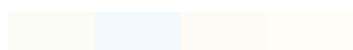


PARTS LIST

V4

MULTIPLE USE CUTTER/CRUSHER

ACDE



Nederland B.V.



SUPPLY PERIOD OF SPARE PARTS

Thank you for purchasing a Furukawa Rock Drill product.

Please note that the supply of spare parts will be assured for 10 years after the termination of production. Although the supply of spare parts is terminated in principle at the maturity of the subject supply period, we may be able to supply them upon request even after the expiration of the supply period on condition that the delivery date and price are subject to negotiation.

Even if it is within the supply period, however, the delivery date, price, etc. may be subject to negotiation when it is difficult to keep stocks should the purchased parts, such as electronic parts, etc., be not available because the manufacturer does not produce them anymore.

If you have any questions about any particular model subject to the warranty as stated above and the time limit of spare parts supply, please contact your nearest FRD Europe B.V. distributor.



USING THE PARTS LIST

1. This parts list describes the components of a multiple use cutter/crusher.
2. When ordering a part, refer to the illustrations and lists in this parts list and then inform the FRD Europe B.V. distributor in your area of the following items.
 - (1) Model name
 - (2) Serial No.
 - (3) Part No.
 - (4) Part name
 - (5) Quantity
3. Use "Genuine Furukawa Rock Drill Parts" when replacing all parts.
4. The illustrations in this parts list show the positions and shapes of the parts so that a user can order a part without any problem.

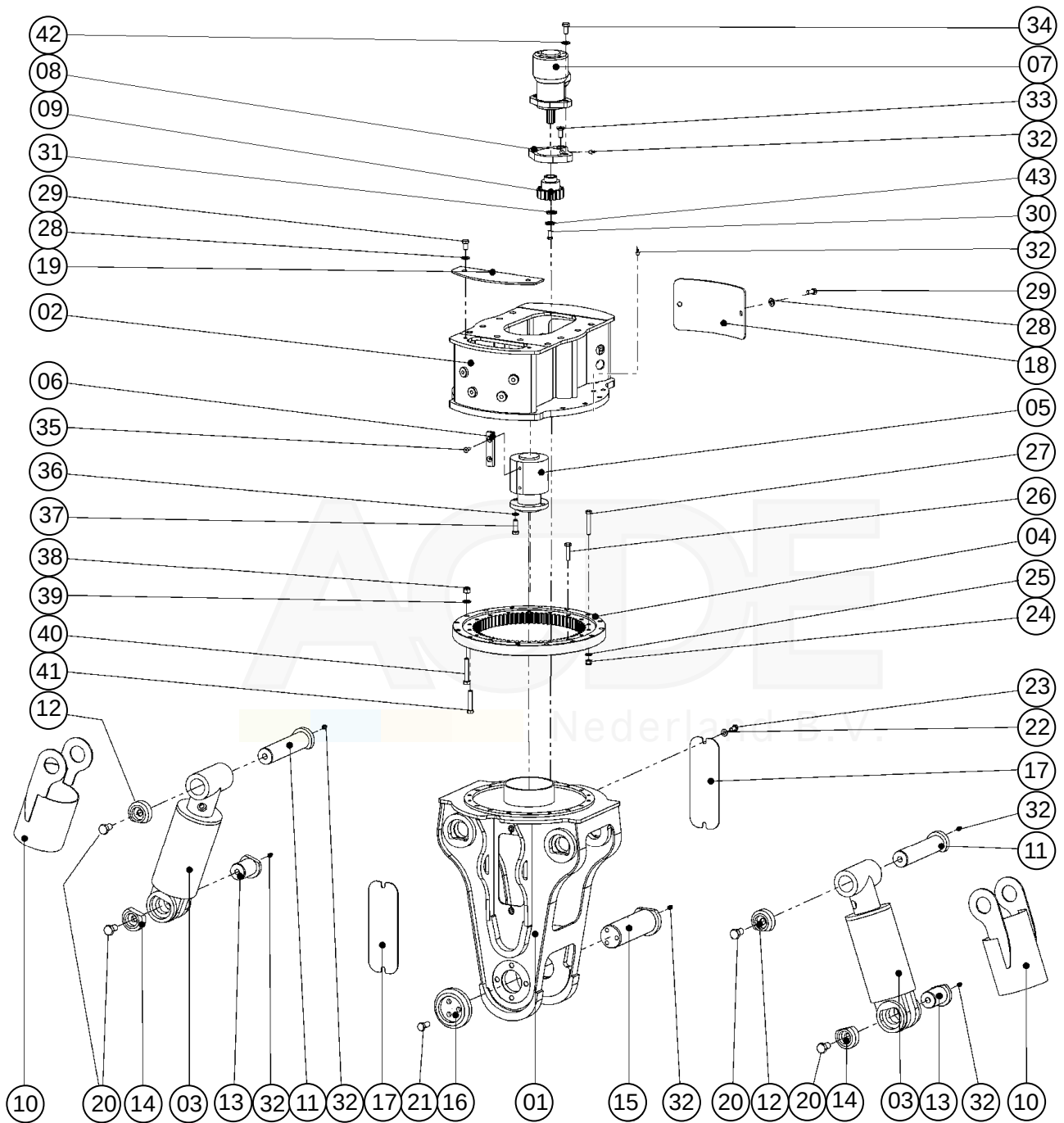
Do not repair a multiple use cutter/crusher by using this parts list.
5. The parts in this list are subject to change for improvement without notice on the part of the manufacturer.

