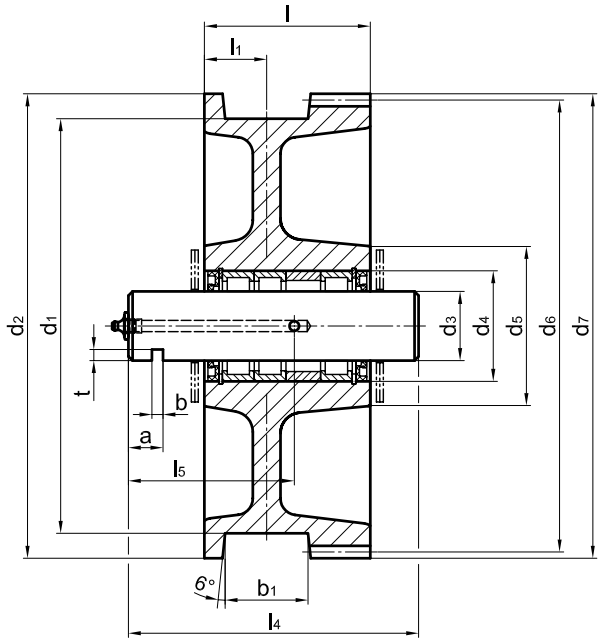
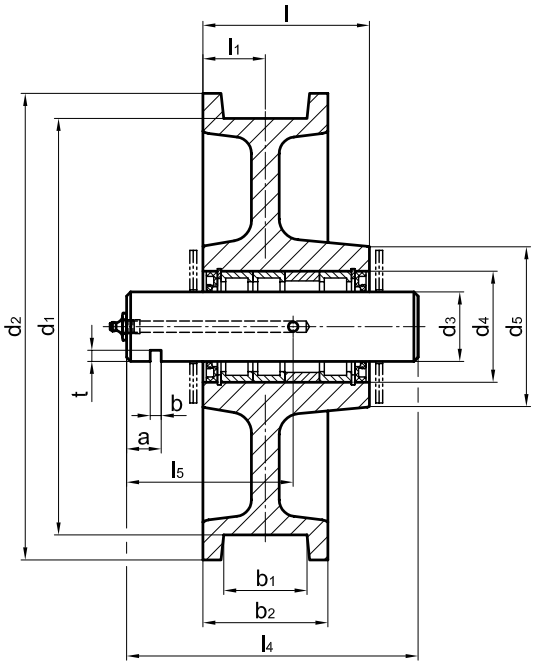
Crane wheels with precision cylindrical roller bearings

similar to DIN 15 049

KG 015



Form A with gear ring



Form B without gear ring

wheel-Ø d1 h11	b1 [1]	b2	d2	d3	d4 M7	d5	l	l1	number of bearings	gear ring [2] (Form A) Module	Number of teeth	d6	d7	unit weight ≈[kg] Form A	Form B	wheel load [kg] [3]
160	30-60	80	186	40	62	85	95	40	2	2,5	72	180	185	11	9,5	2 600
										3	60		186			
200	30-60	80	232	40	62	117	95	40	3	3	75	225	231	18,5	17	4 000
										4	56	224	232			
250	30-60	80	274	50	80	142	120	40	3	3	88	264	270	31	26	5 600
										4	66		272			
300	35-65	90	336	50	80	152	120	45	3	3	110	330	336	44	38	6 750
										4	82	328				
315	40-75	100	348	55	85	167	140	50	3	4	85	340	348	56	50	7 100
400	40-75	100	432	60	90	197	140	50	4	4	106	424	432	88	73	9 700
500	50-85	110	540	70	110	230	170	55	4	6	88	528	540	160	129	17 000
630	55-95	120	680	80	120	180	200	60	4	8	83	664	680	240	186	21 000

1) The dimension of the gauge recess b1 to be stated with order.

