

# Operating Manual for

# **novopress**

## HYDRAULIC DRIVE UNIT HA11



16876

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## CE - KONFORMITÄTSERKLÄRUNG

entsprechend EG-Maschinenrichtlinie 98/37/EG, Anhang II A

Novopress GmbH & Co KG  
Scharnhorststr. 1  
D-41460 Neuss

Hydr. Antriebsaggregat  
**HA11**

Ser-nr: .....

1. EN 292, EN 294, EN 349, EN ISO 9001, EN 60947-1, EN 60947-4-1
2. UVV VBG1, UVV VBG4, UVV VBG5, VDE 0100, VDE 0106

Hiermit erklären wir, daß die nachfolgend bezeichnete Maschine aufgrund Ihrer Konzipierung und Bauart sowie der von uns in Verkehr gebrachten Ausführung den einschlägigen grundlegenden Sicherheits- und Gesundheitsanforderungen entspricht.  
Bei einer nicht bestimmungsgemäßen Anwendung der Maschine oder bei einer nicht mit uns abgestimmten Änderung der Maschine verliert diese Erklärung ihre Gültigkeit.

**Angewandte harmonisierte Normen, insbesondere:**

siehe Punkt 1

**Angewandte nationale Normen, insbesondere:**

siehe Punkt 2

We hereby declare that with respect to its design and construction the machine stated below and the model thereof which we have brought into circulation conform with the applicable basic requirements on health and safety.

Any use of the machine other than that for which it is intended and any modification made thereto without our consent shall render this declaration null and void.

**Applied harmonized standards, in particular:**

see Item 1 above

**Applied national standards, in particular:**

see Item 2 above

Nous déclarons par la présente que par sa conception et son type ainsi que par l'exécution que nous avons mise sur le marché, la machine désignée ci-après répond aux exigences de sécurité et de prévention de la santé applicables.

La présente déclaration perd sa validité si la machine n'est pas utilisée conformément aux instructions ou dans le cas d'une modification de la machine à laquelle nous n'avons pas donné notre accord.

**Normes harmonisées utilisées, en particulier :**

voir point 1

**Normes nationales utilisées, en particulier :**

voir point 2

Hiermede verklaren wij, dat de hierna genoemde machine op grond van haar constructie en type alsmede de door ons in de handel gebrachte uitvoering aan de desbetreffende fundamentele eisen ten aanzien van de veiligheid en de gezondheid voldoet.

Wordt de machine niet overeenkomstig haar bestemming gebruikt of worden hieraan niet met ons overeengekomen wijzigingen aangebracht, dan verliest deze verklaring haar geldigheid.

**Toegepaste geharmoniseerde normen, in het bijzonder:**

zie punt 1

**Toegepaste nationale normen, in het bijzonder:**

zie punt 2

Datum / Herstellerunterschrift: 01.04.04

Angaben zum Unterzeichner:



Geschäftsführer

Con la presente declaramos que la máquina denominada a continuación, por su concepto y por su construcción, cumple con los requisitos fundamentales de seguridad y sanidad en vigor. Lo dicho aplica exclusivamente a la máquina en su versión original, tal y cual ha sido fabricada por nosotros.

El empleo inapropiado de la misma, así como cualquier modificación ejecutada sin nuestra intervención hace que esta declaración pierda su validez.

**Normas armonizadas aplicadas, en particular:**

véase bajo el punto 1

**Normas nacionales aplicadas, en particular:**

véase bajo el punto 2.

Si dichiara che la macchina appresso descritta soddisfa, per concetto, tipo e modello messo in commercio, le esigenze di base di sicurezza e sanità relative a tali apparecchiature.

In caso di uso non appropriato della macchina o in caso di una sua modifica eseguita senza il nostro accordo, questa dichiarazione non ha più effetto.

**Norme armonizzate applicate, in particolare**

vedi punto 1

**Norme nazionali applicate, in particolare**

vedi punto 2

Härmed försäkrar vi att nedan nämnd maskin motsvarar de tillämpliga och principiella säkerhets- och hälsoföreskrifterna både gällande koncipieringen och konstruktionen samt gällande den av oss sålda modellen.

Används denna maskin inte enligt anvisningarna eller förändras maskinen på ett sätt som vi inte har godkänt, gäller denna försäkran ej.

