



# SALES MANUAL for CRANE KITS

起重机部件  
**销售手册**

HTD032V19.0

## CONTENTS

1. Hoist .....	1
1.1. Hoist code .....	1
1.2. Low Headroom Hoist K2102 (Reeving 1:2) .....	2
1.3. Low Headroom Hoist K2104 (Reeving 1:4) .....	3
1.4. Low Headroom Hoist K3102 (Reeving 1:2) .....	4
1.5. Low Headroom Hoist K3104 (Reeving 1:4) .....	5
1.6. Low Headroom Hoist K4102 (Reeving 1:2) .....	6
1.7. Low Headroom Hoist K4104 (Reeving 1:4) .....	7
1.8. Normal Headroom Hoist K2104 (Reeving 1:4) .....	8
1.9. Normal Headroom Hoist K3104 (Reeving 1:4) .....	9
1.10. Normal Headroom Hoist K4104 (Reeving 1:4) .....	10
1.11. Normal Headroom Hoist K4106 (Reeving 1:6) .....	11
1.12. Normal Headroom Hoist K5104 (Reeving 1:4) .....	12
1.13. Double Girder Hoist K2104 (Reeving 1:4) .....	13
1.14. Double Girder Hoist K3104 (Reeving 1:4) .....	14
1.15. Double Girder Hoist K4104 (Reeving 1:4) .....	15
1.16. Double Girder Hoist K4106 (Reeving 1:6) .....	16
1.17. Double Girder Hoist K4108 (Reeving 1:8) .....	17
1.18. Double Girder Hoist K4202 (Reeving 2:2) .....	18
1.19. Double Girder Hoist K4204 (Reeving 2:4) .....	19
1.20. Double Girder Hoist K4206 (Reeving 2:6) .....	20
1.21. Double Girder Hoist K5102 (Reeving 1:2) .....	21
1.22. Double Girder Hoist K5104 (Reeving 1:4) .....	22
1.23. Double Girder Hoist K5106 (Reeving 1:6) .....	23
1.24. Double Girder Hoist K5108 (Reeving 1:8) .....	24
1.25. Double Girder Hoist K5202 (Reeving 2:2) .....	25
1.26. Double Girder Hoist K5204 (Reeving 2:4) .....	26
1.27. Double Girder Hoist K5206 (Reeving 2:6) .....	27
1.28. Double Girder Hoist K5208 (Reeving 2:8) .....	28
1.29. Double Girder Hoist K6202 (Reeving 2:2) .....	29
1.30. Double Girder Hoist K6204 (Reeving 2:4) .....	30
1.31. Double Girder Hoist K6206 (Reeving 2:6) .....	31
1.32. Double Girder Hoist K6208 (Reeving 2:8) .....	32
1.33. Low Headroom Ex Hoist K2104-Ex (Reeving 1:4) .....	33
1.34. Low Headroom Ex Hoist K3102-Ex (Reeving 1:2) .....	34
1.35. Low Headroom Ex Hoist K3104-Ex (Reeving 1:4) .....	35
1.36. Low Headroom Ex Hoist K4102-Ex (Reeving 1:2) .....	36
1.37. Low Headroom Ex Hoist K4104-Ex (Reeving 1:4) .....	37
2. Motor .....	38
2.1. Motor code .....	38
2.2. Travelling Motor .....	39
2.3. Pole Changed Hoisting Motor (Double speed) .....	40
2.4. Frequency control hoisting motor (Stepless) .....	42
3. Travelling gearbox .....	43
3.1. Travelling gearbox code .....	43
3.2. Dimension of travelling gearbox .....	44
4. Gearmotor .....	45
4.1. Gearmotor code .....	45
4.2. Dimension of gearmotor .....	46
4.3. Compatibility of gearmotor & end carriage .....	47
5. End carriage .....	48
5.1. End carriage code .....	48
5.2. DN11 End carriage .....	49
5.3. DN14 End carriage .....	50
5.4. DN20 End carriage .....	51
5.5. DN25 End carriage .....	52
5.6. DN32 End carriage .....	53
5.7. DN40 End carriage .....	54
5.8. DN50 End carriage .....	55
6. Underrunning end carriage .....	56

6.1. Underrunning end carriage code .....	56
6.2. DU10 Underrunning end carriage .....	57
6.3. DU13 Underrunning end carriage .....	58
6.4. DU16 Underrunning end carriage .....	59
7. Hook .....	60

## 1. Hoist

### 1.1. Hoist code

<b>K</b>	<b>5</b>	<b>1</b>	<b>04</b>	<b>D</b>	<b>0200</b>	<b>M5</b>	<b>06</b>	<b>D</b>	<b>D05</b>	<b>B</b>	<b>40</b>	<b>N</b>
----------	----------	----------	-----------	----------	-------------	-----------	-----------	----------	------------	----------	-----------	----------

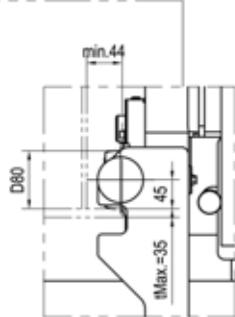
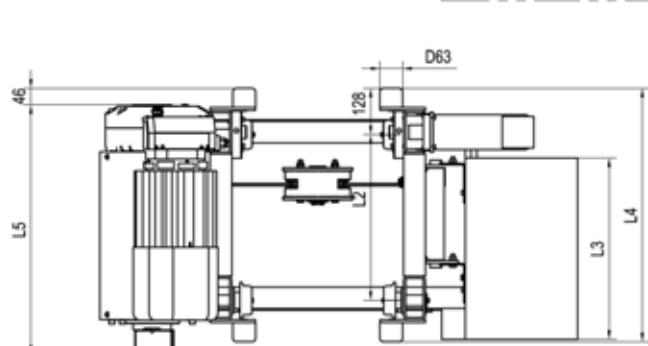
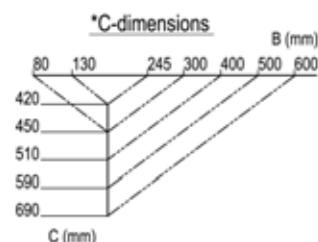
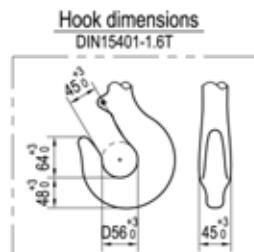
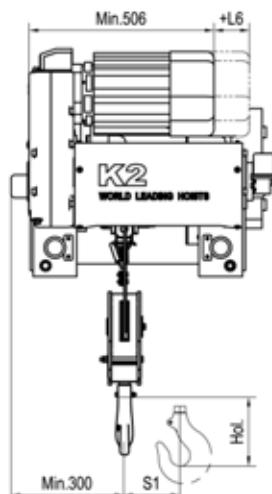
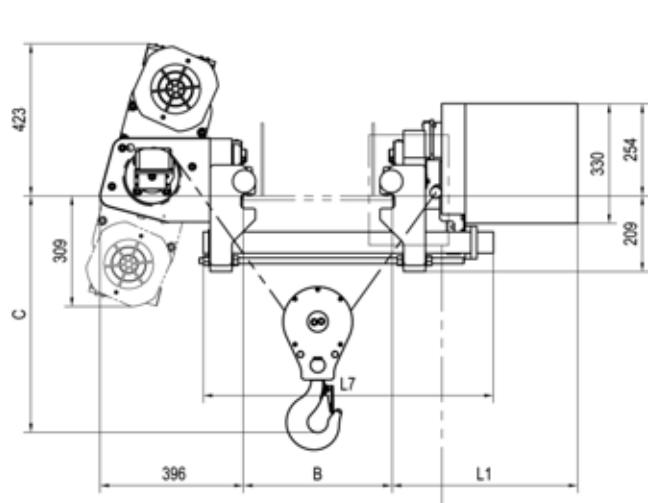
Pos.	Code	Description		Properties																
1	<b>K</b>	Production platform of WORLDHOISTS																		
2	<b>5</b>	Hoist Serial Code			2~6	2~6 as Worldhoists serial code														
3	<b>1</b>	Ropes			1	Number of ropes from drum														
4	<b>04</b>				2															
5	<b>D</b>	Trolley Type			02	Number of rope falls per rope														
6	<b>0200</b>				04															
7	<b>M5</b>	Safe Working Load			06	1) 0032 = 32 × 100kg = 3,200kg			FEM											
8	<b>06</b>				08	2) 0200 = 200 × 100kg = 20,000kg			1Am~4m											
9	<b>D</b>	Lifting Height (m)			A	2.5/0.4			B	3.2/0.5										
10	<b>D05</b>				C	4/0.7			D	5/0.8										
11	<b>B</b>				E	6.3/1.1			F	8/1.3										
12	<b>40</b>				G	10/1.7			H	12.5/2.1										
13	<b>N</b>				J	16/2.7			K	20/3.3										
10	<b>D05</b>	Lifting Motor (kW)	D = Pole change motor		D01	2/0.25	D02	3.7/0.5		D03	5/0.7									
					D04	7.5/1.2	D05	9/1.4		D06	15/2.5									
					D07	18.5/3	D08	23/3.5												
			F = Frequency convertor motor		F11	2.5	F12	3.7		F13	5									
					F14	7.5	F15	9		F16	15									
					F17	18.5	F18	23		F19	28									
					F20	35														
11	<b>B</b>	Travelling Speed (m/min)			B	0~20			C	0~25										
12	<b>40</b>				D	0~32			S	Special speed										
13	<b>N</b>	Special properties			Low Headroom/ Normal Headroom Flange width		40 = 400mm		Double Girder Rail gauge		40 = 4000mm									
14	<b>N</b>				N	Standard hoist without any options														
15	<b>N</b>				F	Options selected from option list														
16	<b>N</b>				S	Special hoist														

## 1.2. Low Headroom Hoist **K2102** (Reeving 1:2)

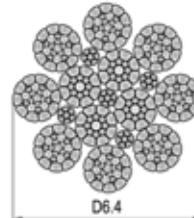
HOL (m)	B	L1	L2	L3	L4	L5	S1	Weight (kg)
12	80~610	512	457	500	699	688	52	238+W0
19		452	652	500	894	883	83	262+W0

motor	D01	F11	D02	F12
L6	0	47	89	136
W0	0	0	11	11

L7(mm)	B(mm)	L7(mm)	B(mm)
600	>100-210	900	>410-510
700	>210-310	1000	>510-610
800	>310-410		



Wire rope cross section  
8x26, Wire Strength 2160 N/mm<sup>2</sup>



Load (kg)	Class FEM/ISO	Hoisting			Travelling	
		Gear Ratio 70			Gear Ratio 6	
		Speed (m/min)	Motor	Speed (m/min)	Motor	Speed / Motor Code (m/min)
1000	3m/M6	10/1.7 2-speed	1x D01	0~10 Stepless	1x F11	0~20 / 1xF01
		1x D02	1x F12	1x F11	0~32 / 1xF02	
1600	2m/M5					

\*C-dimensions should be increased by 200mm for safety;

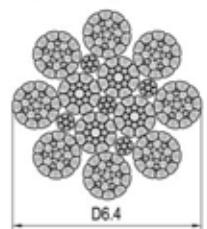
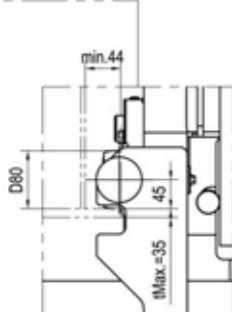
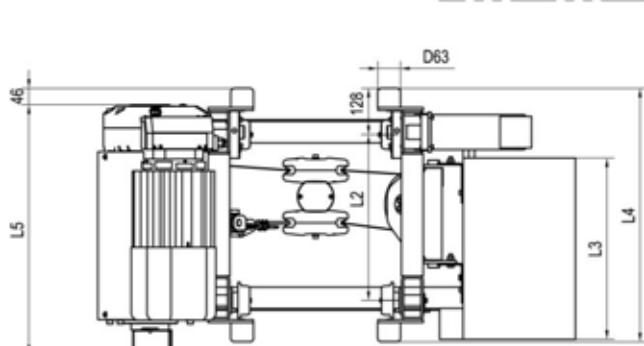
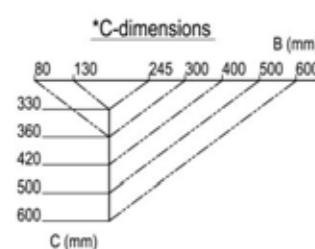
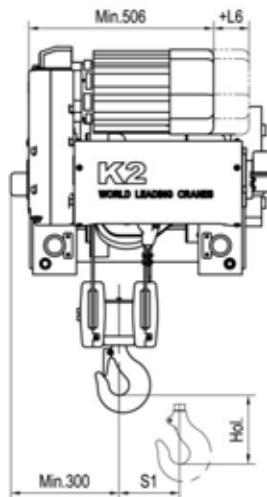
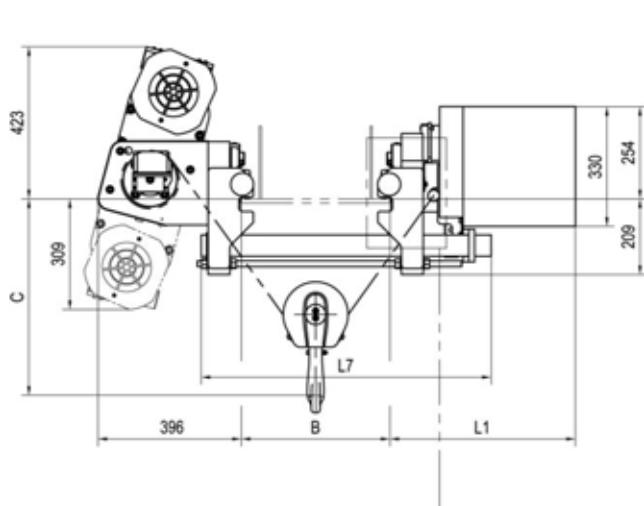
\*Weight calculated with B in 410.

### 1.3. Low Headroom Hoist K2104 (Reeving 1:4)

HOL (m)	B	L1	L2	L3	L4	L5	S1	Weight (kg)
6	80~610	512	457	500	699	688	52	238+W0
9.5		452	652	500	894	883	83	262+W0

motor	D01	F11	D02	F12	D03	F13
L6	0	47	89	136	89	136
W0	0	0	11	11	12	9

L7(mm)	B(mm)	L7(mm)	B(mm)
600	>100-210	900	>410-510
700	>210-310	1000	>510-610
800	>310-410		



Load (kg)	Class FEM/ISO	Hoisting								Travelling	
		Gear Ratio 70				Gear Ratio 56				Gear Ratio 47	
		5/0.8 2-speed	1x D01	0~5 Stepless	1x F11	6.3/1.1 2-speed	1xD02	0~6.3 Stepless	1xF12	8/1.3 2-speed	1xF03
1600	3m/M6										
2000	3m/M6		1x D02								
2500	3m/M6			1x F12							
3200	2m/M5				1x F11						

\*C-dimensions should be increased by 200mm for safety;

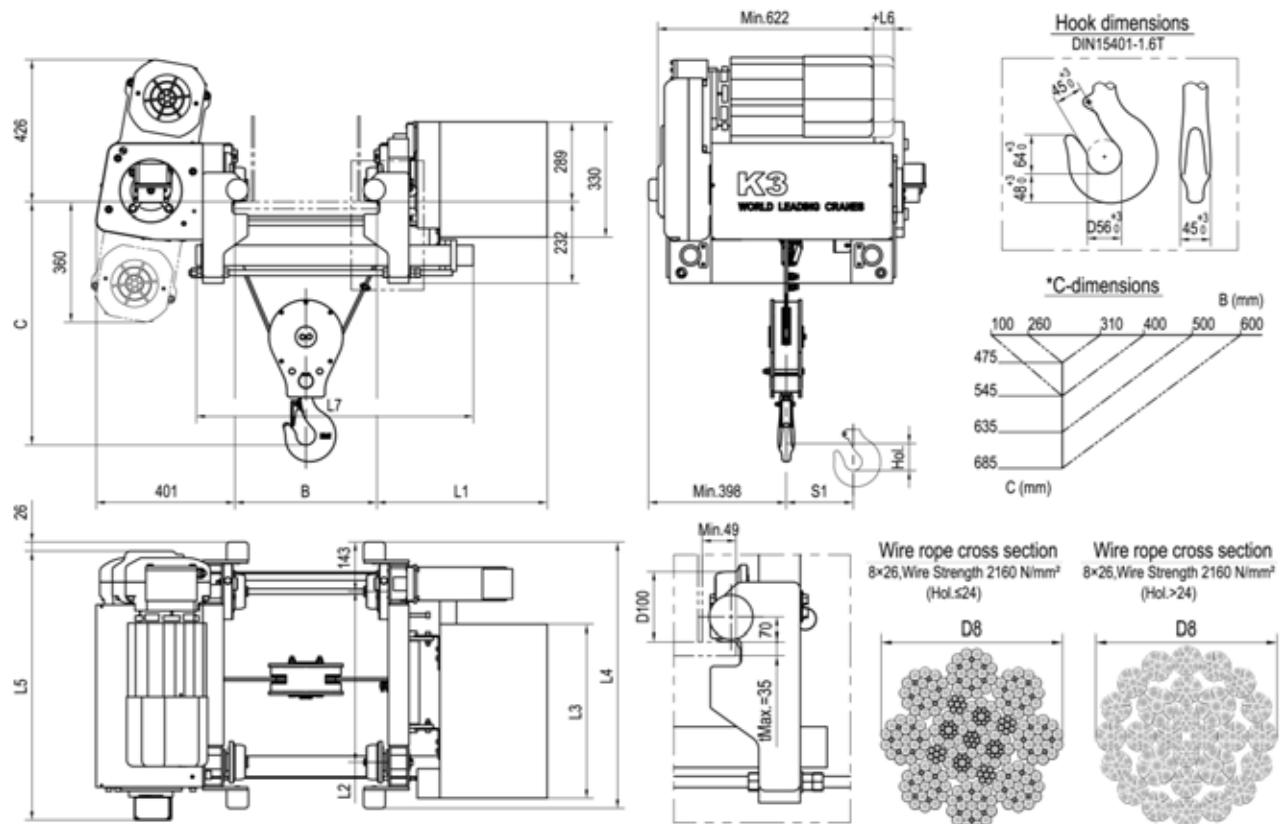
\*Weight calculated with B in 410.

## 1.4. Low Headroom Hoist K3102 (Reeving 1:2)

HOL (m)	B	L1	L2	L3	L4	L5	S1	Weight (kg)
12	100~610	492	490	500	766	774	52	349+W0
18		432	640	500	916	924	83	364+W0
24		432	810	500	1086	1094	108	387+W0
30		482	970	500	1246	1254	125	416+W0

motor	D03	F13	motor	D03	F13
L6	0	47	W0	0	-3

L7(mm)	B(mm)	L7(mm)	B(mm)
600	>100-210	900	>410-510
700	>210-310	1000	>510-610
800	>310-410		



Load (kg)	Class FEM/ISO	Hoisting						Travelling	
		Gear Ratio 109		Gear Ratio 90		Gear Ratio 59		Gear Ratio 6	
1600	3m/M6	8/1.3 2-speed	1xD03	0~8 Stepless	1xF13	10/1.7 2-speed	1xD03	0~10 Stepless	1xF13
		16/2.7 2-speed	1xD04	0~16 Stepless	N/A	16/2.7 2-speed	1xF14	0~20 / 1xF02	0~32 / 1xF02
2000	3m/M6								
2500	2m/M5								
3200	1Am/M4								

\*C-dimensions should be increased by 200mm for safety;

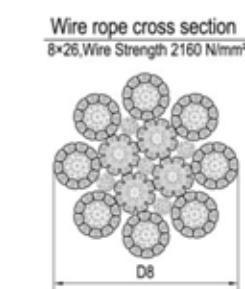
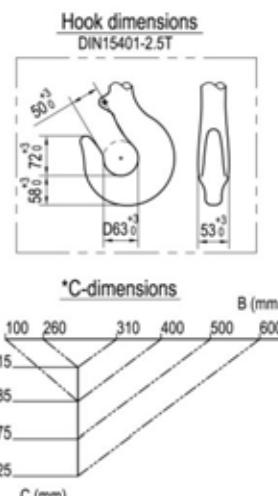
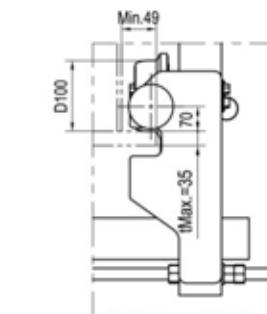
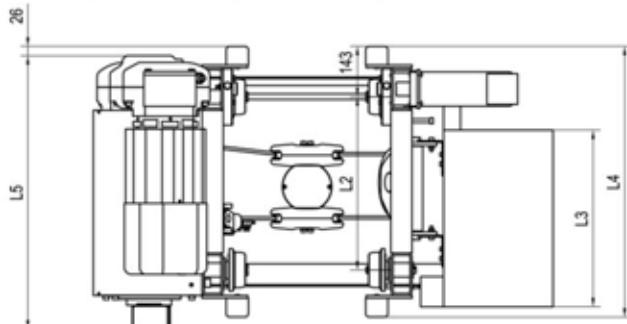
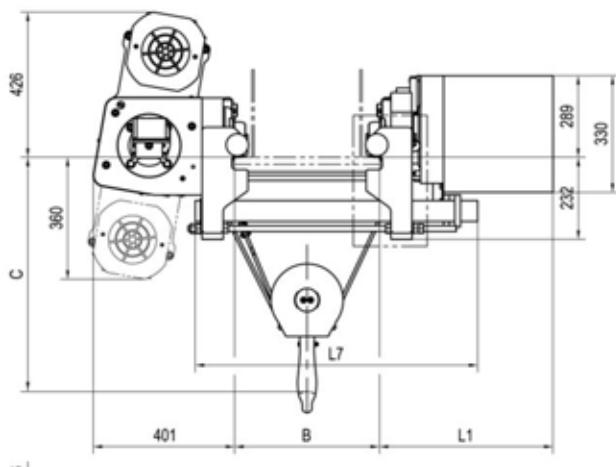
\*Weight calculated with B in 410.

## 1.5. Low Headroom Hoist K3104 (Reeving 1:4)

HOL (m)	B	L1	L2	L3	L4	L5	S1	Weight (kg)
6	100~610	492	490	500	766	774	52	349+W0
9		432	640	500	916	924	83	364+W0
12		432	810	500	1086	1094	108	387+W0
15		482	970	500	1246	1254	125	416+W0

motor	D03	F13	D04	F14
L6	0	47	71	118
W0	0	-3	17	12

L7(mm)	B(mm)	L7(mm)	B(mm)
600	>100-210	900	>410-510
700	>210-310	1000	>510-610
800	>310-410		



Load (kg)	Class FEM/ISO	Hoisting								Travelling	
		Gear Ratio 109		Gear Ratio 90		Gear Ratio 59		Gear Ratio 6		Speed / Motor Code (m/min)	
Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed / Motor Code (m/min)	
4/0.7 2-speed	1xD03	0~4 Stepless	1xF13	5/0.8 2-speed	1xD03	0~5 Stepless	1xF13	8/1.3 2-speed	1xD04	0~8 Stepless	1xF14
3200	3m/M6										0~20 / 1xF02
4000	3m/M6										0~32 / 1xF02
5000	2m/M5										

\*C-dimensions should be increased by 200mm for safety;

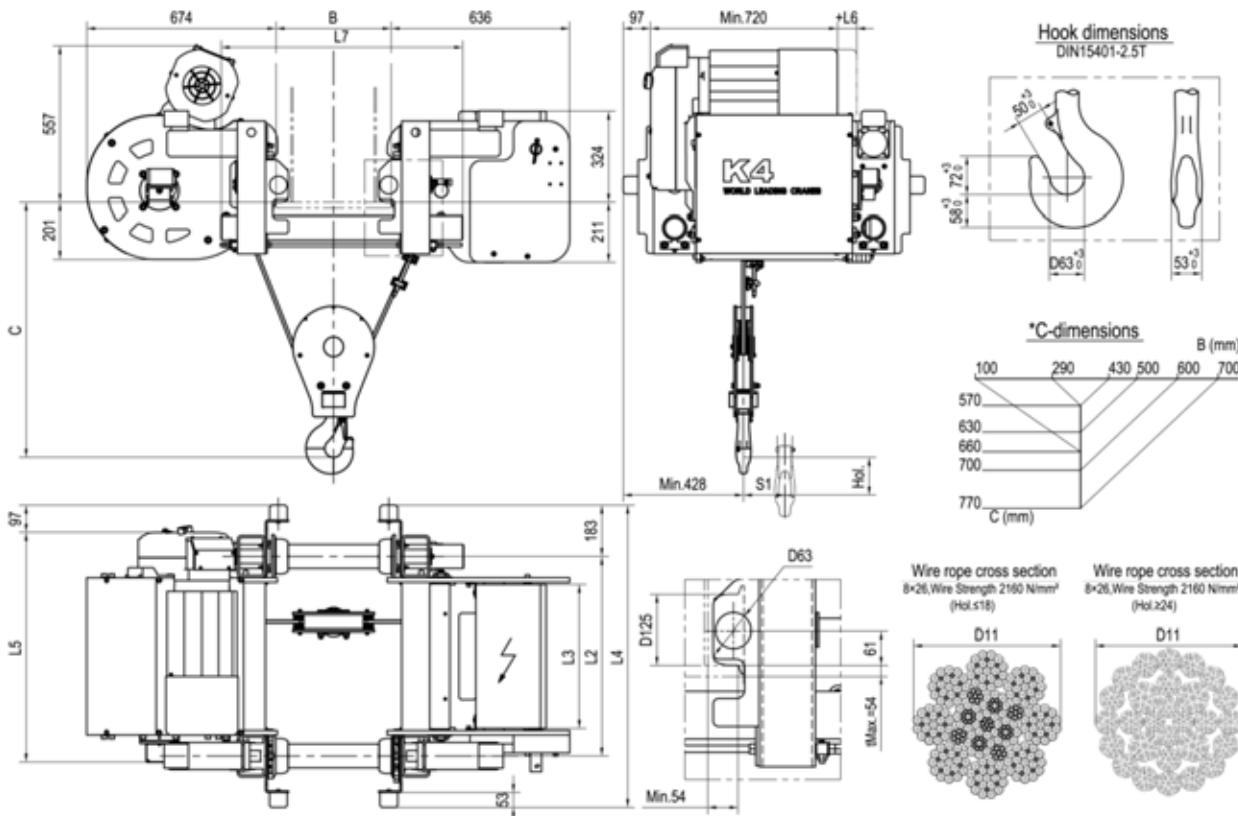
\*Weight calculated with B in 410.

## 1.6. Low Headroom Hoist K4102 (Reeving 1:2)

HOL (m)	B	L2	L3	L4	L5	S1	Weight (kg)
18	100~710	708	510	1074	817	90	686+W0
24		838	650	1204	947	120	774+W0
32		1008	820	1374	1117	170	854+W0

motor	D05	F15	D06	F16
L6	0	12	-12	85
W0	0	-4	33	22

L7(mm)	B(mm)	L7(mm)	B(mm)
660	>100-210	960	>410-510
760	>210-310	1060	>510-610
860	>310-410	1160	>610-710



Load (kg)	Class FEM/ISO	Hoisting										Travelling		
		Gear ratio 229			Gear ratio 185			Gear ratio 114			Gear ratio 90			Gear Ratio 6
		Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed / Motor Code (m/min)
3200	3m/M6	8/1.3 2-speed	1xD05	0~8 Stepless	1xF15	10/1.7 2-speed	1xD05	0~10 Stepless	1xF15	16/2.7 2-speed	1xD06	0~16 Stepless	1xF16	20/3.3 2-speed
4000	3m/M6												1xD07	0~20 Stepless
5000	2m/M5												1xF17	0~32 / 2xF01

\*C-dimensions should be increased by 200mm for safety;

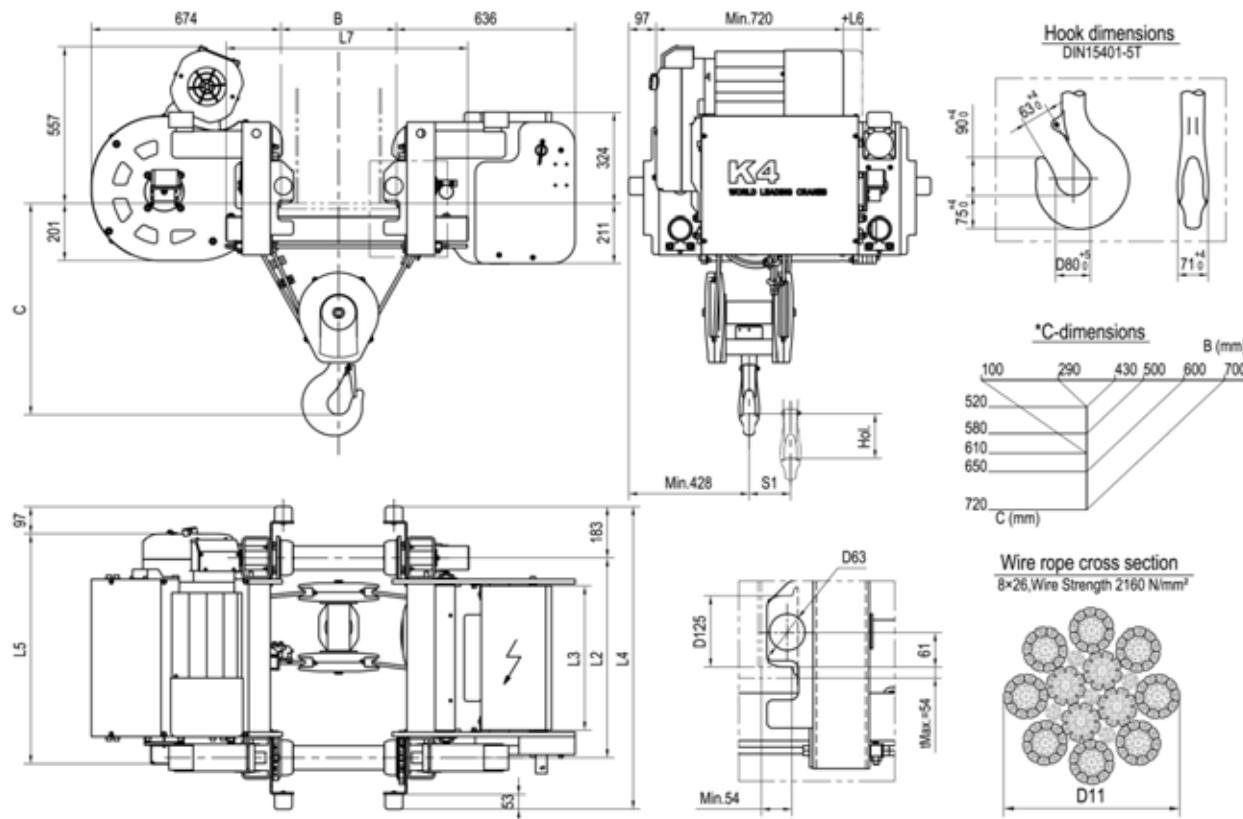
\*Weight calculated with B in 410.

