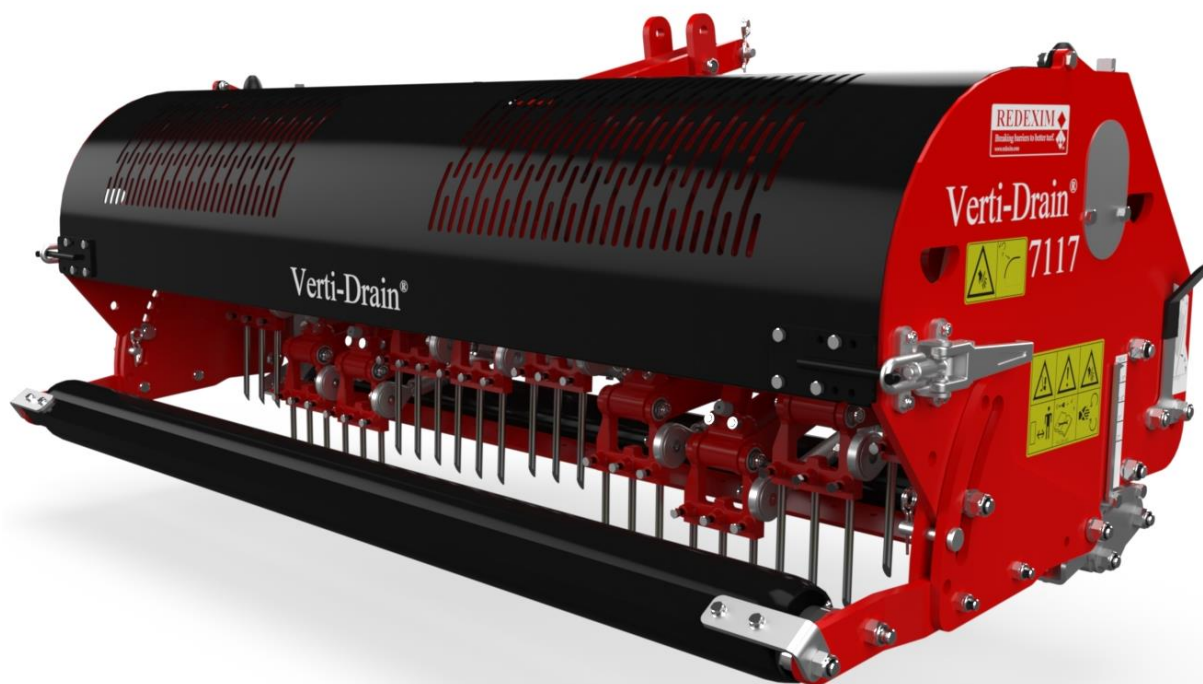
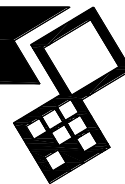


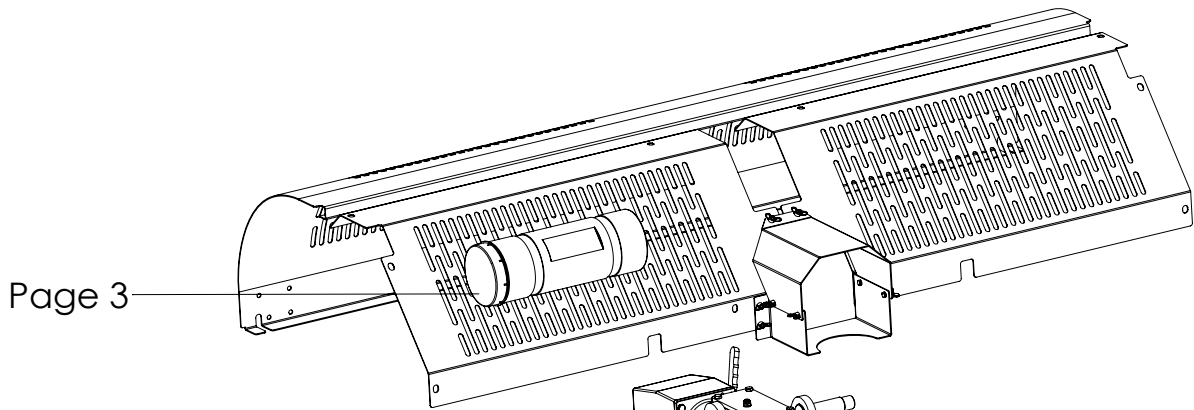
VERTI-DRAIN 7117



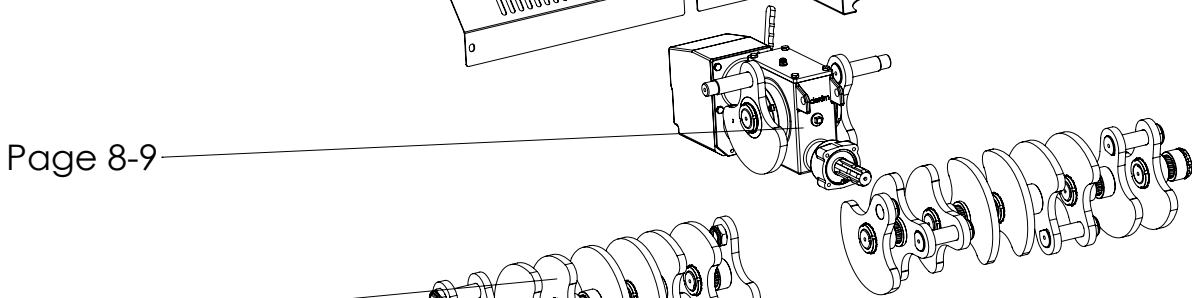
Version: 2139



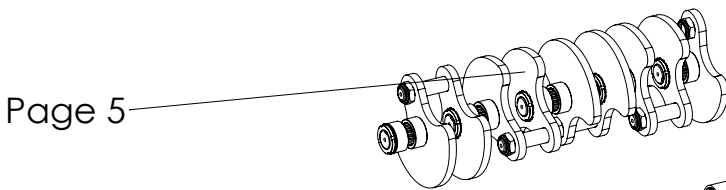
Kwekerijweg 8 | 3709JA | Zeist | The Netherlands |
T: +31 (0)306 933 227
E: redexim@redexim.com
W: www.redexim.com



