

# Winch drives for mobile and stationary applications

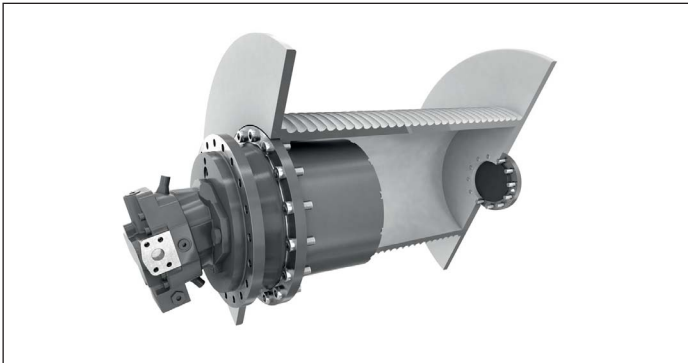
## MOBILEX GFW 5000

### Series 40

**RE 77506**

Edition: 07.2017

Replaces: 01.2017



- ▶ Sizes 5110 to 5190
- ▶ Output torques between 7500 and 105000 Nm
- ▶ Rope pull forces from 45 kN to 323 kN

**Features**

- ▶ Compact, space-saving two- or three-stage planetary gearbox
- ▶ Robust design
- ▶ Integrated static multiple-disk parking brake
- ▶ Assembly of variable plug-in and fixed plug-in motors different series possible
- ▶ Easy assembly
- ▶ Easy oil change

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Additional information at:  
[www.boschrexroth.com/gears](http://www.boschrexroth.com/gears)



## Description

The hydrostatic winch drive series 40 consists of a two- or three-stage planetary gearbox, which - in combination with a hydraulic axial piston motor - builds a space-saving drive unit. The complete unit can be used for drilling units, mobile and crawler cranes as well as railroad, shipboard, dockside and container cranes.

## Application conditions

The winch drives are designed for use in environmental temperatures between -25°C and +40°C. Environmental factors such as salt water, salt air, sand, dust, extreme environmental temperatures, etc. affect the function. Such influences must be pre-announced in order for a secure gearbox design.

## Technical data

Size GFW	Output torque <sup>1)</sup> $T_{2 \max}$ Nm	Rope pull force max. <sup>2)</sup> kN	Ratio  $i$	Static holding torque brake  $T_{Br \max}$ Nm	Compatible hydraulic motors	Appr. weight without motor <sup>3)</sup> kg
<b>5110 E</b>	7500	45	25,2 • 39,2 • 47,1 54,7	350	A10VE 45 / A6VE 28 / A2FE 28 • 32	53
<b>5130 E</b>	14000	73	26,0 • 32,3 • 39,2 50,6	689	A2FE 45 • 56 • 63 / A6VE 55 • 60	87
<b>5146 E</b>	22000	95	27,6	725	A2FE 45 • 56 • 63 • 80 • 90 / A6VE 55 • 60 • 80 • 85 / A6VM 107 • 115	136
<b>5146 F</b>	26000	118	68,0 • 80,6 • 101,6 118,3	725	A2FE 45 • 56 • 63 • 80 • 90 / A6VE 55 • 60 • 80 • 85	140
<b>5150 E <sup>4)</sup></b>	30000	120	32,3 • 35,4 • 41,4 50,6 • 54,7	1448	A2FE 80 • 90 • 107 • 125 / A6VE 80 • 85 • 107 • 115 • 160 • 170	200
<b>5170 F <sup>4)</sup></b>	45000	165	63,9 • 83,1 • 95,0 107,3 • 124,1 162,5	1221	A2FE 80 • 90 • 107 • 125 • 160 • 180 / A6VE 80 • 85 • 107 • 115 • 160 • 170	265
<b>5185 F <sup>4)</sup></b>	70000	233	76,4 • 98,7 • 126,6 147,0 • 185,1	1448	A2FE 107 • 125 • 160 • 180 / A6VE 107 • 115 • 160 • 170 / A6VM 200 • 215 • 250	358
<b>5190 F <sup>4)</sup></b>	105000	323	75,0 • 93,8 • 116,0 121,1 • 140,1 167,9 • 209,0	2152	A2FE 107 • 125 • 160 • 180 / A6VE 107 • 115 • 160 • 170 / A2FM 200 • 250 / A6VM 200 • 215 • 250	430

A6VM / A2FM motors in other sizes, as listed above, on request.