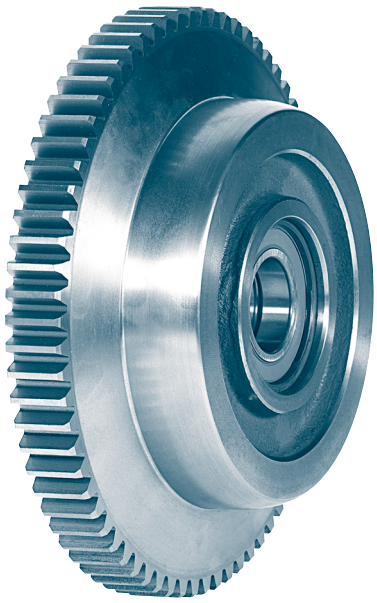
2) Module and number of teeth to be stated with order.
Tooth form according to DIN 867 without profile correction.
Pressure angle 20 degree.

3) The wheel loads stated are valid for v ≈ 40 m/min with an endurance of approximately 10 000 hours and with maximum possible rail head width of the corresponding wheel.

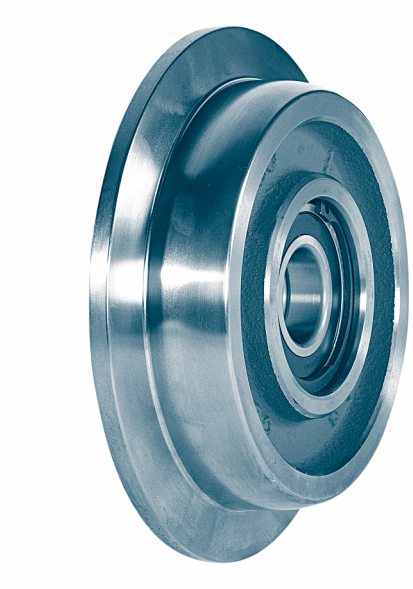
Crane wheels with single wheel flange

for I- and IPE girder (DIN 1025)

KG 020



Form A with gear ring



Form B without gear ring

Designation of a wheel with single wheel flange, form A with gear ring, nominal-Ø d1 = 300 mm, complete with anti friction bearings:

Crane wheel A 300 KG 020

Form A with gear ring
Form B without gear ring

The running surface width b1 is one half each cylindric/spheric.

The rolling bearings are lubricated for life.

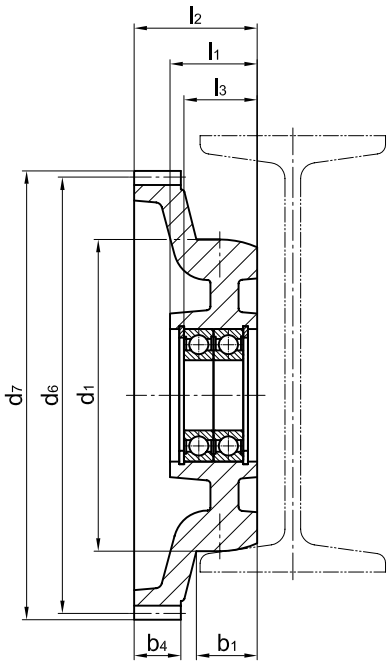
Material:
Wheel body EN-GJS-600-3 (GGG-60)

Other materials and dimensions on request.

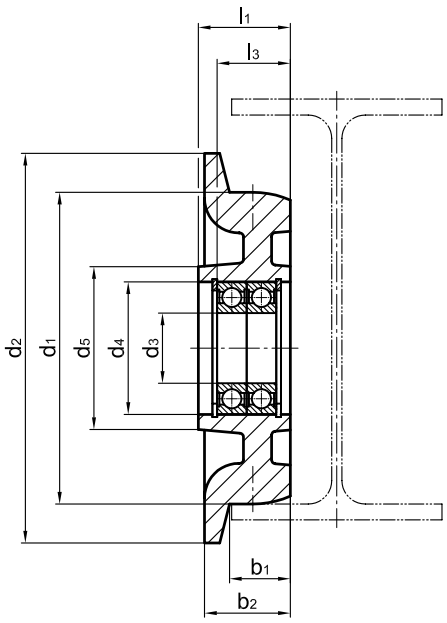
Crane wheels with single wheel flange

for I-girder from I-and IPE-series according to DIN 1025

KG 020



Form A with gear ring



Form B without gear ring

wheel-Ø d1 h11	b1	b2	b4	d2	d3	d4 M7	d5	l1	l2	l3	rolling bearingsr	gear ring [1] (form A)				unit weight ≈[kg]		wheel load [kg] [2]
												module	no. of teeth	d6	d7	Form A	Form B	
130	26	38	25	160	30	62	80	46	58	39	6206-2RS	3	52	156	162	3	2,5	1 900
160	31,5	44	30	200	35	72	90	49	69	41,5	6207-2RS	4	53	212	220	6	5	2 500
200	39	55	30	250	45	85	105	56	79	47	6209-2RS	4	70	280	288	13,5	9,5	3 300
300	56	73	30	340	65	120	150	73	100	59,5	6213-2RS	4	100	400	408	37	28	5 500

