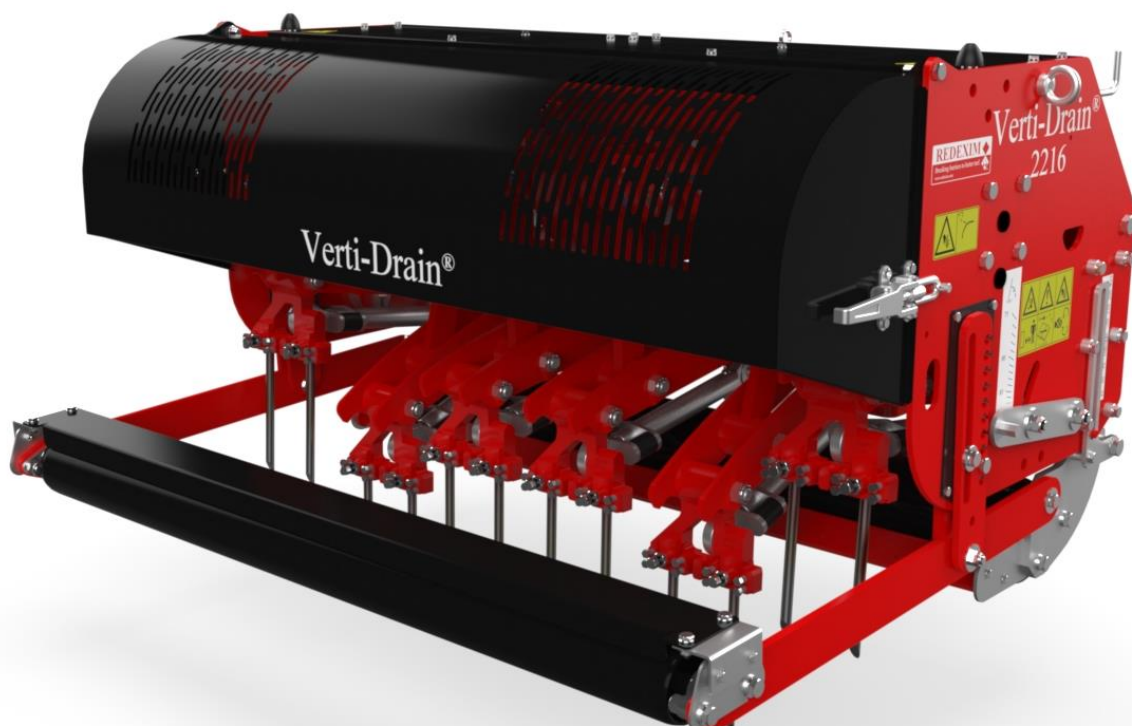
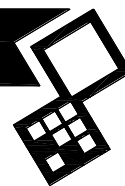


# **VERTI-DRAIN 2216-2220**



Version: 2135

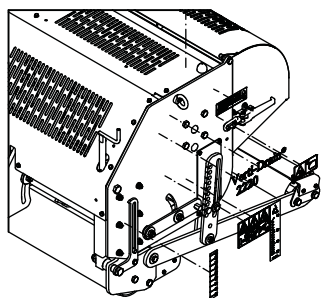


Kwekerijweg 8 | 3709JA | Zeist | The Netherlands |

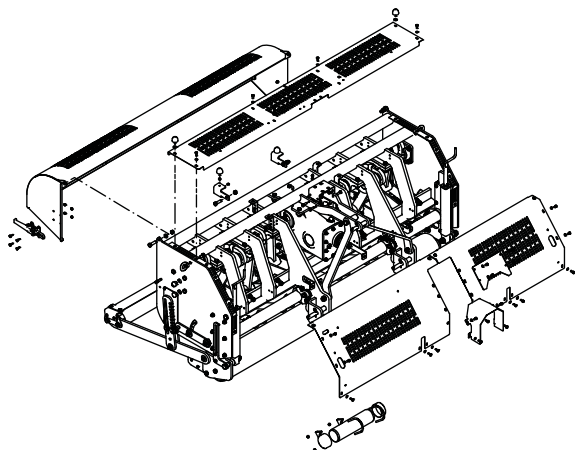
T: +31 (0)306 933 227

E: [redexim@redexim.com](mailto:redexim@redexim.com)

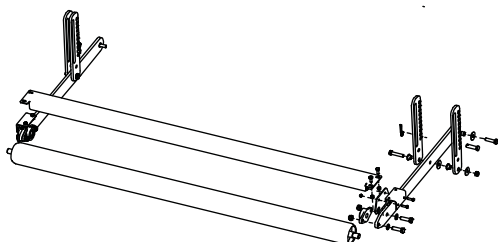
W: [www.redexim.com](http://www.redexim.com)



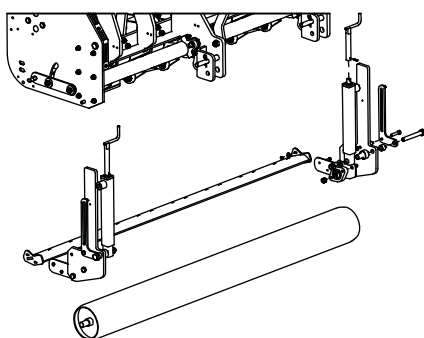
Page 02: Decalls



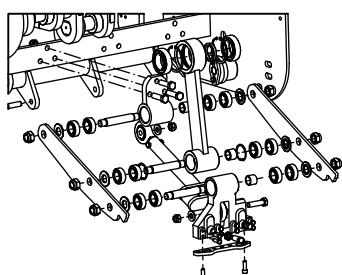
Page 03: Covers



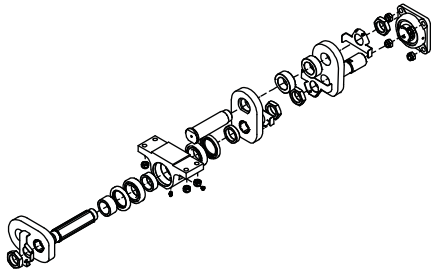
Page 04: Rear roller



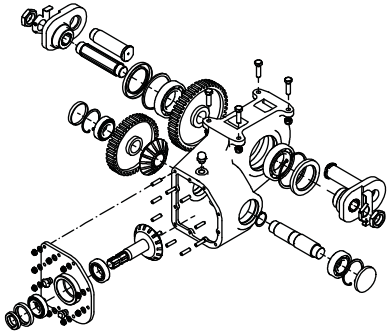
Page 05: Front roller



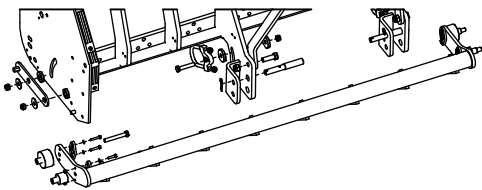
Page 06: Element



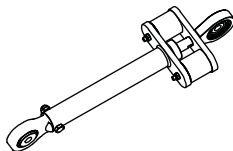
Page 07: Crankshaft



Page 08: Gearbox



Page 09: Central Bar



Page 10: Drawrod

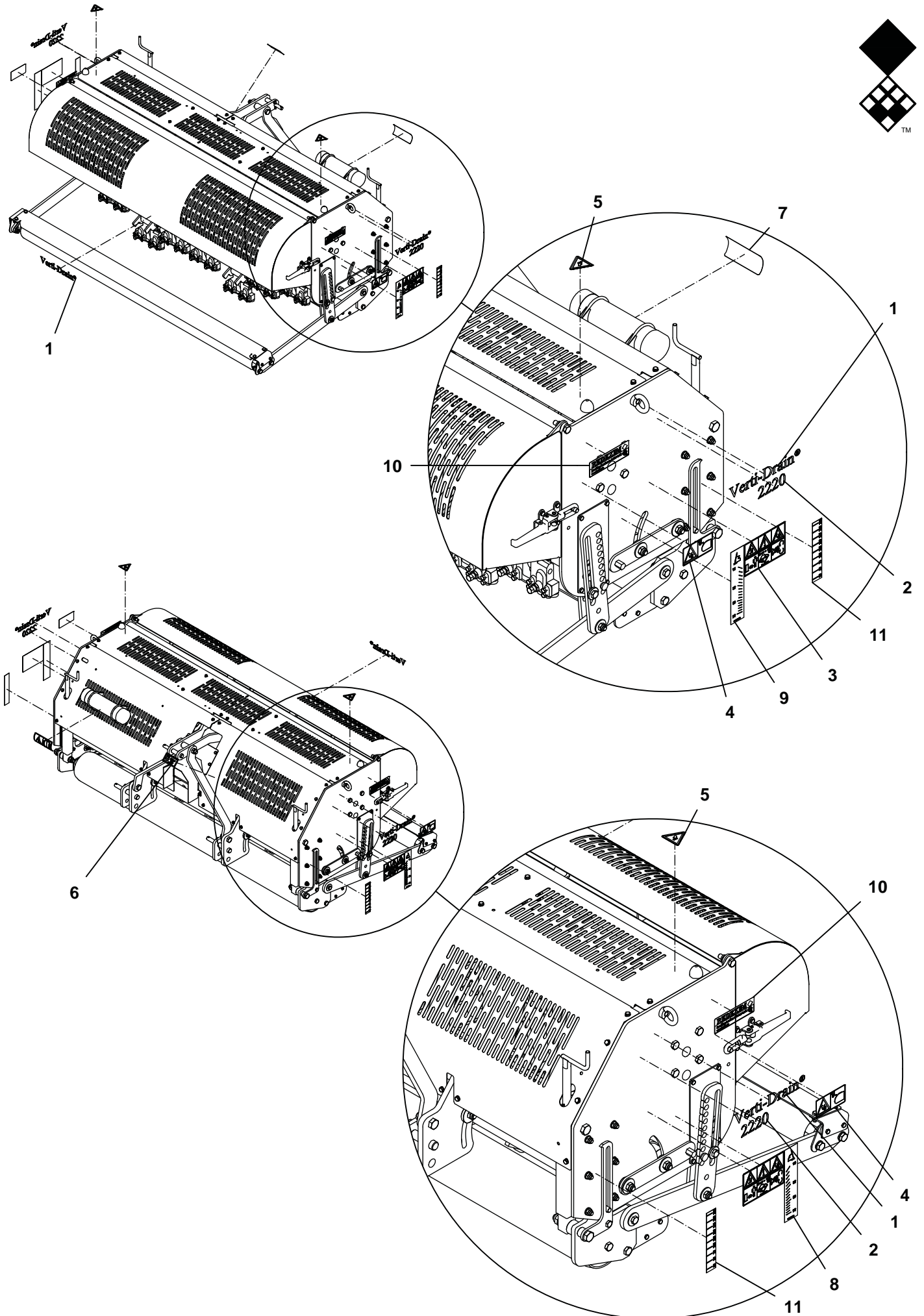
Page 11: Option Hydraulic height adjustment

