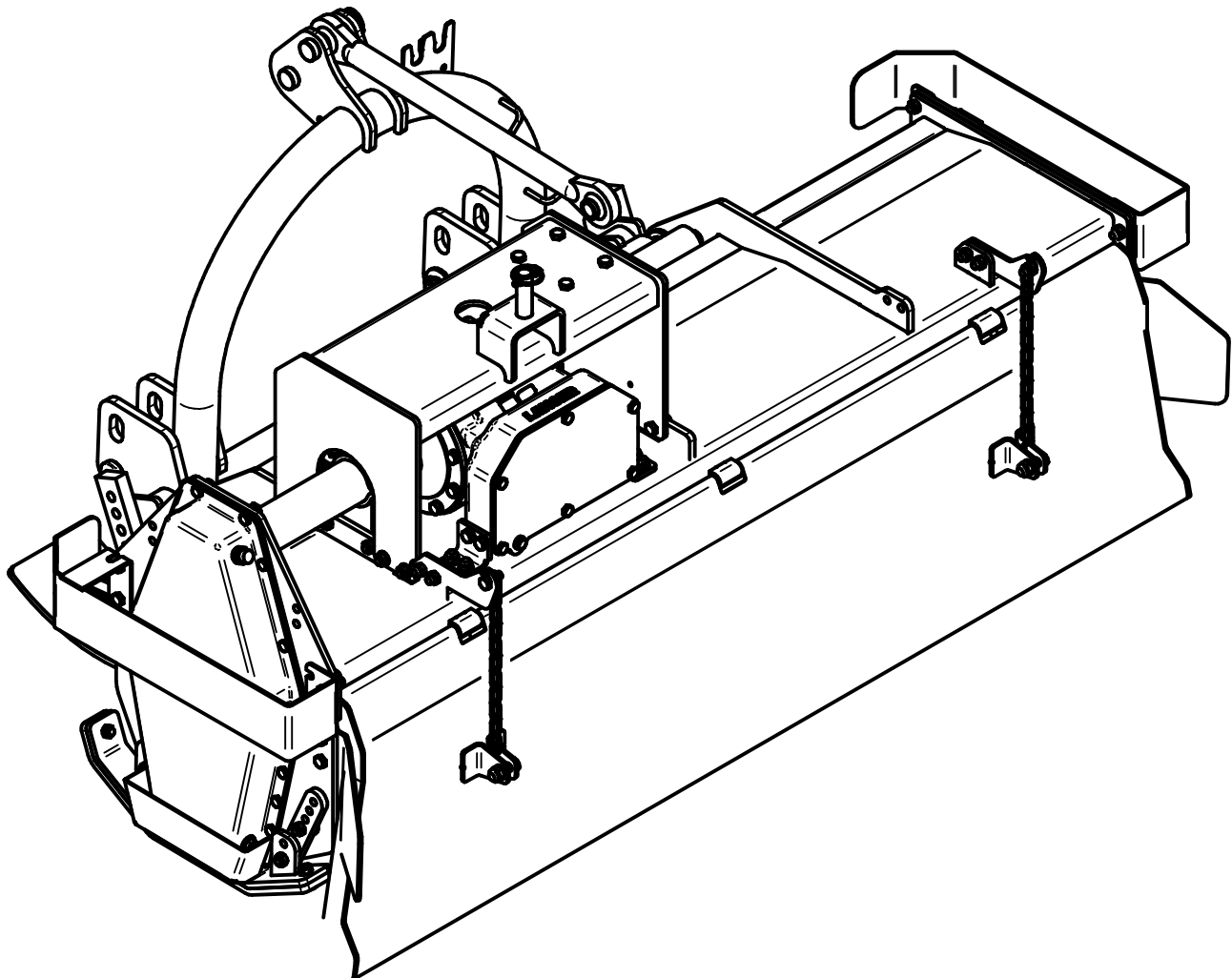
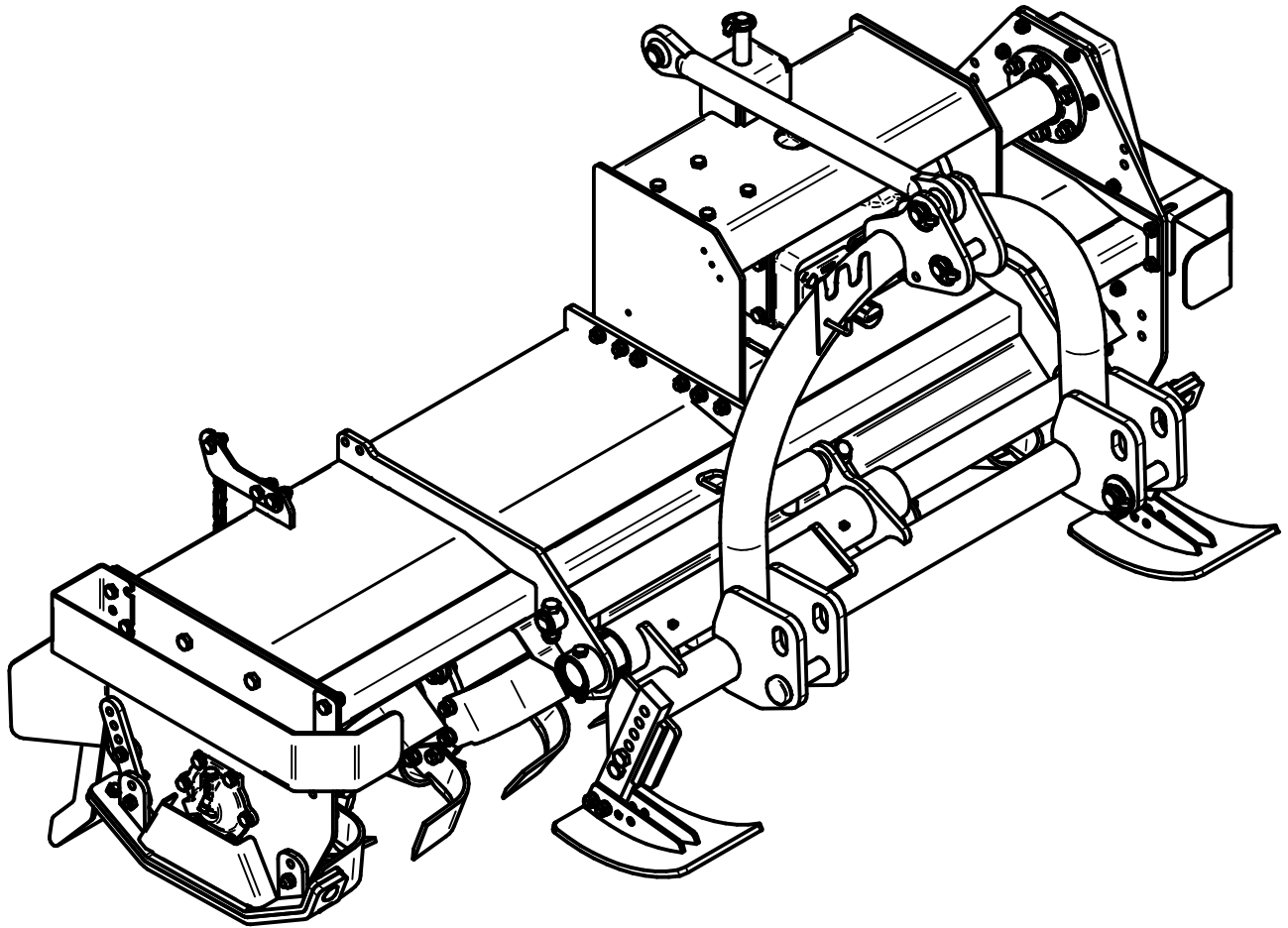
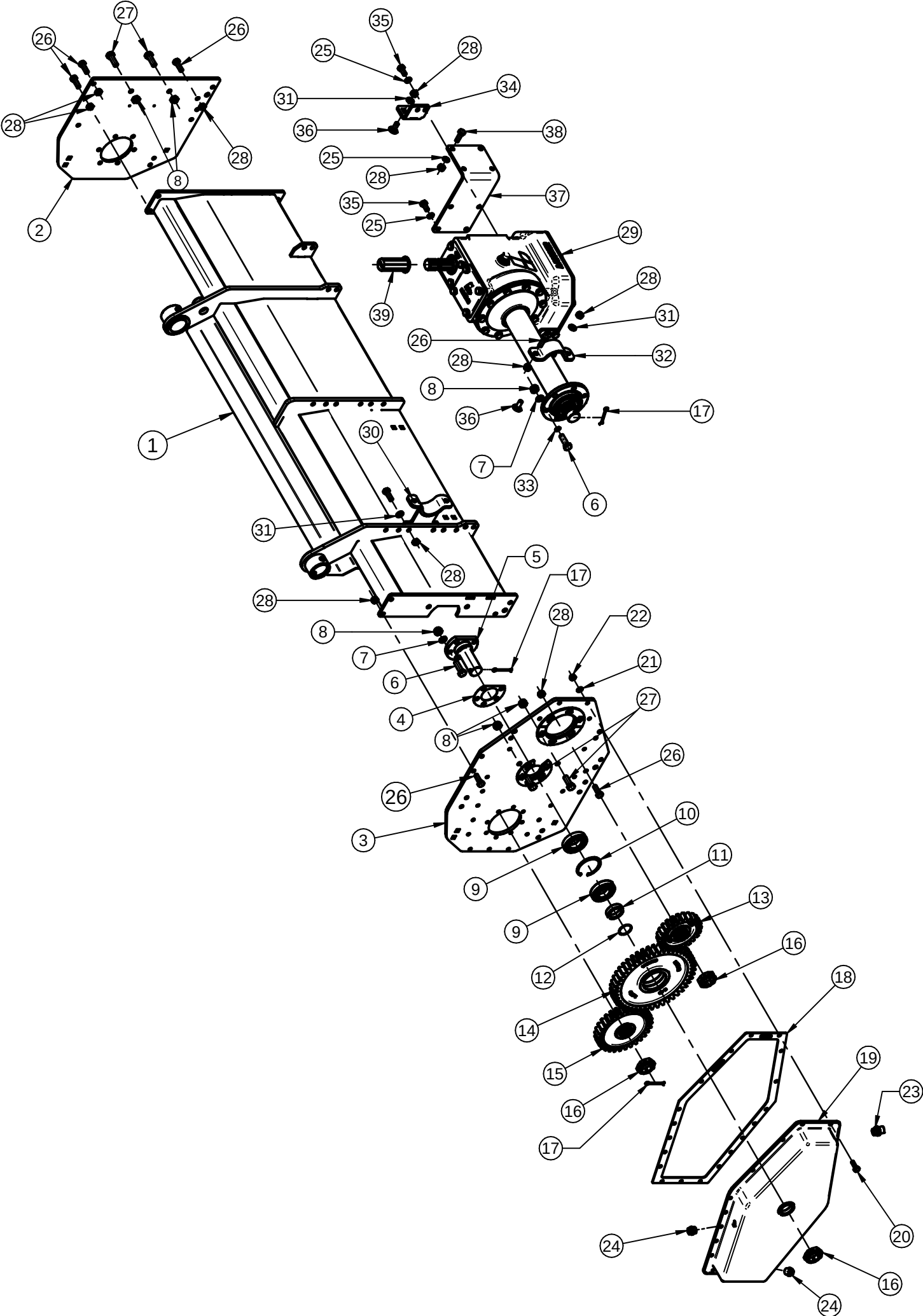


HS PART MANUAL



HS FRAME & SIDE GEAR PART LIST

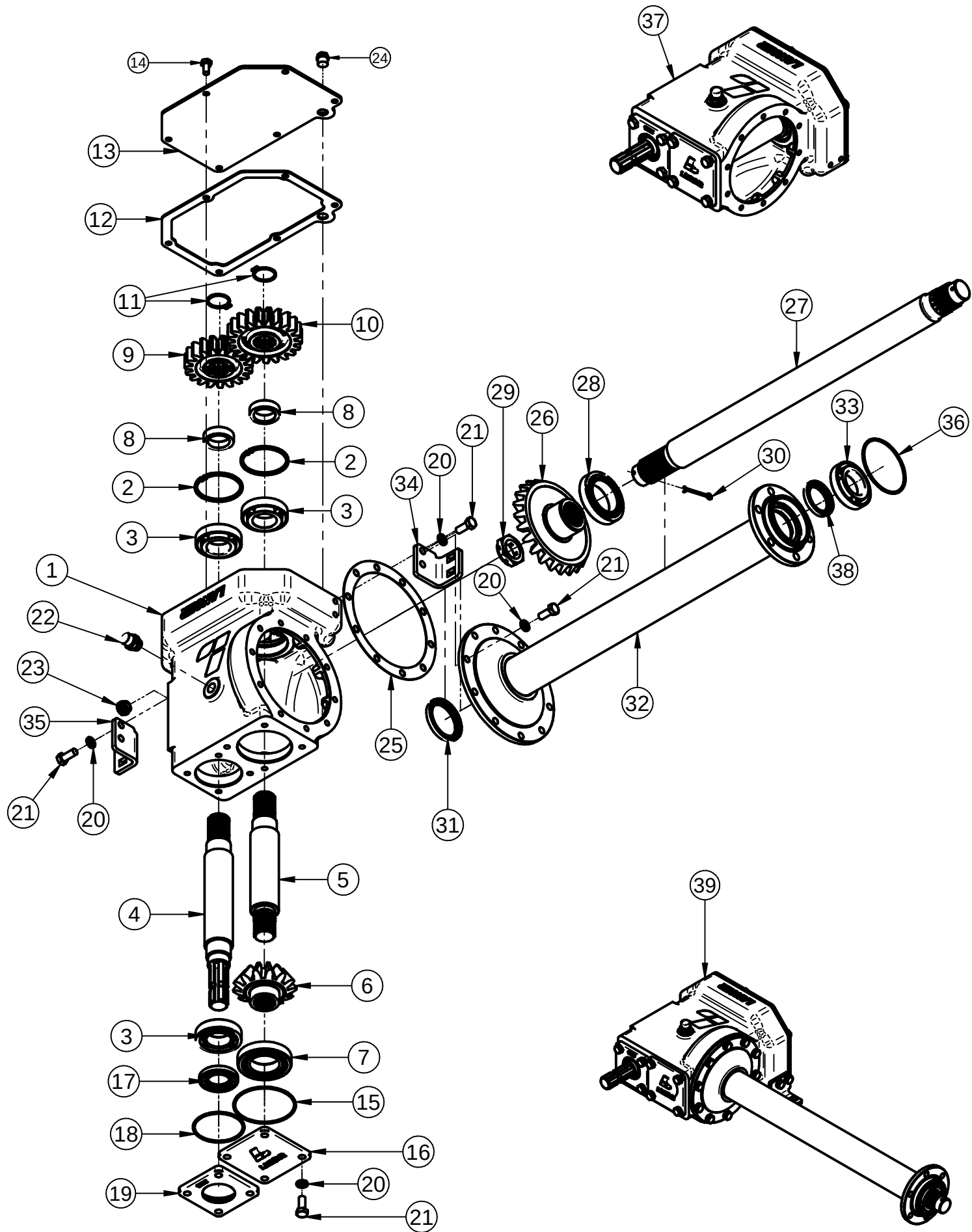


HS FRAME & SIDE GEAR PART LIST				
Item No	Part No	Description		QTY
1	1109037	FRAME WA HS 145		1
	1109001	FRAME WA HS 155		1
	1109022	FRAME WA HS 180		1
	1109026	FRAME WA HS 200		1
	1109030	FRAME WA HS 230		1
2	1109002	Side Plate LH HD SIDE SHIFT		1
3	1101080	Side Plate 10 RH		1
4	1101103	Gasket Center Pin		1
5	1101102	Center Gear Pin HD		1
6	9121406	Hex Bolt M14 x 1.5P x 45 8.8 Zn D961		11
7	9141401	Spring Washer M14 Zn D127		11
8	9131405	Nylock Nut M14 x 1.5-8 Zp D985		15
9	9152002	30208 Tapered Roller Bearing		2
10	9161016	Internal Circlip 80 x 2.5 D472		1
11	9304002	Bush ID 40.1 x 56 x 14.4 mm		1
12	9189923	O-Ring 39.34 ID x 2.62 C-S BS-1806		1
13	1101104	Upper Gear Z 23		1
14	1101105	Central Gear Z 46		1
15	1101106	Lower Gear Z 30		1
16	9134001	Hex Slotted Check Nut M40 x 1.5 P		3
17	9170403	Split Pin Dia.4 x 70 lg		3
18	1101108	Gasket Gear Cover		1
19	1101109	Gear Cover HD		1
20	9101005	Hex Bolt M10 x 30 8.8 Zn D933		19
21	9141002	Washer M10 Zn D125A		19
22	9131004	Nylock Nut M10-8 Zp D985		19
23	9191004	Breathing Plug G1_2		1