CONTENTS

GROUP NAME	PAGE
CUTTER/CRUSHER FRAME ASSEMBLY.....	01-01
HYDRAULIC CYLINDER	02-01
ROTATION HYDRAULIC SYSTEM.....	03-01
CYLINDER HYDRAULIC SYSTEM.....	04-01
STANDARD (P) JAW ASSEMBLY.....	05-01
STEEL CUTTER (C) JAW ASSEMBLY	06-01



CUTTER/CRUSHER FRAME ASSEMBLY



CUTTER/CRUSHER FRAME ASSEMBLY

ITEM	PART NO.	PART NAME	Q'TY	REMARKS
01	V4-02002	FRAME ASSEMBLY	1	SEE PAGE 02-01
02	V4-02201	FLAT TOP BRACKET	1	
03	V4-91001	HYDRAULIC CYLINDER	2	
04	V4-93001	SWIVEL BEARING	1	
05	V4-94001	HYDRAULIC SWIVEL JOINT ASSEMBLY	1	
06	V4-02501	LOCK PLATE	1	
07	V4-08116	ROTATION MOTOR ASSEMBLY	1	
08	V4-02502	FLANGE	1	
09	V4-08503	GEAR	1	
10	V4-01018	ROD GUARD	2	
11	V4-02503	CYLINDER PIN - UPPER	2	
12	V4-02504	COVER	2	
13	V4-02505	CYLINDER PIN - LOWER	2	
14	V4-02506	COVER	2	
15	V4-02507	CENTRE PIN	1	
16	V4-02508	COVER	1	
17	V4-02509	PROTECTIONCOVER	2	
18	V4-02510	PROTECTION COVER	1	
19	V4-02511	PROTECTION COVER	1	
20	101032-18030	HEXAGON BOLT	4	M18 X 30 10.9
21	101032-14040	HEXAGON BOLT	3	M14 X 40 10.9
22	140112-10000	FLAT WASHER	4	M10
23	101032-10020	HEXAGON BOLT	4	M10 X 20 10.9
24	V4-02512	SELF-LOCKING NUT	14	M10
25	145012-10000	SPRING WASHER	14	M10
26	101032-10045	HEXAGON BOLT	4	M10 X 45 10.9
27	101032-10065	HEXAGON BOLT	14	M10 X 65 10.9
28	145012-12000	SPRING WASHER	4	M12
29	101022-12020	HEXAGON BOLT	4	M12 X 20 8.8
30	101032-08020	HEXAGON BOLT	1	M8 X 20 10.9
31	V4-02513	WASHER	1	M8
32	VS30E-02508	GREASE NIPPLE	7	
33	V4-02514	COUNTERSUNK SCREW	1	M12 X 30 10.9
34	101032-12050	HEXAGON BOLT	2	M12 X50 10.9
35	V4-02515	COUNTERSUNK SCREW	2	M8 X 20 10.9
36	VS30E-03507	WASHER	2	M12
37	101032-12030	HEXAGON BOLT	2	M12 X30 10.9

