



ZIJTVELD

CE Operating and maintenance manual

Stone grab
Type S4000D-SG

Introduction



Dear user,

The Multi grab is a piece of equipment for excavators. The Stone grab is available in various weights, capacities and versions and is always a fast and purpose-built device.

It is imperative you read this manual and follow all the instructions given when working with our machinery in accordance with our recommendations.

The Stone Grab products are provided with a CE marking, thereby complying with all the necessary European regulatory safety regulations.

It is essential to follow the safety regulations at all times.

These safety regulations refer to those laid out in this manual, including both the operating instructions for excavators and the safety regulations that apply to the vicinity in which the Stone grab product is being used, maintained and repaired.

Modifications made to the Stone Grab may only be implemented with the written consent of the manufacturer. Only under these circumstances do the warranty conditions and CE liabilities remain applicable.

Warning



- The excavator with a Stone Grab may only be operated by a qualified person.
- Maintenance and/or repairs may only be carried out by appropriately trained and competent personnel.
- Prevent dangerous work situations. Stay at a safe distance from moving parts.
- Ensure that whilst operating the machinery no other people are within the working vicinity of the excavator with selector grab.
- Maintenance or repair work must only be carried out when the engine is turned off.
- Refer to the safety regulations before starting on any maintenance or repair work.
- Replace defective parts only with original parts from the manufacturer.
- Failure to replace defective parts with original parts from the manufacturer will result in cessation of the entire warranty and CE liability.

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EU declaration of compliance



(Guideline 2006/42/EC)



Manufacturer Zijtveld Grippers B.V.
Address De Boomgaard 1
 's Graveland

Hereby declares that Zijtveld Gripper®

Type	S4000D-SG
Serial number	

meets all the required machine guidelines (Guideline 2006/42/EC, as most recently updated) as well as national legislative implementation of this directive.

Attention: Any adjustment that is made to this product without written consent on the manufacturer, makes this declaration void and invalid.

We should draw your attention to the fact that the selector grab product is designed to be assembled with another machine, and that the product, on the grounds of the machine Guide Line, can only be used once the whole machine is in accordance to the conditions laid down by European regulations.

Date

.....

(signed)

The Stone Grab should always be attached to an excavator of the correct weight, class and capacity of machine. Refer to the data information plate on the grab and consult the technical specifications in this manual. When in doubt contact the supplier.

The weight of the grab, increased by the weight of the load being picked up, must never exceed the maximum allowance of lifting power. For further information consult the excavator manual.

It is prohibited for people to be within the rotation range of the machine and grab. Keep in mind that material being lifted that extrude from the grab will enlarge the rotation range.

It is always possible that material can fall out of the excavator's grab. For this reason, never rotate the machinery above people, machines nor vehicles.

Always pick up a long load at its centre of gravity, to prevent the excavator from either rotating or tipping over. It is not permissible to use the grab to hit or pound.

Whilst connecting or disconnecting, lubricating or other maintenance work, the grab must be stable and on a flat surface. Before performing lubricating or other maintenance work the engine should always be shut down.

Warning

Never work on the hydraulic system if the system is still under pressure! Keep hands away from moving parts at all times.

The manufacturer cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this publication are, therefore, not all-inclusive. If a tool, procedure, work method or operating technique that is not specifically recommended by the manufacturer is used, then you must assure yourself that it is safe for you and others.

You should also ensure that the product will not be damaged or made unsafe by the operation, lubrication, maintenance or repair procedures that you choose.

Terms of guarantee



The manufacturer provides a warranty of 12 months from the date of delivery.

All defective parts proven to be caused by faults in either manufacture, production or material are covered by warranty.

Defective parts that are replaced and fall under guarantee become property of the manufacturer. They must be kept available and returned immediately, in complete and unaltered condition, upon the first request from the manufacturer.

Any claim that is made under guarantee will only be taken into consideration once a written appeal is made to the dealer or manufacturer. This must be done directly after the damage or fault occurs and at least within 24 hours of any irregularities and problems arising.

