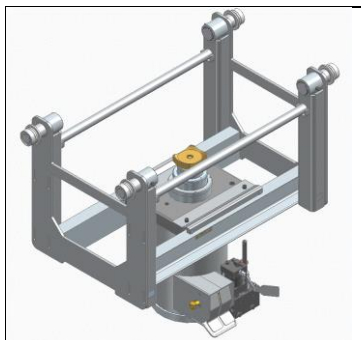
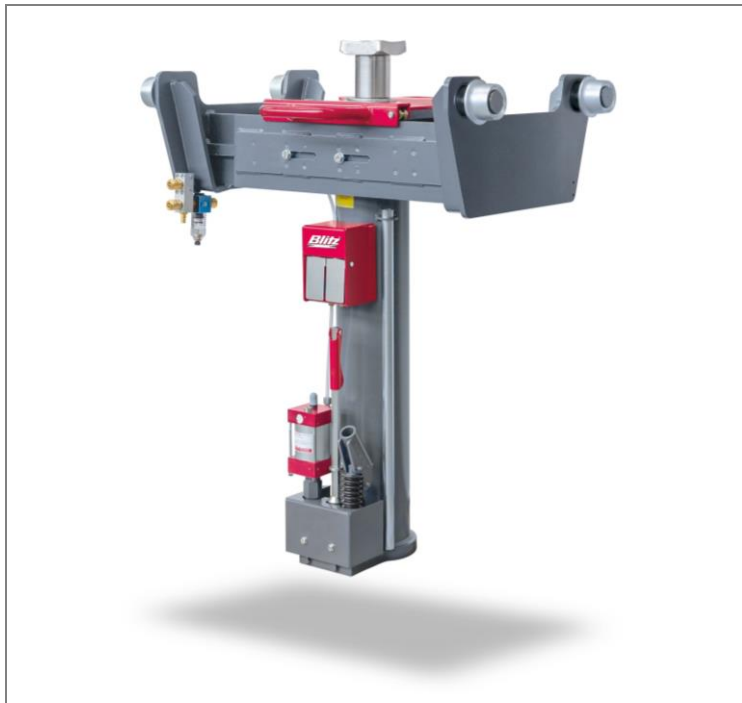


# Operating Instructions and Spare Parts List for Suspended Pit Jacks

Original Operating Instructions in German



**Series:**  
GHUSE / GHUSLE

**Series:**  
GWS 2 / GWUS 2

**Series:**  
GWSK 2 / GWSKT / GWSKTA

**Series:**  
GH / GHL – GHS / GHSL  
GHUS / GHUSL / GHUST  
GHSP / GHLP  
GHUSP / GHUSLP / GHUSTP

**Series:**  
GHUSKTP

**Series:**  
Blitz S 15 Vario

**Series:**  
GHUSTTP

Type

Serial number

Date

## Concerning these operating instructions

These operating instructions apply to several series with three different construction methods:

**H**

Hydraulic (-pneumatic) construction

**P**

Pneumatic construction

**E**

Electrohydraulic construction

- Pictures or text sections marked with the **symbols** shown above only apply to the jacks of the respective construction.
- **Position numbers [1]** in the operating instructions always refer to the pictures shown here and the component overview.
- **Cross-references (→)** must be taken into consideration.

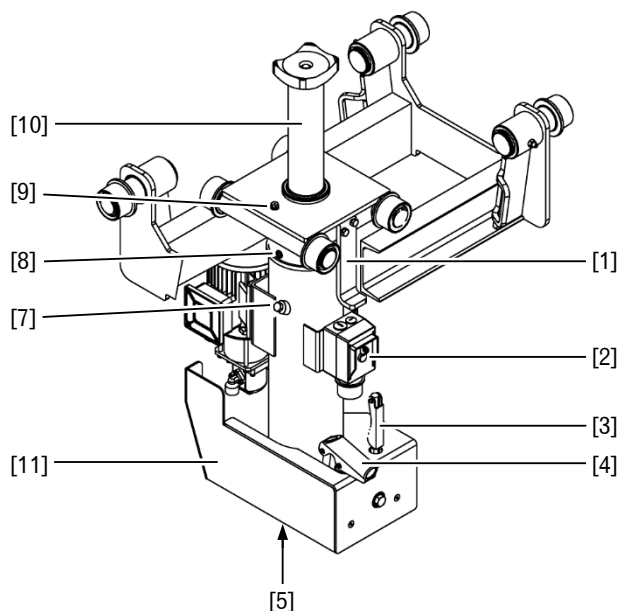
## Overview of the Series

The overview shows a variant of each series.

### Component overview for all series

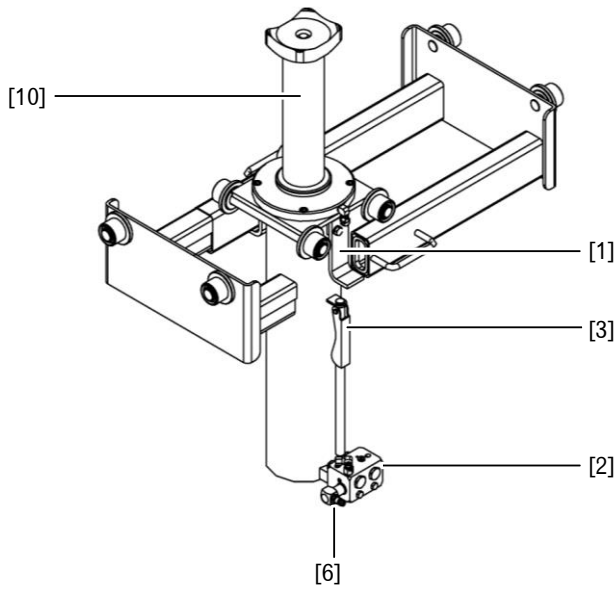
- [1] Tilt protection bar
- [2] Control elements
- [3] Drain valve
- [4] Manual pump
- [5] Oil drain plug load stroke
- [6] Compressed air supply
- [7] Oil dipstick load stroke
- [8] Oil drain plug retrieval
- [9] Oil dipstick retrieval
- [10] Piston rod
- [11] Cover

**E**



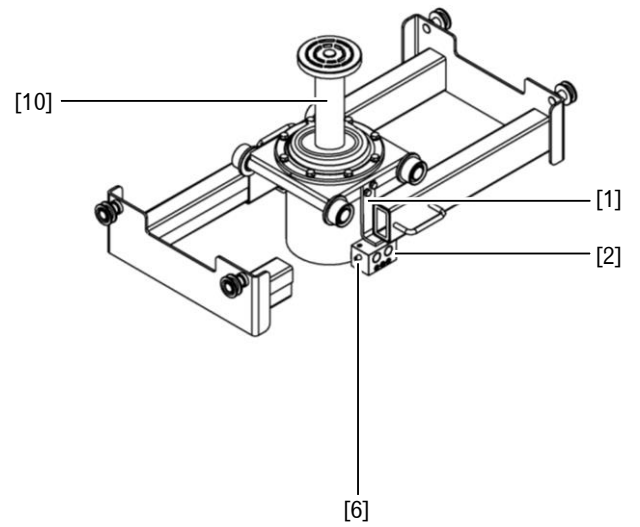
Series:  
**GHUSE/GHUSLE**

**P**



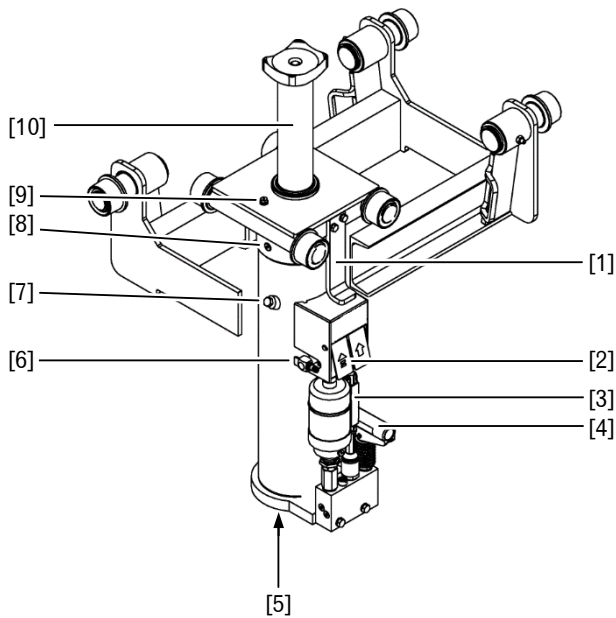
Series:  
GWS 2 • **GWUS 2**

**P**



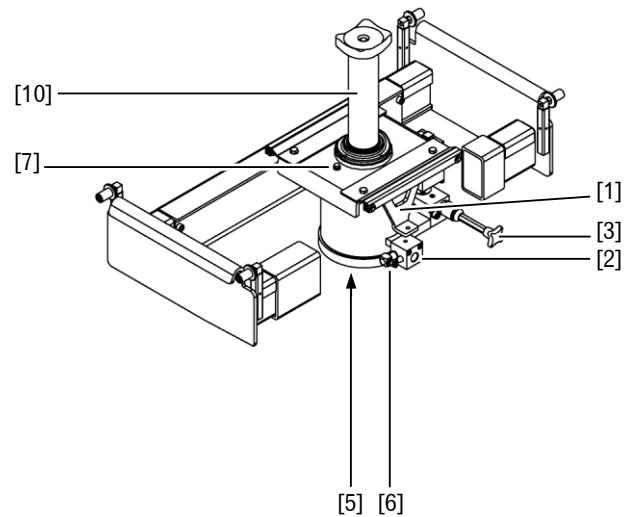
Series:  
GWSK 2 • **GWSKT** • GWSKTA

**H**

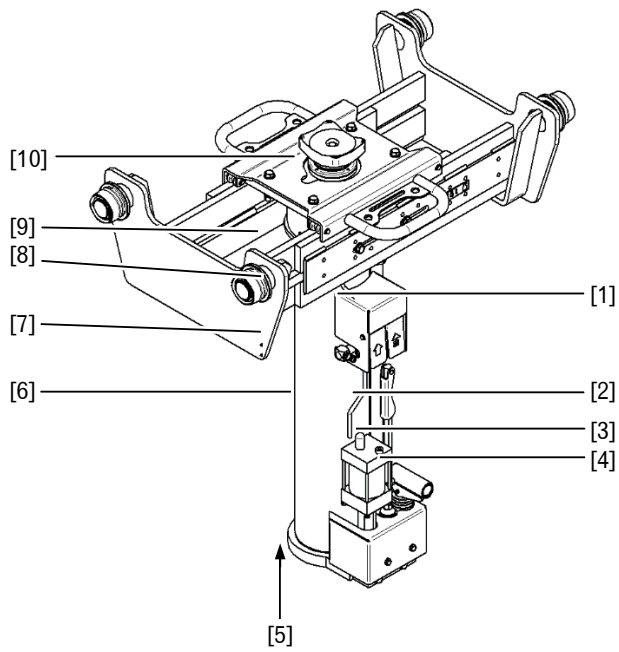


Series:  
GH/GHL • GHS/GHSL • GHUS/GHUSL/GHUST • GHSP/GHLP • **GHUSP**/GHUSLP/GHUSTP

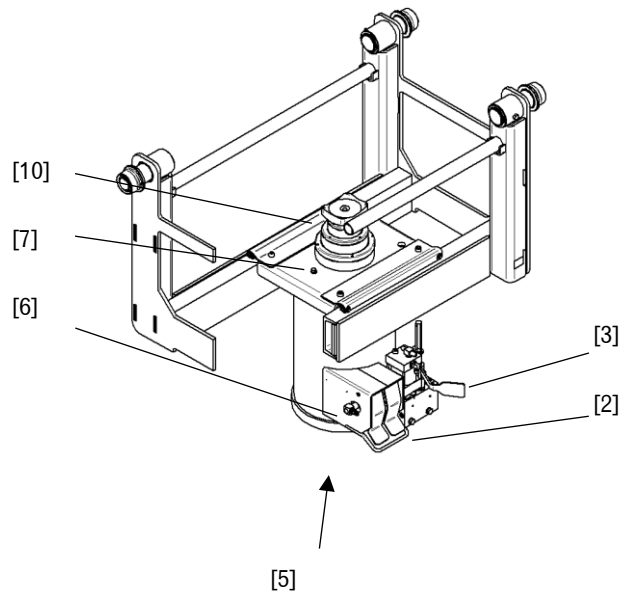
**H**



Series:  
**GHUSKTP**



Series:  
**Blitz S 15 Vario**



Series:  
**GHUSTTP**

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## 1 Basic Safety Instructions

### 1.1 Intended Use

The jack is intended exclusively for partially lifting vehicles and for transporting vehicle parts (engine, transmission). Any other use there of shall be considered as not intended use.

- ▶ Always secure lifted vehicles with supporting bridges/A-frames.

### 1.2 Basic Measures

- ▶ The lift may be used only by workshop personnel with corresponding training.
- ▶ Work on electric, hydraulic, and pneumatic systems may be performed only by specialists.
- ▶ Observe the operating instructions.
- ▶ Always keep the operating instructions available at the place of use.
- ▶ Observe all safety and danger notes on the lift and keep them legible.
- ▶ The workshop operator must insure that all safety regulations are observed by the workshop personnel.
- ▶ Technological modifications of the lift are not permitted.
- ▶ The operating instructions are a part of the product and must be handed over to a succeeding user.
- ▶ Observe the maintenance intervals.

### 1.3 Safety-relevant Components

#### **H E**

- Hydraulic pressure limiting valve
- Hydraulic lowering brake valve
- Tilt protections [1] on the lifting cylinder
- Pull-out safety devices at the undercarriage (→ 4.2, Positions A)

#### **P**

- Pressure limiting valve
- Throttle valve
- Tilt protections [1] on the lifting cylinder
- Pull-out safety device at the undercarriage (→ 4.2, Positions A)

### 1.4 Explanation of Notes



---

#### **DANGER**

##### **Risk of death and severe injury**

- ▶ Measures
- 



---

#### **WARNING**

##### **Risk of injury and material damage**

- ▶ Measures
- 



---

#### **CAUTION**

##### **Property damage**

- ▶ Measures
- 

## 2 Storage

Store the jack in a dry place protected from the weather at an ambient temperature of -10 °C to +50 °C. Contact the manufacturer if storing for more than 6 months.

### 3 Technical Data

<b>HE</b>		GH/GHL, GHS/GHSL, GHUS/GHUSL/GHUST, GHSP/GHLP, GHUSP/GHUSLP/SHUSTP GHUSE/GHUSLE							Blitz S 15 VarioFit
<b>Load capacity</b>	t	4	6	10	15	16	20	30	15
<b>Operating pressure pneumatically</b>	bar	10	10	10	10	10	10	10	10
<b>Operating pressure hydraulically</b>	bar	80	120	199	235	130	163	245	235
<b>Oil capacity container 1</b>	l	5	5	5	5	12	12	12	6.1
<b>Oil capacity container 2</b>	L	1.2	1.2	1.2	1.3	2.1	2.1	2.1	1.6
<b>Lifting height (L models)</b>	mm	600 (800)							
<b>Max lowering speed at rated load</b>	m/s	0.15							

<b>P</b>		GWS 2 GWUS 2	GWSKT		GWSKTA	
<b>Load capacity</b>	t	2	3/2.5	4/3.5	2/1.5	3/2.5
<b>Operating pressure pneumatically</b>	bar	12	10	14	8	10
<b>Lifting height</b>	mm	500	420	420	285	345
<b>Max lowering speed at rated load</b>	m/s	0.15	0.15			

<b>H</b>		GHUSKTP					GHUSTTP
<b>Load capacity</b>	t	4/4	6/6	10/10	12/12	14/14	15/15/15
<b>Operating pressure pneumatically</b>	bar	10	10	10	10	10	10
<b>Operating pressure hydraulically</b>	bar	70	105	175	210	245	298
<b>Oil capacity container</b>	l	4,1	4,1	4,1	4,1	4,1	20
<b>Lifting height</b>	mm	330					1300
<b>Max lowering speed at rated load</b>	m/s	0,15					150

## 4 Transport, Installation and Assembly



### DANGER

#### Risk of death and severe injury from improper transport

- ▶ Always transport the lift table with suitable hoisting and transport devices (e.g. forklift or crane).
- ▶ Never stay under suspended loads.

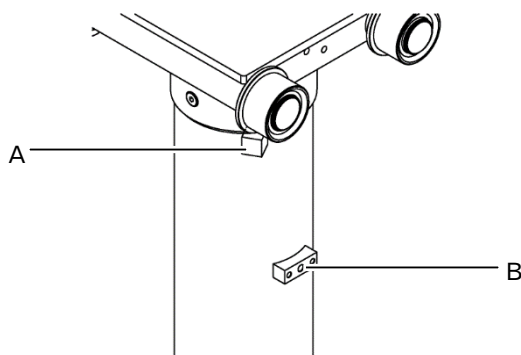
### Safety notes

- ▶ Hoist the jack at viable spots only.
- ▶ Move the lifting cylinder horizontally and with the operating elements at the top.
- ▶ Secure moving and loose parts.

### 4.1 Make the Lifting Cylinder ready for Operation

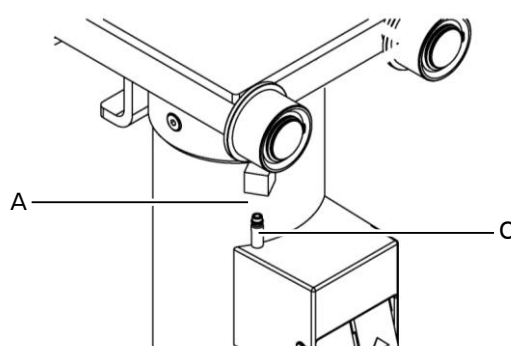
- ▶ Note variants of the hydraulic construction.

#### **H** Without operating elements



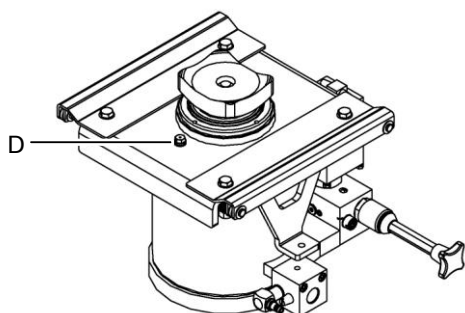
- ▶ Remove cap A.  
In addition, replace cap B with the supplied ventilation screw.

#### **H** With operating elements



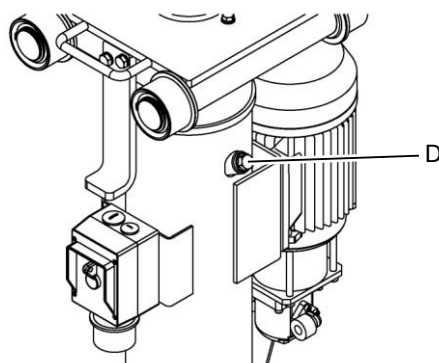
- ▶ Remove cap A.  
▶ For jacks with retrieval, connect hose C.

#### **H**



- ▶ Replace cap D with the supplied ventilation screw.

#### **E**





## 4.2 Install and assemble Jack



### WARNING

#### Risk of injury and material damage by crashing jacks

- ▶ Install jack only on level and solid ground, which has the necessary load-bearing capacity.
- ▶ Use jack only on load-bearing and parallel rails.

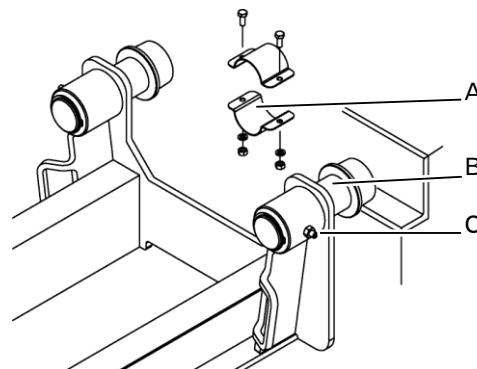
### Safety notes

- ▶ Use jack only with castors that fit the rails.
- ▶ Only use the jack in the workshop pit or lift for which it was made.
- ▶ If the distance between the rails of vehicle lifts (e.g. scissor lifts) changes due to alternating load, additional fuses need to be requested from the manufacturer.