CUTTER/CRUSHER FRAME ASSEMBLY

ITEM	PART NO.	PART NAME	Q'TY	REMARKS
38	V4-02516	SELF-LOCKING NUT	12	M12
39	VM19ER-02528	WASHER	12	M12
40	101032-12070	HEXAGON BOLT	12	M12 X 70 10.9
41	101032-12050	HEXAGON BOLT	4	M12 X 50 10.9
42	VM19ER-08508	WASHER	2	M12
43	145012-08000	WASHER	1	M8
**	V4-94011	HYDRAULIC SWIVEL JOINT SEAL KIT	**	
**	V4-98011	ROTATION MOTOR SEAL KIT	**	

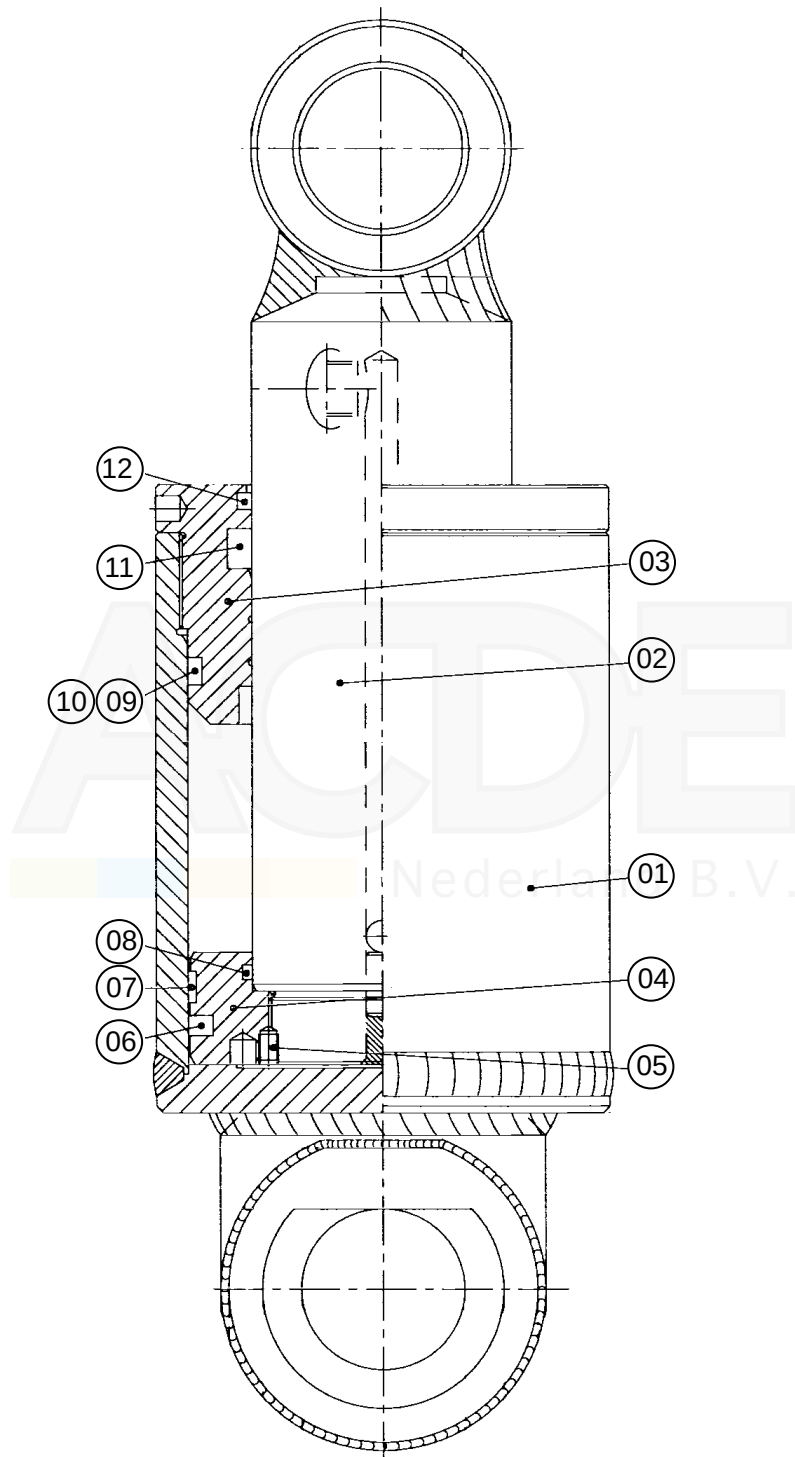
ACDE
Nederland B.V.