24	9191012	Plug G 1_2		2
25	9141201	Spring Washer M12 Zn D127		10
26	9111216	Hex Bolt M12 x 35 HT 8.8 Zn D931		10
27	9121405	Hex Bolt M14 x 1.5P x 40 HT 8.8 Zn D961		4
28	9131204	Nylock Nut M12-8 Zp D985		18
29	1109003	HS 145	Gearbox Assly HD SIDE SHIFT 155	1
		HS 155		
	1101071	HS 180	Gearbox Assly HD 125	1
	1101072	HS 200	Gearbox Assly HD 145	1
	1101074	HS 230	Gearbox Assly HD 180	1
30	1101100	Gearbox Pipe Bracket		1
31	9141202	Washer M12 Zn D125A		6
32	1101101	Gearbox Pipe Clamp		1
33	9189933	O-Ring 13 x 2 C-S		6
34	1101069	Gearbox Support LH		1
35	9101204	Hex Bolt M12 x 25 8.8 Zn D933		6
36	9071201	Mushroom Head SQ. Neck Bolt M12 x 30 lg		4
37	1109012	GEAR BOX SUPPORT		1
38	9101206	Hex Bolt M12 x 35 8.8 Zn D933		4
39	1101001	Shaft Protection		1

This technical drawing is an exploded view of a mechanical assembly, showing the relationship between various components. The central part of the diagram features a vertical shaft with five flange-like structures. To the left, there are two curved, bracket-like components (24) that attach to the shaft via pins (26) and washers (27). Above the top flange, there is a series of stacked components including a cap (5), a ring (4), and a pin (6). To the right, a large, flat, octagonal plate (18) is shown with