

DOCUMENTATION

Grab type:

MMGL 5750-3

Com.-no.:

173.00.467

Serial-no.:

0340

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MACHINERY DATA CARD

GRAB-NO. 03/1244

MMOTORE.DOT

Issued: Jerke/Bode
Date: 24.02.2003
Comm.-No. : 17300467

Operating instructions Part: A 04.0047	Spare parts list: 2314.0067	Accessories: Z
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Model*	Ref.-No.	Type-No.	Serial-No.*	Year of built*
MMGL 5750-3	2314.0104		0340	2003

General data:

Bulk cargoes up to density	1,8 t/m³			
Granulation	mm			
Surface area*	m²	Theoret. cycle times:	<u>actual size</u>	<u>specified size</u>
Capacity	m³	Opening	8,2	7,5 s
Payload	kgs	Closing	12,1	12,0 s
with spill plates		Scoops	semi-open	
Capacity*	5,75 m³	Suspension		
Payload	max. 10000 kgs	Gimbal		
Dead weight*	5550 kgs	Shackle	B 16 DIN 82016	
Required SWL	15550 kgs	Colour	RAL 5010, blue	

Dimensions

A	3725 mm	B	2880 mm	E	mm	G	mm
C	3080 mm	D	4720 mm	F	460 mm		

Electrical data:

Type of Motor	8111625 200L-4	Insulation class	F
Serial No. motor	6321283	max. operations	120 c./h
Motor output*	37 kW	Wiring diagram	2307.9884
Revolutions	rpm	Plug-connection	Leidel D58
Voltage*	400 V	Cable tension release	2300.0490
Frequency	50 cps		
Current	A.C.		
Rated current	A		
Intermitted cycle*	S3-40 %		
Protective system	IP 54		

Hydr. data / mech. data:

Unit type No.*		Cylinder Ref.-No.	2303.7428
Pump type No.	2002020431 V30D-095(80)	Control block	AV4247-NG20N
Oil flow*	116 l/min	Control block, serial No.*	3838
max. operating pressure			
- Opening	120 bar		
- Closing*	230 bar		
Type of oil	HLP 46		
Oil capacity	340 l		

Tested data:

Rated current (neutral gear)	23 A	Oil temp. after 3 hours of operation	290 °C
Rated current (full load)	69 A	Ambient temperature	-5 °C

Responsible for testing/checking: Bergs

*Data of designation plate

2.0 Description and General Survey

2.1 Basic unit: Constructional and functional description

2.1.1 Constructional description (see page no. 7-1)

The structure of the PEINER Motor Orange-Peel Grab is as follows:

The „shells“ which serve to pick up the bulk material are hinged to the „traverse“ by means of pins. The pins also serve as pivot points for the shells. The scoop tips are made of wear-resistant material.

The „hydraulic unit“ is mounted as a complete assembly in the „traverse“, which at the same time serves as a protection. The lower part of the „traverse“ is designed as oil tank. The „hydraulic unit“ consists of motor, high-pressure gear pump and control device. By unscrewing the fixation screws, the complete „hydraulic unit“ can be removed out of the grab. Thanks to the low arrangement of the „hydraulic unit“, the grab has a low building height and a favourable centre of gravity.

The attachment points of the „lifting cylinders“ are located on the „traverse“ and the „shells“. The shells are opened or closed by retracting and extending the piston rods. The piston rods are surface-treated and corrosion-resistant. The control unit is connected with the lifting cylinders by means of hydraulic hoses. The „lifting cylinders“ are protected against damages.

Suspension is done by means of a load hook in a load shackle.

Electric power is supplied to the „motor“ via a „plug-in connection“ and rubber hoses. In order to prevent any damages, the „plug-in connection“ is relieved via a „tension relief“. The plug is provided with a protective cover.

All components and parts are made of high-quality material and are easily replaceable.

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 NG 20-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 that the pump has to return towards "zero-lift regulation" in order to suck only as much oil as is required to maintain the system pressure.

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 T via line A and stop valve SV1 through line R 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 RV1 and line A. On extension of the cylinders, the oil emerging of the piston rod sides KSS flows through line B and the stop valve with lift-stop SV2, which was opened by the control pressure, through return pipe R 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.

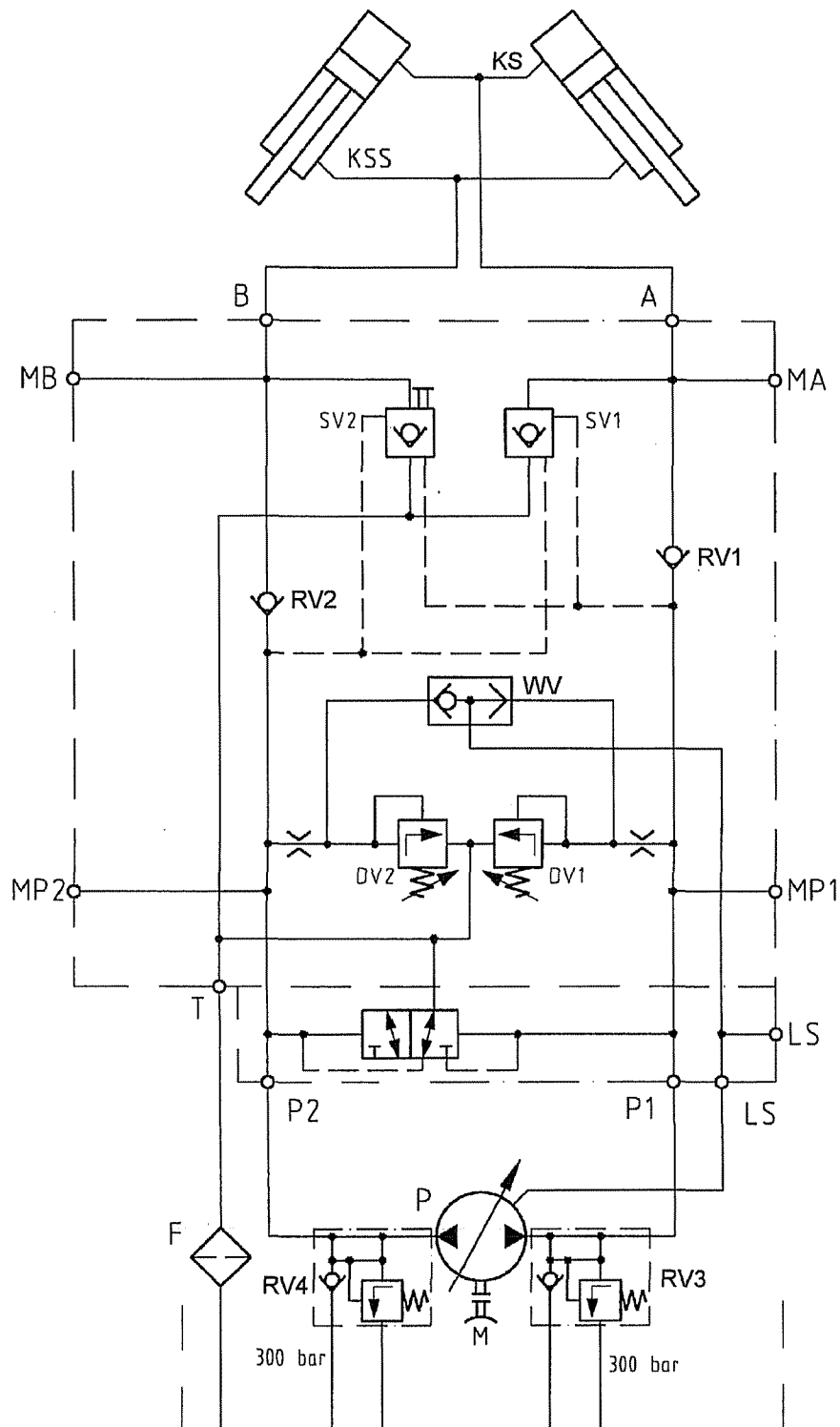
Pressure gauge connections:

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

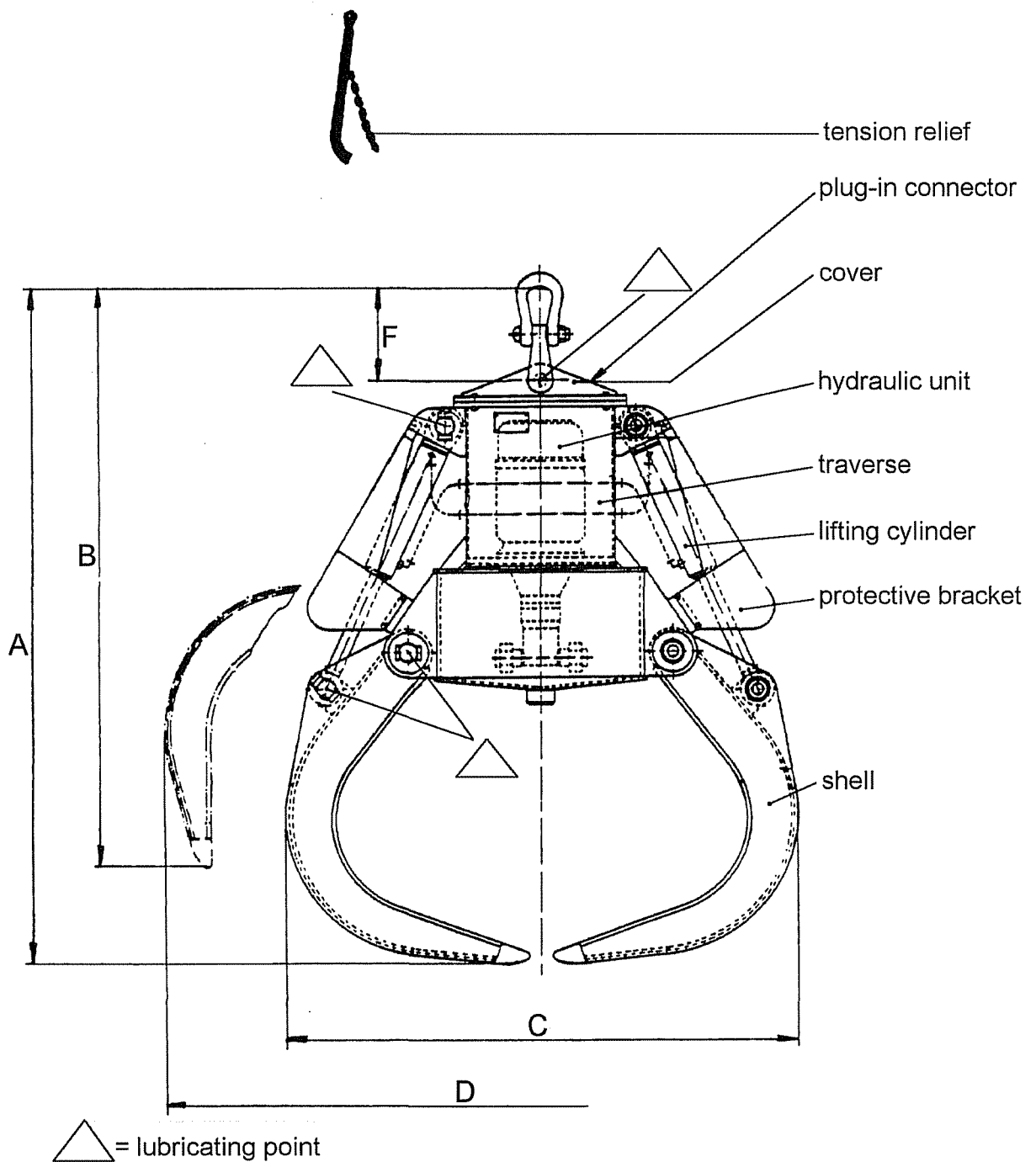
2.2 Hydraulic diagram 2303.4342
Control block NG 20N-LS
Reversing operation (S3)
Variable delivery pump - Load-Sensing-regulator



Legend:

A	=	pipe (grab closing)
B	=	pipe (grab opening)
DV1, DV2	=	pressure relief valve
F	=	filter
KS	=	piston side
KSS	=	piston rod side
LS	=	Load-Sensing-regulator
M	=	motor
MA, MB, MP1, MP2	=	pressure gauge connection
MLS	=	measuring point baseplate
P	=	hydraulic pump
P1, P2	=	pump connection / pressure line
R	=	return line
R1, R2	=	nonreturn valve
RV3, RV4	=	check valve with pressure relief valve / security valve
St1, St2	=	control line
SV1	=	stop valve
SV2	=	stop valve with lift stop
T	=	hydraulic tank
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.

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

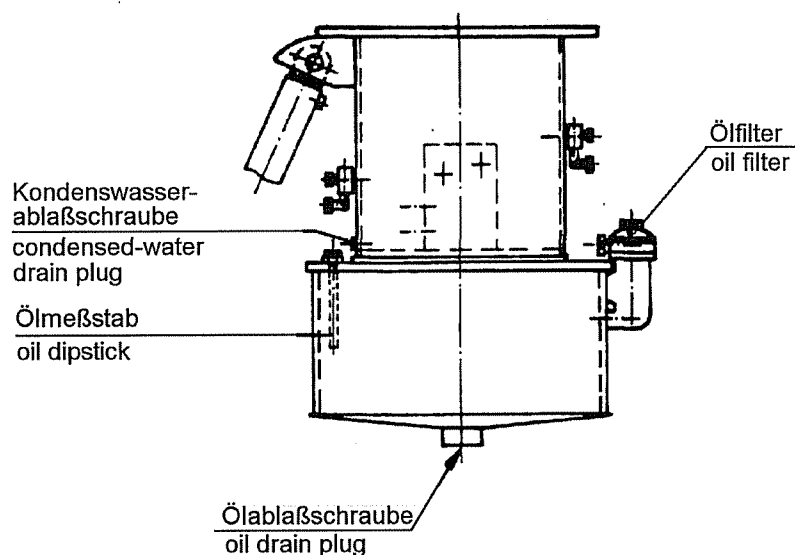
4.1 Maintenance

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 distribution blocks: 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.

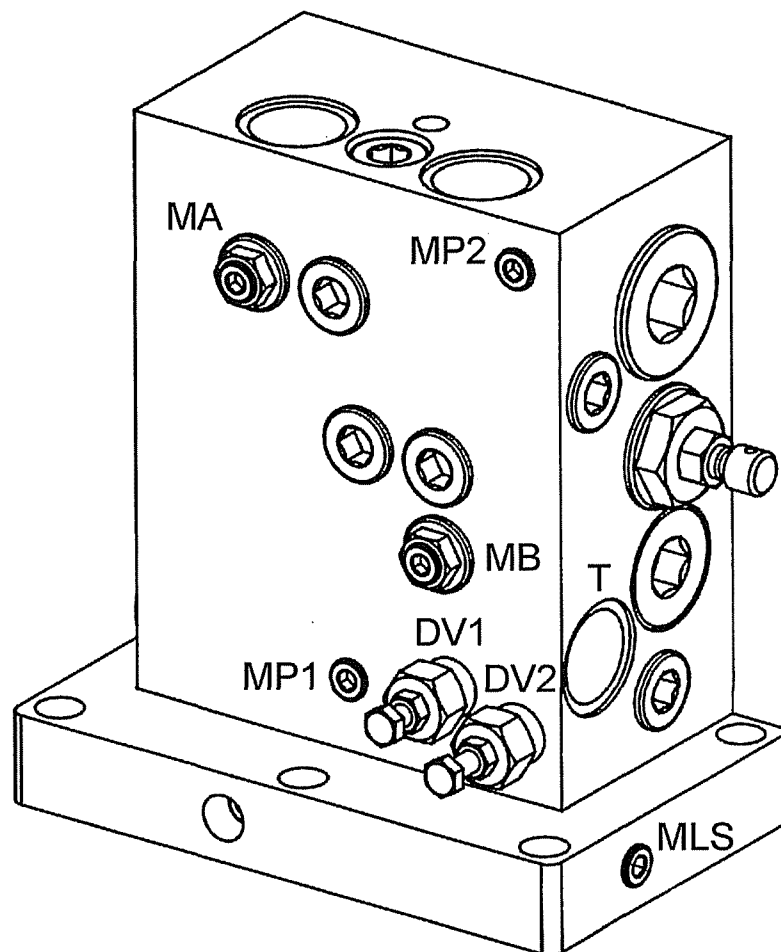
3. - Measuring point MP1: The pressure produced by the pump, limited by the pressure relief valve DV1 for "closing". The pressure measured at this point can be approx. 30 bar lower than at measuring point MA.
- Measuring point MP2: The pressure produced by the pump, limited by the pressure relief valve DV1 for "opening". The pressure measured at this point can be approx. 30 to 40 bar lower than at measuring point MB.
- Measuring point 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): $MLS = MP1/MP2$
- at the end of the movement, i. e. adjusted pressure at DV1 respectively DV2 reaches: $MLS = MP1/MP2 - 20$ to 30 bar

Control block NG 20-N, standard design (S3)



Measuring points:

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

4. pressure adjustment:

Pressure adjustment is done at the control block.

Closing pressure: Pressure release valve DV1

Opening pressure: Pressure release 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 joints 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 shells

Disassembly 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. 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 both covers and replace the whole stop valve assembly. Replace all parts completely, so as to ensure perfect operation.

