

**THE NEW SERIES 31  
MUNCK WIRE ROPE HOISTS**



**munck**

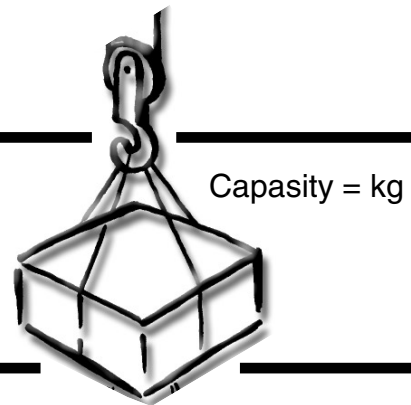
# USE CRITERIA AND OPERATING CONDITIONS

Correct hoist operation and full satisfactory performance of its functions in the design operating range, depend on the careful identification of the operating limitations.

Regulation FEM 9,5,11 permits the hoists to be classified based on their operating conditions (duty)

The parameters needed to calculate the use limitations of the electric wire-rope hoist are the following:

- 1) Actual capacity
- 2) Stress level
- 3) Average time of daily operation



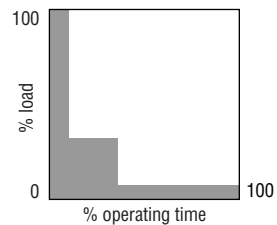
## 1) Actual capacity

Actual capacity is defined by the heaviest load to be hoisted (nominal capacity must be higher than or equal to actual capacity)

## 2) Stress level

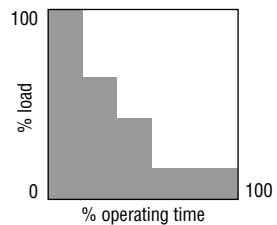
Stress levels are evaluated based on the weight of the hoisted loads; they can be divided into the four load spectra shown below, which define the kind of duty.

### 1- light duty



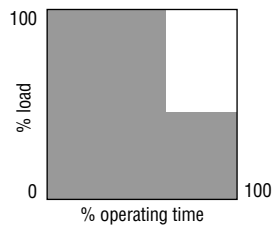
Electric hoists which rarely hoist the maximum load and usually hoist light loads.

### 2-medium duty



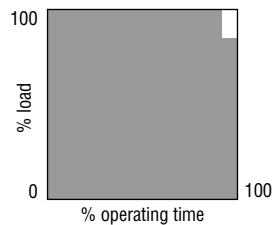
Electric hoists which usually hoist maximum medium and light loads in the same proportion.

### 3-heavy duty



Electric hoists which frequently hoist the maximum load and usually hoist medium loads.

### 4- very heavy duty



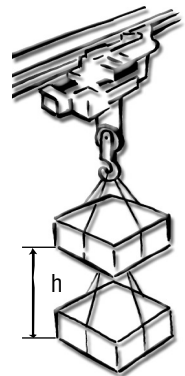
Electric hoists which usually hoist loads close to maximum load

## 3) Average time of daily operation: $T_m = \text{hours}$

As to hoisting operations, this time is determined by use of the following formula:

$$T_m = \frac{h \cdot C/h \cdot T_i}{30 \cdot V}$$

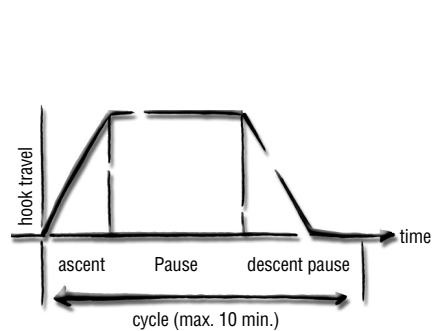
### Actual hook travel



$h = \text{Hook travel}$

It is actual load travel average

### Duty cycles



$C/h = \text{cycles per hour}$

It is the number of complete ascent/descent operations in an hour

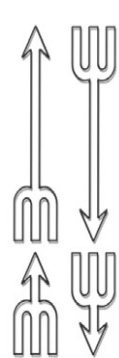
### Operating time



$T_i = \text{hours}$

It is the time (hours) during which the hoist is used on a working day

### Hoisting speed



$V = \text{m/min}$

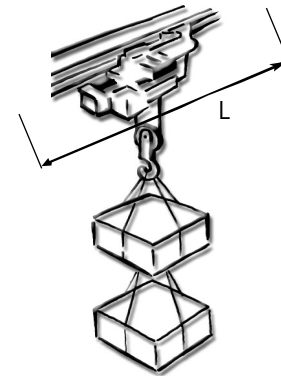
It is the distance traveled by the load in 1 minute.

# USE CRITERIA AND OPERATING CONDITIONS

As to horizontal displacement, operating time is determined by use of the following formula:

$$T_m = \frac{P_m \cdot C/h \cdot T_i}{30 \cdot V}$$

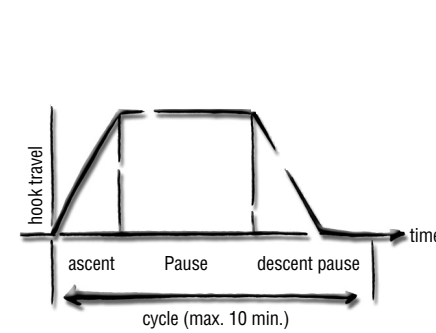
### Actual average travel



$P_m (m) = L/2$

It is the average length of the trolley beam

### Operating cycles



$C/h = \text{cycles per hour}$

It is the number of complete translations (left/right) performed in one hour

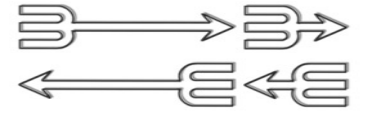
### Operating time



$T_i = \text{hours}$

It is the time during which the trolley is operated during a work day

### Travelling speed



$V = \text{m/min}$

It is the distance traveled by the trolley during 1 minute of continuous operation.

At this point, having determined the **Stress Level** and the **Daily Operating Time** for both the hoisting and the horizontal displacement operations, it is possible to identify the group to which the devices belong based on the following table. Then, the type of suitable hoist is identified as a function of the **Capacity**.

Stress level		Average daily operation time - $T_m = \text{Hours}$						
1) Light duty		≤ 2	≤ 4	≤ 8	≤ 16	≤ 16	-	
2) Medium duty		≤ 1	≤ 2	≤ 4	≤ 8	≤ 16	> 16	
3) Heavy duty		≤ 0,5	≤ 1	≤ 2	≤ 4	≤ 8	≤ 16	
4) Very heavy duty		≤ 0,25	≤ 0,5	≤ 1	≤ 2	≤ 4	≤ 8	
FEM group of the hoisting mechanisms		ISO 4301/88	M3	M4	M5	M6	M7	M8
		FEM 9.511/86	1Bm	1Am	2m	3m	4m	5m
Use in Intermittent duty according to FEM 9.683/95	Hoist	Intermittance ratio (R1%)	25	30	40	50	60	60
		No. of starts per hour (A/h)	150	180	240	300	360	360
	Trolley	No. of cycles per hours (C/h)	25	30	40	50	60	60
		intermittence ratio (R1%)	20	25	30	40	50	60
		No. of starts per hour (A/h)	120	150	180	240	300	> 360
		No. of cycles per hour (C/h)	20	25	30	40	50	> 60
Two-speed double polarity motor	No. of starts per hour (A/h)	Main speed	1/3 (33,3% of total starts per hour)					
		Slow speed	2/3 (66,7% of total starts per hour)					
		Daily operating time	Main speed 2/3 (66,7% of average daily operating time)					
			Slow speed 1/3 (33,3% of average daily operating time)					
Used in temporary duty	Operating time at main speed (min.)	15	15	30	30	60	> 60	
	Operating time at slow speed (min.)	2,5	3	3,5	4	5	6	
	Maximum number of starts per hour (A/h)	10	10	10	10	10	10	

**EXAMPLE:** Determination of the average daily operating time ( $T_m$ ) given:

**Capacity = 3200kg; Stress level = Medium duty 2); Actual hook travel ( $h$ ) = 3 m;**

**Number of cycles per hour ( $C/h$ ) = 10; Daily operation time ( $T_i$ ) = 8; Hoisting speed ( $V$ ) = 4 m/min. with a four rope falls hoist**

$$T_m (\text{hours}) = \frac{h \cdot C/h \cdot T_i}{30 \cdot V} = \frac{3 \cdot 10 \cdot 8}{30 \cdot 4} = 2\text{h}$$

In the hoist selection, find the Capacity (3200kg), the medium duty stress level (2), and the average daily operating time ( $T_m = 2\text{h}$ ). The combination of these data will determine the required type of wire-rope hoist, with 4/1 rope falls. The hoist is: **FEM group 1Am**

**MUNCK CRANES AS  
PRODUCT STANDARD  
OVERVIEW FIXED MOUNTED HOIST**

Fig I	ISO 4308 Gruppe/Group Kg			Lifting speed m/min	Height of lift m	HOIST TYPE	Rev.	Falls of rope	Fig. Nr.
	m4/M4	m5/M5	m6/M6						
	FEM Gruppe/Group Kg								
	1m/M4	2m/M5	3m/M6						
<p><b>FIXED MOUNTED HOIST</b></p>	800	800	630	16/4	25,5 36,5 45 61,3 76,7	3101D1111 3101D2111 3101D3111 3101D4111 3101D5111	A	1	I
	1250	1250	1000	16/4	25,5 36,5 45 61,3 76,7	3111D1111 3111D2111 3111D3111 3111D4111 3111D5111		1	I
	2000	2000	1600	16/5	26,2 35,6 48,8 66,7 83,5	3121B1111 3121B2111 3121B3111 3121B4111 3121B5111		1	I
	2500	2500	2000	16/5	26,2 35,6 48,8 66,7 83,5	3122B1111 3122B2111 3122B3111 3122B4111 3122B5111		1	I
	4000	3200	2500	17/5,5	31,9 44,0 60,5 85,2	3131B1111 3131B2111 3131B3111 3131B4111		1	I
	5000	5000	4000	17/5	31,0 47,5 76,4 100,2	3141A1111 3141A2111 3141A3111 3141A5111		1	I