Page 12: Option Windrow kit

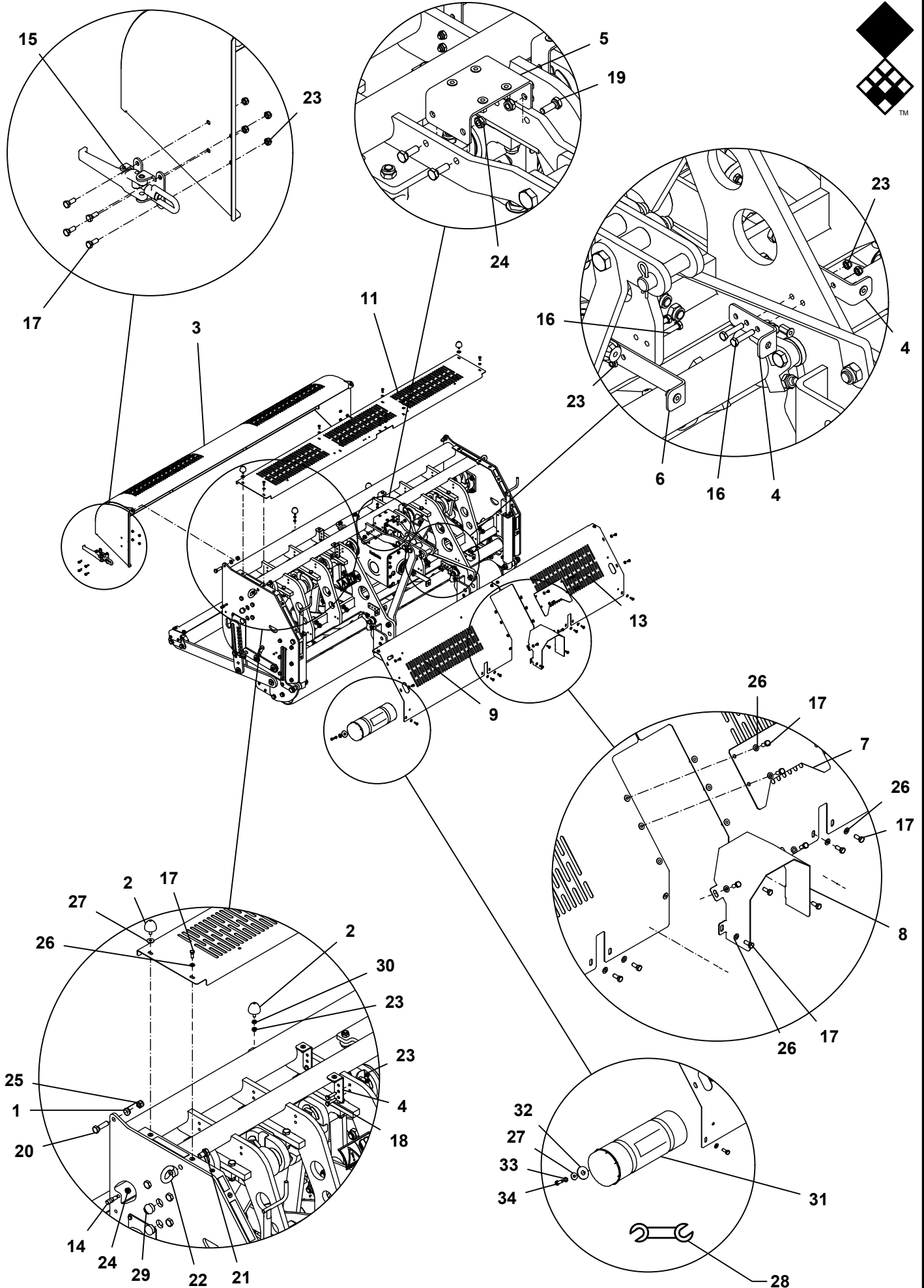
Page 13: Tines

Page 14: Adapters and turf hold down kits

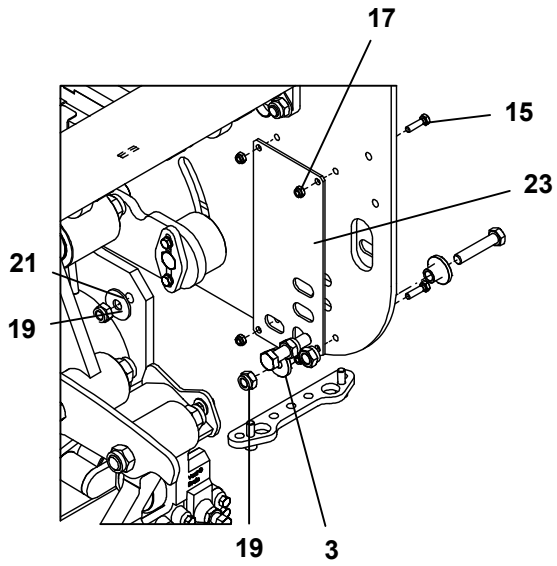
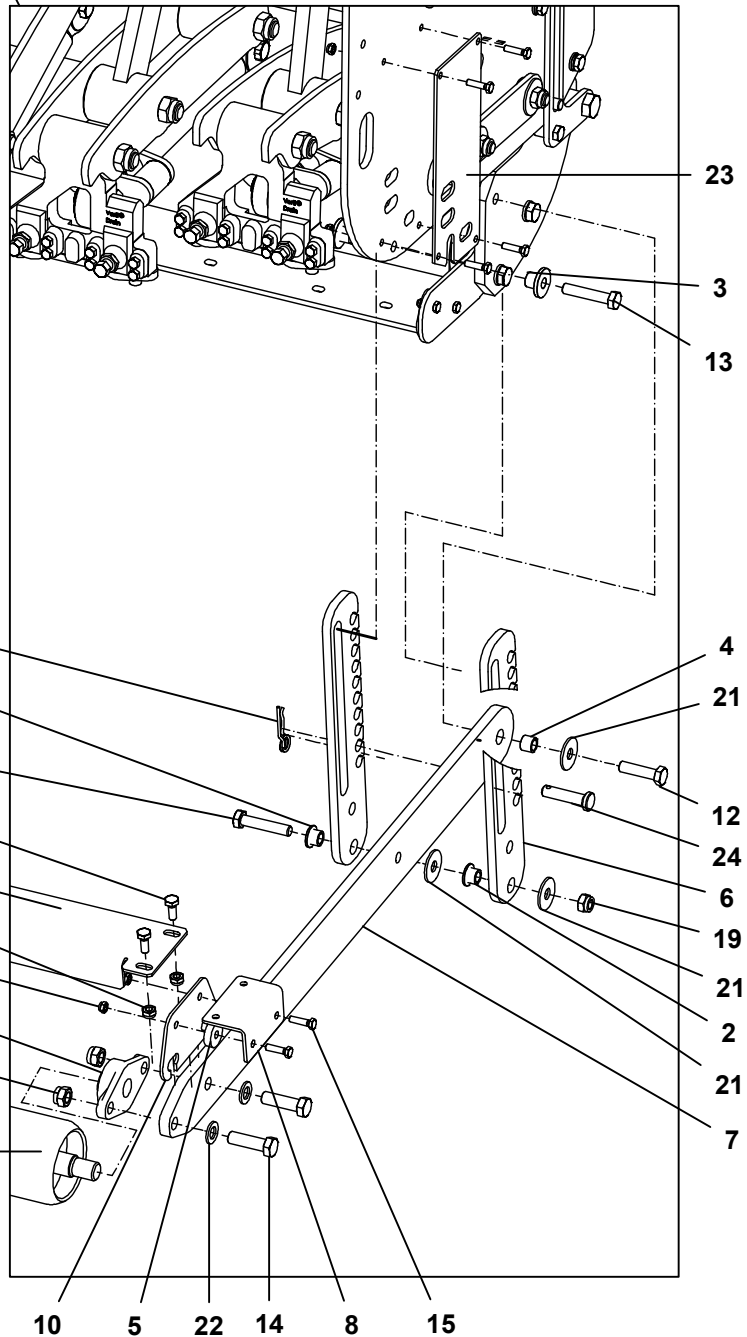
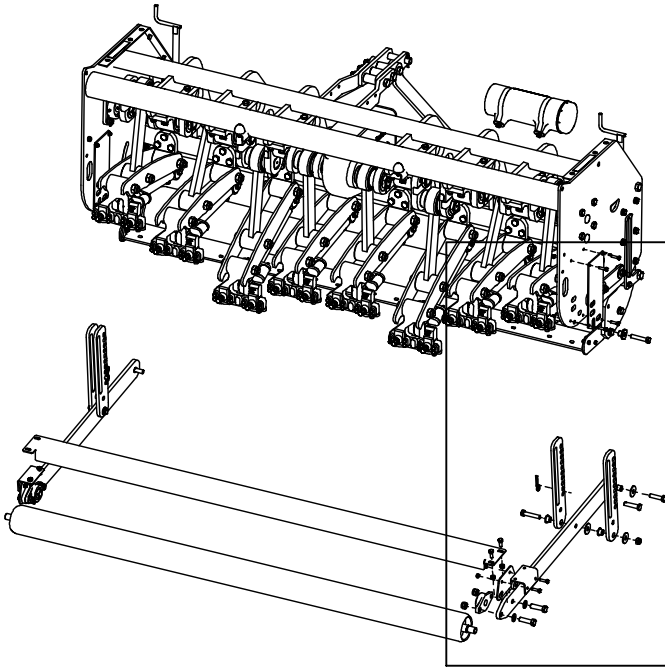
Page P1: PTO



	PART #	DESCRIPTION	REMARKS	QUA 2216	QUA 2220
1	911.260.402	Label Verti-Drain		3	3
2	911.260.200	Label 2220		0	2
	911.260.202	Label 2216		2	0
3	911.280.402	Safety decall VD		2	2
4	911.280.404	Close Cover		2	2
5	900.280.404	Cut off fingers		2	2
6	900.260.422	Decall PTO 350 540		1	1
7	900.280.402	Safety decall manual		1	1
8	911.340.420	Decall angle setting HSVD-7120 left		1	1
9	911.340.418	Decall angle setting HSVD-7120 right		1	1
10	900.260.403	Label logo		2	2
11	911.340.000	Decall height indicator 225		2	2

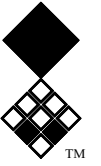


	PART #	DESCRIPTION	REMARKS	QUA 2216	QUA 2220
1	404.140.100	Distance Bush		2	2
2	446.080.550	Rubber stop		4	4
3	456.213.033	Weld Assy Cover		0	1
	456.158.037	Weld Assy Cover		1	0
4	464.040.850	Cover bracket		8	8
5	464.041.450	Bracket cover		1	1
6	464.041.800	Cover bracket		1	1
7	468.022.602	Protection cover		1	1
8	468.025.700	Cover plate PTO		1	1
9	468.029.112	Front cover right		0	1
10	468.028.700	Front cover right		1	0
11	468.029.214	Top cover		0	1
12	468.029.151	Top cover		1	0
13	468.029.700	Front cover left		0	1
	468.027.100	Front cover left		1	0
14	472.140.450	Clamp part		2	2
15	590.342.700	Clamp		2	2
16	802.080.400	Bolt DIN 931-1 - M8 x 40		6	6
17	804.080.200	Bolt DIN 933 - M8 x 20		24	24
18	804.080.350	Bolt DIN 933 - M8 x 35		8	8
19	804.100.300	Bolt DIN 933 - M10 x 30		4	4
20	804.140.500	Bolt DIN 933 - M14 x 50		2	2
21	804.160.250	Bolt DIN 933 - M16 x 25		2	2
22	822.160.360	Eye Nut DIN 582 - M16		2	2
23	830.080.080	SL Nut DIN 985 - M8		20	20
24	830.100.100	SL Nut DIN 985 - M10		6	6
25	830.140.140	SL Nut DIN 985 - M14		2	2
26	864.080.030	Washer DIN 125 - M8		32	32
27	864.080.031	Large Washer DIN 9021 - 8,4		4	4
28	468.083.060	Toolset		1	1
29	892.300.170	Plastic stop Ø30		4	4
30	826.080.080	Nut DIN 934 - M8		2	2
31	444.803.100	Toolbox complete		1	1
32	864.140.031	Large Washer DIN 9021 - 15		2	2
33	866.080.020	Spring washer DIN 127 - A 8		2	2
34	804.080.300	Bolt DIN 933 - M8 x 30		2	2

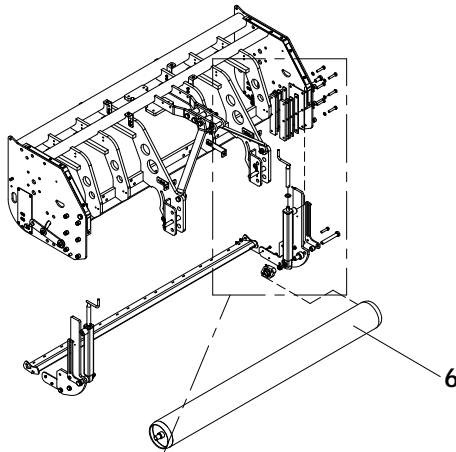




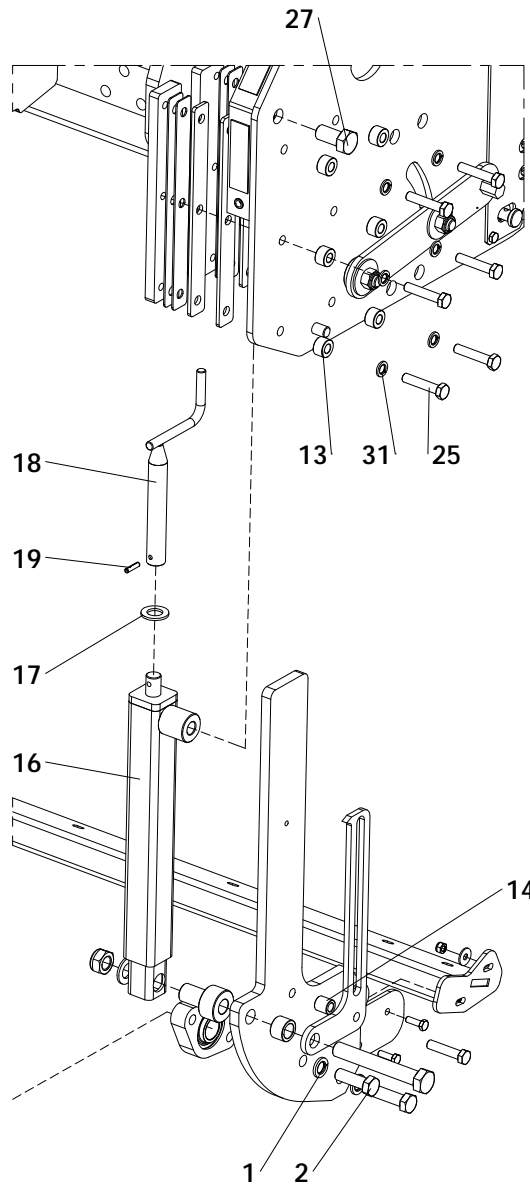
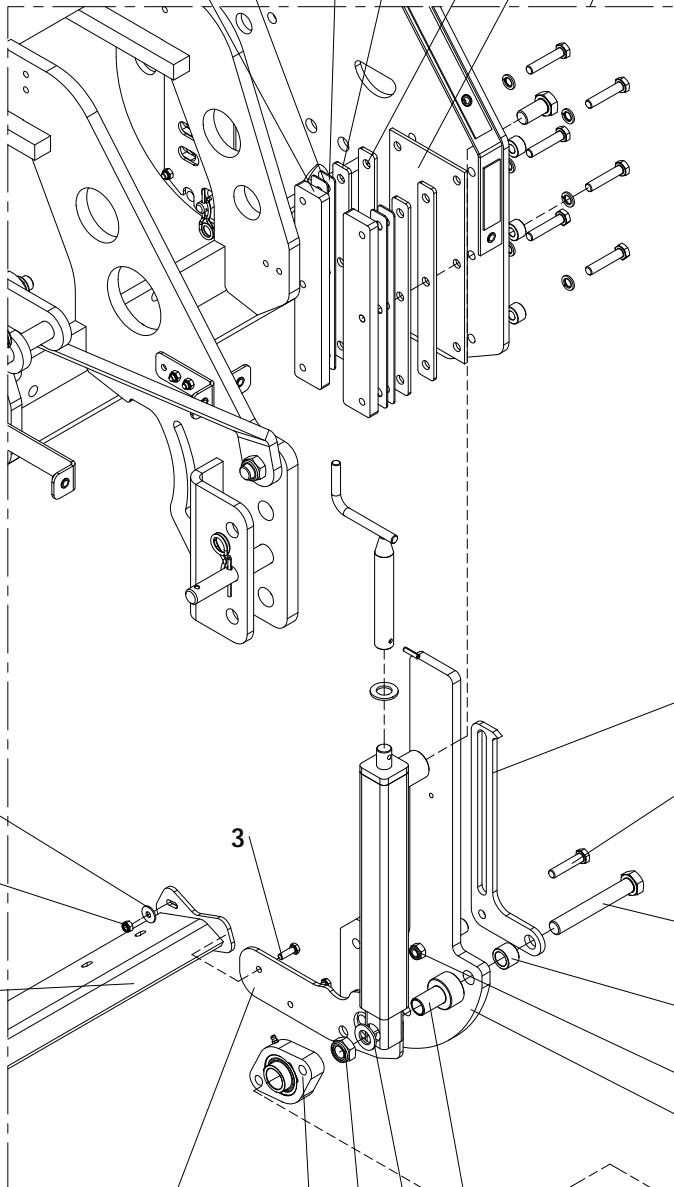
	PART #	DESCRIPTION	REMARKS	QUA 2216	QUA 2220
1	742.250.360	Bearing UCFL 205		2	2
2	404.140.150	Distance Bush Ø20/Ø14, L= 15		4	4
3	404.140.160	Distance Bush Ø20/Ø14, L= 16		4	4
4	406.150.320	Distance Bush Ø20/Ø14.5, L= 32		2	2
5	446.100.100	Rubber ring		4	4
6	464.123.752	Rear Roller Support		4	4
7	464.159.110	Arm Rear Roller	Length=1015mm (40")	2	2
	464.159.250	Arm Rear Roller	Length=965mm (38")	2	2
8	468.041.110	Bracket		2	2
9	468.049.210	Rear Roller Scraper		0	1
	468.049.157	Rear roller scraper		1	0
10	468.081.600	Bearing plate		2	2
11	488.114.209	Weld Assy Rear Roller		0	1
	488.114.156	Weld Assy Rear roller		1	0
12	802.140.550	Bolt DIN 931-1 - M14 x 55		2	2
13	802.140.700	Bolt DIN 931-1 - M14 x 70		4	4
14	802.160.550	Bolt DIN 931-1 - M16 x 55		4	4
15	804.080.300	Bolt DIN 933 - M8 x 30		12	12
16	804.100.250	Bolt DIN 933 - M10 x 25		4	4
17	830.080.080	SL Nut DIN 985 - M8		12	12
18	830.100.100	SL Nut DIN 985 - M10		4	4
19	830.140.140	SL Nut DIN 985 - M14		6	6
20	830.160.160	SL Nut DIN 985 - M16		4	4
21	864.140.031	Large Washer DIN 9021 - 15		8	8
22	864.160.030	Washer DIN 125 - M16		4	4
23	444.042.000	Slide plate		4	4
24	521.160.510	Lock pin CAT 0 WTS		2	2
25	523.030.750	R-Clip Round 3, DIN 11024		2	2