various mounting points. A series of components (15, 12, 14, 17, 16) are shown in a vertical stack, likely representing a filter or a series of seals. Below the main shaft assembly, there are two more flange-like components (2) and (3). At the bottom right, another octagonal plate (29) is shown with a central mounting point (30). The diagram uses dashed lines to indicate the assembly path and alignment of the parts.

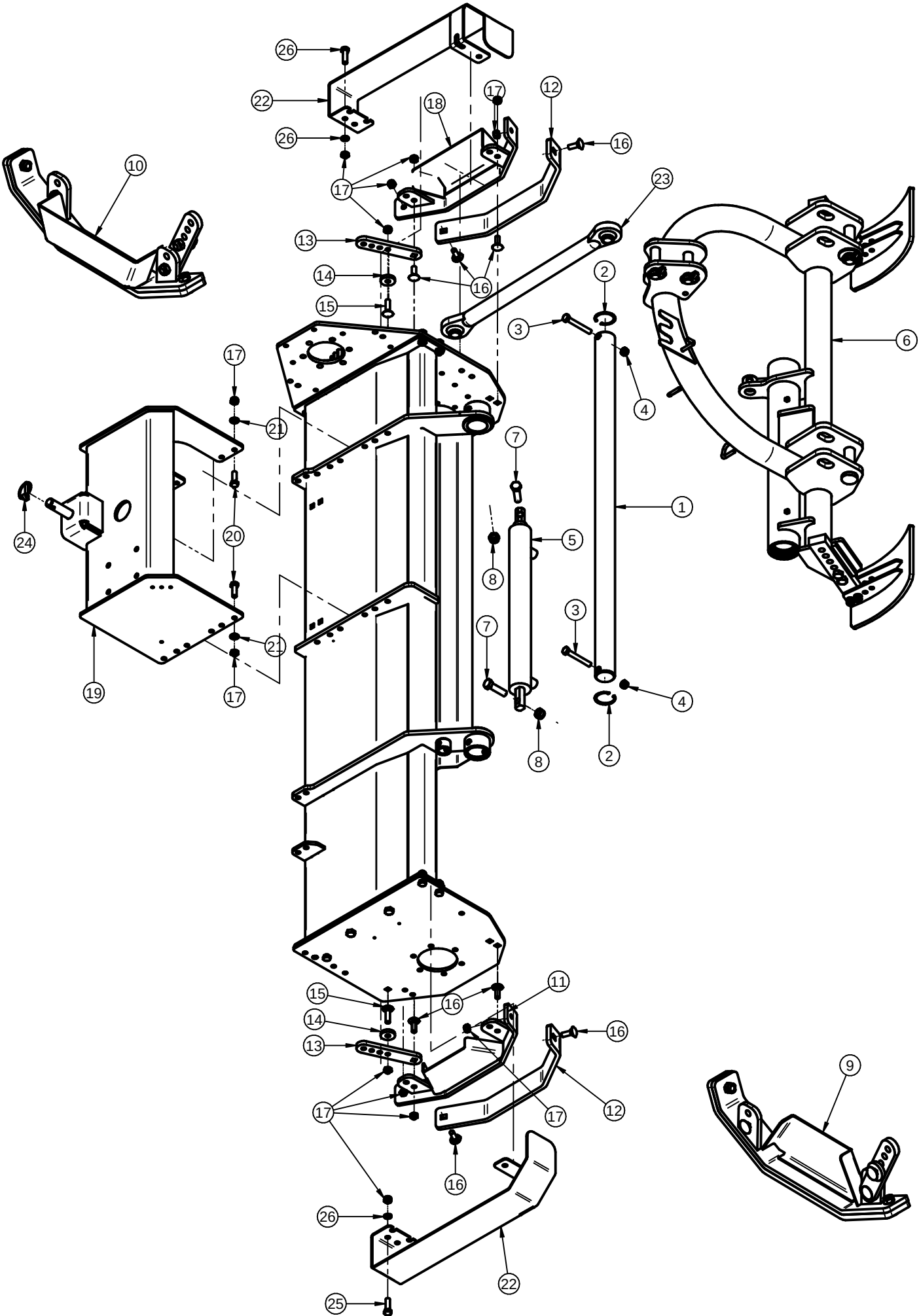
HS ROTOR PART LIST				
Item No	Part No	Description		QTY
1	1101202	HS 145	Rotor HD 145 30B close type	1
	1101203	HS 155	Rotor HD 155 36B close type	1
	1101204	HS 180	Rotor HD 180 42B close type	1
	1101205	HS 200	Rotor HD 200 48B close type	1
	1101206	HS 230	Rotor HD 230 54B close type	1
2	1101019	Dust cover RH		1
3	1101020	Hub Assly gear side		1
4	1101250	HUB DUST COVER OIL CUP SIDE		1
5	1101213	Hub Assly Oil Cup Side HD		1
6	9141401	Spring Washer M14 Zn D127		12
7	9121404	Hex Bolt M14 x 1.5P x 35 8.8 Zn D961		12
8	1101022	Hub housing gear side		1
9	1101021	Hub shaft gear side		1
10	9180002	Mechanical Seal 93		1
11	9189906	O-Ring 148.82 ID x 3.53 C-S		1
12	9150014	6309 Deep Groove Ball Bearing		2
13	9161024	Internal Circlip 100 x 3 D472		1
14	1101211	Hub Housing Oil Cup Side HD		1
