



USER MANUAL

CONTAINER DISCHARGE UNIT

GEJO 18 B



Please read this manual carefully before using this product!

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1. INTRODUCTION

This manual describes the discharge unit supplied by Bakker Hydraulic Products BV and the regulations concerning its connection, operation and maintenance.

The discharge unit is used with a truck-mounted crane for picking up and opening containers, and is specially adapted to the containers used.

It is essential, before using the discharge unit, to read through this manual carefully to familiarise yourself with its operation, control and maintenance. Malfunctions are usually caused by incorrect start-up, operation or maintenance.

Personnel operating the discharge unit and those working near it should be aware of how the discharge unit works.

Carefully follow the advice provided here. In case of doubt, Bakker Hydraulic Products BV is always willing to advise you.

This manual contains an electrical/hydraulic connection diagram and a control overview with switch positions. A general view and a service list are also included. If a particular component needs to be replaced, check the list for the correct name and order code and order the component from Bakker Hydraulic Products BV.

Bakker Hydraulic Products BV holds a large stock of these components and they can generally be supplied quickly.

If spare parts not supplied by Bakker Hydraulic Products BV are used, the company accepts no responsibility for the correct functioning of the discharge unit.

2. OPERATIONAL CONDITIONS

This discharge unit is considered an exchangeable equipment within the scope of the machinery directive 2006/42/EC. Be sure that the machine, of which this grab will be part of, meets the appropriate requirements and/or regulations and is well maintained.

Notes

When designing this product, account was taken not only of normal usage but also of usage that might reasonably be expected.

If the customer modifies the product without the manufacturer's knowledge, the customer (the user) is liable for the consequences and the guarantee becomes null and void.

Maintenance is, of course, permitted, providing it is carried out according to the instructions provided in the manual.

Warning

Ensure that no one is within working range of this product when it is being used!

Caution

Take note of the maximum headroom!

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3. SAFETY

!! In all cases: if in doubt, consult Bakker Hydraulic Products BV!

- The working, opening and moving of containers is never without risk and requires some experience. New operators of the attachment should be instructed by experienced operators on how to use the discharge unit.
- Use the following safety equipment : safety helmet and goggles.
- Before moving the discharge unit, create a "safety zone" for the working area.
- Never move the discharge unit when there are people in the working area.
- Position the container or related product correctly above the receptacle into which it is to be emptied before opening it.
- Check that the hooks are properly closed before hoisting the container.
- When opening a container, the contents (glass) may jump up. Ensure that no one is in the immediate area before moving or opening a container.
- Never stand under the load.
- Disregarding instructions, warnings and/or safety measures can cause injury.
- The discharge unit must not be used in a manner or for a purpose other than that for which it was designed and intended.
- Never lay the discharge unit in a container with the piston rods out. This can damage the piston rods, resulting in sealing problems.
- Avoid sideways forces on the hooks, such as knocking against the edges of a container. This can cause the piston rods to become distorted.
- The discharge unit should never be put vertically into a container or onto the ground using full force. Put the discharge unit down carefully to avoid damage.
- Do not connect the power supply until the discharge unit has been completely assembled and installed and all protection, covers, safety provisions and other components have been properly installed.
- Before work is carried out on the discharge unit, always disconnect the power supply and hydraulics.
- Cylinders on which a load is suspended can be under pressure. Only disassemble the lines when the cylinder can no longer be moved by the external load.
- Do not operate the discharge unit with damaged, missing or incorrect working components.
- If the machine is not functioning properly, stop the machine immediately.

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4. COMMISSIONING AND USE

4.1 GENERAL

Check that the discharge unit is in good condition.

Carefully follow the operating instructions that apply to the crane, rotator and container to be used. If they contradict any instruction or warning in this manual, consult your supplier.

4.2 THE ROTATOR

4.2.1 Assembling the rotator drive shaft

- Place the rotator drive shaft in the suspension plate.
- If the outside measurements of the rotator shaft do not correspond with the inside measurements of the suspension plate, you probably have the wrong suspension plate. If so, contact your supplier. Rotate the rotator shaft until the hole in the rotator shaft is in front of the connector bush hole. Then mount the suspension pin and hairpin spring.

4.2.2 Assembling the rotator with flange fitting

- If you are using a rotator with a flange fitting, the hole pattern in the top plate must correspond with the hole pattern in the rotator.
- Attach the rotator to the top plate with a bolt joint according to the rotator supplier's instructions.