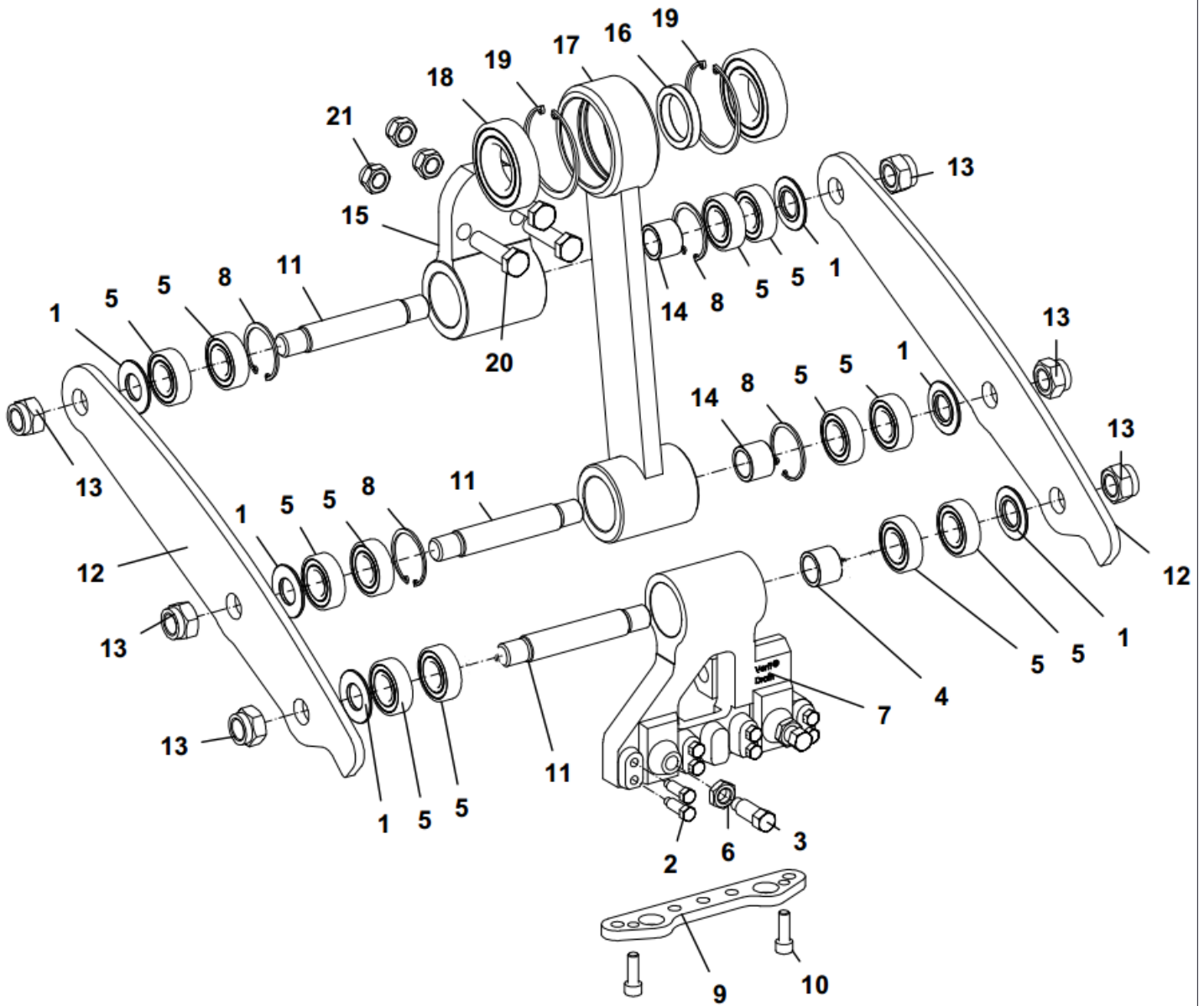
TM



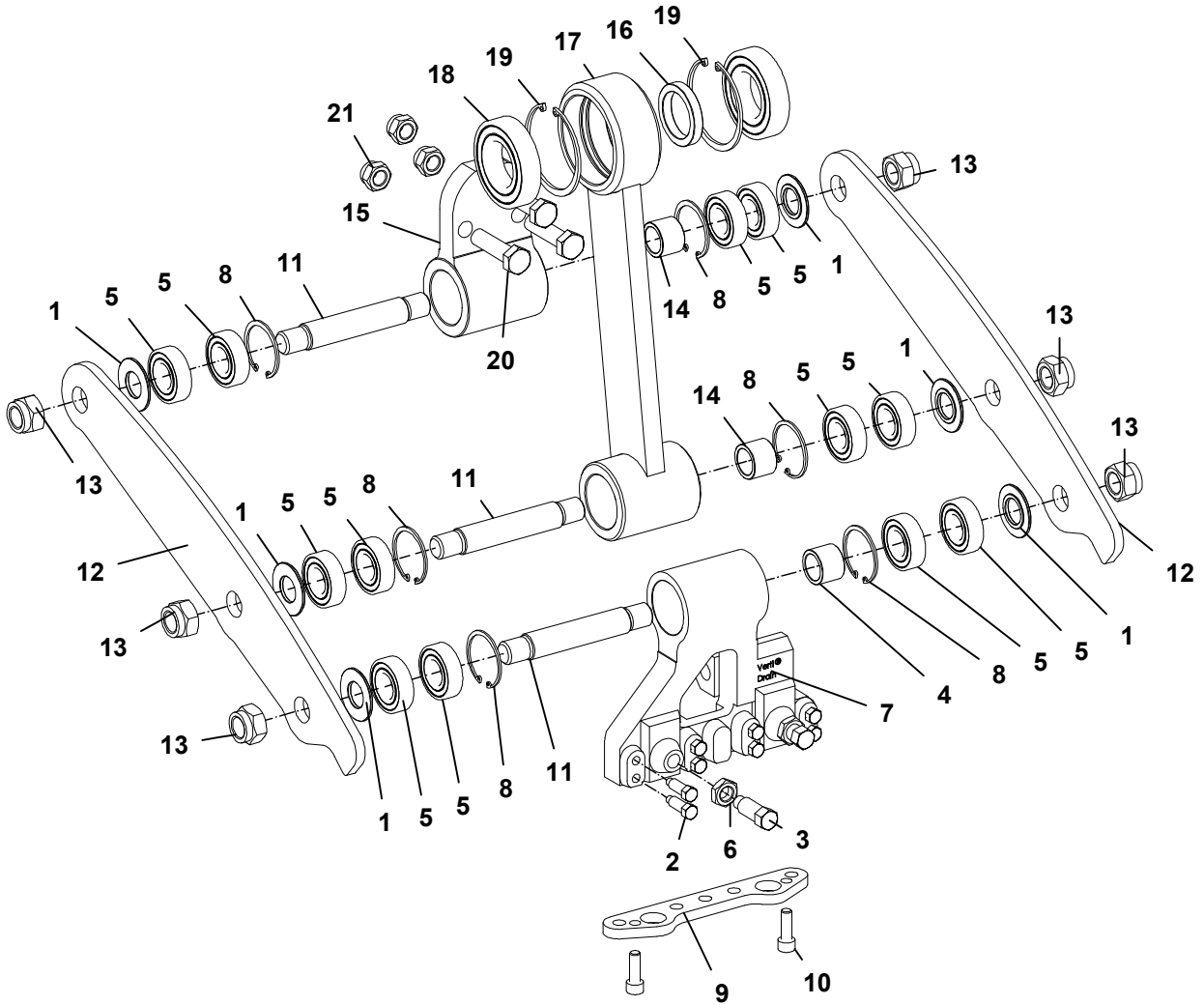
20 22 22 21 21 11



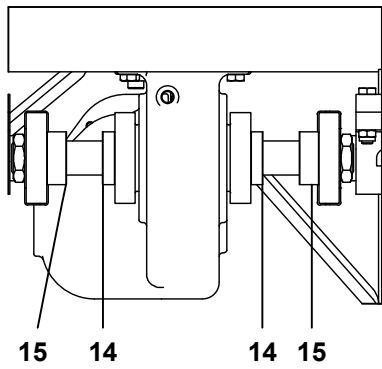
ITEM	PART NUMBER	DESCRIPTION	REMARKS	QUA 2216	QUA 2220
1	866.160.020	Spring Washer M16 - DIN 127		4	4
2	804.160.500	Bolt M16 x 50 - ISO 4017		4	4
3	804.080.250	Bolt M8 x 25 - ISO 4017		4	4
4	864.080.024	Large washer M8 - DIN 9021		4	4
5	830.080.080	Self Lock Nut M8 - ISO 10511		4	4
6	488.194.207	Front roller	VD2220	0	1
	488.194.154	Front roller	VD2216	1	0
7	464.156.250	Front roller support		2	2
8	742.302.400	Front roller bearing		2	2
9	468.063.040	Mounting strip THD Beam		2	2
10	470.109.205	THD Beam	VD2220	0	1
	470.109.153	THD Beam	VD2216	1	0
11	311.505.320	Skid plate height adjustment		2	2
12	404.200.660	Collar bush		2	2
13	406.120.154	Distance bush Ø25/Ø12.5 h=15		12	12
14	406.120.200	Distance bush		2	2
15	406.200.200	Distance bush		2	2
16	460.504.804	Jack VD2216-VD2220		2	2
17	864.200.030	Washer M20 - ISO 7089		2	2
18	474.252.500	Spindle head long		2	2
19	878.060.260	Roll Pin 6 x 26 - ISO 8752		2	2
20	464.053.400	Strip		4	4
21	464.203.400	Strip		8	8
22	468.013.400	Shim plate		8	8
23	468.053.050	Pointer		2	2
24	802.120.550	Bolt M12 x 55 - ISO 4014 - 10.9		2	2
25	802.120.600	Bolt M12 x 60 - ISO 4014		12	12
26	802.201.400	Bolt M20 x 140 - ISO 4014		2	2
27	804.200.400	Bolt M20 x 40 - ISO 4017		2	2
28	830.120.120	Self Lock Nut M12 - ISO 10511		2	2
29	830.200.200	Self Lock Nut M20 Din 985 h=17		2	2
30	864.200.030	Washer M20 - ISO 7089		2	2
31	866.120.020	Spring Washer M12 - DIN 127		12	12



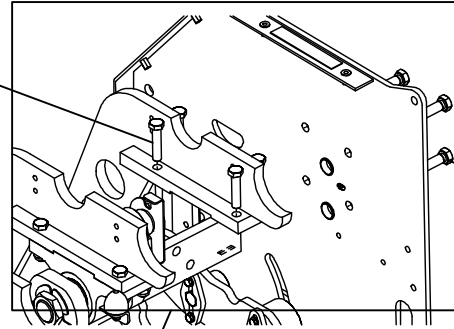
	PART #	DESCRIPTION	REMARKS	QUA 2216	QUA 2220
1	2661700	Distance washer	Qua for 1 element	6	6
2	4001675	Tine holder bolt	Qua for 1 element	8	8
3	4002315	Tine holder bolt M16	Qua for 1 element	2	2
4	406.250.250	Distance bush	Qua for 1 element	1	1
5	713.250.150	Bearing 6205-LLU	Qua for 1 element	12	12
6	826.160.080	Low Nut Din 439-2 M16	Qua for 1 element	2	2
7	492.218.090	Tine holder empty (no circlips needed)	Qua for 1 element	1	1
8	872.052.200	Cir Clip DIN 472 - 52x2	Qua for 1 element	4	4
9	468.102.230	Additional plate Tineholder 75	Qua for 1 element	1	1
10	814.100.300	Bolt DIN 912 - M10 x 30	Qua for 1 element	2	2
11	416.251.550	Support axis	Qua for 1 element	3	3
12	468.104.750	Element strip	Qua for 1 element	2	2
13	830.220.220	SL Nut DIN 985 - M22	Qua for 1 element	6	6
14	2602452	Inner bush	Qua for 1 element	2	2
15	448.760.164	Bearing support house	Qua for 1 element	1	1
16	402.450.100	Distance bush Ø45,2/Ø60 L=10	Qua for 1 element	1	1
17	466.110.442	Connecting rod	Qua for 1 element	1	1
18	713.450.190	Bearing 6209 LLU	Qua for 1 element	2	2
19	872.085.300	Cir Clip DIN 472 - 85x3	Qua for 1 element	2	2
20	802.160.600	Bolt DIN 931-1 - M16 x 60	Qua for 1 element	3	3
21	830.160.160	SL Nut DIN 985 - M16	Qua for 1 element	3	3



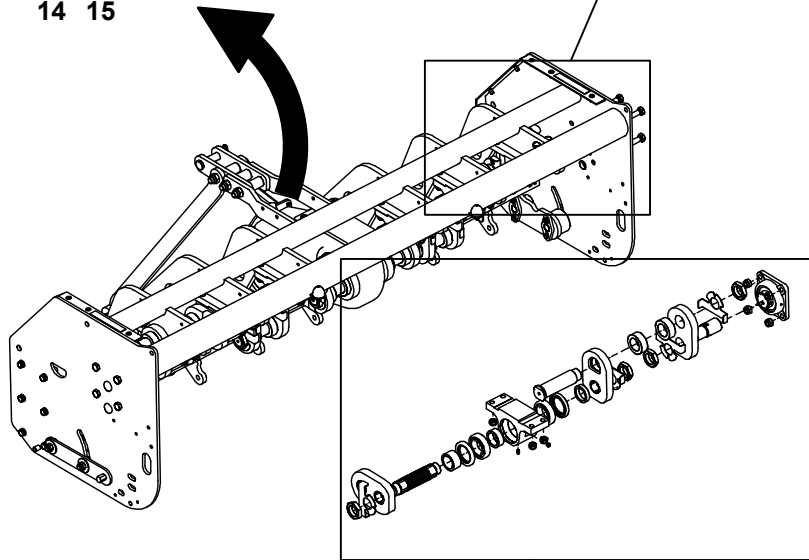
	PART #	DESCRIPTION	REMARKS	QUA 2216	QUA 2220
1	2661700	Distance washer	Qua for 1 element	6	6
2	4001675	Tine holder bolt	Qua for 1 element	8	8
3	4002315	Tine holder bolt M16	Qua for 1 element	2	2
4	406.250.250	Distance bush	Qua for 1 element	1	1
5	713.250.150	Bearing 6205-LLU	Qua for 1 element	12	12
6	826.160.080	Low Nut Din 439-2 M16	Qua for 1 element	2	2
7	492.218.090	Tine holder empty	Qua for 1 element	1	1
8	872.052.200	Cir Clip DIN 472 - 52x2	Qua for 1 element	6	6
9	468.102.230	Additional plate Tineholder 75	Qua for 1 element	1	1
10	814.100.300	Bolt DIN 912 - M10 x 30	Qua for 1 element	2	2
11	416.251.550	Support axis	Qua for 1 element	3	3
12	468.104.750	Element strip	Qua for 1 element	2	2
13	830.220.220	SL Nut DIN 985 - M22	Qua for 1 element	6	6
14	2602452	Inner bush	Qua for 1 element	2	2
15	448.760.164	Bearing support house	Qua for 1 element	1	1
16	402.450.100	Distance bush Ø45,2/Ø60 L=10	Qua for 1 element	1	1
17	466.110.442	Connecting rod	Qua for 1 element	1	1
18	713.450.190	Bearing 6209 LLU	Qua for 1 element	2	2
19	872.085.300	Cir Clip DIN 472 - 85x3	Qua for 1 element	2	2
20	802.160.600	Bolt DIN 931-1 - M16 x 60	Qua for 1 element	3	3
21	830.160.160	SL Nut DIN 985 - M16	Qua for 1 element	3	3



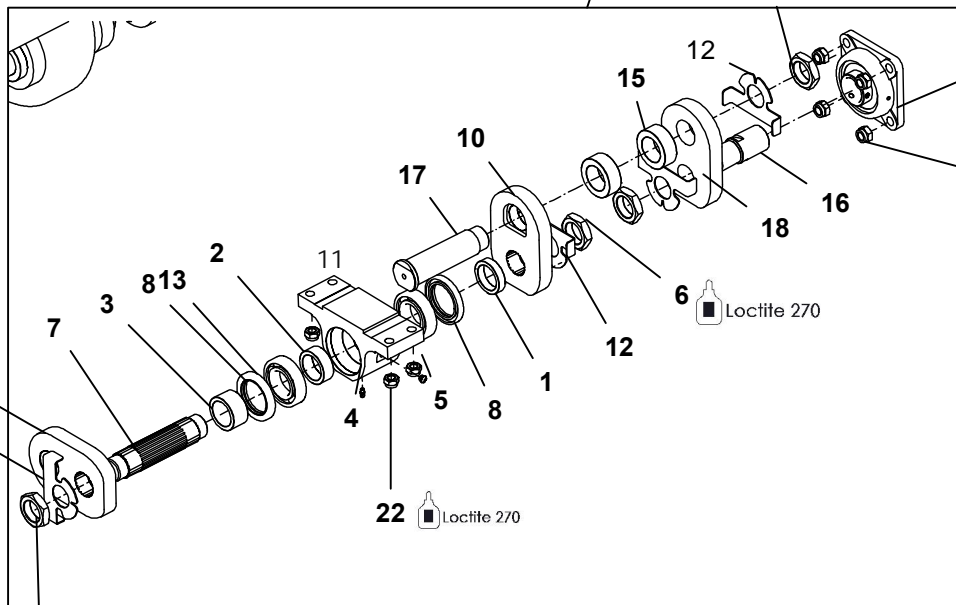
Loctite 270 20



Loctite 270 21



Loctite 270 6



Loctite 243 (Set screw) 19

Loctite 270 23

Loctite 270 6

Loctite 270 22

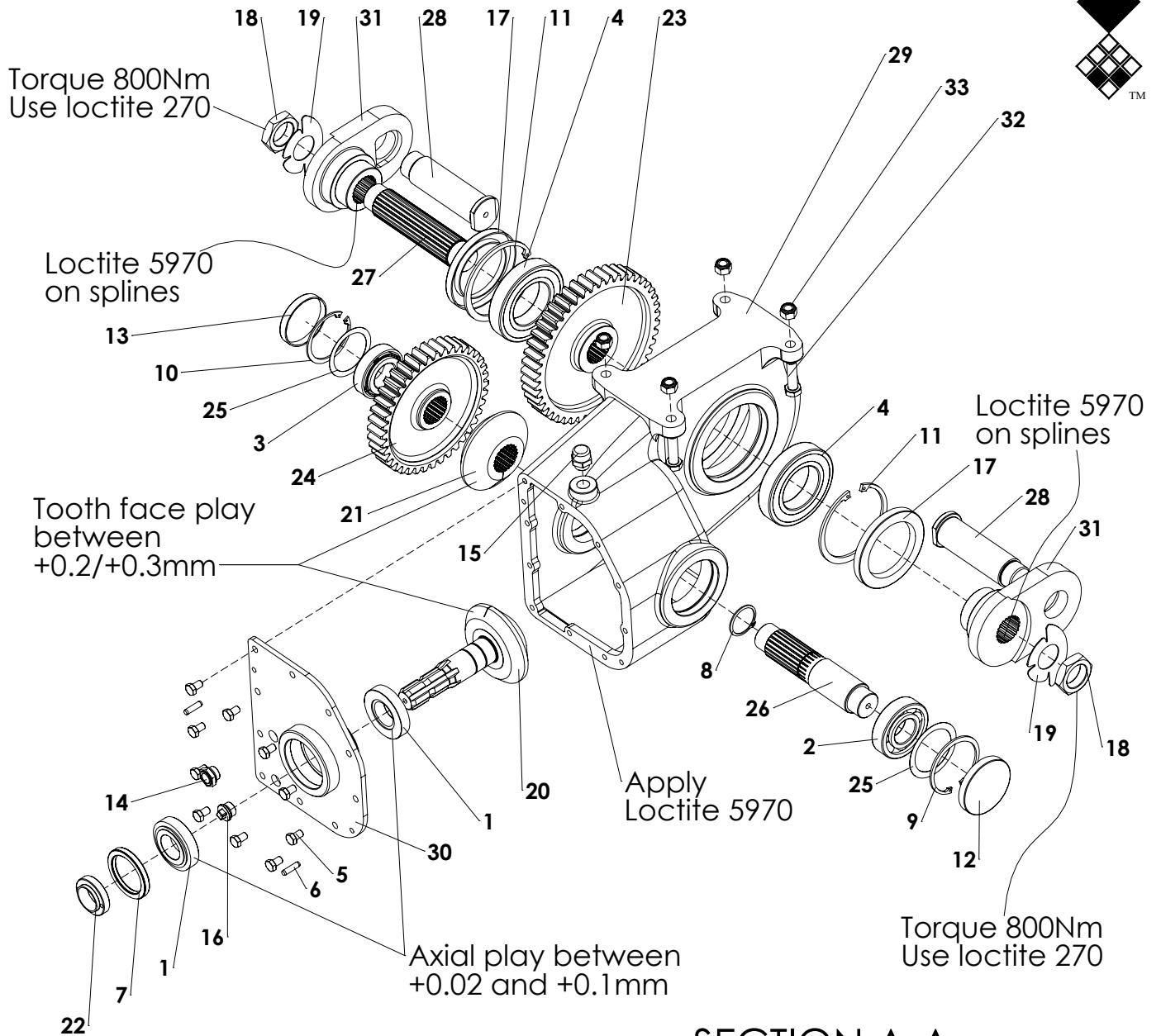
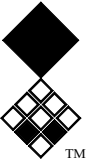
Loctite 270 6

