The Drive & Control Company

Rexroth
Bosch Group

Winch drives
MOBILEX GFT-W
for mobile applications

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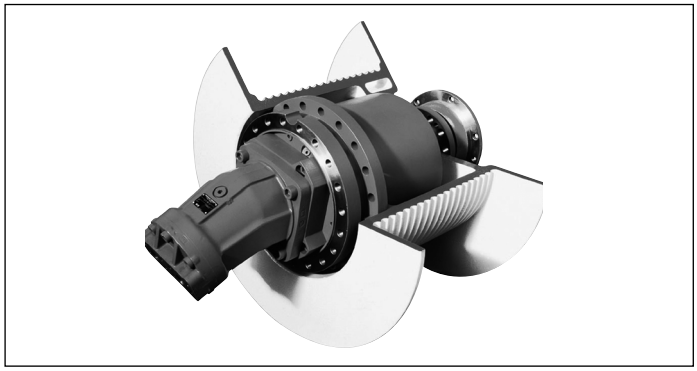

- Sizes GFT 17 W to GFT 450 W
- Output torques between 14 and 325 kNm
- Rope pull forces from 67 to 684 kN

Features

- Compact, space-saving planetary gearbox design
- Planet wheel carried in full-complement bearings
- Robust bearing system absorbing the forces exerted by the rope pull
- Easy assembly
- Easy oil change
- Integrated static multiple-disk parking brake
- Low-noise operation

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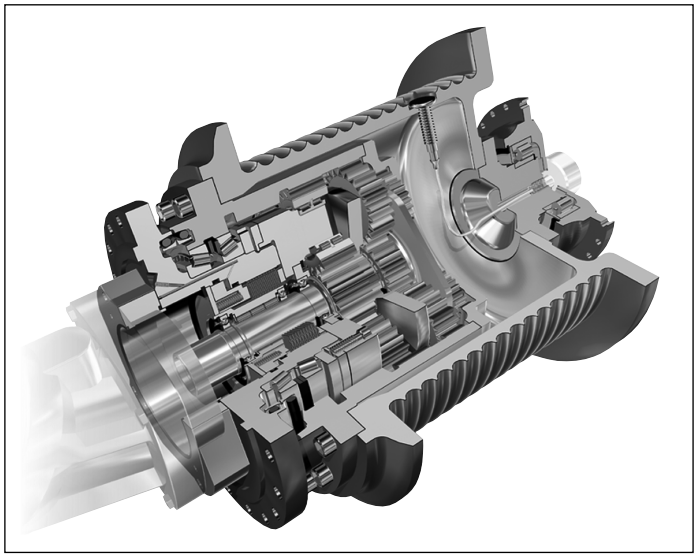
Additional informationen at:
www.boschrexroth.com/gears

Functional description

Description

The hydrostatic Rexroth winch drives MOBILEX GFT-W are the ideal drive components for winches. They have proven their worth in the most arduous applications and under tough operating conditions. MOBILEX GFT-W winch drives are used in all kinds of winches - mobile and crawler cranes, railroad cranes, shipboard, dockside and container cranes. Due to their extremely compact design, the gear units can be mounted inside the rope drum in a space-saving manner. They are designed for ease of installation and maintenance. High-quality manufacturing processes and the use of case-hardened gearwheels as well as quenched, tempered and surface-hardened ring gears warrant outstanding load-carrying capacity, operational safety and low-noise running characteristics.

The teeth of the gearwheels are designed according to standard specifications and our own strength calculations, which have been developed based on our comprehensive konw-how and are optimally adapted to our manufacturing processes. The drives provide optimum total efficiency due to the use of Rexroth hydraulic motors, among other things



Three-stage hydrostatic Rexroth winch drive MOBILEX GFT-W with static spring pressure multiple-disk parking brake and connection for Rexroth hydraulic motor

Lubrication

The gears and bearings are splash-lubricated. The drive units are maintenance-free save for periodic oil changes, which are convenient to make. Only the oils specified in the operating manual should be used in the gearboxes.
The change intervals for different operating conditions are also specified in the operating manual.

Spring pressure multiple-disk parking brake
In the standard version, one spring-loaded, hydraulic release spring pressure multiple-disk parking brake is installed on the drive end.

$$T_{Br.\ sta.\ min} = 1{,}6 \bullet T_{1\ (Input\ torque)}$$

The spring pressure multiple-disk parking brake is not a service brake, but a static parking brake, which must not be used for braking the load.
The device engineer/operator must provide a separate service or emergency brake if necessary.
The holding torque is multiplied according to the selected transmission.

Hydraulic motors

The gearbox is designed for direct flange-attachment of a variable or fixed-displacement motor (preferably a Rexroth hydraulic motor).

Version, overview

Explanation version

2000 = Oil inlet, oil outlet, oil level on the gear cover
4000 = Oil inlet, oil outlet, motor-side oil level
6000 = Oil inlet, oil outlet, motor-side oil level
Installation of 2 gearboxes in a hoisting drum possible
8000 = Optional with back stop
(built-in between gearbox and holding brake)
9000 = Special version

Options

Upon request, the drives can be supplied with the following accessories:

Counter bearing, hoisting drum, winch frame

In addition to the standard delivery scope, the winch drives of series can also be delivered:

- with counter bearing
- with counter bearing and hoisting drum
- with counter bearing, hoisting drum and winch frame

Limit switches

Upon request, special counter bearings can be designed with a connection option for specific gear cam limit switches.