All claims under conditions of the warranty must contain the following data; the type of machine the product has been mounted on, the serial number of the grab, the record of the defective part(s) and a description of the fault, photographs, copy of the delivery papers and invoice and a copy of the piece of equipment concerned.

Minor repairs can be carried out in consultation with the dealer; necessary parts which fall under the warrantee, will be delivered without charge. For larger repairs the grab should be sent to your dealer or manufacturer for repairs or modifications. The work and necessary parts are free of charge. However, transport costs and call-out charges to and from your dealer or manufacturer are not covered.

The manufacturer is not liable for consequential loss caused by a defective Multi grab (consequential loss to excavators, consequential loss due to a stationary excavator or the suspending of work activity).

EXCLUDED FROM GUARANTEE

- Damage caused by faulty assembly of a machine and/or the hydraulic system.
- Defects resulting from improper repairs and/or maintenance including that carried out by an unauthorised third party.
- Defects arising from neglect or improper execution of preventive maintenance procedures e.g. regular lubrication or greasing.
- Defects to parts which are subject to normal wear like blades.
- Consequential loss caused by failure to replace normal wearing parts in time.

N.B. If defective or worn parts are replaced by non-original parts, the entire warrantee and liability will cease to apply.

Procedures to follow before initial use



Before taking the machine into operation and to ensure the good functioning of the apparatus, it is important that the following points are checked and correspond to the technical specifications as shown on the information plate and in the manual.

- The type and weight of the Stone grab must conform to weight and machine class of the intended excavator.
- The oil flow and the pressure for rotating the Stone grab should be checked and adjusted.
- Beware: the return pressure of the rotating oil at a continuous level may be at a maximum of 25 bar and only briefly (maximum of 10% of the working time).
- The oil flow and pressure of the pinching (opening and closing) of the tree grab needs to be controlled and adjusted.
- Check if the hydraulic quick release hitch is in good order and screwed on firmly.
- Check if the ball valves and valves are in the correct position.
- Check if the connecting pins between the excavator and the Stone grab are well secured, as well as the wedge and the security pin of the quick release hitch system.
- Ensures that the hoses have the correct length and are at no risk of interfering with any of the moving parts. Also make sure they cannot wear or damage because of contact with the grab or material that is moved by the grab.

Daily maintenance



For maintenance work, always place the grab in open position on a flat and stable surface and ensure the excavator cannot move.

During maintenance on the hydraulic system the hydraulic hoses need to be disconnected. Before disconnecting ensure there is no pressure on the hoses. Consult the manual for the excavator.

The grab must be lubricated once every 8 operating hours with the same lubricant recommended for the excavator. For the position of the grease nipples and frequency of lubrication, see the schedule on page 10.