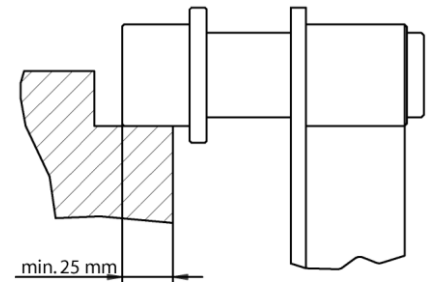
### There are five types of undercarriages:

- Undercarriages with sliding axles (adjustable)
- Undercarriages with telescopic carriers (adjustable)
- Single-piece undercarriages (rigid)
- Two-piece undercarriages (rigid)
- Transverse and height-adjustable undercarriages

#### Undercarriages with sliding axles



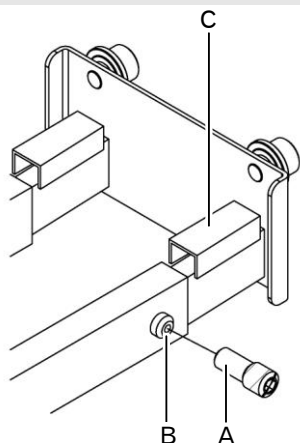
#### Standard castors



- ▶ Insert undercarriage in rails.
- ▶ Pull out sliding axes B evenly and set the track width.
- ▶ Tighten set threaded pins C.
- ▶ Check the secure support of the castors (standard castors min. 25 mm) over the entire length of the rails.
- ▶ Adjust enclosed clamping collars A and attach externally to sliding axes B.
- ▶ Dismantle the tilt protection bracket [1] on the lifting cylinder, insert the lifting cylinder into the undercarriage and replace the tilt protection bracket on both sides.

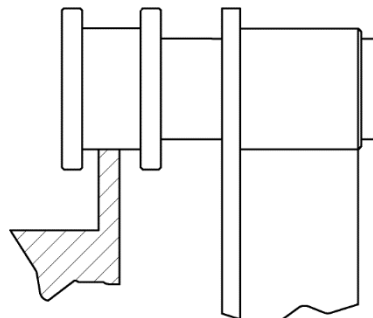


### Undercarriages with telescopic carriers

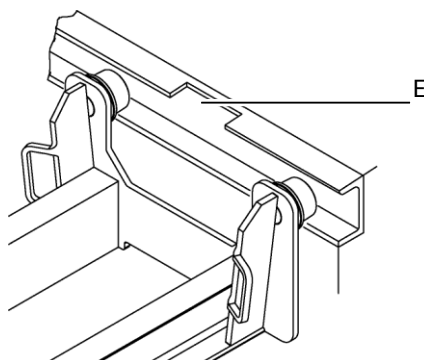


- ▶ Insert undercarriage in rails and set track width.
- ▶ Remove threaded pins A and drill hole B to 8 mm.
- ▶ Install threaded pins A with thread outwards and tighten.
- ▶ Check the secure support of the castors (standard castors min. 25 mm) over the entire length of the rails.
- ▶ Adjust and place U profiles C.
- ▶ Dismantle the tilt protection bracket [1] on the lifting cylinder, insert the lifting cylinder into the undercarriage and replace the tilt protection bracket on both sides.

### Special castors

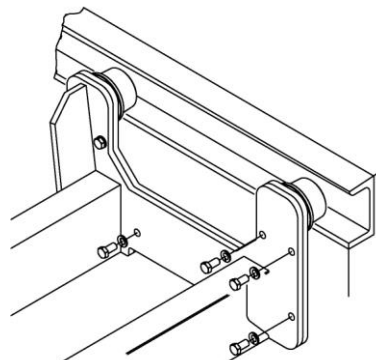


### Single-piece undercarriages



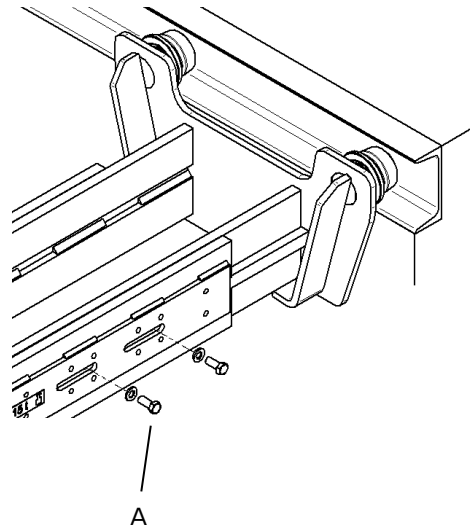
- ▶ Insert undercarriage via installation opening E into rails.
- ▶ Check the secure support of the castors (standard castors min. 25 mm) over the entire length of the rails.
- ▶ Dismantle the tilt protection bracket [1] on the lifting cylinder, insert the lifting cylinder into the undercarriage and replace the tilt protection bracket on both sides.

### Two-piece undercarriages



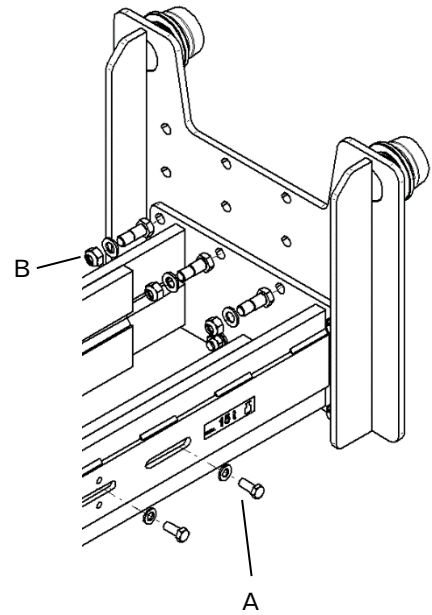
- ▶ Insert undercarriage components in rails and firmly connect with enclosed screws.
- ▶ Check the secure support of the castors (standard castors min. 25 mm) over the entire length of the rails.
- ▶ Dismantle the tilt protection bracket [1] on the lifting cylinder, insert the lifting cylinder into the undercarriage and replace the tilt protection bracket on both sides.

**Transversely adjustable undercarriage**



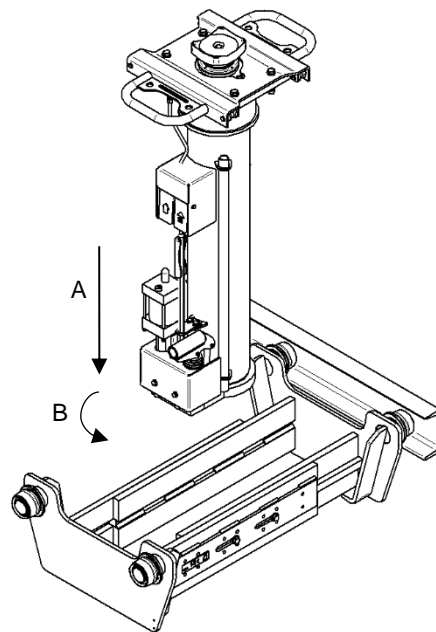
- ▶ Insert undercarriage in rails and set track width.
- ▶ Check the secure support of the castors (standard castors min. 25 mm) over the entire length of the rails.
- ▶ Secure the undercarriage width with screws A (2 pcs. per side) to 30 Nm.

**Transverse and height-adjustable undercarriage**



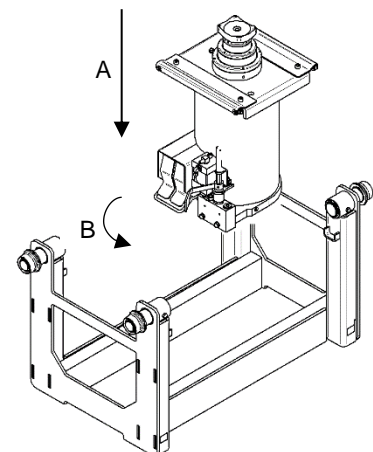
- ▶ Screw side plates to desired height on the undercarriage.
- ▶ Tighten all screws B with a torque wrench to 80 Nm.
- ▶ Insert undercarriage in rails and set track width.
- ▶ Check the secure support of the castors over the entire length of the rails.
- ▶ Secure the undercarriage width with screws A (2 pcs. per side) to 30 Nm.

**Transversely adjustable undercarriage**



- ▶ Lift the jack into the undercarriage and lower it (A) until the operating element [2] is just below the guide rails
- ▶ Turn the jack 90° (B)
- ▶ Set jack down on the undercarriage

**carriage GHUSTTP**



### 4.3 Compressed Air Supply



The compressed air supply must be provided via a maintenance unit consisting of water separator and pressure reducer. Attach the maintenance unit directly to the jack.

- Supply pressure: max. 10 bar

### 4.4 Electrical Connection



#### WARNING

#### Risk of injury and material damage due to electric shock

- ▶ The electrical connection and the protective measures in force in the country are to be installed and checked by a specialist.

The electrical connection must consist of a cable with a five-pin CEE coupling 16 A, which is connected to a 400V/50Hz mains. A motor-protective circuit-breaker of 3.8 A must be present. The manufacturer recommends a suitable cable suspension.

## 5 Commissioning

Before first operation:

- ▶ Connect compressed air supply or electrical connection to the jack.
- ▶ Check the hydraulic oil level. (→ 7.5)
- ▶ Perform the safety test. (→ 7.6)

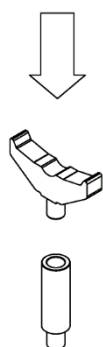
## 6 Operation

### 6.1 Load Handling Device

#### Safety notes

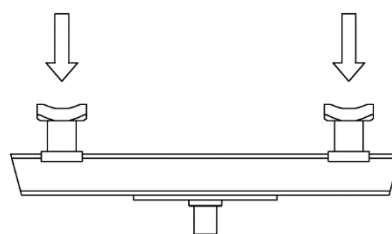
- ▶ Do not stack extensions.
- ▶ Always use the manufacturer's original load handling devices with suitable spigots.

#### Support plate and extension



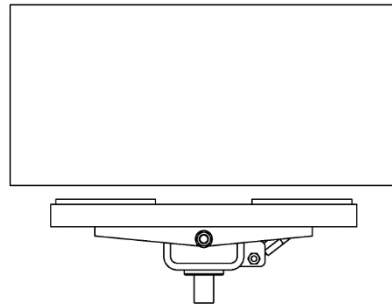
Lift vehicles at one point.

#### Traverse



Carefully lift vehicles at two points.

**Transmission plate**



Remove, install and transport vehicle parts safely.

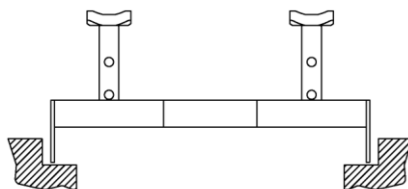
For poorly accessible load application points on the vehicle use special support plates and an extension, if necessary. For more information on all load handling devices, contact the manufacturer.

**6.2 Supporting Bridges and Trestles**

**Safety notes**

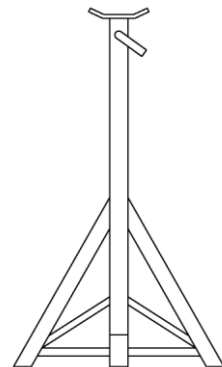
- ▶ Ensure the secure support of the supporting bridges/trestles over the entire length of the workshop pit or workshop floors.

**Supporting bridge**



For use in workshop pits.

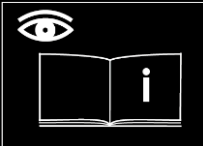
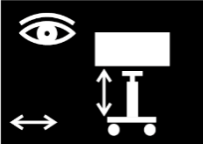
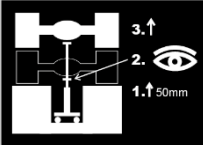
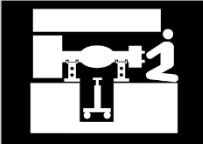




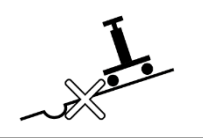
**Trestle**



For use on workshop floors, e.g. under lifts.

For more information on all load handling devices, contact the manufacturer.

### 6.3 Hazard Statements

	<p><b>CAUTION</b></p> <p>Observe the operating instructions.</p>
	<p><b>DANGER</b></p> <p>Operate the lift only when there is no risk for persons. Always observe lifting and lowering movements. Use the lift only in a safety-technologically correct condition.</p>
	<p><b>DANGER</b></p> <p>The safe vehicle support should always be checked after briefly lifting it. Always use suitable load handling devices. Attach load handling devices only to horizontal, level and load-bearing Load application points, which are specified by the vehicle manufacturer.</p>
	<p><b>DANGER</b></p> <p>Always secure lifted vehicles with supporting bridges/A-frames.</p>
	<p><b>DANGER</b></p> <p>Do not exceed the max. load-bearing capacity of the lift. Secure the vehicle part with chains or belts. Transport vehicle parts only in lowered condition.</p>
	<p><b>CAUTION</b></p> <p>The lift may be used only by workshop personnel with corresponding training.</p>
	<p><b>CAUTION</b></p> <p>Lifting of persons and climbing onto the lift and the load are not permitted.</p>
	<p><b>CAUTION</b></p> <p>Never stay under suspended loads.</p>
	<p><b>CAUTION</b></p> <p>Use jack only on level and firm ground.</p>

## 6.4 Lift, lower and transport Loads



### DANGER

#### Risk of death and severe injury due to lifted vehicles

- ▶ Always secure lifted vehicles with supporting bridges/A-frames.
- ▶ Always use suitable load handling devices.
- ▶ Apply load handling devices only to horizontal, level and load-bearing load application points specified by the vehicle manufacturer.
- ▶ Operate the lift only when there is no risk for persons.
- ▶ Do not exceed the maximum load capacity of the jack, load handling devices and supporting bridges/trestles.
- ▶ Load the jack and the load handling device only centered by always having the center of gravity of the load in the middle.

### Safety notes

- ▶ Climbing onto the jack or load is not permitted.
- ▶ Always keep the movement range of the jack free.
- ▶ Keep the movement range of the load and the load handling device free.
- ▶ Only drive on the pit when jack is completely retracted
- ▶ The complete lifting of vehicles with one or more jacks is not allowed.
- ▶ Perform lifting and lowering movements evenly. Watch the load.
- ▶ Only operate jack in a perfectly safe condition.
- ▶ In case of a malfunction, stop the lift immediately and secure it. Have any faults repaired immediately.
- ▶ Do not operate the jack with compressed air that contains condensates or debris.
- ▶ Cover the piston rod with strongly adhering underbody protective agents or paints when working.
- ▶ Keep the piston rod and spigots of the load handling device free of sand and dirt.
- ▶ Disconnect jack from the compressed air supply after finalizing the work or before longer breaks.
- ▶ Remove detachable pump rods after each operation.



### CAUTION

#### Damage to jacks and vehicles due to load handling devices and extended piston rods

- ▶ When entering and leaving workshop pits and lifting platforms, piston rods must always be completely retracted.
- ▶ There must be sufficient clearance between the load handling device and the vehicle.

#### Considerable longitudinal forces may occur when lifting vehicle axles

- ▶ Release the vehicle's parking brake and put the vehicle in neutral so that the standing wheels can follow.

### Lifting vehicles

- ▶ Use the jack to slightly lift the vehicle at the load application point.
- ▶ Check that the vehicle is securely supported and sits firmly.
- ▶ Lift vehicle to the desired height.
- ▶ Secure vehicle against rolling away, e.g. with wheel chocks.
- ▶ Secure vehicle with supporting bridges/trestles.

### Lowering vehicles

- ▶ Remove roll-away prevention on the vehicle.
- ▶ Slightly lift vehicle with the jack and remove the supporting bridges/trestles.
- ▶ Lower the vehicle slowly.
- ▶ Retract the piston rod [10] completely and make sure that the support plate is on the piston rod.

### Transport of vehicle parts

- ▶ Position the vehicle part centered on a jack with a suitable gear plate.
- ▶ Secure the vehicle part with chains or belts.
- ▶ Retract piston rod [10] completely and transport the vehicle part.

## 7 Maintenance and Repair



### WARNING

#### Risk of injury and material damage

- ▶ Perform maintenance and repair of the lift always without a load.

#### Safety notes

- ▶ Maintenance and repair work on the jack may be performed only by specialists.
- ▶ Disconnect the jack from the compressed air supply or from the electrical mains before carrying out any maintenance and repair work.
- ▶ After maintenance and repair work on the hydraulic system, the system must be vented.
- ▶ Always retighten screwed connections loosened during maintenance and repair work.
- ▶ Do not clean the jack with a high-pressure or steam jet.
- ▶ As there is a high risk of slipping on an oily workshop floor, always catch oil in a suitable container and dispose of it correctly.
- ▶ When handling oil, grease, and chemical substances, the safety regulations for the product must be observed.
- ▶ Do not use aggressive cleaning agents to clean the lift.
- ▶ Use only original spare parts of the manufacturer (→ 11) and approved supplies (→ 7.7).
- ▶ Pay attention to safe and environment-friendly disposal of lubricants and auxiliary materials (e.g. hydraulic oil) and replaced parts.

### 7.1 Maintenance Intervals

Lifts in continuous operation or in especially contaminated surroundings shall be serviced more frequently.

#### Weekly

- ▶ Perform function test. (→ 7.2)
- ▶ Check compressed air supply. (→ 7.3)
- ▶ Top up anti-rust oil. (→ 7.4)
- ▶ Check the hydraulic oil level. (→ 7.5)
- ▶ Check connection cables/hoses for damage and abrasion.
- ▶ Lubricate castors.
- ▶ Clean the jack and apply rust preventives.

#### Annually

- ▶ Perform the safety test. (→ 7.6)
- ▶ Change the hydraulic oil. (→ 7.7)
- ▶ Clean and grease the bearings of all castors.
- ▶ Check track width of the transversely adjustable undercarriage (→ 4.2)
- ▶ Check screw connections of the undercarriage and tighten, if necessary (→ 4.2)

#### Every 5 years

- ▶ Replace hydraulic hoses. (→ 7.8)

### 7.2 Perform Function Test

- ▶ Test the full functionality of the jack without load.
- ▶ Test the full functionality of the jack with load.
- ▶ In case of a malfunction, stop the lift immediately and secure it. Have any faults repaired immediately, and insure problem-free operation.

### 7.3 Check Compressed Air Supply

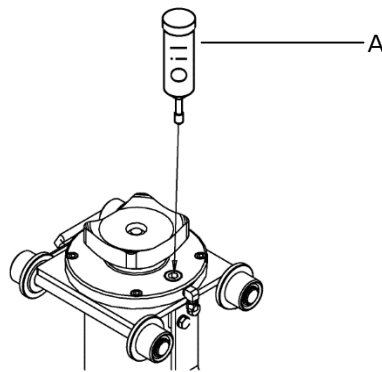


- ▶ Check and maintain the filter and water separator according to the manufacturer's instructions.
- ▶ Check supply pressure. (→ 0)



## 7.4 Top up Anti-Rust Oil

**P**



- ▶ Refill anti-rust oil (→ 7.7) by using an oil pump A and grease nipple.

## 7.5 Check the Hydraulic Oil Level

**HE**

### Hydraulic oil level load stroke

- ▶ Retract piston rod [10] completely.
- ▶ Unscrew the oil dip stick [7] and check the hydraulic oil level. Fill in new hydraulic oil up to the mark. If oil level is too high, drain the condensate. (→ 7.9)
- ▶ Replace the dip stick.

### Hydraulic oil level retrieval

- ▶ Extend piston rod [10] completely.
- ▶ Unscrew oil dip stick retrieval [9] and check hydraulic oil level. Fill in new hydraulic oil up to the mark.
- ▶ Replace the dip stick.

## 7.6 Perform Safety Test

The safety test must be performed by a specialist:

- Prior to initial commissioning
- Periodically after initial commissioning (at the latest yearly)
- After a change of the place of installation
- After repair work and changes in the construction

The following items must be checked on the lift:

- Quick reference guide
  - Nameplate
  - Marking on the lift
  - Correct installation of the undercarriage
  - Tilt protections on the lifting cylinder
  - Pull-out safety devices at the undercarriage
  - Condition of the load-carrying devices and the operating elements
  - Condition of the support construction and the welding seams
  - Leak-tightness of the hydraulic system
  - Hydraulic oil level
  - Connection cables/hoses
- ▶ Perform function test
  - ▶ Enter the result into a test record.

## 7.7 Changing the Hydraulic Oil

### HE

An oil change requires:

- Collection receptacle for the hydraulic oil
- Hydraulic oil, class HLP, viscosity ISO-VG 22 (HLP 22).
- Information concerning the oil quantity. (→ 3)
- New sealing rings. (→ 11)

#### Hydraulic oil load stroke

- ▶ Retract piston rod [10] completely.
- ▶ Disconnect the jack from the compressed air supply or from the electrical mains.
- ▶ Remove oil drain plug of load stroke [5] and drain the hydraulic oil.
- ▶ Reinstall the oil drain plug with a new O-ring.
- ▶ Remove oil dip stick of load stroke [7] and fill in new hydraulic oil up to the mark.
- ▶ Reinstall the dip stick with a new O-ring.