15	9189905	O-Ring 108.8 ID x 3.53 C-S		1
16	1101212	HUB SHAFT OIL CUP SIDE		1
17	9180001	Mechanical Seal 76.3		1
18	9164012	External Circlip HD 45 x 2.5 D471		1
19	1101252	Oil Cup HD		1
20	9189913	O-Ring 117.5 ID x 3.53 C-S		1
21	9101202	Hex Bolt M12 x 16 8.8 Zn D933		1
22	9141201	Spring Washer M12 Zn D127		6
23	9111216	Hex Bolt M12 x 35 HT 8.8 Zn D931		6
24	1101004	Blade LH 14 x 57 HD (HS 145-HS 155-HS 180-HS 200-HS 230)		(15-18-21-24-27)
25	1101005	Blade RH 14 x 57 HD (HS 145-HS 155-HS 180-HS 200-HS 230)		(15-18-21-24-27)
26	9121405	Hex Bolt M14 x 1.5P x 40 8.8 Zn D961 (HS 145-HS 155-HS 180-HS 200-HS 230)		(60-72-84-96-108)
27	9141401	Spring Washer M14 Zn D127 (HS 145-HS 155-HS 180-HS 200-HS 230)		(60-72-84-96-108)
28	9131405	Nylock Nut M14 x 1.5-8 Zp D985 (HS 145-HS 155-HS 180-HS 200-HS 230)		(60-72-84-96-108)
29	9141002	Washer M10 Zn D125A		8
30	9121005	Hex Bolt M10 x 1P x 20 10.9 Zn D961		8

HS GEARBOX PART LIST



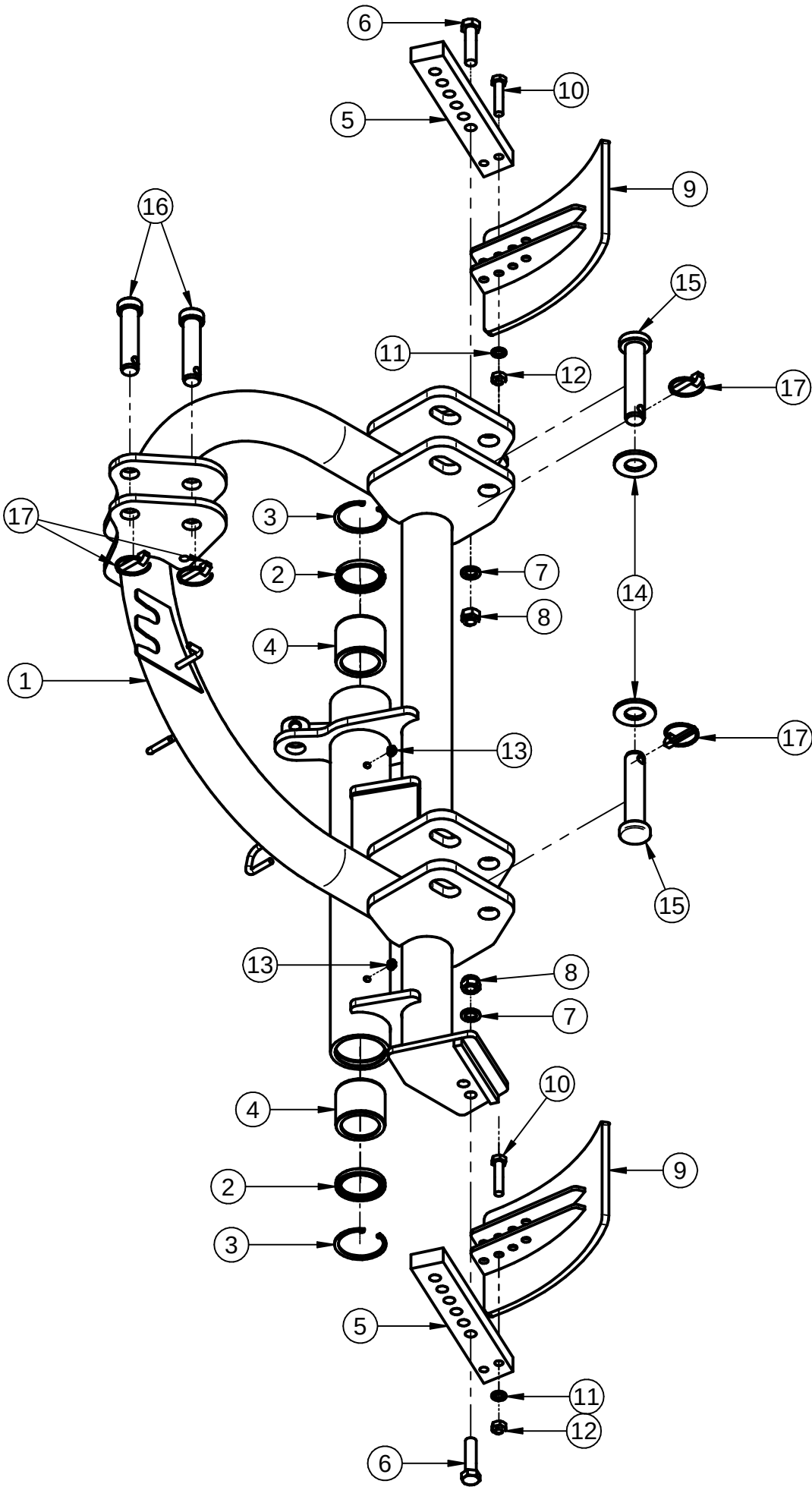
HS GEARBOX PART LIST				HS GEARBOX PART LIST			
Item No	Part No	Description	QTY	Item No	Part No	Description	QTY
1	1101023	Gearbox Body HD	1	27	1101052	Transmission Shaft HD 125	1
2	9162018	Internal Circlip HD 85 x 4 D472	2		1101053	Transmission Shaft HD 145	1
3	9152011	32209 Tapered Roller Bearing	3		1101054	Transmission Shaft HD 155	1
