

VAHVA GRAPPLE

C, E and KC

42, 46, 46 HD, 60 HD

VAHVA

Spare Parts Book

Version 27.6.2022 (English)



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1 General

This manual describes the spare parts used for VAHVA grapple.

The book provides you necessary information about the structure and operation of our product to use and maintain the device properly.

For the most demanding repair and maintenance work, we recommend contacting Koneosapalvelu or your grapple dealer. Our service staff has the experience and special tools needed for more demanding jobs.

The C models in our VAHVA collection are designed to be mounted on a rotator and the KC models are quick-mounted on an excavator. If the model marking also includes an E, the grapple has spikes instead of jaws. The digit after E indicates the number of spikes.

VAHVA original spare parts are sold by Koneosapalvelu Oy.

Contact information for spare parts sales:

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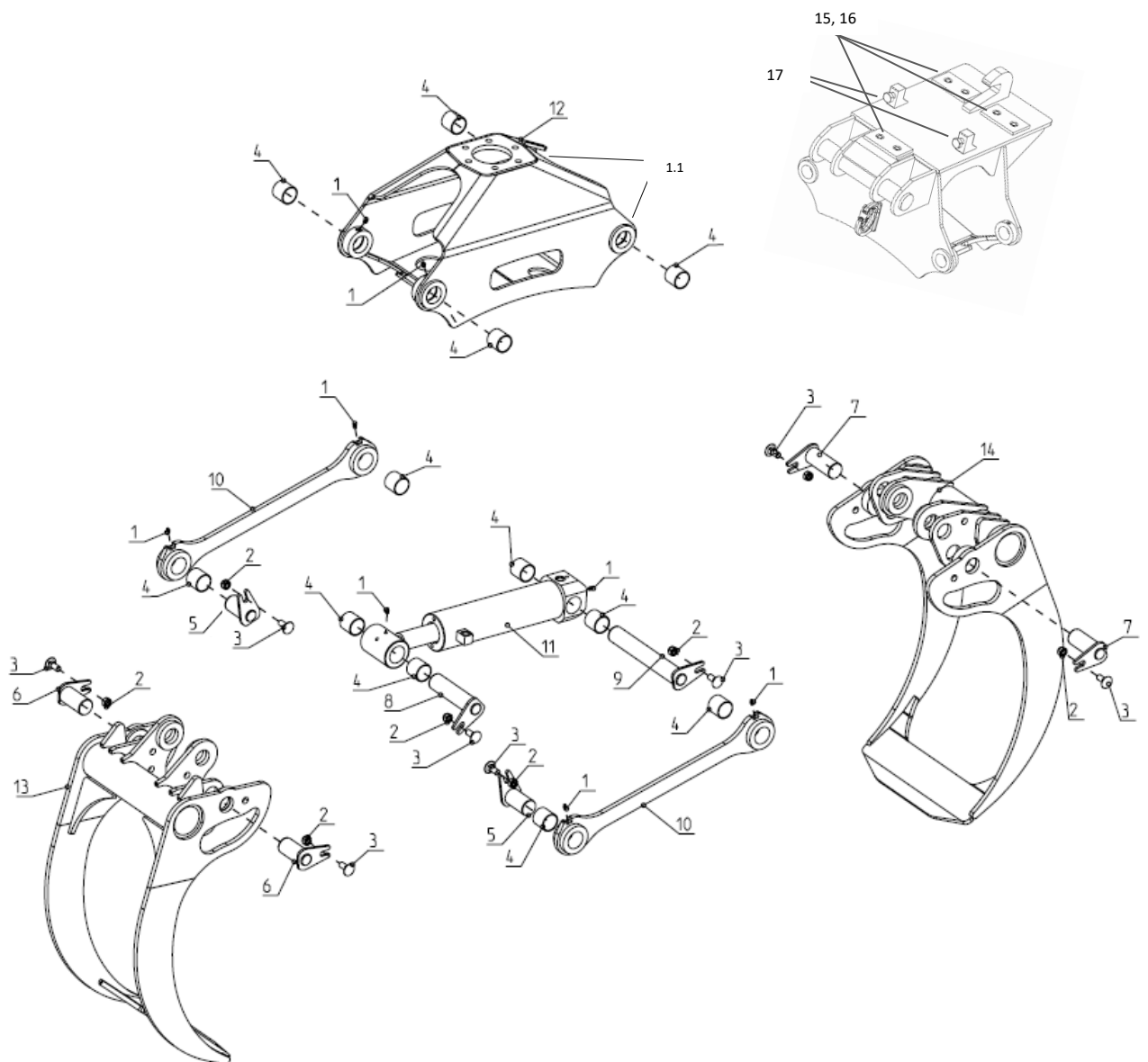
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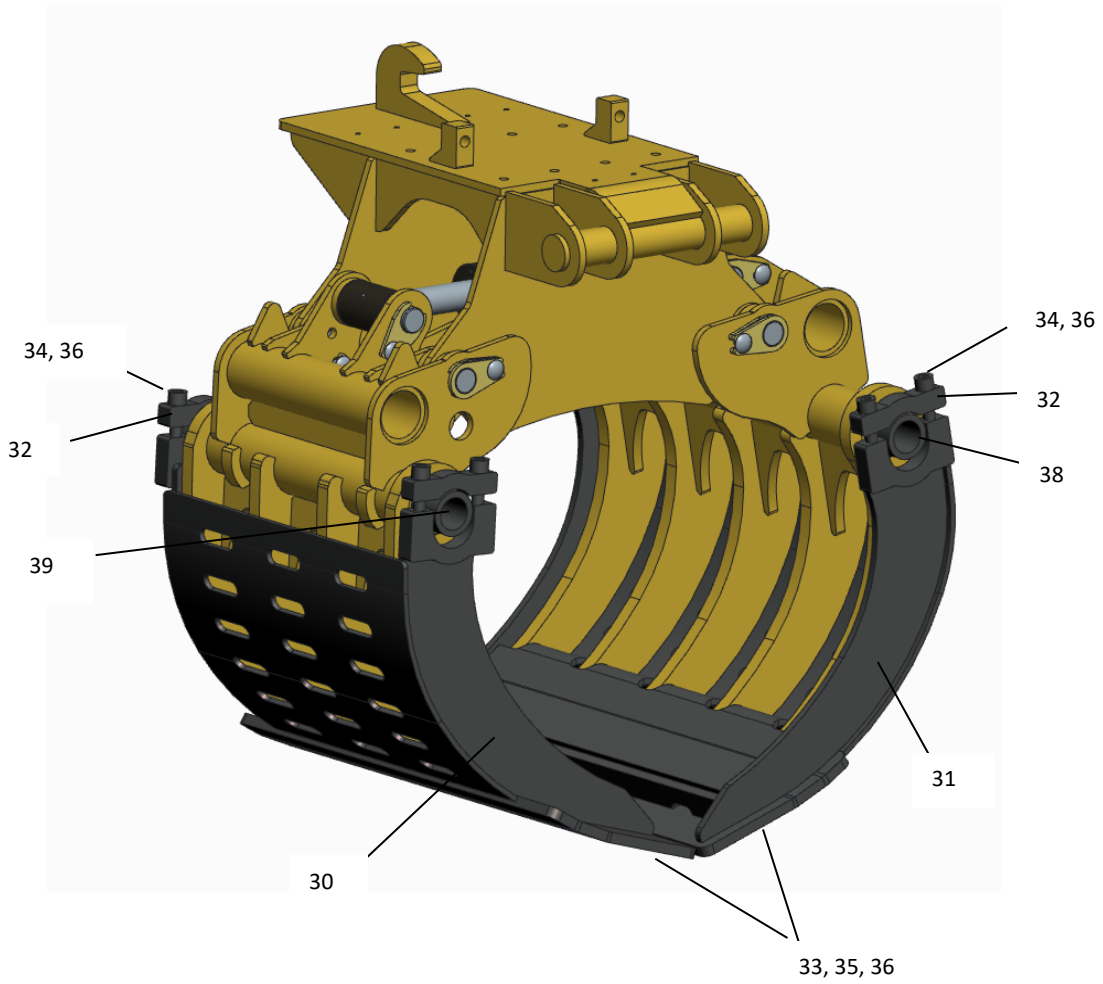
The pictures and drawings below are for reference only.

