänitehon taso: 2000/14/EU</p> |  |

  
Stefan Nybonn

June 12th 2002

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# ENGLISH

|                                 |         |                              |         |
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## INTRODUCTION

We congratulate you on your choice of new high pressure cleaner.

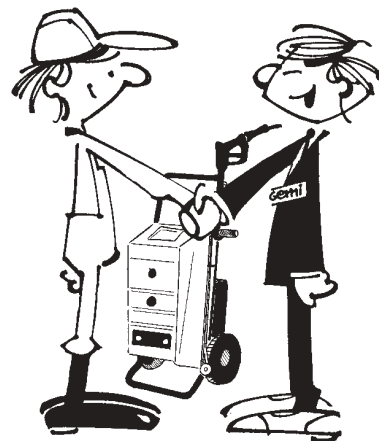
We are confident that the product will fully meet your expectations. It has been designed and produced by one of Europe's leading manufacturers of high pressure cleaners. Gerni A/S caters for all industries with a complete programme of cold and hot water cleaners as well as a wide assortment of accessories.

To secure full benefit from your high pressure cleaner, we ask you and other possible operators to study the following operating guide. The operating guide should be regarded as an integral part of the high pressure cleaner and should always be available to the operator. The operating guide briefly explains the construction and the operation of the high pressure cleaner.

The high pressure cleaner is built for fast and simple operation. Should problems occur which you cannot solve yourself by means of the operating guide, we ask you to contact our service department whose experience and expertise is at your disposal.

By following this operating guide, you will enhance the economical and safe operation of your high pressure cleaner. In the same way as with a car, the high pressure cleaner's operational life will be prolonged and the performance will be more effective, if the cleaner is maintained and serviced according to the operating guide.

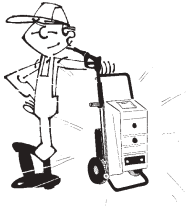
In the operating guide the picture references are marked as (2.6) meaning that reference is made to photo No. 2 and object No. 6 (in this instance: the high pressure hose).



Type: .....

No.: .....

Date of purchase: .....



## SAFETY INSTRUCTIONS

For the benefit of the operator and his/her surroundings, the following safety instructions must be carefully observed.

1. The high pressure cleaner must be earthed according to regulations. To ensure reliable operation the earth connection contact resistance must not exceed 50 ohms.
2. Never exceed the maximum pressures and temperatures indicated on the machine plate.
3. In case of operational failures or when repairing - switch off the high pressure cleaner at the mains switch and turn off the water supply.
4. After operation - switch off the high pressure cleaner at the main switch and turn off the water supply. Always lock the pistol with the safety device on the trigger when you leave the high pressure cleaner.
5. Use only Gerni A/S/ Nilfisk high pressure hoses. Do not use non-Gerni /Nilfisk high pressure hoses as they do not comply with the safety standards required by Gerni A/S. Never attempt to repair defective high pressure hoses yourself.
6. The water jet is delivered from the nozzle at high speed. Therefore, never aim the jet in the direction of people, animals, electric installations or electrical conductors.
7. Leaks may be dangerous - contact our service department.
8. It is recommended that protective clothing be worn to avoid accidental spraying of unprotected skin.
9. Lance and pistol should always be held with both hands.
10. Never attempt to exchange the pistol or disconnect the hoses before the high pressure cleaner has been switched off and the pressure has been relieved.
11. Never allow children or unauthorised personnel to operate the high pressure cleaner.
12. Extension cable, plug and plug socket should be impervious to water.



## DESCRIPTION

Your new high pressure cleaner is constructed as shown in the functional diagram and drawing No. 2. The machine consists of an electric motor (2.1), which drives the high pressure pump (2.2).

Through the water filter (2.4) the pump sucks the water from the water inlet (2.3) into the cylinder head. The pump pressurises the water and forces it out through the pressure outlet (2.5), into the high pressure hose (2.6), to the pistol (2.7), and out through the Turbo Laser nozzle (2.8).

The pressure of the high pressure cleaner can be read on the pressure gauge (230A/250A/270A) (2.10). If the water pressure exceeds the normal working pressure, the built-in safety valve (2.12) will open the by-pass and thereby prevent damage to the high pressure cleaner.

When the pistol trigger is released, the motor will stop. Detergent is added through the detergent hose from an external tank. Adjustment of the concentration continues on the dosing valve (2.15).