VD2216 120° angle between crank

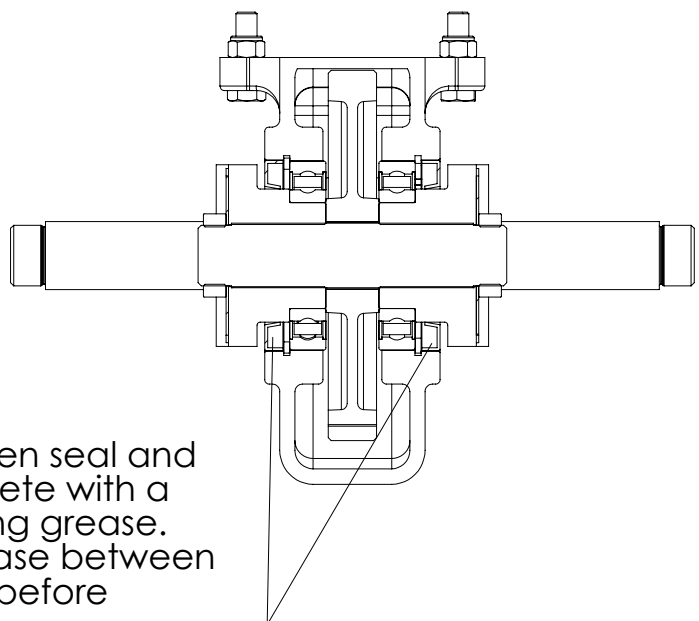
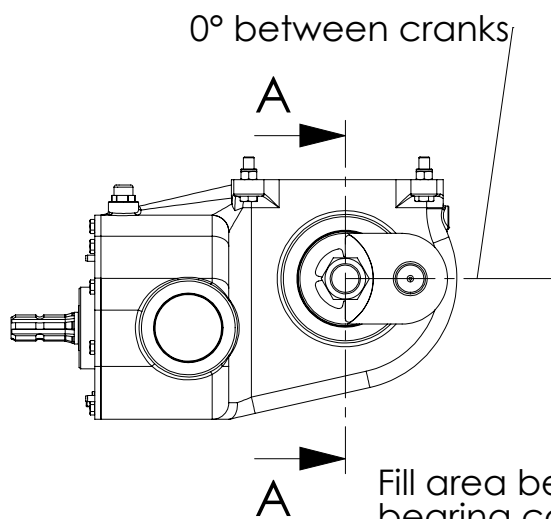
VD2216 90° angle between crank (shown), more details see chapter 14 users manual.



	PART #	DESCRIPTION	REMARKS	QUA 2216	QUA 2220
1	406.450.140	Distance Bush Ø60/Ø45,2 L=14		4	6
2	406.460.222	Distance Bush Ø60/Ø45,2 L= 22		4	6
3	406.460.320	Distance Bush Ø60/Ø45,2 L=32		4	6
4	880.080.100	Grease nipple M8 DIN 71412A		4	6
5	4067000	Breather for bearing support M10x1x11		4	6
6	4109600	Crank shaft nut M40 x 1.75		16	22
7	420.451.980	Splined Shaft		4	6
8	4408967	Oil Seal 60-85-10		8	12
9	464.271.890	Splined crank big end nut side		0	6
	464.271.891	Splined crank big end nut side VD2216		4	0
10	464.271.892	Splined crank big end head side		4	6
11	472.802.250	Crankshaft bearing block		4	6
12	5001718	Lock plate		16	22
13	711.450.190	Bearing 6209		8	12
14	406.400.160	Distance bush Ø70/Ø45,1 L=16		2	2
15	406.400.260	Distance bush Ø70/Ø45,1 L=26		10	14
16	416.451.090	End shaft		2	2
17	416.451.730	Big end pin		4	6
18	464.271.894	Crank handle		2	2
19	741.450.490	Flanged Bearing Unit UCF 209		2	2
20	802.140.650	Bolt DIN 931-1 - M14 x 65		16	24
21	804.160.450	Bolt DIN 933 - M16 x 45		8	8
22	830.140.140	SL Nut DIN 985 - M14		16	24
23	830.160.160	SL Nut DIN 985 - M16		8	8



SECTION A-A

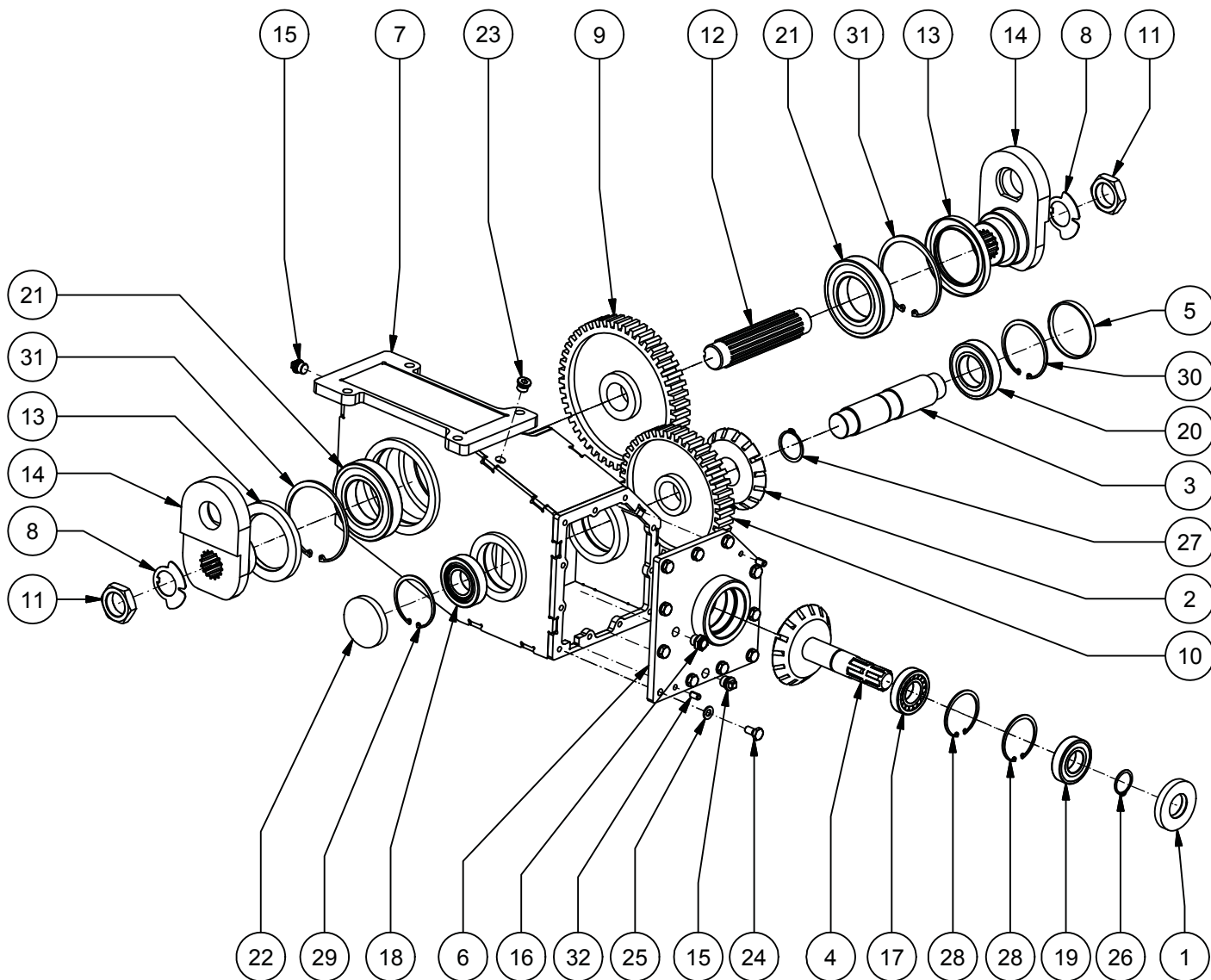


Fill area between seal and bearing complete with a NLGI 2-3 bearing grease. Also apply grease between shaft and seal before assembly.

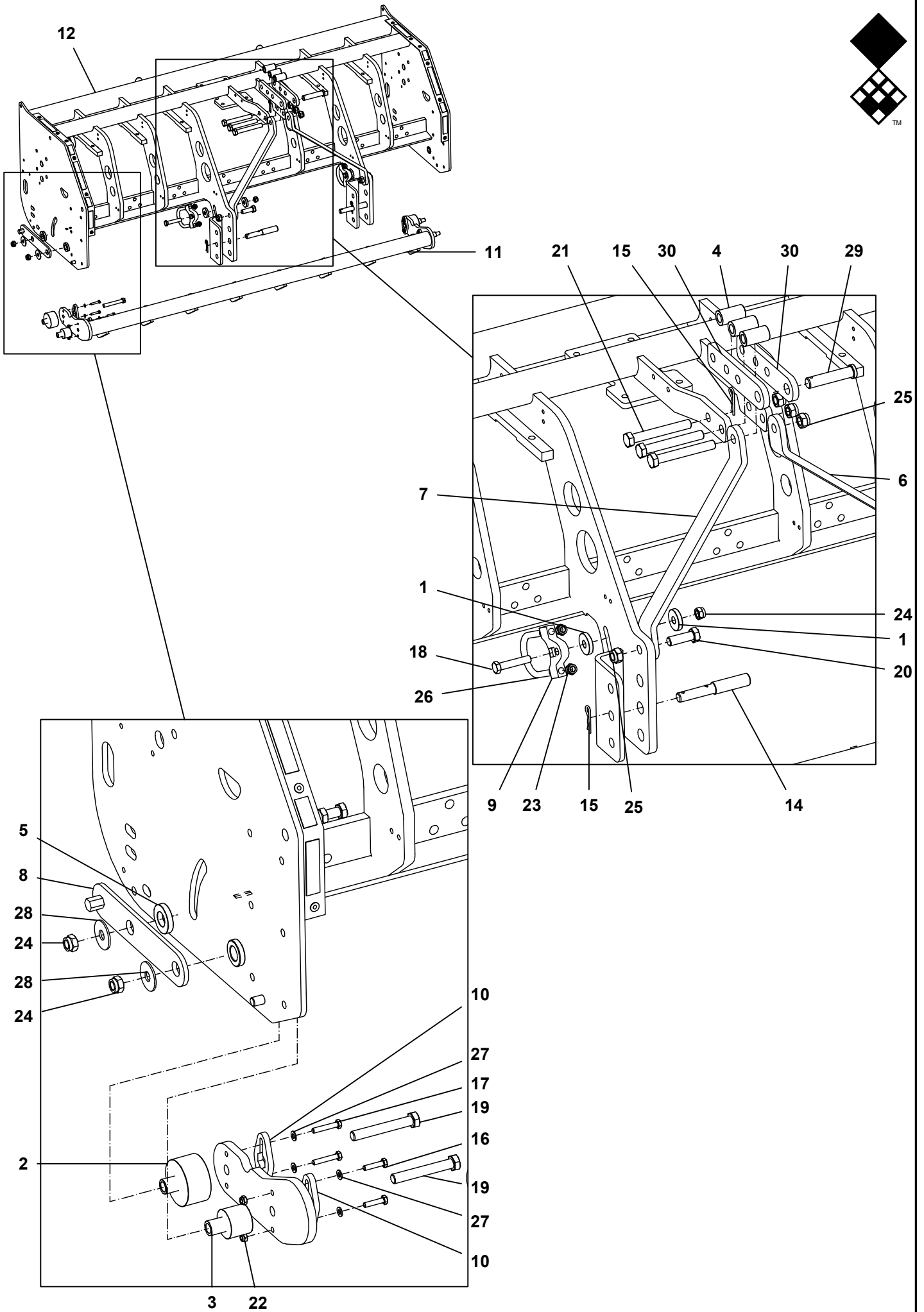
ITEM	PART NUMBER	DESCRIPTION	REMARKS	QUA
1	725.400.200	Bearing 30208		2
2	4816980	Bearing 6308		1
3	4810470	Bearing 32208		1
4	713.700.240	Bearing 6214-2RSR		2
5	804.100.160	Bolt M10 x 16 - ISO 4017		10
6	876.080.300	Parallel Pin 8x30		2
7	4408930	Seal 60x80x10		1
8	870.045.180	Circlip DIN 471 - 45 x 1.75		1
9	872.090.300	Circlip D=90 - DIN 472		1
10	872.080.250	Circlip D=80 - DIN 472		1
11	872.125.400	Circlip D=129 - DIN 472		2
12	4480008	End cap 90x12		1
13	4972580	End cap 80x12		1
14	820.210.180	Level / fill glass		1
15	537.120.300	Breather 1/2"		1
16	4561000	Tap 1/2"		1
17	4410150	Oil Seal 88x126x12 RP		2
18	4109600	Crank shaft nut M40x1.75		2
19	5002865	Lockplate gearbox side		2
20	2544500	Pignon wheel with shaft	Replace together with crown wheel	1
21	5002100	Crown wheel	Replace together with pignon wheel	1
22	5001181	Lock nut M40x1.5		1
23	2505477	Side gear Z=47		1
24	2506825	Side gear Z=40		1
25	869.090.001	Set of shims	Ø70xØ90 2x0.1 1x0.3 Ø63xØ80 2x0.1 1x0.3	1
26	5002101	Crown wheel shaft		1
27	420.452.040	Splined shaft		1
28	416.451.630	Big end pin		2
29	5002097	Gearbox casing		1
30	2471109	Cover gearbox		1
31	448.189.072	Splined crank handle gearbox		2
32	804.140.500	Bolt M14 x 50 - ISO 4017		4
33	830.140.140	Self Lock Nut M14-ISO 10511 Class 10		4
		Use Oil 80W90		5.8 Ltr
	490.556.120	Gearbox VD2216/2220 complete		