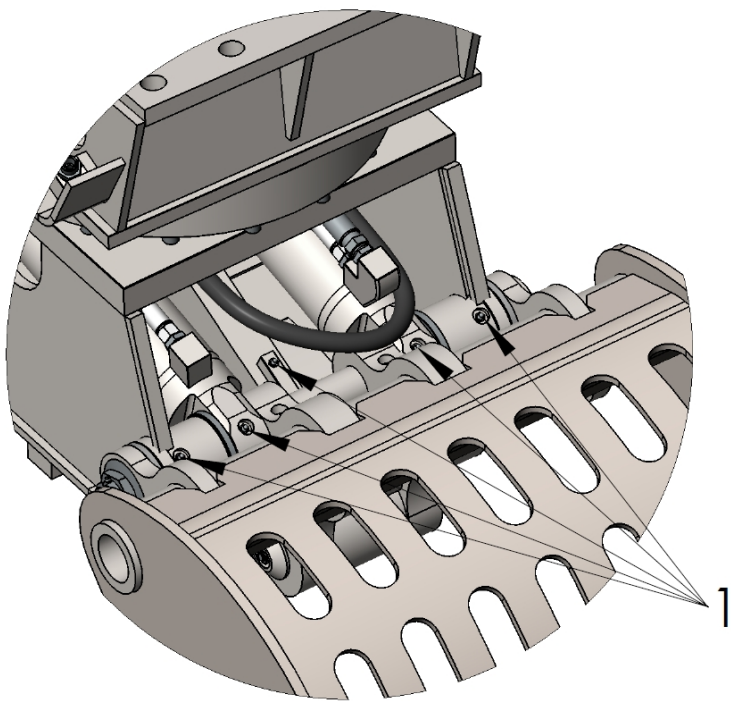


Image 1: lubricating pivoting points

1 = Lubricate 1 x per 8 operating hours.

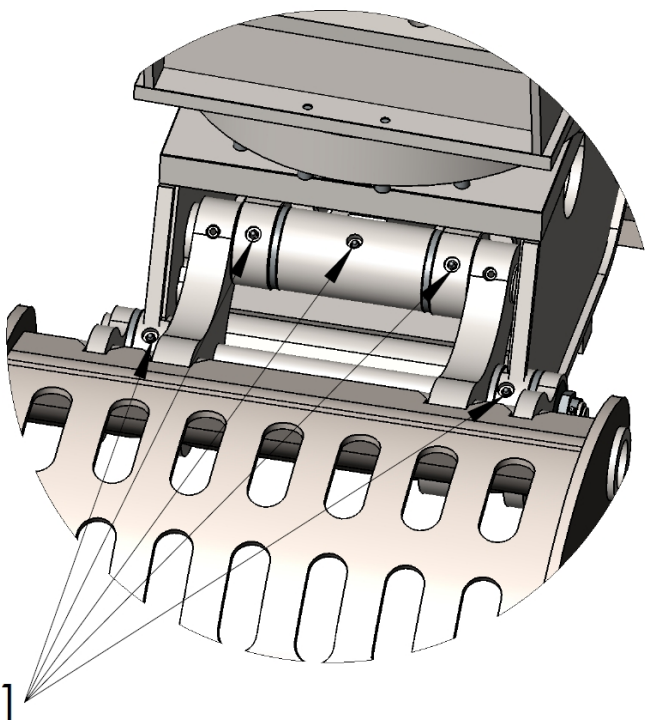


Image 2: lubricating pivoting points

1 = Lubricate 1 x per 8 operating hours.