Overview of MOBILEX GFT-W Winch Drives

Type/design GFT-W	Output torque [1] $T_{2\,max}$ Nm	Rope pull max. [2] kN	Gear ratio from/to i
GFT 17 W2	14000	67	37,6 - 54
GFT 17 W3	14000	74	77,9 - 102,6
GFT 24 W3	19000	99	90,1 - 137,2
GFT 26 W2	18000	84	42,9 - 62
GFT 36 W3	26000	118	67 - 138,8
GFT 40 W2	27000	108	35,9 - 59,1
GFT 50 W3	37500	150	84,2 - 125,6
GFT 60 W3	42500	164	63,8 • 94,8
GFT 80 W3	67000	231	61,3 - 215
GFT 110 W3	100000	300	79,5 - 173,9
GFT 160 W3	140000	373	133 - 251
GFT 220 W3	200000	471	97,7 - 293
GFT 330 W3	275000	595	168,9 - 252
GFT 450 W4	325000	684	293,4 • 421,7

[1] Design according to FEM L2, T5, M5
[2] Based on a theoretical 1st layer winding diameter D_{ws}

For our current range of
MOBILEX GFT-W winch drives, visit us at
www.boschrexroth.com/gears

Design, classification

Application Conditions

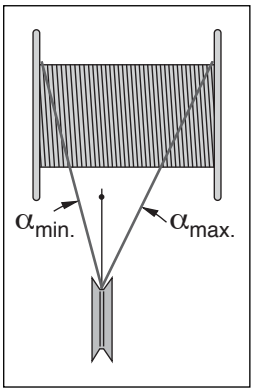
The gearboxes have been designed for use at ambient temperatures of between -20°C and +40°C. Environmental influences such as salt water, safety air, sand, dust, overpressure, heavy vibrations, extreme shocks and ambient temperatures, aggressive media, etc. will affect the function of the product. Such influences must be specified to ensure that the winch drive is designed to safety meet the requirements.

Gearbox design

The gearbox design is based on many years of practical experience. The maximum output torques $T_{2\,max}$ indicated under Technical Data relate to FEM Section I, 3rd issue and Section IX (FEM - Fédération Européene de la Manutention), as well as DIN 15020, collective load class L2, service time category T5 corresponding to driver group M5. The reference output speed is 25 revolutions per minute maximum. If the winch is classified into a different driver group, the required output torque must be converted by applying factor K (see table).
This results in the maximum permissbile output torque for the new classification. Whether or not the selected overall classification is feasible, will be determined by the specialists of Rexroth.

Fleet Angle

Observing the admissible fleet angle ∝ is prerequisite for proper cable winding.



The fleet angle ∝ should not be smaller than 0,5°, so that the rope does not ascend the drum flange and runs safely into the next layer. The fleet angle ∝ should not be larger than 1,5°, so that the rope in the first rope layer does not get pulled against the groove and by several rope layers on the rope drum are properly wound up to the drum flanges.

Gearbox selection

- T_2 = output torque
  F = rope pull in [N]
  D_W = relevant winding diameter in [m]

$$T_2 = \frac{F \cdot D_W}{2}$$

- T_{2K} = corrected output torque
  K factor according to the service time category and collective group given in the table

$$T_{2K} = T_2 \cdot K$$

- T_{2K} of the gearbox to be selected must be ≤ $T_{2\,max}$ (according to the bulletin).

See also gearbox design
See page 15 for a data sheet relating to the winch drive design.

Driver Groups and Service Time Categories to FEM, section I, 3rd edition 1987
(FEM: Fédération Européene de la Manutention)

Service time category				**T2**	**T3**	**T4**	**T5**	**T6**	**T7**	**T8**
Assumed average service time per day in hours				0,25 - 0,5	0,5 - 1	1 - 2	2 - 4	4 - 8	8 - 16	> 16
Theoretical service life in hours				400 - 800	800 - 1800	1600 - 3200	3200 - 6300	6300 - 12500	12500 - 25000	25000 - 50000
Load spectrum				**Drive group with K factor**						
Collective Groups	L1	light	Maximum loads occuring in exceptional cases only, side loads constantly	M 1 0,90	M 2 0,90	M 3 0,90	M 4 0,90	M 5 0,95	M 6 1,05	M 7 1,2
	L2	medium	small, medium and maximum loads about equally distributed over service time	M 2 0,90	M 3 0,95	M 4 0,95	M 5 1	M 6 1,15	M 7 1,30	M 8 1,50
	L3	heavy	loads always near maximum	M 3 1,05	M 4 1,05	M 5 1,10	M 6 1,25	M 7 1,40	M 8 1,60	M 8 1,80
	L4	very heavy	Always maximum load	M 4 1,25	M 5 1,30	M 6 1,45	M 7 1,65	M 8 1,85	M 8 2,10	M 8 2,40

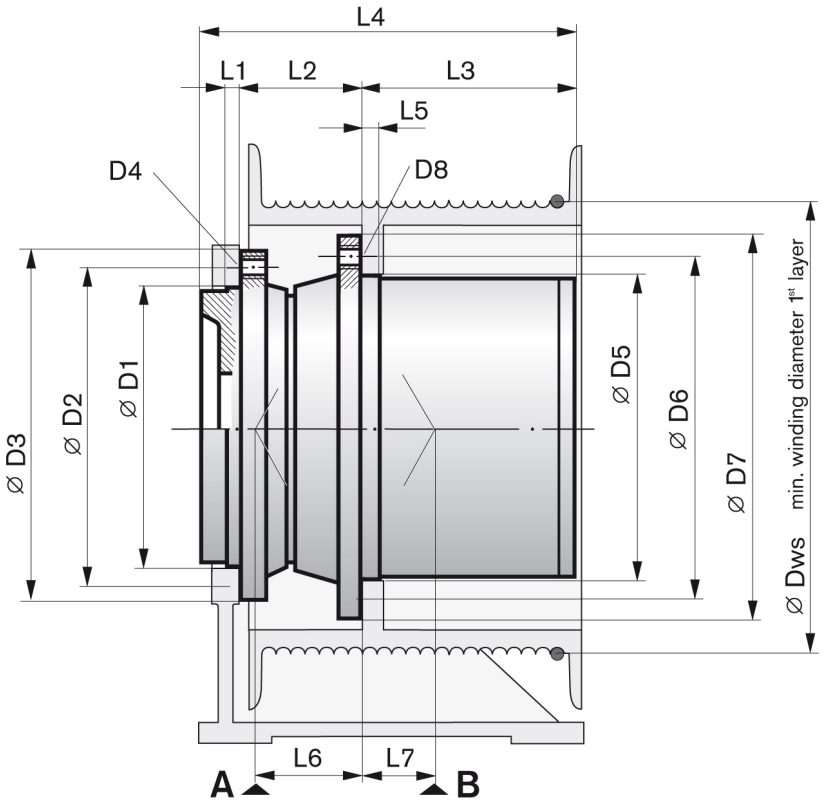
Classification examples (see FEM section I, 3rd edition, table T.2.1.3.5.)

