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Short description

# Roller bearing worm slew drives

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## **LIEBHERR**

Slewing bearings  
Slew drives



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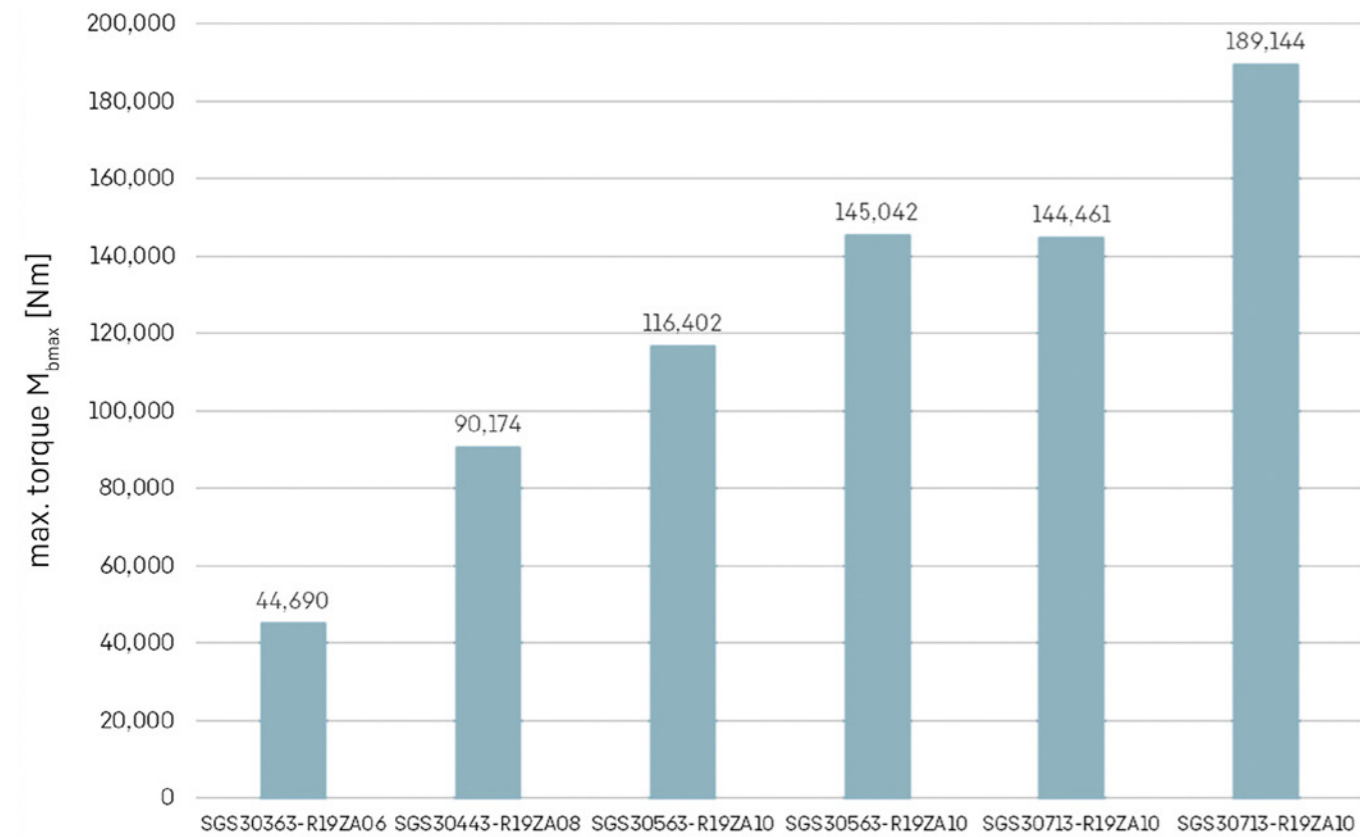
# Liebherr worm slew drives

The compact worm drives are characterised by their high power density. The worm gearing ensures that the torque is transmitted to the slewing ring. This design is particularly suitable when high forces are acting and less space is available, for example as a steering gear for the chassis of cranes and heavy-duty vehicles, in loading cranes, or in agricultural machines.