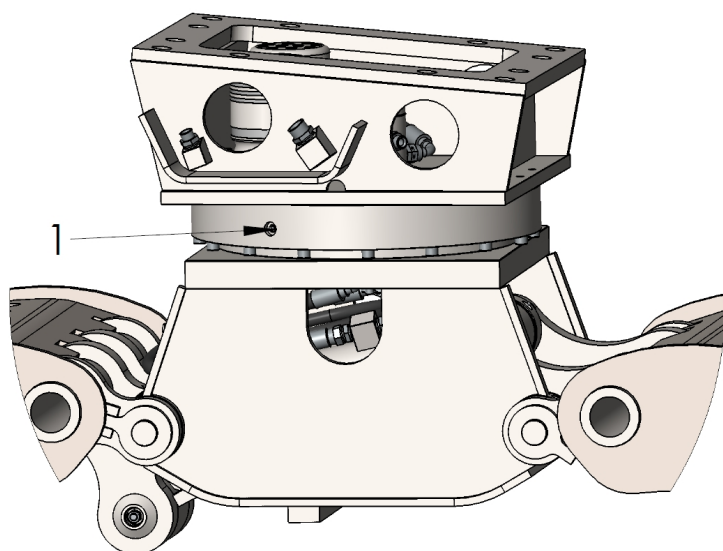
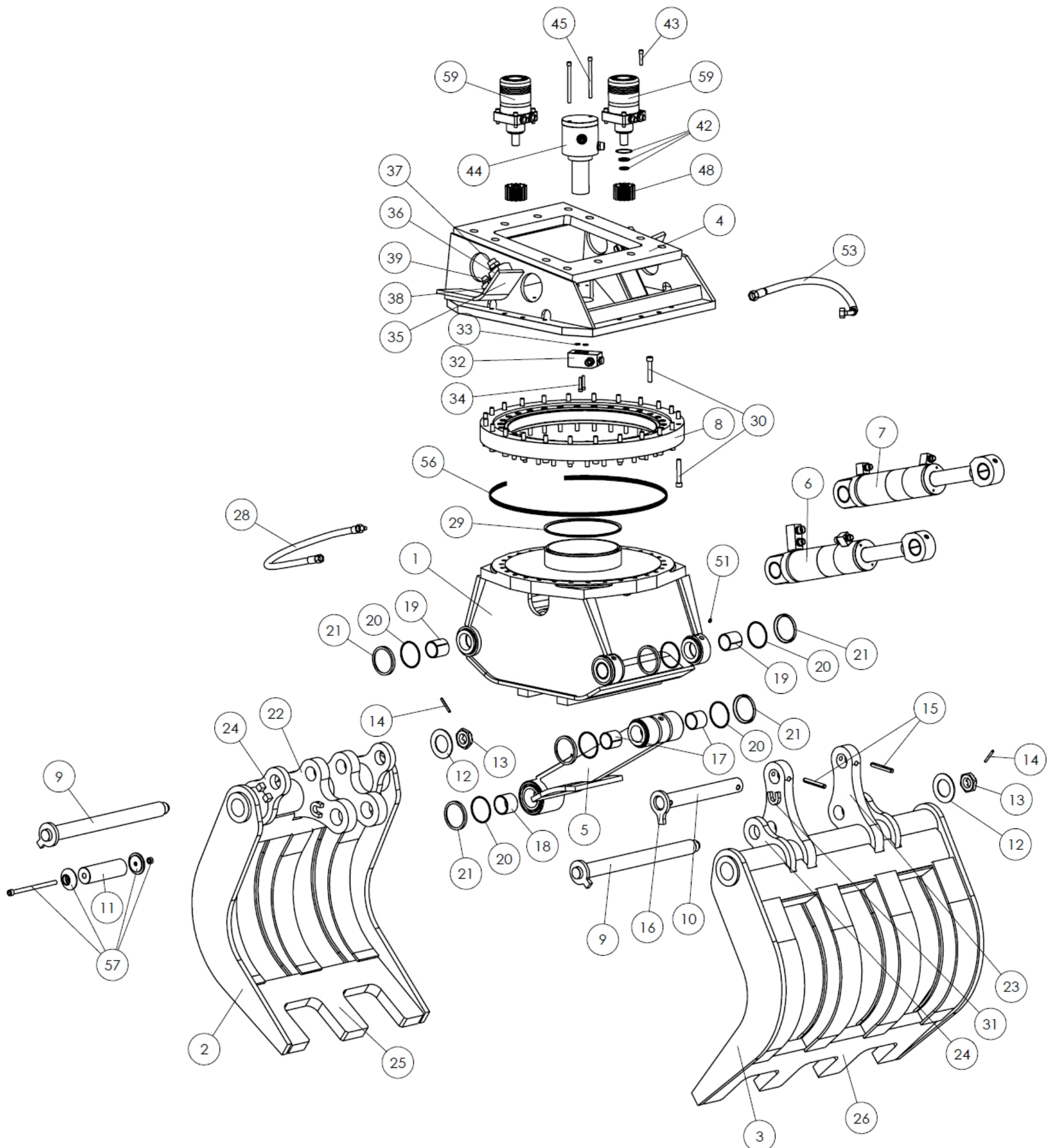


Image 3: lubricating pivoting points

1 = Lubricate 1 x per 8 operating hours.