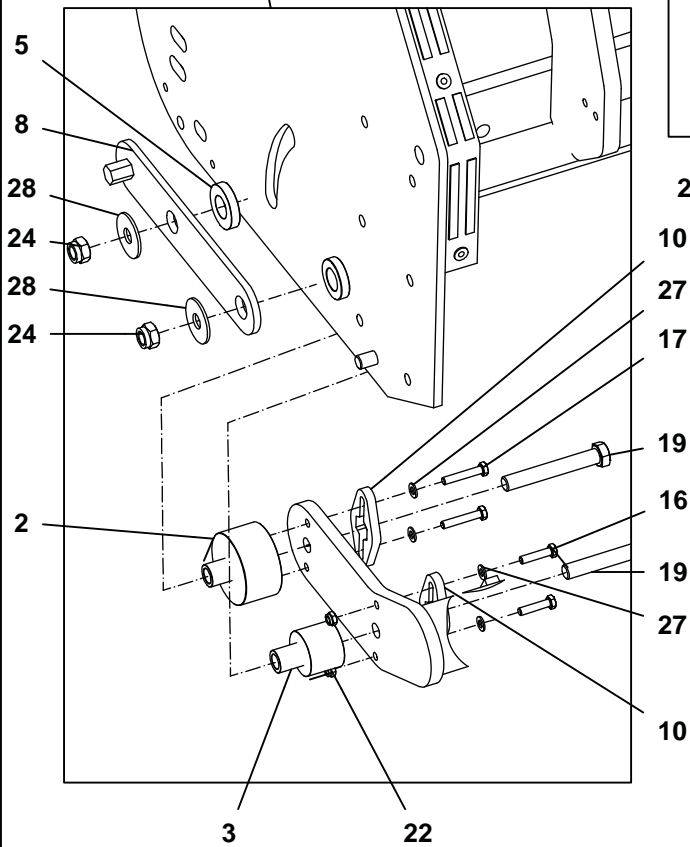
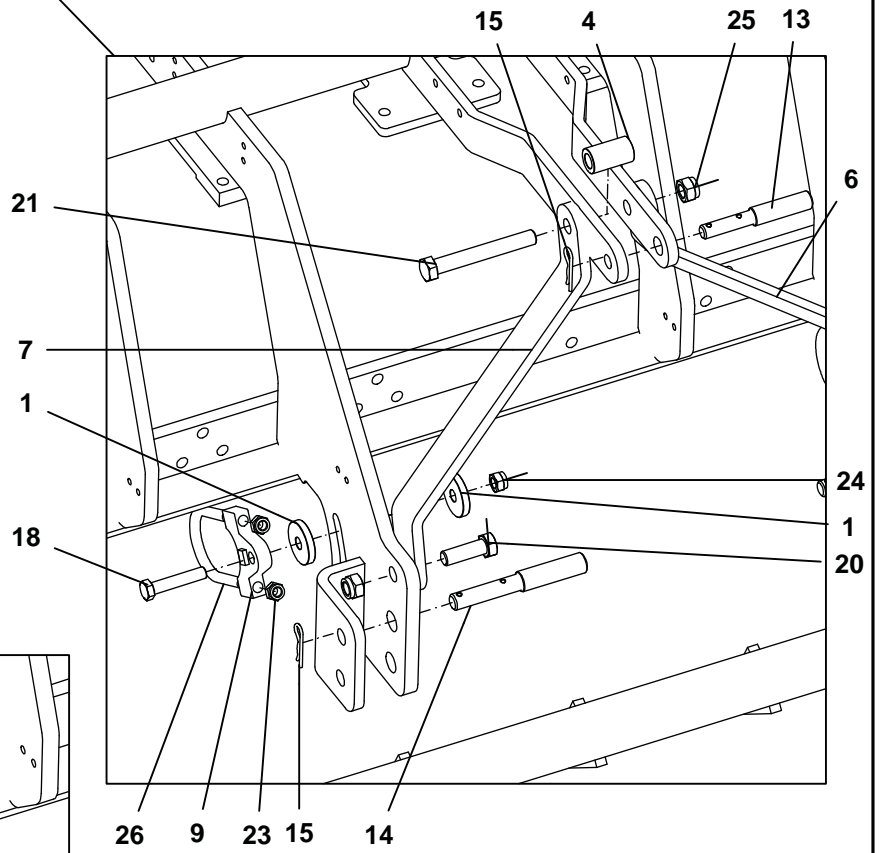
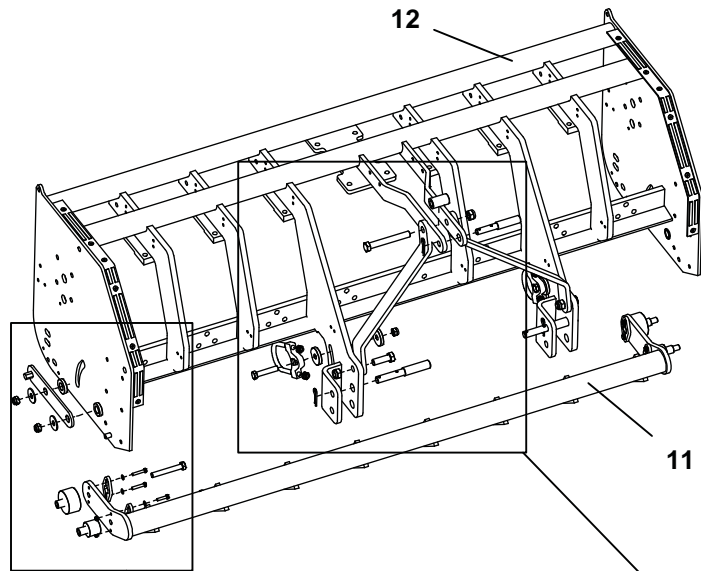
Welded gear housing !!!



	PART VD2216	PART VD2220	DESCRIPTION	REMARKS	QUA	QUA
1	4406460	Same	Seal ring		1	1
2	5002100	Same	pignon wheel		1	1
3	5002101	Same	Crown wheel shaft		1	1
4	5002099	Same	Pignon wheel with shaft		1	1
5	4480008	Same	Seal, D=90		1	1
6	5002098	Same	Cover gearbox		1	1
7	5002097	Same	Weldment gearbox		1	1
8	2281539	Same	Lock plate		2	2
9	2505477	Same	Side gear		1	1
10	2506825	Same	Side gear		1	1
11	4109600	Same	Crank shaft nut M40 x 1.75		2	2
12	420.452.040	Same	Splined Shaft		1	1
13	4410150	Same	Seal ring		2	2
14	448.189.072	Same	Splined crank handle gearbox		2	2
15	4561050	Same	Plug 3/8"		2	2
16	4569896	Same	Level cap 3/8"		1	1
17	4809400	Same	Tapered roller bearings 30207-A		1	1
18	4810470	Same	Tapered roller bearings 32208-A		1	1
19	4815110	Same	Radial ball bearing 6207-2Z		1	1
20	4815340	Same	Radial ball bearing 6210-2Z		1	1
21	4815590	Same	Radial ball bearing 6214-2Z		2	2
22	4972580	Same	Seal, D=80		1	1
23	549.170.160	Same	Blind PLug 3/8"		1	1
24	804.100.200	Same	Bolt DIN 933 - M10 x 20		11	11
25	864.100.030	Same	Washer DIN 125 - M10		11	11
26	870.035.150	Same	Cir Clip DIN 471 - 35x1,5		1	1
27	870.045.175	Same	Cir Clip DIN 471 - 45x1,75		1	1
28	872.072.250	Same	Cir Clip DIN 472 - 72x2,5		2	2
29	872.080.250	Same	Cir Clip DIN 472 - 80x2,5		1	1
30	872.090.300	Same	Cir Clip DIN 472 - 90x3		1	1
31	872.125.400	Same	Cir Clip DIN 472 - 125x4		2	2
32	878.080.160	Same	Roll Pin ISO 8752 - 8 x 16		2	2
	490.556.120	Same	Gearbox complete		1	1
			80W90 5.5 liter		1	1



	PART #	DESCRIPTION	REMARKS	QUA 2216	QUA 2220
1	402.160.100	Distance bush Ø16.5/Ø50 L=10		4	4
2	404.170.692	Distance Bush Ø17, L= 69		2	2
3	404.170.700	Distance Bush Ø17, L= 70		2	2
4	406.210.600	Distance Bush Ø35/Ø20.5, L= 60		3	3
5	406.260.100	Distance Bush Ø50/Ø25.5, L= 10		2	2
6	464.153.940	Top Link Support Strip Large		1	1
7	464.153.942	Top Link Support Strip Small		1	1
8	466.080.335	Handle		2	2
9	466.279.000	Support Bolt Assy Central Bar		2	2
10	468.101.002	Lock plate		4	4
11	494.206.202	Central bar		0	1
	494.206.150	Central bar		1	0
12	494.212.820	Frame Verti-drain 2220		0	1
	494.160.820	Frame Verti-drain 2216		1	0
14	521.221.600	3-Point Pin		2	2
15	523.051.000	R-Pin Ø5, DIN 11024		3	3
16	802.080.350	Bolt DIN 931-1 - M8 x 35		4	4
17	802.080.450	Bolt DIN 931-1 - M8 x 45		4	4
18	802.160.800	Bolt DIN 931-1 - M16 x 80		2	2
19	802.161.100	Bolt DIN 931-1 - M16 x 110		4	4
20	802.200.600	Bolt DIN 931-1 - M20 x 60		2	2
21	802.201.500	Bolt DIN 931-1 - M20 x 150		3	3
22	830.080.080	SL Nut DIN 985 - M8		4	4
23	830.140.140	SL Nut DIN 985 - M14		4	4
24	830.160.160	SL Nut DIN 985 - M16		6	6
25	830.200.200	SL Nut DIN 985 - M20		5	5
26	848.791.360	U-Bolt M14x80		2	2
27	864.080.030	Washer DIN 125 - M8		8	8
28	864.160.031	Large Washer DIN 9021 - 17		4	4
29	521.251.380	Top link pin CAT 2		1	1
30	464.152.700	Top link strip		2	2

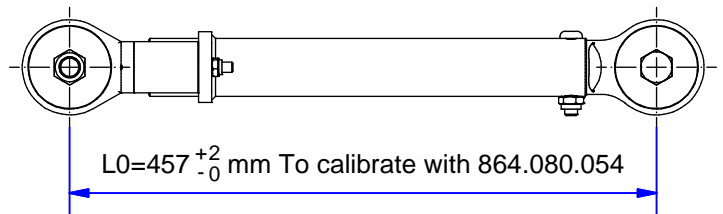
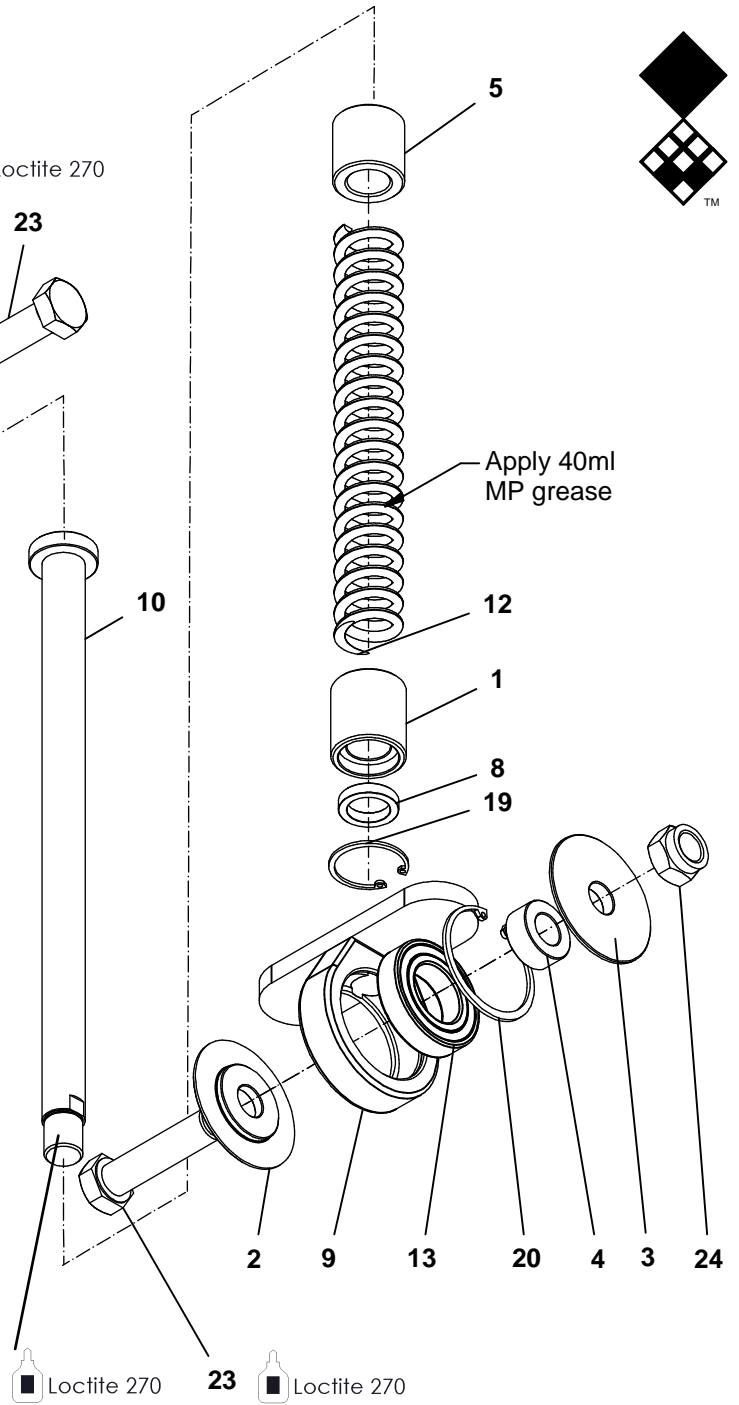
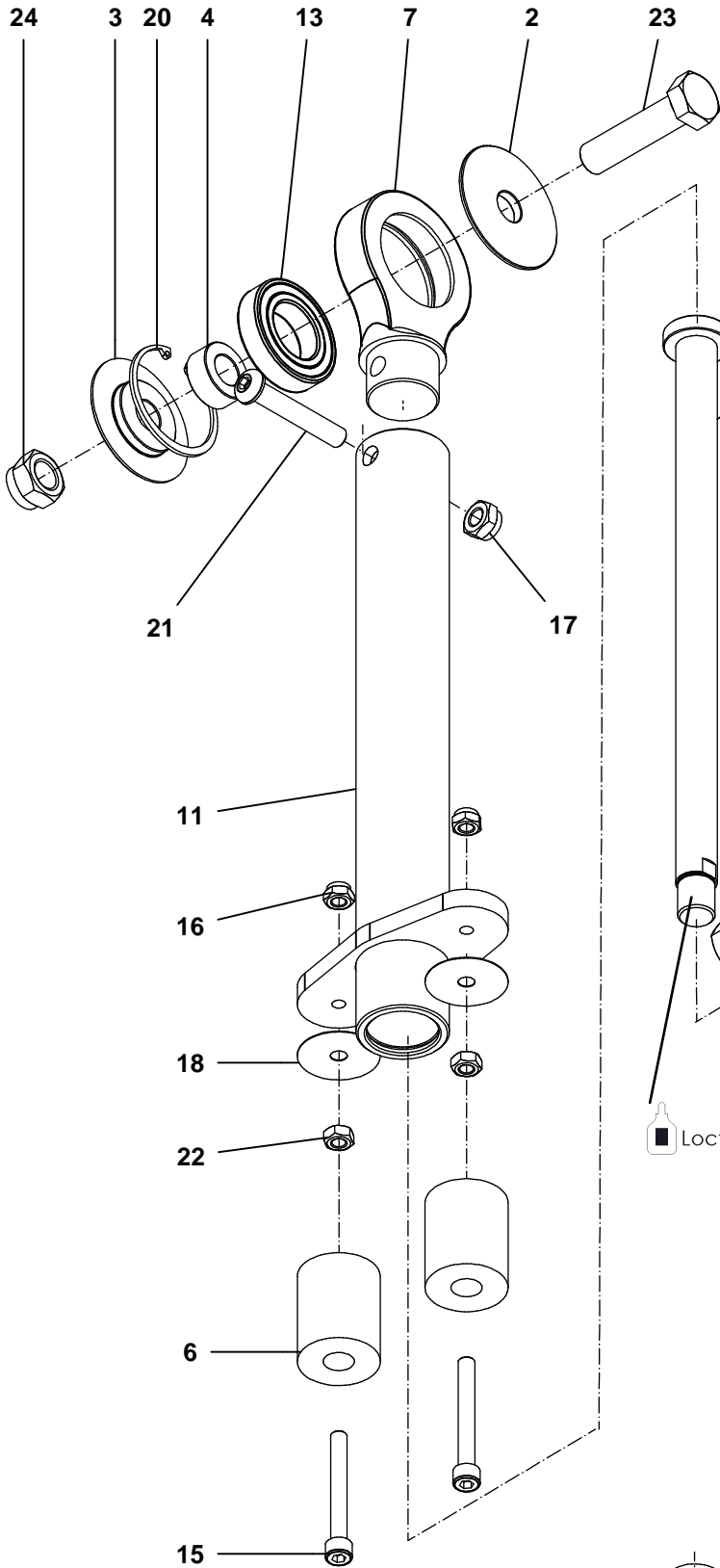