2 Spare parts drawing

2.1 Grapple



2.2 Removal jaws



3 Spare parts lists

3.1 VAHVA GRAPPLE C42

Part	Order code	Part No.	Name	Amount	Unit
	A26764	V800000	VAHVA GRAPPLE C42	1	pcs
	A61185	V600090	PIN GROUP 1 C4x	1	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8*	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
7	A28915	V600080	PIN D50*131	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
12	A60335	V600010	FRAME C42/C46	1	pcs
13	A33816	V800030	INNER GRAPPLE ARM C42	1	pcs
14	A60365	V800020	OUTER GRAPPLE ARM C42	1	pcs

3.2 VAHVA GRAPPLE C42 E5

Part	Order code	Part No.	Name	Amount	Unit
	A27692	V600700	VAHVA GRAPPLE C42 E5	1	pcs
	A61188	V600790	PIN GROUP 5 E9	1	pcs
1.1	A13825	TRM1170	GREASE NIPPLE M8x1 45 ast.	2	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
7	A60333	V600095	PIN D50*131 GREASE NIPPLE	2	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
12	A59957	V600610	FRAME C42/C46 HD	1	pcs
14	A60367	V600720	OUTER GRAPPLE ARM C42 E5	1	pcs
13	A60368	V600730	INNER GRAPPLE ARM C42 E5	1	pcs

3.3 VAHVA GRAPPLE KC42 E5 NTP10

Part	Order code	Part No.	Name	Amount	Unit
	A29612	V600750	VAHVA GRAPPLE KC42 E5 NTP10	1	pcs
	A61188	V600790	PIN GROUP 5 E9	1	pcs
1.1	A13825	TRM1170	GREASE NIPPLE M8x1 45 ast.	2	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
7	A60333	V600095	PIN D50*131 GREASE NIPPLE	2	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
12	A60336	V600410	FRAME KC42/C46 NTP10	1	pcs
14	A60367	V600720	OUTER GRAPPLE ARM C42 E5	1	pcs
13	A60368	V600730	INNER GRAPPLE ARM C42 E5	1	pcs
15	A32769	V600344	COVER PLATE KC36 NTP10	3	pcs
16	TRT2123	TRT2123	HEX SCREW M12*30 DIN 933 10.9	6	pcs
17	A63344	TRT1247	HEX SCREW M24*70 DIN 933 8.8	2	pcs

3.4 VAHVA GRAPPLE KC42 E5 NTP 20/30

Part	Order code	Part No.	Name	Amount	Unit
	A29613	V600760	VAHVA GRAPPLE KC42 E5 NTP 20/30	1	pcs
	A61188	V600790	PIN GROUP 5 E9	1	pcs
1.1	A13825	TRM1170	GREASE NIPPLE M8x1 45 ast.	2	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
7	A60333	V600095	PIN D50*131 GREASE NIPPLE	2	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
12	A60337	V600891	FRAME KC42/C46 NTP20/30	1	pcs

14	A60367	V600720	OUTER GRAPPLE ARM C42 E5	1	pcs
13	A60368	V600730	INNER GRAPPLE ARM C42 E5	1	pcs
15	A32769	V600344	COVER PLATE, KC36 NTP10	3	pcs
17	TRT2123	TRT1247	HEX SCREW M24*70 DIN 933 8.8	2	pcs
16	A63344	TRT2123	HEX SCREW M12*30 DIN 933 10.9	6	pcs

3.5 VAHVA GRAPPLE KC42 E5 S60

Part	Order code	Part No.	Name	Amount	Unit
	A29614	V600770	VAHVA GRAPPLE KC42 E5 S60	1	pcs
	A61188	V600790	PIN GROUP 5 E9	1	pcs
1.1	A13825	TRM1170	GREASE NIPPLE M8x1 45 ast.	2	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
7	A60333	V600095	PIN D50*131 GREASE NIPPLE	2	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
12	A60338	V600881	FRAME KC42/C46 S60	1	pcs
14	A60367	V600720	OUTER GRAPPLE ARM C42 E5	1	pcs
13	A60368	V600730	INNER GRAPPLE ARM C42 E5	1	pcs