4.3.4 Assembly

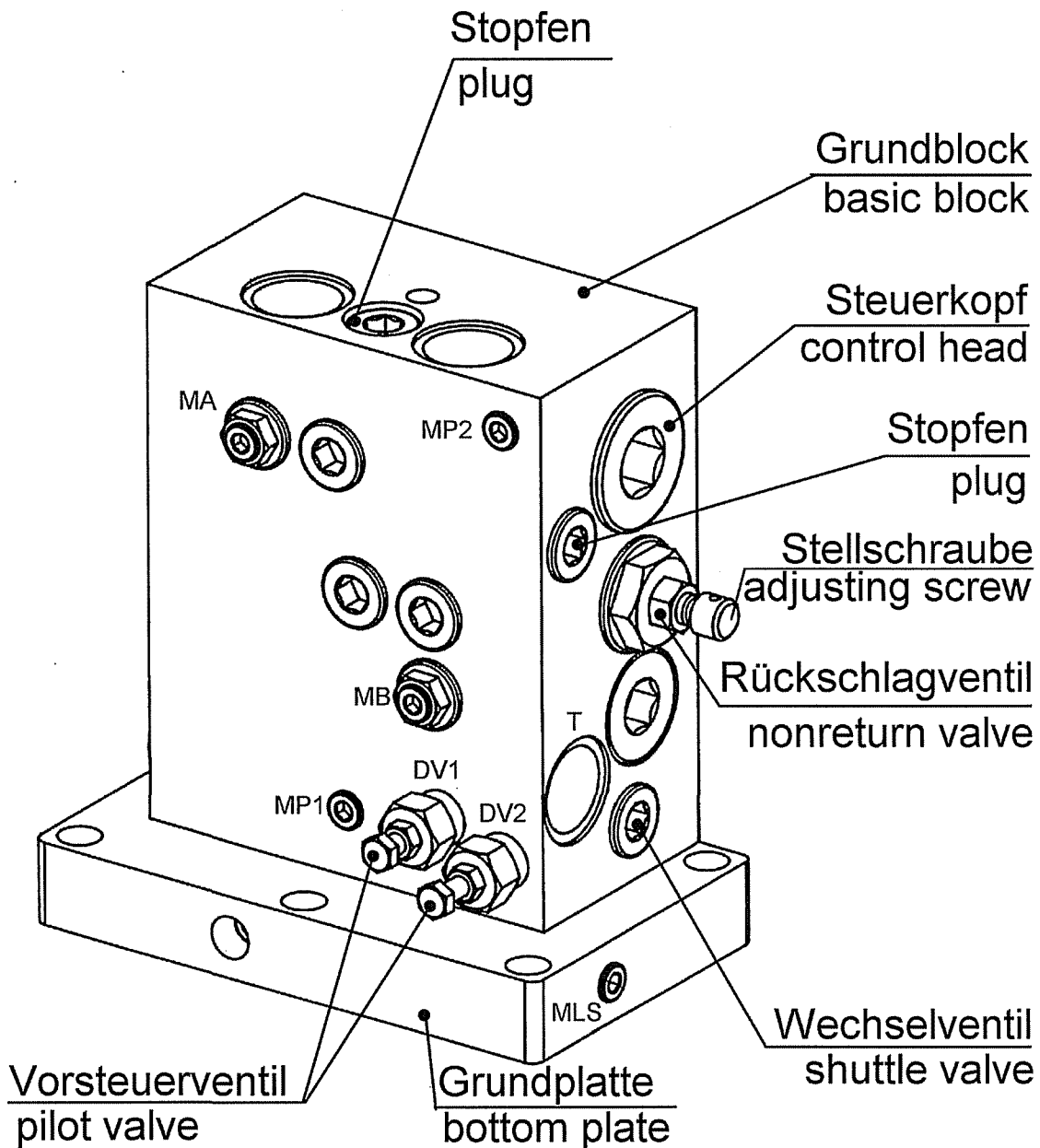
Carry out the assembly in reverse order of the disassembly. Take care that the parts provided with packings are not damaged during the assembly.

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.

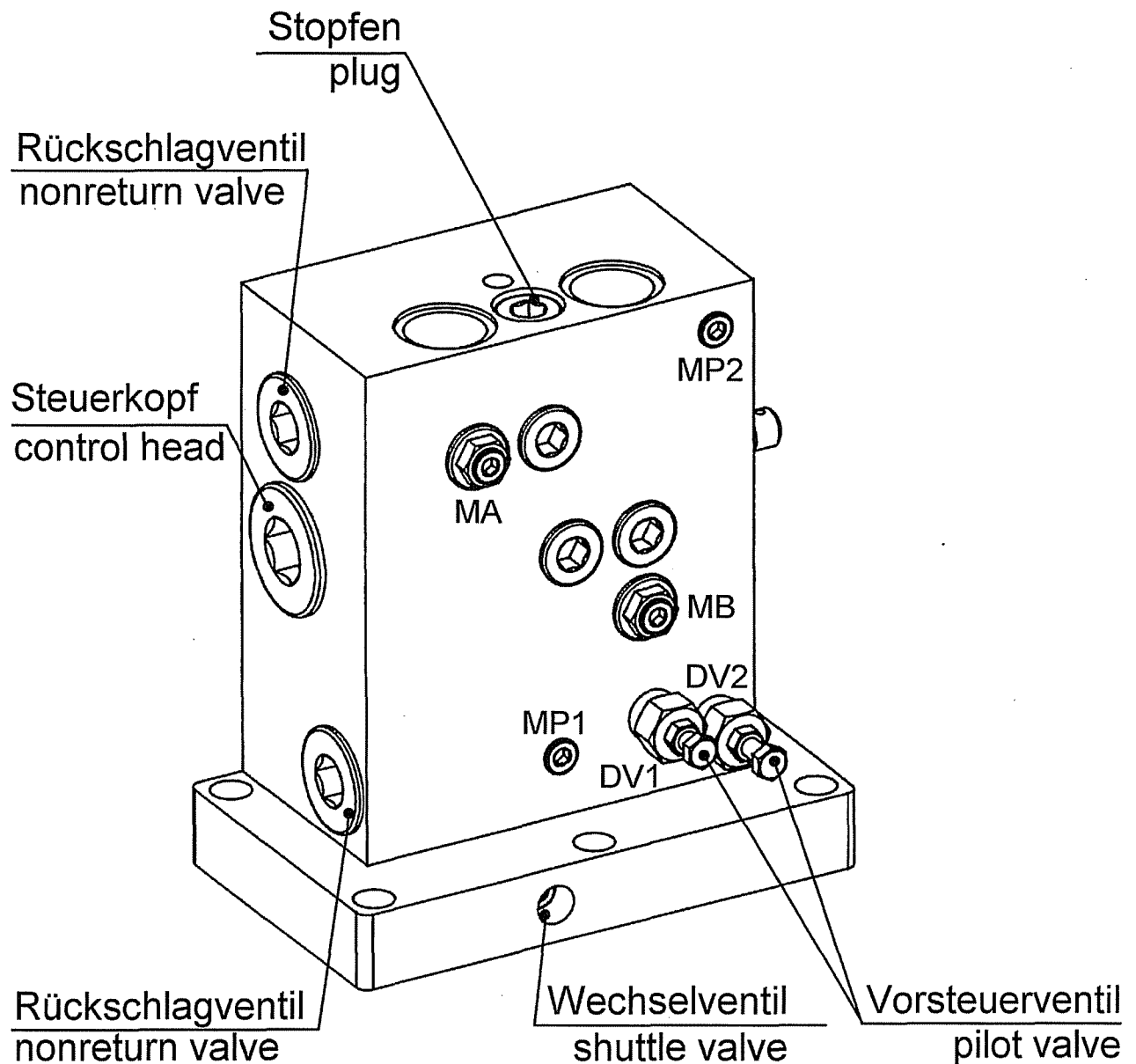
ATTENTION! For major repair works, call the after-sales service technician!

4.3.5 Control block - standard design NG 20-N



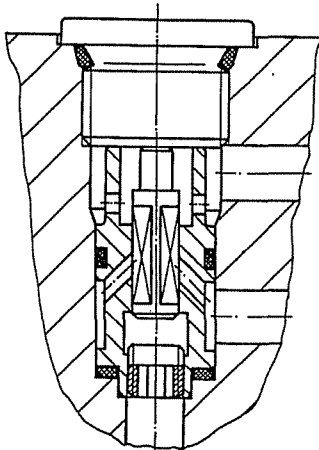
The adjusting screw is only to be adjusted if the grab chatters when being opened or closed. If an adjustment is necessary, proceed as follows:

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

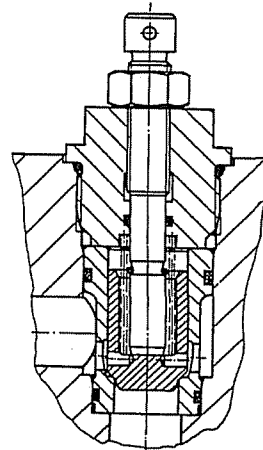


If soiled, the pilot valve and the pressure relief valve unit must be cleaned.

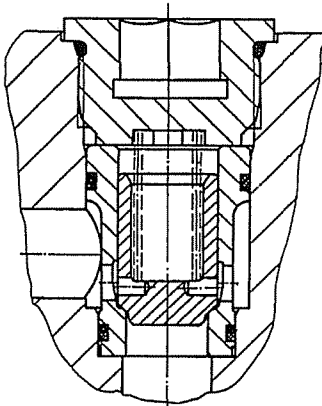
Wechselventil
shuttle valve



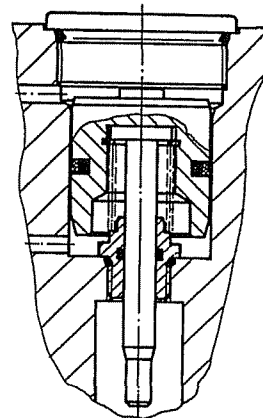
Rückschlagventil
nonreturn valve



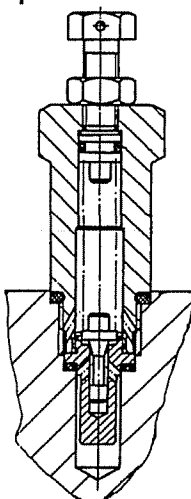
Rückschlagventil
nonreturn valve



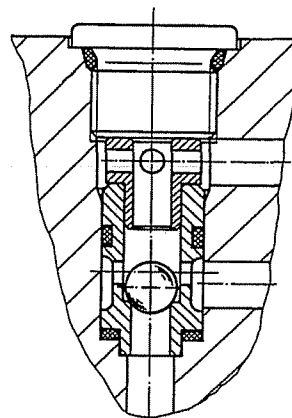
Steuerkopf
control head



Vorsteuerventil
pilot valve



Wechselventil
shuttle valve



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.

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
ARAL	Vitam HF 32	Vitam GF 46	Vitam GF 68
BP	ENERGOL SHF 32	ENERGOL HLP 46	ENERGOL HLP 68
CASTROL	HYSPIN AWH 32	HYSPIN AWS 46	HYSPIN AWS 68
ESSO	UNIVIS J 32	NUTO H 46	NUTO H 68
MOBIL	DTE 13	DTE 25	DTE 26
SHELL	Tellus Oel T 32	Tellus Oel 46	Tellus Oel 68
TEXACO	Rando Oil HD AZ-32	Rando Oil HD B-46	Rando Oil HD C-68

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
ESSO	ATF-Type A Suffix A	ATF Dexron
MOBIL	ATF 200	ATF 220
SHELL	Donax TM	Donax TA
DEA	Deafluid 1585	Deafluid 4011

	Adhesive grease DIN 51513 BC	Lithium saponified grease lubricant DIN 51825/2 KTA-L2k
AGIP	FIN 332/F	Longlime Grease 2
ARAL	Sinit FZL 3	Aralub HL 2
AVIA	Avilub BB 21	Avilub special grease WL
BP	Energrease MP-MG2	Energrease LS 2
Calypsol	Eculit ST	Calypsol H 442
Castrol	Spheerol SX2	Spheerol AP 2 LZV-EP Spheerol E PL 2
DEA	Trixolit 2X	Glissando 20
DEFROL	Defrol BC	Defrol Fett KTA-L2k
ESSO	Surett Fluid 4K	Beacon 2
FINA	Cabline 1060	Marson LU
Fuchs	Duotac F 310 L	Renolit MP
Mobil Oil	Mobiltac D	Mobilux 2
Shell	Cardium Fluid C	Alvania R 2 Alvania G 2

5.0 Failure diagnosis - source of failure

Failure	Symptom	Diagnosis/Source of failure
5.1 Grab not functioning	- Motor not running; motor receiving current	<ul style="list-style-type: none"> - fuses - contactors - rubber hoses - connecting terminal - slip rings and brushes in cable drum - plug-in connector - diode elements
	- current o. k.	- motor defect
	- motor running	<ul style="list-style-type: none"> - coupling defect - back pressure in pump oil-intake jammed (dirty oil) - pressure relief valve dirty or loss of spring pressure Readjustment required. - Oil level in tank too low.

ATTENTION!

If the pump takes in the air, this usually leads to destruction of pump an in-line engine. (see point 4.2.1)

- control pressure rod in control block clamps
- ground-disk of pump damaged or worn
- spring in piston of pump is broken
- seal of cylinder not water-tight
- pipe between pump and control block is damaged or loosen.

Failure	Symptom	Diagnosis/Source of failure
5.2 Grab malfunctioning	- Scoops open / close	<ul style="list-style-type: none"> - locking valve damaged (closing or opening side) - cylinder glands leaking - o-ring in locking valve damaged - pipe connection leaking
5.3 Hydraulic failure	<ul style="list-style-type: none"> - noisy pump - excessive oil temperature 	<ul style="list-style-type: none"> - pump worn - operated too long producing excessive pressure on pressure relief valve. Throttle too far closed. - Too little or unsuitable oil in tank.
	- scoops rattle when opening or closing	- Maladjustment of throttle section. (see page no. 10-6)

 SMAG Salzgitter Maschinenbau GmbH	 Inhaltsverzeichnis Contents <small>PEINER Greifer</small>	Kommission - Nr. Commission - no. 173.00.467
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Werks-Nr. / Serial-no.:
0340

Erzeugnis / Product:
MMGL 5750-3

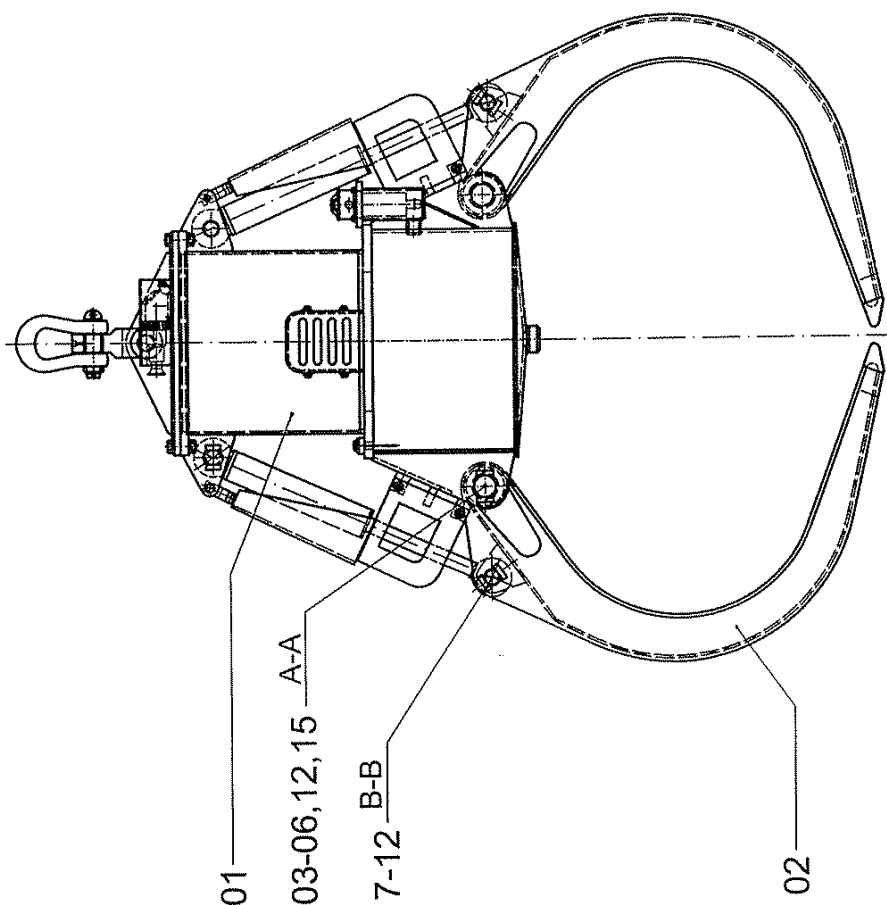
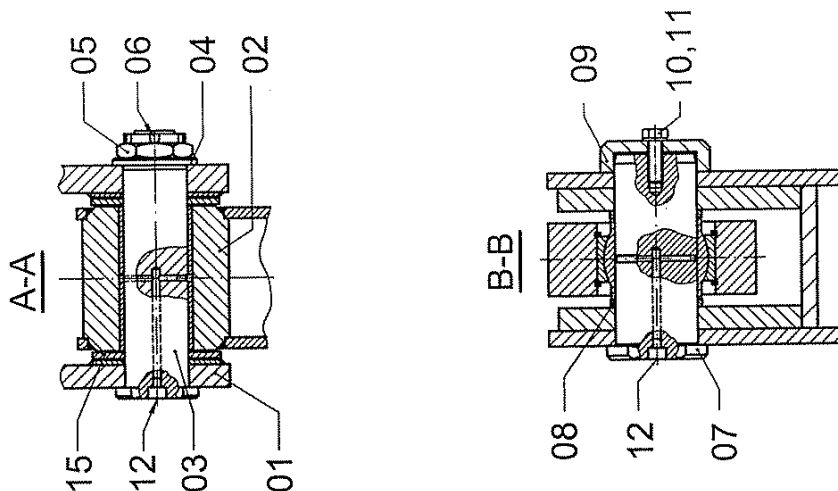
Sach-Nr. / Subject no.:
S 23140104

Benennung	Description	Bestell-Nr. / Order-no.	Gruppe-Nr. / Group-no.
Zusammenstellung	compilation	23140104	1.0
Schale, halboffen	shell, half open	23141403	2.0
Grundgerät	basic unit	23140057	3.0
Deckel, kpl.	cover, cpl.	23005289	5.3
Deckel, kpl.	cover, cpl.	23038067	5.3
Hubzylinder	lifting cylinder	23037428	7.1
Zylinderschutz	protective bracket	23038030	8.0
Hydraulikanlage	hydraulic system	23038060	9.0
Hydraulikaggregat	hydraulic unit	23141407	10.0
Verteilerstück	distributor part	23005183	10.3
Rücklauffilter	return filter	00019654	11.0
Pumpe	pump	00021969	12.0
Steuerblock	control block	00019640	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 MMGL-3
Motor Orange-Peel Grab MMGL-3