NB! When the high pressure cleaner is supplied with hot water above 30°C, the pump must not suck water from a tank or the like, but should be fed with pressure. At temperatures between 30 and 40°C, this pressure should be min. 1 bar - between 40 and 60°C: min. 3 bar.

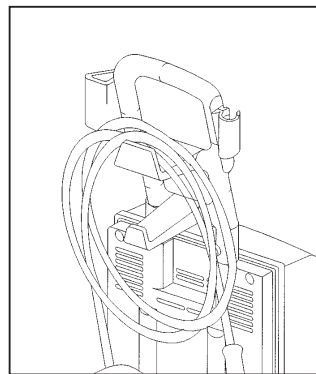
- 2.1 Electric motor
- 2.2 Pump
- 2.3 Water inlet
- 2.4 Water filter
- 2.5 Pressure outlet
- 2.6 High pressure hose
- 2.7 Pistol
- 2.8 High pressure nozzle
- 2.9 Lance head
- 2.10 Pressure gauge (230A/250A/270A)
- 2.11 Micro switch
- 2.12 Safety valve
- 2.13 Detergent injector
- 2.14 Non-return ball valve
- 2.15 Dosing valve for detergent
- 2.16 Detergent hose
- 2.17 Switch (start/stop)



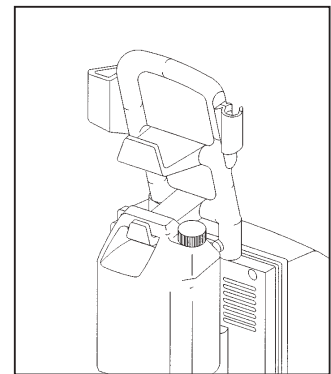
## FUNNCTIONS OF THE DRIVING HANDLE

Besides functioning as holder for pistol and lance, more holders are carrying for extra equipment on the driving handle.

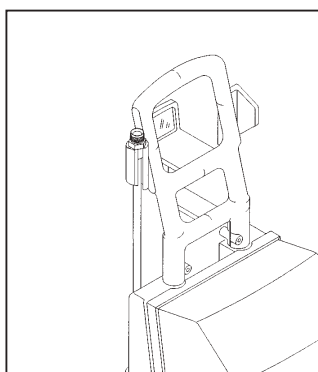
The holders can be used according to the illustrations below.



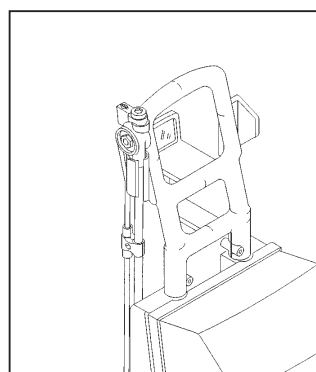
Placing of high pressure hose/electric cable



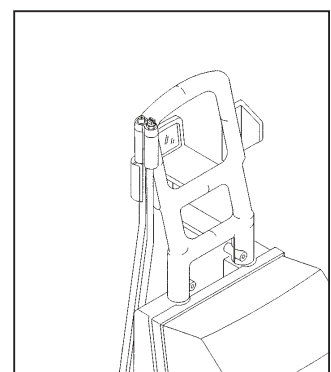
Placing of detergent tank



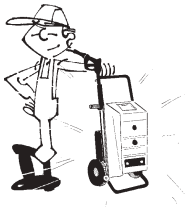
Placing of additional lance (standard lance)



Placing of additional lance (Turbo Laser)



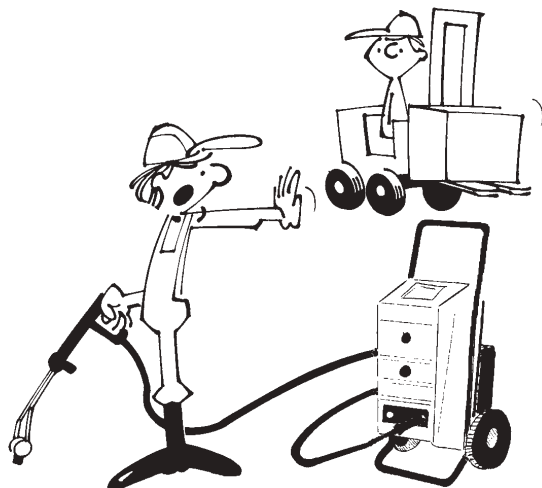
Placing of additional lance (double lance)



## OPERATING AND STARTING GUIDE

### High pressure hose

Your new high pressure cleaner is equipped with a heavy duty high pressure hose. Do not attempt to pull at the high pressure hose when moving the high pressure cleaner. Be careful not to run over or in any other way damage the high pressure hose. The warranty does not cover broken hoses or hoses which have been run over.