3.6 VAHVA GRAPPLE KC42 E5 S70

Part	Order code	Part No.	Name	Amount	Unit
	A29615	V600780	VAHVA GRAPPLE KC42 E5 S70	1	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
12	A60339	V600871	FRAME KC42/C46 S70	1	pcs
14	A60367	V600720	OUTER GRAPPLE ARM C42 E5	1	pcs
13	A60368	V600730	INNER GRAPPLE ARM C42 E5	1	pcs
	A61188	V600790	PIN GROUP 5 E9	1	pcs
1.1	A13825	TRM1170	GREASE NIPPLE M8x1 45 ast.	2	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs

6	A28914	V600074	PIN D50*111	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
7	A60333	V600095	PIN D50*131 GREASE NIPPLE	2	pcs

3.7 VAHVA GRAPPLE KC42 E9 NTP10

Part	Order code	Part No.	Name	Amount	Unit
	A28593	V600860	VAHVA GRAPPLE KC42 E9 NTP10	1	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
12	A60336	V600410	FRAME KC42/C46 NTP10	1	pcs
14	A60369	V800720	OUTER GRAPPLE ARM C42 E9 pl 40	1	pcs
13	A60370	V800730	INNER GRAPPLE ARM C42 E9 pl 40	1	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
	A61188	V600790	PIN GROUP 5 E9	1	pcs
1.1	A13825	TRM1170	GREASE NIPPLE M8x1 45 ast.	2	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
7	A60333	V600095	PIN D50*131 GREASE NIPPLE	2	pcs
15	A32769	V600344	COVER PLATE KC36 NTP10	3	pcs
16	A63344	TRT2123	HEX SCREW M12*30 DIN 933 10.9	6	pcs
17	TRT2123	TRT1247	HEX SCREW M24*70 DIN 933 8.8	2	pcs

3.8 VAHVA GRAPPLE KC42 E9 NTP20

Part	Order code	Part No.	Name	Amount	Unit
	A29616	V600890	VAHVA GRAPPLE KC42 E9 NTP20	1	pcs
12	A60337	V600891	FRAME KC42/C46 NTP20/30	1	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
14	A60369	V800720	OUTER GRAPPLE C42 E9 pl 40	1	pcs
13	A60370	V800730	INNER GRAPPLE C42 E9 pl 40	1	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
	A61188	V600790	PIN GROUP 5 E9	1	pcs
1.1	A13825	TRM1170	GREASE NIPPLE M8x1 45 ast.	2	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs

4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
7	A60333	V600095	PIN D50*131 GREASE NIPPLE	2	pcs
15	A32769	V600344	COVER PLATE KC36 NTP10	3	pcs
16	A63344	TRT2123	HEX SCREW M12*30 DIN 933 10.9	6	pcs
17	TRT2123	TRT1247	HEX SCREW M24*70 DIN 933 8.8	2	pcs

3.9 VAHVA GRAPPLE KC42 E9 S60

Part	Order code	Part No.	Name	Amount	Unit
	A28594	V600880	VAHVA GRAPPLE KC42 E9 S60	1	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
12	A60338	V600881	FRAME KC42/C46 S60	1	pcs
14	A60369	V800720	OUTER GRAPPLE ARM C42 E9 pl 40	1	pcs
13	A60370	V800730	INNER GRAPPLE ARM C42 E9 pl 40	1	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
	A61188	V600790	PIN GROUP 5 E9	1	pcs
1.1	A13825	TRM1170	GREASE NIPPLE M8x1 45 ast.	2	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
7	A60333	V600095	PIN D50*131 GREASE NIPPLE	2	pcs

3.10 VAHVA GRAPPLE KC42 E9 S70

Part	Order code	Part No.	Name	Amount	Unit
	A28595	V600870	VAHVA GRAPPLE KC42 E9 S70	1	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
12	A60339	V600871	FRAME KC42/C46 S70	1	pcs
14	A60369	V800720	OUTER GRAPPLE ARM C42 E9 pl 40	1	pcs
13	A60370	V800730	INNER GRAPPLE ARM C42 E9 pl 40	1	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
	A61188	V600790	PIN GROUP 5 E9	1	pcs
1.1	A13825	TRM1170	GREASE NIPPLE M8x1 45 ast.	2	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs

2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
7	A60333	V600095	PIN D50*131 GREASE NIPPLE	2	pcs