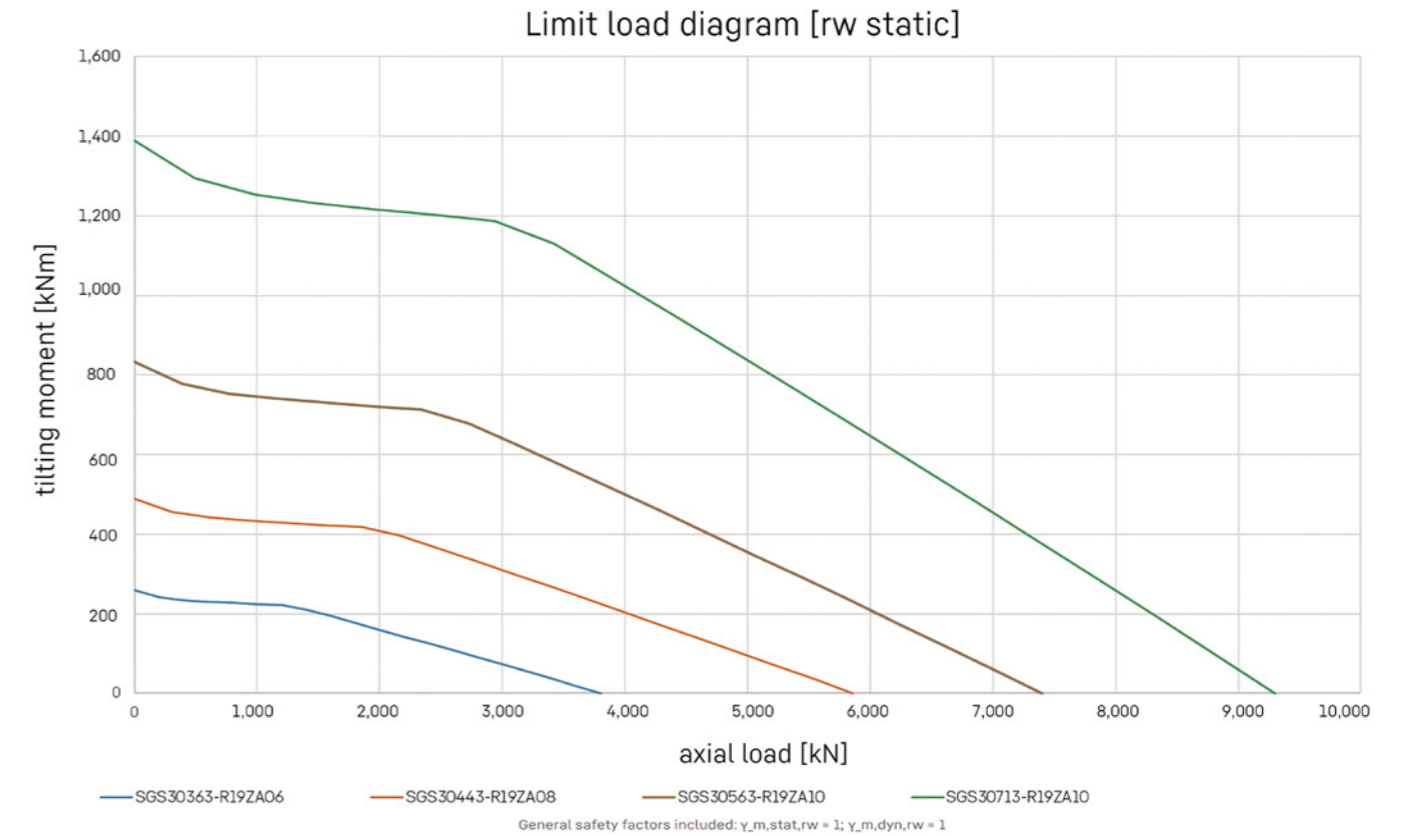
The following pages give you an overview of our series and their performance.