4	1101024	Drive Shaft	1		1101055	Transmission Shaft HD 180	1
5	1101025	Intermediate Shaft HD	1		1101056	Transmission Shaft HD 200	1
6	1101027	Pinion HD	1		1101057	Transmission Shaft HD 230	1
7	9152005	30211 Tapered Roller Bearing	1		1101058	Transmission Shaft HD 255	1
8	9304001	Bush ID 40.1 x 56 x 15.5 mm	2		1101059	Transmission Shaft HD 220	1
9	1101029	Gear Z 14	1	28	9152008	32013 Tapered Roller Bearing	1
	1101031	Gear Z 15	1	29	9134001	Hex Slotted Check Nut M40 x 1.5 P	1
	1101033	Gear Z 16	1	30	9170403	Split Pin Dia.4 x 70 lg	1
	1101035	Gear Z 17	1	31	9186503	OIL SEAL 65 x 85 x 10 HMSA10 V	1
	1101037	Gear Z 18	1	32	1101060	Transmission Housing HD 125	1
	1101039	Gear Z 19	1		1101061	Transmission Housing HD 145	1
	1101041	Gear Z 20	1		1101062	Transmission Housing HD 155	1
10	1101041	Gear Z 20	1		1101063	Transmission Housing HD 180	1
	1101030	Gear Z 26	1		1101064	Transmission Housing HD 200	1
	1101032	Gear Z 25	1		1101065	Transmission Housing HD 230	1
	1101034	Gear Z 24	1		1101066	Transmission Housing HD 255	1
	1101036	Gear Z 23	1		1101067	Transmission Housing HD 280	1
	1101038	Gear Z 22	1	33	9152004	30210 Tapered Roller Bearing	1
	1101040	Gear Z 21	1	34	1101070	Gearbox Support RH	1