## 1.7. Low Headroom Hoist K4104 (Reeving 1:4)

HOL (m)	B	L2	L3	L4	L5	S1	Weight (kg)
9	100~710	708	510	1074	817	90	686+W0
12		838	650	1204	947	120	774+W0
16		1008	820	1374	1117	170	854+W0

motor	D05	F15	D06	F16
L6	0	12	-12	85
W0	0	-4	33	22

L7(mm)	B(mm)	L7(mm)	B(mm)
660	>100-210	960	>410-510
760	>210-310	1060	>510-610
860	>310-410	1160	>610-710



Load (kg)	Class FEM/ISO	Hoisting								Travelling		
		Gear ratio 229		Gear ratio 185		Gear ratio 114		Gear ratio 90		Gear Ratio 6		
5000	3m/M6	4/0.7 2-speed	Speed (m/min) Motor	0~4 Stepless	Speed (m/min) Motor	8/1.3 2-speed	Speed (m/min) Motor	0~8 Stepless	Speed (m/min) Motor	10/1.7 2-speed	Speed (m/min) Motor	
6300	3m/M6		1xD05		1xF15		1xD05	1xF15	1xF16	1xD07	0~10 Stepless	Speed (m/min) Motor
8000	3m/M6		0~4 Stepless		1xF15		0~5 Stepless	1xF15	1xF16	1xF07	0~20 / 2xF02	Speed / Motor Code (m/min)
10000	2m/M5		5/0.8 2-speed				10/1.7 2-speed	1xF17			0~32 / 2xF02	

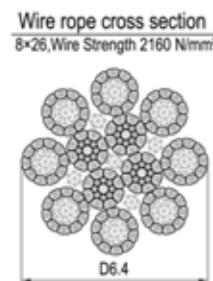
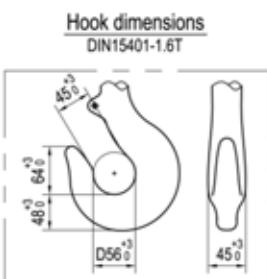
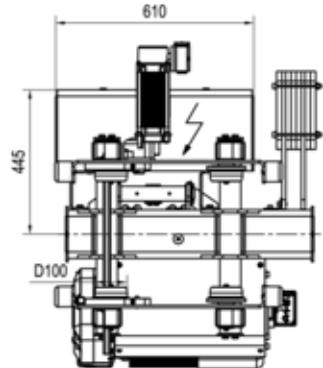
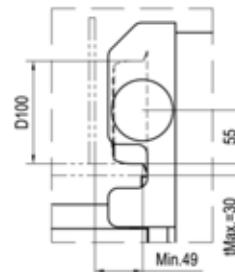
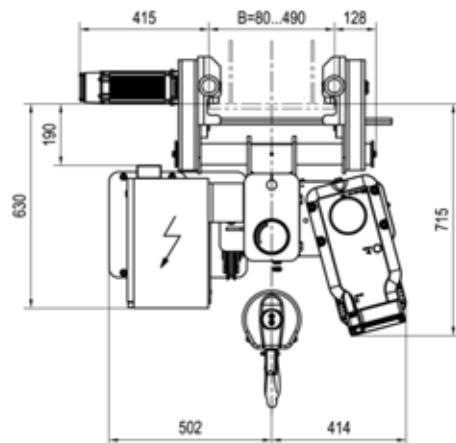
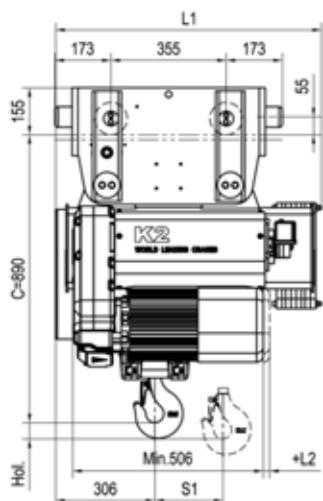
\*C-dimensions should be increased by 200mm for safety;

\*Weight calculated with B in 410.

## 1.8. Normal Headroom Hoist K2104 (Reeving 1:4)

HOL (m)	L1	S1	Weight (kg)
6	819	52	405+W0
9.5	885	83	435+W0

motor	D01	F11	D02	F12	D03	F13
L2	0	47	89	136	89	136
W0	0	0	11	11	12	9



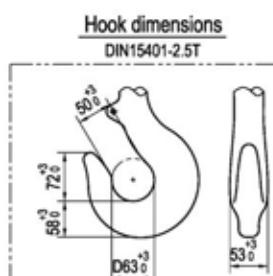
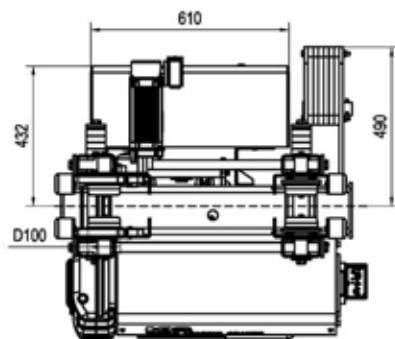
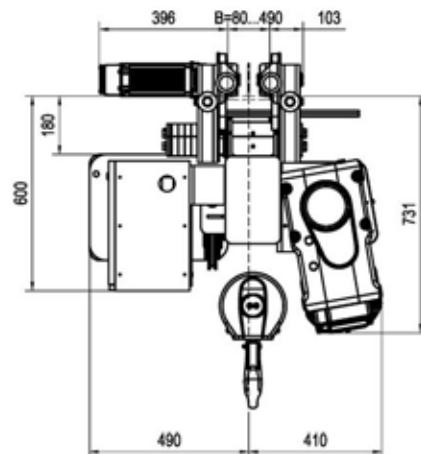
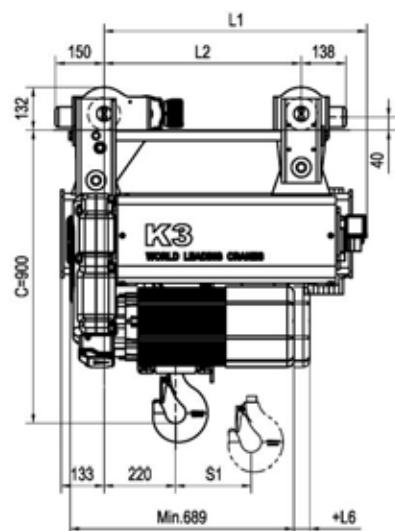
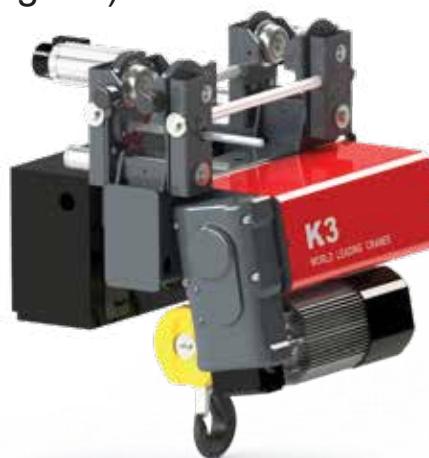
Load (kg)	Class FEM/ISO	Hoisting										Travelling	
		Gear Ratio 70				Gear Ratio 56				Gear Ratio 47			
		Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed / Motor Code (m/min)	
1600	3m/M6	5/0.8 2-speed	1xF01	0~5 Stepless	1xF11	6.3/1.1 2-speed	1xD02	0~6.3 Stepless	1xF12	8/1.3 2-speed	1xD03	0~8 Stepless	1xF13
2000	3m/M6		1xD02		1xF12		1xF02		1xF13		1xF02		
2500	3m/M6												
3200	2m/M5												

## 1.9. Normal Headroom Hoist

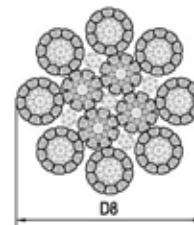
K3104 (Reeving 1:4)

HOL (m)	L1	L2	S1	Weight (kg)
6	659	477	52	500+W0
9	809	607	83	515+W0
12	979	607	108	555+W0
15	1139	807	140	595+W0

motor	D03	F13	D04	F14
L6	0	47	71	118
W0	0	-3	17	12



Wire rope cross section  
8x26, Wire Strength 2160 N/mm<sup>2</sup>

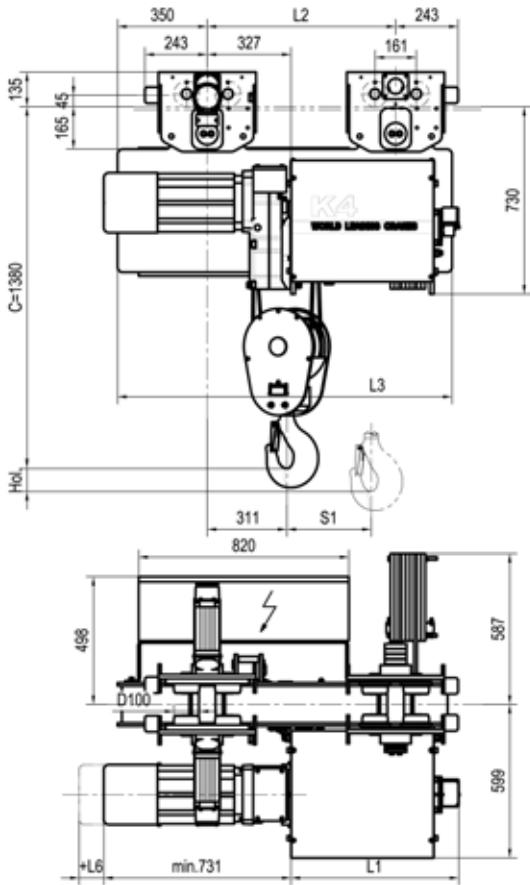


Load (kg)	Class FEM/ISO	Hoisting						Travelling	
		Gear Ratio 109		Gear Ratio 90		Gear Ratio 59		Gear Ratio 6	
Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed / Motor Code (m/min)	
3200	3m/M6	4/0.7 2-speed	1xD03	0~4 Stepless	1xF13	5/0.8 2-speed	1xF13	0~5 Stepless	8/1.3 2-speed
4000	3m/M6								1xD04
5000	2m/M5								1xF14

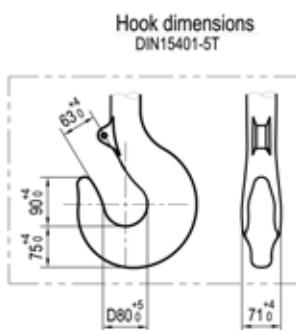
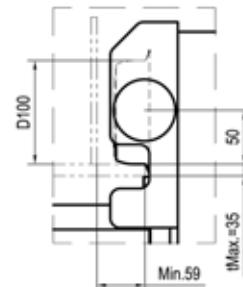
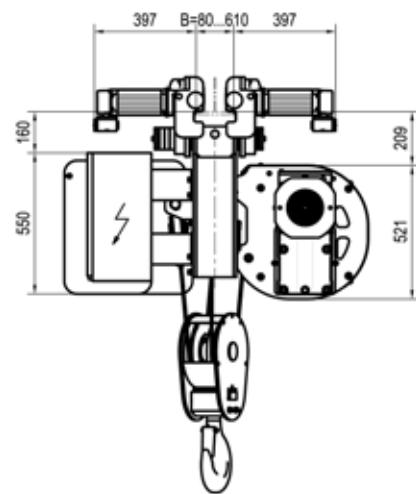
## 1.10. Normal Headroom Hoist

HOL (m)	L1	L2	L3	S1	Weight (kg)
9	654	735	1305	90	1022+W0
12	784	865	1435	120	1065+W0
16	954	915	1605	170	1099+W0
20	1114	915	1775	220	1140+W0
26	1384	1050	1910	280	1265+W0

motor	D05	F15	D06	F16
L6	0	12	-12	85
W0	0	-4	33	22

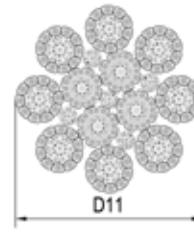


K4104 (Reeving 1:4)



Hook dimensions  
DIN15401-5T

Wire rope cross section  
8x26, Wire Strength 2160 N/mm<sup>2</sup>



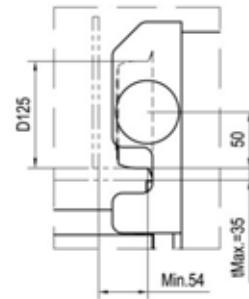
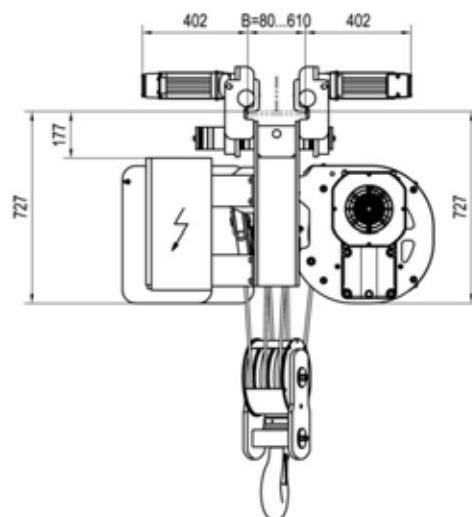
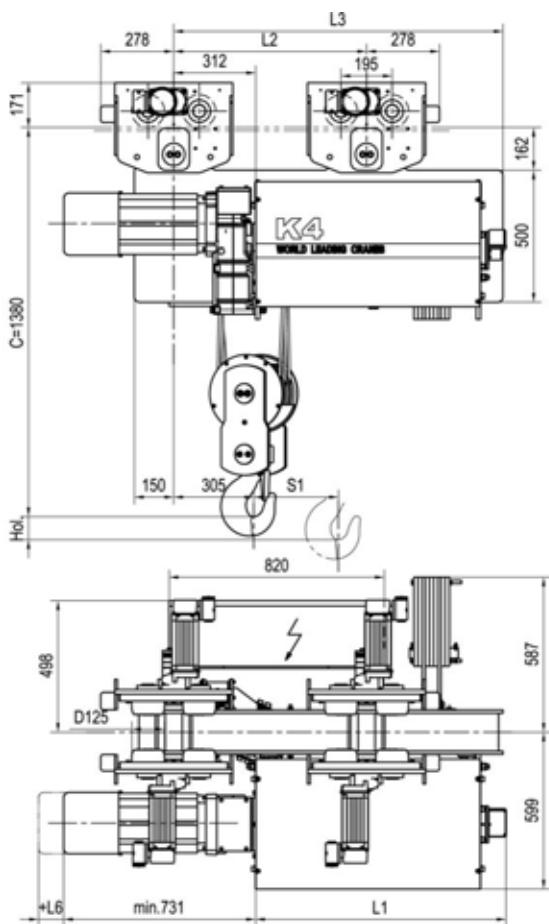
Load (kg)	Class FEM/ISO	Hoisting								Travelling	
		Gear ratio 229			Gear ratio 185			Gear ratio 114		Gear ratio 90	
		Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor
5000	3m/M6	4/0.7 2-speed	1xD05	0~4 Stepless	1xF15	5/0.8 2-speed	1xD05	0~5 Stepless	1xF15	8/1.3 2-speed	1xD06
6300	3m/M6										0~8 Stepless
8000	3m/M6										10/1.7 2-speed
10000	2m/M5										1xD07

## 1.11. Normal Headroom Hoist

**K4106 (Reeving 1:6)**

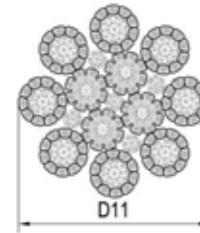
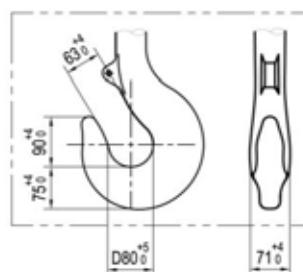
HOL (m)	L1	L2	L3	S1	Weight (kg)
6	654	735	955	99	1037+W0
8	784	865	1085	115	1080+W0
10	954	915	1255	131	1114+W0
13	1114	915	1425	169	1155+W0
17	1384	1050	1560	219	1226+W0

motor	D05	F15	D06	F16	D07	F17
L6	0	12	-12	85	75	85
W0	0	-4	33	22	55	39



Hook dimensions  
DIN15401-5V

Wire rope cross section  
8x26, Wire Strength 2160 N/mm<sup>2</sup>

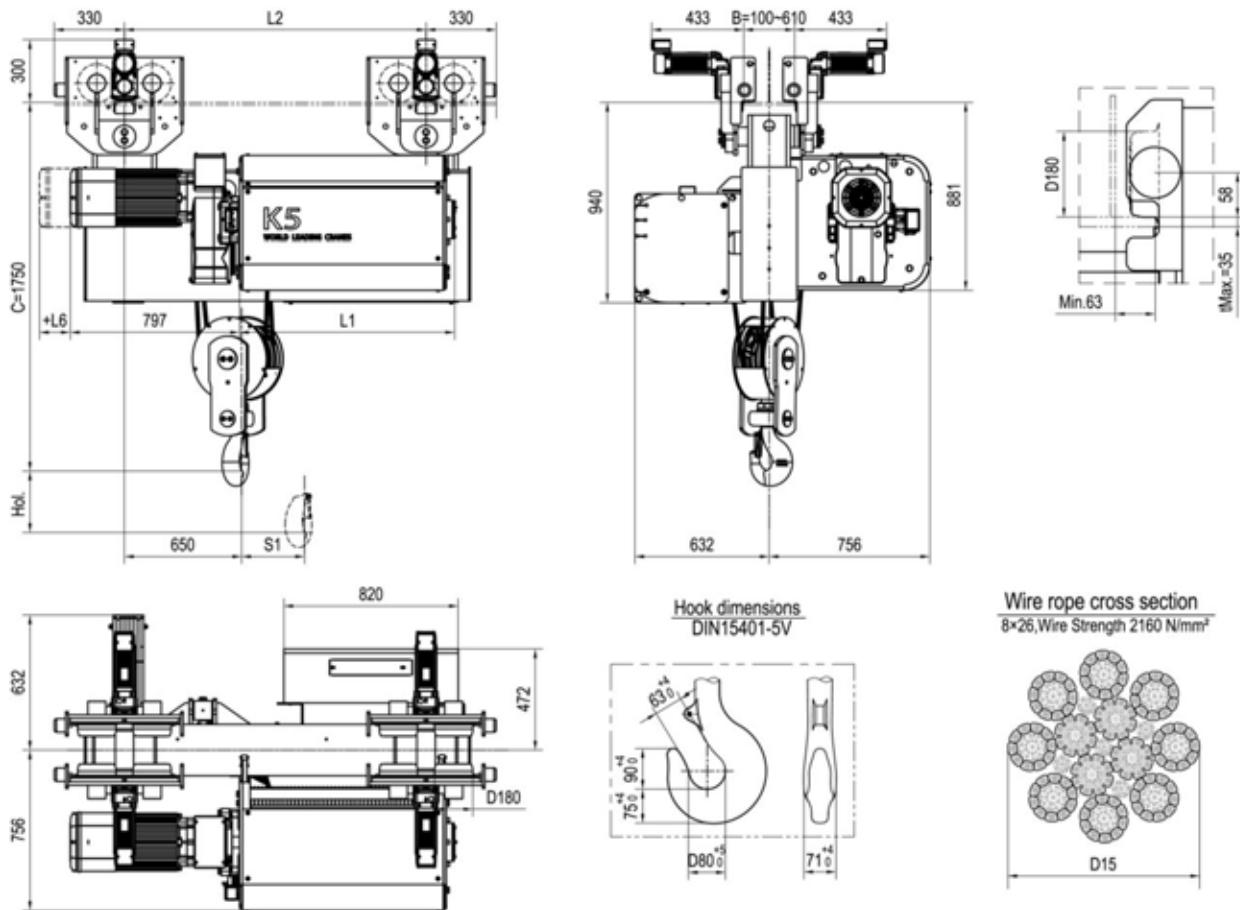


Load (kg)	Class FEM/ISO	Hoisting (m/min)								Travelling	
		Gear ratio 186		Gear ratio 115		Gear ratio 90		Gear ratio 42			
		Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed / Motor Code (m/min)	
12000	3m/M6	3.2/0.5 2-speed	1xD05	0~3.2 Stepless	1xF15	5/0.8 2-speed	1xD06	6.3/1.1 2-speed	1xF16	0~5 Stepless	1xD07
15000	2m/M5									0~6.3 Stepless	1xF17
											0~20 /4xF01

## 1.12. Normal Headroom Hoist K5104 (Reeving 1:4)

Hol (m)	L1	L2	S1	Weight (kg)
7.5	565	1200	72	1520+W0
9	615	1200	86	1536+W0
10.5	685	1200	99	1560+W0
12	765	1200	115	1610+W0
14	815	1419	131	1640+W0
18	1015	1419	169	1740+W0
23.5	1215	1419	221	1950+W0
30.5	1515	1450	287	2100+W0
40	1915	1450	378	2400+W0
48.5	2265	1450	456	2750+W0

motor	D06	F16	D07	F17	D08	F18
L6	0	97	87	97	87	137
W0	0	-11	22	6	22	10

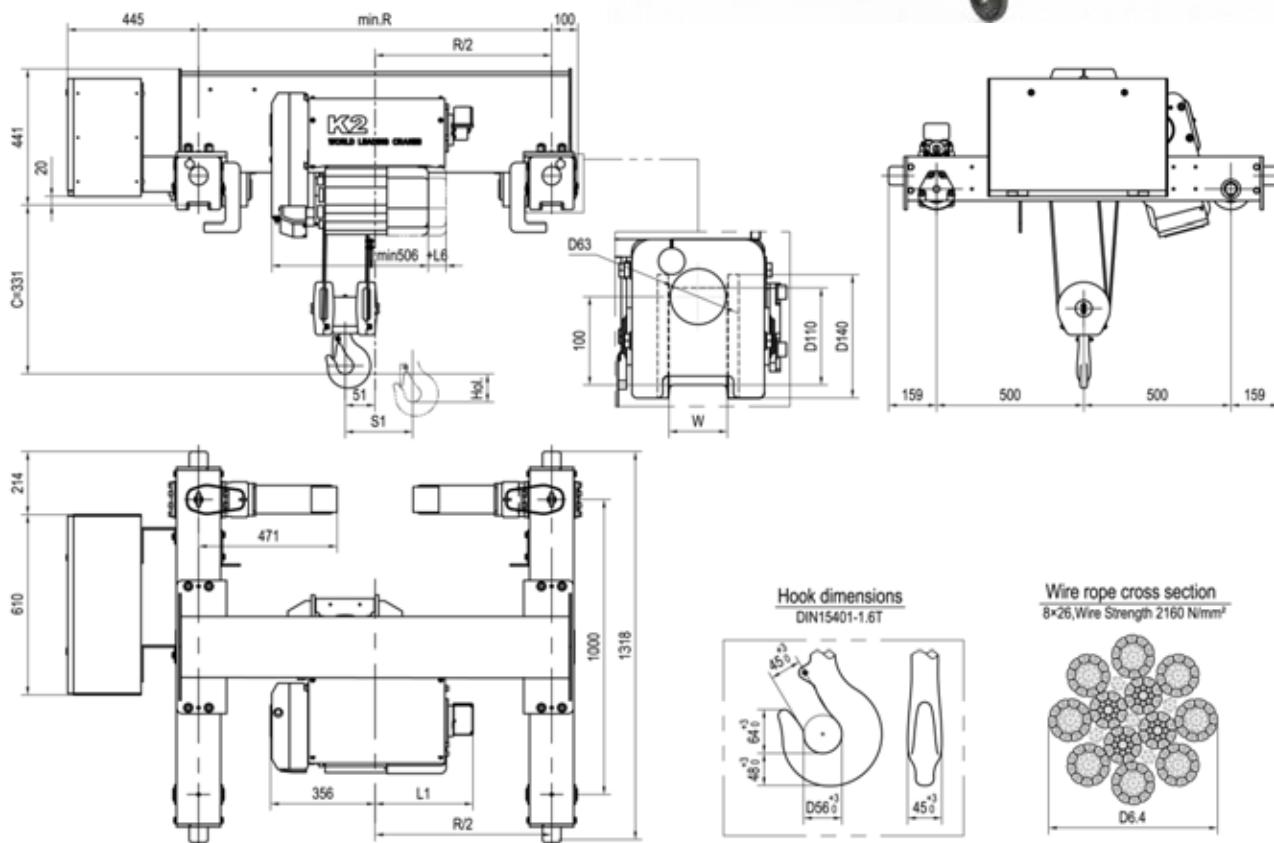


Load (kg)	Class FEM/ ISO	Hoisting										Travelling	
		Gear ratio 289				Gear ratio 243				Gear ratio 191		Gear ratio 144	
		Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor	Speed (m/min)	Motor
12500	3m/M6	4/0.7 2-speed	1xD06	0~4 Stepless	1xF16	5/0.8 2-speed	1xD07	1xD06	6.3/1.1 2-speed	1xF16	0~6 Stepless	1xD07	1xF17
16000	2m/M5												
20000	1Am/M4												
		0~8 Stepless	1xF18	1xF17	0~10 Stepless	1xF18	1xF19	N/A	0~20 / 4xF02	0~32 / 4xF02			

## 1.13. Double Girder Hoist K2104 (Reeving 1:4)

Hol (m)	L1	S1	W	R	Weight (kg)
6	332	52	Default:75	1200	413+W0
9.5	527	83		1400	452+W0

motor	D01	F11	D02	F12	D03	F13
L6	0	47	89	136	89	136
W0	0	0	11	11	12	9

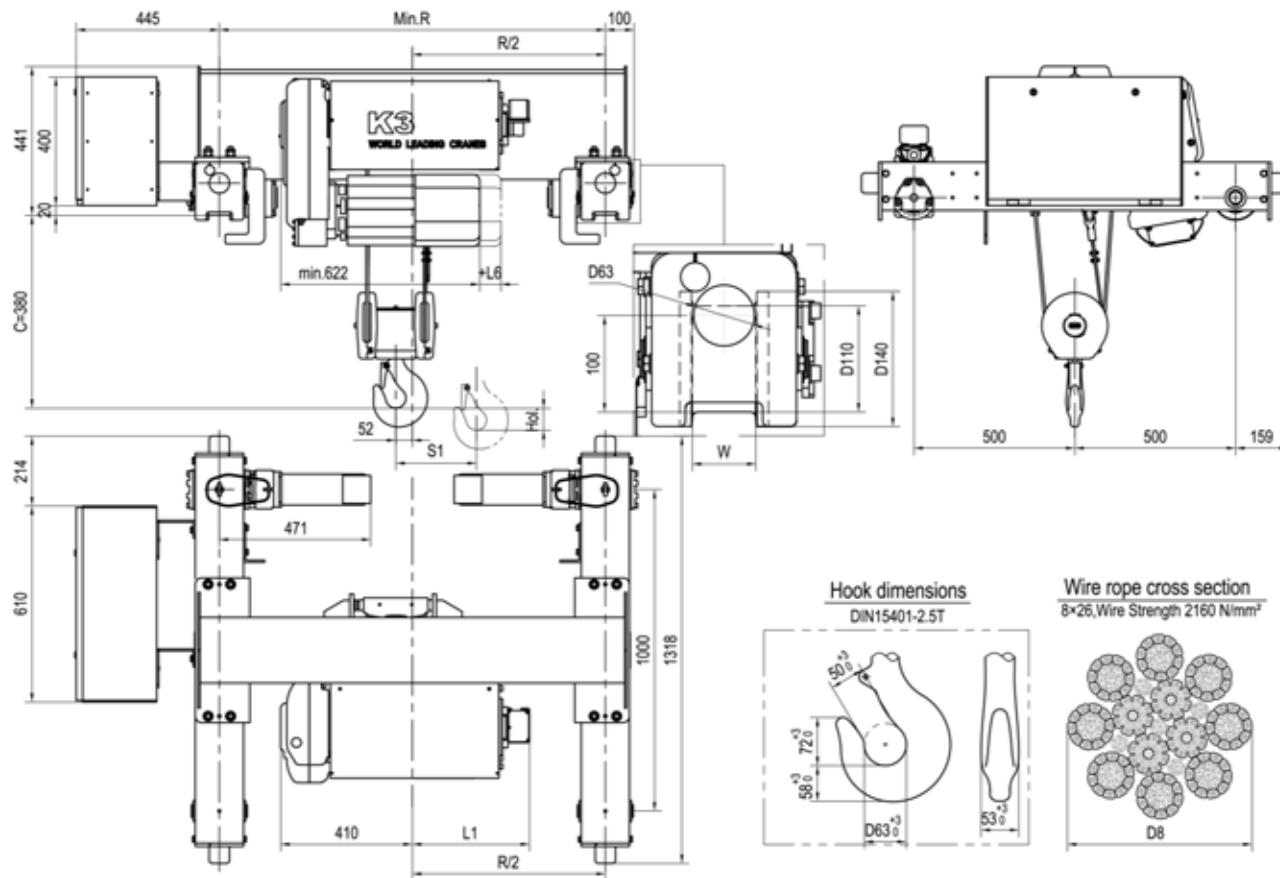


Load (kg)	Class FEM/ISO	Hoisting (m/min)								Travelling (m/min)	
		Gear Ratio 70		Gear ratio 56		Gear Ratio 47		Gear ratio 42	Gear ratio 32		
		Speed	Motor	Speed	Motor	Speed	Motor	Speed/Motor Code			
1600	3m/M6	5/0.8 2-speed	1xD02	1xD01	0~5 Stepless	1xF11	1xD02	1xF12	1xF12	8/1.3 2-speed	1xD03
2000	3m/M6		1xD02	1xD01				1xF12	1xF12	0~8 Stepless	1xF13
2500	3m/M6		1xF12	1xF11	6.3/1.1 2-speed	1xF12	1xD02	1xF12	1xF12	0~25/ 2xF01	0~32/ 2xF01
3200	2m/M5		1xF12	1xF11				1xF12	1xF12		

## 1.14. Double Girder Hoist K3104 (Reeving 1:4)

Hol (m)	L1	S1	W	R	Weight (kg)
6	364	52	Default:75	1200	474+W0
9	514	83		1200	488+W0
12	684	108		1700	537+W0
15	844	140		1700	552+W0

motor	D03	F13	D04	F14
L6	0	47	71	118
W0	0	-3	17	12

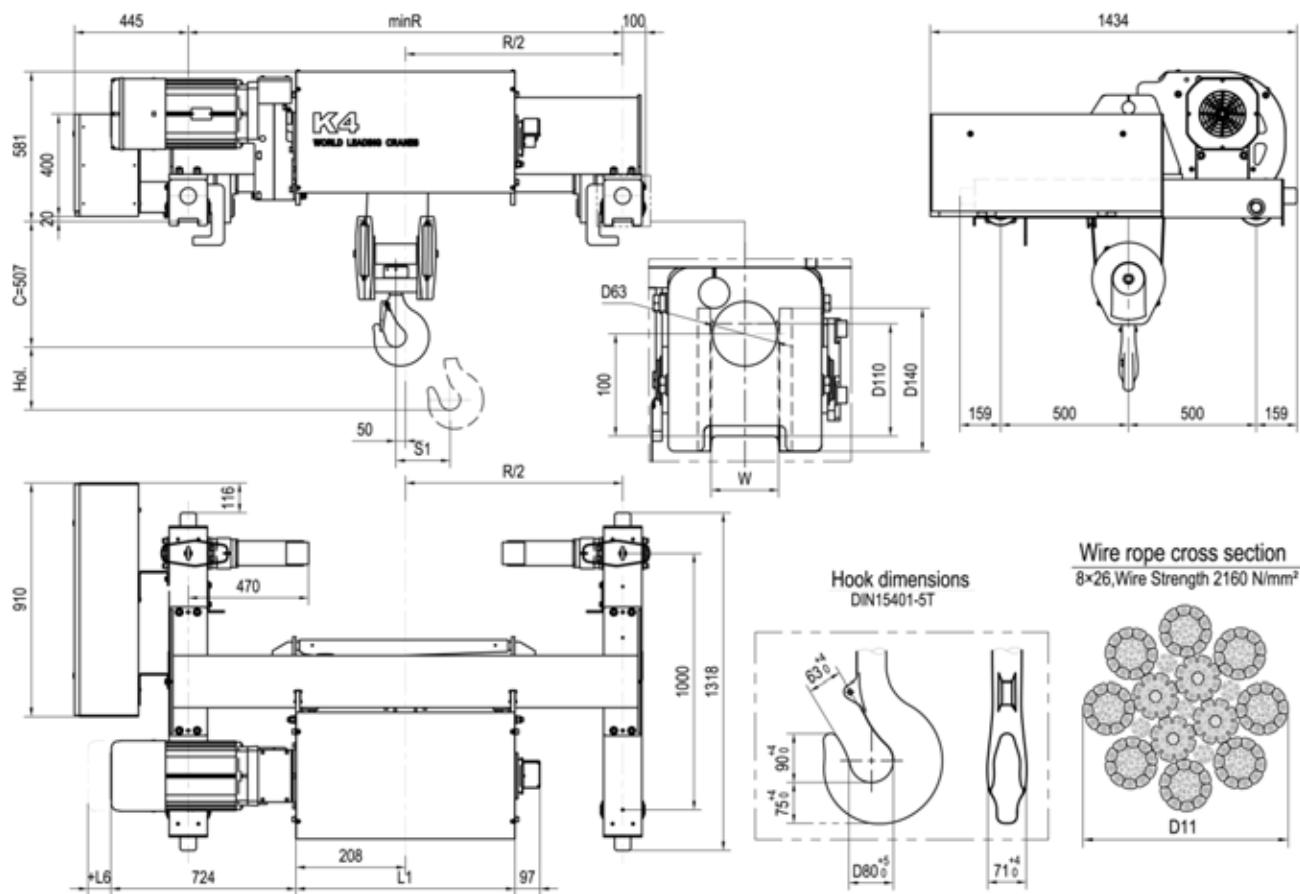


Load (kg)	Class FEM/ISO	Hoisting (m/min)								Travelling (m/min)	
		Gear ratio 109			Gear ratio 90			Gear ratio 59		Gear ratio 42	Gear ratio 32
		Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed/Motor Code	
4000	3m/M6	4/0.7 2-speed	1xD03	0~4 Stepless	1xF13	5/0.8 2-speed	1xD03	0~5 Stepless	1xF13	8/1.3 2-speed	1xD04
5000	2m/M5									0~8 Stepless	1xF14
6300	1Am/M4										