3.11 VAHVA GRAPPLE C46

Part	Order code	Part No.	Name	Amount	Unit
	A26762	V600000	VAHVA GRAPPLE C46	1	pcs
	A61185	V600090	PIN GROUP 1 C4x	1	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
7	A28915	V600080	PIN D50*131	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
12	A60335	V600010	FRAME C42/C46	1	pcs
13	A32327	V600030	INNER GRAPPLE ARM C46	1	pcs
14	A32326	V600020	OUTER GRAPPLE ARM C46	1	pcs

3.12 VAHVA GRAPPLE C46 HD

Part	Order code	Part No.	Name	Amount	Unit
	A30308	V600800	VAHVA GRAPPLE C46 HD	1	pcs
	A61185	V600090	PIN GROUP 1 C4x	1	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8*	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
7	A28915	V600080	PIN D50*131	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs

11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
12	A59957	V600610	FRAME C42/C46 HD	1	pcs
14	A60371	V601020	OUTER GRAPPLE ARM C46 HD	1	pcs
13	A60372	V601030	INNER GRAPPLE ARM C46 HD	1	pcs

3.13 VAHVA GRAPPLE C46 E4

Part	Order code	Part No.	Name	Amount	Unit
	A27494	V600600	VAHVA GRAPPLE C46 E4	1	pcs
	A61187	V600690	PIN GROUP 4 C46 E4	1	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8*	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
7	A28916	V600084	PIN D50*143	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
12	A59957	V600610	FRAME C42/C46 HD	1	pcs
14	A33842	V600620	OUTER GRAPPLE ARM C46 E4	1	pcs
13	A33841	V600630	INNER GRAPPLE ARM C46 E4	1	pcs

3.14 VAHVA GRAPPLE KC46 NTP10

Part	Order code	Part No.	Name	Amount	Unit
	A29608	V600500	VAHVA GRAPPLE KC46 NTP10 HD Jaws	1	pcs
	A61185	V600090	PIN GROUP 1 C4x	1	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
7	A28915	V600080	PIN D50*131	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
12	A60336	V600410	FRAME KC42/C46 NTP10	1	pcs

14	A60371	V601020	OUTER GRAPPLE ARM C46 HD	1	pcs
13	A60372	V601030	INNER GRAPPLE ARM C46 HD	1	pcs
15	A32769	V600344	COVER PLATE, KC36 NTP10	3	pcs
16	TRT2123	TRT2123	HEX SCREW M12*30 DIN 933 10.9	6	pcs
17	A63344	TRT1247	HEX SCREW M24*70 DIN 933 8.8	2	pcs

3.15 VAHVA GRAPPLE KC46 NTP 20/30

Part	Order code	Part No.	Name	Amount	Unit
	A29609	V600550	VAHVA GRAPPLE KC46 NTP 20/30 HD Jaws	1	pcs
	A61185	V600090	PIN GROUP 1 C4x	1	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
7	A28915	V600080	PIN D50*131	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
12	A60337	V600891	FRAME KC42/C46 NTP20/30	1	pcs
14	A60371	V601020	OUTER GRAPPLE ARM C46 HD	1	pcs
13	A60372	V601030	INNER GRAPPLE ARM C46 HD	1	pcs
15	A32769	V600344	COVER PLATE, KC36 NTP10	3	pcs
16	TRT2123	TRT2123	HEX SCREW M12*30 DIN 933 10.9	6	pcs
17	A63344	TRT1247	HEX SCREW M24*70 DIN 933 8.8	2	pcs

3.16 VAHVA GRAPPLE KC46 S60

Part	Order code	Part No.	Name	Amount	Unit
	A29887	V600560	VAHVA GRAPPLE KC46 S60 HD Jaws	1	pcs
	A61185	V600090	PIN GROUP 1 C4x	1	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
7	A28915	V600080	PIN D50*131	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs

10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
12	A60338	V600881	FRAME KC42/C46 S60	1	pcs
14	A60371	V601020	OUTER GRAPPLE ARM C46 HD	1	pcs
13	A60372	V601030	INNER GRAPPLE ARM C46 HD	1	pcs

