

Technical Data



Final Drives Small

Standard features

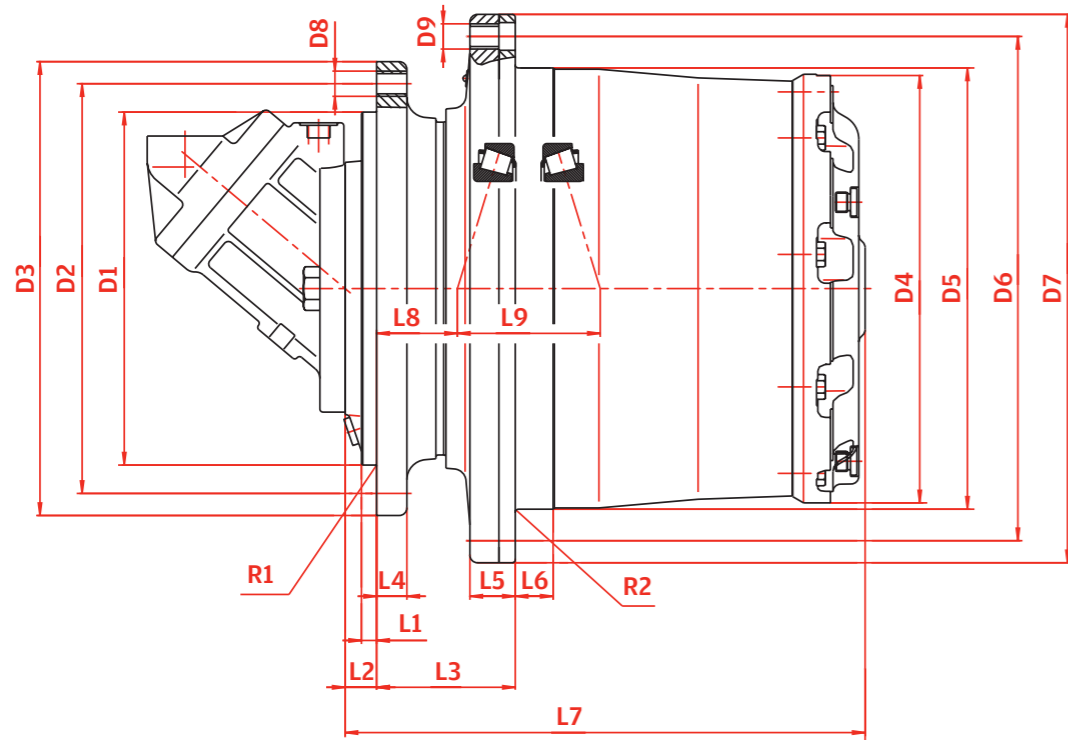
- › Compact structure
- › High performance
- › 3-7 Planetary wheels per stage
- › Notchless ground tooth root
- › Different ratios
- › Integrated disc-brake
- › High availability by highest teeth and production quality

Proven applications

- › Track drives
- › Chain drives
- › Wheel drives
- › Reel and winchdrives
- › Road cutter drum drives

Special executions on request

- › Mechanical disconnect device



		F5	F10A	F13A	FD20	F30
Output torque ²	kNm	5	10	13	20	30
Ratio ³	i	30 35 53	35 51 65	93 (41) ¹ 108 122 140 178 229	81 90 101 137 171 228	61 (19) ¹ 66 (32) ¹ 81 90 101 114 121 137 171 228 305

CAPACITY OF BEARING

C-dynamic	kN	194	132	132	194/194	132/194
Co-static	kN	315	255	255	325/315	255/325
Weigh ⁵	kg	43	45	50	72	94

MULTI-DISK BRAKE

Locking torque	Nm		200	200	300	300 (255; 400) ⁴
Release pressure min.	bar		17	17	16	16 (16; 22) ⁴
Hydraulic motor plug in fixed	ccm		28 30 32	28 30 32	28 30 32	28 30 32 40 45 56 60 63
plug in variable	ccm		28 45	28 45	28 45	28 45 55 60

DIMENSIONS

L 1	mm	8	10	10	10	13
L 2	mm	8	30	30	41	25/22
L 3	mm	70	72	72	75	75
L 4	mm	19	13.5	13.5	15	15
L 5	mm	18.5	15	15	28	29
L 6	mm	20	16	16	25	25
L 7	mm	220	230	255	300	323/320
L 8	mm	38.4	28	28	15.3	28.5
L 9	mm	80.2	79	79	86.3	89
R 1	mm	0.6	0.6	0.6	2.5	2.5
R 2	mm	0.6	0.6	0.6	2.5	2.5
D 1	mm	165	190	190	240	240
D 2	mm	192	230	230	275	275
D 3	mm	215	256	256	304	304
D 4	mm	190	216	216	250	269
D 5	mm	204	220	220	270	270
D 6	mm	232	260	260	305	305
D 7	mm	255	290	290	335	335
D 8	mm	M12x1.75	M16x2	M16x2	M16x2	M16x2
D 9	mm	M12x1.75	M16x2	M16x2	M16x2	M16x2
Qty. D 8 / D 9		9/9	12/8	12/8	18/18	18/18

1) 2-stage
 2) Stated torques are peak values for short duration
 3) Other ratios on demand
 4) Optional brake torques
 5) Without Hydraulic motor

Final Drives Medium

Standard features

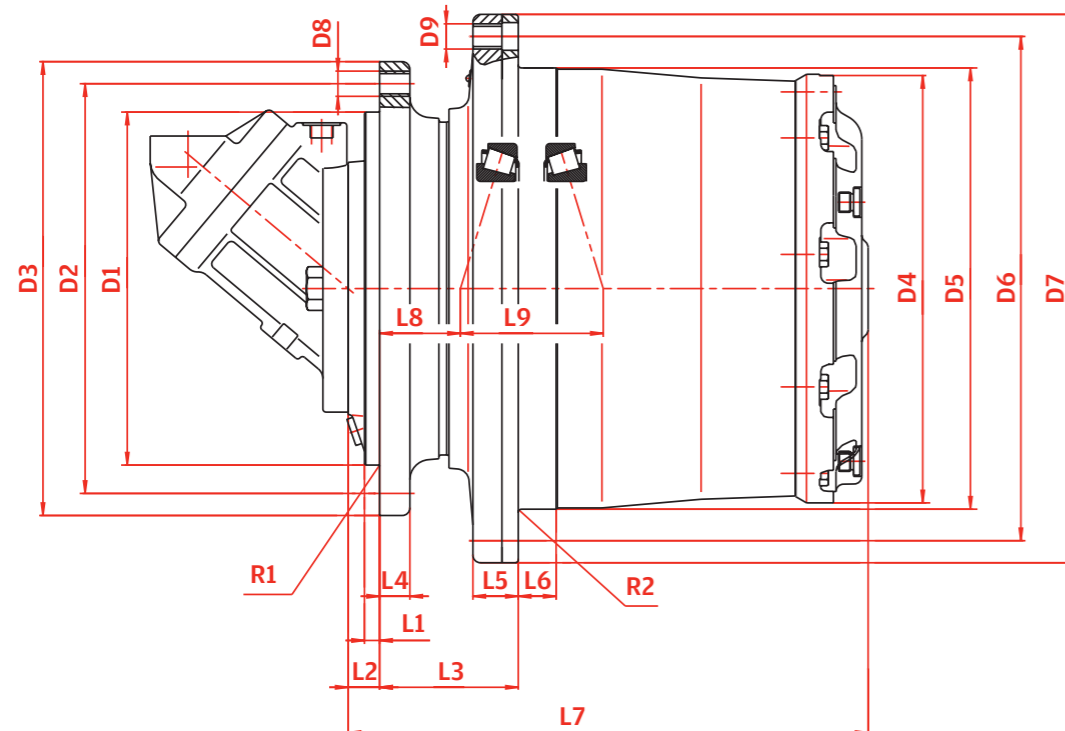
- › Compact structure
- › High performance
- › 3-7 Planetary wheels per stage
- › Notchless ground tooth root
- › Different ratios
- › Integrated disc-brake
- › High availability by highest teeth and production quality

Proven applications

- › Track drives
- › Chain drives
- › Wheel drives
- › Reel and winchdrives
- › Road cutter drum drives

Special executions on request

- › Mechanical disconnect device



		F40	F40A	F40XB	F55	F55A	F55B	F55XB
Output torque ²	kNm	40	40	40	55	55	55	55
Ratio ³	i	61 (19) ¹ 66 (22) ¹ 81 (32) ¹ 85 101 110 117 124 142 181	61 (19) ¹ 66 (22) ¹ 81 (32) ¹ 85 101 110 117 124 142 181	61 (19) ¹ 66 (22) ¹ 81 (26) ¹ 85 (32) ¹ 101 110 117 124 142 181	63 (16) ¹ 68 (19) ¹ 87 (22) ¹ 94 (32) ¹ 103 117 124 137 148 185	63 (16) ¹ 68 (19) ¹ 87 (22) ¹ 94 (32) ¹ 103 117 124 137 148 185	63 (16) ¹ 68 (19) ¹ 87 (22) ¹ 94 (32) ¹ 103 117 124 137 148 185	63 (16) ¹ 68 (19) ¹ 87 (22) ¹ 94 (32) ¹ 103 117 124 137 148 185

CAPACITY OF BEARING								
C-dynamic	kN	224	224	395	224	224	224	224
Co-static	kN	405	405	670	405	405	405	405
Weight ⁵	kg	115	123	150	165	177	181	180

PARK BRAKE								
Locking torque	Nm	420	420	500	420 (390; 500) ⁴	420 (390; 500) ⁴	420 (390; 500) ⁴	420
Release pressure min.	bar	18	18	35	15 (15; 21) ⁴	15 (15; 21) ⁴	15 (15; 21) ⁴	18

HYDRAULIC MOTOR								
plug in fixed	ccm	40 45 56 60 63	80 90	40 45 56 60 63 80	80 90	40 45 56 60 63	/	40 45 56 60 63 80 90
plug in variable	ccm	55 60	80	55 60	80	55 60	107 110	55 60 80 107

DIMENSIONS								
L1	mm	16	13	15	12	20	12	11
L2	mm	16	35	15	25	30	37	12
L3	mm	91	91	91	110	91	110	110
L4	mm	21	21	30	24	24	24	26
L5	mm	34	34	37	36	36	36	23
L6	mm	26	26	19.5	30	30	30	13
L7	mm	338	357	341	413	399	425	412.5
L8	mm	38	38	2	64	45	64	77
L9	mm	100	100	193	113	113	113	113
R1	mm	2.5	2.5	2.5	1	4	1	R1
R2	mm	2.5	2.5	2.5	2.5	2.5	2.5	/
D1	mm	240	270	300	280	240	290	290
D2	mm	285	310	340	325	285	335	325
D3	mm	320	345	375	360	320	370	425
D4	mm	294	294	294	340	340	340	340
D5	mm	295	295	350	350	350	350	410
D6	mm	335	335	400	400	400	400	455
D7	mm	370	370	435	435	435	435	490
D8	mm	M20x1.5	M20x1.5	M20x2.5	M20x1.5	M20x1.5	M20x1.5	M20x2.5
D9	mm	M20x1.5	M20x1.5	M20x2.5	M20x1.5	M20x1.5	M20x1.5	M20x2.5
Qty. D 8 / D 9		20/20	16/20	16/16	24/20	20/20	20/20	24/24

1) 2-stage
 2) Stated torques are peak values for short duration
 3) Other ratios on demand

4) Optional brake torques
 5) Without Hydraulic motor

Final Drives Medium

Standard features

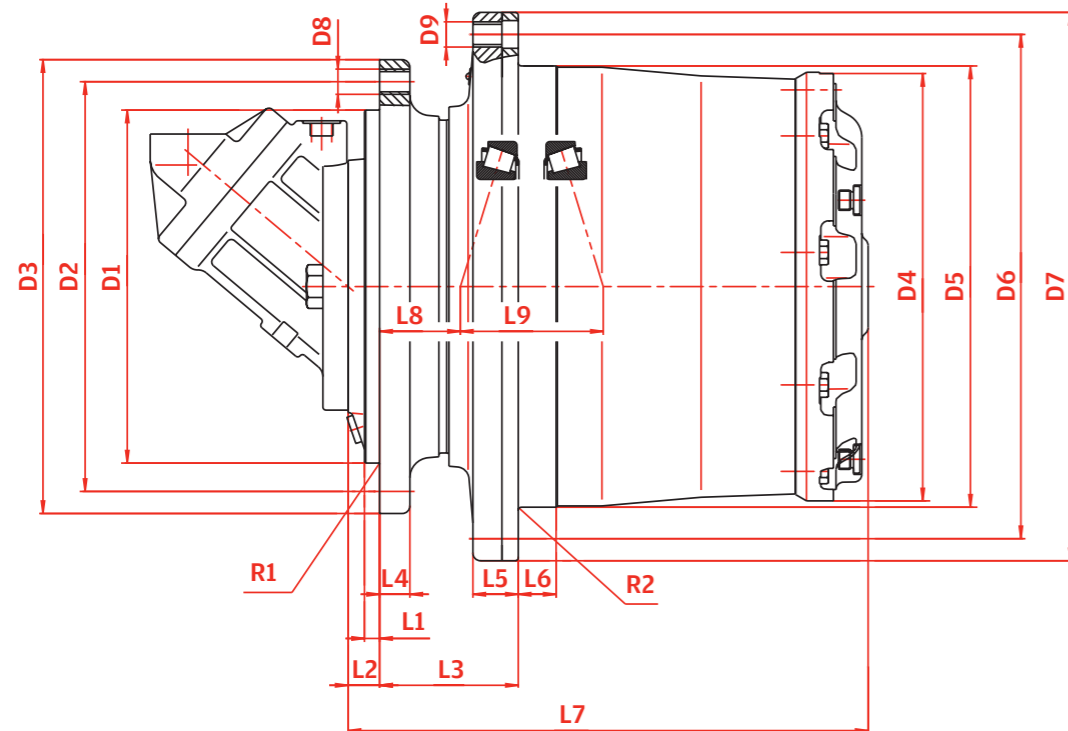
- › Compact structure
- › High performance
- › 3-7 Planetary wheels per stage
- › Notchless ground tooth root
- › Different ratios
- › Integrated disc-brake
- › High availability by highest teeth and production quality