Type of crane (Designation)	**Component operated** [1]	Type of Driver				
		Hoisting	Swinging	Level luffing	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	Hooks	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, Scrapyard cranes	Grab or magnet	M 8	M 6	-	M 6 - M 7	M 7 - M 8
Unloading bridges, container gantry cranes	Hooks or spreaders	M 6 - M 7	M 5 - M 6	M 3 - M 4	M 6 - M 7	M 4 - M 5
Other portal cranes (with trolley and/or slewing ring)	hooks	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 slewing 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	Hooks	M 5 - M 6	M 4 - M 5	M 4 - M 5	M 4 - M 5	M 5 - M 6
Dockside cranes (slewable, gantry type, . . .), floating cranes, floating sheerlegs	Hooks	M 6 - M 7	M 5 - M 6	M 5 - M 6	-	M 3 - M 4
Dockside cranes (slewable, 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	Hooks	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	-	-
Railway cranes approv. or service in trains		M 3 - M 4	M 2 - M 3	M 2 - M 3	-	-
Vehicle-mounted cranes	Hooks	M 3 - M 4	M 2 - M 3	M 2 - M 3	-	-

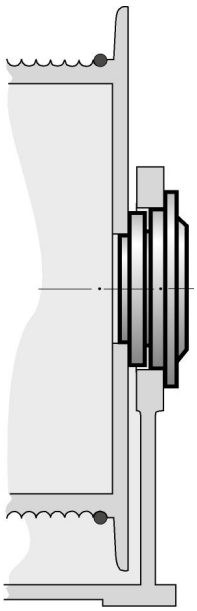
[1] The column only shows some typical areas of winch use for informative purposes.

Dimensions, Technical data

Dimensions



Dimensions of the counter bearing
see page 14



Optional (only in connection with version ≥ 4000)

Technical data

Type/design GFT-W	Output torque $T_{2\,max}$ Nm	Rope pull max. kN	Transmission ratio i	Holding torque $T_{Br\,max}$ Nm	Hydraulic motor
GFT 17 W2 2000	14000	67	37,6 • 45,4 • 54	460	A6VE 55 / A2FE 45 • 56 • 63
GFT 17 W2 4000	14000	67	37,6 • 45,4 • 54	460	A6VE 55 / A2FE 45 • 56 • 63
GFT 17 W3 2000	14000	74	77,9 • 88,2 • 102,6	460	A6VE 55 / A2FE 45 • 56 • 63
GFT 17 W3 4000	14000	74	77,9 • 88,2 • 102,6	460	A6VE 55 / A2FE 45 • 56 • 63
GFT 24 W3 2000	19000	99	90,1 • 102,6 • 120,5 • 137,2	460	A6VE 55 / A2FE 45 • 56 • 63
GFT 24 W3 4000	19000	99	90,1 • 102,6 • 120,5 • 137,2	460	A6VE 55 / A2FE 45 • 56 • 63
GFT 26 W2 2000	18000	84	42,9 • 50,5 • 62	710	A6VE 80 / A2FE 80 • 90
GFT 26 W2 4000	18000	84	42,9 • 50,5 • 62	710	A6VE 80 / A2FE 80 • 90
GFT 36 W3 2000/1	26000	118	67 • 79,4 • 99,1 • 115 • 138,8	680	A6VE 55 / A2FE 45 • 56 • 63
GFT 36 W3 2000/2	26000	118	67 • 79,4 • 99,1 • 115 • 138,8	680	A6VE 80 • 107 / A2FE 80 • 90
GFT 36 W3 4000/1	26000	118	67 • 79,4 • 99,1 • 115 • 138,8	680	A6VE 55 / A2FE 45 • 90
GFT 36 W3 4000/2	26000	118	67 • 79,4 • 99,1 • 115 • 138,8	680	A6VE 80 • 107 / A2FE 80 • 90

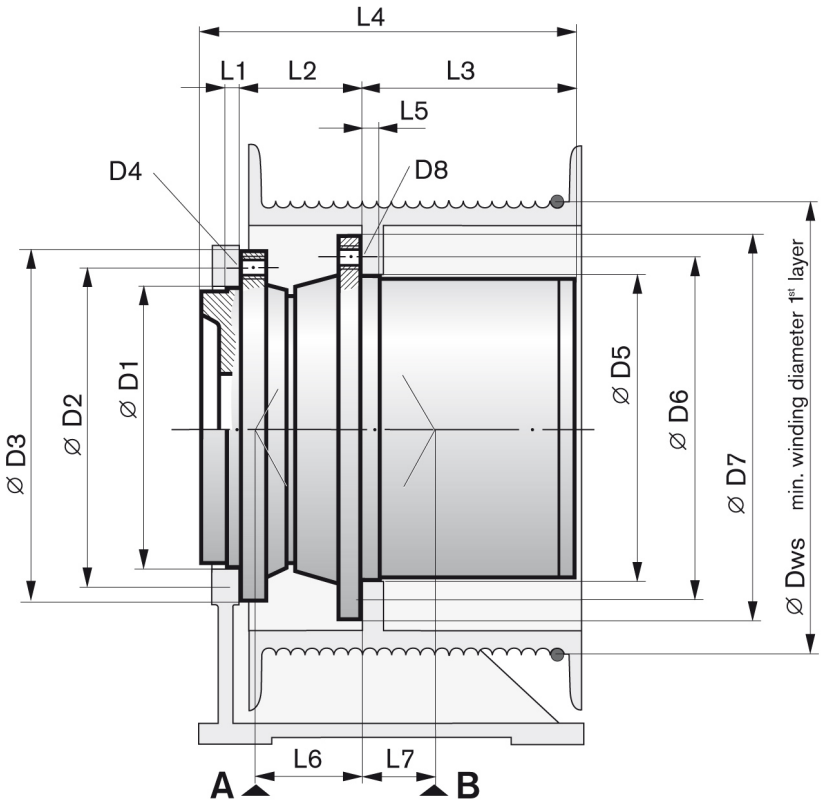
GFT 36 W3 4000/**2** = index no. for different structural lengths, diameter or motor attachment