BUILDING DIMENSION MM														* Weigth Kg	See product info sheet no.
A mm	B mm	b mm	C mm	E mm	G mm	H mm	h mm	h1 mm	I mm	L mm	T mm	g1 mm	Hook dia.Ø		
394	323	220	97	1167 1347 1487 1752 2005	130	450	340	210	193	603 783 923 1188 1441	70	420 600 740 1005 1258	34	181 192 201 224 232	3101-1111
405	323	220	97	1178 1358 1498 1763 2016	130	450	340	210	193	603 783 923 1188 1441	70	420 600 740 1005 1258	40	190 202 211 234 243	3111-1111
570	405	310	109,5	1446 1596 1816 2116 2396	180	500	343	188	225	642 792 1012 1312 1592	70	445 595 815 1115 1395	46	266 281 296 321 336	3121-1111
584	405	310	109,5	1460 1610 1830 2130 2410	180	500	343	188	225	642 792 1012 1312 1592	70	445 595 815 1115 1395	46	274 289 304 329 344	3122-1111
700	485	310	122,5	1754 1974 2274 2724	190	600	415	230	295	792 1012 1312 1762	81	580 800 1100 1550	56	610 680 660 700	3131-1111
704	638	400	185	1884 2140 2589 2949	383	800	525	300	255	710 966 1415 1775	97	482 738 1187 1555	63	675 720 850 890	3141-1111
6150	6150	5000	13/4	40,0 60,0 80,0 90,0 107,0										1030 1090 1150 1180 1240	3151-1111
8000	7500	6000	20,5/3,5	40,0 60,0 80,0 90,0 107,0										1160 1220 1280 1310 1370	3161-1111
9000	8000	6300	16/2,7	40,0 60,0 80,0 90,0 107,0										1160 1220 1280 1310 1370	3171-1111
<p><b>FIXED MOUNTED HOIST</b></p>	1600	1600	1250	8/2	12,8 18,3 22,5 30,7 38,4	3201D1211 3201D2211 3201D3211 3201D4211 3201D5211	A	2	III						
	2500	2500	2000	8/2	12,8 18,3 22,5 30,7 38,4	3211D1211 3211D2211 3211D3211 3211D4211 3211D5211	A	2	III						
	4000			8/2,5	13,1 17,8 24,4 33,4 41,8	3121B1211 3121B2211 3121B3211 3121B4211 3121B5211		2	III						

\* Weight given for 4/12 pol motor

**MUNCK CRANES AS  
PRODUCT STANDARD  
OVERVIEW FIXED MOUNTED HOIST**

ISO 4308 Gruppe/Group Kg			Lifting speed m/min	Height of lift m	HOIST TYPE	Rev.	Falls of rope	Fig. Nr.
m4/M4	m5/M5	m6/M6						
FEM Gruppe/Group Kg								
1m/M4	2m/M5	3m/M6						
	4000	3200	8/2,5	13,1 17,8 24,4 33,4 41,8	3221B1211 3221B2211 3221B3211 3221B4211 3221B5211		2	III
5000			8/2,5	13,1 17,8 24,4 33,4 41,8	3122B1211 3122B2211 3122B3211 3122B4211 3122B5211		2	III
	5000	4000	8/2,5	13,1 17,8 24,4 33,4 41,8	3222B1211 3222B2211 3222B3211 3222B4211 3222B5211		2	III
8000	7500		8,5/2,7	16,0 22,0 30,3 42,6	3131B1211 3131B2211 3131B3211 3131B4211		2	III
		5000	8,5/2,7	16,0 22,0 30,3 42,6	3231B1211 3231B2211 3231B3211 3231B4211		2	III
10000			8,5/2,5	15,5 23,7 38,2 50,1	3141A1211 3141A2211 3141A3211 3141A5211		2	III
	10000	8000	8,5/2,5	15,5 23,7 38,2 50,1	3241A1211 3241A2211 3241A3211 3241A5211		2	III

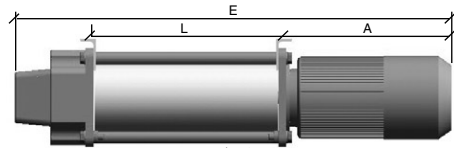
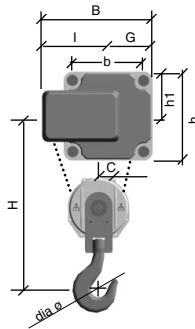
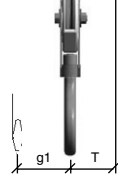


Fig III



FIXED MOUNTED HOIST

ISO 4308 Gruppe/Group Kg			Lifting speed m/min	Height of lift m	HOIST TYPE	Rev.	Falls of rope	Fig. Nr.
m4/M4	m5/M5	m6/M6						
FEM Gruppe/Group Kg								
1m/M4	2m/M5	3m/M6						
12300			6,5/2	20,0 30,0 40,0 45,0 53,5	3151A1211 3151A2211 3151A4211 3151A5211 3151A6211		2	IV
	12300		6,5/2	20,0 30,0 40,0 45,0 53,5	3251A1211 3251A2211 3251A4211 3251A5211 3251A6211		2	IV
		10000	6,5/2	20,0 30,0 40,0 45,0 53,5	3351A1211 3351A2211 3351A4211 3351A5211 3351A6211		2	IV
16000			10,2/1,7	20,0 30,0 40,0 45,0 53,5	3161B1211 3161B2211 3161B4211 3161B5211 3161B6211		2	IV
		15000	10,2/1,7	20,0 30,0 40,0 45,0 53,5	3261B1211 3261B2211 3261B4211 3261B5211 3261B6211		2	IV
		12000	10,2/1,7	20,0 30,0 40,0 45,0 53,5	3361B1211 3361B2211 3361B4211 3361B5211 3361B6211		2	IV

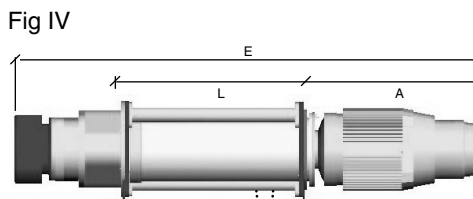
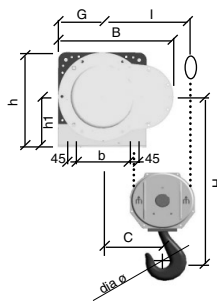


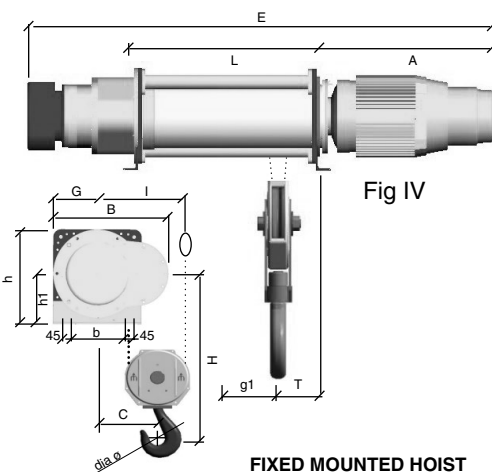
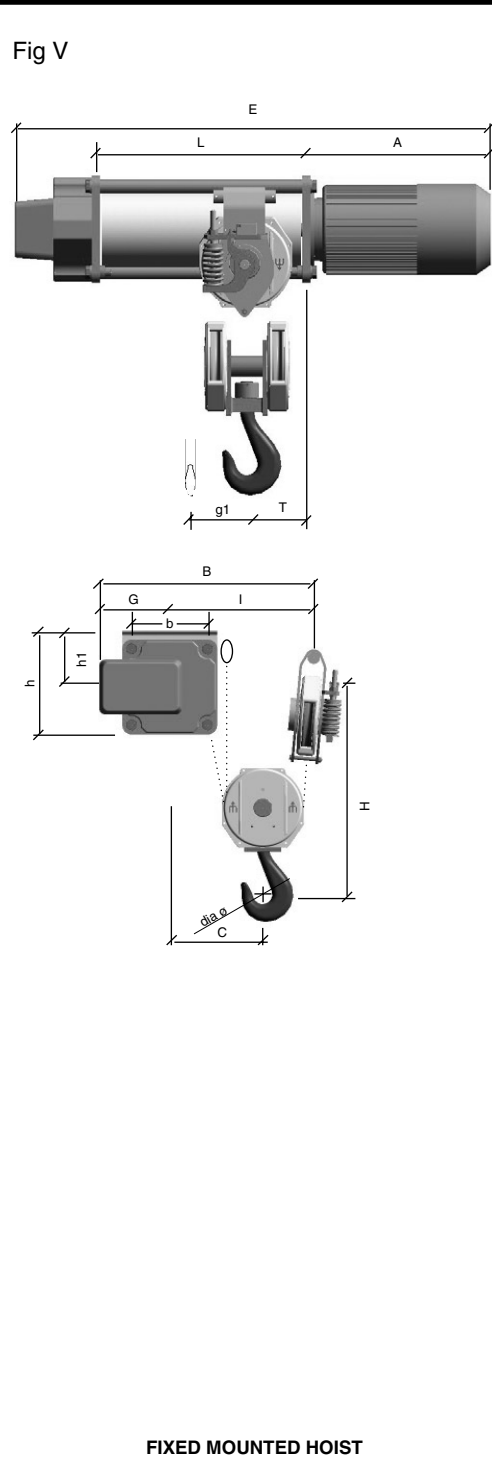
Fig IV