Proven applications

- › Track drives
- › Chain drives
- › Wheel drives
- › Reel and winchdrives
- › Road cutter drum drives

Special executions on request

- › Mechanical disconnect device



		F 80	F80XB	F80XR	F100	F100XB	F100XR
Output torque ²	kNm	80	80	80	100	100	100
Ratio ³	i	61 (19) ¹ 81 (32) ¹ 101 114 121 137 147 171 187 206	61 (19) ¹ 81 101 114 121 137 147 171 187 206	61 (19) ¹ 81 101 114 121 137 147 171 187 206	77 (21) ¹ 84 (22) ¹ 95 (32) ¹ 121 142 175 192 226	77 (21) ¹ 84 (22) ¹ 95 (32) ¹ 121 142 175 192 226	77 (21) ¹ 84 (22) ¹ 95 (32) ¹ 121 142 175 192 226

CAPACITY OF BEARING							
C-dynamic	kN	300	300	300	498	498	498
Co-static	kN	570	570	570	1010	1010	1010
Weight ⁵	kg	230	250	240	330	370	341

PARK BRAKE							
Locking torque	Nm	600 (375; 550; 1000) ⁴	600	600	600 (900) ⁴	600	600
Release pressure min.	bar	18 (18; 19; 28) ⁴	18	18	15 (13) ⁴	15	15

HYDRAULIC MOTOR								
plug in fixed	ccm	80 90 107 110 125 160 180	80 90 107 110 160 180	80 90 107 110 160 180	107 125 160 180	107 125 160 180	107 125 160 180	
	plug in variable	ccm	80 107 110 160	80 107 110 160	80 107 110 160	107 110 160	107 110 160	107 110 160

DIMENSIONS							
L1	mm	20	15	20	35/37	21	22
L2	mm	35	15	35	35/37	35	35
L3	mm	90	110	90	165	130	148
L4	mm	22	22	22	28	28	29
L5	mm	37	37	37	53	33	53
L6	mm	24	19	23	43	25	30
L7	mm	415	414.5	414.5	461/463	463	463
L8	mm	34	68.5	68.5	32	39	32
L9	mm	123	123	123	139	139	139
R1	mm	4	2.5	4	10 (12)/60	2.5	2.5
R2	mm	2.5	2.5	2.5	5	2.5	2.5
D1	mm	330	290	330	390	420	380
D2	mm	370	325	370	460	460	430
D3	mm	410	425	410	500	500	480
D4	mm	374	374	374	407	407	407
D5	mm	400	410	400	408	460	430
D6	mm	450	455	450	460	510	480
D7	mm	490	490	490	500	550	520
D8	mm	M24x2	M20x2.5	M20x1.5	M24x2	M20x2.5	M24x3
D9	mm	M24x2	M20x2.5	M20x1.5	M24x2	M20x2.5	M24x3
Qty. D 8 / D 9		20/20	24/24	20/20	30/24	24/24	20/20

1) 2-stage
2) Stated torques are peak values for short duration
3) Other ratios on demand

4) Optional brake torques
5) Without Hydraulic motor

Final Drives Large

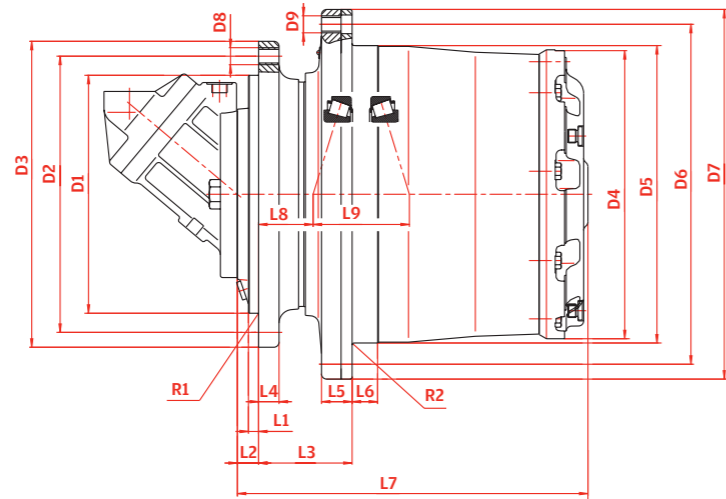
Standard features

- › Compact structure
- › High performance
- › 3-7 Planetary wheels per stage
- › Notchless ground tooth root
- › Different ratios
- › Integrated disc-brake
- › Different hydraulic motors
- › High availability by highest teeth and production quality

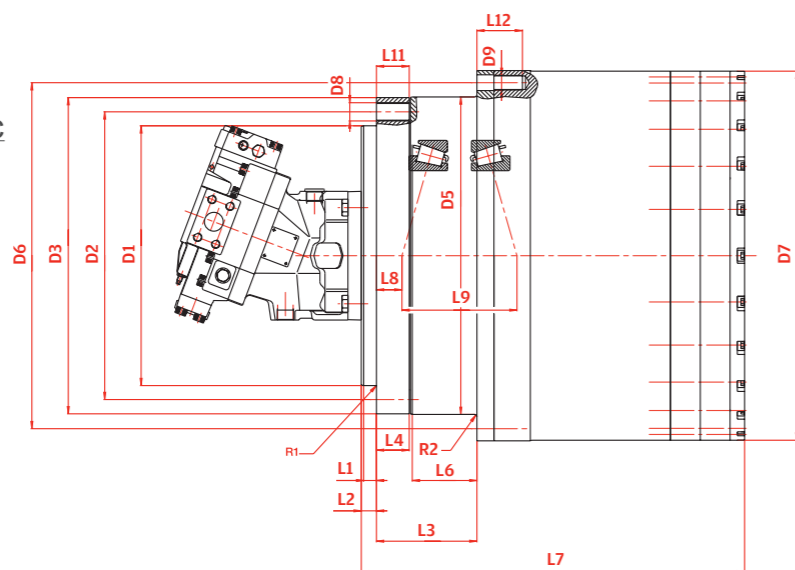
Special executions on request

- › Mechanical disconnect device

Standard input version – ST



Crawler Crane version – CC



		F130	F130XB	F130XR	F180	F220	F220XBR
Output torque ²	kNm	130	130	130	180	220	220
Ratio ^{1 3}	i	69 (14) ¹ 81 (18) ¹ 85 (21) ¹ 95 (26) ¹ 115 159 167 180 206	81 85 115 159 167 180 206	81 85 115 159 167 180 206	206 281 (412) ⁷ (618) ⁷ (824) ⁷	97 (298) ⁷ 119 (372) ⁷ 120 (572) ⁷ 190 (744) ⁷ 248 (805) ⁷ 290 345	97 119 190 248 290 345
VERSION⁵		ST	ST	ST	ST CC	ST CC	ST
CAPACITY OF BEARING							
C-dynamic	kN	523			787	787	765 750
Co-static	kN	980			1650	1650	1660 1560
Weight ⁶	kg	452	465	465	636	636	740 895 800
PARK BRAKE							
Locking torque	Nm	750	750	750	1375 (800) ⁴	1375 (800) ⁴	1200 1000 1200
Release pressure min.	bar	19	19	19	35 (35) ⁴	35 (35) ⁴	15 15 15
HYDRAULIC MOTOR							
plug in fixed	ccm	107 125 160 180	107 125 160 180	107 125 160 180	160 180	180	107 107 180 180
plug in variable	ccm	107 160	107 160	107 160	160		160 160 200 215 250 280
DIMENSIONS							
L1	mm	45	20	20	30	25	18 21 52
L2	mm	45	65	70	30	30	52 25 52
L3	mm	190	170	165	168	171	166.5 165.5 170
L4	mm	35	35	35	40	80	40 54 40
L5	mm	58	38	58	56	/	61 / 40
L6	mm	45	20	45	21.5	86	35 106.5 50
L7	mm	530	532	532	534.5	564.5	580.5 631.5 580.5
L8	mm	50.5	30	25	50.3	80.3	16 42 16
L9	mm	147	147	147	141.4	141.4	187.5 189.5 187.5
L10	mm	/	/	/	/	/	/ / /
L11	mm	/	/	/	/	35	/ 54 /
L12	mm	/	/	/	/	81.5	/ 75 /
R1	mm	25	1.2	1.2	4	4	35°/16/16 / 2.5
R2	mm	4	1.2	1.2	3	5	4 4 /
D1	mm	390	450	420	450	340	460 428 460
D2	mm	500	510	460	510	400	600 474 600
D3	mm	550	570	500	560	444	650 521 650
D4	mm	449	449	449	528	/	540 / 538
D5	mm	450	560	460	535	445	542 523 610
D6	mm	500	610	500	600	495	600 570 680
D7	mm	550	660	540	650	528	650 608 735
D8	mm	M24x2	M30x3.5	M24x3	M24x2	M33x1.5	M24x2 M30x2 M30x3.5
D9	mm	M24x2	M24x3	M18x1.5	M27x2	M27x2	M24x2 M24x1.5 M30x3.5
Qty. D8 / D9		32/32	20/24	24/36	30/30	24/30	38/38 30/36 30/24

* Park brake integrated in hydraulic motor
 1) 2-stage on demand
 2) Stated torques are peak values for short duration
 3) Other ratios on demand

4) Optional brake torques
 5) ST= Standard CC= Crawler Crane
 6) Without hydraulic motor
 7) In combination with input bevel drive

Final Drives Large

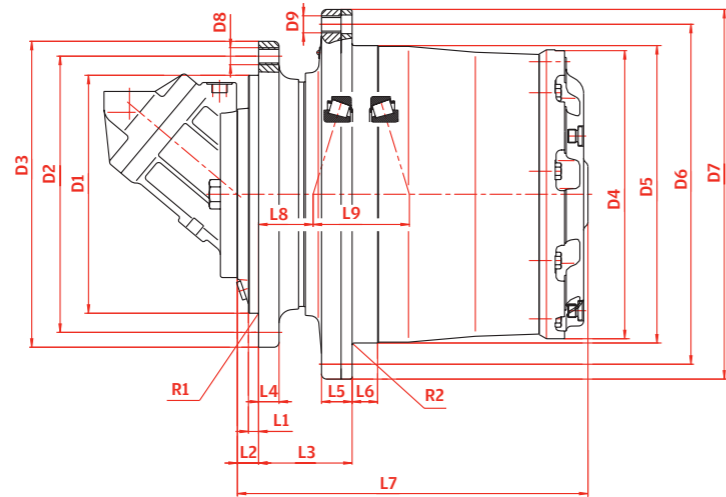
Standard features

- › Compact structure
- › High performance
- › 3-7 Planetary wheels per stage
- › Notchless ground tooth root
- › Different ratios
- › Integrated disc-brake
- › Different hydraulic motors
- › High availability by highest teeth and production quality