B 23140067
 Gruppe-Nr.
 Group-no.
1.0



Salzgitter Maschinenbau GmbH



PEINER Greifer

Ersatzteilliste

Spare parts list

Motor-Mehrschalengreifer MMGL 5750-3
Motor Orange-Peel Grab MMGL 5750-3

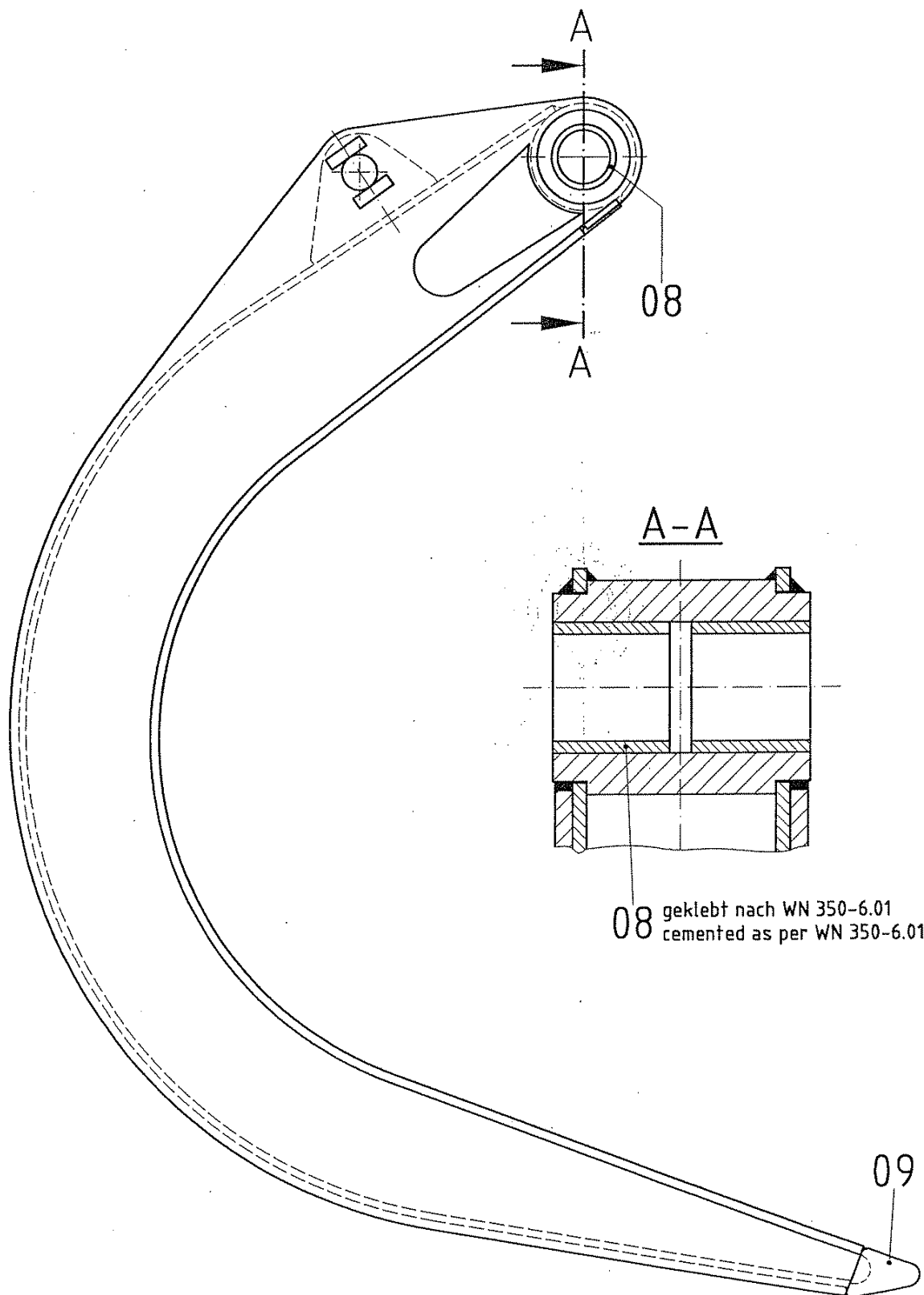
Bestell-Nr. **23140104**
 Order-no.
 Gruppe-Nr. **1.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01	23140057	1	Grundgerät – Umbau (s. Gruppe-Nr. 3.0) basic unit – modification (see group-no. 3.0)
02	23141403	6	Schale, kpl. – halboffen (s. Gruppe-Nr. 2.0) shell, cpl. – half open (see group-no. 2.0)
03	23005204	6	Bolzen pin
04	02376090	6	Scheibe B 66 / StA3P / DIN 125 disc
05	66807800	6	Kronen-Mu M 64 / 8 / DIN 935 castle nut
06	63722400	6	Splint 10x100 / StA3P / EN ISO 1234 split pin
07	23038037	6	Bolzen 60x202/217 pin
08	23038160	12	Distanzhülse spacer sleeve
09	23037479	6	Scheibe disc
10	65161307	12	6kt.-Shr. M 16x30 / 8.8A3P / EN 24017 hexagon screw
11	00018158	12	Scheibe 17 / StZn / DIN 432 disc
12	69520310	12	Schmiernippel AM 10x1 / 5.8Zn / DIN 71412 lubricating nipple
15	23141111	12	Scheibe disc

Schale; kpl.
shell, cpl.

B 23039799

 Gruppe-Nr.
Group-no.

2.0


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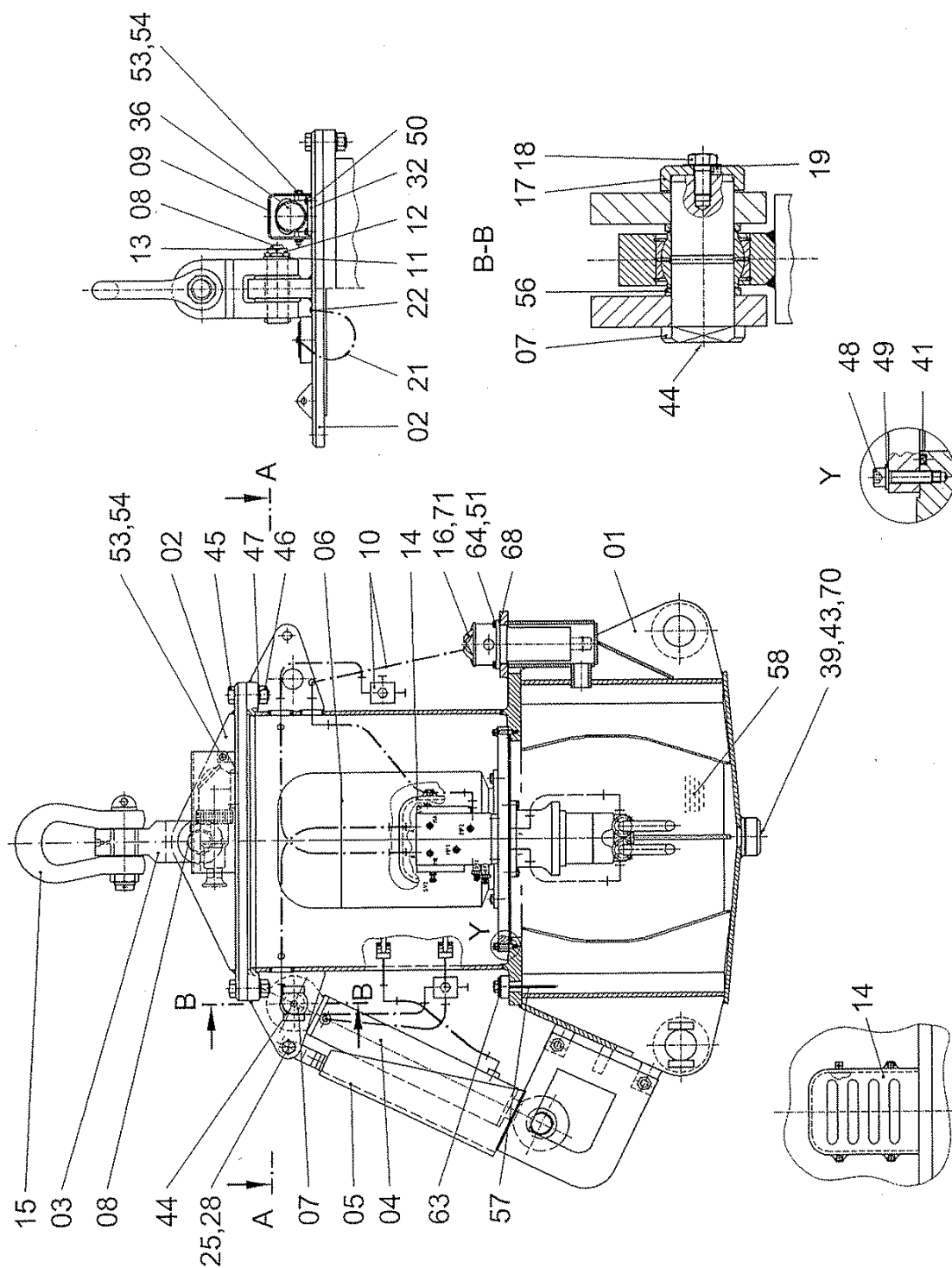
PEINER Greifer

Ersatzteilliste
Spare parts list**Schale, kpl. – halboffen**
shell, cpl. – half openBestell-Nr. **23141403**
Order-no.
Gruppe-Nr. **2.0**
Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
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01

08	23005152	2	Buchse 110/90x100 bush
09	23002738	1	Schalenspitze shell point

Grundgerät
basic unit
B 23140057Gruppe-Nr.
Group-no.**3.0**Kom. 173.00.467



Salzgitter Maschinenbau GmbH



PEINER Greifer

Ersatzteilliste

Spare parts list

Grundgerät
basic unit

Bestell-Nr.
Order-no. **23140057**

Gruppe-Nr.
Group-no. **3.0**

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	<u>*Kom. 173.00467</u>
01	23038033	1	Traverse traverse	
02	23005289	1	Deckel (s. Gruppe-Nr. 5.3) cover (see group-no. 5.3)	
03	23005285	1	Zwischenstück intermediate piece	
04	23037428	6	Hubzylinder 100/60x450 (s. Gruppe-Nr. 7.1) lifting cylinder (see group-no. 7.1)	
05	23038030	6	Zylinderschutz (s. Gruppe-Nr. 8.0) protective bracket (see group-no. 8.0)	
*06	23141407	1	Hydraulikaggregat S3 (s. Gruppe-Nr. 10.0) hydraulic unit (see group-no. 10.0)	
07	23038036	6	Bolzen 60x147/162 pin	
08	23008237	1	Bolzen pin	
09	23000317	1	Abdeckung cover	
10	23038060	1	Hydraulikanlage (s. Gruppe-Nr. 9.0) hydraulic system (see group-no. 9.0)	
11	02376081	1	Scheibe B 43 / StA3P / DIN 125 disc	
12	02284223	1	Kronen-Mu M 42x3 / 5 / DIN 937 castle nut	
13	63719102	1	Splint 8x71 / StA3P / EN ISO 1234 split pin	
14	23038067	1	Deckel, kpl. (s. Gruppe-Nr. 5.3) cover, cpl. (see group-no. 5.3)	



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PEINER Greifer

Ersatzteilliste

Spare parts list

Grundgerät
basic unit

Bestell-Nr. **23140057**
Order-no.
Gruppe-Nr. **3.0**
Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	<u>*Kom. 173.00467</u>
15	02304988	1	Schäkel B 16 / St / DIN 82016 shackle	
*16	00019654	1	Rücklauffilter E 443-168 R1½" (s. Gruppe-Nr. 11.0) return filter (see group-no. 11.0)	
17	23037479	6	Scheibe disc	
18	65161307	12	6kt.-Shr. M 16x30 / 8.8A3P / EN 24017 hexagon screw	
19	00018158	12	Scheibe 17 / StZn / DIN 432 disc	
20				
21	02821010	1	Knotenkette 2 / St / DIN 5686 knotted-link chain	
22	65150003	1	6kt.-Shr. M 8x20 / 8.8A2P / EN 24017 hexagon screw	
25	65041700	6	6kt.-Shr. M 24x160 / 8.8A3P / EN 24014 hexagon screw	
28	66829405	6	6kt.-Mu. M 24 / 8A3P / EN 24032 hexagon nut	
32	23002616	1	Dichtung gasket	



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PEINER Greifer

Ersatzteilliste

Spare parts list

Grundgerät
basic unit

Bestell-Nr. **23140057**
Order-no.
Gruppe-Nr. **3.0**
Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	<u>*Kom. 173.00467</u>
36	06171700	1	Geräteteil D 58 (siehe Geräteausrüstung Elektrik) male part (see electric equipment)	
39	74577212	1	Dichtring A 27x32x2 / Cu / DIN 7603 sealing ring	
40				
41	00022211	1	O-Ring 578x8 / 70 Shore o-ring	
42				
43	08022741	1	Verschluß-Shr. R $\frac{3}{4}$ screw plug	
44	69520310	7	Schmiernippel AM 10x1 / 5.8Zn / DIN 71412 lubricating nipple	
45	65045502	6	6kt.-Shr. M 30x100 / 8.8A3P / EN 24014 hexagon screw	
46	66829606	6	6kt.-Mu M 30 / 8A3P / EN 24032 hexagon nut	
47	63874202	6	Scheibe B 31 / StA3P / DIN 125 disc	
48	65986248	12	Zyl.-Shr. M 12x45 / 8.8 / EN ISO 4762 cap screw, socket head	
49	63872803	4	Scheibe B 13 / StA3P / DIN 125 disc	


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PEINER Greifer

Ersatzteilliste Spare parts list

Grundgerät
basic unit

 Bestell-Nr.
Order-no. **23140057**

 Gruppe-Nr.
Group-no. **3.0**

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	<u>*Kom. 173.00467</u>
50	65153410	4	6kt.-Shr. M 10x25 / 8.8A3P / EN 24017 hexagon screw	
51	63872402	2	Scheibe B 10,5 / StA3P / DIN 125 disc	
52				
53	66818803	1	6kt.-Mu M 12 / 8A3P / EN 24032 hexagon nut	
54	02061364	1	6kt.-Shr. M 12x150 / 8.8A3P / EN 24014 hexagon screw	
55				
56	23038061	12	Distanzhülse spacer sleeve	
57	23034507	1	Ölmeßstab oil dipstick	
58		300 l	Hydrauliköl HLP 46 (siehe Ölempfehlung) hydraulic oil (look to oil recommendation)	
63	74579800	1	Dichtring A 48x55x2 / Cu / DIN 7603 sealing ring	
64	65153607	4	6kt.-Shr. M 10x30 / 8.8A3P / EN 24017 hexagon screw	
68	59007416	1	O-Ring 126x4 / 88NBR/156 o-ring	


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PEINER Greifer

Ersatzteilliste
Spare parts list
Grundgerät
basic unit

 Bestell-Nr. **23140057**
 Order-no.
 Gruppe-Nr. **3.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	<u>*Kom. 173.00467</u>
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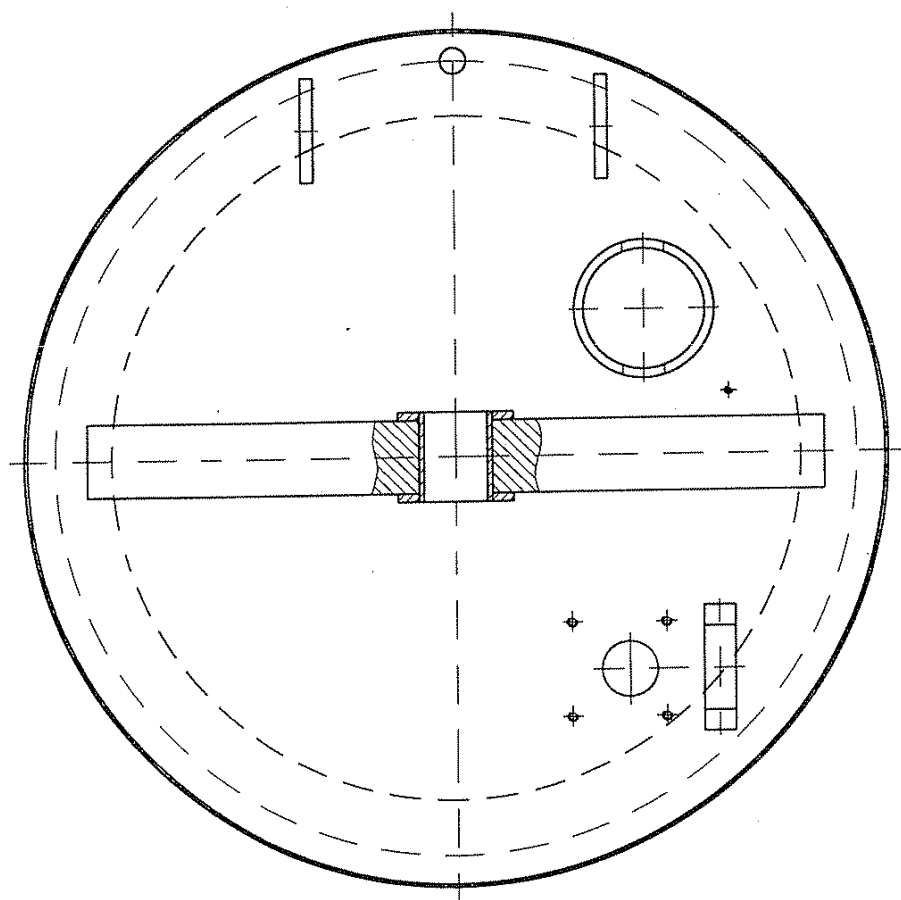
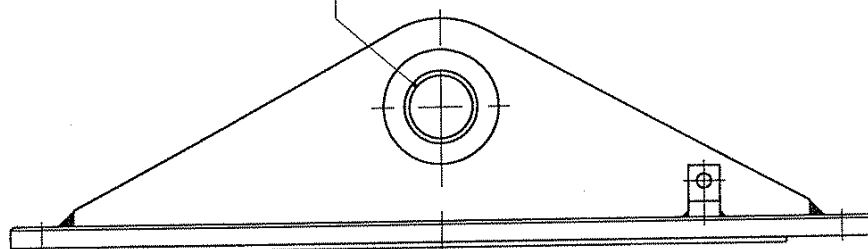
69

70	23000741	1	Schutzkappe protection cap	
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*71	69371173	1	Verschraubung RI 1½"x1" protection cap	
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Deckel, kpl.
cover, cpl.
B 23005289Gruppe-Nr.
Group-no.**5.3**

03 geklebt nach WN 350-6.01
 cemented as per WN 350-6.01



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**Ersatzteilliste**
Spare parts list**Deckel, kpl.**
cover, cpl.Bestell-Nr. **23005289**
Order-no.
Gruppe-Nr. **5.3**
Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01			
02			
03	23035781	1	Buchse 60,4/70x81 bush



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PEINER Greifer

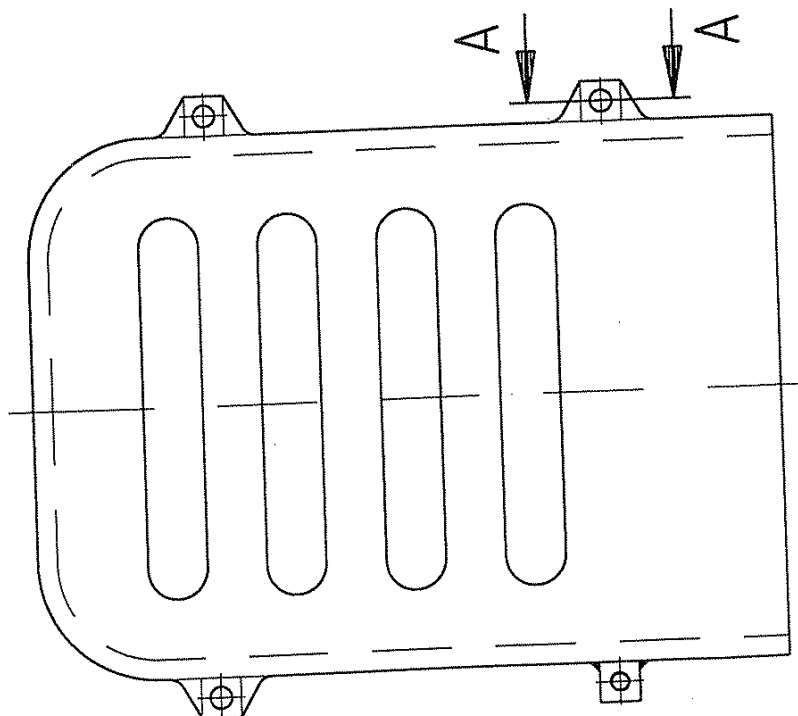
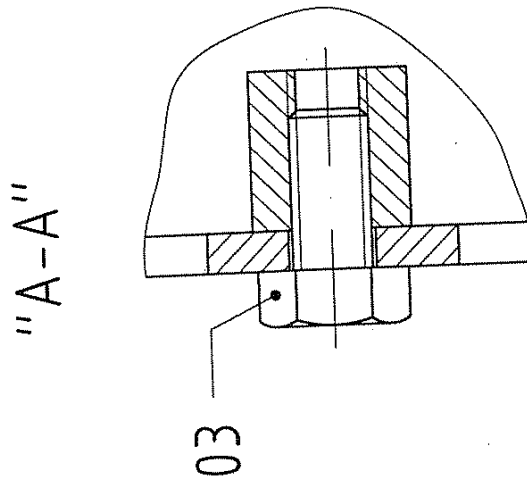
Ersatzteilliste

Spare parts list

Deckel, kpl.
cover, cpl.