Dimensions, masses

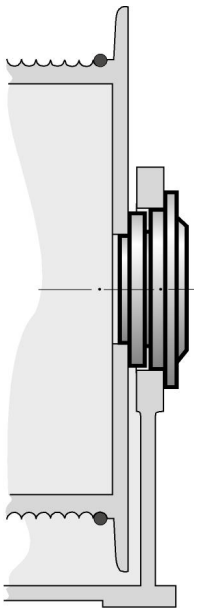
Type/design GFT-W	D1	D2	D3	D4	D5	D6	D7	D8	D_{ws}
					mm				
GFT 17 W2 2000	250	290	320	16x M20	280	305	330	16x M16	380
GFT 17 W2 4000	250	290	320	14x M20	280	305	330	16x 17,5	380
GFT 17 W3 2000	250	290	320	16x M20	280	305	330	16x M16	380
GFT 17 W3 4000	250	290	320	14x M20	280	305	330	16x 17,5	380
GFT 24 W3 2000	240	285	320	20x M20	280	305	330	20x M16	385
GFT 24 W3 4000	250	290	320	20x M20	280	305	330	20x 18	385
GFT 26 W2 2000	270	310	350	16x M20	320	350	380	20x M16	430
GFT 26 W2 4000	270	310	350	14x M20	320	350	380	20x 18	430
GFT 36 W3 2000/1	270	310	350	16x M20	320	350	380	20x M16x1,5	440
GFT 36 W3 2000/2	270	310	350	16x M20	320	350	380	20x M16x1,5	440
GFT 36 W3 4000/1	270	310	350	16x M20	320	350	380	20x 18	440
GFT 36 W3 4000/2	270	310	350	16x M20	320	350	380	20x 18	440

Type/design GFT-W	L1	L2	L3	L4	L5	L6	L7	A + B		Mass
								C	Co	
				mm				kN		kg
GFT 17 W2 2000	16	82	152	264	18	56	47	108	142	105
GFT 17 W2 4000	16	82	152	264	18	56	47	108	142	105
GFT 17 W3 2000	16	82	174	286	18	56	47	140	290	115
GFT 17 W3 4000	16	82	174	286	18	56	47	140	290	115
GFT 24 W3 2000	16	82	189,5	301,5	18	56	47	140	290	130
GFT 24 W3 4000	16	82	189,5	301,5	18	56	47	140	290	130
GFT 26 W2 2000	20	90	220	340	25	58	50	186	400	136
GFT 26 W2 4000	20	90	220	340	25	58	50	186	400	136
GFT 36 W3 2000/1	20	90	210	343	25	56,5	56,5	170	405	155
GFT 36 W3 2000/2	10	90	200	300	25	56,5	56,5	170	405	155
GFT 36 W3 4000/1	20	90	210	343	25	56,5	56,5	170	405	155
GFT 36 W3 4000/2	10	90	200	300	25	56,5	56,5	170	405	155

Dimensions



Dimensions of the counter bearing see page 14



Optional (only in connection with version ≥ 4000)

Technical data

Type/design GFT-W	Output torque $T_{2\,max}$ Nm	Rope pull max. kN	Transmission ratio i	Holding torque $T_{Br\,max}$ Nm	Hydraulic motor
GFT 40 W2 4000/1	27000	108	35,9 • 41 • 48,3 • 59,1	1080	A6VE 80 • 107 / A2FE 80 • 90
GFT 40 W2 4000/2	27000	108	35,9 • 41 • 48,3 • 59,1	1080	A6VE 107 • 160 / A2FE 107 • 125
GFT 50 W3 2000	37500	150	84,2 • 91,1 • 125,6	800	A6VE 80 • 107 / A2FE 80 • 90
GFT 50 W3 4000	37500	150	84,2 • 91,1 • 125,6	800	A6VE 80 • 107 / A2FE 80 • 90
GFT 60 W3 4000	42500	164	63,8 • 94,8 • 105,5 • 119,8 • 139,9 • 169,9	720	A6VE 80 • 107 / A2FE 80 • 90
GFT 60 W3 6000	42500	164	63,8 • 94,8	1620	A6VM 107 • 160 • 200 • 250 / A2FM 107 • 125 • 160 • 180 • 200
GFT 60 W3 8000	42500	164	63,8 • 94,8	1620	A6VM 107 • 160 • 200 • 250 / A2FM 107 • 125 • 160 • 180 • 200
GFT 80 W3 6000/1	67000	231	61,3 • 79,1 • 99 • 126,9 • 149,5 • 215	1890	A6VM 160 / A2FM 160 • 180
GFT 80 W3 6000/2	67000	231	61,3 • 79,1 • 99 • 126,9 • 149,5 • 215	1890	A6VM 200 • 250 / A2FM 200
GFT 80 W3 8000/1	67000	231	61,3 • 79,1 • 99 • 126,9 • 149,5 • 215	1890	A6VM 160 / A2FM 160 • 180
GFT 80 W3 8000/2	67000	231	61,3 • 79,1 • 99 • 126,9 • 149,5 • 215	1890	A6VM 200 • 250 / A2FM 200
GFT 80 W3 8000/3	67000	231	61,3 • 79,1 • 99 • 126,9 • 149,5 • 215	1890	A6VM 107 / A2FM 107 • 125

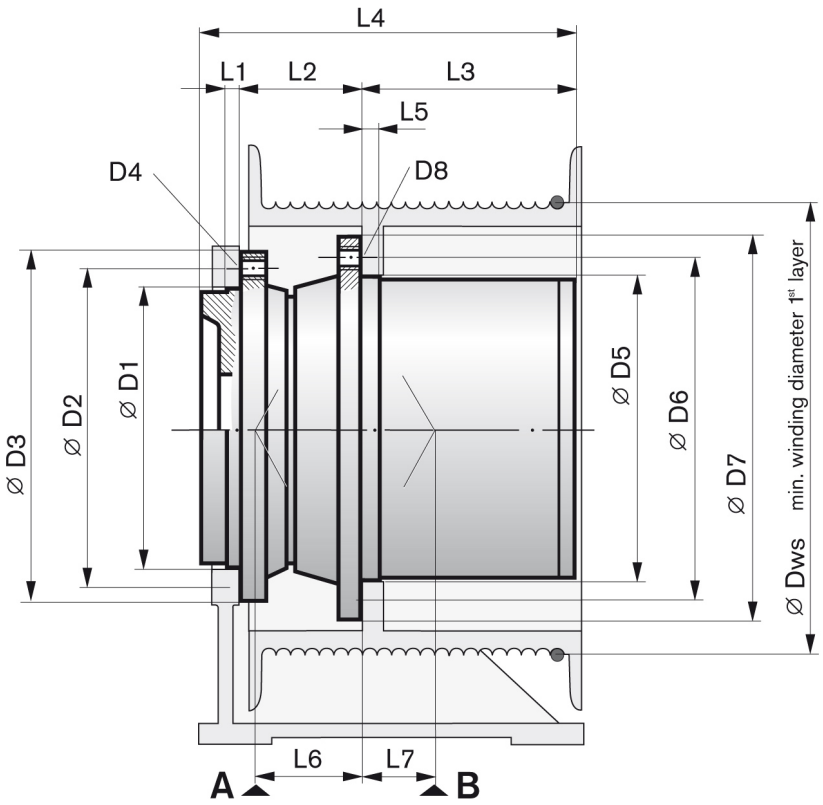
GFT 80 W3 8000/**2** = index no. for different structural lengths, diameter or motor attachment