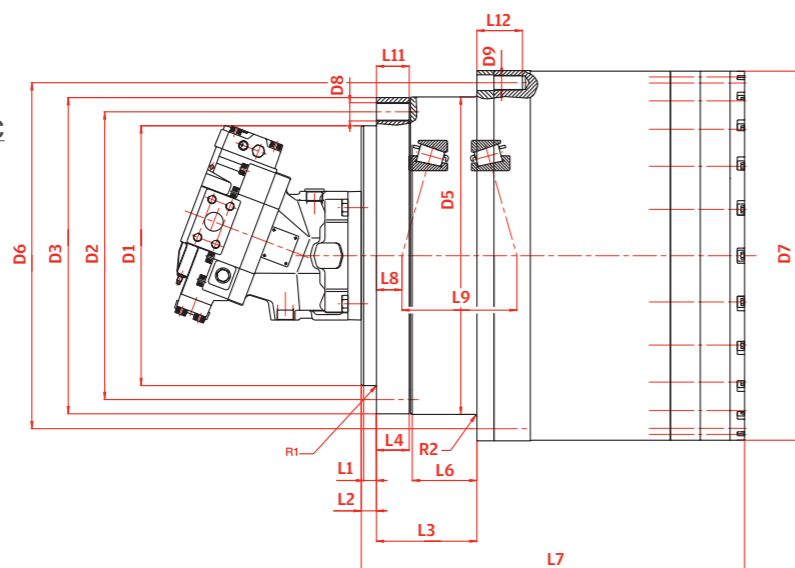
Special executions on request

- › Mechanical disconnect device

Standard input version – ST



Crawler Crane version – CC



		F260	F280	F360	F420	F440	F560
Output torque ²	kNm	260	280	360	440	440	560
Ratio ³	i	69 97 168 245 345 (670) ⁷ (1115) ⁷ (1784) ⁷	201	94 (385) ⁷ 128 (446) ⁷ 161 (670) ⁷ 168 (848) ⁷ 186 (1115) ⁷ 223 (1784) ⁷ 242 257 283 490	259	352 555 637 (445) ⁷ (528) ⁷ (705) ⁷	357 739 (887) ⁷
VERSION⁴		ST	CC	ST	ST	CC	CC
CAPACITY OF BEARING							
C-dynamic	kN	750	750	1180	1040	1120	1040
Co-static	kN	1560	1560	2600	2450	2550	2450
Weight ⁵	kg	865	895	1037	1080	1500	2000
PARK BRAKE							
Locking torque	Nm	1000	1000	1650	1700	1000	1700 (1000)*
Release pressure min.	bar	15	15	15	12	18	15 (7.8)*
HYDRAULIC MOTOR							
plug in fixed	ccm				355		
plug in variable	ccm	355 250	160	250	355	(2x) 160	250 160
DIMENSIONS							
L1	mm	21	21	52	100	60	40
L2	mm	45	25	125	100	132	43
L3	mm	170	165.5	125	130	130	255
L4	mm	40	54	40	40	40	45
L5	mm	48	/	65	60	60	25
L6	mm	60	106.5	45	80	80	25
L7	mm	579	631.5	627	658	1026	820
L8	mm	18.5	42	89.3	-25	-43.5	80
L9	mm	189.5	189.5	180.4	215	210.7	213
L10	mm	/	/	/	/	/	/
L11	mm	/	54	/	/	/	40
L12	mm	/	75	/	/	/	70
R1	mm	2	/	18°/50/5	18°/100/16	10	4
R2	mm	/	4	4	10	10	4<
D1	mm	460	428	530	580	660	450
D2	mm	520	474	630	680	744	515
D3	mm	570	521	685	735	795	569
D4	mm	608	/	608	649	670	669
D5	mm	610	523	610	650	674	570
D6	mm	680	570	685	720	744	620
D7	mm	735	608	740	775	795	670
D8	mm	M30x2	M30x2	M30x3.5	M30x3.5	M30x2	M36x3
D9	mm	33	M24x1.5	M30x3.5	M30x3.5	M30x2	M30x3
Qty. D 8 / D 9		24/24	30/36	28/28	30/30	42/42	30/30

* Park brake integrated in hydraulic motor
 1) 2-stage on demand
 2) Stated torques are peak values for short duration
 3) Other ratios on demand

4) Optional brake torques
 5) ST= Standard CC= Crawler Crane
 6) Without hydraulic motor
 7) In combination with input bevel drive

Final Drives XLarge

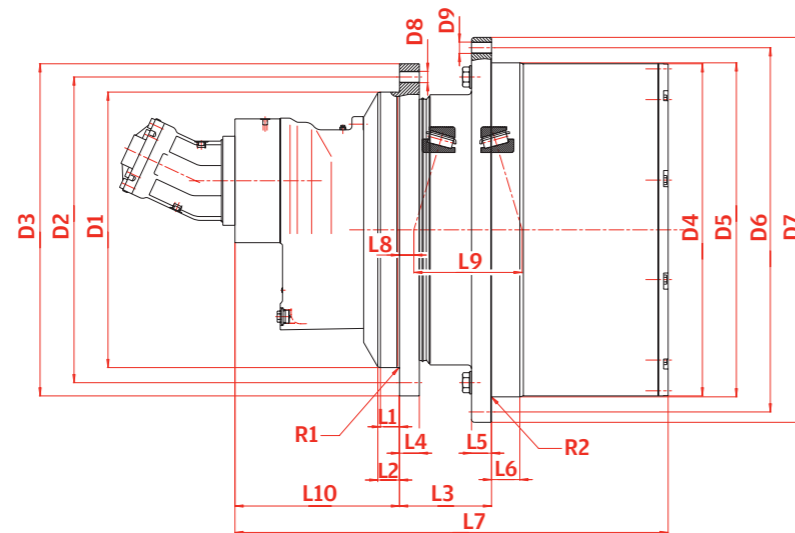
Standard features

- › Compact structure
- › High performance
- › 3-7 Planetary wheels per stage
- › Notchless ground tooth root
- › Different ratios
- › Integrated disc-brake
- › Suitable for various hydraulic motors
- › High availability by highest teeth and production quality

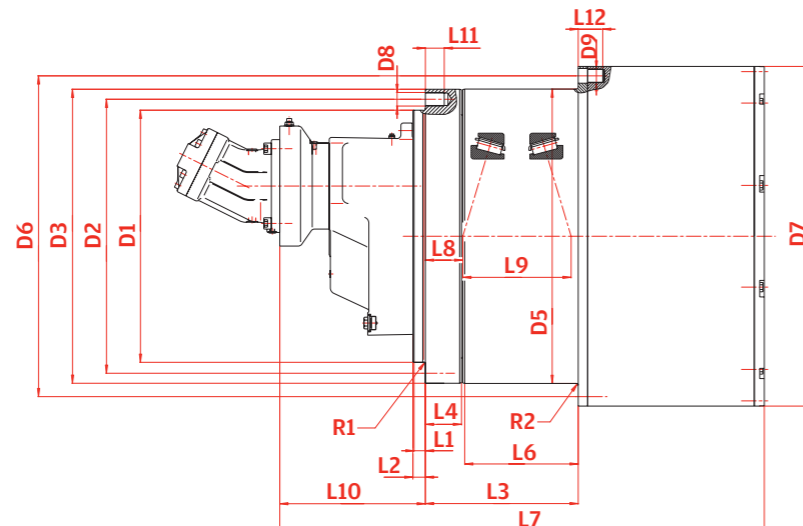
Special executions on request

- › Mechanical disconnect device

Standard input version – ST



Crawler Crane version – CC



		F620	F650	F700	F700A	F800	
Output torque ¹	kNm	620	650	700	700	800	
Ratio ²	i	249 293 328 462	682	377	648	283 298	
VERSION³		ST CC	CC	CC	CC	ST	
CAPACITY OF BEARING							
C-dynamic	kN	1320	1320	1040	1320	1320	2485
Co-static	kN	3150	3150	2450	3150	3150	5941
Weight ⁴	kg	2897	2897	1660	3350	3350	3764
PARK BRAKE							
Locking torque	Nm	1200	1200	1150	1200	1200	*1000
Release pressure min.	bar	28	28	17	28	28	*7.8
HYDRAULIC MOTOR							
fixed	ccm	(2x) 250 (1x) 500	(2x) 200 (2x) 160		(2x) 250		(2x) 250
variable	ccm	(2x) 250 (2x) 280 (1x) 500	(2x) 160	(2x) 215	(2x) 250 (2x) 280	(2x) 160	(2x) 250 (2x) 280
DIMENSIONS							
L1	mm	50	30	40	30	30	20
L2	mm	57.5	33	43	33	33	25
L3	mm	245	405	255	405	405	229
L4	mm	52.5	96	89	96	96	60
L5	mm	53	/	/	/	/	58
L6	mm	75	306	117	306	306	170
L7	mm	1232	1159	846.5	1283.5	1372.5	1315
L8	mm	38	99	133	99	99	161/163
L9	mm	287	287	213	287	287	257/253
L10	mm	341	352.8	/	352.8	474.8	713
L11	mm	/	50	45	50	50	/
L12	mm	/	65	70	65	65	/
R1	mm	4	4	4	4	4	6
R2	mm	/	5	4	5	5	8
D1	mm	730	668	450	668	668	830
D2	mm	810	726	515	726	726	980
D3	mm	880	779	563	779	779	1050
D4	mm	880	/	/	/	/	916
D5	mm	885	782	570	780	780	920
D6	mm	965	830	620	850	850	976
D7	mm	1020	880	763	900	900	1055
D8	mm	M30x2	M36x1.5	M36x1.5	M36x1.5	M36x1.5	M30x2
D9	mm	M30x2	M30x1.5	M30x1.5	M36x1.5	M36x1.5	M30x2
Qty. D8 / D9		41/48	30/45	29/42	30/45	30/45	48/48

* Integrated in hydraulic motor
 1) Stated torques are peak values for short duration
 2) Other ratios on demand
 3) ST= Standard CC= Crawler Crane
 4) Without hydraulic motor

Final Drives XLarge

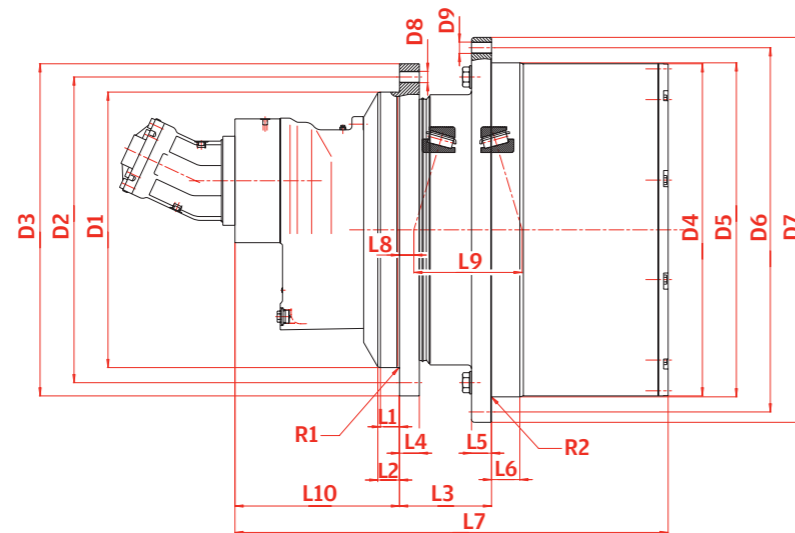
Standard features

- › Compact structure
- › High performance
- › 3-7 Planetary wheels per stage
- › Notchless ground tooth root
- › Different ratios
- › Integrated disc-brake
- › Suitable for various hydraulic motors
- › High availability by highest teeth and production quality

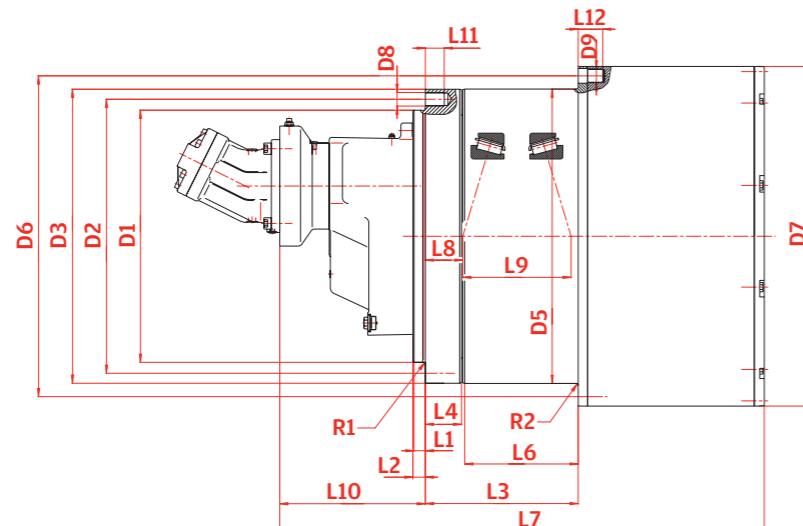
Special executions on request

- › Mechanical disconnect device

Standard input version – ST



Crawler Crane version – CC



		F1100	F1300	F1800		F2200		F3000
Output torque ¹	kNm	1100	1300	1800		2200		2916
Ratio ²	i	406	461	656 744		552 989		699
VERSION³		ST	ST	ST	CC	ST	CC	ST
CAPACITY OF BEARING								
C-dynamic	kN	3900	3900	3900	3900	5100	3900	6110
Co-static	kN	7650	7650	7650	7650	11600	7650	11900
Weight ⁴	kg	7220	7400	7500	9000	10736	9000	11500
PARK BRAKE								
Locking torque	Nm	1750	1750	1200	1200	2300	1200	1700
Release pressure min.	bar	20	20	28	28	22	28	12
HYDRAULIC MOTOR								
fixed	ccm	(2x) 250	(2x) 250	(2x) 250		(2x) 355	(2x) 250	
variable	ccm	(2x) 250 (2x) 280		(2x) 250 (2x) 280	(2x) 250 (2x) 280	(2x) 355	(2x) 250 (2x) 280	(2x) 250 (2x) 280
DIMENSIONS								
L1	mm	57	57	54	55	60	55	60
L2	mm	60	60	60	60	70	60	70
L3	mm	503	503	310	478	343	478	343
L4	mm	74	74	74	158	80	158	80
L5	mm	/	/	107	/	100	/	100
L6	mm	/	/	191.5	239	80	239	80
L7	mm	1483	1623	1839.5	1785.5	1846	1956.5	2000
L8	mm	176	176	176	171	217	171	217
L9	mm	368	368	368	375	376	375	376
L10	mm	713	395.5	615.5	602.5	591	626	606
L11	mm	/	/	/	50	/	55	/
L12	mm	/	/	/	90	/	93	/
R1	mm	10	10	10	4	10	4	10
R2	mm	6	6	10	6	10	6	10
D1	mm	1110	1110	1110	785	1288	785	1288
D2	mm	1230	1230	1230	851	1400	858	1400
D3	mm	1310	1310	1310	923	1500	930	1500
D4	mm	1116	1116	1224	/	1224	/	1224
D5	mm	-	1100	1250	935	1230	935	1230
D6	mm	1170	1170	1350	1016	1320	1016	1320
D7	mm	1226	1226	1430	1224	1400	1224	1400
D8	mm	M36x4	M36x4	M36x1.5	M42x2	M42x3	M48x2	M42x3
D9	mm	M30x3.5	M30x3.5	M42x2	M42x2	M42x3	M48x2	M42x3
Qty. D 8 / D 9		48/52	48/52	48/40	40/40	50/48	36/36	50/48