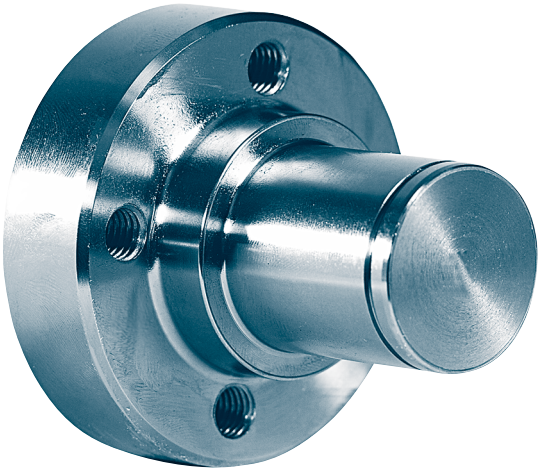
1) Module and number of teeth to be stated with order.
Tooth form according to DIN 867 without profile correction.
Pressure angle 20 degree.

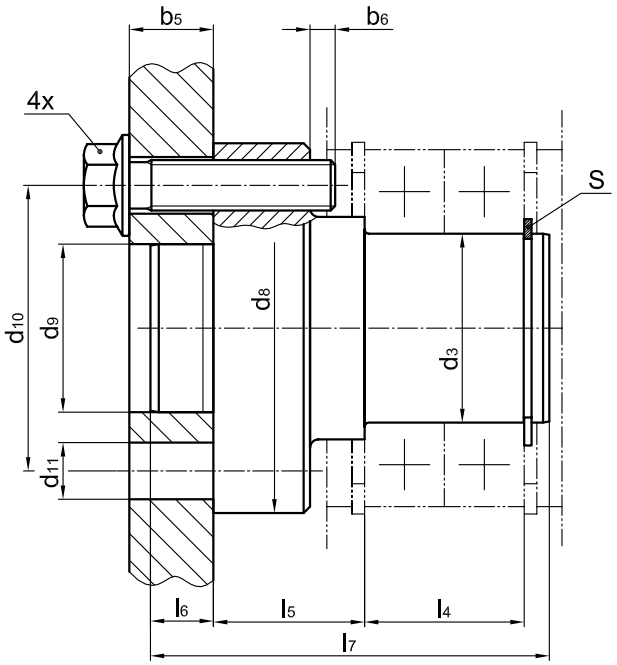
2) The wheel loads stated are valid for v ≈ 10 m/min with an endurance of approximately 3600 hours.

Wheel axles

fitting to travel wheels according to KG 020
for an easy assembly into steel structures

KG 020.1





Designation of an axle for travel wheel-Ø d1 = 200 mm:

Axle 200 KG 020.1

The supply takes place supplied fully machined,
including circlip and 4 locking screws.

Material: 42CrMo4+QT

Other materials, dimensions or wheel axle for welding on Request.

