Operating Manual

DRAIN LIFT PROFESSIONAL

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TO THE USER

- Prior to commissioning, we recommend to read this operating manual thoroughly, as we assume no liability for damages resulting from failure to observe its instructions. If you encounter any difficulties using the system, please contact the address given below.

- The operating manual will help you work the draining system successfully and you will get important instructions for a safe and professional use of this system. Following these instructions will prevent hazards, minimize repair and down time and prolong the lifespan of the system as well as providing you with explanations of its features.

- In addition to the instructions given in this operating manual, the general statutory provisions for the prevention of accidents and the protection of the environment apply. These obligations include e. g. appropriate treatment of hazardous substances and providing and/or wearing of personal protection equipment.

- Prior to commissioning of the SEDA draining system, the employees of your Company must be trained by an authorised person and must have read the chapter on safety measures.

- The safety instructions and operation instructions must be put up in the draining area.

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- The present manual was written in the native language of the manufacturer. In the event of complaints, accidents etc., for judicial purposes, only the version in the German language is relevant. The company SEDA Umwelttechnik GmbH does not accept any liability for direct and/or indirect damages resulting from bad translation or wrong interpretation of the translated text. Printing errors reserved.

- For a proper use of this manual, the following is recommended:
  - keep the manual near the lift, in an easily accessible place.
  - keep the manual in an area protected from the damp.
  - use this manual properly without damaging it.
  - Any use of the machine made by operators who are not familiar with the instructions and procedures contained herein shall be forbidden.

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PROPER USE

3.1 Description of the drainage equipment

The SEDA DrainLift consists of (depending on the equipment):

- a electrohydraulic single column lift
- one double diaphragm pump in a soundproof housing each for petrol, diesel, used oil, coolant and windscreen wash,
- a mobile SEDA Tank Drilling Machine,
- a pneumatic fuel control,
- a maintenance unit for compressed air,
- 2 Quality control units for fuel,
- a rotating arm for the used oil funnels,
- and various devices for the extraction of the fluids.

Additional accessories:

- OPTIONAL: SEDA Gearbox Drilling Machine
- OPTIONAL: SEDA HoseGun for hydraulic oil hoses
- OPTIONAL: SEDA Brake pipe pliers, Brake hose pliers
- OPTIONAL: 2 Ex-prodected spots
- OPTIONAL: additional accessories or extensions are included, such as a drip tray.

All devices operate only with compressed air which is filtered, dehumidified and, if required, is displaced by compressed air oil.

Each component of the machine is designed in such a way that it forms a closed system. This applies both to the relevant fluids and to the vapours that may be created in certain circumstances.

Each device for the extraction of the fluids is clearly described in the operation manual, designed specifically for the purpose and also clearly marked with labels on the assembly points. By this means and with use in accordance with the instructions and regulations, mixing of the fluids is theoretically prevented.

3.1.1. Petrol ■ / Diesel ■

There are 3 options for draining the fuel:

- Drilling the vehicle tank at the lowest point,
- Introducing the tank suction hose into the filler pipe,
- Connecting one of the 4 adapters supplied to the tank line.

Prior to drilling process, switch on the combination switch for petrol or diesel. The automatic fuel control feeds petrol or diesel respectively via a filter to the pump. Downstream of the pump is a clear container, where only petrol can be checked for contaminations (optionally available for diesel). A combination lever feeds the medium, according to operator decision, into either of the storage tanks for petrol or contaminated materials respectively. Diesel fuels are fed directly via the pump into the storage tank.

PROPER USE

3.1.2. Waste oil

The drain plug on motors, gearboxes and differentials is released to drain the waste oil into the funnels. Motor oil and gearbox oil can be drained simultaneously due to the double funnel. A pneumatic lifting facility lifts the funnels to the maximum hight, thereby achieving a minimum drop height for the medium. This results in a low impact speed, little vaporisation and thus less vapours.

For oil removal from motors, gearboxes and differentials the optional gearbox drilling machine is provided.

Hydraulic oils from power steering systems and hydropneumatic suspension can be sucked using a vacuum hose or the optionally HoseGun HD.
The oil from shock absorbers can be removed in their installed state by using the optionally provided SOG2 for drilling into the shock absorber and extracting the oil.

In order to protect pump diaphragms and valves, all oils are filtred while still in the suction line.

3.1.3. Coolant

Extraction of coolant is performed at two locations. The extraction point for the heating circuit is mounted on the swing-arm. A hose of the heating circuit is tapped using the coolant awl with visual inspection glass on a spiral hose. For draining the motor circuit, the second awl is used, which is inserted into the hose from below at the lowest point. The coolant is fed via a visual inspection glass in the suction line by the pump directly into the storage container.

3.1.4. Screen washing fluid

The screen washing liquid container inside the engine compartment is drained using the suction gun.

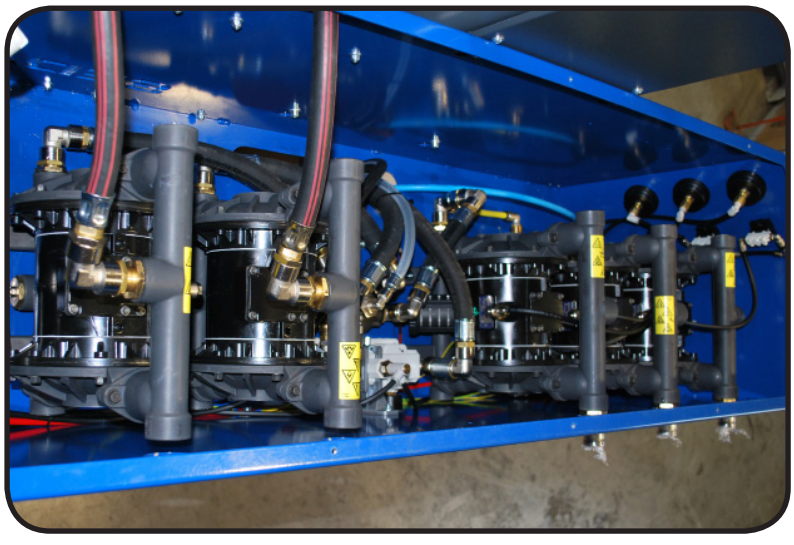
3.1.5. Brakefluid

The vacuum pump evacuates the brake fluid reservoir and in this way the brake fluid is sucked off via the corresponding hoses. Removal of the brake fluid is performed at the bleed nipples of the brakes. For this purpose, four rubber nipples with flexible hoses are provided on the left and right side of the DrainLift. No container → pump → tank.
When emptying, make sure that the rubber nipples are dismantled from the holder. Then the container can be separately drained via a ball valve that is arranged underneath the system.
Optional: Should a bleed nipple tear off or should removing be impossible for some other reason, the brake pipe pliers or brake hose pliers can be used.

SYSTEM EQUIPMENT

4.1 Electrohydraulic single column lift

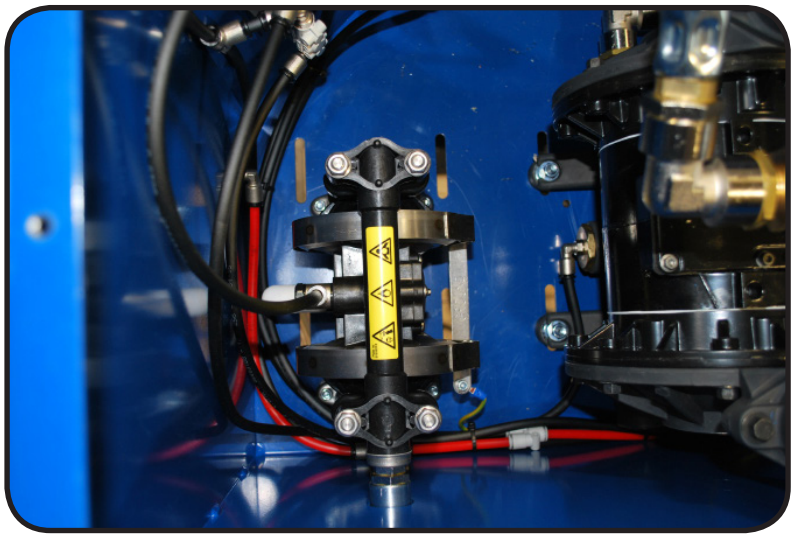
The electrohydraulic single-column lift is able to lift vehicles up to 3.5 tons.



4.1 Double diaphragm pumps

For feeding petrol/diesel, waste oil, coolant and screen washing liquid from the removal point to the storage container. Compressed air actuated double diaphragm pump, continuous measurement of negative pressure - vacuum manometer, tegulated lubrication of control unit, explosion-proof

- Colour: Black
- Position: inside housing
- Operating pressure: 6-8 bar regulated
- Capacity: max. 70 litre/min (depending on line length)
- Consumption: approx. 450 litre/min.



Verder V10 Pump
(brake fluid)

SYSTEM EQUIPMENT

4.3 Control panel

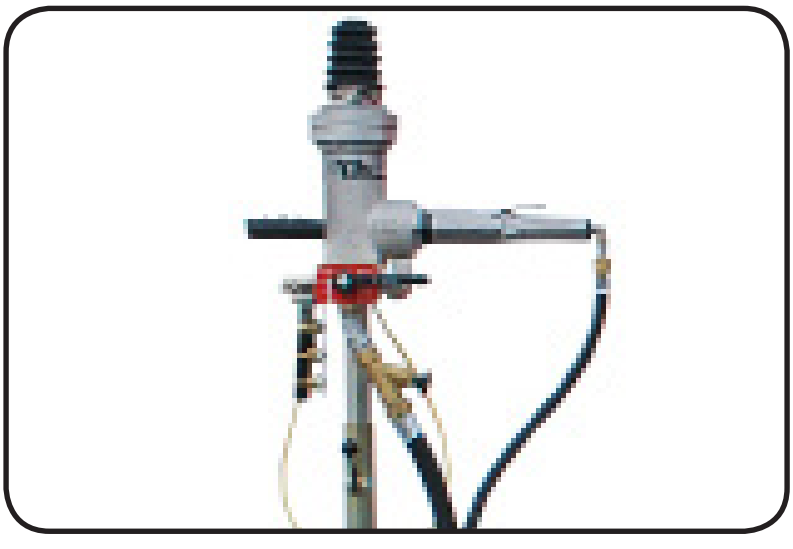
To control all pressure and vacuum devices for brake fluid, coolant, waste oil and screen washer fluid, combination switch for gasoline and diesel exhaust.

Left:
- Activation pump and vakuum indicator screen washer fluid
- Activation pump and vakuum indicator coolant
- Activation pump and vakuum indicator waste oil

Right:
- Activation pump and vakuum indicator brake fluid
- Activation pump and vakuum indicator gasoline
- Activation pump and vakuum indicator diesel

4.4 TankDrillingMachine
mobile regular

This device is used for drilling into plastic and metal tanks and sucking out petrol and diesel.



- a magnetic ring for collecting metal drilling waste,
- a screen for plastic drilling waste,
- a drill bit – ensuring a consistent diameter for each drill-hole,
- an earth clamp and cable for conducting static charges.

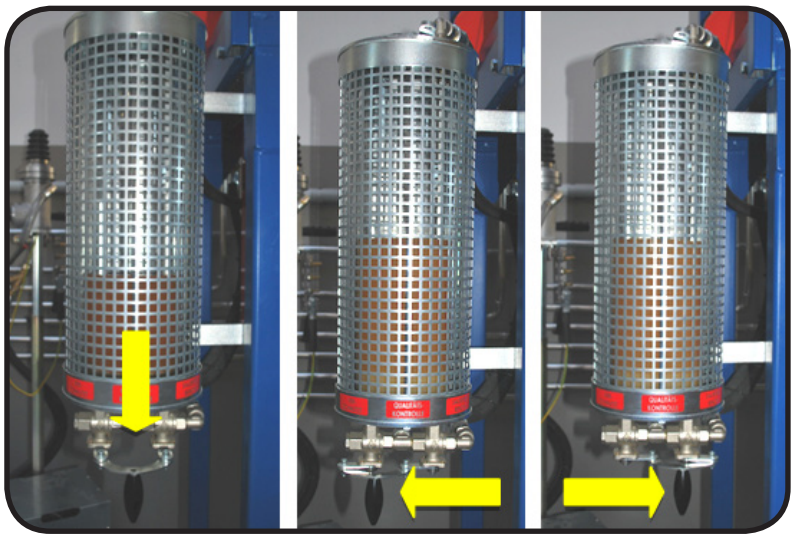
Centre bit (diameter): 12,5 mm regular
Rotation speed: max. 220 rpm
Drilling speed: max. 10,4 m/min

SYSTEM EQUIPMENT

4.6 Oilfunnels with swing arm

Is used to easily manoeuvre the twin oil funnel

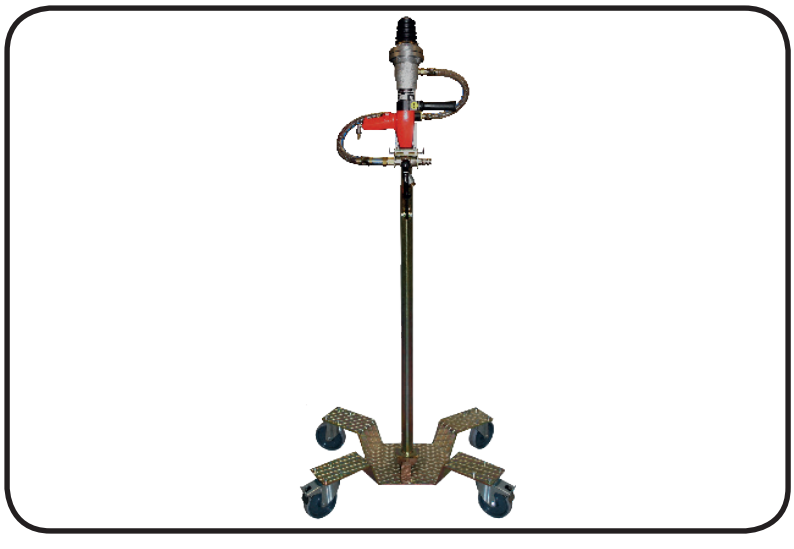
- Short fluid drop which minimises spills and fumes.
- Each funnel can be separately closed which prevents the loss of suction.



4.7 Fuel quality control (optionaly)

Is used to identify and separate clean petrol from contaminated petrol

- Capacity of 7 litres,
- Transparent container made of glass totally resistant to petrol
- Petrol-resistant polimer rubber seals
- 2 x 3-way ball valve with Teflon seals
- **3 positions: check – clean fuel – contaminated fuel**

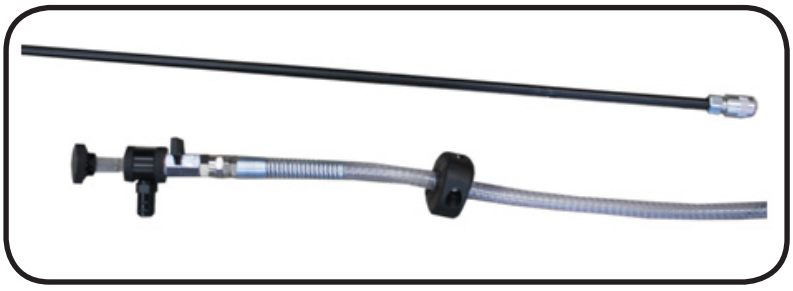


4.9 GearboxDrillingMachine (optionaly)

Is used to drill into gearboxes without a drainage plug or to suck out the gear oil directly

- With drill bits with special cutting edge – also suitable for metal plate
- Base plate with 4 rotating wheels