B 23038067

Gruppe-Nr.
Group-no.

5.3



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PEINER Greifer

Ersatzteilliste
Spare parts list**Deckel, kpl.**
cover, cpl.Bestell-Nr. **23038067**
Order-no.
Gruppe-Nr. **5.3**
Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01			
02			
03	65153009	4	6kt.-Shr. M 10x16 / 8.8A3P / EN 24017 hexagon screw


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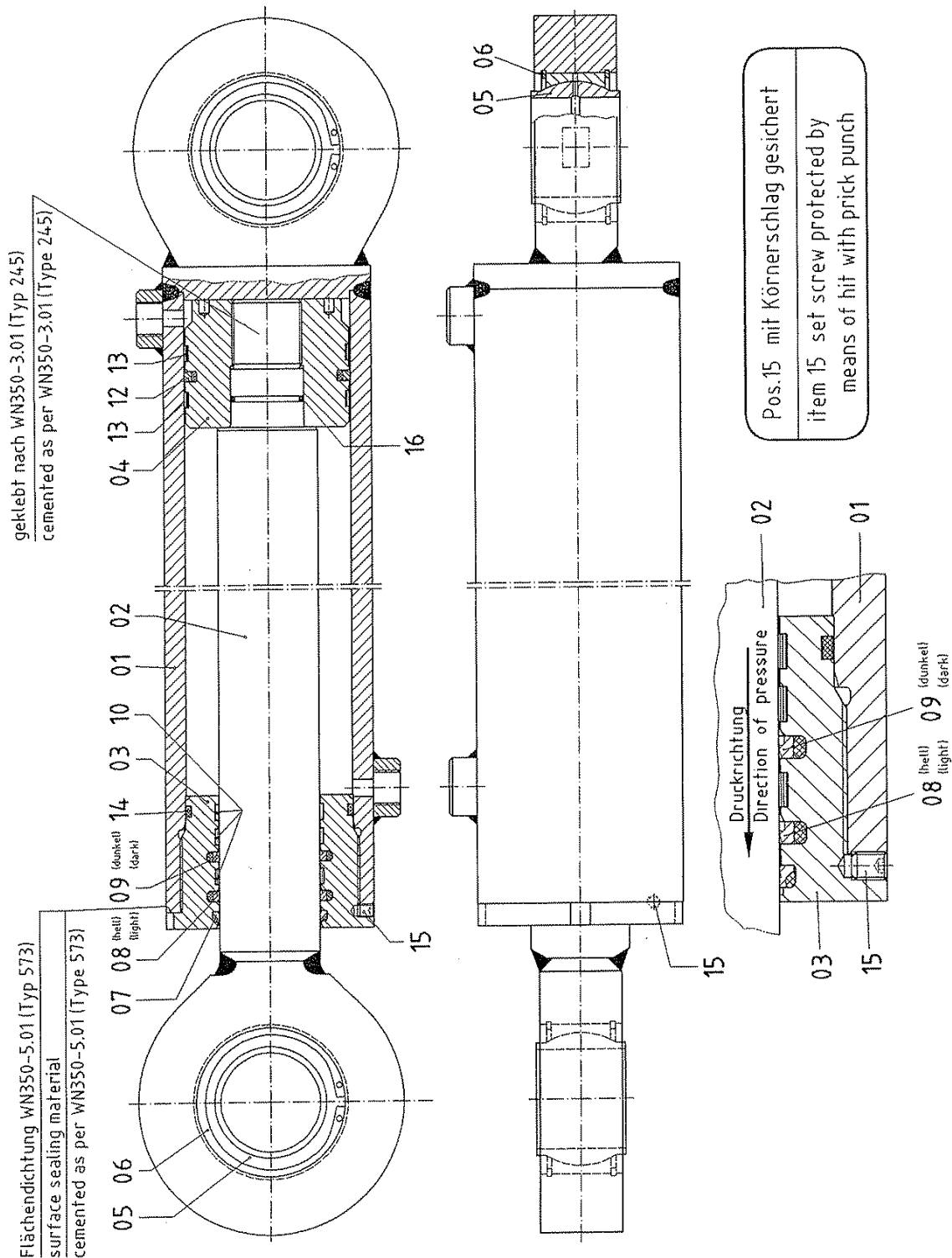
PEINER Greifer

Ersatzteilliste Spare parts list

Hubzylinder lifting cylinder

B 23037428

 Gruppe-Nr.
Group-no.

7.1




Salzgitter Maschinenbau GmbH PEINER Greifer



Ersatzteilliste

Spare parts list

Hubzylinder 100/60x450
lifting cylinder

Bestell-Nr. **23037428**
Order-no.
Gruppe-Nr. **7.1**
Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01	23037441	1	Zylinderrohr, kpl. cylinder tube, cpl.
02	23037443	1	Kolbenstange, kpl. piston rod, cpl.
03	23037445	1	Führungsmutter guide nut
04	23037446	1	Kolben piston
05	69799637	2	Gelenklager GE 60 HO-2RS rocker bearing
06	63909000	4	Sicherungsring 90x3 / F-St / DIN 472 circlip
07	00021477	1	Abstreifer WE 5100600-Z51N scraper
08	00022060	1	Rimsealring RR 1300600-Z52N sealing ring
09	00021475	1	Stepsealring RS 1300600-T46N sealing ring
10	00021474	3	Stangenführungsring GR 6900600-C380 rod guide ring
11			
12	00021471	1	Glydring PT 0301000-T46 N slide ring
13	00021472	2	Kolbenführungsring GP 6901000-C900 piston guide ring
14	00022064	1	Dual-Seal-Ring DRZS 000495 sealing ring

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**Ersatzteilliste**
Spare parts list**Hubzylinder 100/60x450**
lifting cylinderBestell-Nr. **23037428**
Order-no.Gruppe-Nr. **7.1**
Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
15	00015678	1	Gewindestift M 8x10 / 45H / DIN 916 stud bolt
16	08014389	1	O-Ring 38x3 o-ring

12.10.99



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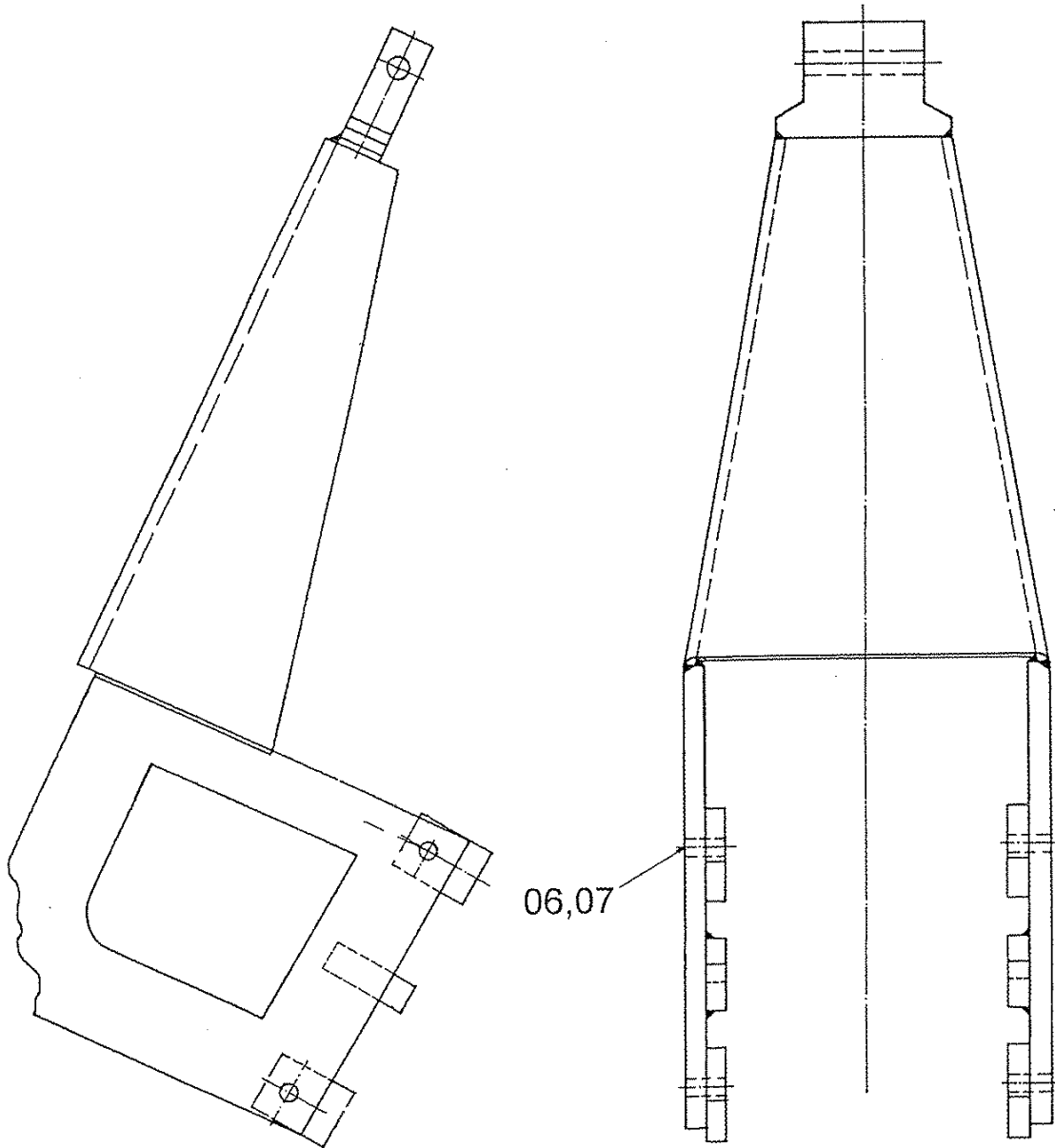
Ersatzteilliste Spare parts list

Zylinderschutz
protective bracket

B 23038030

Gruppe-Nr.
Group-no.

8.0





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**Ersatzteilliste**
Spare parts list**Zylinderschutz**
protective bracketBestell-Nr. **23038030**
Order-no.
Gruppe-Nr. **8.0**
Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01			
06	65169606	4	6kt.-Shr. M 24x65 / 8.8A3P / EN 24017 hexagon screw
07	66829405	4	6kt.-Mu M 24 / 8A3P / EN 24032 hexagon nut



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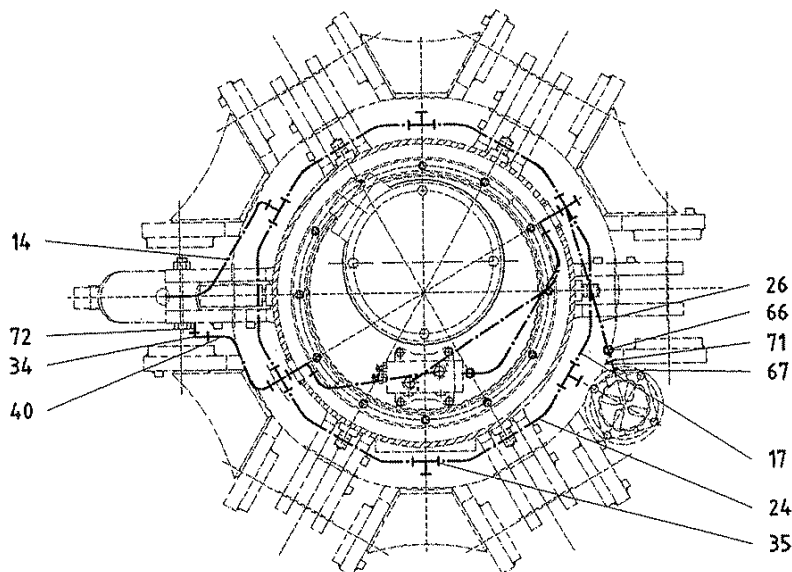
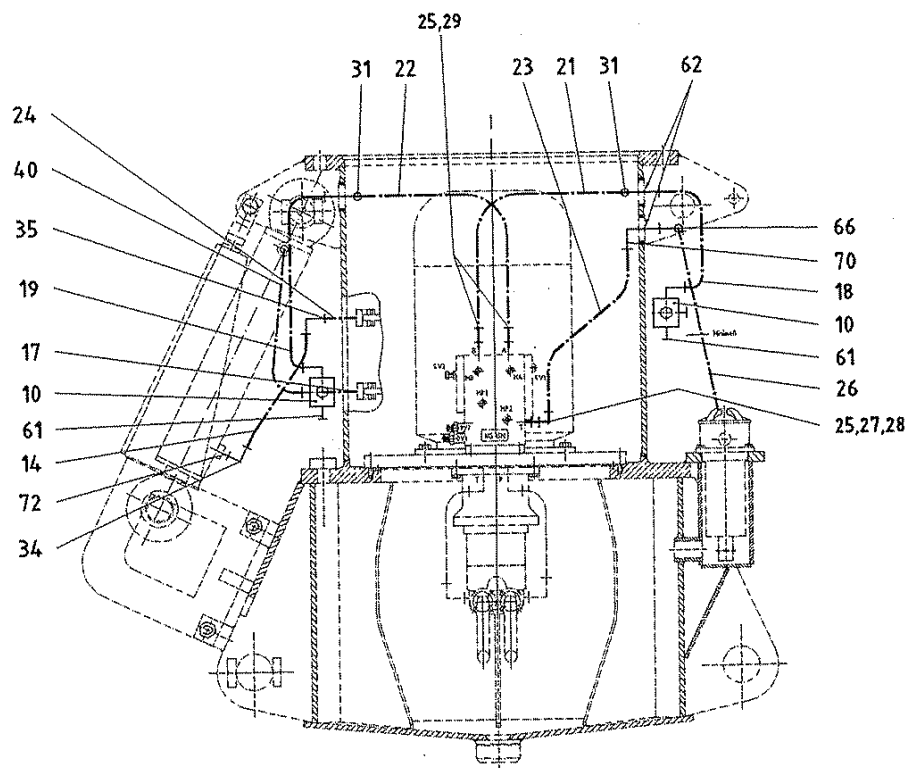


PEINER Greifer

Ersatzteilliste

Spare parts list

Hydraulikanlage
hydraulic system

B 23038060Gruppe-Nr.
Group-no.**9.0**

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PEINER Greifer

Ersatzteilliste
Spare parts list**Hydraulikanlage**
hydraulic systemBestell-Nr.
Order-no. **23038060**Gruppe-Nr.
Group-no. **9.0**

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	<u>*Kom. 173.00.467</u>
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01

10	23005183	2	Verteilerstück (s. Gruppe-Nr. 10.3) distributor part (see group-no. 10.3)	
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14	23005155	6	Schlauchleitung DN 12x500 hose	
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17	23005188	1	Rohrleitung pipe	
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18	23005193	1	Rohrleitung pipe	
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19	23005194	1	Rohrleitung pipe	
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20

21	27993112	1	Schlauchleitung DN 20x750 hose	
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22	27993053	1	Schlauchleitung DN 20x550 hose	
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*23	27993076	1	Schlauchleitung DN 32x850 hose	
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24	23005195	8	Rohr pipe	
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PEINER Greifer

Ersatzteilliste

Spare parts list

Hydraulikanlage

hydraulic system

Bestell-Nr.
Order-no. **23038060**Gruppe-Nr.
Group-no. **9.0**

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	<u>*Kom. 173.00.467</u>
*25	69371183	3	Reduzierstutzen RI 3/4x1 1/4 reducer	
*26	27991701	1	Schlauchleitung DN 32x950 hose	
27	69377028	1	Verschraubung GE 28-PLR bolted joint	
28	69106707	1	Verschraubung EWSD 28-L bolted joint	
29	69359925	2	Verschraubung GE 25-PSR bolted joint	
30				
31	69367900	2	Verschraubung WSV 25-PS bolted joint	
34	69106715	12	Verschraubung EWSD 16-S bolted joint	
35	69359520	10	Verschraubung T 16-PS bolted joint	
40	23005155	6	Schlauchleitung DN 12x500 hose	
61	69372501	2	Schraubkupplung-Minimeß screw coupling	