Dimensions, masses

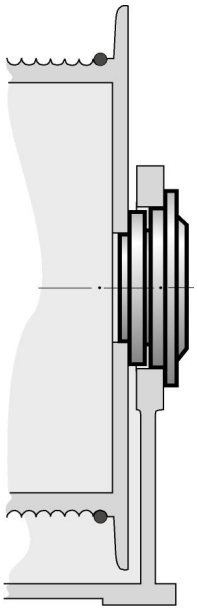
Type/design GFT-W	D1	D2	D3	D4	D5	D6	D7	D8	D_{ws}
					mm				
GFT 40 W2 4000/1	270	310	350	17x M20x1,5	350	400	440	16x 22	500
GFT 40 W2 4000/2	330	370	410	18x M20	350	400	440	16x 22	500
GFT 50 W3 2000	270	310	350	20x M20x1,5	350	400	430	16x M20x1,5	500
GFT 50 W3 4000	270	310	350	18x M20x1,5	350	400	430	16x 22	500
GFT 60 W3 4000	330	370	410	20x M20x1,5	370	410	450	20x 22	520
GFT 60 W3 6000	360	405	440	12x M24	370	405	440	16x 22	520
GFT 60 W3 8000	360	405	440	12x M24	370	405	440	16x 22	520
GFT 80 W3 6000/1	380	430	470	28x M24	430	460	495	24x 22	580
GFT 80 W3 6000/2	380	430	470	28x M24	430	460	495	24x 22	580
GFT 80 W3 8000/1	380	430	470	28x M24	430	460	495	24x 22	580
GFT 80 W3 8000/2	380	430	470	28x M24	430	460	495	24x 22	580
GFT 80 W3 8000/3	380	430	470	28x M24	430	460	495	24x 22	580

Type/design GFT-W	L1	L2	L3	L4	L5	L6	L7	A + B		Mass
								C	Co	
				mm				kN		kg
GFT 40 W2 4000/1	25	82	243	364,5	30	57	54	212	425	192
GFT 40 W2 4000/2	25	108,5	243	376,5	30	56,5	54	212	425	219
GFT 50 W3 2000	25	82	281,5	403	30	62	48	212	425	212
GFT 50 W3 4000	25	82	281,5	403	30	56,5	54	212	425	212
GFT 60 W3 4000	25	114	284	423	30	79	38	250	520	230
GFT 60 W3 6000	6	115	271	434,5	16	84	25	250	520	230
GFT 60 W3 8000	6	115	271	434,5	16	84	25	250	520	230
GFT 80 W3 6000/1	10	120	295	484	30	76	19	212	425	430
GFT 80 W3 6000/2	10	120	295	484	30	76	19	212	425	430
GFT 80 W3 8000/1	10	120	295	604	30	76	19	212	425	430
GFT 80 W3 8000/2	10	120	295	604	30	76	19	212	425	430
GFT 80 W3 8000/3	10	120	295	583	30	76	19	212	425	430

Dimensions



Dimensions of the counter bearing see page 14



Optional (only in connection with version ≥ 4000)

Technical data

Type/design GFT-W	Output torque $T_{2\,max}$ Nm	Rope pull max. kN	Transmission ratio i	Holding torque $T_{Br\,max}$ Nm	Hydraulic motor
GFT 110 W3 4000	100000	300	95,8 • 114,8 • 128,6 • 147,2 • 173,9	1100	A6VE 107 • 160 / A2FE 107 • 125 • 160 • 180
GFT 110 W3 6000/1	100000	300	79,5 • 95,8 • 114,8 • 128,6 • 147,2 • 173,9	1890	A6VM 200 • 250 / A2FM 200
GFT 110 W3 6000/2	100000	300	79,5 • 95,8 • 114,8 • 128,6 • 147,2 • 173,9	1890	A2FM 250
GFT 110 W3 6000/3	100000	300	79,5 • 95,8 • 114,8 • 128,6 • 147,2 • 173,9	1890	A6VM 160 / A2FM 160 • 180
GFT 110 W3 6000/4	100000	300	79,5 • 95,8 • 114,8 • 128,6 • 147,2 • 173,9	1890	A6VM 107 • 250 / A2FM 107 • 125 • 200
GFT 110 W3 8000/1	100000	300	79,5 • 95,8 • 114,8 • 128,6 • 147,2 • 173,9	1890	A6VM 200 • 250 / A2FM 200
GFT 110 W3 8000/2	100000	300	79,5 • 95,8 • 114,8 • 128,6 • 147,2 • 173,9	1890	A6VM 160 / A2FM 160 • 180
GFT 110 W3 8000/3	100000	300	79,5 • 95,8 • 114,8 • 128,6 • 147,2 • 173,9	1890	A6VM 107 / A2FM 107 • 125
GFT 110 W3 9000	100000	300	79,5 • 95,8 • 114,8 • 128,6 • 147,2 • 173,9	1500	A6VM 160 • 200 • 250 / A6VE 160 / A2FM 107 • 125 • 160 • 180