**Tillämpade harmoniserade normer, i synnerhet:**

se punkt 1

**Tillämpade nationella normer, i synnerhet:**

se punkt 2

Täten vakuutamme, että seuraavassa nimetty kone vastaa suunnittelunsa, rakenteensa sekä meidän taholtamme liikenteeseen päästetyn mallinsa puolesta asiaankuuluvia perustavaa laatua olevia turvallisuus- ja terveysmääräyksiä.

Jos konetta ei käytetä määräysten mukaisesti tai jos koneeseen tehdään muutos ilman meidän suostumustamme ei tämä selvitys enää päde.

**Käytetyt harmonisoidut standardit, varsinkin:**

katso Kohta 1

**Käytetyt kansalliset standardit, varsinkin:**

katso Kohta 2

Herved erklærer vi at den i det følgende betegnede maskinen på grunn av dens konsipering og konstruksjon samt utførelsen som vi har brakt på markedet tilsvarende de respektive grunnleggende krav til sikkerhet og helse.

Ved en bruk av maskinen som ikke er formålstjenlig eller ved en endring av maskinen som ikke er avstemt med oss mister denne erklæringen sin gyldighet.

**Benyttede harmoniserte standarder, særlig:**

se punkt 1

**Benyttede nasjonale standarder, særlig:**

se punkt 2

Declaramos pelo presente, que a máquina a seguir designada, na sua planificação e construção, assim como no modelo por nós comercializado, obedece às respectivas exigências fundamentais de segurança e de saúde.

A presente declaração perde a validade em caso de uso impróprio da máquina ou em caso de modificações na máquina, que não tenham sido acordadas antecipadamente conosco.

**Normas harmonizadas aplicadas, especialmente:**

vide parágrafo 1

**Normas nacionais aplicadas, especialmente:**

vide parágrafo 2

## GENERAL SAFETY REGULATIONS

### Read all safety regulations and instructions!

1. Keep the place of work clean.  
Disorderly work-places and work-benches invite accidents.  
Ensure that lighting is good.
2. Keep children away.  
Do not allow unauthorised persons to touch the device or the cable.  
Keep unauthorised persons away from your place of work.
3. Wear suitable working clothing.  
Do not wear any wide clothes nor jewellery - they may get caught up in moving parts.  
When working in the open it is recommended that you wear rubber gloves and non-slip footwear. Wear a hair- net if you have long hair.
4. Always be alert.  
Only use a device after having been instructed in its operation.  
Concentrate on your work. Proceed sensibly.  
Do not use the device when you are distracted.
5. Do not lean too far forward. Avoid abnormal stance.  
Make sure that you have a secure standing position, and maintain balance at all times.
6. Leave safety devices where they belong.
7. Hand tools may not be installed as fixtures.
8. Repair and maintenance.  
Have repairs and maintenance work carried out in an authorised NOVOPRESS specialist workshop.  
Only use original and identical NOVOPRESS spare parts.  
We reject all responsibility and liability for work carried out by third- party personnel.

## SAFETY INSTRUCTIONS FOR HYDRAULIC EQUIPMENT

1. Please read the operating instructions.  
Acquaint yourself with the hydraulic equipment.
2. Provide the equipment with the necessary care.  
Always keep the equipment in operational condition.  
Cleanness is an essential requirement for good and safe working.
3. Switch off the electric power supply to the hydraulic equipment,
  - when the equipment is not in use
  - when maintenance work is to be carried out.
4. Avoid unintentional switching - on.  
Keep hands and feet away from the switch when the equipment is not being used.
5. Do not use the equipment in a manner in contravention of the instructions.  
Never carry the equipment by the pipe or pull on the pipe.  
Protect the piping from heat, oil, sharp edges and high levels of weight strain.
6. Use only piping, fittings and accessories which have been designed for the operating pressure of the hydraulic unit.  
**BURSTING PRESSURE OR TEST PRESSURE IS NOT OPERATING PRESSURE!**  
Avoid squashing or bending of the piping.  
Piping must not be painted over.
7. Replace the hydraulic piping
  - when cracks, squashed or bent points are to be seen
  - when blistering is established
  - when hydraulic fluid escapes
  - when pipe fittings are damaged
  - when discolouration is established on the outer layer, e.g. due to the influence of solvents.
8. The hydraulic fluid used in the system is kerosene-based.  
This requires particular care and attention.
  - Avoid continuous contact with the skin
  - ensure that the hydraulic fluid does not get into the eyes or mouth.Hydraulic pipes have to be replaced after 5 years of usage, despite of the circumstance that no damages should be remarkable.
9. The equipment must not be operated, if it has leaks and there is a danger of hydraulic fluid coming into contact with persons, open fire, heating equipment, electric cabling, ground water, foods and other substances which are intended for human consumption.
10. Hydraulic units with petrol engines
  - must not be operated in closed rooms, due to the **DANGER OF INTOXICATION!**
  - do not pour in petrol while the motor is running or in the vicinity of open fire. **DANGER OF EXPLOSION!**