SYSTEM EQUIPMENT

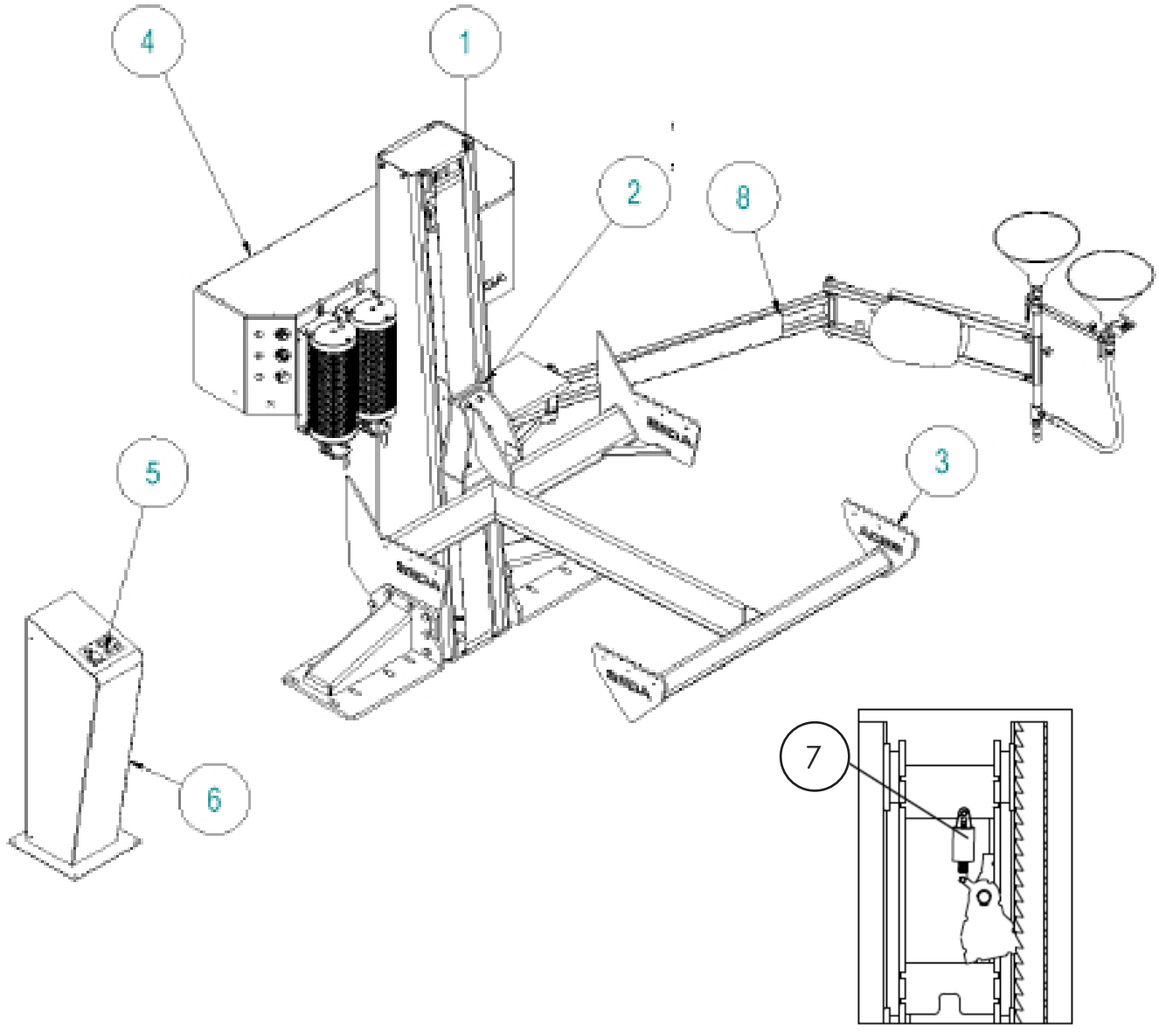


4.8 Suction gun for windscreen washer fluid or coolant

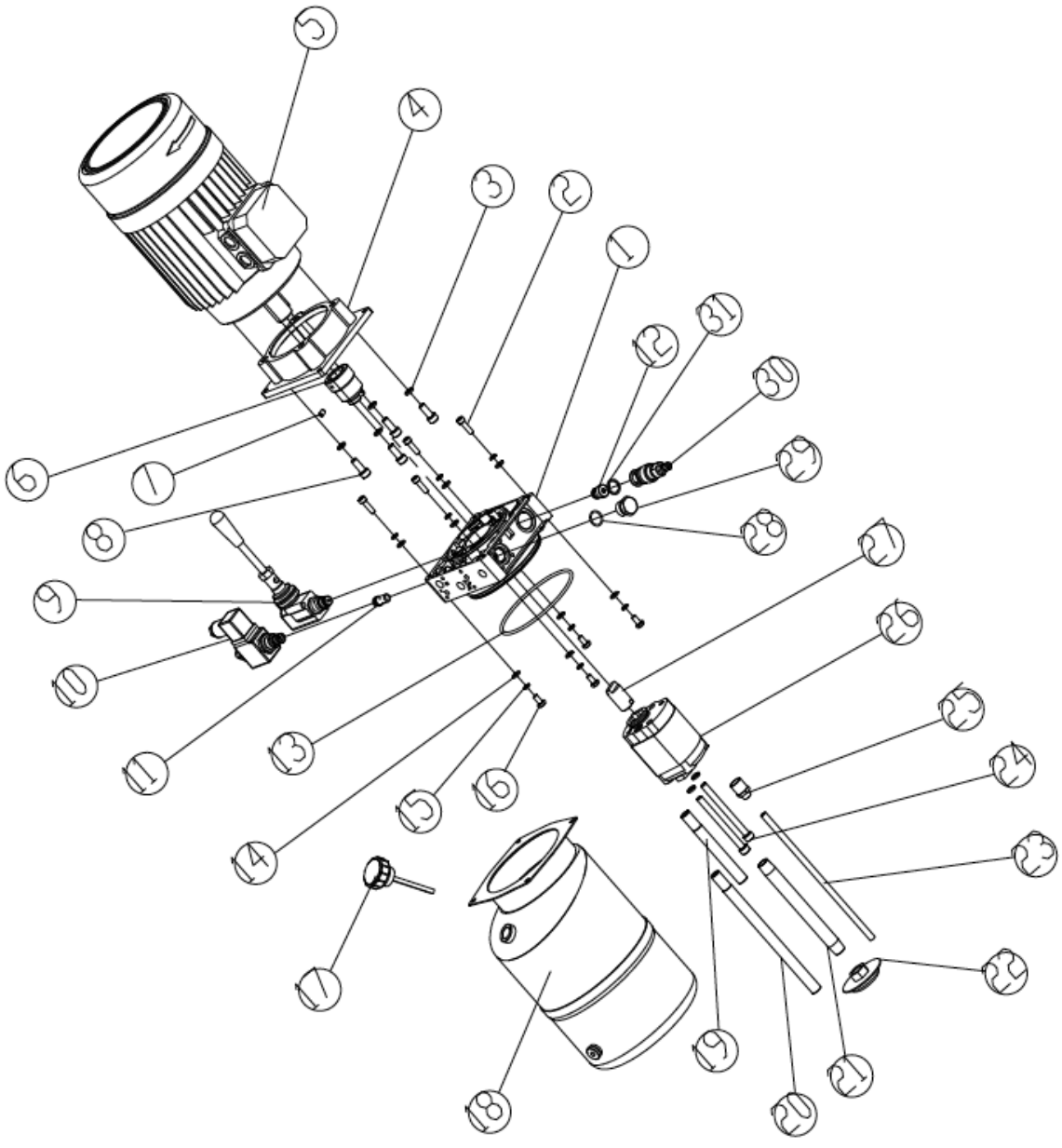
LIFT DESCRIPTION

The lift is suitable for lifting motor vehicles having maximum weight 3500kg.
The electro hydraulic operation is described in detail in chapter 8.

This chapter describes the lift's principal elements, allowing the user to be familiar with the lift.
As shown in figure, a lift set is composed of a column (1) each equipped with a carriage (2) and the lifting arms (3).
Raising motion is carried out by pushing the lifting button on the control panel (5) to operate a power unit (6), which delivers the hydraulic fluid to cylinders inside the columns.
Lowering motion is controlled by pushing the lowering button on the control panel and carried out under the carriage weight and the load lifted.
The mechanical safety is built in the carriage and can be released by means of the pneumatic zylinder (7) when the lowering button is pressed.
Two limit switches are installed on the lift for the maximum lifting height, and another one on the overhead beam for protection of vehicle roof.
The swing arm with oilfunnels (8) is used to easily manoeuvre the twin oil funnels.



HYDRAULIC POWER UNIT



1	Manifold
2	Screw M6X20 - GB/T70.1
3	Locking washer D.8 - GB/T93
4	Motor flange
5a	Motor 220V/380V/50HZ/3PH 2.6 KW 4P
5b	Motor 220V/380V/60HZ/3PH 2.6 KW 4P
5c	Motor 220V/220V/50HZ/1PH 2KW 2P
5d	Motor 220V/60HZ/1PH 2KW 2P
6	Motor jointM
7	Screw M6X8 GB/T80
8	Screw M8X20 GB/T70.1
9	Emergency hand pump
10	Lowering solenoid valve DC24V
11	Lowering speed control valve 2.0
12	Non return valver
13	O-ring 115X3.55
14	Washer D.6 - GB/97.1
15	Locking washer D.6 LGB/T93
16	Screw M6X12 GT/T70.1
17	Oil level plug 3/4
18	Oil tank Y123F-5
19	Oil returning pipe 1
20	Oil returning pipe 2
21	Oil suction pipe
22	Oil filter 3/8
23	Rilsan hose 8X5 L= 225
24	Screw M8X90 GB/T70.1
25	Rotation unit 8-3/8
26a	Gear pump 3.2 3.2cc
26b	Gear ozno 1.6cc
27	Pump joint
28	O-ring 17.0X1.8
29	Plug
30	Pressure overload valve
31	Copper washer 16X20

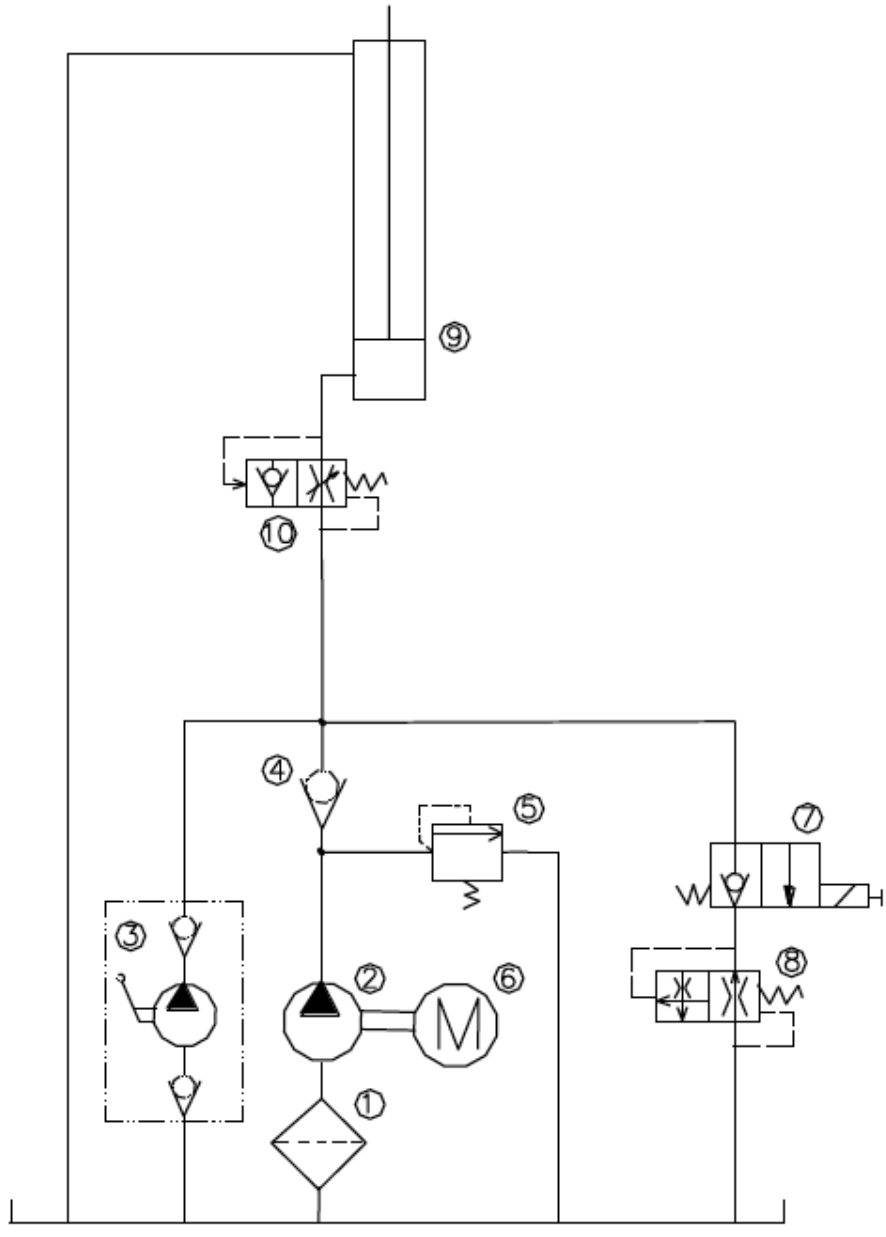
OIL

Use wear proof oil for hydraulic drive, in conformity with ISO 6743/4 rules (HM class). The oil with features similar to those shown in the table is recommended.

TEST STANDARDS	FEATURES	VALUE
ASTM D 1298	Density 20°C	0.8 kg/l
ASTM D 445	Viscosity 40°C	32 cSt
ASTM D 445	Viscosity 100°C	5.43 cSt
ASTM D 2270	Viscosity index	104 N°
ASTM D 97	Pour point	~ 30 °C
ASTM D 92	Flash point	215 °C
ASTM D 644	Neutralization number	0.5 mg KOH/g

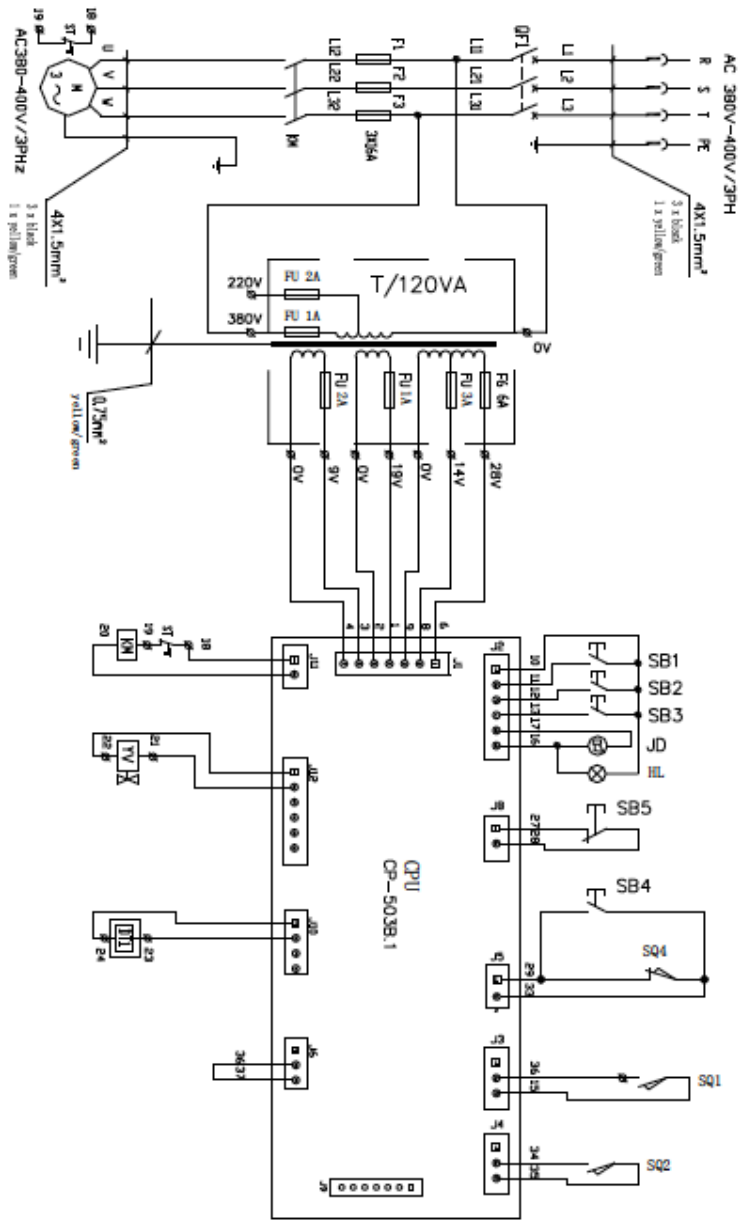
CHANGE HYDRAULIC OIL AT 1 YEAR INTERVALS

HYDRAULIC SCHEME



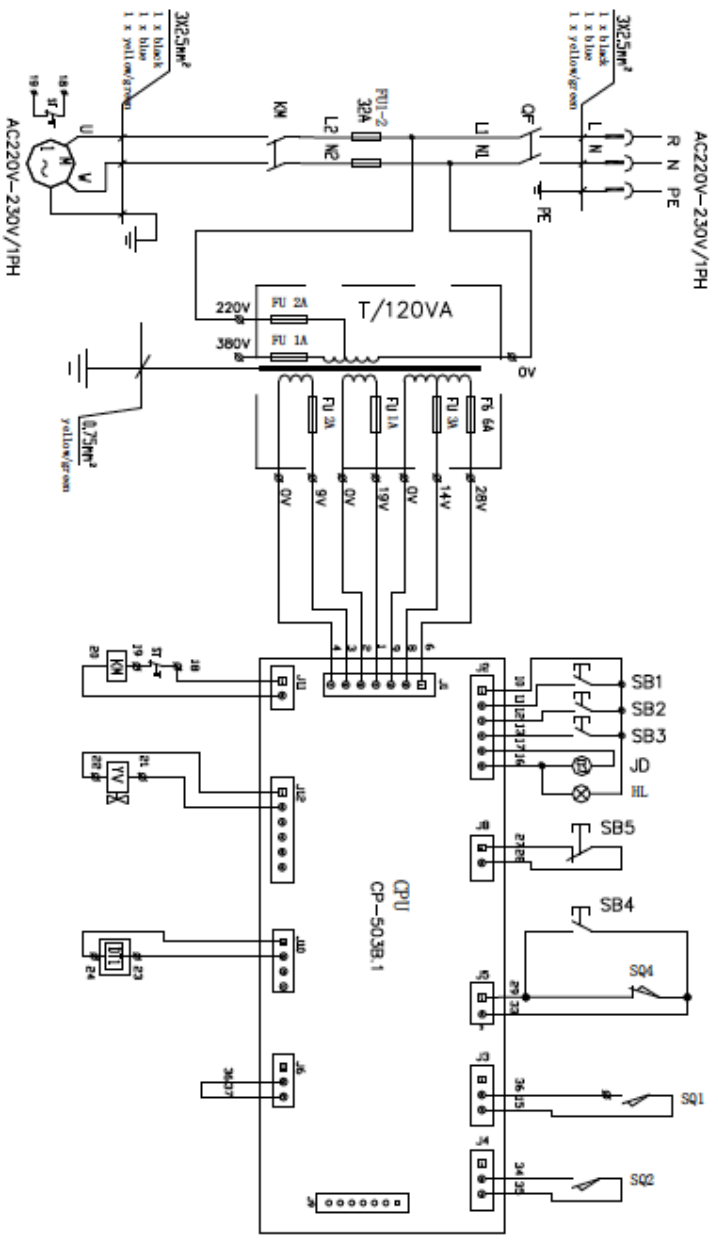
1	Oil filter	6	Motor
2	Gear pump	7	Solenoid lowering valve
3	Emergency hand pump - optional	8	Lowering speed control
4	Non return valve	9	Parachute valve
5	Pressure overload valve	10	Hydraulic cylinder

ELECTRIC DIAGRAM - 380V-400V/3PH



QF	Power switch	SB5	Emergency stop knob
KM	Contactor DC24V	SQ1	Top limit switch
M	Motor 1.5KW/4P	SQ2	Safety height limit switch
T	Transformer 120VA	SQ4	Chain safety switch
SB1	Lifting button	JD	Beeper
SB2	Lowering/final lowering button	HL	Pilot lamp
SB3	Safety engaging button	YV	Lowering solenoid valve

ELEKTRIC DIAGRAM - 220V-230V/1PH



QF	Power switch	SB5	Emergency stop knob
KM	KM Contactor DC24V	SQ1	Top limit switch
M	M Motor 1.5 KW/2P S	SQ2	Safety height limit switch
T	T Transformer 120VA	SQ4	Chain safety switch
SB1	SB1 Lifting button	JD	Beeper
SB2	SB2 Lowering/final lowering button	HL	Pilot lamp

Working process DrainLift Professional

SymbolPHoto

ASSEMBLY

Requirements – local conditions

The lift has been designed to be used in a place free of overhead obstructions.
The place of installation must not be next to washing areas, painting workbenches, solvent or varnish deposits. The installation near to rooms, where a dangerous situation of explosion can occur, is strictly forbidden. The relevant standards of the local Health and Safety at Work regulations, for instance, with respect to minimum distance to wall or other equipment, escapes and the like, must be observed.
Installing or mounting the system is relatively straight forward. Make sure you select a suitable location. The lift must be placed on a concrete floor in conformity with local regulations. The surface where the lift must be placed must be even and leveled in all directions. The floor at the site must be liquid-tight.

Checking the delivery

- The delivery must be checked for completeness and any damage.
- Missing or damaged parts must be reported immediately.

Positioning the DrainLift

- The DrainLift will be delivered on a pallet, including anchoring material. Postion the DrainLift with closed swing arms on the desired location. For safety, the vehicle carrier should be supported on the fork ends by means of beams.

CAUTION: TIPPING RISK !!!

- The DrainLift must be installed with closed swing arms, as otherwise there is a danger of tillting.
- As soon as the DrainLift is positioned in the right way, it must be anchored to the ground via the 16 holes in the foot part, 8 left and 8 right. Please make sure to align it accurately, as otherwise the cover will not close correctly.

Minimum strength class of the concrete floor is C30/35
Minimum thickness of the concrete is 160 mm.