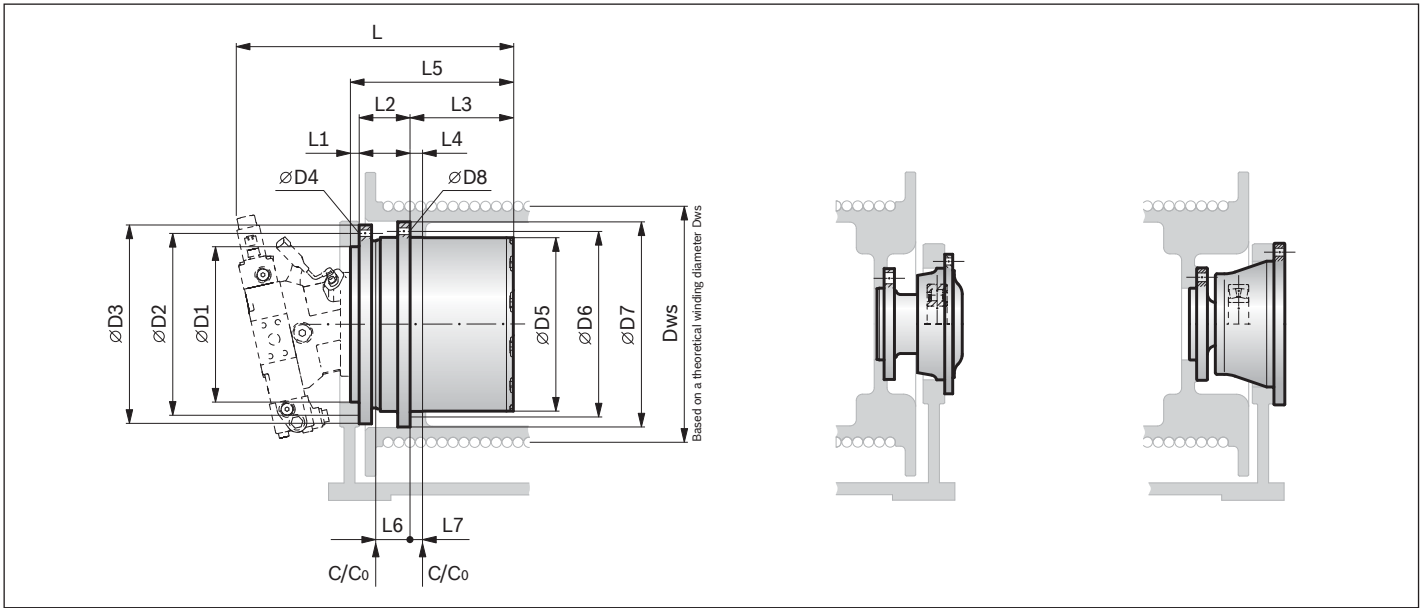
1) Design according to FEM L2, T5, M5 (FEM 1.001/3rd edition) at output speed 15 rpm