FIXED MOUNTED HOIST

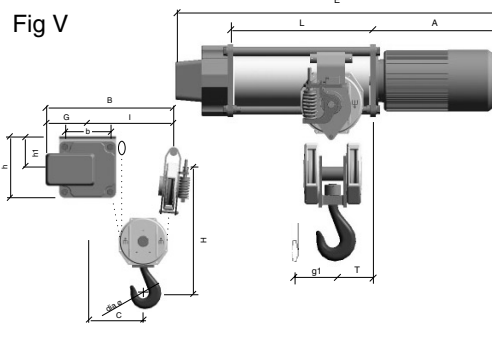
BUILDING DIMENSION MM														* Weighth Kg	See product info sheet no.
A mm	B mm	b mm	C mm	E mm	G mm	H mm	h mm	h1 mm	I mm	L mm	T mm	g1 mm	Hook dia.Ø		
570	405	310	50	1446 1596 1816 2116 2396	180	800	343	188	225	642 792 1012 1312 1592	130	222 297 407 557 697	63	276 291 306 331 346	3221-1211
584	405	310	50	1460 1610 1830 2130 2410	180	700	343	188	225	642 792 1012 1312 1592	130	222 297 407 557 697	56	274 289 304 329 344	3122-1211
584	405	310	50	1460 1610 1830 2130 2410	180	800	343	188	225	642 792 1012 1312 1592	130	222 297 407 557 697	63	384 299 314 339 354	3222-1211
700	485	310	60	1754 1974 2274 2724	190	870	415	230	295	792 1012 1312 1762	165	290 400 550 775	63	615 645 665 705	3131-1211
700	485	310	60	1754 1974 2274 2724	190	870	415	230	295	792 1012 1312 1762	165	290 400 550 775	63	615 645 665 705	3231-1211
704	658	400	45	1884 2140 2589 2949	383	885	525	300	275	710 966 1415 1775	202	241 369 593 777	63	760 795 855 895	3141-1211
704	658	400	45	1884 2140 2589 2949	383	1070	525	300	275	710 966 1415 1775	202	241 369 593 777	80	765 800 860 900	3241-1211
698	750	380	410	2218 2568 2918 3118 3418	290	1435	624	334	620	1110 1460 1810 2010 2310	145	370 545 720 820 970	80	1090 1150 1210 1240 1300	3151-1211
698	750	380	410	2218 2568 2918 3118 3418	290	1435	624	334	620	1110 1460 1810 2010 2310	145	370 545 720 820 970	80	1090 1150 1210 1240 1300	3251-1211
698	750	380	410	2218 2568 2918 3118 3418	290	1435	624	334	620	1110 1460 1810 2010 2310	145	370 545 720 820 970	80	1090 1150 1210 1240 1300	3351-1211
976	852	380	410	2380 2940 3300 3490 3790	392	1435	624	334	620	1110 1460 1810 2010 2310	145	370 545 720 820 970	80	1220 1280 1340 1370 1410	3161-1211
976	852	380	410	2380 2940 3300 3490 3790	392	1435	624	334	620	1110 1460 1810 2010 2310	145	370 545 720 820 970	80	1220 1280 1340 1370 1410	3261-1211
976	852	380	410	2380 2940 3300 3490 3790	392	1435	624	334	620	1110 1460 1810 2010 2310	145	370 545 720 820 970	80	1220 1280 1340 1370 1410	3361-1211

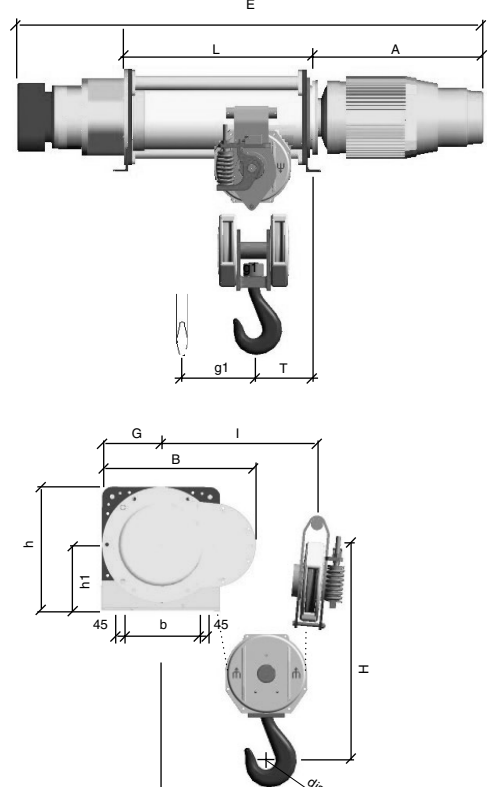
\* Weight given for 4/12 pol motor

MUNCK CRANES AS PRODUCT STANDARD OVERVIEW FIXED MOUNTED HOIST	ISO 4308 Gruppe/Group Kg			Lifting speed m/min	Height of lift m	HOIST TYPE	Rev.	Falls of rope	Fig. Nr.
	m4/M4	m5/M5	m6/M6						
	FEM Gruppe/Group Kg								
	1m/M4	2m/M5	3m/M6						
 <p>Fig IV</p> <p>FIXED MOUNTED HOIST</p>	17500			8/1,3	20,0 30,0 40,0 45,0 53,5	3171G1211 3171G2211 3171G4211 3171G5211 3171G6211		2	IV
		15000		8/1,3	20,0 30,0 40,0 45,0 53,5	3271G1211 3271G2211 3271G4211 3271G5211 3271G6211		2	IV
			12500	8/1,3	20,0 30,0 40,0 45,0 53,5	3371G1211 3371G2211 3371G4211 3371G5211 3371G6211		2	IV
 <p>Fig V</p> <p>FIXED MOUNTED HOIST</p>	3200			4/1	6,4 9,1 11,3 15,3 19,2	3101D1411 3101D2411 3101D3411 3101D4411 3101D5411	A	4	V
		3200	2500	4/1	6,4 9,1 11,3 15,3 19,2	3201D1411 3201D2411 3201D3411 3201D4411 3201D5411	A	4	V
	5000			4/1	6,4 9,1 11,3 15,3 19,2	3111D1411 3111D2411 3111D3411 3111D4411 3111D5411		4	V
		5000	4000	4/1	6,4 9,1 11,3 15,3 19,2	3211D1411 3211D2411 3211D3411 3211D4411 3211D5411		4	V
	8000			4/1,2	6,5 8,9 12,2 16,7 20,9	3121B1411 3121B2411 3121B3411 3121B4411 3121B5411		4	V
		8000	6300	4/1,2	6,5 8,9 12,2 16,7 20,9	3221B1411 3221B2411 3221B3411 3221B4411 3221B5411		4	V
	10000			4/1,2	6,5 8,9 12,2 16,7 20,9	3122B1411 3122B2411 3122B3411 3122B4411 3122B5411		4	V
		10000	8000	4/1,2	6,5 8,9 12,2 16,7 20,9	3222B1411 3222B2411 3222B3411 3222B4411 3222B5411		4	V
	16000	15000		4,2/1,4	8,0 11,0 15,1 21,3	3131B1411 3131B2411 3131B3411 3131B4411		4	V

BUILDING DIMENSION MM														* Weighth Kg	See product info sheet no.
A mm	B mm	b mm	C mm	E mm	G mm	H mm	h mm	h1 mm	I mm	L mm	T mm	g1 mm	Hook dia.Ø		
976	852	380	410	2380 2940 3300 3490 3790	392	1435	624	334	620	1110 1460 1810 2010 2310	145	370 545 720 820 970	80	1220 1280 1340 1370 1410	3171-1211
976	852	380	410	2380 2940 3300 3490 3790	392	1435	624	334	620	1110 1460 1810 2010 2310	145	370 545 720 820 970	80	1220 1280 1340 1370 1410	3271-1211
976	852	380	410	2380 2940 3300 3490 3790	392	1435	624	334	620	1110 1460 1810 2010 2310	145	370 545 720 820 970	80	1220 1280 1340 1370 1410	3371-1211
394	563	220	250	1167 1347 1487 1752 2005	193	450	340	210	370	603 783 923 1188 1441	160	105 150 185 251 315	56	206 217 226 249 257	3101-1411
394	603	220	275	1167 1347 1487 1752 2005	193	600	340	210	410	603 783 923 1188 1441	160	105 150 185 251 315	63	218 229 238 261 269	3201-1411
405	563	220	250	1178 1358 1498 1763 2016	193	450	340	210	370	603 783 923 1188 1441	160	105 150 185 251 315	56	219 231 240 263 272	3111-1411
405	603	220	275	1178 1358 1498 1763 2016	193	600	340	210	410	603 783 923 1188 1441	160	105 150 185 251 315	63	229 241 250 273 282	3211-1411
570	660	310	300	1446 1596 1816 2116 2396	225	600	343	188	435	642 792 1012 1310 1592	190	111 149 204 279 349	63	326 346 366 391 431	3121-1411
570	732	310	336	1446 1596 1816 2116 2396	225	770	343	188	507	642 792 1012 1310 1592	190	111 149 204 279 349	80	376 396 416 441 481	3221-1411
584	660	310	300	1460 1610 1830 2130 2410	225	600	343	188	435	642 792 1012 1310 1592	190	111 149 204 279 349	63	331 354 374 399 439	3122-1411
584	732	310	336	1460 1610 1830 2130 2410	225	820	343	188	507	642 792 1012 1310 1592	190	111 149 204 279 349	80	384 404 424 449 489	3222-1411
700	830	310	354	1754 1974 2274 2724	295	775	415	230	535	792 1012 1312 1762	240	145 200 275 387	80	660 690 710 750	3131-1411

\* Weight given for 4/12 pol motor

MUNCK CRANES AS PRODUCT STANDARD OVERVIEW FIXED MOUNTED HOIST	ISO 4308 Gruppe/Group Kg			Lifting speed m/min	Height of lift m	HOIST TYPE	Rev.	Falls of rope	Fig. Nr.
	m4/M4	m5/M5	m6/M6						
	FEM Gruppe/Group Kg								
	1m/M4	2m/M5	3m/M6						
 <p><b>FIXED MOUNTED HOIST</b></p>			10000	4,2/1,4	8,0 11,0 15,1 21,3	3231B1411 3231B2411 3231B3411 3231B4411		4	V
	20000			4,2/1,2	7,7 11,8 19,2 25	3141A1411 3141A2411 3141A3411 3141A4411		4	V
		20000	16000	4,2/1,2	7,7 11,8 19,2 25	3241A1411 3241A2411 3241A3411 3241A4411		4	V