4.3 THE HOSES FROM CRANE TO ROTATOR

- The rotator hose connections used for rotation are fitted with throttle valves. The rotator should not be used without these throttle valves.
- The hoses from the crane to the rotator used for rotation must be connected to a connection point supplied with a throttle valve.
- The hoses from the crane to the rotator, which are used for lifting, must be connected to the two remaining connection points on the rotator.

Note

If it appears that the operation of the discharge unit and/or rotator does not correspond with the information given on your operating handles, the hoses have probably been connected incorrectly.

4.4 THE HOSES BETWEEN THE ROTATOR AND THE DISCHARGE UNIT

Note

When using a rotator purchased from Bakker Hydraulic Products B.V., the hoses that connect this rotator and the discharge unit should be ordered from the manufacturer. You can then be sure that the hoses are the right length and diameter. If required, reinforced hoses can be supplied as extras by and in consultation with the manufacturer.

4.4.1 Mounting the hoses on a rotator with drive shaft

- Fit a hose to one of the hose connections on the rotator shaft (ensure that you have the right diameter hose).
- Now attach the other end of this hose to one of the connections on the cylinder.
- Repeat this to connect the second hose.

Note

If the discharge unit does not function properly after mounting the hoses, swap around the hoses from the crane to the rotator. If the discharge unit still does not operate to your complete satisfaction, contact the manufacturer or your nearest dealer.

4.4.2 Mounting the hoses on a rotator with flange fitting

- To fit the hose to the hose connection on the discharge unit, see Section 4.4.1 above.
- To connect the hose to the rotator, refer to the rotator manufacturer.

4.5 THE LINK

Assembly

- A link is always mounted between the rotator and the jib of the crane.
- Mount the link at the top of the rotator.
- Fit the link pin and locking pin.
- Check that the link is able to move freely.
- Connect and lock the link to the crane.

Note

Make sure there is a little sideways slack.

4.6 ELECTRICAL CONNECTION

- Move the switch on the operating panel to the "0" position.
- Mount the junction box with switch supplied next to the crane control panel.
- Connect the short twin-core cable to the 24 V DC supply on the vehicle.
This supply cable should be protected with an 8 Ampere fuse.
- Fit the long cable with the plug along the boom of the crane.
Make sure that the cable does not snag in any boom position.
- Put the plug into the discharge unit coupling socket.

4.7 CHECK OPERATION

- Check the operation of the attachment with reference to the control overview. Carry out this check first without a container, then with an empty container.
- The + and – of the electrical connections may have been inadvertently swapped over. If this has happened, the movement of the cylinders will not correspond with the control overview. You should turn the + and the – around, but before doing so, make sure the power supply and hydraulics are switched off.

4.8 WORKING WITH THE DISCHARGE UNIT

- Work carefully!
- Connect the attachment and check its operation as described in 4.1 and 4.7.
- Connect the hydraulic hoses in accordance with the colours shown on the GEJO 18. Red means piston rod is pushed out, blue means piston rod is pushed in.
- Check that everything is in good working condition.
- Attach the attachment to the container.
- Wait until there are no bystanders.
- Slowly manoeuvre the full container above the loading skip on the truck.
- Lower the container until its bottom side is below the level of the top side of the loading skip.
- Open the container.
- After emptying out the contents, close the container.
- Carefully replace the container.

The path of the crane being swung in or out must be free of obstacles and persons.

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Hooking the grab on or off may only occur when the jib has been swung out and is pointing upwards. On swinging the jib out, in this position the grab will be released from the coupling hook and hook on or off with a controlled movement.

5.0 MAINTENANCE

When used in combination with glass containers, ensure that the attachment is not unduly affected by the broken glass in the glass containers.