1) Stated torques are peak values for short duration
 2) Other ratios on demand
 3) ST= Standard CC= Crawler Crane
 4) Without hydraulic motor

Final Drives Angular Input

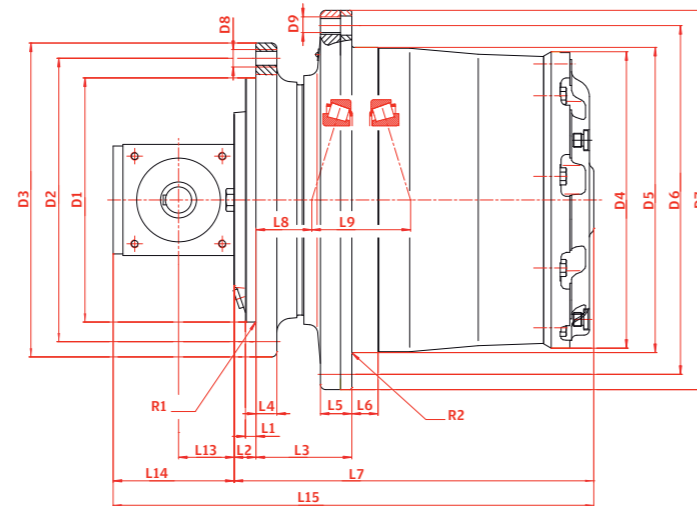
Standard features

- › Compact structure
- › High performance
- › 3-7 Planetary wheels per stage
- › Notchless ground tooth root
- › Different ratios
- › Integrated disc-brake
- › High availability by highest teeth and production quality

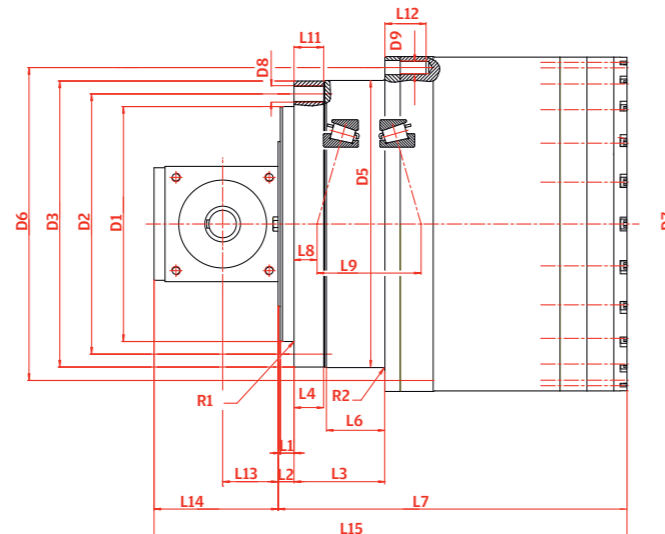
Special executions on request

- › Mechanical disconnect device

Standard input version – ST



Crawler Crane version – CC



		FP100	FP130	FP180	FP220
Output torque ¹	kNm	100	130	180	220
Ratio ²	i	426	825	412	248
VERSION³		ST	ST	ST	ST
CAPACITY OF BEARING					
C-dynamic	kN	498	523	787	765
Co-static	kN	1010	980	1650	1660
Weight	kg	410	452	757	915
PARK BRAKE OPTIONAL					
Locking torque ⁴	Nm	600	750	1375	1200
Release pressure min.	bar	15	19	35	15
DIMENSIONS					
L1	mm	35	45	30	18
L2	mm	65	45	30	52
L3	mm	165	190	168	166.5
L4	mm	28	35	40	40
L5	mm	53	58	56	61
L6	mm	43	45	21.5	35
L7	mm	463	530	534.5	580.5
L8	mm	32	50.5	50.3	16
L9	mm	139	147	141.4	187.5
L10	mm	/	/	/	/
L11	mm	/	/	/	/
L12	mm	/	/	/	/
L13 ⁵	mm	115	311	437.5	448
L14 ⁵	mm	215	411	542.5	593
L15 ⁵	mm	678	941	1077	1173.5
L16 ⁵	mm	60	60	75	85
L17 ⁵	mm	215	215	265	300
R1	mm	12 / 60	25	4	35°/16/16
R2	mm	5	4	3	4
D1	mm	390	390	450	460
D2	mm	460	500	510	600
D3	mm	500	550	560	650
D4	mm	407	449	528	540
D5	mm	408	450	535	542
D6	mm	460	500	600	600
D7	mm	500	550	650	650
D8	mm	M24x2	M24x2	M24x2	M24x2
D9	mm	M24x2	M24x2	M27x2	M24x2
Qty. D8 / D9		30/24	32/32	20/30	38/38
D10 ⁵	mm	40	40	50	55
D10 Key ⁵		DIN6885 A12x8x50	DIN6885 A12x8x50	DIN6885 A14x9x70	DIN6885 A16x10x80

1) Stated torques are peak values for short duration
 2) Other ratios on demand
 3) ST= Standard CC= Crawler Crane
 4) Optional brake torques
 5) Other dimensions optional

Final Drives Angular Input

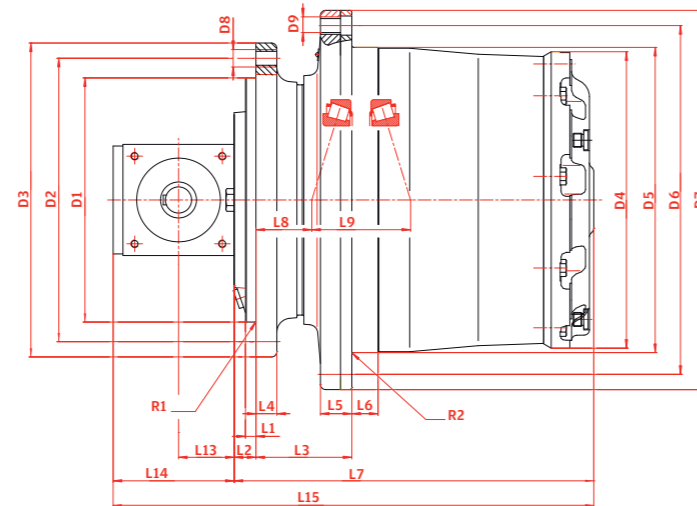
Standard features

- › Compact structure
- › High performance
- › 3-7 Planetary wheels per stage
- › Notchless ground tooth root
- › Different ratios
- › Integrated disc-brake
- › High availability by highest teeth and production quality

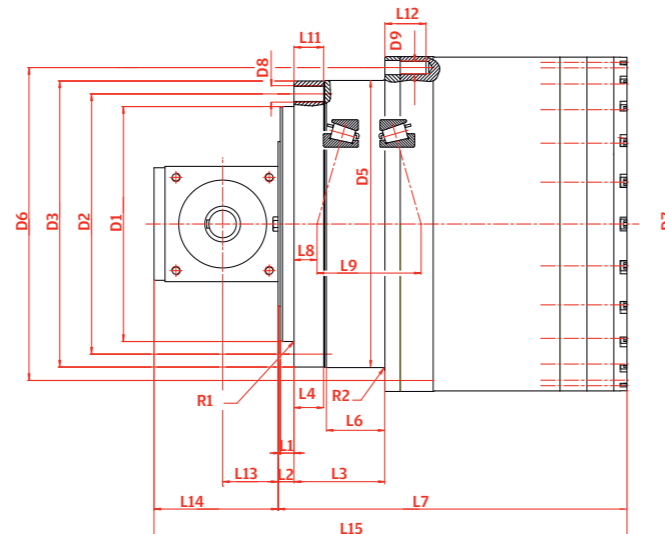
Special executions on request

- › Mechanical disconnect device

Standard input version – ST



Crawler Crane version – CC



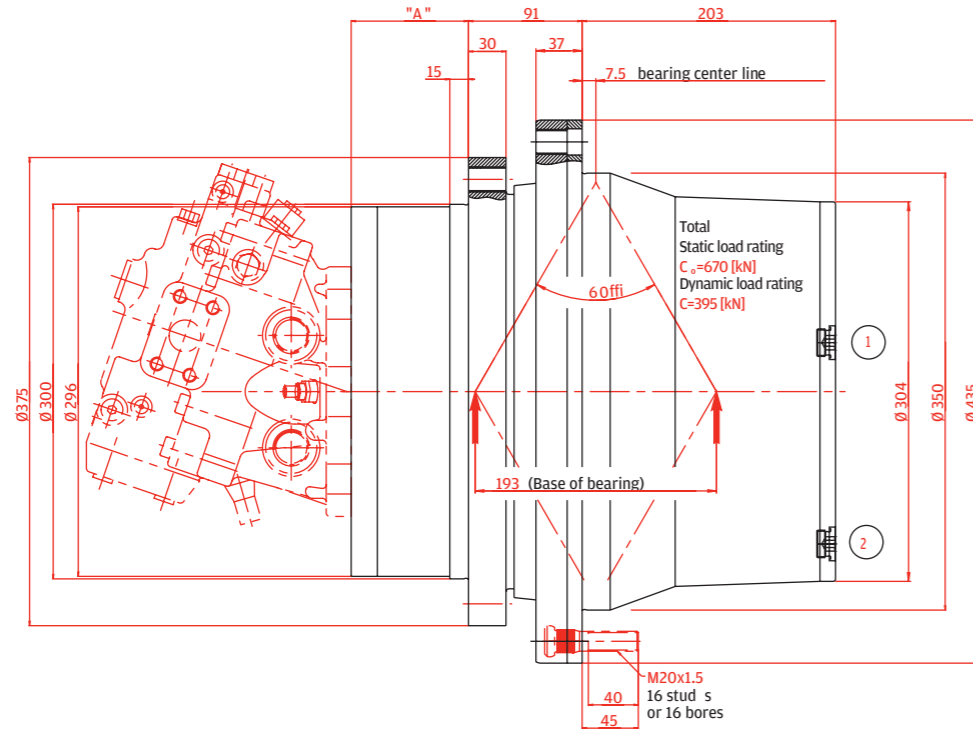
		FP360	FP440	FP560	FP900
Output torque ¹	kNm	360	440	560	900
Ratio ²	i	446	528	450	406
VERSION³		ST	CC	CC	CC
CAPACITY OF BEARING					
C-dynamic	kN	1040	1040	1040	2800
Co-static	kN	2450	2450	2450	6390
Weight	kg	1065	1300	2222	3750
PARK BRAKE OPTIONAL					
Locking torque ⁴	Nm	1700	1700	900	/
Release pressure min.	bar	12	15	13	/
DIMENSIONS					
L1	mm	100	40	40	30
L2	mm	100	43	43	33
L3	mm	130	255	255	405
L4	mm	40	40	45	96
L5	mm	60	/	/	/
L6	mm	60	120	120	306
L7	mm	657.5	814	831.5	965
L8	mm	-25	80	80	129
L9	mm	215	213	213	258.5
L10	mm	/	/	/	/
L11	mm	/	40	45	50
L12	mm	/	70	70	68
L13 ⁵	mm	380	255	857	612
L14 ⁵	mm	545	400	1104	859
L15 ⁵	mm	1202.5	1214	1935.5	1824
L16 ⁵	mm	110	85	160	120
L17 ⁵	mm	387	300	570	540
R 1	mm	18°/100/16	4	4	4
R 2	mm	10	4	4	5
D 1	mm	580	450	450	668
D 2	mm	680	515	515	726
D 3	mm	735	569	569	779
D 4	mm	649.5	/	/	/
D 5	mm	650	570	570	780
D 6	mm	720	620	620	850
D 7	mm	775	670	763	900
D 8	mm	M30x3.5	M36x1.5	M36x1.5	M36x1.5
D 9	mm	M30x3.5	M30x2	M30x1.5	M36x1.5
Qty. D 8 / D 9		30/30	29/42	29/42	30/45
D 10 ⁵	mm	60	55	90	75
D 10 Key ⁵		DIN6885 A18x11x100	DIN6885 A16x10x80	DIN6885 A25x14x150	DIN6885 A25x14x150