 <p><b>FIXED MOUNTED HOIST</b></p>	24600			3,25/1	10,0 15,0 20,0 22,5 26,7	3151A1411 3151A2411 3151A4411 3151A5411 3151A6411		4	VI
		24600		3,25/1	10,0 15,0 20,0 22,5 26,7	3251A1411 3251A2411 3251A4411 3251A5411 3251A6411		4	VI
			20000	3,25/1	10,0 15,0 20,0 22,5 26,7	3351A1411 3351A2411 3351A4411 3351A5411 3351A6411		4	VI
	32000			5/0,9	10,0 15,0 20,0 22,5 26,7	3161B1411 3161B2411 3161B4411 3161B5411 3161B6411		4	VI
		30000		5/0,9	10,0 15,0 20,0 22,5 26,7	3261B1411 3261B2411 3261B4411 3261B5411 3261B6411		4	VI
			24000	5/0,9	10,0 15,0 20,0 22,5 26,7	3361B1411 3361B2411 3361B4411 3361B5411 3361B6411		4	VI
	36000			4/0,7	10,0 15,0 20,0 22,5 26,7	3171G1411 3171G2411 3171G4411 3171G5411 3171G6411		4	VI
		32000		4/0,7	10,0 15,0 20,0 22,5 26,7	3271G1411 3271G2411 3271G4411 3271G5411 3271G6411		4	VI
			25000	4/0,7	10,0 15,0 20,0 22,5 26,7	3371G1411 3371G2411 3371G4411 3371G5411 3371G6411		4	VI

BUILDING DIMENSION MM															* Weighth Kg	See product info sheet no.
A mm	B mm	b mm	C mm	E mm	G mm	H mm	h mm	h1 mm	I mm	L mm	T mm	g1 mm	Hook dia.Ø			
700	830	310	354	1754 1974 2274 2724	295	775	415	230	535	792 1012 1312 1762	240	145 200 275 387	80	660 690 710 750	3231-1411	
704	839	400	409,5	1884 2140 2589 2949	255	850	525	300	584	710 966 1415 1775	310	120 185 296 388	80	910 940 1040 1085	3141-1411	
704	920	400	450	1884 2140 2589 2949	255	900	525	300	665	710 966 1415 1775	310	120 185 296 388	100	910 990 1040 1085	3241-1411	
698	750	380	540	2218 2568 2918 3118 3418	290	1235	624	334	780	1110 1460 1810 2010 2310	290	185 275 360 410 485	100	1310 1370 1430 1460 1520	3151-1411	
698	750	380	540	2218 2568 2918 3118 3418	290	1235	624	334	780	1110 1460 1810 2010 2310	290	185 275 360 410 485	112	1310 1370 1430 1460 1520	3251-1411	
698	750	380	540	2218 2568 2918 3118 3418	290	1235	624	334	780	1110 1460 1810 2010 2310	290	185 275 360 410 485	112	1310 1370 1430 1460 1520	3351-1411	
976	852	380	540	2380 2940 3300 3490 3790	392	1235	624	334	780	1110 1460 1810 2010 2310	290	185 275 360 410 485	100	1440 1500 1560 1590 1650	3161-1411	
976	852	380	540	2380 2940 3300 3490 3790	392	1235	624	334	780	1110 1460 1810 2010 2310	290	185 275 360 410 485	112	1440 1500 1560 1590 1650	3261-1411	
976	852	380	540	2380 2940 3300 3490 3790	392	1235	624	334	780	1110 1460 1810 2010 2310	290	185 275 360 410 485	112	1440 1500 1560 1590 1650	3361-1411	
976	852	380	540	2380 2940 3300 3490 3790	392	1235	624	334	780	1110 1460 1810 2010 2310	290	185 275 360 410 485	112	1440 1500 1560 1590 1650	3171-1411	
976	852	380	540	2380 2940 3300 3490 3790	392	1235	624	334	780	1110 1460 1810 2010 2310	290	185 275 360 410 485	112	1440 1500 1560 1590 1650	3271-1411	
976	852	380	540	2380 2940 3300 3490 3790	392	1235	624	334	780	1110 1460 1810 2010 2310	290	185 275 360 410 485	112	1440 1500 1560 1590 1650	3371-1411	

\* Weight given for 4/12 pol motor

**MUNCK CRANES AS  
PRODUCT STANDARD  
OVERVIEW MONORAIL TROLLEY**

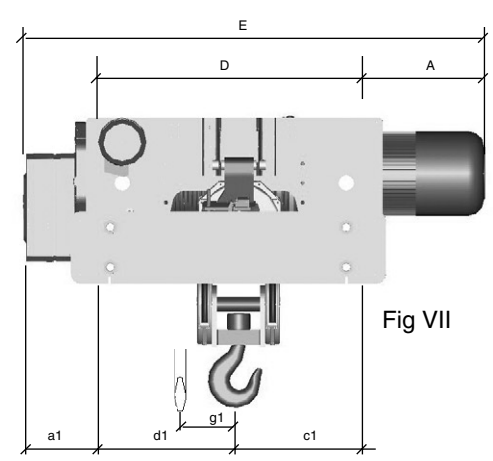
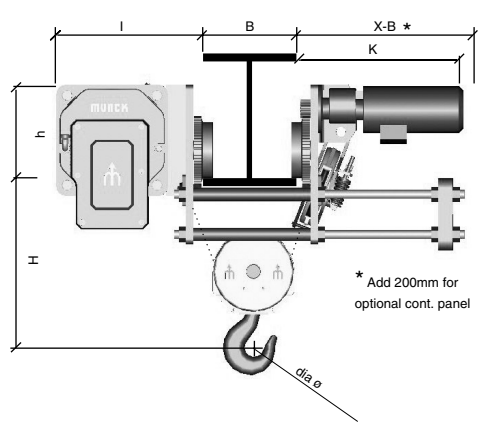


Fig VII



\* Add 200mm for optional cont. panel

**MONORAIL TROLLEY**

ISO 4308 Gruppe/Group Kg			Lifting speed m/min	Height of lift m	HOIST TYPE	Rev.	Falls of rope	Fig. Nr.
m4/M4	m5/M5	m6/M6						
FEM Gruppe/Group Kg								
1m/M4	2m/M5	3m/M6						
1600	1600	1250	8/2	12,8 18,3 22,5 30,7 38,4	3201D1223 3201D2223 3201D3223 3201D4223 3201D5223	A	2	VII
2500	2500	2000	8/2	12,8 18,3 22,5 30,7 38,4	3211D1223 3211D2223 3211D3223 3211D4223 3211D5223	A	2	VII
3200			4/1	6,4 9,1 11,3 15,3 19,2	3101D1423 3101D2423 3101D3423 3101D4423 3101D5423	A	4	VII
	3200	2500	4/1	6,4 9,1 11,3 15,3 19,2	3201D1423 3201D2423 3201D3423 3201D4423 3201D5423	A	4	VII
4000			8/2,5	13,1 17,8 24,4 33,4 41,8	3121B1223 3121B2223 3121B3223 3121B4223 3121B5223		2	VII
	4000	3200	8/2,5	13,1 17,8 24,4 33,4 41,8	3221B1223 3221B2223 3221B3223 3221B4223 3221B5223		2	VII
5000			8/2,5	13,1 17,8 24,4 33,4 41,8	3122B1223 3122B2223 3122B3223 3122B4223 3122B5223		2	VII
	5000	4000	8/2,5	13,1 17,8 24,4 33,4 41,8	3222B1223 3222B2223 3222B3223 3222B4223 3222B5223		2	VII
5000			4/1	6,4 9,1 11,3 15,3 19,2	3111D1423 3111D2423 3111D3423 3111D4423 3111D5423		4	VII
	5000	3200	4/1	6,4 9,1 11,3 15,3 19,2	3211D1423 3211D2423 3211D3423 3211D4423 3211D5423		4	VII
8000	7500		8,5/2,7	16 22 30,3 42,6	3131B1223 3131B2223 3131B3223 3131B4223		2	VII
8000			4/1,2	6,5 8,9 12,2 16,7 20,9	3121B1423 3121B2423 3121B3423 3121B4423 3121B5423		4	VII

BUILDING DIMENSION MM															* Weighth Kg	See product info sheet no.
A mm	D mm	E mm	Ø mm	a1 mm	d1 mm	g1 mm	c1 mm	B mm	H mm	h mm	I mm	X mm	K mm	Hook dia.Ø		
280	748 928 1068 1333 1586	1167 1347 1487 1752 2005	85	139	503 683 823 1088 1341	210 300 370 502 629	245	B≤200 B≤305 B≤406 B≤500 B≤600	700 700 800 900 1000	172.5	372	915	464	56	335 346 355 378 386	3201-1223
291	748 928 1068 1333 1586	1178 1358 1498 1763 2016	85	139	503 683 823 1088 1341	210 300 370 502 629	245	B≤200 B≤305 B≤406 B≤500 B≤600	700 700 800 900 1000	172.5	383	915	464	56	346 373 395 438 468	3211-1223
280	748 928 1068 1333 1586	1167 1347 1487 1752 2005	85	139	458 638 778 1043 1296	105 150 185 251 315	290	B≤200 B≤305 B≤406 B≤500 B≤600	490 495 588 680 775	172.5	372	915	464	56	340 367 389 432 461	3101-1423
280	748 928 1068 1333 1586	1167 1347 1487 1752 2005	85	139	458 638 778 1043 1296	105 150 185 251 315	290	B≤200 B≤305 B≤406 B≤500 B≤600	650 650 750 850 950	172.5	372	915	464	63	353 364 373 396 404	3201-1423
433	845 995 1215 1515 1795	1446 1596 1816 2116 2396	155	168	551 701 921 1221 1501	222 297 407 557 697	294	B≤200 B≤305 B≤406 B≤500 B≤600	650 650 800 890 1000	175	445	905	542	56	566 611 676 746 816	3121-1223
433	845 995 1215 1515 1795	1446 1596 1816 2116 2396	155	168	551 701 921 1221 1501	222 297 407 557 697	294	B≤200 B≤305 B≤406 B≤500 B≤600	800 760 800 900 1000	175	445	905	542	63	576 621 686 756 826	3221-1223
447	845 995 1215 1515 1795	1460 1610 1830 2130 2410	155	168	551 701 921 1221 1501	222 297 407 557 697	294	B≤200 B≤305 B≤406 B≤500 B≤600	650 650 800 890 1000	175	445	905	542	56	574 619 684 754 824	3122-1223
447	845 995 1215 1515 1795	1460 1610 1830 2130 2410	155	168	551 701 921 1221 1501	222 297 407 557 697	294	B≤200 B≤305 B≤406 B≤500 B≤600	800 760 800 900 1000	175	445	905	542	63	584 629 694 764 834	3222-1223
291	748 928 1068 1333 1586	1178 1358 1498 1763 2016	85	139	458 638 778 1043 1296	105 150 185 251 315	290	B≤200 B≤305 B≤406 B≤500 B≤600	490 495 588 680 775	172,5	383	915	464	56	355 381 403 447 477	3111-1423
291	748 928 1068 1333 1586	1178 1358 1498 1763 2016	85	139	458 638 778 1043 1296	105 150 185 251 315	290	B≤200 B≤305 B≤406 B≤500 B≤600	650 650 750 850 950	172,5	383	915	464	63	364 391 413 456 486	3211-1423
507,5	1080 1300 1600 2050	1754 1974 2274 2724	230	166,5	741 934 1234 1684	290 400 550 775	366	B≤200 B≤305 B≤406 B≤500 B≤600	800 750 750 750 850	208	578	876	598	63	885 970 1030 1185	3131-1223
433	845 995 1215 1515 1795	1446 1596 1816 2116 2396	155	168	495 645 865 1165 1445	111 149 204 279 349	350	B≤200 B≤305 B≤406 B≤500 B≤600	690 670 810 940 1070	175	445	905	542	63	586 631 696 706 836	3121-1423