SERVICE MEMO

Handwriting practice lines consisting of 20 horizontal dotted lines.



HYDRAULIC CYLINDER



HYDRAULIC CYLINDER

ITEM	PART NO.	PART NAME	Q'TY	REMARKS
	V4-91001	HYDRAULIC CYLINDER ASSEMBLY	1	(ITEMS 1 - 12)
01	V4-01501	CYLINDER TUBE	1	
02	V4-01502	PISTON ROD	1	
03	V4-01503	PISTON HEAD	1	
04	V4-01504	PISTON	1	
05	V4-01505	SET SCREW	1	
06	V4-01506	PISTON SEAL	1	
07	V4-01507	WEAR RING	1	
08	V4-01508	PISTON SEAL	1	
09	V4-01509	SEAL	1	
10	V4-01510	SEAL	1	
11	V4-01511	ROD SEAL	1	
12	V4-01512	SCRAPER RING	1	
**	V4-91011	CYLINDER SEAL KIT	**	(ITEMS 6 - 12)

ACDE
Nederland B.V.

This technical diagram illustrates the assembly of a hydraulic system. The components are numbered as follows:

- 01**: Hydraulic cylinder
- 02**: Hydraulic valve block
- 03**: Small hydraulic fitting
- 04**: O-ring
- 05**: Small hydraulic fitting
- 06**: O-ring