#### Hydraulic oil retrieval

- ▶ Extend piston rod [10] completely.
  - ▶ Disconnect the jack from the compressed air supply or from the electrical mains.
  - ▶ Remove oil drain plug retrieval [8] and drain hydraulic oil.
  - ▶ Reinstall the oil drain plug.
  - ▶ Remove oil dip stick retrieval [9] and fill in new hydraulic oil up to the mark.
  - ▶ Reinstall the dip stick with a new O-ring.
- ▶ Bleed the jack after changing the oil. (→ 7.10)

## 7.8 Replace Hydraulic Hoses

### E

- ▶ Retract piston rod [10] completely.
- ▶ Disconnect the jack from electrical mains.
- ▶ Remove ventilation screw and attach the closure D. (→ 4.1)
- ▶ Remove tilt protection bracket [1], remove lifting cylinder and lay horizontally.
- ▶ Remove cover [11] and disconnect hydraulic hoses.
- ▶ Install new hydraulic hoses. (→11)
- ▶ Insert lifting cylinder into the undercarriage and replace the tilt protection brackets on both sides.
- ▶ Remove closure D and check the hydraulic oil level of the load stroke. (→ 7.5)
- ▶ Reinstall ventilation screw and bleed jack. (→ 7.10)

## 7.9 Drain the Condensate

### H

Condensate (water) may enter the hydraulic system with compressed air. The oil level rises and oil may escape at the control.

Required to drain the condensate:

- Collection receptacle for the hydraulic oil
- ▶ Remove oil drain plug of load stroke [5] until an oil-water mixture emerges.
  - ▶ As soon as pure hydraulic oil emerges, reinstall the oil drain plug.
  - ▶ Check hydraulic oil level of load stroke. (→ 7.5)

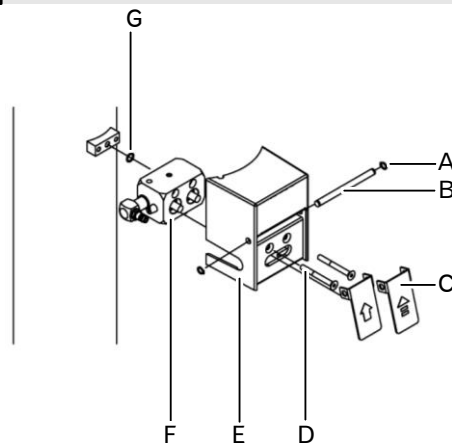
## 7.10 Bleed the Jack

### HE

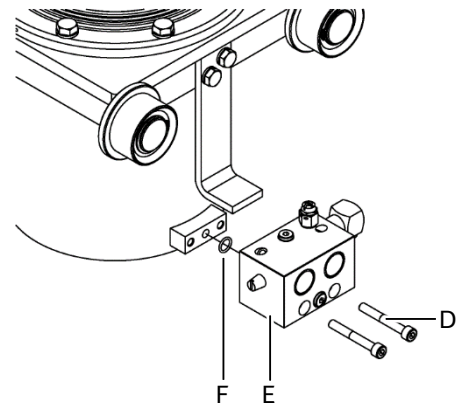
- ▶ Press manual pump [4] approx. 5 to 10 times and at the same time actuate drain valve [3].
- ▶ Extend and retract piston rod [10] completely.
- ▶ Repeat the process as needed.

## 7.11 Clean or replace the Pneumatic Control Valve

**H**



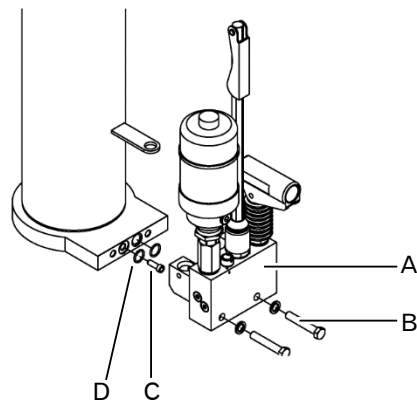
**P**



- ▶ Disconnect jack from compressed air supply.
- ▶ Release spring washers A, pull out axle B and remove operating elements C.
- ▶ Remove screws D and remove cover E as well as control valve F towards the front.
- ▶ Replace O-ring G, install new control valve (→11) and reattach via screws D.
- ▶ Insert operating elements C and axis B and secure with spring washer A.

## 7.12 Replace Hydraulic Block

**H**



- ▶ Disconnect jack from compressed air supply.
- ▶ Remove tilt protection bracket [1], remove lifting cylinder and lay horizontally.
- ▶ Remove compressed air lines from the air motor.
- ▶ Remove screws B and remove hydraulic block A towards the front.
- ▶ Remove, clean and replace sieve C.
- ▶ Replace O-rings D.
- ▶ Fit new hydraulic block and reattach with screws D.
- ▶ Reinstall compressed air lines.
- ▶ Insert lifting cylinder into the undercarriage and replace the tilt protection brackets on both sides.
- ▶ Check hydraulic oil level of load stroke. (→ 7.5)
- ▶ Bleed the jack. (→ 7.10)

## 8 Troubleshooting

The following lists possible problems that may occur. If an undefined malfunction occurs, contact customer service.

### HE

Problem	Cause	Troubleshooting
Piston rod [10] gives in under load.	<ul style="list-style-type: none"> <li>• Cylinder tube corroded, piston boots worn or ball valves leaking.</li> <li>• Hydraulic oil contaminated.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Request customer service.</li> <li>▶ Change the hydraulic oil. (→ 7.7)</li> </ul>
Hydraulic oil emerges at the piston rod [10].	<ul style="list-style-type: none"> <li>• Damage to the piston rod has destroyed the seal.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Request customer service.</li> </ul>
Hydraulic oil emerges at the pneumatic control valve.	<ul style="list-style-type: none"> <li>• Condensate in the hydraulic oil.</li> <li>• Piston boot on lift cylinder leaking.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Check hydraulic oil level (→ 7.5) and drain condensate, if necessary. (→ 7.9)</li> <li>▶ Request customer service.</li> </ul>
Control elements [2] do not return to the initial position.	<ul style="list-style-type: none"> <li>• Contamination.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Clean or replace pneumatic control valve. (→ 7.11)</li> </ul>
Air emerges at the pneumatic control valve.	<ul style="list-style-type: none"> <li>• Contamination, damage or defective seal.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Clean or replace pneumatic control valve. (→ 7.11)</li> </ul>

### P

Problem	Cause	Troubleshooting
Jack does not provide full lifting force.	<ul style="list-style-type: none"> <li>• Supply pressure too low.</li> <li>• Load not centered.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Check supply pressure. (→ 0)</li> <li>▶ Position load centered.</li> </ul>
Piston rod [10] gives in under load.	<ul style="list-style-type: none"> <li>• Cylinder tube corroded, piston boots worn or pneumatic control valve leaking.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Request customer service.</li> </ul>
Piston rod [10] moves up or down by itself.	<ul style="list-style-type: none"> <li>• Pneumatic control valve leaking.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Replace pneumatic control valve. (→ 7.11)</li> </ul>
Control elements [2] do not return to the initial position.	<ul style="list-style-type: none"> <li>• Contamination.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Clean or replace pneumatic control valve. (→ 7.11)</li> </ul>
Air emerges at the pneumatic control valve.	<ul style="list-style-type: none"> <li>• Contamination, damage or defective seal.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Clean or replace pneumatic control valve. (→ 7.11)</li> </ul>

## 9 Decommissioning and Disposal

- ▶ Drain hydraulic oil. (→ 7.7)
- ▶ Disassemble the jack. (→4.2)
- ▶ Correctly dispose of hydraulic oil and lift.

## 10 EC - Declaration of Conformity

We hereby declare that the equipment designated below, due to its design and construction, as well as the version put on the market by us, conforms to the basic safety and health requirements of the EC Machinery Directive 2006/42/EC.

<b>Product Designation</b>	<b>Suspended pit jacks</b>
<b>Serial number</b>	see nameplate
<b>Year of construction</b>	see nameplate
<b>Relevant EC Directives</b>	EC Machinery Directive (2006/42/EC)
<b>Applied harmonized standards</b>	DIN EN 1494:2009-05 DIN EN 60204-1:2014-10 DIN EN ISO 12100:2011-03 DIN EN 349:2008-09
<b>Other applied technological standards / specifications</b>	DGUV rule 100-500 DGUV V3

### Representative for compilation of the relevant technical documents

BlitzRotary GmbH, Hüfänger Straße 55, 78199 Bräunlingen

Location: Bräunlingen

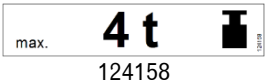
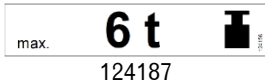
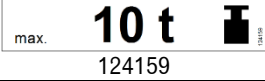
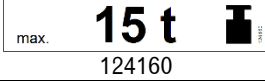
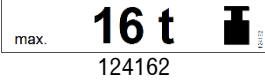
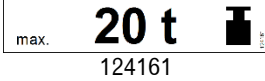
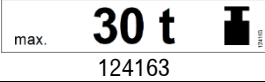
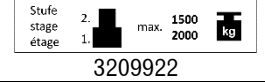
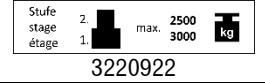
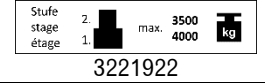

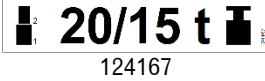

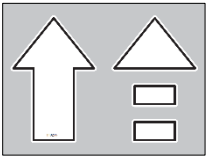
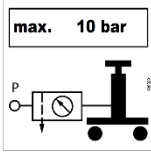
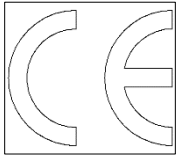
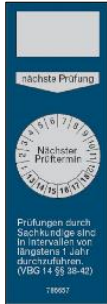
Date: 06/05/2021

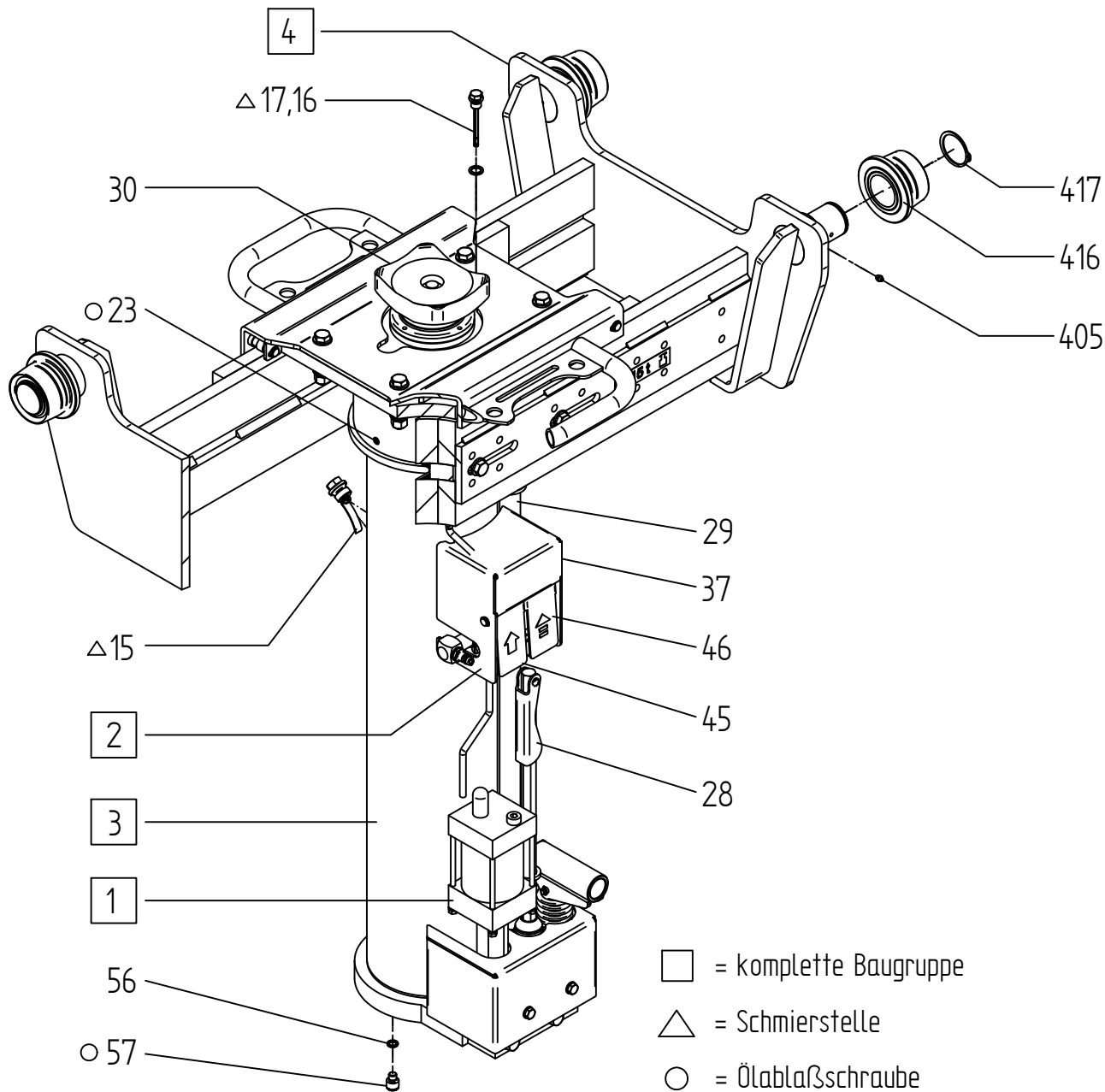


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Doris Wochner-McVey

Managing director

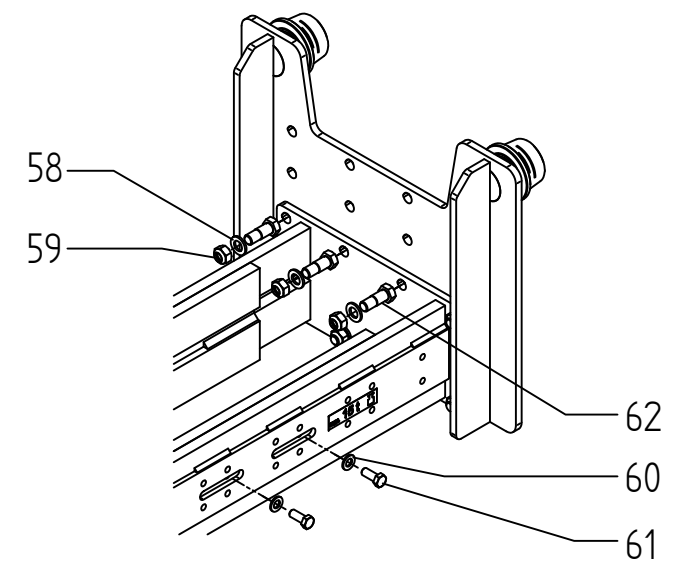
## 11 Spare Parts Lists

Adhesive labels	
	
	
	
	
	
	
<p><b>Wichtig!</b> <b>Important!</b> <b>Important!</b></p> <ul style="list-style-type: none"> <li>• Kondensat in der Druckluftleitung zerstört den Heber.</li> <li>• Installieren Sie deshalb vor dem Heber einen Wasserabscheider.</li> <li>• Warten Sie diesen regelmäßig.</li> <li>• Condensate in the air line destroys the lift.</li> <li>• Therefore a water separator should be installed before the lift.</li> <li>• This must be serviced regularly.</li> <li>• Condensé dans la ligne d'air détruit le vérin.</li> <li>• A cause de ça un séparateur d'eau doit être installé avant le vérin.</li> <li>• Il faut le servir régulièrement.</li> </ul> <p>860930</p>	<p><b>Achtung!</b> <b>Attention!</b> <b>Attention!</b></p> <p>Heber funktioniert nur, wenn vor Inbetriebnahme Verschlusschraube gegen beiliegenden Entlüftungstopfen getauscht wird.</p> <p>Lift only works when prior to initial use the locking screw is replaced by the enclosed desiring plug.</p> <p>Le vérin fonctionne seulement si avant la première mise en marche la vis de fermeture est remplacée par le bouchon de dégagement d'air.</p> <p>3240923</p>
<p><b>Achtung!</b> <b>Attention!</b> <b>Attention!</b></p> <p>Überwurfmutter entfernen und Luftleitung anschließen. Andernfalls keine Funktion des Hebers.</p> <p>Remove screwed cap and connect with air line. Otherwise the lift will not function.</p> <p>Enlever écrou à chapeau et connecter au ligne d'air. Autrement pas de fonction du vérin.</p> <p>3320923</p>	 <p>118790</p>
 <p>118255</p>	 <p>126690</p>
 <p>708649</p>	 <p>786657</p>

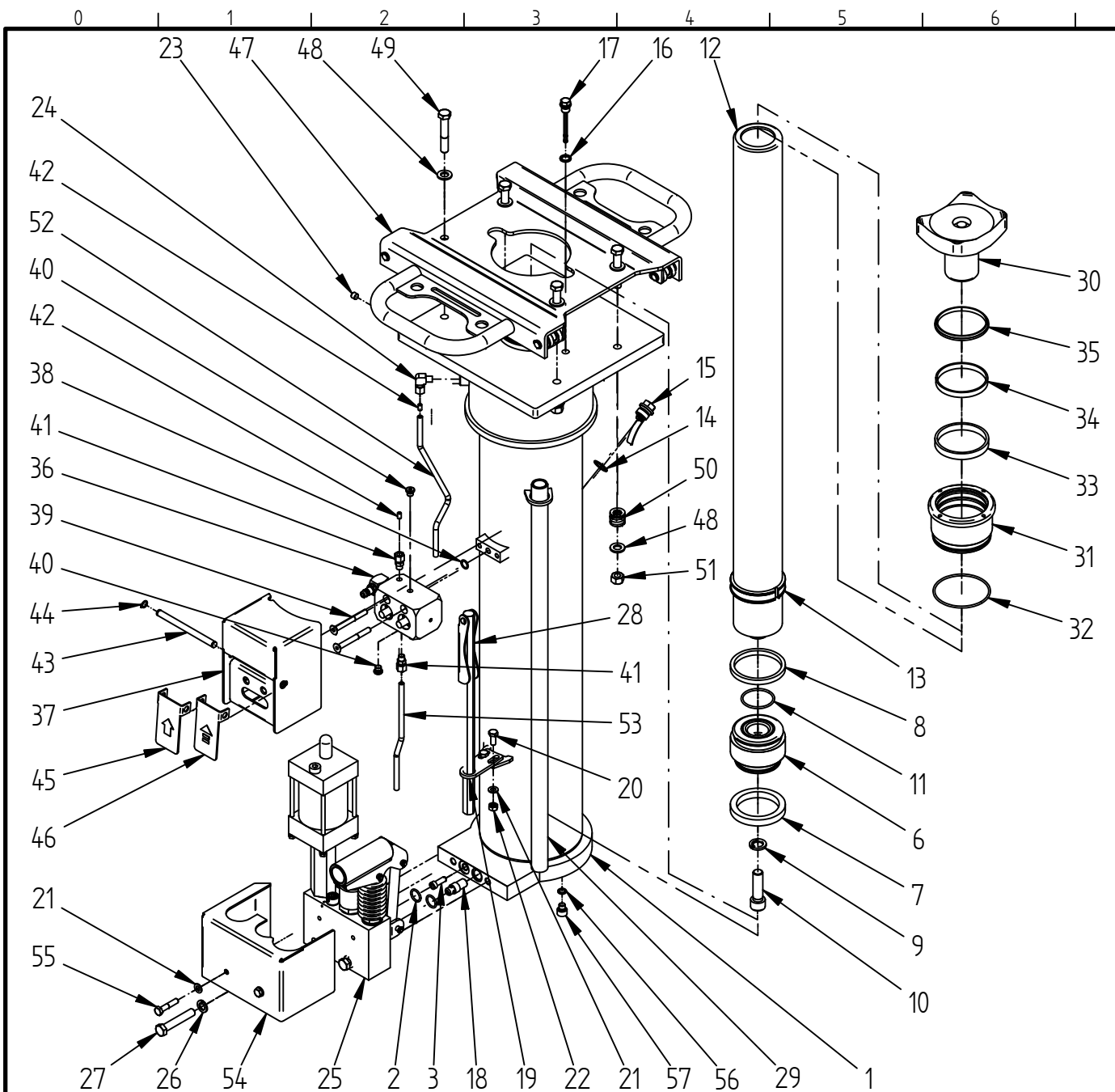


- = komplette Baugruppe
- △ = Schmierstelle
- = Ölablaßschraube

### Fahrgestell 15t Vario UNI



Pos.	Pc.	Description (en)	Order-No.
1	1	Hydraulic pump	3173000
2	1	Control	3662002
3	1	Lifting unit	124661
4	1	Undercarriage Vario Flat	126005
4	1	Undercarriage Vario Deep	126019
4	1	Undercarriage Vario UNI	124601
28	1	Release lever 240 mm	3623030
29	1	Pump rod	3320900
30	1	Support plate	3325910
37	1	Control box	124815
45	1	Flap load stroke	3662020
46	1	Flap quick stroke	3662025
56	1	O-ring	706801
57	1	Cylinder screw	7008340
58	16	Disk	703414
59	16	Hex nut	703304
60	4	Disk	703413
61	4	Hexagon bolt	700222
62	16	Fitting screw	125247
405	1	Grease nipple	706351
416	1	Sheave	33253311
417	1	Retaining ring	704028