Anchorage:
- 2 x 8 Fischer anchor bolts ZN. FAZ II 12%50 – SEDA-No.: 100119
- Concrete bore ø 16
- Bore depth 145 mm
- Tighting torque = 50 Nm (after curing)
  (Observe the assembly as instructed by the manufacturer of the dowel)

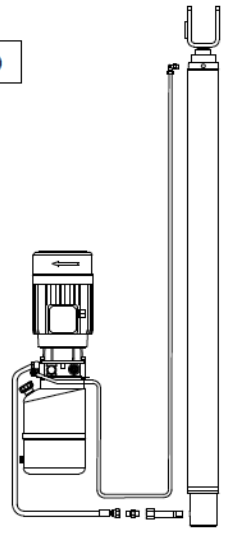
The support of the vehicle carrier may only be removed after the adhesive mortar has hardened.

ASSEMBLY

Connection of the Hydraulic hose of the Lift

- Clean the hoses and fittings.
- Inspect all threads for damage and make sure that all hose fittings are in good condition.
- Connect the hoses referring the figure 10.
- Tighten the hose fittings thoroughly.

Fig. 10



Oil filling and bleeding

DO NOT run power unit with no oil.
Damage to pump can occur.
If motor gets hot or sounds peculiar, stop immediately and recheck the electric connection.

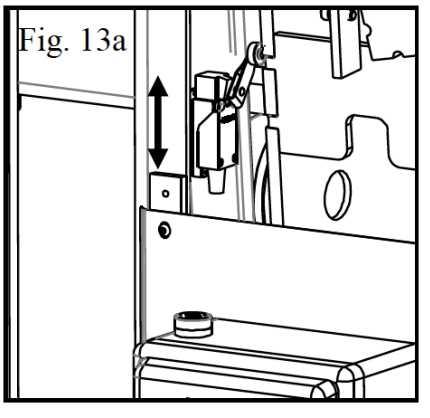
- Use the hydraulic fluid recommended in the chapter 5.5.
- Remove the oil level plug on the oil tank and pour oil in the tank about 5 liters.
- Raising the lift slowly by pressing the lifting button until the lift reaches the full height. DO NOT continue pressing button after lift reaches full height. Damage to motor can occur if continued.
- Repeat raise and lower the lift completely at least 3 times to bleed the trapped air inside the cylinder.

ADJUSTMENT OF LIMIT SWITCHES

Only skilled personnel must be allowed to carry out this operation.
An improper adjustment of limit switches could cause damages to the lift, objects and people.

Limit switches must be adjusted properly during the installation of the lift
If switches are not functioning properly, it's possible to adjust them in the following way:

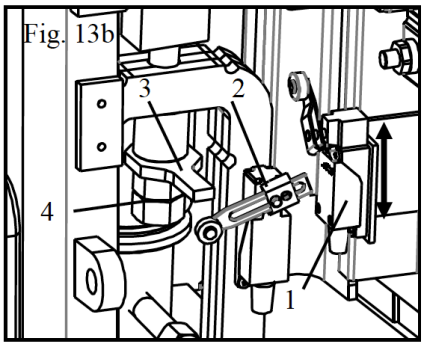
Fig. 13a



Adjustment of top limit switch (ref. fig.13a)

- Raise the lift at a height of 1800 mm.
- The switch can be mounted in two positions. Mount the proper position where the switch can be actuated when the carriage is raised at the desired height.
- Tighten the screws after adjustment.

Fig. 13b



Adjustment of safety height limit switch (ref. fig.13b)

- Place the lift at a height of 220 mm;
- The switch (1/fig.13b) can be mounted in two positions. Mount the proper position where the switch can be actuated when the carriage is lowered at the desired height.
- Tighten the screws after adjustment.

ASSEMBLY

Adjustment of chain safety limit switch (ref. fig.13b)

This switch (2/fig.13b) must be adjusted properly during installation referring to the following procedures so that the switch can be actuated by the actuator (3/fig.13b) to prevent the lift from a sudden lowering in even of chain slackening and/or failure.

- Change the position of the switch's lever.
- Or move the actuator (2/fig.13b) up or down a little bit by adjusting the nuts (4/fig.13b).

CHECK BEFORE START-UP

During this procedure, observe all operating components and check for proper installation and adjustment.
DO NOT attempt to raise vehicle until a thorough operation check has been completed.

General checks

- Make sure all pins and bolts to insure proper mounting.
- Make sure the chain for proper installation.
- Make sure the electrical system feeding voltage is equal to that specified in the nameplate on the motor, the electric system connection in conformity of the electric plan and for proper grounding.
- Make sure the lift is connected to the ground.
- Particularly, below checks must be followed:

Mechanical safeties for proper installation

- Check to make sure that safeties will properly engage by pushing the locking button and can be released properly but pushing the lowering button.
- When raising the carriages, listen to the safety pawls fall into the safety racks. If not, check the cause if necessary.

Hydraulic system for proper operation

- Proper oil level in the tank, refill if needed.
- Raise the carriage to the full height and keep the motor running for 5 seconds.
- Check all hoses connections to make sure no leakage. Tighten the connections or reseal if necessary.
- Check the carriage for reaching its maximum height.
- Repeat the air bleeding of cylinders if necessary.

Limit switch for proper operation

- Check to make sure the top limit switch for proper operation. Verify that the power unit stops working when the carriages reaches the maximum height.
- Check to make sure the safety height limit switch for proper operation. Verify the power unit stops working when the carriage is lowered at about 220mm high.

ASSEMBLY

- Check to make sure the chain safety limit switch for proper operation. Verify the power unit stops working in even of chain slackening and/or failure.

Install pressure lines

- The lines from the exits of the system to the storage tanks must be laid. For lines longer than 5 meters, use metal pipes. The connections from the system to the lines should be hoses.

Functions control

- After assembling and connecting all cables, start a function check of the individual devices and pumps.
- Also test the functionality of the swivel arms and the secure position of the DrainLift.
- In the event of a fault, please check the fault listing and, in severe cases, contact our customer support.

There is a total smoking ban in the vicinity of the draining unit.
Fire and explosion hazard!

Petrol contains approx. 5% benzol - avoid inhaling and skin contact!
Carcinogenic!

Personal protective equipment

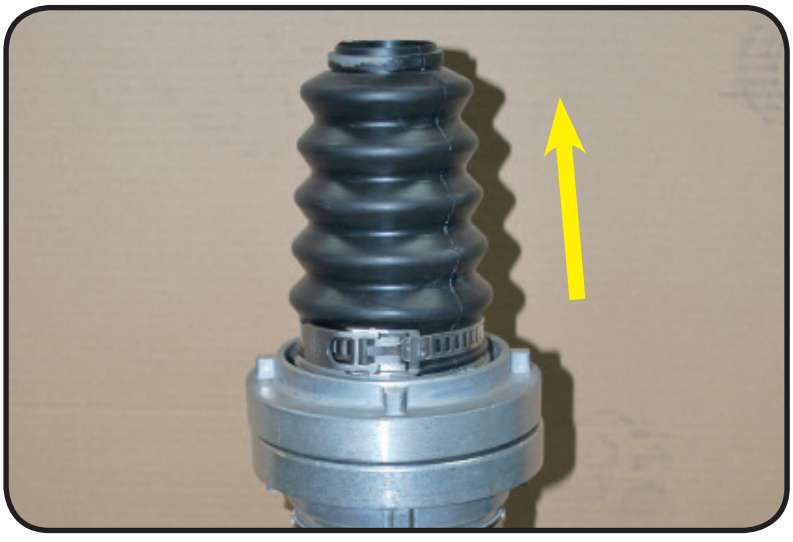
- While working on the draining system, wear safety shoes, protective gloves and tightly fitting clothing at all times.
- While removing fuel, it is advisable to wear protective goggles.
- Hearing protection should be worn while drilling tanks and gearboxes.

Preparing the draining system at start of work

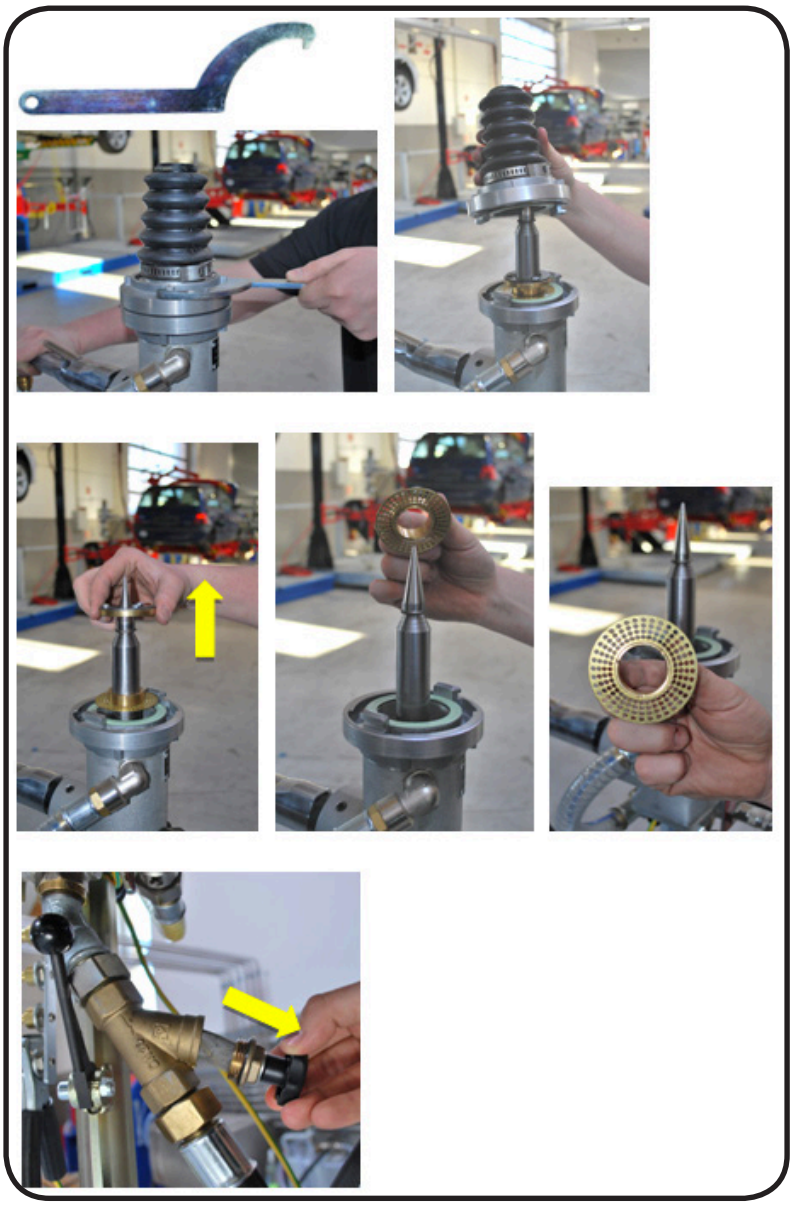
1. Ensure air supply.
2. Switch on overfill protection at storage container.
3. Service and check the system in accordance with the instructions.

- Never operate the lift with any person or equipment below.
- Never exceed the rate lifting capacity.
- Always ensure that the mechanical safeties are engaged before any attempt is made to work on or near the vehicle.
- Always lift a vehicle on the lifting pads.
- Never leave the lift in an elevated position unless the safeties are engaged.
- If an anchor bolt becomes loose or any component of the lift is found to be defective, DO NOT USE THE LIFT until repairs are made.
- Do not permit the electric control panel to get wet!

DAILY MAINTENANCE



Remove rubber sleeve and check for cracks.

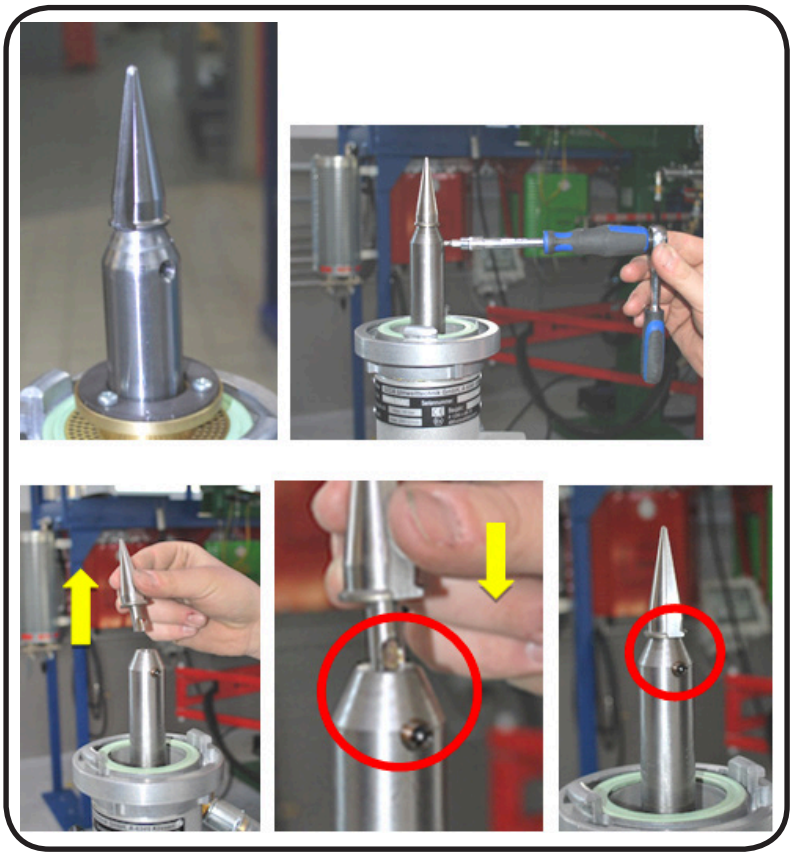


Clean strainers.

The seeve should always be positioned as shown on the picture. The magnet should be facing upwards.

Clean it with the air gun.

DAILY MAINTENANCE



Visual check the drill bit

Drill change

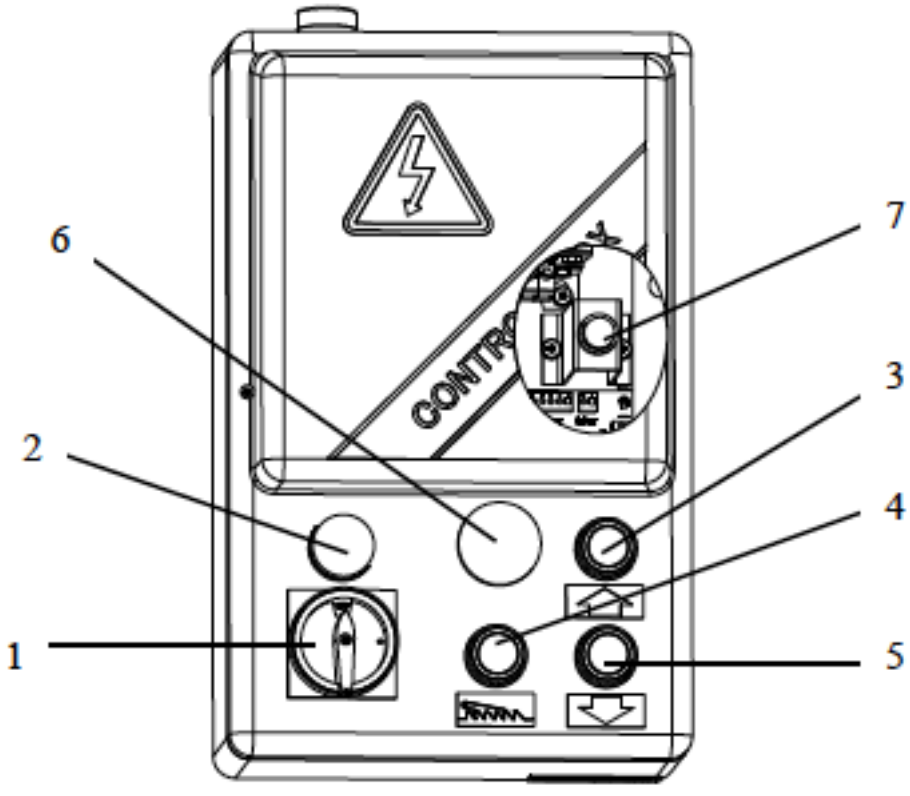
Attention: when changing the drill bit make sure the notch on the new drill bit is aligned with the thread screw!

Tighten the thread screw 15 N.

Change filter only when you are sure that all strainers have been cleaned, 8 bar air pressure is guaranteed and all hoses are undamaged and none are kinked.

Tip: Write the date on the filter when changing it for your control.

CONTROL PANEL OF THE LIFT



POWER SWITCH (1)
The switch can be set in two positions:
- **0 position:** the lift electric circuit is not powered; the switch can be padlocked to prevent the use of the lift.
- **1 position:** lift electric circuit is powered

PILOT LAMP (2)
- It indicates that the lift electric circuit is powered.

SAFETY BUTTON (3)
- When pressed, the lowering solenoid valve operates the hydraulic circuit to lower the lift to engage the nearest safety rack.

LOWERING BUTTON (4)
- When pressed, the lift will take seconds to release the safeties and then the lowering solenoid valve is powered: the lift begins to lower under its weight and the load lifted.

LIFTING BUTTON (5)
- When pressed, the motor and hydraulic circuit are operated and the lift will be raised

EMERGENCY KNOB (6)
- When pressed, the lift system stops immediately.

CHAIN SAFETY BY-PASS BUTTON (7)
- When pressed, the chain anti-slack safety is excluded.

OPERATING OF THE LIFT

8.2 LIFTING

- Position the vehicle onto the arm frame.
- Adjust lift arms so that the rubber pads can contact the lifting points of the vehicle recommended by the vehicle manufacturer.
- Raise the lift by pressing the lifting button until the lifting adaptors contact underside of the vehicle.
- Make sure the vehicle is secured.
- Raise the lift by pushing the lifting button until reaching the desire height.

8.3 STANDING

- Press the safety button to engage the nearest mechanical safeties.
- Always ensure that the safeties are engaged before any attempt is made to work on or near the vehicle.

8.4 LOWERING

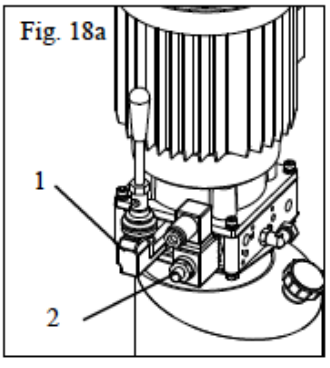
- Lower the vehicle by pressing the lowering button: the lift will take seconds to release the safety and then begin to descend under the weight of the load lifted.
- Lower the lift by pressing the lowering button to the safety height.
- Check to be sure the safety area is free of people and objects.
- Keep pressing the lowering button until the lift is lowered to ground.
- Before removing vehicle from the lift area, position the lift arms to and pads to provide an obstructed exit. Never drive over the lift arms.