## Maximum torque in a small space

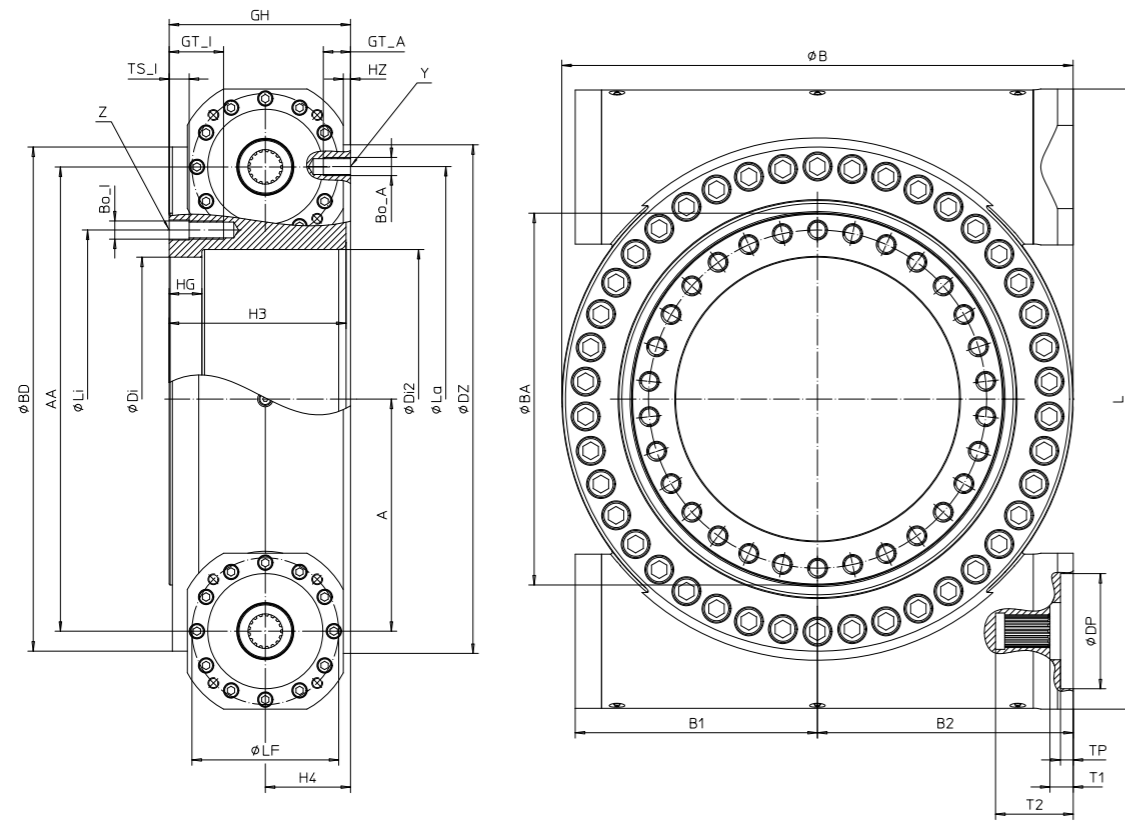
Our series at a glance



# Limit load diagram

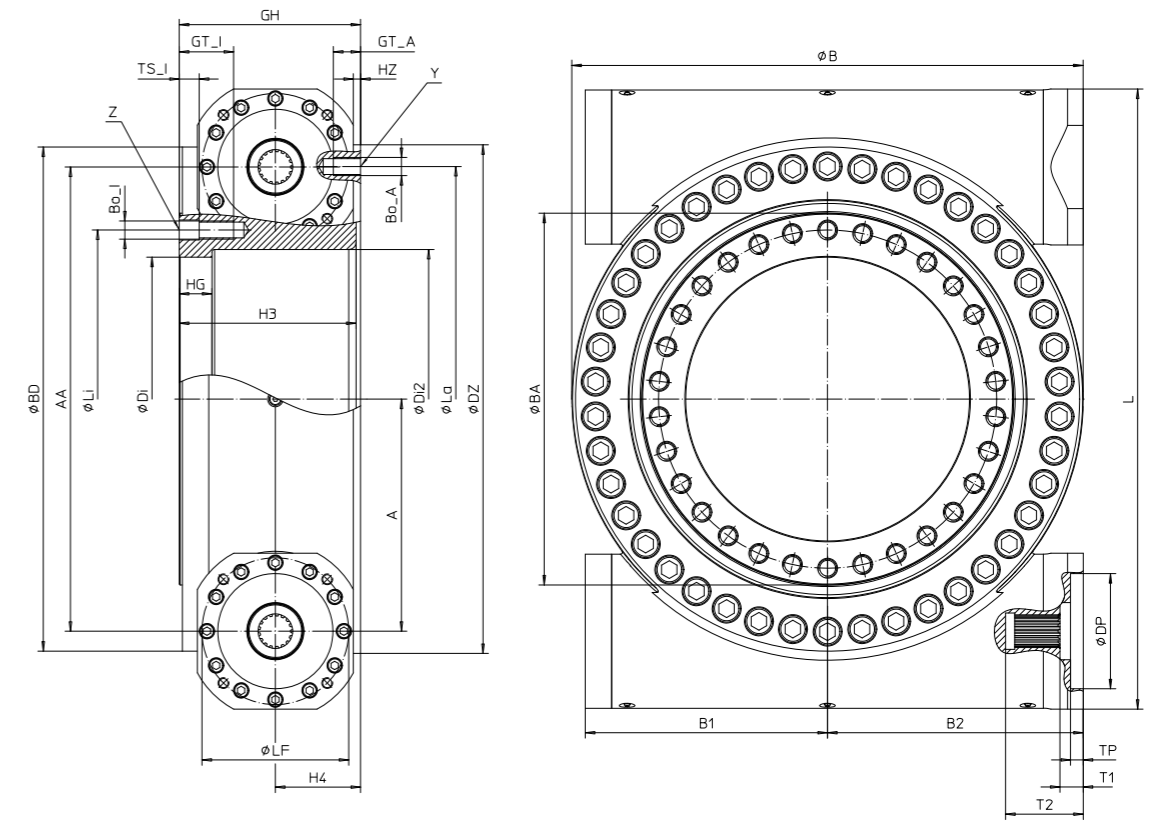


# Technical data



Type	SGS30363-R19ZA06	SGS30443-R19ZA08	SGS30563-R19ZA10	SGS30713-R19ZA10
Size / pitch diameter [mm]	363.5	443.5	563.5	713.5
Ratio (i)*	61	56	56	72
Maximum torque (M <sub>max</sub> ) [Nm]	44,690	90,174	116,402	144,461
Nominal torque (M <sub>nom</sub> ) [Nm]	39,602	71,236	116,402	144,461
Load rating static, radial (C <sub>rad</sub> ) [N]	1,573,753	2,406,935	3,038,969	3,819,584
Load rating static, axial (C <sub>ax</sub> ) [N]	3,934,382	6,017,337	7,597,422	9,548,960
Dynamic load rating, radial (C <sub>rad</sub> ) [N]	418,893	466,420	525,594	590,866
Dynamic load rating, axial (C <sub>ax</sub> ) [N]	470,779	524,592	591,585	665,440
Weight motor (without motor) [kg]	169	296	348	426
Motor type**	OMH 400	6000-Serie: 625 cm <sup>3</sup>	6000-Serie: 625 cm <sup>3</sup>	6000-Serie: 625 cm <sup>3</sup>
Pressure differential Δp [bar]**	140	180	220	220
Oil flow Q [l/min.]**	58	80	45	58
Output speed n [1/min.]	2	2	1	1
Number of screws, inner ring (Z)***	24	30	36	48
Number of screws, outer ring (Y)***	24	32	36	48
A [mm]	210	256	315	398
AA [mm]	420	512	630	796
B [mm]	466	564	682	844
B1 [mm]	207	267.1	287.1	302.1
B2 [mm]	221.5	282.1	302.1	317.1
BA [mm]	330	410	530	680
BD [mm]	456	556	670	832
Bo_A	M16	M20	M20	M20
Bo_I	M16	M20	M20	M20