## SAFETY TIPS FOR ELECTRIC TOOLS

**ATTENTION: In order to avoid electric shock, danger of injury and burning the following basic safety measures are always to be taken when using electric tools. Read and observe the notes before using the device. Keep the safety tips in a safe place.**

1. Take influences of the surroundings into account.  
Do not expose electric devices to rain.  
Do not use electric devices in damp or wet surroundings.  
Do not use electric devices in the vicinity of flammable liquids or gases.
2. Protect yourself from electric shock.  
Do not fix additional rating plates or symbols with rivets or screws.  
Use adhesive signs. When working with electric devices avoid body contact with earthed objects such as pipes, heating appliances, refrigerators etc.
3. Use the correct tools.  
Only use the tools and accessories outlined in the operating instructions.  
Do not use the electric device to do work for which it is not intended.
4. Secure the work piece.  
Use gripping devices or vice grips to hold the work piece steady.  
It is more securely held than by hand and you can operate the device with two hands.
5. Do not overload your electric device.  
You can work better and more securely in the indicated power range.
6. Do not use the cable for purposes for which it is not intended.  
Do not carry the electric device by the cable.  
Do not use the cable in order to pull the plug out of the socket. Protect the cable from heat, oil, acids and sharp edges.  
For working in wet rooms or in the open only use the authorised extension cables with the corresponding marking.
7. Avoid unintentional starting.  
Ensure that the electric device is switched off before connecting the mains plug.  
Do not carry the electric device in such a way as that your finger is on the switch.  
Do not use the electric device if the ON/OFF switch does not work perfectly.
8. Disconnect the mains plug:
  - if the device is not in use
  - before maintenance of the electric device
  - when changing tools
9. Carefully maintain the electric device. The best and most secure work is guaranteed if you:
  - keep the electric device clean
  - observe the instructions for greasing, changing the tools and ancillary equipment
  - regularly check the connection cable and the extension cable
  - have damaged cables repaired by a specialist
  - keep hand grips dry, clean and free from oil and fat
  - have the electric device examined and cleaned by a specialist after 900 operating hours.

10. Keep electric devices in a safe place.  
Store electric tools and accessories out of the reach of children, in dry, high-lying places or in locked rooms.
  
11. Electric devices are often used by more than one person. Therefore before beginning to work you should check:
  - the socket to ensure it is securely fixed and is not damaged in such a way as can be seen from the outside
  - the connection cable for outward damage to the insulation and for sharp kinks
  - that the cable is securely fixed to the device and whether the insulating plastic tube is damaged
  - that the switch is secure and shows no outward signs of damage
  - whether protective appliances or damaged parts function properly
  - whether movable parts jam or are damaged
  - do not use the device in the event of finding defects
  - only allow the device to be repaired by a specialist or in an authorised NOVOPRESS specialist work-shop
  - only use original and identical NOVOPRESS spare parts.



## Technical data

### Electric motor:

Supply voltage: see rating plate  
Motor output : 0.37 kW  
Motor current: 3.7 A

### Hydraulics:

Hydraulic connection: Screw coupling plug with back-pressure valve  
Operating pressure: 700 bar max.  
Low-pressure output: 4.0 l/min  
High-pressure output: 0.34 l/min

#### **HA11 with 2l tank, order no: 40123**

Oil volume (useable): 1.0 l  
Tank volume 2.0 l  
Dimensions: H = 440 mm; W = 160 mm; L = 400 mm  
Weight incl. oil: 18.9 kg

#### **HA11 with 5l tank, order no: 41790**

Oil volume (useable): 4.0 l  
Tank volume 5.0 l  
Dimensions: H = 490 mm; W = 190 mm; L = 420 mm  
Weight incl. oil: 22.9 kg

Hydraulic oil: Oil used at the works for this unit:  
ISO VG 10 DIN 51519  
(suitable for ambient temperature range of -5 to +35° C)  
Oil suitable for use:  
Oil of viscosity class:  
ISO VG DIN 51519 from 10 to 46  
(Viscosity in CSt 7.4 - 30 at 50° C.)