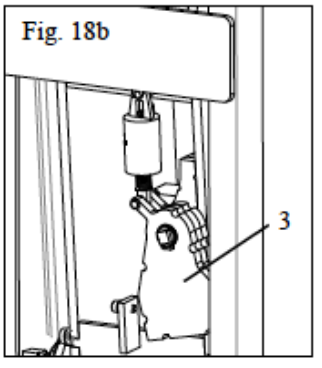
8.5 MANUAL EMERGENCY LOWERING (optional)

In case of no electric power, lower the loaded vehicle manually to its initial position as follows:

- Padlock the power switch.
- If the safety is engaged, operate the emergency hand pump (1/fig.18a, if ordered with the lift) to raise the lift a little bit to clear off the mechanical safeties.
- Remove the top back cover of the column and disassemble the safety hook (3/fig/18b) by removing the respective screw.
- Unscrew the emergency lowering screw (2/fig.18a) in the power unit by turning it anticlockwise until the vehicle is lowered fully. Screwing or unscrewing can reduce or increase the lowering speed.

- Retighten the emergency lowering screw by turning it clockwise.
- Reassemble the safety hook into the position.





After manual lowering of the lift, reset ordinary operating conditions.
Lift cannot be lifted if lowering valve is opened.

MAINTENANCE OF THE LIFT

Only trained personnel who knows how the lift works, must be allowed to service the lift!

To service properly the lift, the following has to be carried out:
- use only genuine spare parts as well as equipment suitable for the work required;
- follow the scheduled maintenance and check periods shown in the manual;
- discover the reason for possible failures such as too much noise, overheating, oil blow-by, etc.
- refer to documents supplied by the manufacture or dealer to carry out maintenance.

Before carrying out any maintenance or repair on the lift, disconnect the power supply, padlock the general switch and keep the key in a safe place to prevent unauthorized persons from switching on or operating the lift.

ORDINARY MAINTENANCE

The lift has to be properly cleaned at least once a month using self-cleaning clothes.

The use of water or inflammable liquid is strictly forbidden!

Be sure the rod of the hydraulic cylinders is always clean and not damaged since this may result in leakage from seals and, as a consequence, in possible malfunctions.

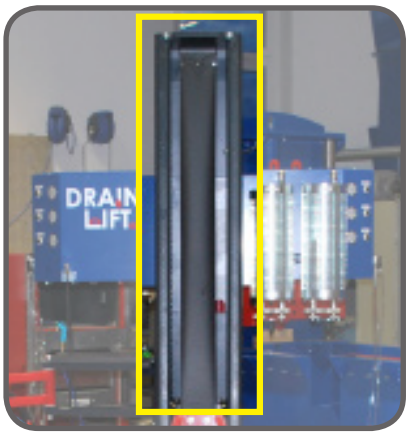
PERIODIC MAINTENANCE

Daily preoperation
- Check hydraulic connections and hoses for leaks
- Check safety lock audibly and visually while in operation
- Check bolts, nuts and screws are tight

Every 1 month
- Check all chain connections, pins and bolts to insure proper mounting
- Check all arm pivot pins. Make sure they are properly secured
- Check all lifting pads, replace if necessary
- Check the hydraulic oil, fill or replace if necessary
- Check hydraulic systems for proper operation
- Ground anchor M16 - 50 Nm, platform attachment M20 - 330 Nm, Fork carrier M16 - 170 Nm

Every 12 months
- Verify that all components and mechanisms are not damaged
- Check the electrical system to verify that the motor, limit switch and control panel operate properly (this work must be carried out by skilled electricians)
- empty the oil tank and change the hydraulic oil

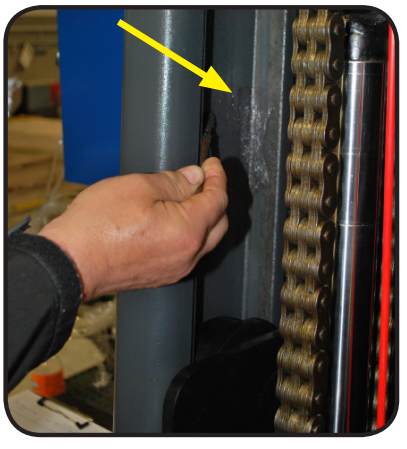
MAINTENANCE OF THE LIFT



- **Area of additional 3-FLANK LUBRICATION of the DrainLift**

Additional lubrication of the guide rail on the RIGHT side.

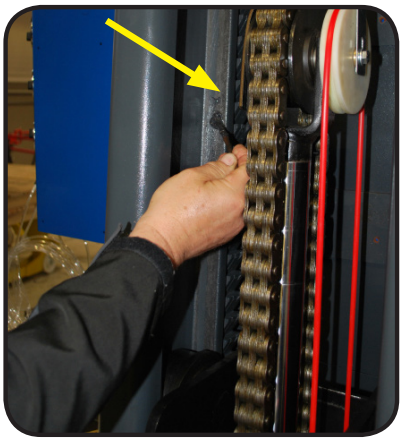
Additional lubrication of the guide rail on the LEFT side.



Lubricate all three sides of the left and the right guide rail.

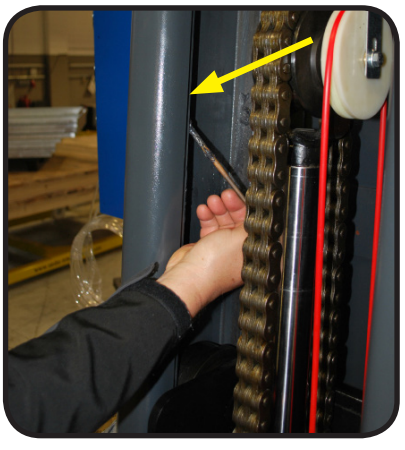
← MIDDLE

MAINTENANCE OF THE LIFT



Lubricate all three sides of the left and the right guide rail

← RIGHT SIDE

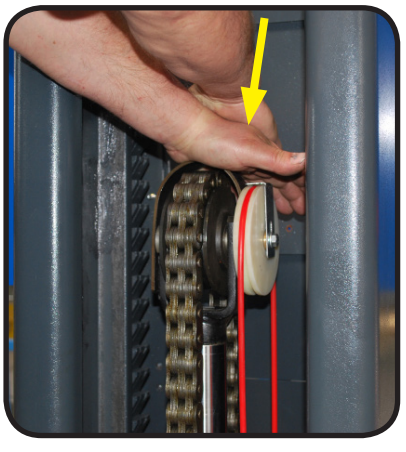


Lubricate all three sides of the left and the right guide rail

← LEFT SIDE

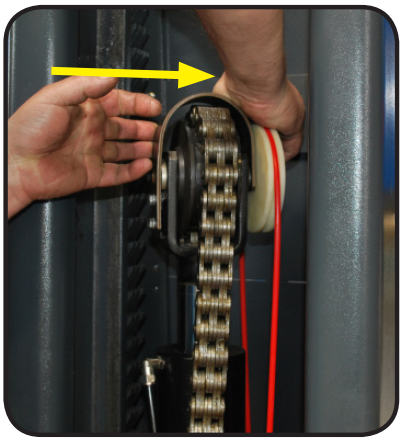
• LUBRICATE OF THE SPROCKET

Press the down button

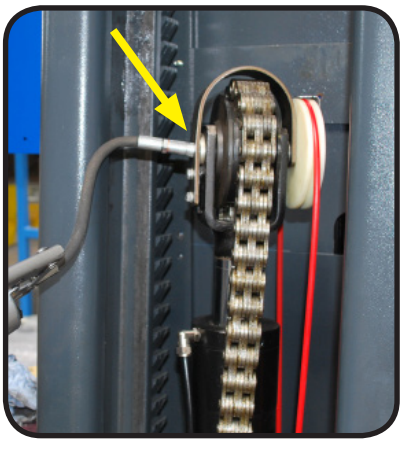


At the same time press on cylinder until the chain loosens.

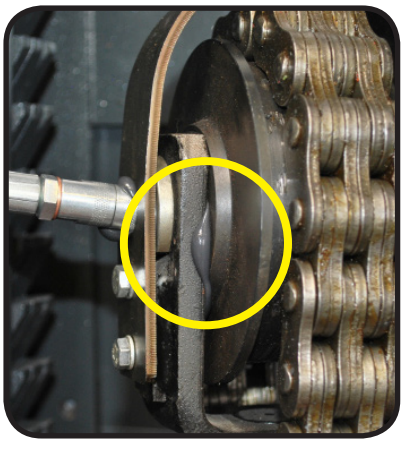
MAINTENANCE OF THE LIFT



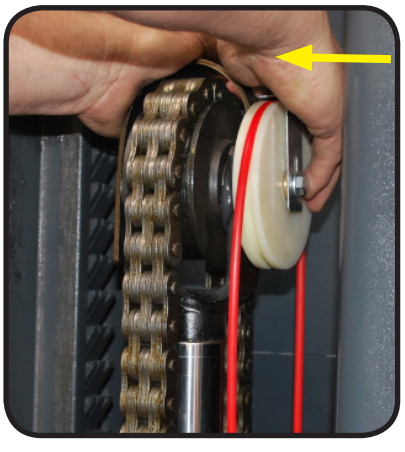
Turn the cylinder head until the grease nipple is accessible.



Press in lubricant (Teflon-containing)

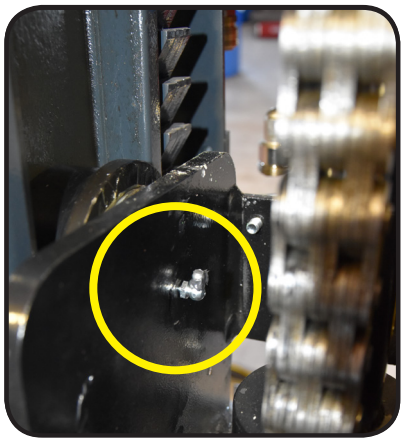


Press in until it emerges laterally on the sprocket.

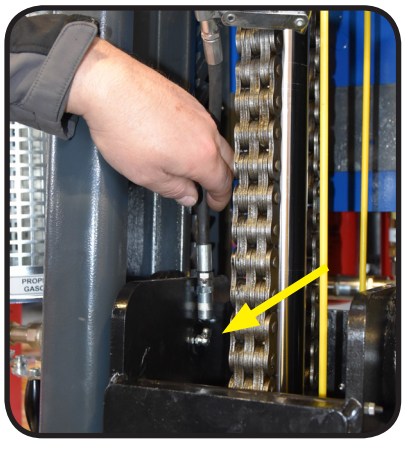


Turn the cylinder head straight.

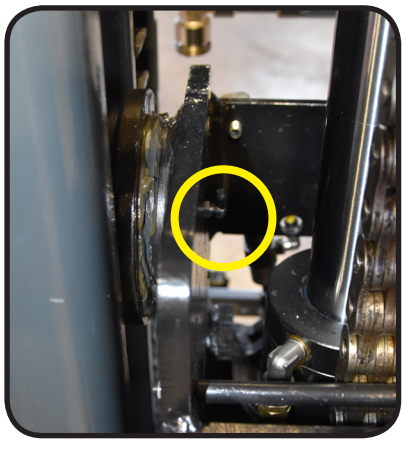
MAINTENANCE OF THE LIFT



- **LUBRICATION OF THE CARRIAGE ASSEMBLY**

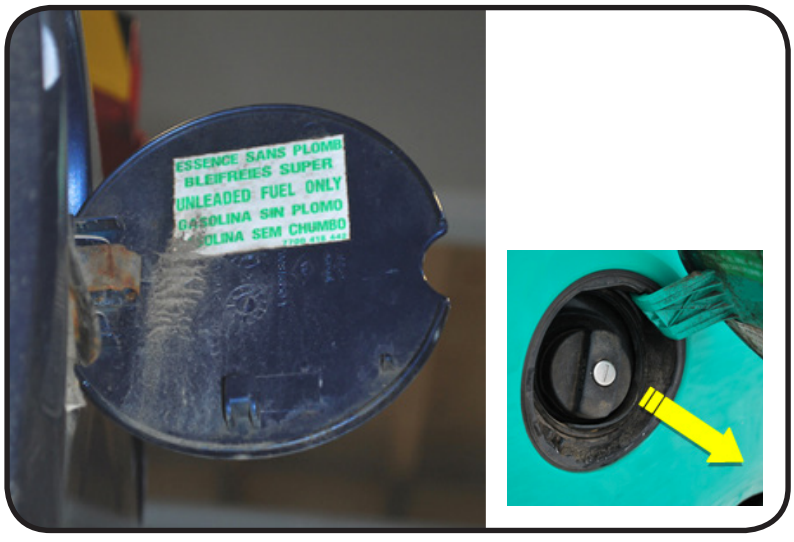


Press in lubricant (Teflon-containing)



Lubricated nipple

DRAINAGE



(The following steps can be done on the SEDA Trolley or on the lowered lift)

Open fuel filler cap and check whether the vehicle is petrol or diesel.

Remove fuel filler cap.

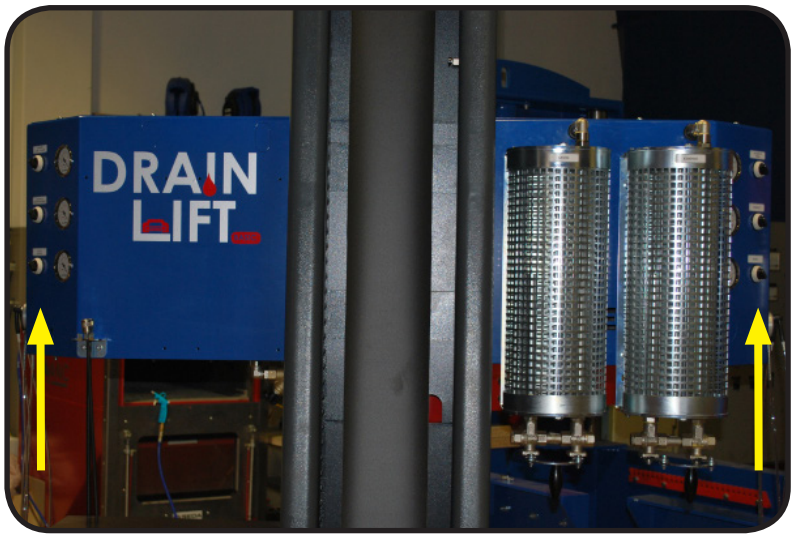
Open all remaining filling caps.

Remove the battery.

DRAINAGE

Remove the wheels.

Before starting to work check the air processing unit (turn off any air supply and depressurize the system). If the oil quantity in the compressed air is to high or low, this can be adjusted at the air oiler.

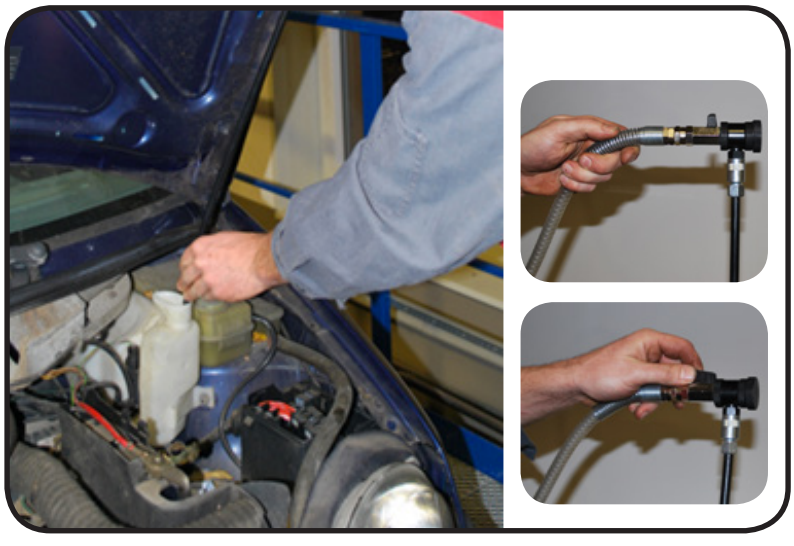


Switch on the
brake fluid ■,
coolant ■,
washer water ■
and waste oil pump ■
on the pump control unit.
(Switch on right)

DRAINAGE

Suck out coolant fluid from above.

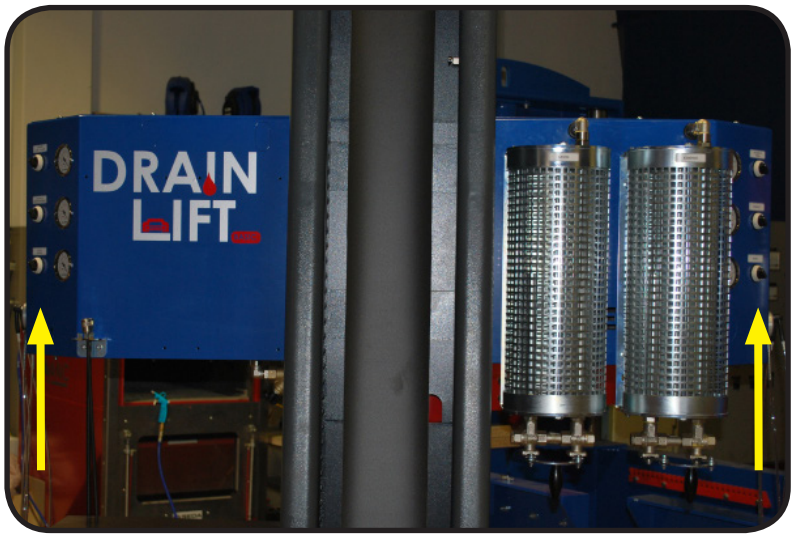
Always close the ball valve after use!



Suck out washer fluid from above.

Always close the ball valve after use!

DRAINAGE



Switch off the
brake fluid ■,
coolant ■,
washer water ■
and waste oil pump ■
on the pump control unit.
(Switch on left)

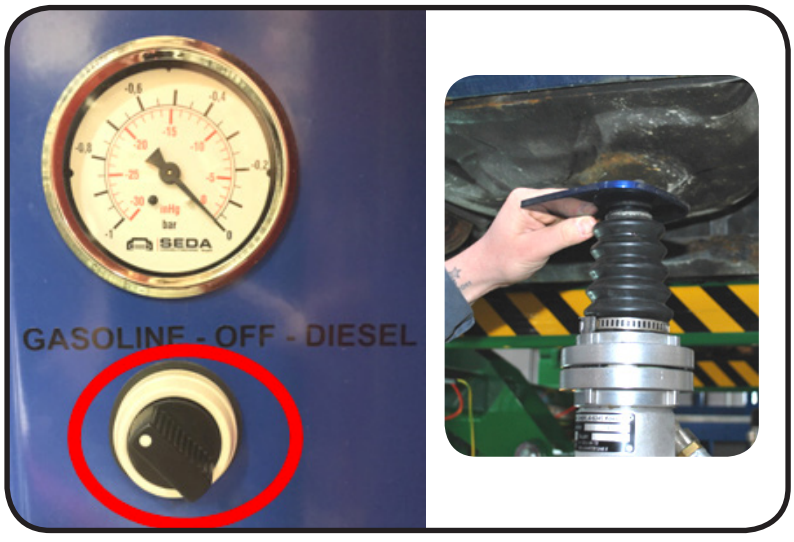
Place the vehicle on the rack.

Attention: Ensure the vehicle position corrects with the center of gravity in the middle.