2) Based on a theoretical 1<sup>st</sup> layer winding diameter  $D_{ws}$

3) w/o drum and counter bearing

4) Optional: Axial-Floating for the second gearbox by mounting into one drum

## Dimensions gearbox



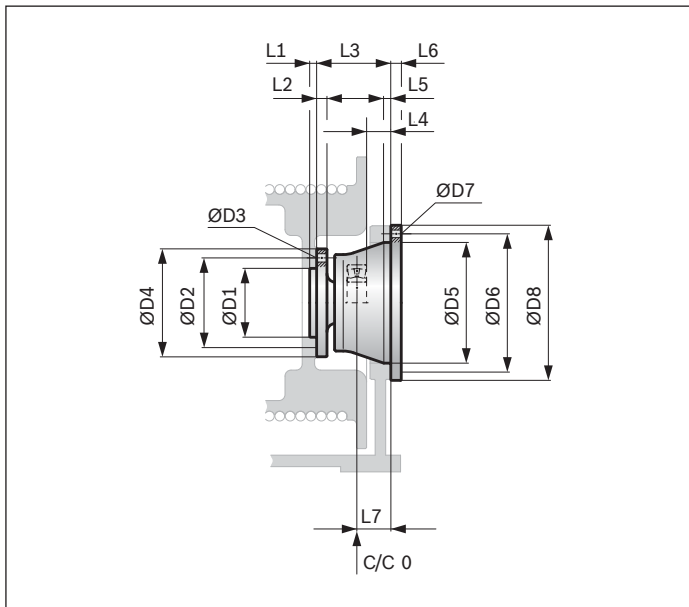
Size GFW	D <sub>ws</sub>	D1	D2	D3	D4	D5	D6	D7	D8
5110 E	330	210	244	268	12 x M14	230	260	284	16 x ø17,5
5130 E	380	250	290	320	16 x M20	280	305	330	16 x ø17,5
5146 E	440	270	310	350	16 x M20	320	350	380	20 x ø17,5
5146 F	440	270	310	350	16 x M20	320	350	380	20 x ø17,5
5150 E	500	330	370	410	20 x M20	360	400	440	16 x ø22
5170 F	545	330	370	410	20 x M20 x 1,5	400	440	474	20 x ø22
5185 F	600	380	430	480	20 x M24	430	480	520	20 x ø26
5190 F	650	380 / 420	430 / 460	466 / 500	28 x M24 / 24 x M24 x 2	460	500	540	36 x ø22

Size GFW	L1	L2	L3	L4	L5 <sup>1)</sup>	L6	L7	C/C <sub>0</sub> (kN)	L
5110 E	15	60	166	20	241 ~ 277	24,4	66,9	144 / 272	2)
5130 E	14	82	166	20	262 ~ 334	40,7	52,9	241 / 480	2)
5146 E	14	90	184,5	25	288,5 ~ 360,5	53,1	53,1	177 / 424	2)
5146 F	14	90	220,5	25	324,5 ~ 396,5	53,1	53,1	177 / 424	2)
5150 E	12	90 / 108,5	234 / 252,5	30	354,5 ~ 378,5	46,8 / 65,3	115,2 / 96,7	276 / 571	2)
5170 F	14	90 / 114	260 / 284	30	388 ~ 435	43,7 / 67,7	102,8 / 78,8	258 / 607	2)
5185 F	23	148	282	30	453 ~ 501	92,6	47,6	405 / 1000	2)
5190 F	21,5	115 / 165	294 / 334	23	480,5 ~ 528,5	75,5 / 125,5	104,5 / 54,5	490 / 1202	2)

