

DOCUMENTATION

Grab type:

MMG 4000-3-S

Com.-no.:

AB00008699

Serial-no.:

2502

EC Declaration of Conformity in accordance with Machinery Directive 2006/42/EC, Annex II 1.A

The manufacturer / distributor: **Salzgitter Maschinenbau AG**
Windmühlenbergstraße 20-22
38259 Salzgitter

hereby declares that the following product

product name: **PEINER Motor Orange-Peel Grab**
series / type: **MMG 4000-3-S**
serial number: **2502**

Description:

A grab essentially consisting of the shells, the cross member, the hydraulic system and the lifting cylinders

complies with all relevant provisions of the above Directive and other applied directives (listed below) – including their amendments valid at the time of declaration. In case of any modification of the machine that has not been agreed with us, this declaration becomes invalid.

The following harmonised standards were applied:

- | | |
|---------------------|---|
| EN ISO 12100-1:2003 | Safety of machinery - Basic concepts, general principles for design Part 1: Basic terminology, methodology (ISO 12100-1:2003) |
| EN ISO 12100-2:2003 | Safety of machinery - Basic concepts, general principles for design Part 2: Technical principles (ISO 12100-2:2003) |
| EN ISO 13849-1:2008 | Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design (ISO 13849-1:2006) |
| EN ISO 14121-1:2007 | Safety of machinery - Risk assessment – Part 1: Principles (ISO 14121-1:2007) |
| EN 60204-1:2006 | Safety of machinery - Electrical equipment of machines – Part 1: General requirements (IEC 60204-1:2005 (modified)) |
| EN 61000-6-1:2007 | Electromagnetic compatibility (EMC) – Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments (IEC 61000-6-1:2005) |

The following national or international standards (or parts/clauses thereof) and specifications were applied:

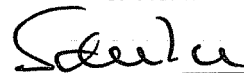
BGR 500 Operation of work equipment BGV D6 Cranes

Name and address of the person authorised to compile the technical documentation:

Salzgitter Maschinenbau AG
Windmühlenbergstraße 20-22
38259 Salzgitter

Place: Salzgitter

Date: **29. März 2012**



Karin Schulze
Substitution Engineering Manager - Grabs

Certificate

Qualification of the manufacturer for welding of steel structures complying with DIN 18800-7: 2008-11

Class E

This is to certify that the company **Salzgitter Maschinenbau AG**

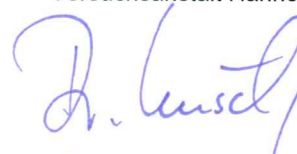
in the plant **38259 Salzgitter, Windmühlenbergstr. 20 - 22**

has the required personnel and equipment to carry out welding works for manufacturing supporting steel structures in the following fields of application:

Standards/Regulations	DIN 18800-7 DIN 15018 DIN 4131
Welding Processes (Reference no. acc. to DIN EN ISO 4063)	111 manual arc welding 121 submerged arc welding 135 metal active gas welding 136 metal active gas welding with flux-cored wire electrode
Parent Metals	S235, S275, S355, S460 according to the currently valid list of building parts and to the adaptation rules of the German steel design code Stainless steels as per homologation certificate Z-30.3-6 DIBt S690Q as per homologation certificate Z-30.1.1 DIBt
Extensions/Restrictions	-
Responsible welding coordinator (Surname, Name, Date of birth, Qualification)	Herbert Engeler, born 22.04.1955 Welding Engineer
Substitute (Surname, Name, Date of birth, Qualification)	-
Remarks	Further substitutes of the welding coordinator: Joachim Kuhn, born 25.03.1962, Welding-Expert Torsten Gödecke, born 27.08.1965, Welding-Expert Ali Örs, born 02.03.1964, Welding-Expert
Period of validity	from 03.12.2009 to 02.12.2012
Number of certificate	2009 700 0696/E
Issued on	16.12.2009 Baumbach/SU
General requirements see reverse	



Schweißtechnische Lehr- und
Versuchsanstalt Hannover



Manager of the Certification Body
(Name/Signature)

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6.0 Spare parts list and electric equipment		

Order no.: AB00008699
Product: MMG 4000-3
Material no.: 1000062712 Operating instructions: A 03.0113
Serial no.: 2502
Year of construction: 2012
Deadweight: 8450 kg
Required crane lifting capacity: 20.450 kg

Filling volume / admissible lifting capacity

Filling volume [m³]	Piled density [t/m³]	adm. lifting capacity / SWL [t]
4,0	3,0	12,0

Bulk material: scrap

Theoretical working times (free in space / without picking up bulk material)

	50 Hz	60 Hz
Opening of grab	11 sec.	9 sec.
Closing of grab	19 sec.	16 sec.

Electric Data

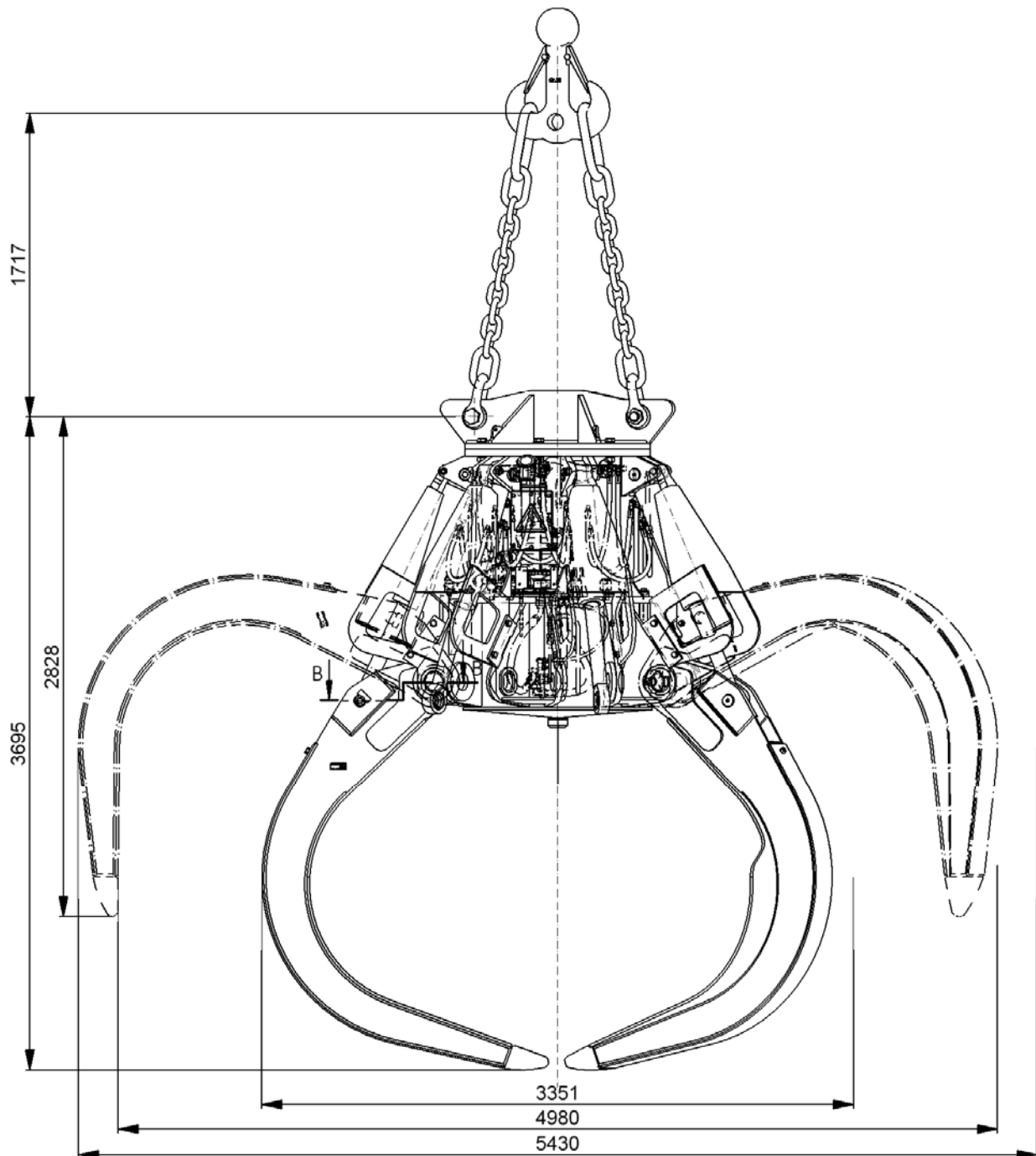
Mode of operation:	S6 / S3	System of protection:	IP 65
Motor type: (8111628)	225S-4	Insulation class:	H
Intermittent service:	40 % duty cycle	max. duty classification:	120/h
Motor power:	35 / 54 kW	Circuit diagram no.:	1000062714
Voltage:	380 / 440 V	Plug-in connector:	Leidel D58
Frequency:	50 / 60 Hz	Control voltage:	230 V AC
Current:	threephase		
Rated current:	68,5 / 88 A ± 10 %		

Hydraulic Data

max. service pressure	Opening of grab [± 10 bar]	Closing of grab [± 10 bar]
Measuring point MA		
Measuring point MB		
Measuring point MP		
Measuring point MP1		230
Measuring point MP2	120	
Measuring point MLS		

Pump type:	V30D-095
Control block:	NG30N-LS
Cylinder size:	120/80x500 stroke
Filled oil quality:	HLP 46
Oil tank capacity:	440 l
Filter type:	E 453-278
Filter mesh:	β _{16(c)} = 200 Exapor
Admissible service temperature:	- 5 °C up to + 85 °C

Dimensions



2.1.2 Functional description (see page no. 5-1, hydraulic diagram)

Operation mode: Reversing operation (S3)
 Variable delivery pump (Power regulator
 plus Load-Sensing regulator)
 Control block NW 30-N-LS

General:

Operation mode S3, also called reversing operation, means that the electric motor and therefore also the pump are operated in clockwise rotary sense as well as anticlockwise rotary sense. This causes the opening and closing motion of the grab.

A power-regulated axial piston pump with additional load-sensing regulator (LS) was installed in this grab.

The power regulator of the pump is adjusted to the maximum drive motor power, i.e. depending on the drive power, the output of the pump is continuously adjusted to the output of the drive motor in case a determined operating pressure is exceeded and continues to increase. Thus, the hydraulic output, the product of output and pressure, remains constant.

The load-sensing regulator, for short LS regulator, only functions as a „min./max.-interruptor“. Via the LS regulator the pump recognizes that:

1. a consumer has been connected and the pump must switch to max. output,
2. a system pressure preset at the pressure relief valve (DV1 or DV2) has been reached and the pump has to change down towards "zero-lift regulation", so that only as much hydraulic fluid is displaced as is necessary for compensating the gap leakage in pump and system.

Opening procedure:

When the drive motor M is switched on, the hydraulic pump P sucks hydraulic oil out of the tank via nonreturn valve RV4 and delivers it to pressure pipe P2. The oil flows into the piston rod sides KSS of the lifting cylinders via nonreturn valve R2 and line B. When the cylinders are retracted, the oil flowing out of the piston sides returns to tank via line A and stop valve SV1 through line T and filter F.

The maximum pressure in line B is controlled by the pressure relief valve DV2. When reaching the maximum pressure (adjustment of DV2), the pump's output is reduced (see paragraph "General").

Closing procedure:

When the sense of rotation of the electric motor M is changed, the hydraulic pump P sucks hydraulic oil out of the tank via nonreturn valve RV3 and delivers it to pressure pipe P1. The oil flows to the two piston sides KS of the hydraulic cylinder via nonreturn valve R1 and line A. On extension of the cylinders, the oil emerging of the piston sides KSS flows through line B and the stop valve with lift-stop SV2, which was opened by the control pressure, through return pipe T and filter F into the tank.

The maximum pressure in line A is controlled by the pressure relief valve DV1. When reaching the maximum pressure (adjustment of DV1), the output of the pump is reduced (see paragraph "General").

When the drive motor is switched off, nonreturn valves R1, R2 and the pilot-controlled nonreturn valves SV1, SV2 prevent an automatic opening and closing of the grab.

ATTENTION ! During load-lifting it must be observed that the grab is closed until the lifted load is suspended safely in the scoops when lifting the grab.

Pressure to be set at DV1 and DV2.
(see data sheet for pressure values)

DV1 = closing
DV2 = opening

Rattling of the shells:

In order to avoid a rattling of the shells during the opening procedure, the pilot-controlled nonreturn valve SV2 should be slightly throttled (setting by means of adjusting screws, see page no. 10-6).

ATTENTION ! SV2 must not be closed too much to avoid extreme heating of the oil.

Security valves RV3; RV4:

The complete hydraulic system is protected by the security valves (RV3; RV4). The security valves must always be set approx. 30 - 50 bar higher than the system pressure valves (DV1, DV2). Normally they are set at 280 bar ex works and should never be adjusted.

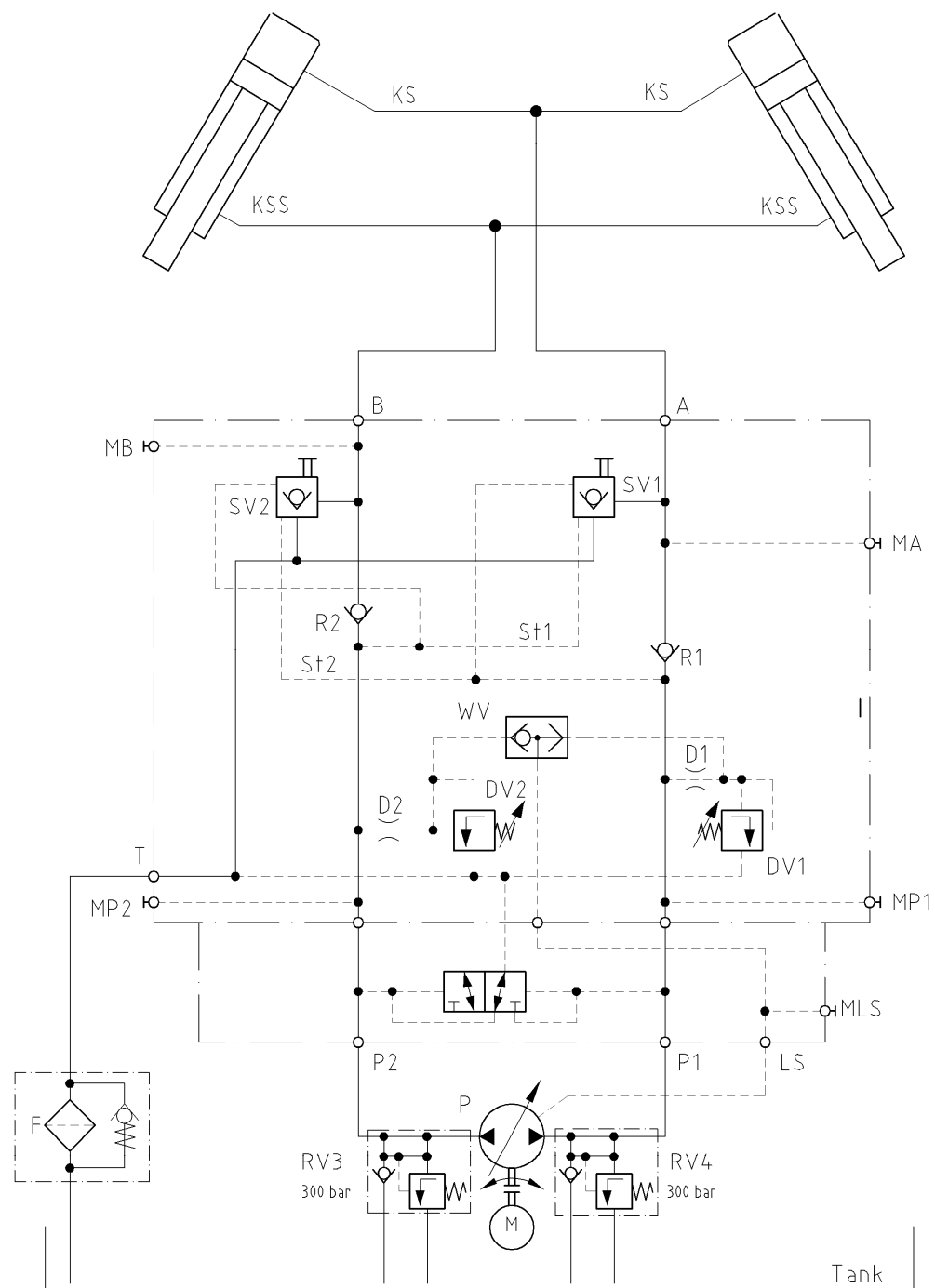
Pressure gauge connections:

The system pressures can be checked at the provided measuring points (pressure values see data sheet).

Closing: on cylinder, on ring line, MP1, MA
Opening: on cylinder, on ring line, MP2, MB

Pump pressure: MP
LS-pressure: MLS

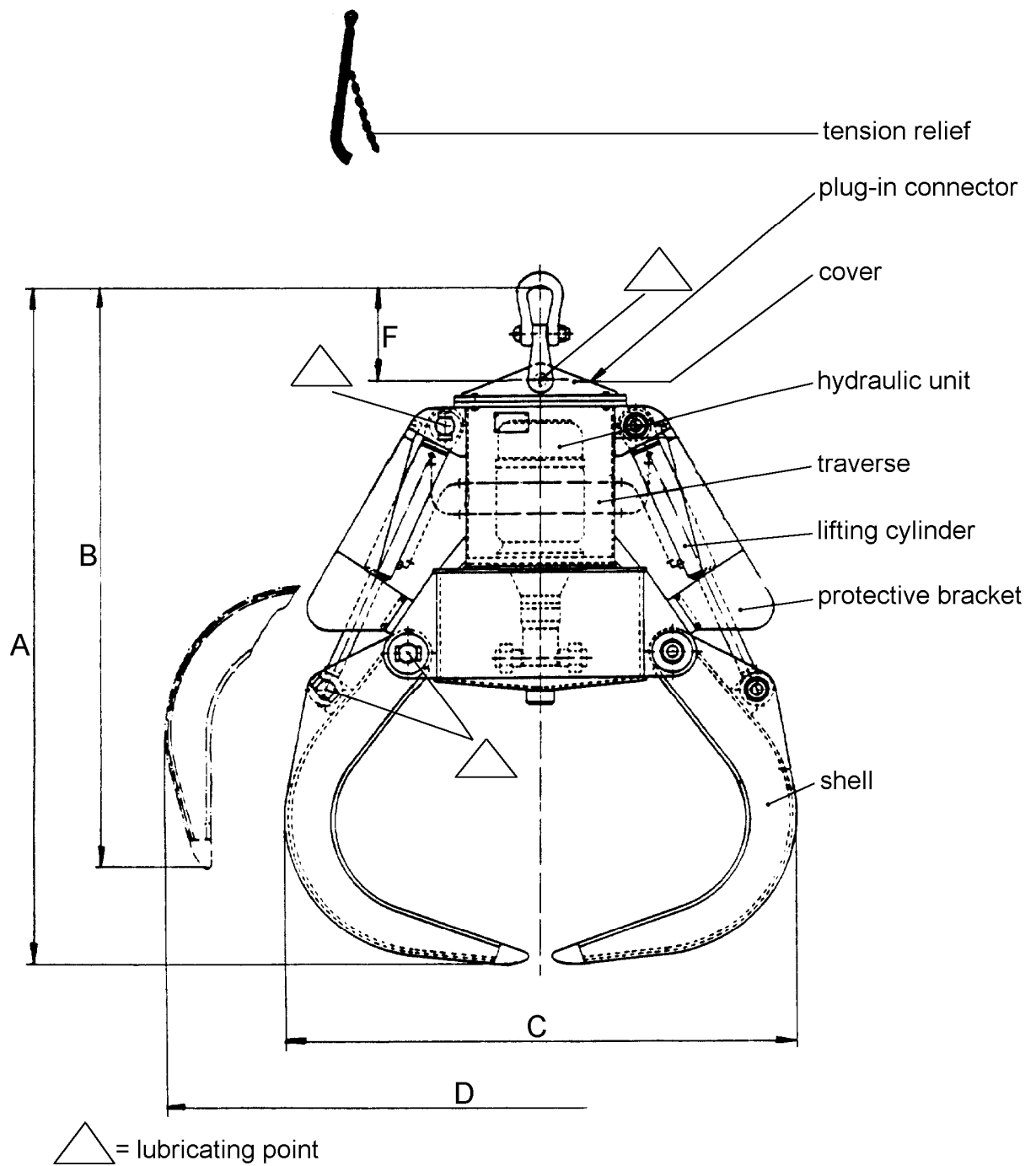
2.2 Hydraulic diagram 2314.1911
control block NG 30-N, standard design
variable delivery pump (power regulator and LS-regulator)



Legend:

A	= line (grab closing)
B	= line (grab opening)
D1, D2	= nozzle
DV1, DV2	= pressure relief valve
F	= filter
KS	= piston side
KSS	= piston rod side
LS	= Load-Sensing line (LS-line)
M	= electric motor
MA	= pressure gauge connection, cylinder pressure (closing)
MB	= pressure gauge connection, cylinder pressure (opening)
MLS	= pressure gauge connection for LS-signal pressure
MP1	= pressure gauge connection, closing pressure
MP2	= pressure gauge connection, opening pressure
P	= hydraulic pump
P1, P2	= pressure line pump / control block
R1, R2	= nonreturn valve
RV3, RV4	= nonreturn valve (check valve) with pressure relief valve
St1, St2	= control line
SV1, SV2	= stop valve with lift stop
T	= tank connection
WV	= shuttle valve

2.4 Parts list



3.0 Operating instructions

3.1 Observation of UVV regulations

The regulations for the prevention of accidents for load-lifting members must be complied with.

ATTENTION!

In order to prevent accidents when climbing up the grab, the personnel for operation and maintenance must take adequate precautionary measures in accordance with the regulations for the prevention of accidents in order to be protected against falling down and other dangers!

3.2 Putting into operation

3.2.1 Initial start-up

- Compare existing voltage with required grab voltage (please refer to data sheet).
- Check the hydraulic oil level (see 4.2.1).
If necessary, refill oil which may have leaked during the transport (see table of recommended fluids, sheet no. 11-1).
- At temperatures below -10 °C, either preheat the hydraulic oil or operate the opened grab up to max. pressure at intervals of 2 - 3 minutes for approx. 1 minute, until the oil has warmed up to +5 °C.
- Fit the suspension to the carrying device.
Observe SWL of the crane lifting appliance.
- Connect grab with plug-in connector. In case of wrong sense of rotation, change terminal leads of plug-in connector. In case the plug-in connector is not fitted, connect it according to the wiring diagram.
- Fit tension relief and take care that the rubber-sheathed cord does not stress the electrical plug-in connector.
- Subject the grab to a trial run; first observe 3.3.
- Check the bolted joints as to their tightness.
- After approx. 50 hour of operation, change oil filter element (refer to drawing page-no. 10-1).