## 1.15. Double Girder Hoist K4104 (Reeving 1:4)

Hol (m)	L1	S1	W	R	Weight (kg)
9	654	55	Default:75	1200	744+W0
12	784	80		1400	802+W0
16	954	100		1700	860+W0
20	1114	135		2000	916+W0
26	1384	185		2700	988+W0

motor	D05	F15	D06	F16	D07	F17
L6	0	12	-12	85	75	85
W0	0	-4	33	22	55	39

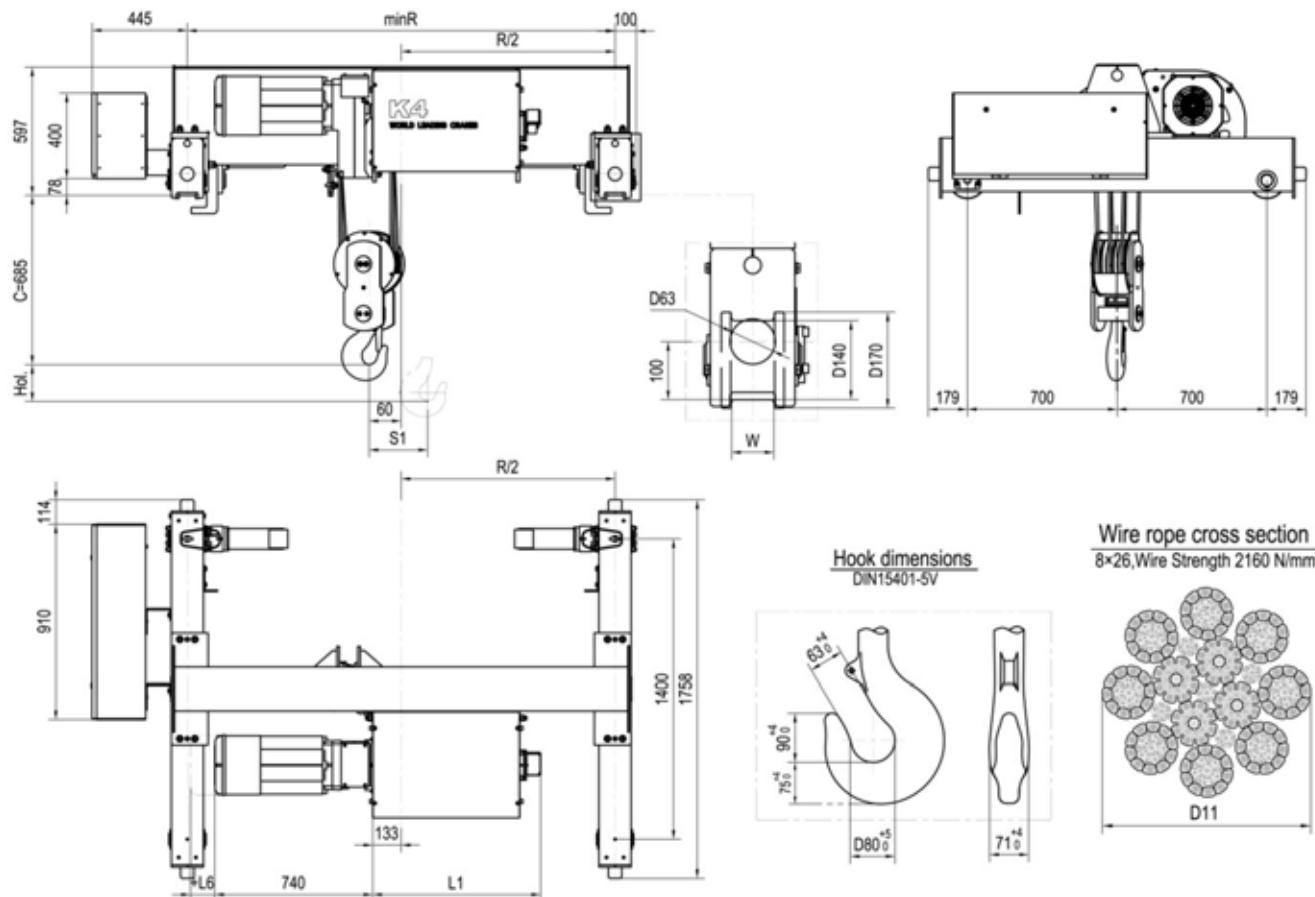


Load (kg)	Class FEM/ISO	Hoisting (m/min)												Travelling (m/min)								
		Gear ratio 229				Gear ratio 185			Gear ratio 114			Gear ratio 92			Gear ratio 42	Gear ratio 32						
		Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor							
5000	3m/M6	4/0.7 2-speed	1xD05	0~4	Stepless	1xF15	5/0.8 2-speed	1xD05	0~5	Stepless	1xF15	8/1.3 2-speed	1xD06	0~8	Stepless	1xF16	10/1.7 2-speed	1xD07	0~10	Stepless	1xF17	Speed/Motor Code
6300	3m/M6																	0~25 / 2xF02	0~32 / 2xF02			
8000	3m/M6																					
10000	2m/M5																					
12500	1Am/M4											N/A										

## 1.16. Double Girder Hoist K4106 (Reeving 1:6)

Hol (m)	L1	S1	W	R	Weight (kg)
6	654	99	Default:75	1700	1000+W0
8	784	115		2000	1063+W0
10	954	131		2400	1148+W0
13	1114	169		2700	1218+W0
17	1384	219		3100	1293+W0

motor	D05	F15	D06	F16	D07	F17
L6	0	12	-12	85	75	85
W0	0	-4	33	22	55	39

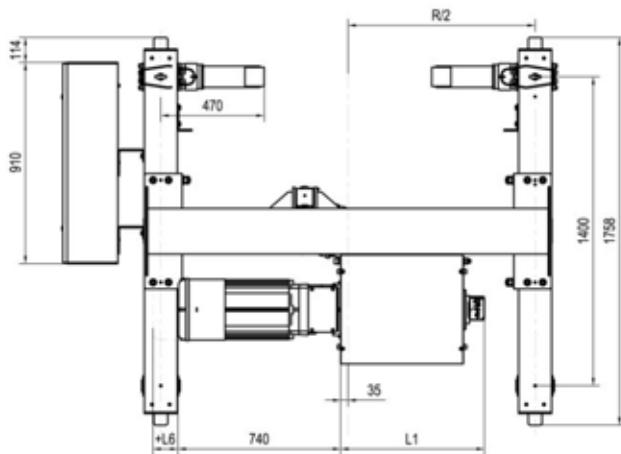
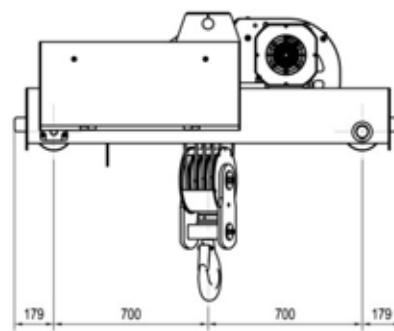
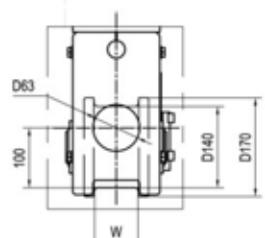
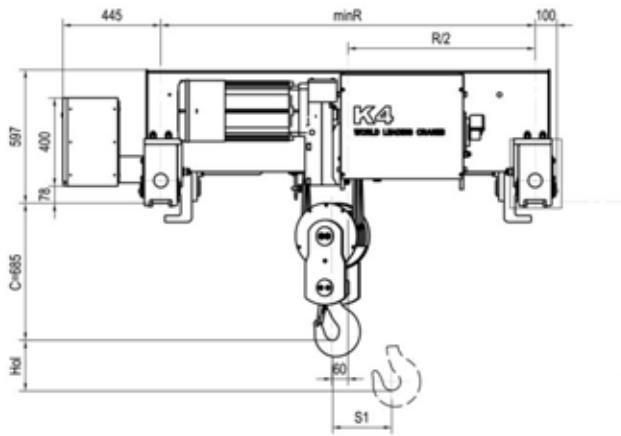


Load (kg)	Class FEM/ISO	Hoisting (m/min)								Travelling (m/min)	
		Gear ratio 186		Gear ratio 115		Gear ratio 90		Gear ratio 42		Speed/Motor Code	
		Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor		
12000	3m/M6	3/20/0.5 2-speed	1xD05	0~3.2 Stepless	1xF15	5/0.8 2-speed	1xD06	0~5 Stepless	1xF16	6.3/1.1 2-speed	1xD07
15000	2m/M5	3/20/0.5 2-speed	1xF02	0~3.2 Stepless	1xF02	5/0.8 2-speed	1xF02	0~5 Stepless	1xF17	0~20 /2xF02	

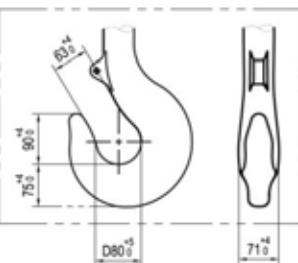
## 1.17. Double Girder Hoist K4108 (Reeving 1:8)

Hol (m)	L1	S1	W	R	Weight (kg)
4.5	654	99	Default:75	1700	1055+W0
6	784	115		2000	1068+W0
8	954	131		2400	1153+W0
10	1114	169		2400	1187+W0
13	1384	265		3100	1298+W0

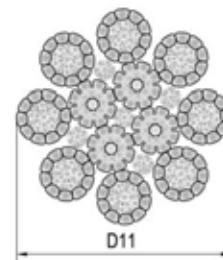
motor	D05	F15	D06	F16	D07	F17
L6	0	12	-12	85	75	85
W0	0	-4	33	22	55	39



Hook dimensions  
DIN15401-5V



Wire rope cross section  
8x26, Wire Strength 2160 N/mm<sup>2</sup>



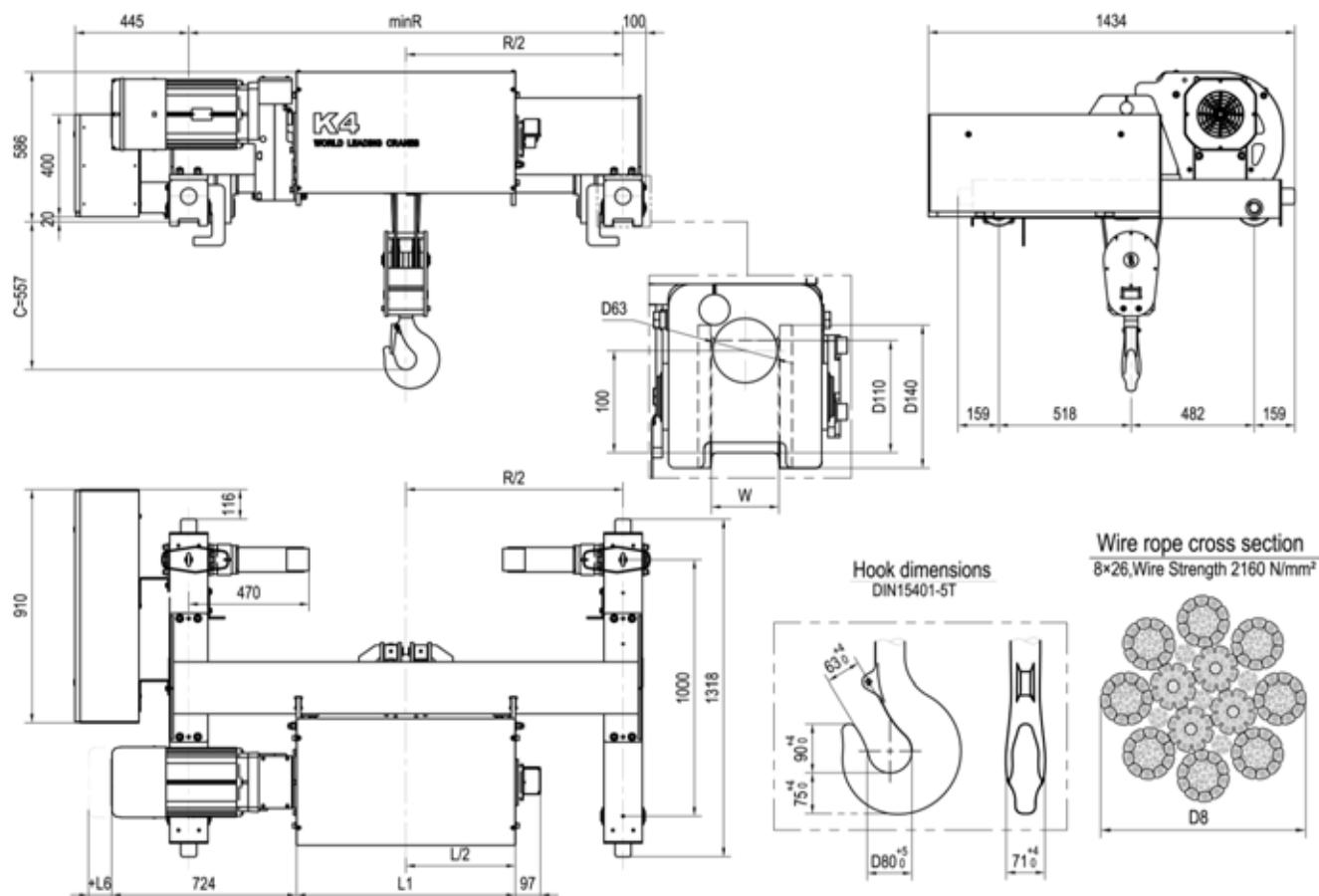
Load (kg)	Class FEM/ISO	Hoisting (m/min)								Travelling (m/min)			
		Gear ratio 186				Gear ratio 115		Gear ratio 90		Gear ratio 42	Gear* ratio 63		
		Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed/Motor Code			
16000	2m/M5	2.5/0.4 2-speed	1xD05	0~2.5 Stepless	1xF15	4/0.7 2-speed	1xD06	0~4 Stepless	1xF16	5/0.8 2-speed	1xD07		
20000	1Am/M4									0~5 Stepless	1xF17	0~20 /2xF02	0~32 /2xF03

\*Travelling speed 0~32 should be equipped with the wheel of 200mm;

## 1.18. Double Girder Hoist K4202 (Reeving 2:2)

Hol (m)	L1	W	R	Weight (kg)
9	654	Default:75	1400	698+W0
13.5	784		1700	746+W0
19.5	954		1700	780+W0
25	1114		2000	834+W0
34.5	1384		2400	887+W0
46.5	1734		2700	986+W0

motor	D05	F15	D06	F16	D07	F17
L6	0	12	-12	85	75	85
W0	0	-4	33	22	55	39

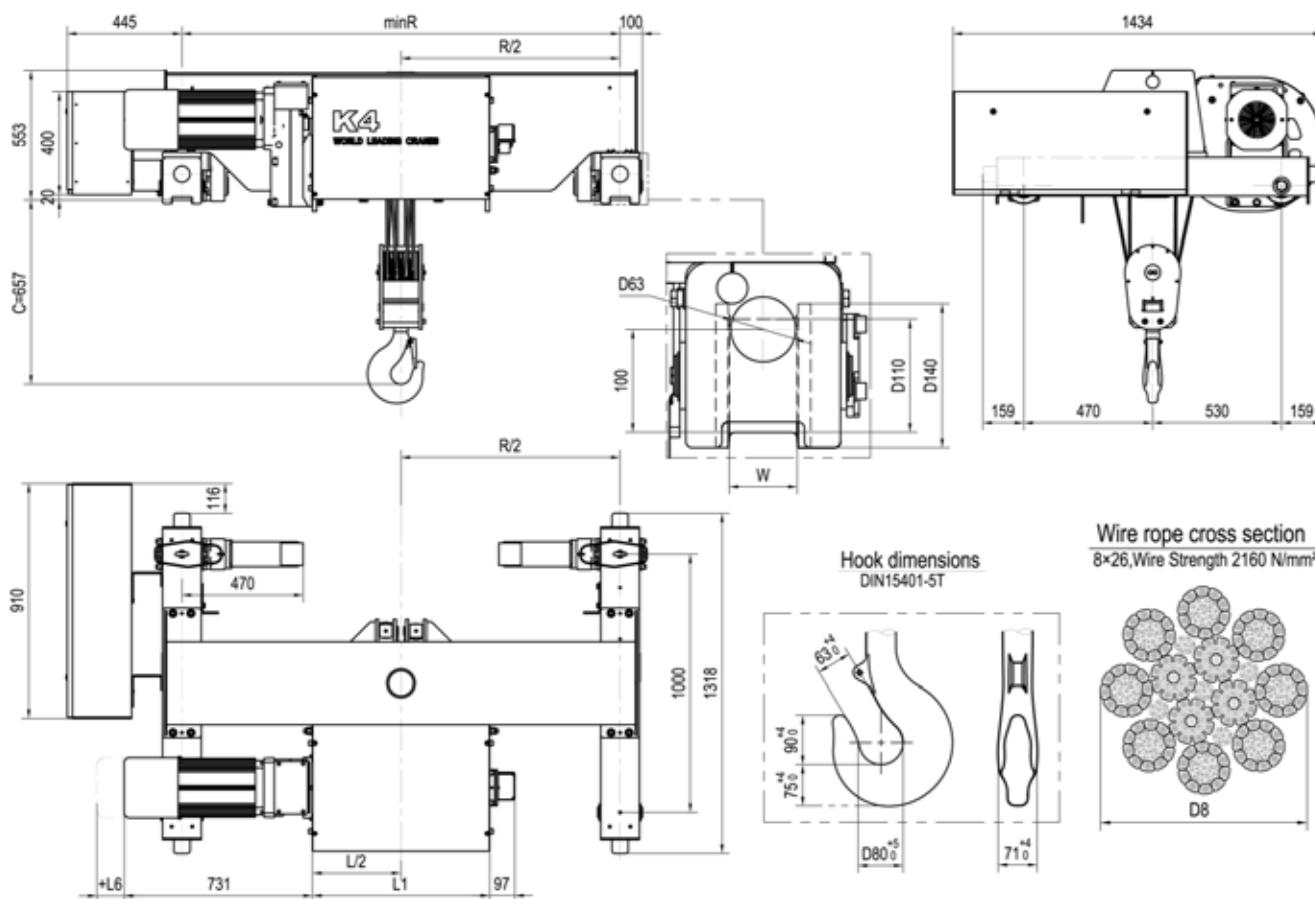


Load (kg)	Class FEM/ISO	Hoisting (m/min)										Travelling (m/min)	
		Gear ratio 229			Gear ratio 186			Gear ratio 115			Gear ratio 90		Gear ratio 42
		Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed/Motor Code	
4000	3m/M6	8/1.3 2-speed	1xD05	0~8 Stepless	1xF15	10/1.7 2-speed	1xD05	0~10 Stepless	1xF15	16/2.7 2-speed	1xD06	0~16 Stepless	1xF16 20/3.3 2-speed
5000	2m/M5										1xD07	0~20 Stepless	1xF17 0~20 /2xF01

## 1.19. Double Girder Hoist K4204 (Reeving 2:4)

Hol (m)	L1	W	R	Weight (kg)
4.5	654	Default:75	1400	831+W0
6.5	784		1700	903+W0
9.5	954		1700	937+W0
12	1114		2000	1008+W0
17	1384		2400	1082+W0
23	1734		2700	1202+W0

motor	D05	F15	D06	F16	D07	F17
L6	0	12	-12	85	75	85
W0	0	-4	33	22	55	39

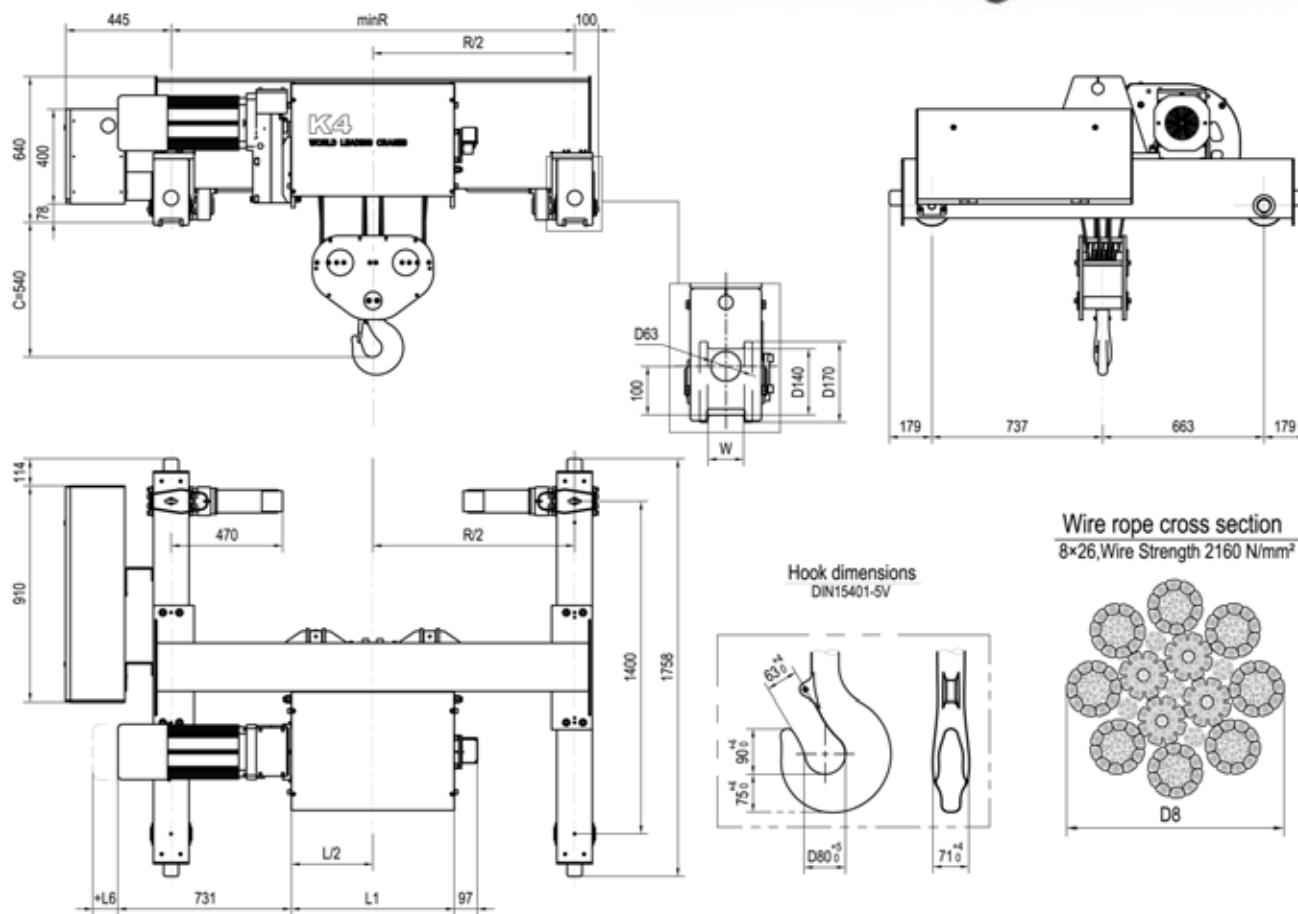


Load (kg)	Class FEM/ISO	Hoisting (m/min)										Travelling (m/min)		
		Gear ratio 229		Gear ratio 186		Gear ratio 115		Gear ratio 90		Gear ratio 42		Gear ratio 42		
Load (kg)	Class FEM/ISO	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed/Motor Code	Speed/Motor Code	
8000	3m/M6	4/0.7 2-speed	1xD05	0~4 Stepless	1xF15	5/0.8 2-speed	1xD05	0~5 Stepless	1xF15	8/1.3 2-speed	1xD06	0~8 Stepless	1xF16	10/1.7 2-speed
10000	2m/M5	1xD07	0~10 Stepless	1xF17	0~20/2xF02									

## 1.20. Double Girder Hoist K4206 (Reeving 2:6)

Hol (m)	L1	W	R	Weight (kg)
4.3	784	Default:75	1700	1074+W0
6.3	954		1700	1108+W0
8	1114		2000	1183+W0
11.3	1384		2400	1263+W0
15.3	1734		2700	1384+W0

motor	D05	F15	D06	F16	D07	F17
L6	0	12	-12	85	75	85
W0	0	-4	33	22	55	39

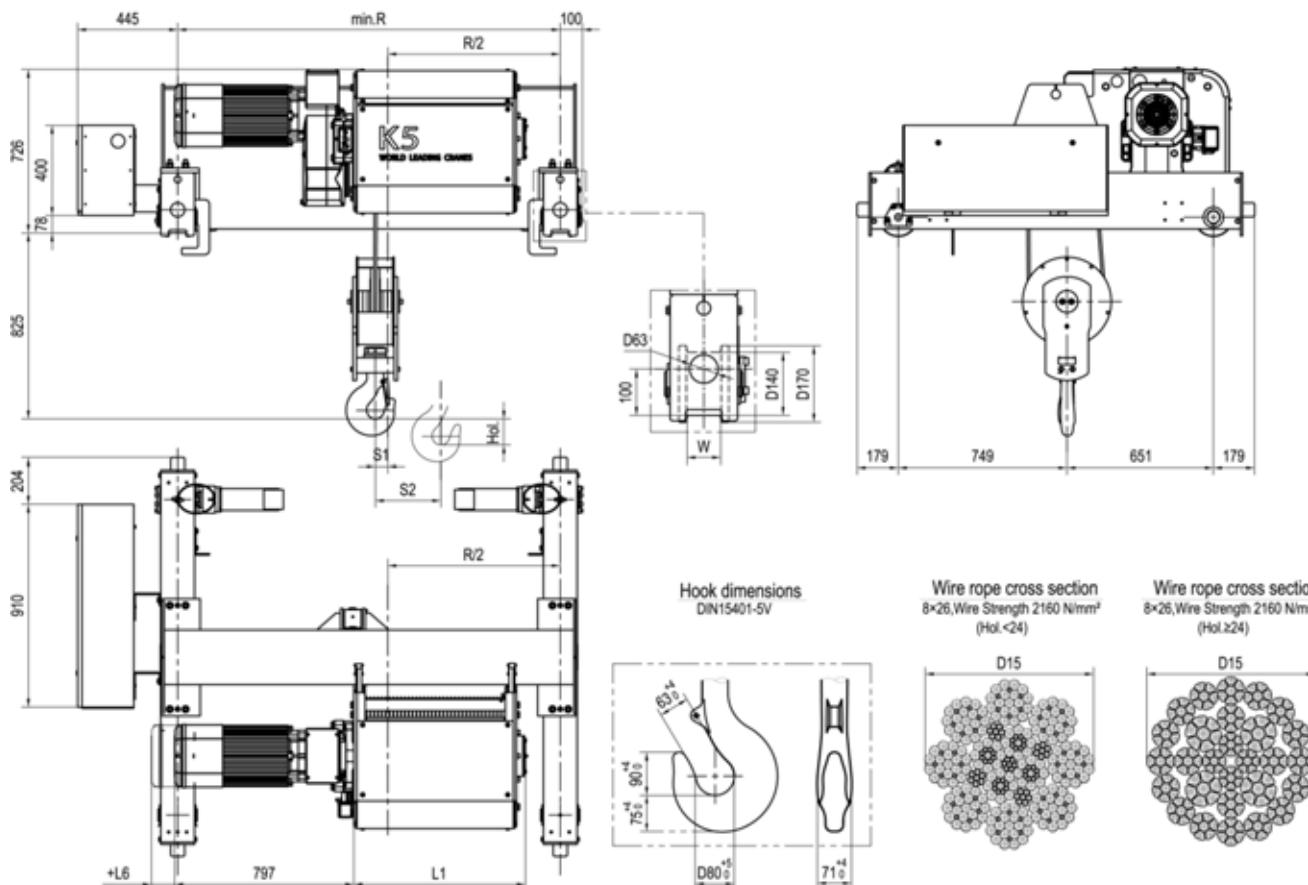


Load (kg)	Class FEM/ISO	Hoisting (m/min)								Travelling (m/min)	
		Gear ratio 186				Gear ratio 115		Gear ratio 90			Gear ratio 42
		Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Speed/Motor Code
12000	3m/M6	3/2/0.5 2-speed	1xD05	0~3.2 Stepless	1xF15	5/0.8 2-speed	1xD06	0~5 Stepless	1xF16	6.3/1.1 2-speed	1xD07
15000	2m/M5	3/2/0.5 2-speed								0~6.3 Stepless	1xF17
											0~20/2xF02

## 1.21. Double Girder Hoist K5102 (Reeving 1:2)

Hol (m)	L1	S1	S2	W	R	Weight (kg)
15.5	565	44	145	Default:75	1700	1326+W0
18	615	51	170		1700	1348+W0
21.5	685	60	197		2000	1427+W0
25	765	70	234		2000	1460+W0
28	815	79	264		2000	1482+W0
36.5	1015	101	338		2400	1630+W0
47	1215	133	442		3100	1832+W0
61	1515	172	573		3400	2007+W0
80	1915	227	758		4200	2306+W0
97.5	2265	274	912		4800	2551+W0

motor	D06	F16	D07	F17	D08	F18	F19
L6	0	97	87	97	87	137	137
W0	0	-11	22	6	22	10	16