Pos.	Stk.	Description (en)	Order-No.
1	1	Lifting unit welded 15t	124662
2	2	O-ring 18 x 2.5	707614
3	1	Sieve insert cpl.	3142015
6	1	Piston	3264350
7	1	Piston seal 90 x 70 x 12	123148
8	1	Piston seal 90 x 78 x 8.5	707842
9	1	Spring washer DIN 127-A16 galv	7035070
10	1	Cylinder screw ISO 4762-M16x55	700885
11	1	O-ring 49 x 3	707667
12	1	Piston rod 15t	124685
13	1	Spacer bushing	125172
14	1	Sealing ring Cu R 1/2"	706812
15	1	Dipstick cpl.	3260336
16	1	Sealing ring Cu R 1/4"	706902
17	1	Dipstick cpl. 1/4"	109162
18	1	Lowering brake valve	751702
19	1	Rod holders	3298372
20	2	Hexagon bolt ISO 4017-M8x20	700206
21	4	Washer ISO 7089-8,4 galv	703411
22	2	Hex nut ISO 4032-M8 galv	703102
23	1	Locking screw DIN 906-R1/8" galv	701601
24	1	Ermeto screw fitting WE08LLR galvanized	752020
25	1	Manually operated hydraulic pump MP 16 cpl. with air motor	3173000
26	2	Spring washer DIN 127-A12 galv	703515
27	2	Hexagon bolt ISO 4017-M12x70	700054
28	1	Lever rod cpl. GHL	3623030
29	1	Pump rod D 26.9 x 900	3320900
30	1	Support plate X	3325910
31	1	Guide bushing Ø 80	111598
32	1	O-ring 88 x 3 NBR	116826
33	1	Rod seal 80 x 88 x 11.5	708014
34	1	Guide ring 80x85x9.7	112015
35	1	Wiper ring 80 x 88 x 7	707911
36	1	Control f. operating side 1	3662002
37	1	Control box	124815
38	1	O-ring 12x2	707609
39	2	Countersunk screw ISO 10642-M8x75	701731
40	2	Locking screw DIN 908-R1/8" galv	705517
41	2	Ermeto screw fitting GE08LLRKEG(1/8) galv	752015
42	2	Sleeve VSH 8x1	706591
43	1	Axis 9 S 20 / RD 10 / DIN 668	3662026
44	2	Retaining ring DIN 471-10x1 galv	704003
45	1	Flap load stroke	3662020
46	1	Flap quick stroke	3662025
47	1	Roller carrier compl.	124670
48	8	Washer ISO 7089-13 galv	703413
49	4	Hexagon bolt ISO 4014-M12x70	700435
50	4	Compression spring no.246	124684
51	4	Hex nut ISO 7042-M12 galv	703309
52	0,28	Plastic tube 8x1	757001
53	0,25	Plastic tube 8x1	757001
54	1	Sheet metal cover welded	124680
55	2	Hexagon bolt ISO 4014-M8x40	700412
56	1	Sealing ring Cu R 1/8"	706801
57	1	Cylinder screw ISO 4762-M10x10	7008340



BlitzRotary GmbH  
Hüfinger Straße 55  
78199 Bräunlingen

## Hubeinheit komplett Blitz S 15 Vario

124661

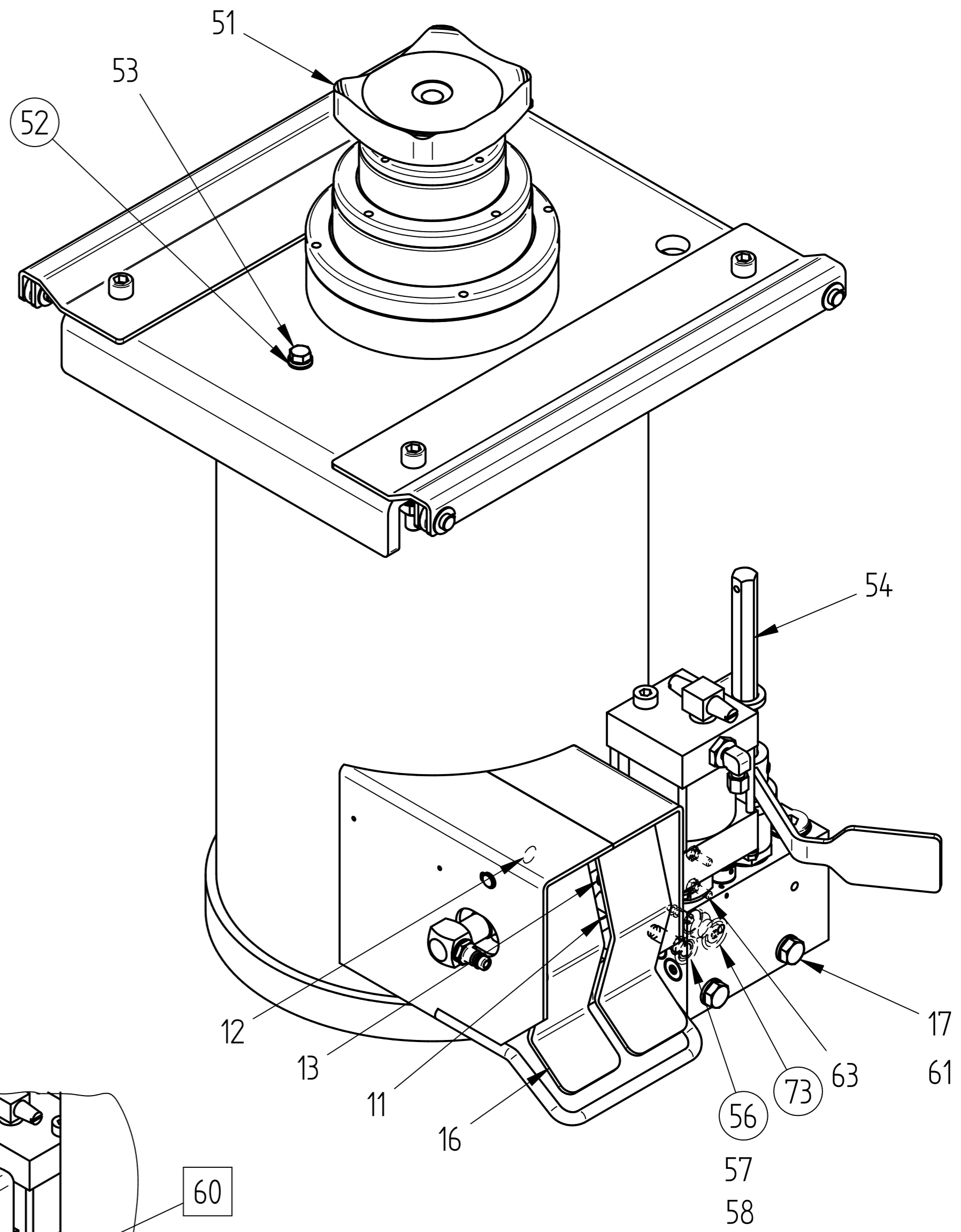
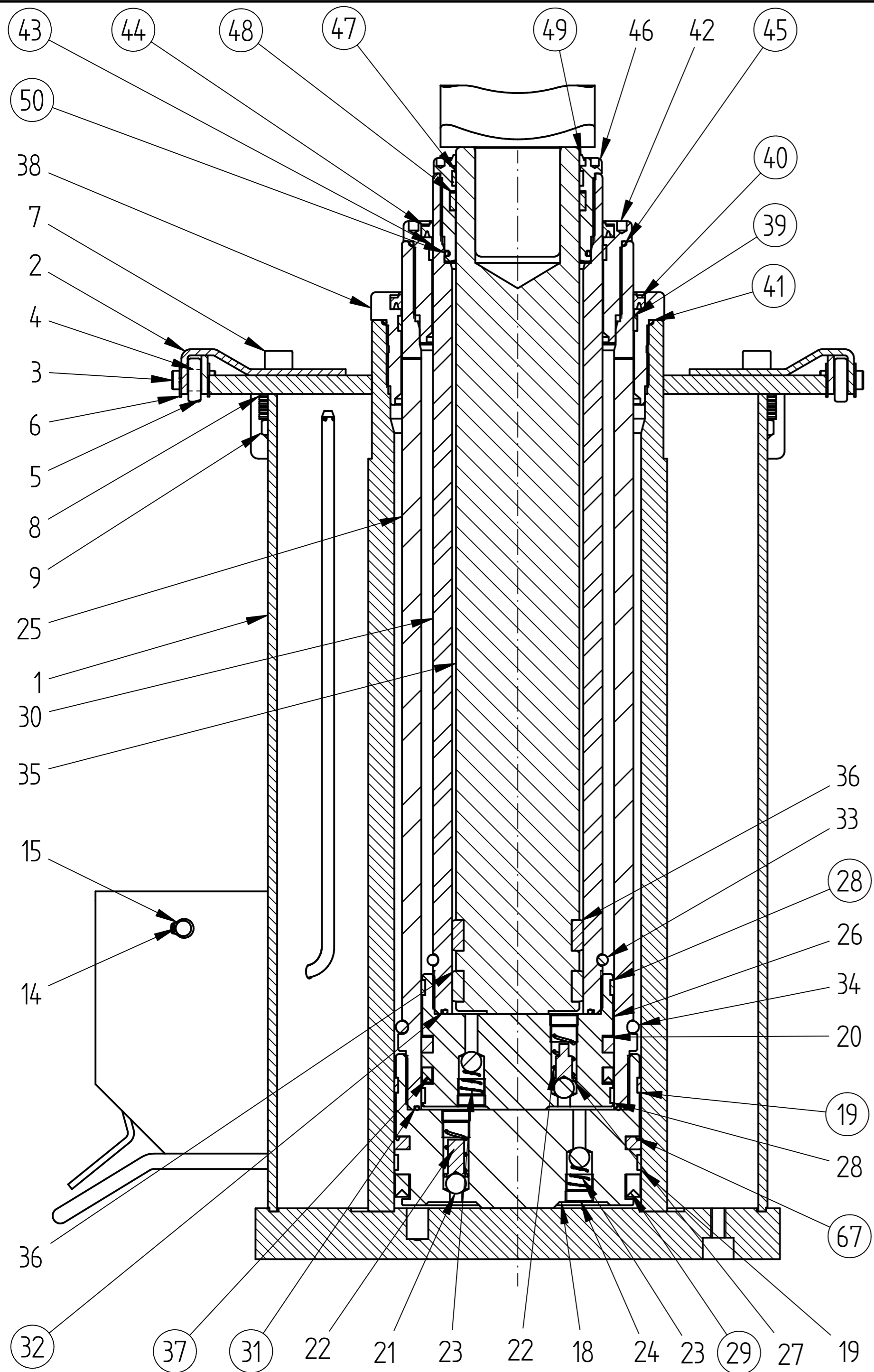
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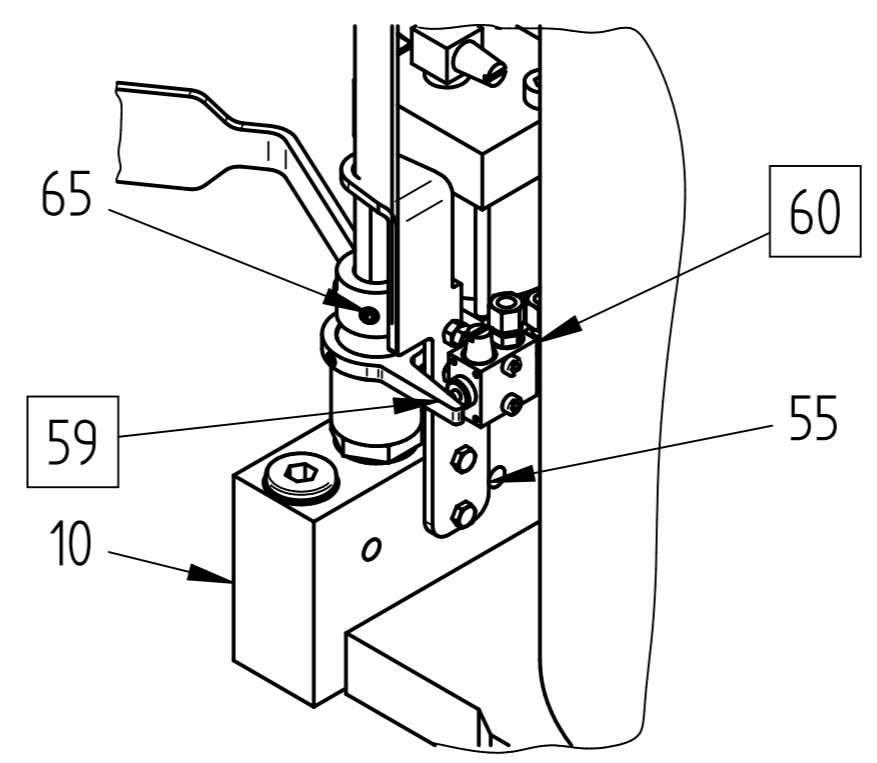
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Ansicht X :



Pos.	pcs.	Description (en)	Order no.
1	1	Lifting unit welded	112764
2	2	Roller carrier	112789
3	4	Axis	3804375
4	4	Bearing bush	100592
5	4	Roller	100591
6	8	Seeger ring	704135
7	4	Cylinder screw	700861
8	32	cup spring	704508
9	4	Hex nut	703312
10	1	Pump body cpl.	114680
11	1	Control f. operating side 1	3662002
13	2	Cylinder screw	701030
14	1	Axis	3721025
15	2	Retaining ring	704003
16	2	Foot pedal welded	3721020
17	2	Hexagon bolt	700054
18	1	Piston	122374
21	4	Steel ball	707306
22	2	Compression spring	3720389
23	3	Conical spring	2509014
24	5	Set ring	3281388
25	1	Tappet tube	111136
26	1	Piston	122340
27	2	Ball socket	124129
30	1	Tappet tube	111156
33	1	Circlip	111599
34	1	Circlip	111600
35	1	Telescopic piston rod	111138
36	2	Spacer ring	3720393
38	1	Guide bushing	111137
42	1	Guide bushing	111597
46	1	Guide bushing	111598
51	1	Support plate X	3325910
53	1	Dipstick cpl.	109162
54	1	Lever rod	3295030
55	1	Rod holders	113000
57	1	Lowering brake valve	116297
58	1	Sieve insert cpl.	116310

Pos.	pcs.	Description (en)	Order no.
61	2	Spring washer	703515
63	2	Hexagon bolt	720200
64	1	Foot lever	3741040
65	2	Grub screw	701207
68	6	Hex nut	703101
69	2	Hex nut	703100
70	1	Muffler	708950
71	1	Ermeto coupling	752015
72	1	Ermeto coupling	752020
75	1	Extension	3607267
80	1	Sticker load capacity 15 t	124160
90	1	Sticker Blitz	118256
91	1	Sticker load lift/quick lift	118255
92	1	Sticker "Important! Important" sticker	860930
93	1	Type plate Blitz	117268
94	1	Sticker CE	708649
96	1	Sticker short operating instructions	118790
97	1	Sticker "union nut"	3320923
98	1	Sticker pit lift 10 bar	12669

**Ersatzteilkit**

59	1	Shift lever Spare Parts Kit	129518
60	1	3/2 - Directional Valve Spare Parts Kit	129521

**Dichtsatz 114463** ○

Pos.	pcs.	Description (en)	Order no.
Pos.	Stk.		Bestell. Nr.
12	1	O-ring	707609
19	2	Guide ring	112023
20	1	Piston seal	707886
28	2	Guide ring	112019
29	1	Piston seal	115273
31	1	O-ring	707644
32	1	O-ring	707680
37	1	Piston seal	115272
39	1	Guide ring	112021
40	1	Double wiper	112020
41	1	O-ring	707649
43	1	Guide ring	112017
44	1	Double wiper	112016
45	1	O-ring	707645
47	1	Guide ring	112015
48	1	Rod seal	708014
49	1	Wiper ring	707911
50	1	O-ring	116826
52	1	Sealing ring Cu	706902
56	1	O-ring	707614
67	1	Piston seal	122381
73	1	O-ring	707754

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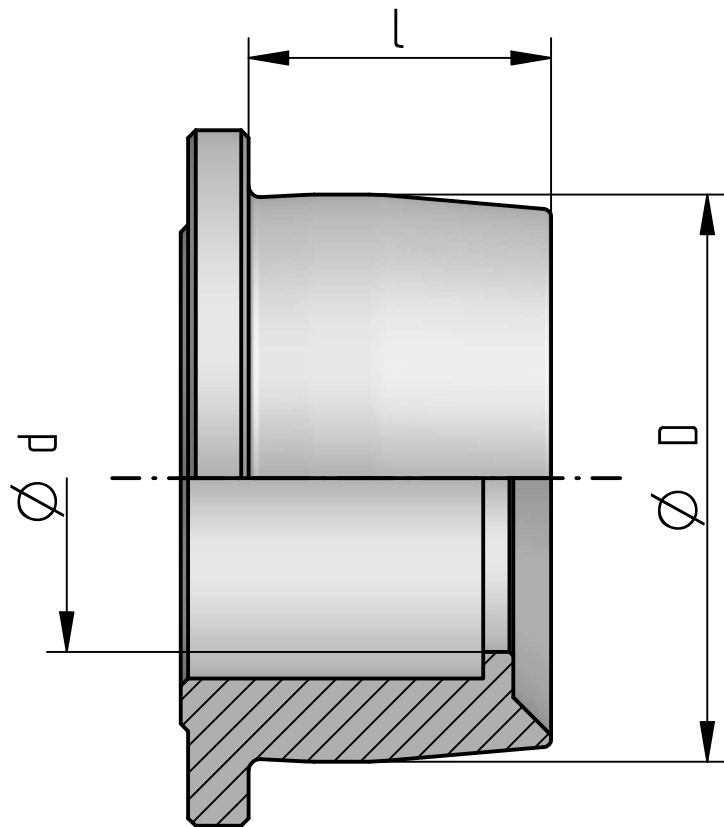
Lifting unit

GHUSTTP 15/15/15

112998

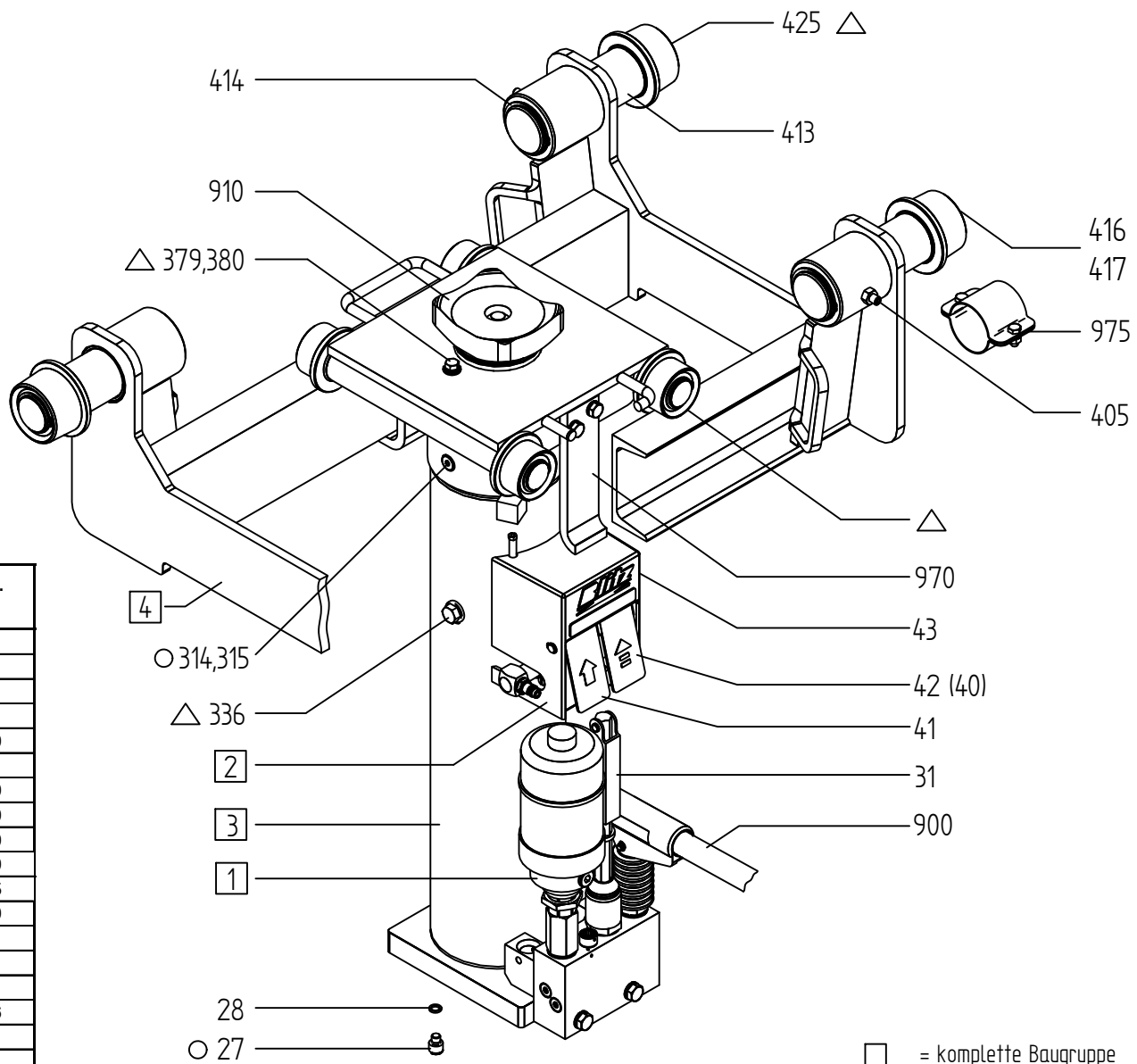
r.baier

13/04/21



### Special Rollers Chassis

d	D	l	EDV
45	70	35	114016
45	70	40	112706
45	75	35	113638
45	75	40	112583 (Standard)
45	85	40	123360