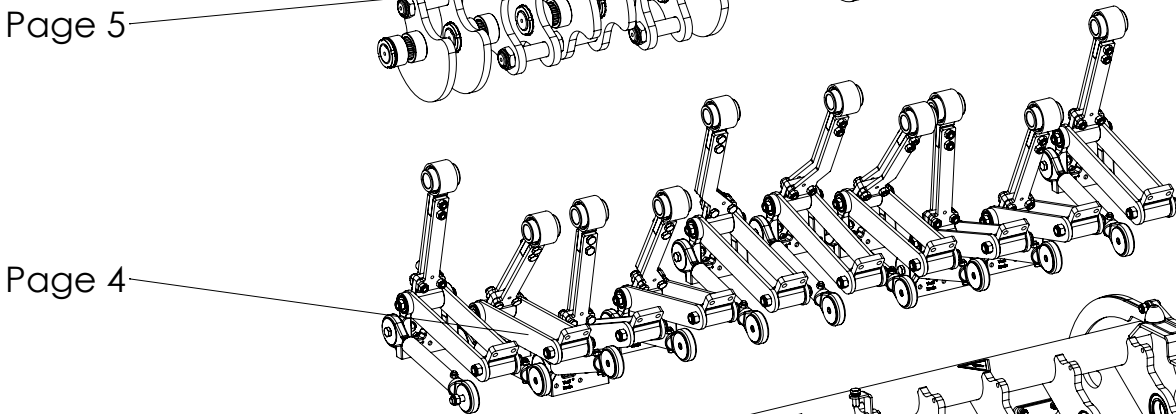
Page 3



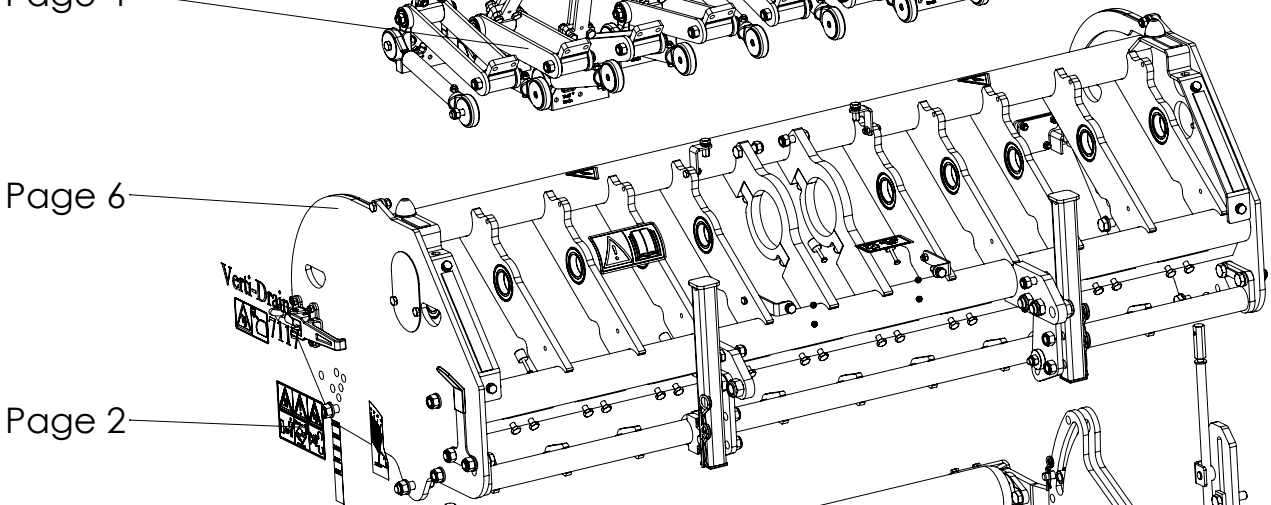
Page 8-9



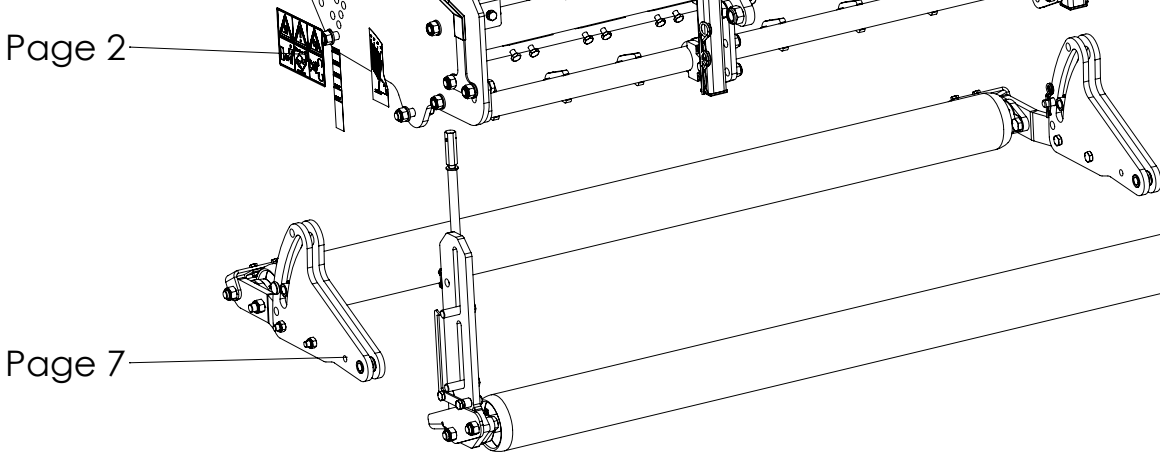
Page 5



Page 4



Page 6

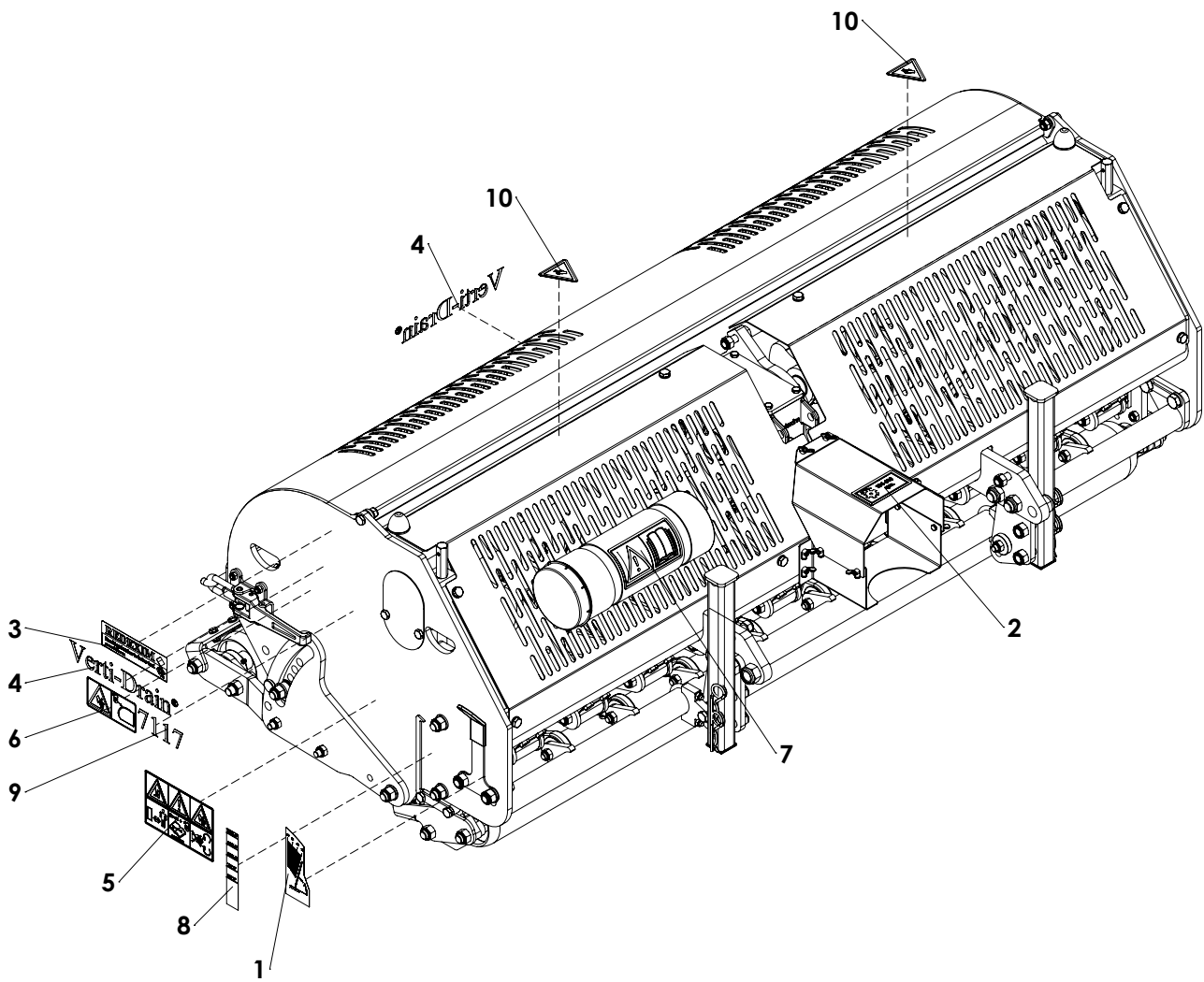


Page 2

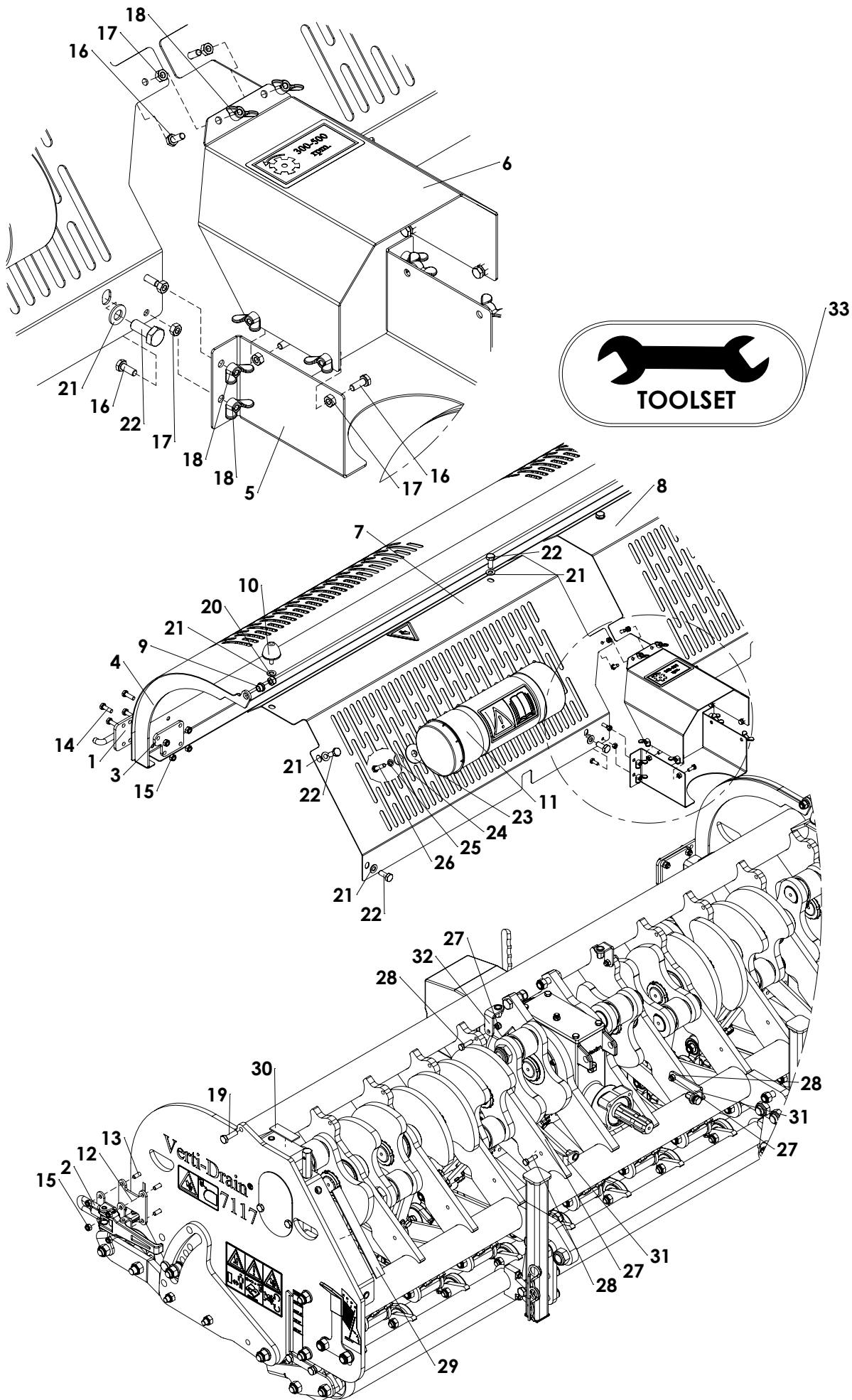


Page 7

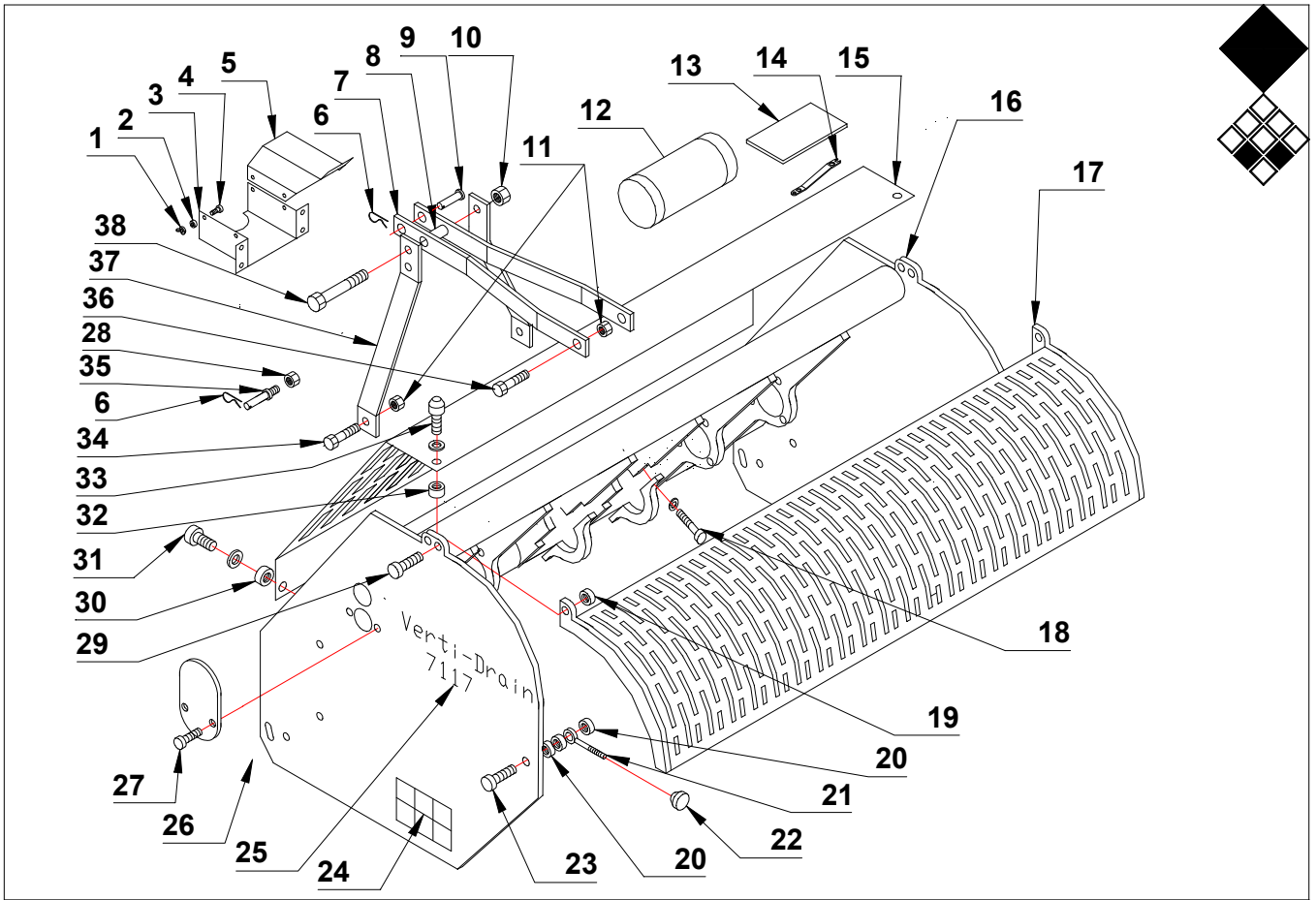
- Page 10: PTO
- Page 11: Tines
- Page 12: Adapters and turf hold down kit
- Page 13: Optional windrow kit
- Page 14: Optional core collector



ITEM	PART NUMBER	DESCRIPTION	REMARKS	QUA
1	911.260.404	Angle setting label VD		1
2	900.260.420	Decall PTO 300 500		1
3	900.260.403	Logo Label		2
4	911.260.403	Decall Verti-drain		3
5	911.280.402	Safety Decall Verti-Drain		2
6	911.280.404	Decall close cover		2
7	900.280.402	Safety decall manual		1
8	900.260.406	Height Label 150		2
9	911.260.414	Label 7117		2
10	900.280.404	Decall cut off fingers		2

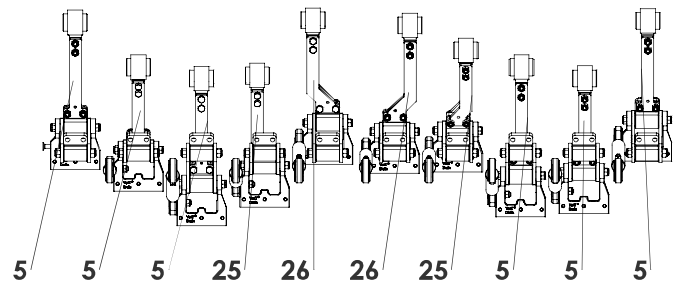
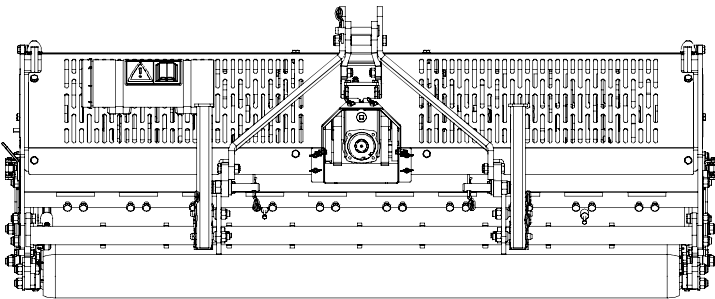
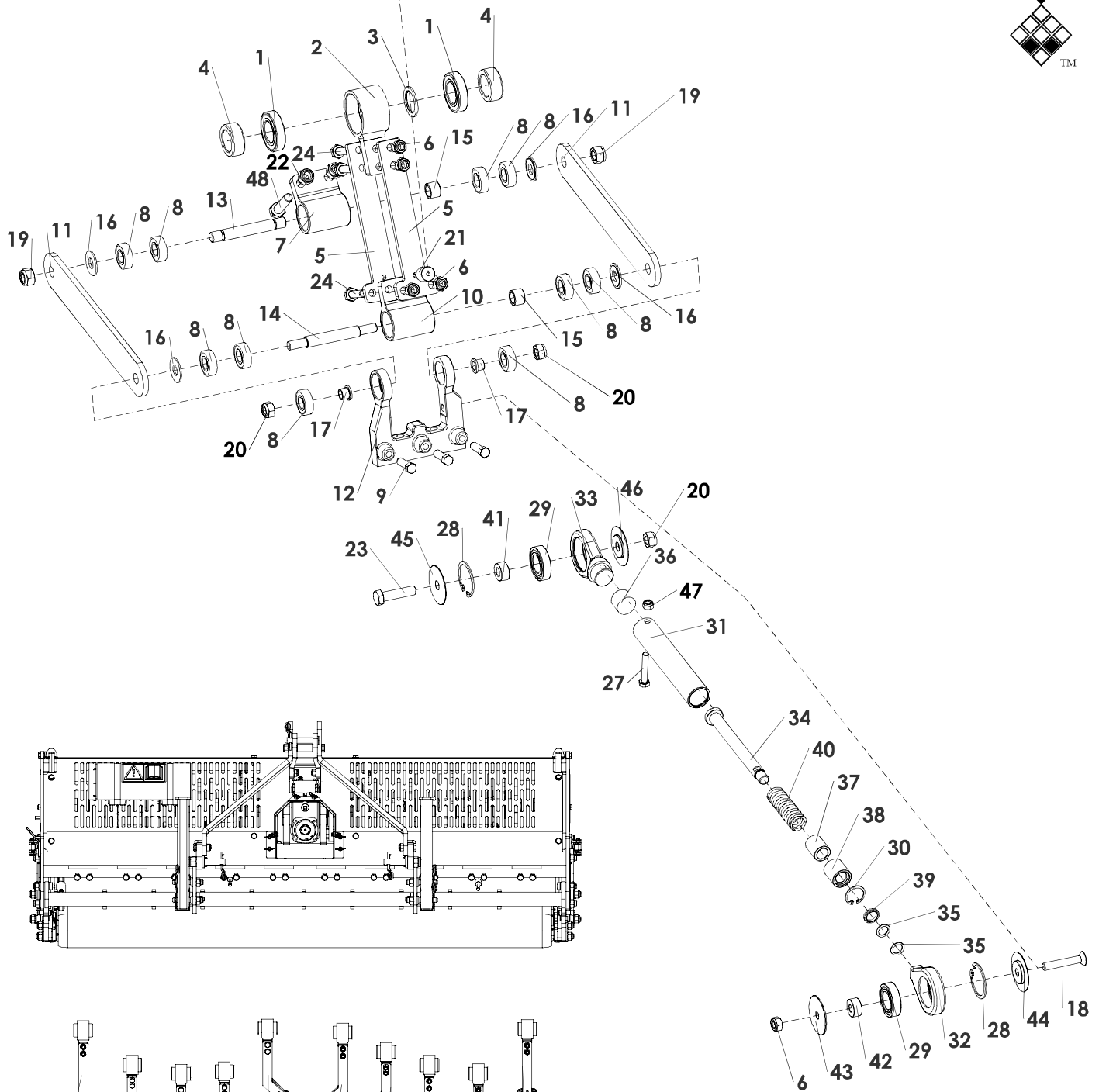


ITEM	PART NUMBER	DESCRIPTION	REMARKS	QUA
1	470.061.710	Lock plate		2
2	590.342.700	Clamp		2
3	468.060.904	Rear plate		2
4	456.180.037	Rear cover 7117		1
5	2281783	Bottom PTO Protection		1
6	2281782	TOP PTO protection cover		1
7	456.875.568	Front cover right		1
8	456.875.566	Front cover left		1
9	404.100.122	Distance bush		2
10	446.080.550	Rubber stop		2
11	444.803.100	Toolbox Complete		1
12	468.050.904	Clamp spacer		2
13	816.080.300	Bolt M8 x 30 - DIN 7991		8
14	804.080.250	Bolt M8 x 25 - ISO 4017		8
15	830.080.080	Self Lock Nut M8 - ISO 10511		16
16	804.060.160	Bolt M6 x 16 - ISO 4017		10
17	826.060.060	Nut M6 - DIN 934		10
18	844.060.060	Winged nut		10
19	804.100.350	Bolt M10 x 35 - ISO 4017		2
20	830.100.100	Self Lock Nut M10 - ISO 10511		2
21	864.100.030	Washer M10 - ISO 7089		10
22	804.100.250	Bolt M10 x 25 - ISO 4017		8
23	864.140.031	Large washer M14 - DIN 9021		2
24	864.080.024	Large washer M8 - DIN 9021		2
25	866.080.020	Spring Washer M8 - DIN 127		2
26	804.080.350	Bolt M8 x 35 - ISO 4017		2
27	830.080.080	Self Lock Nut M8 - ISO 10511		4
28	804.080.300	Bolt M8 x 30 - ISO 4017		4
29	599.032.200	Foam rubber L=220		2
30	599.030.700	Foam rubber L=70		2
31	464.041.060	Bracket		2
32	464.040.620	Bracket		2
33	468.083.060	Set of tools		

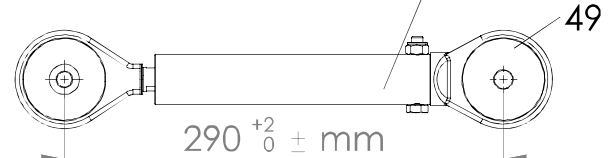


Redexim-Charterhouse Verti-Drain 7117 pag 03-1 code 0401

	PART #	DESCRIPTION	REMARKS	QUA
1	4191100	Winged nut		10
2	4100800	Self lock nut M6		10
3	2281783	Bottom PTO protection cover		1
4	4001030	Bolt M6 x 16		10
5	2281782	Top PTO protection cover		1
6	4397008	R pin		3
7	2251100	Top linkage strip		2
8	2611518	Distance bush top link		1
9	2490825	Top link pin		1
10	4123800	Self lock nut M16		1
11	4122700	Self lock nut M14		4
12	9100030	Manual/ tool box complete		1
13	9300004	Operators and parts manual 7117		1
14	9100025	Combi tool		1
15	2211150	Front cover 7117		1
16	2900100	Main frame 7117		1
17	2281504	Rear cover 7117		1
18	4011882	Gearbox fix bolt 7117		4
19	4122000	Self lock nut M10		2
20	4122000	Self lock nut M10		6
21	4091050	Eye bolt		2
22	2891200	Knurled nut		2
23	4001688	Bolt M 10 x 50		2
24	9300002	Set safety decals		1
25	9300000	Set machine decals for 7117		1
26	2281502	Protection plate		2
27	4001636	Bolt M10 x 20		4
28	4125800	Self lock nut M22		2
29	4001653	Bolt M10 x 30		2
30	4122000	Self lock nut M10		6
31	4001644	Bolt M10 x 25		6
32	4121400	Self lock nut M8		2
33	4972008	Rubber stop		2
34	4002050	Bolt M14 x 50		2
35	2490881	3-point bottom pin		2
36	4002058	Bolt M14 x 55		2
37	2251102	Top linkage support strip		2
38	4002416	Bolt M16 x 130		1