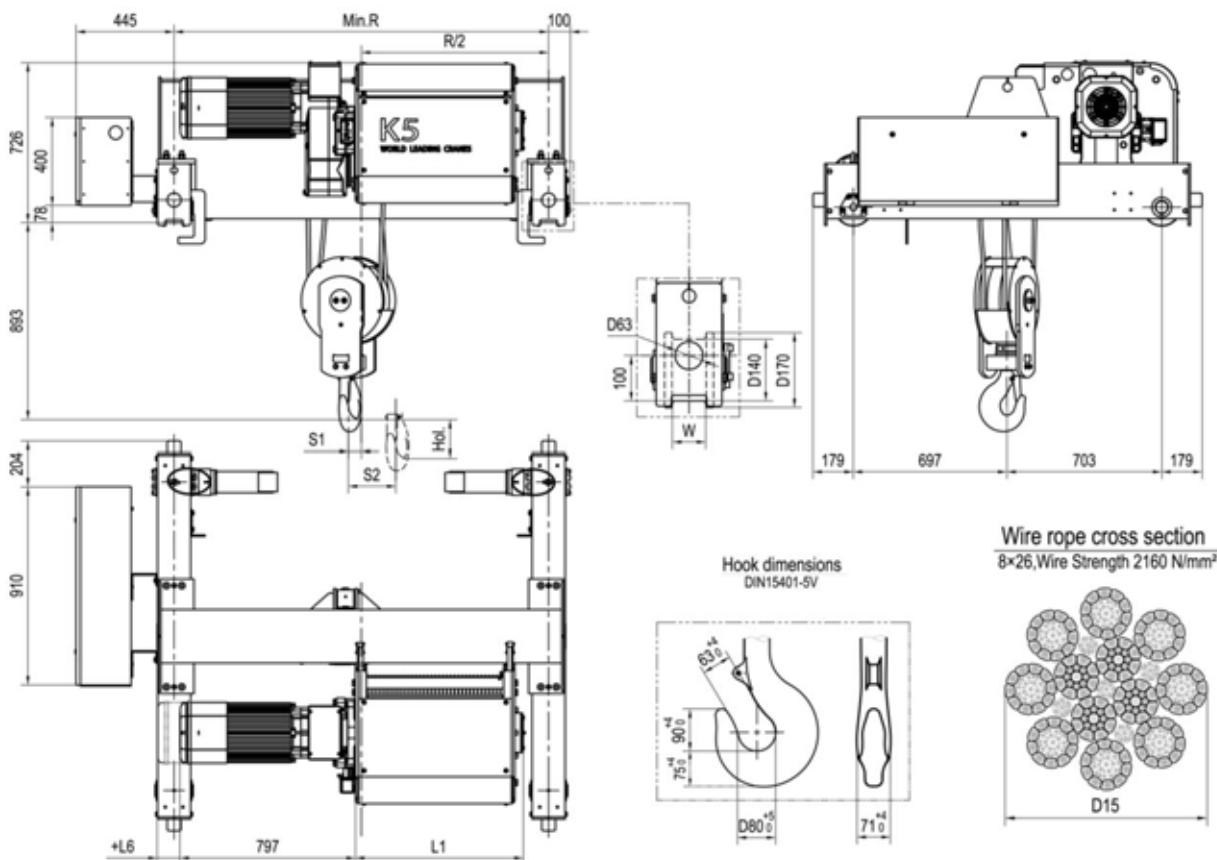
Load (kg)	Class FEM/ISO	Hoisting (m/min)										Travelling (m/min)													
		Gear ratio 289				Gear ratio 243				Gear ratio 191		Gear ratio 144	Gear ratio 114	Gear ratio 42	Gear ratio 32										
		Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed /Motor Code											
6300	3m/M6	8/1.3 2-speed	1xD06	0~8 Stepless	1xF16	10/11.7 2-speed	1xD07	1xD06	0~10 Stepless	1xF17	1xF16	12.5/2 2-speed	1xD08	1xD07	0~12.5 Stepless	1xF18	1xF17	0~16 Stepless	1xF19	1xF18	0~20 Stepless	N/A	1xF19	0~25 / 2xF02	0~32 / 2xF02
8000	2m/M5																								
10000	1Am/M4																								

## 1.22. Double Girder Hoist K5104 (Reeving 1:4)

Hol (m)	L1	S1	S2	W	R	Weight (kg)
7.5	565	24	72	Default:75	1400	1319+W0
9	615	29	86		1700	1389+W0
10.5	685	33	99		1700	1417+W0
12	765	38	115		2000	1499+W0
14	815	44	131		2000	1523+W0
18	1015	56	169		2400	1671+W0
23.5	1215	74	221		3100	1873+W0
30.5	1515	96	287		3400	2046+W0
40	1915	126	378		4200	2346+W0
48.5	2265	152	456		4800	2592+W0



motor	D06	F16	D07	F17	D08	F18	F19
L6	0	97	87	97	87	137	137
W0	0	-11	22	6	22	10	16



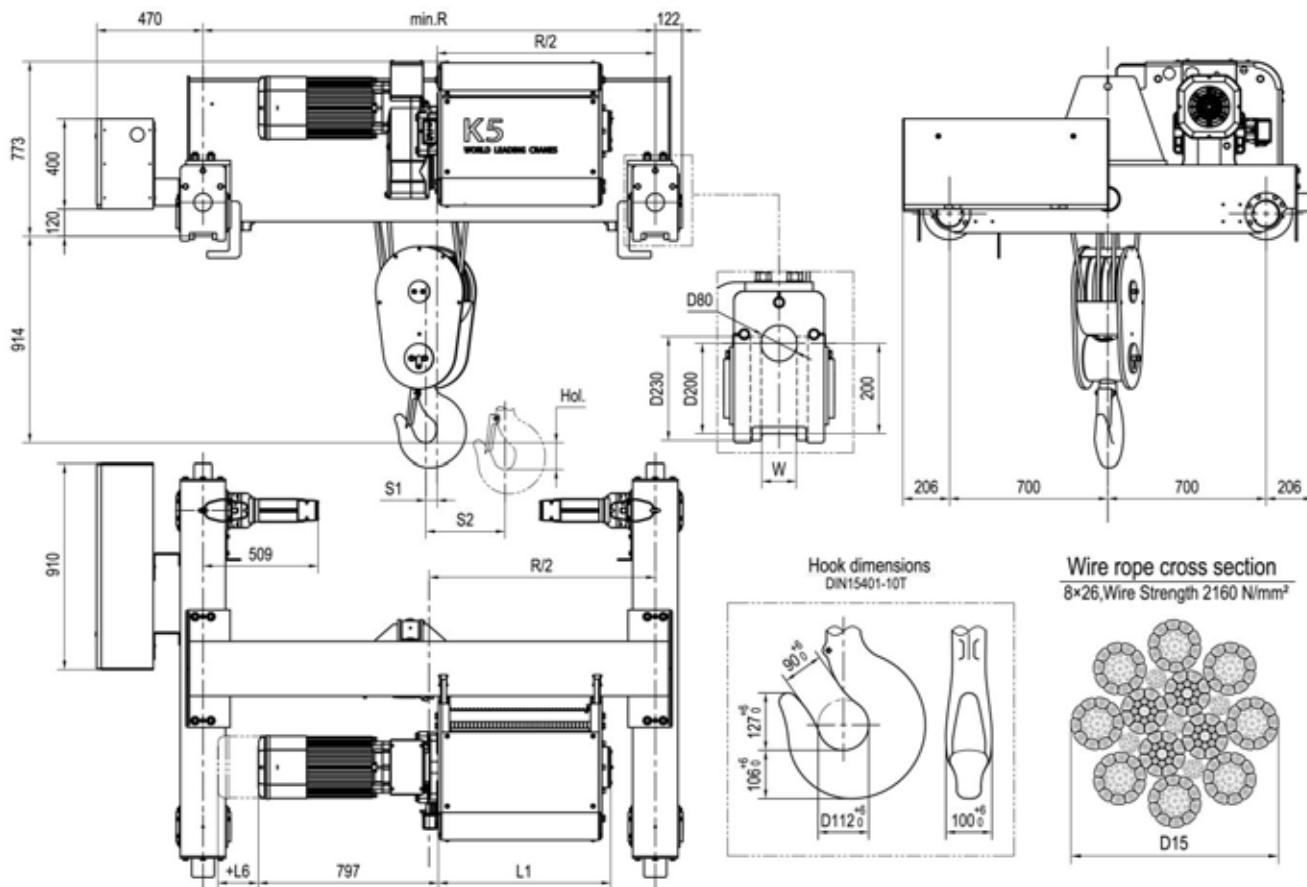
Load (kg)	Class FEM/ISO	Hoisting (m/min)										Travelling (m/min)		
		Gear ratio 289			Gear ratio 243			Gear ratio 191			Gear ratio 144	Gear ratio 114	Gear ratio 42	Gear ratio* 63
		Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	
12500	3m/M6	4/0.7 2-speed	1xD06	0~4 Stepless	1xF16	5/0.8 2-speed	1xD06	0~5 Stepless	1xF17	6.31 2-speed	1xD07	0~6.3 Stepless	1xF18	
16000	2m/M5												1xF19	
20000	1Am/M4											N/A	1xF19	
												0~25 / 2xF02	0~32 / 2xF03	

\*Travelling speed 0~32 should be equipped with the wheel of 200mm;

## 1.23. Double Girder Hoist K5106 (Reeving 1:6)

Hol (m)	L1	S1	S2	W	R	Weight (kg)
5	565	16	48	Default:75	1700	1593+W0
6	615	19	57		1700	1615+W0
7	685	22	66		2000	1694+W0
8	765	26	77		2000	1725+W0
9	815	29	88		2000	1746+W0
12	1015	37	112		2400	1897+W0
15.5	1215	49	147		3100	2098+W0
20	1515	64	191		3400	2271+W0
26.5	1915	84	252		4200	2571+W0
32	2265	101	303		4800	2816+W0

motor	D06	F16	D07	F17	D08	F18	F19
L6	0	97	87	97	87	137	137
W0	0	-11	22	6	22	10	16

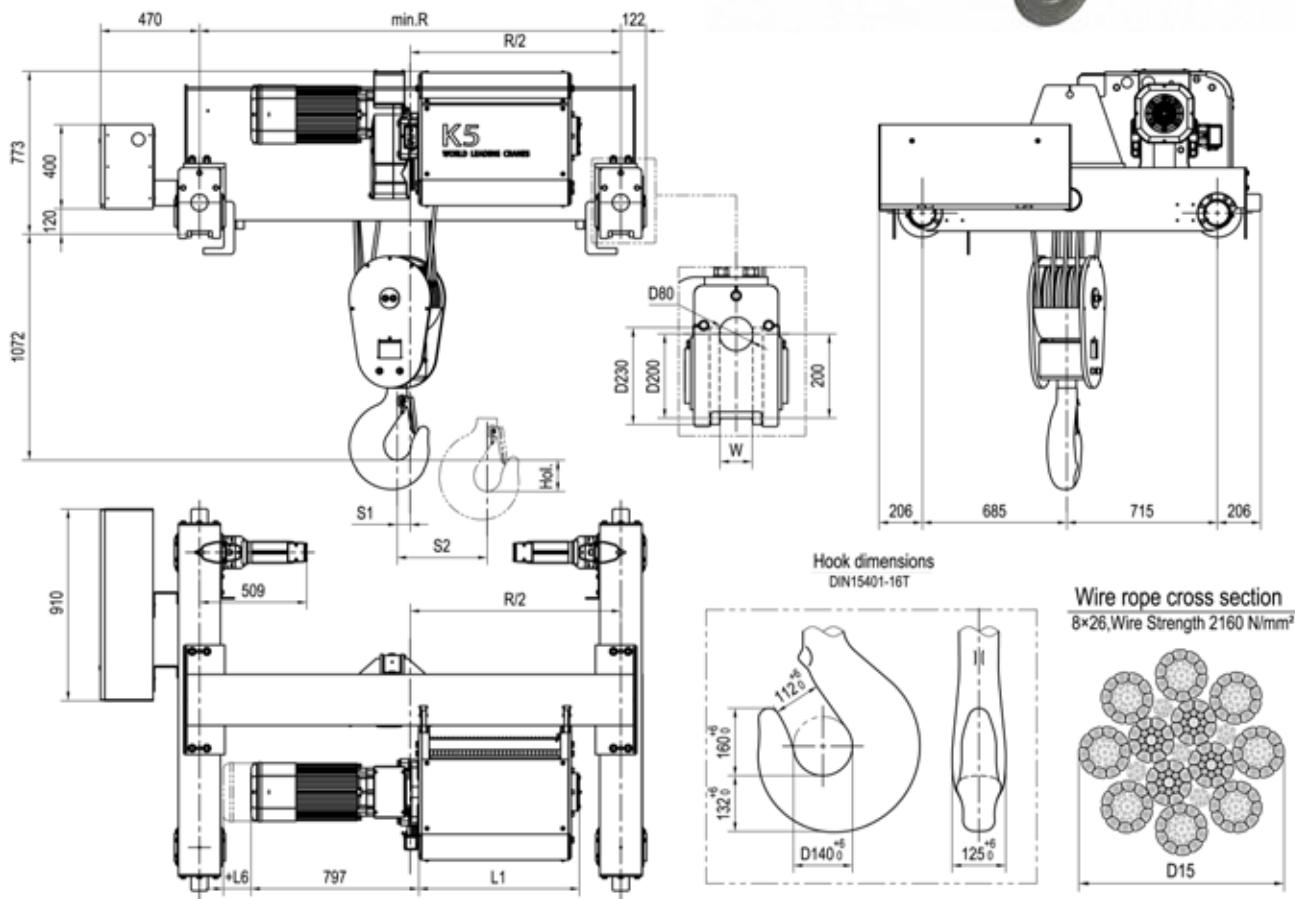


Load (kg)	Class FEM/ISO	Hoisting (m/min)										Travelling (m/min)						
		Gear ratio 289				Gear ratio 243			Gear ratio 191			Gear ratio 144	Gear ratio 114	Gear ratio 90	Gear ratio 63			
		Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor			
20000	3m/M6	2.5/0.4 2-speed	1xD06	0~2.5 Stepless	1xF16	3.2/0.5 2-speed	1xD07	1xF16	0~3.2 Stepless	1xF17	4/0.7 2-speed	1xD08	1xF17	0~4 Stepless	1xF18	1xF17	Motor	
25000	2m/M5														0~6.3 Stepless	1xF18	1xF19	Motor
30000	1Am/M4														N/A	1xF19	0~20/ 2xF02	0~32/ 2xF03

## 1.24. Double Girder Hoist K5108 (Reeving 1:8)

Hol (m)	L1	S1	S2	W	R	Weight (kg)
7	815	22	66	Default:75	2000	1814+W0
9	1015	28	85		2400	1962+W0
12	1215	37	110		3100	2166+W0
15	1515	48	144		3400	2336+W0
20	1915	63	189		4200	2638+W0
24	2265	76	228		4800	2881+W0

motor	D06	F16	D07	F17	D08	F18	F19
L6	0	97	87	97	87	137	137
W0	0	-11	22	6	22	10	16

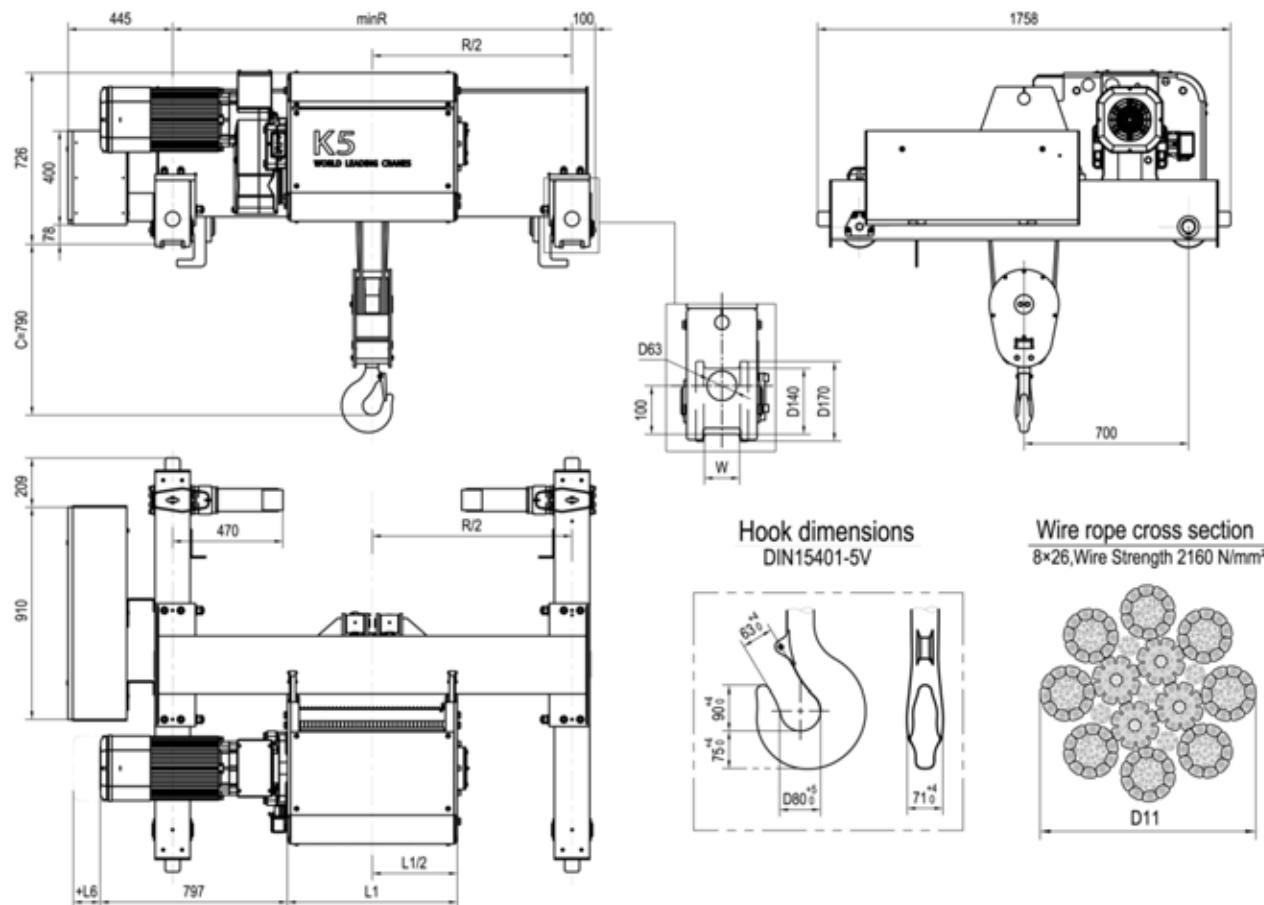


Load (kg)	Class FEM/ISO	Hoisting (m/min)								Travelling (m/min)	
		Gear ratio 289		Gear ratio 243		Gear ratio 191		Gear ratio 144	Gear ratio 90	Gear ratio 63	
		Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed/Motor Code	
25000	3m/M6	2/0.3 2-speed		0~2.5 Stepless		3/20.5 2-speed		0~3.2 Stepless		0~20 / 2xF03	
32000	2m/M5	1xD06		1xF16		1xD07	1xF16	1xD08	1xD07		
40000	1Am/M4							1xF18	1xF17		

## 1.25. Double Girder Hoist K5202 (Reeving 2:2)

Hol (m)	L1	W	R	Weight (kg)
15.5	815	Default:75	1700	1360+W0
22	1015		2000	1450+W0
28.5	1215		2000	1481+W0
38	1515		2400	1633+W0
50.5	1915		2700	1775+W0
61.5	2265		3100	1961+W0
77.5	2765		3800	2240+W0
87	3065		4200	2436+W0

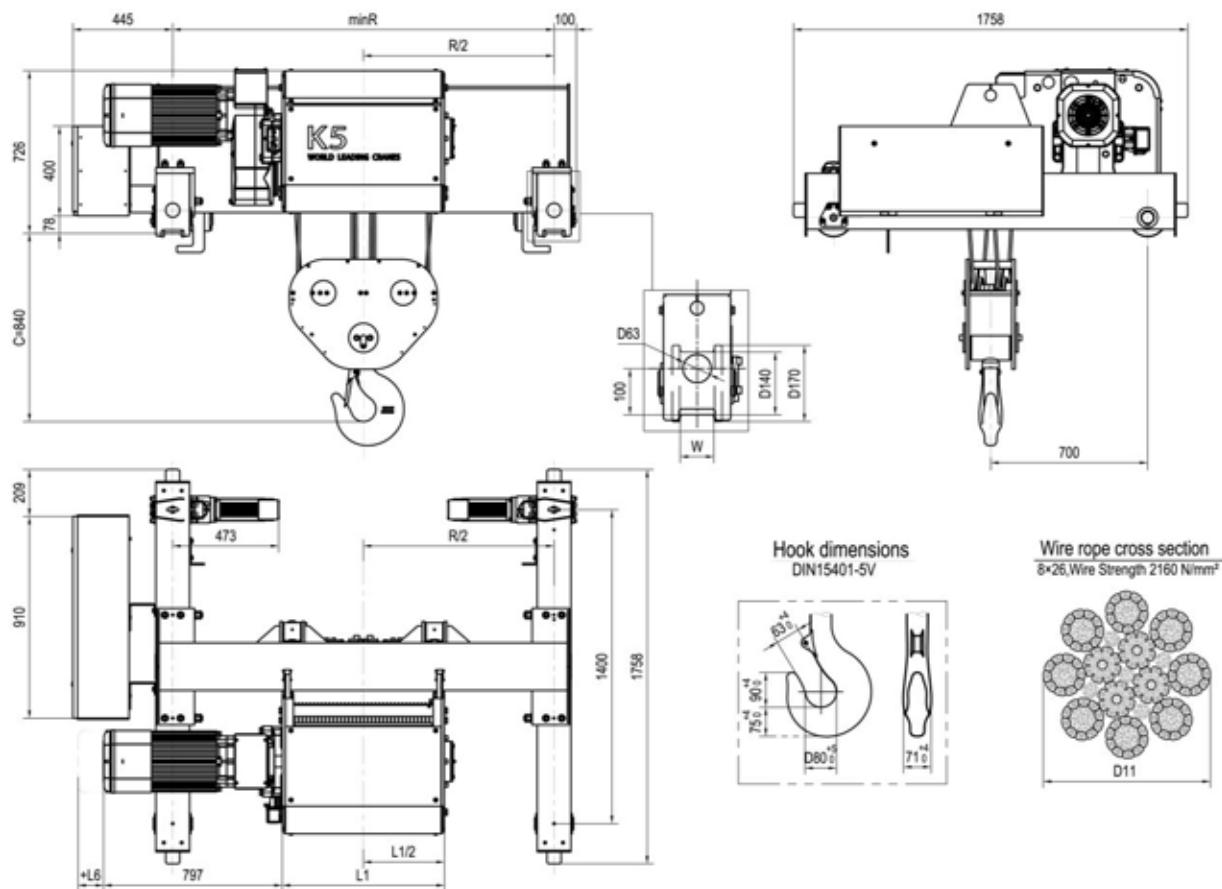
motor	D06	F16	D07	F17	D08	F18	F19
L6	0	97	87	97	87	137	137
W0	0	-11	22	6	22	10	16



## 1.26. Double Girder Hoist K5204 (Reeving 2:4)

Hol (m)	L1	W	R	Weight (kg)
7.5	815	Default:75	1700	1411+W0
11	1015		2000	1496+W0
14	1215		2000	1527+W0
19	1515		2400	1673+W0
25	1915		2700	1808+W0
30.5	2265		3100	1988+W0
38.5	2765		3800	2254+W0
43.5	3065		4200	2444+W0

motor	D06	F16	D07	F17	D08	F18	F19
L6	0	97	87	97	87	137	137
W0	0	-11	22	6	22	10	16



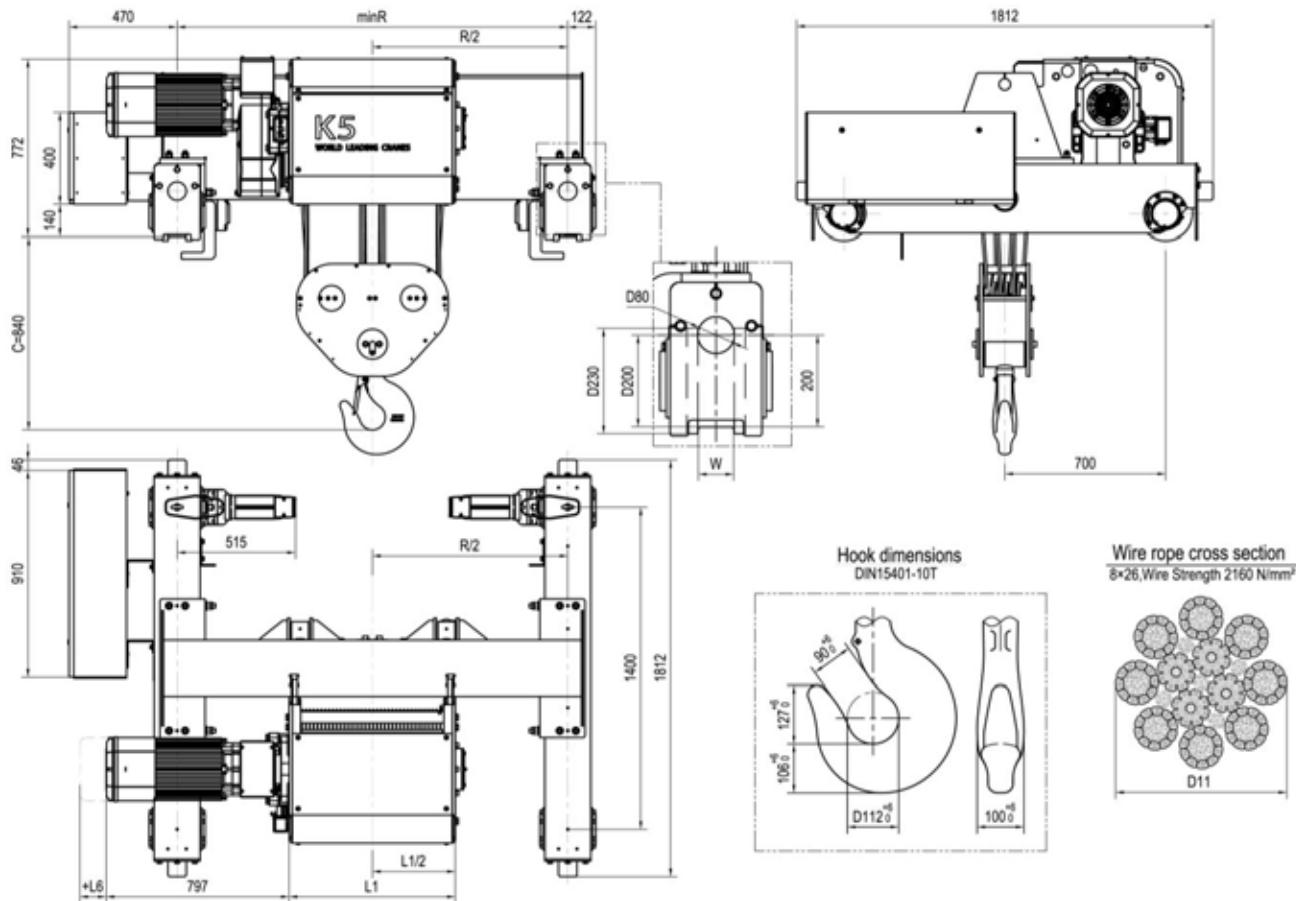
Load (kg)	Class FEM/ISO	Hoisting (m/min)										Travelling (m/min)		
		Gear ratio 289			Gear ratio 243			Gear ratio 191			Gear ratio 144	Gear ratio 114	Gear ratio 42	Gear ratio 63
		Speed	Motor	Speed	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor
12500	3m/M6	4/0.7 2-speed	1xD06	0~4 Stepless	1xF16	5/0.8 2-speed	1xD07	1xD06	0~5 Stepless	1xF17	1xF16	6/3/1.1 2-speed	N/A	1x007
16000	2m/M5								0~6.3 Stepless	1xF18	1xF17		0~8 Stepless	1xF19
20000	1Am/M4									1xF18	1xF17		0~10 Stepless	N/A
													0~25/ 2xF02	0~32/ 2xF03

\*Travelling speed 0~32 should be equipped with the wheel of 200mm;

## 1.27. Double Girder Hoist K5206 (Reeving 2:6)

Hol (m)	L1	W	R	Weight (kg)
5	815	Default:75	1700	1664+W0
7	1015		2000	1756+W0
9.5	1215		2000	1786+W0
12.5	1515		2400	1940+W0
16.5	1915		2700	2081+W0
20.5	2265		3100	2269+W0
25.5	2765		3800	2549+W0
29	3065		4200	2747+W0

motor	D06	F16	D07	F17	D08	F18	F19
L6	0	97	87	97	87	137	137
W0	0	-11	22	6	22	10	16

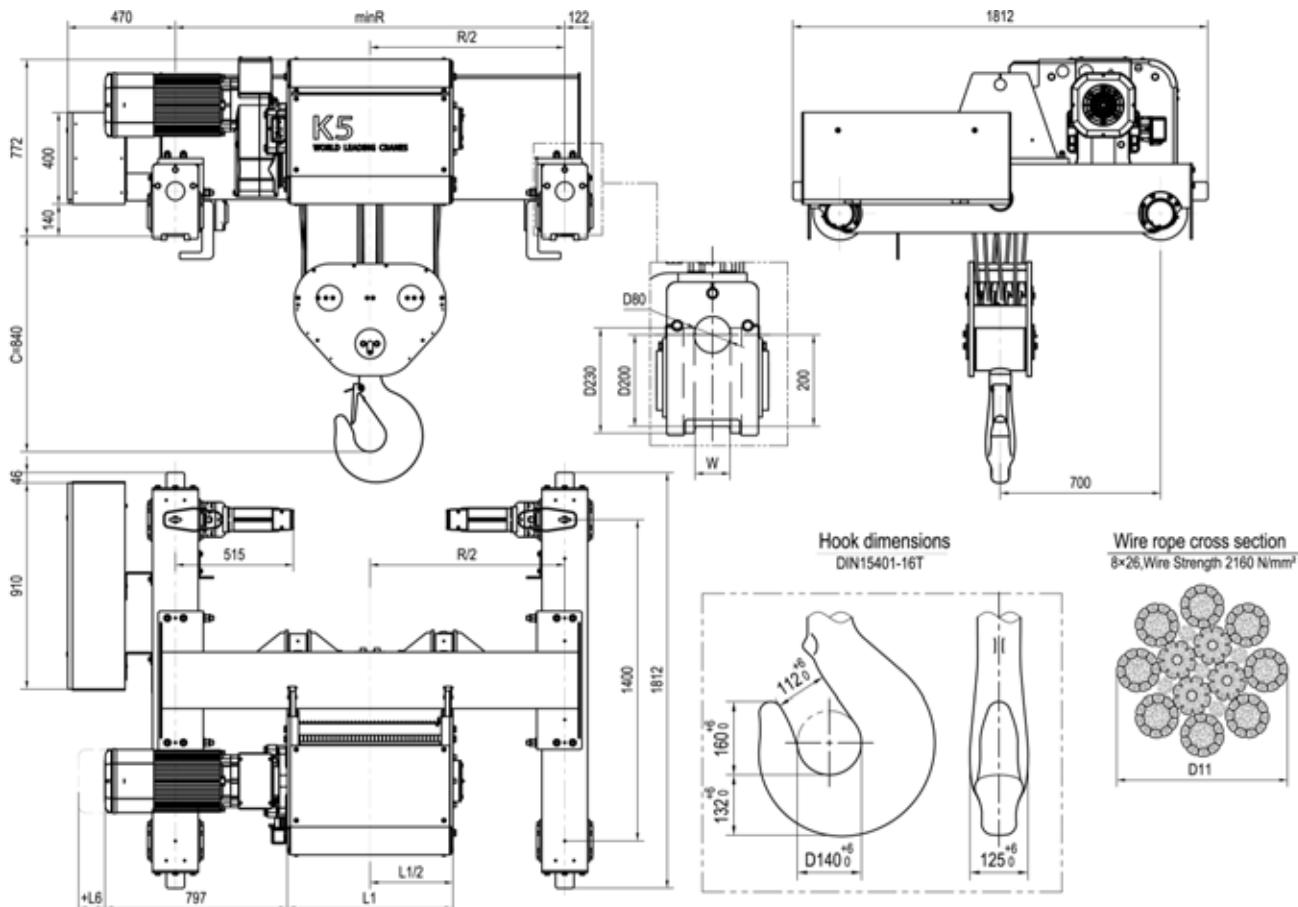


Load (kg)	Class FEM/ISO	Hoisting (m/min)										Travelling (m/min)							
		Gear ratio 289				Gear ratio 243			Gear ratio 191			Gear ratio 144	Gear ratio 114	Gear ratio 90	Gear ratio 63				
		Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Code					
20000	3m/M6	2.5/0.4 2-speed	1xD06	0~2.5 Stepless	1xF16	3.2/0.5 2-speed	1xD07	1xF16	4/0.7 2-speed	1xD07	1xF17	0~5 Stepless	1xF18	1xF18	0~6.3 Stepless	1xF19	1xF19	0~20 / 2xF02	0~32 / 2xF03
25000	2m/M5																		
30000	1Am/M4																		