3.2.2 Daily start-up

- Check oil level (see 4.2.1)
- At temperatures below -10 °C, either preheat the hydraulic oil or operate the opened grab up to max. pressure at intervals of 2 - 3 minutes for approx. 1 minute, until the oil has warmed up to +5 °C.
- Check proper fit and tension relief of plug-in connector.
- Check the tightness of hoses, bolted joints and cylinders.



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3.3 Information for operation

When handling bulk materials which impede the perfect closing of the grab, it would be advisable to raise the grab slightly during the closing procedure. In order to reach the maximum filling capacity, the grab should be set down horizontally. The grab must never dash down on the bulk material at high speed. Heavy impacts should be avoided, in order to prevent damages.

3.4 Shut-down

The grab is to be placed in opened condition so that the piston rods are retracted. This is of particular importance when the unit is out of operation for extended periods. The plug-in connector is to be provided with protection caps.

In addition, for longer periods out of service, the grab should be exercised every three months to prevent corrosion and gumming of the hydraulic fluid in the control elements.

3.5 Reoperation

- Observe all points mentioned under 3.2.
- Inspect for damages.

3.6 Transportation

- The grab must be open during transportation.

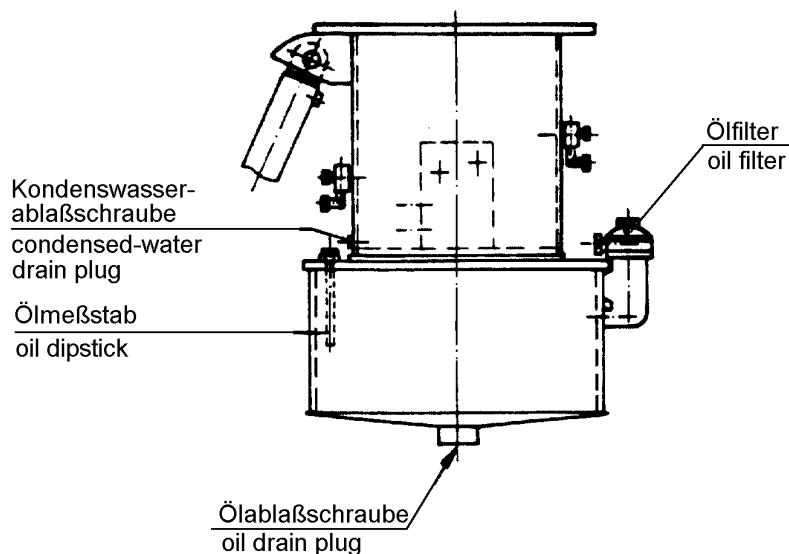
4.0 Maintenance and repair

4.1 Maintenance

4.1.1 Oil change

The first oil change is to be carried out after about 500 service hours. Further oil changes every 1000 service hours - after one year at the latest. Extraordinary service conditions may cause excessive pollution or an ageing of the oil. In such cases we recommend to have an oil analysis carried out in the laboratories of the oil supplier.

- Oil brands, see table: oil recommendation
- Proceeding:
 1. Set down the opened grab
 2. Unscrew oil dipstick (tank ventilation)
 3. Put a suitable collection basin under the oil drain plug
 4. Unscrew and clean drain plug
 5. Drain oil out of tank (at operating temperature of the unit)
 6. Clean tank
 7. Replace oil filter insert
 8. Rescrew oil drain plug
 9. Fill tank (via filter)
 10. Check oil level (see 4.2.1)



ATTENTION! Close oil dipstick hermetically when piston rods are extended (grab closed).

4.1.2 Lubricating instructions

All lubricating points (marked in red) are to be lubricated every 24 hours with lithium-saponified grease according to DIN 51825 (recommendation for lubricating grease, page no. 11-2; lubricating points are marked in the legend page no. 7-1).

4.1.3 Oil filter

In case of new units, the filter insert is to be replaced after about 50 service hours, in any other case after every oil change. Furthermore, the oil filter must be checked after repairs of the hydraulic system and, if necessary, the filter insert must be replaced.

4.1.4 Motor

After 15000 service hours, the bearings are to be cleaned and half-filled with lithium-saponified grease, dropping point 160 - 190 °C.

4.1.5 Condensed-water

Drain condensed water. For this purpose, the drain plug is to be unscrewed (only for underwater operation).

4.2 Required checks

4.2.1 Check oil level

- The oil level is to be checked with the grab being opened, i. e. with retracted piston rods.
- The grab must be levelled horizontally.
- The maximum or minimum oil level can be read on the oil dipstick.
- Too much oil causes an inadmissibly high overpressure in the tank.
- Too little oil causes an overheating of the hydraulic system and might lead to pump damages.
- For refilling oil, please see table of oil recommendation, page no. 11-1.

ATTENTION! Close oil dipstick hermetically when piston rods are extended (grab closed).

4.2.2 Check and adjust pressure

The pressure can be checked at the following points:

1. On the lifting cylinder: closing and opening pressure on the rod-side of the cylinder tube
2. Through assembly holes, the individual system pressures can be measured on the control block:
 - Measuring point MA: closing pressure (cylinder)
 - Measuring point MB: opening pressure (cylinder)

ATTENTION! Due to physical rules, the pressure measured here is approx. 30 to 40 bar higher than the pressure actually produced by the pump. Furthermore, there can be deviations in the pressure measurements, which can be measured

- a) during operation with material (bulk goods) and
- b) during operation without material (bulk goods)

in spite of the same pressure adjustment.

3. - Measuring point MP1:

The pressure produced by the pump, limited by the pressure relief valve DV1 for "closing". The pressure measured at this point can be approx. 30 bar lower than at measuring point MA.

- Measuring point MP2:

The pressure produced by the pump, limited by the pressure relief valve DV1 for "opening". The pressure measured at this point can be approx. 30 to 40 bar lower than at measuring point MB.

- Measuring point MP:

The pressure for "opening" and "closing", produced by the pump.

- Measuring point MLS:

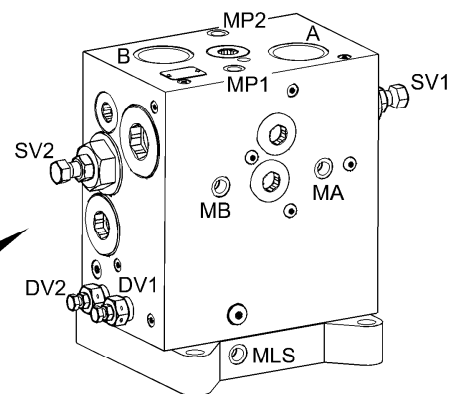
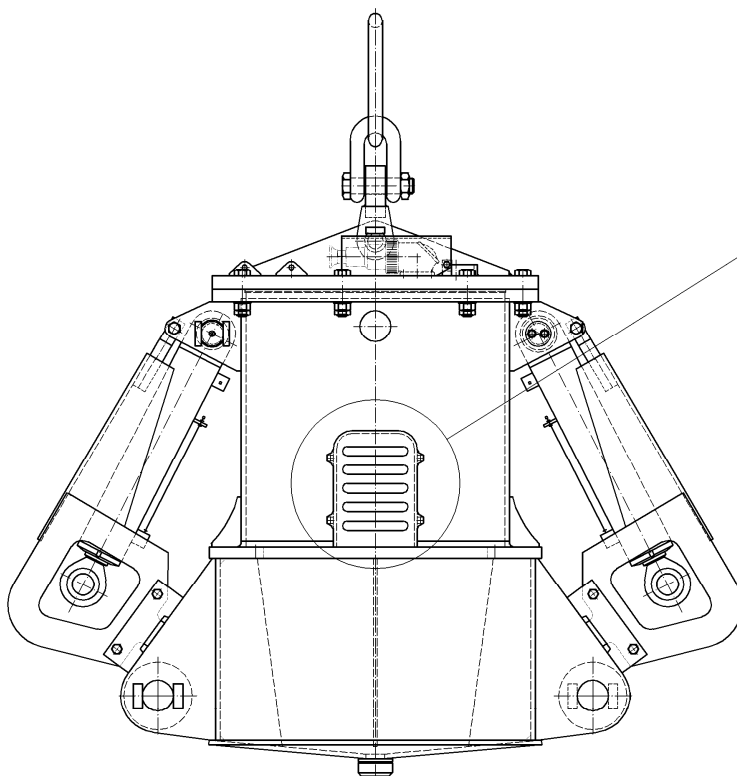
Pressure in the load-sensing signal line to the load-sensing regulator of the pump (only for variable delivery pumps with load-sensing regulator).

The following is applicable:

Electric motor is switched on

- during the movement of the shells (cylinder): $MP = MLS$
- at the end of the movement, i. e. adjusted pressure at DV1 respectively DV2 reaches $MP = MLS + (20 \text{ to } 30 \text{ bar})$

Control block NG 30 - standard design (S3)



- MA = closing
- MB = opening
- DV1 = closing
- DV2 = opening
- MP1 = pump pressure-closing
- MP2 = pump pressure-opening
- MLS = load-sensing control

4. Pressure adjustment:

ATTENTION! Adjustment when the system is warm from operating

Pressure adjustment is done at the control block:

Closing pressure:	Pressure relief valve DV1
Opening pressure:	Pressure relief valve DV2

The recommended adjustment values are to be seen in the machine card. Other values must only be set after having consulted the manufacturer.

The adjustment itself is to be done as follows:

- Connect a pressure gauge to measuring point MP1 resp. MP2.
- Check the existing pressure (operation into closing resp. opening direction).
- Lower pressure = Loosen the counter nut at DV1 resp. DV2 and turn the adjusting screw to the left (anti-clockwise). Then check the pressure and secure the adjusting screw.
- Raise pressure = Loosen the counter nut at DV1 resp. DV2 and turn the adjusting screw to the right (clockwise). Then check the pressure and secure the adjusting screw.

ATTENTION! Prior to adjusting the pressure, the respective pressure relief valve should be released, i. e. if for example the closing pressure is to be changed, the grab shall be operated into "opening" direction for a short while before you turn the adjusting screw of DV1. If the respective pressure relief valve is not released, adjustment cannot be done at all or only with a lot of force, which might lead to damages of the valve components.

4.2.3 Miscellaneous checks

- Check hoses for damages
- Check the bolted joint and lifting cylinders regarding their tightness
- Check all screw connections
- Check degree of bearing wear
- Check plug-in connector and tension relief
- Monitor the oil temperature
- Check the filter regarding impurities

4.3 Repairs

4.3.1 General

The following points must always be observed when making repairs:

Disconnect the grab from the power supply. After every disassembly or repair, it is necessary to check the maximum pressure against that given on the name plate or the machine card. Suitably calibrated manometers are to be used.

4.3.2 Disassembly

1. Shells

Set down the opened grab. Support the traverse on stands, so that the pins are relieved of strain. Disassembly in the order specified below:

- 1.) Lifting cylinder pins at the shell
- 2.) Remove shell pins

2. Hydraulic unit

Set down the opened grab. Disconnect the motor cable at the plug-in connector. Remove cover. Unscrew hoses from the hood. Unscrew the mounting bolts of the hydraulic unit and lift the complete unit out of the grab.

3. Pump

Disassembly order as described in par. 2, above. Set down the hydraulic unit with the motor downwards. Disconnect pipe lines / hoses. Unscrew the pump mounting bolts and remove the pump.

4. Control block

Remove cover and disconnect hoses at control block. Loosen mounting bolts and lift out control block.

5. Motor

Disassembly order as described in par. 2, above. Set down the hydraulic unit, motor upwards, on stands. Remove mounting bolts. Attach lift rope to lifting eyes and lift out the motor.

6. Lifting cylinders

Set down the opened grab. Remove hoses to the lifting cylinders and collect draining oil. Dismount lifting cylinder bolts and unscrew lifting cylinder. (Depending on the weight, a hemp rope can be used for lifting.)

4.3.3 Repair works

1. Replace the bearing bushes of the scoops

Dismount as described under 4.3.2. Replace the worn bushes by new ones and stick in by means of a suitable adhesive, e. g. Loctite Type 638.

2. Replace the pins

When replacing the bearing bushes, check the contact surface of the pins. Replace the pins, too, if the contact surface is very worn.

3. Replace the lift cylinder seals (rod seal, piston seal, o-rings)

Remove the cylinder guide nut. Pull out the piston rod from the cylinder tube. Dismount piston from the piston rod. Remove the guide nut from the piston rod and replace the seals.

4. Pump

You should not repair the pump yourself. We propose that you have the defected pump repaired by the SMAG.

5. Control block

a) Replace the pressure relief valve
(see sheet-no. 10-6)

b) Replace the stop valve
(see sheet-no. 10-6)

Remove screw plugs and replace the whole stop valve assembly. Replace all parts completely, so as to ensure perfect operation.

4.3.4 Assembly

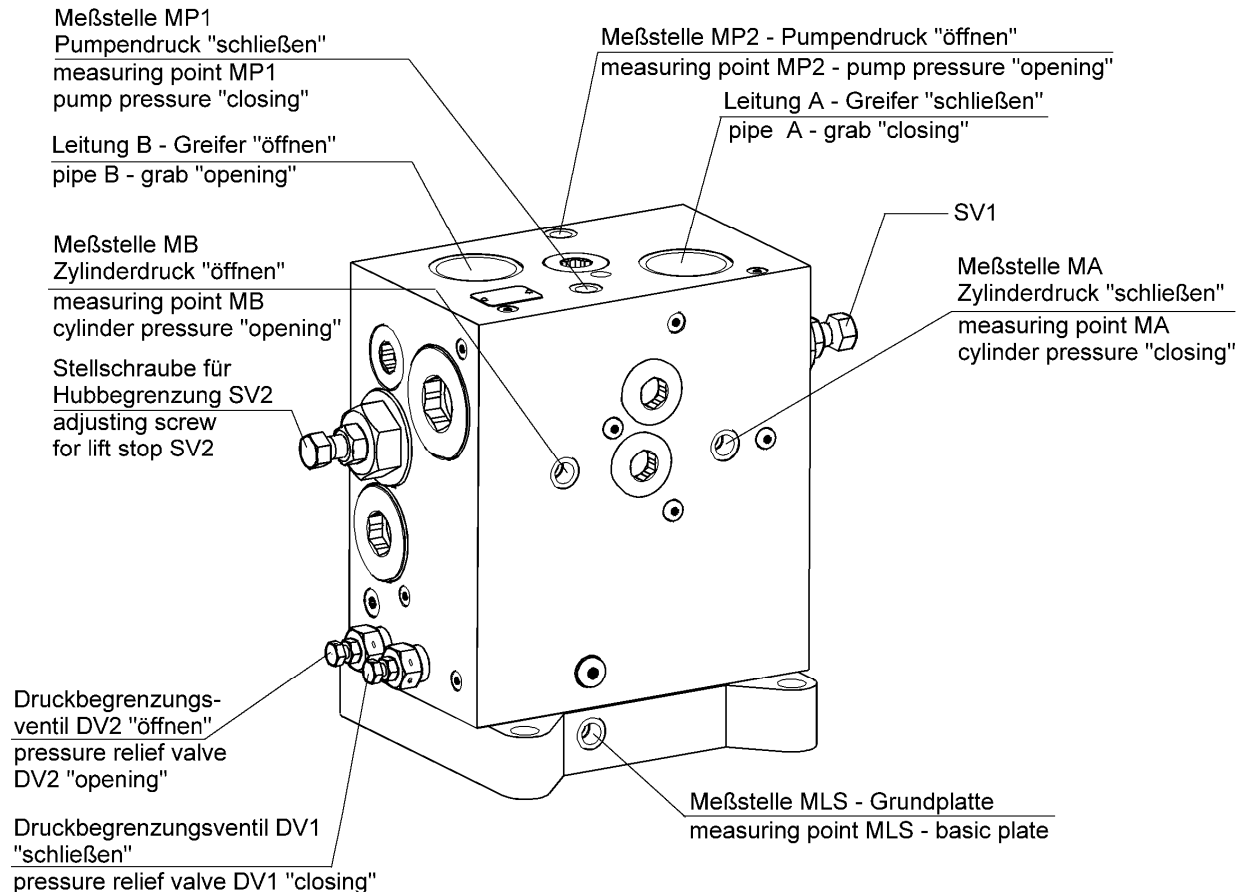
Carry out the assembly in reverse order of the disassembly. Take care that the parts provided with packings are not damaged during the assembly.

Do not use grease containing MoS₂ (molybdenum disulphide additives) for spherical plain bearings but only pressure-proof lithium-saponified greases to DIN 51825-K2k)

After the assembly, ensure that the service pressures comply with those indicated on the data sheet.

ATTENTION! For major repair works, call the after-sales service technician!

4.3.5 Control block NG 30-N



The adjusting screws SV2 are only to be adjusted if the grab chatters when being opened or closed. If an adjustment is necessary, proceed as follows:

Completely unscrew the adjusting screw SV2 and then screw them in until the chattering stops. The combined pressure must not exceed 30 bar, otherwise the oil is overheated unintentionally and a perfect opening and closing of the grab cannot be guaranteed.

If soiled, the pilot valve and the pressure relief valve unit must be cleaned.

4.4 Table: Oil recommendation - Hydraulic fluids

For normal operation, a hydraulic fluid of ISO-viscosity VG 46 shall be used. For summer or winter operation, a hydraulic fluid of ISO-viscosity VG 68 or FB 32 is to be used according to the ambient temperature.

Use zinc-containing hydraulic fluids.

Some suitable fluid types are listed below, others may be chosen according to the a. m. criteria:

	← Winter		Summer →
ISO viscosity	VG 32	VG 46	VG 68
Standard	HVLP 32 acc. to DIN 51524/3 HV	HLP 46 acc. to DIN51524/2	HLP 68 acc. to DIN51524/2
Range of oil temperature	-20 °C to +80 °C	-5 °C to +80 °C	0 °C to +80 °C
Ambient temperature	< -5 °C to -20 °C	-5 °C to +30 °C	> +30 °C
ADDINOL	ADDINOL Hydrauliköl HVLP 32	ADDINOL Hydrauliköl HLP 46	ADDINOL Hydrauliköl HLP 68
ARAL	Vitam HF 32	Vitam GF 46	Vitam GF 68
AVIA	AVIA FLUID HVI 32	AVIA FLUID RSL46	AVIA FLUID RSL68
BP	ENERGOL SHF-HV 32	ENERGOL HLP-HM 46	ENERGOL HLP-HM 68
CASTROL	HYSPIN AWH M 32	HYSPIN AWS 46	HYSPIN AWS 68
ENI (Agip)	ARNICA 32	AUTOL HYS 46	AUTOL HYS 46
ExxonMobil (ESSO)	UNIVIS N 32	Mobil DTE 25	Mobil DTE 26
FUCHS	RENOLIN MR 32 MC	RENOLIN MR 15	RENOLIN MR 20
SHELL	Tellus Oel T 32	Tellus Oel 46	Tellus Oel 68
Chevron TEXACO	TEXACO RANDO HDZ 32	TEXANDO RANDO HD 46	TEXANDO RANDO HD 68
TOTAL	Equivis ZS 32	Azolla ZS 46	Azolla ZS 68

In order to protect the hydraulic components, the oil must be in accordance with purity level 20/18/15 according to ISO 4406 at least (approximately corresponding to class 9 according to NAS 1638).

Since the purity level of new oil is generally lower, the new oil must be filtered. To do this either refill oil via the filter or use special filling devices that filter the oil to reach the required purity class.

Mixing of different hydraulic fluids is not allowed without prior consultation of the corresponding manufacturer and without prior release.

Do not use biodegradable hydraulic oil without SMAG's prior release. It is generally not allowed to mix mineral and biodegradable hydraulic oil!

In case these fluids are not obtainable, ATF oils (Automatic Transmission Fluid) can be used as an alternative.