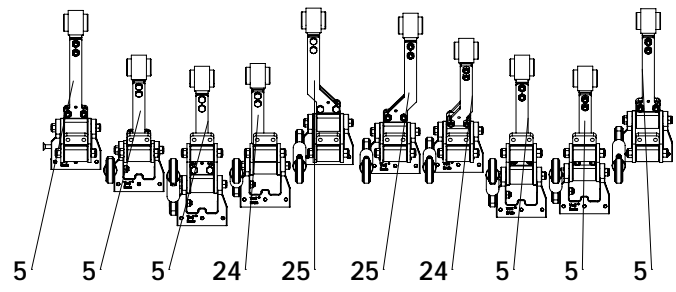
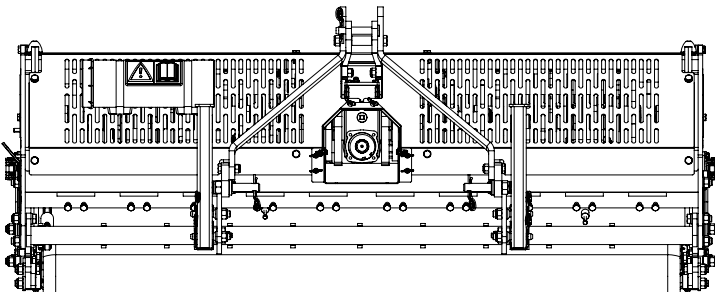
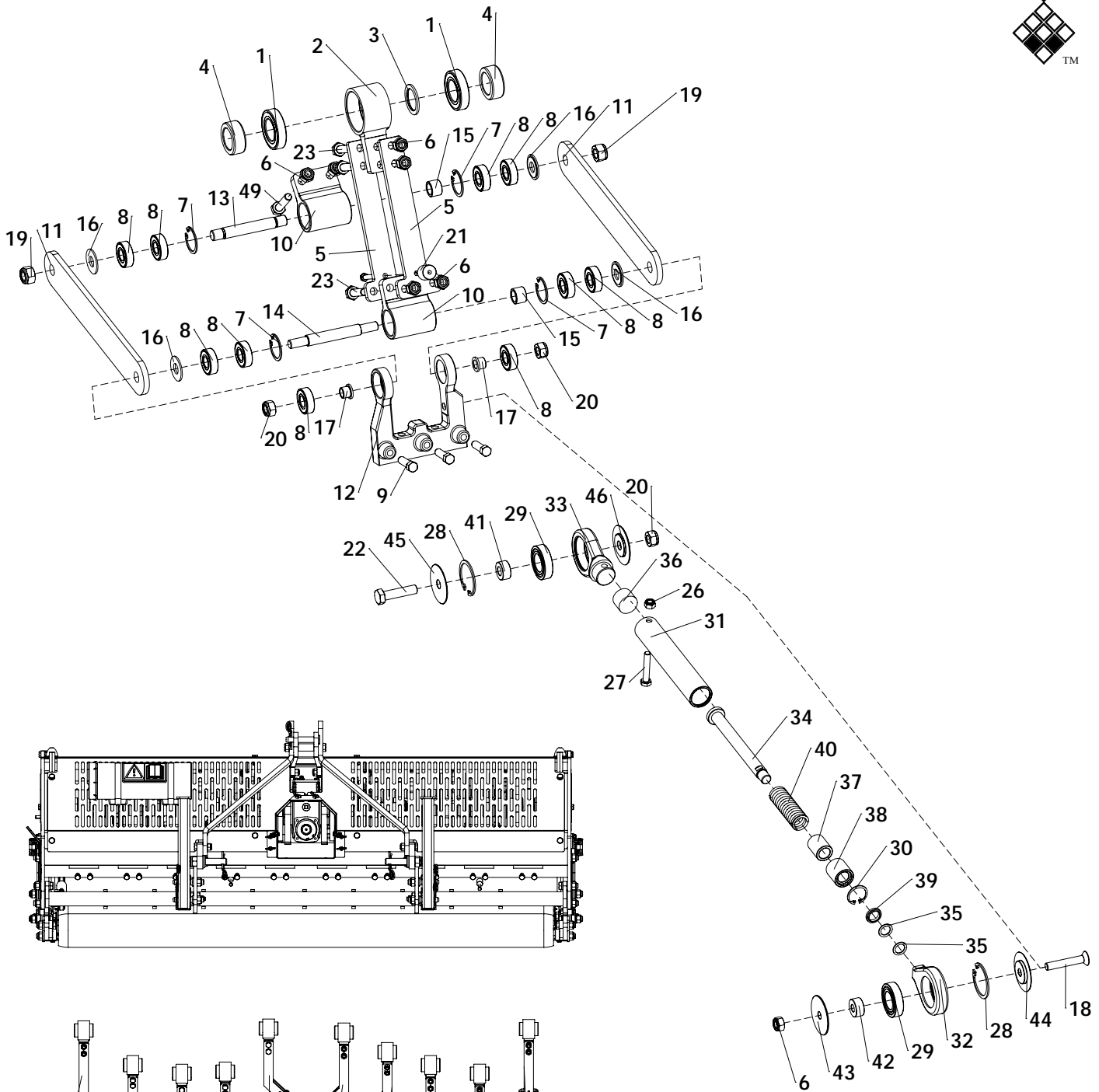


Apply 15ml grease inside drawrod

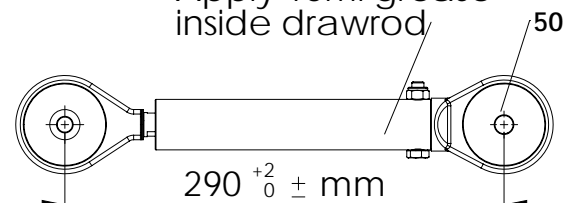


Use shim 864.140.012 to create correct length

ITEM	PART NUMBER	DESCRIPTION	REMARKS	QUA
1	713.300.130	Bearing 6006 LLU		2
2	448.401.200	Big End Empty		1
3	412.270.030	Inner bush		1
4	402.300.180	Distance bush		2
5	468.072.180	Connecting rod		12
6	830.100.100	Self Lock Nut M10 - ISO 10511		5
7	448.061.083	Bearing support Empty	From serial number H220.....	1
	448.610.830	Bearing support empty	Till serial number H220.....	1
8	713.150.110	Bearing 6202-LLU		10
9	4001675	Tine holder bolt M10x35		3
10	448.610.830	Bearing support Empty	Without circlips	1
	448.610.830	Bearing support empty	With circlips 872.035.150	1
11	464.083.300	Element strip		2
12	448.401.320	Tine holder Empty		1
13	416.151.100	Support Axle Short		1
14	416.151.310	Support Axle Long		1
15	402.150.150	Inner bush		2
16	412.150.050	Distance washer		4
17	404.120.130	Distance bush tine holder		2
18	816.100.600	Bolt M10 x 60 - DIN 7991		1
19	830.140.140	Self Lock Nut M14 10.9 - ISO 10511		2
20	830.120.120	Self Lock Nut M12 - ISO 10511 Class 10.9		3
21	2890052	Stop		1
22	830.120.120	Self Lock Nut M12 - ISO 10511 Class 10.9	From serial number H220....	2
	830.100.100	Self Lock Nut M10 - ISO 10511 Class 10.9	Till serial number H220....	2
23	804.120.500	Bolt M12 x 50 - ISO 4017		1
24	802.100.400	Bolt M10 x 40 - ISO 4014 - 10.9		4
25	2381404	Connecting rod middle		4
26	2381402	Connecting rod center		4
27	802.080.450	Bolt M8 x 45 - ISO 4014		1
28	872.047.180	Circlip DIN 472 - 47 x 1.75		2
29	713.250.120	Bearing 6005-LLU		2
30	872.028.130	Circlip D=28 - DIN 472		1
31	476.321.830	Tube for draw rod		1
32	448.640.820	Draw rod head with hole		1
33	448.640.960	Draw rod head with stud		1
34	426.161.720	Draw rod		1
35	864.140.012	Shim S=1		2
36	446.280.200	Rubber stop		1
37	406.180.200	Distance bush		1
38	442.180.300	Bearing bush		1
39	761.160.030	Seal		1
40	576.241.320	Compression spring		1
41	406.120.120	Distance bush Ø25/Ø12 L=12		1
42	406.100.120	Distance bush Ø25/Ø10 L=12		1
43	404.100.040	Distance bush Ø55/Ø32/Ø10 L=4.25		1
44	404.100.050	Distance bush Ø55/Ø32/Ø10 L=5.2		1
45	404.120.050	Dust washer Ø55/Ø32/Ø12 L=5.2		1
46	404.120.040	Dust washer Ø55/Ø32/Ø12 L=4.25		1
47	830.080.080	Self Lock Nut M8 - ISO 10511		1
48	802.120.500	Bolt M12 x 50 - ISO 4014 - 10.9	From serial number H220....	2
	802.100.450	Bolt M10 x 45 - ISO 4014 - 10.9	Till serial number H220....	2
49	490.323.552	Drawrod complete	total needed	10

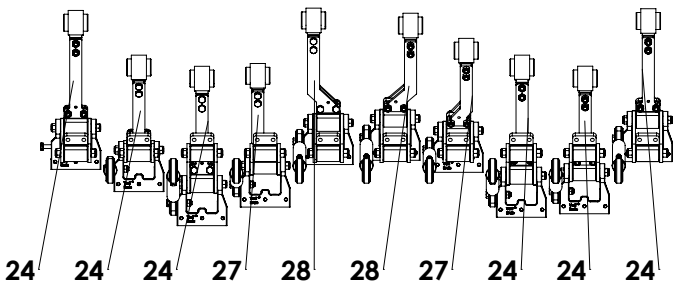
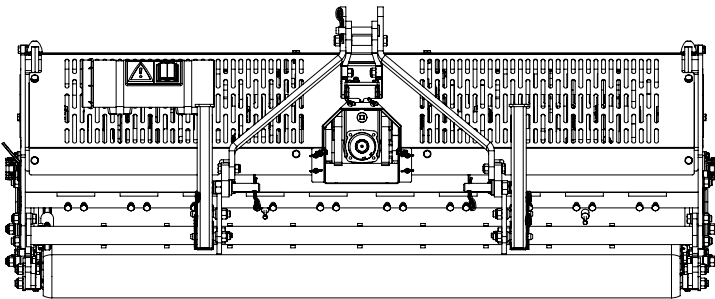
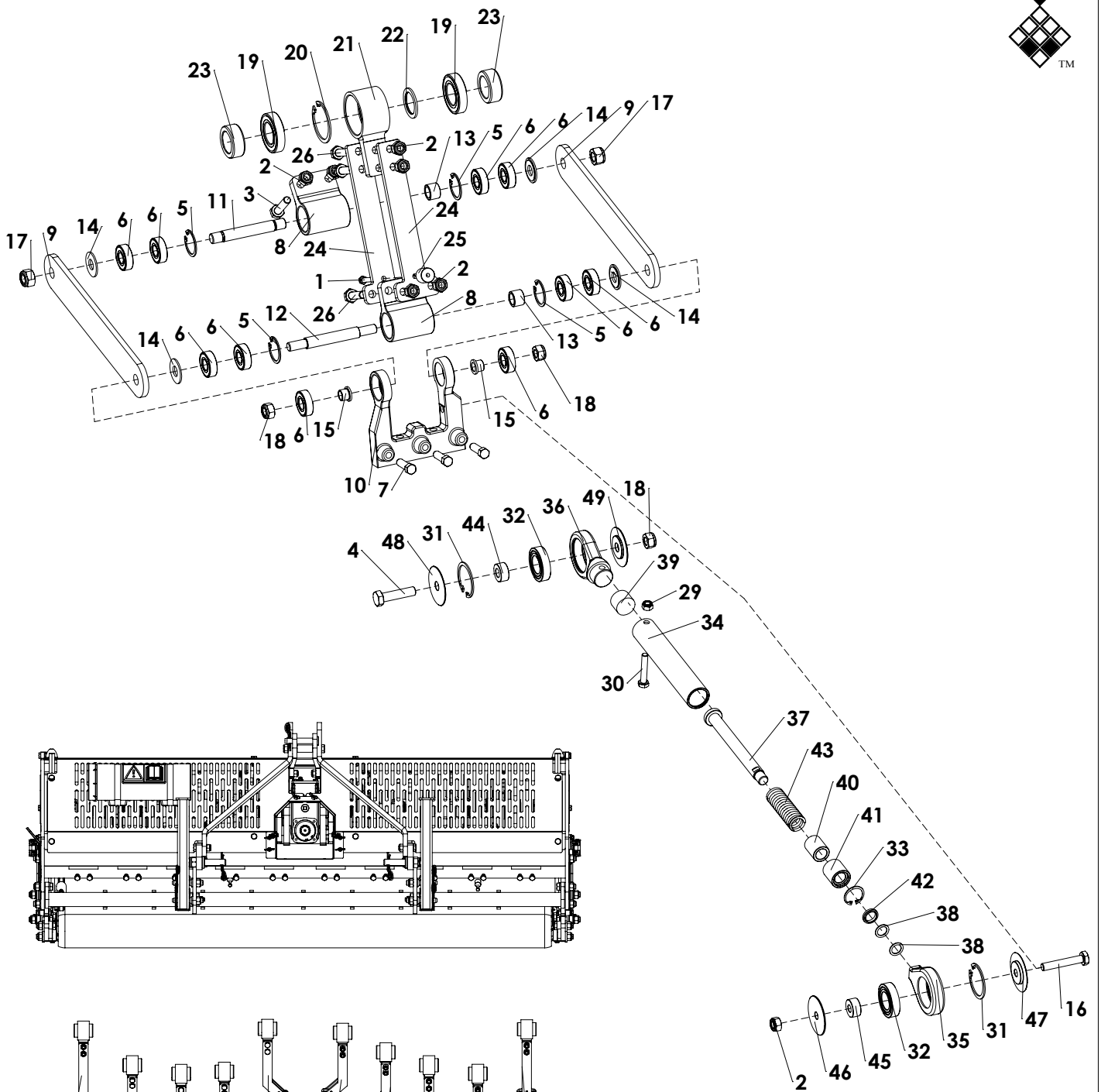


Apply 15ml grease inside drawrod

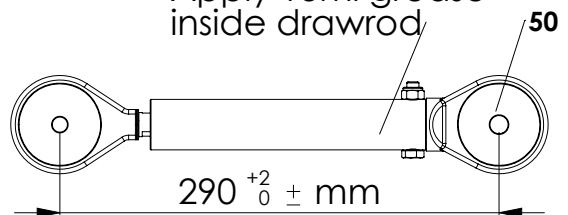


Use shim 864.140.012 to create correct length

ITEM	PART NUMBER	DESCRIPTION	REMARKS	QUA
1	713.300.130	Bearing 6006 LLU	Quantity for one element	2
2	448.401.200	Big End Empty	Quantity for one element	1
3	412.270.030	Inner bush	Quantity for one element	1
4	402.300.180	Distance bush	Quantity for one element	2
5	468.072.180	Connecting rod		12
6	830.100.100	Self Lock Nut M10 - ISO 10511		7
7	872.035.150	Circlip D=35 - DIN 472	Quantity for one element	4
8	713.150.110	Bearing 6202-LLU	Quantity for one element	10
9	4001675	Tine holder bolt M10x35	Quantity for one element	3
10	448.610.830	Bearing support Empty	Quantity for one element	2
11	464.083.300	Element strip	Quantity for one element	2
12	448.401.320	Tine holder Empty	Quantity for one element	1
13	416.151.100	Support Axle Short	Quantity for one element	1
14	416.151.310	Support Axle Long	Quantity for one element	1
15	402.150.150	Inner bush	Quantity for one element	2
16	412.150.050	Distance washer	Quantity for one element	4
17	404.120.130	Distance bush tine holder	Quantity for one element	2
18	816.100.600	Bolt M10 x 60 - DIN 7991	Quantity for one element	1
19	830.140.140	Self Lock Nut M14 10.9 - ISO 10511	Quantity for one element	2
20	830.120.120	Self Lock Nut M12 - ISO 10511 Class 10.9	Quantity for one element	3
21	2890052	Stop	Quantity for one element	1
22	804.120.500	Bolt M12 x 50 - ISO 4017	Quantity for one element	1
23	802.100.400	Bolt M10 x 40 - ISO 4014 - 10.9	Quantity for one element	4
24	2381404	Connecting rod middle		4
25	2381402	Connecting rod center		4
26	830.080.080	Self Lock Nut M8 - ISO 10511	Quantity for one element	1
27	802.080.450	Bolt M8 x 45 - ISO 4014	Quantity for one element	1
28	872.047.180	Circlip DIN 472 - 47 x 1.75	Quantity for one element	2
29	713.250.120	Bearing 6005-LLU	Quantity for one element	2
30	872.028.130	Circlip D=28 - DIN 472	Quantity for one element	1
31	476.321.830	Tube for draw rod	Quantity for one element	1
32	448.640.820	Draw rod head with hole	Quantity for one element	1
33	448.640.960	Draw rod head with stud	Quantity for one element	1
34	426.161.720	Draw rod	Quantity for one element	1
35	864.140.012	Shim S=1	Quantity for one element	2
36	446.280.200	Rubber stop	Quantity for one element	1
37	406.180.200	Distance bush	Quantity for one element	1
38	442.180.300	Bearing bush	Quantity for one element	1
39	761.160.030	Seal	Quantity for one element	1
40	576.241.320	Compression spring	Quantity for one element	1
41	406.120.120	Distance bush Ø25/Ø12 L=12	Quantity for one element	1
42	406.100.120	Distance bush Ø25/Ø10 L=12	Quantity for one element	1
43	404.100.040	Distance bush Ø55/Ø32/Ø10 L=4.25	Quantity for one element	1
44	404.100.050	Distance bush Ø55/Ø32/Ø10 L=5.2	Quantity for one element	1
45	404.120.050	Dust washer Ø55/Ø32/Ø12 L=5.2	Quantity for one element	1
46	404.120.040	Dust washer Ø55/Ø32/Ø12 L=4.25	Quantity for one element	1
47		Sheet		-
48		Sheet		-
49	804.100.250	Bolt M10 x 45 - ISO 4017	Quantity for one element	2
48	490.323.552	Drawrod complete		10