- 07**: Small hydraulic fitting
- 08**: Hydraulic hose
- 09**: Hydraulic line with elbow
- 10**: Hydraulic fitting
- 11**: Small hydraulic fitting
- 12**: Hydraulic line with elbow

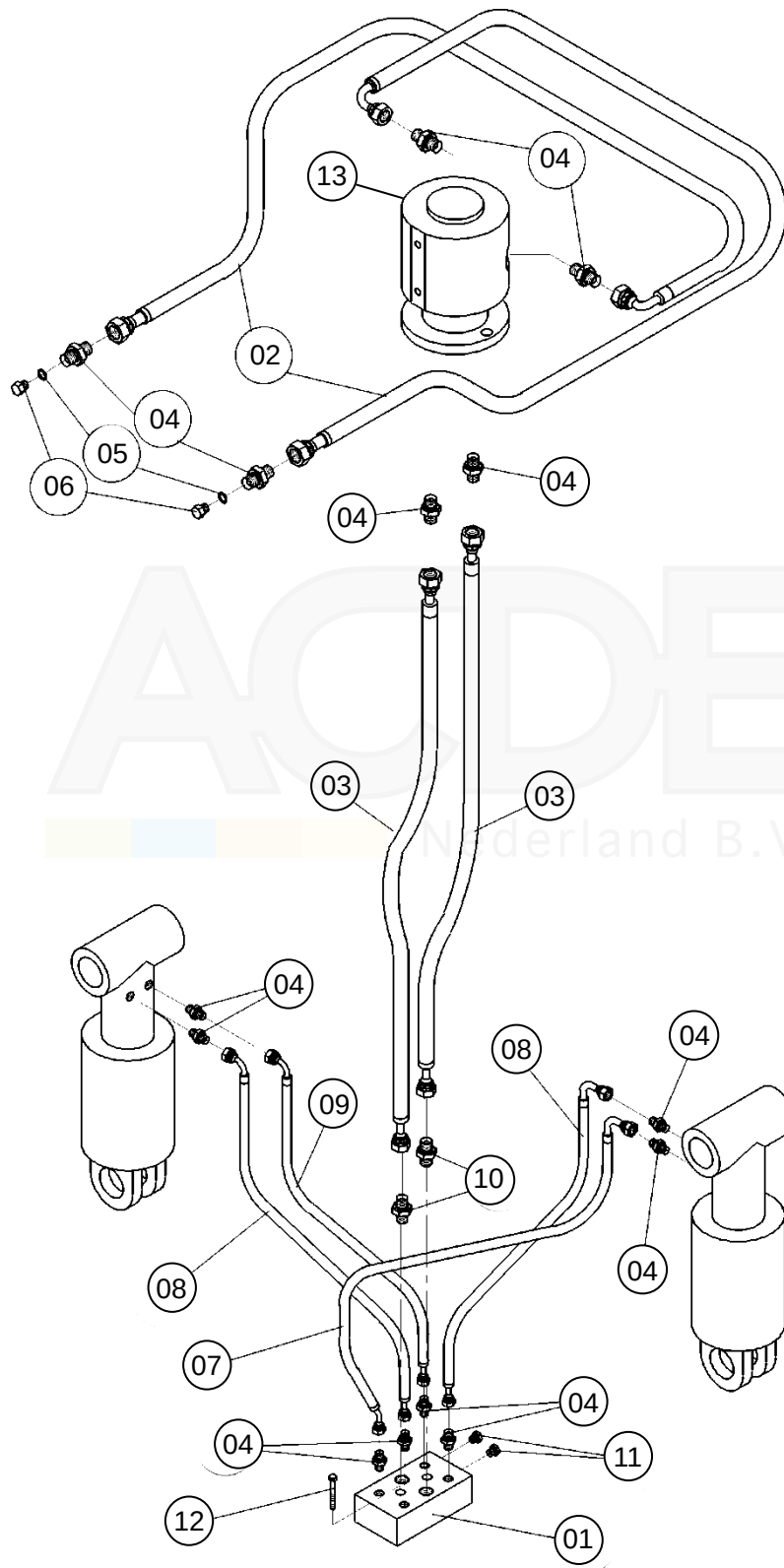
The assembly process involves connecting the hydraulic cylinder (01) to the valve block (02) using a fitting (03) and O-ring (04). The valve block (02) is then connected to the hydraulic hose (08) via a fitting (05) and O-ring (06). The hose (08) is connected to the hydraulic line (09) using a fitting (07) and O-ring (04). The hydraulic line (09) is then connected to the hydraulic fitting (10) using a fitting (09) and O-ring (04). The hydraulic line (09) is also connected to the hydraulic fitting (11) using a fitting (11) and O-ring (04). The hydraulic line (09) is also connected to the hydraulic fitting (12) using a fitting (12) and O-ring (04).