Pos.	Stk.	Description (en)	Order-No.	Order-No. 14 t	Order-No. 20 , 30 t
1	1	Hydraulic pump			
2	1	Control			
3	1	Lifting unit			
4	1	Undercarriage			
27	1	Cylinder screw	7008340	7008340	7008340
28	1	O-ring	706801	706801	706801
31	1	Release lever 240 mm	3602030	3602030	3602030
31	1	Release lever 400 mm	3623030	3623030	3623030
40	1	Flap quick stroke wide	3609020	3609020	3609020
41	1	Flap load stroke slim	3662020	3662020	3662020
42	1	Flap quick stroke slim	3662025	3662025	3662025
43	1	Control box	3600270	3600270	3600270
405	1	Grub screw	701255	701255	701255
413	1	Guide bolt	3324413	3325413	-
414	1	Retaining ring	704032	704032	-
416	1	Sheave	3322416	3322416	3326416
417	1	Retaining ring	704028	704028	704031
425	1	Needle rollers	705381	705381	705381
900	1	Pump rod	3320900	3320900	3320900
910	1	Support plate	3325910	3325910	3326910
970	1	Tilt protection	3324970	3325970	3325970
975	1	Clamping bracket	3239974	3239974	-

- = komplette Baugruppe
- △ = Schmierstelle
- = Öltaßschraube



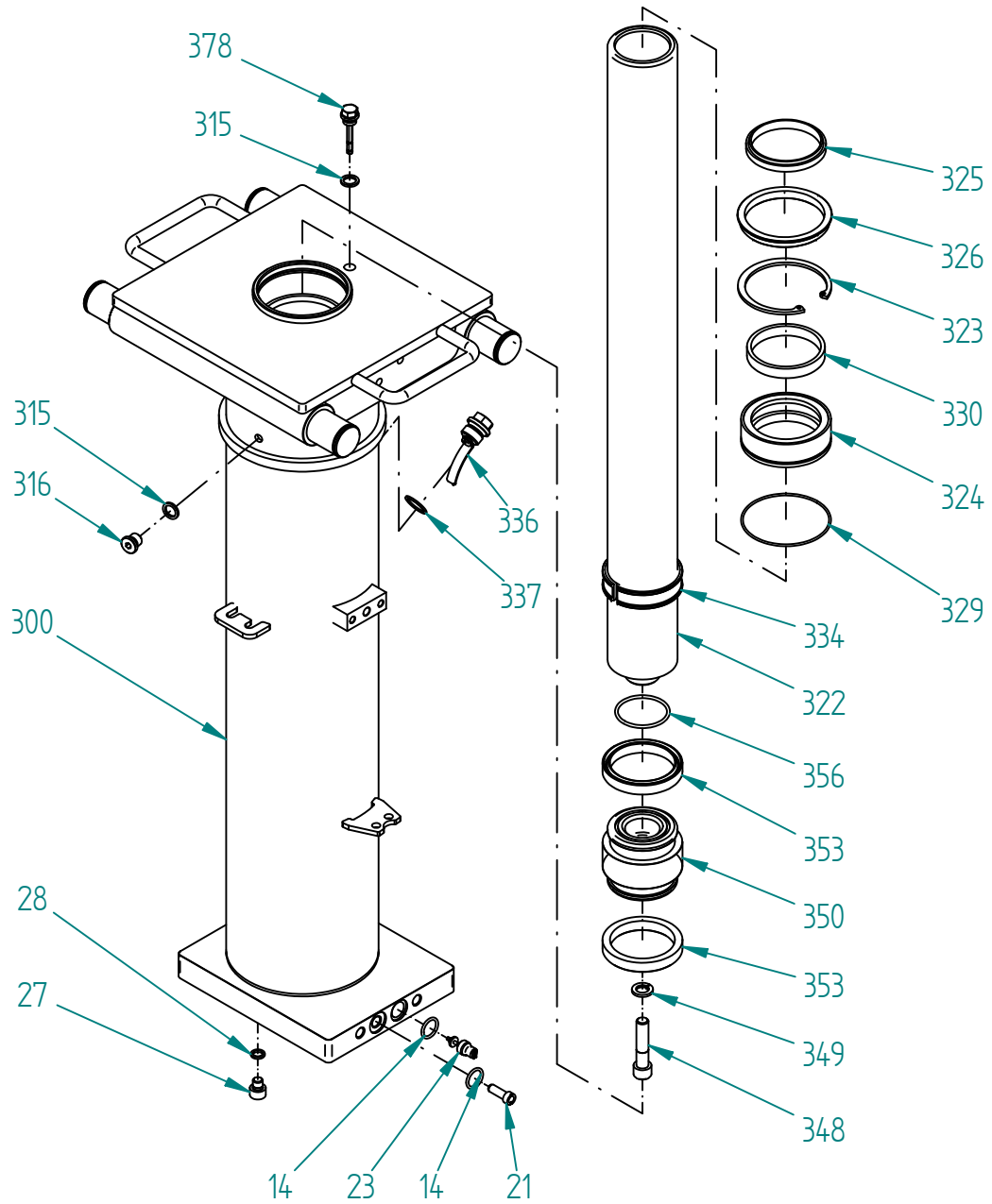
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## Grubenheber Übersicht

E03100713

shirth  
25/02/08

Pos.	Stk.	Description (en)	Order-No.	Order-No. 15 t	Order-No. 16, 20, 30 t
14	2	O-ring	707614	707614	707614
20	1	Lowering brake valve	751702	751702	751702
21	1	Sieve insert cpl.	3142015	3142015	3142015
27	1	Cyl. screw DIN 912	7008340	7008340	7008340
28	1	Sealing ring Cu	706801	706801	706801
300	1	Lifting unit welded 600 mm (GH)	3602300	3603300	3605300
300	1	Lifting unit welded 800 mm (GHL)	3623003	3624003	3626003
315	2	Sealing ring Cu R	706902	706902	706902
322	1	Piston rod 600 mm (GH)	3263322	3264322	3604322
322	1	Piston rod 800 mm (GHL)	3268322	3269322	3625322
323	1	Retaining ring black	704131	704132	-
324	1	Stuffing box	3602324	3107390	3107324
325	1	Wiper ring w. metal sheath	707927	707930	707931
325.1	1	Intermediate wiper ring	36023251	-	-
329	1	O-ring	707635	707634	707645
330	1	Rod seal profile RB	708006	708014	707883
334	1	Spacer bushing	3263334	3264334	3604334
336	1	Oil filler plug	3260336	3260336	3260336
337	1	Sealing ring Cu	706812	706812	706812
348	1	Cyl. screw DIN 912	701012	700885	700886
349	1	Spring washer galvanized DIN 127	703515	7035070	7035070
350	1	Piston	3263350	3264350	3265350
351	1	Piston seal	-	707842	707886
353	2	Cyl. seal kit profile E2	708012	123148	707851
356	1	O-ring	707667	707667	-
357	1	O-ring	-	-	707667
378	1	Oil dipstick	3601378	3601378	3601378
399	1	Seal kit lifting unit cpl.	3602399	3603399	3604399



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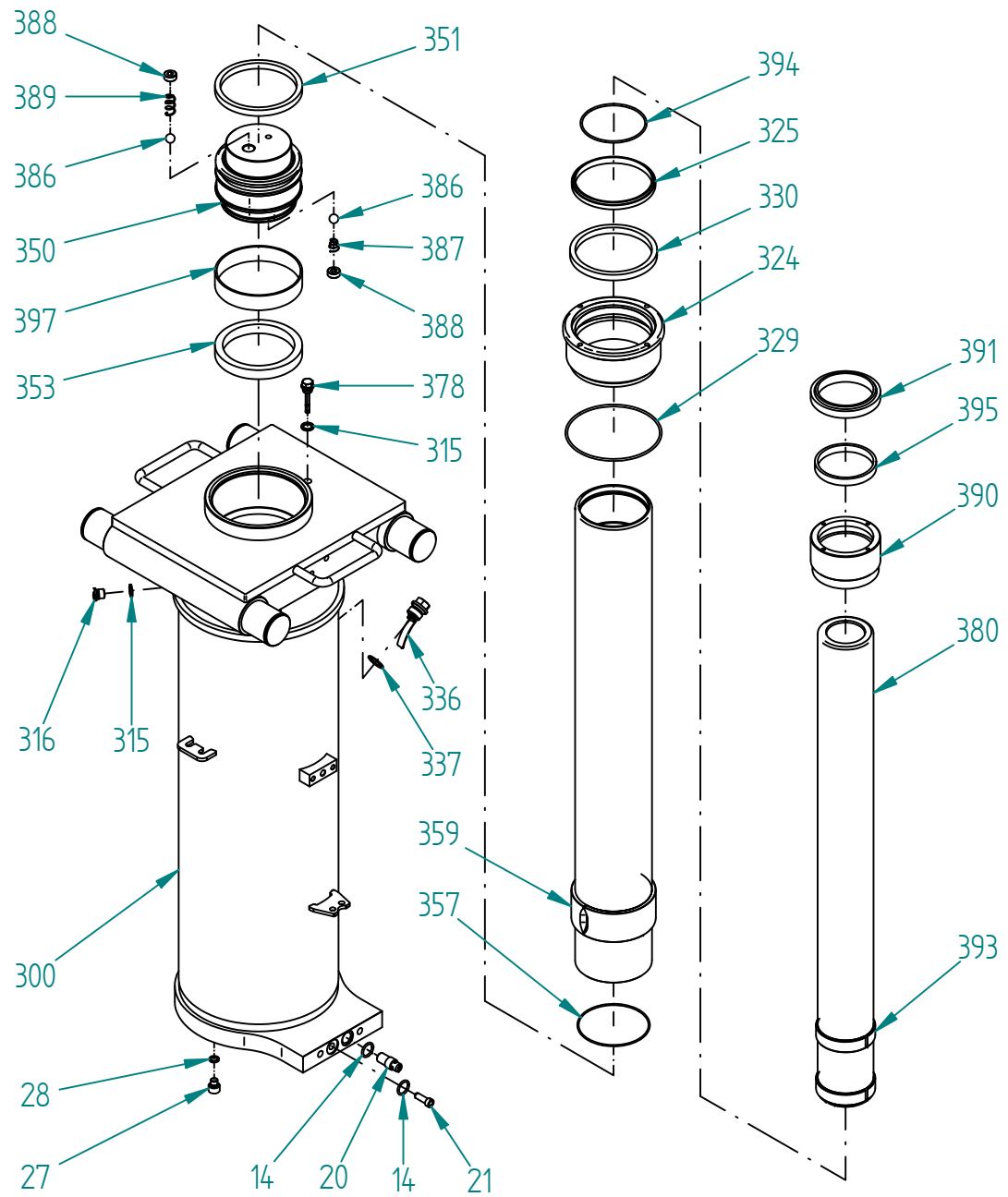
Hubeinheit kpl. GH 4-30 ( GHL4-30 )

E18041008

shirth  
10/04/18

Blatt 1  
von 1

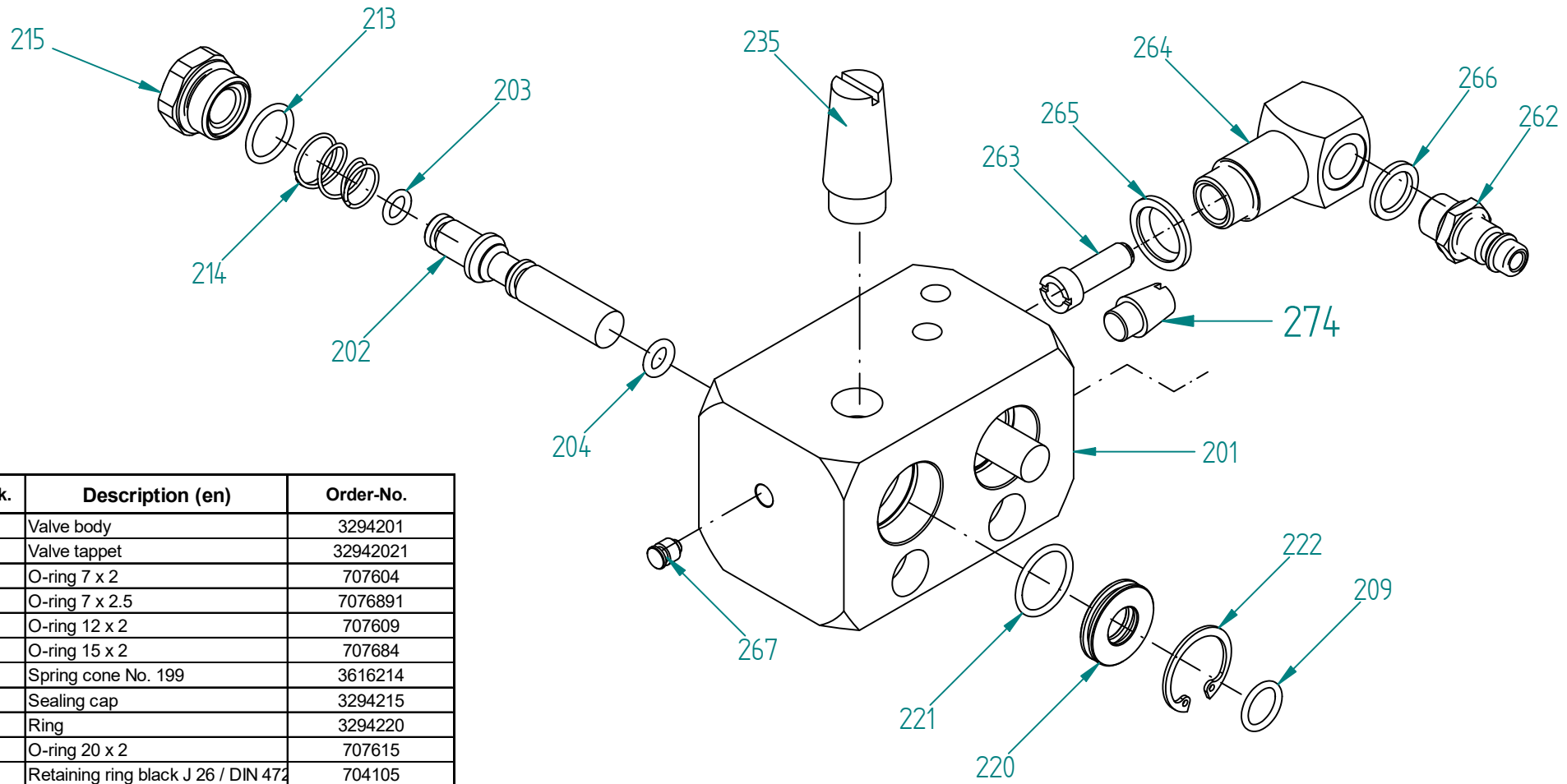
Pos.	Stk.	Description (en)	Order-No.	Order-No. 15/6	Order-No. 15/15 20/15
3	1	Lifting unit cpl.	3642003	3643003	3644003
14	2	O-ring	707614	707614	707614
20	1	Lowering brake valve	751702	751702	751702
21	1	Sieve insert cpl.	3142015	3142015	3142015
27	1	Cyl. screw DIN912	7008340	7008340	7008340
28	1	Sealing ring Cu	706801	706801	706801
300	1	Lifting unit welded	3602300	3603300	3605300
315	2	Sealing ring Cu	706902	706902	706902
316	1	Locking screw	705525	705525	705525
323	1	Retaining ring black	704042	704132	-
324	1	Stuffing box	3642324	3107390	3107324
325	1	Wiper ring w. metal sheath	707929	707930	707931
326	1	Intermediate wiper ring	36423251	-	-
329	1	O-ring	707635	707634	707645
330	1	Rod seal profile RB	707887	708014	707883
334	1	Spacer bushing	-	3292334	-
336	1	Oil filler plug	3260336	3260336	3260336
337	1	Sealing ring Cu	706812	706812	706812
350	1	Piston	3281350	3282350	3107350
351	1	Piston seal	707937	707842	707886
353	2	Cyl. seal kit profile E2	708012	123148	707851
357	1	O-ring	707740	707674	707637
358	1	Tappet tube	3290358	3292358	-
359	1	Tappet tube cpl.	-	-	3720359
378	1	Oil dipstick	3601378	3601378	3601378
380	1	Telescopic piston rod	3290380	3292380	3107380
386	2	Steel ball	707306	707306	707306
387	1	Conical spring	2509014	2509014	2509014
388	2	Set ring	3281388	3281388	3281388
389	1	Compression spring	3720389	3720389	3720389
390	1	Stuffing box	3290390	3292390	3720390
391	1	Wiper ring w. metal sheath	707924	707925	707930
392	1	Guard ring	3281392	3282392	-
393	2	Spacer bushing	3281393	3282393	3720393
394	1	O-ring	707626	707666	707693
395	1	Rod seal profile RB	708004	707872	708014
396	1	Retaining ring galvanized	704036	704037	-
397	1	DU special socket	-	-	794102
999	1	Seal kit cpl.	100780	100781	3720999



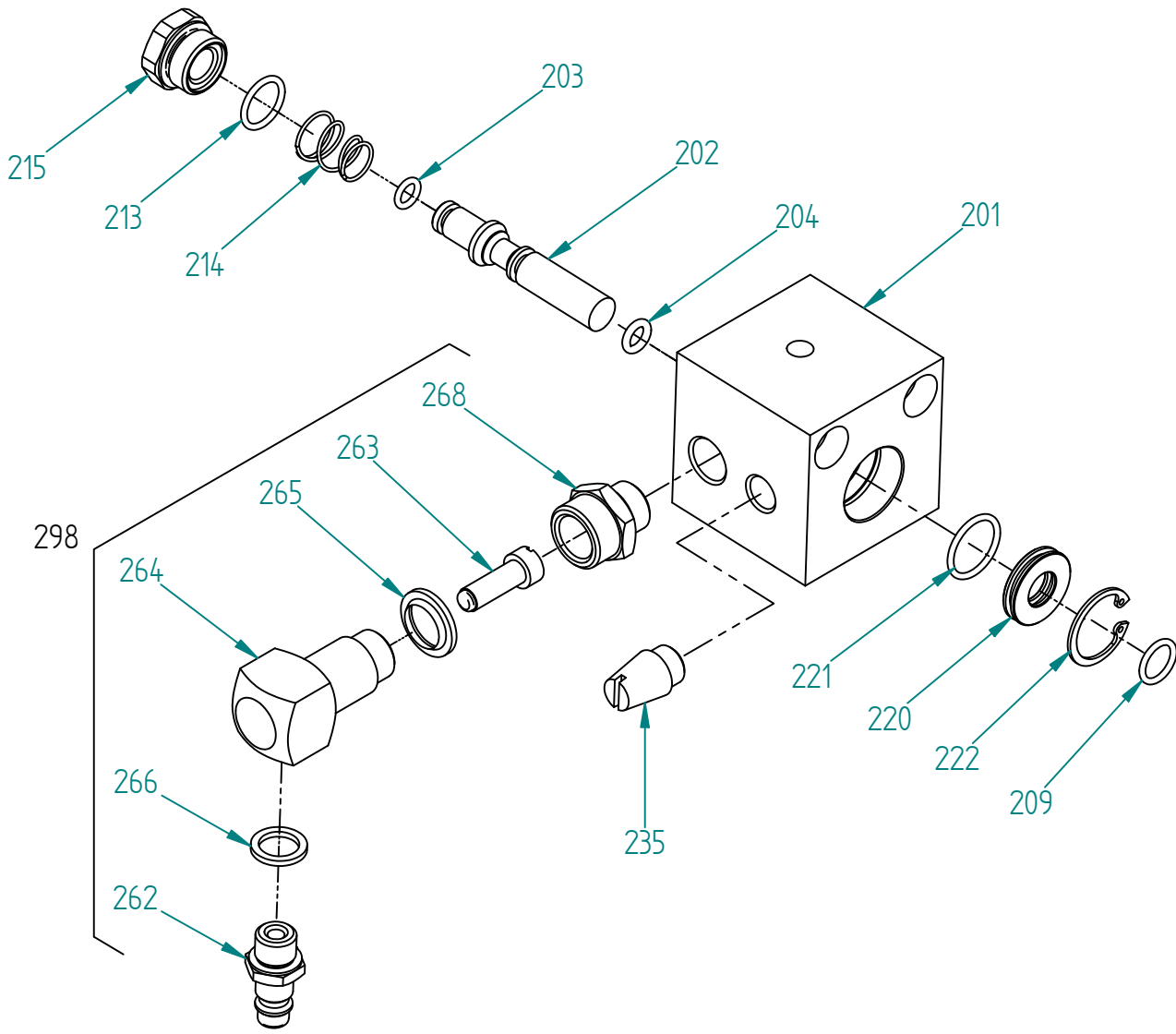
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Hubeinheit kpl. GHUST 10/4 ; 15/6 ; 15/15 ; 20/15  
GHUSTP 10/4 ; 15/6 ; 15/15 ; 20/15