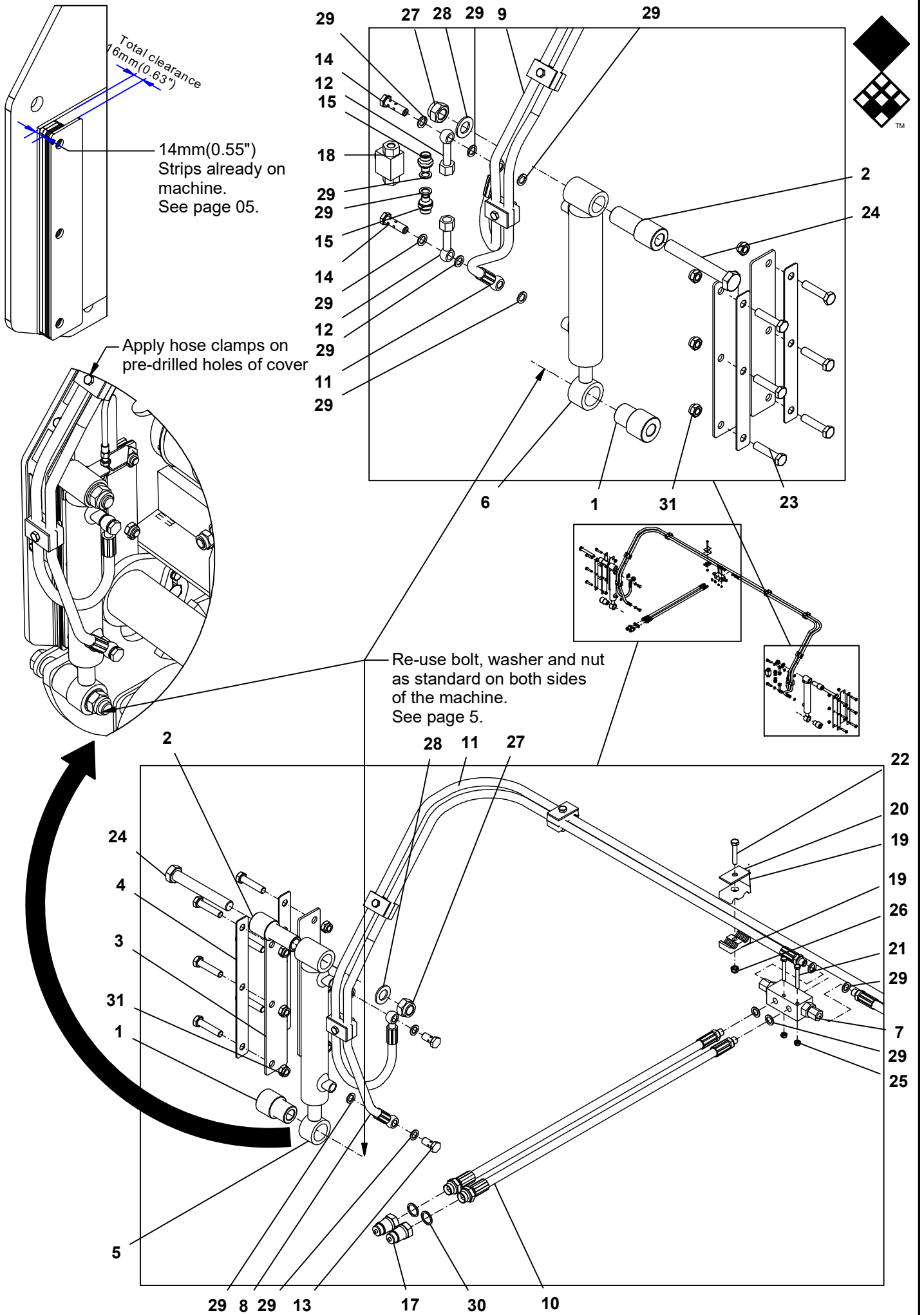
	PART #	DESCRIPTION	REMARKS	QUA 2216	QUA 2220
1	402.160.100	Distance bush Ø16.5/Ø60 L=10		4	4
2	404.170.692	Distance Bush Ø17, L= 69		2	2
3	404.170.700	Distance Bush Ø17, L= 70		2	2
4	406.210.600	Distance Bush Ø35/Ø20.5, L= 60		1	1
5	406.260.100	Distance Bush Ø50/Ø25.5, L= 10		2	2
6	464.153.940	Top Link Support Strip Large		1	1
7	464.153.942	Top Link Support Strip Small		1	1
8	466.080.335	Handle		2	2
9	466.279.000	Support Bolt Assy Central Bar		2	2
10	468.101.002	Lock plate	From serial no:	4	4
11	494.206.202	Central bar		0	1
	494.206.150	Central bar		1	0
12	494.212.820	Frame Verti-drain 2220		0	1
	494.160.820	Frame Verti-drain 2216		1	0
13	521.191.600	Top Link Pin		1	1
14	521.221.600	3-Point Pin		2	2
15	523.040.700	R-Pin Ø4, DIN 11024		3	3
16	802.080.350	Bolt DIN 931-1 - M8 x 35		4	4
17	802.080.450	Bolt DIN 931-1 - M8 x 45	From serial no:	4	4
18	802.160.800	Bolt DIN 931-1 - M16 x 80		2	2
19	802.161.100	Bolt DIN 931-1 - M16 x 110	From serial no:	4	4
	820.161.100	MH head bolt DIN 603 - M16x110	Till serial no:	4	4
20	802.200.600	Bolt DIN 931-1 - M20 x 60		2	2
21	802.201.500	Bolt DIN 931-1 - M20 x 150		1	1
22	830.080.080	SL Nut DIN 985 - M8		4	4
23	830.140.140	SL Nut DIN 985 - M14		4	4
24	830.160.160	SL Nut DIN 985 - M16		6	6
25	830.200.200	SL Nut DIN 985 - M20		3	3
26	848.791.360	U-Bolt M14x80		2	2
27	864.080.030	Washer DIN 125 - M8	From serial no:	8	8
28	864.160.031	Large Washer DIN 9021 - 17		4	4



Loctite 270



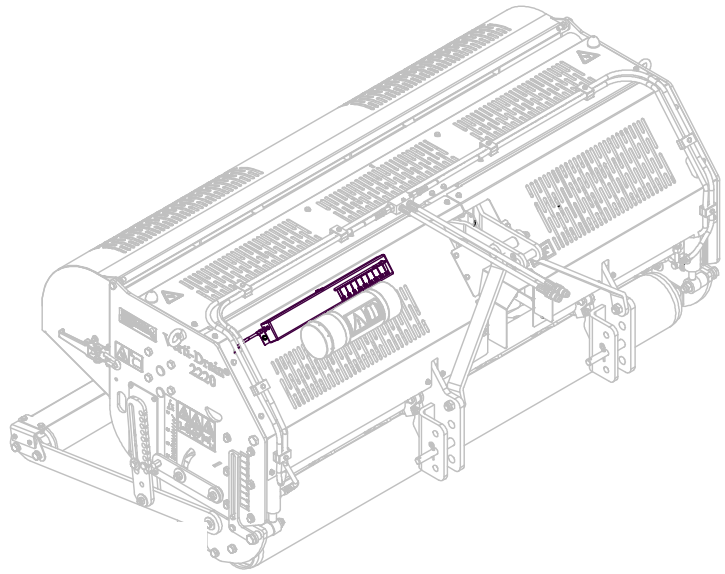
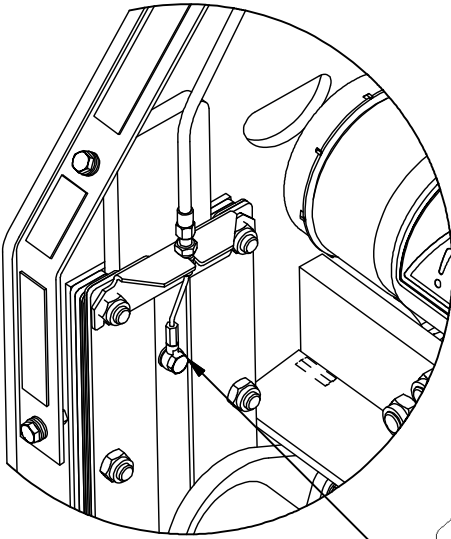
	PART #	DESCRIPTION	REMARKS	QUA
1	2602454	Plastic Guide Bush		1
2	404.160.050	Distance bush Ø65/Ø38/Ø16 L=5.25		2
3	404.160.070	Distance bush Ø65/Ø38/Ø16 L=7.25		2
4	406.160.130	Distance bush Ø30/Ø16 L=13		2
5	444.350.350	Slider bush		1
6	446.400.500	Rubber stop		2
7	448.421.150	Draw Rod Head With Stud		1
8	4480015	Seal For Draw Rod		1
9	466.121.554	Draw rod head		1
10	474.203.446	Draw Rod		1
11	478.503.410	Tube draw rod		1
12	576.202.580	Spring draw rod VD 2216-2220		1
13	713.300.130	Bearing 6006 LLU		2
15	814.080.650	Bolt DIN 912 - M8 x 65		2
16	830.080.080	SL Nut DIN 985 - M8		2
17	830.100.100	SL Nut DIN 985 - M10		1
18	864.080.054	Shim Ø40/Ø8.5 L=0.5	Exact quantity is determined by L0 distance	2
19	872.035.150	Cir Clip DIN 472 - 35x1,5		1
20	872.055.200	Cir Clip DIN 472 - 55x2		2
21	815.100.600	Round Head Hex Bolt ISO 7380 - M10 x 60		1
22	826.080.080	Nut DIN 934 - M8		2
23	806.160.650	Bolt DIN 931-1 - M16 x 65 MF1.5		2
24	831.160.160	SL Nut DIN 985 - M16x1.5		2
	490.424.578	Drawrod complete	Contains parts 1-22	



TM

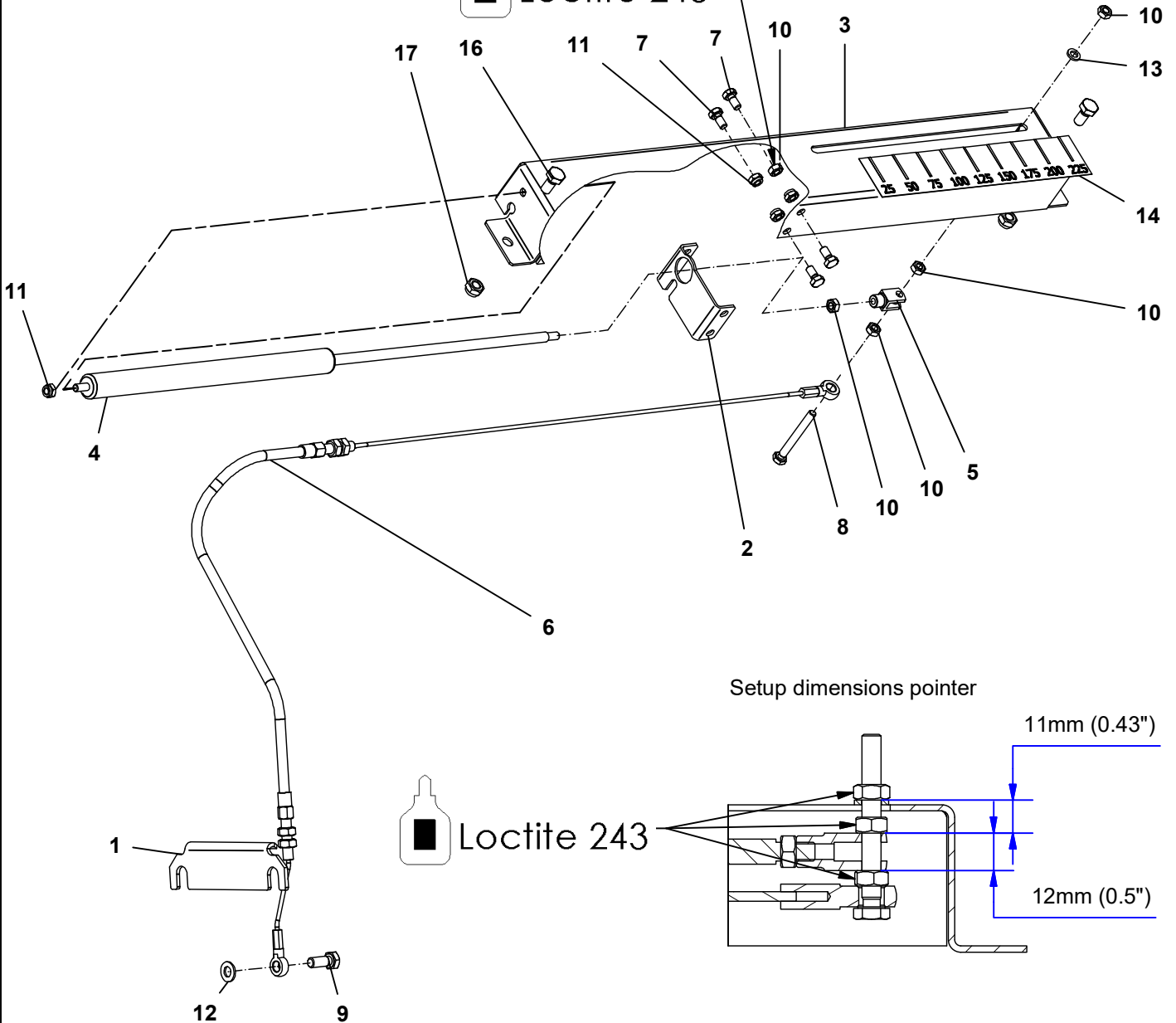
	PART #	DESCRIPTION	REMARKS	QUA 2216	QUA 2220
1	404.170.690	Distance Bush Support		2	2
2	404.201.020	Bush		2	2
3	464.043.100	Guide strip		4	4
4	468.013.400	Shim plate		4	4
5	534.252.002	Hydraulic cylinder 40 x 25, Stroke 200mm		1	1
6	534.252.004	Hydraulic cylinder 50 x 30, Stroke 200mm		1	1
7	535.401.000	Pressure controlled one way valve		1	1
8	541.131.700	Hose		0	1
	541.131.800	Hose on right cylinder		1	0
9	541.131.800	Hose		0	1
	541.131.280	Hose on left cylinder		1	0
10	541.131.950	Hose NSK6 1/4" TL=1950 PN64 PN68		2	2
11	541.133.450	Hose between cylinders		0	1
	541.133.680	Hose between cylinders		1	0
12	542.100.700	Bottom tube	Shorten to correct size	2	2
13	543.130.250	Hollow bolt G 1/4 x 25		2	2
14	543.130.430	Hollow bolt G 1/4 x 43		2	2
15	544.130.120	Straight Nipple 1/4" - Ø12mm		2	2
17	545.210.800	Quick Connector Male 1/2"		2	2
18	546.250.750	Ball Valve		1	1
19	547.150.150	Hose Clamp 2x Ø15		16	16
20	547.300.510	Deck Plate		8	8
21	802.060.450	Bolt DIN 931-1 - M6 x 45		2	2
22	802.080.450	Bolt DIN 931-1 - M8 x 45		8	8
23	802.120.550	Bolt DIN 931-1 - M12 x 55		12	12
24	802.201.400	Bolt DIN 931-1 - M20 x 140		2	2
25	830.060.060	SL Nut DIN 985 - M6		2	2
26	830.080.080	SL Nut DIN 985 - M8		8	8
27	830.200.200	SL Nut DIN 985 - M20		2	2
28	864.200.030	Washer DIN 125 - M20		2	2
29	874.130.020	Copper washer 1/4"		16	16
30	874.210.020	Copper washer 1/2"		2	2
31	830.120.120	SL Nut DIN 985 - M12		12	12
	211.116.006	Hydraulic height adjustment VD2216	Complete kit, items on page 11 + 11a		
	211.122.006	Hydraulic height adjustment VD2220	Complete kit, items on page 11 + 11a		

Placement of bracket 468.031.402  
(Cover, Cylinder and hoses hidden)



 Loctite 243

 Loctite 243

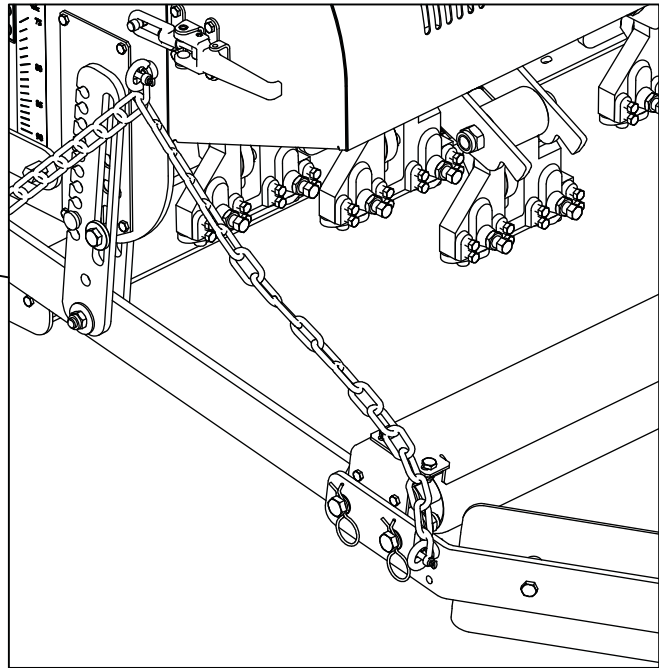
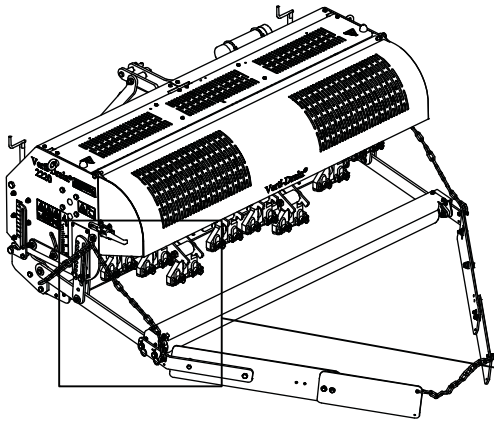