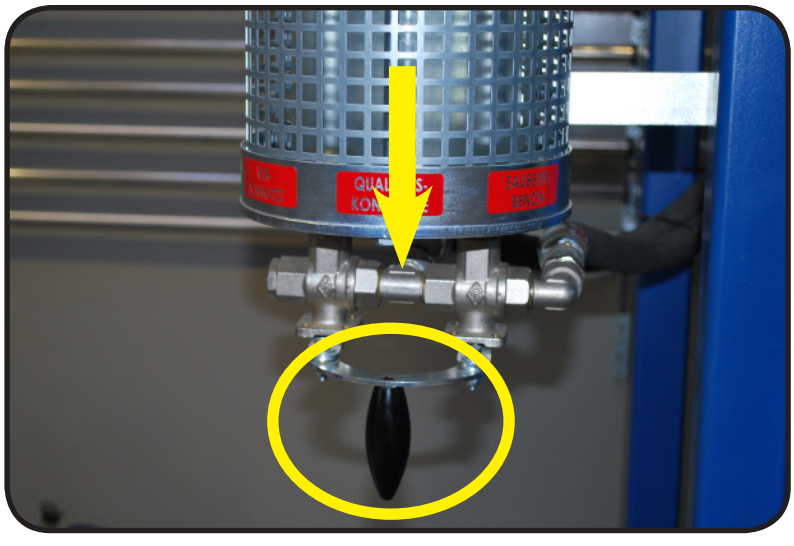
More informations about the control panel of the lift and its operating see page 20.

Connect the racks earthing cable with the vehicle.

DRAINAGE



Switch on the **fuel pump (diesel or petrol ■/■)** and check the vacuum.

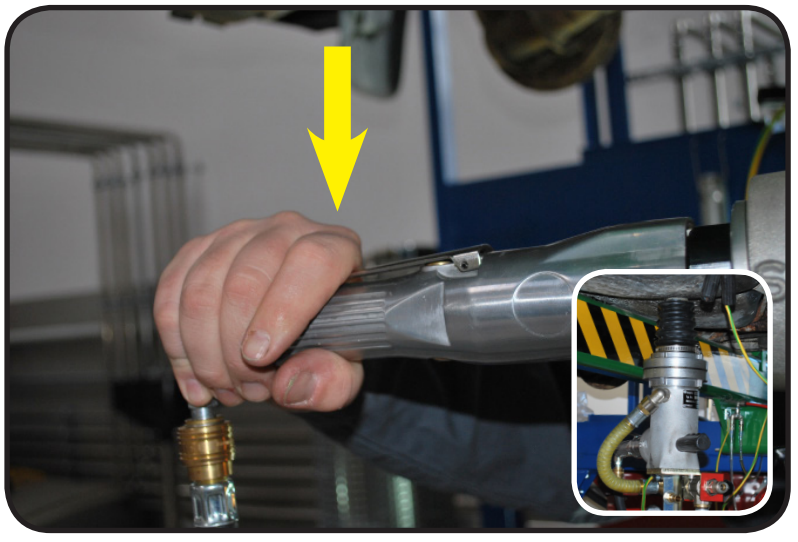


Before drilling, the lever of the quality control must be placed in **center position.**

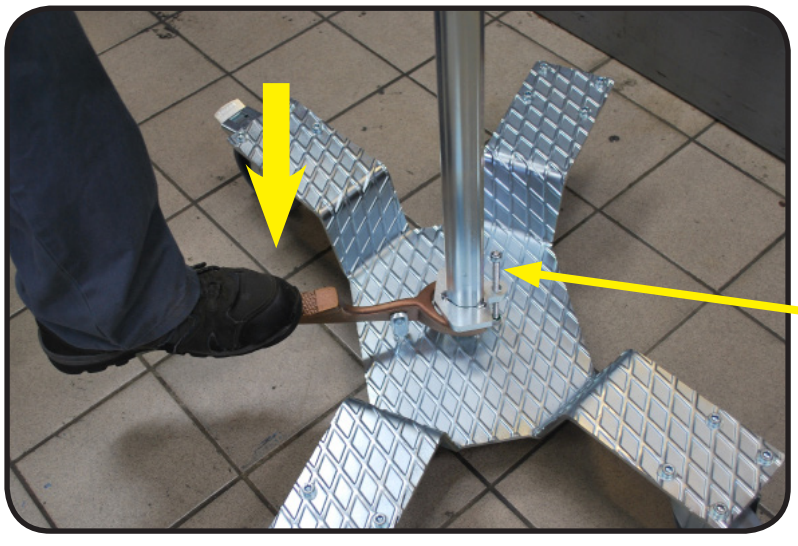
Position the TankDrilling-Machine at the lowest point on the tank and fix the shaft with the level (determine the wheels and press the drill bit up to the tank, fix the lever).

It is not allowed to use the drill with stainless steel tanks.

DRAINAGE

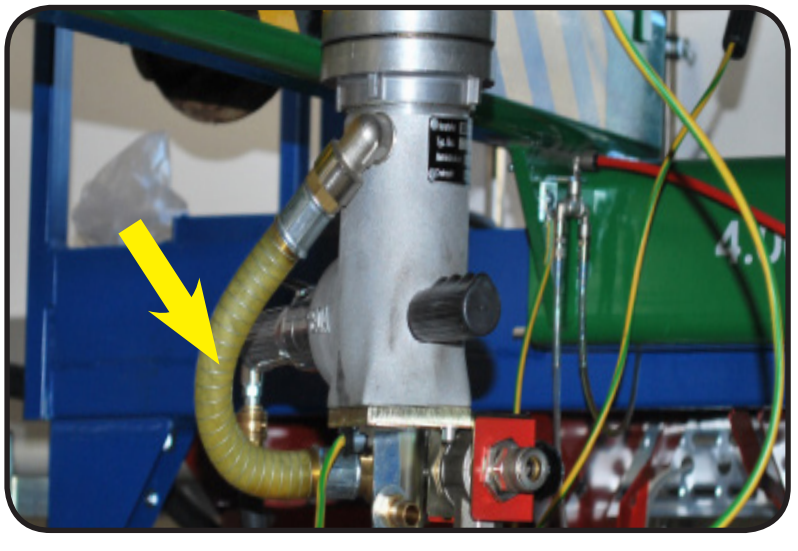


Start the TankDrillingMachine by pressing the air valve of the air ratchet.



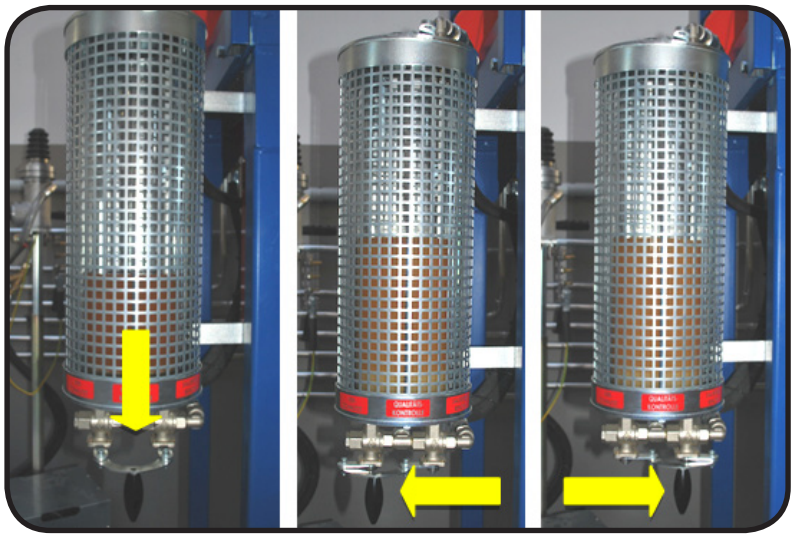
Then slowly push the foot pedal downwards until the end.

Stop Pedal plate preset

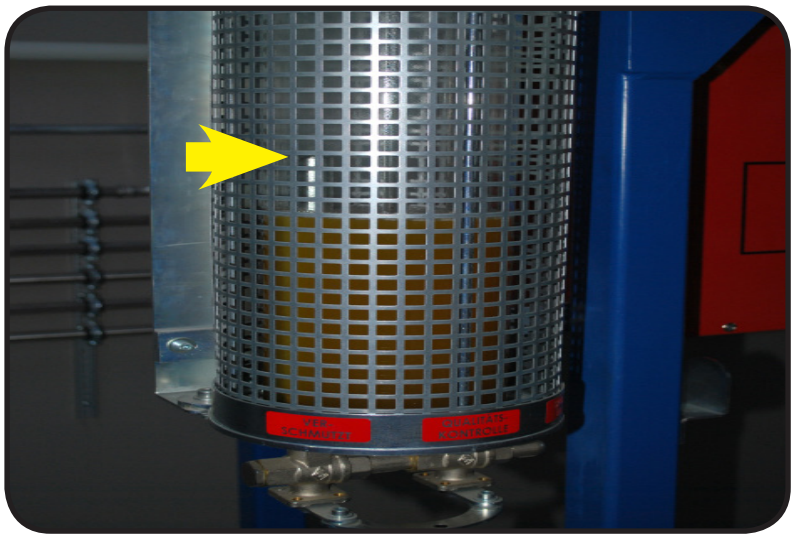


Visual inspection of the fuel via transparent hose. Attention: Please take care not to drill in-tank pump.

DRAINAGE

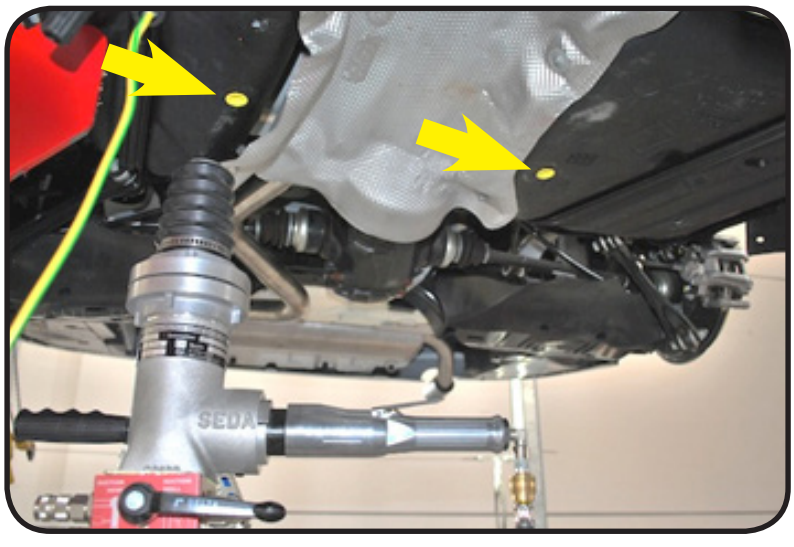


The fuel is pumped into the quality control glass where the quality can visually be inspected. From the quality control, a decision needs to be made if the fuel is clean or contaminated. By moving the ball valve left or right fuel will be directed to either the clean or dirty storage tank. Be advised: if the handle is left in the middle position all the fuel will be pumped to the dirty storage tank by default!



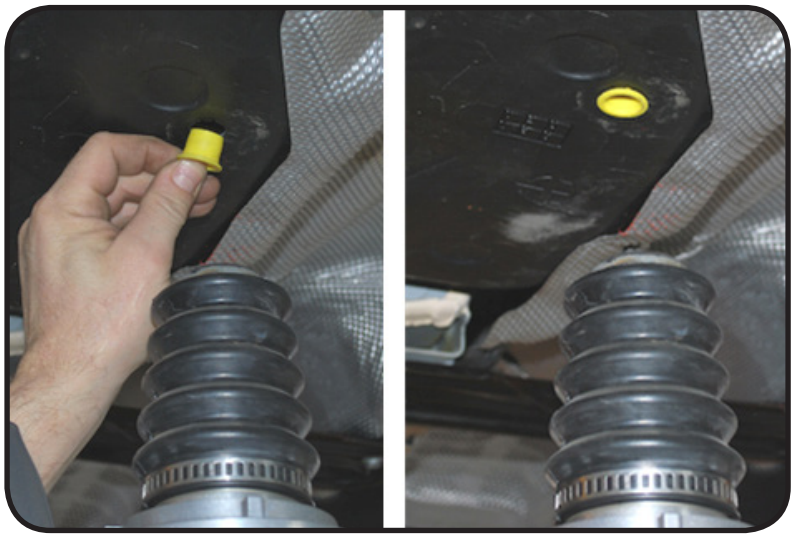
Until reaching the overflow pipe, it is still possible to decide which pipe (clean/dirty) the respective fuel is directed into.

The quality control glass has a 7 liter capacity.

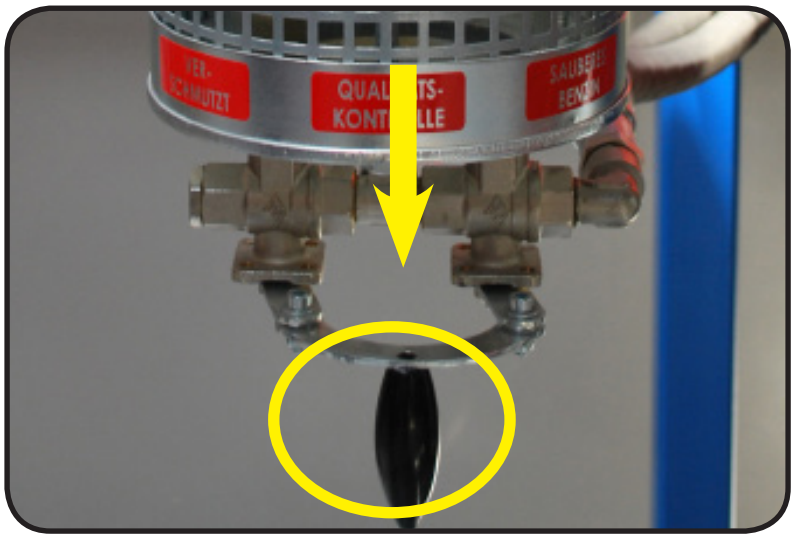


If a vehicle has a compartmentalized fuel tank or a tank with ant sloshing walls, multiple holes will need to be drilled at different places.

DRAINAGE

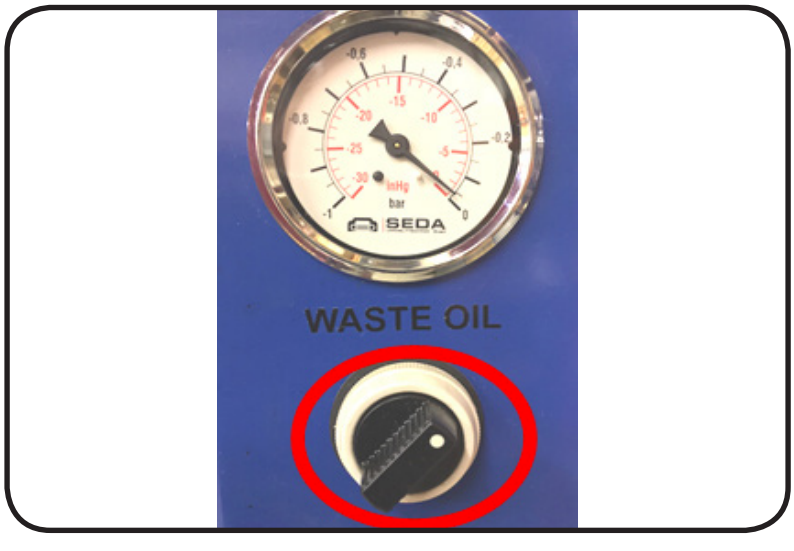


Once done draining plug the hole.



Once the drainage process has been completed, return the quality control level to the center (quality control) position.

Switch the fuel pump ■/■ off.

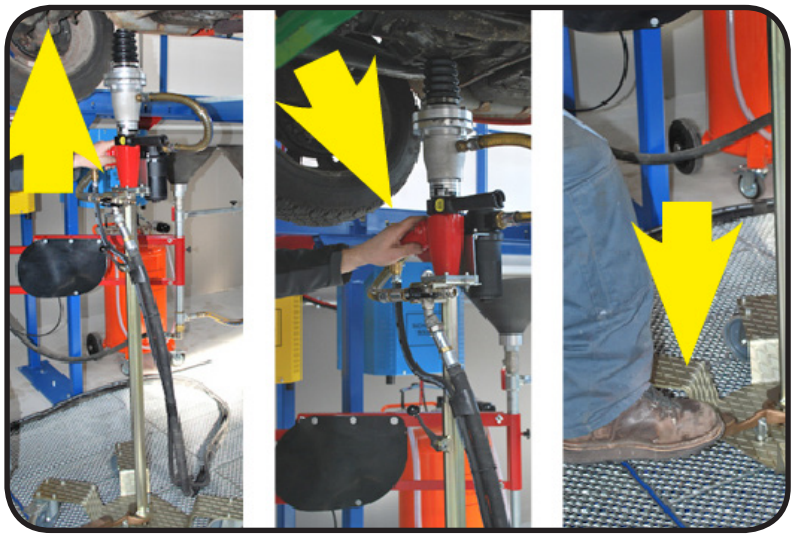


Switch the **waiste oil pump** ■ on. (Switch on right)

DRAINAGE

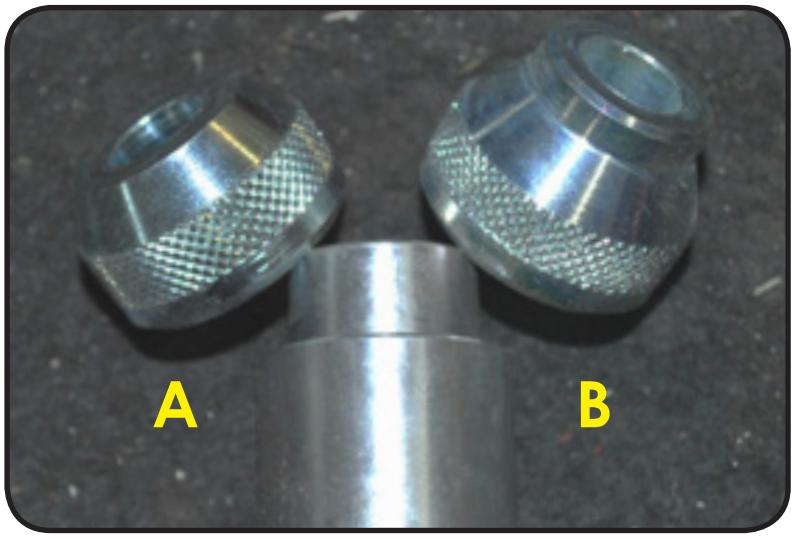
Check oil funnels for cleanliness, then position.

Open the oil drain plug. After draining close the funnel(s) (depending on the model) and close the oil drain plug.