1) Motor adapter required for some gearboxes

2) Depending on motor size

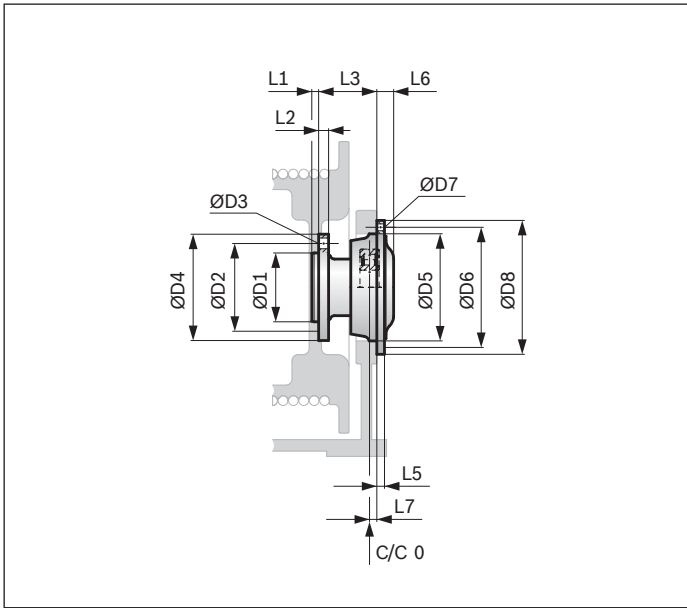
### Dimensions counter bearing



(Design with self-align roller bearing)

Counter bearing Size GFW	D1	D2	D3	D4	D5	D6	D7	D8	L1	L2	L3	L4	L5	L6	L7	C/C <sub>0</sub> kN
5110 E	100	130	8 x ø13,5	156	175	200	12 x ø11	225	10	15	135	62	10	15	76	167 / 158
5130 E	100	130	8 x ø13,5	156	175	200	12 x ø11	225	10	15	135	62	10	15	76	167 / 158
5146 E	140	170	12 x ø17,5	199	200	230	12 x ø13,5	260	10	20	155	62	12	18	85,5	175 / 238
5146 F	140	170	12 x ø17,5	199	200	230	12 x ø13,5	260	10	20	155	62	12	18	85,5	175 / 238
5150 E	140	170	12 x ø17,5	199	200	230	12 x ø13,5	260	10	20	155	62	12	18	85,5	175 / 238
5170 F	140	170	12 x ø22	204	225	260	12 x ø18	290	15	25	170	60	15	20	84	425 / 501
5170 F	150	190	12 x ø22	224	225	260	8 x ø18	290	15	25	101	-	15	20	9	425 / 501
5185 F	140	170	12 x ø22	204	225	260	12 x ø18	290	15	25	170	60	15	20	84	425 / 501
5185 F	150	190	12 x ø22	224	225	260	8 x ø18	290	15	25	101	-	15	20	9	425 / 501
5190 F	140	170	12 x ø22	204	225	260	12 x ø18	290	15	25	170	60	15	20	84	425 / 501
5190 F	150	190	12 x ø22	224	225	260	8 x ø18	290	15	25	101	-	15	20	9	425 / 501