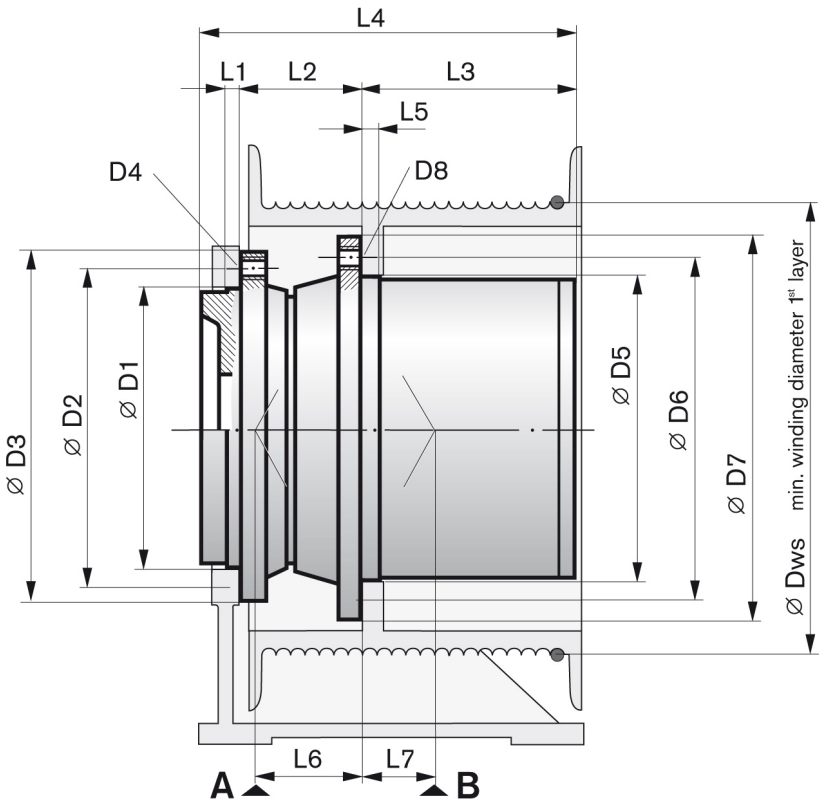
GFT 110 W3 6000/**4** = index no. for different structural lengths, diameter or motor attachment

Dimensions, masses

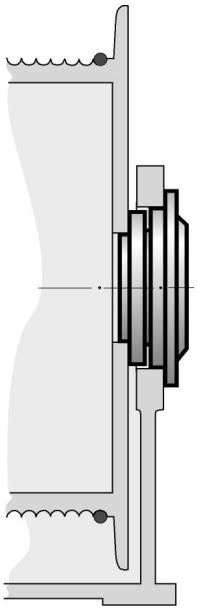
Type/design GFT-W	D1	D2	D3	D4	D5	D6	D7	D8	D_{ws}
					mm				
GFT 110 W3 4000	420	460	500	24x M24	460	500	540	36x 20	640
GFT 110 W3 6000/1	380	430	470	28x M24	490	530	567	24x 26	650
GFT 110 W3 6000/2	380	430	470	28x M24	490	530	567	24x 26	650
GFT 110 W3 6000/3	380	430	470	28x M24	490	530	567	24x 26	650
GFT 110 W3 6000/4	380	430	470	28x M24	490	530	567	24x 26	650
GFT 110 W3 8000/1	380	430	470	28x M24	490	530	567	24x 26	650
GFT 110 W3 8000/2	380	430	470	28x M24	490	530	567	24x 26	650
GFT 110 W3 8000/3	380	430	470	28x M24	490	530	567	24x 26	650
GFT 110 W3 9000	380	430	470	28x M24	490	530	567	24x 26	650

Type/design GFT-W	L1	L2	L3	L4	L5	L6	L7	A + B		Mass
								C	Co	
				mm				kN		kg
GFT 110 W3 4000	21,5	165	305	491,5	30	107	25	A 509 B 480	A 1080 B 950	440
GFT 110 W3 6000/1	10	140	280	489	15	96	-2	212	425	460
GFT 110 W3 6000/2	10	140	280	489	15	96	-2	212	425	406
GFT 110 W3 6000/3	10	140	280	489	15	96	-2	212	425	515
GFT 110 W3 6000/4	10	140	280	481	15	96	-2	212	425	460
GFT 110 W3 8000/1	10	140	280	598	15	96	-2	212	425	460
GFT 110 W3 8000/2	10	140	280	598	15	96	-2	212	425	460
GFT 110 W3 8000/3	10	140	280	598	15	96	-2	212	425	460
GFT 110 W3 9000	10	140	290	498	15	94	0	212	425	515

Dimensions



Dimensions of the counter bearing see page 14



Optional (only in connection with version ≥ 4000)

Technical data

Type/design GFT-W	Output torque $T_{2\,max}$ Nm	Rope pull max. kN	Transmission ratio i	Holding torque $T_{Br\,max}$ Nm	Hydraulic motor
GFT 160 W3 4000	140000	373	133 • 210,8 • 251	1360	A6VM 200 / A6VE 107 • 160 / A2FE 107 • 125 • 160 • 180
GFT 220 W3 4000/1	200000	471	97,7 • 105,9 • 143,3 • 155,4 • 188,9 • 246,1 • 293	1360	A6VE 107 • 160 / A2FE 107 • 125 • 160 • 180
GFT 220 W3 4000/2	200000	471	97,7 • 105,9 • 143,3 • 155,4 • 188,9	1360	A6VM 200 • 250 / A2FM 200
GFT 220 W3 6000/1	200000	471	188,9 • 246,1 • 293	1360	A6VE 107 • 160 / A2FE 107 • 125 • 160 • 180
GFT 220 W3 6000/2	200000	471	97,7 • 105,9 • 143,3 • 155,4 • 188,9	2200	A6VM 200 • 250 / A2FM 200
GFT 330 W3 9000/1	275000	595	209,8 • 252	2860	A6VE 250 / A2FE 250
GFT 330 W3 9000/2	275000	595	168,9 • 181,7	2x 1700	2x A6VM 160
GFT 450 W4 6000	325000	684	293,4 • 421,7	2300	A6VE 250 / A2FE 250

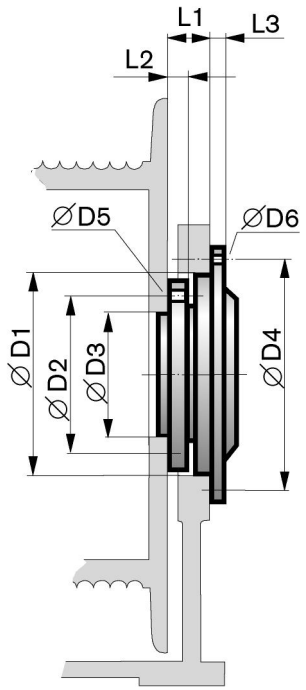
GFT 220 W3 4000/**2** = index no. for different structural lengths, diameter or motor attachment