Exploded view S4000D-SG



Part list S4000D-SG



partnr.	aantal	omschrijving	bestelnr
1	1	Welded main frame construction	S4000D.001
2	1	Left shell	S4000SG.002
3	1	Right shell	S4000SG.003
4	1	Welded head construction	S4000D.004
5	1	Welded linkage construction	S4000D.005
6	1	Hydraulic cyliinder	S4000D.006
7	1	Hydraulic cyliinder	S4000D.007
8	1	Slewing ring	S4000D.008
9	2	Main hinge pin	S4000D.009
10	1	Linkage axis (top/long)	S4000D.010
11	1	Linkage axis (under/short)	S4000D.011
12	2	Disk spring	S4000D.012
13	2	Castellated nut	S4000D.013
14	3	Split pin	S4000D.014
15	4	Locker pin	S4000D.015
16	2	Rod pin	S4000D.016
17	2	Bearing linkage axis	S4000D.017
18	2	Bearing linkage axis	S4000D.018
19	4	Bearing main frame	S4000D.019
20	12	O-ring Metal Seal	S4000D.020
21	12	Metal Seal	S4000D.021
22	2	Shell hinge	S4000D.022
23	2	Shell hinge	S4000D.023
24	4	Shell hinge support	S4000D.024
25	1	Fixed blade	S4000D.025
26	1	Fixed blade	S4000D.026
28	1 set	Hose set lower frame	S4000D.028
29	1	V-ring	S4000D.029