	ATFoils according to specification type A, Suffix A	DEXRON® quality
ARAL	Getriebeöl SGF 84 (gear oil)	Getriebeöl ATF 22 (gear oil)
BP	Autran ATF	Autran DX II
CASTROL	Castrol TQ	Castrol TQ-Dexron II, Fluid 9226
MOBIL	ATF 200	ATF 220
SHELL	Donax TM	Donax TA

	Adhesive grease DIN 51513 BC	Lithium saponified grease lubricant DIN 51502 K 2 K
AGIP	FIN 332/F	Agip GR MU 2
ARAL	Sinit FZL 3	Aralub HLP 2
AVIA	Avilub BB 21	AVIALITH 2
BP	Energrease MP-MG2	Energrease LS 2
Castrol	Spheerol SX2	Spheerol EPL 2 Longtime PD 2
ESSO	Surett Fluid 4K	Beacon 2
FINA	Cabline 1060	Marson LU
Fuchs	Duotac F 310 L	RENOLIT MP RENOLIT GP 2
KLÜBER LUBRICATION		Klüberplex BEM 41-132
Mobil Oil	Mobiltac D	Mobilux EP 2
Shell	Cardium Fluid C	Alvania RL2
Total		Multis 2

5.0 Failure - Symptoms - Sources of failures

- Failure	- Symptoms	- Sources of failures
5.1 Grab not functioning	- motor does not work motor does not get power (voltage) - power available - motor works	- fuses - contactors - hoses - connection terminals - sliprings and brushes in cable drum - plug-in connector - motor defect - coupling defect - pressure pipe between pump and directional valve or control block defect - spring in pressure relief valve broken (see sheet no. 10-6) - maladjustment of throttle cross section (see sheet no. 10-6) - magnet defect - piston in directional valve jammed (due to contaminated oil)
5.2 Grab malfunctioning	- opening / closing times significantly slow - scoops open / close automatically	- pressure relief valve maladjusted (see 4.2.2) - pump defect - piston rings in the pump are worn (valid only for Volvo-pumps) - soiled pressure relief valve or loss of spring pressure. Readjustment required (see sheet no. 10-6). - oil level in tank is too low. If the pump takes in air, this usually leads to a destruction of the pump. - connection between pump and control block loose or damaged - cylinder glands / gaskets leaking - stop valve in the control block (closing / opening side) damaged - o-ring for stop valve body damaged - cylinder gaskets leaking - tube glands leaking

5.0 Failure - Symptoms - Sources of failures

	- Failure	- Symptoms	- Sources of failures
5.2	Grab malfunctioning	- scoops rattle upon opening or closing	- maladjustment of the throttle cross section (see sheet no. 10-6)
5.3	Failure of hydraulic system	- noisy pump - oil temperature is too high	- worn pump - operating switches (open and close) actuated too long, producing excessive pressure on pressure relief valve - maladjustment of the throttle cross section (see sheet no. 10-6) - too little or unsuitable oil in tank

Werks-Nr. / Serial-no.:
2502
Erzeugnis / Product:
MMG 4000-4-S
Sach-Nr. / Subject no.:
S 1000062712

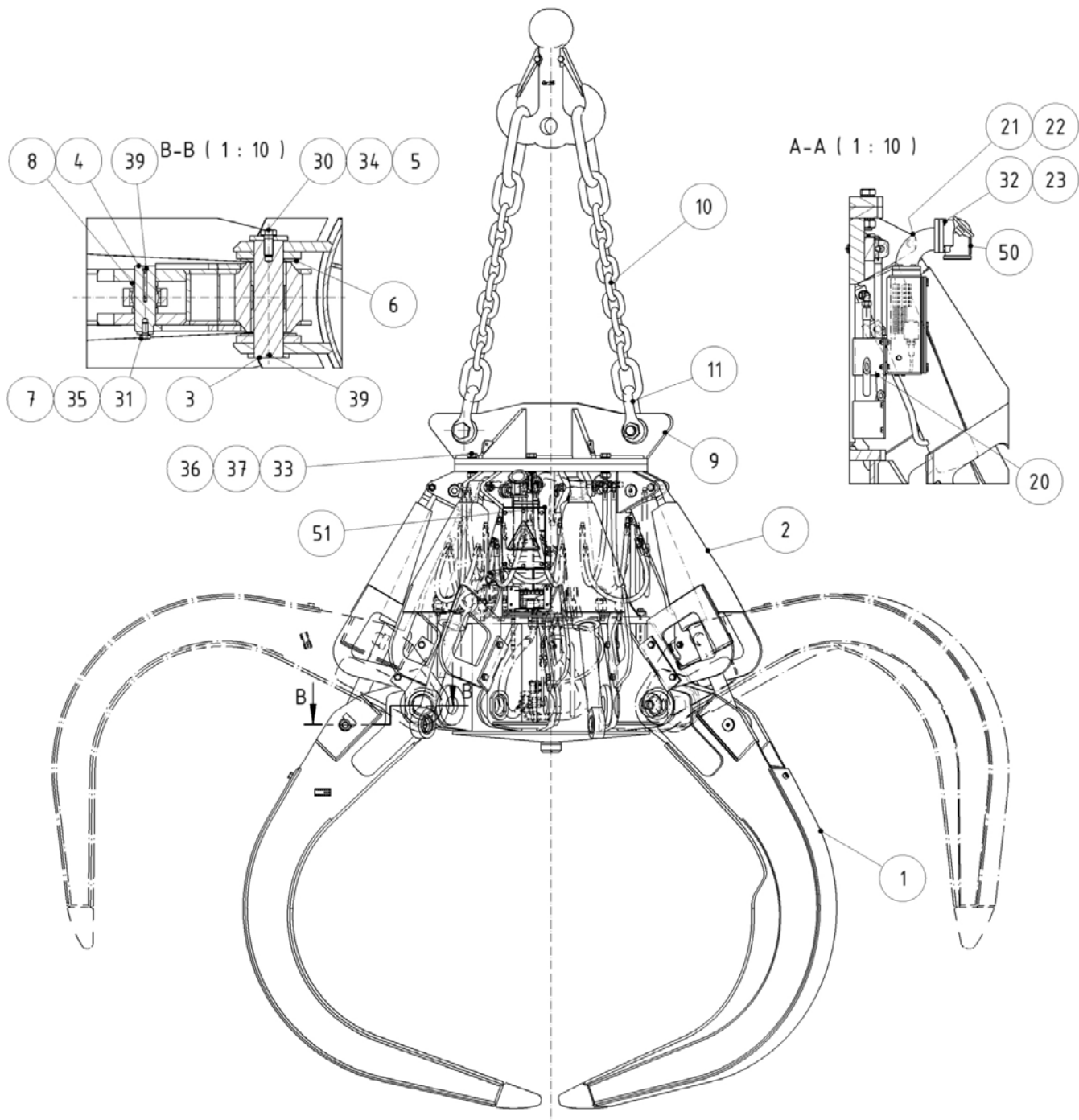
Benennung	Description	Bestell-Nr. / Order-no.	Gruppe-Nr. / Group-no.
Zusammenstellung	compilation	1000062712	1.0
Schale, kpl. – halboffen	shell, cpl. – half open	0023141882	2.0
Grundgerät	basic unit	1000062734	3.0
Anschlusskasten, kpl.	connection box, cpl.	0023144105	4.6
Hubzylinder	lifting cylinder	0023036457	7.1
Zylinderschutz	cylinder protection	0023039196	8.0
Hydraulikanlage	hydraulic system	0023141140	9.0
Hydraulikaggregat	hydraulic unit	0023036456	10.0
Rücklauffilter	return filter	0000020696	11.0
Pumpe	pump	0000022955	12.0
Steuerblock	control block	1000063253	13.0

Bei Ersatzteilbestellung ist außer der Bestellnummer das Erzeugnis, die Werks-Nr. und Kommissions-Nr. anzugeben.

For spare part orders, the product, serial-no. and commission-no. must be given in addition to the requisition-no.

Motor-Mehrschalengreifer
Motor Orange-Peel Grab
MMG-3
MMG-3
B 1000062712

 Gruppe-Nr.
 Group-no.

1.0




Ersatzteilliste Spare parts list

Motor-Mehrschalengreifer MMG 4000-3-S
Motor Orange-Peel Grab MMG 4000-3-S

Bestell-Nr. **1000062712**
 Order-no.
 Gruppe-Nr. **1.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01	0023141882	7	Schale, kpl. – halboffen (s. Gruppe-Nr. 2.0) shell, cpl. – half open (see group-no. 2.0)
02	1000062734	1	Grundgerät (s. Gruppe-Nr. 3.0) basic unit (see group-no. 3.0)
03	0023141515	7	Bolzen 100x385/400 pin
04	0023141523	7	Bolzen Ø 70x223 pin
05	0027604256	7	Scheibe disc
06	0027604768	14	Scheibe disc
07	0027604276	7	Scheibe disc
08	0023141272	14	Distanzhülse 82,5/71x18 spacer sleeve
09	0023142102	1	Deckel cover
10	0023143335	2	Ringkette ring chain
11	0000022987	2	Schäkel G-2150 2“ shackle
20	1000062811	1	Klemmenkasten terminal box
21	0023144377	1	Rohrbogen tube bend



Ersatzteilliste Spare parts list

Motor-Mehrschalengreifer MMG 4000-3-S
Motor Orange-Peel Grab MMG 4000-3-S

Bestell-Nr. **1000062712**
 Order-no.
 Gruppe-Nr. **1.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
22	0023144356	1	Dichtung gasket
23	0023002616	1	Dichtung gasket
30	0065173600	7	6kt.-Shr. M 30x70 / 8.8A3P / DIN EN ISO 4017 hexagon screw
31	0065165309	7	6kt.-Shr. M 20x40 / 8.8A3P / DIN EN ISO 4017 hexagon screw
32	0065153410	12	6kt.-Shr. M 10x25 / 8.8A3P / DIN EN ISO 4017 hexagon screw
33	0065046110	7	6kt.-Shr. M 30x130 / 10.9 / DIN EN ISO 4014 hexagon screw
34	0063949963	7	Schnorr-Sicherungsscheibe S 30 locking washer
35	0063949920	7	Schnorr-Sicherungsscheibe S 20 locking washer
36	0066829606	7	6kt.-Mu M 30 / 8A3P / DIN EN ISO 4032 hexagon nut
37	0000025583	14	Nord-Lock Sicherungsscheibe NL 30 locking washer
38			
39	0069520310	14	Schmiernippel AM 10x1 / 5.8Zn / DIN 71412 lubricating nipple

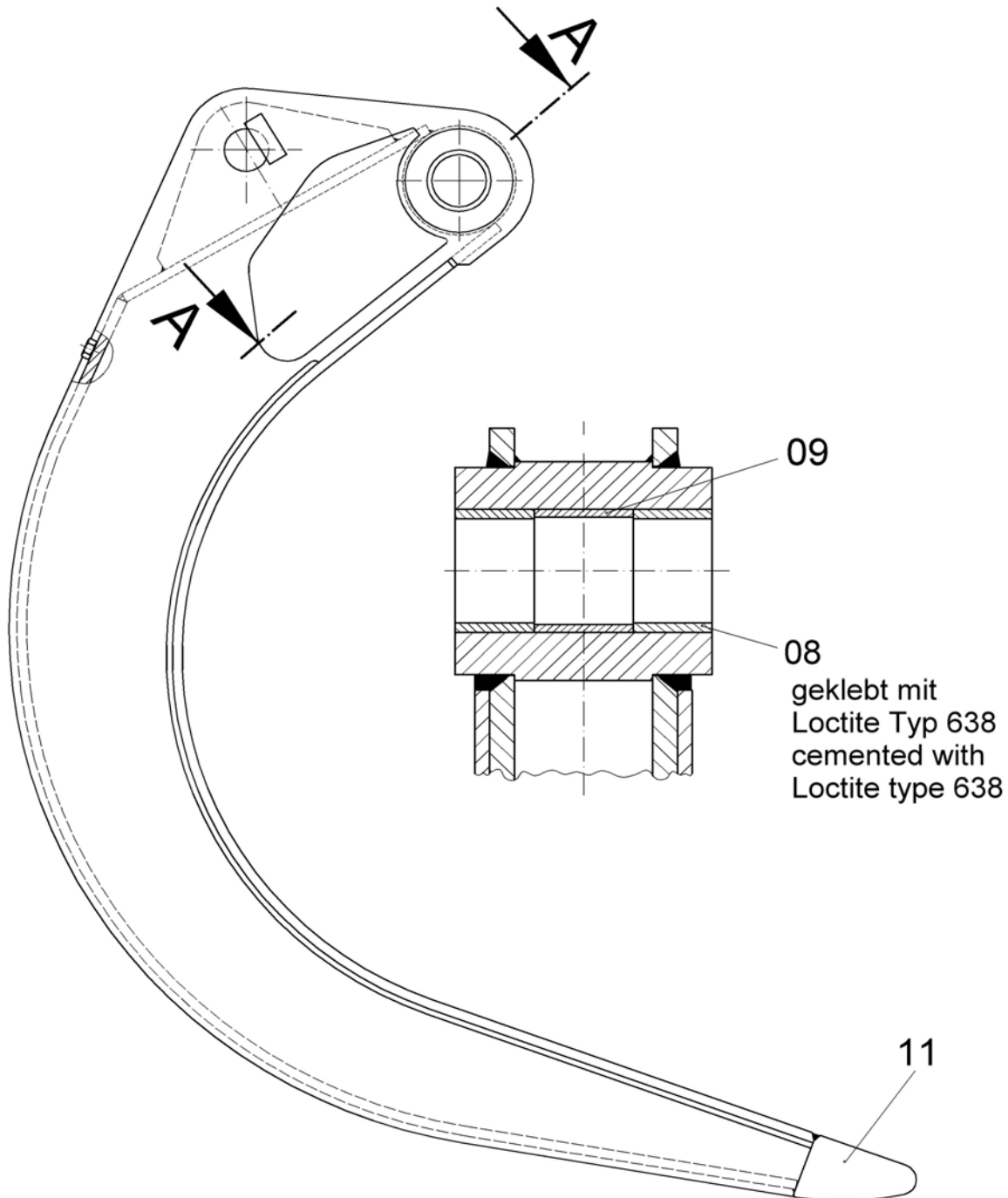


Ersatzteilliste Spare parts list

Motor-Mehrschalengreifer MMG 4000-3-S
Motor Orange-Peel Grab MMG 4000-3-S

Bestell-Nr. **1000062712**
Order-no.
Gruppe-Nr. **1.0**
Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
50	1000062714	1	Elektrische Installation (s. Geräteausrüstung Elektrik) electrical installation (see electric equipment)
51	0000040887	2	Magnetspule 205 V DC trip coil

Schale
shell**B 0023141882**Gruppe-Nr.
Group-no.**2.0**



Ersatzteilliste Spare parts list

Schale, kpl. – halboffen
shell, cpl. – half open

Bestell-Nr. **0023141882**
Order-no.
Gruppe-Nr. **2.0**
Group-no.

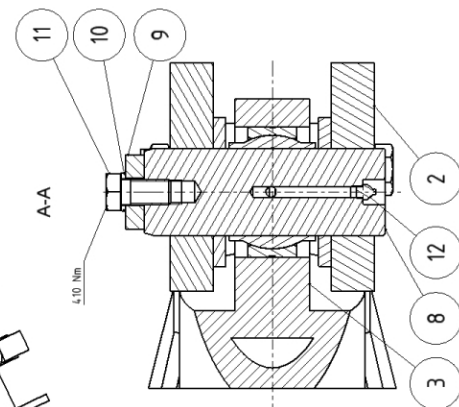
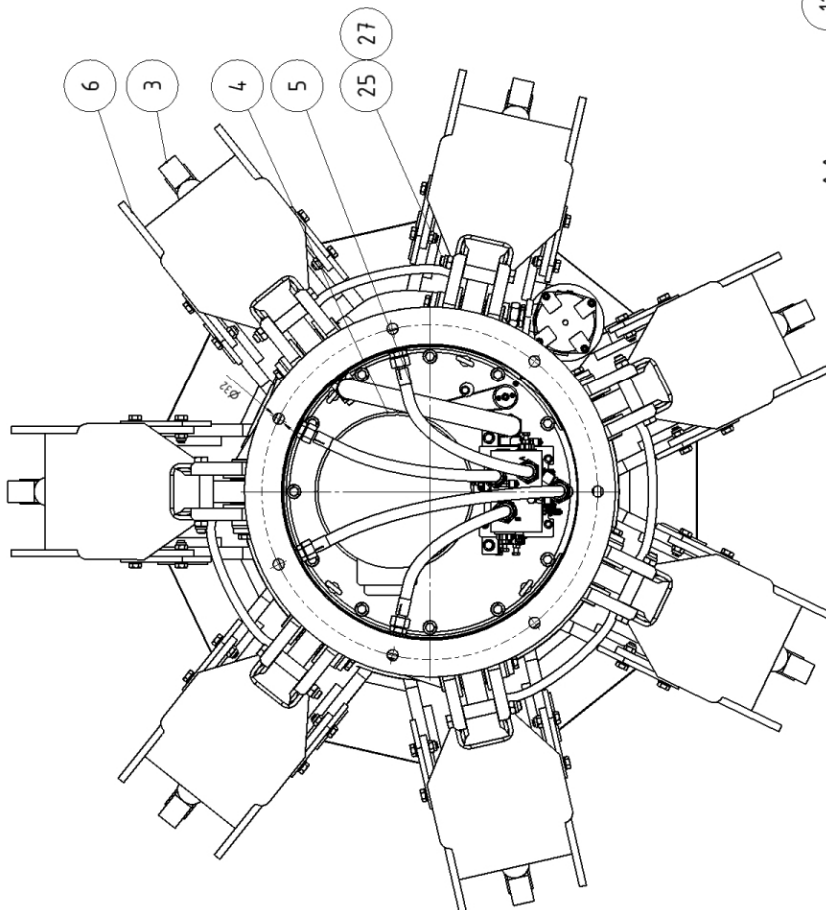
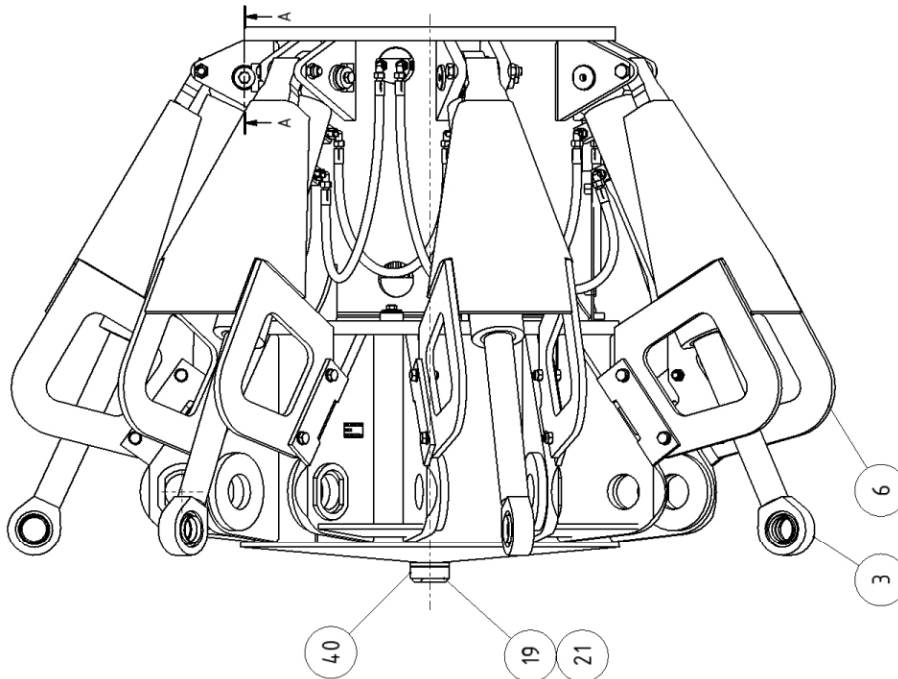
Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01			
08	0023037785	2	Buchse 100,5/120x80 bush
09	0023007584	1	Buchse bush
11	0023002509	1	Schalenspitze shell tip

Grundgerät
basic unit

B 1000062734

Gruppe-Nr.
Group-no.

3.0



Grundgerät
basic unit

 Bestell-Nr. **1000062734**
 Order-no.
 Gruppe-Nr. **3.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01			
02	0023141892	1	Traverse (1000063829 – Umbau Traverse mit Öffnung für Leistungsgeger) traverse (1000063829 – modification traverse with hole for power regulator)
03	0023036457	7	Hubzylinder 120/80x500 (s. Gruppe-Nr. 7.1) lifting cylinder (see group-no. 7.1)
04	0023036465	1	Hydraulikaggregat (s. Gruppe-Nr. 10.0) hydraulic unit (see group-no. 10.0)
05	0023141140	1	Hydraulikanlage S3 (s. Gruppe-Nr. 9.0) hydraulic system (see group-no. 9.0)
06	0023039196	7	Zylinderschutz (s. Gruppe-Nr. 8.0) cylinder protection (see group-no. 8.0)
07			
08	0023141516	7	Bolzen 70x195 pin
09	0027604257	7	Scheibe disc
10	0000025869	7	Nord-Lock Sicherungsscheibe NL 20 locking washer
11	0065165309	7	6kt.-Shr. M 20x40 / 8.8A3P / DIN EN ISO 4017 hexagon screw
12	0069520310	7	Schmiernippel AM 10x1 / 5.8Zn / DIN 71412 lubricating nipple
19	0074577212	1	Dichtring A 27x32x2 / Cu / DIN 7603 sealing ring

Grundgerät
basic unit

 Bestell-Nr.
 Order-no. **1000062734**
 Gruppe-Nr.
 Group-no. **3.0**

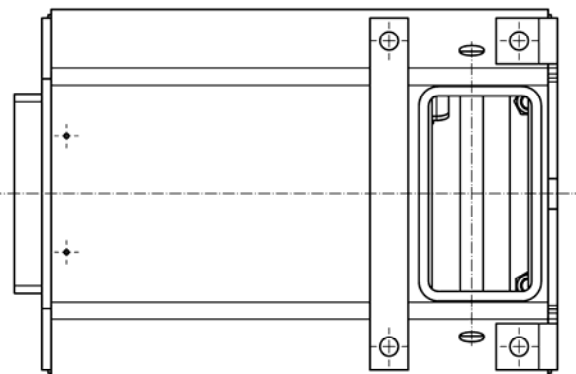
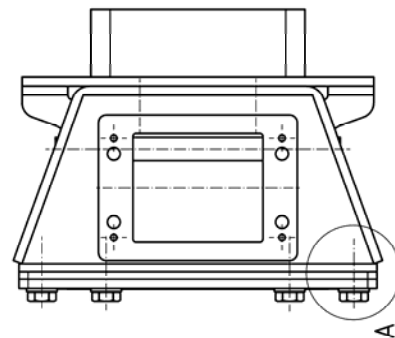
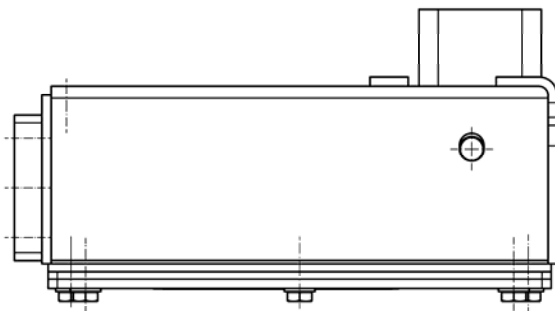
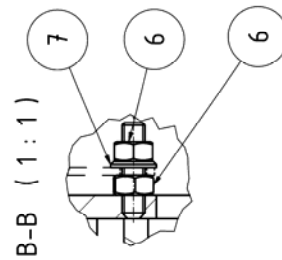
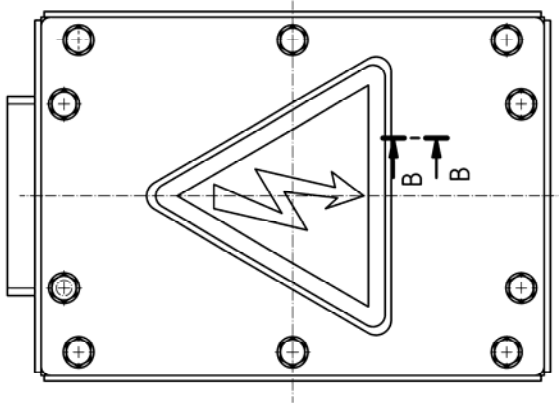
Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
20			
21	0008022741	1	Verschluss-Shr. R $\frac{3}{4}$ screw plug
25	0000018261	7	6kt.-Shr. M 24x200 / 8.8A3P / DIN EN ISO 4014 hexagon screw
26			
27	0066770908	7	Sicherungs-Mu M 24 / 8A3P / DIN EN ISO 7042 locking nut
40	0023000741	1	Schutzkappe protection cap

Anschlusskasten, kpl.
connection box, cpl.