1) Stated torques are peak values for short duration
 2) Other ratios on demand
 3) ST= Standard CC= Crawler Crane
 4) Optional brake torques
 5) Other dimensions optional

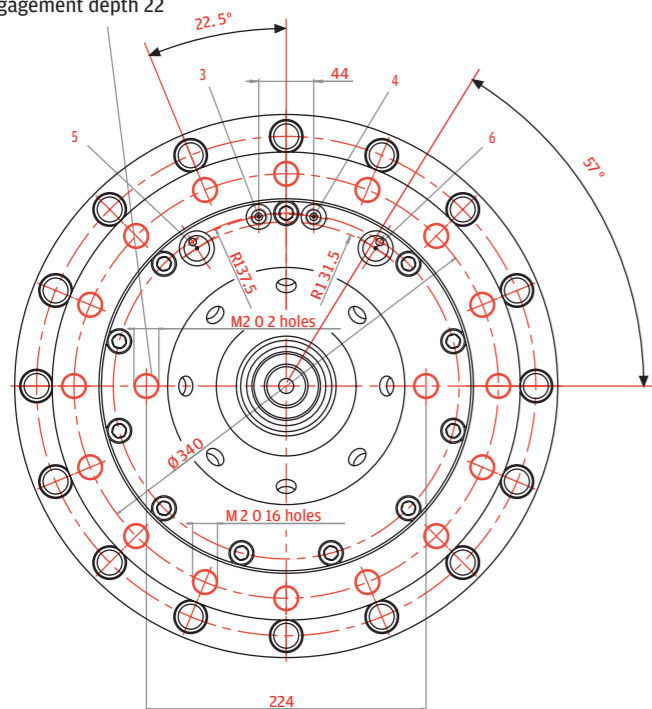
Final Drives 2 – Speed

"A" = 94 for hydraulic motors:
Sauer 51C080 D3
Linde HMV75
Rexroth A6VE80

"A" = 124 for hydraulic motors:
Sauer 51C110
Rexroth A6VE107



Hydraulic motor screw engagement depth 22



PORT	PRESSURE	FUNCTION
3	40 bar	Small clutch piston pressurized T/M ratio lowgear
4	40 bar	Large clutch piston pressurized T/M ratio highgear
3 & 4	0 bar	Large & small clutch engaged, T/M in park break position

- 1- Oil filling plug M22x1.5
- 2- Oil draining plug M22x1.5
- 3- Low speed clutch port R1/4"G acc. DIN3852 "X"
- 4- High speed clutch port R1/4"G acc. DIN3852 "X"
- 5- Flushing oil input port M22x1.5 DIN3852 "X"
- 6- Flushing oil output port M22x1.5 DIN3852 "X"

Technical features

- › Two gear shifting transmission
- › Wet disc clutch unit
- › Power shift capability
- › Hydraulic controlled shifting
- › Integrated park & emergency brake
- › Optional cooling flow to input stage and clutch unit
- › Different hydraulic motors
- › Wide variety of ratio combinations

Applications

- › Road paving machines
- › Construction machines
- › Cranes
- › Drilling machines
- › Winches
- › Agricultural machines
- › Forestry machines

Project related installation drawings can be available on request.

Dimensions and technical data are subject to change due to continuous product development

Technical data

Output torque max.	Nm	40000
Input speed max.	RPM	3500

Applicable hydraulic motors

Bosch-rexroth	A6VE55 - 107 range
Linde	HMV 55 - 75 range
Sauer danfoss	51C 060 - 080 range

Ratio combinations

SHIFTING STAGE VERSIONS	SHIFTING STAGE RATIO ISS
1	5.77
2	5.42
3	4.87*
4	4.44
5	4.26
6	3.81

MAIN STAGE VERSIONS	SHIFTING STAGE RATIO IMS
A	19.25
B	26 *
C	32.14

All ratios ISS combinable with all ratios iMS
Final ratio if = ISS*iMS
* Preferred ratios

Brake torque at input shaft	Nm	600
Brake torque at output min.	Nm	40000
Clutch operating pressure	bar	40 - 60
Oil quantity	l	3.3
Weight	kg	186

Wheel Drives

Standard features

- › Compact structure
- › High performance
- › 3-7 Planetary wheels per stage
- › Notchless ground tooth root
- › Different ratios
- › Integrated disc-brake
- › High availability by highest teeth and production quality

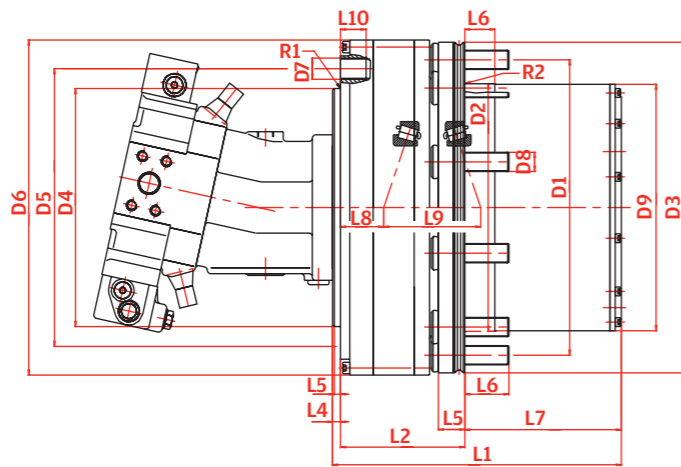
Proven applications

- › Towbarless aircraft tractor
- › Straddle carriers
- › Agricultural machines
- › Logging machines
- › Forklifts

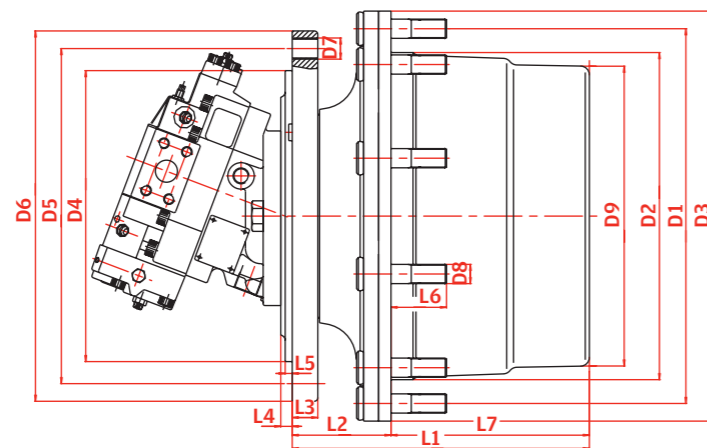
Special executions on request

- › Mechanical disconnect device

Version A



Version B



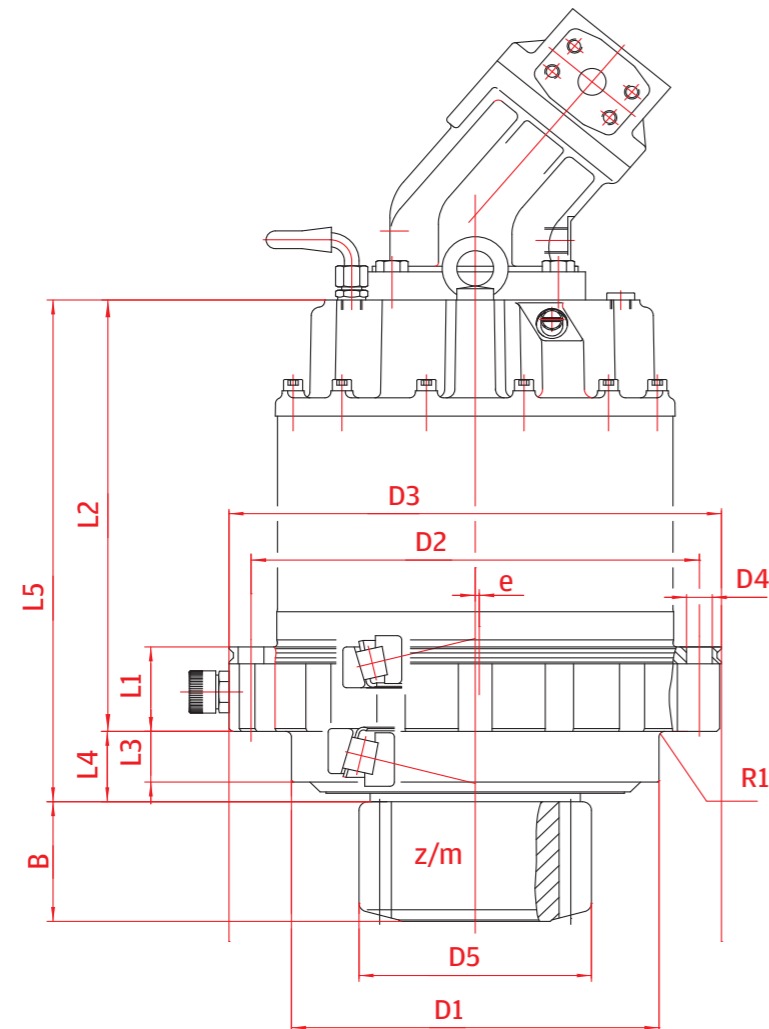
		FR 20	FR 40	FR 60
Output torque (Max) ¹	kNm	20	40	60
Output torque (Nominal)	kNm	16	23	30
Ratio ²	i	28 34	30 32	29 34
VERSION		A	B	A
CAPACITY OF BEARING				
C-dynamic	kN	194	300	352
Co-static	kN	325	560	735
INPUT TORQUE MAX.	Nm	560	715	1066
Weight ⁴	kg	129	173	500
HYDRAULIC MOTOR³	ccm	80	107	160
variable		105		
operating pressure max. p	bar	420	420	420
SERVICE BRAKE		Multi-disk brake	Multi-disk brake	Multi-disk brake
Pressure max.	bar	100	110	90
Locking torque dyn.	Nm	9500	13000	28000
PARK BRAKE		Multi-disk brake	Multi-disk brake	Multi-disk brake
Release pressure max.	bar	80	80	60
Release pressure max.	bar	40	40	25
Locking torque max. stat.	Nm	24480	23000	30000
DIMENSIONS				
L1	mm	318	441	520
L2	mm	141	135.7	270
L3	mm	/	52.7	/
L4	mm	9	80	10
L5	mm	7	43	7
L6	mm	50	63	60
L7	mm	177.5	225	240
L8	mm	58	80	156
L9	mm	110	105	173
L10	mm	29	32	37
R1	mm	/	5	/
R2	mm	/	1	1.6
D1	mm	335	425	425
D2	mm	280.8 f7	371 - 0.2	375f8
D3	mm	375	465	559
D4	mm	270 f8	290f8	290f8
D5	mm	315	367	330
D6	mm	380	405	554
D7	mm	10xM 24x2	M24(6x) M20(4x)	10xM24x2
D8	mm	10xM 22x1.5	18xM22x1.5	24 M22x1.5
D9	mm	279.5	340	356

1) Stated torques are peak values for short duration
 2) Other ratios on demand
 3) Other hydraulic motors on request
 4) Without hydraulic motor

Slew Drives

Standard features

- › Compact structure
- › High performance
- › Notchless ground tooth root
- › Integrated disc-brake
- › Suitable for various hydraulic motors
- › High availability by highest teeth and production quality



		S5	S7	S10	S13	S17	S30	S34	S35	S54	S90	S130	
Output torque ¹	kNm	5.5	7	10	13.3	17.5	30	34	35	54	90	130	
Ratio ²	i	25 33	23 27 33	24 27 31 36	36	33	45	45	35	48	39	67	
Hydraulic motor ³	ccw	28 30 32	45 56 63	45 56 63	80 90	56 63 80 90	80 90	125	160	180	180 200	355 500	Electric ⁶

MULTI-DISC BRAKE												
Braking torque	Nm	310	475	475	740	890	1030	1030	1030	1200	3000	2300
Release pressure min.	bar	14	14	14	18	18	18	18	18	38	14	22.5
Output pinion ⁴	z/m B D 5	10/10 95 130	10/11 79 141	12/12 90 184	10/14 99 181	11/14 109 198	12/16 154 243	12/16 154 243	12/18 160 274	13/22 230 357	16/24 182 464	13/30 230 480
		10/10 79 130	12/10 79 151	13/10 85 158	11/14 99 198	11/16 109 220				12/20 188 301	16/22 177 422	
		11/10 79 143	13/10 79 158	13/10 94.5 155	12/12 99 184	12/12 104 184						
		14/8 69 134	13/10 98 155	13/10 100 158	13/12 88 195	13/12 ⁵ 110 ⁵ 190 ⁵						
		15/6.35 77 112		13/12 110 190	13/12 ⁵ 110 ⁵ 190 ⁵	13/14 122 221						
				13/12 90 195	14/12 110 199	14/16 150 273						
					14/12 110 201							
Weight without Motor (appr.)	kg	68	98	108 123	147	168	540	480	528	867	1225	2276