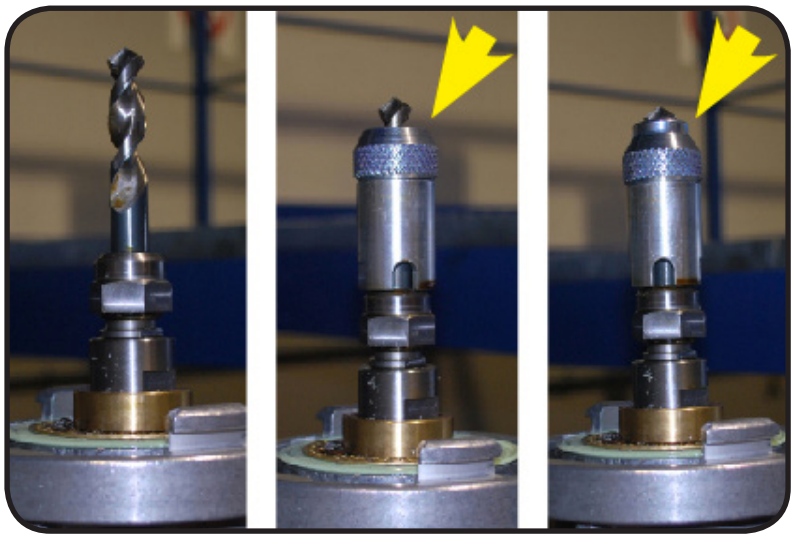


Without drain plug: Bring the Gearbox DrillingMachine in position and start drilling. For this purpose, the ball valve at the funnel must be closed and the ball valve at the GearboxDrillingMachine must be open.

DRAINAGE

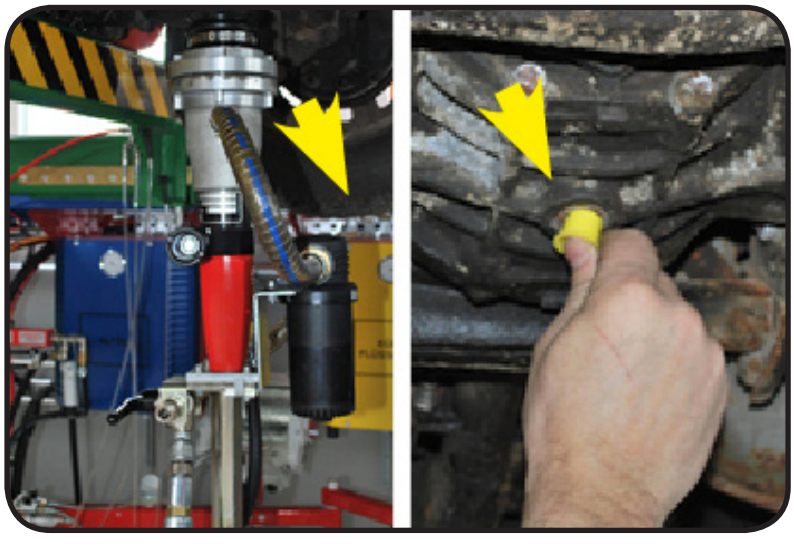


It is important to use the correct spacer ring for the drill.
(short = aluminum housing A, long = steel housing B)



Replacing the spacer:

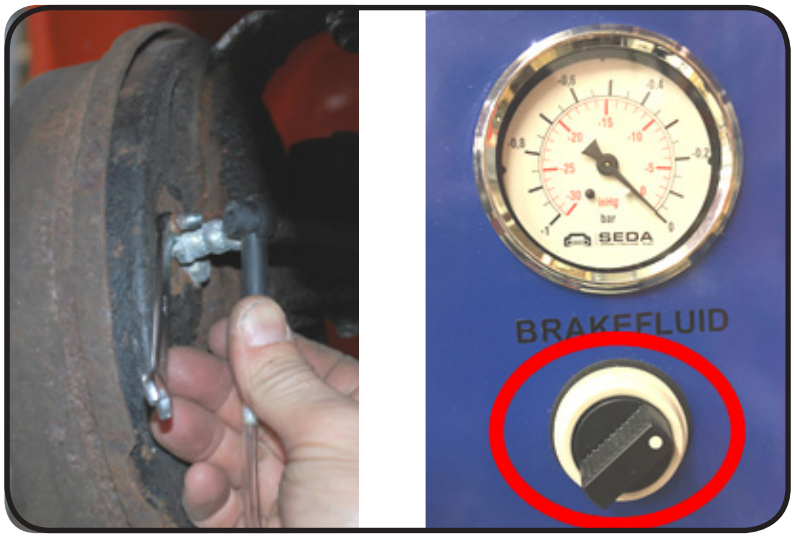
The short spacer prevents damage to the transmission.



After depollution, close the hole using a cap.

Switch off **pump for waste oil** ■.
(Switch on left

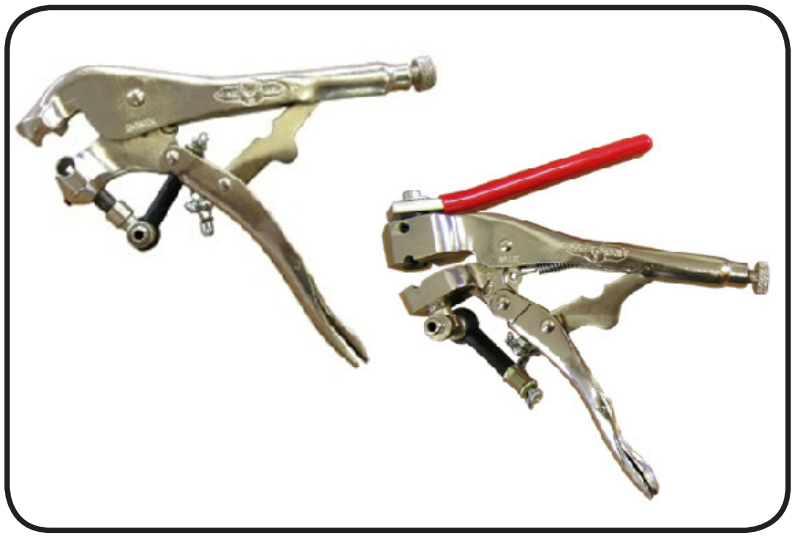
DRAINAGE



Check the brake bleed nipples can be opened.

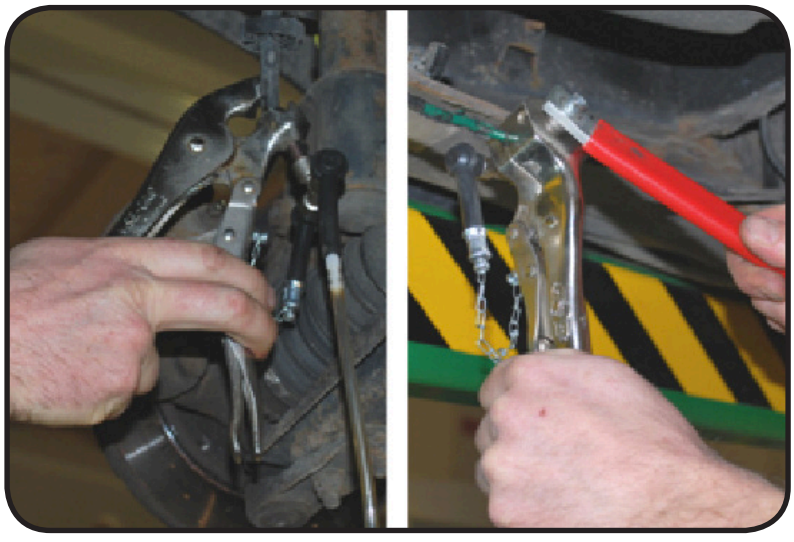
Switch on **pump for brake fluid** ■. (Switch on right)

Connect the rubber grommets and open the bleed nipples.



If suctioning via the brake nipple is not possible, use **brake pipe pliers or brake hose pliers** instead. Both pliers must be fitted with a rubber grommet from the brake hose set.

DRAINAGE



Attention: Ensure that unused rubber grommets are put back on the storage nippel.

Switch off **pump for brake fluid** ■ (Switch on left)

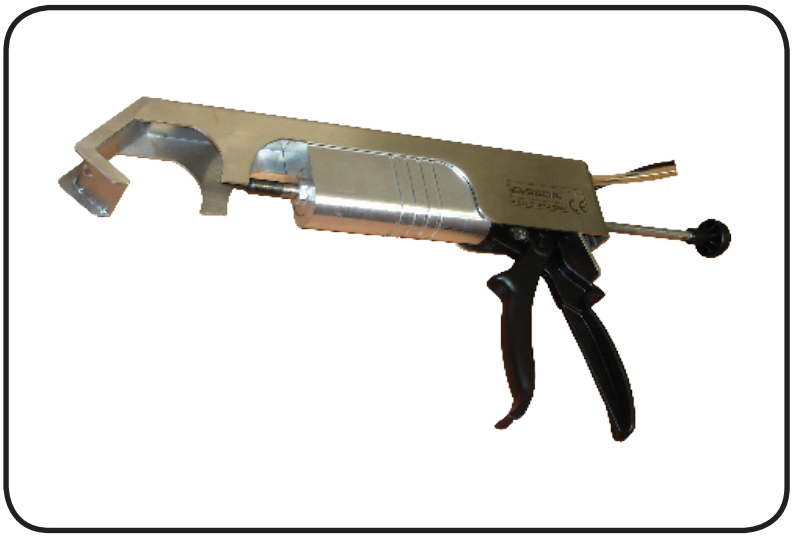
Switch on **pump for waste oil** ■. (Switch on right)

Shock absorber oil is sucked off using the **SOG2.**

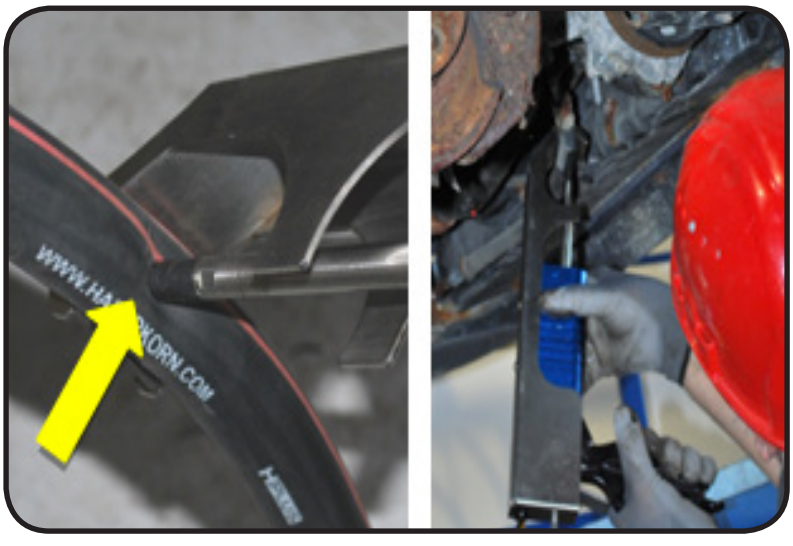
Drill or drain the residual oil hose. If drilling is not possible, remove the whole shock absorber.

After draining, close the hole with a cap.

DRAINAGE

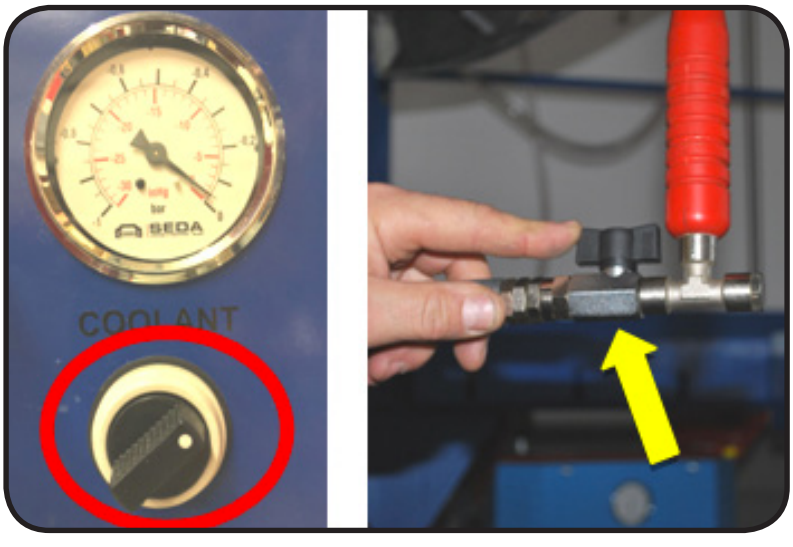


The **hydraulic oil** is sucked off with the **HoseGun**.



With the help of the HoseGun, the residual oil hose is drilled or suctioned.

Switch off **pump for waste oil** ■.
(Switch on left)

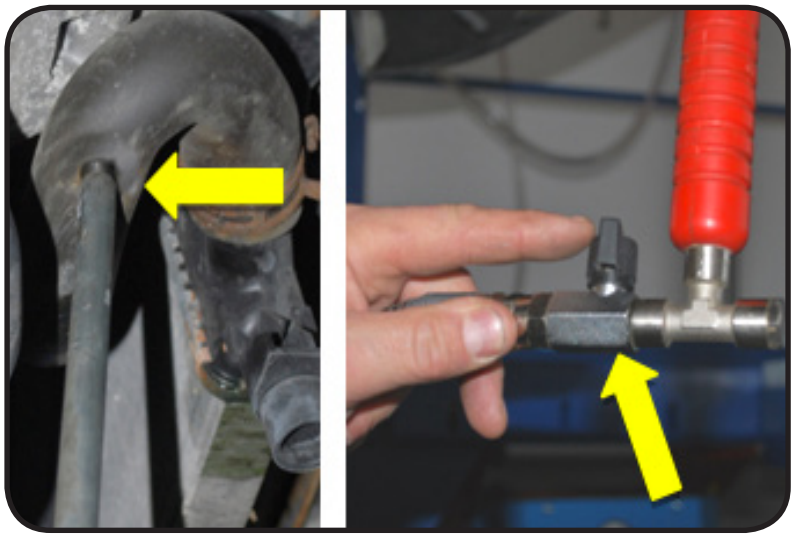


Draining the **cooling fluid** from below.

Switch on **pump for coolant** ■.
(Switch on right)

Open the awl ...

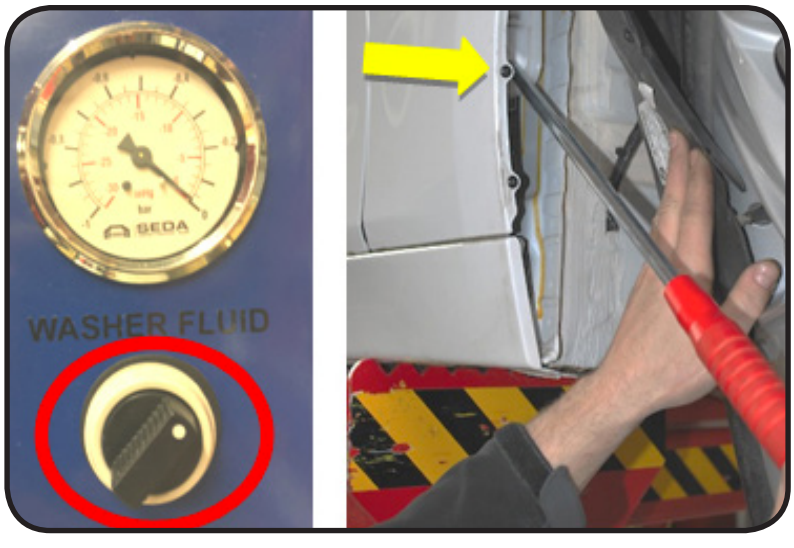
DRAINAGE



... and stick into the deepest point of the heating circuit hose.

Always close the awl after use.

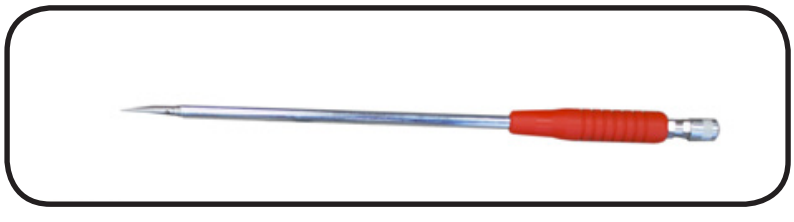
Switch off **pump for coolant** ■
(Switch on left)



Optionaly:
Draining the **washer fluid** from below.

Switch on **pump screen washer fluid** ■
(Switch on right)

Open the awl and stick into the deepest point of the screen washer reservoir.



Always close the awl after use.

Switch off **pump screen washer fluid** ■
(Switch on left)

To finish, turn off all pumps ■/■/■/■/■/■

Tip: The SEDA systems works even more effectively, if you switch off each pump immediately after finishing extraction of the respective fluid - so that not too many pumps are operated simultaneously.

RISK POTENTIAL

DANGER	ACTIVITIES
Tripping, falling, slipping and kinking	• **Keep order and cleanliness** • **Wear safety shoes (marked with ESD symbol)**
Head injuries	• **Pay attention to the protruding parts** • **Wear approved protective helmet**
Crushing, shearing, cutting	• **Wear work gloves** • **Place the control panel in the correct distance** • **No persons in the marked safety area**
Injury from falling parts or complete cars	• **Position the vehicles securely on the vehicle carrier** • **Notice the center of gravity** • **Check that there are no loose parts on the vehicle**
Poisoning by spilled materials with improper removal of the various vehicle operating fluids	• **Use only faultless hoses** • **Use only good sealing rubber cuffs**
Burns, risk of fire • by leaking inflamed fuels • by wrong tool selection	• **Immediately collect fuel with suitable and approved materials and equipment** • **Do not use hot tools (e.g. angle grinder)**

TROUBLESHOOTING OF DEVICES

Device	Fault	Test	Identification	Reason	Check/correction
Petrol/ diesel	no vacuum	Cover the sleeve with the hand	Alternate pressure and vacuum	Pressure line blocked	Pipe ball valve shut off? Fire shutter shut? Detonation protection sealed? Otherwise: contact customer service
Petrol	no vacuum	Shut off the ball valve - Open the ball valve	Slow release of the Vacuum	Suction line blocked	Position of Petrol/Diesel lever correct? Fine screen dirty? Petrol filter dirty? Otherwise: contact customer service
Diesel	no vacuum	Shut off the ball valve - Open the ball valve	Slow release of the Vacuum	Suction line blocked	Position of Petrol/Diesel lever correct? Fine screen dirty? Diesel filter dirty? Otherwise: contact customer service
Dirty substances	no vacuum	Cover the sleeve with the hand	Alternating pressure and vacuum	Pressure line blocked	Pipe ball valve shut off? Fire shutter shut? Detonation protection sealed? Otherwise: contact customer service
Used oil	low vacuum	Open a funnel ball valve	pumping out the oil too slow	Suction line open, Suction line blocked	Hydraulic oil open? Gearbox drilling device open? Oil filter dirty? Otherwise: contact customer service
Used oil	no vacuum	Open all suction lines	Alternating pressure and vacuum	Pressure line blocked	Pipe ball valve shut? Otherwise: contact customer service
Pumps finished	no flow	Open the ball valve on the operator panel	Pump is not operating	no compressed air – control valve defect	Pressure reducer on the back of the Pump turned to the left? Otherwise: contact customer service
Coolant	low vacuum	Open the needle ball valve	Little suction power	Suction line open	Pressure/vacuum control on the operator panel set to vacuum? 2nd needle ball valve open? Otherwise: contact customer service
Coolant	no vacuum	Open the needle ball valve	Alternating pressure and vacuum	Pressure line blocked	Pipe ball valve shut? Otherwise: contact customer service
Double funnel	Lifting gear out of order	Push the switch up	Weak lift	to little pressure	Main line pressure < 7 bar? Pressure reducer turned to the left? Otherwise: contact customer service
Windscreen washer fluid	low vacuum	Open the suction gun ball valve	Little suction power	Suction line open	Ball valve for the 2nd extraction open? Otherwise: contact customer service
Windscreen washer fluid	no vacuum	Open the suction gun ball valve	Alternating pressure and vacuum	Pressure line blocked	Pipe ball valve closed? Otherwise: contact customer service
Brake fluid	no vacuum	Open the suction extraction nipple	No sucking sound heard	no pressure	Ball valve on the pen closed? Otherwise: contact customer service
Brake fluid	no vacuum	Manometer check	no vacuum	Venturi nozzle is blocked by dirt particles	Clean the Venturi nozzle with the Nozzlecleaner Otherwise: contact customer service
Brake fluid	no vacuum	Open the suction extraction nipple	Pen vacuum indicator < 0,5 bar	poor vacuum generation	Turn vacuum pump angle connection, clean the nozzle inside. Otherwise: contact customer service
Brake fluid	no emptying	Seal emptying hose	no pressure	no pressure	Pressure reducer turned to the left? Otherwise: contact customer service
Suction line-finished	not sealed	Visual inspection	Fluid drip Medium	System not sealed	Screw fixing loose? Otherwise: contact customer service
Pressure line finished	not sealed	Visual inspection	Fluid drip Medium	System not sealed	Screw fixing loose? Otherwise: contact customer service

If the problems remain unsolved, call for technical support.