Setup dimensions pointer

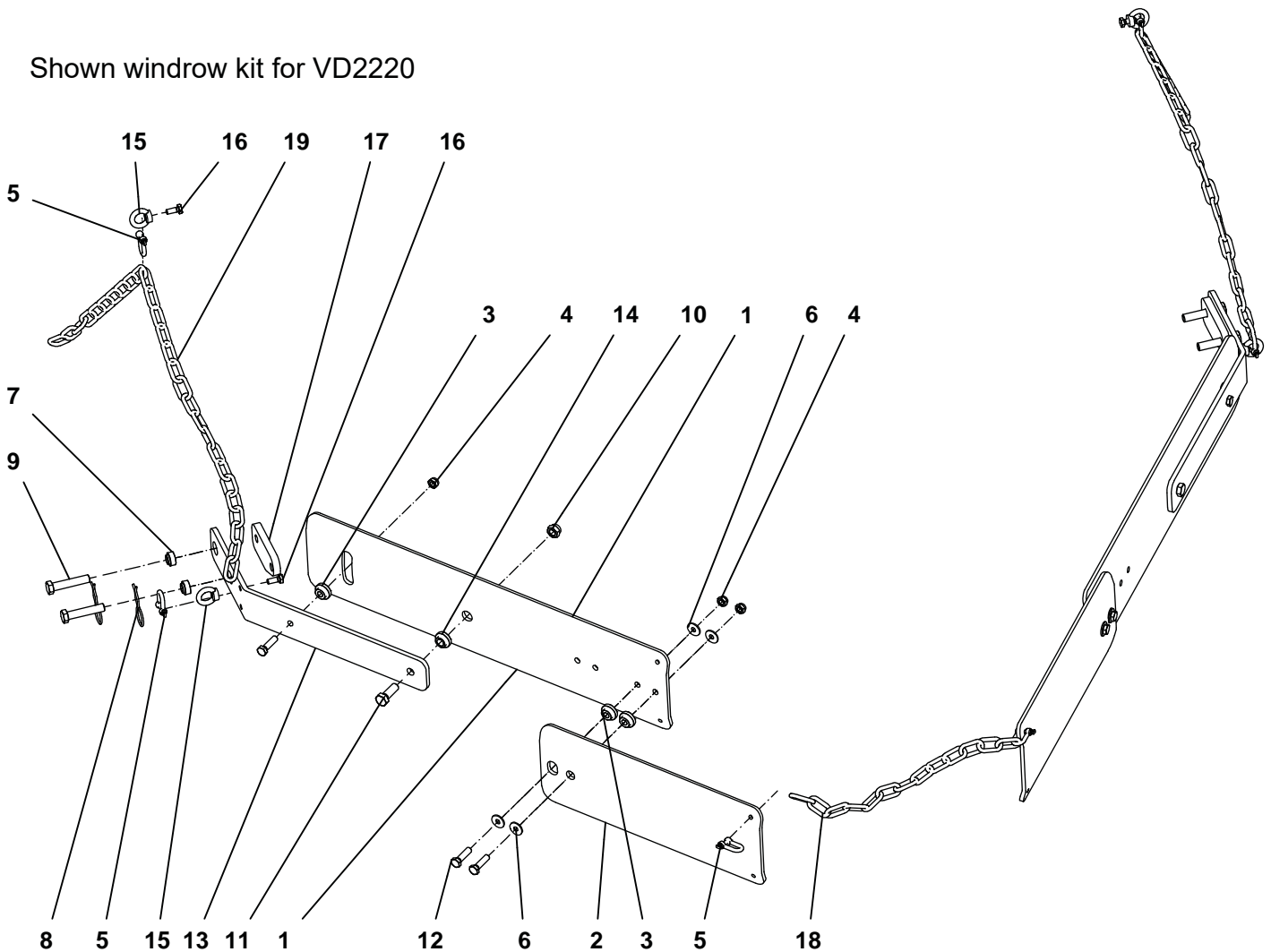
11mm (0.43")

12mm (0.5")

	PART #	DESCRIPTION	REMARKS	QUA 2216	QUA 2220
1	468.031.402	Bracket		1	1
2	468.020.990	Support strip damper		1	1
3	468.026.740	Height indicator box		1	1
4	571.204.850	Damper, stroke 220mm		1	1
5	850.060.360	Fork		1	1
6	591.089.100	Cable height indicator		1	1
7	804.060.120	Bolt DIN 933 - M6 x 12		4	4
8	804.060.550	Bolt DIN 933 - M6 x 55		1	1
9	804.080.200	Bolt DIN 933 - M8 x 20		1	1
10	826.060.060	Nut DIN 934 - M6		5	5
11	830.060.060	SL Nut DIN 985 - M6		4	4
12	864.080.030	Washer DIN 125 - M8		1	1
13	874.011.150	Washer		1	1
14	911.340.000	Decall height indicator 225		1	1
16	804.080.160	Bolt DIN 933 - M8 x 16		2	2
17	830.080.080	SL Nut DIN 985 - M8		2	2
	211.116.006	Hydraulic height adjustment VD2216	Complete kit,items on page 11 + 11a		
	211.122.006	Hydraulic height adjustment VD2220	Complete kit,items on page 11 + 11a		






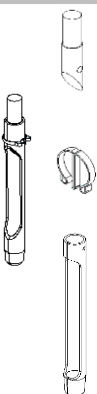


Shown window kit for VD2220



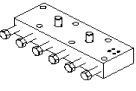
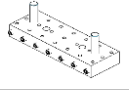
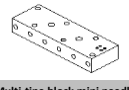
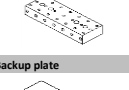





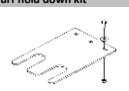


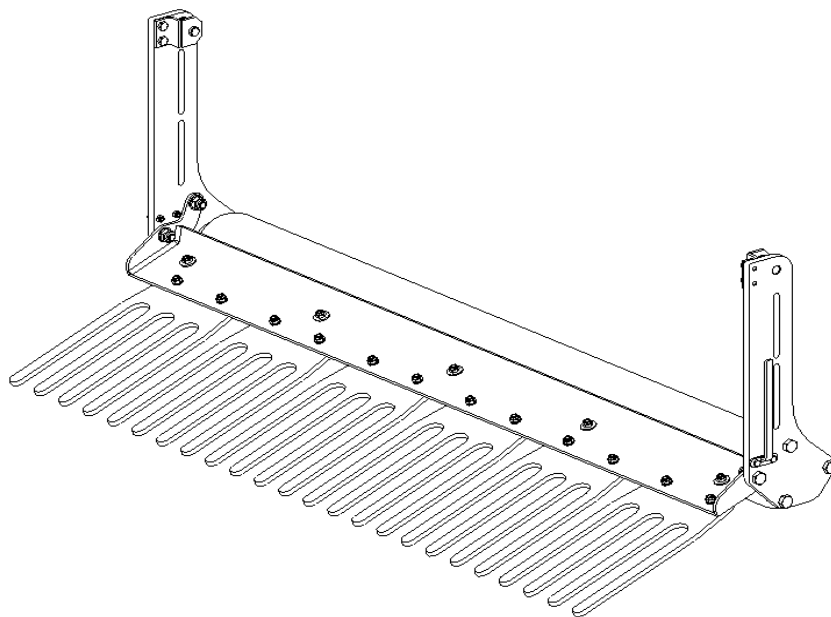


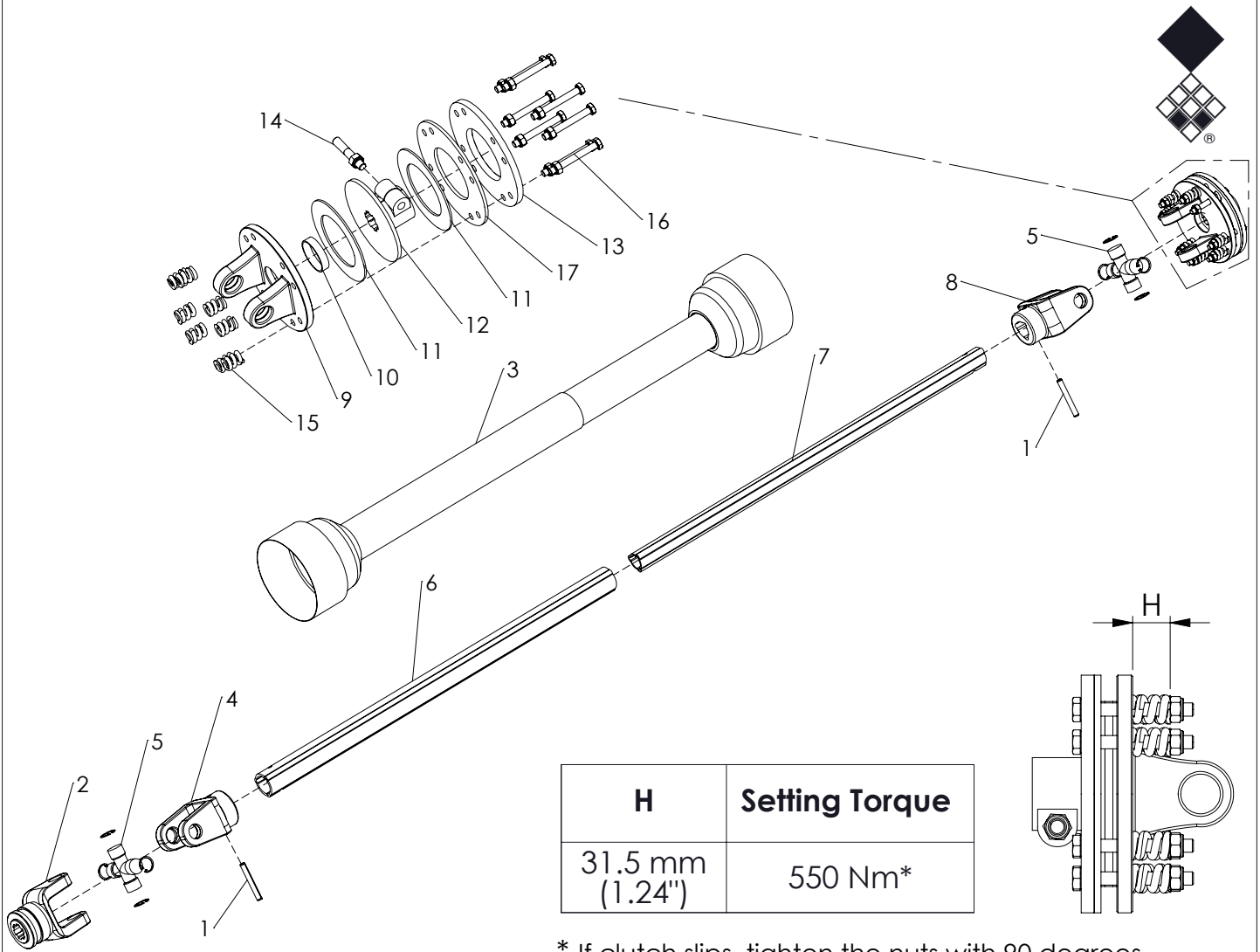
	PART #	DESCRIPTION	REMARKS	QUA 2216	QUA 2220
1	468.089.000	Windrow Plate		2	2
2	468.085.500	Windrow Plate extension		0	2
3	406.130.150	Distance bush		4	6
4	830.120.120	SL Nut DIN 985 - M12		2	6
5	846.080.241	Dee (chain) shackle d8		6	6
6	864.100.031	Large Washer DIN 9021 - 10,5		0	8
7	406.170.150	Distance bush		4	4
8	523.030.752	Special R-Clip d3		4	4
9	802.160.800	Bolt DIN 931-1 - M16 x 80		4	4
10	830.160.160	SL Nut DIN 985 - M16		2	2
11	804.160.450	Bolt DIN 933 - M16 x 45		2	2
12	804.120.450	Bolt DIN 933 - M12 x 45		2	6
13	464.106.350	Windrow support		2	2
14	406.160.150	Distance bush		2	2
15	822.100.360	Eye Nut DIN 582 - M10		4	4
16	804.100.250	Bolt DIN 933 - M10 x 25		4	4
17	464.151.450	Spacer plate		2	2
18	846.060.490	Chain 14 shackles L=490 (shackle Ø6mmx35x9)		1	1
19	846.069.800	Chain 28 shackles L=980 (shackle Ø6mmx35x9)		2	2
	211.116.008	Windrow kit VD2216			
	211.122.008	Windrow kit VD2220			

						2216	2220	
<b>Solid tines</b>						<b>2216</b>	<b>2220</b>	
	Mounting Ø (mm)	Tine Size (mm)	Tine Size (inch)	Part #	Adapter	Qua	Qua	
	5	5 x 125	3/16 x 5	311.105.125	J or multi-tine block mini			
	8	8 x 150	5/16 x 6	311.108.150	K or multi-tine block	24+K or 48+N+U+W	32+K or 64+N+U+W	
	8	8 x 175	5/16 x 7	9990056	K or multi-tine block	24+K or 48+N+U+W	32+K or 64+N+U+W	
	8	8 x 250	5/16 x 10	9990059	K - Don't use in MTH. Will bend	24+K	32+K	
	12	12 x 150	1/2 x 6	311.112.150		24	32	
	12	12 x 200	1/2 x 8	311.112.200		24	32	
	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	12+L	16+L	
	18	18 x 225	3/4 x 9	311.118.225	L or non needed	12+L	16+L	
	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		12	16	
	24	24 x 350	1 x 14	311.124.350				
	24	24 x 400	1 x 16	2382640				
	<b>Tines for verti-core</b>							
		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		
<b>Hollow tines</b>						<b>2216</b>	<b>2220</b>	
	Mounting Ø (mm)	Tine Size (mm)	Tine Size (inch)	Part #	Adapter	Qua	Qua	
	8	10 x 6 x 80	3/8 x 1/4 x 3	311.210.080	K or multi-tine block	24+K or 48+N+U+W	32+K or 64+N+U+W	
	8	10 x 6 x 125	3/8 x 1/4 x 5	311.210.127	K or multi-tine block	24+K or 48+N+U+W	32+K or 64+N+U+W	
	12	16 x 10 x 150	5/8 x 3/8 x 6	311.216.150		24	32	
	12	16 x 10 x 175	5/8 x 3/8 x 7	9990022		24	32	
	12	19 x 12 x 150	3/4 x 1/2 x 6	311.219.150		24	32	
	18	19 x 12 x 200	3/4 x 1/2 x 8	311.219.200	L or non needed	12+L	16+L	
	12	19 x 12 x 200	3/4 x 1/2 x 8	311.219.201		24	32	
	18	19 x 12 x 225	3/4 x 1/2 x 9	311.219.225	L or non needed	12+L	16+L	
	12	19 x 12 x 225	3/4 x 1/2 x 9	311.219.226		24	32	
	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	12+L	16+L	
	18	25 x 16 x 225	1 x 5/8 x 9	311.225.225	L or non needed	12+L	16+L	
	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			
	<b>Tines for verti-core that also fit Verti-drain 15x</b>							
		Mounting Ø (mm)	Tine Size (mm)	Tine Size (inch)	Part #	Ejecting from	Qua	Qua
		19	21x12x125	13/16 x 1/2 x 5	9990075	Side		
		19	19x10x125	3/4 x 3/8 x 5	311.219.159	Side		
	19	19x10x110	3/4 x 3/8 x 4 3/8	311.219.158	Top			
	19	16x7x110	5/8 x 1/4 x 4 3/8	311.219.138	Top			
<b>Replacement tubes</b>						<b>2216</b>	<b>2220</b>	
	Mounting Ø (mm)	Tine Size (mm)	Tine Size (inch)	Part #	Combine with rollpin	Qua	Qua	
	12	16 x 10 x 150	5/8 x 3/8 x 6	311.716.150	9990010	24	32	
	12	16 x 10 x 175	5/8 x 3/8 x 7	9990036	9990010	24	32	
	12	19 x 12 x 150	3/4 x 1/2 x 6	311.719.150	9990012	24	32	
	18	19 x 12 x 200	3/4 x 1/2 x 8	311.719.200	9990012	12	16	
	12	19 x 12 x 200	3/4 x 1/2 x 8	311.719.200	9990012	24	32	
	18	19 x 12 x 225	3/4 x 1/2 x 9	311.719.225	9990012	12	16	
	12	19 x 12 x 225	3/4 x 1/2 x 9	311.719.225	9990012	24	32	
	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	12	16	
	18	25 x 16 x 225	1 x 5/8 x 9	311.725.225	9990014	12	16	
	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			
	<b>Cross tines</b>						<b>2216</b>	<b>2220</b>
		Mounting Ø (mm)	Tine Size (mm)	Tine Size (inch)	Part #	Adapter	Qua	Qua
8		12 x 90	1/2 x 3 1/2	9990020	K or multi-tine block			
12		12 x 90	1/2 x 3 1/2	311.812.090				
	12	19 x 120	3/4 x 5	9990021				
<b>Chisel tines</b>						<b>2216</b>	<b>2220</b>	
	Mounting Ø (mm)	Tine Size (mm)	Tine Size (inch)	Part #		Qua	Qua	
	12	4.8 x 19 x 175	3/16 x 3/4 x 7	311.619.175				
	12	4.8 x 19 x 120	3/16 x 3/4 x 4 3/4	311.619.120				
<b>Tines for verti-core</b>								
	19	5 x 30 x 90	3/16 x 1 3/16 x 3 1/2	311.619.127	Tines for verti-core			
<b>Composed hollow tines</b>						<b>2216</b>	<b>2220</b>	
	<b>Shank</b>							
	Size (mm)	Size (inch)	Part #			Qua	Qua	
	A	12	1/2	311.120.690	(Straight)	24	32	
	B	18	3/4	311.180.782	(Straight)	12	16	
	C	12	1/2	311.180.780		24	32	
	D	24	1	311.240.862	(Straight)	12	16	
	E	18	3/4	311.240.860				
	<b>Clip</b>						<b>2216</b>	<b>2220</b>
	Size (mm)	Size (inch)	Part #			Qua	Qua	
	F	16	5/8	438.160.160		24	32	
	G	22	7/8	438.220.220		24	32	
	H	30	1 3/16	438.300.300		12	16	
	<b>Hollow tine tube (folded)</b>						<b>2216</b>	<b>2220</b>
	Tine Size (mm)	Tine Size (inch)	Part #			Qua	Qua	
	16 x 150	5/8 x 6	317.316.150	Combine with:	A and F	24A+24F	32A+32F	
	16 x 200	5/8 x 8	317.316.200	Combine with:	A and F	24A+24F	32A+32F	
	22 x 150	7/8 x 6	317.322.150	Combine with:	B or C and G	24B+24G	32B+32G	
						24C+24G	32C+32G	
	22 x 250	7/8 x 10	317.322.250	Combine with:	B or C and G			
	22 x 150	7/8 x 6	317.322.150	Combine with:	B or C and G	12B+12G	16B+16G	
						12C+12G	16C+16G	
	22 x 250	7/8 x 10	317.322.250	Combine with:	B or C and G			
30 x 150	1 3/16 x 6	317.330.150	Combine with:	E and H	12D+12H	16D+16H		
					12E+12H	16E+16H		
30 x 225	1 3/16 x 9	317.330.220	Combine with:	E and H	12D+12H	16D+16H		
					12E+12H	16E+16H		
30 x 300	1 3/16 x 12	317.330.300	Combine with:	E and H				