11	9164010	External Circlip HD 40 x 2.5 D471	2	35	1101069	Gearbox Support LH	1
12	1101042	Gasket Back Cover	1	36	9189917	O-Ring 104.37 ID x 3.53 C-S	1
13	1101043	Gearbox Back Cove	1	37	1101071	Gearbox Assly HD 125	1
14	9101003	Hex Bolt M10 x 20 8.8 Zn D933	6		1101072	Gearbox Assly HD 145	1
15	9189905	O-Ring 108.8 ID x 3.53 C-S	1		1101073	Gearbox Assly HD 155	1
16	1101045	Gearbox Front Cover-2	1		1101074	Gearbox Assly HD 180	1
17	9184001	OIL SEAL 40 x 72 x 10	1		1101075	Gearbox Assly HD 200	1
18	9189920	O-Ring 88.49 ID x 3.53 C-S BS1806-238	1		1101076	Gearbox Assly HD 230	1
19	1101047	Gearbox Front Cover-1	1		1101077	Gearbox Assly HD 255	1
20	9141201	Spring Washer M12 Zn D127	22		1101078	Gearbox Assly HD 280	1
21	9101205	Hex Bolt M12 x 30 8.8 Zn D933	22	38	9185003	OIL SEAL 50 x 70 x 10 HMSA10 RG	1
22	9191004	Breathing Plug G1_2 with O-ring	1	39	1101269	Gearbox Sub Assly	1
23	9191008	Oil level indicator G1_2 with O-ring	1				
24	9191011	Plug G 3/8 with O-ring	1				
25	1101048	Gasket Flange Big 0.3 mm	1				
	1101049	Gasket Flange Big 0.5 mm	1				
	1101050	Gasket Flange Big 0.8 mm	1				
	1101051	Gasket Flange Big 1 mm	1				
26	1101028	Bevel HD	1				

HS TOP MAST & SKID PART LIST



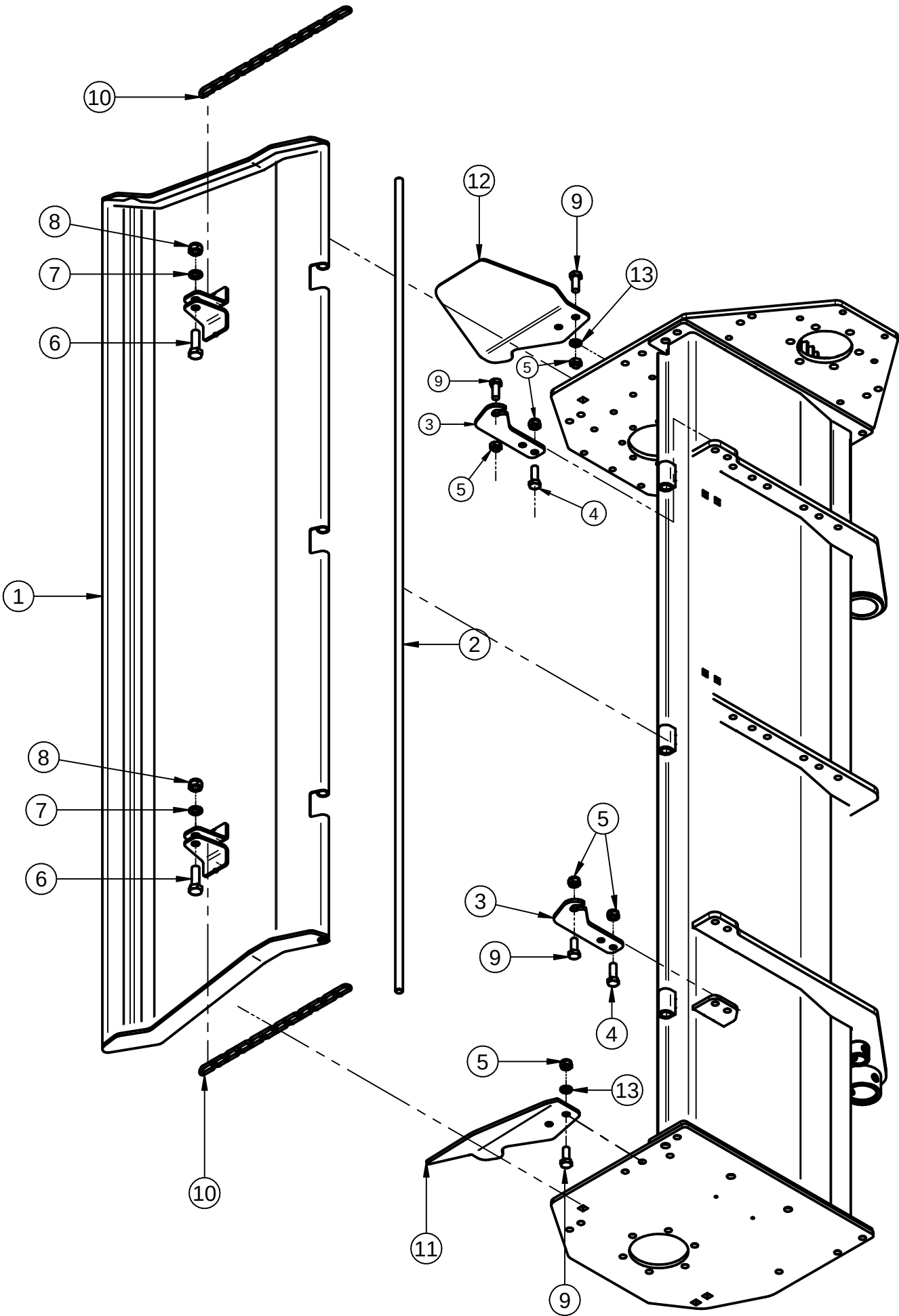
HS TOP MAST & SKID PART LIST			
Item No	Part No	Description	QTY