## Hydraulic unit (basic equipment)

### Operative range

The NOVOPRESS HA11 hydraulic unit operates within a high pressure range of up to 700 bar and is used as the drive unit for our hydraulic, high-pressure system tools.



### Tank vent valve (3):

The tank vent valve is closed during transport.

To commission the unit, the tank vent valve must be opened (the lever is then vertical).

#### **Note:**

*The tank may be damaged if operated with the tank vent valve closed.*

In the vertical position (operating position), a light oil vapour may be carried over with the escaping air. The resulting oil film which on hydraulic equipment should be removed from time to time.

#### **Note!**

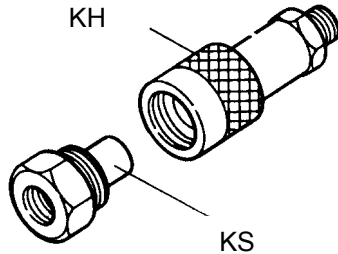
*The unit **must not** be switched on when lying horizontally. There is a risk that the pump will not draw in oil and is damaged as a result.*

## Connecting system tools

The system tools are connected to the hydraulic control unit by means of the control line (1) and the hydraulic hose (2), using the screw coupling.

### Connecting the hydraulic line

#### Screw coupling



Remove protective cap.

Insert the coupling plug (KS) in the coupling sleeve (KH) and screw it on tightly.

#### Note!

- *When changing the system tools, a small amount of oil will remain between the back-pressure valves of the coupling.*
- *Handle the hydraulic hose with care. Bends at the connection points will lead to premature failure. When coupling, ensure that dirt does not penetrate the coupling.*
- *Before coupling another system tool, wipe out the coupling sleeve with a clean, lint-free cloth.*
- *The system tools should, as far as possible, remain coupled at all times.*
- *The oil level must be checked if the unit is coupled and decoupled frequently. The hydraulic unit can only accommodate a small amount of oil.*

### Connecting electrical leads

- Connect the control line (1) of the hydraulic unit to the system tool with the aid of the plug connector (5).
- Connect the mains cable to the power supply line.

#### Note!

*Observe the mains voltage (see rating plate)!*

## Commissioning



- Connect the control line (1) to the terminal box.
- Open the tank vent valve (3). (Lever in vertical position)

## Venting

The hydraulic system must be vented as follows. Position the unit at the highest point of the system. The system will then vent automatically when the connected cylinder is advanced and retracted several times.

## Operation

**Note!**

- *The hydraulic unit can only be actuated with the manual button (located on the system tool).*
- *The unit **must not** be switched on when lying horizontally.*
- *There is a risk that the pump will not draw in oil and is damaged as a result.*

- Press and hold the manual button.

**Note!**

*When the manual button is released, the piston of the system tool is retracted immediately.*

- The piston of the connected system tool is advanced.  
The system tool "works".
- The motor switches off when the specified pressure has been achieved. The pressure is maintained for approx. 3 seconds and a buzzer sounds relatively quietly. When the work process has been completed, release the manual button so that the cylinder can retract.

**Note!**

- *It must be ensured that the oil temperature does not exceed 70 °C during operation.*

## Maintenance

We recommend that our authorized NOVOPRESS specialist workshops be used for repair and maintenance work.

Have the equipment maintained by a specialist **only**.

**Warning!** BEFORE ANY MAINTENANCE OR REPAIR WORK,  
**ALWAYS DISCONNECT THE MAINS PLUG!**

### Checking the oil level

The oil must be visible in the upper inspection window.  
If the oil is only visible in the lower inspection window, the oil must be topped up.  
Top up the oil if necessary.

### Topping up the oil

- Remove the red screw from the tank vent valve.
- If necessary: open the tank vent valve (3) (lever in vertical position).
- Top up the oil through the tank vent valve (3).  
**Note!**  
*Top up the oil to the middle of the upper inspection window.*
- Screw the red screw into the tank vent valve.