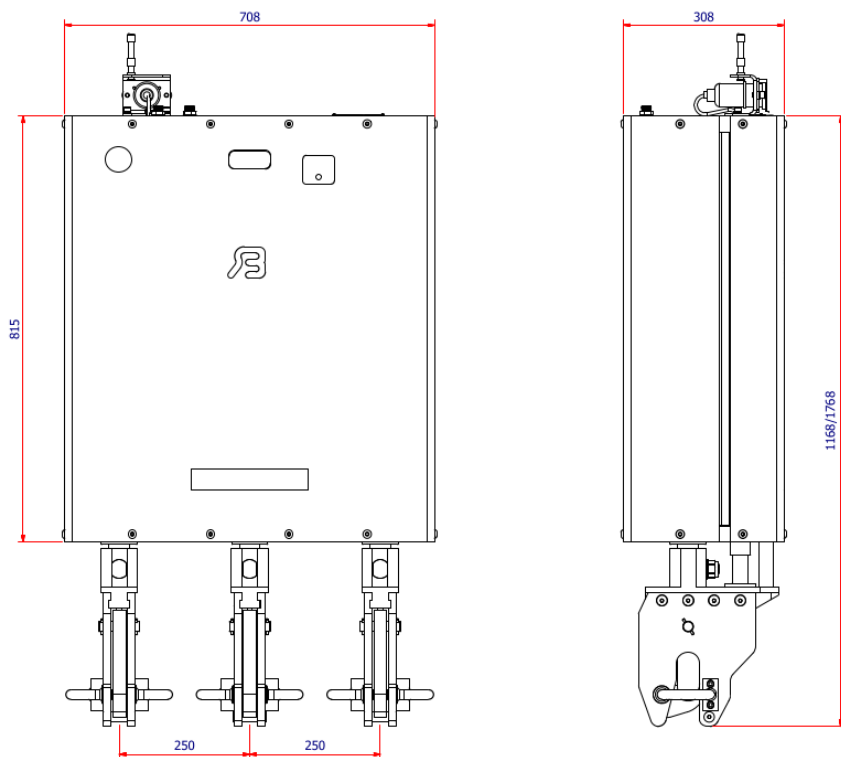
- Check the grab's hooks visually once a year.
- Test the discharge unit once a year with a 5000 kg load per hook.
- Check the nuts and bolts every year for slack.
- The cylinders should never be "out" when the attachment is in contact with glass.
- Check the hoses regularly for wear that might result from glass jumping up.
- All discharge unit nuts and bolts should be mounted using Loctite 243 or a comparable product.
- All discharge unit cylinder and valve connections should be mounted using Loctite 542 (thread sealer) or a comparable product.
- After 20 working hours, check all bolted connections and tighten if necessary.

Caution! *With all maintenance activities on the discharge unit, the discharge unit must be non-operational and resting on the ground.*

Without lubrication	Tightening torque
M 5 8.8	6 Nm
M 6 8.8	8 Nm
M 8 8.8	19 Nm
M 8 10.9	35 Nm
M 10 8.8	37 Nm
M 12 8.8	65 Nm
M 16 8.8	162 Nm

TECHNICAL DATA:

Type of discharge unit	: GEJO 18 B
Height adjustment	: 600 mm
Weight	: 350 Kg
Maximum working pressure	: 200 Bar
Maximum load	: 4000 kg
Maximum oil flow	: 20 l/min
Electrical connection	: 24 volt DC