# Technical data



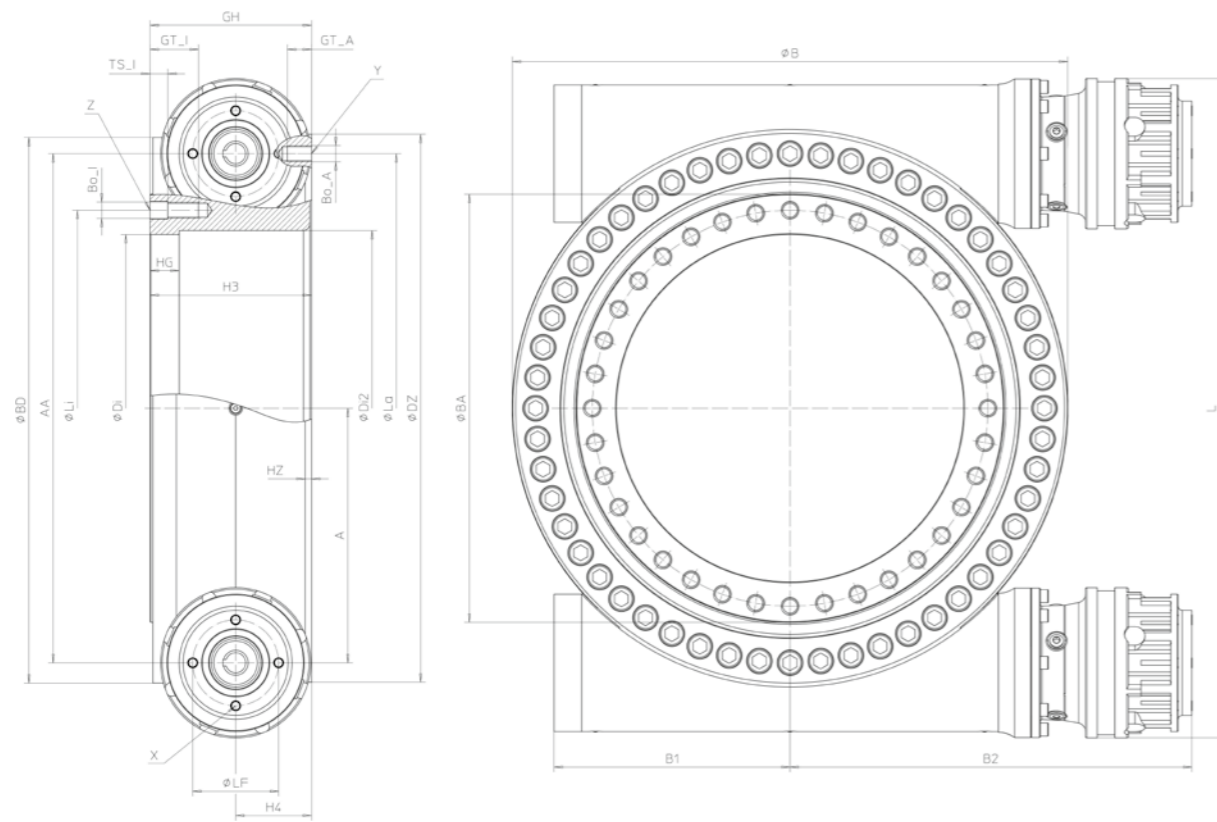
Type	SGS30363-R19ZA06	SGS30443-R19ZA08	SGS30563-R19ZA10	SGS30713-R19ZA10
Di [mm]	250	313	430	585
Di2 [mm]	265	330	450	605
DP [mm]	82.5	127	127	127
DZ [mm]	456	561	678	834
GH [mm]	175	200	200	200
GT_A [mm]	30	30	30	30
GT_I [mm]	60	60	60	60
H3 [mm]	173.5	195	198	198
H4 [mm]	80	94	94	94
HG [mm]	40	36	36	36
HZ [mm]	8	8	8	8
L [mm]	560	684	802	968
La [mm]	427	513	630	792
LF [mm]	106.4	161.9	161.9	161.9
Li [mm]	300	373	490	645
T1 [mm]	23.6	25.6	25.6	25.6
T2 [mm]	73.6	85.6	85.6	85.6
TP [mm]	8	14	14	14
TS_I [mm]	22	22	22	22