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PEINER Greifer

Ersatzteilliste

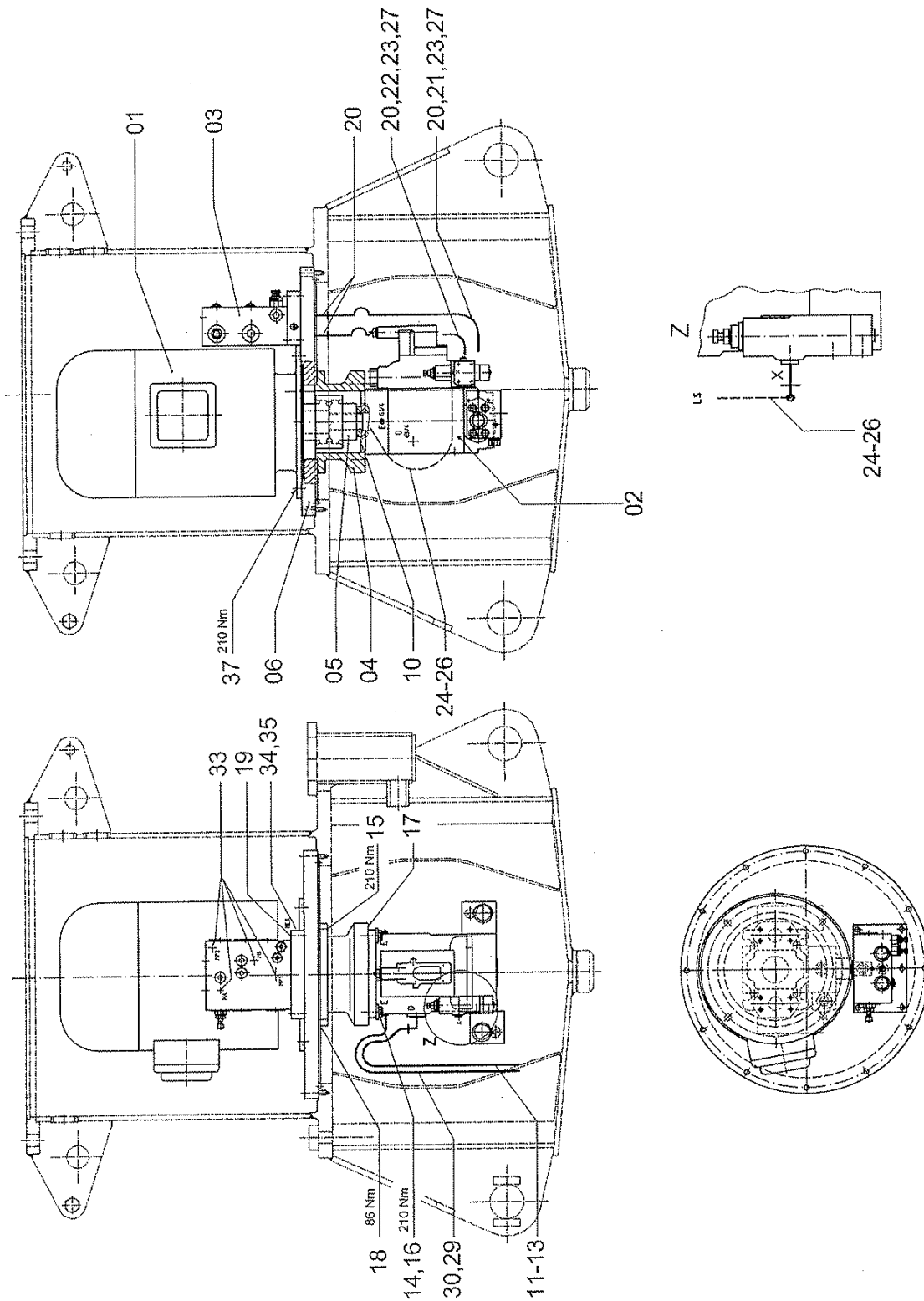
Spare parts list

Hydraulikanlage

hydraulic system

Bestell-Nr.
Order-no. **23038060**Gruppe-Nr.
Group-no. **9.0**

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	<u>*Kom. 173.00.467</u>
62	74578100	3	Dichtring A 36x42x2 / Cu / DIN 7603 sealing ring	
*66	69367551	1	Verschraubung WSV 35-L bolted joint	
*67	69359063	1	Reduzierstutzen RI 1½x1¼ reducer	
*70	69106708	2	Verschraubung EWSD 35-L bolted joint	
*71	69360200	2	Verschraubung GE 35-PLR bolted joint	
72	69359516	12	Verschraubung GE 16-PSR bolted joint	

Hydraulikaggregat S3
hydraulic unit
B 23141407
 Gruppe-Nr.
 Group-no. **10.0**




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PEINER Greifer

Ersatzteilliste

Spare parts list

Hydraulikaggregat S3

hydraulic unit

Bestell-Nr. **23141407**
 Order-no.
 Gruppe-Nr. **10.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01	08111625	1	E-Motor 200L-4 (s. Maschinenkarte) electric motor (see machine card)
02	00021969	1	Pumpe V30D-095-BKN-LLS (s. Gruppe-Nr. 12.0) pump (see group-no. 12.0)
03	00019640	1	Steuerblock AV-4247, DN20-N (s. Gruppe-Nr. 13.0) control block (see group-no. 13.0)
04	23034408	1	Zwischenflansch intermediate flange
05	23033669	1	Kupplung M 65 coupling
06	23141408	1	Behälterdeckel container cover
10	23034416	1	Scheibe disc
11	69106700	1	Verschraubung EWSD 22-L bolted joint
12	60000032	1	Ro. 22x2 – 650 mm / 1,0255-NBK/CZn / DIN 2391 pipe
13	69103138	1	Verschraubung BO-GEV 22-LR bolted joint
14	23034732	4	Scheibe disc
15	65161503	4	6kt.-Shr. M 16x40 / 8.8A3P / EN 24017 hexagon screw
16	65161603	4	6kt.-Shr. M 16x45 / 8.8A3P / EN 24017 hexagon screw



Salzgitter Maschinenbau GmbH



PEINER Greifer

Ersatzteilliste

Spare parts list

Hydraulikaggregat S3

hydraulic unit

Bestell-Nr. **23141407**
 Order-no.
 Gruppe-Nr. **10.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
17	23034417	1	Dichtung gasket
18	23004922	1	Dichtung gasket
19	65986209	5	Zyl.-Shr. M 12x45 / 12.9 / EN ISO 4762 cap screw, socket head
20	69103162	4	Verschraubung BO-GEV 25-SR bolted joint
21	27993618	1	Schlauchltg. DN 20x850 hose
22	27993622	1	Schlauchltg. DN 20x610 hose
23	69359088	2	Reduzierstutzen RI 1½x1 reducer
24	27993717	1	Schlauchltg. DN 10x650 hose
25	00024220	2	Verschraubung GE 12-PS/R¼-ED bolted joint
26	69106713	2	Verschraubung EWSD 12-S bolted joint
27	69106717	2	Verschraubung EWSD 25-S bolted joint
28			
29		1	Ro. 8x1,5 – 650 mm / 1,0255-NBK/C / DIN 2391 pipe
30	69103148	1	Verschraubung BO-GEV 9-SR bolted joint

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PEINER Greifer

Ersatzteilliste

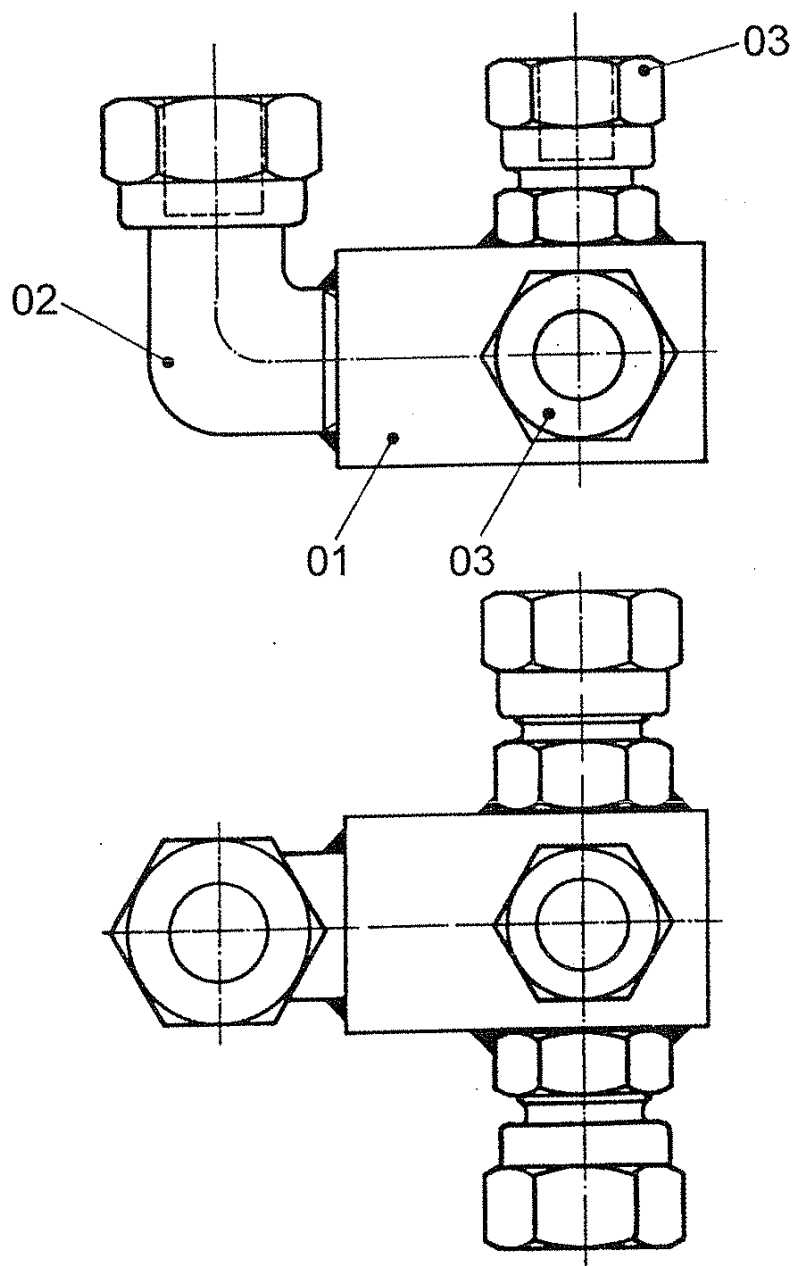
Spare parts list

Hydraulikaggregat S3

hydraulic unit

Bestell-Nr. **23141407**
 Order-no.
 Gruppe-Nr. **10.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
33	69372501	4	Schraubkupplung Minimeß screw coupling
34	69372565	1	Minimeß-Stutzen connecting piece
35	00020108	1	Verschraubung 15/3-07/S6R bolted joint
36			
37	65161403	4	6kt.-Shr. M 16x35 / 8.8A3P / EN 24017 hexagon screw

Verteilerstück
distributor part**B 23005183**Gruppe-Nr.
Group-no.**10.3**



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**Ersatzteilliste**
Spare parts list**Verteilerstück**
distributor part

Bestell-Nr.	23005183
Order-no.	
Gruppe-Nr.	10.3
Group-no.	

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01	23005184	1	Verteilerstück distributor piece
02	05580517	1	Verschraubung WE 25-PSR bolted joint
03	05581485	3	Verschraubung AS 16-PS bolted joint



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PEINER Greifer

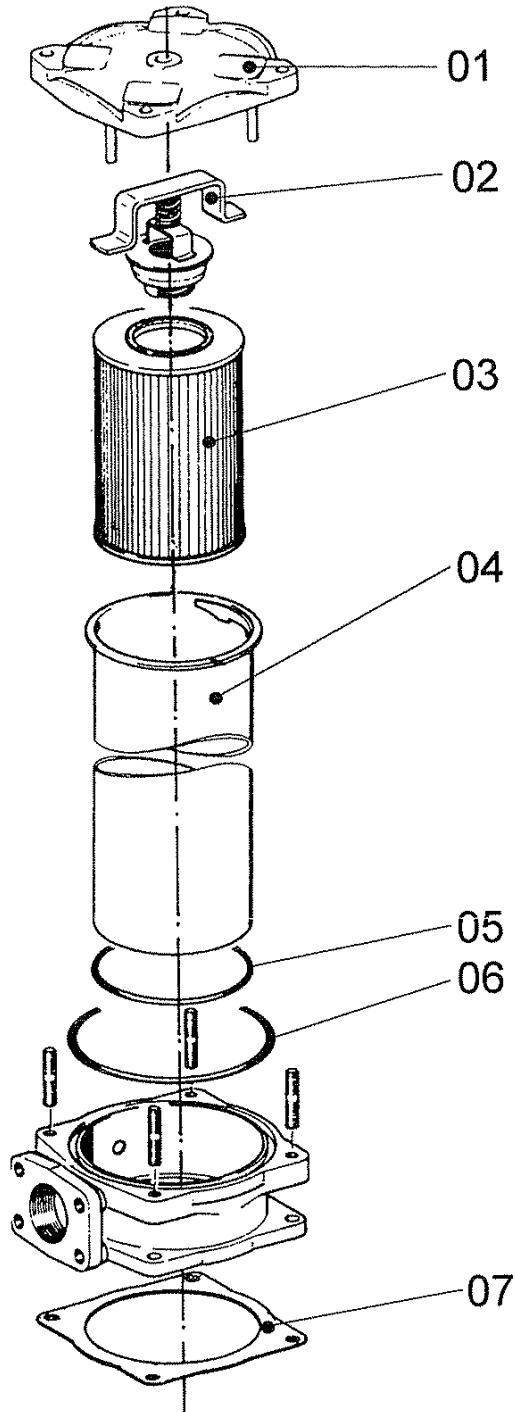
Ersatzteilliste Spare parts list

Rücklauffilter E 443-168 R1½" 25 µm
return filter

B 00019654

Gruppe-Nr.
Group-no.

11.0



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PEINER Greifer

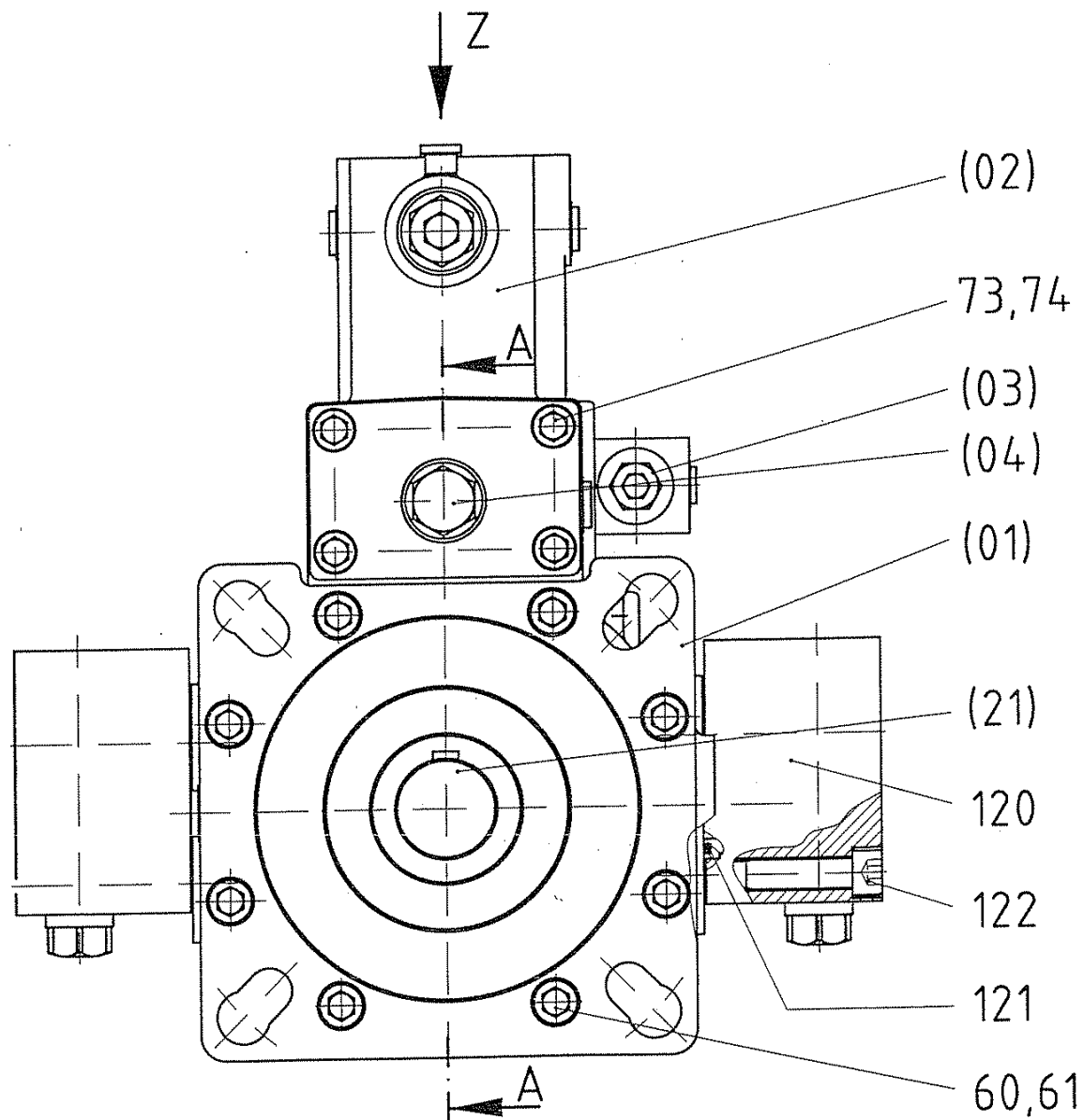
**Ersatzteilliste
Spare parts list****Rücklauffilter E 443-168 R1½" 25 µm**
return filterBestell-Nr.
Order-no.**00019654**Gruppe-Nr.
Group-no.**11.0**

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01	E 443.1200	1	Deckel, komplett cover, complete
02	E 460.1520	1	Ventil (2,5 bar) valve
03	00020719	1	Exapor-Filterelement Exapor - filter element
04	E 440.1920	1	Topf column
05	N 007.1256	1	O-Ring 125x6 o-ring
06	N 007.1525	1	O-Ring 151,76x5,33 o-ring
07	E 442.0103	1	Flachdichtung gasket