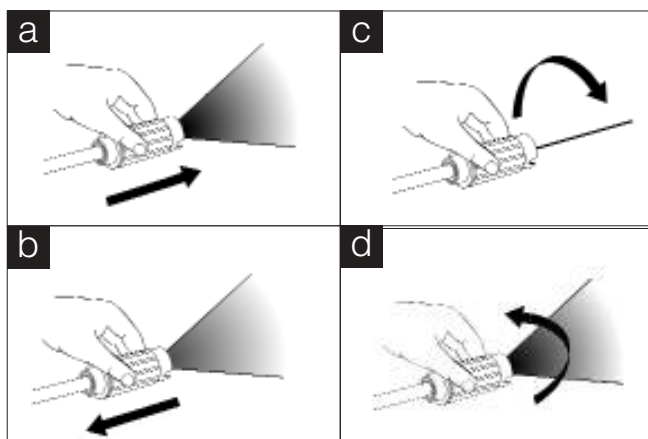
### Fine sand filter

If you use water containing floating sand, we recommend that you mount a fine sand filter. The filter element is changed according to need. If a fine sand filter is not mounted, the fine sand may get in the valves of the pump and cause damages on the safety valve, cylinder head and possibly the Turbo Laser. This is not covered by the guarantee.

### Adjustable nozzle (N/G-230A/240A/250A)

The nozzle has three important functions:

1. Operation at low pressure (with fluid detergent).  
To choose low pressure the head of the lance is pushed away from the pistol (fig. a).
2. Operation at high pressure (for powerful wash and rinsing).  
To choose high pressure the head of the lance is pulled towards the pistol (fig. b).
3. Adjustment of the fan from concentrated (c) to fan-shaped (d).



### Turbo Laser (N/G-250) (N/G-230A 100/110V)

The high pressure cleaner is also equipped with a Turbo Laser lance for highly improved cleaning efficiency (see technical data).

### SPECTRUM (N/G-270)

The high pressure cleaner is provided with a lance with a high efficient high pressure *SPECTRUM* nozzle which performs a cleaning efficiency higher than traditional flat jet nozzles. Furthermore, the N/G-270 is provided with a handle for pressure regulation and for application of detergents.

### Starting

If you require the high pressure cleaner to work with an action radius larger than its standard, you should lengthen the high pressure hose and not the electric cable. If you still wish to extend the electric cable the dimensions should be as follows:

| Length of cable | cross-sectional area     |
|-----------------|--------------------------|
| max. 12 m       | min. 1.5 mm <sup>2</sup> |
| max. 20 m       | min. 2.5 mm <sup>2</sup> |
| max. 30 m       | min. 4.0 mm <sup>2</sup> |

The high pressure cleaner must be situated as far away from the cleaning site as possible.

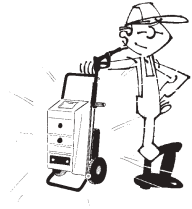
1. Connect the electric cable. Note the rated voltage and amperage of the high pressure cleaner :

| Model            | 230 | 240 | 250    | 270   |
|------------------|-----|-----|--------|-------|
| 1x100V, 50/60Hz  | 14A |     |        |       |
| 1x110V, 50Hz     | 13A |     |        |       |
| 1x230/240V, 50Hz | 10A | 9,5 | 13/12A |       |
| 1x230/240V, 60Hz |     |     | 13/12A |       |
| 3x230V, 50Hz     |     |     |        | 10.5A |
| 3x400/415V, 50Hz |     |     |        | 6A    |

2. Connect the high pressure hose to the pressure outlet (2.5). Flush the water supply hose through and connect it to the water inlet (2.3). The hose must be min. 1/2"(N/G-270: min. 3/4").  
The water supply pressure must be max. 10 bar during operation.  
Make sure the dosing valve (2.15) is in position "0" (closed).  
Turn on the water.
3. Start the machine and let water run through the pistol. Activate the pistol a few times and check that no air is present in the system (when the water flow is steady and not knocking). Then mount the lance on the pistol.
4. Activate the pistol (2.7) and let the high pressure cleaner run till stable pressure is obtained (complete bleeding). Now the high pressure cleaner is ready for use and by means of the adjustable nozzle the radiation angle can be adjusted (please see fig. c+d, page 8).  
On the *SPECTRUM* lance (N/G-270) and the Turbo Laser, the pressure is regulated on the handle to the double lance.