\* Weight given for 4/12 pol motor

**MUNCK CRANES AS  
PRODUCT STANDARD  
OVERVIEW MONORAIL TROLLEY**

ISO 4308 Gruppe/Group Kg	Lifting speed m/min	Height of lift m	HOIST TYPE	Rev.	Falls of rope	Fig. Nr.	FEM Gruppe/Group Kg		
							m4/M4	m5/M5	m6/M6
							1m/M4	2m/M5	3m/M6
	4/1,2	6,5 8,9 12,2 16,7 20,9	3221B1423 3221B2423 3221B3423 3221B4423 3221B5423		4	VII	8000	6300	
	8,5/2,7	16 22 30,3 42,6	3231B1223 3231B2223 3231B3223 3231B4223		2	VII		5000	
10000	8,5/2,5	15,5 23,7 38,2 50,1	3141B1223 3141B2223 3141B3223 3141B5223		2	VII			
	8,5/2,5	15,5 23,7 38,2 50,1	3241B1223 3241B2223 3241B3223 3241B5223		2	VII	10000	8000	
10000	4/1,2	6,5 8,9 12,2 16,7 20,9	3122B1423 3122B2423 3122B3423 3122B4423 3122B5423		4	VII			
	4/1,2	6,5 8,9 12,2 16,7 20,9	3222B1423 3222B2423 3222B3423 3222B4423 3222B5423		4	VII	10000	8000	
16000	4,2/1,4	8,0 11,0 15,1 21,3	3131B1423 3131B2423 3131B3423 3131B4423		4	VII		15000	
	4,2/1,4	8,0 11,0 15,1 21,3	3231B1423 3231B2423 3231B3423 3231B4423		4	VII		10000	
20000	4,2/1,2	7,7 11,8 19,2 25	3141A1423 3141A2423 3141A3423 3141A5423		4	VII			
	4,2/1,2	7,7 11,8 19,2 25	3241A1423 3241A2423 3241A3423 3241A5423		4	VII	20000	16000	

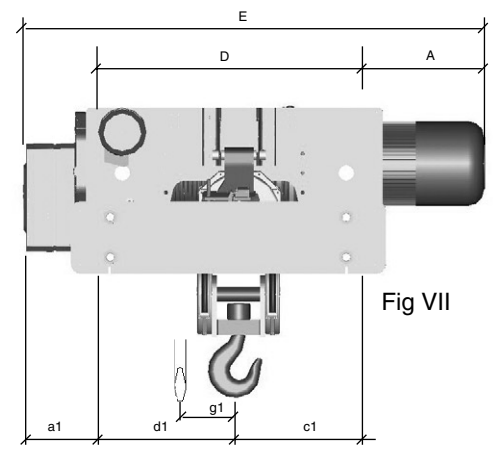
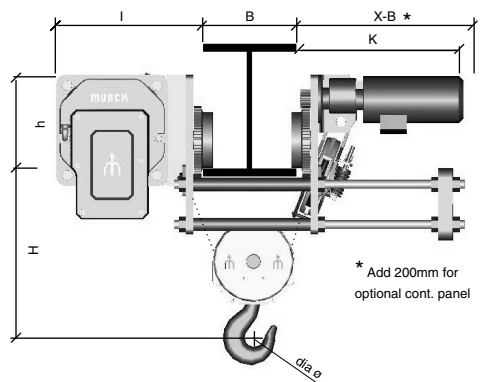


Fig VII



\* Add 200mm for optional cont. panel

MONORAIL TROLLEY

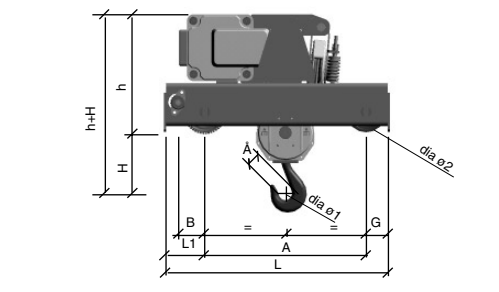
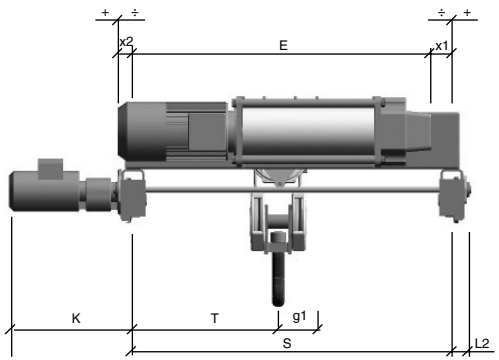
BUILDING DIMENSION MM															* Weighth Kg	See product info sheet no.	
A mm	D mm	E mm	Ø mm	a1 mm	d1 mm	g1 mm	c1 mm	B mm	H mm	h mm	I mm	X mm	K mm	Hook dia.Ø			
433	845	1446	155	168	495	111	350	B≤200	820	175	445	905	542	80	636	3221-1423	
	995	1596			645	149		B≤305	770						681		
	1215	1816			865	204		B≤406	870						746		
	1515	2116			1165	279		B≤500	1050						816		
	1795	2396			1445	349		B≤600	1220						886		
507,5	1080	1754	230	166,5	741	290	366	B≤200	800	208	578	876	598	63	785	3231-1223	
	1300	1974			934	400		B≤305	750						970		
	1600	2274			1234	550		B≤406	750						1030		
	2050	2724			1684	775		B≤500	750						1185		
									B≤600	850							
618,5	925	1884	230	340,5	596	241	329	B≤200	950	252,5	632	1068	657	63	1470	3141-1223	
	1181	2140			852	369		B≤305	900						1570		
	1630	2589			1301	593		B≤406	850						1740		
									B≤500	950							
									B≤600	1050							2040
618,5	925	1884	230	340,5	596	241	329	B≤200	950	252,5	632	1068	657	80	1470	3241-1223	
	1181	2140			852	369		B≤305	900						1570		
	1630	2589			1301	593		B≤406	850						1740		
									B≤500	950							
									B≤600	1050							2040
447	845	1460	155	168	495	111	350	B≤200	690	175	445	905	542	63	594	3122-1423	
	995	1610			645	149		B≤305	670						639		
	1215	1830			865	204		B≤406	810						704		
	1515	2130			1165	279		B≤500	940						774		
	1795	2410			1445	349		B≤600	1070						844		
447	845	1460	155	168	495	111	350	B≤200	820	175	445	905	542	80	644	3222-1423	
	995	1610			645	149		B≤305	770						689		
	1215	1830			865	204		B≤406	870						754		
	1515	2130			1165	279		B≤500	1050						724		
	1795	2410			1445	349		B≤600	1220						894		
507,5	1080	1754	230	166,5	641	145	439	B≤200	750	208	578	876	598	80	930	3131-1423	
	1300	1974			861	200		B≤305	750						1015		
	1600	2274			1161	275		B≤406	750						1075		
	2050	2724			1611	387		B≤500	800						1230		
									B≤600	900							
507,5	1080	1754	230	166,5	641	145	439	B≤200	750	208	578	876	598	80	930	3231-1423	
	1300	1974			861	200		B≤305	750						1015		
	1600	2274			1161	275		B≤406	750						1075		
	2050	2724			1611	387		B≤500	800						1230		
									B≤600	900							
618,5	925	1884	230	340,5	492	120	433	B≤200	950	252,5	632	1068	657	80	1515	3141-1423	
	1181	2140			748	185		B≤305	925						1710		
	1630	2589			1197	296		B≤406	880						1900		
									B≤500	850							
									B≤600	950							2040
618,5	925	1884	230	340,5	492	120	433	B≤200	950	252,5	632	1068	657	100	1515	3241-1423	
	1181	2140			748	185		B≤305	825						1710		
	1630	2589			1197	296		B≤406	880						1900		
									B≤500	850							
									B≤600	950							2040