DIMENSIONS												
L1	mm	60	60	60	71	86	332	332	239	610	80	578
L2	mm	262	296	306.5 314	340	355	737	785	653	780	730	622
L3	mm	31	31	36	30(50) ⁵	50.5	33	33	30	40	173	95
L4	mm	40	40.5	50	55(75) ⁵	55	65	65	91	87	199	160
L5	mm	302	336.5	356.5 364	395(415) ⁵	410	802	808	744	917	929	1012
D1	mm	175	230	250	275	275	350	350	400	460	500	630
D2	mm	260	285	305	335	335	415	415	460	520	640	675
D3	mm	288	322	335	370	370	450	450	500	562	690	715
D4	mm	12x17.5	12x17.5	18x17.5	20x17.5	20x17.5	24x22	24x22	24x26	24x26	18x30	34x26
e	mm	—	—	—	1	—	—	—	2	—	—	—
R1	mm	6	6	4	4	4	1.6	1.6	10	—	—	—

1) Stated torques are peak values for short duration
 2) Other ratios on demand
 3) Other hydraulic motors on request
 4) Output Pinion execution acc. to requirement
 5) Optional
 6) Hydraulic motor connection on demand

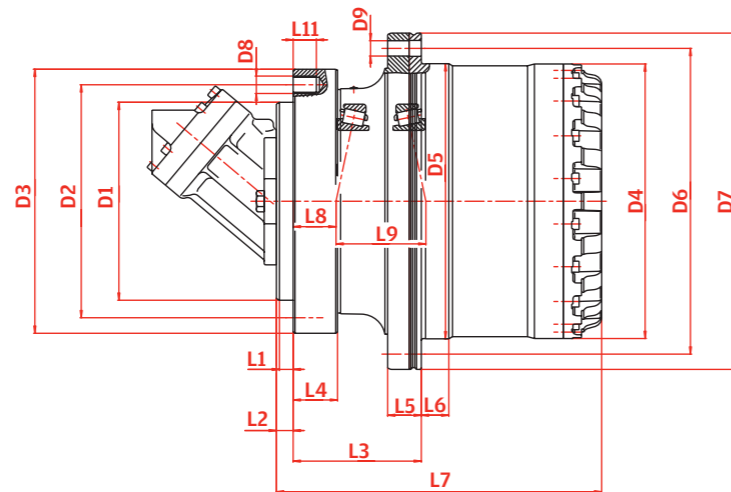
Cutter Drives Medium

Standard features

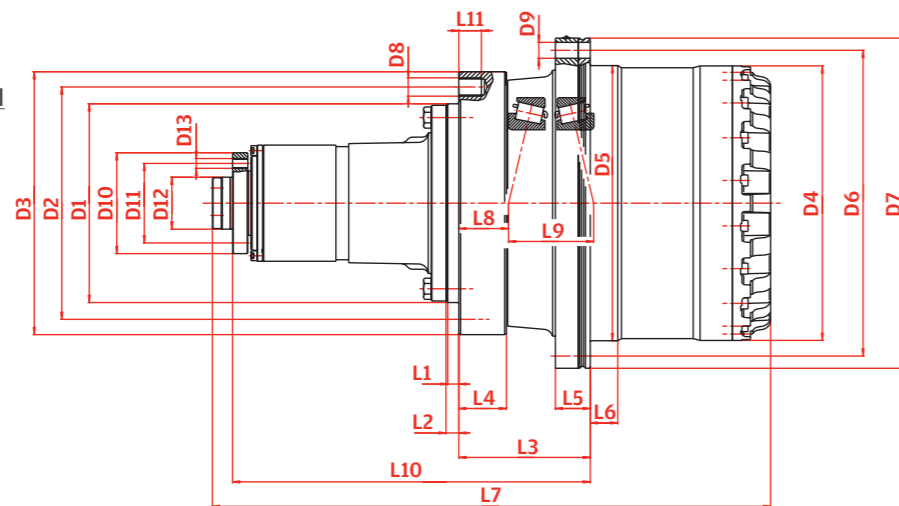
- › Compact structure
- › High performance
- › Notchless ground tooth root
- › Different ratios
- › Integrated disc-brake
- › Suitable for various hydraulic motors
- › High availability by highest teeth and production quality

Special executions on request

Standard input version – ST



Mechanical Input version – MI



		FA30	FA40	FA55	FA80	FA100
Max. cutting torque	kNm	8.5	12	16	23	32
Input power	kW	80	110	150	220	300
Ratio ¹	i	19 22	19	16 19 22	19	14 21 22 26
VERSION²		ST	ST MI	ST MI	ST	ST MI
CAPACITY OF BEARING						
C-dynamic	kN	132/194	224 224	224 224	300	498 498
Co-static	kN	255/325	405 405	405 405	570	1010 1010
Weight	kg	86	122 172	163 223	223	330 360
DIMENSIONS						
L1	mm	13	12 10	12 18	20	35 8
L2	mm	25	35 10	25 18	35	35 8
L3	mm	75	91 125	110 136	90	165 182
L4	mm	15	21 55	24 50	22	28 28
L5	mm	29	34 32	34 34	35	51 40
L6	mm	25	26 26	30 30	24	43 43
L7	mm	278.5	327 631.5	374 688.5	414.5	461 843.5
L8	mm	28	38 72	64 90	34	32 27
L9	mm	89	100 100	113 113	123	139 138
L10	mm	/	/ 402	/ 421	/	/ 540
L11	mm	15	21 55	24 50	22	28 28
R1	mm	2.5	2.5 1	1 1	4	12/60 1.6
R2	mm	2.5	2.5 2.5	2.5 2.5	2.5	5 2.5
D1	mm	/	270 270	280 280	330	390 325
D2	mm	/	310 310	325 325	370	460 380
D3	mm	/	345 360	360 360	410	500 415
D4	mm	269	294 294	329 329	374	407 407
D5	mm	270	295 295	350 350	400	408 408
D6	mm	305	335 335	400 400	450	460 460
D7	mm	335	370 370	435 435	490	502 502
D8	mm	M16x2	M20x1.5 M20x1.5	M20x1.5 M20x1.5	M24x2	M24x2 M20x2.5
D9	mm	17.5	17.5 17.5	22 22	25	26 26
Qty. D8 / D9		18/18	16/20 16/20	24/20 24/20	20/20	30/24 12/12
D10	mm	/	/ 138	/ 138	/	/ 165
D11	mm	/	/ 110	/ 110	/	/ 130
D12	mm	/	/ 80	/ 80	/	/ 85
D13	mm	/	/ M16x2	/ M16x2	/	/ M16x2
Qty. D13		/	/ 6	/ 6	/	/ 8

1) Other ratios on demand
 2) ST – Standard Input / MI – Mechanical Input (Hydraulic Motor)
 3) Special bearing

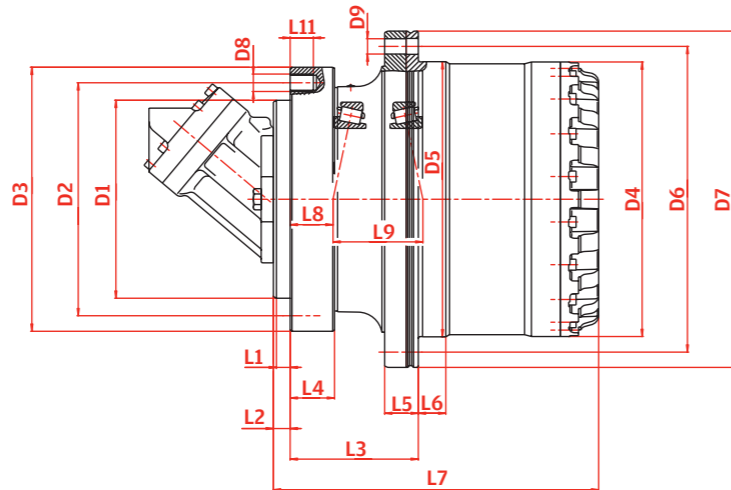
Cutter Drives Large

Standard features

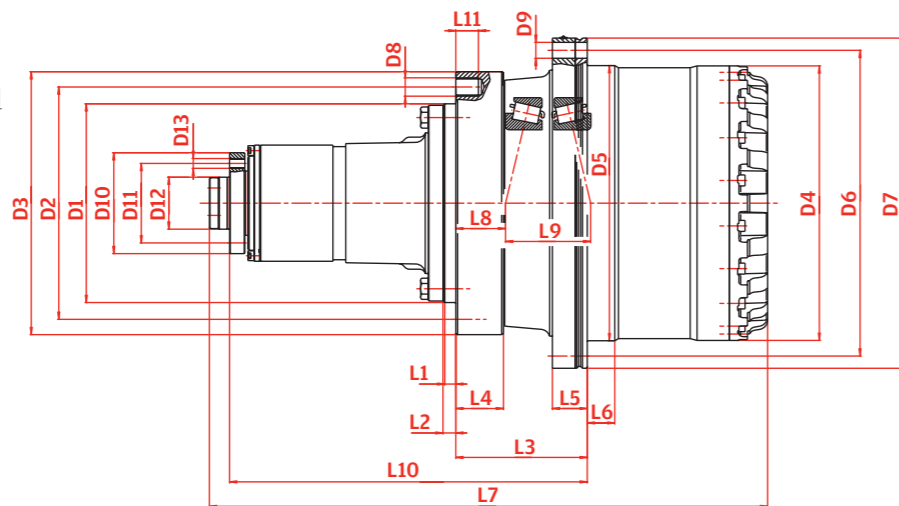
- › Compact structure
- › High performance
- › Notchless ground tooth root
- › Different ratios
- › Suitable for various hydraulic motors
- › High availability by highest teeth and production quality

Special executions on request

Standard input version – ST



Mechanical Input version – MI



		FA130		FA200		FA360		FA800	
Max. cutting torque	kNm	38		47		84		115	
Input power	kW	400		500		880		1200	
Ratio ¹	i	14 18 21 22 26		20 24		25		24	
VERSION²		MI	ST	MI	ST	ST		ST	
CAPACITY OF BEARING									
C-dynamic	kN	750	750	787	787	1040		4300	
Co-static	kN	1290	1290	1650	1650	2450		9650	
Weight	kg	490	426	718	710	1145		4223	
DIMENSIONS									
L1	mm	18	18	20	20	35		20	
L2	mm	20	20	25	25	100		25	
L3	mm	215	215	160	160	130		229	
L4	mm	78	78	102	102	40		60	
L5	mm	57	57	58	58	60		95	
L6	mm	45	45	22	22	80.5		89	
L7	mm	913	530	890.5	603.5	657.5		981	
L8	mm	81.4	81.4	75.8	75.8	75.1		3)	
L9	mm	139.2	139.2	149.4	149.4	214.8		3)	
L10	mm	585	/	438	/	/		/	
L11	mm	37	37	37	37	40		60	
R1	mm	2	2	2	2	18°/100/16		6	
R2	mm	2	2	2	2	10		8	
D1	mm	325	325	323.8	323.8	580		830	
D2	mm	380	380	381	381	680		980	
D3	mm	430	430	482	482	735		1050	
D4	mm	449	449	540	540	649.5		930	
D5	mm	450	450	605	605	650		1040	
D6	mm	500	500	635	635	720		1250	
D7	mm	540	540	663	663	775		1329	
D8	mm	M30x3.5	M30x3.5	M30x2	M30x2	M30x3.5		M30x2	
D9		26	26	18	18	M30x3.5		M30x2	
Qty. D8 / D9		12/24	12/24	12/24	12/24	30/30		48/48	
D10	mm	165	/	165	/				
D11	mm	130	/	130	/				
D12	mm	85 _{h6}	/	85 _{h6}	/				
D13	mm	M16x2	/	M16x2	/				
Qty. D13		8	/	8	/				

1) Other ratios on demand
 2) ST – Standard Input / MI – Mechanical Input (Hydraulic Motor)
 3) Special bearing