## 1.28. Double Girder Hoist K5208 (Reeving 2:8)

Hol (m)	L1	W	R	Weight (kg)
7	1215	Default:75	2000	1965+W0
9.5	1515		2400	2114+W0
12.5	1915		2700	2252+W0
15	2265		3100	2435+W0
19	2765		3800	2706+W0
21.5	3065		4200	2898+W0

motor	D06	F16	D07	F17	D08	F18	F19
L6	0	97	87	97	87	137	137
W0	0	-11	22	6	22	10	16

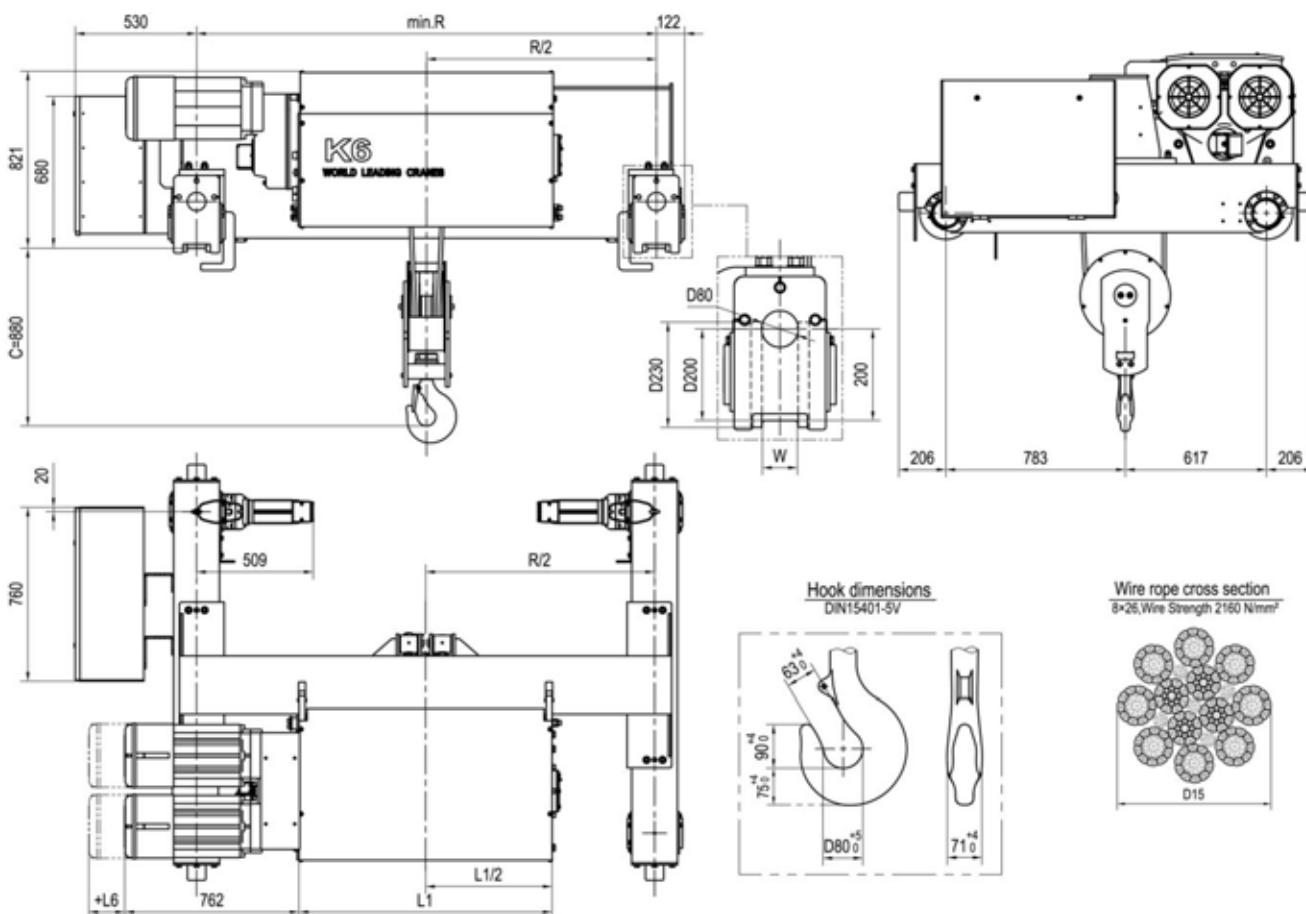


Load (kg)	Class FEM/ISO	Hoisting (m/min)										Travelling (m/min)	
		Gear ratio 289				Gear ratio 243			Gear ratio 191			Gear ratio 144	
		Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor
32000	2m/M5	2/0.3 2-speed	1xD06	0~2 Stepless	1xF16	2.5/0.4 2-speed	1xD07	1xF16	1xD08	1xF17	1xF18	0~4 Stepless	1xF19
40000	1Am/M4												
												0~20 / 2xF03	0~32 / 2xF03

## 1.29. Double Girder Hoist K6202 (Reeving 2:2)

Hol (m)	L1	W	R	Weight (kg)
15.6	1105	Default:75	2000	2204+W0
20.6	1305		2400	2360+W0
28	1615		2400	2489+W0
38	2025		3100	2788+W0
46.2	2375		3400	3068+W0
56.1	2785		3800	3328+W0
62.7	3065		4200	3518+W0
71	3405		4200	3679+W0

motor	D06	F16	D07	F17	D08	F18	F19
L6	0	97	87	97	87	137	137
W0	0	-22	44	12	44	20	32

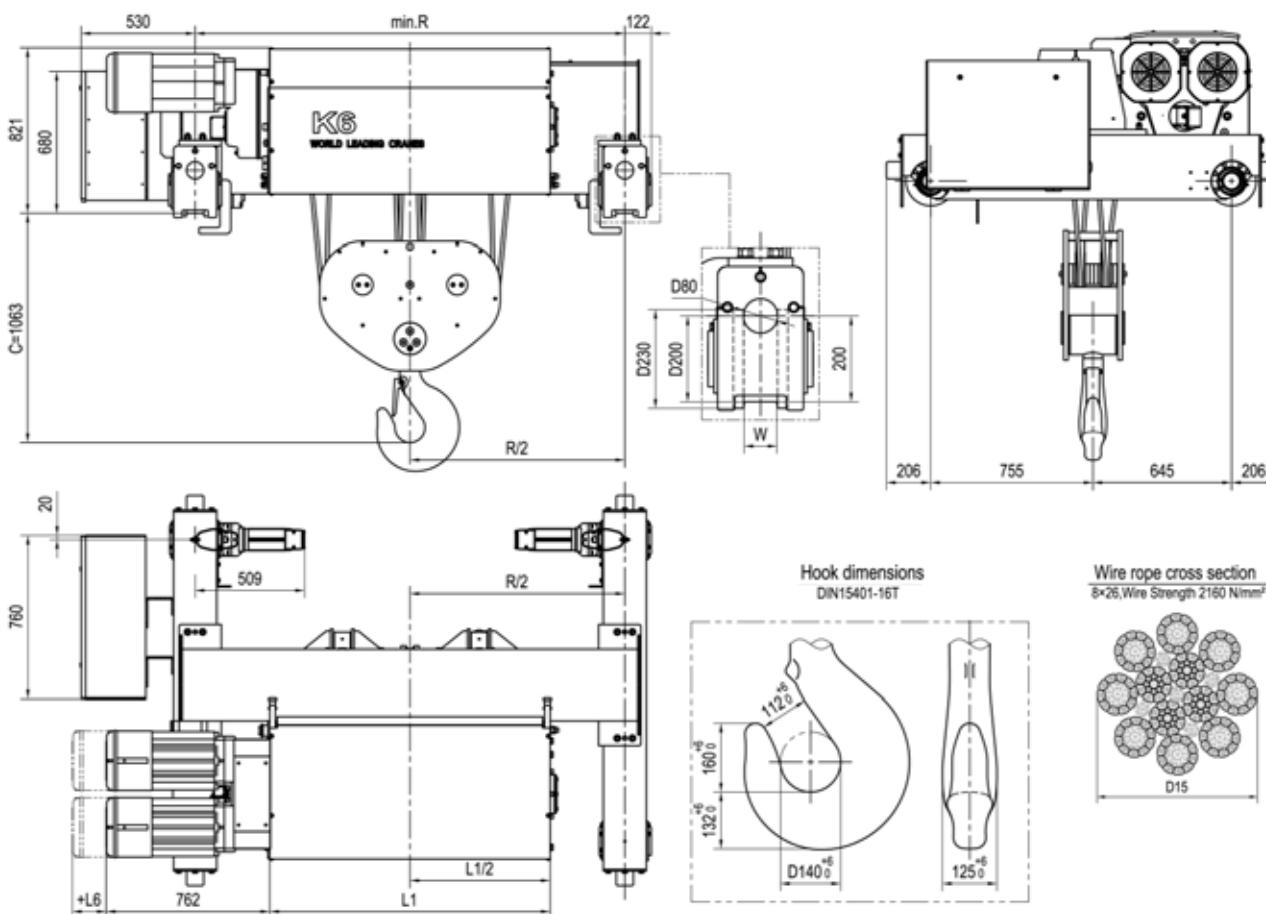


Load (kg)	Class FEM/ISO	Hoisting (m/min)								Travelling (m/min)	
		Gear ratio 289		Gear ratio 243		Gear ratio 191		Gear ratio 144		Gear ratio 114	
		Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor
12500	3m/M6	8/1.3 2-speed	2xD06	0~8 Stepless	2xF16	10/1.7 2-speed	2xF17	12.5/2 2-speed	2xD08	0~16 Stepless	2xF18
16000	2m/M5						2xF17				
20000	1Am/M4										

## 1.30. Double Girder Hoist K6204 (Reeving 2:4)

Hol (m)	L1	W	R	Weight (kg)
7.5	1105	Default:75	2000	2542+W0
10	1305		2000	2624+W0
14	1615		2400	2823+W0
19	2025		2700	3051+W0
23	2375		3100	3355+W0
28	2785		3400	3600+W0
31	3065		3800	3793+W0
35.5	3405		4200	4034+W0

motor	D06	F16	D07	F17	D08	F18	F19
L6	0	97	87	97	87	137	137
W0	0	-22	44	12	44	20	32

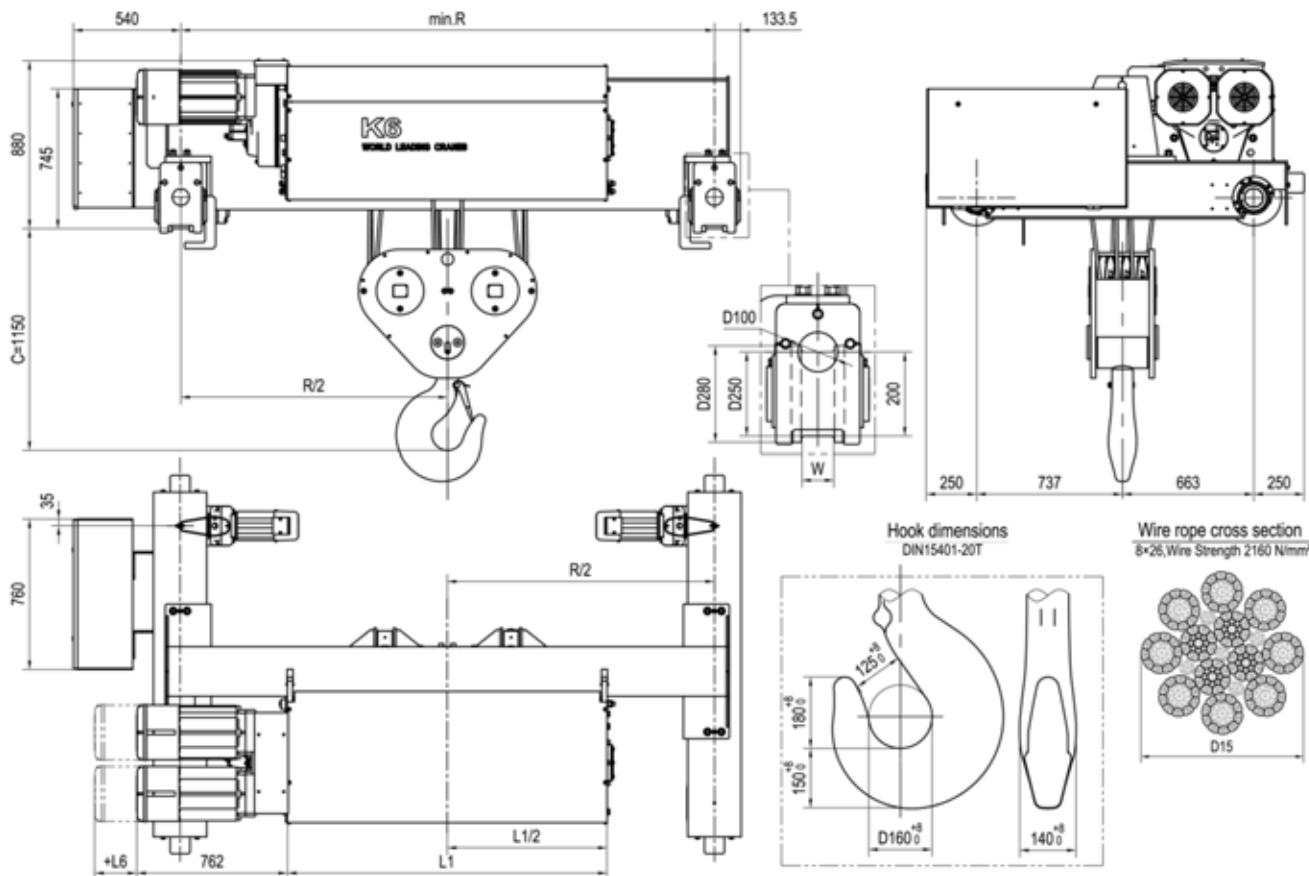


Load (kg)	Class FEM/ISO	Hoisting (m/min)								Travelling (m/min)			
		Gear ratio 289		Gear ratio 243		Gear ratio 191		Gear ratio 144		Gear ratio 114			
Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Gear ratio 90	Gear ratio 63		
25000	3m/M6	4/0.7 2-speed	2xD06	0~4 Stepless	2xF16	5/0.8 2-speed	2xF07	0~5 Stepless	2xF17	6.3/1.1 2-speed	2xD08	0~6.3 Stepless	
32000	2m/M5									2xF18	2xF17	2xF19	0~10 Stepless
40000	1Am/M4									N/A	2xF19	2xF03	0~25/ 2xF03

### 1.31. Double Girder Hoist K6206 (Reeving 2:6)

Hol (m)	L1	W	R	Weight (kg)
5.2	1105	Default:75	2000	2810+W0
6.8	1305		2000	2890+W0
9.3	1615		2400	3098+W0
12.6	2025		2700	3327+W0
15.4	2375		3100	3633+W0
18.7	2785		3800	3957+W0
20.9	3065		3800	4073+W0
23.6	3405		4200	4310+W0

motor	D06	F16	D07	F17	D08	F18	F19
L6	0	97	87	97	87	137	137
W0	0	-22	44	12	44	20	32



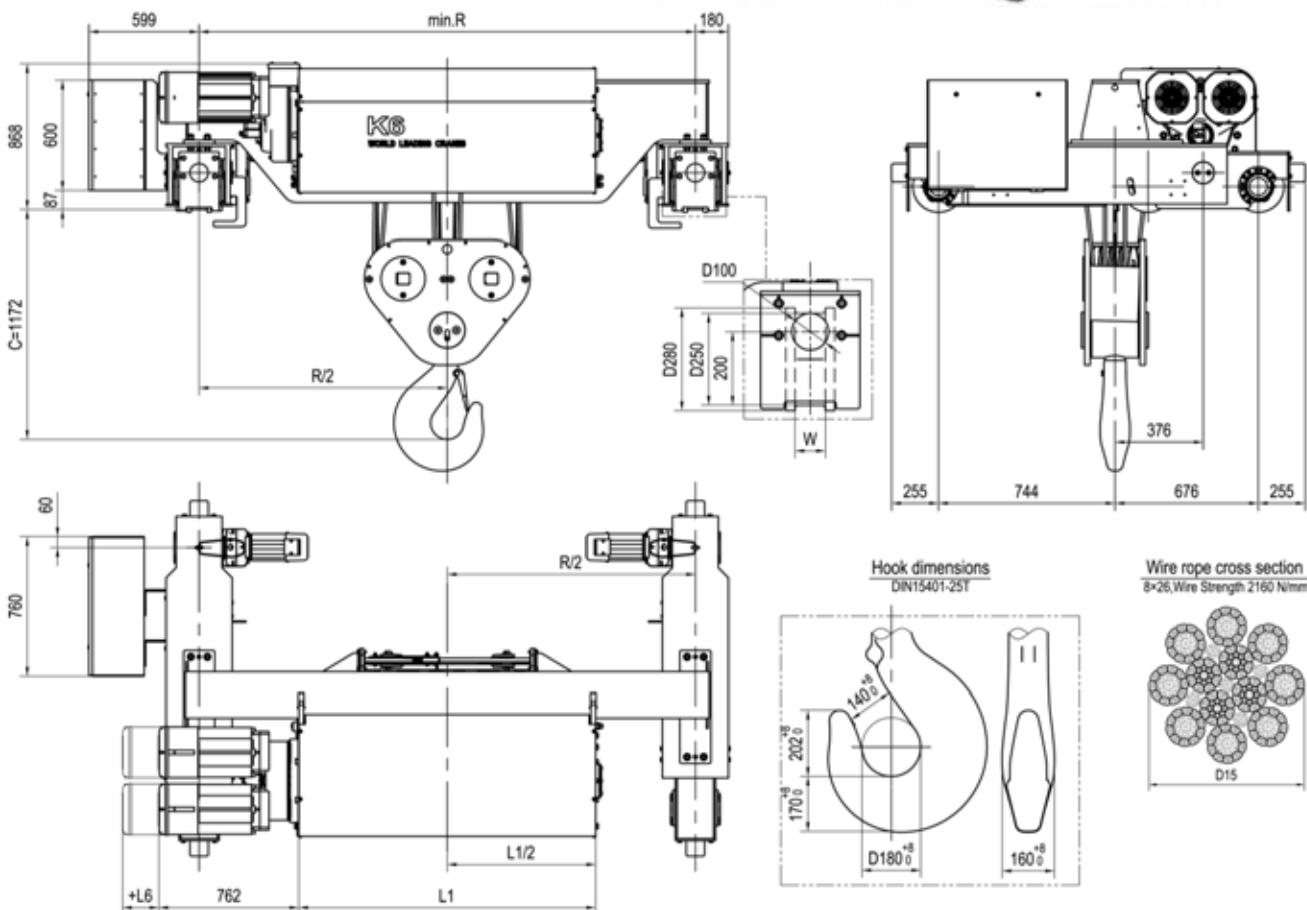
Load (kg)	Class FEM/ISO	Hoisting (m/min)								Travelling (m/min)	
		Gear ratio 289		Gear ratio 243		Gear ratio 191		Gear ratio 144		Gear ratio 114	
		Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor
40000	3m/M6	2.50.4 2-speed		0~2.5 Stepless		3.20.5 2-speed		0~3.2 Stepless		40.7 2-speed	
50000	2m/M5	2xD06		2xF16		2xD07	2xD06	2xF17	2xF16	2xD08	2xD07
60000	1Am/M4	2.50.4 2-speed		0~2.5 Stepless		3.20.5 2-speed		0~3.2 Stepless		40.7 2-speed	
								0~4 Stepless		0~5 Stepless	
								N/A	2xF18	N/A	2xF19
										0~6.3 Stepless	
										N/A	2xF04

## 1.32. Double Girder Hoist K6208 (Reeving 2:8)

Hol (m)	L1	W	R	Weight (kg)
7	1615	Default:75	2400	3549+W0
9.5	2025		3100	3948+W0
11.5	2375		3100	3985+W0
14	2785		3800	4309+W0
15.6	3065		4200	4524+W0
17.7	3405		4200	4684+W0



motor	D06	F16	D07	F17	D08	F18	F19
L6	0	97	87	97	87	137	137
W0	0	-22	44	12	44	20	32



Load (kg)	Class FEM/ISO	Hoisting (m/min)										Travelling (m/min)	
		Gear ratio 289		Gear ratio 243		Gear ratio 191		Gear ratio 144		Gear ratio 114		Gear ratio 115	Gear ratio 72
		Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed	Motor	Speed/Motor Code	
50000	3m/M6	2/0.3 2-speed		0~2 Stepless		2.5/0.4 2-speed		0~2.5 Stepless		3/2/0.5 2-speed		0~3.2 Stepless	2xF18 2xF17
63000	2m/M5	2xD06		1xF16		2xD07 2xD06		2xF17 2xF16		2xD08 2xD07		2xF18	2xF17
80000	1Am/M4											0~4 Stepless	2xF19 2xF18
												0~5 Stepless	N/A 2xF19
												0~25 / 2xF04	0~32 / 2xF04

### 1.33. Low Headroom Ex Hoist

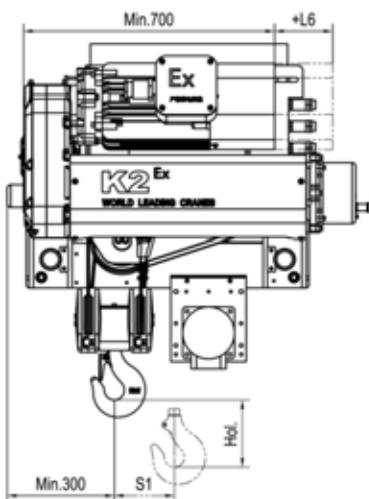
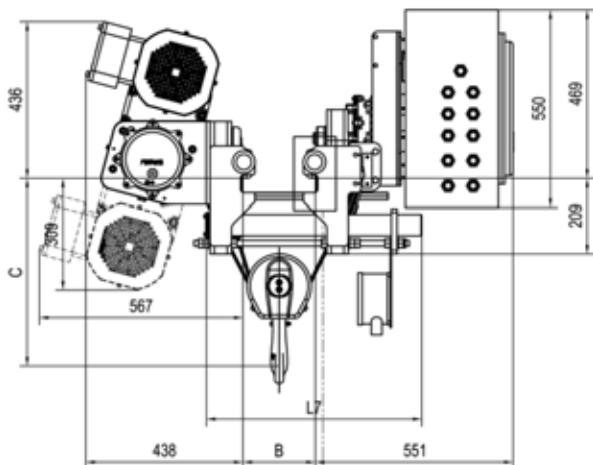
### K2104-Ex (Reeving 1:4)

HOL (m)	B	L2	L4	L5	S1	Weight (kg)
6	80~610	457	699	688	52	415
9.5		652	894	883	83	439

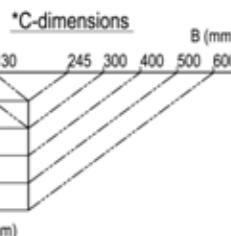
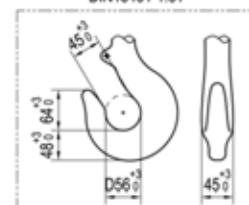
motor	D03	F13
L6	0	0

L7(mm)	B(mm)
600	>100-210
700	>210-310
800	>310-410

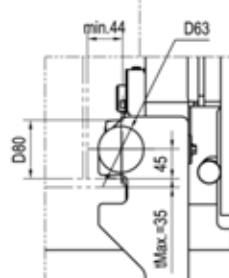
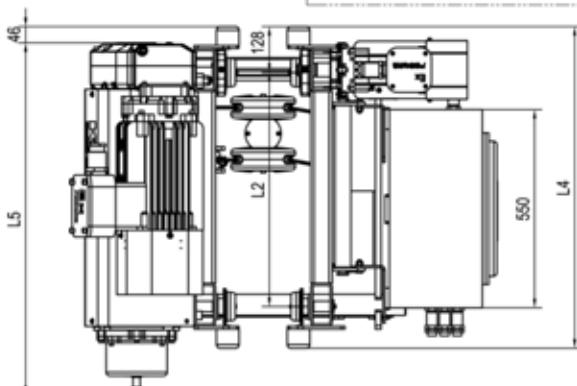
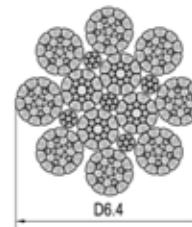
L7(mm)	B(mm)
900	>410-510
1000	>510-610



Hook dimensions  
DIN15401-1.6T



Wire rope cross section  
8x26, Wire Strength 2160 N/mm<sup>2</sup>



Load (kg)	Class FEM/ISO	Hoisting			Travelling		
		Gear ratio 70		Gear ratio 56	Gear Ratio 6		
		Speed (m/min)	Motor	Speed (m/min)	Motor	Speed / Motor Code (m/min)	
						II C, III B      II B	
1600	3m/M6	5/0.8 2-speed	1xD03-Ex	6.3/1.1 2-speed	1xD03-Ex	16/4 2-speed / 1xFB04	20/5 2-speed / 1xFB04
2000	3m/M6						
2500	3m/M6						
3200	2m/M5						

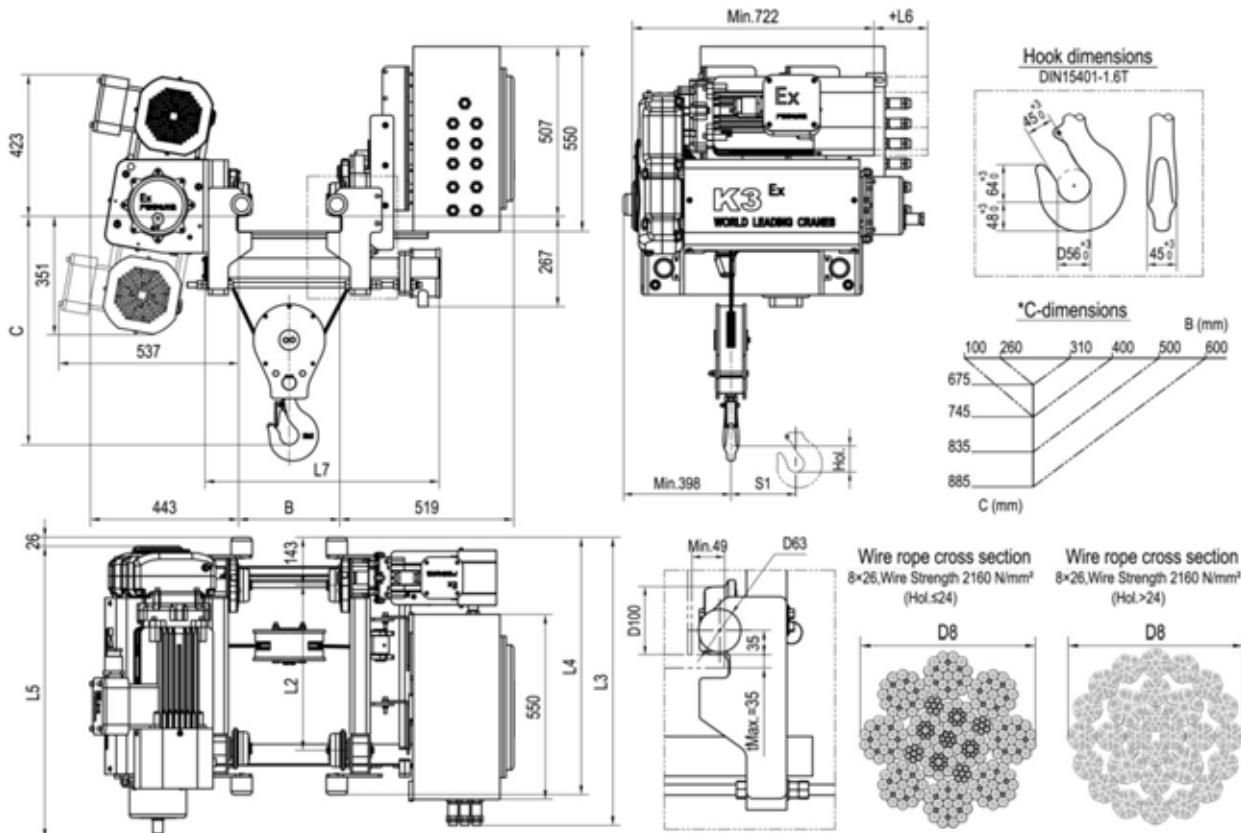
\*Weight calculated with B in 410.

## 1.34. Low Headroom Ex Hoist K3102-Ex (Reeving 1:2)

HOL (m)	B	L2	L3	L4	L5	S1	Weight (kg)
12	100~610	490	860	766	870	52	473
18		640	860	916	1020	83	488
24		810	860	1086	1190	108	511
30		970	860	1246	1350	125	540

motor	D03	F13
L6	0	0

L7(mm)	B(mm)	L7(mm)	B(mm)
600	>100-210	900	>410-510
700	>210-310	1000	>510-610
800	>310-410		



Load (kg)	Class FEM/ISO	Hoisting		Travelling	
		Gear ratio 109		Gear Ratio 6	
		Speed (m/min)	Motor	Speed / Motor Code (m/min)	
				II C, III B	II B
1600	3m/M6	8/1.3	2-speed	16/4	20/5
2000	3m/M6			2-speed /	2-speed /
2500	2m/M5			1xFB04	1xFB04
3200	1Am/M4				

\*Weight calculated with B in 410.