E18041007



Pos.	Stk.	Description (en)	Order-No.
201	1	Valve body	3294201
202	2	Valve tappet	32942021
203	2	O-ring 7 x 2	707604
204	2	O-ring 7 x 2.5	7076891
209	2	O-ring 12 x 2	707609
213	2	O-ring 15 x 2	707684
214	2	Spring cone No. 199	3616214
215	2	Sealing cap	3294215
220	2	Ring	3294220
221	2	O-ring 20 x 2	707615
222	2	Retaining ring black J 26 / DIN 472	704105
235	1	Muffler G3/8"	708953
262	1	Coupling spout	2709105
263	1	Sieve insert cpl.	3142015
264	1	Spout block	3259264
265	1	Annular disk member hit	706705
266	1	Sealing ring Cu	706902
267	1	Seal plug	707034
274	1	Muffler R 1/8"	708950
298	1	Air connection cpl.	104525
299	1	Seal kit cpl.	3662299



Pos.	Stk.	Description (en)	Order-No.
201	1	Valve body	3200201
202	1	Valve tappet	32942021
203	1	O-ring 7 x 2	707604
204	1	O-ring 7 x 2.5	7076891
209	1	O-ring 12 x 2	707609
213	1	O-ring 15 x 2	707684
214	1	Conical spring No. 199	3616214
215	1	Sealing cap	3294215
220	1	Ring	3294220
221	1	O-ring 20 x 2	707615
222	1	Retaining ring black J 26	704105
235	1	Muffler R 1/4"	708951
262	1	Nipple DN 7	2709105
263	1	Sieve insert cpl.	3142015
265	1	Spout block	3259264
265	1	Captive disk	706705
266	1	Sealing ring Cu	706902
268	1	Extension	3607267
298	1	Air connection cpl.	104525
299	1	Seal kit cpl.	100774



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Steuerung kpl. GHS / GHSL / GHUS / GHUSL

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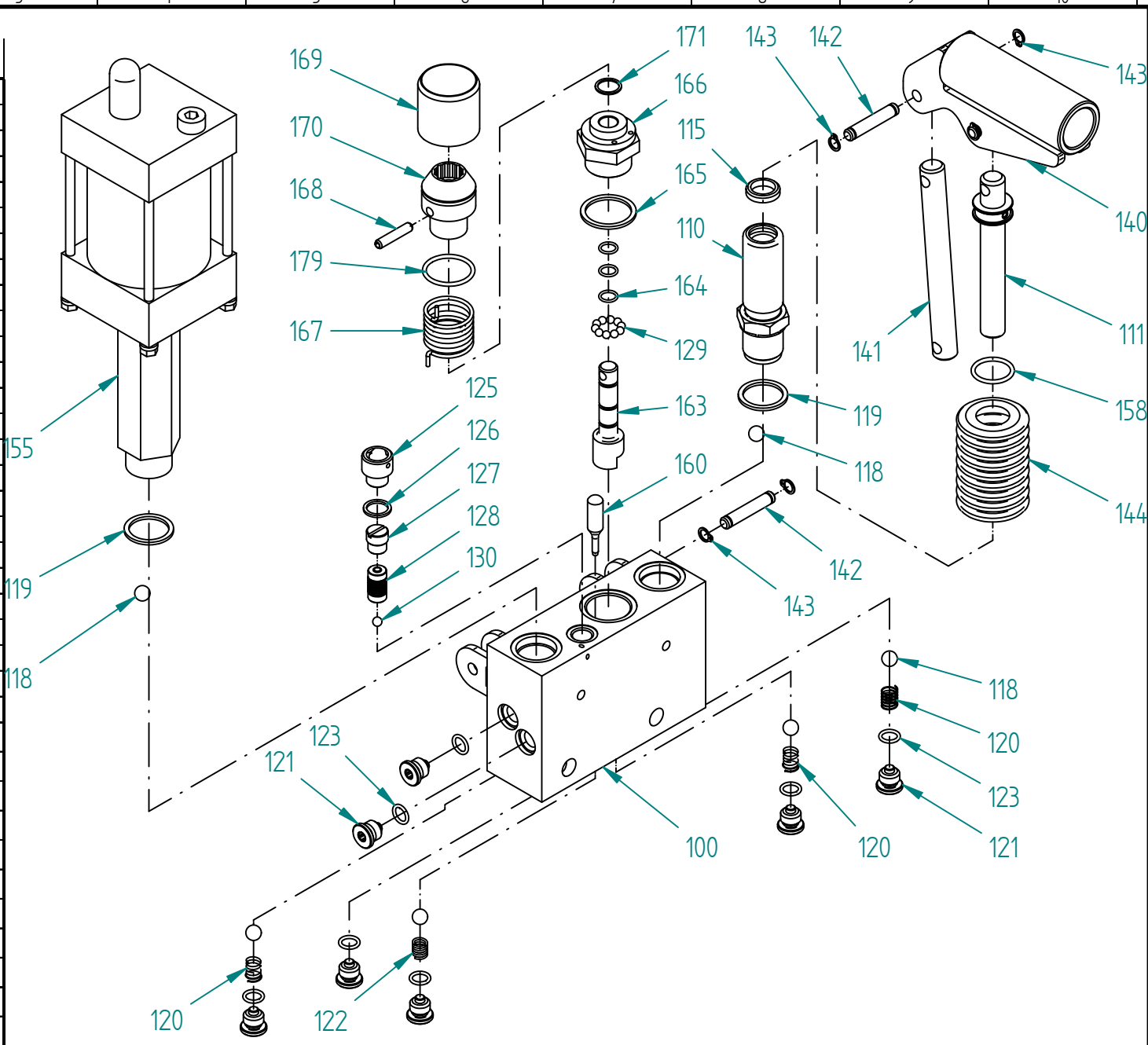
25/02/08

Blatt 2

von 2



Pos.	Stk.	Description (en)	Order-No.
100	1	Pump body cpl.	3173100
110	1	Pump cylinder	31721106
111	1	Pump tappet cpl.	3172111
115	1	Double wiper	707961
118	6	Steel ball 10 mm	707312
119	2	Sealing ring Cu	706814
120	3	Compression spring No. 39	3173120
121	7	Locking screw	3173121
122	1	Compression spring No. 130	8505004
123	7	O-ring	707716
125	1	Threaded plug	3173125
126	1	Sealing ring CU	706806
127	1	Set screw	4100236
128	1	Spring set cpl.	4004240
129	10	Steel ball 5 mm	707301
130	1	Steel ball 6 mm	707308
140	1	Pump collar	112480
141	1	Joint part	3170141
142	3	Pivot bolt	31611271
143	6	Retaining ring	704002
144	1	Bellow	3161144
155	1	Air motor	117860
158	2	O-ring	707616
160	1	Valve tappet cpl.	3173160
163	1	Eccentric	3173163
164	3	O-ring	707605
165	1	Sealing ring Cu	706815
166	1	Tappet guide	3173166
167	1	Leg spring No. 165	3173167
168	1	Spring pin	708207
169	1	Cover tube	3173169
170	1	Tappet cap	3173170
171	1	Sealing ring Cu	706827
179	1	O-ring	707726
199	1	Seal kit pump cpl.	3173199
399	1	Seal kit air motor cpl.	751803



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Handhydr.Pumpe MP 16 kpl.

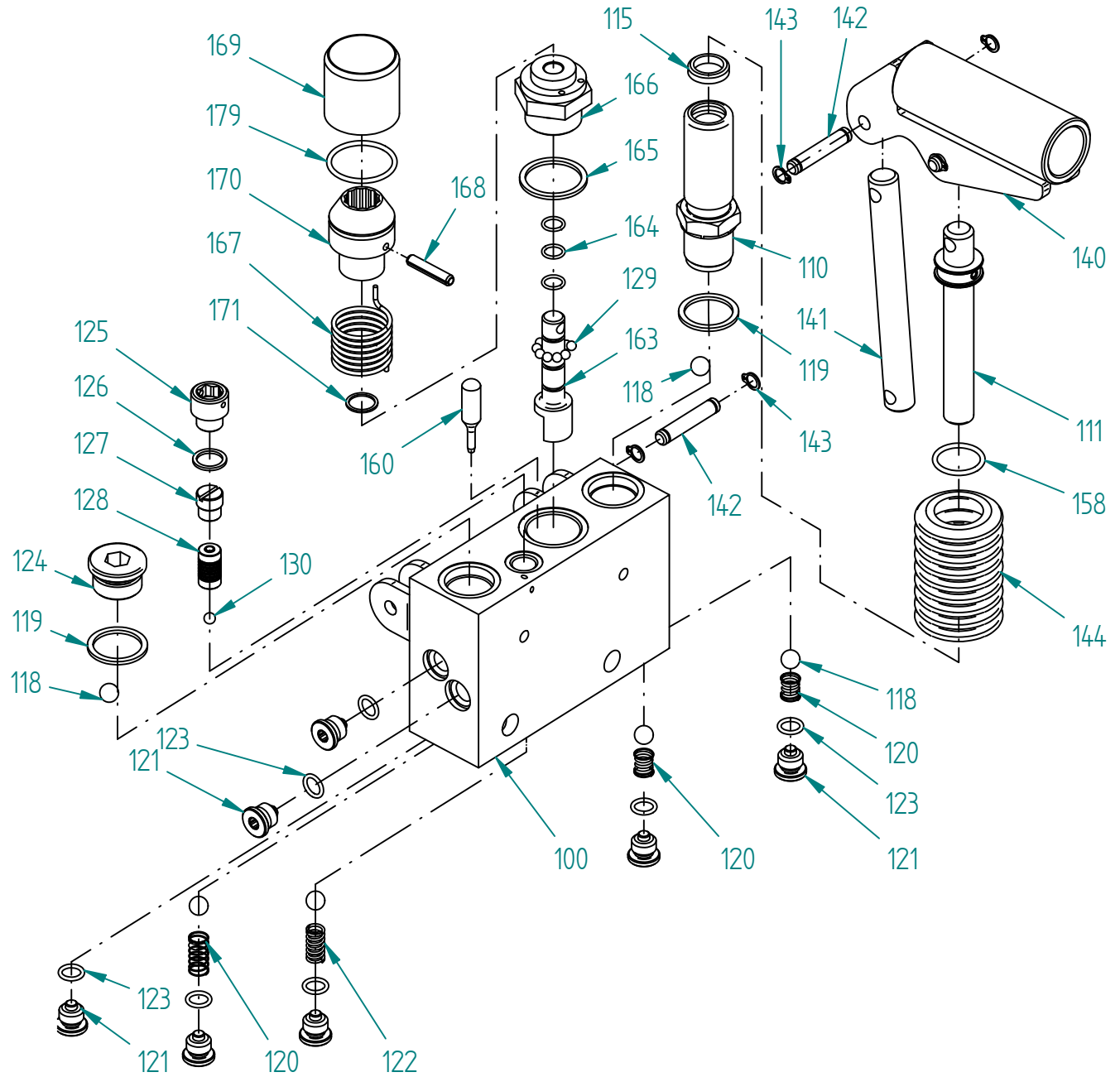
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Blatt 2  
von 2

Pos.	Stk.	Description (en)	Order-No.
100	1	Pump body cpl.	3173100
110	1	Pump cylinder	31721106
111	1	Pump tappet cpl.	3172111
115	1	Double wiper	707961
118	6	Steel ball 10 mm	707312
119	2	Sealing ring Cu	706814
120	3	Compression spring No. 39	3173120
121	7	Locking screw	3173121
122	1	Compression spring No. 130	8505004
123	7	O-ring	707716
124	1	Locking screw	705513
125	1	Threaded plug	3173125
126	1	Sealing ring CU	706806
127	1	Set screw	4100236
128	1	Spring set cpl.	4004240
129	10	Steel ball 5 mm	707301
130	1	Steel ball 6 mm	707308
140	1	Pump collar	112480
141	1	Joint part	3170141
142	3	Pivot bolt	31611271
143	6	Retaining ring	704002
144	1	Bellow	3161144
158	1	O-ring	707616
160	1	Valve tappet cpl.	3173160
163	1	Eccentric	3173163
164	3	O-ring	707605
165	1	Sealing ring Cu	706815
166	1	Tappet guide	3173166
167	1	Leg spring No. 165	3173167
168	1	Spring pin	708207
169	1	Cover tube	3173169
170	1	Tappet cap	3173170
171	1	Sealing ring Cu	706827
179	1	O-ring	707726
199	1	Seal kit cpl.	3174199



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Hydr. Pumpe M 16 kpl.

3174000

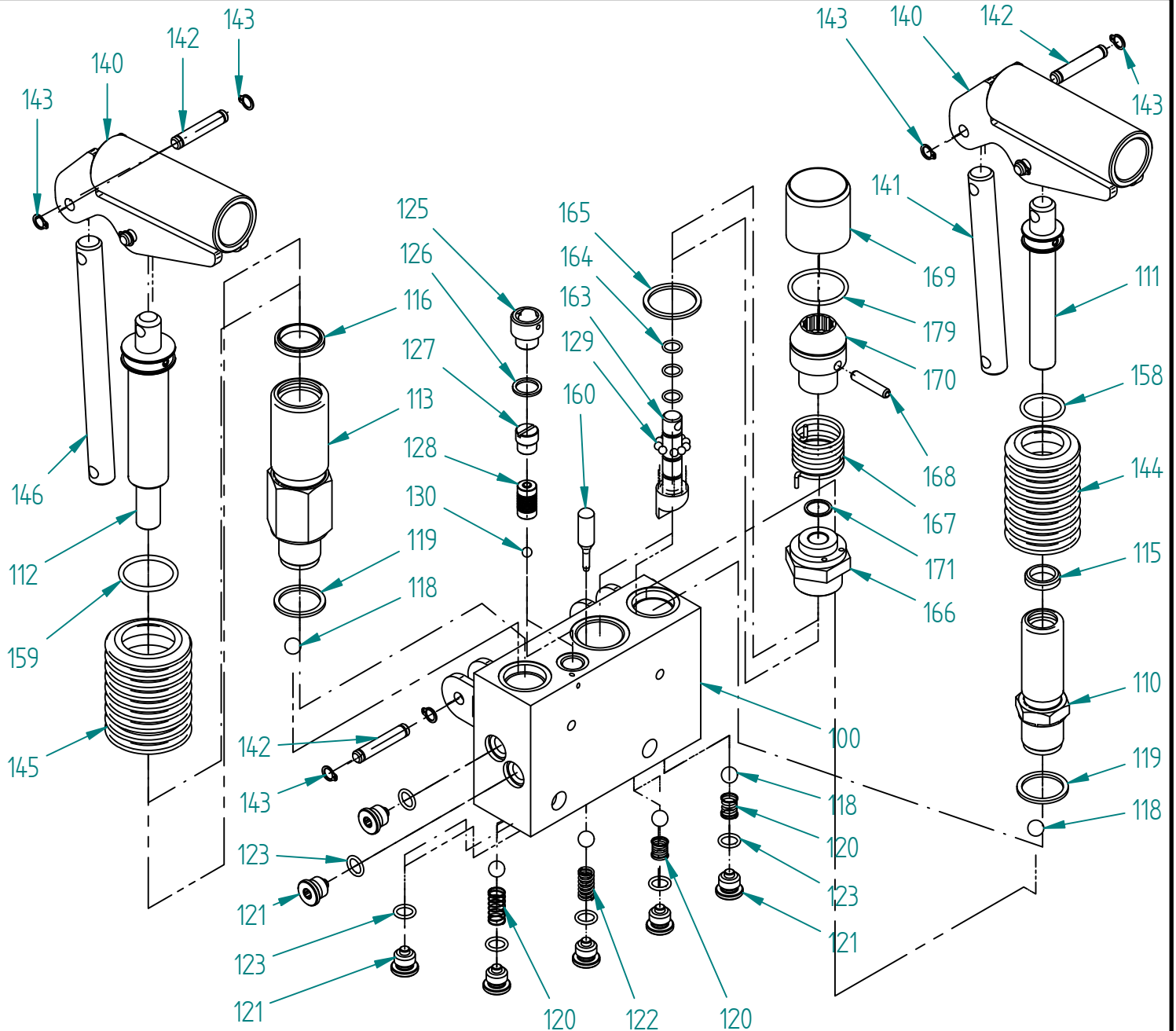
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25/02/08

Blatt 3

von 3

Pos.	Stk.	Description (en)	Order-No.
100	1	Pump body cpl.	3173100
110	1	Pump cylinder	31721106
111	1	Pump tappet cpl.	3172111
112	1	Pump tappet cpl.	3172202
113	1	Pump cylinder	31721105
115	1	Double wiper	707961
116	1	Double wiper	707962
118	6	Steel ball 10 mm	707312
119	2	Sealing ring Cu	706814
120	3	Compression spring No. 39	3173120
121	7	Locking screw	3173121
122	1	Compression spring No. 130	8505004
123	7	O-ring	707716
125	1	Threaded plug	3173125
126	1	Sealing ring CU	706806
127	1	Set screw	4100236
128	1	Spring set cpl.	4004240
129	10	Steel ball 5 mm	707301
130	1	Steel ball 6 mm	707308
140	2	Pump collar	112480
141	1	Joint part	3170141
142	6	Pivot bolt	31611271
143	12	Retaining ring	704002
144	1	Bellow	3161144
145	1	Bellow	3164244
146	1	Joint part	3172141
158	1	O-ring	707616
159	1	O-ring	707618



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Handhydr. Pumpe M 16/25

3172000

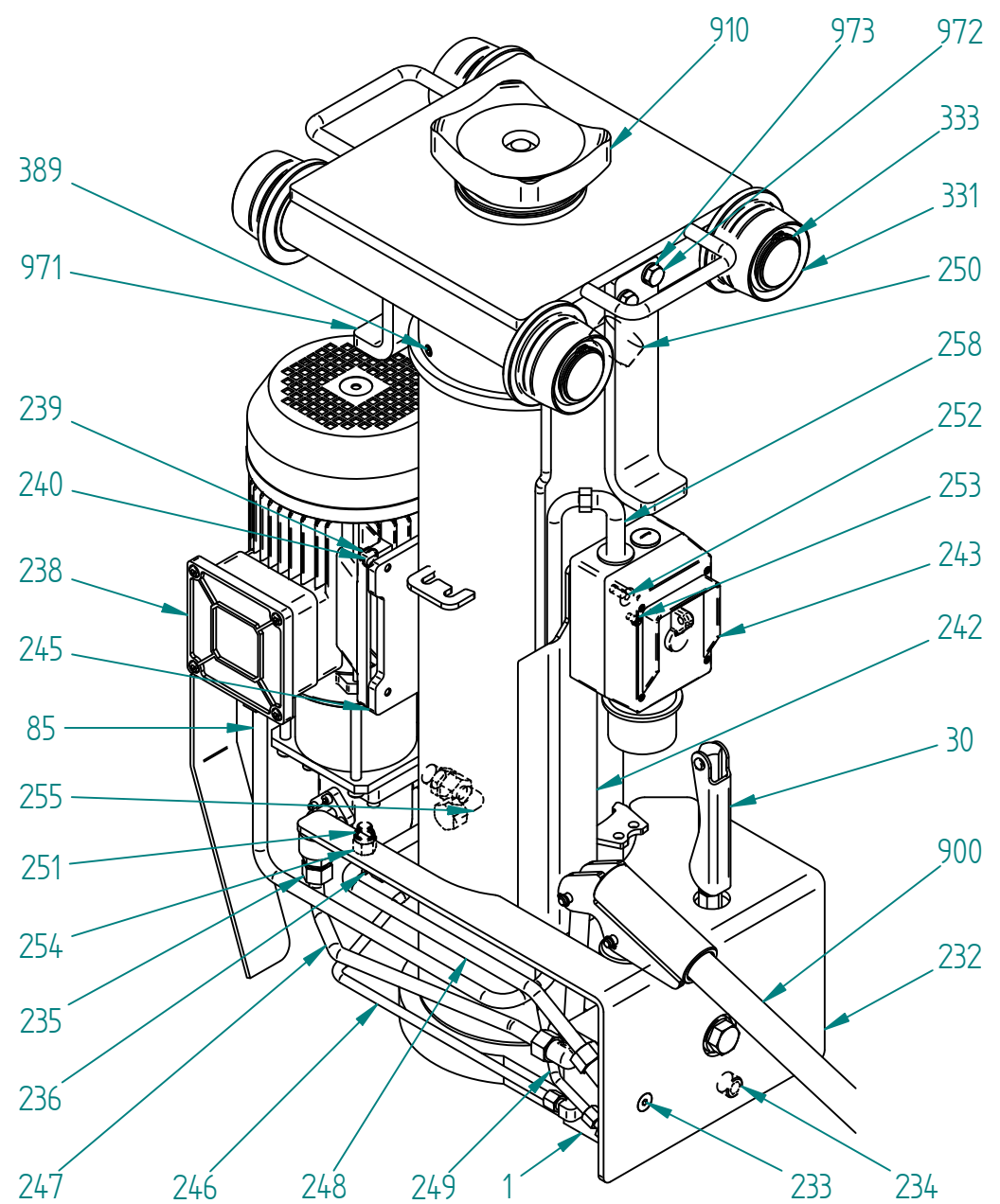
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Blatt 3

von 3

Pos.	Stk.	Description (en)	Order-No. 10 t	Order-No. 15 t	Order-No. 16 / 20 / 30 t
	1	Lifting unit cpl.	E18041008	E18041008	E18041008
1	1	Valve body	3162001	3162001	3162001
30	1	Lever rod cpl.	31690300	31690300	31690300
85	1	Electric cable cpl.	108085	108085	108085
232	1	Cover plate	3169232	3169232	3169232
233	2	Countersunk screw	701720	701720	701720
234	2	Cylinder screw	700865	700865	700865
235	2	Ermeto coupling	752039	752039	752039
236	2	Ermeto coupling	752020	752020	752020
238	1	Reversible motor pump	111419	111419	111419
239	4	Hexagon bolt	700206	700206	700206
240	4	Disk	703411	703411	703411
242	1	Sheet metal for E switch	119957	119957	119957
243	1	Reversing switch	751794	751794	751794
245	1	Motor plate	3169245	3169245	3169245
246	0,6m	Plastic tube	757001	757001	757001
247	1	Hose 330 mm long	755244	755244	755244
248	1	Hose 410 mm long	755243	755243	755243
249	0,4m	Pipe	710606	710606	710606
250	1	Vent filter	708150	708150	708150
251	2	Sealing ring CU	706803	706803	706803
252	1	Countersunk screw	701714	701714	701714
253	2	Cylinder screw	702042	702042	702042
254	1	Reduction plug	8760120	8760120	8760120
255	1	Ermeto coupling	752139	752139	752139
258	1	Angle cable gland	762006	762006	762006
331	4	Universal roller	123970	33253311	36263311
333	4	Retaining ring	704022	704028	704029
389	1	Locking screw	701601	701601	701601
900	1	Pump rod	3320900	3320900	3320900
910	1	Support plate X	3325910	3325910	3326910
971	2	Safety angle	3324971	3325971	3325971
972	4	Hexagon bolt	700211	700211	700211
973	4	Spring washer	703514	703514	703514