3.17 VAHVA GRAPPLE KC46 S70

Part	Order code	Part No.	Name	Amount	Unit
	A29888	V600570	VAHVA GRAPPLE KC46 S70 HD Jaws	1	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
12	A60339	V600871	FRAME KC42/C46 S70	1	pcs
14	A60371	V601020	OUTER GRAPPLE ARM C46 HD	1	pcs
13	A60372	V601030	INNER GRAPPLE ARM C46 HD	1	pcs
	A61185	V600090	PIN GROUP 1 C4x	1	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
7	A28915	V600080	PIN D50*131	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs

3.18 VAHVA GRAPPLE KC46 E4 NTP10

Part	Order code	Part No.	Name	Amount	Unit
	A29617	V600650	VAHVA GRAPPLE KC46 E4 NTP10	1	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
12	A60336	V600410	FRAME KC42/C46 NTP10	1	pcs
14	A33842	V600620	OUTER GRAPPLE ARM C46 E4	1	pcs
13	A33841	V600630	INNER GRAPPLE ARM C46 E4	1	pcs
	A61187	V600690	PIN GROUP 4 C46 E4	1	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
7	A28916	V600084	PIN D50*143	2	pcs

8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
15	A32769	V600344	COVER PLATE, KC36 NTP10	3	pcs
16	TRT2123	TRT2123	HEX SCREW M12*30 DIN 933 10.9	6	pcs
17	A63344	TRT1247	HEX SCREW M24*70 DIN 933 8.8	2	pcs

3.19 VAHVA GRAPPLE KC46 E4 NTP20/30

Part	Order code	Part No.	Name	Amount	Unit
	A29618	V600660	VAHVA GRAPPLE KC46 E4 NTP20/30	1	pcs
	A61187	V600690	PIN GROUP 4 C46 E4	1	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
7	A28916	V600084	PIN D50*143	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
12	A60337	V600891	FRAME KC42/C46 NTP20/30	1	pcs
14	A33842	V600620	OUTER GRAPPLE ARM C46 E4	1	pcs
13	A33841	V600630	INNER GRAPPLE ARM C46 E4	1	pcs
15	A32769	V600344	COVER PLATE KC36 NTP10	3	pcs
16	TRT2123	TRT2123	HEX SCREW M12*30 DIN 933 10.9	6	pcs
17	A63344	TRT1247	HEX SCREW M24*70 DIN 933 8.8	2	pcs

3.20 VAHVA GRAPPLE KC46 E4 S60

Part	Order code	Part No.	Name	Amount	Unit
	A29619	V600670	VAHVA GRAPPLE KC46 E4 S60	1	pcs
	A61187	V600690	PIN GROUP 4 C46 E4	1	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
7	A28916	V600084	PIN D50*143	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs

10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
12	A60338	V600881	FRAME KC42/C46 S60	1	pcs
14	A33842	V600620	OUTER GRAPPLE ARM C46 E4	1	pcs
13	A33841	V600630	INNER GRAPPLE ARM C46 E4	1	pcs

3.21 VAHVA GRAPPLE KC46 E4 S70

Part	Order code	Part No.	Name	Amount	Unit
	A29620	V600680	VAHVA GRAPPLE KC46 E4 S70	1	pcs
	A61187	V600690	PIN GROUP 4 C46 E4	1	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	8	pcs
2	A13618	TZN1017	HEX LOCK NUT M16 DIN985 10.9	8	pcs
3	A61154	TRE2165	PAN HEAD SCREW M16*40 DIN 7380	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
5	A29985	V600082	PIN D50*101	2	pcs
6	A28914	V600074	PIN D50*111	2	pcs
7	A28916	V600084	PIN D50*143	2	pcs
8	A28912	V600078	PIN D50*208	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs
11	A27455	V600601	HYDRAULIC CYLINDER 110/63*331	1	pcs
12	A60339	V600871	FRAME KC42/C46 S70	1	pcs
14	A33842	V600620	OUTER GRAPPLE ARM C46 E4	1	pcs
13	A33841	V600630	INNER GRAPPLE ARM C46 E4	1	pcs