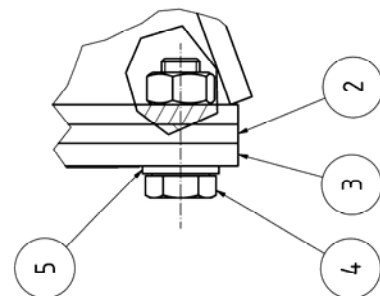
B 0023144105

Gruppe-Nr.
Group-no.

4.6



A (1:1)



Anschlusskasten, kpl.
connection box, cpl.

 Bestell-Nr. **0023144105**
 Order-no.
 Gruppe-Nr. **4.6**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01			
02	0023144110	1	Dichtung gasket
03	0023144111	1	Frontdeckel front cover
04	0065153601	8	6kt.-Shr. M 10x30 / A2-70 / DIN EN ISO 4017 hexagon screw
05	0063872406	8	Scheibe 10 / 200HV-A2 / DIN EN ISO 7090 disc
06	0066828003	8	6kt.-Mu M 6 / 8A2P / DIN EN ISO 4032 hexagon nut
07	0000027921	4	Scheibe 6 / 140HV-A3P / DIN EN ISO 7090 disc
12	0069343634	1	Schelle SP218 PPD PAS disc
13	0065147203	2	6kt.-Shr. M 6x20 / 8.8A2P / DIN EN ISO 4017 hexagon screw
14	0066828003	2	6kt.-Mu M 6 / 8A2P / DIN EN ISO 4032 hexagon nut

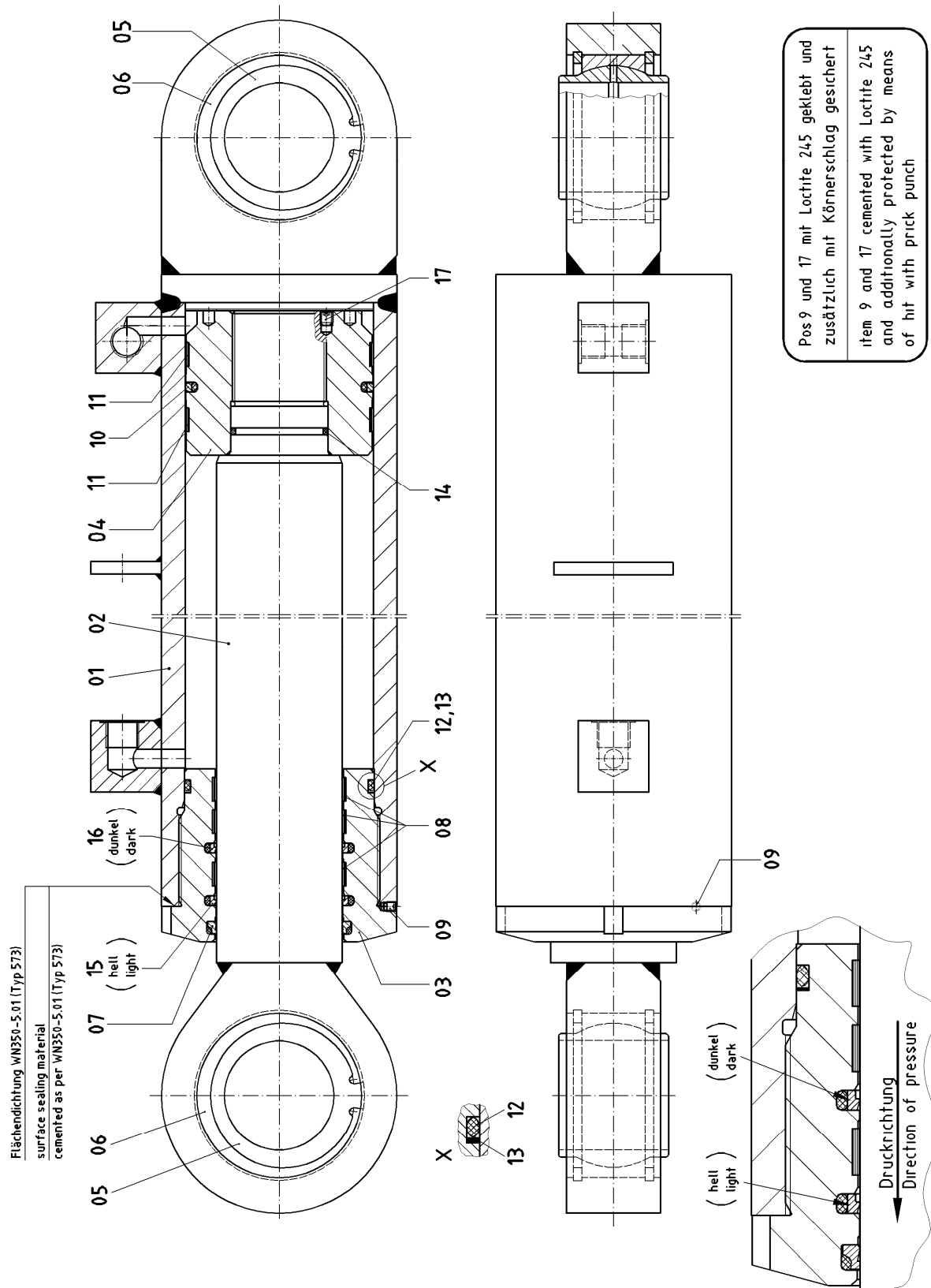
Hubzylinder

lifting cylinder

B 0023039185

Gruppe-Nr.
Group-no.

7.1



Hubzylinder 120/80x500
lifting cylinder

 Bestell-Nr. **0023036457**
 Order-no.
 Gruppe-Nr. **7.1**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01	0023036458	1	Zylinderrohr cylinder tube
02	0023036459	1	Kolbenstange piston rod
03	0023036460	1	Führungsmutter guide nut
04	0023036461	1	Kolben piston
05	0000021732	2	Gelenklager GE 70 LO rocker bearing
06	0063910500	4	Sicherungsring 105x4 / F-St / DIN 472 circlip
07	0000020581	1	Abstreifer WE5200800-Z51N scraper
08	0000020582	3	Stangenführungsring GR7300800-C380 rod guide ring
09	0000016064	1	Gewindestift M 6x8 / 45H / DIN EN ISO 4026 stud bolt
10	0000028511	1	Glydring PGP301200-Z66N sliding ring
11	0000021727	2	Kolbenführungsring GP7301200-C380 piston guide ring
12	0000021728	1	O-Ring 110,49x5,33 / 70NBR/769 o-ring
13	0000021729	1	Stützring BP090A348 back-up ring
14	0008014527	1	O-Ring 54x4 / 70 Shore o-ring

Hubzylinder 120/80x500
lifting cylinder

 Bestell-Nr. **0023036457**
 Order-no.
 Gruppe-Nr. **7.1**
 Group-no.

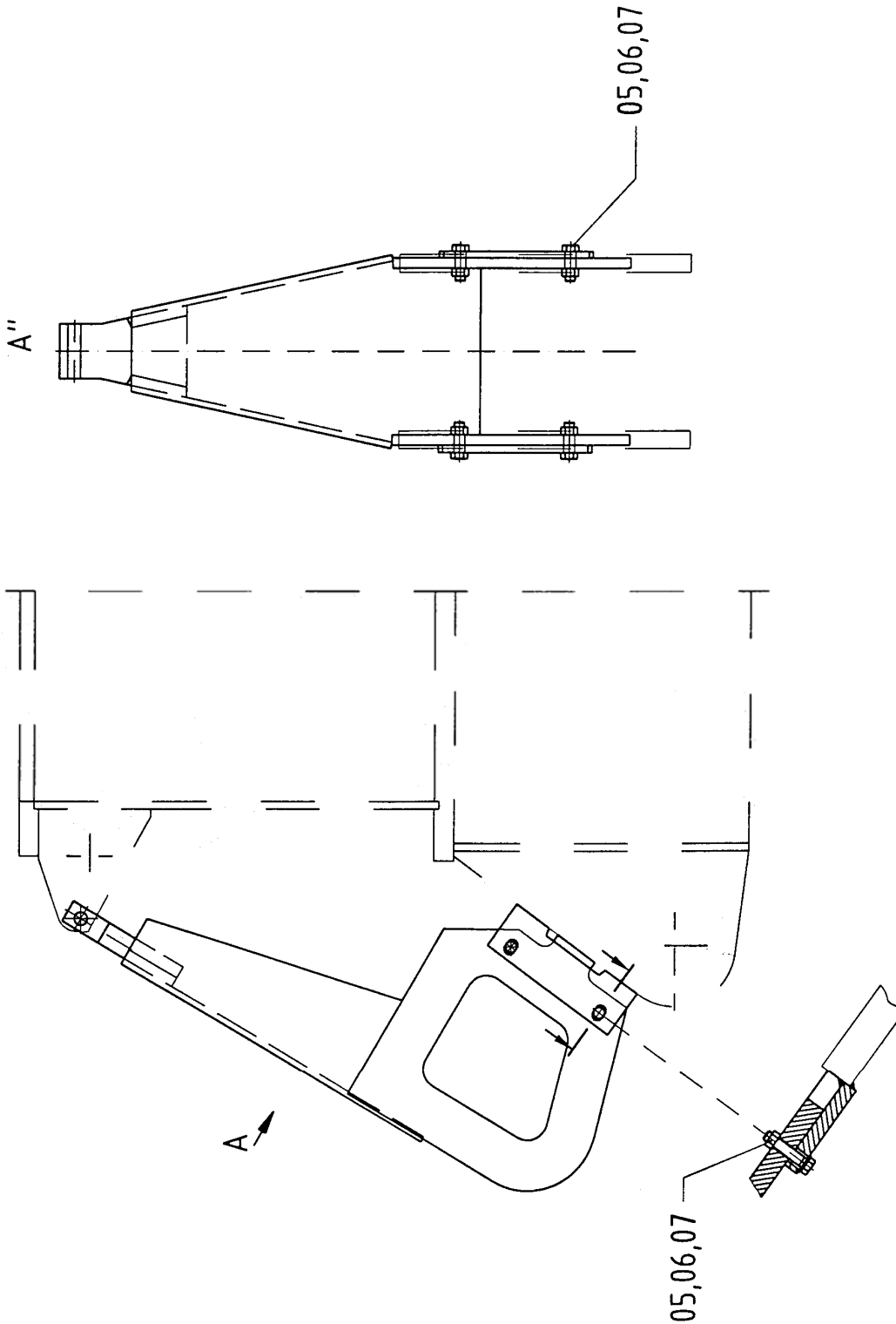
Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
15	0000021730	1	Stepsealring, hell RS1300800-Z51N step seal ring, light
16	0000021731	1	Stepsealring, dunkel RS1300800-T46N step seal ring, dark
17	0000015678	1	Gewindestift M 8x10 / 45H / DIN EN ISO4029 stud bolt
	00E3036457	1	Dichtsatz, kpl. best. aus Pos. 07, 08, 10 – 16 packing set, cpl. consisting of item 07, 08, 10 – 16

Zylinderschutz
cylinder protection

B 0023034094

Gruppe-Nr.
Group-no.

8.0



Zylinderschutz
cylinder protectionBestell-Nr. **0023039196**
Order-no.
Gruppe-Nr. **8.0**
Group-no.

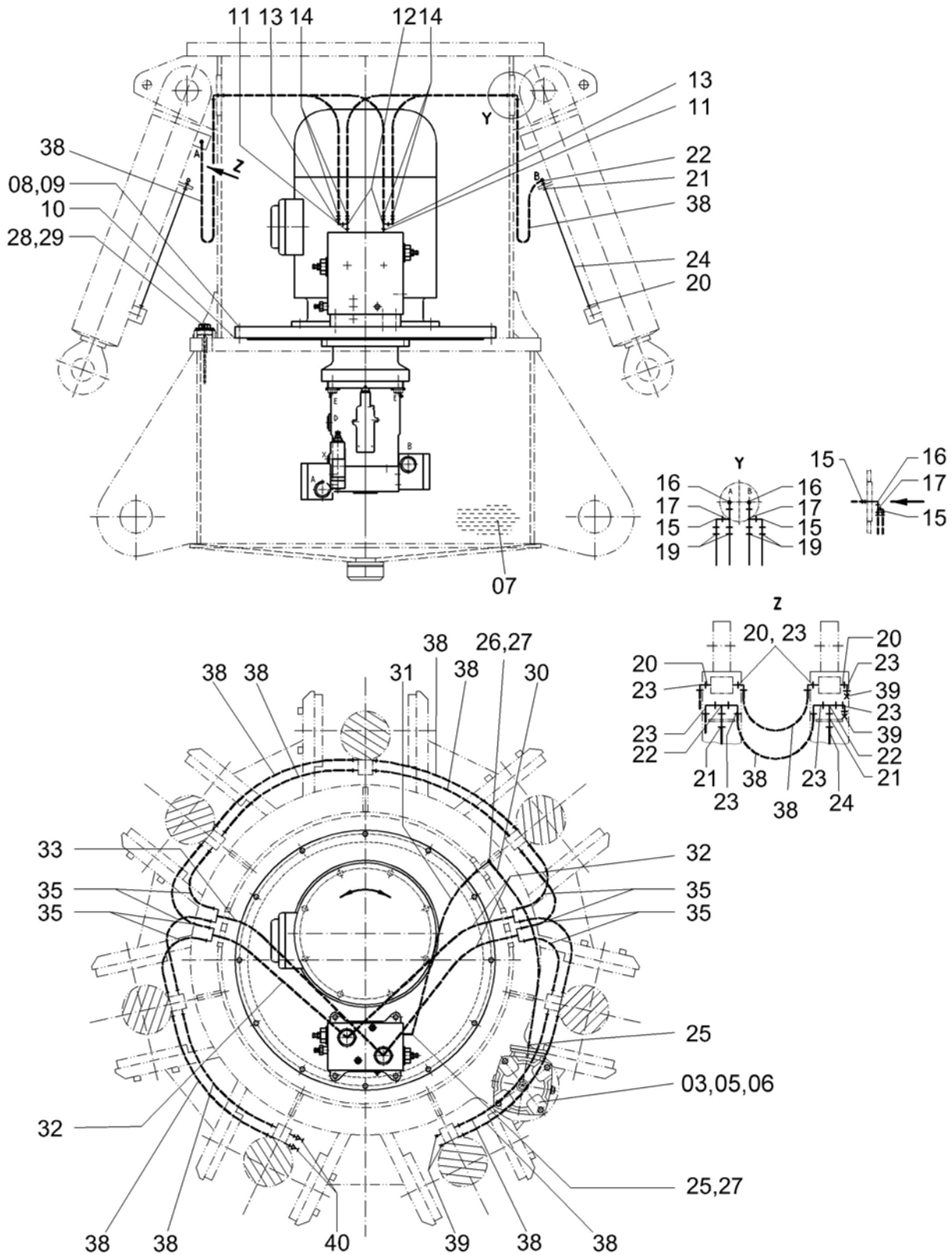
Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01			
05	0065165709	4	6kt.-Shr. M 20x60 / 8.8A3P / DIN EN ISO 4017 hexagon screw
06	0066770910	4	Sicherungs-Mu M 20 / 8A3P / DIN EN ISO 7042 circlip nut
07	0063712716	4	Scheibe 20 / DIN EN 14399-6 disc

Hydraulikanlage
hydraulic system

B 0023141140

Gruppe-Nr.
Group-no.

9.0



Hydraulikanlage
hydraulic system

 Bestell-Nr. **0023141140**
 Order-no.
 Gruppe-Nr. **9.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01			
02			
03	0000020696	1	Rücklauffilter E 453-278 (s. Gruppe-Nr. 11.0) return filter (see group-no. 11.0)
04			
05	0065153607	4	6kt.-Shr. M 10x30 / 8.8A3P / DIN EN ISO 4017 hexagon screw
06	0063872402	4	Scheibe 10 / 200HV-A3P / DIN EN ISO 7090 disc
07		440 l	Hydrauliköl HLP 46 (s. Ölempfehlung) hydraulic oil (look to oil recommendation)
08	0065720216	12	6kt.-Shr. M 16x60 / 10.9 / DIN 14399-4 hexagon screw
09	0063808314	12	Scheibe 17 / TZn / DIN EN 14399-6 disc
10	0008014806	1	O-Ring 730x8 / 70 Shore o-ring
11	0000022878	2	Verschraubung GE 38-PSR-ED bolted joint
12	0069106519	2	Verschraubung ELSD 38-S bolted joint
13	0069106719	2	Verschraubung EWSD 38-S bolted joint
14	0069105010	4	Verschraubung BO-REDVD 38/25-S bolted joint

Hydraulikanlage
hydraulic system

 Bestell-Nr. **0023141140**
 Order-no.
 Gruppe-Nr. **9.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
15	0069106717	8	Verschraubung EWSD 25-S bolted joint
16	0069367900	4	Verschraubung WSV 25-PS bolted joint
17	0069106517	4	Verschraubung ELSD 25-S bolted joint
18			
19	0069104976	8	Verschraubung BO-REDVD 25/16-S bolted joint
20	0005580465	21	Verschraubung GE 16-PSR-ED/A3C bolted joint
21	0069103865	7	Verschraubung BO-GSV 16-S bolted joint
22	0069107204	7	Verschraubung ETSD 16-S bolted joint
23	0069106715	28	Verschraubung EWSD 16-S bolted joint
24		7	Ro. 16x2 – 500 mm / 1,0255-NBK/C / DIN EN 10305-4 pipe
25	0000010533	2	Verschraubung GE 42-PLR-ED bolted joint
26	0000013758	1	Verschraubung WSV 42-PL bolted joint
27	0069106709	2	Verschraubung EWSD 42-L bolted joint
28	0023034507	1	Ölmesstab oil dipstick

Hydraulikanlage
hydraulic system

 Bestell-Nr. **0023141140**
 Order-no.
 Gruppe-Nr. **9.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
29	0074579800	1	Dichtring A 48x55x2 / Cu / DIN 7603 sealing ring
30	0027993062	1	Schlauchltg. DN 40x650 hose
31	0027993043	1	Schlauchltg. DN 40x950 hose
32	0027990128	3	Schlauchltg. DN 20x650 hose
33	0027993052	1	Schlauchltg. DN 20x750 hose
34			
35	0027992388	8	Schlauchltg. DN 12x650 hose
38	0027991875	8	Schlauchltg. DN 12x800 hose
39	0069369471	2	Verschlußbutzen BUZ 16-S locking slug
40	0069372537	2	Minimeß-Stutzen connecting piece

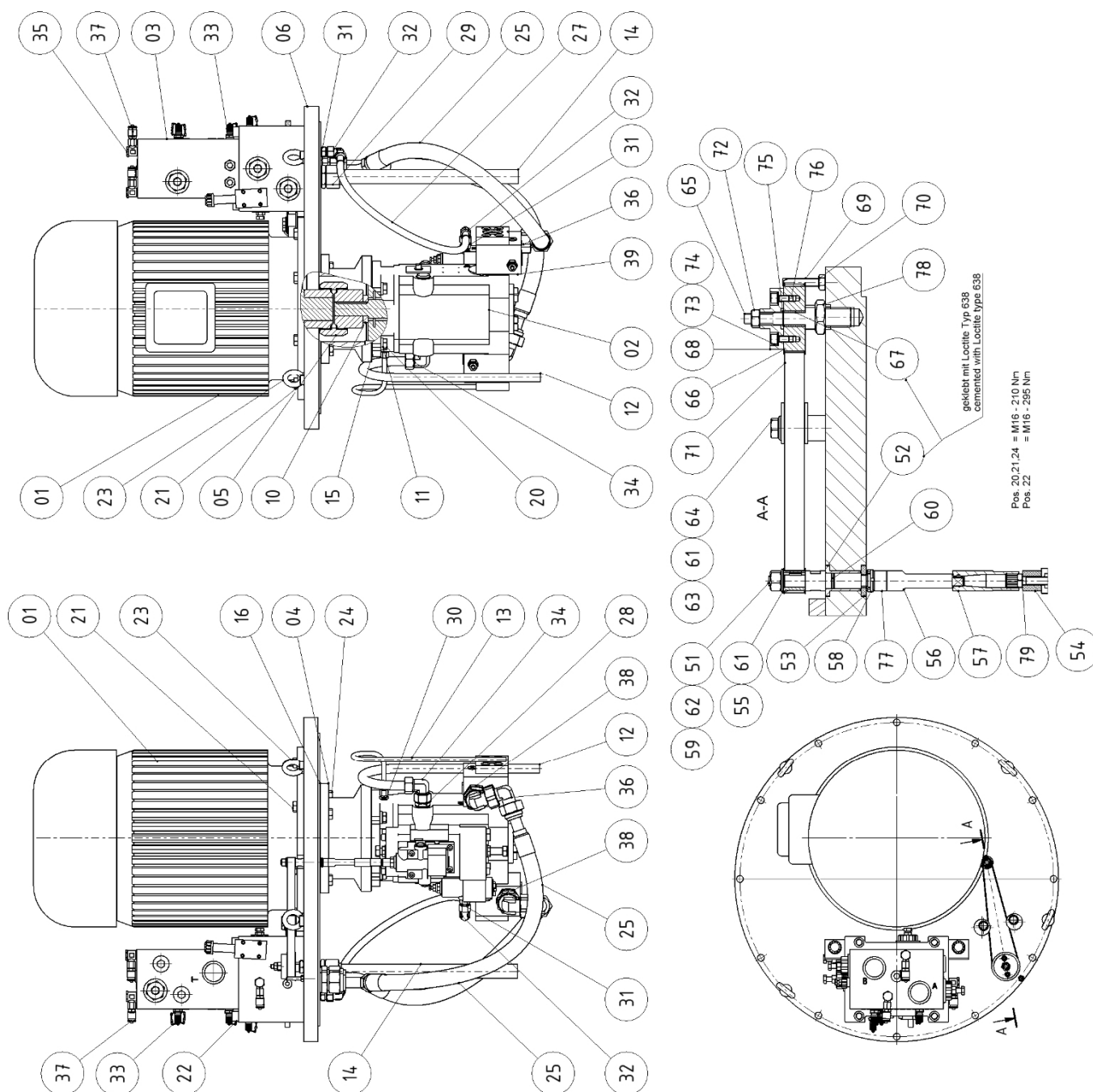
Hydraulikaggregat

hydraulic unit

B 0023036456

Gruppe-Nr.
Group-no.