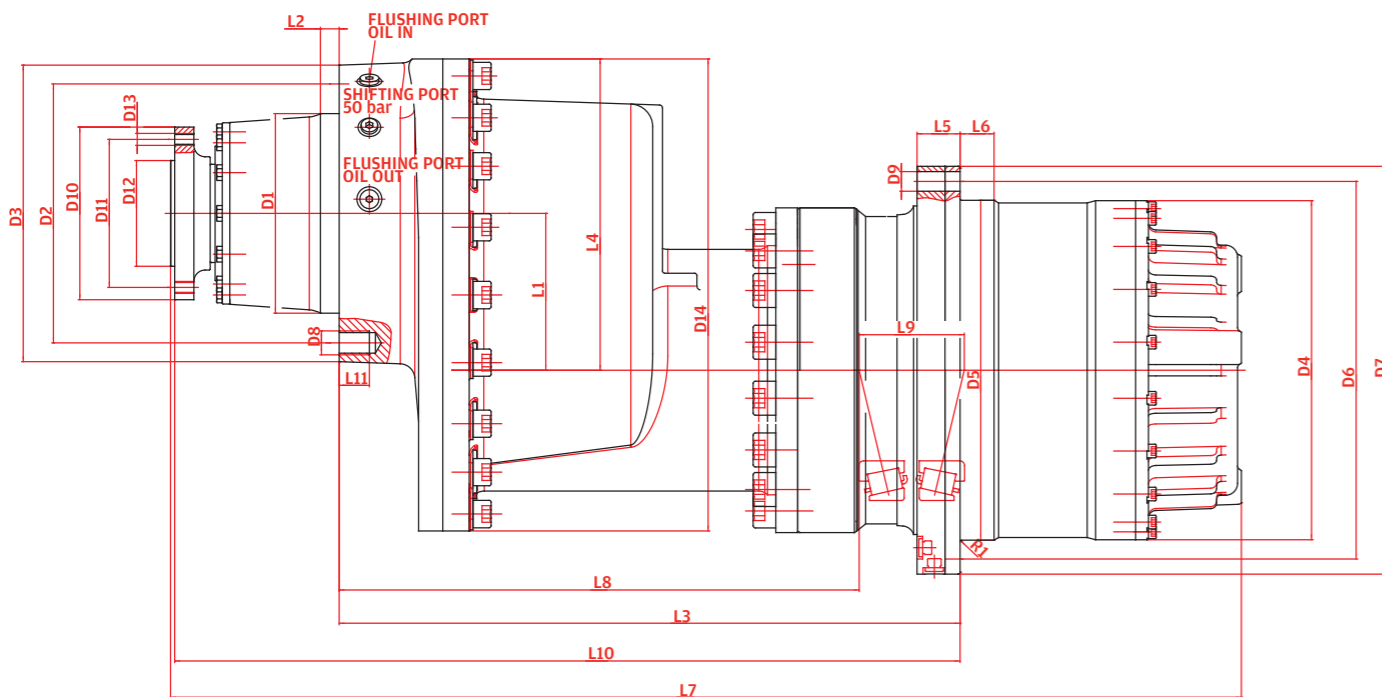
Cutter Drives 2-Speed

Standard features

- › Two speed shifting transmission
- › Main drive from proven cutter standard range (FA130/FA200)
- › Hydraulic shifting unit for gear change
- › Cutter main drive & shifting unit modular concept for easy maintenance

Proven applications

- › Road rehabilitation
- › Surface mining



		FA130 - 2S		FA200 - 2S	
Max. cutting torque	kNm	38		47	
Input power	kW	400		540	
VERSION		1	2	1	2
Ratio	i	21	22.235	19.877	21.05
		13.67	18.01	13	17.05
Rotating direction input		ccw		ccw	
CAPACITY OF BEARING					
C-dynamic	kN	750		787	
Co-static	kN	1290		1650	
Weight	kg	900		1050	
SHIFTING PRESSURE					
min.	bar	35		35	
max.	bar	50		50	
DIMENSIONS					
L1	mm	207.65		207.65	
L2	mm	25		25	
L3	mm	822.2		807.2	
L4	mm	413		413	
L5	mm	57		32	
L6	mm	45		25	
L7 optional	mm	1418		1378	
L8	mm	1442.5		1402.5	
L9	mm	688.6		683	
L10	mm	139.2		149.4	
L11	mm	822.2		1025	
R1	mm	40		40	
R2	mm	2		2	
D1	mm	264.265		264.265	
D2	mm	342.9		342.9	
D3	mm	393		393	
D4	mm	449		533.5	
D5	mm	450		590.8	
D6	mm	500		641.35	
D7	mm	540		679.32	
D8	mm	1.25-7 UNC		1.25-7 UNC	
Qty. D8		12		12	
D9	mm	26		19.84	
Qty. D9		24		20	
D10	mm	228.6		228.6	
D10 optional	mm	196.85		196.85	
D11	mm	140		140	
D11 optional	mm	158.75		158.75	
D12	mm	140		140	
D12 optional	mm	120.7		120.7	
D13		5/8-11 UNC		5/8-11 UNC	
D13 optional		STUD 5/8-11 UNF		STUD 5/8-11 UNF	
Qty. D13		8		8	

Classification of crane

		Hoisting	Slewing	Boom Activation	Trolley Travelling	Crane Travelling
Erection cranes		M 2 - M 3	M 2 - M 3	M 1 - M 2	M 1 - M 2	M 2 - M 3
Loading bridges	hook	M 5 - M 6	M 4	—	M 4 - M 5	M 5 - M 6
Loading bridges	grab or magnet	M 7 - M 8	M 6	—	M 6 - M 7	M 7 - M 8
Workshop cranes		M 6	M 4	—	M 4	M 5
Overhead travelling cranes, ram cranes, scrap yard cranes	grab or magnet	M 8	M 6	—	M 6 - M 7	M 7 - M 8
Unloading bridges, container gantry cranes	hook or spreader	M 6 - M 7	M 5 - M 6	M 3 - M 4	M 6 - M 7	M 4 - M 5
Other gantry cranes (with trolley and/or live ring)	hook	M 4 - M 5	M 4 - M 5	—	M 4 - M 5	M 4 - M 5
Unloading bridges, container gantry cranes (with trolley and/or live ring)	grab or magnet	M 8	M 5 - M 6	M 3 - M 4	M 7 - M 8	M 4 - M 5
Berth cranes, shipyard cranes, dismantling cranes	hook	M 5 - M 6	M 4 - M 5	M 4 - M 5	M 4 - M 5	M 5 - M 6
Dockside cranes (slewing, gantry type, ...), floating cranes, floating sheerlegs	hook	M 6 - M 7	M 5 - M 6	M 5 - M 6	—	M 3 - M 4
Dockside cranes (slewing, gantry type, ...), floating cranes, floating sheerlegs	grab or magnet	M 7 - M 8	M 6 - M 7	M 6 - M 7	—	M 4 - M 5
Floating cranes and floating sheerlegs for very high loads (normally above 100 t)		M 3 - M 4	M 3 - M 4	M 3 - M 4	—	—
Shipboard cranes	hook	M 4	M 3 - M 4	M 3 - M 4	M 2	M 3
Shipboard cranes	grab or magnet	M 5 - M 6	M 3 - M 4	M 3 - M 4	M 4 - M 5	M 3 - M 4
Tower cranes for construction sites		M 4	M 5	M 4	M 3	M 3
Derrick tower gantry		M 2 - M 3	M 1 - M 2	M 1 - M 2	—	—
Railroad cranes, approved for service in trains		M 3 - M 4	M 2 - M 3	M 2 - M 3	—	—
Vehicle-mounted cranes	hook	M 3 - M 4	M 2 - M 3	M 2 - M 3	—	—

Torque conversion factors k according to FEM 1.001 3rd edition, Section 1

	T2	T3	T4	T5	T6	T7	T8
Average usage per day [h]	0.25 - 0.5	0.5 - 1	1 - 2	2 - 4	4 - 8	8 - 16	about 16
Total service life [h]	400 - 800	800 - 1600	1600 - 3200	3200 - 6300	6300 - 12500	12500 - 25000	25000 - 50000
DUTY CYCLE LOAD CLASS	MACHINE CLASS & TORQUE CONVERSION FACTOR K						
L1 light	M1 1.24	M2 1.24	M3 1.11	M4 1.11	M5 0.95	M6 0.91	M7 0.85
L2 medium	M2 1.24	M3 1.24	M4 1.08	M5 1	M6 0.87	M7 0.80	M8 0.67
L3 heavy	M3 0.98	M4 0.95	M5 0.91	M6 0.80	M7 0.71	M8 0.59	M8 0.56
L4 extremely heavy	M4 0.80	M5 0.75	M6 0.71	M7 0.63	M8 0.56	M8 0.5	M8 0.44

Definition of Nominal Torque T_{Nom}

- Drum output speed 25 rpm
- FEM class M5 / T5 / L2

Additional check – conditions

1- For all machine classes > M5 (M6-M8): to be checked, whether drum output speed 25rpm must be reduced. Refer to Carraro Sales or Application engineering.

Torque calculation T_{eff} for alternative FEM – class

$$T_{eff} = K \times T_{Nom}$$

K: torque conversion factor

2- Brake torque safety must be checked upon formula:

$$V = \frac{T_{Brake} \times i}{T_{eff}} > 1.6$$

T_{Brake} : brake torque at drive input

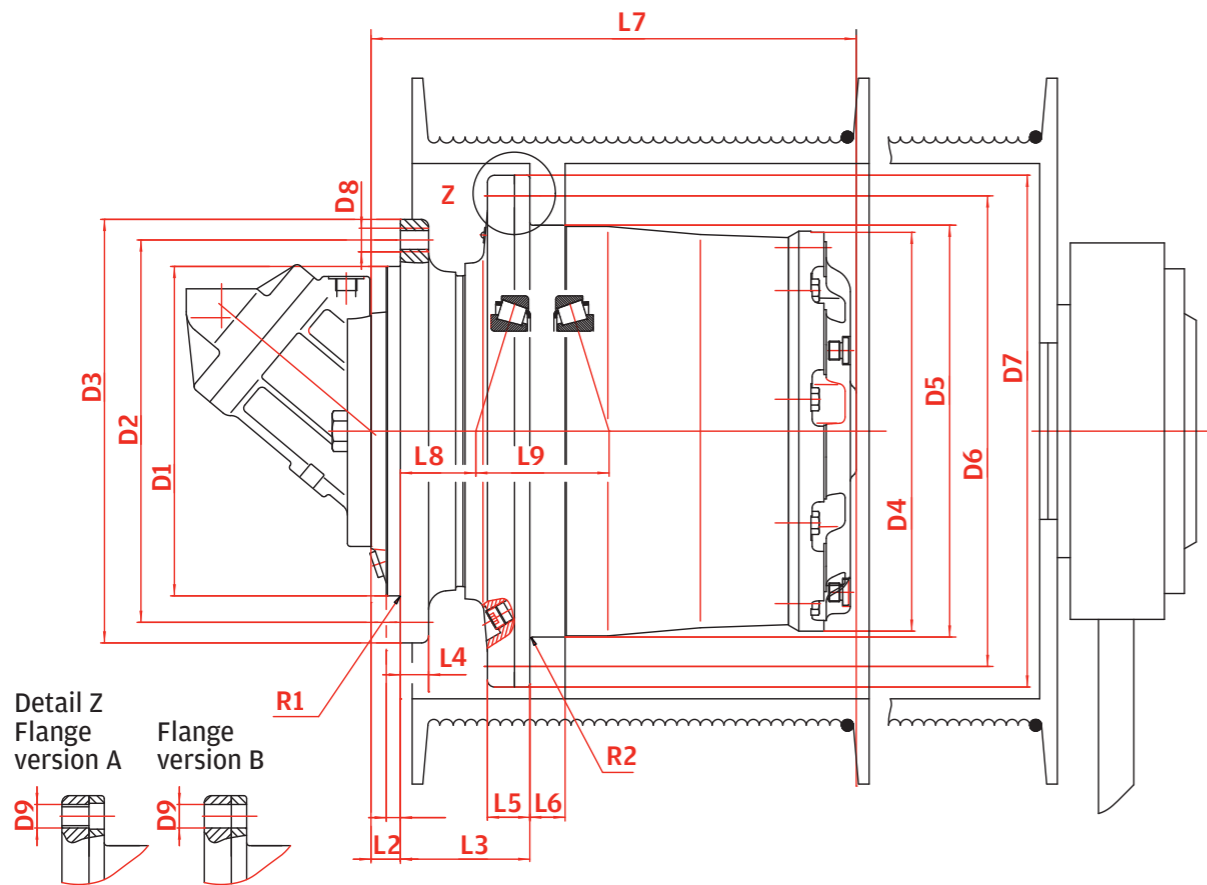
i: drive ratio

If brake safety < 1.6 refer to Carraro Sales or Application engineering.