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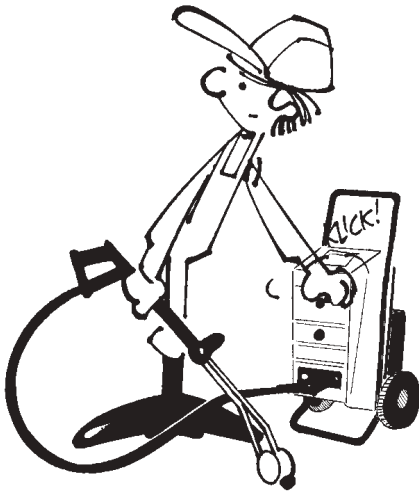
# OPERATING AND STARTING GUIDE



## Stopping

To stop the high pressure cleaner, turn the selector switch (2.17) to pos. "0". Switch off the power for the high pressure cleaner at the main switch and turn off the water supply.

Always lock the pistol with the safety device on the handle when you put down the lance. This will prevent any unauthorised personnel from immediately using the high pressure cleaner.



## Detergent application

Use only high pressure detergent which has been developed specifically for use in high pressure cleaners. It is economical in use and is gentle on the cleaning object and the high pressure cleaner.

1. Place the detergent hose with the detergent filter in the tank containing high pressure detergent. Check that the detergent covers the filter completely.
2. Open the head of the lance (2.9) on the nozzle by pulling the cover from the pistol (please see fig. a, page 8). The high pressure cleaner will automatically suck detergent until the head of the lance is pushed back to the starting point. The concentration can be adjusted on the dosing valve (2.15).  
On the *SPECTRUM* lance (N/G-270) and the Turbo Laser, application of detergents can be carried out by turning the regulation handle.

*NOTE!* After use of detergents, clean water should be sucked through the pump. Place the detergent filter in clean water, and let the machine run for a few minutes.



---

# MAINTENANCE

To obtain the optimum return and the longest possible life for your high pressure cleaner, it is important to maintain the machine. We recommend that you follow the following directions and refer to the check list on the next page.

## Oil change

Normally, it is not necessary to check the oil level of the pump again. If it is, however, wished to be more careful with the pump, oil replacement can proceed as follows:

- dismount the body
- unscrew the oil plug of the pump
- drain the oil by placing the machine horizontally
- add oil in level with the lower edge of the oil filling hole (for oil type and quantity please see the technical data).

## Water filter

Clean the water filter (2.4) as needed. Dismount the hose screwed connection and remove the water filter.

## Turbo Laser

Clean the filter in the Turbo Laser lance regularly. The filter is mounted in the inlet opening to prevent particles such as calcium and sand from entering the Turbo Laser where they may cause increased wear, leaks or in serious cases operating malfunctions. It may be necessary to change the filter. If so, put a screwdriver or similar tool through the filter and pull it out. Mount the new filter with an O-ring and press it into the opening of the Turbo Laser lance. Make sure that the filter is placed with the largest contact face towards the Turbo Laser head.

## Frost protection

The best frost protection is to place your high pressure cleaner in a frost free environment. If this is not possible, the high pressure cleaner must be frost protected as follows:

Dip the water inlet hose in a container holding 5 litres of antifreeze/water mix. Start the machine by turning the switch (2.17) to pos. "1", activate the pistol and let the machine run at low pressure until anti-freeze comes out of the nozzle (2.8). Release the pistol trigger a couple of times to frost protect the by-pass and safety valves. The anti-freeze can be collected and used again.

## Cleaning

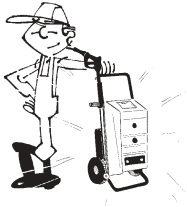
Always keep your high pressure cleaner clean. This increases the life and function of the individual parts considerably.

## Disassembly/disposal

All replaced parts such as water filter, fine sand filter, Turbo Laser filter as well as contaminated oil and anti-freeze must be handed in to the local approved authority/institution for deposit/destruction.