10.0



Hydraulikaggregat
hydraulic unit

 Bestell-Nr. **0023036456**
 Order-no.
 Gruppe-Nr. **10.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01	0008111628	1	E-Motor 225S-4 (s. Maschinenkarte) electric motor (see machine card)
02	0000022955	1	Pumpe V30D-095-BKN-LLS-2 (s. Gruppe-Nr. 12.0) pump (see group-no. 12.0)
03	1000063253	1	Steuerblock AV6466-0-2-OS (s. Gruppe-Nr. 13.0) control block (see group-no. 13.0)
04	0023034408	1	Zwischenflansch intermediate flange
05	0023007877	1	Kupplung M 65 coupling
06	0023036504	1	Behälterdeckel container cover
10	0023034416	1	Scheibe disc
11	0023034732	4	Scheibe disc
12	0060000032	1	Rohr 22x2x650 pipe
13		1	Rohr 8x1,5x580 pipe
14		1	Rohr 35x2x650 pipe
15	0023034417	1	Dichtung gasket
16	0023004922	1	Dichtung gasket

Hydraulikaggregat
hydraulic unit

 Bestell-Nr. **0023036456**
 Order-no.
 Gruppe-Nr. **10.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
20	0065161603	4	6kt.-Shr. M 16x45 / 8.8A3P / DIN EN ISO 4017 hexagon screw
21	0065161403	8	6kt.-Shr. M 16x35 / 8.8A3P / DIN EN ISO 4017 hexagon screw
22	1000062869	4	Zyl.-Shr. M 16x180 / 10.9 / DIN EN ISO 4762 cap screw, socket head
23	0000014742	4	Ring-Shr. M 12 / C15A3P / DIN 580 eye screw
24	0065161503	4	6kt.-Shr. M 16x40 / 8.8A3P / DIN EN ISO 4017 hexagon screw
25	0027993621	2	Schlauchltg. DN 25x840 hose
26			
27	0027993717	1	Schlauchltg. DN 10x650 hose
28	0069103138	1	Verschraubung BO-GEV 22-LR bolted joint
29	0069103142	1	Verschraubung BO-GEV 352-LR bolted joint
30	0069103148	1	Verschraubung BO-GEV 8-SR bolted joint
31	0000024220	2	Verschraubung GE 12-PS/R¼-ED bolted joint
32	0069106713	2	Verschraubung EWSD 12-S bolted joint

Hydraulikaggregat
hydraulic unit

 Bestell-Nr. **0023036456**
 Order-no.
 Gruppe-Nr. **10.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
33	0069372501	4	Schraubkupplung Minimes screw coupling
34	0069106700	1	Verschraubung EWSD 22-L bolted joint
35	0000020108	3	Verschraubung 15/3-07/S6R bolted joint
36	0069106718	4	Verschraubung EWSD 30-S bolted joint
37	0069372565	3	Minimes-Stutzen connection piece
38	0000023033	4	Verschraubung GE 30-PSR-ED/A3C bolted joint
39	0000025836	2	Nachsaugventil mit DBV check valve with pressure relief valve
51	0023036550	1	Führungsbolzen guide pin
52	0023036553	1	Buchse bush
53	0023036554	1	Scheibe disc
54	0023036552	1	Buchse bush
55	0023036551	1	Zahnscheibe – klein toothed washer – small
56	0000022962	1	Verlängerung extension

Hydraulikaggregat
hydraulic unit

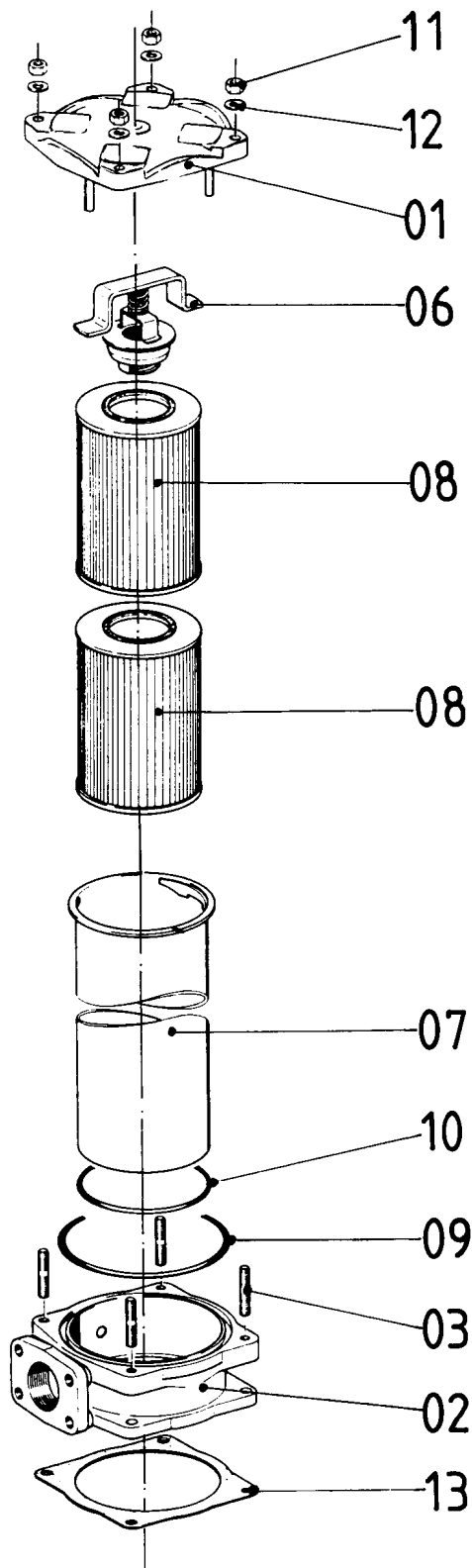
 Bestell-Nr. **0023036456**
 Order-no.
 Gruppe-Nr. **10.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
57	0000022964	1	Steckschlüsselsatz set of socket spanners
58	0000022963	2	Nut-Mu KM 1 / St / DIN 981 grooved nut
59	1000063894	1	Passfeder A 4x4x12 / DIN 6885 fitting key
60	0074721111	1	O-Ring 11x2 / 88NBR/156 O-ring
61	0063872803	3	Scheibe 12 / 200HV-A3P / DIN EN ISO 7090 washer
62	0066828803	1	6kt.-Mu M 12 / 8A3P / DIN EN ISO 4032 hexagon nut
63	0023036563	2	Exenterbolzen eccentric pin
64	0065028101	2	6tk.-Shr. M 12x70 / 8.8A3P / DIN EN ISO 4014 hexagon screw
65	0023036564	1	Aufnahmebolzen holding pin
66	0023036561	1	Zahnscheibe – gross toothed washer – large
67	0023036605	1	Buchse bush
68	0023036565	1	Deckel cover
69	0023036606	1	Peilstab dip stick
70	0066828403	1	6kt.-Mu M 8 / 8A2P / DIN EN ISO 4032 hexagon nut

Hydraulikaggregat
hydraulic unit

 Bestell-Nr. **0023036456**
 Order-no.
 Gruppe-Nr. **10.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
71	1000063851	1	Zahnflachriemen toothed flat belt
72	0066828608	1	6kt.-Mu M 10 / 8A3P / DIN EN ISO 4032 hexagon nut
73	0065984009	2	Zyl.-Shr. M 6x12 / 8.8A2P / DIN EN ISO 4762 cap screw, socket head
74	0063871503	2	Scheibe 6 / 200HV-A3P / DIN EN ISO 7090 washer
75	0063901201	1	Sicherungsring 12x1 / F-St / DIN 471 circlip
76	0000010073	2	Gewindeeinsatz M 6x9 / S2 / DIN 8140 threaded insert
77	0023036728	1	Buchse bush
78	0066829239	1	6kt.-Mu M 20 / 04 / DIN EN ISO 4035 hexagon nut
79	0065151070	1	6kt.-Shr. M 8x70 / 8.8A3P / DIN EN ISO 4017 hexagon screw

Rücklauffilter E 453-278 R1½
return filter**B 0000020696**Gruppe-Nr.
Group-no.**11.0**

Rücklauffilter E 453-278 R1½" 20 µm
return filter

 Bestell-Nr. **0000020696**
 Order-no.
 Gruppe-Nr. **11.0**
 Group-no.

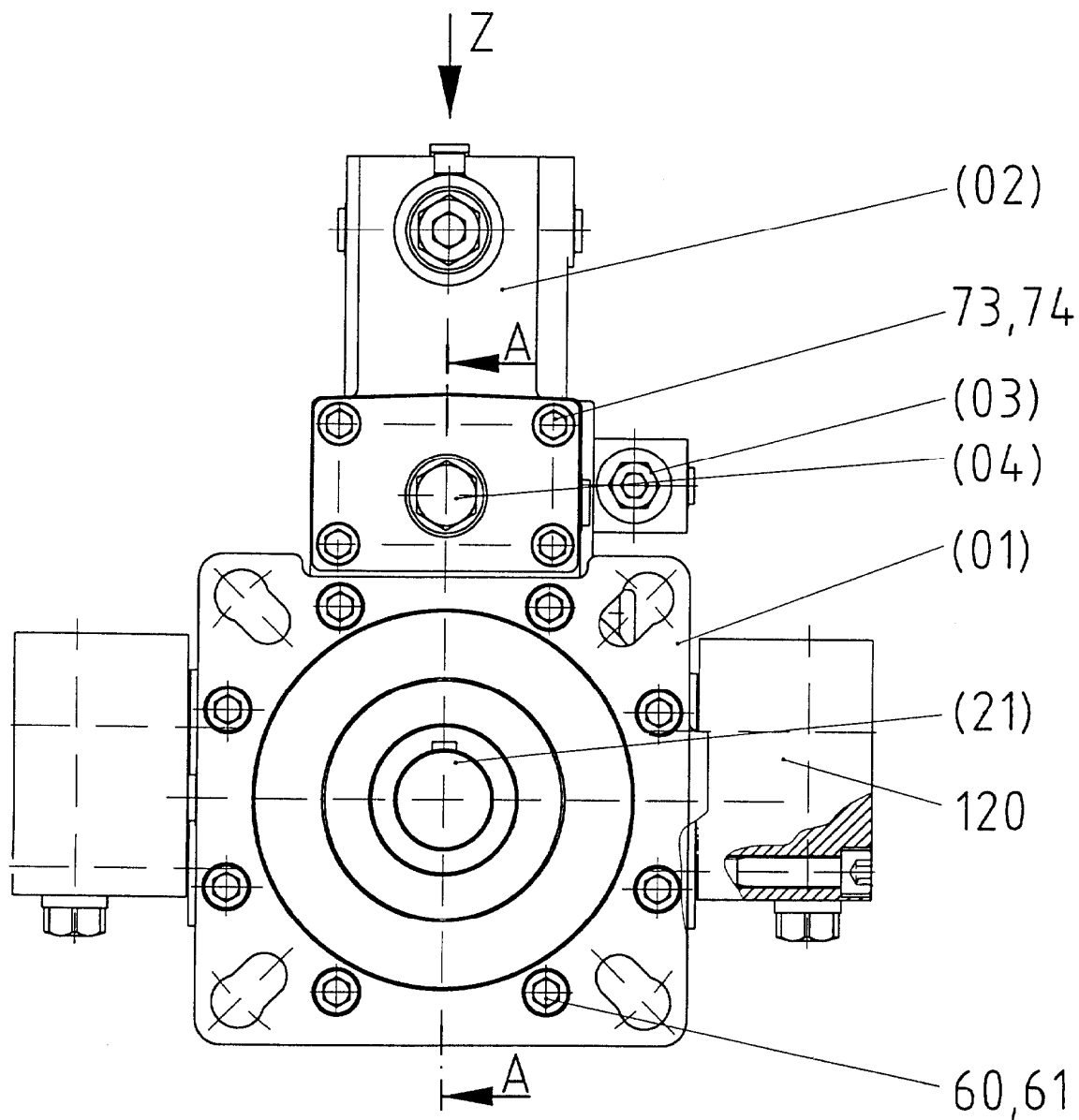
Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01	0000026473	1	Deckel, kpl. cover, cpl.
02	0000026477	1	Kopfteil head part
03	0000030868	4	Stiftschraube M 10x30 / 8.8 / DIN 835 stud
04			
05			
06	0000030234	1	Ventil, kpl. / E 642.1510 valve, cpl.
07	0000040239	1	Rohr, kpl. pipe, cpl.
08	0000020719	2	Exapor-Filterelement (mit Dichtungen) Exapor - filter element (with gaskets)
09	0000022881	1	O-Ring 151,76x5,33 o-ring
10	0000022882	1	O-Ring 125x6 o-ring
11	0066828803	4	6kt.-Mu M 10 / 8.8A2P / DIN EN ISO 4032 hexagon nut
12	0063859210	4	Federscheibe B 10 / F-St / DIN 137 serrated lock washer
13	0000026732	1	Flachdichtung gasket

Pumpe V30D-095-BKN-L-LS-2, mit Nachsaugventil
pump, with check valve

B 0000024018

Gruppe-Nr.
Group-no.

12.0

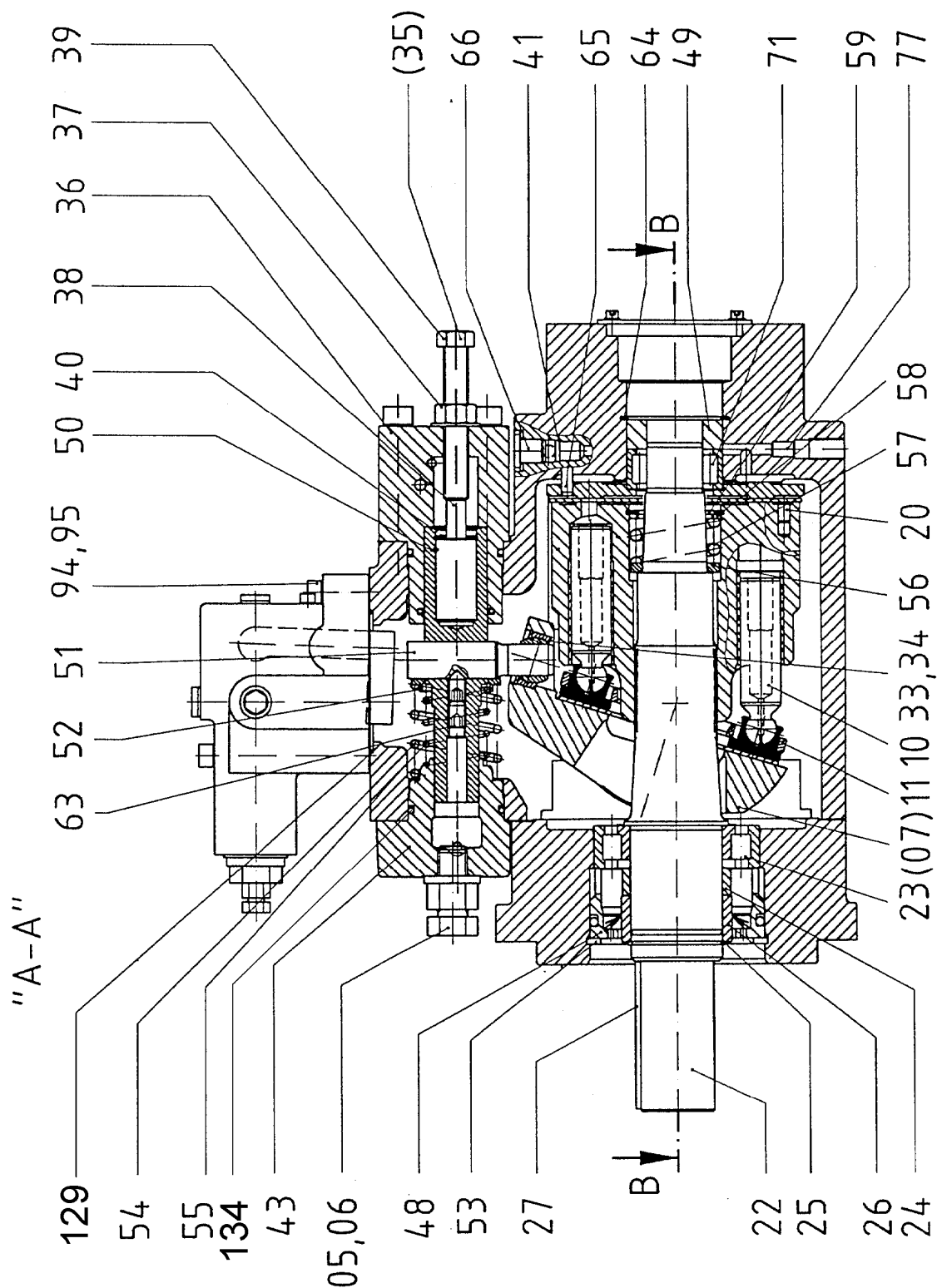


Pumpe V30D-095-BKN-L-LS-2, mit Nachsaugventil
 pump, with check valve

B 0000024018

Gruppe-Nr.
 Group-no.

12.0

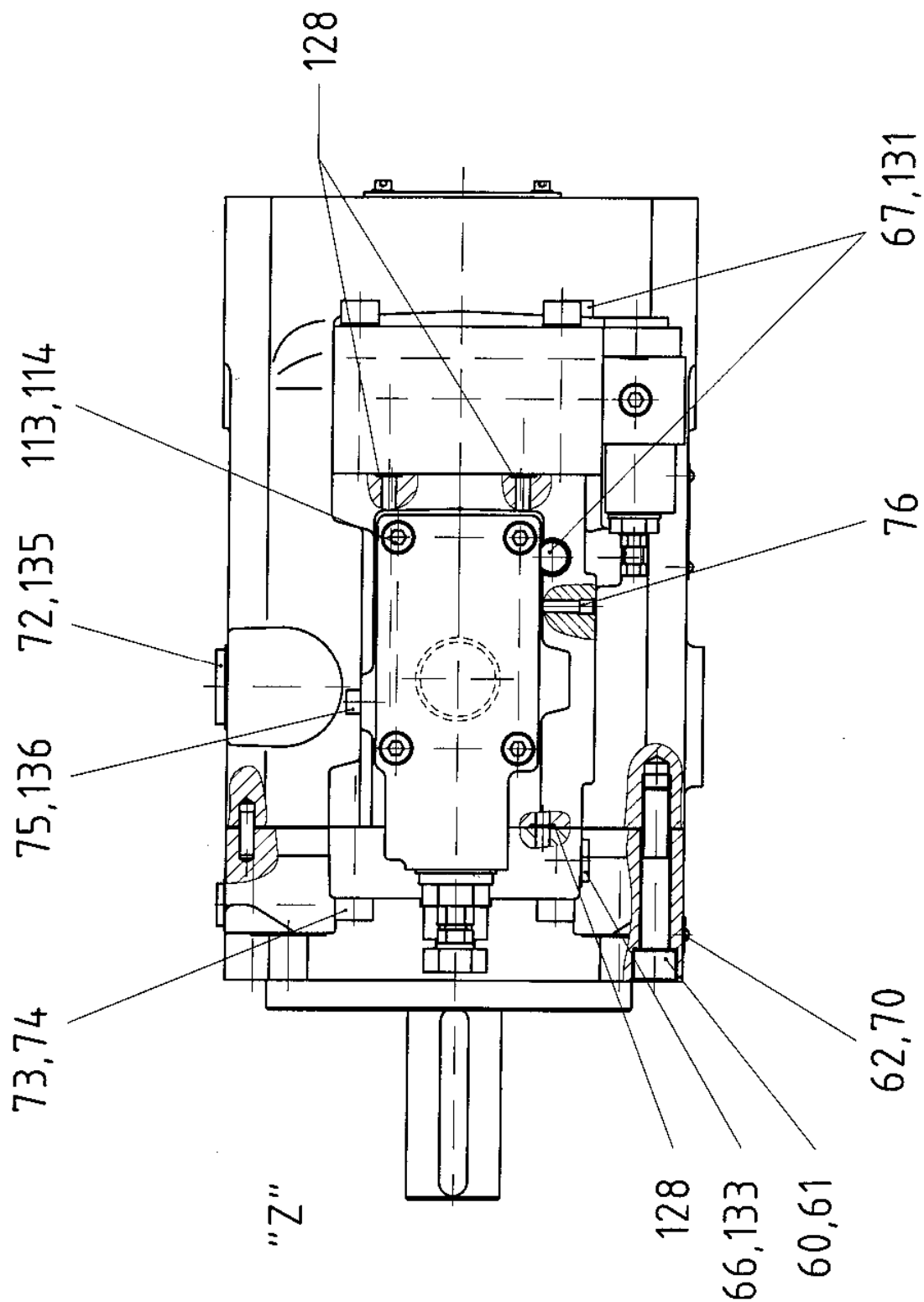


Pumpe V30D-095-BKN-L-LS-2, mit Nachsaugventil
pump, with check valve

B 0000024018

Gruppe-Nr.
 Group-no.