3.22 VAHVA REMOVAL JAWS with C42 E9 GRAPPLE

Part	Order code	Part No.	Name	Amount	Unit
	A29474	V600980	VAHVA REMOVAL JAWS with C42 E9 GRAPPLE	1	pcs
	V600960	V600960	OUTER REMOVAL JAW C42 E9 / CONFIGURATION	1	pcs
38	A60380	V600968	TUBE, D80/65 LENGTH 970	1	pcs
31	A60373	V600961	OUTER REMOVAL JAW KC42 E9 / WELDED	1	pcs
	A60374	V600970	INNER REMOVAL JAW C42 E9 / CONFIGURATION	1	pcs
39	A60381	V600978	TUBE D80/65 LENGHT 767	1	pcs
30	A60374	V600971	INNER REMOVAL JAW KC42 E9 / WELDED	1	pcs
32	A60379	V600982	FASTENER	4	pcs
33	A30389	V600981	WEAR PLATE	2	pcs
36		TZA1020	WASHER M20 DIN 125	26	pcs
36		TZN1020	HEX LOCK NUT M20 DIN 985 8.8	18	pcs
35	A13693	TRG2070	PAN HEAD SCREW M20*70 DIN 7991 10.9	10	pcs
34		TRE1218	HEXAGON SOCET HEAD CAP SCREW M20*180 DIN 933 8.8	8	pcs

3.23 VAHVA GRAPLE C60 HD

Part	Ordering code	Part No	Name	Pc	Unit
	A62127	V604050	VAHVA GRAPLE C60 HD	1	pcs
12	A59957	V600610	FRAME C42/C46 HD	1	pcs
14	A65622	V604020	OUTER GRAPLE C60	1	pcs
13	A65623	V604030	INNER GRAPLE C60	1	pcs
	A66033	V604090	PIN GROUP 7 C60	1	pcs
1	A13827	TRM1167	GREASE NIPPLE M8x1 DIRECT	12	pcs
2	A13618	TZN1016	HEXAGON LOCK NUT M16 DIN 985 8.8	8	pcs
5/	A66032	V604043	PLATE 05, FERRULE D90/50x5	4	pcs
3	A65404	TRE2166	LOCK HEAD SCREW 16*50 DIN 603	8	pcs
4	A19760	A19760	BEARING 50/55*50 WB802	8	pcs
6/	A66028	V604039	FERRULE D90/50...10	2	pcs
7/	A66029	V604029	FERRULE D90/50...40	2	pcs
5	A28914	V600074	PIN D50*111	2	pcs
6	A28915	V600080	PIN D50*131	2	pcs
7	A66030	V604093	PIN D50*154	2	pcs
8	A66031	V604091	PIN D50*184	1	pcs
9	A28913	V600076	PIN D50*340	1	pcs
11	A27455	V600601	HYDRAULIC SYLINDER 110/63*331	1	pcs
10	A27273	V600425	PUSHROD C42/ C46, PL20	2	pcs

In addition, all models include:

	A65523	V600310	STICKER, VAHVA	2	pcs
	A60243	V600325	STICKER "Danger of compression"	1	pcs
	A60242	V600324	STICKER "Danger of oil splashes"	1	pcs

Other parts (accessories / repair kits):

	A05963	A05963	Seal Kit 110/63 Vahva C42/46 Cylinder	1	pcs
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* In addition, the cylinder contains 4 pcs of bearing fittings.
/ The ferrule enters that pin.

4 Hydraulic cylinder repair

4.1 Hydraulic cylinder removal and installation

1. Place the grapple in closed position, lower the loader on a level surface. Make sure the loader stays in place.
2. Disconnect the hydraulic hoses and plug the connections.
3. Remove the pivot pins locking bolts.
4. Knock out the pivot pins. Use a mass hammer and a suitable knockout mandrel.
5. Configuration in reverse order. Make sure that the cylinder goes in the right direction.

4.2 Hydraulic cylinder seals replacement

1. Drain the oil from the cylinder.
2. Squeeze the cylinder firmly at its lower end into an upright position and open the muzzle using a cylinder tool.
3. Lift off the piston rod.
4. Remove the piston using a special tool. The piston is glued with a screw lock. You may have to heat it to open.
5. Check the order of the seals before disassembling and make sure you have the correct gasket set. Remove old seals.
6. Install the new seals in the correct orientation and order, lubricate them when installing.
7. Assemble the cylinder in reverse order.