1	1109013	SLIDING ROD	1
2	9161007	Internal Circlip 55 x 2 D472	2
3	9111208	Hex Bolt M12 x 90 HT 8.8 Zn D931	2
4	9131204	Nylock Nut M12-8 Zp D985	4
5	9240009	HYDRAULIC CYLINDER 16 X 50 X 630	1
6	1109034	Top mast assly HS	1
7	9111601	Hex Bolt M16 x 60 HT 8.8 Zn D931	2
8	9131604	Nylock Nut M16-8 Zp D985	2
9	1101272	Skid LH Kit HD	1
10	1101273	Skid RH Kit HD	1
11	1101257	Skid LH H	1
12	1101258	Skid Bottom H	2
13	1101134	Skid Adjuster Plate	2
14	9301302	Spacer ID 13 x 40 x 8 mm	2
15	9071203	Mushroom Head SQ. Neck Bolt M12 x 45 lg 8.8 Zn D603	2
16	9071202	Mushroom Head SQ. Neck Bolt M12 x 35 lg 8.8 Zn D603	8
17	9131204	Nylock Nut M12-8 Zp D985	22
18	1101256	Skid RH H	1
19	1109011	GEAR BOX SUPPORT WELD ASSEMBLY HD SIDE SHIFT	1
20	9111216	Hex Bolt M12 x 35 HT 8.8 Zn D931	10
21	9141202	Washer M12 Zn D125A	10
22	1109035	LATERAL GUARD WA	2
23	9979001	Top link assly CAT-2 (619-883	1
24	9170801	Linch Pin 8 x 45	1
25	9111209	Hex Bolt M12 x 40 HT 8.8 Zn D931	2
26	9141201	Spring Washer M12 Zn D127	2

HS TOP MAST



HS TOP MAST			
Item No	Part No	Description	QTY
1	1109015	TOP MAST WA HS	1
2	9185503	OIL SEAL 55 x 72 x 8 HMSA10 V	2
3	9161013	Internal Circlip 72 x 2.5 D472	2
4	1109038	SLIDING BUSH HS	2
5	1109016	SIDE SKID THREE POINT HITCH PC-2 HD SIDE SHIFT	2