Dimensions, masses

Type/design GFT-W	D1	D2	D3	D4	D5	D6	D7	D8	D_{ws}
					mm				
GFT 160 W3 4000	450	510	560	30x M24x2	535	600	650	30x 30	750
GFT 220 W3 4000/1	460	600	650	30x M30	610	680	735	24x 33	850
GFT 220 W3 4000/2	460	600	650	30x M30	610	680	735	24x 33	850
GFT 220 W3 6000/1	460	600	650	30x M30	610	680	735	24x 33	850
GFT 220 W3 6000/2	460	600	650	30x M30	610	680	735	24x 33	850
GFT 330 W3 9000/1	580	680	735	28x M24	660	730	785	30x 33	925
GFT 330 W3 9000/2	580	680	735	28x M24	660	730	785	30x 33	925
GFT 450 W4 6000	580	680	735	36x M30	670	750	810	36x 33	-

Type/design GFT-W	L1	L2	L3	L4	L5	L6	L7	A + B		Mass
								C	Co	
				mm				kN		kg
GFT 160 W3 4000	30	168	340	538	65	131,7	20,2	783	1557	680
GFT 220 W3 4000/1	25	170	350	565	60	155	35	710	1560	820
GFT 220 W3 4000/2	21	170	350	560	60	155	35	710	1560	820
GFT 220 W3 6000/1	25	170	350	565	60	155	35	710	1560	820
GFT 220 W3 6000/2	25	170	350	560	60	155	35	710	1560	820
GFT 330 W3 9000/1	87	188	430	705	80	190	25	1040	2450	1380
GFT 330 W3 9000/2	20	188	430	705	70	190	25	1040	2450	1380
GFT 450 W4 6000	87	156	532	775	37	155	39	1040	2450	1460

Standard counter bearing



Gearbox size	D1 H7/j6	D2	D3 H7/j6	D4	D5
			mm		
GFT 17 W	140	115	90	157	12x ø14
GFT 24 W	175	145	115	198	12x ø18
GFT 26 W	175	145	115	198	12x ø18
GFT 36 W	200	170	140	230	12x ø18
GFT 40 W	200	170	140	230	12x ø18
GFT 50 W	225	190	150	260	12x ø22
GFT 60 W	225	190	150	260	12x ø22
GFT 80 W	225	190	150	260	12x ø22
GFT 110 W	260	220	180	295	12x ø22
GFT 160 W	260	220	180	295	12x ø22
GFT 220 W	260	220	180	295	12x ø22
GFT 330 W	Dimensions upon request				

Gearbox size	D6	L1	L2	L3	Mass approx.
		mm			kg
GFT 17 W	6x ø9	76	13	10	9
GFT 24 W	6x ø11	76	20	15	15
GFT 26 W	6x ø11	76	20	15	15
GFT 36 W	6x ø14	77	20	15	21
GFT 40 W	6x ø14	77	20	15	21
GFT 50 W	6x ø18	91	25	17	30
GFT 60 W	6x ø18	91	25	17	30
GFT 80 W	6x ø18	91	25	17	30
GFT 110 W	8x ø18	102	25	20	30
GFT 160 W	8x ø18	102	25	20	30
GFT 220 W	8x ø18	102	25	20	30
GFT 330 W	Dimensions upon request				

Customer specification winch drive application

You wish to receive an offer for the winch drives MOBILEX GFT-W
To process your request we need the following data:
E-mail: info.gears@boschrexroth.de

Please enclose existing drawings, diagrams, comments and the like.

Company: _____
Name/Dept: _____
Place: _____
Phone: _____
E-mail: _____
Date: _____

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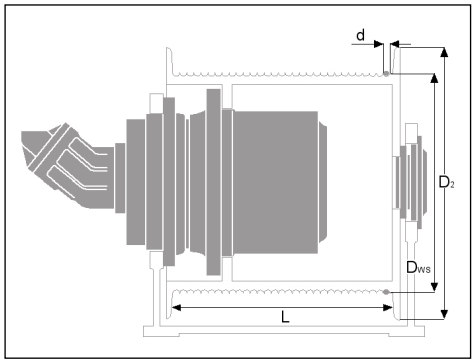
Operating data / design

(all values based on the 1. rope layer)
It is mandatory to fill out all fields!
For exceptions see footnotes.



Standard scope of supply
Transmission unit

Optional scope of supply
☐ Counter bearing
☐ Rope drum [3]
☐ Winch frame

Type of device

☐ Hoisting winch ☐ Boom hoist winch ☐ Auxiliary winch
☐ Pulling winch ☐ Other: _____

Rating acc. to FEM section I	T _____ L _____ M _____		
or alternative load spectrum		_____	
Ambient temperature from/to		_____	°C
Operating machine weight [1]		_____	t
Lifting capacity, max. [1]		_____	t
Rope pull (top rope layer) [2]	F	_____	N
Rope speed (1. rope layer) [2]	V_1	_____	m/min
Rope speed (top rope layer) [2]	V_2	_____	m/min
Rope diameter	d	_____	mm
Type of rope groove [3]	☐ grooveless ☐ DIN ☐ Lebus		
Rope groove pitch [3]	p	_____	mm
Drum lead [3]	☐ right ☐ left		
Number of rope layers, max. [2]		_____	
Winding diam. (1. rope layer) [2]	D_{WS}	_____	mm
Winding diam. (top rope layer) [2]	D_{Wx}	_____	mm
Diameter of drum flanges [3]	D_2	_____	mm
Length between drum flanges [3]	L	_____	mm
Rope drum capacity incl. 3 safety turns [3]		_____	m

Techn. data gearbox

Selected gearbox type	GFT-W	_____	
Max. output torque [2]	$T_{2\,max}$	_____	kNm
Max. drive speed [2]	n_2	_____	rpm
Ratio [1]	i	_____	
Multiple-disk parking brake	☐ yes ☐ no		
Min. park. torque multiple-disk parking brake		_____	Nm
Release pressure, max.	P_{max}	_____	bar
Release pressure, min [1]	P_{min}	_____	bar
Top coat specific	☐ yes ☐ no		
Color	RAL	_____	

[1] Optional entry
[2] Mandatory field $T_{2\,max}$ is not specified
[3] Mandatory field in case of delivery with rope drum

You wish to receive an offer for
the winch drives MOBILEX GFT-W
To process your request
we need the following data:
E-mail: info.gears@boschrexroth.de

Please enclose existing drawings, diagrams, comments and the like.