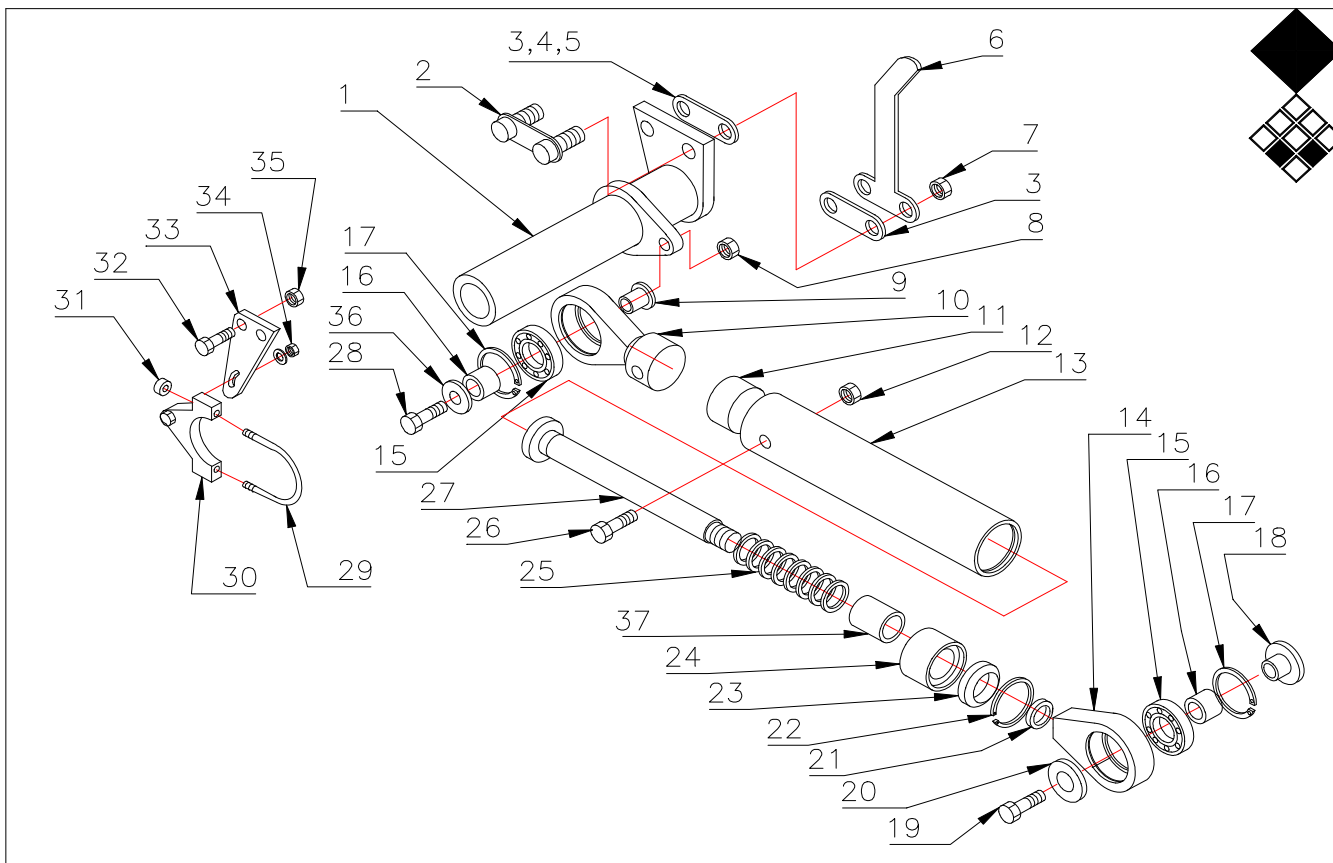


Apply 15ml grease inside drawrod



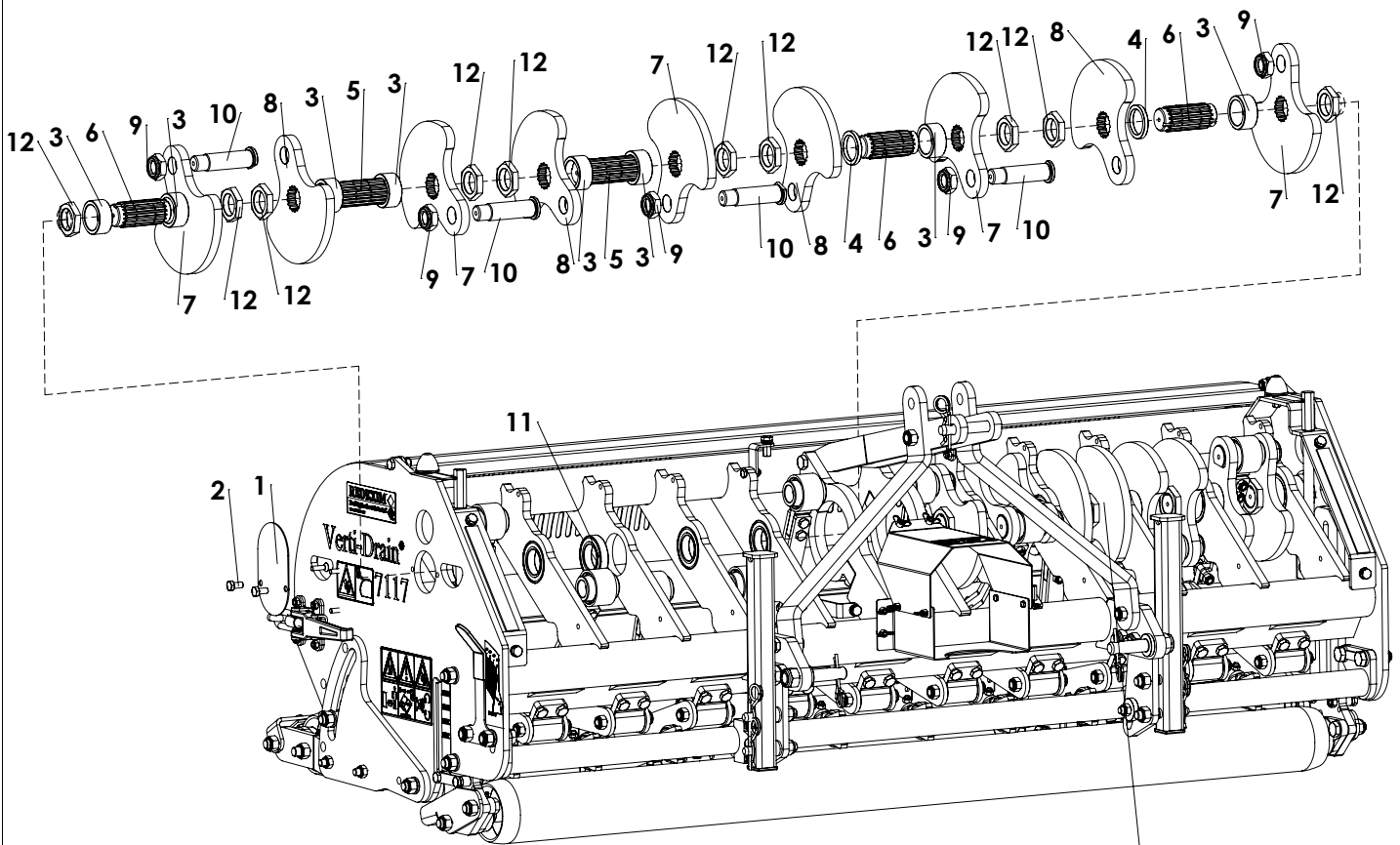
Use shim 864.140.012 to create correct length

ITEM	PART NUMBER	DESCRIPTION	REMARKS	QUA
1	802.060.400	Bolt M6 x 40 - ISO 4014	Quantity for one element	1
2	830.100.100	Self Lock Nut M10 - ISO 10511	Quantity for one element	7
3	804.100.450	Bolt M10 x 45 - ISO 4017	Quantity for one element	2
4	804.120.500	Bolt M12 x 50 - ISO 4017	Quantity for one element	1
5	872.035.150	Circlip D=35 - DIN 472	Quantity for one element	4
6	713.150.110	Bearing 6202-LLU	Quantity for one element	10
7	4001675	Tine holder bolt M10x35	Quantity for one element	3
8	448.610.830	Bearing support Empty	Quantity for one element	2
9	464.083.300	Element strip	Quantity for one element	2
10	448.401.320	Tine holder Empty	Quantity for one element	1
11	416.151.100	Support Axle Short	Quantity for one element	1
12	416.151.310	Support Axle Long	Quantity for one element	1
13	402.150.150	Inner bush	Quantity for one element	2
14	412.150.050	Distance washer	Quantity for one element	4
15	404.120.130	Distance bush tine holder	Quantity for one element	2
16	802.100.600	Bolt M10 x 60 - ISO 4014	Quantity for one element	1
17	830.140.140	Self Lock Nut M14 - ISO 10511	Quantity for one element	2
18	830.120.120	Self Lock Nut M12 - ISO 10511	Quantity for one element	3
19	713.300.130	Bearing 6006 LLU	Quantity for one element	2
20	872.055.200	Circlip D=55 - DIN 472	Quantity for one element	1
21	448.401.200	Big End Empty	Quantity for one element	1
22	412.270.030	Inner bush	Quantity for one element	1
23	402.300.180	Distance bush	Quantity for one element	2
24	468.072.180	Connecting rod		12
25	2890052	Stop	Quantity for one element	1
26	802.100.400	Bolt M10 x 40 - ISO 4014	Quantity for one element	4
27	2381404	Connecting rod middle		4
28	2381402	Connecting rod center		4
29	830.080.080	Self Lock Nut M8 - ISO 10511	Quantity for one element	1
30	802.080.450	Bolt M8 x 45 - ISO 4014	Quantity for one element	1
31	872.047.180	Circlip D=47 - DIN 472	Quantity for one element	2
32	713.250.120	Bearing 6005-LLU	Quantity for one element	2
33	872.028.130	Circlip D=28 - DIN 472	Quantity for one element	1
34	476.321.830	Tube for draw rod	Quantity for one element	1
35	448.640.820	Draw rod head with hole	Quantity for one element	1
36	448.640.960	Draw rod head with stud	Quantity for one element	1
37	426.161.720	Draw rod	Quantity for one element	1
38	864.140.012	Shim S=1	Quantity for one element	2
39	446.280.200	Rubber stop	Quantity for one element	1
40	406.180.200	Distance bush	Quantity for one element	1
41	442.180.300	Bearing bush	Quantity for one element	1
42	761.160.030	Seal	Quantity for one element	1
43	576.241.320	Compression spring	Quantity for one element	1
44	406.120.120	Distance bush Ø25/Ø12 L=12	Quantity for one element	1
45	406.100.120	Distance bush Ø25/Ø10 L=12	Quantity for one element	1
46	404.100.040	Distance bush Ø55/Ø32/Ø10 L=4.25	Quantity for one element	1
47	404.100.050	Distance bush Ø55/Ø32/Ø10 L=5.2	Quantity for one element	1
48	404.120.050	Dust washer Ø55/Ø32/Ø12 L=5.2	Quantity for one element	1
49	404.120.040	Dust washer Ø55/Ø32/Ø12 L=4.25	Quantity for one element	1
50	490.323.552	Drawrod complete		



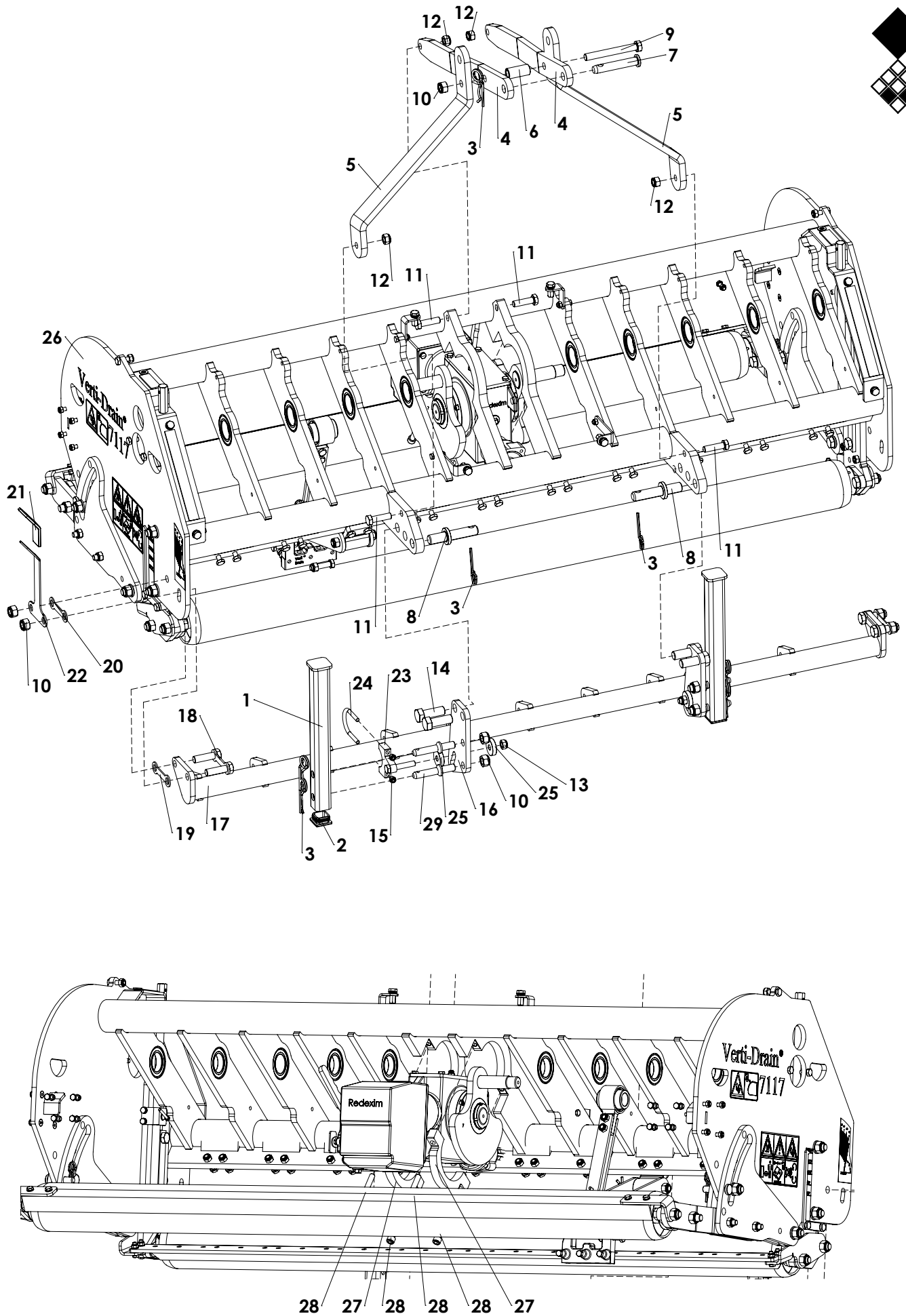
Redxim-Charterhouse Verti-Draw 7117 pag 04-1 code 0401

PART #	DESCRIPTION	REMARKS	QUA
1	2381400	Central draw bar 7117	1
2	2282106	Bolt assembly	2
3	2611527	Distance plate 3 mm thick	4
4	2611528	Distance plate 2.5 mm thick	Use to calibrate. option
5	2611530	Distance plate 2.0 mm thick	Use to calibrate. option
6	2281749	Handle for angle adjustment	1
7	4123800	Self lock nut M16	4
8	4122600	Self lock nut M12	6
9	2611502	Bush for draw rod head	6
10	2990500	Draw rod head	6
11	2891092	Rubber stop	6
12	4121400	Self lock nut M8	6
13	2381410	Tube	6
14	2991000	Draw rod head	6
15	4813550	Bearing 6005 2RS	12
16	2891094	Rubber bush	12
17	4720047	Cir clip	12
18	2611100	Threaded bush	6
19	4001688	Bolt M10 x 50	6
20	4910160	Washer	12
21	2611523	Washer thick 1 mm	For calibrating draw rod length
22	4720028	Cir clip	6
23	4480016	Seal	6
24	2602428	Sleeve bearing bush draw rod	6
25	4781100	Compression spring	6
26	4001470	Bolt M8 x 45	6
27	2281500	Draw rod	6
28	4001866	Bolt M12 x 50	6
29	2691018	U bolt	2
30	2282186	Bracket plate with bolt	2
31	4121400	Self lock nut M8	4
32	4002740	Bolt M20 x 65	4
33	2281506	Support plate central bar	2
34	4122600	Self lock nut M12	2
35	4125380	Self lock nut M20	4
36	2611238	Washer	10
37	406.180.200	Distance bush	1
1991100	Draw rod complete	9.10.11.12.13.14.15.16.17.18.21.22.23.24 25.26.27.36	10