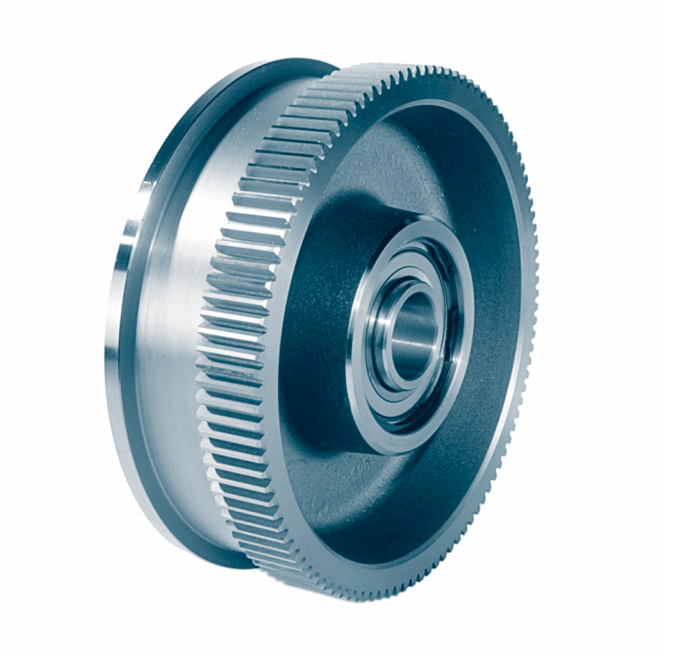
for wheel-Ø d1	d3	d8	d9 - 0,1	d10	d11	l4	l5	l6	l7	locking screws (included)	b5 [1]	b6 max.	S circlip DIN 471
130	30	67	25	48	4× Ø11	32	23	10	70	M10×30 10.9	12–16	5	30×1,5
160	35	77	35	58	4× Ø11	34	31,5	11	82	M10×35 10.9	12–20	6	35×1,5
200	45	88	40	68	4× Ø13,5	38	36	12	92	M12×40 10.9	12–25	7	45×1,75
300	65	127	50	98	4× Ø17,5	46	44,5	16	114	M16×50 10.9	16–30	11	65×2,5

1) For different metal gauge b5 other lengths of the screws are requiered.

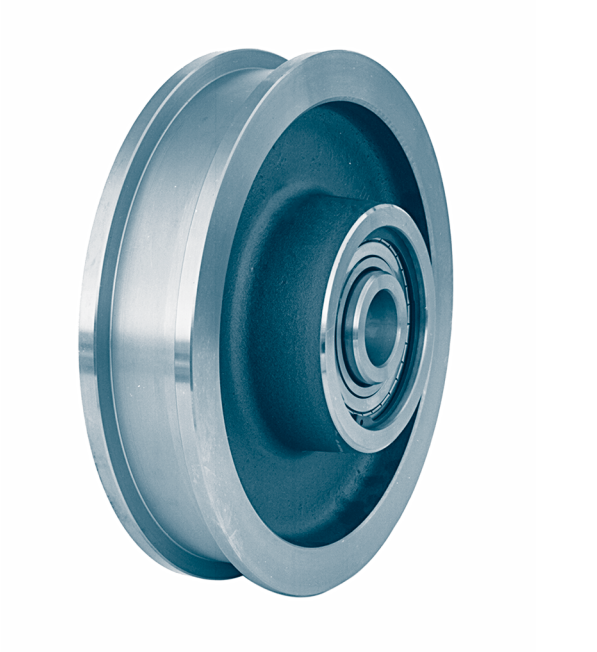
Crane wheels with anti-friction bearings and bush

similar DIN 15 049

KG 030



Form A with gear ring



Form B without gear ring

Designation of a travel wheel form A with gear ring,
nominal-Ø d1 = 300 mm, gauge b1 = 50 mm,
complete with grooved ball bearing,
self aligning roller bearing and bush type 1,
module 3 and number of teeth 110:

Crane wheel A 300 × 50 – 3 × 110 KG 030.1

Form A with gear ring
Form B without gear ring

Other types of the running surface see KG 010.1.

The self aligning roller bearings are covered by nilos sealing-rings. Grooved ball bearings have one-sided seal discs. The roller bearings are greased.

Material:

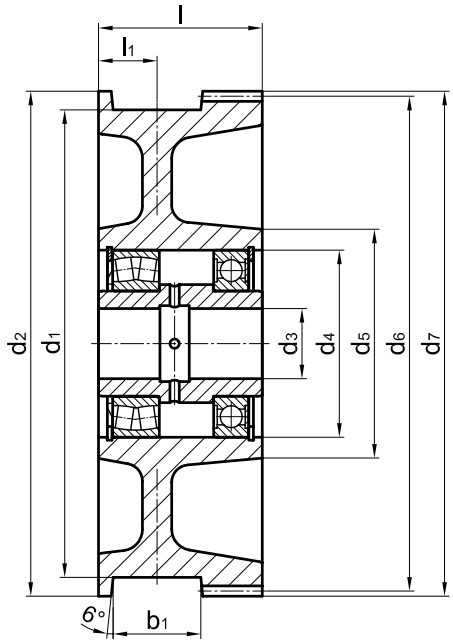
Wheel body-Ø 200-500	C45 drop forged
Wheel body-Ø 630	GE420 (GS-70) with ribs
Bush	S355JR (St 52)

Other materials and dimensions on request.