**Redexim Verbi-drain 2216 and 2200**

						2216	2220	
<b>Adapter</b>						<b>Qua</b>	<b>Qua</b>	
	J	Tine Size (mm)	Tine Size (inch)	Part #				
	K	5	3/16	314.205.043				
		8	5/16	314.208.043		24	32	
<b>Adapter</b>						<b>2216</b>	<b>2220</b>	
	L	Tine Size (mm)	Tine Size (inch)	Part #		<b>Qua</b>	<b>Qua</b>	
		18	3/4	2451800		12	16	
<b>Multi-tine block complete WO tines</b>						<b>2216</b>	<b>2220</b>	
		Tine Size (mm)	Tine Size (inch)	Part #		<b>Qua</b>	<b>Qua</b>	
		8mm (5 tines)	5/16	211.700.016	Combination of: T-O-U-Y-Z	A1-A3-A4-A5		
		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	6 (48 tines)	
		8mm (8 tines)	5/16	314.430.209	Combination of: P-U	A1-A2-A3-A4-A5	8 (64 tines)	
		<b>Tines:</b>						
	<b>A1</b>	8 x 150	5/16 x 6	311.108.150	Solid tine			
	<b>A2</b>	8 x 175	5/16 x 7	9990056	Solid tine			
	<b>A3</b>	10 x 6 x 80	3/8 x 1/4 x 3	311.210.080	Hollow tine			
	<b>A4</b>	10 x 6 x 125	3/8 x 1/4 x 5	311.210.127	Hollow tine			
	<b>A5</b>	12 x 90	1/2 x 3 1/2	9990020	Cross tine			
<b>Multi-tine block mini needles complete WO tines</b>						<b>2216</b>	<b>2220</b>	
		Tine Size (mm)	Tine Size (inch)	Part #		<b>Qua</b>	<b>Qua</b>	
		5	3/16	211.700.017	Combination off: R-V	B1		
		5	3/16	314.425.170	Combination off: Q-V-X	B1		
		5	3/16	9990214	Combination off: S-V-X	B1		
		<b>Tines:</b>						
	<b>B1</b>	5 x 125	3/16 x 5	311.105.125	Needle tine			
<b>Multi-tine block empty</b>						<b>2216</b>	<b>2220</b>	
		Tine Size (mm)	Tine Size (inch)	Part #		<b>Qua</b>	<b>Qua</b>	
	<b>M</b>	8mm (6 tines)	5/16	9990201				
	<b>N</b>	8mm (8 tines)	5/16	314.430.240		6	8	
	<b>O</b>	8mm (5 tines)	5/16	480.301.430				
	<b>P</b>	8mm (8 tines)	5/16	211.215.002				
<b>Multi-tine block mini needles empty</b>						<b>2216</b>	<b>2220</b>	
		Tine Size (mm)	Tine Size (inch)	Part #		<b>Qua</b>	<b>Qua</b>	
	<b>Q</b>	5 (21 tines)	3/16	480.251.740				
	<b>R</b>	5 (12 tines)	3/16	314.425.140				
	<b>S</b>	5 (24 tines)	3/16	314.425.240				
<b>Backup plate</b>						<b>2216</b>	<b>2220</b>	
		Size (mm)		Part #		<b>Qua</b>	<b>Qua</b>	
	<b>T</b>	143x50x3		464.031.432				
<b>Tine lock bolt</b>						<b>2216</b>	<b>2220</b>	
		Size (mm)		Part #		<b>Qua</b>	<b>Qua</b>	
	<b>U</b>	10x40		812.100.401		48	64	
		10x35		4001675				
<b>Set screw</b>						<b>2216</b>	<b>2220</b>	
		Size (mm)		Part #		<b>Qua</b>	<b>Qua</b>	
	<b>V</b>	8x8		818.080.080				
<b>Stud</b>						<b>2216</b>	<b>2220</b>	
		Size (mm)		Part #		<b>Qua</b>	<b>Qua</b>	
	<b>W</b>	23.2x50		408.230.500		12	16	
	<b>X</b>	12x60		9990212D				
<b>Bolt</b>						<b>2216</b>	<b>2220</b>	
		Size (mm)		Part #		<b>Qua</b>	<b>Qua</b>	
	<b>Y</b>	M10 x 80		802.100.800				
<b>Nut</b>						<b>2216</b>	<b>2220</b>	
		Size (mm)		Part #		<b>Qua</b>	<b>Qua</b>	
	<b>Z</b>	Sl nut M10		830.100.100				
<b>Turf hold down fingers</b>						<b>2216</b>	<b>2220</b>	
		Part name		Part #		<b>Qua</b>	<b>Part #</b>	<b>Qua</b>
		Turf hold down finger						
		Turf hold down finger MTH						
		Turf hold down finger 12mm end		311.506.310		2	311.506.310	2
		Turf hold down finger 12mm		311.506.314		4	311.506.314	6
		Turf hold down finger 18mm						
		Turf hold down finger 24mm end		311.506.312		2	311.506.312	2
		Turf hold down finger 24mm		311.506.316		4	311.506.316	6
<b>Turf hold down kit</b>						<b>2216</b>	<b>2220</b>	
		Part name		Part #		<b>Qua</b>	<b>Part #</b>	<b>Qua</b>
		THD kit complete						
		THD kit complete MTH						
		THD kit complete 12mm		211.116.004		1	211.122.004	1
		THD kit complete 18mm						
		THD kit complete 24mm		211.116.002		1	211.122.002	1



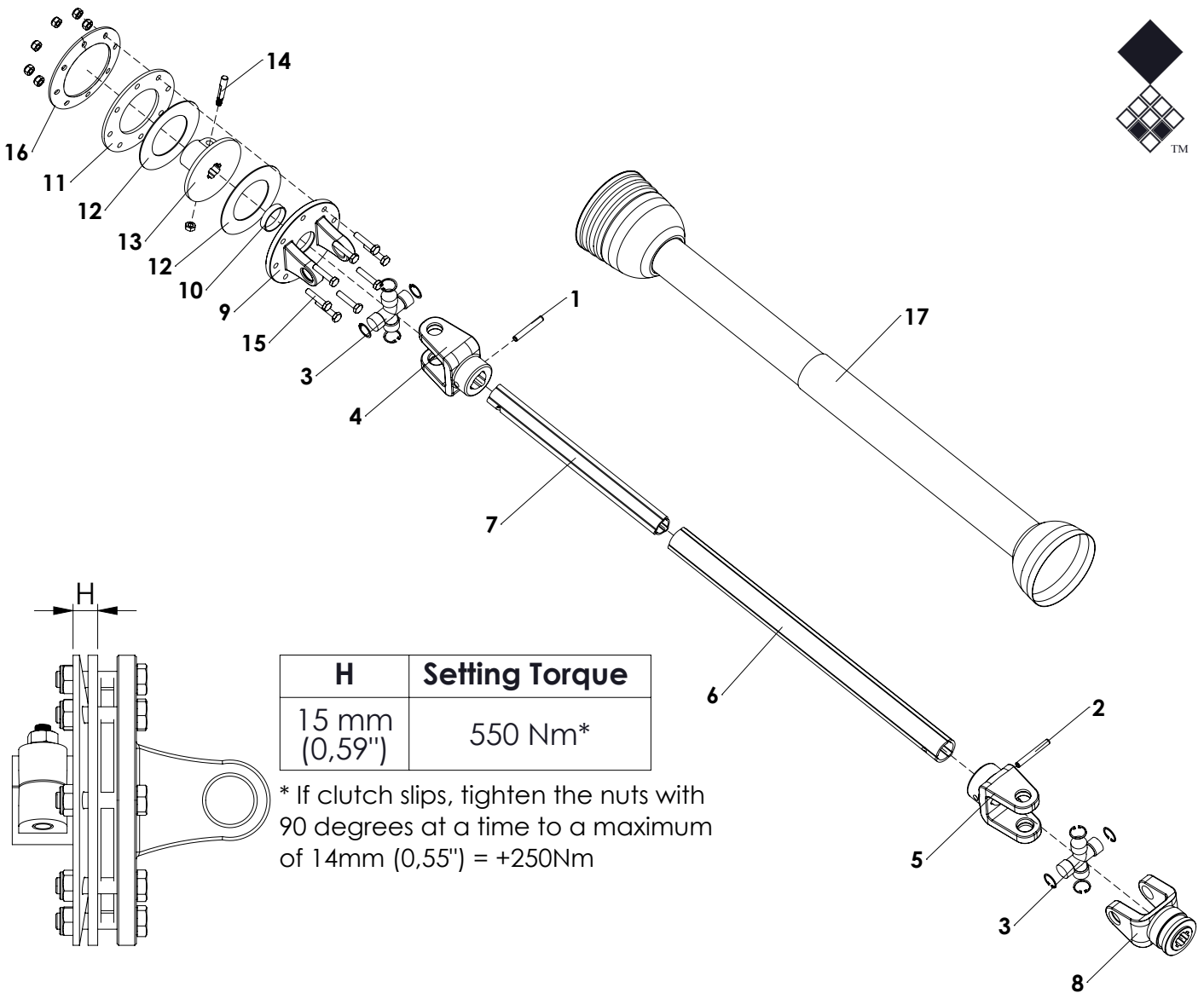


H	Setting Torque
31.5 mm (1.24")	550 Nm*

\* If clutch slips, tighten the nuts with 90 degrees at a time to a maximum of 30.5mm (1.20") = +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	19000018	Outer roll pin		2
2	BEN PT140119	End yoke with quick lock		1
3	BEN PT143249	Safety guard group	Cut to correct length	1
4	BEN PT143666	Outer tube yoke		1
5	BEN PT151242	Universal joint assembled		2
6	BEN PT154926	Tubing cut to size	Cut to correct length	1
7	BEN PT157727	Tubing cut to size	Cut to correct length	1
8	BEN PT158836	Inner tube yoke		1
9	BEN F1B06	Flange yoke		1
10	BEN F060	Bush		1
11	BEN F030/S	Lining ring		2
12	BEN F138	Hub		1
13	BEN F1180	Pressure plate		1
14	BEN 90938	Conic bolt and nut		1
15	BEN F0110	Spring		8
16	BEN F10085	Bolt and nut		8
17	BEN F070	Inner plate		1
	611.601.200	PTO shaft type T-60 tl 1200 for boggy		
	611.606.100	PTO shaft type T-60 tl 610		

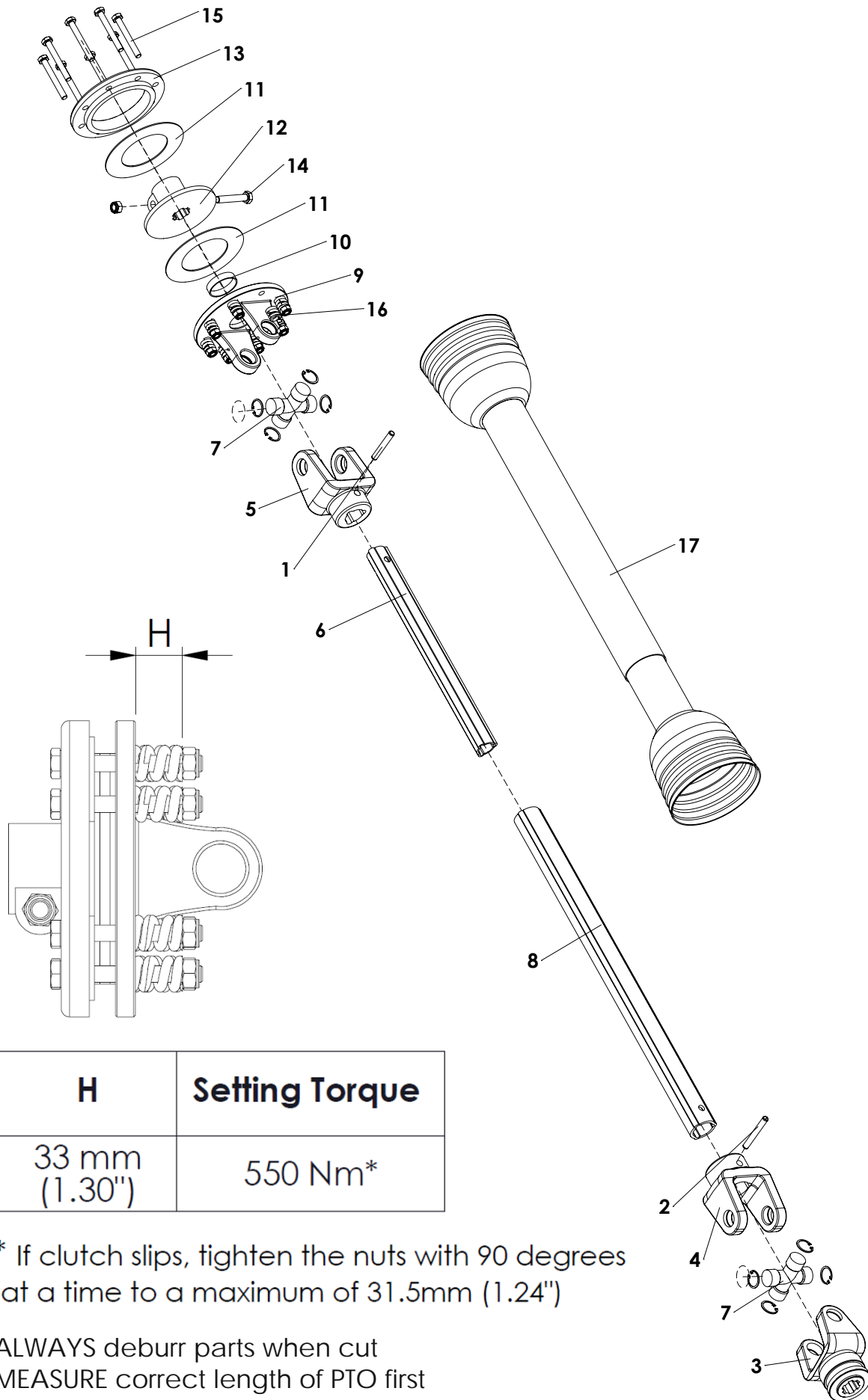


H	Setting Torque
15 mm (0,59")	550 Nm*

\* If clutch slips, tighten the nuts with 90 degrees at a time to a maximum of 14mm (0,55") = +250Nm

**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	19000016	Inner roll pin		1
2	19000018	Outer roll pin		1
3	180016130	Cross and 4x circlip kit		2
4	1510160291	Inner tube yoke type 60		1
5	1510160281	Outer tube yoke type 60		1
6	1521604610700	T60-series Outer tube	Cut to correct length	1
7	153150334	T60-series Inner tube	Cut to correct length	1
8	1410265441	Complete collar yoke type 60		1
9	1510168091	Flanged yoke T60		1
10	180015020	Bush		1
11	180017569	Pressure plate		1
12	180015019	Lining ring		2
13	1510169321	Hub T60		1
14	165000588	Tapered Pin 1 3/8" kit	Retighten every 40 hours	1
15	165000858	Bolt & nut M10 x 1,5 x 50		8
16	180017426	Belleville spring		1
17	1423600167651	Complete guard 60-series	Cut to correct length	1
	600610	Complete PTO T60		
	601010	Complete PTO T60 for boggy		



H	Setting Torque
33 mm (1.30")	550 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	190000016	Inner roll pin		1
2	190000018	Outer roll pin		1
3	141026108	Complete collar yoke type 60		1
4	151016028	Outer tube yoke type 60		1
5	151016029	Inner tube yoke type 60		1
6	153160150	T60-series Inner tube		1
7	180016130	Cross and 4x circlip kit		2
8	152160475	T60-series Outer tube		1
9	151016039	Flanged yoke T60		1
10	180015020	Bush		1
11	180015019	Lining ring		2
12	151015018	Hub T60		1
13	180015021	Pressure plate		1
14	165000502	Bolt and Nut	Retighten every 40 hours	1
15	165000501	Bolt and nut		8
16	180014022	Spring		8
17	1422602987630	Complete guard 60-series	Cut to correct length	1
	600610	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		