Part list S4000D-SG

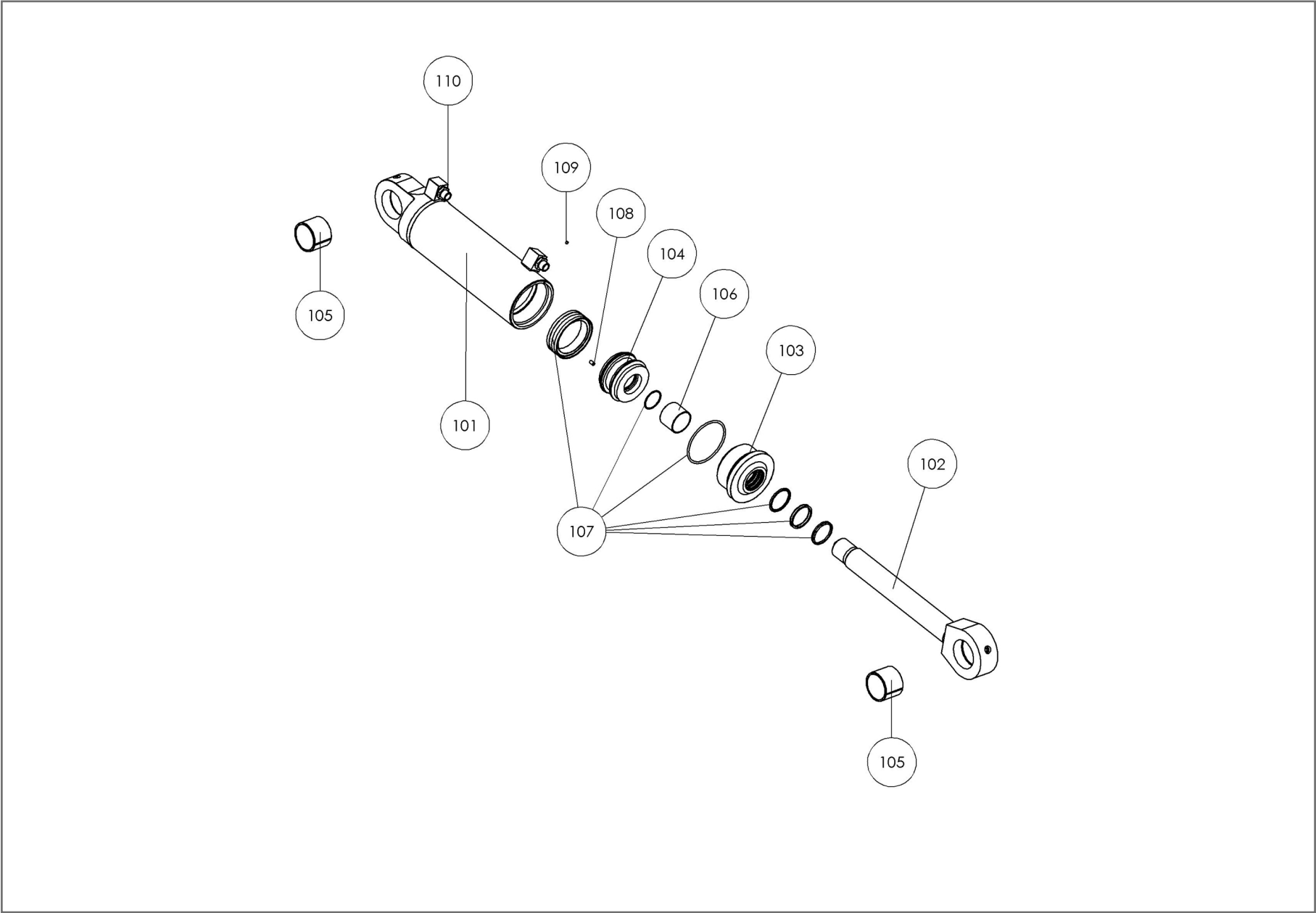


Part no.	Qty	Description	Order no.
30	1 set	Bolt set slewing ring	S4000D.030
31	1	Locker-U	S4000D.031
32	1	Connection block C.O.D.	S4000D.032
33	1 set	O-ring for the benefit of connection block C.O.D.	S4000D.033
34	1 set	Bolt set C.O.D. connection block	S4000D.034
35	2	Protective cover connection nipples	S4000D.035
36	2	Main connection block pinch function	S4000D.036
37	2	Main connection nipple pinch function	S4000D.037
38	2	Main connectiob block rotation function	S4000D.038
39	2	Main connection	S4000D.039
42	1 set	Seal kit hydro motor	S4000D.042
43	1 set	Bolt set hydro motors	S4000D.043
44	1	C.O.D. complete	S4000D.044
45	1 set	Bolt set C.O.D.	S4000D.045
48	2	Gear	S4000D.048
51	1 set	Lubrication nipples	S4000D.051
53	1 set	Hose set head	S4000D.053
56	1	Slewing ring seal	S4000D.056
57	1 set	Locker set	S4000D.057
58	2	Bearing shell hinge	S4000D.058
59	2	Hydro motor square flange	S4000D.059

Part list cylinder S4000D-SG

Part no.	Qty	Description	Order no.
101	1	Cylinder housing	S4000D.101
102	1	Piston rod	S4000D.102
103	1	Cylinder nut	S4000D.103
104	1	Cylinder piston	S4000D.104
105	2	Bearing cylinder	S4000D.105
106	1	Bearing cylinder nut	S4000D.106
107	1 set	Seal kit cylinder	S4000D.107
108	1	Secure bolt	S4000D.108
109	1	Secure bolt	S4000D.109
110	1 set	Cylinder nipple set	S4000D.110