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Hubeinheit kpl. GHUSE

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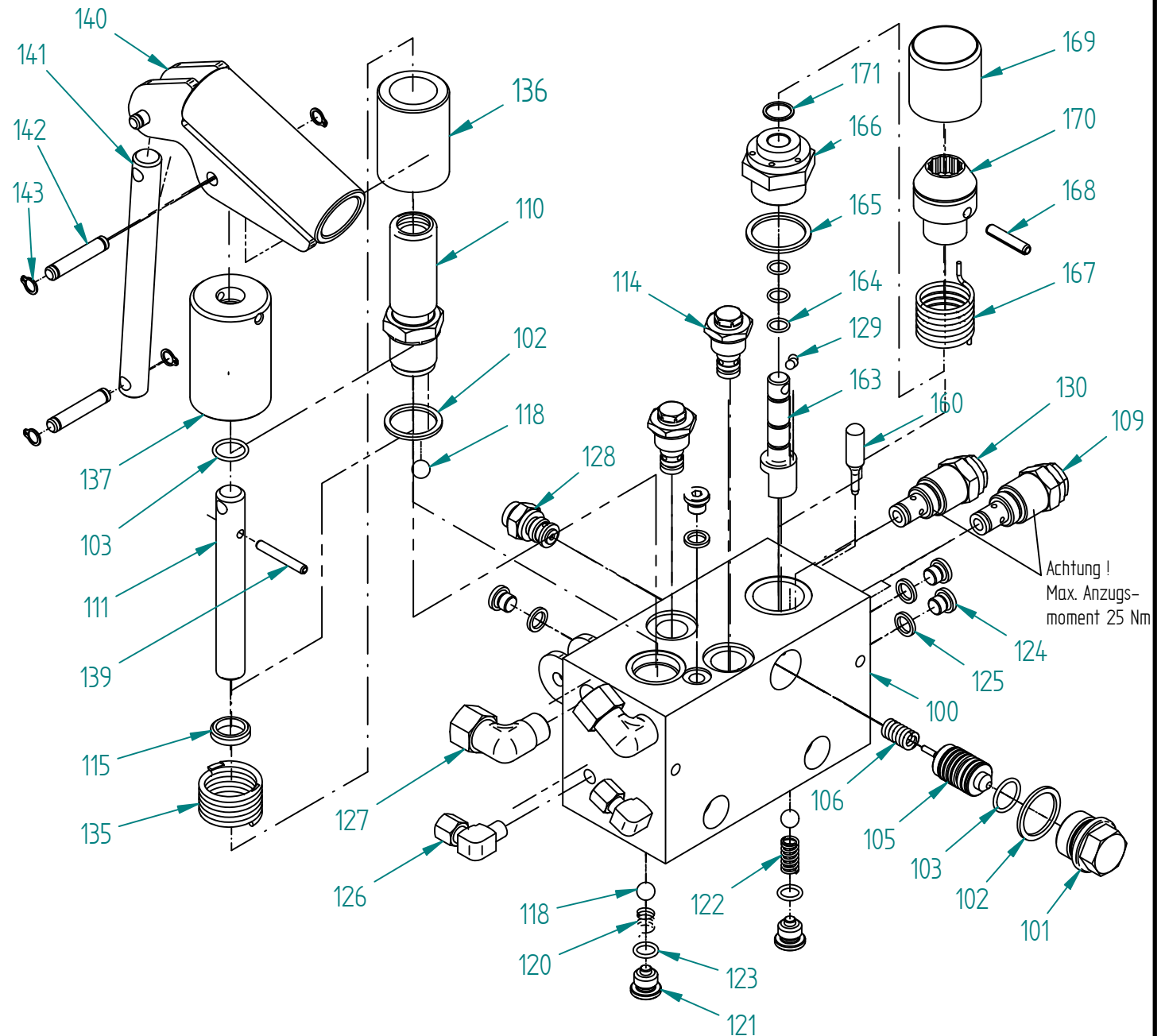
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14/05/18

Blatt 1

von 1

Pos.	Stk.	Description (en)	Order-No.
100	1	Valve body	31621001
101	1	Locking screw	705527
102	2	Sealing ring Cu	706814
103	2	O-ring	707756
105	1	Piston cpl.	3169105
106	1	Compression spring No. 194	3180106
109	1	Pressure limiting valve	751796
110	1	Pump cylinder	31721106
111	1	Pump tappet	3179112
114	2	Non-return valve	751790
115	1	Double wiper	707961
118	3	Steel ball 10 mm	707312
120	1	Compression spring No. 39	3173120
121	2	Locking screw	3173121
122	1	Compression spring No. 130	8505004
123	2	O-ring	707716
124	4	Locking screw	705517
125	4	Sealing ring Cu	706801
126	2	Ermeto coupling	752020
127	2	Ermeto coupling	752111
128	1	Non-return valve	751798
129	9	Steel ball	707301
130	1	Pressure limiting valve	751797
135	1	Spring No. 186	3649135
136	1	Spring guard	3649136
137	1	Stop ring	3649137
139	1	Spring pin	708247
140	1	Pump collar	112480
141	1	Joint part	3161126
142	3	Pivot bolt	31611271
143	6	Retaining ring black	704002
160	1	Valve tappet cpl.	3173160
163	1	Eccentric	3173163
164	3	O-ring	707605
165	1	Sealing ring Cu	706815
166	1	Tappet guide	3173166
167	1	Leg spring	3173167
168	1	Spring pin	708207
169	1	Cover tube	3173169
170	1	Tappet cap	3173170
171	1	Sealing ring Cu	706827
199	1	Seal kit electric pit lift	104181



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Ventilkörper Elektrogrubenheber 3KW

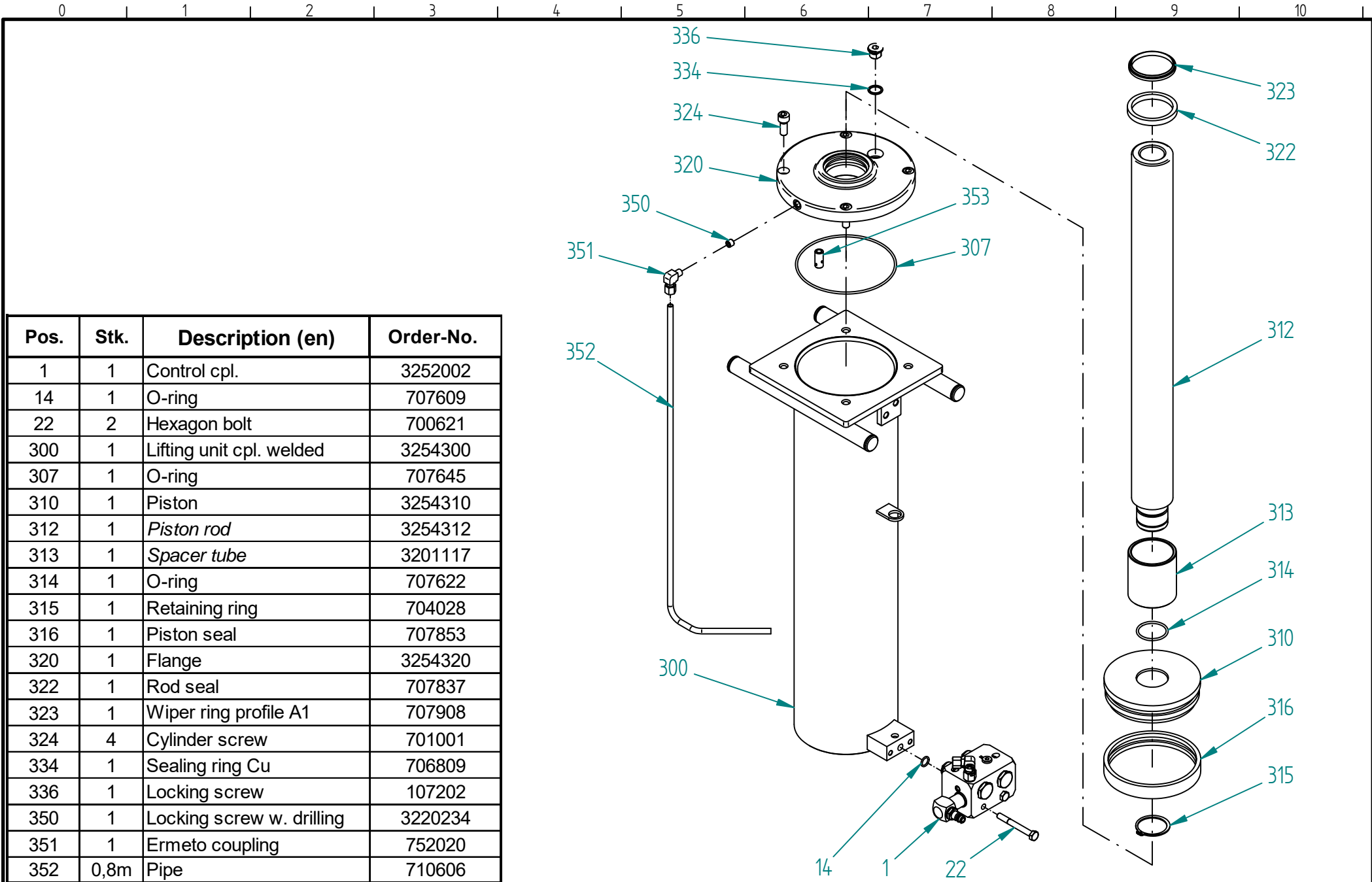
3162001

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25/02/08

Blatt 3

von 3



Pos.	Stk.	Description (en)	Order-No.
1	1	Control cpl.	3252002
14	1	O-ring	707609
22	2	Hexagon bolt	700621
300	1	Lifting unit cpl. welded	3254300
307	1	O-ring	707645
310	1	Piston	3254310
312	1	<i>Piston rod</i>	3254312
313	1	<i>Spacer tube</i>	3201117
314	1	O-ring	707622
315	1	Retaining ring	704028
316	1	Piston seal	707853
320	1	Flange	3254320
322	1	Rod seal	707837
323	1	Wiper ring profile A1	707908
324	4	Cylinder screw	701001
334	1	Sealing ring Cu	706809
336	1	Locking screw	107202
350	1	Locking screw w. drilling	3220234
351	1	Ermeto coupling	752020
352	0,8m	Pipe	710606



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Hubeinheit kpl. GWUS 2

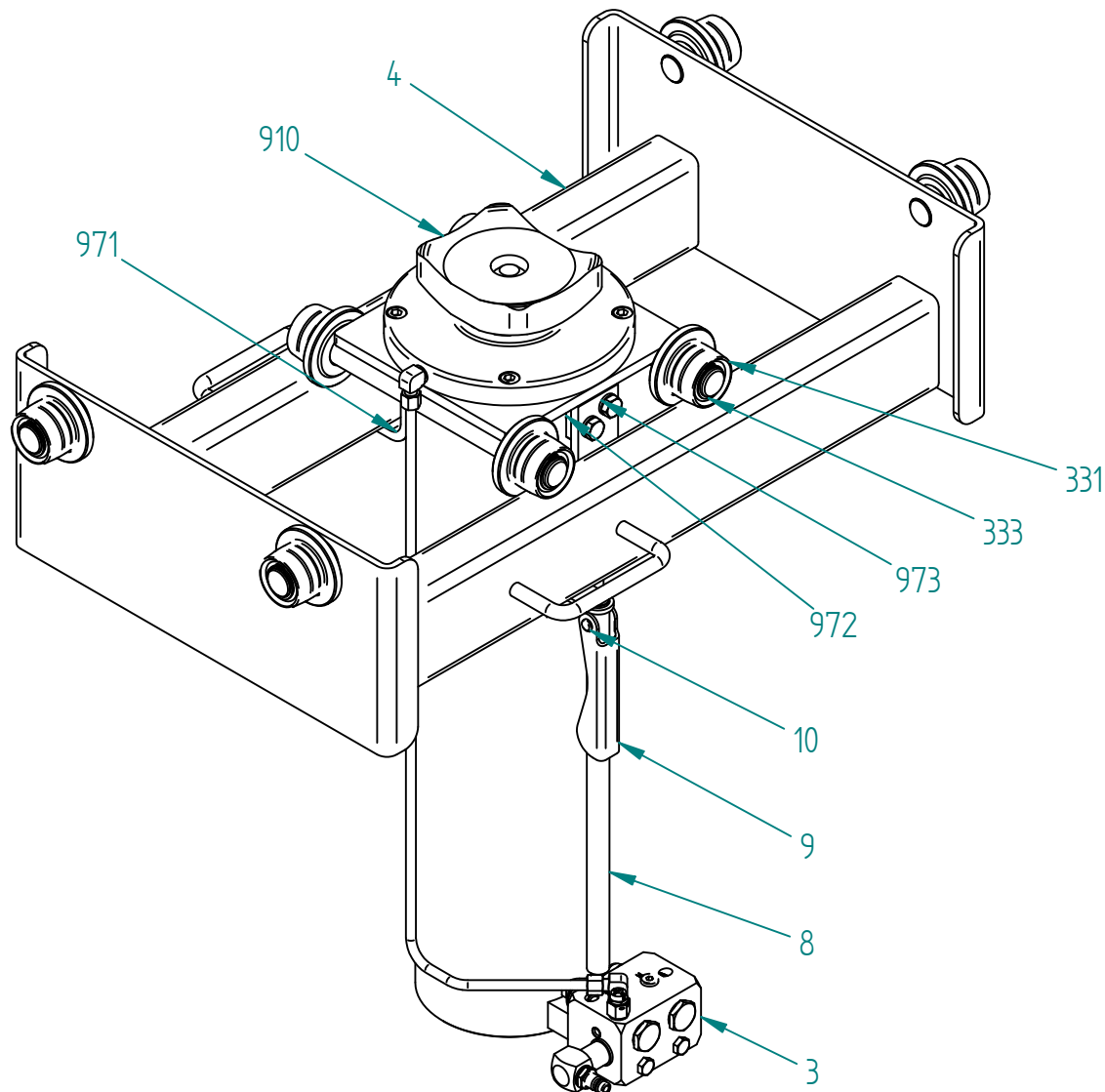
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16/07/18

Blatt 3

von 3



Pos.	Stk.	Description (en)	Order-No.
3	1	Lifting unit cpl. welded	3254003
4	1	Undercarriage adjustable	3217004
8	1	Selector shaft cpl.	3252220
9	1	Lever red	118280
10	2	Cylinder screw	3320529
331	4	Flanged roller	114404
333	4	Retaining ring	704016
910	1	Support plate X	3245910
971	2	Safety angle	3209971
972	4	Hexagon bolt	700211
973	4	Spring washer	703514



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Grubenheber GWUS 2

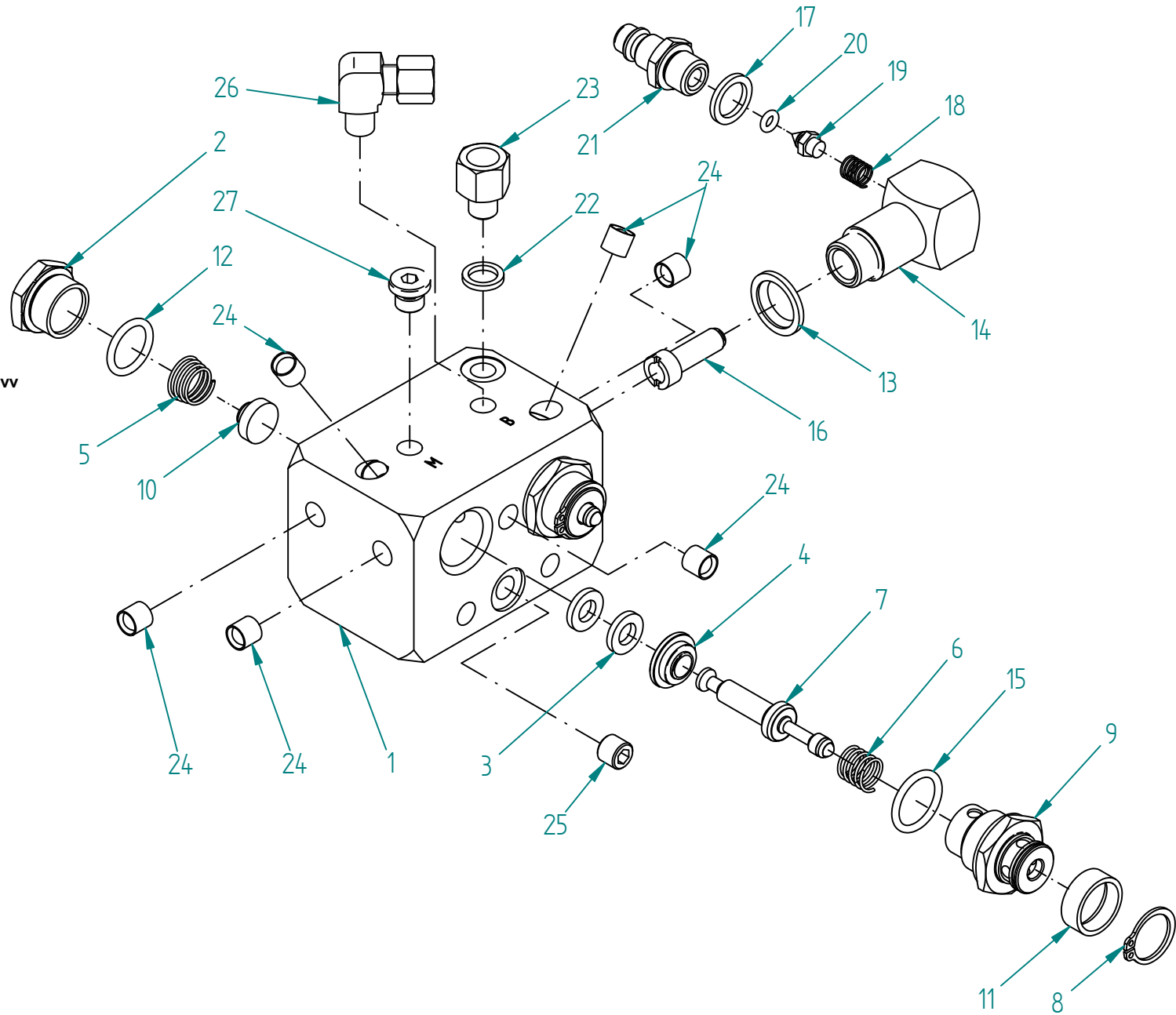
E18051515

10009123

16/05/18

Blatt 1

von 1



Pos.	Stk.	Description (en)	Order-No. vvvvvv
1	1	Valve body	3252201
2	2	Sealing cap	3252215
3	4	Seal f.valve seat	707104
4	2	Stop disk	3252204
5	2	Conical spring No. 128	3252214
6	2	Compression spring No. 142	3161108
7	2	Valve tappet cpl.	3252219
8	2	Retaining ring DIN 471	704009
9	2	Venting	3252210
10	2	Valve disk rubber	708100
11	2	Filter	708980
12	2	O-ring 16 x 2.5	707612
13	1	Captive disk R3/8	706705
14	1	Spout block	3259264
15	2	O-ring 18 x 2.5	707614
16	1	Sieve insert cpl.	3142015
17	1	Sealing ring Cu R 1/4"	706902
18	1	Compression spring No. 164	2518412
19	1	Non-return valve	3252268
20	1	O-ring 4 x 2	707601
21	1	Coupling spout	3253262
22	1	Sealing ring Cu R 1/8"	706801
23	1	Safety valve R1/8"	851700015
24	6	Seal plug	707035
25	1	Locking screw	3220234
26	1	Ermeto coupling	752020
27	1	Locking screw	705517