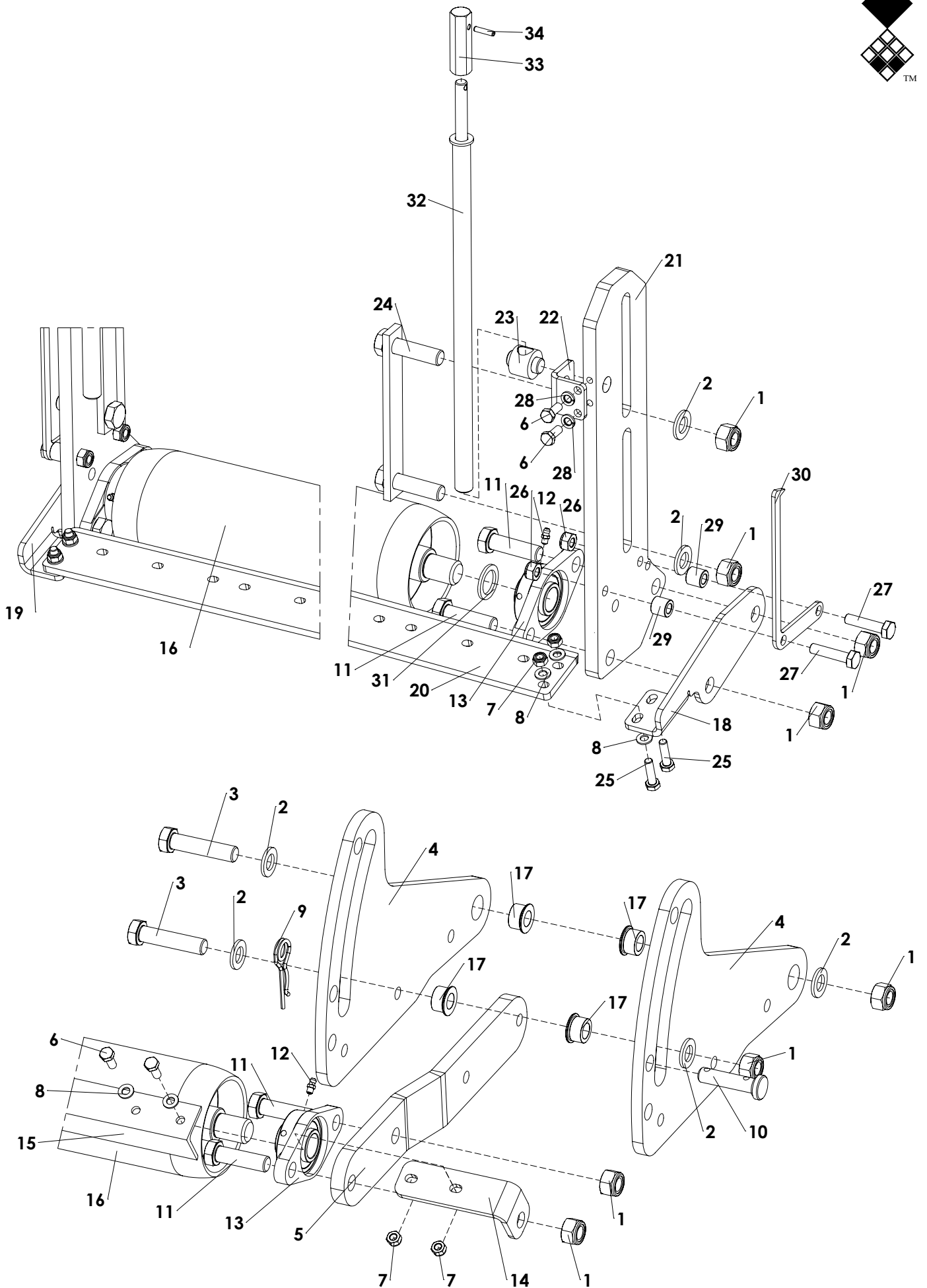
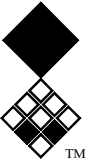


left and right side of crankshaft are symmetrical

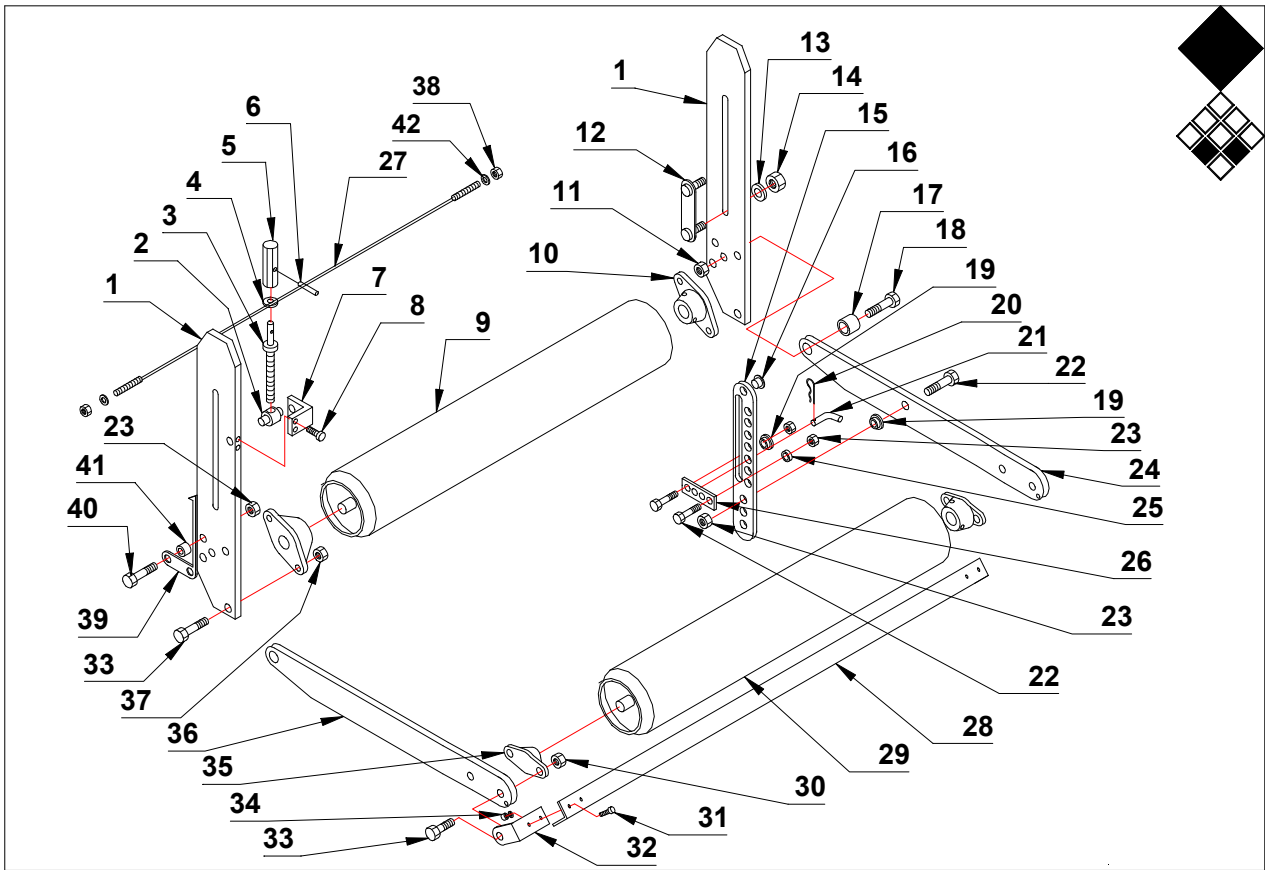
ITEM	PART NUMBER	DESCRIPTION	REMARKS	QUA
1	2281502	Protection plate		2
2	804.100.200	Bolt M10 x 20 - ISO 4017		4
3	2604527	Distance bush		16
4	406.460.120	Distance bush		4
5	2465010	Splined shaft long		4
6	2465012	Splined shaft short		6
7	2447102	Crank plate nut side		10
8	2447100	Crank plate big end side		8
9	834.270.180	Self lock nut M27 Grade 10.9		10
10	2490105	Big End Pin		8
11	713.450.160	Bearing 6009-LLU		10
12	472.120.602	Cranck shaft nut M40x1.5		20



ITEM	PART NUMBER	DESCRIPTION	REMARKS	QUA
1	462.403.800	Support		1
2	892.400.020	Plastic Stop 40x40		1
3	523.100.570	Linch pin - 9 1/2mm		7
4	2251100	Top linkage strip		2
5	2251102	Top link support strip		2
6	2611518	Distance bush		1
7	521.191.120	3-Point Pin		1
8	2490881	Bottom 3-Point Pin		2
9	802.161.300	Bolt M16 x 130 - ISO 4014		1
10	830.160.160	Self Lock Nut M16 - ISO 10511		7
11	804.140.500	Bolt M14 x 50 - ISO 4017		4
12	804.140.140	Self Lock Nut M14 - ISO 10511		4
13	830.120.120	Self Lock Nut M12 - ISO 10511		2
14	802.200.550	Bolt M20 x 55 - ISO 4017		4
15	830.080.080	Self Lock Nut M8 - ISO 10511		4
16	2281506	Support plate central bar		2
17	2381400	Central draw bar VD7117		1
18	426.161.020	Bolt assembly Central Bar		2
19	2611527	Distance plate 3mm		2
20	2611528	Distance plate 2.5mm		2
21	446.300.700	Cover for lever		1
22	468.032.120	Handle for angle adjustment		1
23	2282186	Support bolt assembly central bar 7117/7316		1
24	2691018	U-Bolt M8, for tube 50		2
25	402.130.100	Distance bush Ø12.5/Ø40 L=10		4
26	2900100	Frame VD 7117		1
27	2479102	Clamp		2
28	814.120.550	Bolt M12 x 55 - DIN 912		4
29	521.161.050	Pin		4



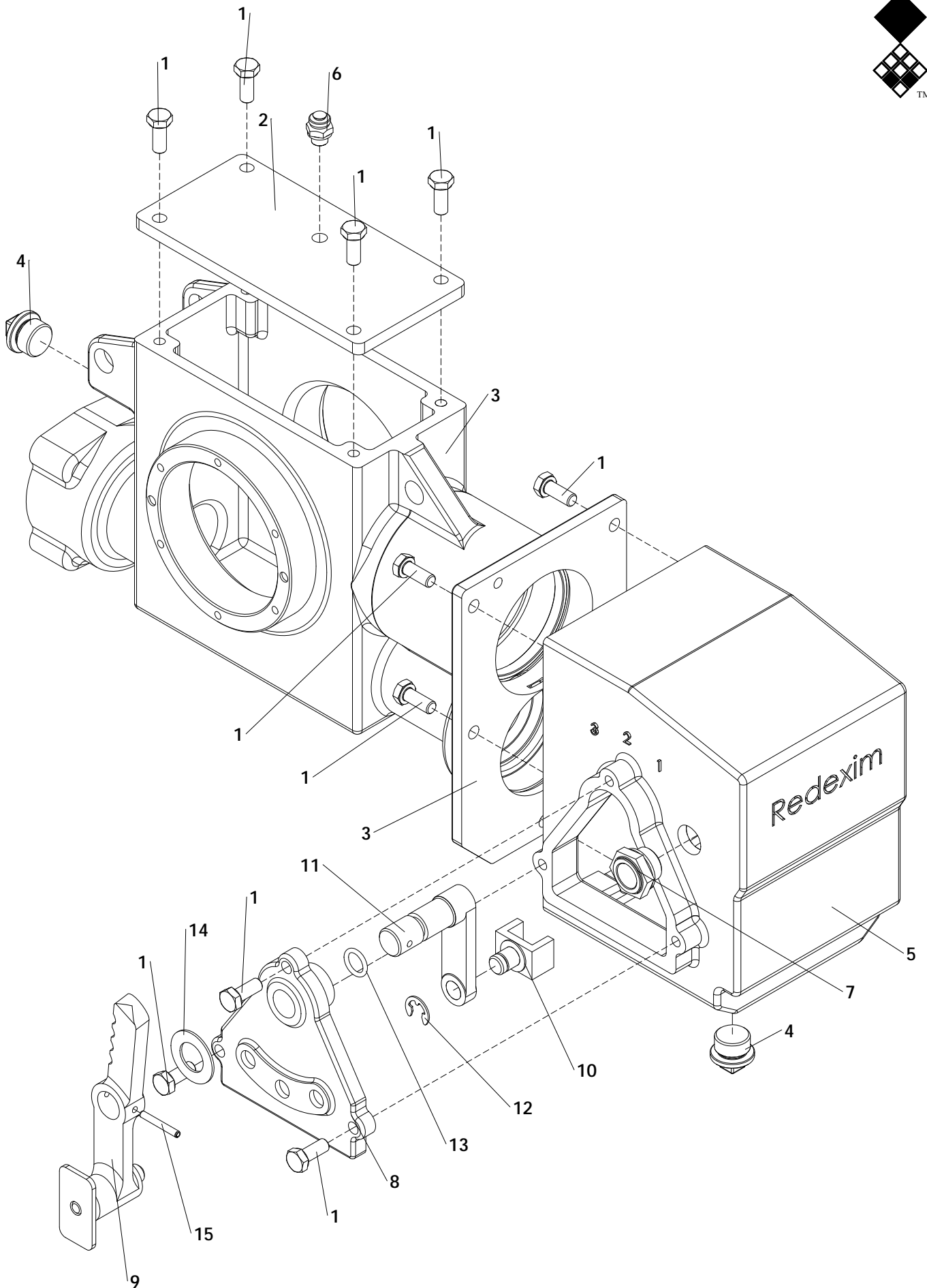
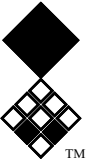
ITEM	PART NUMBER	DESCRIPTION	REMARKS	QUA
1	830.160.160	Self Lock Nut M16-ISO 10511 Class 10		16
2	864.160.030	Washer M16 - ISO 7089		12
3	802.160.700	Bolt M16 x 70 - ISO 4014		4
4	468.123.700	Main Rear Roller support		4
5	464.153.820	Second rear roller support		2
6	804.080.200	Bolt M8 x 20 - ISO 4017		8
7	830.080.080	Self Lock Nut M8 - ISO 10511		8
8	864.080.030	Washer M8 - ISO 7089		12
9	523.030.750	R-Clip Round 3, DIN 11024		2
10	521.160.510	Lock pin rear roller		2
11	802.160.550	Bolt M16 x 55		8
12	880.060.100	Grease nipple M6 DIN 71412A		4
13	742.250.360	Bearing UCFL 205		4
14	2281510	Rear roller scraper support 7117		2
15	2281512	Rear roller scraper 7117		1
16	2343800	Roller 7117		2
17	404.160.160	Pivot bush		8
18	468.062.162	Scraper support right		1
19	468.062.160	Scraper support left		1
20	468.089.170	Scraper		1
21	2381200	Front roller support 7117		2
22	2282096	Spindle nut bracket		2
23	2282098	Spindle nut TR18x4		2
24	2281520	Bolt Assembly		2
25	804.080.300	Bolt M8 x 30 - ISO 4017		4
26	830.100.100	Self Lock Nut M10 - ISO 10511		4
27	802.100.450	Bolt M10 x 45 - ISO 4014 - 10.9		4
28	866.080.020	Spring Washer M8 - DIN 127		4
29	406.180.170	Distance bush Ø18/Ø10.2 L=16.5		4
30	2281738	Height indicator		2
31	2611534	Bush		2
32	2692101	Spindle		2
33	2282108	Spindle head		2
34	878.050.220	Roll Pin 5 x 22 - ISO 8752		2



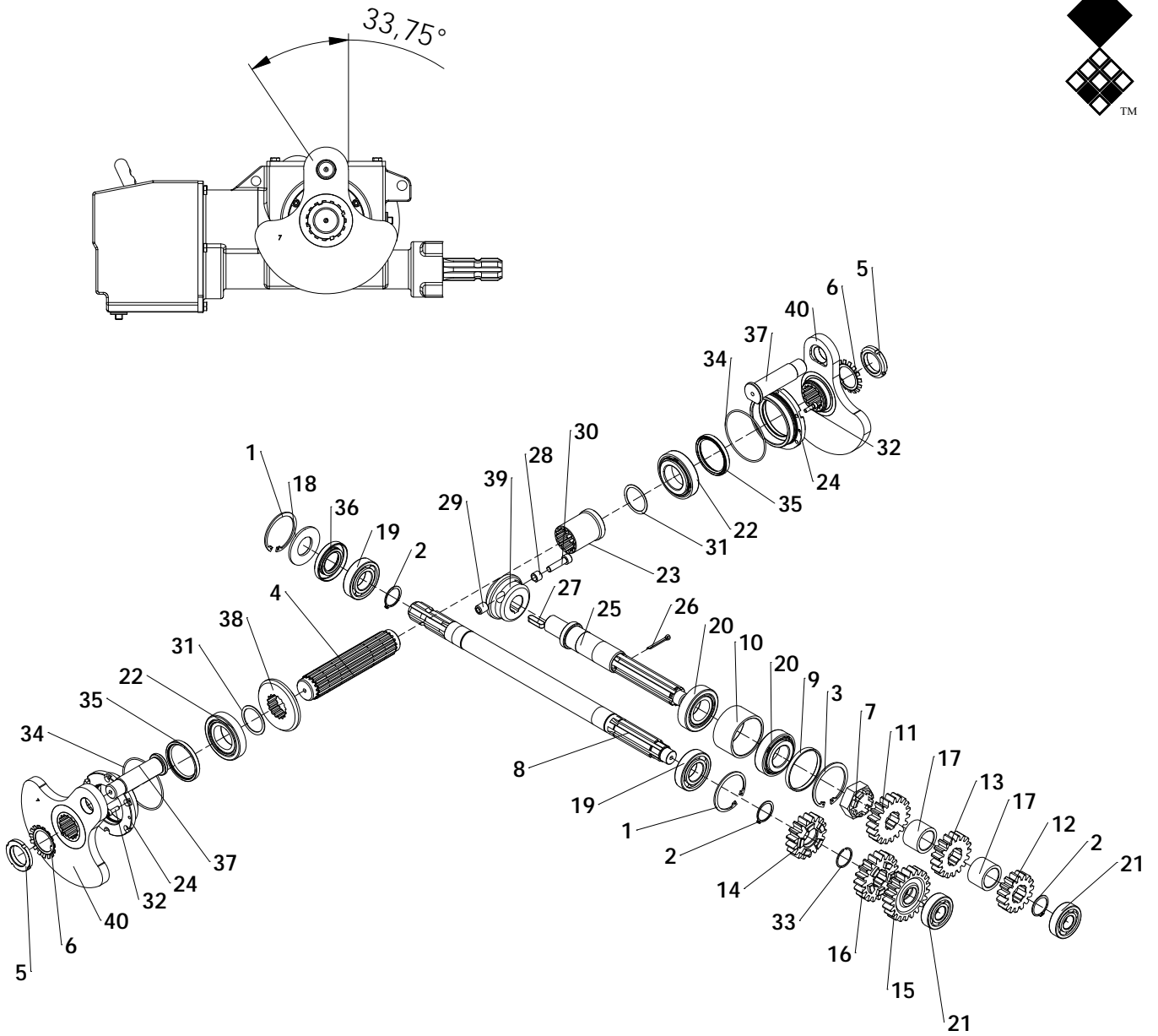
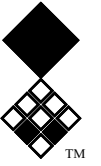
Redxim-Charterhouse Verti-Drain 7117 pag 07-1 code 0718