12.0

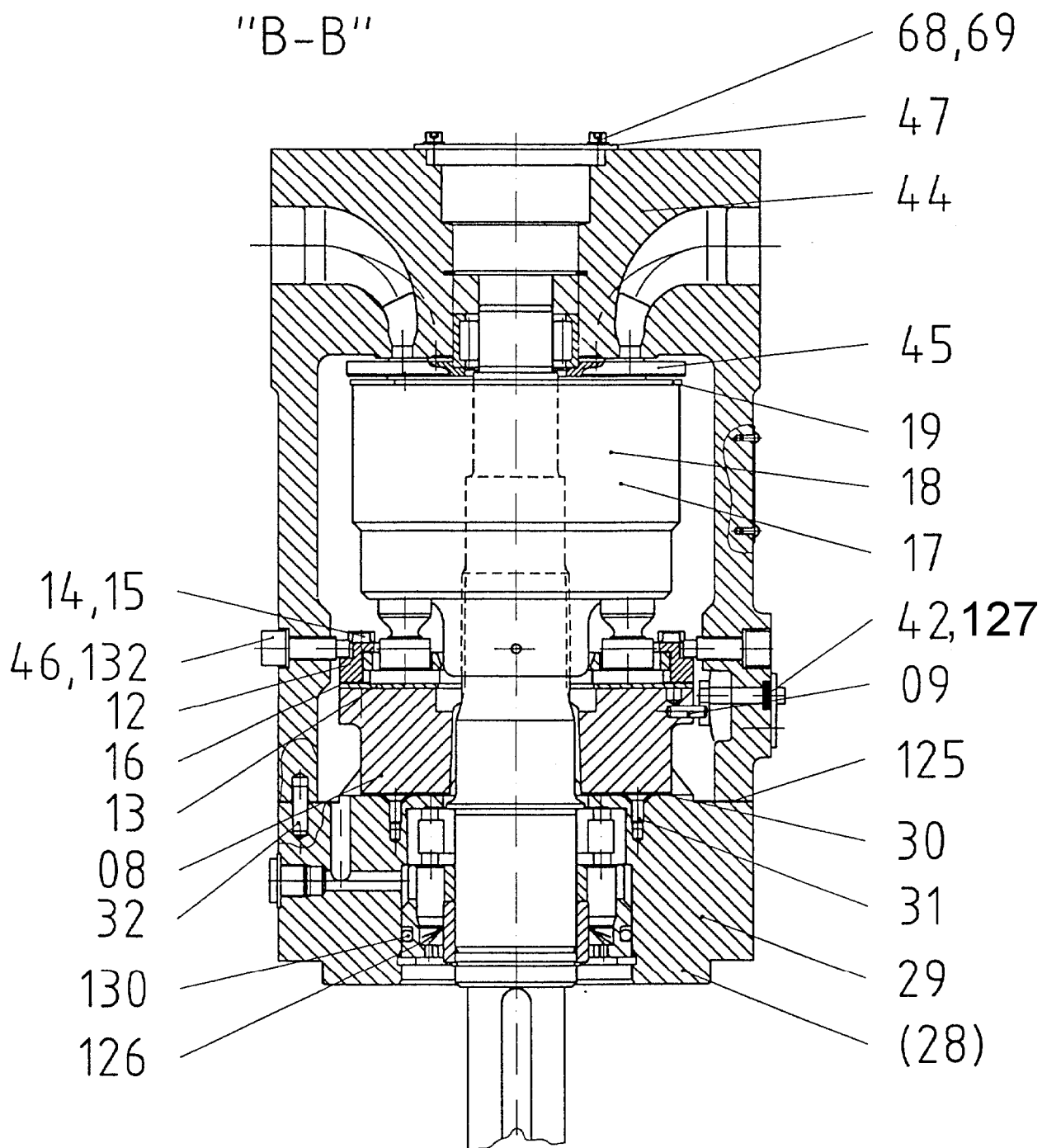


Pumpe V30D-095-BKN-L-LS-2, mit Nachsaugventil
pump, with check valve

B 0000024018

Gruppe-Nr.
 Group-no.

12.0

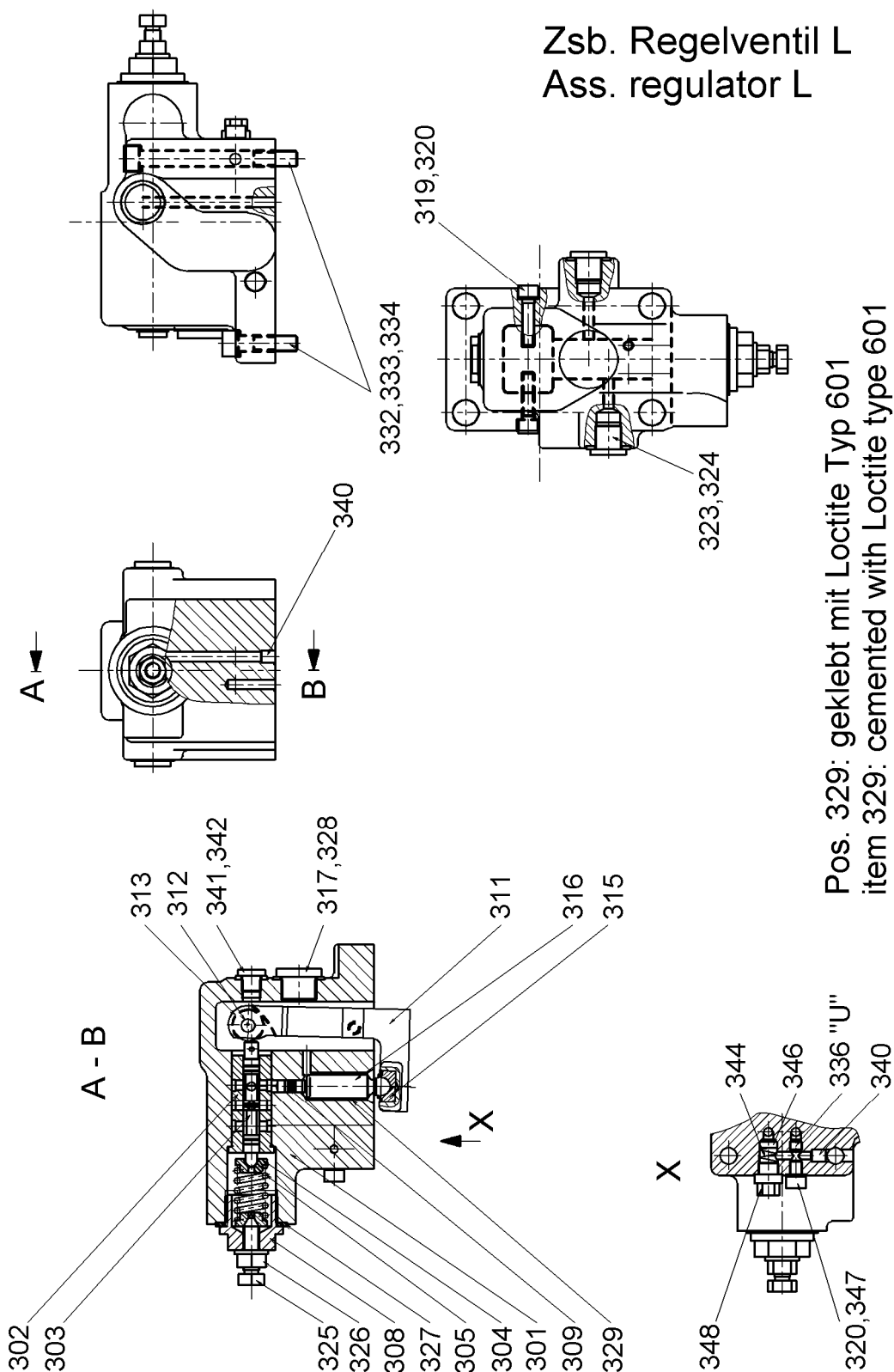


Pumpe V30D-095-BKN-L-LS-2, mit Nachsaugventil
pump, with check valve

B 0000024018

Gruppe-Nr.
 Group-no.

12.0

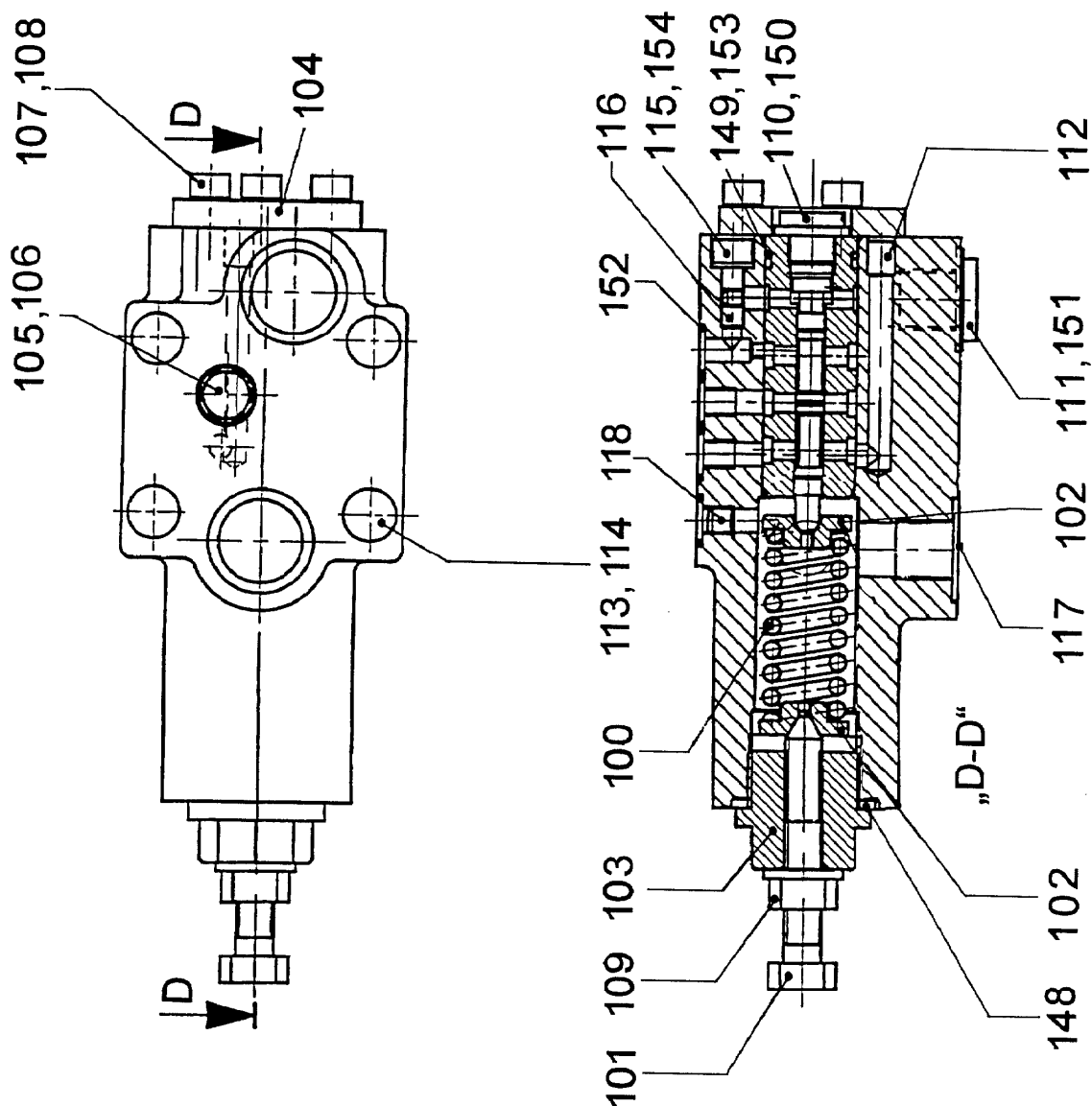


Pumpe V30D-095-BKN-L-LS-2, mit Nachsaugventil
 pump, with check valve

B 0000024018

Gruppe-Nr.
 Group-no.

12.0

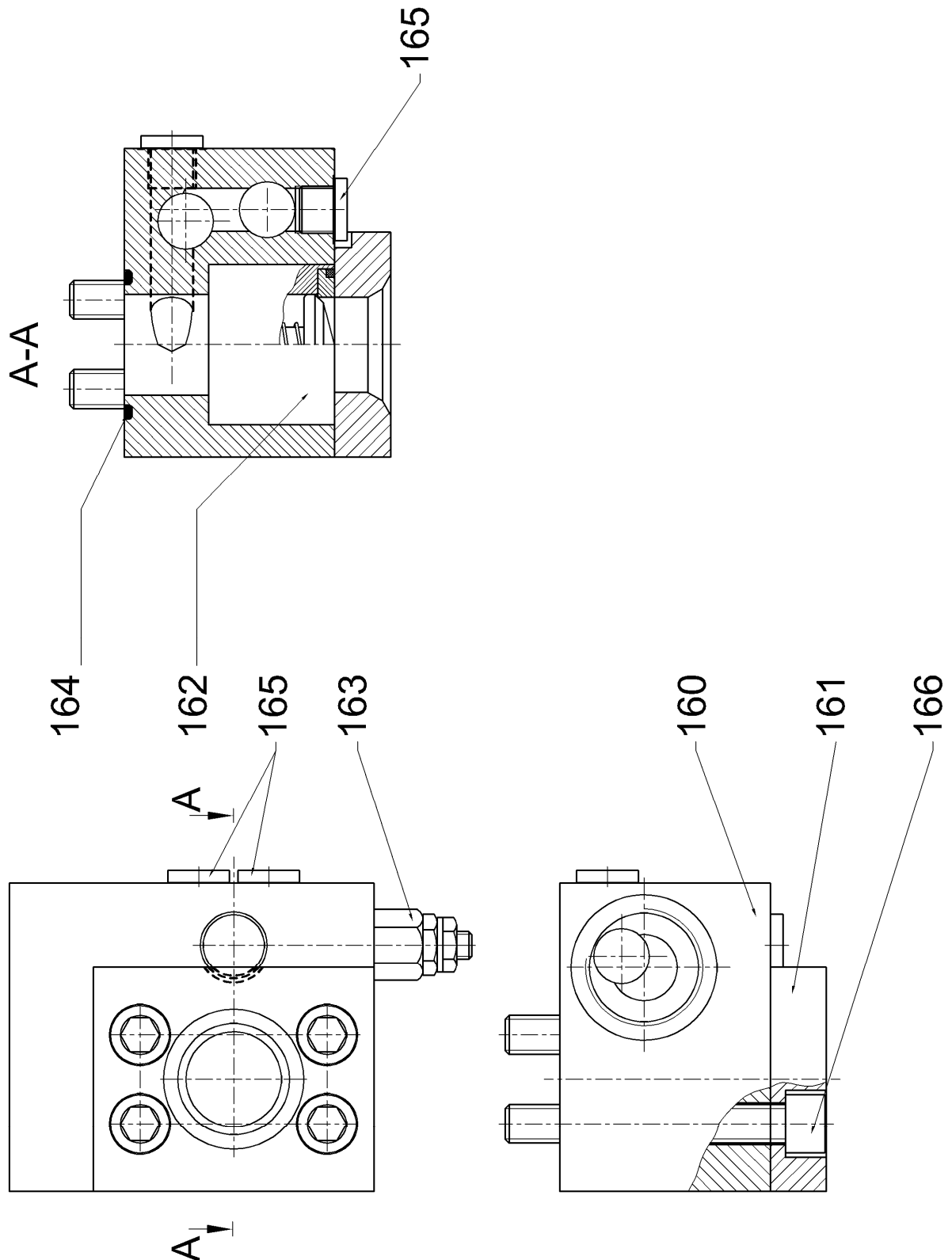


Pumpe V30D-095-BKN-L-LS-2, mit Nachsaugventil
pump, with check valve

B 0000024018

Gruppe-Nr.
 Group-no.

12.0



Pumpe V30D-95-BKN-L-LS-2, 45 kW, 50 Hz
pump

 Bestell-Nr. **0000022955**
 Order-no.
 Gruppe-Nr. **12.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01		1	Grundpumpe V30D-095 (ohne Dichtsatz) 7926605.00 basic pump V30D-095 (without packing set) (best. aus Pos. 04 - 77 / consisting of item 04 - 77)
02		1	Zsb. Regelventil L, kpl. (ohne Dichtsatz) 7929810.00 Ass. regulator L, cpl. (without packing set) (best. aus Pos. 301 – 348/consisting of item 301 – 348)
03		1	Vorsteuerventil LS, kpl. (ohne Dichtsatz) 7927275.00 regulator LS, cpl. (without packing set) (best. aus Pos. 100 - 118 / consist. of item 100 - 118)
04		1	Hubbegrenzung (min.), kpl. 7926268.00 lift stop (min.), cpl. (best. aus Pos. 05 + 06 / consisting of item 05 + 06)
05		1	Hubbegrenzungsschraube 7926269.00 stroke limiting screw
06		1	Seal-Lock-Mutter M 16 7992441.00 Seal-Lock nut
07		1	Verstellkopf, kpl. 7926239.00 adjusting head, cpl. (best. aus Pos. 09 - 15 / consisting of item 09 - 15)
08		1	Wiege / Mitnehmer 7927042.00 cam plate / driver
09		1	Connex-Spannstift SG 5x16 7992564.00 Connex dowel pin
10		9	Kolben, kpl. 7925234.00 piston, cpl.
11		1	Rückholplatte 7925235.00 return plate
12		2	Spannsegment 7926211.00 clamping segment
13		1	Gleitscheibe 7925725.00 sliding disc

Pumpe V30D-95-BKN-L-LS-2, 45 kW, 50 Hz
pump

 Bestell-Nr. **0000022955**
 Order-no.
 Gruppe-Nr. **12.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
14		4	Sicherungsblech 6,4 / DIN 463 locking plate	7992455.00
15	0065016701	4	6kt.-Shr. M 6x30 / 8.8A2P / EN 24014 hexagon screw	7990531.00
16		2	Laminum-Ausgleichsscheibe Laminum - compensating washer	7925237.00
17		1	Kolbentrommel, kpl. piston drum, cpl. (best. aus Pos. 18 - 20 / consisting of item 18 - 20)	7926323.00
18		1	Kolbentrommel mit Buchse piston drum with bush	7926320.00
19		1	Gleitscheibe sliding disc	7926210.00
20		3	Führungsstift guide pin	7992609.00
21		1	Paßfederwelle, kpl. feather key shaft, cpl. (best. aus Pos. 22 - 26 / consisting of item 22 - 26)	7926561.00
22		1	Paßfederwelle feather key shaft	7926544.00
23		1	Zylinderrollenlager NUP 2210 ECP tapered roller bearing	7992793.00
24		1	Distanzhülse spacer sleeve	7926698.00
25		1	Sprengring SW 50 snap ring	7992714.00
26		1	Innenring IR 50x60x25 EGS inner ring	7992406.00
27	0027608792	1	Paßfeder A 12x8x80 / DIN 6885 fitting key	7992567.00

Pumpe V30D-95-BKN-L-LS-2, 45 kW, 50 Hz
pump

 Bestell-Nr. **0000022955**
 Order-no.
 Gruppe-Nr. **12.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
28		1	Wiegenlager ISO, kpl. cam plate bearing, cpl. (best. aus Pos. 29 - 32 / consisting of item 29 - 32)	7927103.00
29		1	Wiegenlager ISO cam plate bearing	7927033.00
30		2	Lagerschale VBK bearing shell	7926247.00
31		2	Senk-Shr. M 5x12 / 8.8 / DIN 7991 countersunk screw	7990924.00
32	0000014752	2	Zyl.-Stift 8m6x20 / St-HRC60 / EN 28734 cylindrical pin	7992808.00
33		1	Radial-Gelenklager GE 17 ES radial rocker bearing	7991929.00
34		1	Sprengring SB 30 snap ring	7990813.00
35		1	Hubbegrenzung (max.), kpl. lift stop (max.), cpl. (best. aus Pos. 36 - 40 / consisting of item 36 - 40)	7927509.00
36		1	Gehäuse (max. Hubbegr.) housing (max. lift stop)	7927438.00
37		1	Seal-Lock-Mutter M 16 Seal-Lock nut	7992441.00
38		1	Distanzstück spacer part	7925263.00
39		1	6kt.-Shr. M 16x100 / 8.8 / EN 24014 hexagon screw	7992878.00
40		1	Sicherungsring 22x1 / F-St / DIN 472 circlip	7991661.00
41		2	Ventil, kpl. valve, cpl.	7926715.00

Pumpe V30D-95-BKN-L-LS-2, 45 kW, 50 Hz
pump

 Bestell-Nr. **0000022955**
 Order-no.
 Gruppe-Nr. **12.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
42		1	Zeigerwelle, kpl. indicator shaft, cpl.	7926714.00
43		1	Deckel cover	7926213.00
44		1	Gehäuse (B/2-1) f. L housing	7926602.00
45		1	Steuerscheibe B control washer	7926603.00
46		1	Zapfenschraube shank screw	7926266.00
47		1	Deckel cover	7925377.00
48		1	Deckel (Wiegenlager) cover (cam plate bearing)	7927044.00
49		1	Ring ring	7927175.00
50		1	Stellkolben adjusting piston	7926205.00
51		1	Führungsbolzen L, kpl. guide pin, cpl.	7926424.00
52		1	Federteller spring disc	7926212.00
53		1	Sicherungsring 95x3 / DIN 472 circlip	7992875.00
54		1	Druckfeder pressure spring	7926208.00
55		1	Druckfeder pressure spring	7926207.00

Pumpe V30D-95-BKN-L-LS-2, 45 kW, 50 Hz
pump

 Bestell-Nr. **0000022955**
 Order-no.
 Gruppe-Nr. **12.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
56		1	Scheibe disc	7926242.00
57		1	Druckfeder pressure spring	7925228.00
58		1	Stützring SS 40x50x2,5 back-up ring	7990023.00
59		1	Sicherungsring 50x2 / DIN 472 circlip	7991366.00
60	0065986370	8	Zyl.-Shr. M 12x70 / 10.9 / DIN 912 cap screw, socket head	7990687.00
61		8	Sicherungsscheibe S 12 locking washer	7990036.00
62		6	Kerbnagel 2,6x6 / DIN 1476 grooved drive stud	7991946.00
63		2	Gewindestift M 10x16 / DIN 914 stud bolt	7990226.00
64		1	Sicherungsring 52x2 / DIN 472 circlip	7992597.00
65		1	Spiral-Spannstift 6x24 / DIN 7343 spiral pin	7991848.00
66		3	Verschluß-Shr. G ¼A / DIN 908 screw plug	7991703.00
67		3	Zyl.-Shr. M 8x10 / 10.9 / DIN 912 cap screw, socket head	7992842.00
68		4	Zyl.-Shr. M 10x16 / 10.9 / DIN 912 cap screw, socket head	7991987.00
69		4	Sicherungsscheibe S 10 locking washer	7990027.00

Pumpe V30D-95-BKN-L-LS-2, 45 kW, 50 Hz
pump

 Bestell-Nr. **0000022955**
 Order-no.
 Gruppe-Nr. **12.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
70		1	Drehrichtungsschild plate for sense of rotation	7992754.00
71		1	Zylinderrollenlager F 201 380 tapered roller bearing	7992575.00
72		1	Verschl.-Shr. G ¾A / DIN 908 screw plug	7992051.00
73	0000013735	4	Zyl.-Shr. M 10x45 / 10.9 / DIN 912 cap screw, socket head	7990780.00
74		4	Sicherungsscheibe S 10 locking washer	7990027.00
75		1	Zyl.-Shr. M 6x8 / 10.9 / DIN 912 cap screw, socket head	7992565.00
76		1	Dichtstopfen MB 800-060 sealing plug	7991727.00
77		1	Dichtstopfen MB 800-080 sealing plug	7991726.00
100		1	Druckfeder L-Regler pressure spring L-regulator	7921129.00
101		1	Einstellschr. LS, P,Q-Regler adjusting screw LS,P,Q-regulator	7927267.00
102		2	Federteller div. Regler spring plate div. regul.	7927268.00
103		1	Verschl.-Shr. div. Regler. screw plug div. regul.	7925659.00
104		1	Deckel N, Regler cover N, regul.	7922449.00