TROUBLESHOOTING OF DEVICES

12.1 Drill head exchange

SEDA tank drilling machine

Should, contrary to expectation, unsolvable problems with the drill head of the SEDA tank drilling machine arise on site, there is the option to exchange the drill head quickly by sending the defective drill head to our repair facility and fit an exchange head if need be.

Here is a description of the steps required for an exchange:

Fig. 1)
Dismantling the drill head.
Step 1) First unscrew the folding bellows along with the upper coupling part.
Step 2) Remove the drill bit.
Step 3) Unscrew the dirt trap from the lever connection.
Step 4) Now release and unscrew the four locking screws on the underside of the installation platform.

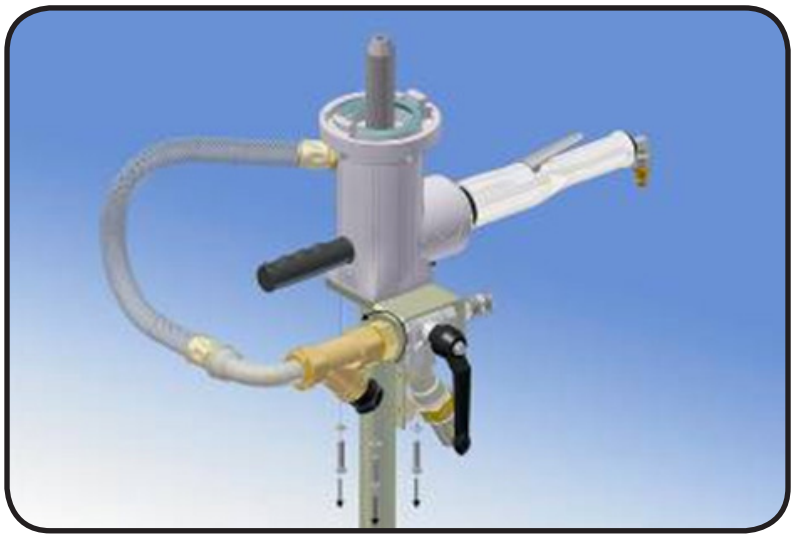


Fig.1

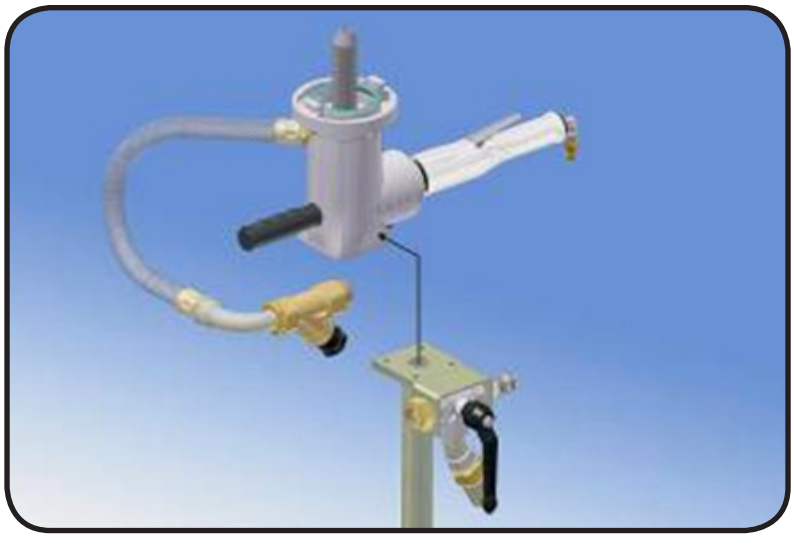


Fig.2

Fig. 2)
When all the screws are released, lift the drill head upwards and remove it from the platform.
The drill head can now be packed carefully. Please note that you do not send the drill bit and the upper coupling part with the sleeve but store them until the installation.

The exchange drill head or the repaired unit is refitted on the platform in the reverse sequence.

TROUBLESHOOTING OF THE LIFT

TROUBLE:	POSSIBLE CAUSE:	SOLUTION:
The lift does not work	The main switch is not turned on There is no power The electrical wires are disconnected Fuses are blown	Turn the switch on Check Power on to restore if nec. Reconnect Check for correct voltage Replace
The lift does not raise	The lift is overloaded The motor direction of rotation is not correct. The oil in the power unit is not sufficient. The UP button is faulty. The maximum pressure valve clogged or leaks The lowering valve does not close. The suction tube or pump filter is dirty. Presence of air in the hydraulic system The hose burst	Check the vehicle weight Interchange the two phases on the main switch Add some hydraulic oil Check UP button and connection for proper operation. Replace if needed Check and clean if dirty or replace if faulty Check and clean, if dirty or replace if faulty Check and clean if needed. Bleed the hydraulic system Exchange hose
The lifting capacity is not sufficient	The pump is faulty Oil leakages in hydraulic circuit	Check the pump and replace if needed. Check the circuit for any leakage
The lift does not lower when the lowering button is pressed	The lowering valve does not work properly The electric-magnetic piston for safety lock is faulty	Check the valve and replace if needed. Check, replace if faulty
The motor does not stop when the lift reaches it maximum height	The maximum height limit switch does not work	Check the limit switch and replace if needed
The lift jerks	Sliding surfaces dry, missing lubricant	3-flanc lubrication Sprocket lubrication

If the problems remain unsolved, call for technical support.

SAFETY INSTRUCTIONS

- For operating the system and devices, in any case the local safety and accident prevention regulations apply.
- After a failure has occurred, the system must not be used.
- The system is only to be deemed ready for operation, if all protective mechanisms are in place.
- Use of the system outside the stated scope application is not permitted and will result in loss of all warranty claims and annulment of the declaration of conformity.
- **There is a total smoking ban in the vicinity of the draining unit.**
  Fire and explosion hazard

- The devices of the system are safe to operate and comply with the state of the art. Nevertheless, hazards can occur during operation and during servicing and/or maintenance works.
- During commissioning, the conditions prescribed by the manufacturer as well as the specific safety instructions given in the operating manual must be adhered to.
- We do not accept any liability for unauthorised changes and modifications of the devices, which changes will result in annulment of warranty.
- The devices are arranged within the system in accordance with the hazard zones. Changing the arrangement positions, except for mobile devices, is not permitted.
- The devices are only certified for the liquids specifically specified by the manufacturer.
- Maximum compressed air supply 10 bar.
- Every pneumatic hose can burst due to external damage and/or ageing. To avoid possible damage, the compressed air supply of the draining system has to be switched off prior to every longer operation interruption, and the piping system has to be depressurised.
- Prior to installation, servicing and maintenance work etc., all devices must be separated from the liquids and the compressed air supply, and the vacuum inside the brake fluid reservoir has to be resolved.
- For operation of the devices, in any case, the local safety and accident prevention regulations, like e. g. wearing safety shoes, apply.

All works with and at electrical devices are only permitted, when the draining system has been switched off for longer than 1 hour and remains switched off. Residual petrol in drilling machine, filter and piping is possible - danger of explosion!

- It must be ensured that all parts or devices that are not included in the scope of delivery are properly earthed.

SAFETY INSTRUCTIONS

- Prior to drilling the vehicle tank, the two earth terminals of the tank drilling machine and vehicle carrier must be attached to the vehicle.
- It is compulsory for the pump for petrol or diesel to be switched on prior to drilling the vehicle tank and to be switched off only after the borehole has been closed by a plug.
- OPTION Should the glass panel of a spotlight be broken or cracked or otherwise damaged, work on the system must be immediately stopped and the service contacted.
- In order to prevent spark formation due to faulty cables, the vehicle battery must be removed prior to draining.
- Oil funnels, gearbox drilling machine and shock absorber drilling machine must not be operated simultaneously. (no suction power)
- Should a leak be detected in the system – hoses, pumps, screw connections etc., work with the system must be stopped immediately and the service must be notified.
- For safety reasons it is imperative that the prescribed servicing works by the user, which are part of the present operating manual, be carried out in due course.

Petrol contains approx. 5% benzol - avoid inhaling and skin contact!
Carcinogenic!

The lift has been designed and built for lifting vehicles and making them stand above level in a closed area. Any other use is forbidden.
The manufacturer is not liable for possible damages to people, vehicles or objects resulting from an improper or unauthorized use of the lift.

- For operator and people safety, the safety area shown in the figure 7 must be vacated during lifting and lowering. The lift must be operated only from the operator's control site, as shown. Operator's presence under the vehicle, during working, is only admitted when the vehicle is lifted are not running

Never use the lift when safety devices are off-line.

People, the lift and the vehicles lifted can be seriously damaged if these instructions are not followed.

SAFETY AREA ➔

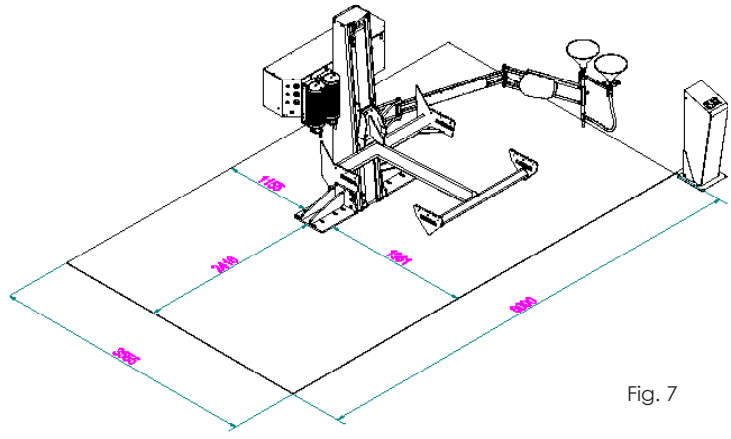


Fig. 7

SAFETY INSTRUCTIONS

The operator and the person in charge of maintenance must follow accident-prevention laws and rules in force in the country where the lift is installed.
They also must carry out the following:
- neither remove nor disconnect hydraulic, electric or other safety devices;
- carefully follow the safety indications applied on the machine and included in the manual;
- observe the safety area during lifting;
- be sure the motor of the vehicle is off, the gear engaged and the parking brake put on;
- be sure only authorized vehicles are lifted without exceeding the maximum lifting capacity;
- Verify that no one is on the platforms during lifting or standing.

Risks during vehicle lifting
To avoid overloading and possible breaking, the following safety devices have been used:
- A pressure overload valve in the hydraulic unit to prevent excessive weight.
- A parachute valve placed in the hydraulic system to prevent the lift from lowering in case of pipeline failure.

The maximum pressure valve has been preset by the manufacturer to a proper pressure. DO NOT try to adjust it to overrun the rated lifting capacity.

- Chain anti-slack safety in event of chain slackening and/or failure.
- Anti-crushing protection during the final lowering phase.
- Automatic mechanical back-up safety holds on the lift in the elevated position.

It is strictly forbidden to modify any safety device. Always ensure the safety device for proper operation during the service.

RISKS OF THE LIFT FOR PEOPLE

Personnel crushing risks
- During lowering of vehicles, personnel must not be within the safety area covered by the lowering trajectory. The operator must be sure no one is in danger before operating the lift.

Bumping risk
- When the lift is stopped at relatively low height for working, the risk of bumping against projecting parts occurs.

Electrocution risks
- Avoid use of water, steam, and solvent, varnish jets in the lift area where electric cables are placed and, in particular, next to the electric panel.

Slipping risks
- The risk of slipping can be caused by oil or dirt on the floor near the lift.

Keep the area under and around the lift clean. Remove all oil spills.

Risk of the vehicle falling from the lift

- Vehicle falling from the lift can be caused when the vehicle is improperly placed on the lift, and when its dimensions are incompatible with the lift or by excessive movement of the vehicle.
  In this case, keep immediately away from the working area.

Risks resulting from improper lighting

- Make sure all areas next to the lift are well and uniformly lit, according to local regulations.

Risks of breaking component during operation

- Materials and procedures, suitable for the designed parameters of the lift, have been used by the manufacturer to build a safe and reliable product. Operate the lift only for the use it has been designed for and follow the maintenance schedule shown in the chapter "Maintenance of the lift".

Risks for unauthorized uses

- The presence of unauthorized persons next to the lift is strictly forbidden during lifting as well as when the vehicle has been already lifted.

Any use of the lift other than that herein specified can cause serious accidents to people in close proximity of the machine.

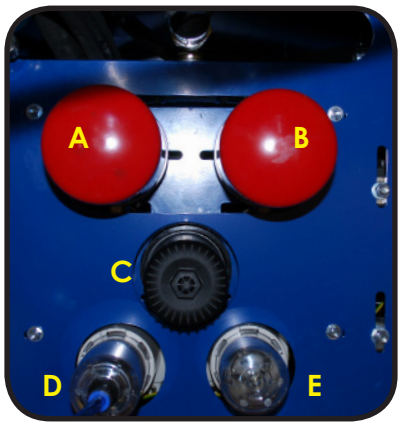
MAINTENANCE

Before all maintenance and repair work, the SEDA system must be depressurized.

15.1 Servicing unit

15.1.1 Compressed air oil feeder

- Daily check
- Before start-up, the level of oil in the compressed air oil feeder should be checked and if necessary topped up



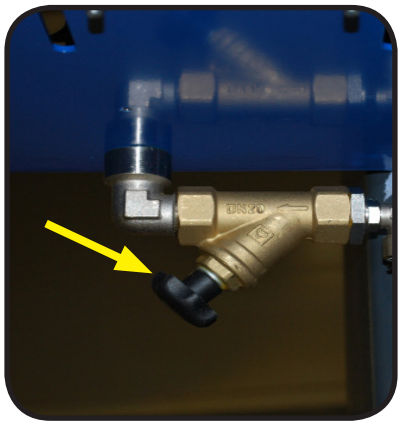
15.1.2 Air dehumidifier

- Daily check
- The collected fluid in the air dehumidifier must be removed.

Order no: 506165 Compressed air oil

Oil and fuel filter and Servicing unit are on the lower side of the housing

A) Petrol filter - Order no.: 514040
B) Diesel filter - Order no.: 514040
C) Oil filter - Order no.: 514060
D) Water seperator
E) Air lubricator - Mist oil Order no: 506165



Pipe filter for coolant
Should be checked at least once a week. If there is no vacuum left, check if the filter is too contaminated.

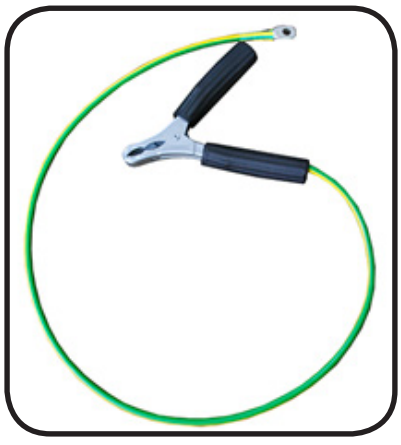
15.2 TankDrillingMachine

15.2.1 Drill bit

- Daily check
- Check the cutting edges of the drill bit.

If the cutting edges of the drill bit are blunt or broken, it must be changed.

Danger: risk of explosion or fire due to the build up of heat caused by friction of using a blunt drill bit.
It is not allowed to use the drill with stainless steel tanks.
Order no: 50009 Drill bit for tank drilling device regular



15.2.2 Earth cable

- Check before every drilling operation.
- Check the earth cable for breaks and broken strands.
- If the earth cable or the clamping clip is broken or one of the connections (eye, clamping clip) is torn out, the entire earth cable must be changed.

Danger: Explosion/fire as a result of static charge build-up.

Order no: 50085 Earth cable for drilling device

15.2.3 Rubber sleeve

- Daily check
- Inspection of the sleeve for tears and cracks of the surface.
- In the event of major damage the sleeve is to be changed.

Danger: Loss of vacuum, overflow of fuel.

Order no: 50015 Rubber sleeve solo
Order no 50077 Rubber sleeve with coupling for H.D.
Order no: 50062 Rubber sleeve with coupling for gear and regular

15.2.4 Drill head key

Order no: 50095 Drill head key

15.2.4 Magnetic ring and sieve

- Check after every 5 vehicles.

- Clean the magnetic ring of metal drill waste and the screen of plastic drill waste.

Danger: Loss of vacuum, overflow of fuel.

Order no:
50032 Magnetic ring complete for drilling device
Order no:
513145 Sieve for drilling device with centring cover

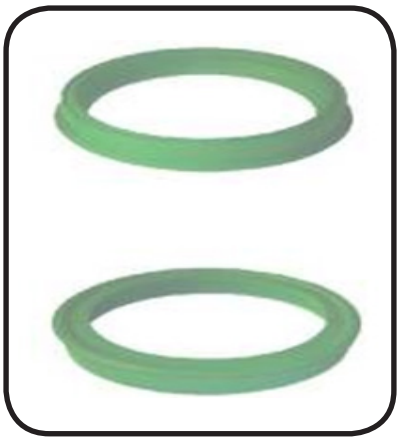
MAINTENANCE

15.2.5 Filter sieve

- Check after every 40 vehicles.
- Clean the filter screen of metal and plastic particles.

Danger: Loss of vacuum, overflow of fuel.

Order no:
529 122 Sieve insert for TankDrillingMachine regular
Order no:
529 123 Sieve insert for TankDrillingMachine H.D.



15.2.6 Sealing rings

- Daily check
- Check the sealing rings. If the sealing rings show splits or damage, they should be replaced.