Pumpe V30D-95-BKN-L-LS, mit Nachsaugventil
 pump, with check valve

B 00021966

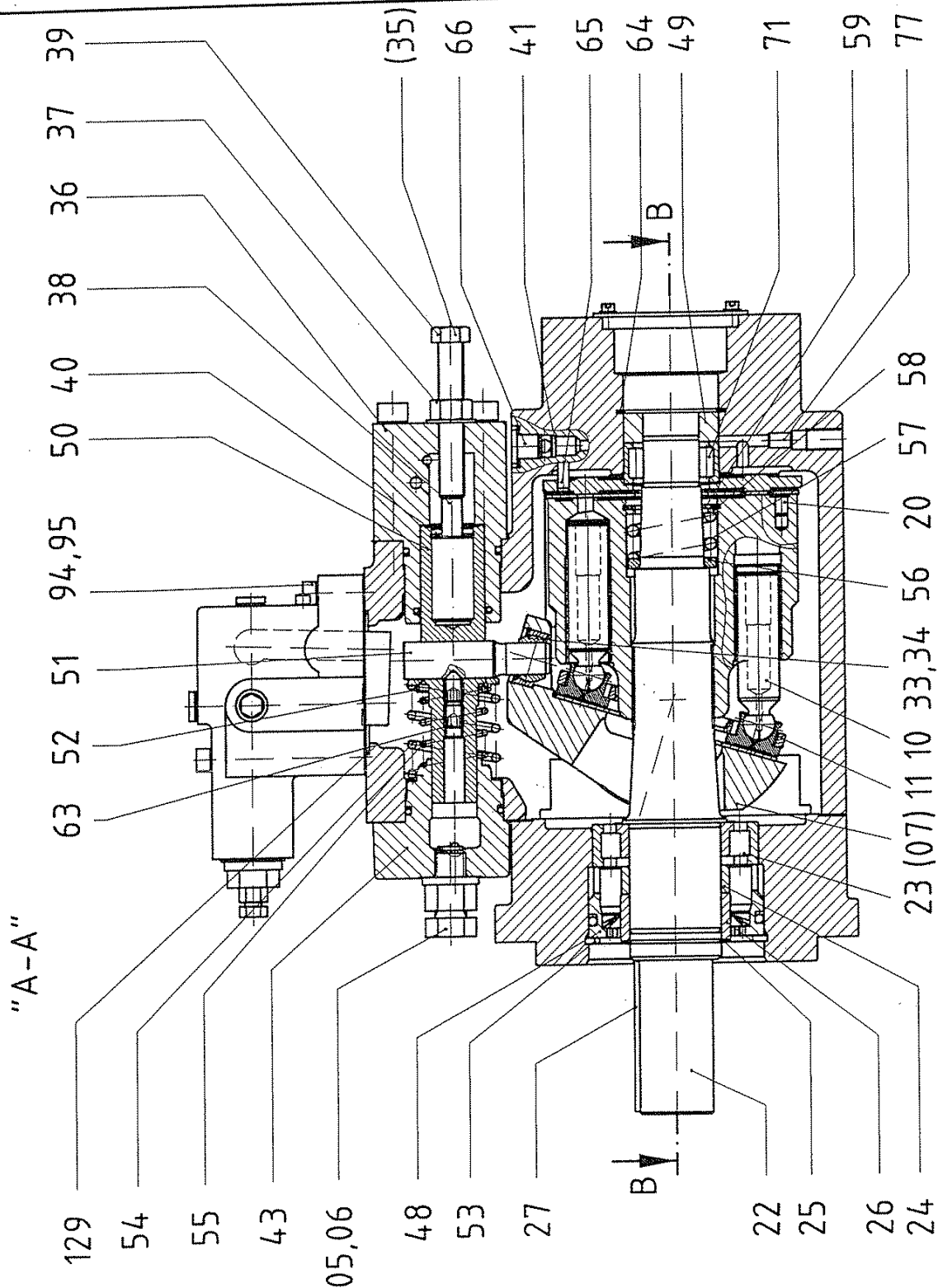
 Gruppe-Nr.
 Group-no.

12.0


Pumpe V30D-95-BKN-L-LS, mit Nachsaugventil
 pump, with check valve

B 00021966

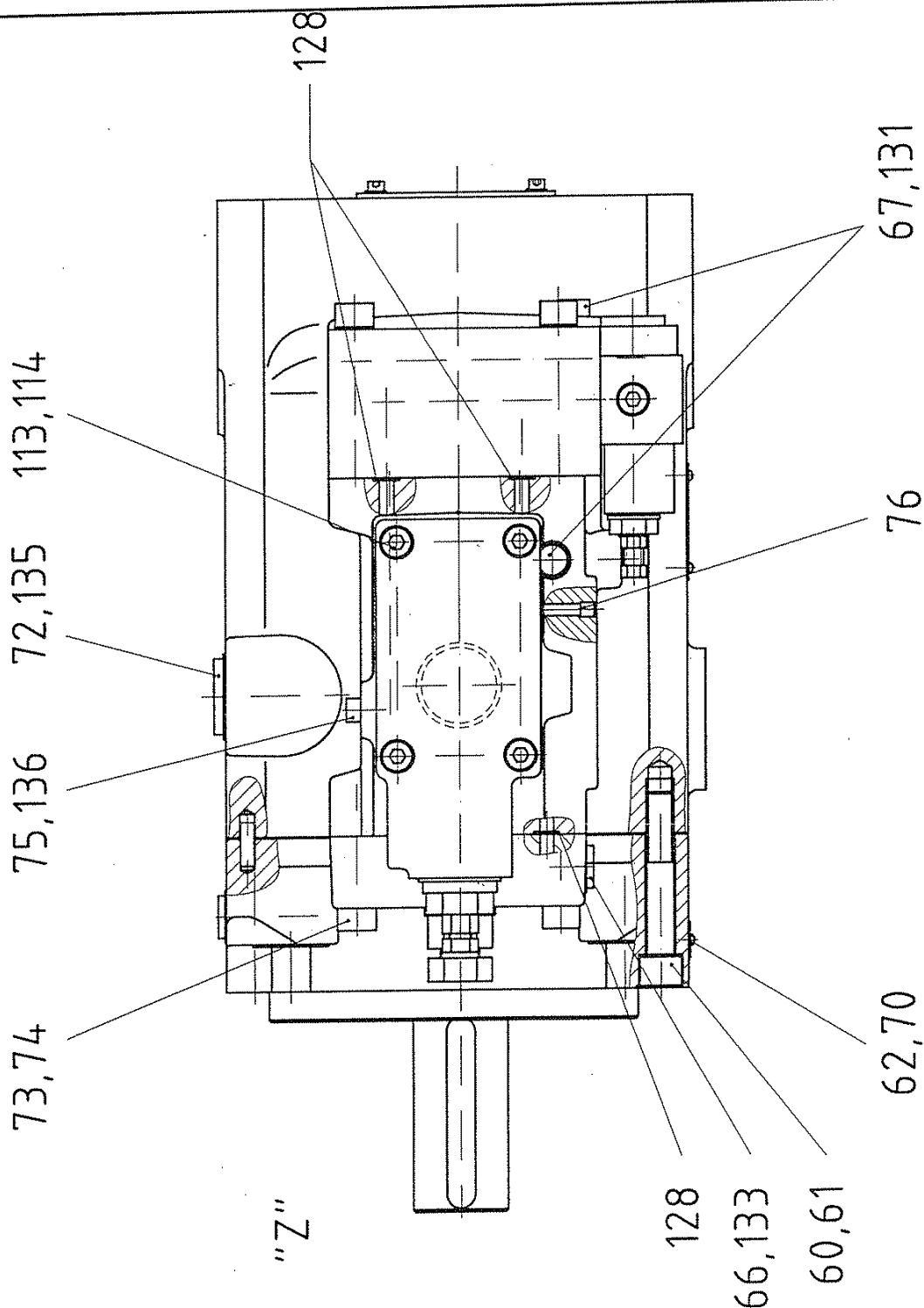
 Gruppe-Nr.
 Group-no.

12.0


Pumpe V30D-95-BKN-L-LS, mit Nachsaugventil
 pump, with check valve

B 00021966

 Gruppe-Nr.
 Group-no.

12.0




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PEINER Greifer

Ersatzteilliste

Spare parts list

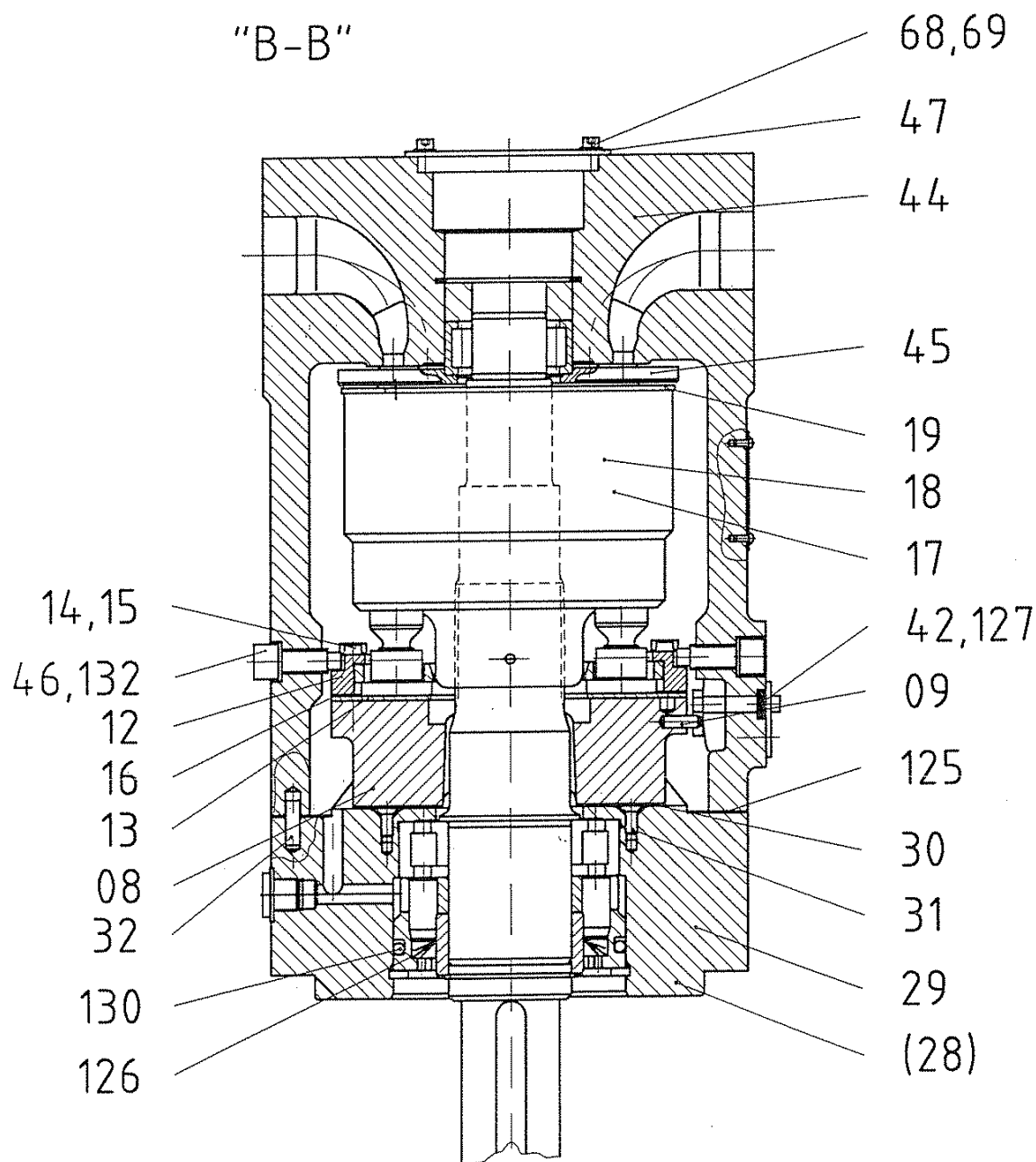
Pumpe V30D-95-BKN-L-LS, mit Nachsaugventil
 pump, with check valve

B 00021966

 Gruppe-Nr.
 Group-no.

12.0

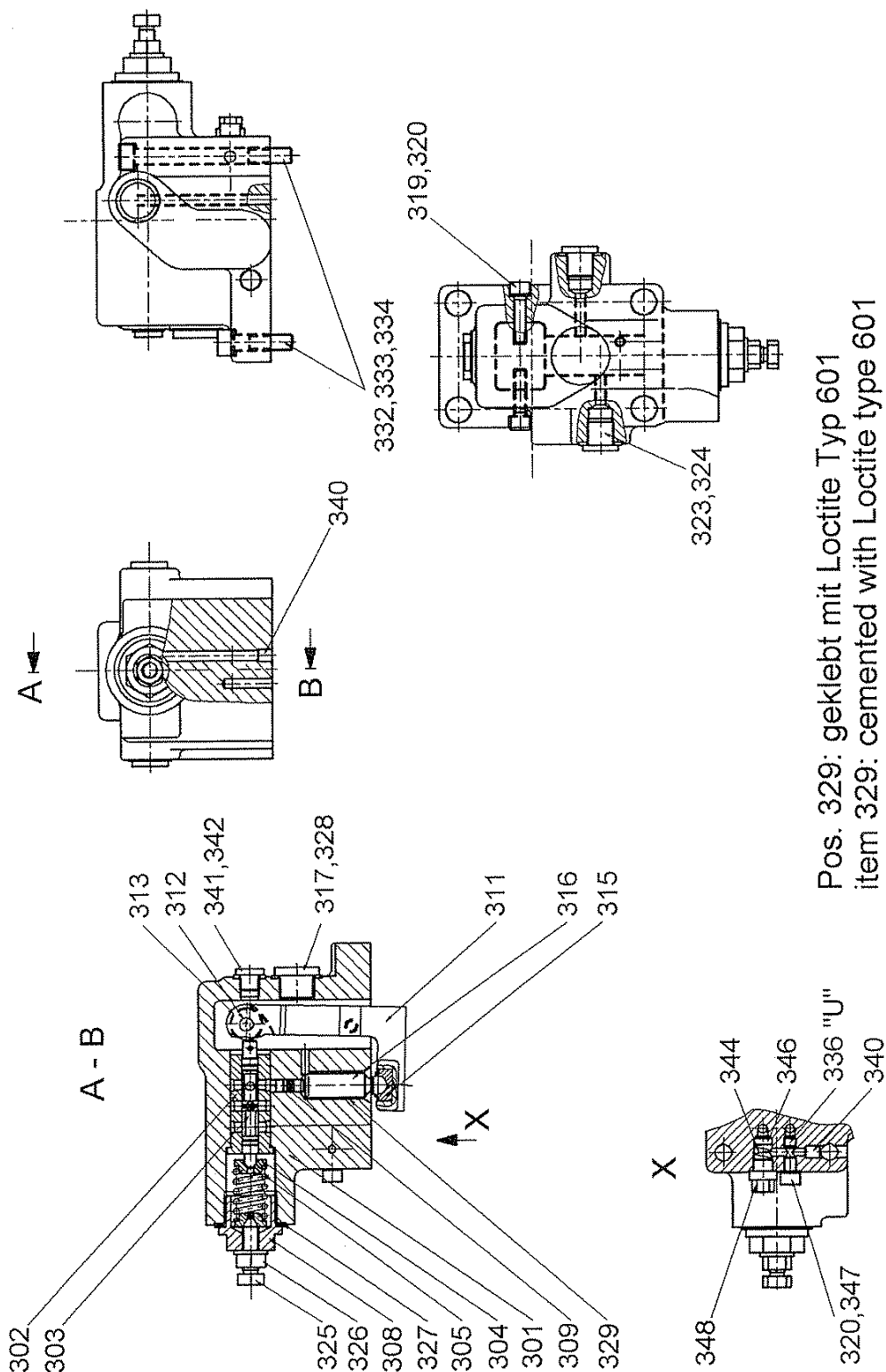
"B-B"



Pumpe V30D-95-BKN-L-LS, mit Nachsaugventil
 pump, with check valve

B 00021966

 Gruppe-Nr.
 Group-no.

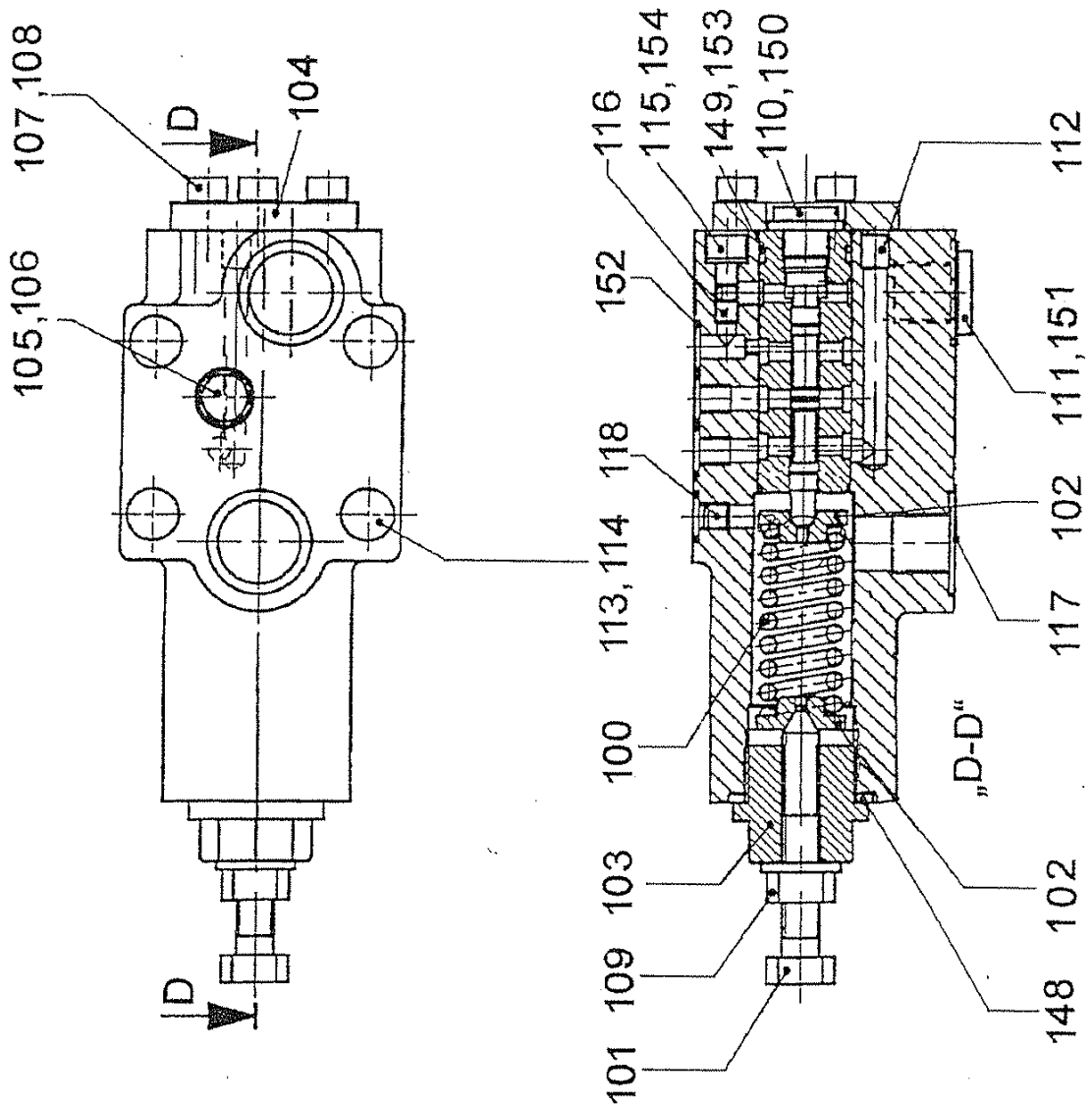
12.0


Pumpe V30D-95-BKN-L-LS, mit Nachsaugventil
pump, with check valve

B 00021966

Gruppe-Nr.
Group-no.