6	9111601	Hex Bolt M16 x 60 HT 8.8 Zn D931	4
7	9141601	Spring Washer M16 Zn D127	4
8	9131604	Nylock Nut M16-8 Zp D985	4
9	1109017	SIDE SKID THREE POINT HITCH HD SIDE SHIFT	2
10	9111203	Hex Bolt M12 x 55 HT 8.8 Zn D931	4
11	9141201	Spring Washer M12 Zn D127	4
12	9131204	Nylock Nut M12-8 Zp D985	4
13	9192003	M10 x 1 Grease Nipple D71412	2
14	1109039	Lifting Bracket Washer	2
15	9172802	Pin D 28 x 130	2
16	9172501	Pin D 25 x 105	2
17	9170801	Linch Pin 8 x 45	4

HS BACK HOOD PART LIST



HS BACK HOOD PART LIST			
Item No	Part No	Description	QTY
1	1101224	Back Hood HD 145	1
	1101225	Back Hood HD 155	1
	1101226	Back Hood HD 180	1
	1101227	Back Hood HD 200	1
	1101228	Back Hood HD 230	1
2	1101241	Hinge Bar HD 145	1
	1101242	Hinge Bar HD 155	1
	1101243	Hinge Bar HD 180	1
	1101244	Hinge Bar HD 200	1
	1101245	Hinge Bar HD 230	1
3	1109018	BACK HOOD CHAIN CLAMP HD SIDE SHIFT	2
4	9111216	Hex Bolt M12 x 35 HT 8.8 Zn D931	4
5	9131204	Nylock Nut M12-8 Zp D985	10
6	9121406	Hex Bolt M14 x 1.5P x 45 8.8 Zn D961	2
7	9141401	Spring Washer M14 Zn D127	2
8	9131405	Nylock Nut M14 x 1.5-8 Zp D985	2
9	9101205	Hex Bolt M12 x 30 8.8 Zn D933	6
10	1109019	CHHAIN 670 LG LINK 38 x 21	2
11	1101141	SIDE PROTECTION RH	1
12	1101140	SIDE PROTECTION LH	1
13	9141201	Spring Washer M12 Zn D127	4