\* Ratio based on a single-start worm shaft.

\*\* Suggestion for motor selection, motor connections may have to be edited.

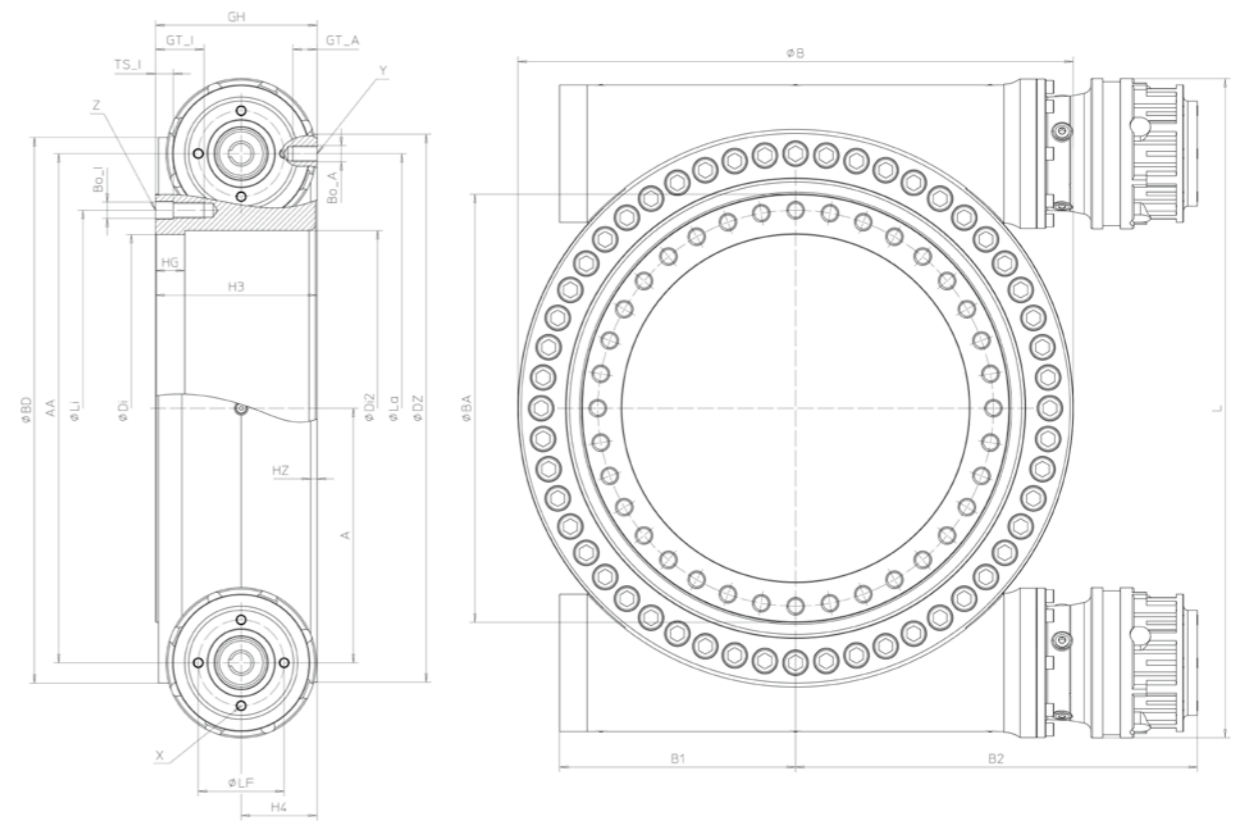
\*\*\* Through hole without thread.