### Oil change

First oil change:	After about 1,000 starts or if the oil is dirty (visual check)
Oil capacity	2l tank: 2.0 litres 5l tank: 5.0 litres
Hydraulic oil:	See Technical data

- Unscrew oil drain plug (6).
- Drain the old oil into a suitable container.
- Clean the container with a suitable detergent.
- Screw the oil drain plug (6) back in.
- Remove the red screw from the tank vent valve.
- If necessary: open the tank vent valve (3) (lever in vertical position).
- Top up the oil through the tank vent valve (3).  
**Note!**  
*Top up the oil to the middle of the upper inspection window.*
- Screw the red screw into the tank vent valve.

**Cleaning:** Remove the oil film from the hydraulic unit every month.

**Hydraulic hose:** The hydraulic hose must be checked for damage every month.  
Replace hydraulic hose:

- if any cracks, pinches, or kinks are visible in the outer layer
- if blister formation is visible

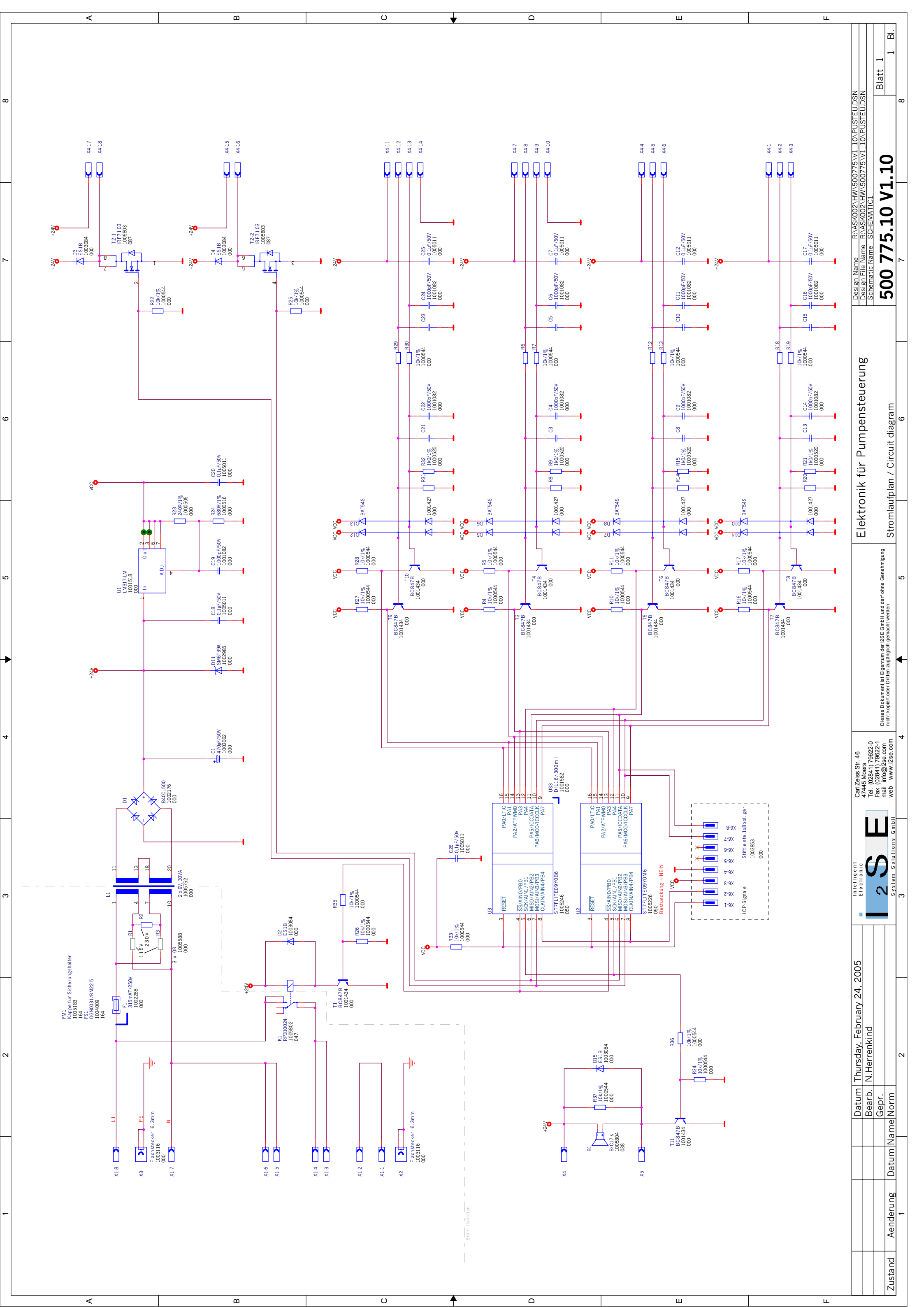
- if pressurised fluid is escaping
- if the hose connector is damaged
- if any discolouration of the outer layer is visible, e.g. due to the effect of solvents.