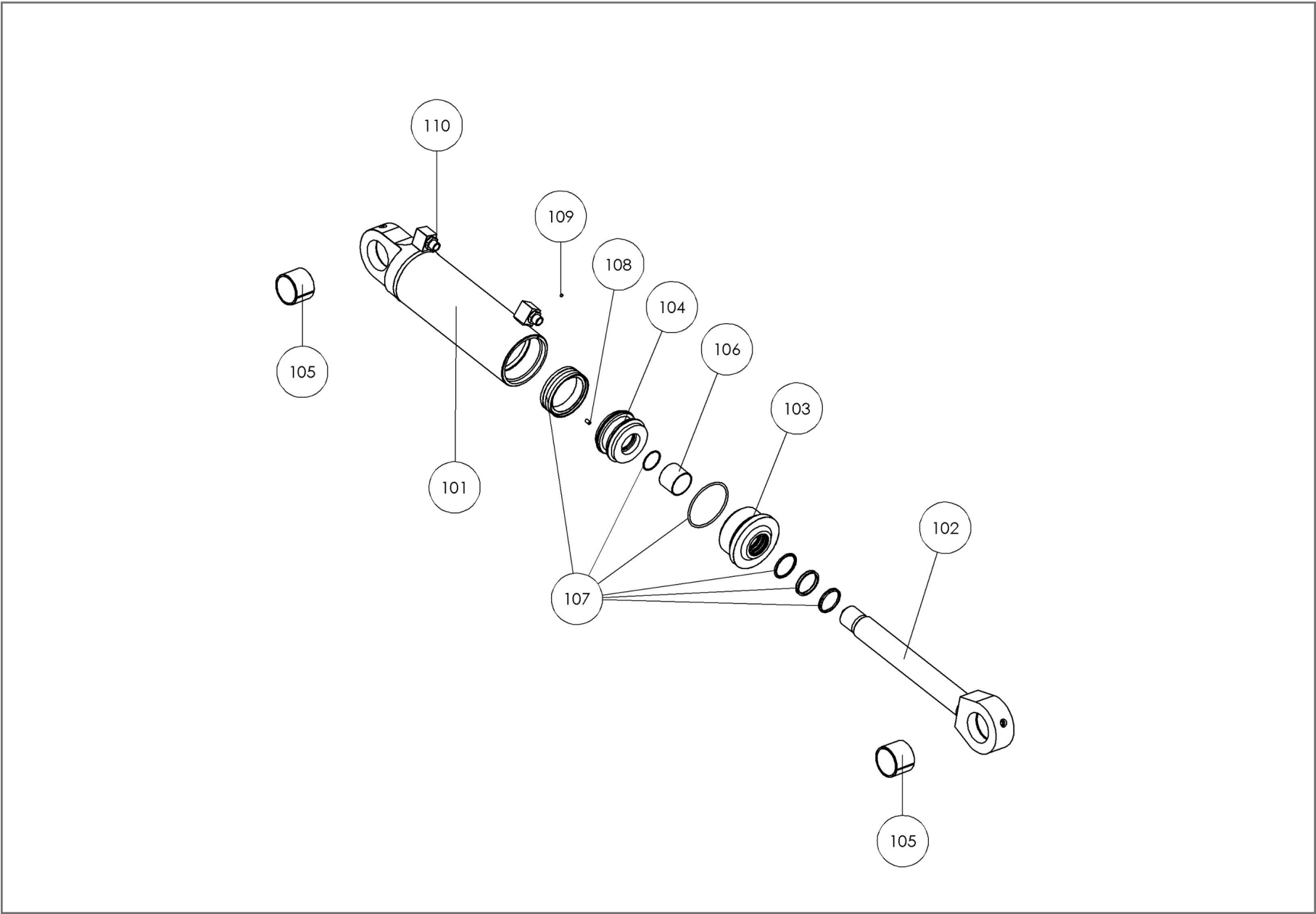
Exploded view cylinder left S4000D-SG



Part list cylinder S4000D-SG

Part no.	Qty	Description	Order no.
102	1	Cylinder housing	S4000D.102
103	1	Cylinder nut	S4000D.103
104	1	Cylinder piston	S4000D.104
105	1	Bearing cylinder	S4000D.105
106	2	Bearing cylinder nut	S4000D.106
107	1	Seal kit cylinder	S4000D.107
108	1 set	Secure bolt	S4000D.108
109	1	Secure bolt	S4000D.109
111	1	Cylinder nipple set	S4000D.111
112	1 set	Piston rod	S4000D.112

Exploded view cylinder right S4000D-SG



Technical specifications: S4000D-SG



		S4000D-SG
Excavator weight class	ton	40-70
Weight	kg	5500
Operating pressure max.	bar	350
Operating pressure rotation min.	bar	190
Operating pressure max.	bar	210
Oil flow max.	l/min.	250
Oil flow rotation max.	l/min.	40
Shell width	mm	1460
Height	mm	2300
Capacity	ltr	1350
Closing force	Kn	110