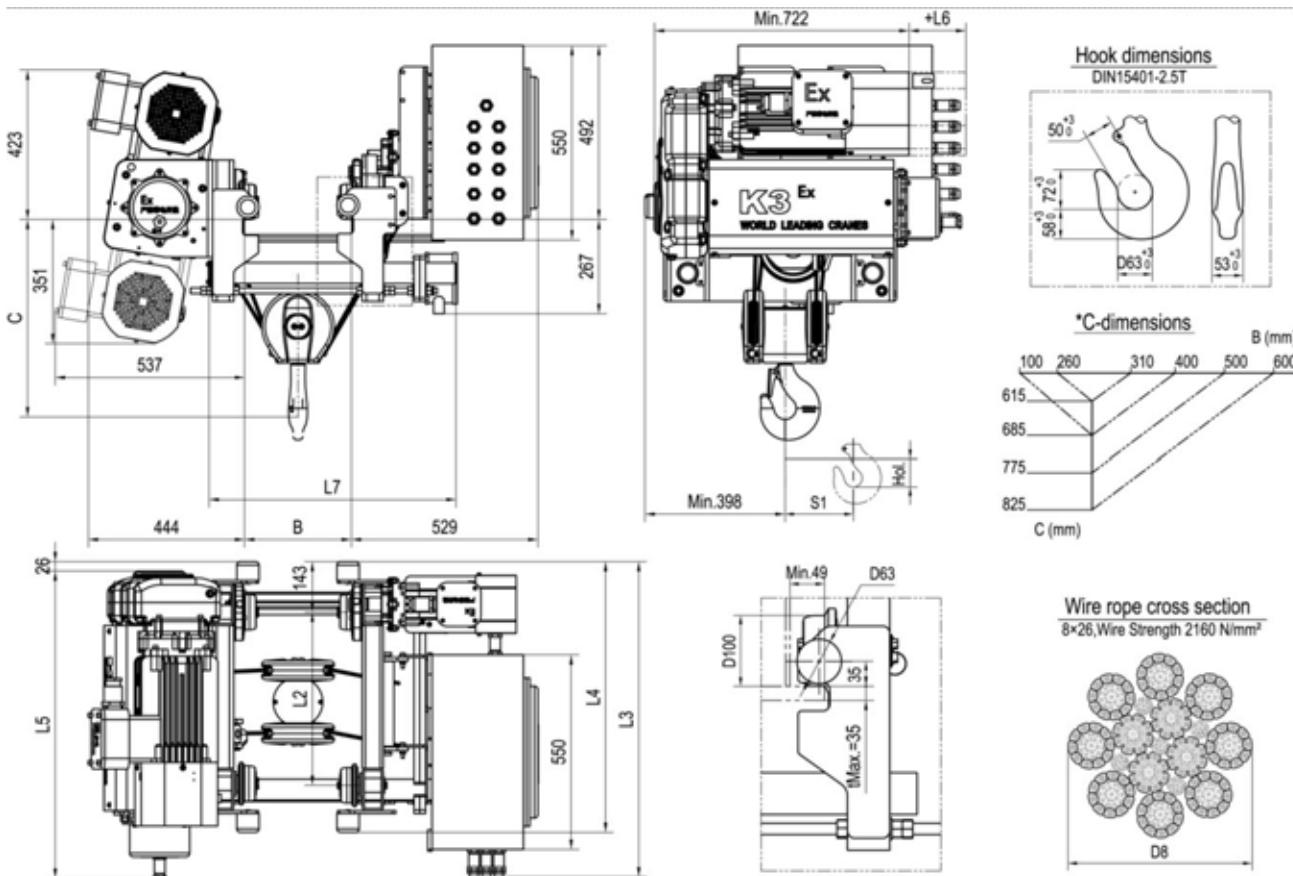
1.35. Low Headroom Ex Hoist **K3104-Ex** (Reeving 1:4)

HOL (m)	B	L2	L3	L4	L5	S1	Weight (kg)
6	100~610	490	892	766	870	52	488
9		640	892	916	1020	83	503
12		810	892	1086	1190	108	527
15		970	892	1246	1350	125	555

motor	D03	F13
L6	0	0

L7(mm)	B(mm)
600	>100-210
700	>210-310
800	>310-410

L7(mm)	B(mm)
900	>410-510
1000	>510-610



Load (kg)	Class FEM/ISO	Hoisting		Travelling	
		Gear ratio 109		Gear ratio 90	
		Speed (m/min)	Motor	Speed (m/min)	Motor
3200	3m/M6		1xD03-Ex		1xFB04
4000	3m/M6	4/0.7 2-speed	5/0.8 2-speed		
5000	2m/M5				

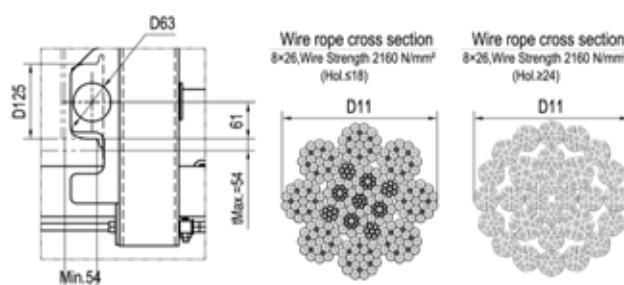
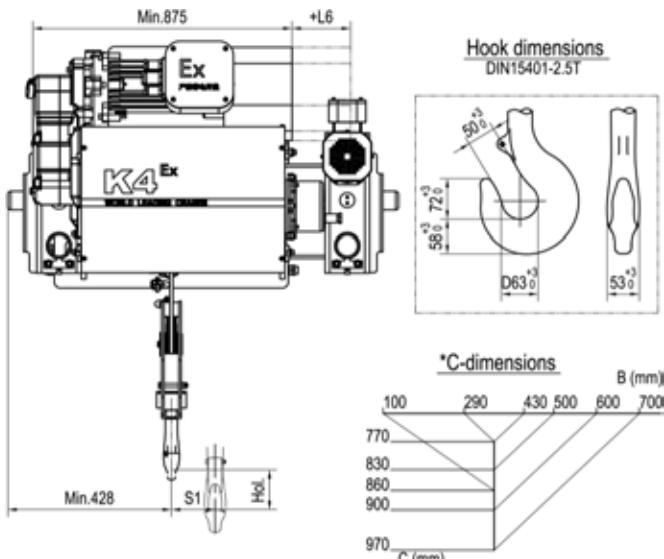
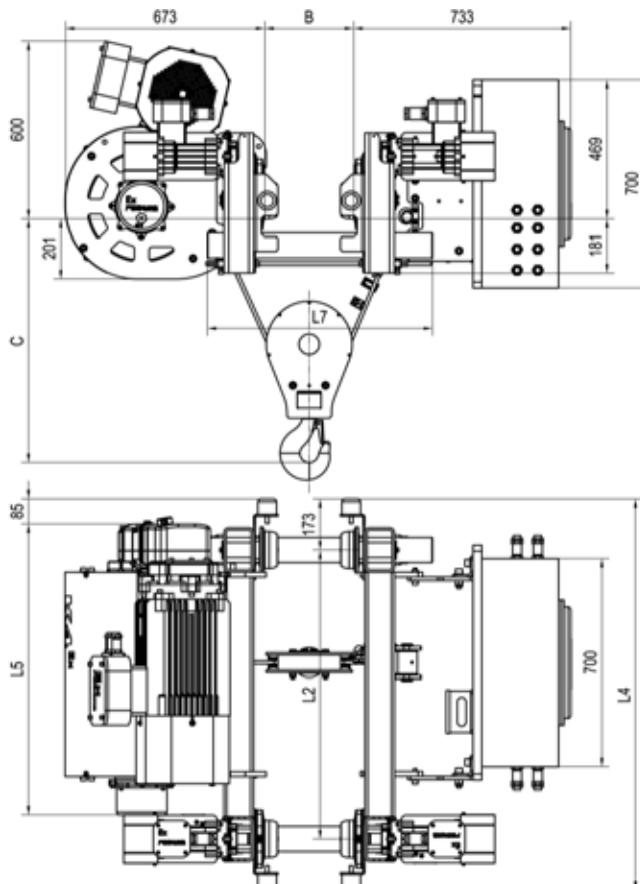
\*Weight calculated with B in 410.

## 1.36. Low Headroom Ex Hoist K4102-Ex (Reeving 1:2)

HOL (m)	B	L2	L4	L5	S1	Weight (kg)
18	100~710	843	1189	850	90	907
24		973	1319	980	120	993
32		1008	1489	1150	170	1075

motor	D06	F16
L6	0	0

L7(mm)	B(mm)	L7(mm)	B(mm)
660	>100-210	960	>410-510
760	>210-310	1060	>510-610
860	>310-410	1160	>610-710



Load (kg)	Class FEM/ISO	Hoisting		Travelling	
		Gear ratio 229		Gear Ratio 6	
		Speed (m/min)	Motor	Speed / Motor Code (m/min)	
				II C、III B	II B
3200	3m/M6	8/1.3 2-speed	1xD06-Ex	16/4 2-speed /	20/5 2-speed /
4000	3m/M6			2xFB04	2xFB04
5000	2m/M5				

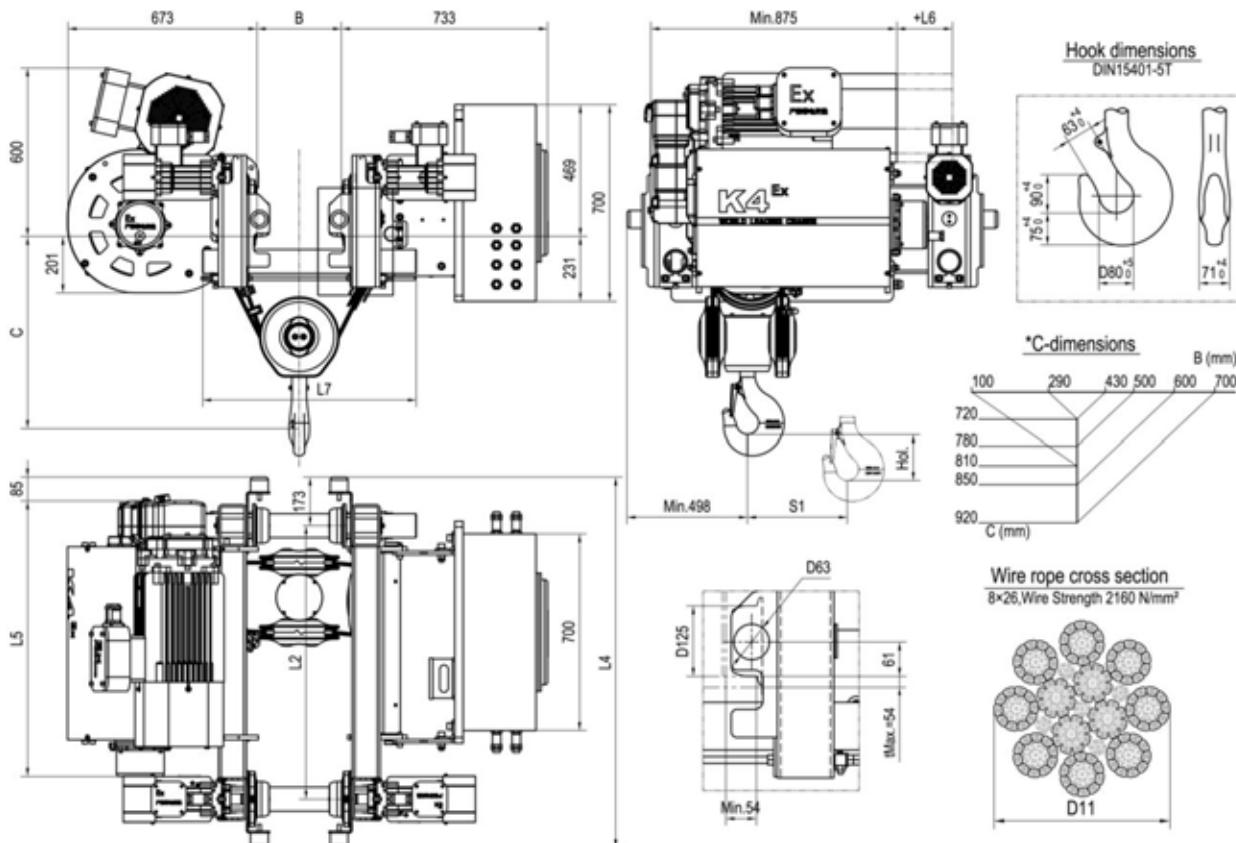
\*Weight calculated with B in 410.

## 1.37. Low Headroom Ex Hoist K4104-Ex (Reeving 1:4)

HOL (m)	B	L2	L4	L5	S1	Weight (kg)
9	100~710	843	1189	850	90	961
12		973	1319	980	120	1049
16		1008	1489	1150	170	1129

motor	D06	F16
L6	0	0

L7(mm)	B(mm)	L7(mm)	B(mm)
660	>100-210	960	>410-510
760	>210-310	1060	>510-610
860	>310-410	1160	>610-710



Load (kg)	Class FEM/ISO	Hoisting			Travelling		
		Gear ratio 229		Gear ratio 185		Gear Ratio 6	
		Speed (m/min)	Motor	Speed (m/min)	Motor	Speed / Motor Code (m/min)	
5000	3m/M6	4/0.7 2-speed		1xD06-Ex		II C、III B	
6300	3m/M6	5/0.8 2-speed		1xD06-Ex		16/4 2-speed /	
8000	3m/M6	5/0.8 2-speed		1xFB04		20/5 2-speed /	
10000	2m/M5	5/0.8 2-speed		2xFB04		2xFB04	

\*Weight calculated with B in 410.

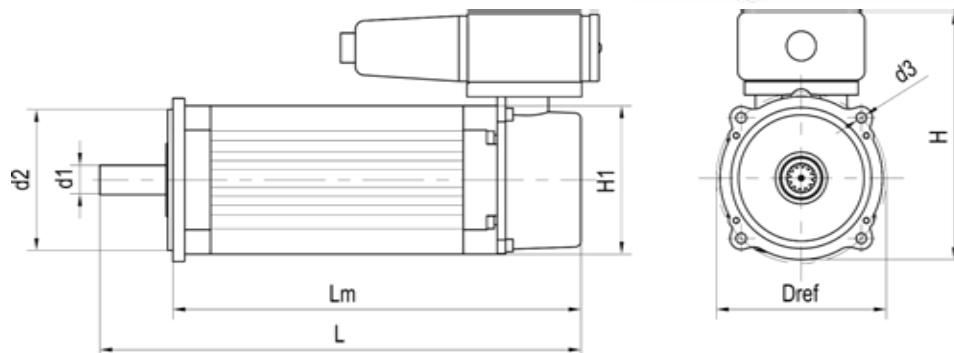
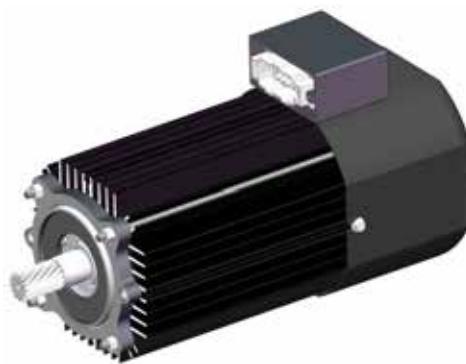
## 2. Motor

### 2.1. Motor code

A	D	168	L	2	23	N
Pos.	Code	Description	Properties			
1	<b>A</b>	Motor Classes	A	Asynchronous motor		
			S	Synchronous motor		
2	<b>D</b>	Motor Type	D	Double speed		
			F	Frequency		
3	<b>168</b>	Frame Size	115	Mounting base Ø115		
			130	Mounting base Ø130		
			168	Mounting base Ø168		
			195	Mounting base Ø195		
			245	Mounting base Ø245		
4	<b>L</b>	Frame Length	S	Short frame		
			M	Medium frame		
			L	Long frame		
			X	Expanding frame		
			XA	Expanding A frame		
			XB	Expanding B frame		
			XC	Expanding C frame		
5	<b>2</b>	Pole Number	2	2 poles		
			4	4 poles		
6	<b>23</b>	Output Shaft Teeth	11	11 teeth		
			12	12 teeth		
			15	15 teeth		
			18	18 teeth		
			22	22 teeth		
			23	23 teeth		
			26	26 teeth		
7	<b>N</b>	Special Properties	E	Encode included		
			H	Heating included		
			P	Pulse included		
			N	Normal (no additional)		

## 2.2. Travelling Motor

Motor Type	L	Lm	H1	Dref	d1	d2	d3	H
F01~F03	325	275	100	115	20	95	7	162
F04~F06	375	320	145	130	25	95	7.2	190

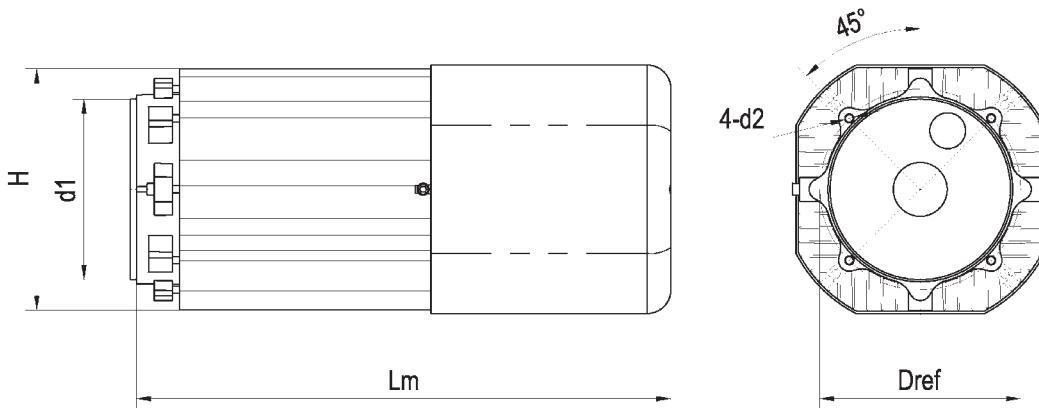


Motor code		AF115M411N		AF115L411N AF115L412N		AF115L211N AF115L212N		AF115X411N AF115X412N		AF130M412N AF130M415N		AF130L212N AF130L215N		AF130L412N AF130L415N		
		F01		F02		F02B		F03		F04		F05		F06		
Duty Type		S3-40%ED 240starts/h		S3-40%ED 240starts/h		S3-40%ED 240starts/h		S3-40%ED 240starts/h		S3-40%ED 240starts/h		S3-40%ED 240starts/h		S3-40%ED 240starts/h		
Inverter supply voltage	V	380~480		380~480		380~415		380~480		380~480		380~415		380~480		
Motor voltage	V	400	480	400	480	400	400	480	400	480	400	400	400	400	400	400
Frequency	Hz	100	120	100	120	80	100	120	100	120	80	100	120	80	100	100
Brake type		DC		DC		DC		DC		DC		DC		DC		
Brake torque	N.m	4		4		4		4		16		16		16		
Synchronous speed	r/min	3000	3600	3000	3600	4800	3000	3600	3000	3600	4800	3000	4800	3000	4800	3000
Starting torque	N.m	3.0	2.9	7.2	7.1	5.8	10.5	10.4	23.5	21.6	16.5	16.5	16.5	16.5	16.5	16.5
Starting current	A	4.2	4.3	8.2	8.5	10	12.9	12.6	35	34	32	32	32	32	32	32
Maximum torque	N.m	3.0	2.9	7.2	7.1	5.8	11	10.8	25	23	17	17	17	17	17	24
No-load current	A	1.0	1.0	1.6	1.6	0.8	2.2	2.0	5.4	4.9	6.0	6.0	6.0	6.0	6.0	6.0
Inertia	kgm <sup>2</sup>	0.0004		0.0007		0.0007		0.0006		0.0012		0.0012		0.0012		
Weight	kg	5		6.8		7		7.8		13		13		13		
Speed	r/min	2855	3430	2800	3360	4490	2770	3370	2860	3460	4460	4460	4460	4460	4460	2800
Power	kW	0.3	0.37	0.65	0.75	0.65	1.1	1.1	2.2	2.5	3.0	3.0	3.0	3.0	3.0	3.0
Torque	N.m	1.0	1.0	2.6	2.6	1.4	3.8	3.1	7.3	7.3	6.4	6.4	6.4	6.4	6.4	10.3
Current	A	1.2	1.2	2.1	2.1	1.5	3	2.9	6.9	6.5	7.9	7.9	7.9	7.9	7.9	8.1
Power factor	cosφ	0.57	0.59	0.61	0.61	0.73	0.73	0.74	0.66	0.68	0.78	0.78	0.78	0.78	0.78	0.77
Efficiency	η	0.65	0.65	0.73	0.74	0.77	0.74	0.76	0.73	0.75	0.74	0.74	0.74	0.74	0.74	0.73

Speed control: Inverter

## 2.3. Pole Changed Hoisting Motor (Double speed)

Motor code	Lm	H	Dref	d1	d2
D01	358	202	168	151	7.5
D02	448	202	168	151	7.5
D03	448	202	168	151	7.5
D04	518.5	228	195	176	9
D05	548.5	228	195	176	9
D06	532.5	271	245	214	11
D07	627.5	271	245	214	11
D08	627.5	271	245	214	11



380~415V 50Hz 3000/500r/min

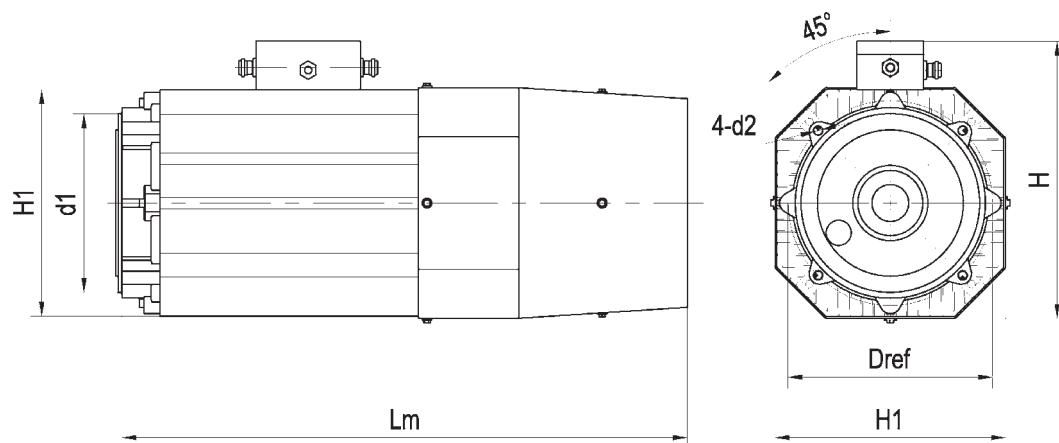
Motor code		AD168M223N D01		AD168L223N D02		AD168X223N D03		AD195L222N D04		AD195X222N D05		AD245M226N D06		AD245L226N D07		AD245X218N D08		
Duty type		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-50%ED 300starts/h		
Synchronous speed	r/min	3000	500	3000	500	3000	500	3000	500	3000	500	3000	500	3000	500	3000	500	
Starting torque	N.m	13.1	10.7	31	22	33.8	27.6	43	43.7	51.4	49.5	103	82	117	111	121	111	
Starting current	A	19	3.6	42	6.7	46.9	7.78	79	13.3	94	15.6	134	21	161	32	212	37	
Maximum torque	N.m	17.6	12.2	34	24.6	42.6	30.6	63	48	83.7	60	145.8	82	137	111	182	130	
Brake torque	N.m	21		21		42		60		60		100		130		200		
No-load current	A	2.5	2.8	3	4.3	3.6	5.5	4.6	9.2	5.2	10	10.9	13	9.2	10	20	19	
Inertia	$\text{kgm}^2$	0.0027		0.0049		0.0059		0.0101		0.0116		0.036		0.043		0.043		
Weight	kg	21.6		34		36		52.6		56		90		115		115		
2m/M5 S3-40%ED 240starts/h	Speed	r/min	2665	420	2644	400	2620	415	2653	355	2773	335	2653	420	2818	425	2798	414
	Power	kW	2	0.25	3.7	0.5	5	0.7	7.5	1.2	9	1.4	15	2.5	18.5	3	23	3.5
	Current	A	4.5	2.8	8.3	4.1	10.2	5.5	16.3	9.5	18.6	11	32.5	14	34.9	18	48	20
	Torque	N.m	6.45	6.1	13	12.3	16.4	15.3	27	24	31	30	54	48	61	61	78.5	81
	Power factor	$\cos\phi$	0.88	0.67	0.92	0.63	0.93	0.61	0.94	0.56	0.93	0.61	0.91	0.59	0.92	0.56	0.88	0.63
	Efficiency	$\eta$	0.68	0.24	0.72	0.3	0.72	0.3	0.75	0.28	0.79	0.28	0.77	0.45	0.86	0.47	0.83	0.42
3m/M6 S3-50%ED 300starts/h	Speed	r/min	2830	435	2850	420	2830	430	2730	390	2760	370	2810	440	2820	440	2870	440
	Power	kW	1.5	0.2	2.9	0.4	3.6	0.5	6	1	7.5	1.2	12	2	15	2.5	18	3
	Current	A	4.3	2.5	7	3.8	8.4	5	13.7	8.6	16	9	25	12	28	15	42	20
	Torque	N.m	4.9	4.9	9.8	9.8	12.3	12.3	19.2	19.2	24	24	38	38	48	48	62	62
	Power factor	$\cos\phi$	0.78	0.64	0.84	0.58	0.89	0.56	0.87	0.52	0.87	0.56	0.82	0.52	0.89	0.47	0.79	0.51
	Efficiency	$\eta$	0.64	0.22	0.76	0.29	0.74	0.29	0.74	0.27	0.79	0.28	0.8	0.43	0.82	0.43	0.84	0.42

440~480V 60Hz 3600/600r/min

Motor code		AD168M223N D01		AD168L223N D02		AD168X223N D03		AD195L222N D04		AD195X222N D05		AD245M226N D06		AD245L226N D07		AD245X218N D08		
Duty type		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-50%ED 300starts/h		
Synchronous speed	r/min	3600	600	3600	600	3600	600	3600	600	3600	600	3600	600	3600	600	3600	600	
Starting torque	N.m	12.4	10.7	24.6	21.7	34	28	54	44	63	51	102	82	114	101	160	140	
Starting current	A	23	4.7	43	7.3	49	8.4	70	14	80	15	149	25	207	35	220	35	
Maximum torque	N.m	17.6	12.2	34	24.6	42.6	30.6	63	48	83.7	60	145.8	82	137	111	182	130	
Brake torque	N.m	21		21		42		60		60		100		130		200		
No-load current	A	2.5	2.8	3.8	4.1	4	5.4	6	8.8	6.7	9.5	13	12	10	16	19	20	
Inertia	$\text{kgm}^2$	0.0027		0.0049		0.0059		0.0101		0.0116		0.036		0.043		0.043		
Weight	kg	21.6		34		36		52.6		56		90		115		115		
2m/M5 S3-40%ED240starts/h	Speed	r/min	3410	525	3400	500	3350	495	3230	450	3250	440	3320	515	3360	520	3430	530
	Power	kW	2.2	0.3	4.3	0.7	5.4	0.9	9	1.4	11	1.6	18	3	21	3.5	25	3.8
	Current	A	4.7	2.8	8.3	4	10	5.4	17	9.1	20	10	32	13	38	16	47	22
	Torque	N.m	6.1	6.1	12.3	12.3	15.3	15.3	24	24	30	30	48	48	62	62	69	69
	Power factor	$\cos\phi$	0.83	0.65	0.89	0.61	0.93	0.6	0.91	0.54	0.91	0.57	0.88	0.59	0.92	0.55	0.87	0.54
	Efficiency	$\eta$	0.71	0.28	0.75	0.38	0.74	0.36	0.74	0.34	0.75	0.35	0.8	0.5	0.81	0.52	0.86	0.49
3m/M6 S3-50%ED300starts/h	Speed	r/min	3450	540	3450	520	3410	530	3315	490	3320	470	3390	540	3410	540		
	Power	kW	1.8	0.25	3.5	0.5	4.3	0.7	7.2	1.2	9	1.4	14	2.3	18	3		
	Current	A	4.2	2.5	7.3	3.9	8.5	4.9	13	8.3	16	8.7	26	13	28	14		
	Torque	N.m	4.9	4.9	9.8	9.8	12.3	12.3	19.2	19.2	24	24	38	38	48	48		
	Power factor	$\cos\phi$	0.8	0.58	0.87	0.54	0.91	0.53	0.88	0.49	0.9	0.53	0.85	0.52	0.9	0.47		
	Efficiency	$\eta$	0.71	0.25	0.75	0.36	0.75	0.34	0.76	0.33	0.77	0.35	0.82	0.48	0.83	0.49		

## 2.4. Frequency control hoisting motor (Stepless)

Motor code	Lm	H1	H	Dref	d1	d2
F11	358	202	260	168	151	7.5
F12	448	202	260	168	151	7.5
F13	448	202	260	168	151	7.5
F14	518.5	228	286	195	176	9
F15	518.5	228	286	195	176	9
F16	637.5	271	329	245	214	11
F17	637.5	271	329	245	214	11
F18	677.5	271	329	245	214	11
F19	677.5	271	329	245	214	11



380~480V 3000r/min(100Hz) & 3600r/min(120Hz)

Motor code		AF168M423E		AF168L423E		AF168X423E		AF195L422E		AF195X422E		AF245M426E		AF245L426E		AF245X418E		AF245XA418E		
		F11		F12		F13		F14		F15		F16		F17		F18		F19		
Duty group		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		S3-60%ED 300starts/h		
Motor voltage	V	380 ~415	440 ~480																	
Frequency	Hz	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	
Synchronous speed	r/min	3000	3600	3000	3600	3000	3600	3000	3600	3000	3600	3000	3600	3000	3600	3000	3600	3000	3600	
Maximum torque	N.m	14	14	28	28	40	40	57	57	69	69	113	113	143	143	172	172	248	248	
Brake torque	N.m	21		21		42		60		60		100		100		130		200		200
No-load current	A	1	3	1.5	5.7	1.2	5.9	1.5	11	1.9	11	8.3	14	15	14	17	16	2.4	2.9	
Inertia	$\text{kgm}^2$	0.0027		0.0027		0.0027		0.0075		0.0075		0.024		0.024		0.03		0.036		
Weight	kg	23		33		41		50.5		54.9		80		102		106		106		
2m/M5 S3-40%ED 240starts/h	Speed	r/min	2830	3420	2790	3370	2860	3340	2860	3440	2830	3410	2910	3500	2890	3480	2890	3470	2855	3470
	Power	kW	2	2.2	3.7	4.3	5	5.4	7.5	9	9	11	15	18	18.5	21	23	27	28	34
	Current	A	5.17	4.9	9.4	9.3	10.2	10.8	17.3	19	21	22	31	31	36	37	42	44	54	56
	Torque	N.m	6.75	6.14	12.7	12.2	16.7	15.5	25	25	30	30	48	48	62	62	76	76	92	92
	Power factor	$\cos\phi$	0.7	0.75	0.71	0.77	0.75	0.8	0.78	0.75	0.78	0.78	0.85	0.85	0.87	0.87	0.88	0.88	0.89	0.89
	Efficiency	$\eta$	0.73	0.71	0.75	0.76	0.77	0.77	0.81	0.78	0.81	0.81	0.86	0.86	0.87	0.87	0.89	0.89	0.87	0.87
3m/M6 S3-50%ED 300starts/h	Speed	r/min	2860	3450	2830	3415	2830	3390	2900	3485	2860	3440	2925	3520	2910	3500	2910	3500	2920	3500
	Power	kW	1.5	1.8	2.9	3.5	3.6	4.3	6	7.2	7.5	9	12	14	15	18	18	21	23	27
	Current	A	4.4	4.6	8.3	8.2	9.3	9.3	15.5	17	18	19	25	26	31	31	34	36	45	46
	Torque	N.m	5	4.98	9.79	9.79	12.1	12.1	19.8	19.7	24	24	38	38	48	48	62	62	76	76
	Power factor	$\cos\phi$	0.69	0.72	0.69	0.7	0.72	0.76	0.67	0.69	0.74	0.75	0.79	0.81	0.85	0.85	0.86	0.86	0.84	0.86
	Efficiency	$\eta$	0.71	0.69	0.74	0.75	0.77	0.77	0.8	0.78	0.81	0.78	0.86	0.85	0.86	0.86	0.89	0.89	0.89	0.89