Pumpe V30D-95-BKN-L-LS-2, 45 kW, 50 Hz
pump

 Bestell-Nr. **0000022955**
 Order-no.
 Gruppe-Nr. **12.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
105		1	Drosselnadel (div. Regler) throttle pin (div. regul.)	7923782.00
106		1	Seal-Lock-Mutter M 6 Seal-Lock nut	7992174.00
107		3	Zyl.-Shr. M 5x12 / 10.9 / DIN 912 cap screw, socket head	7991336.00
108		3	Sicherungsscheibe S 5 locking washer	7990208.00
109		1	Seal-Lock-Mutter M 8 Seal-Lock nut	7992035.00
110		1	Verschl.-Shr. screw plug	7927815.00
111	0000014106	1	Verschl.-Shr. G ¼A / A1 / DIN 908 screw plug	7991703.00
112		1	Dichtstopfen MB 800-060 sealing plug	7991727.00
113	0065984823	4	Zyl.-Shr. M 6x60 / 10.9A2P / DIN 912 screw plug	7990257.00
114		4	Sicherungsscheibe S 6 locking washer	7990048.00
115		1	Zyl.-Shr. M 5x6 / 10.9 / DIN 912 cap screw, socket head	7992872.00
116		1	Drossel 1,0 (M5x5 / DIN 913) throttle	7992893.00
117		1	Schutzstopfen TL-4-119 protection plug	7990013.00
118		1	Gewindestift M 6x6 / DIN 913 stud bolt	7992496.00



Ersatzteilliste Spare parts list

Pumpe V30D-95-BKN-L-LS-2, 45 kW, 50 Hz pump

Bestell-Nr. **0000022955**
Order-no.
Gruppe-Nr. **12.0**
Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
119				
120	0000025836	2	Nachsaugventil mit DBV, kpl. check valve with pressure relief valve, cpl.	
125	0000041061	1	Flachdichtung gasket	7926248.00
126	0000063966	1	Simmerring 60-80-7-7,5 radial packing ring	7992401.00
127	0000030967	1	O-Ring 4,47x1,78 o-ring	7992463.00
128	0000030968	4	O-Ring 7,65x1,78 o-ring	7990025.00
129	0000030969	1	O-Ring 66,34x2,62 o-ring	7992501.00
130	0000030970	1	O-Ring 85,09x5,33 o-ring	7992712.00
131	0074638013	3	USIT-Ring U 8,7x13x1 sealing ring	7992052.00
132	1000052978	2	USIT-Ring U 10,35x16x2 sealing ring	
133	0000040894	4	USIT-Ring U 13,7x22x1,5 sealing ring	7992439.00
134	0000030971	1	O-Ring 44,05x3,53 o-ring	7992595.00
135	0000021610	3	USIT-Ring U 27,2x36x2 sealing ring	7992469.00

Pumpe V30D-95-BKN-L-LS-2, 45 kW, 50 Hz
pump

 Bestell-Nr. **0000022955**
 Order-no.
 Gruppe-Nr. **12.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
136	0008070510	1	USIT-Ring U 6,7x10x1 sealing ring	7991398.00
144	0074638013	3	USIT-Ring U 8,7x13x1 sealing ring	7992052.00
148	0008019761	1	USIT-Ring U 24,7x32x2 sealing ring	7991538.00
149	0000030973	1	O-Ring 17,17x1,78 o-ring	7991475.00
150	1000052978	1	USIT-Ring U 10,35x16x2 sealing ring	7991705.00
151	0000040894	1	USIT-Ring U 13,7x22x1,5 sealing ring	7992439.00
152	0000030968	4	O-Ring 7,65x1,78 o-ring	7990025.00
153		1	Stützring S 11 109-017 back-up ring	7991991.00
154	0074638009	1	USIT-Ring U 5,7x9x1 sealing ring	7991963.00
	0000021910	1	Dichtsatz für Grundpumpe, kpl. packing set for basic pump, cpl. (best. aus Pos. 125 - 136 / cons. of item 125 - 136)	7926641.00
	0000021900	1	Dichtsatz für Regelventil L, kpl. packing set for control valve L, cpl. (best. aus Pos. / cons. of item 320,324,327,328,342)	

Pumpe V30D-95-BKN-L-LS-2, 45 kW, 50 Hz
pump

 Bestell-Nr. **0000022955**
 Order-no.
 Gruppe-Nr. **12.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
	0000022117	1	Dichtsatz für Vorsteuerventil LS, kpl. packing set for pilot valve LS, cpl. (best. aus Pos. 148 - 154 / cons. of item 148 - 154)	7927280.00
160		1	Saug/Druck-Block 2 V30D-095 suction/pressure block	7929314.00
161		1	Ventildeckel 2 V30D-095 valve cover	7929316.00
162		1	Rückschlagventil RKC-50-K nonreturn valve	7993171.00
163		1	Druckventil 1LR100F35S pressure valve	7993172.00
164	0074429111	1	O-Ring (47,22x3,53)225-8309 o-ring	7990398.00
165	0005586574	3	Verschluß-Shr. VSTI R3/8-WD screw plug	7993174.00
166	0000027866	8	Zyl.-Shr. M 14x100 / 10.9 / DIN 912 cap screw, socket head	
301		1	Gehäuse housing	7929808.00
302		1	Ventilbuchse valve bush	7927235.00
303		1	Ventilkolben valve piston	7924721.00
304		2	Federteller spring plate	7924757.00

Pumpe V30D-95-BKN-L-LS-2, 45 kW, 50 Hz
pump

 Bestell-Nr. **0000022955**
 Order-no.
 Gruppe-Nr. **12.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
305		1	Druckfeder pressure spring	7924754.00
308		1	Verschluß-Shr. R¾" screw plug	7927224.00
309		1	Kolben piston	7921673.00
310				
311		1	Winkelhebel angle lever	7926762.00
312		1	Welle shaft	7921596.00
313		1	INA-Stützrolle RSTO 5TN supporting roller	7991924.00
314				
315		1	Gleitschuh sliding block	7921018.00
316		1	Kolben piston	7927676.00
317		1	Verschluß-Shr. M 18x1,5 / DIN 908 screw plug	7990157.00
318				
319		2	Zyl.-Shr. M 6x25 / DIN 912 cap screw, socket head	7990047.00



Ersatzteilliste Spare parts list

Pumpe V30D-95-BKN-L-LS-2, 45 kW, 50 Hz pump

Bestell-Nr. **0000022955**
Order-no.
Gruppe-Nr. **12.0**
Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
320		3	USIT-Ring 6,07x10x1 sealing ring	7991398.00
323		2	Verschluß-Shr. R¼ / DIN 908 screw plug	7991703.00
324		2	USIT-Ring 13,7x22x1,5 sealing ring	7992439.00
325		1	Einstellschraube M 8 adjusting screw	7927671.00
326		1	Seal-Lock-Mutter M 8 Seal-Lock nut	7992035.00
327		1	USIT-Ring 27,2x36x2 sealing ring	7992469.00
328		1	USIT-Ring 18,7x26x1,5 sealing ring	7991488.00
329		2	Buchse bush	7991875.00
332		2	Zyl.-Shr. M 8x80 / DIN 912 cap screw, socket head	7990267.00
333		4	Sicherungscheibe S 8 locking washer	7990008.00
334		2	Zyl.-Shr. M 8x30 / DIN 912 cap screw, socket head	7990002.00
335				

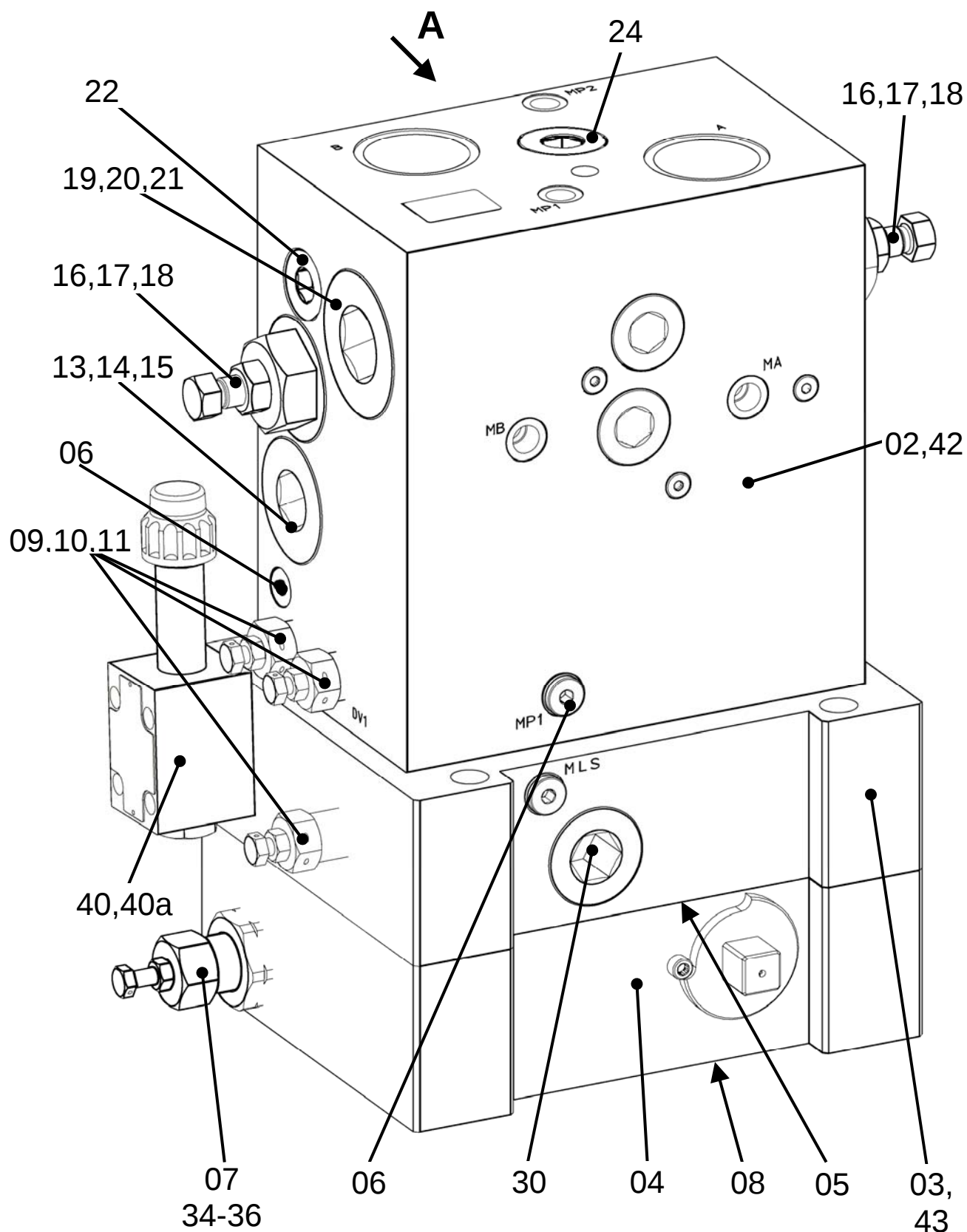
Pumpe V30D-95-BKN-L-LS-2, 45 kW, 50 Hz
pump

 Bestell-Nr. **0000022955**
 Order-no.
 Gruppe-Nr. **12.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
336 „U“		1	Drossel (M 6x6 bei Bedarf) throttle (if necessary)	7992603.00
340		2	Dichtstopfen MB800-060 plug	7991727.00
341		1	Verschluß-Shr. R1/8" /DIN 908 screw plug	7992075.00
342		1	USIT-Ring 10,35x16x2 sealing ring	7991705.00
343				
344		1	Druckfeder pressure spring	7926317.00
345				
346		1	Sieb 9x6x3 sieve	7993269.00
347		1	Zyl.-Shr. M 6x25 / DIN 912 cap screw, socket head	7992565.00
348		1	Verschluß-Shr. M 10x1 screw plug	7927815.00
	0000020824	1	Reparatursatz, bestehend aus Pos. 10,17,23,71 repair set, consisting of item 10,17,23,71	
	0000027721	1	Verschleißteilsatz, bestehend aus Pos. 13,14,19,26,30,31,45, set of wearing parts, consisting of item 13,14,19,26,30,31,45	

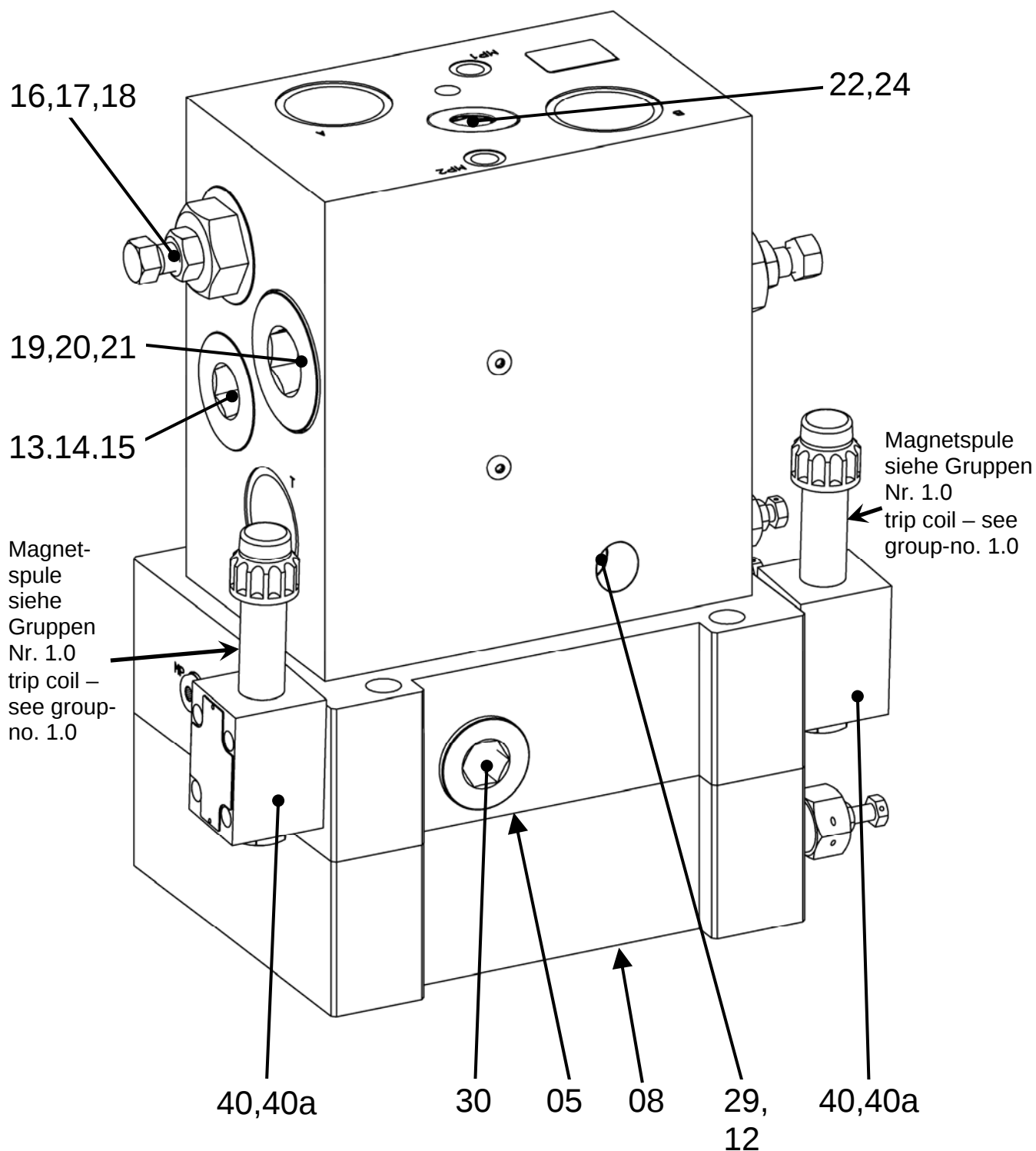
Steuerblock AV 6466-0-2/OS NG30-N
control block
B 1000063253

 Gruppe-Nr.
 Group-no.

13.0


Steuerblock AV 6466-0-2/OS NG30-N
control block
B 1000063253

 Gruppe-Nr.
 Group-no.

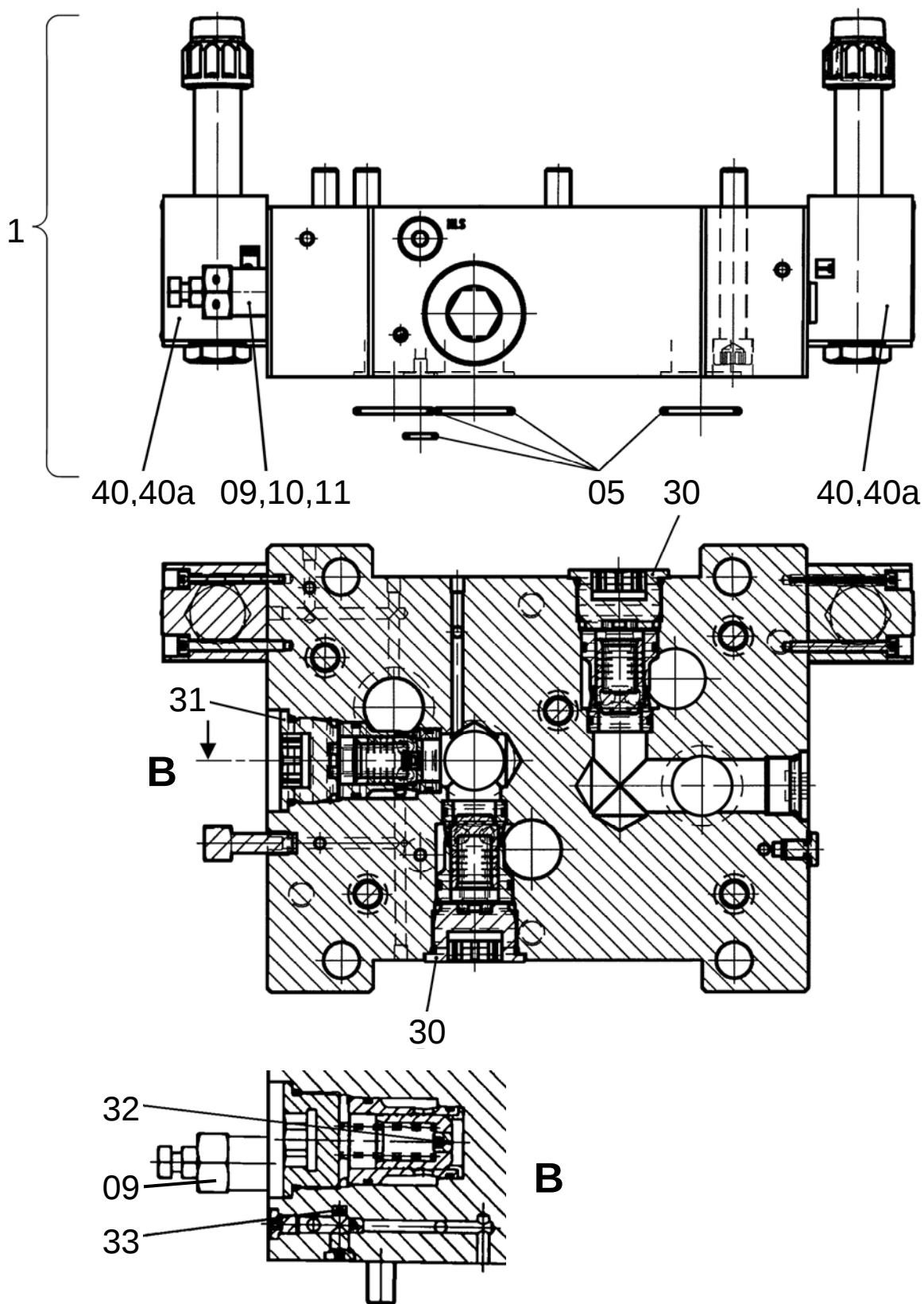
13.0
“A“


Steuerblock AV 6466-0-2/OS NG30-N
control block

B 1000063253

Gruppe-Nr.
Group-no.

13.0



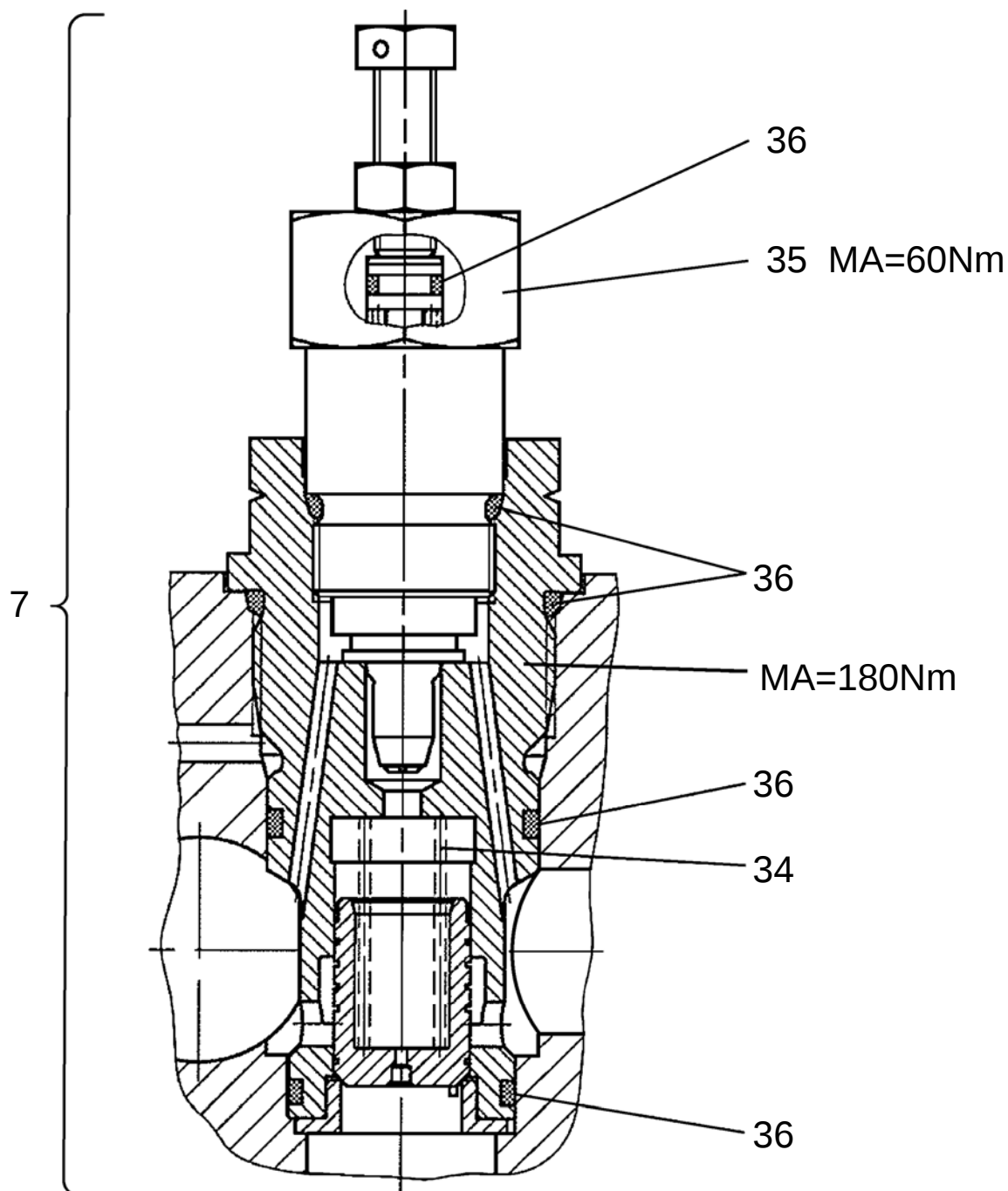
Steuerblock AV 6466-0-2/OS NG30-N
control block

B 1000063253

Gruppe-Nr.
Group-no.