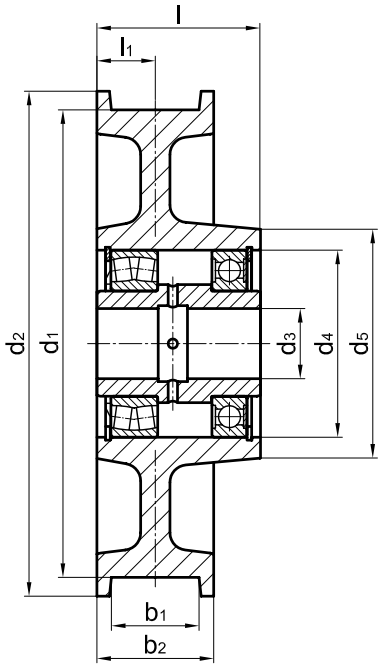
Suitable wheel axles see KG 010.4

Crane wheels with anti-friction bearings and bush

similar DIN 15 049 **KG 030**



Form A with gear ring



Form B without gear ring

wheel-Ø d1 h11	b1 [1]	b2	d2	d3 E9	d4 M7	d5	l -0,5	l1	bearing type	gear ring [2] (form A) module	no. of teeht	d6	d7	unit weight ≈[kg] Form A	Form B	wheel load [kg] [3]
200	30-60	80	232	40	90	117	95	40	62 10Z 222 10	3	75	225	231	17,5	16	3 800
										4	56	224	232			
250	30-60	80	274	50	110	142	120	40	62 12Z 222 12	3	88	264	270	30	25	5 600
										4	66		272			
300	35-65	90	336	50	120	152	120	45	62 13Z 222 13	3	110	330	336	43	37	7 300
										4	82	328				
315	40-75	100	348	55	130	167	140	50	62 15Z 222 15	4	85	340	348	54	48	8 500
400	40-75	100	432	60	160	197	140	50	62 18Z 222 18	4	106	424	432	81	73	11 900
500	50-85	110	540	70	180	230	170	55	62 20Z 222 20	6	88	528	540	150	112	17 500
630	55-95	120	680	80	200	250	200	60	62 22Z 222 22	8	83	664	680	260	190	22 100

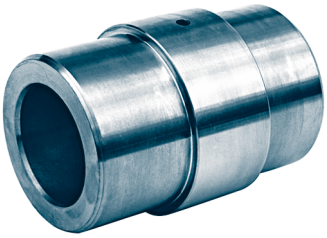
1) The dimension of the gauge recess b1 to be stated with order.

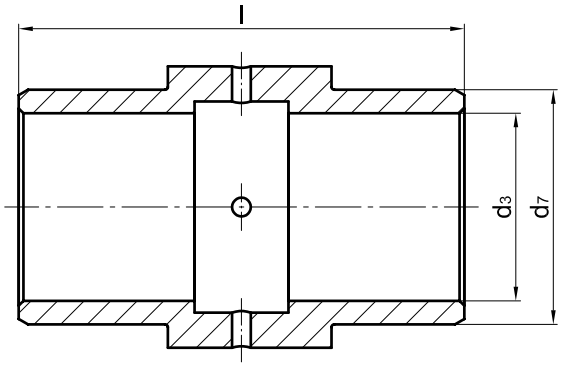
2) Module and number of teeth to be stated with order.
Tooth form according to DIN 867 without appending modification.
Pressure angle 20 degree.

3) The wheel loads stated are valid for v ≈ 40 m/min with an endurance of approximately 10 000 hours and with maximum possible rail head width of the corresponding wheel.