Check on your machine which front roller scraper and rear roller supports you have see page 03

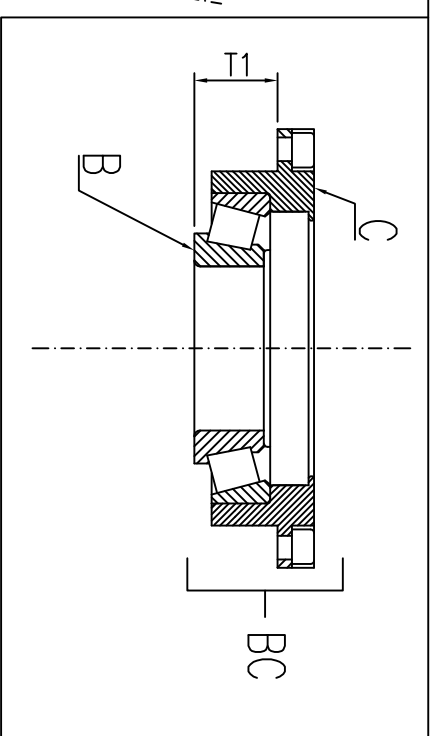
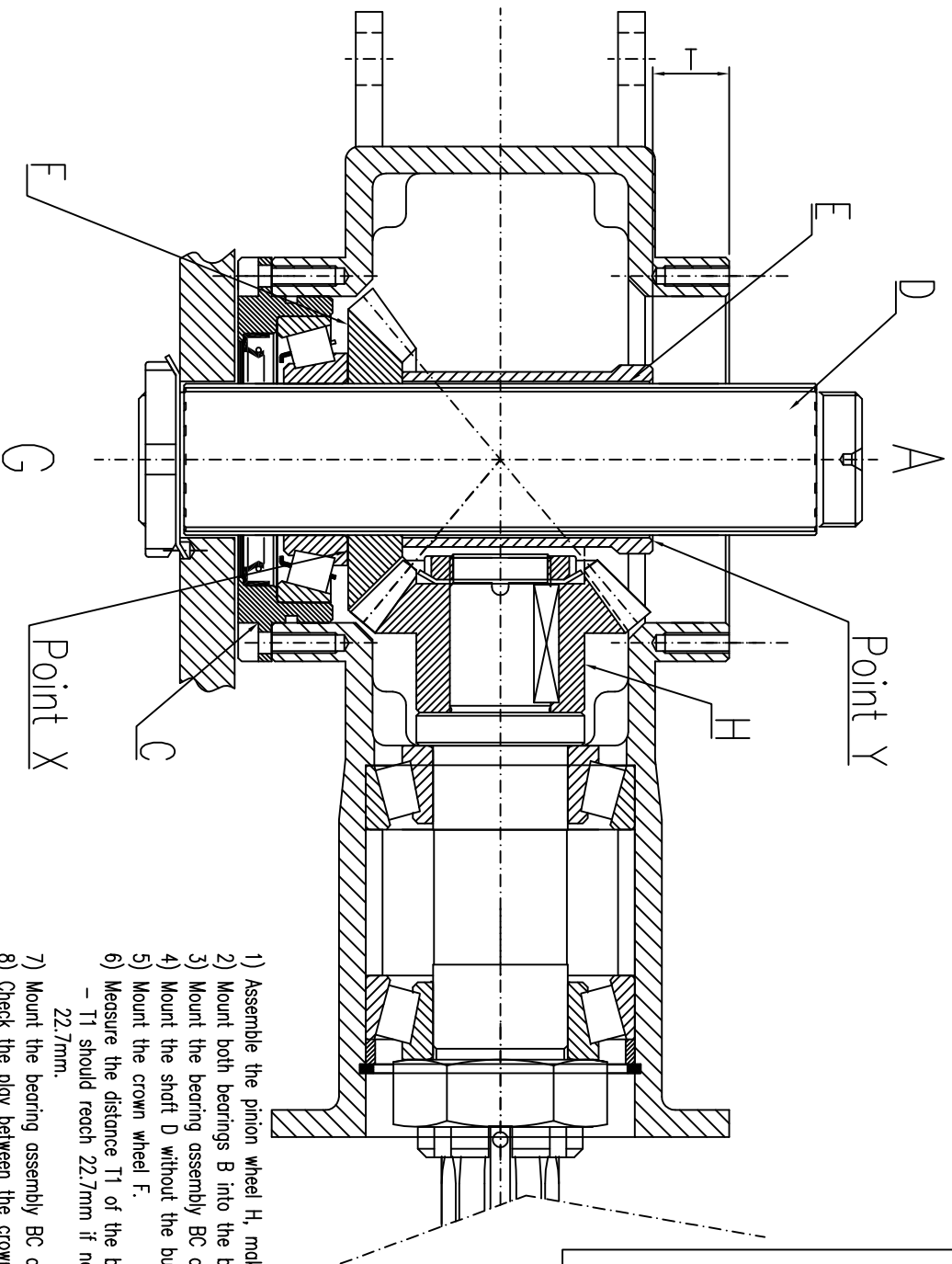
	PART #	DESCRIPTION	REMARKS	QUA
1	2381200	Front roller support 7117		2
2	2282098	Spindle nut		2
3	2692101	Spindle		2
4	4910120	Washer		2
5	2282108	Spindle head		2
6	4311020	Roll pin		2
7	2282096	Spindle nut bracket		2
8	4001424	Bolt M8 x 20		4
9	2343800	Front roller 7117		1
10	4833995	Front roller bearing		2
11	4122600	Self lock nut M12		2
12	2281520	Bolt assembly		2
13	4910160	Washer M 16		4
14	4123800	Self lock nut M16		4
15	2281516	Rear roller support guide		2
16	4972550	Plastic stop		2
17	2611514	Pivot bush rear roller support		2
18	4001866	Bolt M12 x 50		2
19	2611510	Guide bush		4
20	4397000	R pin		2
21	2499114	Lock pin rear roller support guide		2
22	4001680	Bolt M10 x 45		6
23	4122000	Self lock nut M10		8
24	2281508	Rear roller support right		1
25	2611516	Distance bush		2
26	2281744	Plate		2
27	2281514	Wire scraper		1
28	2281512	Rear roller scraper profile		1
29	2343800	Rear roller 7117		1
30	4122800	Self lock nut M16		4
31	4001424	Bolt M8 x 20		4
32	2281510	Bracket support for rear roller scraper		2
33	4002328	Bolt M 16 x 50		8
34	4121400	Self lock nut M8		4
35	4833995	Rear roller bearing 7117		2
36	2281509	Rear roller support left		1
37	4123800	Self lock nut M16		4
38	4100800	Nut M6		4
39	2281738	Height indicator		2
40	4001680	Bolt M10 x 45		4
41	2611516	Distance bush		4
42	4910060	Washer M6		4



ITEM	PART NUMBER	DESCRIPTION	REMARKS	QUA
1	804.080.200	Bolt M8 x 20 - ISO 4017		12
2	2471220	Top plate gearbox		1
3	2401100	Front part gearbox 7117/7113		1
4	4561000	Tap 1/2"		2
5	2401204	Rear part gearbox		1
6	4067008	Breather gearbox		1
7	820.210.180	Level / fill glass		1
8	2471241	Shield		1
9	1991400	Gear shifter		1
10	2779976	Fork		1
11	2469200	Lever with pin		1
12	4752009	Seeger RS9		1
13	4420170	O-ring D13.1x2.62		1
14	2894039	Plastic washer 19x34x1.5		1
15	878.040.300	Roll Pin 4 x 30 - ISO 8752		1
		Use liquid silicon paste to seal parts		
		Use oil 80W90		3 liter
	1441100-34	Gearbox complete		



	PART NUMBER	DESCRIPTION	REMARKS	QUA
1	872.072.250	Circlip D=72 - DIN 472		2
2	870.035.160	Circlip d=35 - DIN 471		3
3	872.080.250	Circlip D=80 - DIN 472		1
4	2462005	Axle		1
5	4165400	M40x1.5 KM8		2
6	4221078	Lock Washer MB/AW Ø40		2
7	4135000	Nut		1
8	2460400	Input shaft		1
9	2611208	Distance bush		1
10	2611200	Distance bush		1
11	432.200.892	Gearwheel Z=19		1
12	432.200.720	Gearwheel Z=15		1
13	432.200.810	Gearwheel Z=17		1
14	2504421	Gearwheel Z=17		1
15	2504467	Gearwheel Z=21		1
16	432.320.890	Gearwheel Z=19		1
17	2611212	Distance bush		2
18	2661256	Washer		1
19	711.350.170	Bearing 6207		2
20	4810470	Bearing 32208		2
21	4816750	Bearing 6305		2
22	4809420	Bearing 30209		2
23	2611108	Distance bush		1
24	2471100	Bearing support flange		2
25	2462003	Pignon shaft		1
26	882.050.400	Cotter Pin 5 x 40 - DIN 94		1
27	884.100.350	Key 10x8x35 - DIN 6885		1
28	2611110	Mounting bush		1
29	2611109	Mounting bush with thread		1
30	814.100.400	Bolt M10 x 40 - DIN 912		1
31	4307024	Shims 55x45	Set of shims: (2x) 0.1, 0.2, 0.3, 0.5, 1 and 2 mm	1
32	814.060.200	Bolt M6 x 20 - DIN 912		12
33	4755035	Seeger SW35		1
34	4423350	O-ring Ø88.57x2.62		2
35	4408880	Oil Seal 60x75x8		2
36	4406420	Oil seal 35x72x10		1
37	2490105	Big End Pin		2
38	432.200.970	Crown wheel Z23		1
39	432.450.820	Pignon wheel Z19		1
40	2447106	Crank handle gearbox		2



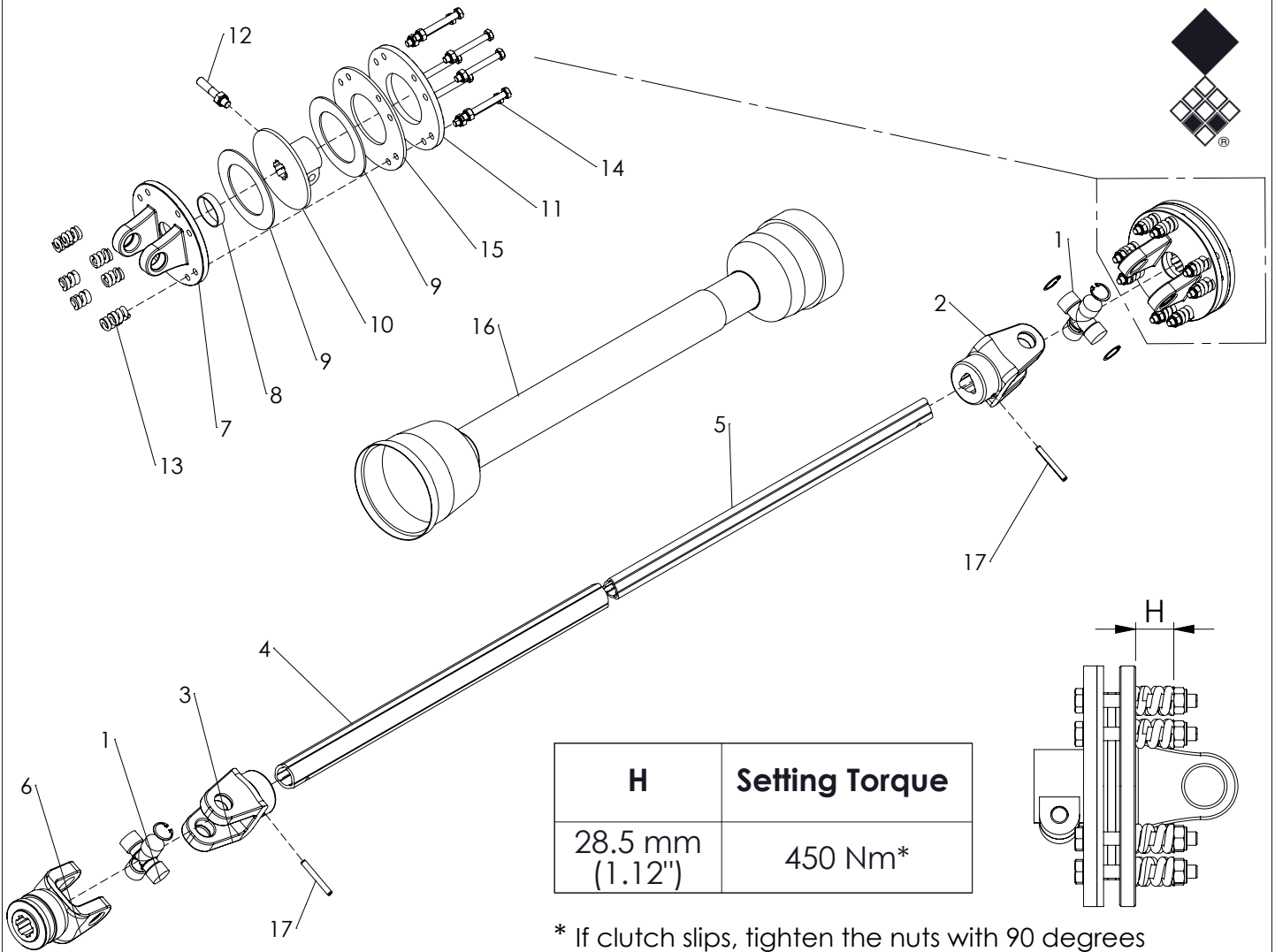
ASSEMBLY OF CROWN WHEEL AND PINION

- 1) Assemble the pinion wheel H, making sure to have the roller bearings unit positioned on the cir-clip side.
- 2) Mount both bearings B into the bearing Houses C.
- 3) Mount the bearing assembly BC on side A of the gearbox.
- 4) Mount the shaft D without the bush E.
- 5) Mount the crown wheel F.
- 6) Measure the distance T1 of the bearing assembly BC.
 - T1 should reach 22.7mm if not adjust with shims on point X to get the required distance of 22.7mm.

- 7) Mount the bearing assembly BC on side G of the gearbox and tighten well.
- 8) Check the play between the crown wheel F and pinion wheel H; this should have a slight play.
 - If the play is correct proceed with point 9.
 - If the play is too small replace the shim on point X for a thinner one and recheck the play.
 - If the play is too big replace the shim on point X for a thicker one and recheck the play.
- 9) Remove the bearing assembly BC on side A.
- 10) Mount bush E.
- 11) Measure distance T1 of the removed bearing assembly BC.
- 12) Measure distance T.
- 13) Calculate $T-T1+0.1mm$; this is the required thickness of the shim to place at point Y.
- 14) Mount the required shim and the bearing assembly BC and tighten well.
- 15) Final Check:
 - Check again the play between the crown wheel F and pinion wheel H; this should have a slight play.
 - If there is still too much play disassemble side G, side A and add a thicker shim.
 - After this go back to point 11 and re-measure and re-check the play.