Winch Drives Small

Standard features

- › Compact structure
- › Robust layout of planetary gear unit
- › Robust taper roller bearings for drum support and cable pull
- › Integrated disc-brake
- › Easy oil change from front side
- › Easy drum mounting
- › High variety of ratios and hydraulic motors



		FW10	FW13	FW30	FW40	FW40A
Nominal torque T_{Nom} (M5 / T5 / L2)	kNm	5.4	7.25	17.6	20	20
Ratio ¹	i	35 51	93 108 122 140 178 229	61 66 81 90 101 114 121 137 171 228 305	61 66 81 85 101 110 117 124 142 181	61 66 81 85 101 110 117 124 142 181

CAPACITY OF BEARING						
C-dynamic	kN	132	132	132/194	224	224
Co-static	kN	255	255	255/325	405	405
Weight ²	kg	45	50	94	115	123

MULTI-DISK BRAKE						
Locking torque version ³	Nm	200	200	300 / 400	420	420
Release pressure min.	bar	17	17	16 / 22	18	18

HYDRAULIC MOTOR						
plug in fixed	ccm	28 30 32	28 30 32	28 30 32 40 45 56 60 63	40 45 56 60	80 90
plug in variable	ccm	28 45	28 45	28 55 60	55 60	80

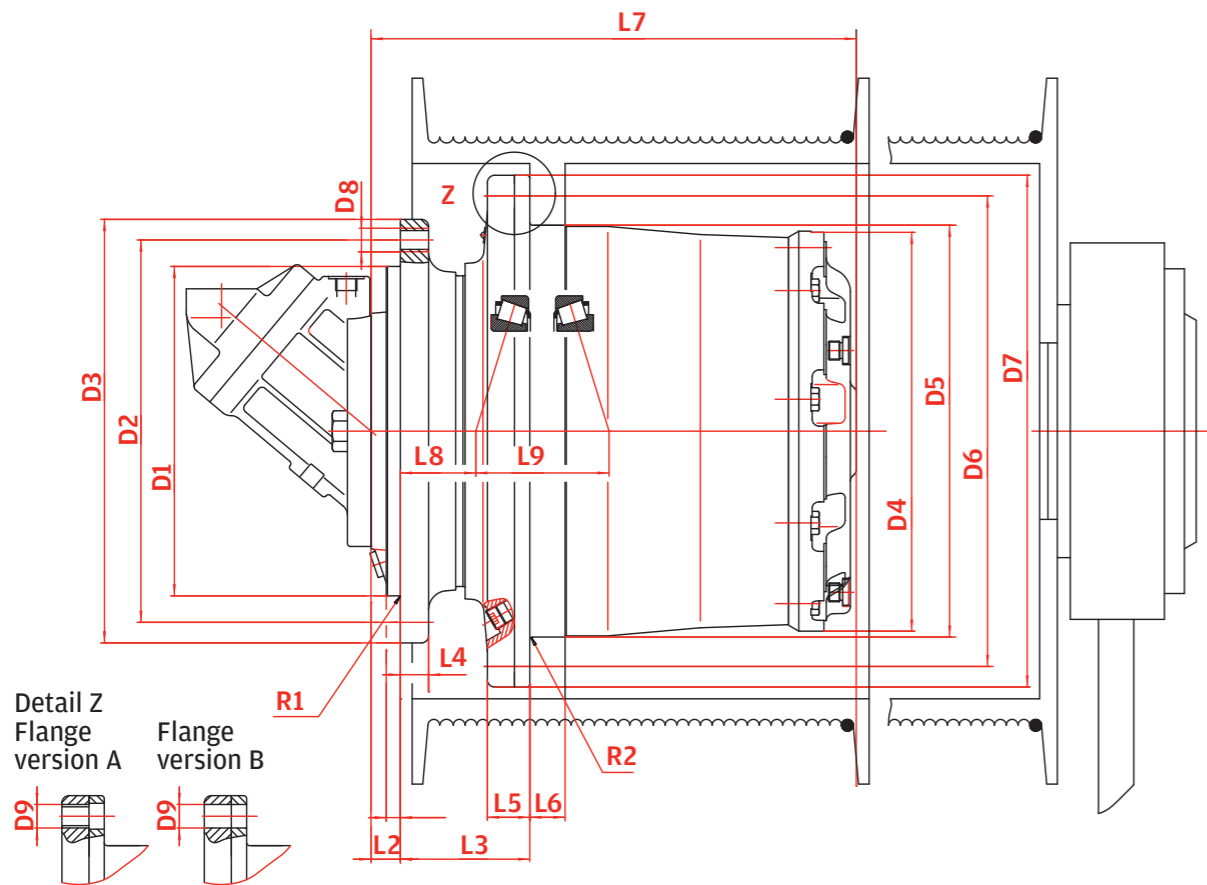
DIMENSIONS						
L1	mm	10	10	13	16	13
L2	mm	30	30	25/22	16	35
L3	mm	72	72	75	91	91
L4	mm	13.5	13.5	15	21	21
L5	mm	15	15	29	34	34
L6	mm	16	16	25	26	26
L7	mm	230	255	323/320	338	357
L8	mm	28	28	28.5	38	38
L9	mm	79	79	89	100	100
R1	mm	0.6	0.6	2.5	2.5	2.5
R2	mm	0.6	0.6	2.5	2.5	2.5
D1	mm	190	190	240	240	270
D2	mm	230	230	275	285	310
D3	mm	256	256	304	320	345
D4	mm	216	216	269	294	294
D5	mm	220	220	270	295	295
D6	mm	260	260	305	335	335
D7	mm	290	290	335	370	370
D8	mm	M16x2	M16x2	M16x2	M16x1.5	M16x1.5
D9 Version A	mm	M16x2	M16x2	M16x2	M16x1.5	M16x1.5
D9 Version B	mm	17	17	17	17.5	17.5
Qty. D8 / D9		12/8	12/8	18/18	20/20	16/20

1) Other ratios on demand
 2) Without Hydraulic motor
 3) Optional brake torques on demand

Winch Drives Medium

Standard features

- › Compact structure
- › Robust layout of planetary gear unit
- › Robust taper roller bearings for drum support and cable pull
- › Integrated disc-brake
- › Easy oil change from front side
- › Easy drum mounting
- › High variety of ratios and hydraulic motors



		FW55	FW55A	FW55B	FW80	FW100
Nominal torque T_{Nom} (M5 / T5 / L2)	kNm	25.4	25.4	25.4	42.8	70
Ratio ¹	i	63 68 87 94 117 124 137 148 185	63 68 87 94 117 124 137 148 185	63 68 87 94 117 124 137 148 185	61 81 101 114 121 137 147 171 187 206	77 84 95 121 142 175 192 226

CAPACITY OF BEARING						
C-dynamic	kN	224	224	224	300	498
Co-static	kN	405	405	405	570	1010
Weight ²	kg	165	177	181	255	330

MULTI-DISK BRAKE						
Locking torque version ³	Nm	420 / 500	420 / 500	420 / 500	600 / 1000	600 / 1500
Release pressure min.	bar	15 / 21	15 / 21	15 / 21	18 / 28	15 / 41

HYDRAULIC MOTOR						
plug in fixed	ccm	80 90	40 45 56 60		80 90 107 110 160 180	107 125 160 180
plug in variable	ccm	80	55 60	107 110	80 107 110 160	107 110 160

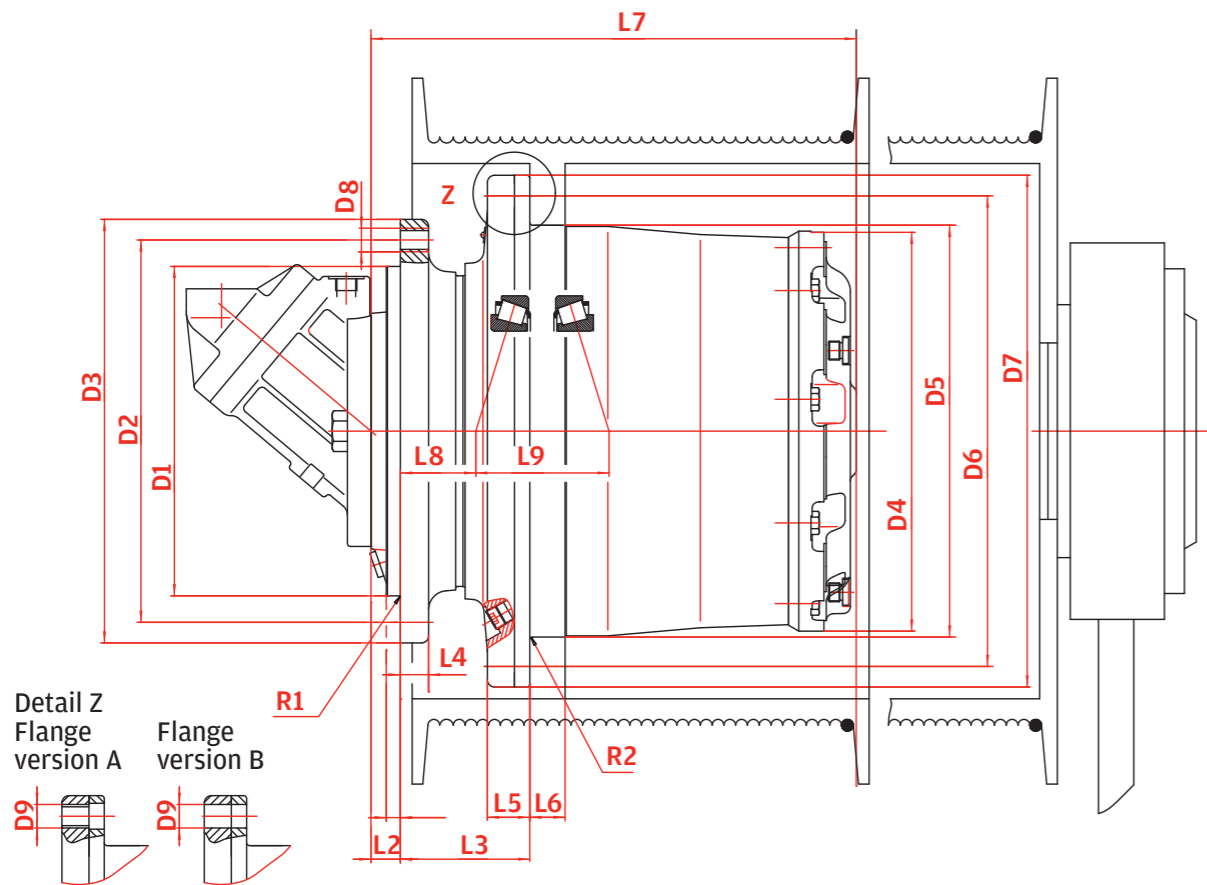
DIMENSIONS						
L1	mm	12	20	12	20	35 / 37
L2	mm	25	30	37	35	35 / 37
L3	mm	110	91	110	90	165
L4	mm	24	24	24	22	28
L5	mm	36	36	36	37	53
L6	mm	30	30	30	24	43
L7	mm	413	399	425	415	461 / 463
L8	mm	64	45	64	34	32
L9	mm	113	113	113	123	139
R1	mm	1	4	1	4	10 (12) / 60
R2	mm	2.5	2.5	2.5	2.5	5
D1	mm	280	240	290	330	390
D2	mm	325	285	335	370	460
D3	mm	360	320	370	410	500
D4	mm	340	340	340	374	407
D5	mm	350	350	350	400	408
D6	mm	400	400	400	450	460
D7	mm	435	435	435	490	500
D8	mm	M20x1.5	M20x1.5	M20x1.5	M24x2	M24x2
D9 Version A	mm	M20x1.5	M20x1.5	M20x1.5	M24x2	M24x2
D9 Version B	mm	22	22	22	26	26
Qty. D8 / D9		24/20	20/20	20/20	20/20	30/24

1) Other ratios on demand
 2) Without Hydraulic motor
 3) Optional brake torques on demand

Winch Drives Large

Standard features

- › Compact structure
- › Robust layout of planetary gear unit
- › Robust taper roller bearings for drum support and cable pull
- › Integrated disc-brake
- › Easy oil change from front side
- › Easy drum mounting
- › High variety of ratios and hydraulic motors



		FW130	FW180	FW220	FW260	FW360
Nominal torque T_{Nom} (M5 / T5 / L2)	kNm	100	112.5	140	175	210
Ratio ¹	i	81 85 115 159 167 180 206	206 281	97 119 165 190 248 290 345	69 97 245 251 345	24 94 128 223 257 490

CAPACITY OF BEARING						
C-dynamic	kN	523	787	765	750	1040
Co-static	kN	980	1650	1660	1560	2450
Weight ²	kg	452	636	740	865	1080

MULTI-DISK BRAKE						
Locking torque version ³	Nm	750 / 2200	1200	1200	1000	1700
Release pressure min.	bar	19 / 23	35	15	15	12

HYDRAULIC MOTOR						
plug in fixed	ccm	107 125 160 180	180	107 180		355
plug in variable	ccm	107 160		160 200 250	355 250	355

DIMENSIONS						
L1	mm	45	30	18	21	100
L2	mm	45	30	52	45	100
L3	mm	190	168	166.5	170	130
L4	mm	35	40	40	40	40
L5	mm	58	56	61	48	60
L6	mm	45	21.5	35	60	80
L7	mm	530	534.5	580.5	579	658
L8	mm	50.5	50.3	16	18.5	-25
L9	mm	147	141.4	187.5	189.5	215
R1	mm	25	4	35°/16/16	2	18°/100/16
R2	mm	4	3	4	/	10
D1	mm	390	450	460	460	580
D2	mm	500	510	600	520	680
D3	mm	550	560	650	570	735
D4	mm	449	528	540	608	649
D5	mm	450	535	542	610	650
D6	mm	500	600	600	680	720
D7	mm	550	650	650	735	775
D8	mm	M24x2	M24x2	M24x2	M30x2	M30x3.5
D9 Version A	mm	M24x2	M24x2	M24x2	M30x2	M30x3.5
D9 Version B	mm	26	26	26	32	32
Qty. D8 / D9		32/32	30/30	38/38	24/24	30/30

1) Other ratios on demand
 2) Without Hydraulic motor
 3) Optional brake torques on demand

German Technology

**O&K Antriebstechnik
GmbH**

Nierenhofer Str. 10
D-45525 Hattingen, Germany
P +49 2324 205 01
F +49 2324 205 429
oundka@oundka.com

www.oundka.com

Project related installation drawings can be made available on request
as dimensions and technical data are subject to change due to continuous development.