Company: _____
Name/Dept: _____
Place: _____
Phone: _____
E-mail: _____
Date: _____

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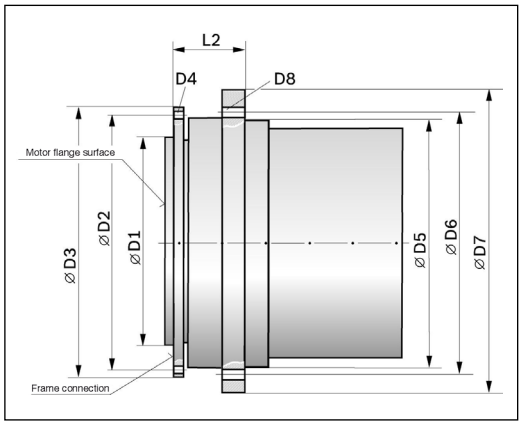

Dimensions of gearbox

- Please fill out the table with the available standard dimensions from valid "Technical data sheet", or if possible the SAP material number of a reference gearbox.
- Please mark the deviating requirements/dimensionsin the table.

Material no. reference		_____
D1		_____ mm
D2		_____ mm
D3		_____ mm
D4	No. of threads	___ pcs. _____
D5		_____ mm
D6		_____ mm
D7		_____ mm
D8	No. of threads	___ pcs. _____
L2		_____ mm

Technical basic data hydraulic motor

Hydraulic circuit	☐ open ☐ closed
Motor type code	_____
Displacement	$V_{g\,min}$ _____ cm^3
Displacement	$V_{g\,max}$ _____ cm^3
Flushing valve	☐ yes ☐ no
Speed sensor, if yes: type	☐ yes, type _____ ☐ no
Counter balance valve	☐ yes ☐ no
Pressure relief valve	☐ yes ☐ no
Pressure relief valve setting	_____ bar
Working pressure	Δp _____ bar
Input flow, max.	$q_{v\,max}$ _____ l/min

Estimated number of transmission units per year [1)] _____
Price range [1)] _____
Requested ship date RSD [1)] _____
Special application conditions _____
Further customer-specific requirements _____
Are there any legal requirements and/or other standards to be considered?
☐ yes ☐ no if yes, please specify _____

[1)] Optional entry

You wish to receive an offer for
the winch drives MOBILEX GFT-W
To process your request
we need the following data:
E-mail: info.gears@boschrexroth.de

Please enclose existing drawings, diagrams, comments and the like..

Company: _____
Name/Dept: _____
Place: _____
Phone: _____
E-mail: _____
Date: _____

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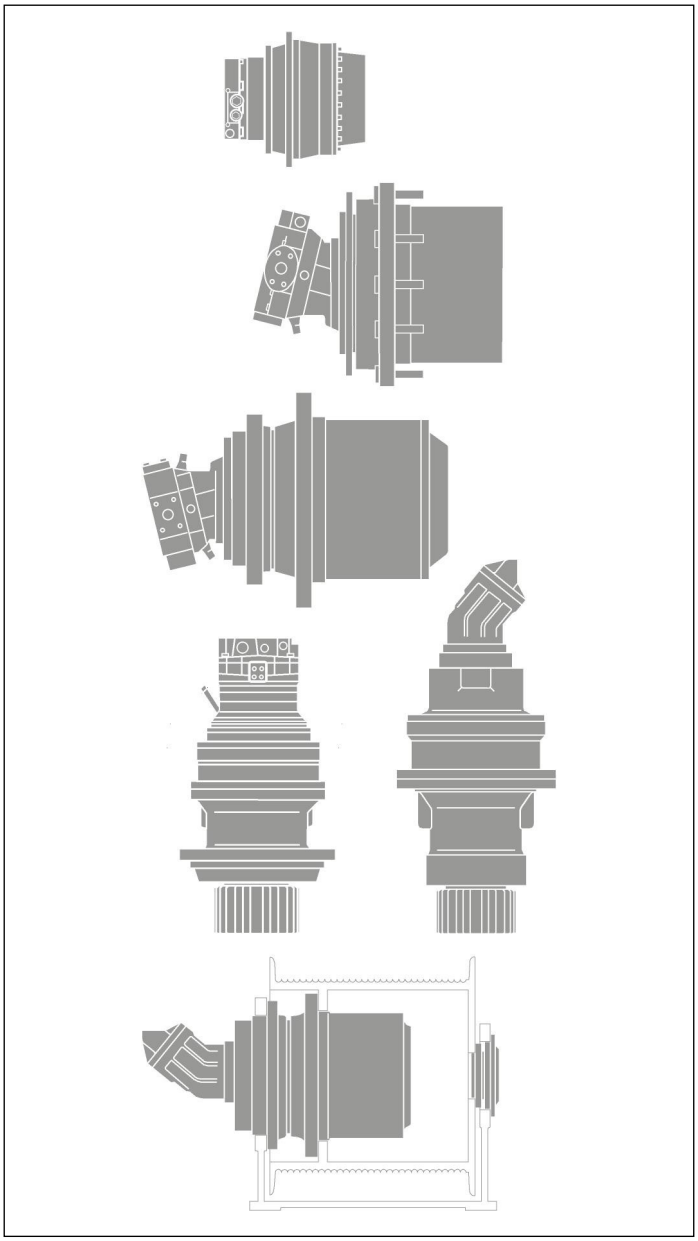
Other (e.g. load spectra, application-relevant data, customer drawings, nameplate):

Notes

Notes

Product range



Planetary gearboxes for mobile units

Hydrostatic travel drives

- HYDROTRAC GFT
  For fixed- or variable-displacement 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-displacement 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-displacement motors
  Output torques between 14 and 325 kNm
  Data sheet RE 77502

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info.gears@boschrexroth.de
www.boschrexroth.com/gears