Set of shims:

- Part no. 4307024

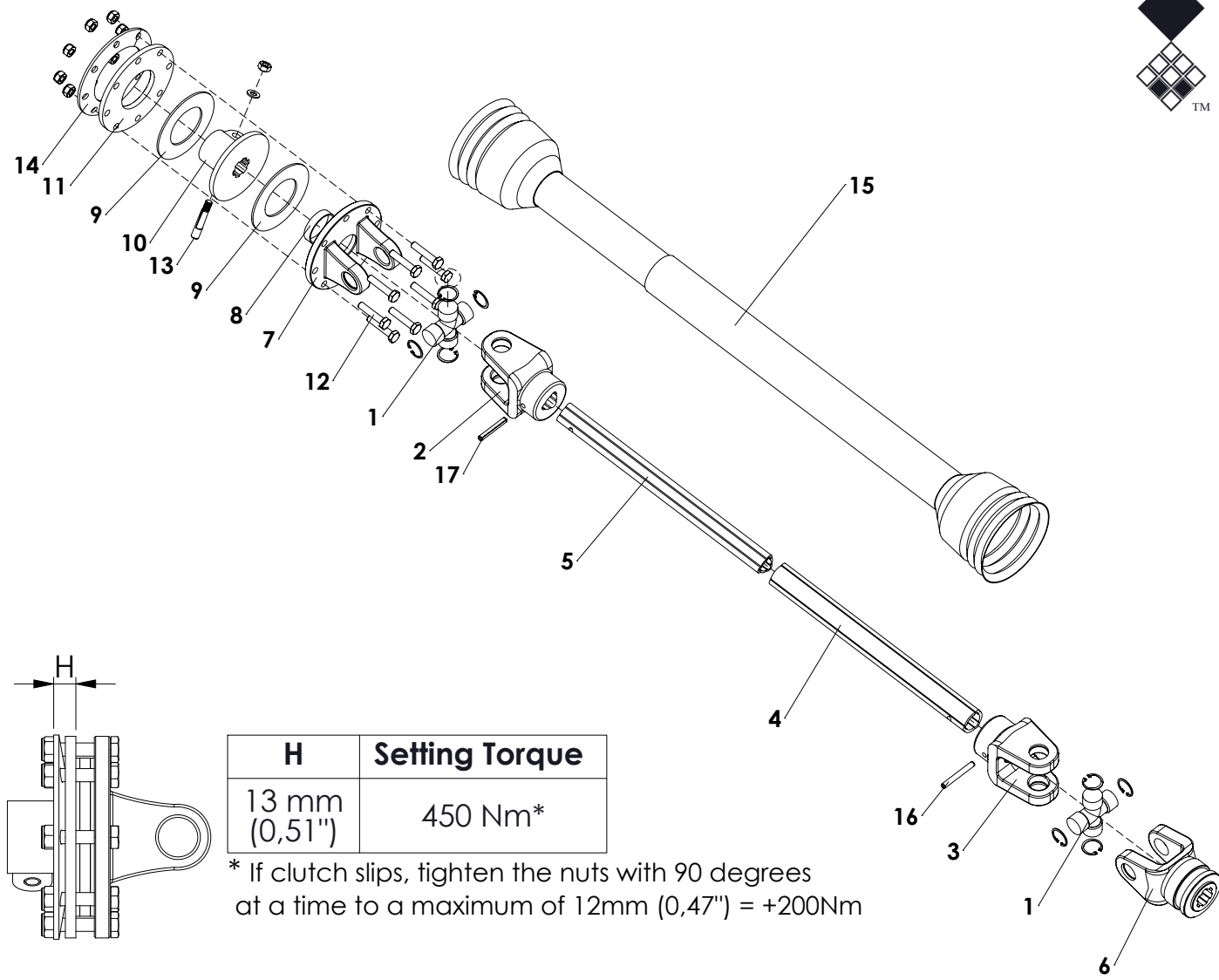


H	Setting Torque
28.5 mm (1.12")	450 Nm*

* If clutch slips, tighten the nuts with 90 degrees at a time to a maximum of 27.5mm (1.08") = +150Nm

ALWAYS deburr parts when cut
MEASURE correct length of PTO first
MAINTAIN slipclutch every month
NEVER USE PTO over 30 degrees
SLIPCLUTCH always on machine side

ITEM	PART NUMBER	DESCRIPTION	REMARKS	QUA
1	BEN PT140106	Universal joint assembled		2
2	BEN PT148813	Inner tube yoke		1
3	BEN PT143860	Outer tube yoke		1
4	BEN PT150516	Tubing cut to size	Cut to correct length	1
5	BEN PT150544	Tubing cut to size	Cut to correct length	1
6	BEN PT140106	End yoke with quick lock		1
7	BEN F1L04	Flange yoke		1
8	BEN F060	Bush		1
9	BEN F030/S	Lining ring		2
10	BEN F138	Hub		1
11	BEN F1180	Pressure plate		1
12	BEN 90938	Conic bolt and nut		1
13	BEN F0110	Spring		8
14	BEN F10085	Bolt and nut		8
15	BEN F070	Inner plate		1
16	BEN PT170005	Safety guard group	Cut to correct length	1
17	190000014	Roll Pin 8 x 65		2
	611.409.100	PTO shaft type T-40 tl 910		
	611.405.100	PTO shaft type T-40 tl 510		

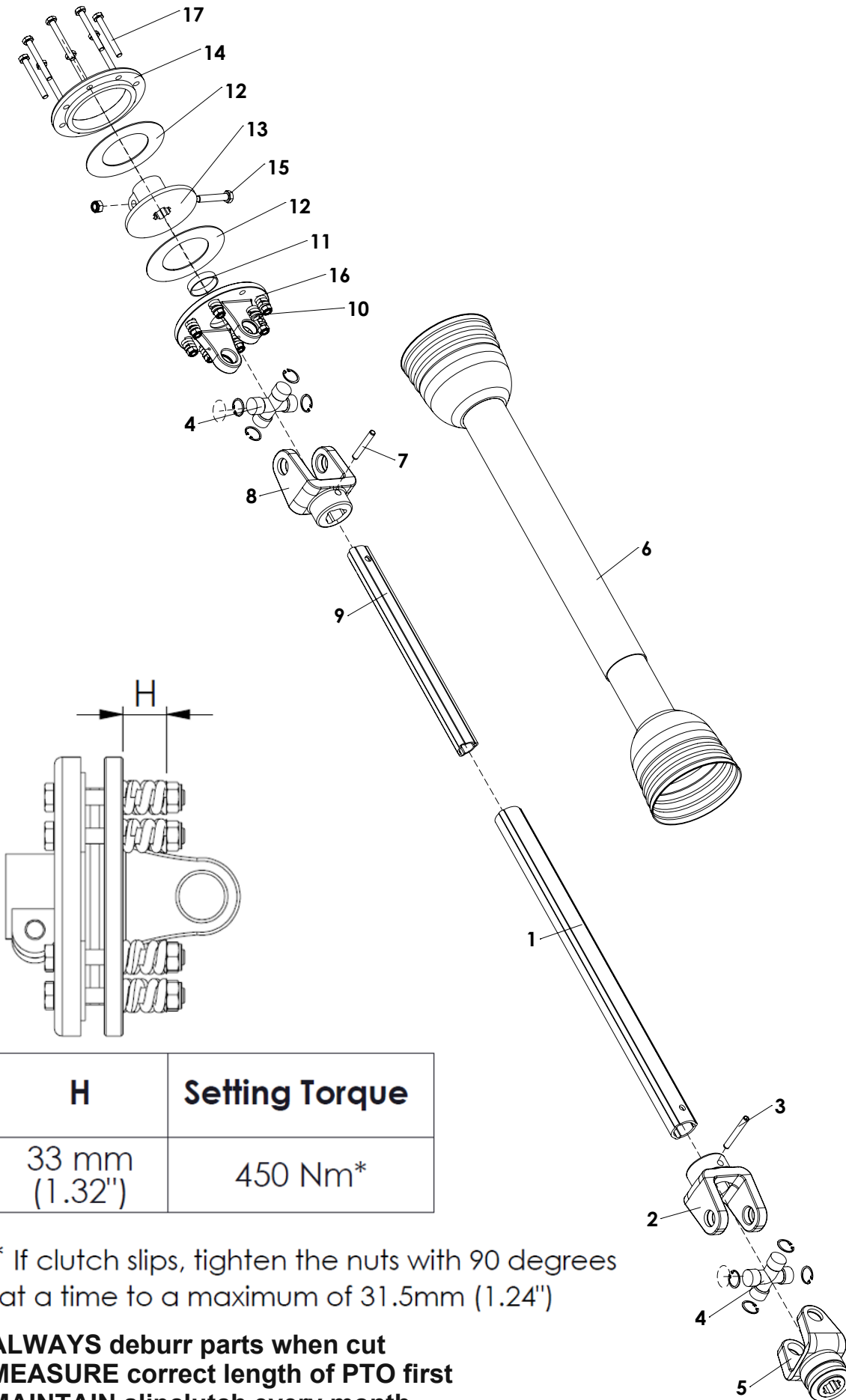


H	Setting Torque
13 mm (0,51")	450 Nm*

* If clutch slips, tighten the nuts with 90 degrees at a time to a maximum of 12mm (0,47") = +200Nm

ALWAYS deburr parts when cut
MEASURE correct length of PTO first
MAINTAIN slipclutch every month
NEVER USE PTO over 30 degrees
SLIPCLUTCH always on machine side

ITEM	PART NUMBER	DESCRIPTION	REMARKS	QUA
1	180014130	Cross and 4x circlip kit		2
2	1510140071	Inner tube yoke type 40		1
3	1410140061	Outer tube yoke type 40		1
4	1521406620700	T40-series Outer tube	Cut to correct length	1
5	153140519	T40-series Inner tube	Cut to correct length	1
6	1410244301	Complete collar yoke type 40		1
7	1510143791	Flanged yoke T40		1
8	180015020	Bush		1
9	180014019	Lining ring		2
10	1510148401	Hub T40		1
11	1800175681	Pressure plate		1
12	165000858	Bolt & nut M10 x 1,5 x 50		8
13	165000588	Tapered Pin 1 3/8" kit	Retighten every 40 hours	1
14	180017425	Belleville spring		1
15	1423400167451	Complete guard 40-series	Cut to correct length	1
16	190000014	Roll Pin 8 x 65		1
17	190000012	Roll Pin 8 x 55		1
	400510	Complete PTO T40		
	400910	Complete PTO T40 for boggy		



H	Setting Torque
33 mm (1.32")	450 Nm*

* If clutch slips, tighten the nuts with 90 degrees at a time to a maximum of 31.5mm (1.24")

ALWAYS deburr parts when cut
MEASURE correct length of PTO first
MAINTAIN slipclutch every month
NEVER USE PTO over 30 degrees
SLIPCLUTCH always on machine side

ITEM	PART NUMBER	DESCRIPTION	REMARKS	QUA
1	152140207	Outer tube		1
2	151014006	Outer tube yoke		1
3	190000014	Outer roll pin		1
4	180014130	Cross and 4x circlip kit		2
5	141024430	Complete collar yoke		1
6	1422400307430	Complete guard	Cut to correct length	1
7	190000012	Inner roll pin		1
8	151004007	Inner tube yoke		1
9	153140107	Inner tube		1
10	180014022	Spring		8
11	180015020	Bush		1
12	180014019	Lining ring		2
13	151014018	Hub		1
14	180014020	Pressure plate		1
15	165000502	Bolt and Nut	Retighten every 40 hours	1
16	151014017	Flanged yoke		1
17	165000501	Bolt and nut		8
	400510	Complete PTO		
		ALWAYS deburr parts when cut		
		MEASURE correct length of PTO first		
		MAINTAIN slipclutch every month		
		NEVER USE PTO over 30 degrees angle		
		SLIPCLUTCH always on machine side		

Solid tines						7117
Mountig Ø (mm)	Tine Size (mm)	Tine Size (inch)	Part #	Adapter		Qua
5	5 x 125	3/16 x 5	311.105.125	J or multi-tine block mini		30+J
8	8 x 150	5/16 x 6	311.108.150	K or multi-tine block		30+K or 50+T+O+U+Y+Z
8	8 x 175	5/16 x 7	9990056	K or multi-tine block		
8	8 x 250	5/16 x 10	9990059	K - Don't use in MTH. Will bend		
12	12 x 150	1/2 x 6	311.112.150			30
12	12 x 200	1/2 x 8	311.112.200			
12	12 x 225	1/2 x 9	311.112.225			
12	12 x 250	1/2 x 10	2381837			
12	12 x 300	1/2 x 12	2381838			
18	18 x 200	3/4 x 8	311.118.200	L or non needed		
18	18 x 225	3/4 x 9	311.118.225	L or non needed		
18	18 x 250	3/4 x 10	2381841	L or non needed		
18	18 x 300	3/4 x 12	2382638	L or non needed		
18	18 x 350	3/4 x 14	311.118.350	L or non needed		
18	18 x 400	3/4 x 16	2382639	L or non needed		
24	24 x 225	1 x 9	311.124.225			
24	24 x 350	1 x 14	311.124.350			
24	24 x 400	1 x 16	2382640			
Tines for verti-core						
19	10x100	3/8 x 4	39200-447	Tines for verti-core that also fit Verti-drain		
8	8x95	5/16 x 3 13/16	311.108.095	Tines for verti-core that also fit Verti-drain		



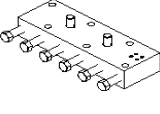
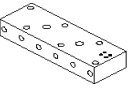




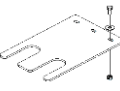
Hollow tines						7117
Mountig Ø (mm)	Tine Size (mm)	Tine Size (inch)	Part #	Adapter		Qua
8	10 x 6 x 80	3/8 x 1/4 x 3	311.210.080	K or multi-tine block		30+K or 50+T+O+U+Y+Z
8	10 x 6 x 125	3/8 x 1/4 x 5	311.210.127	K or multi-tine block		30+K or 50+T+O+U+Y+Z
12	16 x 10 x 150	5/8 x 3/8 x 6	311.216.150			30
12	16 x 10 x 175	5/8 x 3/8 x 7	9990022			
12	19 x 12 x 150	3/4 x 1/2 x 6	311.219.150			30
18	19 x 12 x 200	3/4 x 1/2 x 8	311.219.200	L or non needed		
12	19 x 12 x 200	3/4 x 1/2 x 8	311.219.201			
18	19 x 12 x 225	3/4 x 1/2 x 9	311.219.225	L or non needed		
12	19 x 12 x 225	3/4 x 1/2 x 9	311.219.226			
12	19 x 12 x 250	3/4 x 1/2 x 10	9990040			
18	19 x 12 x 250	3/4 x 1/2 x 10	9990023	L or non needed		
18	25 x 16 x 200	1 x 5/8 x 8	311.225.200	L or non needed		
18	25 x 16 x 225	1 x 5/8 x 9	311.225.225	L or non needed		
18	25 x 17 x 250	1 x 5/8 x 10	9990024	L or non needed		
18	29 x 19 x 250	1 1/8 x 3/4 x 10	9990066	L or non needed		
24	32 x 21 x 300	1 1/4 x 13/16 x 12	9990034			
18	32 x 21 x 300	1 1/4 x 13/16 x 12	9990041	L or non needed		
Tines for verti-core that also fit Verti-drain 15xx						
Mountig Ø (mm)	Tine Size (mm)	Tine Size (inch)	Part #	Ejecting from		Qua
19	21x12x125	13/16 x 1/2 x 5	9990075	Side		n/a
19	19x10x125	3/4 x 3/8 x 5	311.219.159	Side		n/a
19	19x10x110	3/4 x 3/8 x 4 3/8	311.219.158	Top		n/a
19	16x7x110	5/8 x 1/4 x 4 3/8	311.219.138	Top		n/a

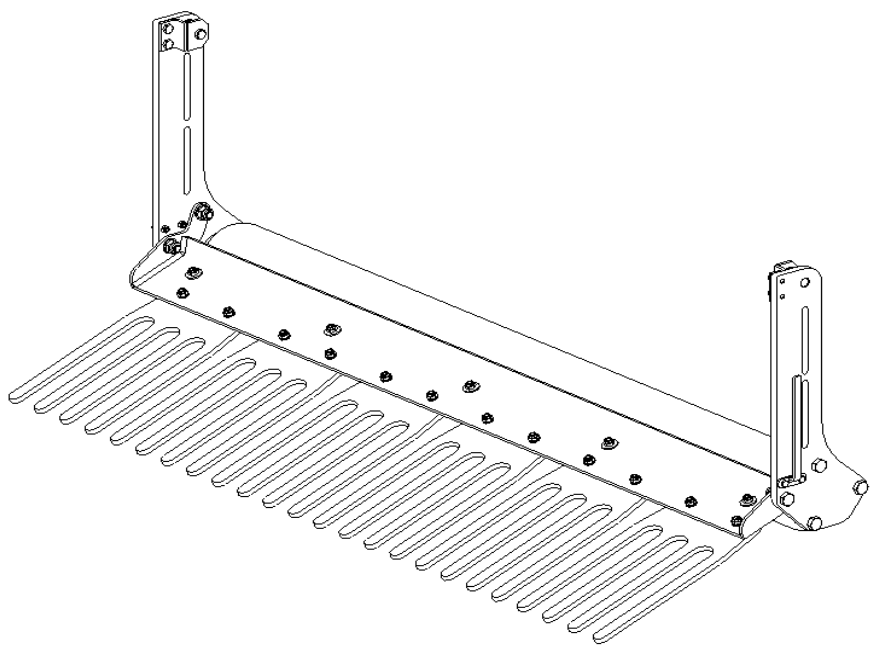
Replacement tubes						7117
Mountig Ø (mm)	Tine Size (mm)	Tine Size (inch)	Part #	Combine with rollpin		Qua
12	16 x 10 x 150	5/8 x 3/8 x 6	311.716.150	9990010		30
12	16 x 10 x 175	5/8 x 3/8 x 7	9990036	9990010		
12	19 x 12 x 150	3/4 x 1/2 x 6	311.719.150	9990012		30
18	19 x 12 x 200	3/4 x 1/2 x 8	311.719.200	9990012		
12	19 x 12 x 200	3/4 x 1/2 x 8	311.719.200	9990012		
18	19 x 12 x 225	3/4 x 1/2 x 9	311.719.225	9990012		
12	19 x 12 x 225	3/4 x 1/2 x 9	311.719.225	9990012		
12	19 x 12 x 250	3/4 x 1/2 x 10	9990037	9990012		
18	19 x 12 x 250	3/4 x 1/2 x 10	9990037	9990012		
18	25 x 16 x 200	1 x 5/8 x 8	311.725.200	9990014		
18	25 x 16 x 225	1 x 5/8 x 9	311.725.225	9990014		
18	25 x 17 x 250	1 x 5/8 x 10	9990038	9990014		
18	29 x 19 x 250	1 1/8 x 3/4 x 10	9990067	9990016		
24	32 x 21 x 300	1 1/4 x 13/16 x 12	9990039	9990016		
18	32 x 21 x 300	1 1/4 x 13/16 x 12	9990039	9990016		