13.0

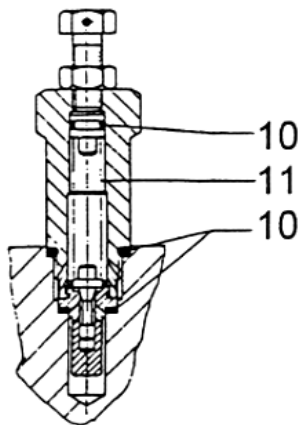
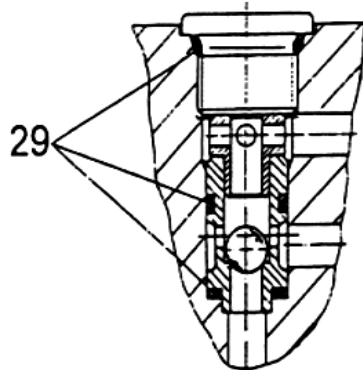
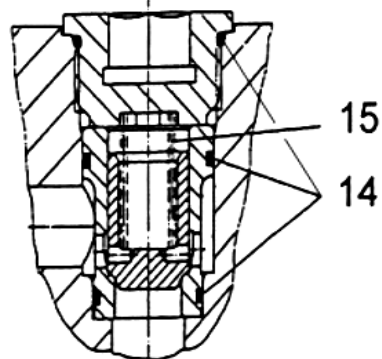
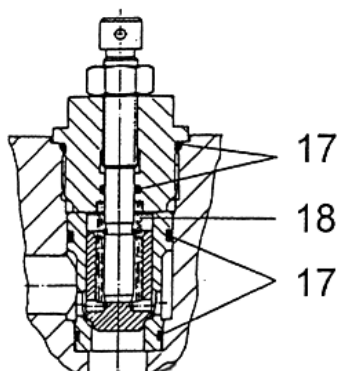
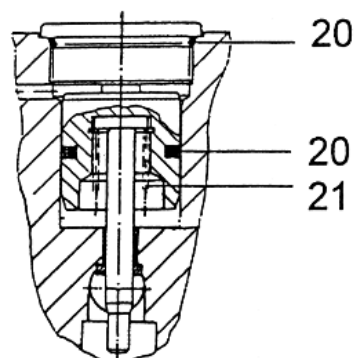
Pos. 07
item 07



Steuerblock AV 6466-0-2/OS NG30-N
control block
B 1000063253

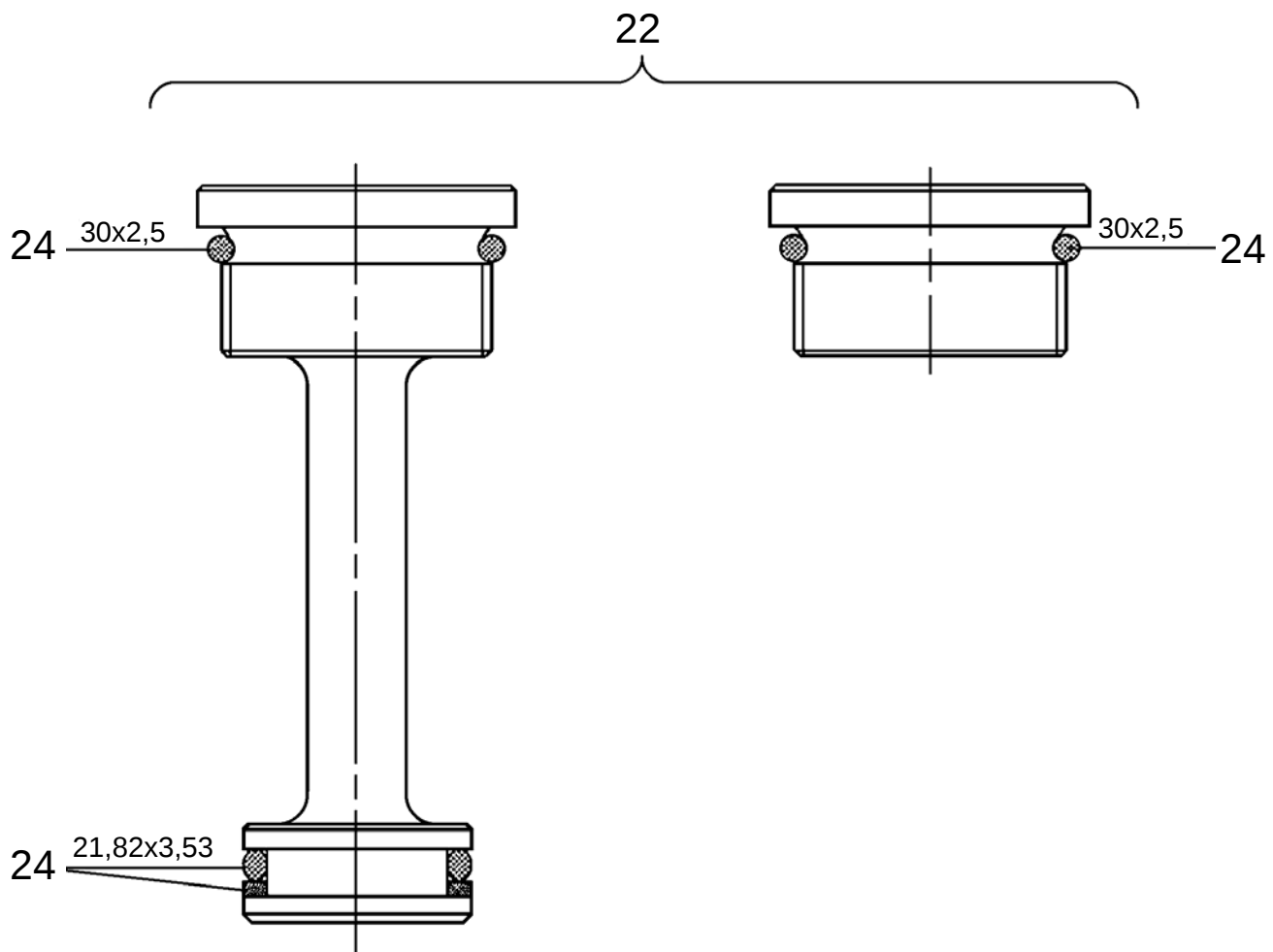
 Gruppe-Nr.
 Group-no.

13.0

 Pos. 09
 item 09

 Pos. 12
 item 12

 Pos. 13
 item 13

 Pos. 16
 item 16

 Pos. 19
 item 19


Steuerblock AV 6466-0-2/OS NG30-N
control block
B 1000063253

 Gruppe-Nr.
 Group-no.

13.0
Pos. 22
item 22


Steuerblock AV 6466-0-2-OS, DN 30-N
control block

 Bestell-Nr. **1000063253**
 Order-no.
 Gruppe-Nr. **13.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
01				
02		1	Grundblock, kpl. basic block, cpl.	OF-1407
03		1	Steuerplatte, kpl. control plate, cpl.	OF-203
04		1	Anschlussplatte connecting plate	OF-2036-4
05		1	Dichtungssatz für Flanschebene packing set for flange plane	OF-2036
06		2	Düse Ø 1,5 nozzle	OF-810-1.3
07		1	Druckbegrenzungsventil pressure relief valve	OF-1592
08				
09	0008061695	3	Vorsteuerventil DV1 / DV2 / DV3 pilot valve	OF-337-2.1
10	0008061139	3	Dichtungssatz für Pos. 09 packing set for item 09	OF-337-2.2
11	0008061135	3	Druckfeder für Pos. 09 pressure spring for item 09	OF-337-2.3
12	0000020479	1	Wechselventil, kpl. shuttle valve, cpl.	OF-603-1
13	0008061478	2	Rückschlagventil nonreturn valve	OF-337-5.1
14	0008061142	2	Dichtungssatz für Pos. 13 packing set for item 13	OF-337-5.2
15	0008061186	2	Druckfeder für Pos. 13 pressure spring for item 13	OF-337-5.3

Steuerblock AV 6466-0-2-OS, DN 30-N
control block

 Bestell-Nr. **1000063253**
 Order-no.
 Gruppe-Nr. **13.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
16	0008061479	2	Logikpatrone mit Hubbegrenzung nonreturn valve with lift stop	OF-337-6.1
17	0008061143	2	Dichtungssatz für Pos. 16 packing set for item 16	OF-337-6.2
18	0008061134	2	Druckfeder für Pos. 16 pressure spring for item 16	OF-337-6.3
19	0008061623	2	Vorsteuerung pilot control	OF-337-7.1
20	0008061144	2	Dichtungssatz für Pos. 19 packing set for item 19	OF-337-7.2
21	0008061188	2	Druckfeder für Pos. 19 pressure spring for item 19	OF-337-7.3
22		1	Stopfensatz plug set	OF-1244
23		1	Dichtungssatz für Flanschfläche packing set for flange plane	OF-1407-21
24		1	Dichtungssatz für Pos. 22 packing set for item 22	OF-1244
29	0000021486	1	Dichtungssatz, kpl. für Pos. 12 packing set, cpl. for item 12	OF-603-2
30	0000025395	2	Einbaupatrone, kpl. built-in valve, cpl.	OF-811-3
31	0000027605	1	Einbaupatrone, kpl. built-in valve, cpl.	OF-1246
32		1	Düse Ø 1,0 nozzle	OF-833-10

Steuerblock AV 6466-0-2-OS, DN 30-N
control block

 Bestell-Nr. **1000063253**
 Order-no.
 Gruppe-Nr. **13.0**
 Group-no.

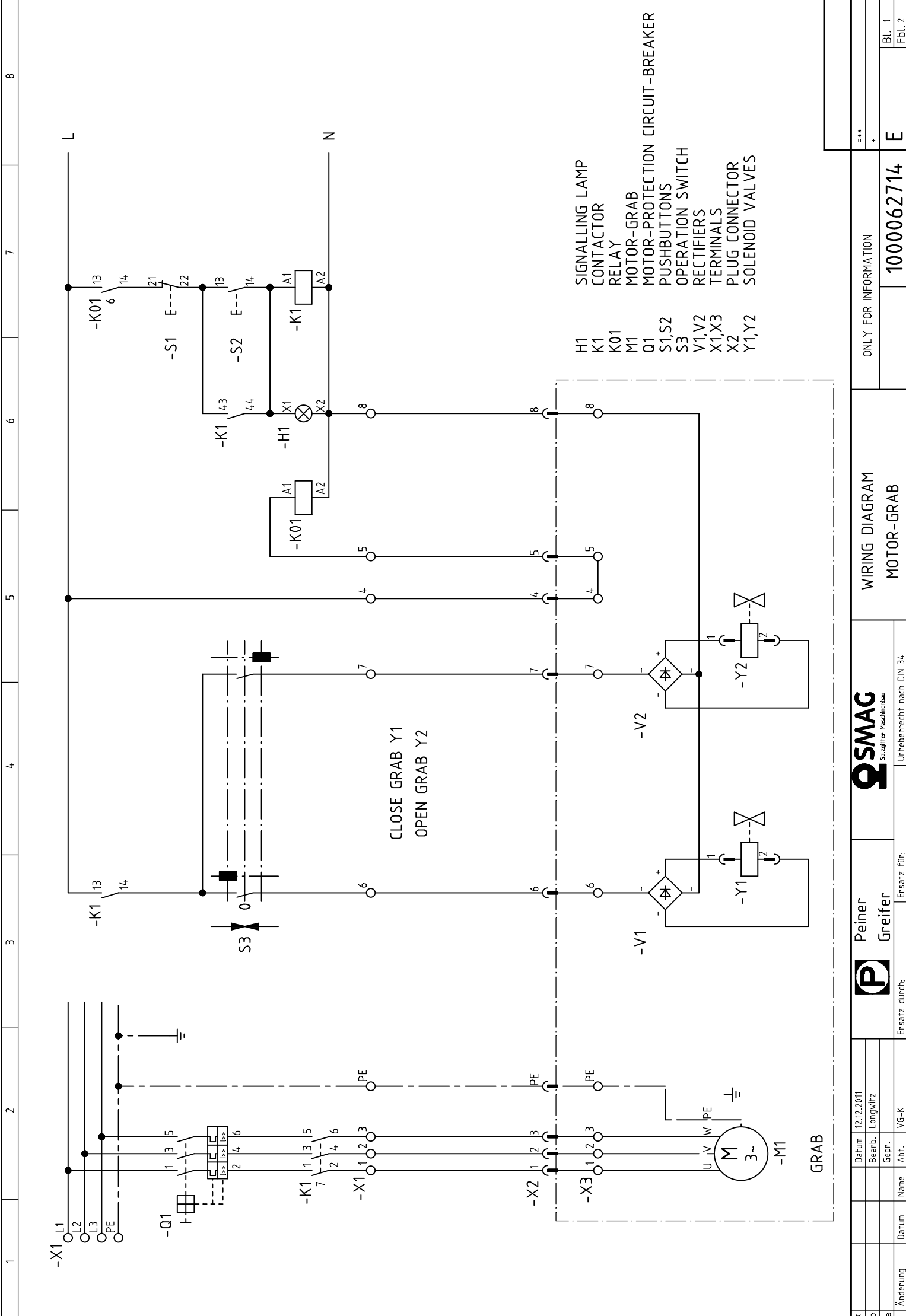
Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
33		1	Düse Ø 1,2 nozzle	OF-834-12
34		1	Druckfeder für Pos. 07 pressure spring for item 07	OF-594-4
35		1	Druckbegrenzungsventil pressure relief valve	OF-594-5
36		1	Dichtungssatz, kpl. für Pos. 07 packing set, cpl. for item 07	OF-594-2
40	1000050697	2	4/2-Wegeventil (Magnetspule – siehe Gr.-Nr. 1.0) 4/2-way valve (trip coil – see group-no. 1.0)	
40a	0000027131	4	Zyl-Shr. M 5x45 / 10.9 / DIN EN ISO 4762 cap screw, socket head	
41				
42		1	Dichtungssatz, kpl. für Pos. 02 packing set, cpl. for item 02	OF-1243-12
43		1	Dichtungssatz, kpl. für Pos. 03 packing set, cpl. for item 03	OF-2039-8
44	0000023621	1	Dichtungssatz, kpl. packing set, cpl.	OF-2036-8
	0000025397	2	Dichtungssatz, kpl. für Pos. 30 packing set, cpl. for item 30	OF-811-6
	0000025397	1	Dichtungssatz, kpl. für Pos. 31 packing set, cpl. for item 31	OF-811-6

Werks-Nr. / Serial-no.:
2502
Erzeugnis / Product:
MMG 4000-4-S
Sach-Nr. / Subject no.:
S 1000062712
Geräteausrüstung Elektrik
electric equipment
Schaltplan
wiring diagram
1000062714/1-2 E

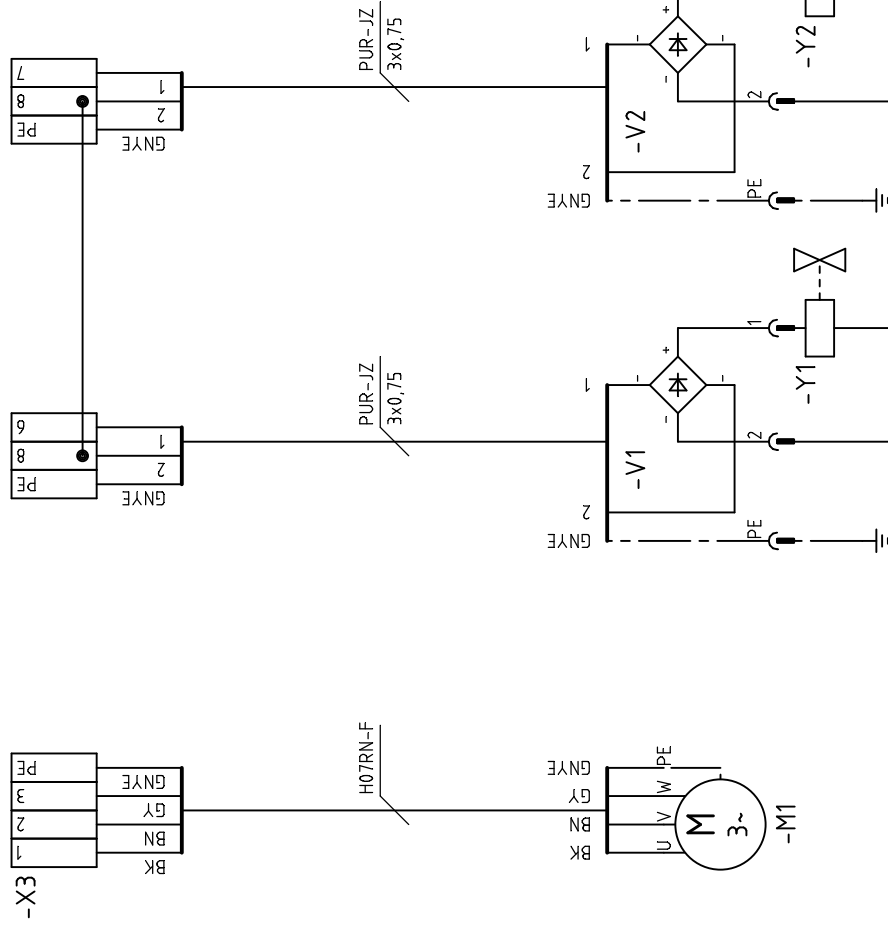
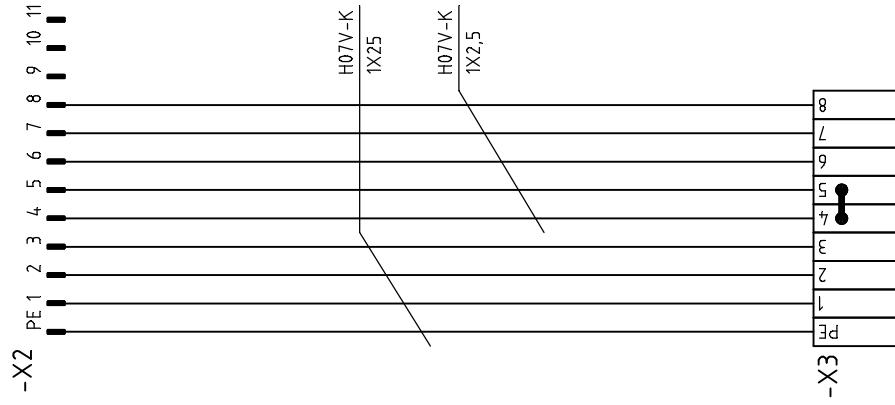
Benennung	Description	Bestell-Nr. / Order-no.	Gruppe-Nr. / Group-no.
Elektrische Installation	electrical installation	1000062714	40.0

Bei Ersatzteilbestellung ist außer der Bestellnummer das Erzeugnis, die Werks-Nr. und Kommissions-Nr. anzugeben.

For spare part orders, the product, serial-no. and commission-no. must be given in addition to the requisition-no.



1	2	3	4	5	6	7	8
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c		Datum	12.12.2011	 Peiner Greifer	 QSMAG Saugfahrer Maschinenbau	WIRING DIAGRAM MOTOR-GRAB	ONLY FOR INFORMATION		E	1000062714	Bl. 2
d		Bearb.	Longwitz								Fbl. -
a		Gepr.									
Änderung	Datum	Name	Abt.	Ersatz durch:		Ersatz für:					
			VG-K	Ersatz für:		Urheberrecht nach DIN 34					

Elektrische Installation
electrical installation

 Bestell-Nr. **1000062714**
 Order-no.
 Gruppe-Nr. **40.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01	0000019172	1	Montageplatte 9823007000 F CP300 53/A42 mounting plate
02	0006222179	1	Tragschiene 1201280 mounting rail
03	0000019854	3	Kemme UK 35 / 3008012 terminal
04	0000041006	1	Schutzleiterklemme USLKG 35 / 0444019 protective conductor terminal
05	0000019853	6	Klemme UK 5 N / 3004362 terminal
06	0060000552	1	Deckel D-UK 4/10 / 3003020 cover
07	0060000551	2	Schutzleiterklemme USLKG 5 / 0441504 protective conductor terminal
08	0000030133	2	Gerätesteckdose mit Gleichrichter und 2 m Leitung socket with rectifier and 2 m electric cable
09	0090017600	1	Leitung H07V-K 1X25 – 1,5 m electric cable
10	0090017608	1	Leitung H07V-K 1G25 – 0,5 m electric cable
11	0090017100	1	Leitung H07V-K 1X2,5 – 2,5 m electric cable
12	0000027590	1	Geräteteil D58 3+PEX125A+8X25A S0117, kpl. male part, cpl.