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Steuerung kpl. GWUS

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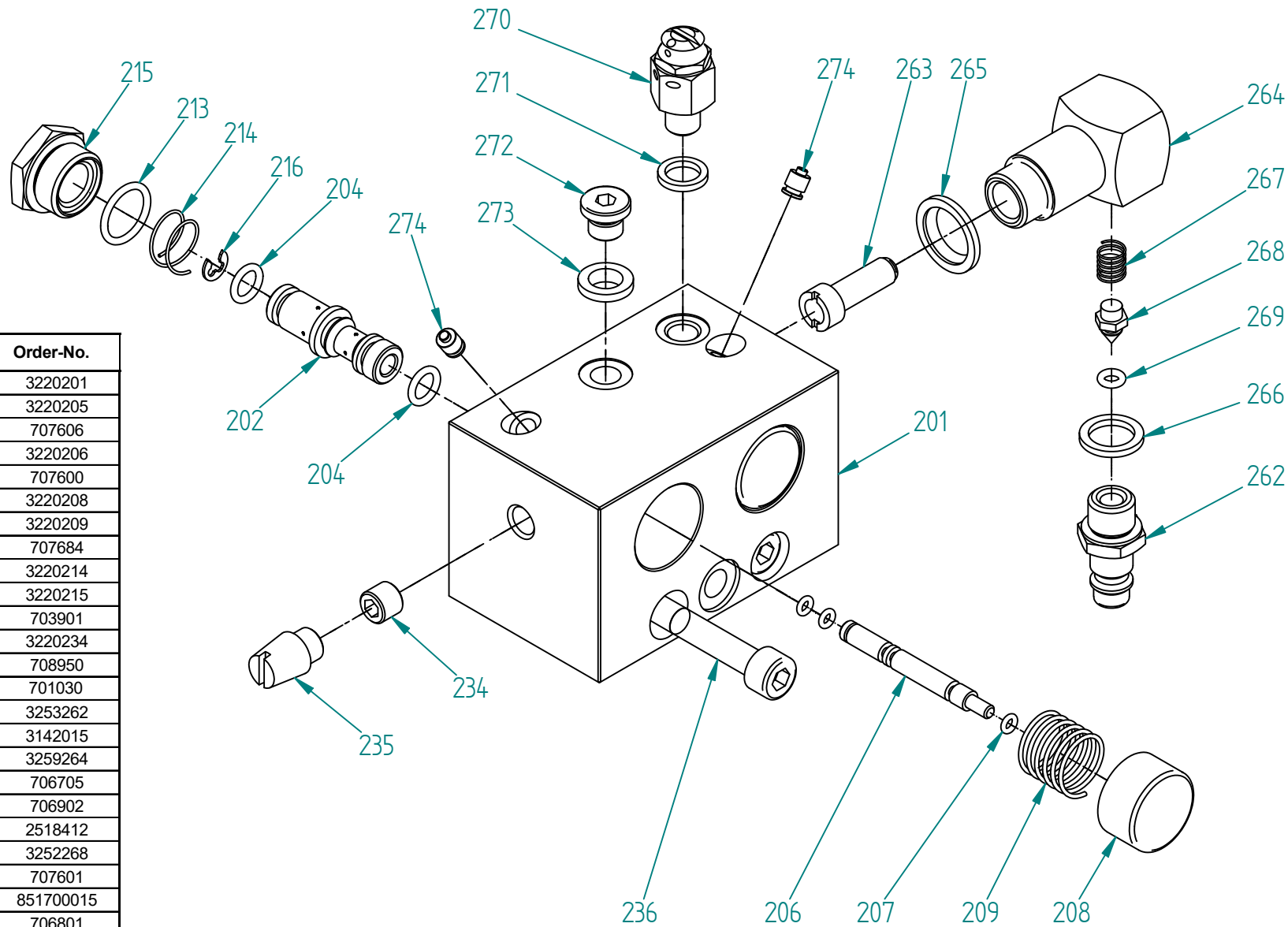
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25/02/08

Blatt 3

von 3





Pos.	Stk.	Description (en)	Order-No.
201	1	Valve body	3220201
202	2	Tappet	3220205
204	4	O-ring 8 x 2	707606
206	2	Tappet	3220206
207	6	O-ring 3 x 1.5	707600
208	2	Push button	3220208
209	2	Compression spring No. 182	3220209
213	2	O-ring 15 x 2	707684
214	2	Conical spring No. 74	3220214
215	2	Sealing cap	3220215
216	2	Lock washer	703901
234	1	Locking screw	3220234
235	1	Muffler R 1/8"	708950
236	2	Cylinder screw	701030
262	1	Coupling spout	3253262
263	1	Sieve insert cpl.	3142015
264	1	Spout block	3259264
265	1	Captive disk R3/8	706705
266	1	Sealing ring Cu R 1/4"	706902
267	1	Compression spring No. 164	2518412
268	1	Non-return valve	3252268
269	1	O-ring 4 x 2	707601
270	1	Safety valve R1/8"	851700015
271	2	Sealing ring Cu R 1/8"	706801
272	1	Locking screw DIN 908	705517
273	1	Nobü captive disk	706714
274	2	Seal plug	707031



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Steuerung kpl. GWS

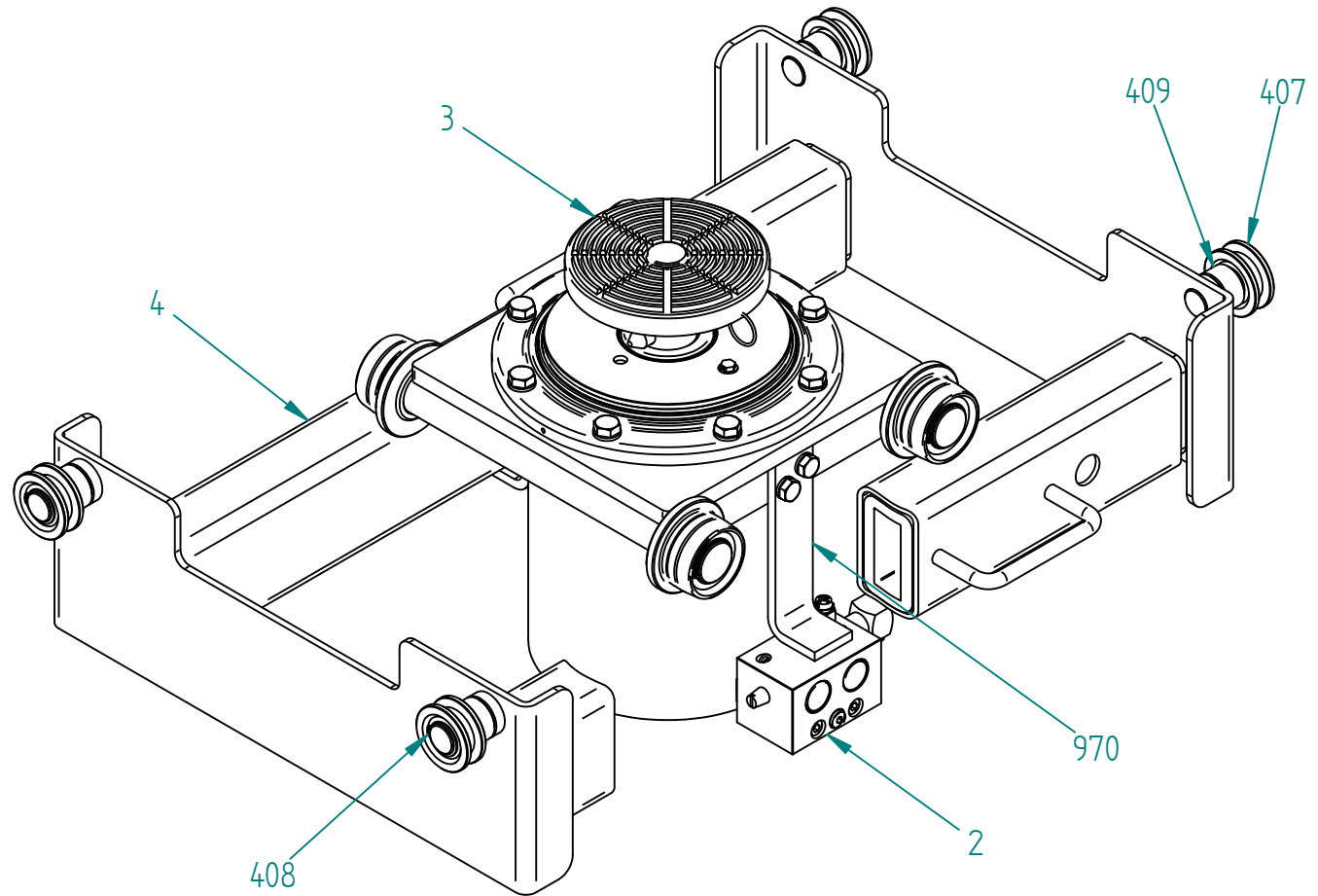
3220002

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Blatt 2

von 2



Pos.	Stk.	Description (en)	Order-No. GWSKT		Order-No. GWSKTA	
			3/2,5	4/3,5	2/1,5	3/2,5
2	1	Control cpl.	3220002	3220002	3220002	3220002
3	1	Lifting unit cpl. welded	32200031	32210031	34800031	34810031
4	2	Undercarriage cpl.	3220004	3221004	3480004	3481004
407	1	Sheave	3220407	3220407	3220407	3220407
408	1	Retaining ring	704016	704016	704016	704016
409	1	Spacer bushing	3220408	3220408	3220408	3220408
970	1	Tilt protection	3209970	3220971	3480971	3220971



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Kurzheber Übersicht

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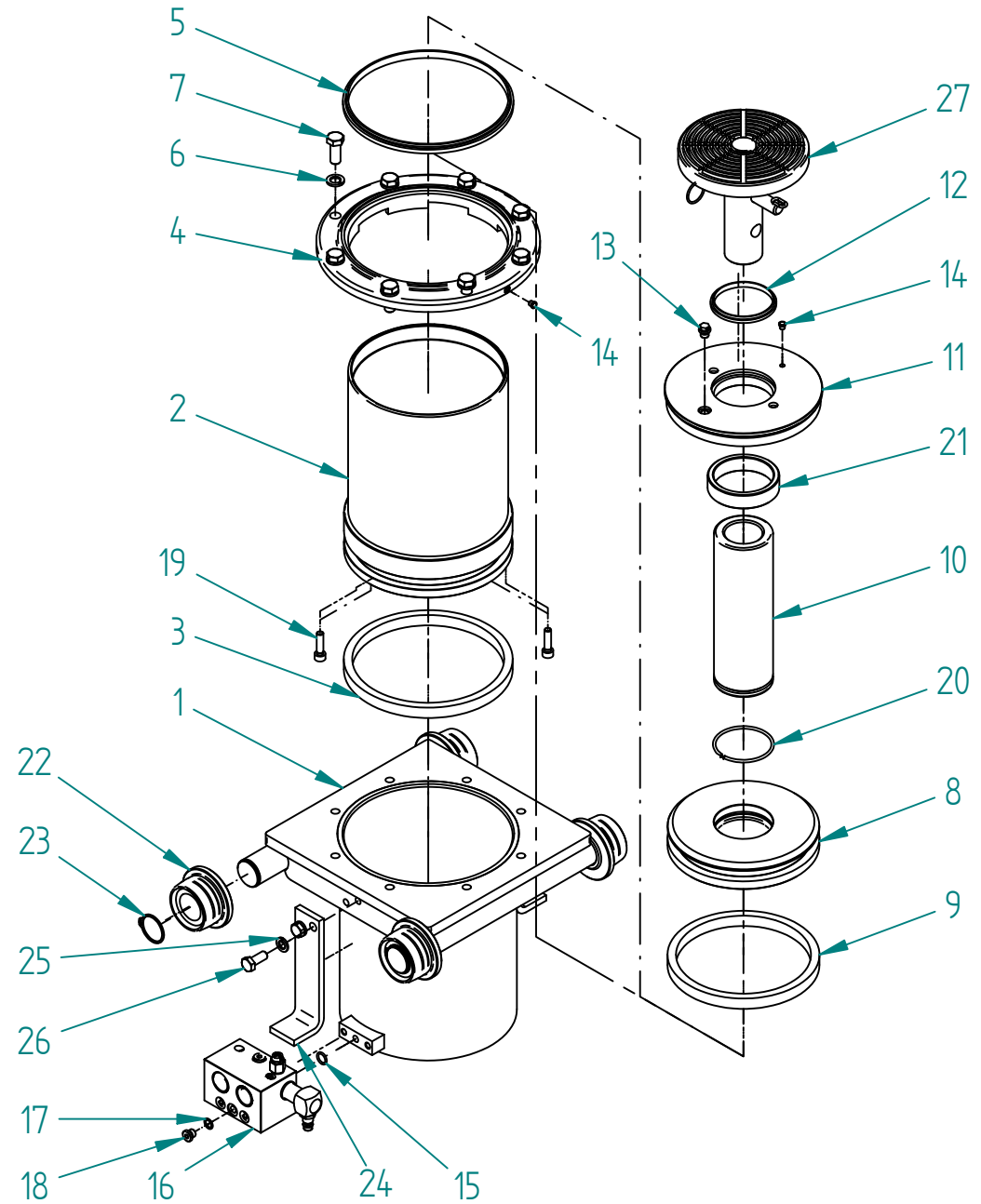
10009123

16/05/18

Blatt 1

von 1

Pos.	Stk.	Description (en)	Order-No.
1	1	Lifting unit welded	3220300
2	1	Tappet with piston	32203200
3	1	Piston seal	119152
4	1	Flange	3220326
5	1	Wiper ring	707918
6	8	Spring washer	703515
7	8	Hexagon bolt	700222
8	1	Piston stage 2	3480341
9	1	Piston seal	119151
10	1	Tappet 2nd stage	3220340
11	1	Flange ring	3220345
12	1	Wiper ring	707910
13	1	Locking screw	3220347
14	2	Grease nipple	706349
15	1	O-ring	707609
16	1	Control cpl.	3220002
17	1	Sealing ring Al	703700
18	1	Locking screw	705517
19	2	Cylinder screw	701019
20	1	Circlip	103011
21	1	Spacer ring	117618
22	4	Flanged roller	3261331
23	4	Retaining ring	704022
24	2	Safety angle	3220971
25	4	Spring washer	703514
26	4	Hexagon bolt	700211
27	1	Disk cpl.	34809100



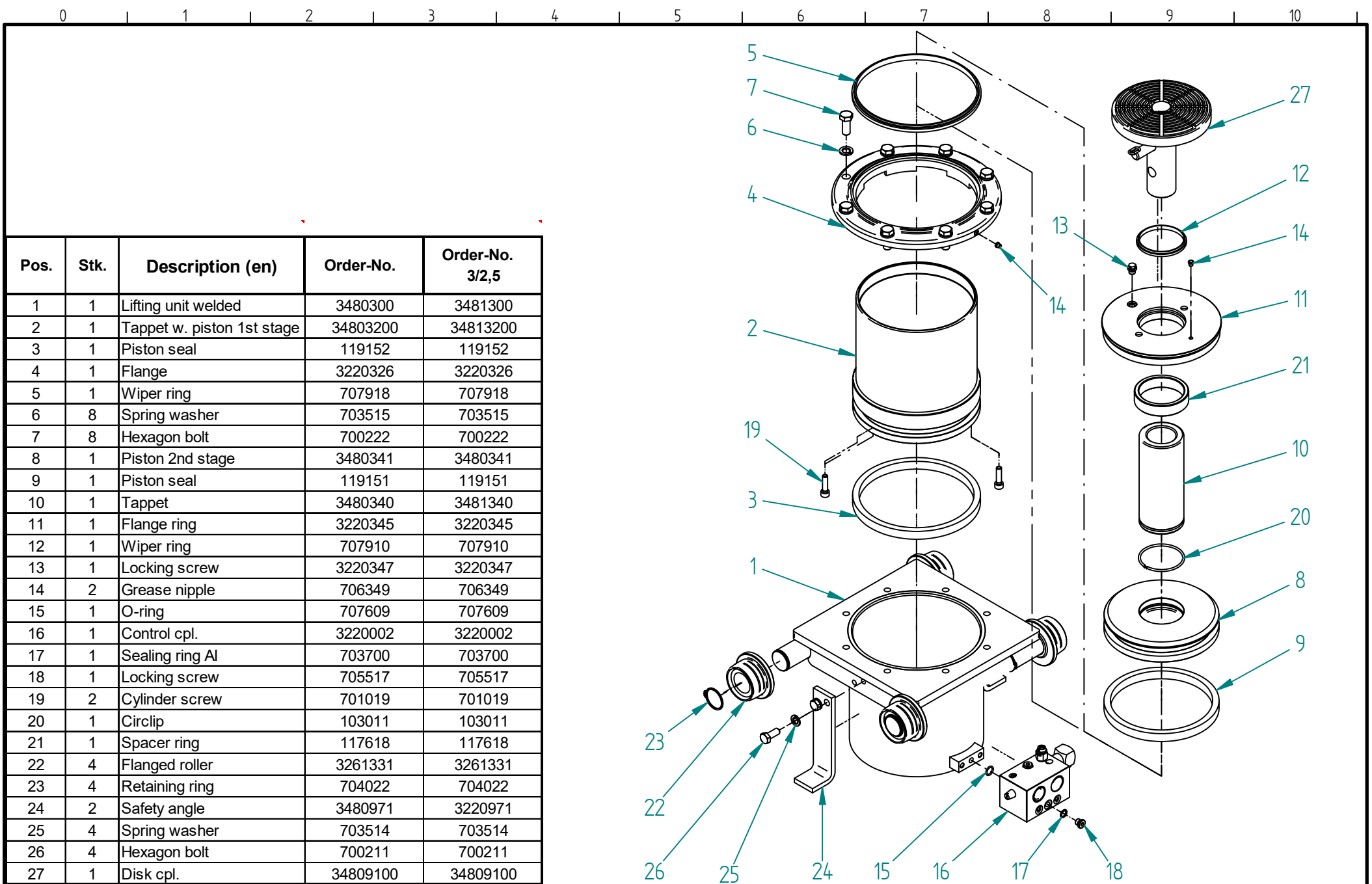
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Hubeinheit kpl. GWSKT

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25/04/18

Blatt 1  
von 1



Pos.	Stk.	Description (en)	Order-No.	Order-No. 3/2,5
1	1	Lifting unit welded	3480300	3481300
2	1	Tappet w. piston 1st stage	34803200	34813200
3	1	Piston seal	119152	119152
4	1	Flange	3220326	3220326
5	1	Wiper ring	707918	707918
6	8	Spring washer	703515	703515
7	8	Hexagon bolt	700222	700222
8	1	Piston 2nd stage	3480341	3480341
9	1	Piston seal	119151	119151
10	1	Tappet	3480340	3481340
11	1	Flange ring	3220345	3220345
12	1	Wiper ring	707910	707910
13	1	Locking screw	3220347	3220347
14	2	Grease nipple	706349	706349
15	1	O-ring	707609	707609
16	1	Control cpl.	3220002	3220002
17	1	Sealing ring Al	703700	703700
18	1	Locking screw	705517	705517
19	2	Cylinder screw	701019	701019
20	1	Circlip	103011	103011
21	1	Spacer ring	117618	117618
22	4	Flanged roller	3261331	3261331
23	4	Retaining ring	704022	704022
24	2	Safety angle	3480971	3220971
25	4	Spring washer	703514	703514
26	4	Hexagon bolt	700211	700211
27	1	Disk cpl.	34809100	34809100



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Hubeinheit kpl. GWSKTA

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Blatt 1  
von 1



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