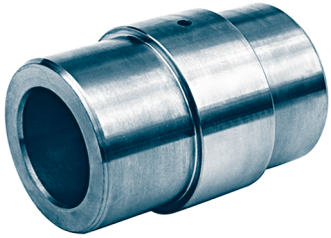
Bushing for crane wheels KG 030 similar DIN 15 049 KG 030

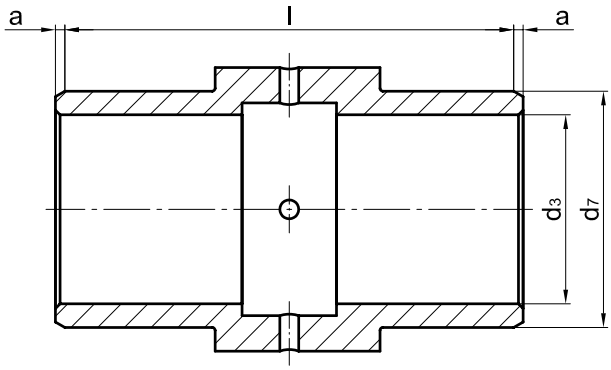
Design 1
length of the bush correlates with the width of the wheel



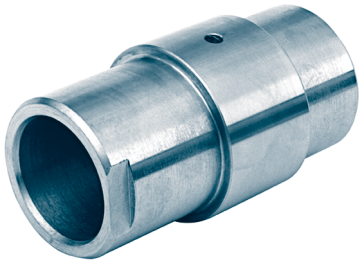


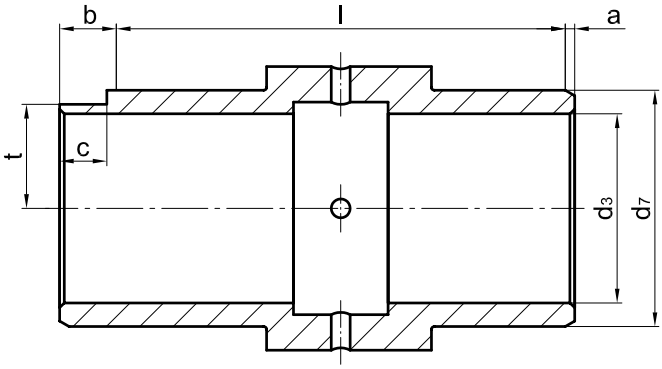
Design 2
bush both-sided over laying at gauge, against wheelbody





Design 3
bush both-sided over-laying against wheel body and with flattening against rotation (mounted on flush hub side resp. opposite gear ring)



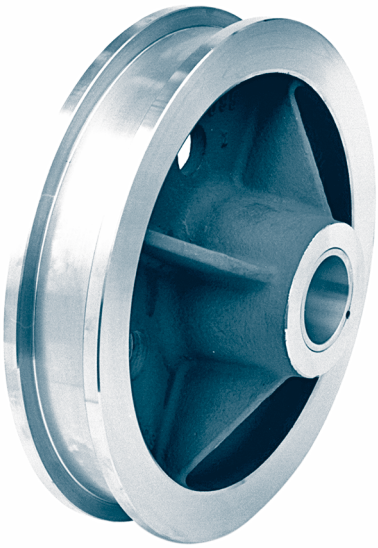


dimensions of the bushing

for Rad-Ø d1	d3 E9	d7 g6	a	b	c	t	l -0,5
200	40	50	2	12	10	22	95
250	50	60	2	12	10	27,5	120
300	50	65	3	13	10	29	120
315	55	75	3	13	10	32,5	140
400	60	90	5	15	10	40	140
500	70	100	5	15	10	45	170
630	80	110	5	15	10	50	200

Crane wheels with slide bearing without gear ring

DIN 15 074



Designation of a crane wheel form B with nominal-Ø d_1 = 630 mm, gauge b1 = 100 mm, hub symmetric (l1 = l2 = 185 mm):

Crane wheel B 630 × 100 DIN 15 074

Form S narrow crane wheel
Form B broad crane wheel

The slide bearings are secured with setscrews towards twisting and dislocation.

Material:

Wheel body-Ø 200 – 250	C45 machined from solid
Wheel body-Ø 315 – 1250	GE420 (GS-70) or G42CrMo4+QT (GS-42CrMo4V)
Bearings	G-CuSn7ZnPb (Rg 7)