### 3. Travelling gearbox

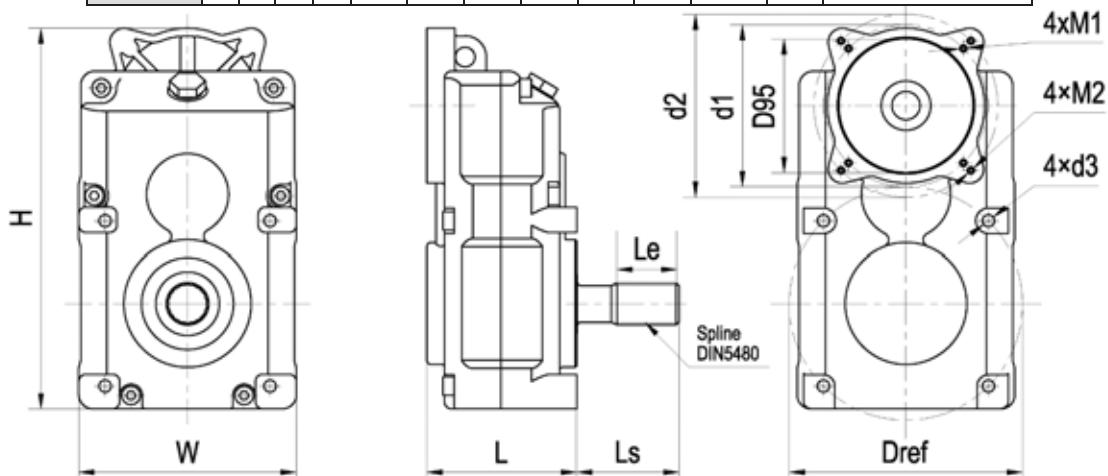
#### 3.1. Travelling gearbox code

<b>T</b>		<b>3</b>	<b>042</b>		<b>S</b>	<b>3</b>
Pos.	Code	Description	Properties			
1	<b>T</b>	Transmission				
2	<b>3</b>	Gear Type	0	Future Reservation		
			1、2	Trolley		
			3、4、5	Trolley, Bridge		
			6、7、8、9	Bridge, Gantry		
3	<b>042</b>	Ratio Code		006、015、025、032、042、056、063、072、090、100、115		
4	<b>S</b>	Secondary Shaft Type	G	Gear Shaft		
			H	Hollow Shaft + Keyway		
			K	Keyway		
			P	Shaft + Pinion		
			S	Spline Shaft		
5	<b>3</b>	Secondary Shaft Size	1	D55		
			2	D45		
			3	D30		
			4	D22		
			5	D25		

### 3.2. Dimension of travelling gearbox



Size Gearbox	Le	Ls	L	S	H	W	Dref	d1	d2	d3	M1	M2	Spline type (DIN 5480)
T3...S4	32	82	93	15	216	120	140	115	N/A	8.5	M6	N/A	W22x1.25x16x8f
T3...S3	46	86	93	15	216	120	140	115	N/A	8.5	M6	N/A	W30x1.5x18x8f
T4...S3	48	72	106	11	265	154	165	115	130	8.5	M6	M6	W30x1.5x18x8f
T4...S2	48	72	106	11	265	154	165	115	130	8.5	M6	M6	W45x2x21x8f
T5...S2	96	111	143	16	362	200	210	115	130	13	M6	M6	W45x2x21x8f
T5...S1	86	91	143	16	362	200	210	115	130	13	M6	M6	W55x2x26x8f
T6...S3	48	72	113.5	11	452	152	165	115	N/A	8.5	M6	N/A	W30x1.5x18x8f
T6...S2	48	72	108	11	527	152	165	115	130	8.5	M6	M6	W45x2x21x8f



Gearbox code	Ratio code	Ratio	Output Shaft Teeth of motor	Secondary Shaft Type	Secondary Shaft Size		Output Torque Nm
T2	6	6.18	11	G	3		24
T3	15	15.05	11	S	P	(S)3 (S)4 (P)5	60
	25	24.89	11	S	P	(S)3 (S)4 (P)5	100
	32	30.47	11	S	P	(S)3 (S)4 (P)5	120
	42	41.92	11	S	P	(S)3 (S)4 (P)5	165
	63	60.13	12	S	2	3	550
T4	72	72.8	12	S	2	3	570
	90	89.03	11	S	2	3	650
	100	107.8	11	S	2	3	680
	56	54.04	15	S	1	2	1350
T5	72	70.66	12	S	1	2	1450
	90	87.44	15	S	1	2	1900
	115	114.3	12	S	1	2	2030
	63	60.13	12	S	2	2	550
T6	72	72.8	12	S	2	2	570
	90	89.03	11	S	2	2	650
	100	107.8	11	S	2	2	680

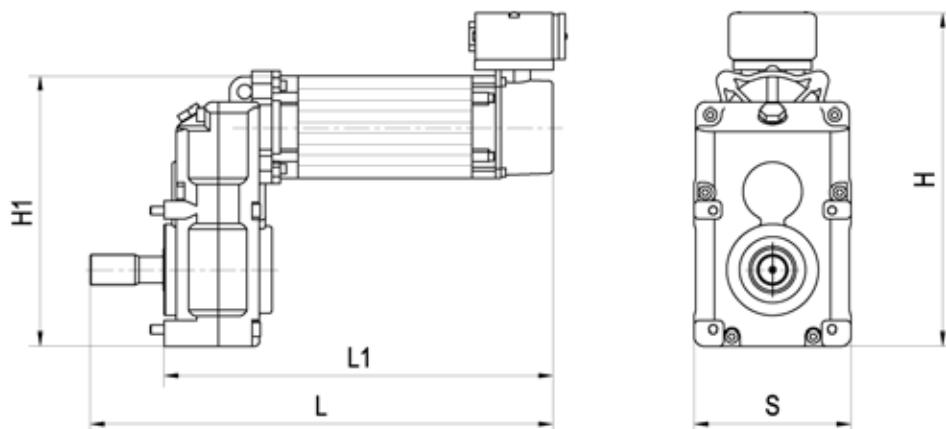
## 4. Gearmotor

### 4.1. Gearmotor code

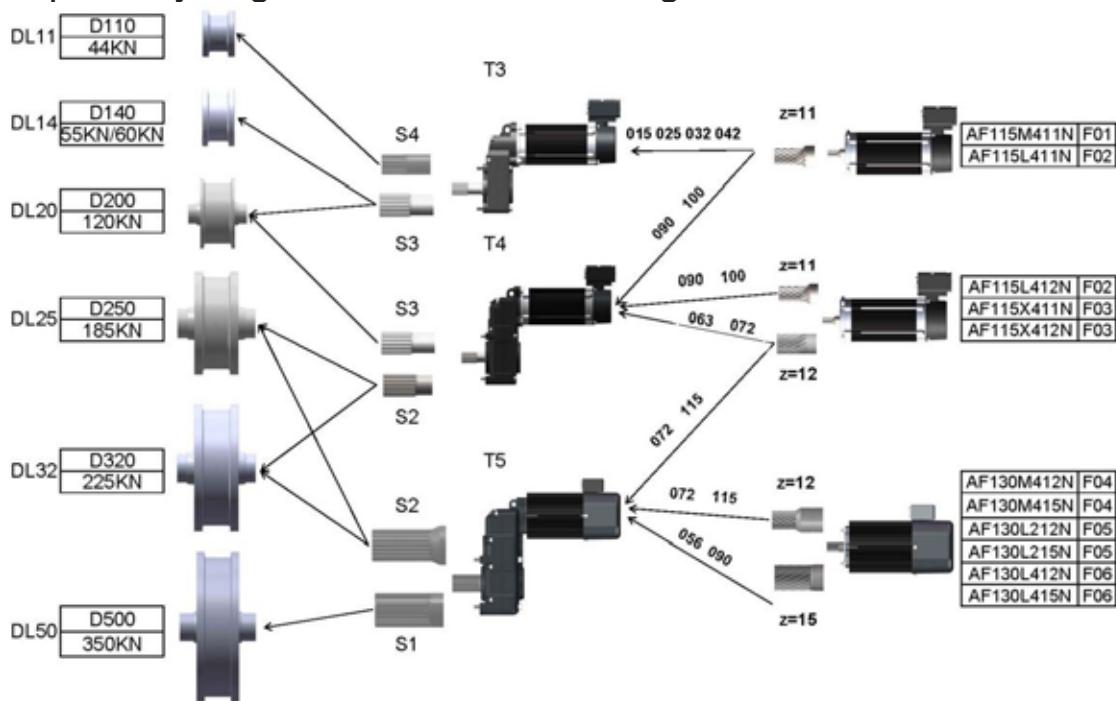
<b>T</b>	<b>3</b>	<b>042</b>	<b>S</b>	<b>3</b>	<b>F</b>	<b>115</b>	<b>L</b>	<b>4</b>	<b>11</b>	<b>N</b>
Pos.	Code	Description	Properties							
1	<b>T</b>	Transmission								
2	<b>3</b>	Gear Type	0	Future Reservation						
			1、2	Trolley						
			3、4、5	Trolley, Bridge						
			6、7、8、9	Bridge, Gantry						
3	<b>042</b>	Ratio Code		006、015、025、032、042、056、063、072、090、100、115						
4	<b>S</b>	Secondary Shaft Type	G	Gear Shaft						
			H	Hollow Shaft + Keyway						
			K	Keyway						
			P	Shaft + Pinion						
			S	Spline Shaft						
5	<b>3</b>	Secondary Shaft Size	1	D55						
			2	D45						
			3	D30						
			4	D22						
			5	D25						
6	<b>F</b>	Motor Type	D	Double speed						
			F	Frequency						
7	<b>115</b>	Frame Size	115	Mounting base Ø115						
8	<b>L</b>	Frame Length	S	Short frame						
			M	Medium frame						
			L	Long frame						
			X	Expanding frame						
			XA	Expanding A frame						
			XB	Expanding B frame						
			XC	Expanding C frame						
9	<b>4</b>	Pole Number	2	2 poles						
			4	4 poles						
10	<b>11</b>	Output Shaft Teeth of motor	11	11 teeth						
11	<b>N</b>	Special Properties	E	Encode included						
			H	Heating included						
			P	Pulse included						
			N	Normal (no additional)						

## 4.2. Dimension of gearmotor

Gearmotor code	L	L1	S	H	H1
T3...F115...	455	368	120	280	158
T4...F115...	454	381.5	154	326.5	190
T5...F115...	509.5	419	200	422	260
T5...F130...	553.5	463	200	427	282.5
T6...F115...	455.5	383.5	152	583	521



### 4.3. Compatibility of gearmotor & end carriage



End carriage	DN11				DN14				DN20							
Wheel diameter ( mm )	110				140				200							
Motor code	F01		F02		F01		F02		F01		F02		F02			
Motor speed ( rpm )	2855				2800				2855				2800			
Ratio	15	25	32	42	15	25	32	42	15	25	32	42	15	25	32	42
Bridge speed ( m/min )	66	39	31	23	65	39	30	23	84	50	39	30	82	49	38	29
End carriage	DN20				DN25								DN32			
Wheel diameter ( mm )	200				250								320			
Motor code	F03		F02		F03		F04		F05		F06		F02			
Motor speed ( rpm )	2770				2800				2770				2860			
Ratio	63	72	90	100	63	72	90	100	63	72	90	100	56	72	90	115
Bridge speed ( m/min )	28	24	19	17	35	31	24	22	35	30	24	22	40	31	25	20
End carriage	DN32								DN50							
Wheel diameter ( mm )	320								500							
Motor code	F03		F04		F05		F06		F04		F05		F06			
Motor speed ( rpm )	2770				2860				4460				2800			
Ratio	63	72	90	100	56	72	90	115	56	72	90	115	56	72	90	115
Bridge speed ( m/min )	44	39	31	28	51	40	32	25	80	62	50	39	50	39	31	24

## 5. End carriage

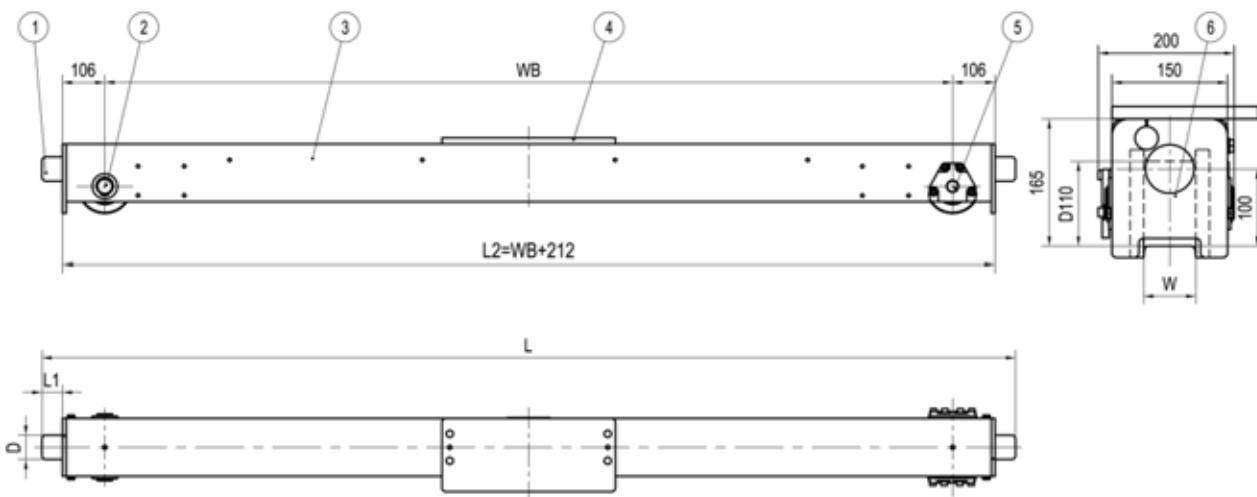
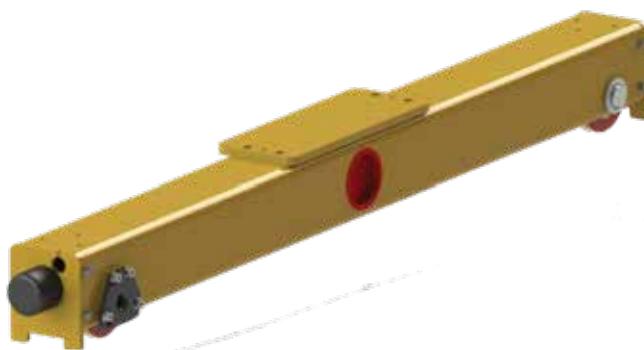
### 5.1. End carriage code

<b>DN20</b>	<b>B</b>	<b>WB</b>	<b>W</b>	<b>S</b>	<b>K4</b>	<b>Y1</b>	<b>C</b>	<b>Y2</b>	<b>M</b>	<b>N</b>
-------------	----------	-----------	----------	----------	-----------	-----------	----------	-----------	----------	----------

Pos.	Code	Description	Parameter								
1	<b>DN20</b>	End carriage type and wheel diameter	Wheel diameter 20=200mm								
2	<b>B</b>	Description	-	Standard							
			B	Bogie(with DN20,DN25,DN32,DN50)							
			C	Asymmetrical joint with single girder							
3	<b>WB</b>	Wheel base(100mm)	DN11 14,18,22 DN14 14,18,22,27,31,38 DN20 18, 22,27,31,38 DN25 22,27,31,38,45,50,55 DN32 22,27,31,38,45,50,55 DN50 22,27,31,38,45,50,55								
4	<b>W</b>	Groove width	DN11 50~75 DN14 50~75 DN20 55~100(100 is 99 in code) DN25 55~100(100 is 99 in code),101~125(special design) DN32 55~100(100 is 99 in code),101~125(special design) DN50 55~100(100 is 99 in code),101~125(special design)								
5	<b>S</b>	Number of driving wheels	S	One driving wheel							
			D	Two driving wheels							
6	<b>K4</b>	Joint type	Top joint	DN11,DN14 P4,P6 DN20 L3,L4,L5 DN25,DN32,DN50 K4,K5,K7,K9							
			Side joint	DN20 R3,R4,R5 DN25,DN32,DN50 S4,S5,S6,S7							
7	<b>Y1</b>	Bolt joint distance	4 digits								
8	<b>C</b>	Buffer type	Type	L1	D	Material	Type	L1	D	Material	
			A	53	63	Rubber	E	150	100	Polyurethane	
			B	68	80	Rubber	F	190	125	Polyurethane	
			C	85	100	Rubber	G	100	100	Polyurethane	
			D	105	125	Rubber	H	160	160	Polyurethane	
							I	200	200	Polyurethane	
9	<b>Y2</b>	Inner wheel distance	4 digits								
10	<b>M</b>	Bogie connection hole distance	4 digits								
11	<b>N</b>	Option	N	N= Normal (standard delivery)							
			E	E= Extensional (tailor made)							

## 5.2. DN11 End carriage

DN11- End carriage	WB (100mm)	Weight (kg)
14	86	
18	103	
22	120	
27	141	



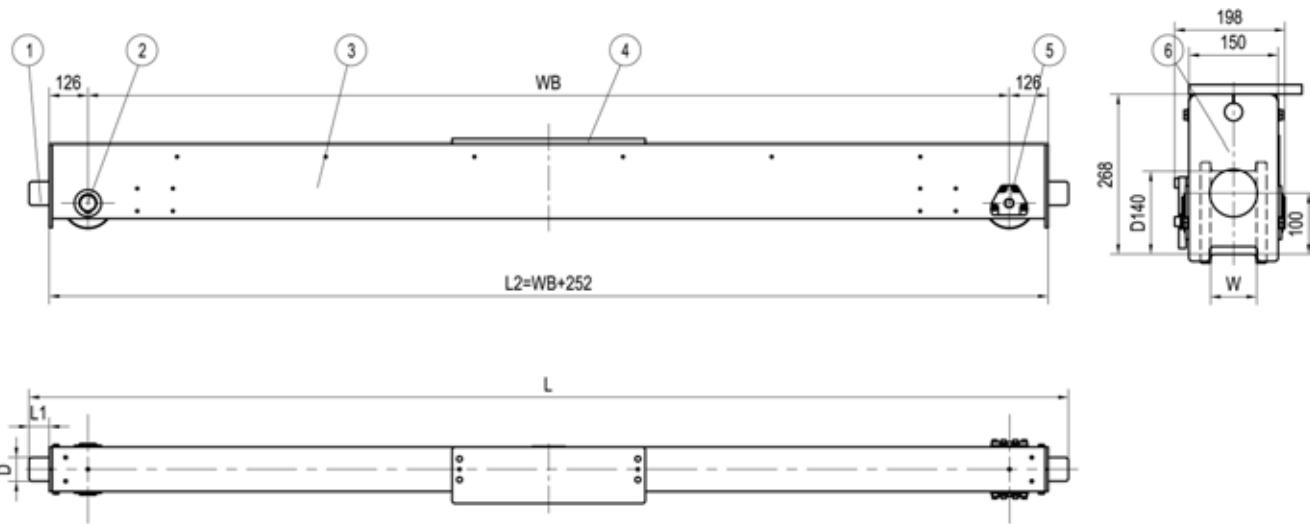
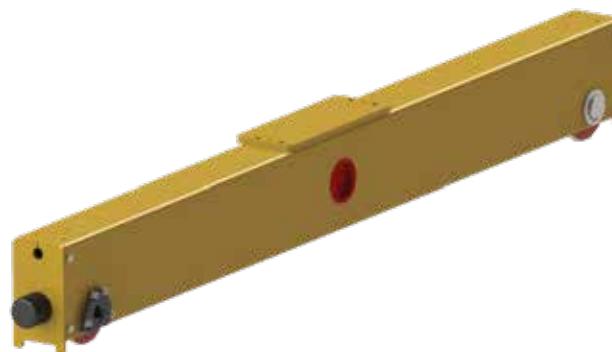
① Buffer; ② Wheel (idle); ③ End carriage; ④ Joint plate; ⑤ Wheel (drive); ⑥ Integrated derailment support

\*W=75;

\*Dimension L1, D see 5.1

### 5.3. DN14 End carriage

DN14- End carriage	WB (100mm)	Weight (kg)
	14	125
	18	157
	22	179
	27	208
	31	231
	38	272



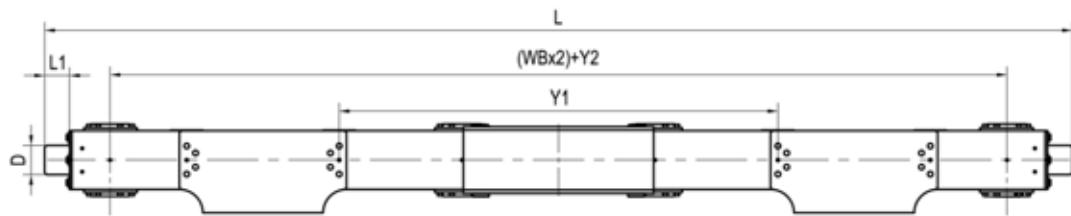
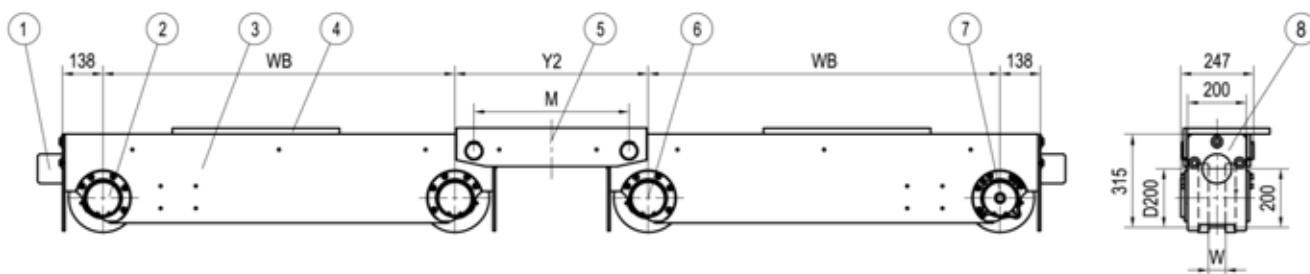
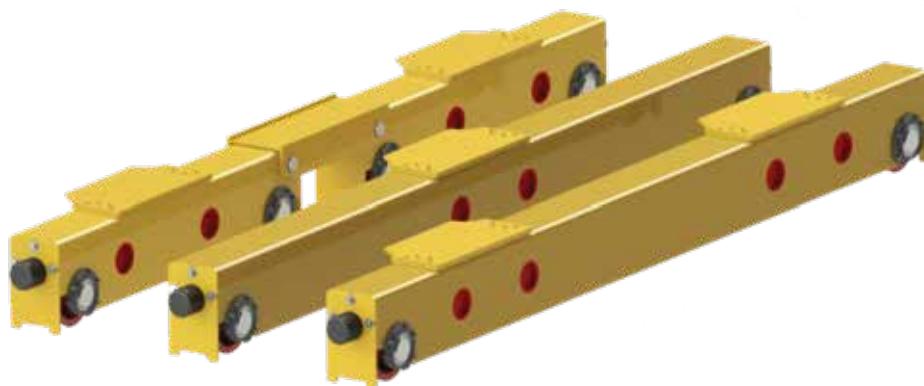
① Buffer; ② Wheel (idle); ③ End carriage; ④ Joint plate; ⑤ Wheel (drive); ⑥ Integrated derailment support

\*W=75;

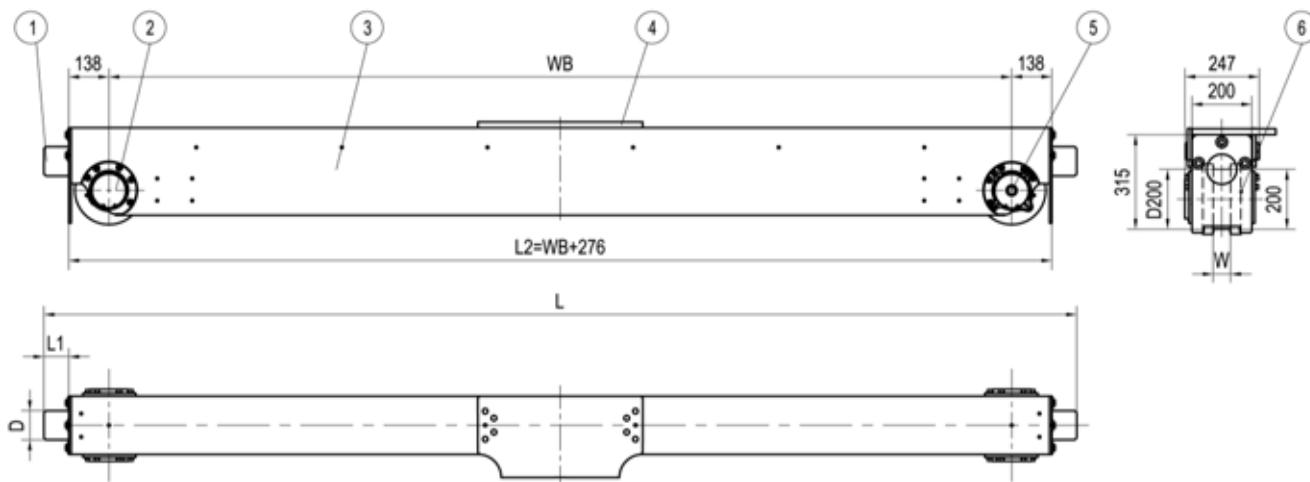
\*Dimension L1, D see 5.1

## 5.4. DN20 End carriage

	WB (100mm)	Weight (kg)
DN20B End carriage	12	169
	14	185
	16	198
	18	213
	20	228
DN20- End carriage	18	213
	22	242
	27	285
	31	315
	38	351



① Buffer; ② Wheel (idle or drive); ③ End carriage; ④ Joint plate; ⑤ Bogie; ⑥ Wheel (idle); ⑦ Wheel (drive);  
⑧ Integrated derailment support



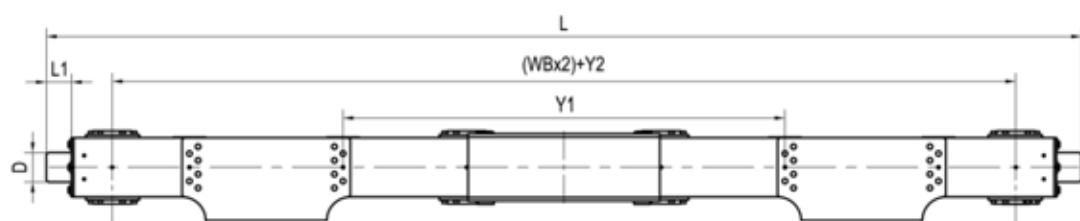
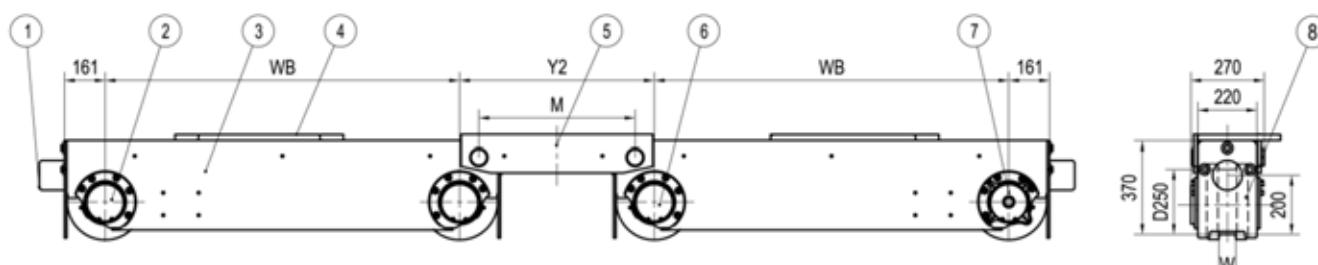
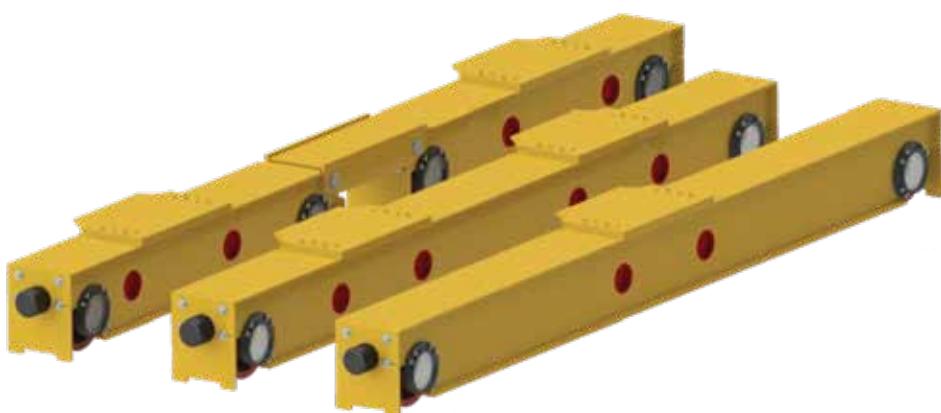
① Buffer; ② Wheel (idle); ③ End carriage; ④ Joint plate; ⑤ Wheel (drive); ⑥ Integrated derailment support

\*W=75; 95;

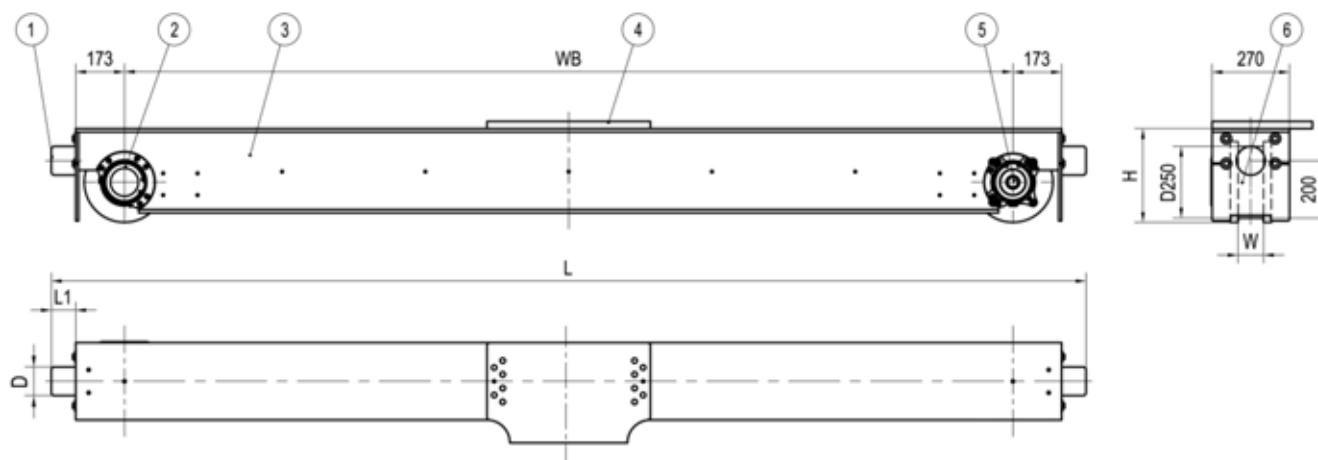
\*Dimension L1, D see 5.1

## 5.5. DN25 End carriage

DN25B End carriage	WB (100mm)	Wight (kg)	H (mm)
14	311	370	
16	331	370	
18	357	370	
20	382	370	
DN25- End carriage			
22	408	310	
27	470	310	
31	520	312	
38	608	316	
45	675	416	
50	733	416	
55	796	416	



- ① Buffer; ② Wheel (idle or drive); ③ End carriage; ④ Joint plate; ⑤ Bogie; ⑥ Wheel (idle); ⑦ Wheel (drive);  
⑧ Integrated derailment support