Danger: System seal is no longer functioning.

Order no: 517081 Sealing ring (green) for connection of drilling device

15.2.7 Tank sealing plugs

- Daily check
- Check that tank closure stops are still in stock. If the quantity is less than the requirement for 3 working days, new ones should be ordered immediately.

Order no:
50006 Closure stops for tank, 500 pieces (Regular)
Order no:
50036 Closure stops for tank, 500 pieces (Heavy Duty)

15.2.8 Tank suction hose

- Request if lost or damaged.

Order no: 50029 Tank suction hose

15.2.9 Adapter kit

- Request if lost or damaged.

Order no: 50004 Adapter kit

15.3 Fuel filters

15.3.1 Petrol / Diesel filter

- Daily check
  Check if the petrol filter is still in good working condition by completing the following:
- Select petrol on the operator panel (lever down),
- Switch petrol/diesel switch to petrol,
- Close the ball valve on the tank drilling machine (lever to the right),
- Close off any connected tank suction hoses,
- Check vacuum release of the manometer on the petrol pump - 0.5 to - 0.8 bar.
- After opening the ball valve on the tank drilling device (lever down), the vacuum should be rapidly released - 0.2 to 0.3 bar, otherwise the petrol filter needs to be changed.

Possible risk: Loss of vacuum, overflow of the fuel.
Damage to the pumps.
Order no 50050 Fuell filter

15.4 Waste oil

15.4.1 Waste oil filter

- Daily check
- Clean the filter insert of drill waste and oil sludge:
- If the filter insert is damaged, twisted or split, it should be changed.

Danger: Loss of vacuum, overflow of used oil.
Damage to the pumps.
Order no: 514061 Filter insert for gearbox drilling device /used oil/SOG impulse

15.4.2 Rubber funnel

- Daily check
- Check the funnels for splits. If damage (splits, porous) is found on the funnels, call customer service.

Danger: System seal no longer functioning.
Order number:
518055 Rubber funnel

15.5 OPTIONALY GearboxDrillingMachine

15.5.1 Drill bit

- Check after every 40 vehicles.
- Check the drill bit cutting edge:
  A worn drill bit is no longer capable of drilling completely round holes. The best sealing is therefore no longer obtained with the sealing plugs.

Danger: Subsequent dripping of gear oil.

Order number:
50022 Drill bit for gearbox drilling device

15.5.2 Sieve

- Check after every 5 vehicles
- Clean the screen of drilling waste.

Danger: Loss of vacuum, overflow of used oil.

Order number:
513145 Sieve for drilling device with centring cover

15.5.3 Oil filter

- Check after every 40 vehicles drained.

- Clean the filter insert of drill waste and oil sludge:
  If the filter insert is damaged, twisted or splits, it should be changed.

Danger: Loss of vacuum, overflow of gear oil.
Damage to the pumps.

Order number: 514061 Filter insert for Gear Box drilling device/used oil/suction impulse

15.5.4 Rubber sleeve

- Daily check
- Inspection of the sleeve for splits and breaking up of the surface:
  In the event of major damage, the sleeve should be changed.

Danger: Loss of vacuum, overflow of used oil

Order number: 50015 Rubber sleeve solo

15.5.5 Gearbox sealing plugs

- Daily check

- Check that there are still gearbox sealing plugs in stock:
  If the quantity is lower than the required number for 3 working days, new ones should be ordered.

Order no:
50006 Closure stops for Gear Box 500 pieces.

15.6 Brake fluid

9.6.1 Rubber nipple

- Check after every 40 vehicles drained

- Rubber nipples for the extraction of brake fluid must be inspected for wear (hole too big – no longer stays on the air extraction nipple).
  Change required.

Danger: System seal no longer functioning.

Order no:
50014 Rubber nipples for brake nipple (1 pair)
Order no:
521070 Straight hose connector plastic dia. 4 mm

15.7 Windscreen washer fluid

9.7.1 Filter insert

- Daily check

- Screw out he filter on the suction pistol, check filter for contamination and clean it if necessary.

Order no:
529126 sieve for filter brass (washer fluid)

15.8 Pipes

15.8.1 Hoses

- Daily check

- Both suction and pressure hoses must be inspected for damage (kinks, porous) – if necessary customer service should be contacted.

Danger: System seal no longer functioning.

15.8.2 Connections

- Daily check

- The hose connections to the devices (sleeves, bends, screw fixings etc.) must be inspected for their sealing efficiency (visual check for drip formation).
- Loose screw fixings may be tightened by the operator himself but in the case of other faults customer service should be informed.

Danger: System seal no longer functioning.

TECHNICAL DETAILS

Lifting height:	up to 1800 mm
Overall height:	2410 mm
Min. lowered height:	110 mm
Lifting time:	30 s
Control system:	electrohydraulic / pneumatic
Loading cap.:	3.500 kg
Engine power:	3 kW
Power supply:	3Ph/400 V/50 Hz
Speed:	1375 rpm
Motor enclosure type:	B14
Insulation class:	IP54
Pump type:	Gear
Flow rate:	6,1 cm^3/U
Continuous working pressure:	220 bar
Peak pressure:	240 bar
Space:	6.0 x 4.5 x 3.8 m
Compr. air:	8 bar – 1.210 l/min.
Air consumpt.:	2.850 l/car
Drainage time:	aprr.12-15 min./car*
Fluid drainage:	Petrol/Diesel: 14 l/min. Waste oil: 3 l/min. Coolant fluid: 3 l/min. Screen washer fluid: 5 l/min. Brake fluid: 1 l/min.

* Depends on version and operation

SymbolPHoto

CE DECLARATION

In accordance with EC-Machine Directive 2006/42/EG

Herewith we, **SEDA Umwelttechnik GmbH**
Schwendter Straße 10
A-6345 Kössen

declare that the machine designated in the following complies with EC directives, due to its conception and design as well as due to the application of the relevant and basic health and safety requirements as implemented by us in the introduction of its design.
In case of any changes of the device that are not authorised by us, this declaration looses its validity.

Designation of the device: Draining an depollution system for End of Life Vehicles

Device type: DrainLift Professional

Serial number: _____

In the following, the implemented standards, laws and regulations of the individual devices as well as their safety facilities and carrying devices are named:

DIN 31000	General principles for safe design of technical products.
DIN EN 294	Safety of machinery; safety distances to prevent danger zones being reached by the upper limbs.
DIN EN 349	Safety of machinery; minimum distances for preventing pinching of limbs.
DIN EN 287-1	Approval testing of welders – Fusion welding – Part 1 : Steel
DIN EN 60204	Electrical equipment of machinery
DIN EN 1493	Vehicle lifting ramps
DIN EN 60079-0	Electrical equipment for hazardous areas

Kössen, 26.02.2018

Manufacturer
Stamp/Signature:

WARRENTY AND SERVICE ADDRESS

We understand warranty to be the statutory warranty of 12 months (in case of day and night operation 6 months) after invoicing. Identification of such damages must be immediately reported to the seller in writing.

Introducing changes or performing maintenance works by the buyer or a third party will result in annulment of the seller's liability. Otherwise, our general terms and conditions apply, which can be found any time on our website under
www.seda-international.com

In the event of a failure or a defect in the system or in individual components, only qualified personnel authorised by the company SEDA-Umwelttechnik GmbH is allowed to perform the respective repair works.

SEDA-Umwelttechnik GmbH
Schwendter Str. 10
6345 Kössen / Tirol
Österreich

Tel.: +43 (0)5375 6318-0
Fax.: +43 (0)5375 6318-9
E-Mail: info@seda.at
www.seda-international.at

VERDERAIR

VERDER

EC-DECLARATION OF CONFORMITY

EU-OVERENSSTEMMELSESERKLÆRING, EY-ILMOITUS YHTÄPITÄVYYDESTÄ, CE-DECLARATION DE CONFORMITE, EG-ÜBEREINSTIMMUNGSERKLÄRUNG, DICHIARAZIONE DI CONFOMITÀ-CE, EG-VERKLARING VAN OVEREENSTEMMING, EC-DECLARACÃO DE CONFOMIDADE, EC-DECLARACIÓN DE CONFORMIDAD, EG-DECLARATION OM ÖVERENSSTÄMMELSE, ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ-ΕΚ

Model

Model, Malli, Modèle, Modell, Modello, Model, Modelo, Modelo, Model, Μοντέλο

VERDERAIR VA 10

Part No.

[illegible]

810.0001 to 810.0072

This Product Complies With The Following European Community Directives:

[illegible]

98/37/EC Machinery Directive

94/9/EC ATEX Directive (Ex II 2 G EEx c IIA T6)

The Following Standards Were Used To Verify Compliance With The Directives:

De følgende standarder blev anvendt som bekræftelse på at direktivernes bestemmelser overholdes, *Allaolevaa standardia on käytetty vahvistamaan yhtäpitävyyttä direktiivin kanssa,* Les normes suivantes ont été appliquées pour vérifier que ce produit se conforme aux directives, *Die folgenden Normen garantieren die Übereinstimmung mit diesen Richtlinie,* Sono state usate le seguenti norme per verificare la conformità ai direttivi, *De overeenstemming met de richtlijnen werd gecontroleerd aan de hand van de volgende normen,* Para Verificar A Conformidade Com As Directivas Utilizaram-se As Seguintes Normas, *Las normas siguientes han sido utilizadas para verificar que el producto cumple con las directivas correspondientes,* Följande standard Har Använts För Att Bestyrka Överensstämmelse Med Direktiven, *Ως Κριτήρια Τήρησης Των Οδηγιών χρησιμοποιήθηκαν Τα Παρακάτω Πρότυπα:*

EN 292 EN 1127–1 EN 13463–1

ISO 9614–1

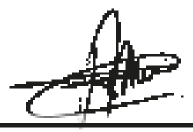
EC Notified Body:

[illegible]

0359

Approved By:

[illegible]



DIRECTOR (Signed)

Date

[illegible]

19May2004

Date

Dato, Päiväys, Date, Datum, Data, Datum, Data, Fecha, Datum, Ημερομηνία

19May2004

Frank Meersman

DIRECTOR (Print)

Part No. : 819.5964

Verder Ltd.
Whitehouse street
Leeds LS10 1AD
Great Britain

ANNEX

VERDERAIR

VERDER

EC-DECLARATION OF CONFORMITY

EU-OVERENSSTEMMELSESERKLÆRING, *EY-ILMOITUS YHTÄPITÄVYYDESTÄ*, CE-DECLARATION DE CONFORMITE, *EG-ÜBEREINSTIMMUNGSERKLÄRUNG*, DICHIARAZIONE DI CONFOMITÀ-CE, *EG-VERKLARING VAN OVEREENSTEMMING*, EC-DECLARACÃO DE CONFOMIDADE, *EC-DECLARACIÓN DE CONFORMIDAD*, EG-DECLARATION OM ÖVERENSSTÄMMELSE, ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ–ΕΚ

Model

Model, *Malli*, Modèle, *Modell*, Modello, *Modelo*, Modelo, *Modelo*, Model, Μοντέλο

VERDERAIR VA 25

Part No.

Part No., *Osanro*, Référence, *Talle-Nr.*, Parte Codice, *Part Nr.*, Peça No., *Referencia*, Part No., Αρ. Ανταλλακτικού

810.0073 to 810.0088
810.0220 to 810.0779 810.5599 to 810.5698
810.2680 to 810.3414 810.6975 to 810.6892
810.5460 to 810.5539 810.7009 to 810.7018

This Product Complies With The Following European Community Directives:

Dette produkt opfylder kravene i de følgende direktiver af det Europæiske Fællesskab, *Tämä tuote on yhtäpitävä ministerineuvoston allamainitun direktiivin vaatimusten kanssa*, Ce produit se conforme aux directives de la Communauté Européenne suivantes, *Dieses Produkt entspricht den nachstehend aufgeführten Richtlinien der Europäischen Union*, Questo prodotto si conforma ai seguenti direttivi della Comunità europea, *Dit produkt voldoet aan de volgende richtlijnen van de Europese Gemeenschap*, Este Produto Cumpre As Seguintes Directivas das Comunidades Europeias, *Este producto cumple con las directivas siguientes de la Comunidad Económica Europea*, Denna Product Överensstämmer Med Kraven Ministerrådets Direktiv Enligt Följande, Το Προϊόν Αυτό Έρει Κατασκευαστεί Σύμφωνα Με Τις Παρακάτω Κοινοτικές Οδηγίες:

98/37/EC Machinery Directive
94/9/EC ATEX Directive (EX II 2 G EEx c IIA T6)

The Following Standards Were Used To Verify Compliance With The Directives:

De følgende standarder blev anvendt som bekræftelse på at direktivernes bestemmelser overholdes, *Alkaolevaa standardia on käytetty vahvistamaan yhtäpitävyyttä direktiivin kanssa*, Les normes suivantes ont été appliquées pour vérifier que ce produit se conforme aux directives, *Die folgenden Normen garantieren die Übereinstimmung mit diesen Richtlinie*, Sono state usate le seguenti norme per verificare la conformità ai direttivi, *De overeenstemming met de richtlijnen werd gecontroleerd aan de hand van de volgende normen*, Para Verificar A Conformidade Com As Directivas Utilizaram-se As Seguintes Normas, *Las normas siguientes han sido utilizadas para verificar que el producto cumple con las directivas correspondientes*, Följande standard Har Använts För Att Bestyrka Överenstämmelse Med Direktiven, Ως Κριτήρια Τήρησης Των Οδηγιών χρησιμοποιήθηκαν Τα Παρακάτω Πρότυπα:

EN 292 EN 1127–1 EN 13463–1
ISO 9614–1

EC Notified Body:

EU Bemyndigede Organer, *Tiedon Antava Viranomainen*, Organisme Agréé, *EG Anerkanntes Organ*, Ente-CE notificato, *EG Aangemelde Instantie*, Organismo Reconhecido pela CE, *Organismo Certificado por la CE*, Underrättad EG Myndighet, Ενήμερο Κοινοτικό Όργανο

0359

Approved By:

Attesteret Ved, *Todistaa*, Approuvée Par, *Genehmigt Durch*, Approvato da, *Goedgekeurd Door*, Para Aprovação, *Aprobado por*, Intygas Av, *Εγκρίθηκε Από*

DIRECTOR (Signed)

Frank Meersman

DIRECTOR (Print)

Date

Dato, *Päiväys*, Data, *Datum*, Data, *Datum*, Data, *Jacha*, Datum, Ημερομηνία 19May2004

Date

Dato, *Päiväys*, Data, *Datum*, Data, *Datum*, Data, *Jacha*, Datum, Ημερομηνία 19May2004

Part No. : 819.5961

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ANNEX

IBExU Institut für Sicherheitstechnik GmbH
An-Institut der TU Bergakademie Freiberg

[1] **EC-TYPE EXAMINATION CERTIFICATE**
according to Directive 94/9/EC, Annex III
(Translation)

[2] Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres, **Directive 94/9/EC**

[3] EC-Type Examination Certificate Number: **IBExU04ATEX1248 X**

[4] Equipment: **SEDA – Drilling tool for Tank spot drilling equipment** in the designs REGULAR (Mod. 02030) and Heavy Duty (HD)

[5] Manufacturer: SEDA-Umwelttechnik GmbH

[6] Address: Schwendter Straße 10
A-6345 Kössen

[7] The design of the equipment mentioned under [4] and any acceptable variations thereto are specified in the schedule to this EC-Type Examination Certificate.

[8] IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 in accordance with article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The test results are recorded in the test report IB-04-3-271 dated 6 January 2005.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 1127-1:1997, EN 13463-1:2001 and EN 13463-5:2003.

[10] If the sign „X" is placed after the Certificate number, it indicates that the equipment is subject to special conditions for safe use specified under [17] in the schedule to this EC-Type Examination Certificate.

[11] This EC-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this directive apply to the manufacture and supply of this equipment.

[12] The marking of the equipment mentioned under [4] shall include the following:

Ex II 1/2G c IIA T3

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7 - 09599 Freiberg
Phone: +49 3731 3805-0 - Fax: +49 3731 23650

Authorised for certifications
-Explosion protection-

(Prof. Dr. Redeker)

- Seal -
(ID no. 0637)

Freiberg, 6 January 2005

Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Schedule

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[13] **Schedule**

[14] **to the EC-TYPE EXAMINATION CERTIFICATE IBExU04ATEX1248 X**

[15] **Description of equipment**

The SEDA-Drilling tools are independent equipment of the SEDA-tank spot drilling equipment and serve to spot drilling of fuel tanks installed in automobiles for tank discharging. The drilling tools are driven by an air-operated ratchet screw driver. "Plate skiving drill" is used for drilling. Outlet drainage which runs through the upper part of the drilling tool, at the point of the spot drilling is achieved using vacuum. The sealing among drilling tool and tank which is to be spot drilled is realised by an electrical grounded ("antistatic") bellow. This bellow is tensioned by a spring.

The SEDA-Drilling tools are designed in type REGULAR (Mod. 02030; maximum diameter of the skiving drilling tool is 12,5 mm) and in type Heavy Duty (HD, maximum diameter of the skiving drilling tool is 20 mm). REGULAR (Mod. 02030) is equipped with ratchet screw driver of type 1266 and Heavy Duty (HD) is equipped with ratchet screw driver of type 1260 (manufacturer of the ratchets: Steiner G.m.b.H.). The ratchet screw drivers are driven by compressed air.

The SEDA-Drilling tools are used for spot drilling of automobile tanks filled with petrol or diesel fuel. The fuels are classified in Temperature Class T3 and Explosion Group IIA.

The operating temperature range (ambient temperature range T_a) of the drilling tools is -20 °C up to + 40 °C.

Further details of the SEDA-Drilling tools are specified in the test documents which are part of test report IB-04-3-271.

[16] **Test report**

The proof of explosion protection is recorded in detail in the test report IB-04-3-271. The test documents are part of the test report and listed there.

Summary of the test results:

The SEDA-Drilling tools mentioned under [4] fulfil the requirements of non-electrical equipment of Equipment Group II
- Category 1G
  referring to the inner area (Zone 0) in direct contact with the fluid removed via vacuum

and
- Category 2G
  referring to the external equipment (Zone 1)

in type of protection „c" (protection by safe construction).

From the mentioned test results the Marking „II 1/2G c" is concluded.

The SEDA-Drilling tools mentioned under [4] fulfil - referring to the internal equipment as well as the external equipment - the requirements of the Temperature class T3 and the Explosion group IIA.

[17] **Special conditions for safe use**

The drill must not turn in the drill-hole longer than needed for the drilling procedure.

The cut edge sharpness and the tight seat of the skiving drill shall be daily checked. Drills with blurred or broken off cut edges must be changed. If needed the clamping screw (grub screw) must be tightened.

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The Drilling tool shall be connected to earth or shall be comprised in the compensation of potential (earth connection) of the equipment (SEDA-tank spot drilling equipment).

The torque of the ratchet screw driver which drives the drill must not exceed 170 Nm.

[18] **Essential Health and Safety Requirements**

Confirmed by compliance of standards (see [9]).

Freiberg, 6 January 2005

(Prof. Dr. Redeker)