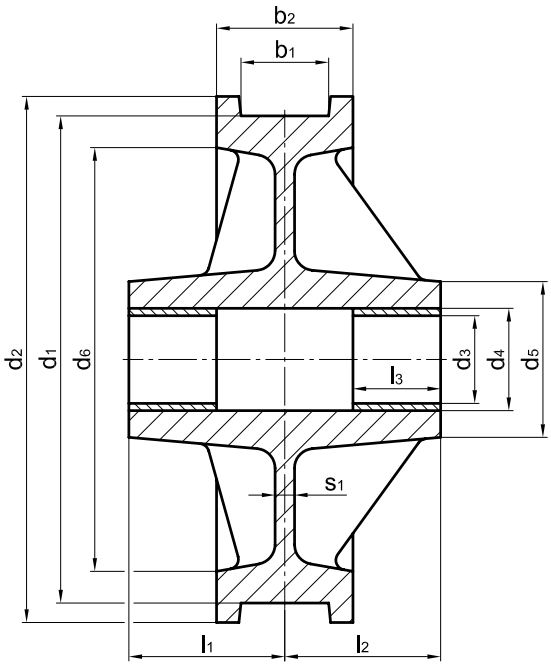
Other materiale and dimensions on request.

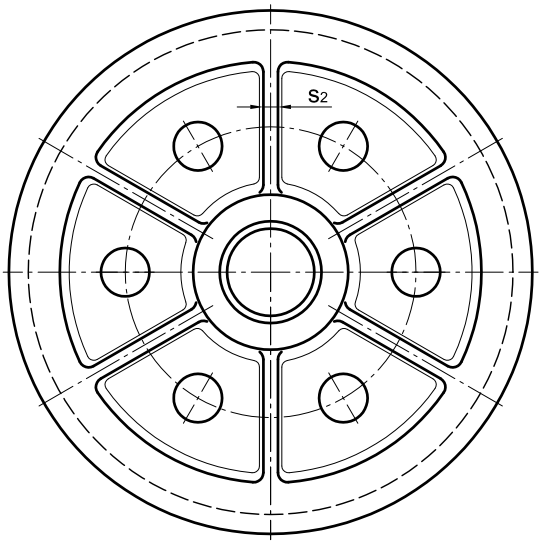
Crane wheels with gear ring see DIN 15075.

See DIN 15070 for basis of calculation for crane wheels.

Crane wheels with slide bearing without gear ring

DIN 15 074





Form	d1	b1 [1]	b2	l1 [2]			l2	d2	d3	d4	d5	d6	l3	s1	s2	No. of ribs	unit weight
				symetric	asymmetric												
	h9								D10	H7							≈[kg]
S	**200**	40–55	90	105	80	60	105	230	45	55	85	170	45	18	–	–	30
S	**250**	40–55	90	115	85	60	115	280	50	60	100	210	50	18	–	–	48
S	**315**	45–55	90	125	95	65	125	350	60	75	120	270	63	18	–	–	60
B		60–65	110	135	105	75	135										68
S	**400**	55–65	110	140	105	75	140	440	80	95	140	345	80	20	–	–	90
B		70–90	140	155	120	90	155										105
S	**500**	55–65	110	145	110	75	145	540	90	105	160	435	90	20	15	4	130
B		70–90	140	160	125	90	160										150
S	**630**	65–75	120	165	120	80	165	680	100	120	180	560	100	20	15	6	210
B		80–110	160	185	140	100	185										250
S	**710**	75–90	140	185	135	90	185	760	110	130	200	630	110	25	18	6	280
B		95–160	210	220	170	125	220										390
S	**800**	75–90	140	195	140	90	195	850	125	145	220	710	125	25	18	6	350
B		95–160	210	230	175	125	230										470
S	**900**	75–90	140	205	145	90	205	950	140	160	240	805	150	25	18	6	400
B		95–160	210	240	180	125	240										540
S	**1000**	75–90	140	205	145	90	205	1050	160	180	270	900	150[3]	30	20	6	525
B		95–160	210	240	180	125	240										680
B	**1120**	95–160	220	260	190	125	260	1180	180	200	300	1010	180	30	20	8	880
B	**1250**	95–160	220	260	190	125	260	1310	200	220	330	1140	200[4]	30	20	8	1040

1) The dimension of the gauge recess b1 to be stated with order.
For running surface profiles and correspondence of crane rails to running wheel diameter see DIN 15072.

2) Asymmetric hubs (diameter l1) as per agreement.

3) For l1 = 90 mm is a slide bearing length of l3 = 120 mm to use.

4) For l1 = 125 mm is a slide bearing lenth of l3 = 180 mm to use.