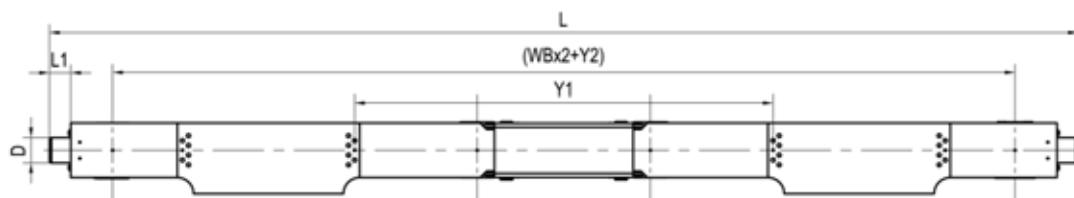
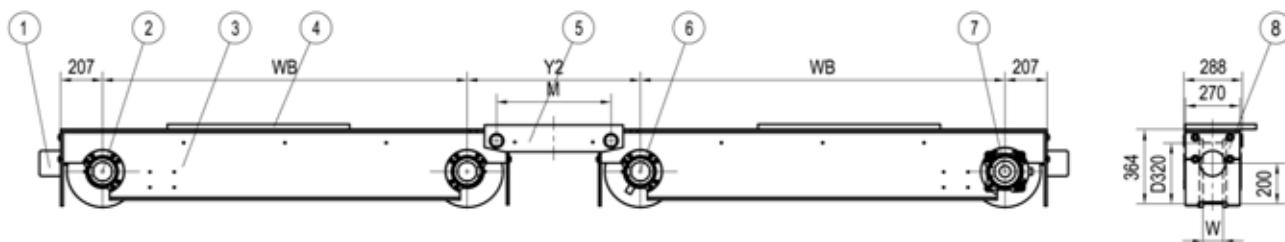
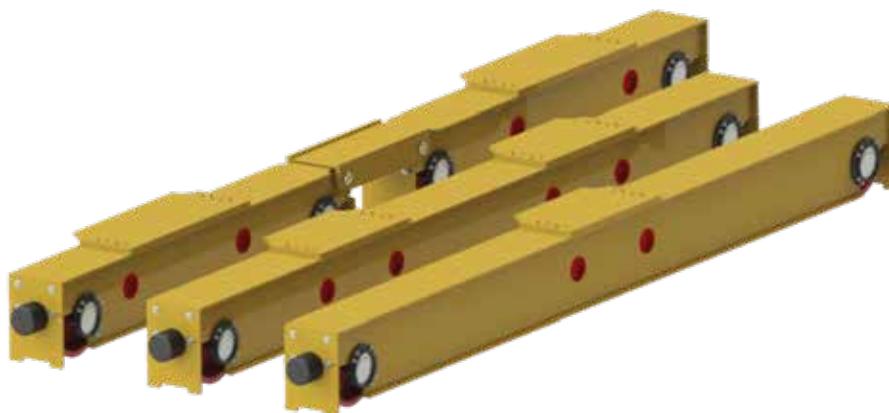
- ① Buffer; ② Wheel (idle); ③ End carriage; ④ Joint plate; ⑤ Wheel (drive); ⑥ Integrated derailment support

\*W=55~100 (100 is 99 in code);

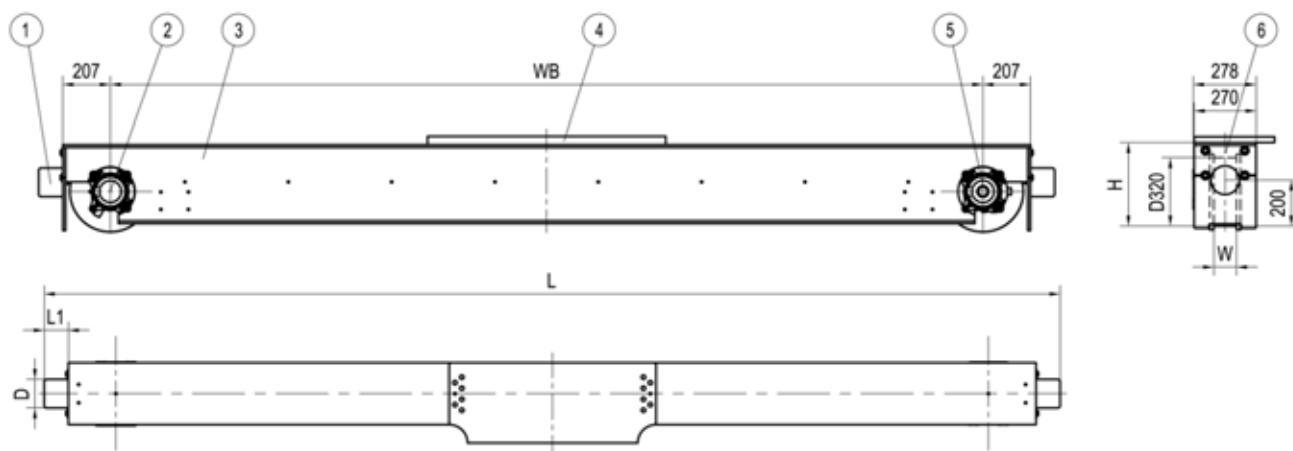
\*Dimension L1, D see 5.1

## 5.6. DN32 End carriage

	WB (100mm)	Weight (kg)	H (mm)
DN32B End carriage	14	388	364
	16	415	364
	18	443	364
	20	470	364
	22	498	364
	27	567	364
	31	622	364
	38	719	366
DN32- End carriage	45	763	534
	50	906	538
	55	970	538



- ① Buffer; ② Wheel (idle or drive); ③ End carriage; ④ Joint plate; ⑤ Bogie; ⑥ Wheel (idle); ⑦ Wheel (drive);  
⑧ Integrated derailment support



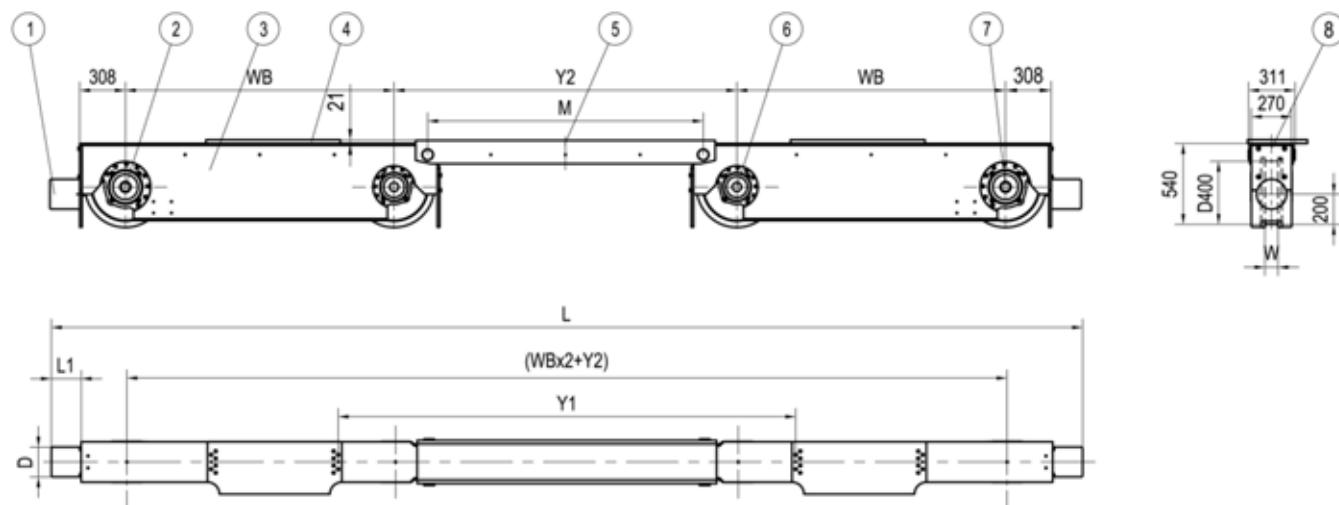
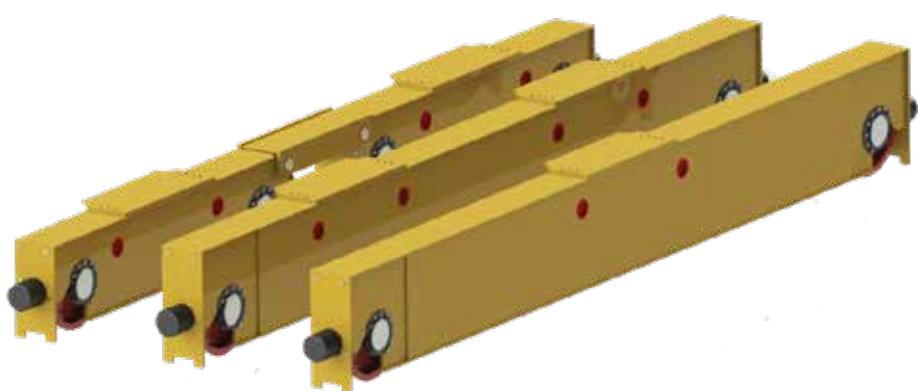
- ① Buffer; ② Wheel (idle); ③ End carriage; ④ Joint plate; ⑤ Wheel (drive); ⑥ Integrated derailment support

\*W=75; 95;

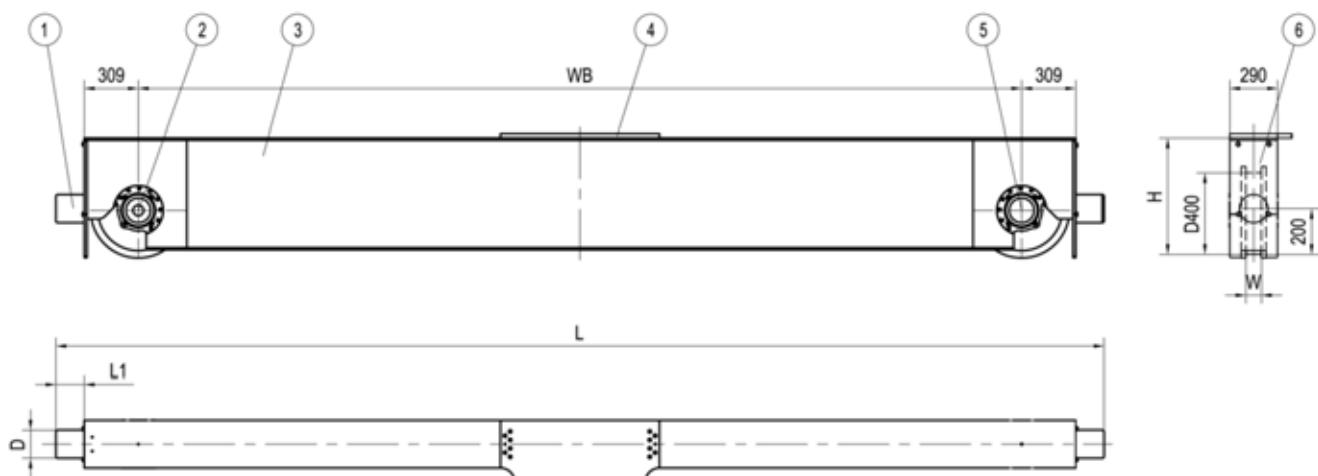
\*Dimension L1, D see 5.1

## 5.7. DN40 End carriage

	WB (100mm)	Weight (kg)	H (mm)
DN40B End carriage	16	645	540
	18	686	540
	20	727	540
DN40- End carriage	22	685	540
	27	804	544
	31	863	544
	38	1043	548
	45	1200	664
	50	1379	668
	55	1471	668



① Buffer; ② Wheel (idle or drive); ③ End carriage; ④ Joint plate; ⑤ Bogie; ⑥ Wheel (idle); ⑦ Wheel (drive);  
⑧ Integrated derailment support



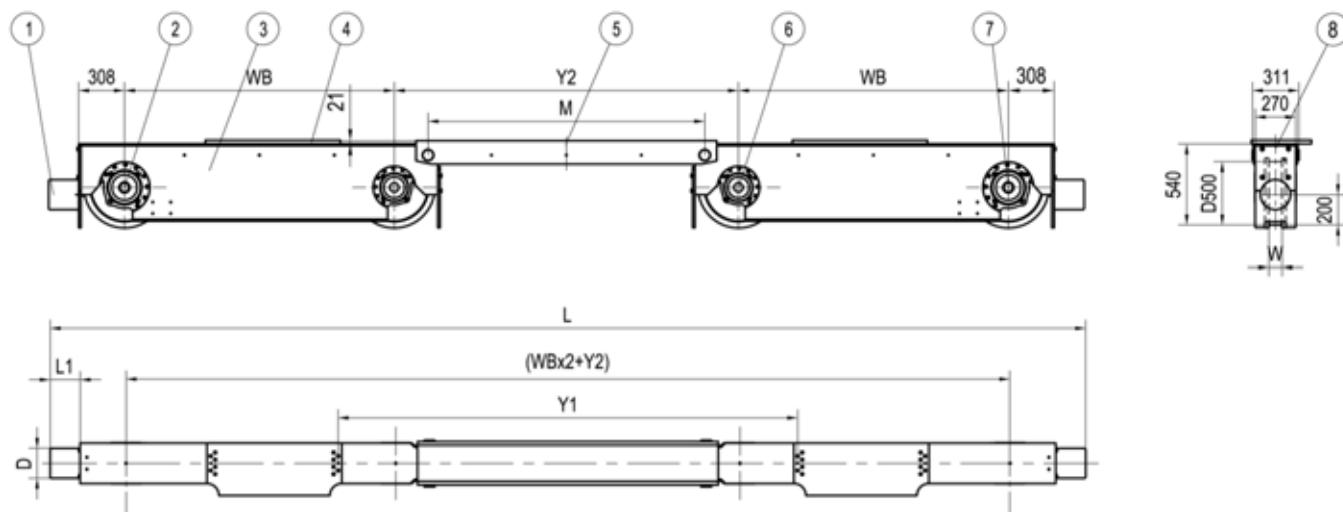
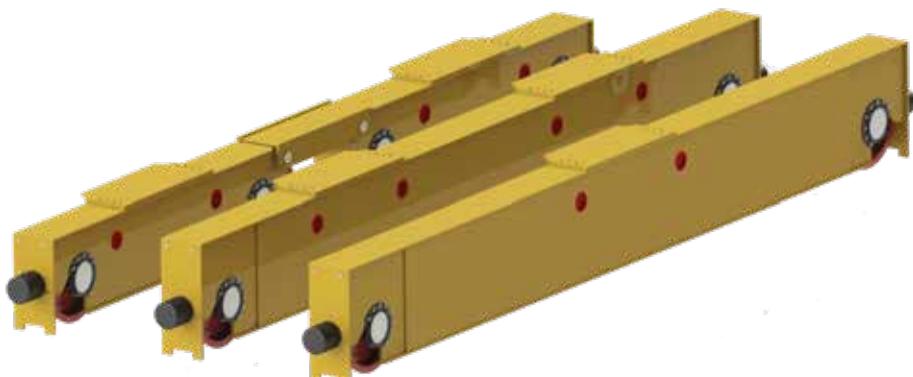
① Buffer; ② Wheel (drive); ③ End carriage; ④ Joint plate; ⑤ Wheel (idle); ⑥ Integrated derailment support

\*W=75; 95;

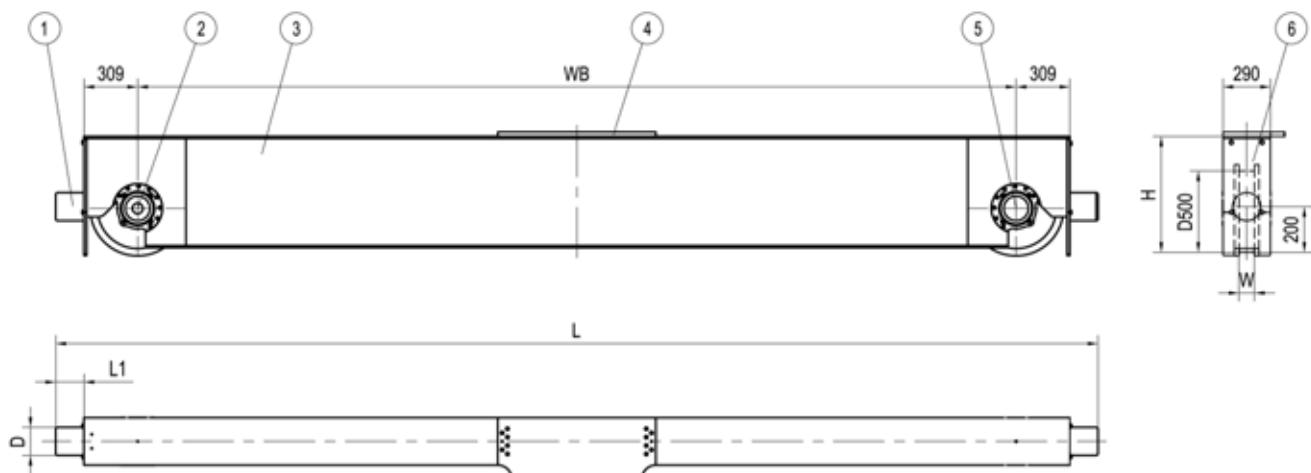
\*Dimension L1, D see 5.1

## 5.8. DN50 End carriage

	WB (100mm)	Weight (kg)	H (mm)
DN50B End carriage	16	725	540
	18	766	540
	20	807	540
	22	765	540
	27	884	544
	31	943	544
	38	1123	548
	45	1280	664
	50	1459	668
	55	1551	668



① Buffer; ② Wheel (idle or drive); ③ End carriage; ④ Joint plate; ⑤ Bogie; ⑥ Wheel (idle); ⑦ Wheel (drive);  
⑧ Integrated derailment support



① Buffer; ② Wheel (drive); ③ End carriage; ④ Joint plate; ⑤ Wheel (idle); ⑥ Integrated derailment support

\*W=95;

\*Dimension L1, D see 5.1

## 6. Underrunning end carriage

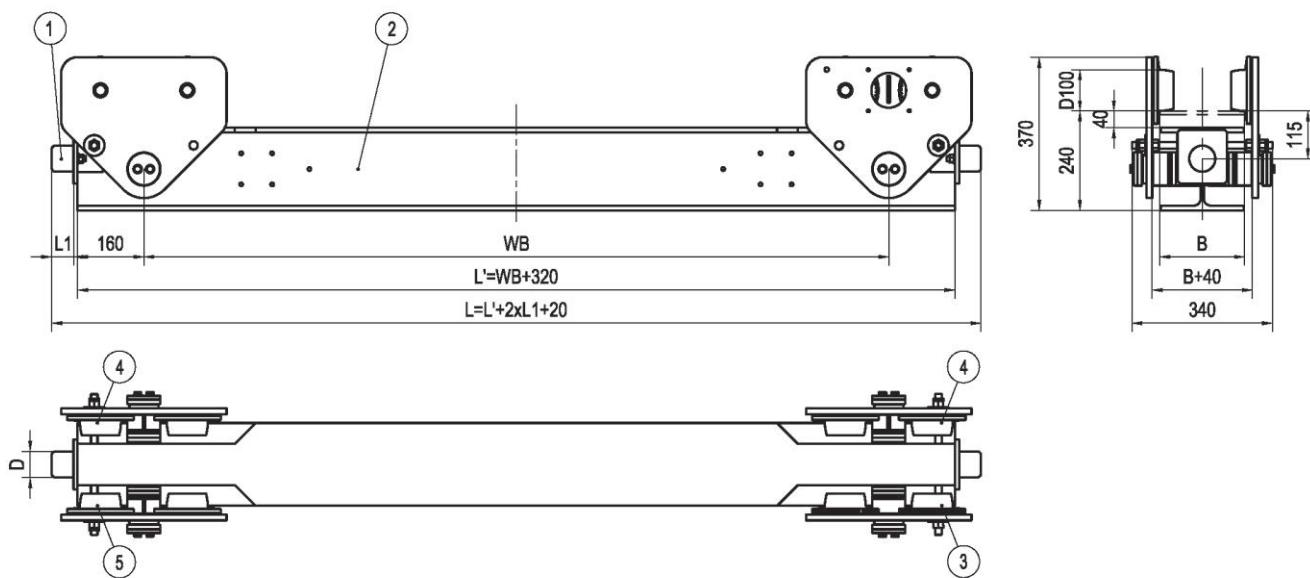
### 6.1. Underrunning end carriage code

<b>DU10</b>	-	<b>WB</b>	<b>B</b>	<b>S</b>	<b>U4</b>	<b>C</b>	<b>L'</b>	<b>L</b>	<b>N</b>	<b>N</b>
-------------	---	-----------	----------	----------	-----------	----------	-----------	----------	----------	----------

Pos.	Code	Description	Parameter								
1	<b>DU10</b>	Underrunning end carriage type and wheel diameter	Wheel diameter 10=100mm								
2	-	Description	-	Standard							
3	<b>WB</b>	Wheel base(100mm)	DU10 12,14,18,22,25,28 DU13 12,14,18,22,25,28 DU16 18,22,25,28								
4	<b>B</b>	Track width(mm)	DU10 82~200 DU13 86~200 DU16 90~300								
5	<b>S</b>	Number of driving wheels	S	One driving wheel							
6	<b>U4</b>		D	Two driving wheels							
7	<b>C</b>	Buffer type	Type	L1	D	Material	Type	L1	D	Material	
8	<b>L'</b>		A	53	63	Rubber	C	85	100	Rubber	
9	<b>L</b>		B	68	80	Rubber	D	105	125	Rubber	
10	<b>N</b>	Option	N	N= Normal (same colour with main girder)							
11	<b>N</b>		E	E= Extensional (tailor made)							
10	<b>N</b>	Option	N	N= Normal (standard delivery)							
11	<b>N</b>		E	E= Extensional (tailor made)							

## 6.2. DU10 Underrunning end carriage

DU10- Underrunning end carriage	WB (100mm)	Weight (kg)
12	167	
14	177	
18	197	
22	217	
25	232	
28	248	

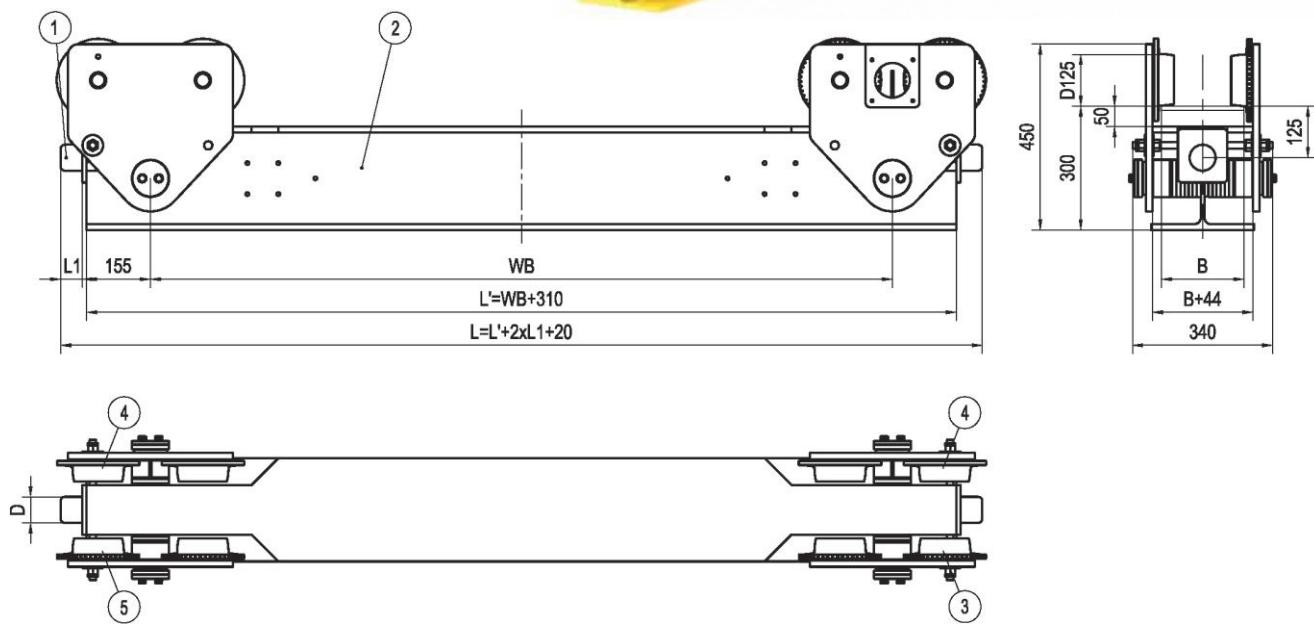


① Buffer; ② End carriage; ③ Wheel(drive); ④ Wheel (idle); ⑤Wheel(idle or drive)

\*Dimension  $L_1$ ,  $D$ ,  $B$  see **6.1**

### 6.3. DU13 Underrunning end carriage

DU13- Underrunning end carriage	WB (100mm)	Weight (kg)
12	233	
14	247	
18	276	
22	305	
25	327	
28	348	

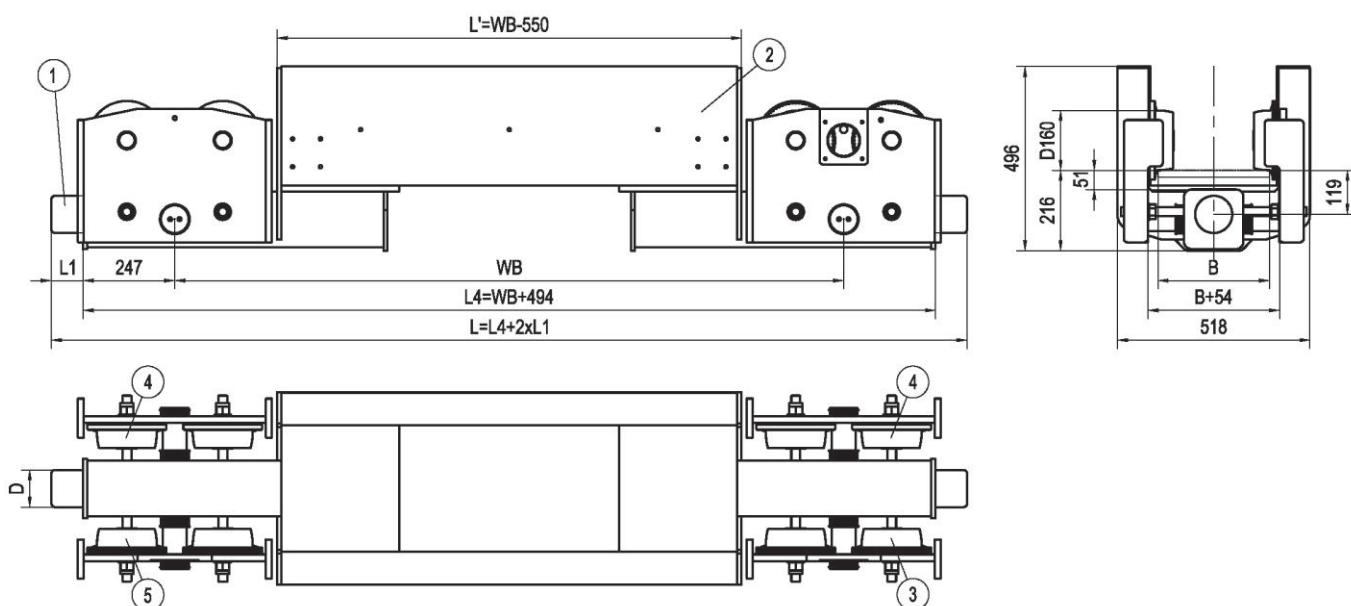


① Buffer; ② End carriage; ③ Wheel(drive); ④ Wheel (idle); ⑤Wheel(idle or drive)

\*Dimension  $L_1$ ,  $D$ ,  $B$  see **6.1**

## 6.4. DU16 Underrunning end carriage

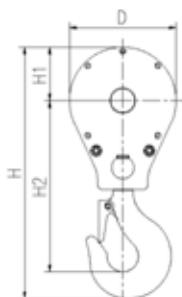
DU16- Underrunning end carriage	WB (100mm)	Weight (kg)
18	441	
22	477	
25	506	
28	535	



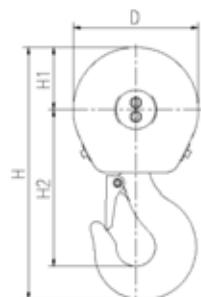
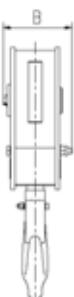
① Buffer; ② End carriage; ③ Wheel(drive); ④ Wheel (idle); ⑤Wheel(idle or drive)

\*Dimension  $L1$ ,  $D$ ,  $B$  see 6.1

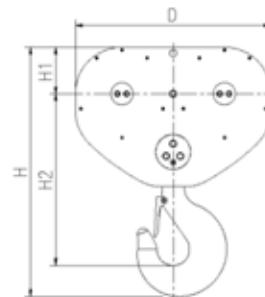
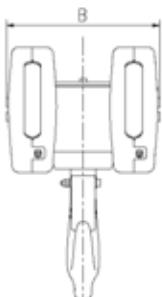
## 7. Hook



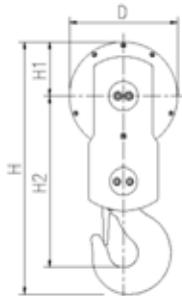
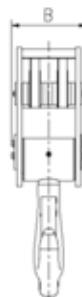
Type 1



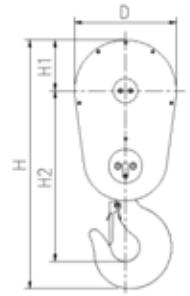
Type 2



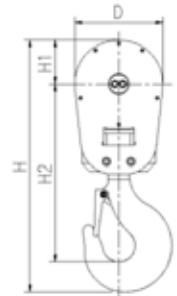
Type 3



Type 4



Type 5



Type 6



Hoist type	Rope	Hook forging	Hook type	Hook block dimensions (mm)					Weight(kg)
				H	H1	H2	D	B	
K21	02	RSN1.6T	1	449	96	306	191	123	12
	04	RSN1.6T	2	360	90	223	179	220	15
K31	02	RSN1.6T	1	468	107	303	214	123	16
	04	RSN2.5T	2	418	103	257	205	247	27
K41	02	RSN2.5T	1	604	145	400	290	107	23
	04	RSN5T	2	580	143	364	285	331	65
	06	RSN5V	4	689	148	467	296	238	72
	08	RSN5V	4	689	148	467	296	238	76
K42	02	RSN5T	6	616	108	434	216	188	45
	04	RSN5T	6	616	108	434	216	188	52
	06	RSN5V	3	583	110	399	510	232	85
K51	02	RSN5V	4	792	197	521	394	244	86
	04	RSN5V	4	792	197	521	394	244	102
	06	RSN10T	5	976	200	689	400	276	190
	08	RFN16T	5	1100	200	768	400	324	284
K52	02	RSN5V	2	580	143	364	285	331	65
	04	RSN5V	3	831	150	574	660	276	186
	06	RSN10T	3	831	150	574	660	276	198
K62	02	RSN5V	4	792	197	521	394	244	102
	04	RFN16T	3	1067	200	734	840	320	374
	06	RFN20T	3	1167	210	805	900	379	524
	08	RFN25T	3	1257	210	875	900	395	675

[www.worldhoists.com](http://www.worldhoists.com)

华德起重机(天津)股份有限公司  
WORLDHOISTS (Tianjin) CO., LTD.

天津市武清区京滨工业园民丰道1号

Minfeng Rd. 1#, Jingbin Industry Park,Wuqing District,Tianjin,P.R.China

Tel: 022-2210 9090

Fax: 022-2146 7189

E-mail:sales@worldhoists.com



扫码关注微信公众号

HTD032V19.0