\* Weight given for 4/12 pol motor



**MUNCK CRANES AS  
PRODUCT STANDARD  
OVERVIEW TWO-RAIL TROLLEY**

Fig VIII



ISO 4308 Gruppe/Group Kg	Lifting speed m/min	Height of lift m	HOIST TYPE	Rev.	Falls of rope	Fig. Nr.	FEM Gruppe/Group Kg		
							m4/M4	m5/M5	m6/M6
							1m/M4	2m/M5	3m/M6
3200			3101D1426 3101D2426 3101D3426	A A A	4	VIII			
	3200	2500	3201D1426 3201D2426 3201D3426	A A A	4	VIII			
4000			3121B1226 3121B2226 3121B3226 3121B4226		2	VIII			
	4000	3200	3221B1226 3221B2226 3221B3226 3221B4226		2	VIII			
5000			3122B1226 3122B2226 3122B3226 3122B4226		2	VIII			
	5000	4000	3222B1226 3222B2226 3222B3226 3222B4226		2	VIII			
5000			3111D1426 3111D2426 3111D3426		4	VIII			
	5000	4000	3211D1426 3211D2426 3211D3426		4	VIII			
8000	7500		3131B1226 3131B2226 3131B3226 3131B4226		2	VIII			
		5000	3231B1226 3231B2226 3231B3226 3231B4226		2	VIII			
8000			3121B1426 3121B2426 3121B3426 3121B4426		4	VIII			
	8000	6300	3221B1426 3221B2426 3221B3426 3221B4426		4	VIII			
10000			3141A1226 3141A2226 3141A3226 3141A5226		2	VIII			
	10000	8000	3241A1226 3241A2226 3241A3226 3241A5226		2	VIII			
10000			3122B1426 3122B2426 3122B3426 3122B4426		4	VIII			
	10000	8000	3222B1426 3222B2426 3222B3426 3222B4426		4	VIII			
16000	15000		3131B1426 3131B2426 3131B3426 3131B4426		4	VIII			
		10000	3231B1426 3231B2426 3231B3426 3231B4426		4	VIII			
20000			3141A1426 3141A2426 3141A3426 3141A5426		4	VIII			
	20000	16000	3241A1426 3241A2426 3241A3426 3241A5426		4	VIII			
24600			3151A1426 3151A2426 3151A4426 3151A5426 3151A6426		4	VIII			
	24600		3251A1426 3251A2426 3251A4426 3251A5426 3251A6426		4	VIII			

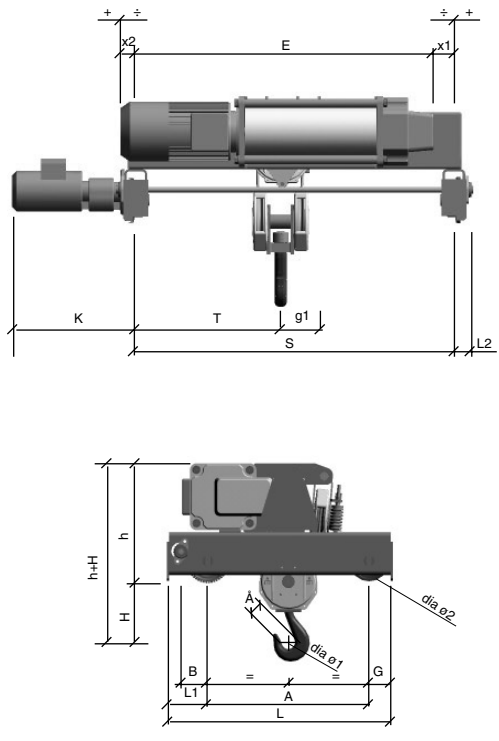
TWO-RAIL TROLLEY

BUILDING DIMENSION MM																			* Weigh Kg	See product info sheet no.
h	H	L1	B	A	G	L	diaØ2	x2	E	x1	K	L2	S	T	g1	Å	dia.Ø			
490	170	171	132	750	122	1043	155	-58 -43 -63	1167 1347 1487	-175 -10 150	507	100	1400 1400 1400	647 625 607	105 150 185	40	56	450 460 470	3101-1426	
490	333	171	132	750	122	1043	155	-58 -43 -63	1167 1347 1487	-175 -10 150	507	100	1400 1400 1400	647 625 607	105 150 185	41	63	450 460 470	3201-1426	
538	309	171	151	750	122	1043	155	96 131 136 131	1446 1596 1816 2116	-50 65 280 -115	507	100	1400 1400 1400 2100	589 551 496 771	222 297 407 557	40	56	546 566 586 626	3121-1226	
538	443	171	151	750	122	1043	155	96 131 136 131	1446 1596 1816 2116	-50 65 280 -115	507	100	1400 1400 1400 2100	589 551 496 771	222 297 407 557	41	63	556 576 596 836	3221-1226	
538	309	171	151	750	122	1043	155	90 85 90 80	1460 1610 1830 2130	-30 125 340 -50	507	100	1400 1400 1400 2100	589 551 496 771	222 297 407 557	40	56	559 579 594 634	3122-1226	
538	443	171	151	750	122	1043	155	90 85 90 80	1460 1610 1830 2130	-30 125 340 -50	507	100	1400 1400 1400 2100	589 551 496 771	222 297 407 557	41	63	564 584 604 644	3222-1226	
490	170	171	132	750	122	1043	155	-42 -22 8	1178 1358 1498	-180 -20 90	507	100	1400 1400 1400	647 625 607	105 150 185	40	56	440 450 460	3111-1426	
490	333	171	132	750	122	1043	155	-42 -22 8	1178 1358 1498	-180 -20 90	507	100	1400 1400 1400	647 625 607	105 150 185	41	63	450 460 470	3211-1426	
600	480	171	248	750	122	1043	155	284 334 34 174	1754 1974 2274 2724	70 240 140 450	550	100	1400 1400 2100 2100	555 500 775 663	290 400 550 775	41	63	1290 1340 1466 1530	3131-1226	
600	480	171	248	750	122	1043	155	284 334 34 174	1754 1974 2274 2724	70 240 140 450	550	100	1400 1400 2100 2100	555 500 775 663	290 400 550 775	41	63	1290 1340 1466 1530	3231-1226	
538	292	171	170	750	122	1043	155	76 71 76 66	1446 1596 1816 2116	-30 125 340 -50	540	100	1400 1400 1400 2100	644 625 598 910	111 149 204 279	41	63	586 606 666 736	3121-1426	
538	408	171	170	750	122	1043	155	76 71 76 66	1446 1596 1816 2116	-30 125 340 -50	540	100	1400 1400 1400 2100	644 625 598 910	111 149 204 279	55	80	536 656 716 786	3221-1426	
690	440	171	434	750	122	1043	155	254 380 194 374	1884 2140 2589 2949	230 360 295 475	539	100	1400 1400 2100 2100	580 515 754 662	241 369 593 777	41	63	1200 1250 1376 1440	3141-1226	
690	636	171	434	750	122	1043	155	254 380 194 374	1884 2140 2589 2949	230 360 295 475	539	100	1400 1400 2100 2100	580 515 754 662	241 369 593 777	55	80	1200 1250 1376 1440	3241-1226	
538	292	171	170	750	122	1043	155	90 85 226 80	1460 1610 1830 2130	-30 125 340 -50	540	100	1400 1400 1400 2100	644 625 598 910	111 149 204 279	41	63	594 614 674 744	3122-1426	
538	450	171	170	750	122	1043	155	90 85 226 80	1460 1610 1830 2130	-30 125 340 -50	540	100	1400 1400 1400 2100	644 625 598 910	111 149 204 279	55	80	644 664 729 794	3222-1426	
650	318	208	195	900	162	1270	230	354 454 209 344	1754 1974 2274 2724	0 120 -35 280	603	150	1400 1400 2100 2100	628 600 912 856	145 200 275 387	55	80	1430 1540 1730 1795	3131-1426	
650	318	208	195	900	162	1270	230	354 454 209 344	1754 1974 2274 2724	0 120 -35 280	603	150	1400 1400 2100 2100	628 600 912 856	145 200 275 387	55	80	1430 1540 1730 1795	3231-1426	
740	328	208	379	900	162	1270	230	168 340 99 199	1884 2140 2589 2949	215 400 390 650	662	150	1400 1400 2100 2100	640 610 900 856	120 185 296 388	55	80	1400 1450 1640 1705	3141-1426	
740	472	208	379	900	162	1270	230	168 340 99 199	1884 2140 2589 2949	215 400 390 650	662	150	1400 1400 2100 2100	640 610 900 856	120 185 296 388	69	100	1400 1450 1640 1705	3241-1426	
1041	625	285	325	1050	185	1520	250	- - - - -	2218 2568 2918 3118 3418	- - - - -	665	150	1400 2100 2800 2800 3200	610 915 1250 1150 1250	185 275 360 410 485	69	100	2120 2295 2570 2620 2745	3151-1426	
1041	625	285	325	1050	185	1520	250	- - - - -	2218 2568 2918 3118 3418	- - - - -	665	150	1400 2100 2800 2800 3200	610 915 1250 1150 1250	185 275 360 410 485	76	112	2120 2295 2570 2620 2745	3251-1426	