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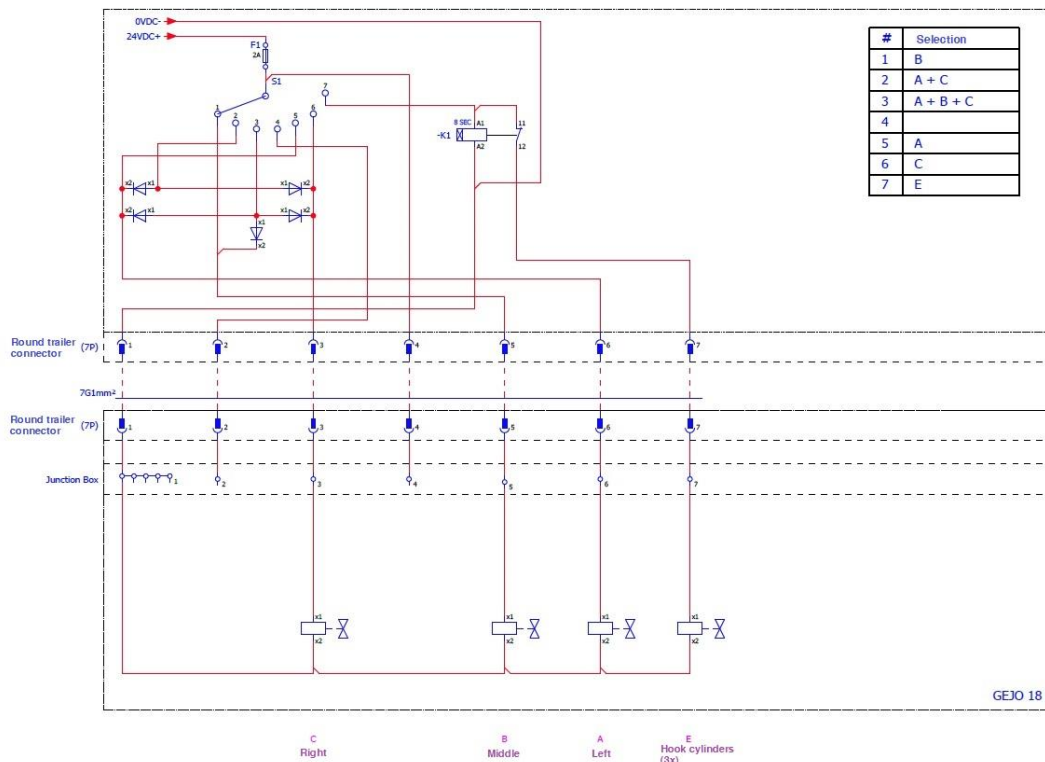
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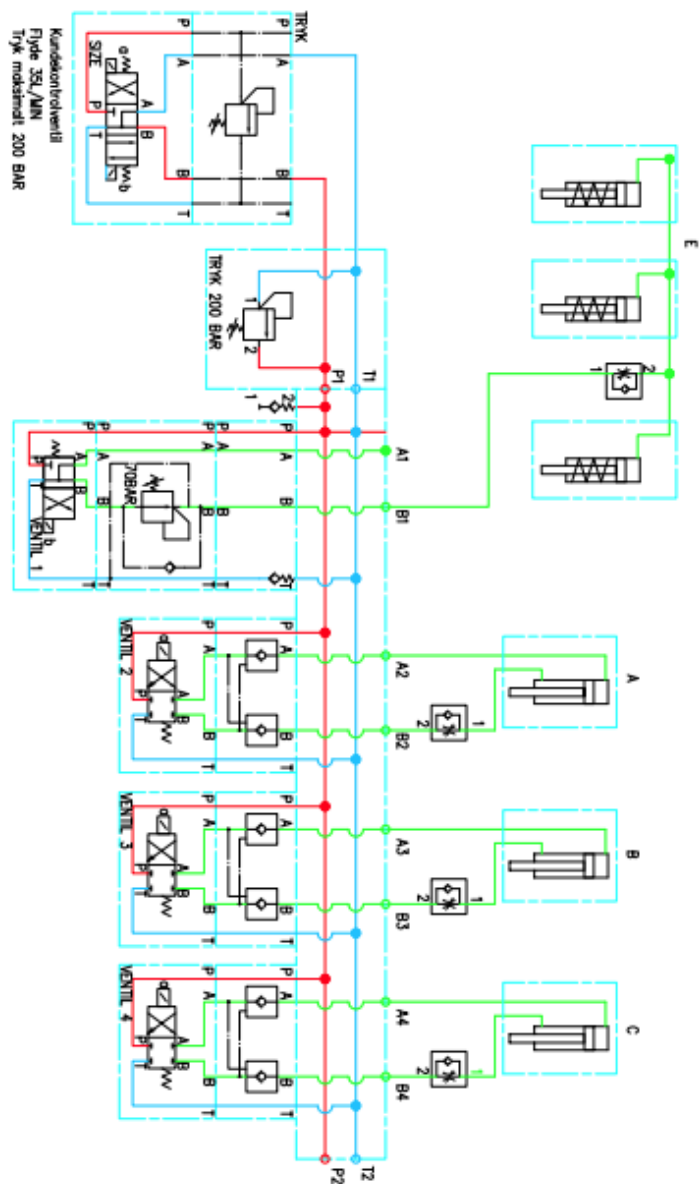
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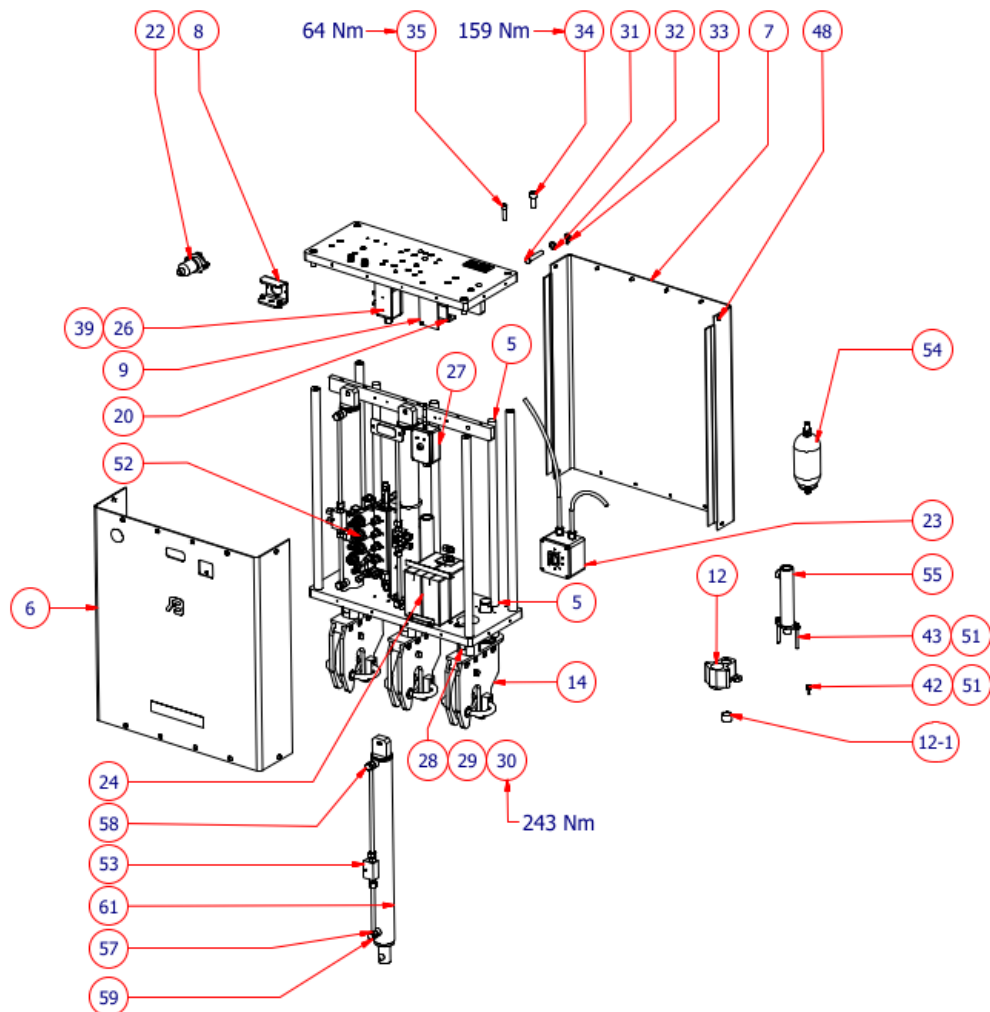
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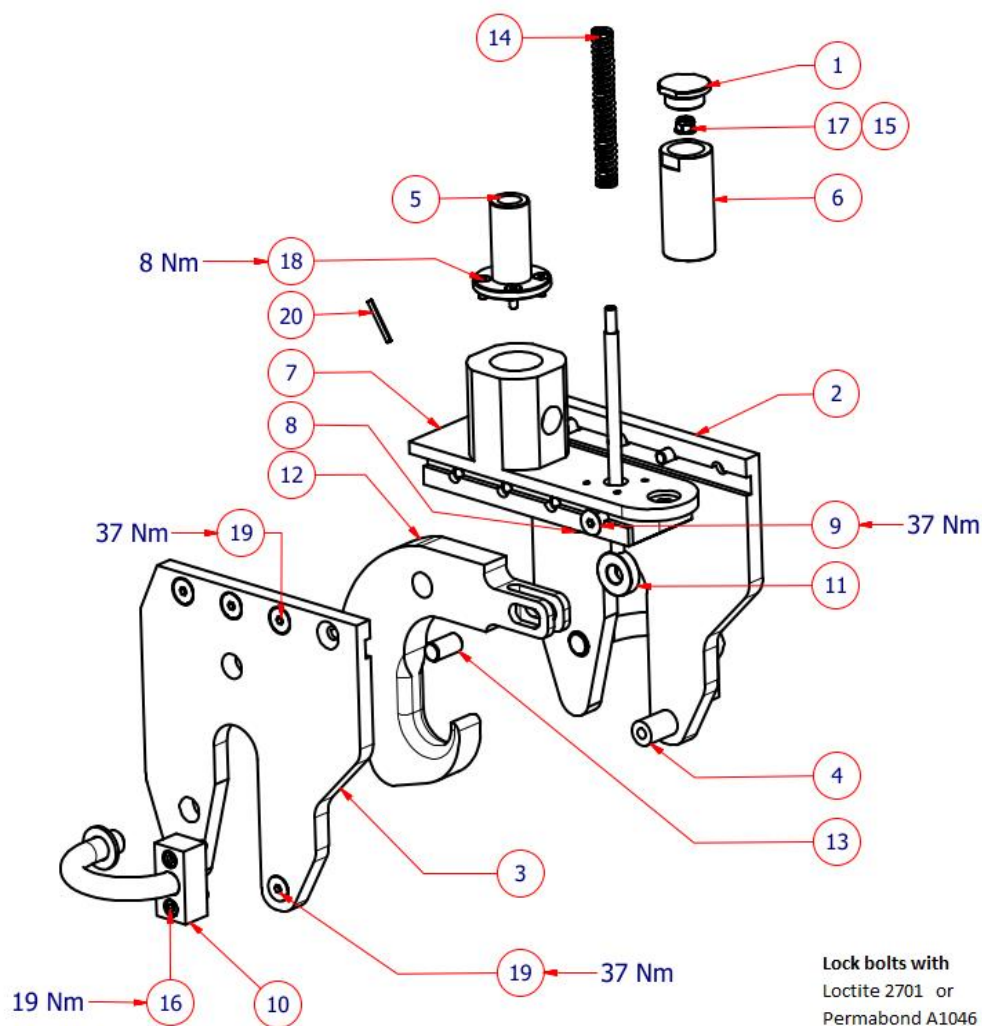
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Pos	Part number	Description	Quantity
5	200.435.01	Guide rod	3
6	200.444.00	Protecting hood front side	1
7	200.445.00	Protecting hood rear side	1
8	200.712.00	SS Bracket	1
9	200.713.00	Mounting plate receiver	1
12	400.170.00	Bearing block	3
12-1	200.437.00	Sleeve bearing	6