Cross tines						7117
Mountig Ø (mm)	Tine Size (mm)	Tine Size (inch)	Part #	Adapter		Qua
8	12 x 90	1/2 x 3 1/2	9990020	K or multi-tine block		30 + K
12	12 x 90	1/2 x 3 1/2	311.812.090			
12	19 x 120	3/4 x 5	9990021			30

Chisel tines						7117
Mountig Ø (mm)	Tine Size (mm)	Tine Size (inch)	Part #			Qua
12	4.8 x 19 x 175	3/16 x 3/4 x 7	311.619.175			30
12	4.8 x 19 x 120	3/16 x 3/4 x 4 3/4	311.619.120			30
Tines for verti-core						
19	5 x 30 x 90	3/16 x 1 3/16 x 3 1/2	311.619.127	Tines for verti-core		

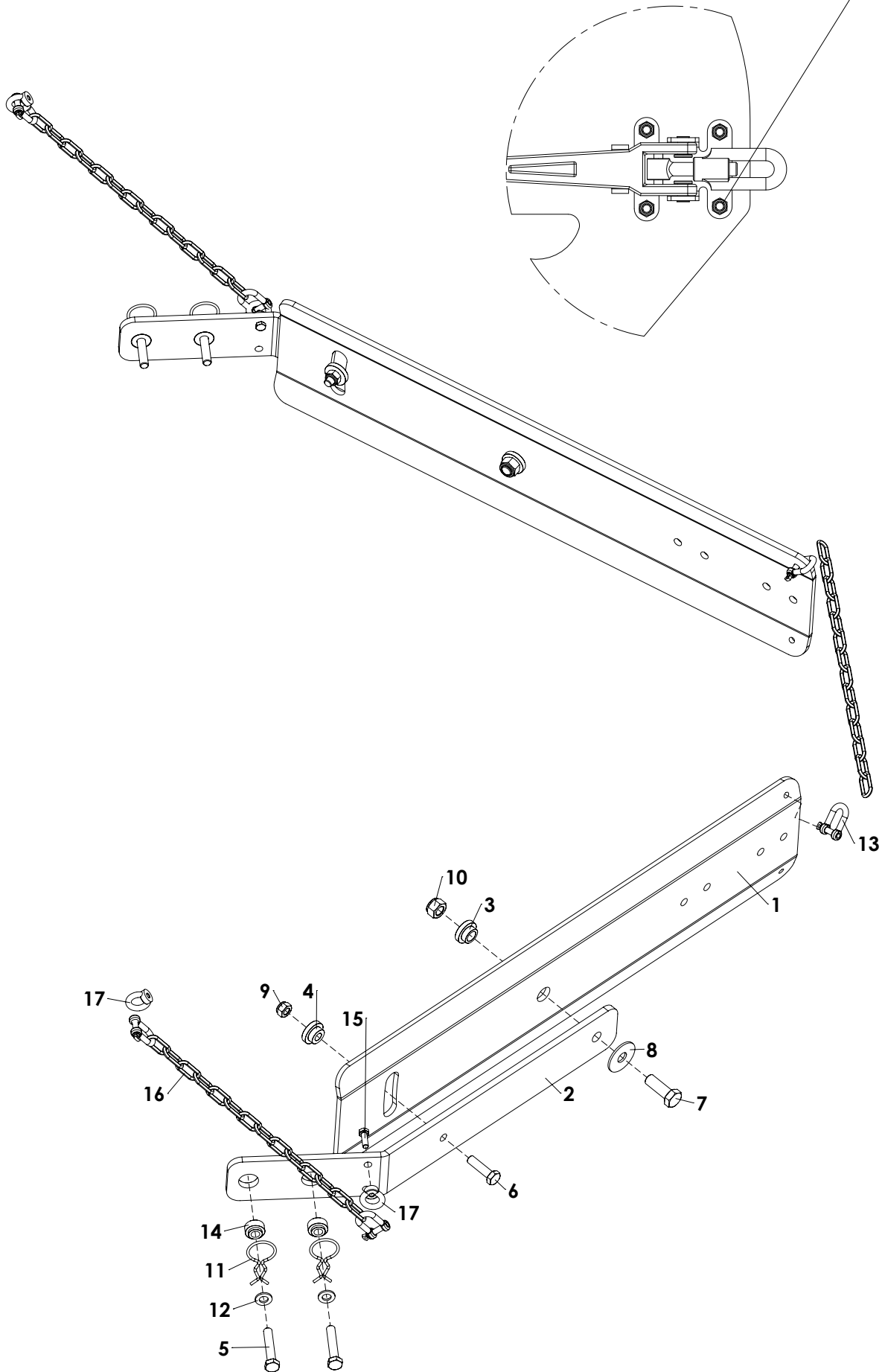
Composed hollow tines						7117
Shank						7117
	Size (mm)	Size (inch)	Part #			Qua
A	12	1/2	311.120.690	(Straight)		30
B	18	3/4	311.180.782	(Straight)		
C	12	1/2	311.180.780			30
D	24	1	311.240.862	(Straight)		
E	18	3/4	311.240.860			
Clip						7117
	Size (mm)	Size (inch)	Part #			Qua
F	16	5/8	438.160.160			30
G	22	7/8	438.220.220			30
H	30	1 3/16	438.300.300			
Hollow tine tube (folded)						7117
	Tine Size (mm)	Tine Size (inch)	Part #	Combine with:		Qua
	16 x 150	5/8 x 6	317.316.150	A and F		30A+30F
	16 x 200	5/8 x 8	317.316.200	A and F		
	22 x 150	7/8 x 6	317.322.150	B or C and G		30B+30G
				B or C and G		30C+30G
	22 x 250	7/8 x 10	317.322.250	B or C and G		
				B or C and G		
	22 x 150	7/8 x 6	317.322.150	B or C and G		12B+12G
	22 x 250	7/8 x 10	317.322.250	B or C and G		12C+12G
				B or C and G		
	30 x 150	1 3/16 x 6	317.330.150	E and H		
				E and H		
	30 x 225	1 3/16 x 9	317.330.220	E and H		
				E and H		
	30 x 300	1 3/16 x 12	317.330.300	E and H		

Redexim Verti-drain							Code 1620	Page 12
Adapter							7117	
	J	Tine Size (mm)	Tine Size (inch)	Part #			Qua	
		5	3/16	314.205.043			30	
	K	8	5/16	314.208.043			30	
Adapter							7117	
	L	Tine Size (mm)	Tine Size (inch)	Part #			Qua	
		18	3/4	2451800				
Multi-tine block complete WO tines							7117	
		Tine Size (mm)	Tine Size (inch)	Part #		Tines:	Qua	
		8mm (5 tines)	5/16	211.700.016	Combination of:	T-O-U-Y-Z	A1-A3-A4-A5	10 (50 tines)
		8mm (6 tines)	5/16	9990206	Combination of:	M-U	A1-A2-A3-A4-A5	
		8mm (8 tines)	5/16	9990208	Combination of:	N-U	A1-A2-A3-A4-A5	
		8mm (8 tines)	5/16	9990211	Combination of:	N-U-W	A1-A2-A3-A4-A5	
		8mm (8 tines)	5/16	314.430.209	Combination of:	P-U	A1-A2-A3-A4-A5	
		Tines:						
		A1	8 x 150	5/16 x 6	311.108.150	Solid tine		
		A2	8 x 175	5/16 x 7	9990056	Solid tine		
		A3	10 x 6 x 80	3/8 x 1/4 x 3	311.210.080	Hollow tine		
	A4	10 x 6 x 125	3/8 x 1/4 x 5	311.210.127	Hollow tine			
	A5	12 x 90	1/2 x 3 1/2	9990020	Cross tine			
Multi-tine block empty							7117	
	M	Tine Size (mm)	Tine Size (inch)	Part #			Qua	
		8mm (6 tines)	5/16	9990201				
	N	8mm (8 tines)	5/16	314.430.240				
	O	8mm (5 tines)	5/16	480.301.430			10	
	P	8mm (8 tines)	5/16	211.215.002				
Multi-tine block mini needles empty							7117	
	Q	Tine Size (mm)	Tine Size (inch)	Part #			Qua	
		5 (21 tines)	3/16	480.251.740				
	R	5 (12 tines)	3/16	314.425.140				
	S	5 (24 tines)	3/16	314.425.240				
Backup plate							7117	
	T	Size (mm)		Part #			Qua	
		143x50x3		464.031.432			10	
Tine lock bolt							7117	
	U	Size (mm)		Part #			Qua	
		10x40		812.100.401			50	
		10x35		4001675				
Bolt							7117	
	Y	Size (mm)		Part #			Qua	
		M10 x 80		802.100.800			20	
Nut							7117	
	Z	Size (mm)		Part #			Qua	
		SI nut M10		830.100.100			20	
Turf hold down fingers							7117	
		Part name				Part #	Qua	
		Turf hold down finger						
		Turf hold down finger MTH						
		Turf hold down finger 12mm end						
		Turf hold down finger 12mm				311.506.161	10	
		Turf hold down finger 18mm						
		Turf hold down finger 24mm end						
	Turf hold down finger 24mm							
Turf hold down kit							7117	
		Part name				Part #	Qua	
		THD kit complete						
		THD kit complete MTH						
		THD kit complete 12mm				211.711.004	1	
		THD kit complete 18mm						
		THD kit complete 24mm						

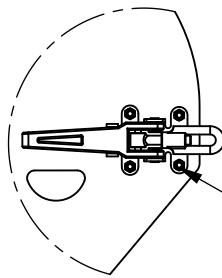
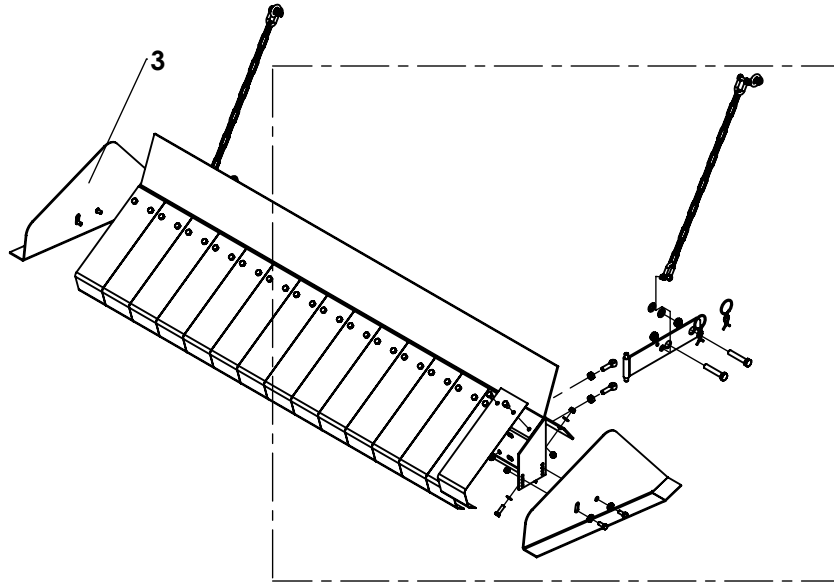




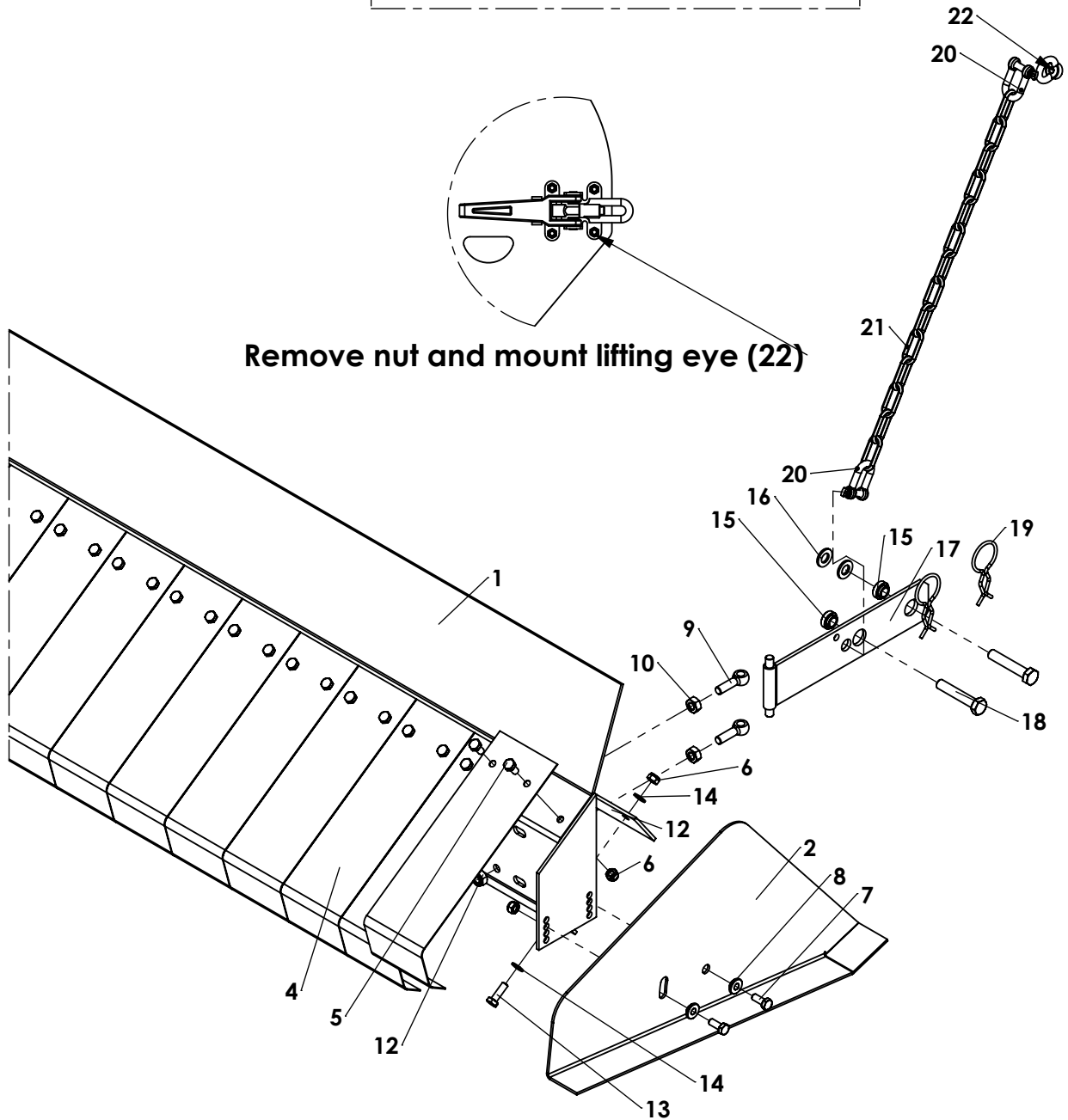
Remove nut and mount lifting eye (17)



ITEM	PART NUMBER	DESCRIPTION	REMARKS	QUA
1	468.089.000	Windrow plate		2
2	464.106.350	Windrow support		2
3	406.170.150	Distance bush		2
4	406.130.150	Distance bush		2
5	802.120.650	Bolt M12 x 65 - ISO 4014		4
6	804.120.450	Bolt M12 x 45 - ISO 4017		2
7	804.160.450	Bolt M16 x 45 - ISO 4017		2
8	864.160.031	Large washer M16 - DIN 9021		2
9	830.120.120	Self Lock Nut M12 - ISO 10511		2
10	830.160.160	Self Lock Nut M16 - ISO 10511		2
11	523.030.752	Special R-clip d3		4
12	864.120.030	Washer M12 - ISO 7089		4
13	846.080.241	D-Shackle D8		6
14	406.120.150	Distance bush		4
15	804.080.250	Bolt M8 x 25 - ISO 4017		2
16	846.064.300	Chain, 12 chackles (d=5mm l=0.5m)		3
17	822.080.360	Lifting Eye Nut M8 - DIN 582		4
	211.731.010	Windrow kit 7117 complete		



Remove nut and mount lifting eye (22)



ITEM	PART NUMBER	DESCRIPTION	REMARKS	QUA
1	470.049.202	Frame beam		1
2	468.035.420	Right side plate		1
3	468.035.422	Left side plate		1
4	468.013.100	Blade spring		15
5	804.080.160	Bolt M8 x 16 - ISO 4017		30
6	830.080.080	Self Lock Nut M8 - ISO 10511		43
7	804.080.200	Bolt M8 x 20 - ISO 4017		4
8	404.080.700	Distance bush		4
9	822.100.400	Eye bolt M10 x 40 DIN 444 - LB		4
10	826.100.100	Nut M10 - DIN 934		4
12	830.100.100	Self Lock Nut M10 - ISO 10511		4
12	446.049.201	Rubber strip		1
13	804.080.250	Bolt M8 x 25 - ISO 4017		9
14	864.080.030	Washer M8 - ISO 7089		18
15	404.160.100	Distance bush		4
16	864.160.030	Washer M12 - ISO 7089		4
17	470.053.000	Support arm		2
18	802.160.650	Bolt M12 x 65 - ISO 4014		4
19	523.030.752	Special R-clip d3		4
20	846.080.241	D-Shackle D8		4
21	846.064.300	Chain d=5mm l=0.5m		2
22	822.080.360	Lifting Eye Nut M8 - DIN 582		2
	9300080	Core Collector 7117 complete		1