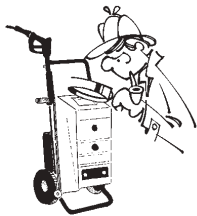
When the high pressure cleaner is no longer to be used, the detergent as well as pump oil must be drained off and delivered in accordance with the above mentioned instructions. The high pressure cleaner must likewise be handed in to the local, approved institution for destruction.

Any replaced parts from service visits may be given to the service personnel who will deliver them to the proper authority.



## CHECK LIST

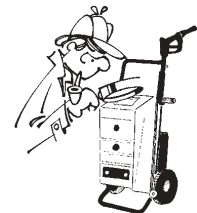
| ACTION   | WHAT/WHO           | WHEN/HOW OFTEN                             | HOW  |
|----------|--------------------|--|--|
| Instruct | New operator       | Before operator uses high pressure cleaner | Let operator read instruction guide            |
| Check    | High pressure hose | During daily use                           | Leaks? - call service engineer                 |
| Check    | Pressure gauge     | During daily use                           | Too high/too low? - call service engineer      |
| Check    | Detergent suction  | Daily - by means of detergent              | Lack of suction/leaks? - call service engineer |
| Clean    | Water filter       | Weekly/as needed                           | See maintenance                                |
| Check    | Gaskets            | Every other month                          | Leaks? - call service engineer                 |



## FAULTFINDING

| SYMPTOMS                              | CAUSE   | CORRECTIVE ACTION   |
|---------------------------------------|---|---|
| High pressure cleaner does not start. | Switch not activated.                                     | Turn switch to pos. "1".  |
|                                       | High pressure cleaner not connected to the power.         | Insert the plug, switch on the main power supply.                               |
|                                       | Fuse burnt out.   | Change fuse. If fuse burns out again, contact service department.               |
| High pressure cleaner stops suddenly. | Fuse burnt out.   | Change fuse. If fuse burns out again, contact service department.               |
|                                       | Low voltage.  | Extension cable too long, or the cable is underdimensioned (please see survey). |
|                                       | Motor too warm.   | Turn switch to pos. "0" and wait 15 min. Restart the machine.                   |
|                                       | Operating pressure too high (nozzle dirty, wrong nozzle). | Clean/change nozzle (see technical data).                                       |





## FAULTFINDING

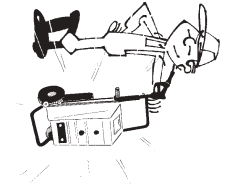
| SYMPTOMS  | CAUSE  | CORRECTIVE ACTION   |
|---|--|---|
| High pressure hose and pistol shake.  | Air in the pump.                                   | Tighten suction hose.<br>Bleed the pump.                  |
|   | Lack of water.                                     | Clean suction filter. Open tap completely.                |
| The pump "hammers" or pressure gauge oscillates with open pistol.                         | Nozzle partly blocked.                             | Clean the nozzle.   |
| Safety valve starts functioning or high pressure cleaner operates at too high a pressure. | Nozzle partly blocked.                             | Clean the nozzle.   |
|   | Wrong nozzle.                                      | Change nozzle (see technical data).                       |
| No detergent added.   | Detergent tank empty.                              | Fill up.  |
|   | Dosing valve closed.                               | Open the valve.   |
|   | Turbo Laser filter dirty.                          | Clean filter.   |
|   | Detergent filter dirty.                            | Clean filter.   |
| Nozzle does not tilt.   | Turbo Laser dirty.                                 | Take apart and clean Turbo Laser.                         |
|   | Turbo Laser filter dirty.                          | Clean/change the filter (see maintenance).                |
|   | Wrong nozzle.                                      | Change nozzle (see technical data).                       |
| Turbo Laser leaks.  |  | The leak may seal itself by continued usage.              |
|   | Gaskets defective.                                 | Change gaskets (Service kit).                             |
| High pressure cleaner does not operate at max. pressure/pressure oscillates.              | Lacks water.                                       | Open the tap completely. Clean suction filter.            |
|   | Inlet water pressure too low.                      |   |
|   | The suction side of the pump leaks (takes in air). | Check for leaks, tighten hose clamps.                     |
|   | Nozzle blocked.                                    | Clean the nozzle.   |
|   | Nozzle worn.                                       | Mount new lance.  |
|   | Air in the system.                                 | Bleed the cleaner. Please see section "start", point 3+4. |
| Wrong nozzle/defective nozzle.  | Change nozzle. Note the type (see technical data). |   |