\* Weight given for 4/12 pol motor

**MUNCK CRANES AS  
PRODUCT STANDARD  
OVERVIEW TWO-RAIL TROLLEY**

Fig VIII



ISO 4308 Gruppe/Group Kg			Lifting speed m/min	Height of lift m	HOIST TYPE	Rev.	Falls of rope	Fig. Nr.
m4/M4	m5/M5	m6/M6						
FEM Gruppe/Group Kg								
1m/M4	2m/M5	3m/M6						
		20000	3,25/1	10 15,0 20 22,5 26,75	3351A1426 3351A2426 3351A4426 3351A5426 3351A6426		4	VIII
25000	20000		2,8/0,9	5,3 7,3 10,0 14,2	3131B1626 3131B2626 3131B3626 3131B4626		6	VIII
		15000	2,8/0,9	5,3 7,3 10,0 14,2	3231B1626 3231B2626 3231B3626 3231B4626		6	VIII
30000			2,8/0,8	5,2 8,0 12,7 16,7	3141A1626 3141A2626 3141A3626 3141A5626		6	VIII
	30000	25000	2,8/0,8	5,2 8,0 12,7 16,7	3241A1626 3241A2626 3241A3626 3241A5626		6	VIII
32000			5/0,9	10 15,0 20 22,5 26,75	3161B1426 3161B2426 3161B4426 3161B5426 3161B6426		4	VIII
	30000		5/0,9	10 15,0 20 22,5 26,75	3261B1426 3261B2426 3261B4426 3261B5426 3261B6426		4	VIII
		24000	5/0,9	10 15,0 20 22,5 26,75	3361B1426 3361B2426 3361B4426 3361B5426 3361B6426		4	VIII
32000	30000		2,1/0,7	4,0 5,5 7,6 10,6	3131B1826 3131B2826 3131B3826 3131B4826		8	VIII
		20000	2,1/0,7	4,0 5,5 7,6 10,6	3231B1826 3231B2826 3231B3826 3231B4826		8	VIII
40000			2,1/0,6	3,9 6,0 9,6 12,5	3141A1826 3141A2826 3141A3826 3141A5826		8	VIII
	40000	32000	2,1/0,6	3,9 6,0 9,6 12,5	3241A1826 3241A2826 3241A3826 3241A5826		8	VIII
36000			4/0,7	10 15,0 20 22,5 26,75	3171G1426 3171G2426 3171G4426 3171G5426 3171G6426		4	VIII
	32000		4/0,7	10 15,0 20 22,5 26,75	3271G1426 3271G2426 3271G4426 3271G5426 3271G6426		4	VIII
		25000	4/0,7	10 15,0 20 22,5 26,75	3371G1426 3371G2426 3371G4426 3371G5426 3371G6426		4	VIII
36900			2,2/0,7	6,65 10,0 13,3 15 17,8	3151A1626 3151A2626 3151A4626 3151A5626 3151A6626		6	VIII
	36900		2,2/0,7	6,65 10,0 13,3 15 17,8	3251A1626 3251A2626 3251A4626 3251A5626 3251A6626		6	VIII
		30000	2,2/0,7	6,65 10,0 13,3 15 17,8	3351A1626 3351A2626 3351A4626 3351A5626 3351A6626		6	VIII
48000			3,4/0,6	6,65 10,0 13,3 15 17,8	3161B1626 3161B2626 3161B4626 3161B5626 3161B6626		6	VIII

**TWO-RAIL TROLLEY**

BUILDING DIMENSION MM																			* Weigth Kg	See product info sheet no.
h	H	L1	B	A	G	L	diaØ2	x2	E	x1	K	L2	S	T	g1	Å	dia.Ø			
1041	625	285	325	1050	185	1520	250	-	2218 2568 2918 3118 3418	-	665	150	1400 2100 2800 2800 3200	610 915 1250 1150 1250	185 275 360 410 485	76	112	2120 2295 2570 2620 2745	3351-1426	
706	630	230	157	1200	190	1620	250	57 174 -126 -76	1754 1974 2274 2724	185 400 300 700	621	150	1400 1400 2100 2100	651 633 958 921	97 134 183 258	69	100	1850 1900 2100 2165	3131-1626	
706	730	230	157	1200	190	1620	250	57 174 -126 -76	1754 1974 2274 2724	185 400 300 700	621	150	1400 1400 2100 2100	651 633 958 921	97 134 183 258	69	100	1850 1900 2100 2165	3231-1626	
900	800	265	272	1200	165	1630	250	231 270 119 -301	1884 2140 2589 2949	253 470 370 450	654,5	150	1400 1400 2100 2800	660 640 952 1271	80 123 197 258	69	100	1760 1810 2010 2075	3141-1626	
900	800	265	272	1200	165	1630	250	231 270 119 -301	1884 2140 2589 2949	253 470 370 450	654,5	150	1400 1400 2100 2800	660 640 952 1271	80 123 197 258	69	100	1760 1810 2010 2075	3241-1626	
1076	625	285	325	1050	185	1520	250	-	2380 2940 3300 3490 3790	-	665	150	1400 2100 2800 2800 3200	610 915 1250 1150 1250	185 275 360 410 485	69	100	2250 2425 2700 2750 2875	3161-1426	
1076	625	285	325	1050	185	1520	250	-	2380 2940 3300 3490 3790	-	665	150	1400 2100 2800 2800 3200	610 915 1250 1150 1250	185 275 360 410 485	76	112	2250 2425 2700 2750 2875	3261-1426	
1076	625	285	325	1050	185	1520	250	-	2380 2940 3300 3490 3790	-	665	150	1400 2100 2800 2800 3200	610 915 1250 1150 1250	185 275 360 410 485	76	112	2250 2425 2700 2750 2875	3361-1426	
706	450	230	157	1200	190	1620	250	124 174 104 144	1754 1974 2274 2724	230 400 70 480	621	150	1400 1400 2100 2100	664 600 981 953	72 100 137 193	76	112	1975 2025 2275 2445	3131-1826	
706	500	230	157	1200	190	1620	250	124 174 104 144	1754 1974 2274 2724	230 400 70 480	621	150	1400 1400 2100 2100	664 600 981 953	72 100 137 193	76	112	1975 2025 2275 2445	3231-1826	
909	590	285	297	1200	175	1660	315	324 320 49 -281	1884 2140 2589 2949	160 420 440 430	700	150	1400 1400 2100 2800	670 654 976 1303	60 93 148 194	76	112	1885 1935 2185 2355	3141-1826	
909	590	285	297	1200	175	1660	315	324 320 49 -281	1884 2140 2589 2949	160 420 440 430	700	150	1400 1400 2100 2800	670 654 976 1303	60 93 148 194	76	112	1885 1935 2185 2355	3241-1826	
1076	625	285	325	1050	185	1520	250	-	2380 2940 3300 3490 3790	-	665	150	1400 2100 2800 2800 3200	610 915 1250 1150 1250	185 275 360 410 485	76	112	2250 2425 2700 2750 2875	3171-1426	
1076	625	285	325	1050	185	1520	250	-	2380 2940 3300 3490 3790	-	665	150	1400 2100 2800 2800 3200	610 915 1250 1150 1250	185 275 360 410 485	76	112	2250 2425 2700 2750 2875	3271-1426	
1076	625	285	325	1050	185	1520	250	-	2380 2940 3300 3490 3790	-	665	150	1400 2100 2800 2800 3200	610 915 1250 1150 1250	185 275 360 410 485	76	112	2250 2425 2700 2750 2875	3371-1426	
1071	900	320	345	1300	220	1840	315	-	2218 2568 2918 3118 3418	-	810	150	1400 2100 2800 2800 3200	600 950 1285 1100 1200	123 182 240 273 323	84	125	2420 2670 2970 3020 3245	3151-1626	
1071	900	320	345	1300	220	1840	315	-	2218 2568 2918 3118 3418	-	810	150	1400 2100 2800 2800 3200	600 950 1285 1100 1200	123 182 240 273 323	97	140	2420 2670 2970 3020 3245	3251-1626	
1071	900	320	345	1300	220	1840	315	-	2218 2568 2918 3118 3418	-	810	150	1400 2100 2800 2800 3200	600 950 1285 1100 1200	123 182 240 273 323	97	140	2420 2670 2970 3020 3245	3351-1626	
1106	900	320	345	1300	220	1840	315	-	2380 2940 3300 3490 3790	-	810	150	1400 2100 2800 2800 3200	600 950 1285 1100 1200	123 182 240 273 323	84	125	2550 2800 3100 3150 3375	3161-1626	

\* Weight given for 4/12 pol motor

**MUNCK CRANES AS  
PRODUCT STANDARD  
OVERVIEW TWO-RAIL TROLLEY**

Fig VIII	ISO 4308 Gruppe/Group Kg			Lifting speed m/min	Height of lift m	HOIST TYPE	Rev.	Falls of rope	Fig. Nr.
	m4/M4	m5/M5	m6/M6						
	FEM Gruppe/Group Kg								
	1m/M4	2m/M5	3m/M6						
<p><b>TWO-RAIL TROLLEY</b></p> <p><b>TWIN HOIST</b></p>		45000		3,4/0,6	6,65 10,0 13,3 15 17,8	3261B1626 3261B2626 3261B4626 3261B5626 3261B6626		6	VIII
			36000	3,4/0,6	6,65 10,0 13,3 15 17,8	3361B1626 3361B2626 3361B4626 3361B5626 3361B6626		6	VIII
	49200			1,6/0,5	5 7,5 10 11,25 13,35	3151A1826 3151A2826 3151A4826 3151A5826 3151A6826		8	VIII
		49200		1,6/0,5	5 7,5 10 11,25 13,35	3251A1826 3251A2826 3251A4826 3251A5826 3251A6826		8	VIII
			40000	1,6/0,5	5 7,5 10 11,25 13,35	3351A1826 3351A2826 3351A4826 3351A5826 3351A6826		8	VIII
	54000			2,7/0,4	6,65 10,0 13,3 15 17,8	3171G1626 3171G2626 3171G4626 3171G5626 3161G6626		6	VIII
		48000		2,7/0,4	6,65 10,0 13,3 15 17,8	3271G1626 3271G2626 3271G4626 3271G5626 3271G6626		6	VIII
			39400	2,7/0,4	6,65 10,0 13,3 15 17,8	3371G1626 3371G2626 3371G4626 3371G5626 3371G6626		6	VIII
	63000			2,5/0,4	5 7,5 10 11,25 13,35	3161B1826 3161B2826 3161B4826 3161B5826 3161B6826		8	VIII
		60000		2,5/0,4	5 7,5 10 11,25 13,35	3261B1826 3261B2826 3261B4826 3261B5826 3261B6826		8	VIII
			48000	2,5/0,4	5 7,5 10 11,25 13,35	3361E1826 3361B2826 3361B4826 3361B5826 3361B6826		8	VIII
	72000			2/0,3	5 7,5 10 11,25 13,35	3171G1826 3171G2826 3171G4826 3171G5826 3171G6826		8	VIII
		63000		2/0,3	5 7,5 10 11,25 13,35	3271G1826 3271G2826 3271G4826 3271G5826 3271G6826		8	VIII
			50000	2/0,3	5 7,5 10 11,25 13,35	3371G1826 3371G2826 3371G4826 3371G5826 3371G6826		8	VIII
	16000			4/0,6	6,5 8,9 12,2 16,7	3121B1832 3121B2832 3121B3832 3121B4832		8	IX
		16000	12500	4/0,6	6,5 8,9 12,2 16,7	3221B1832 3221B2832 3221B3832 3221B4832		8	IX
	20000		4/0,6	6,5 8,9 12,2 16,7	3122B1832 3122B2832 3122B3832 3122B4832		8	IX	
	20000	16000	4/0,6	6,5 8,9 12,2 16,7	3222B1832 3222B2832 3222B3832 3222B4832		8	IX	