ROTATION HYDRAULIC SYSTEM

ITEM	PART NO.	PART NAME	Q'TY	REMARKS
01	V4-08116	ROTATION MOTOR	1	
02	V4-03501	VALVE ASSEMBLY	1	
03	VM19ER-03515	PLUG	2	
04	VM19ER-03516	SEAL	6	
05	VM32ER-03535	CONNECTOR	2	
06	V4-03502	VALVE	2	
07	V4-03503	CONNECTOR	2	
08	V4-03504	HOSE ASSEMBLY	2	
09	V4-03505	T CONNECTOR	2	
10	V4-03506	CAP	2	
11	V4-03507	REDUCER	2	
12	V4-03508	HEXAGON SOCKET BOLT	2	
**	V4-98011	ROTATION MOTOR SEAL KIT	**	

ACDE
Nederland B.V.

CYLINDER HYDRAULIC SYSTEM

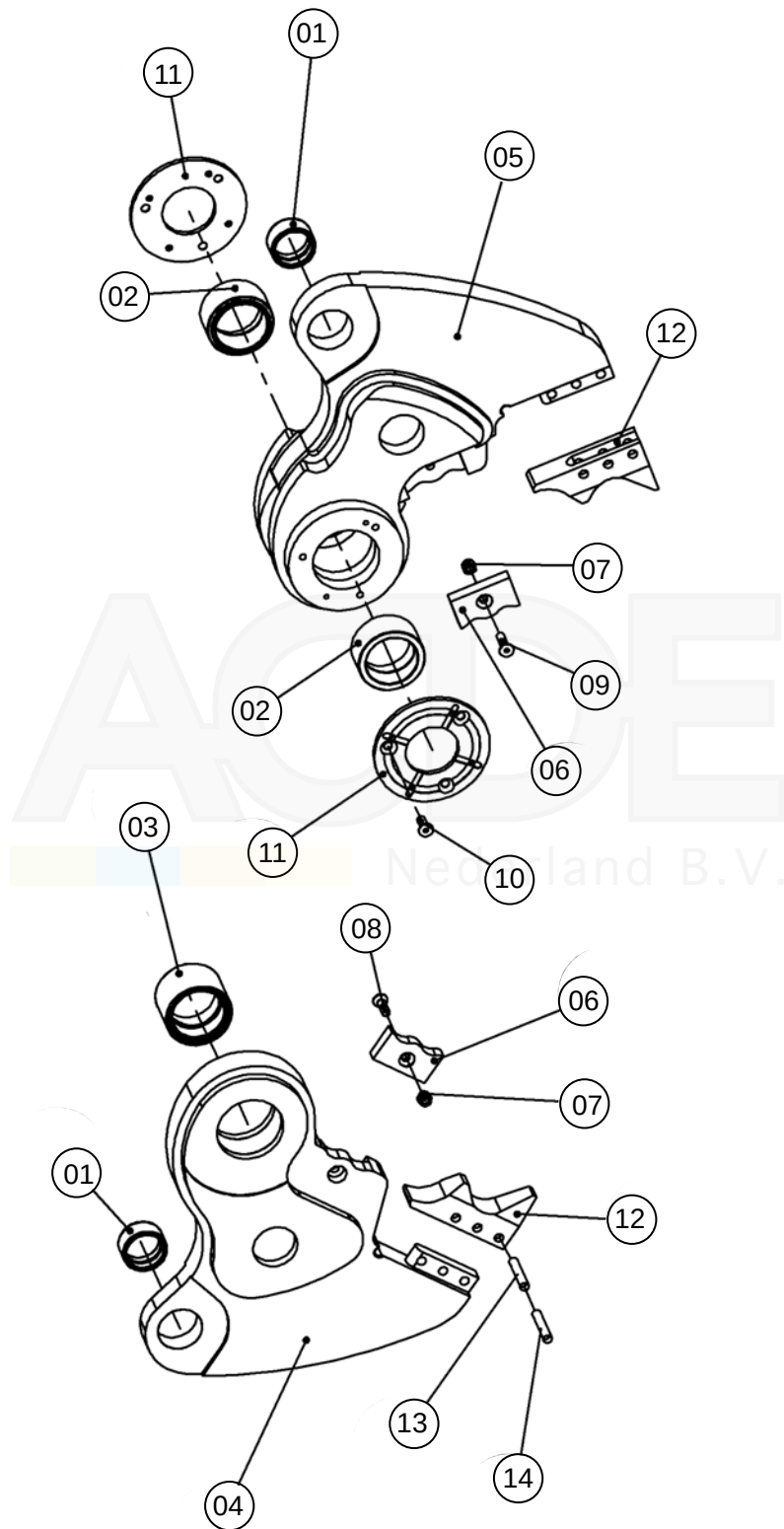


CYLINDER HYDRAULIC SYSTEM

ITEM	PART NO.	PART NAME	Q'TY	REMARKS
01	V4-03510	DISTRIBUTION BLOCK	1	
02	V4-03511	HOSE ASSEMBLY	2	
03	V4-03512	HOSE ASSEMBLY	2	
04	VM32ER-03510	CONNECTOR	14	
05	VM19ER-03520	SEAL	2	
06	VM19ER-03512	PLUG	2	
07	V4-03513	HOSE ASSEMBLY	1	
08	V4-03514	HOSE ASSEMBLY	2	
09	V4-03515	HOSE ASSEMBLY	1	
10	VM32ER-03524	CONNECTOR	2	
11	V4-03516	PLUG	2	
12	V4-03517	HEXAGON SOCKET BOLT	2	
13	V4-94001	HYDRAULIC SWIVEL JOINT	1	
**	V4-94011	HYDRAULIC SWIVEL JOINT SEAL KIT	**	

ACDE
Nederland B.V.