| Model                                     | <b>N/G-230A</b>    |                     |                    | <b>240A</b>        | <b>N/G-250A</b>    |                    | <b>N/G-270A</b> |                    |       |
|---|--------------------|---------------------|--------------------|--------------------|--------------------|--------------------|-----------------|--------------------|-------|
|   | 1x100V<br>50/60 Hz | 1x110V<br>50 Hz50Hz | 1x230/240V<br>50Hz | 1x230/240v<br>50Hz | 1x230/240v<br>60Hz | 1x230/240v<br>50Hz | 3x230V<br>50Hz  | 3x400/415V<br>50Hz |       |
| Pump pressure                             | bar                | 70                  | 85                 | 135                | 95                 | 145                | 145             | 160                | 160   |
| Turbo pressure *)                         | ETP-bar            | 125                 | 135                | 180                | —                  | 190                | 190             | 200                | 200   |
| Water quantity                            | l/h                | 370                 | 350                | 480                | 600                | 600                | 570             | 700                | 700   |
| Detergent, max.                           | %                  | 0 - 10              | 0 - 10             | 0 - 10             | 0 - 10             | 0 - 10             | 0 - 10          | 0 - 6              | 0 - 6 |
| Recoil power, max.                        | N                  | 16                  | 16                 | 16                 | 16,2               | 21                 | 21              | 27                 | 27    |
| Cylinders                                 | pcs.               | 3                   | 3                  | 3                  | 3                  | 3                  | 3               | 3                  | 3     |
| Breaking pressure, safety valve           | bar                | 140                 | 135                | 155                | 140                | 200                | 200             | 220                | 220   |
| Pump oil 10W/40                           | l                  | 0.11                | 0.11               | 0.11               | 0.11               | 0.11               | 0.11            | 0.11               | 0.11  |
| Water connection                          | "                  | 3/4                 | 3/4                | 3/4                | 3/4                | 3/4                | 3/4             | 3/4                | 3/4   |
| Inlet pressure, max.                      | bar                | 10                  | 10                 | 10                 | 10                 | 10                 | 10              | 10                 | 10    |
| Self priming ***)                         | m                  | 0                   | 0                  | 0                  | 0                  | 0                  | 0               | 0                  | 0     |
| Inlet temperature, max.                   | °C                 | 60                  | 60                 | 60                 | 60                 | 60                 | 60              | 60                 | 60    |
| Power consumption                         | A                  | 14                  | 13                 | 10                 | 9.5                | 13/12              | 13/12           | 10.5               | 6     |
| Fuse                                      | A                  | 16                  | 16                 | 10                 | 10                 | 13                 | 13              | 16                 | 10    |
| Motor effect, input                       | kW                 | 1,3                 | 1,3                | 2,2                | 2.2                | 2.7                | 2.7             | 3.5                | 3.5   |
| Noise level dB(A)(EN 60704-1)(EN ISO3746) | Lpa/Lwa            | 83/96               | 82/95              | 83/96              | 83/96              | 82/95              | 82/95           | 84/97              | 84/97 |
| Double lance high pressure nozzle **)     | dim.               | 1503.5              | 1503               | 1503               | —                  | 1503.5             | 1503.5          | 1504               | 1504  |
| Double lance low pressure nozzle **)      | dim.               | 4040                | 4040               | 4040               | 4040               | 4040               | 4040            | 4040               | 4040  |
| Double lance nozzle angles **)            | °                  | 15/40               | 15/40              | 15/40              | —                  | 15/40              | 15/40           | 15/40              | 15/40 |
| Electric cable                            | m                  | 15                  | 5                  | 5                  | 5                  | 5                  | 5               | 5                  | 5     |
| High pressure hose                        | m                  | 8                   | 8                  | 8                  | 8                  | 8                  | 8               | 8                  | 8     |
| Weight                                    | kg                 | 28                  | 28                 | 28                 | 28                 | 29                 | 29              | 30                 | 30    |
| Width                                     | mm                 | 390                 | 390                | 390                | 390                | 390                | 390             | 390                | 390   |
| Depth                                     | mm                 | 346                 | 346                | 346                | 346                | 346                | 346             | 346                | 346   |
| Height                                    | mm                 | 920                 | 920                | 920                | 920                | 920                | 920             | 920                | 920   |

\*) By use of Turbo Laser

\*\*) By use of double lance

\*\*\*) 0 m ~ level of the machine



## TECHNICAL DATA