14		Hook assembly (see page 14)	3
20	800.051.00	Bracket accumulator	1
22	7176	Plug socket	1
23	9518	Connection set incl. switch	1
24	7182	Battery	2
26	7209	Junction box	1
27	75717	Receiver	1
28	200.753.00	Adjusting bolt	3
29	7509	Washer	3
30	7360	Nut	3
31	75577	Clevis pin	3
32	9427	Washer	3
33	75578	Safety linchpin	3
34	75176	Allen screw	4
35	9418	Allen screw	12
39	9423	Allen screw	4
42	31001040	Allen screw	6
43	75622	Allen screw	6
48	75619	Round head bolt	24
51	75221-8	Ring lock washer	22
52	75620-10	Control block Cetop 3-4 way	1
53	31000001	Pilot operated check valve	3
54	7741	Accumulator	1
55	7159	Cylinder	3
57	7144	Sealing ring	13
58	31001020	Banjo bolt 3/8"	3
59	75549	Banjo bolt 3/8" throttle	3
61	75695	Cylinder	3



Pos	Part number	Description	Quantity
1	7729	Cover	1
2	200.429.00	Side plate right	1
3	200.431.00	Side plate left	4
4	200.432.00	Distance bush	1
5	7728.01	Spring house	1
6	7725.01	Spring stop	1
7	200.448.00	Top plate	1
8	7206	Hinge pin	1
9	200.739.00	Bolt	2
10	7204	Guiding	2
11	7205.01	Plunger rod assembly	1
12	7157	Hook	1
13	7207	Pin	1
14	7165	Compression spring	1
15	75221-8	Ring lock washer	1
16	9318	Allen screw	4
17	31001039	Nut	1
18	7674	Bolt	4
19	7362	Countersunk head screw	8
20	9506	Roll pin	2

75695 Cylinder



POS	NO.	DESCRIPTION
	75695	CYLINDER
45	7194	CYLINDER TUBE
46	75888	SEALS
47	7191	PISTON
48	7190-40	HEAD BUSH
49	75338	PISTON ROD

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