STANDARD (P) JAW ASSEMBLY

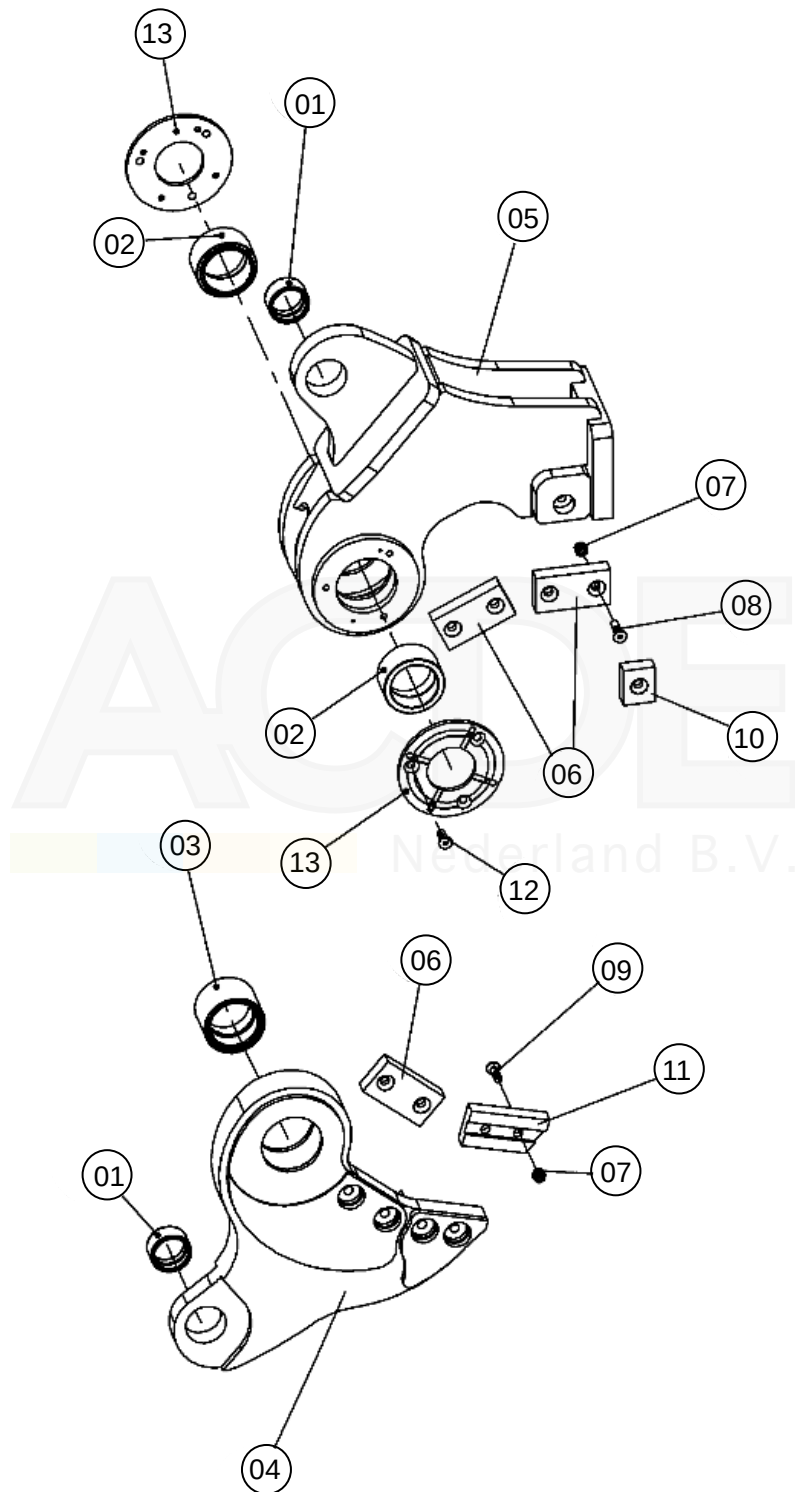


STANDARD (P) JAW ASSEMBLY

ITEM	PART NO.	PART NAME	Q'TY	REMARKS
01	V4P-02801	BUSHING	2	
02	V4P-02802	BUSHING	2	
03	V4P-02803	BUSHING	1	
04	V4P-02804	JAW (M)	1	
05	V4P-02805	JAW (F)	1	
06	V4P-02806	CUTTER BLADE	2	
07	V4-02512	SELF-LOCKING NUT	2	M10
08	V4P-02807	COUNTERSUNK SCREW	1	M10 X 35 10.9
09	V4P-02808	COUNTERSUNK SCREW	1	M10 X 40 10.9
10	V4P-02809	COUNTERSUNK SCREW	6	M10 X 30 10.9
11	V4P-02810	FLANGE	2	
12	V6P-02811	TOOTH	2	
13	V4P-02812	SPRING PIN	6	
14	V4P-02813	SPRING PIN	6	

ACDE
Nederland B.V.

STEEL CUTTER (C) JAW ASSEMBLY





FURUKAWA ROCK DRILL EUROPE B.V.

Proostwetering 29
3543 AB Utrecht, The Netherlands
Tel.: +31-(0)30-2475160 Fax: +31-(0)30-2412305

Book No. : V4-K102E
Date of Issue : November 2013