# Technical data



Type	SGS30563-R19ZA10	SGS30713-R19ZA10
Size / pitch diameter [mm]	563.5	713.5
Ratio (i)	56	72
Maximum torque ( $M_{max}$ ) [Nm]	145,042	189,144
Nominal torque ( $M_{nom}$ ) [Nm]	123,100	189,144
Load rating static, radial ( $C_{rad}$ ) [N]	3,038,969	3,819,584
Load rating static, axial ( $C_{ax}$ ) [N]	7,597,422	9,548,960
Dynamic load rating, radial ( $C_{rad}$ ) [N]	525,594	590,866
Dynamic load rating, axial ( $C_{ax}$ ) [N]	591,585	665,440
Weight motor (without motor) [kg]	400	478
Motor type*	OMH 250	2000-Serie: 245 cm <sup>3</sup>
Pressure differential $\Delta p$ [bar]*	165	170
Oil flow Q [l/min.]*	68	83
Output speed n [1/min.]	1	1
Number of screws, inner ring (Z)	36	48
Number of screws, outer ring (Y)	36	48
A [mm]	315	398
AA [mm]	630	796
B [mm]	682	844
B1 [mm]	292.1	307.1
B2 [mm]	497.6	512.6
BA [mm]	530	680
BD [mm]	670	832
Bo_A	M20	M20
Bo_I	M20	M20

# Technical data



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DZ [mm]	678	834
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GT_I [mm]	60	60
H3 [mm]	198	198
H4 [mm]	94	94
HG [mm]	36	36
HZ [mm]	8	8
L [mm]	816	982
La [mm]	630	792
LF [mm]	106.4	106.4
Li [mm]	490	645
T1 [mm]	22	22
T2 [mm]	73.6	85.6
TP [mm]	8	14
TS_I [mm]	22	22

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# Components



Diesel engines



Fuel injection systems



Axial piston hydraulics



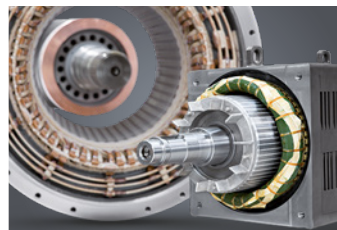
Hydraulic cylinders



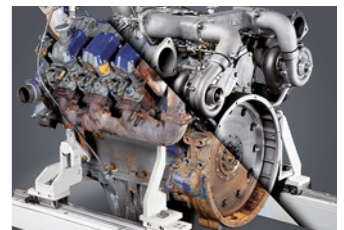
Slewing bearings



Gearboxes and winches



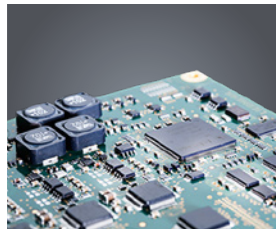
Electric machines



Remanufacturing



Human-machine interfaces and gateways



Control electronics and sensor technology



Power electronics



Control cabinets



Software

From A to Z – the component product segment of the Liebherr Group offers a broad range of solutions in the areas of mechanical, hydraulic, electric and electronic drive system and control technology. The efficient components and systems are produced at ten production sites worldwide to the highest quality standards. The central point of contact for all product lines are available to our customers at Liebherr-Component Technologies AG and the regional sales and distribution branches.

Liebherr is your partner for joint success: from the product idea to its development, production and commissioning right through to customer service solutions like remanufacturing.

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# LIEBHERR

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