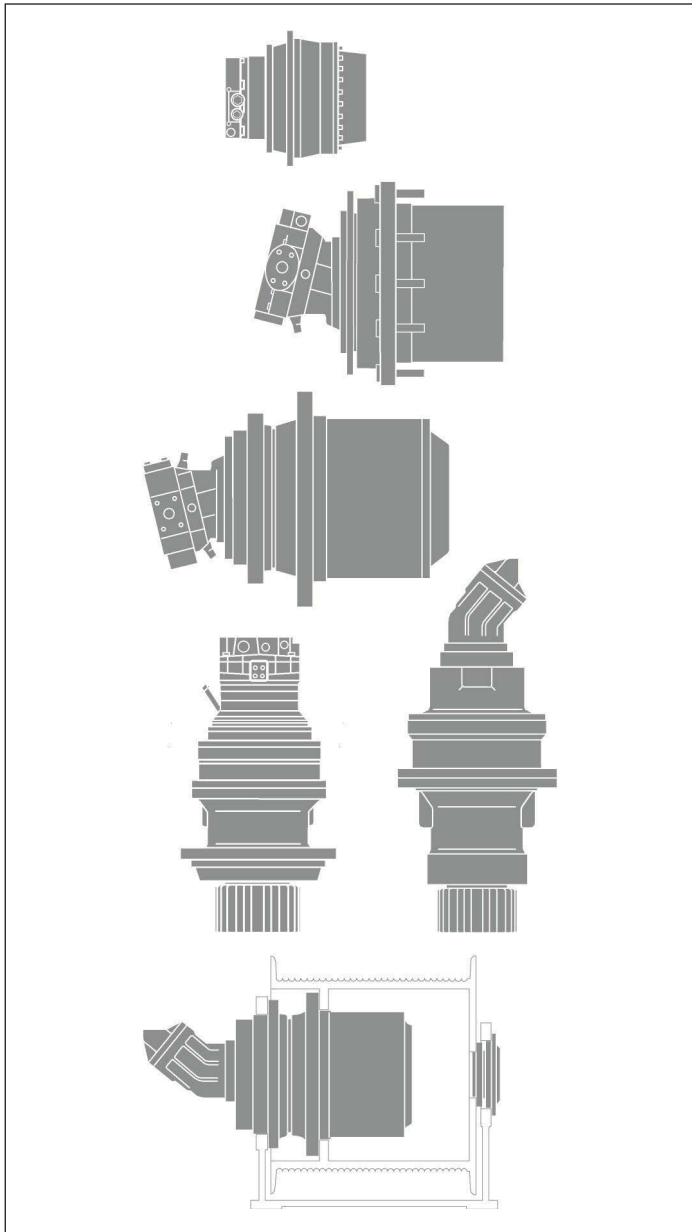
**Dimensions counter bearing**



**(Design with cylindrical roller bearing)**

Counter bearing Size GFW	D1	D2	D3	D4	D5	D6	D7	D8	L1	L2	L3	L5	L6	L7	C/C <sub>0</sub> kN
<b>5110 E</b>	90	115	12 x ø14	139	140	157	6 x ø9	175	9	13	76	10	22	10	98 / 100
<b>5130 E</b>	90	115	12 x ø14	139	140	157	6 x ø9	175	9	13	76	10	22	10	98 / 100
<b>5146 E</b>	115	145	12 x ø18	174	175	198	6 x ø11	220	10	20	76	12,5	26	12,5	124 / 126
<b>5146 F</b>	140	170	12 x ø18	199	200	230	12 x ø14	260	10	20	77	15	28	12	180 / 190
<b>5150 E</b>	140	170	12 x ø18	199	200	230	12 x ø14	260	10	20	77	15	28	12	180 / 190
<b>5170 F</b>	150	190	12 x ø22	224	225	260	6 x ø18	290	16	25	91	15	36	12	239 / 298
<b>5185 F</b>	150	190	12 x ø22	224	225	260	6 x ø18	290	16	25	91	15	36	12	239 / 298
<b>5190 F</b>	180	220	12 x ø22	258	260	295	8 x ø18	330	17	25	102	20	39	18	380 / 520

## Planetary gearboxes for mobile units



### Hydrostatic travel drives

- HYDROTRAC GFT  
For fixed or variable plug-in motors  
Output torques between 9,5 and 580 kNm  
Data sheet RE 77110
- HYDROTRAC GFT 2000  
Series 30  
Output torques between 13,5 and 42,5 kNm  
Data sheet RE 77116
- HYDROTRAC GFT 8000  
Series 30  
Output torques between 20 and 30 kNm  
Data sheet RE 77128
- HYDROTRAC GFT 8000  
Series 40  
Output torques between 10 and 130 kNm  
Data sheet RE 77117
- HYDROTRAC GFT 45 T2/T3  
Output torques max. 45 kNm  
Data sheet RE 77115

### Hydrostatic swing drives

- MOBILEX GFB  
For fixed or variable plug-in motors  
Output torques between 4 and 68,3 kNm  
Data sheet RE 77201
- MOBILEX GFB 2000  
Series 20  
Output torques between 4 and 14,5 kNm  
Data sheet RE 77206

### Hydrostatic winch gears

- MOBILEX GFT-W  
For fixed or variable plug-in motors  
Output torques between 14 and 325 kNm  
Data sheet RE 77502
- MOBILEX GFW 5000  
Series 40  
Output torques between 7,5 and 105 kNm  
Data sheet RE 77506

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