12.0



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PEINER Greifer

Ersatzteilliste

Spare parts list

Pumpe V30D-95-BKN-L-LS, 37kW, 50Hz, begrenzt
pump, limited

Bestell-Nr.
Order-no.
Gruppe-Nr.
Group-no.

00021969
12.0

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 / consist. 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



Salzgitter Maschinenbau GmbH



PEINER Greifer

Ersatzteilliste

Spare parts list

Pumpe V30D-95-BKN-L-LS, 37kW, 50Hz, begrenzt
pump, limited

Bestell-Nr.
Order-no.
Gruppe-Nr.
Group-no.

00021969
12.0

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
14		4	Sicherungsblech 6,4 / DIN 463 locking plate	7992455.00
15	65016701	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	27608792	1	Paßfeder A 12x8x80 / DIN 6885 fitting key	7992567.00



Salzgitter Maschinenbau GmbH



PEINER Greifer

Ersatzteilliste

Spare parts list

**Pumpe V30D-95-BKN-L-LS, 37kW, 50Hz, begrenzt
pump, limited**

Bestell-Nr. **00021969**
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	00014752	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

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PEINER Greifer

Ersatzteilliste
Spare parts list

Pumpe V30D-95-BKN-L-LS, 37kW, 50Hz, begrenzt
pump, limited

 Bestell-Nr.
 Order-no.
00021969
 Gruppe-Nr.
 Group-no.
12.0

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

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PEINER Greifer

Ersatzteilliste

Spare parts list

Pumpe V30D-95-BKN-L-LS, 37kW, 50Hz, begrenzt
pump, limited

Bestell-Nr.
Order-no.

00021969

Gruppe-Nr.
Group-no.

12.0

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	65986370	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 1/4" / 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

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PEINER Greifer

Ersatzteilliste

Spare parts list

Pumpe V30D-95-BKN-L-LS, 37kW, 50Hz, begrenzt
pump, limited

Bestell-Nr.
Order-no.

00021969

Gruppe-Nr.
Group-no.

12.0

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 3/4" / DIN 908 screw plug	7992051.00
73	00013735	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

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PEINER Greifer

Ersatzteilliste

Spare parts list

**Pumpe V30D-95-BKN-L-LS, 37kW, 50Hz, begrenzt
pump, limited**

Bestell-Nr.

Order-no.

00021969

Gruppe-Nr.

Group-no.

12.0

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	00014106	1	Verschl.-Shr. G 1/4" / A1 / DIN 908 screw plug	7991703.00
112		1	Dichtstopfen MB 800-060 sealing plug	7991727.00
113	65984823	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

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PEINER Greifer

Ersatzteilliste

Spare parts list

**Pumpe V30D-95-BKN-L-LS, 37kW, 50Hz, begrenzt
pump, limited**

Bestell-Nr.
Order-no.

00021969

Gruppe-Nr.
Group-no.

12.0

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
119				
120	00022114	2	Nachsaugventil AV 4962-2-3 mit DBV, kpl. check valve with pressure relief valve, cpl.	
121		2	O-Ring 38x3,5 o-ring	
122		8	Zyl.-Shr. M 14x90 / 10.9 / DIN 912 cap screw, socket head	
123				
124				
125		1	Flachdichtung gasket	7926248.00
126		1	Simmerring 60-80-7-7,5 radial packing ring	7992401.00
127		1	O-Ring 4,47x1,78 o-ring	7992463.00
128		4	O-Ring 7,65x1,78 o-ring	7990025.00
129		1	O-Ring 66,34x2,62 o-ring	7992501.00
130		1	O-Ring 85,09x5,33 o-ring	7992712.00
131		3	USIT-Ring U 8,7x13x1 sealing ring	7992052.00
132		2	USIT-Ring U 10,35x16x2 sealing ring	

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PEINER Greifer

Ersatzteilliste

Spare parts list

**Pumpe V30D-95-BKN-L-LS, 37kW, 50Hz, begrenzt
pump, limited**

Bestell-Nr.
Order-no.

00021969

Gruppe-Nr.
Group-no.

12.0

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
133		4	USIT-Ring U 13,7x22x1,5 sealing ring	7992439.00
134		1	O-Ring 44,05x3,53 o-ring	7992595.00
135	00021610	3	USIT-Ring U 27,2x36x2 sealing ring	7992469.00
136	08070510	1	USIT-Ring U 6,7x10x1 sealing ring	7991398.00
144	74638013	3	USIT-Ring U 8,7x13x1 sealing ring	7992052.00
148		1	USIT-Ring U 24,7x32x2 sealing ring	7991538.00
149		1	O-Ring 17,17x1,78 o-ring	7991475.00
150		1	USIT-Ring U 10,35x16x2 sealing ring	7991705.00
151		1	USIT-Ring U 13,7x22x1,5 sealing ring	7992439.00
152		4	O-Ring 7,65x1,78 o-ring	7990025.00
153		1	Stützring S 11 109-017 back-up ring	7991991.00
154	74638009	1	USIT-Ring U 5,7x9x1 sealing ring	7991963.00



Salzgitter Maschinenbau GmbH



PEINER Greifer

Ersatzteilliste

Spare parts list

Pumpe V30D-95-BKN-L-LS, 37kW, 50Hz, begrenzt
pump, limited

Bestell-Nr. **00021969**
 Order-no.
 Gruppe-Nr. **12.0**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
	00021910	1	Dichtsatz für Grundpumpe, kpl. packing set for basic pump, cpl. (best. aus Pos. 125 - 136 / cons. of item 125 - 136)	7926641.00
		1	Dichtsatz für Regelventil L, kpl. packing set for control valve L, cpl. (best. aus Pos. / cons. of item 320,324,327,328,342)	
	00022117	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
301		1	Gehäuse housing	7929804.00
302		1	Ventilbuchse valve bush	7927235.00
303		1	Ventilkolben valve piston	7924721.00
304		2	Federteller spring plate	7924757.00
305		1	Druckfeder pressure spring	7924754.00
308		1	Verschluß-Shr. R $\frac{3}{4}$ " screw plug	7927224.00
309		1	Kolben piston	7921673.00
310				
311		1	Winkelhebel angle lever	7926763.00



Salzgitter Maschinenbau GmbH



PEINER Greifer

Ersatzteilliste

Spare parts list

Pumpe V30D-95-BKN-L-LS, 37kW, 50Hz, begrenzt
pump, limited

Bestell-Nr. **00021969**
Order-no.
Gruppe-Nr. **12.0**
Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
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	7927674.00
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
320		3	USIT-Ring 6,07x10x1 sealing ring	7991398.00
323		2	Verschluß-Shr. R $\frac{1}{4}$ / DIN 908 screw plug	7991703.00
324		2	USIT-Ring 13,7x22x1,5 sealing ring	7992439.00
325		1	Einstellschraube M 8 adjusting screw	7927223.00
326		1	Seal-Lock-Mutter M 8 Seal-Lock nut	7992035.00

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PEINER Greifer

Ersatzteilliste

Spare parts list

Pumpe V30D-95-BKN-L-LS, 37kW, 50Hz, begrenzt
pump, limited

Bestell-Nr.
Order-no.
Gruppe-Nr.
Group-no.

00021969
12.0

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
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	7991727.00
333		4	Sicherungscheibe S 8 locking washer	7990008.00
334		2	Zyl.-Shr. M 8x30 / DIN 912 cap screw, socket head	7990002.00
335				
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				

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PEINER Greifer

Ersatzteilliste
Spare parts list

Pumpe V30D-95-BKN-L-LS, 37kW, 50Hz, begrenzt
pump, limited

 Bestell-Nr.
 Order-no.
00021969
 Gruppe-Nr.
 Group-no.
12.0

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
344		1	Druckfeder pressure spring	7926317.00
345				
346		1	Sieb 9x6x3 sieve	7993269.00
347		1	Zyl.-Schr. M 6x25 / DIN 912 cap screw, socket head	7992565.00
348		1	Verschluß-Schr. M 10x1 screw plug	7927815.00
	00020824	1	Reparatursatz, bestehend aus Pos. 10,17,23,71 repair set, consisting of item 10,17,23,71	
		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	


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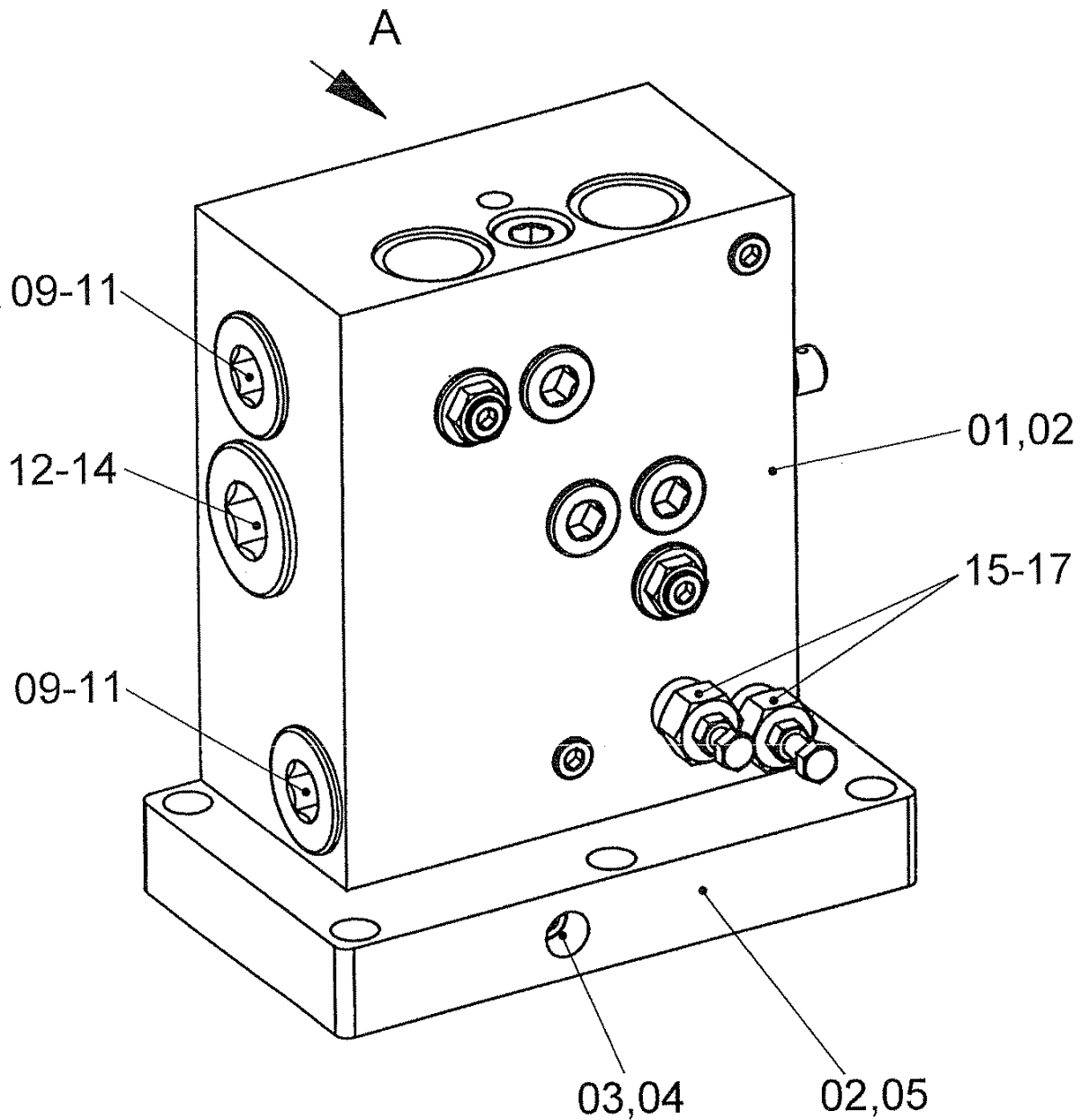
PEINER Greifer

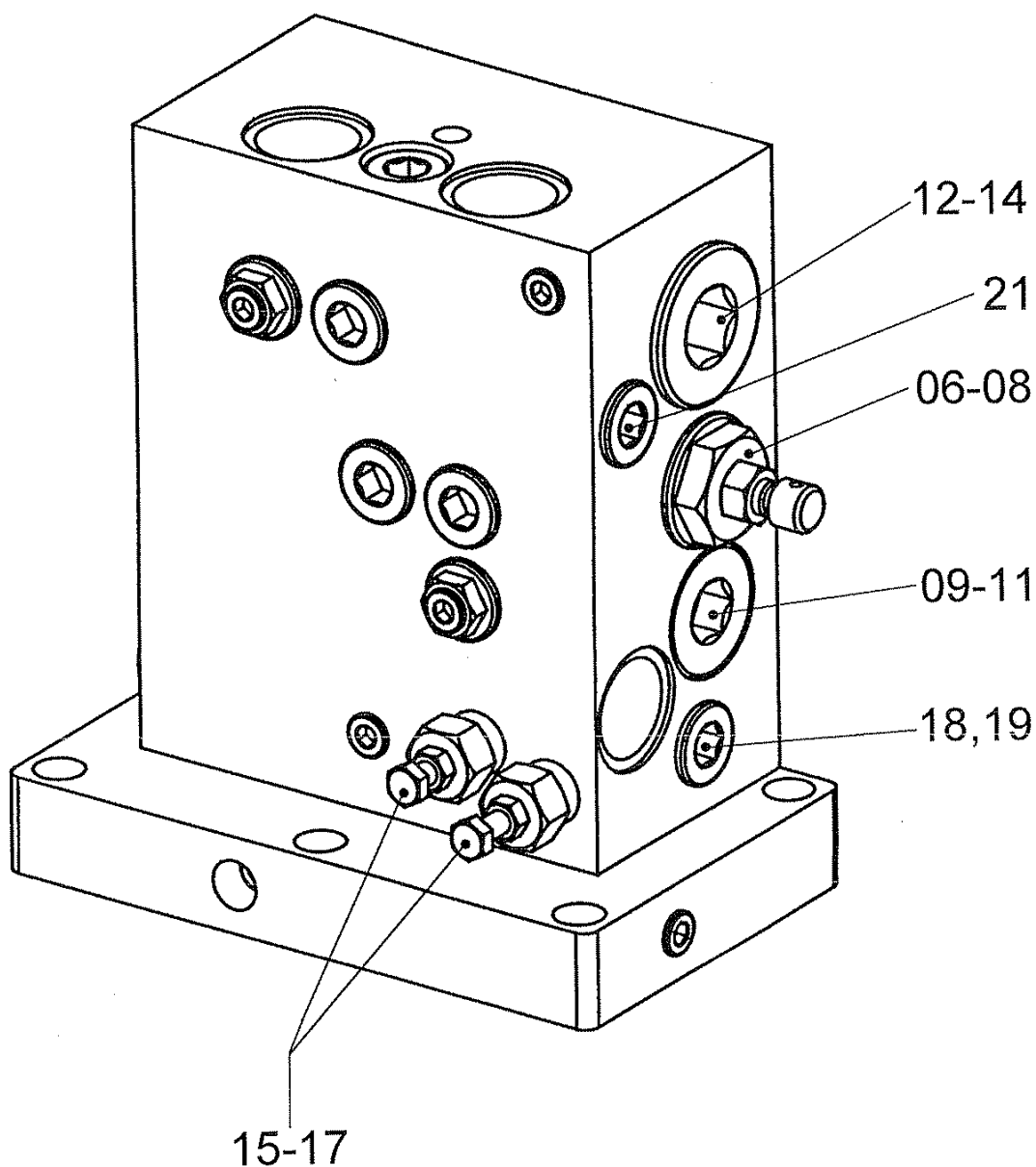
Ersatzteilliste Spare parts list

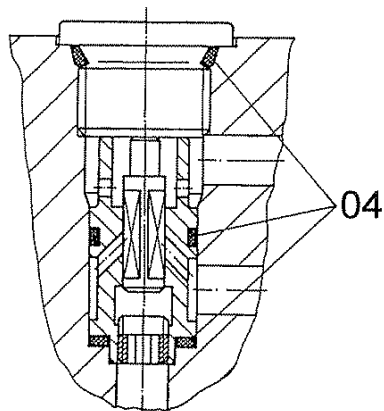
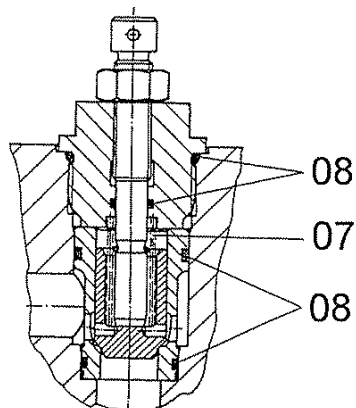
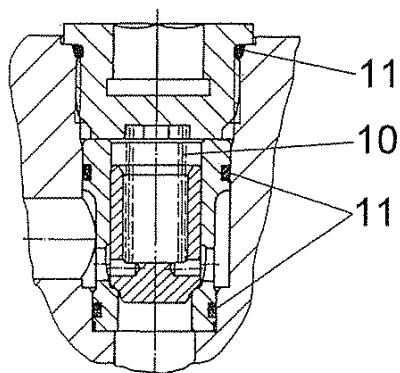
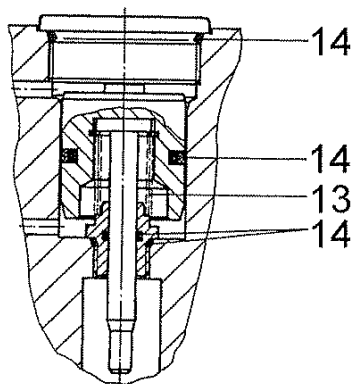
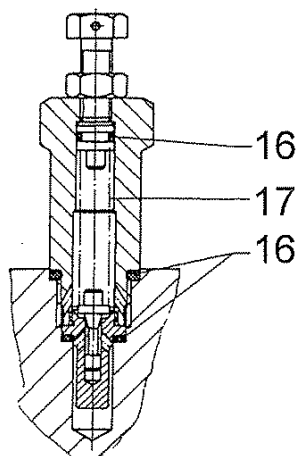
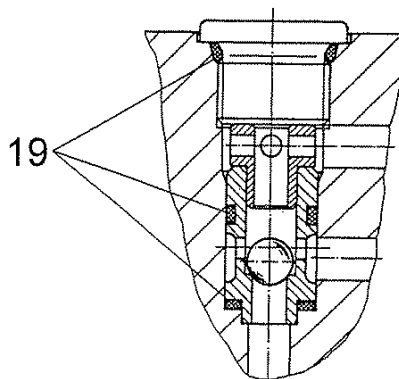
Steuerblock AV-4247, DN 20-N
control block

B 00019640

 Gruppe-Nr.
Group-no.