Hydraulic hoses must be replaced after 5 years, even if no damage is visible.

### Visual and electrical inspection

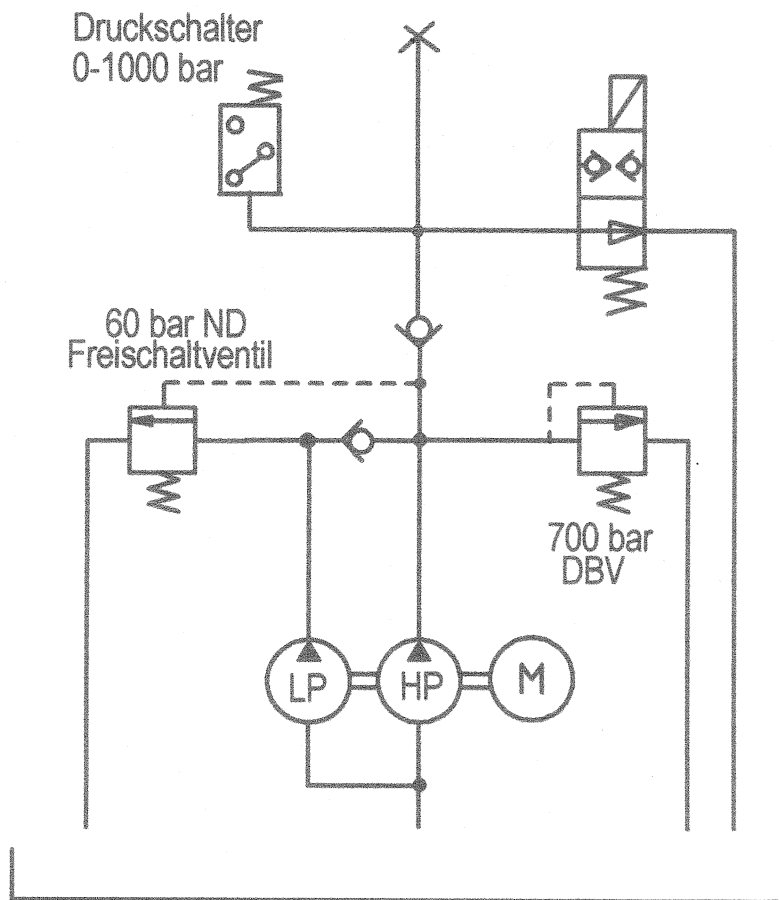
- Regularly: Check the mains cable including plug and extension cord with plug connectors for visible damage and have repaired, if necessary.
- Every 6 months: Inspection according to DIN VDE 0701-1 and DIN VDE 0702-1 for electrical devices, to be carried out by a qualified technician, an authorised workshop or by Novopress Neuss.





Zustand	Aenderung	Datum	Name	Norm
Datum	Thursday, February 24, 2005	Bearb.	N.Herrenkind	
Gepr.		Datum	Name	Norm
Design Name: R:\AS\K002\HW\500775\V1_10\PUSTEUDSN Design File Name: R:\AS\K002\HW\500775\V1_10\PUSTEUDSN Schematic Name: SCHEMATIC1				
<b>500 775.10 V1.10</b>				Blatt 1 1 Bl.
Elektronik für Pumpensteuerung Stromlaufplan / Circuit diagram				
Dieses Dokument ist Eigentum der I2SE GmbH und darf ohne Genehmigung nicht kopiert oder Dritten zugänglich gemacht werden.				
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