13.0


Steuerblock AV-4247, DN 20-N
control block
B 00019640Gruppe-Nr.
Group-no.**13.0****"A"**

Steuerblock AV-4247, DN 20-N
control block
B 00019640Gruppe-Nr.
Group-no.**13.0**Pos. 03
item. 03Pos. 06
item. 06Pos. 09
item. 09Pos. 12
item. 12Pos. 15
item. 15Pos. 18
item. 18



Salzgitter Maschinenbau GmbH PEINER Greifer



Ersatzteilliste

Spare parts list

Steuerblock AV-4247, DN20-N

control block

Bestell-Nr. **00019640**
Order-no.
Gruppe-Nr. **13.0**
Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
01	00020484	1	Grundblock, kpl. basic block, cpl.	OF-761-0-4-1
02	00020486	1	Unterplatte, kpl. bottom plate, cpl.	OF-760-0-4-1
03	00020478	1	Wechselventil shuttle valve	OF-757-0-4-1
04	00020469	1	Dichtsatz, kpl. für Pos. 03 packing set, cpl. for item 03	OF-757-0-4-2
05	00020466	1	Dichtsatz, kpl. für Pos. 02 packing set, cpl. for item 02	OF-760-0-4-2
06	00020463	1	Rückschlagventil, kpl. nonreturn valve, cpl.	OF-755-0-4-1
07	00020461	1	Druckfeder für Pos. 06 pressure spring for item 06	OF-755-0-4-2
08	00020470	1	Dichtsatz, kpl. für Pos. 06 packing set, cpl. for item 06	OF-755-0-4-3
09	00020464	3	Rückschlagventil, kpl. nonreturn valve, cpl.	OF-754-0-4-1
10	00021485	1	Druckfeder für Pos. 09 pressure spring for item 09	OF-754-0-4-2
11	00021484	1	Dichtsatz, kpl. für Pos. 09 packing set, cpl. for item 09	OF-754-0-4-3
12	00020485	2	Steuerkopf, kpl. control head, cpl.	OF-753-0-4-1
13	00020462	1	Druckfeder für Pos. 12 pressure spring for item 12	OF-753-0-4-2
14	00020467	1	Dichtsatz, kpl. für Pos. 12 packing set, cpl. for item 12	OF-753-0-4-3



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PEINER Greifer

Ersatzteilliste

Spare parts list

Steuerblock AV-4247, DN20-N

control block

Bestell-Nr. Order-no.	00019640
Gruppe-Nr. Group-no.	13.0

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description	
15	08061695	2	Vorsteuerventil, kpl. pilot valve, cpl.	OF-337-0-4-2.1
16	08061241	1	Dichtsatz, kpl. für Pos. 15 packing set, cpl. for item 15	OF-337-0-4-2.2
17	08061170	1	Druckfeder für Pos. 15 pressure spring for item 15	OF-337-0-4-2.3
18	00020479	1	Wechselventil, kpl. shuttle valve, cpl.	OF-603-0-4-1
19	00021486	1	Dichtsatz, kpl. für Pos. 18 packing set, cpl. for item 18	OF-603-0-4-2
20	00020474	1	Dichtsatz, kpl. für Grundblock packing set, cpl. for basic block	OF-761-0-4-7
21	00020481	1	Stopfen, kpl. plug, cpl.	OF-761-0-4-8



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PEINER Greifer

Inhaltsverzeichnis

Contents

Kommission - Nr.
Commission - no.

173.00.467

Werks-Nr. / Serial-no.:
0340Erzeugnis / Product:
MMGL 5750-3Sach-Nr. / Subject no.:
S 23140104Geräteausrüstung Elektrik
electric equipmentSchaltplan und Beschreibung
wiring diagram and description

2307.9884 E

Benennung	Description	Bestell-Nr. / Order-no.	Gruppe-Nr. / Group-no.
Zugentlastung	tension relief	23000490	15.0
Kabelteil	female part	06171701	16.0
Geräteteil, kpl.	male part, cpl.	06171700	16.1

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.

Salzgitter Maschinenbau GmbH

Windmühlenbergstraße 20-22
38259 SalzgitterPostfach 51 16 40
38246 SalzgitterTel.: (0) 53 41 - 3 02-1
Fax: (0) 53 41 - 3 02-4 24
E-Mail: peiner@smag.de



c	Datum	26.06.87	<div><div><div>P</div><div>Peiner Greifer</div></div><div></div></div>	SCHALTPLAN MOTOR-GREIFER	2307.98.84 D	1 Blatt
b	Bearb.	L.v.G.				
a	Gepr.					
	Norm					
	Urspr.		Erz. f.	Erz. d.		
	Anderung	Datum	Name			



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PEINER Greifer

**Beschreibung
Description**

23079884

Beschreibung zum Elektroschaltplan

Durch den Greiferbetätigungsschalter S1 wird der Motor über die Wendeschütze K1 und K2 gesteuert.

In der Stellung „Öffnen“ bekommt der Schütz K1 Spannung, der Motor M1 wird eingeschaltet.

In der Stellung „Schließen“ bekommt der Schütz K2 Spannung, der Motor dreht in entgegengesetzter Richtung.

Der Greiferbetätigungsschalter S1 geht beim Loslassen in seine Nullstellung zurück.

Die Steuerung einer Motorleitungstrommel und Motorspanntrommel ist nicht von der Greifersteuerung abhängig. Sie müssen deshalb grundsätzlich vor Arbeitsbeginn eingeschaltet werden.

Description of the electric wiring diagram

The grab operation switch S1 controls the grab by switching the contactors K1 and K2.

At position „opening“ the contactor K1 is actuated and the pump motor M1 is started. At position „closing“ the contactor K2 is actuated and the pump motor runs in the reverse direction.

The release grab operation switch S1 returns automatically to the neutral position.

The motor cable drum and motor rope drum are independent from the control system and must be switched on before operating the grab.



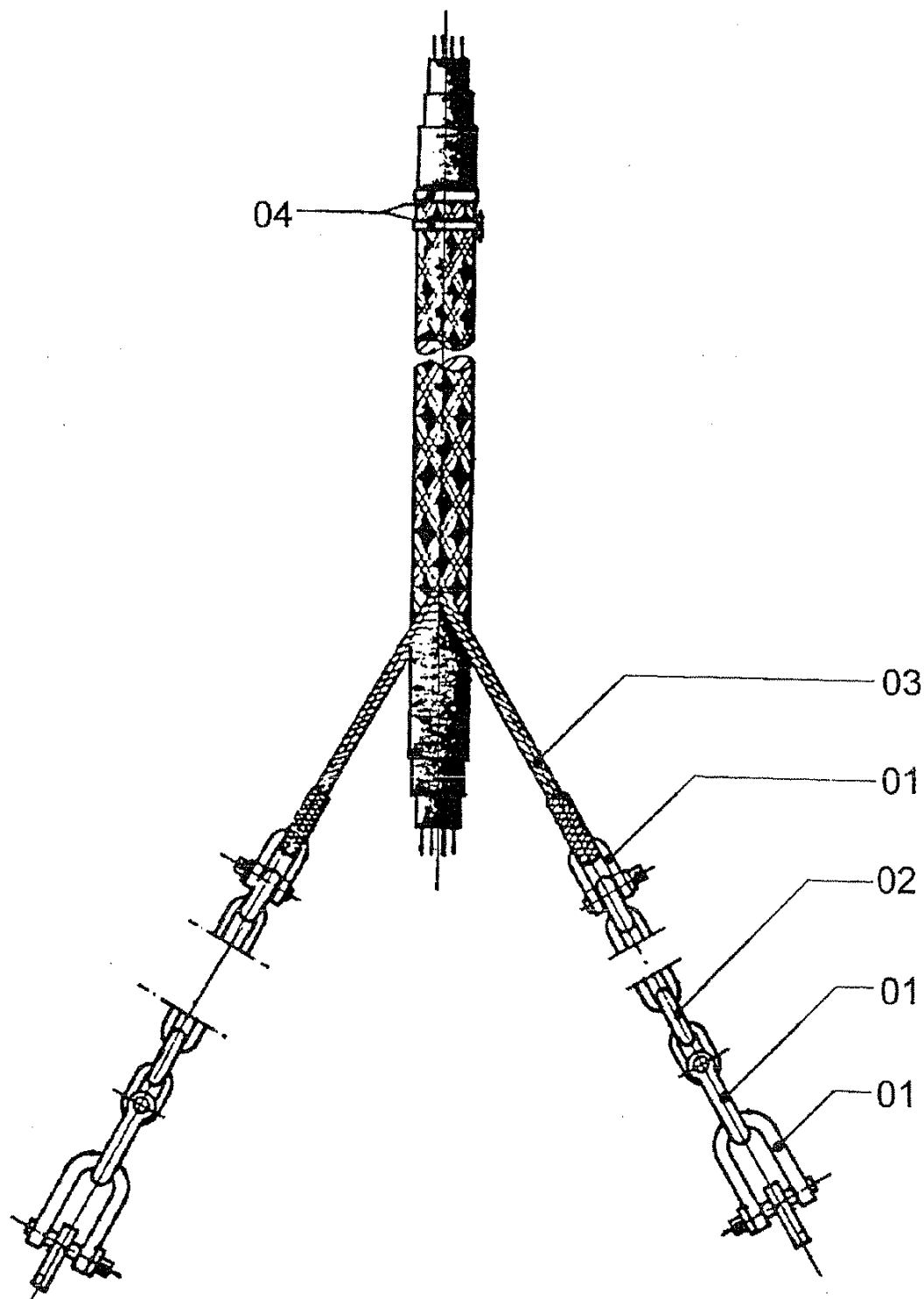
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PEINER Greifer

Ersatzteilliste Spare parts list

Zugentlastung
tension relief

B 23000490Gruppe-Nr. 15.0
Group-no.

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PEINER Greifer

Ersatzteilliste
Spare parts list
Zugentlastung
tension relief

 Bestell-Nr.
 Order-no. **23000490**
 Gruppe-Nr.
 Group-no. **15.0**

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01	02304745	6	Schäkel A 0,6 shackle
02	00016290	2	Kette 3-10x28 – 1560 mm chain
03	08012058	1	Kabelziehstrumpf RP 225/1000 N cable grip
04	01296886	1	Schlauchbinder WSN9 470 mm hose clamp



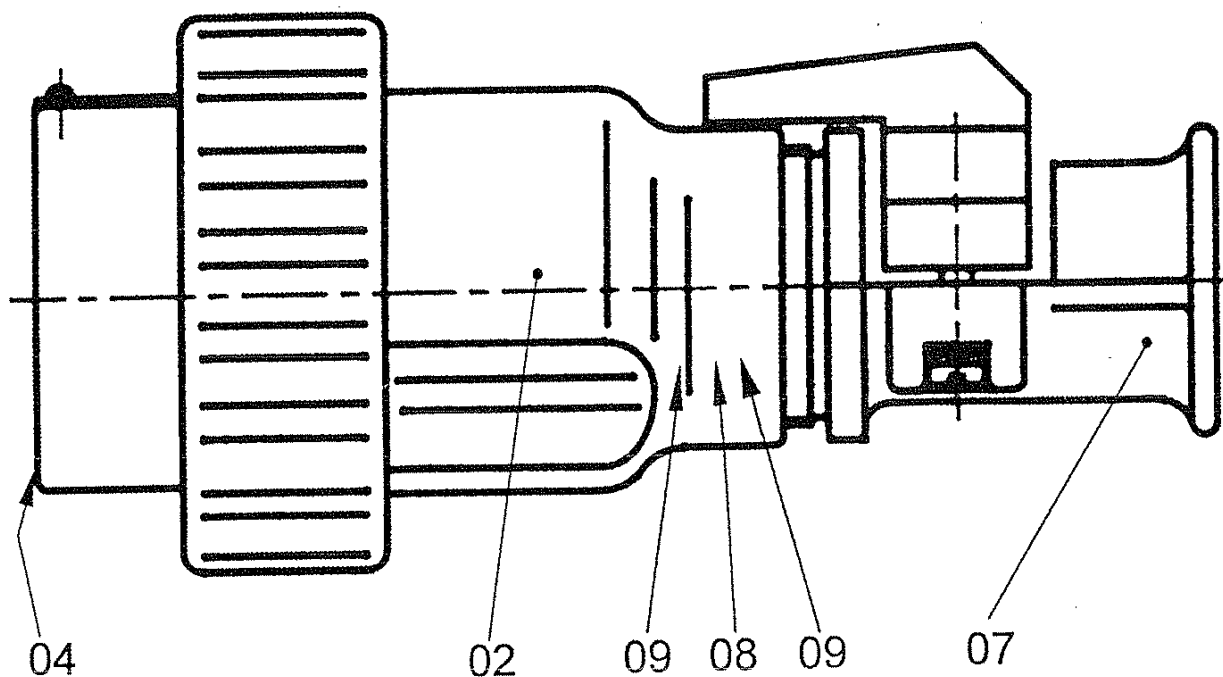
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PEINER Greifer

Ersatzteilliste Spare parts list

Kabelteil D58 125A 4pol.+Erde
female part

B 06171701Gruppe-Nr.
Group-no.**16.0**



Salzgitter Maschinenbau GmbH PEINER Greifer



Ersatzteilliste

Spare parts list

Kabelteil D58 125A 4pol.+Erde
female part

Bestell-Nr. **06171701**
 Order-no.
 Gruppe-Nr. **16.0**
 Group-no.

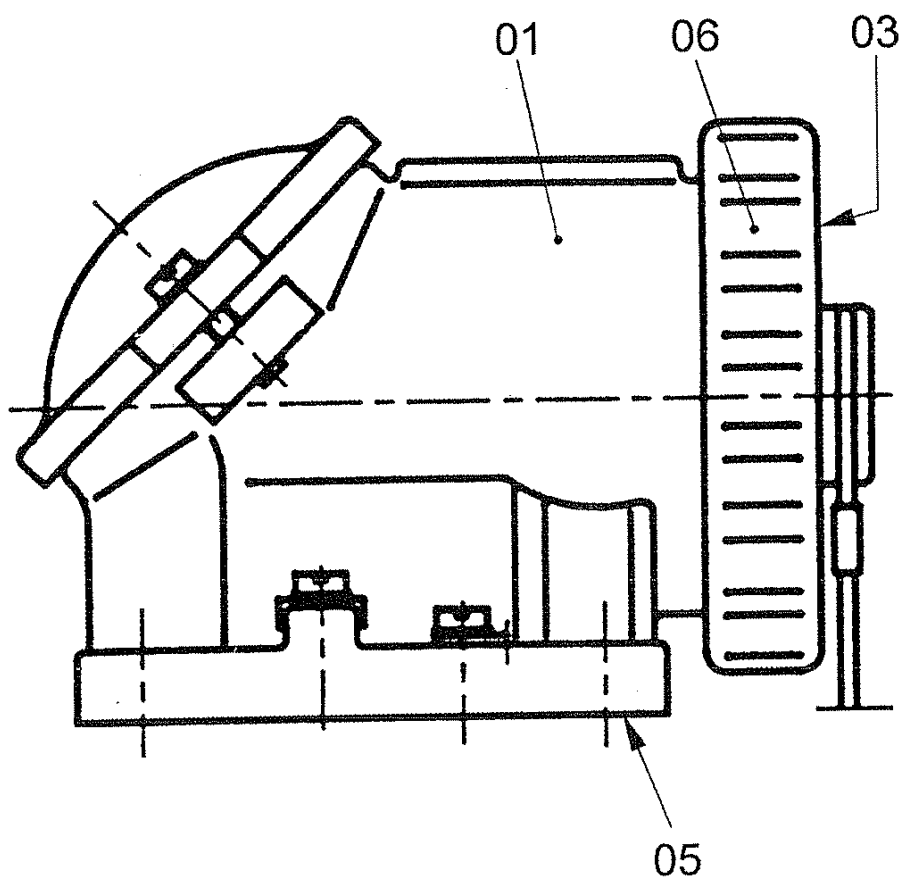
Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01			
02		1	Kabelteilgehäuse D 58 125A female part housing
03			
04	06171703	1	Buchseneinsatz D 58 125A 4pol.+Erde female insert
05			
06			
07	06194839	1	Kabeleinführung PG36 cable entry
08	06194726	1	Dichtring PG36 sealing ring
09	06194838	2	Druckring PG36 washer

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PEINER Greifer

Ersatzteilliste
Spare parts list**Geräteteil, kpl. D 58 125A 4pol.+Erde**
plug connection, mounted part**B 06171700**Gruppe-Nr.
Group-no.**16.1**



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PEINER Greifer

Ersatzteilliste

Spare parts list

Geräteteil, kpl. D58 125A 4pol.+Erde
male part, cpl.

Bestell-Nr. **06171700**
 Order-no.
 Gruppe-Nr. **16.1**
 Group-no.

Pos. Item	Bestell - Nr. Order - no.	Menge Quantity	Benennung Description
01	06171756	1	Geräteteilgehäuse D 58 male part housing
02			
03	06171702	1	Stifteinsatz D 58 125A 4pol.+Erde male insert
04			
05	23002616	1	Dichtung gasket
06	06171850	1	Verschlusskappe für Geräteteil D 58 locking cap for male part