BUILDING DIMENSION MM																			* Weigth Kg	See product info sheet no.
h	H	L1	B	A	G	L	diaØ2	x2	E	x1	K	L2	S	T	g1	Å	dia.Ø			
1106	900	320	345	1300	220	1840	315	-	2380 2940 3300 3490 3790	-	810	150	1400 2100 2800 2800 3200	600 950 1285 1100 1200	123 182 240 273 323	97	140	2550 2800 3100 3150 3375	3261-1626	
1106	900	320	345	1300	220	1840	315	-	2380 2940 3300 3490 3790	-	810	150	1400 2100 2800 2800 3200	600 950 1285 1100 1200	123 182 240 273 323	97	140	2550 2800 3100 3150 3375	3361-1626	
1071	800	320	345	1300	220	1840	315	-	2218 2568 2918 3118 3418	-	810	150	1400 2100 2800 2800 3200	705 1010 1360 1260 1360	92 136 180 205 242	97	140	2620 2870 3220 3270 3520	3151-1826	
1071	800	320	345	1300	220	1840	315	-	2218 2568 2918 3118 3418	-	810	150	1400 2100 2800 2800 3200	705 1010 1360 1260 1360	92 136 180 205 242	110	160	2620 2870 3220 3270 3520	3251-1826	
1071	800	320	345	1300	220	1840	315	-	2218 2568 2918 3118 3418	-	810	150	1400 2100 2800 2800 3200	705 1010 1360 1260 1360	92 136 180 205 242	110	160	2620 2870 3220 3270 3520	3351-1826	
1106	900	320	345	1300	220	1840	315	-	2380 2940 3300 3490 3790	-	810	150	1400 2100 2800 2800 3200	600 950 1285 1100 1200	123 182 240 273 323	97	140	2550 2800 3100 3150 3375	3171-1626	
1106	900	320	345	1300	220	1840	315	-	2380 2940 3300 3490 3790	-	810	150	1400 2100 2800 2800 3200	600 950 1285 1100 1200	123 182 240 273 323	97	140	2550 2800 3100 3150 3375	3271-1626	
1106	900	320	345	1300	220	1840	315	-	2380 2940 3300 3490 3790	-	810	150	1400 2100 2800 2800 3200	600 950 1285 1100 1200	123 182 240 273 323	97	140	2550 2800 3100 3150 3375	3371-1626	
1206	800	320	345	1300	220	1840	400	-	2380 2940 3300 3490 3790	-		150	1400 2100 2800 2800 3200	705 1010 1360 1260 1360	92 136 180 205 242	97	140	2750 3000 3350 3400 3650	3161-1826	
1206	800	320	345	1300	220	1840	400	-	2380 2940 3300 3490 3790	-		150	1400 2100 2800 2800 3200	705 1010 1360 1260 1360	92 136 180 205 242	110	160	2750 3000 3350 3400 3650	3261-1826	
1206	800	320	345	1300	220	1840	400	-	2380 2940 3300 3490 3790	-		150	1400 2100 2800 2800 3200	705 1010 1360 1260 1360	92 136 180 205 242	110	160	2750 3000 3350 3400 3650	3361-1826	
1206	800	320	345	1300	220	1840	400	-	2380 2940 3300 3490 3790	-		150	1400 2100 2800 2800 3200	705 1010 1360 1260 1360	92 136 180 205 242	110	160	2750 3000 3350 3400 3650	3171-1826	
1206	800	320	345	1300	220	1840	400	-	2380 2940 3300 3490 3790	-		150	1400 2100 2800 2800 3200	705 1010 1360 1260 1360	92 136 180 205 242	110	160	2750 3000 3350 3400 3650	3271-1826	
1206	800	320	345	1300	220	1840	400	-	2380 2940 3300 3490 3790	-		150	1400 2100 2800 2800 3200	705 1010 1360 1260 1360	92 136 180 205 242	110	160	2750 3000 3350 3400 3650	3371-1826	
596	290	160	217	900	210	1270	230	-	1446 1596 1816 2116	-	648	150	1400 1400 1400 2100	700 700 700 1050	0 0 0 0	55	80	872 902 972 1072	3121-1832	
596	450	160	217	900	210	1270	230	-	1446 1596 1816 2116	-	648	150	1400 1400 1400 2100	700 700 700 1050	0 0 0 0	55	80	922 962 1022 1122	3221-1832	
596	290	160	217	900	210	1270	230	210 222 230 -170	1460 1610 1830 2130	-150 -12 200 200	648	150	1400 1400 1400 2100	700 700 700 1050	0 0 0 0	55	80	888 918 988 1088	3122-1832	
596	550	160	217	900	210	1270	230	210 222 230 -170	1460 1610 1830 2130	-150 -12 200 200	648	150	1400 1400 1400 2100	700 700 700 1050	0 0 0 0	69	100	938 968 1038 1138	3222-1832	

\* Weight given for 4/12 pol motor

# THE COMPONENTS OF THE 31-SERIES HOIST

## HOIST MOTOR

The Munck wire rope hoist is equipped with a heavy duty pole-changeable motor with integrated disc brake. Minimum protection is IP54, insulation Class F and TEFC. The motor is also fitted as standard with a set of thermal probes for overload protection, and it is designed to minimum 2m/M5.

## HOIST BRAKE

Safety brakes which automatically brake in the event of power failure. Asbestos free brake lining designed for 1 million brake operations, which is considered as maintenance free. Under normal duty, inspection only is required in accordance to ruling laws.

## GEARBOX

The reduction unit is self-contained and has three reduction stages consisting of heat-treated high-strength steel spur gears with helical teeth. The reduction unit is designed to prevent failures due to fatigue or wear on the basis of the envisaged FEM group. It is designed to minimum 2m/M5, and is equipped with ball bearings and is oil lubricated.

## DRUM

The hoist drum is made from steel tube with precision-machined grooves. The drum is dimensioned based on the requirements as set out in ISO 4308/1, as well as regulation FEM 9.661/86. The drum is supported at both ends on standard bearings and driven via spline couplings and gearbox.

## WIRE ROPE GUIDE

The rope guide is of Munck's own unique design made for long life. It is manufactured in two halves interconnected by a flexible system, which automatically absorbs all play and wear.

## OVERLOAD PROTECTION

All Munck 31-series hoists are fitted with either a mechanical or electronic overload protection device. As an option, our "safe-load" unit can be supplied for monitoring the load spectrum.

## ROPE TERMINAL HEAD AND WEDGE

This component is made of nodular cast iron. Its minimum use coefficient conforms to the requirement of FEM 9.661/86. The rope is secured by means of a wedge that prevents the rope from sliding out of its seat.

## WIRE ROPE

The wire rope is made of high strength, fatigue resistant and wear-proof flexible steel rope. The type of rope is selected based on the ISO 4308/1 standard.

## BOTTOM BLOCK AND HOOK

This component is available as 2, 4, 6 and 8 fall rope versions. It is equipped with cast-iron sheaves with machined grooves and rotate on bearings lubricated for life. The hook is made from high-strength forged steel and is fitted to a crossbar. The hook is in accordance with DIN 15400, supported on a thrust bearing and is provided with safety catch device as standard.

## LIMIT SWITCHES

This is a safety device that limits hook ascent and descent in an emergency (REF. 4.1.22.6 a – Annex I, Machinery Directive).

The device consists of two high-precision, slow-brake micro switches acting on the auxiliary circuit of the hoist motor control device.

## ELECTRICAL CONTROL

Contactors, relays and low voltage transformer in circuit with push button pendant station or radio remote control achieve this. Inside the cabinet you will find that every circuit has automatic fuses and all cables and components are clearly marked for easy identification.

To reduce electrical noise and source of errors every cable is connected direct to the external components.

## TROLLEY DRIVE

The wheels are lubricated for life and driven by a pole change motor. The motor is specially designed to give soft start and a creep speed at a ratio of 1:4. Minimum two wheels are always motorised.

## FREQUENCY DRIVES

As an option, both hoist and trolley drive can be operated by means of frequency converter. Acceleration and deceleration can be individually adjusted so that swinging of the load, a known source of accidents, is largely eliminated. The high quality 4-pole motors are also suitable for overspeed drive with reduced load. The extra cost will compensate for the less wear and tear.

## NOISE:




The noise level of the hoist, when operating at maximum capacity under the heaviest operating conditions does not exceed 85 dB(A) at any given time. Readings are made at a distance of 1 m.

## STANDARDS

Munck's new 31-series hoists and their trolleys are designed to the latest international standards, EN-NS, FEM, ISO, CMAA and HMI.

**MUNCK**

Could you be helped by receiving a quick quotation?  
**YES** - Please fill in the below and return to telefax no. + 47 55 59 80 40

Company:	Contact person:		
Department:	Telephone / Telefax no.:		
Address:	Country:		
E-mail adress:			
Quotation required within	I require	numbers off below listed equipment	
Lifting capacity (SWL)	Tons		
Height of lift	m		
Hoisting speed	m/min		
Travelling speed	m/min		
Mechanism group FEM	<input type="checkbox"/> 1am	<input type="checkbox"/> 2m	<input type="checkbox"/> 3m
Hoist type			
Hoist «stationary»	<input type="checkbox"/>		
With trolley - «short headroom»	<input type="checkbox"/>		
Runway profile		BxH	mm Type
With double rail crab	<input type="checkbox"/>		wheel base mm
Crane rail		b	mm
With double-groove rope drum	<input type="checkbox"/>		
Supply voltage	<input type="checkbox"/> 380-415V	<input type="checkbox"/> 480-525V	<input type="checkbox"/> 460-490V
Controll voltage	<input type="checkbox"/> 230V	<input type="checkbox"/> Other	
Frequency	<input type="checkbox"/> 50Hz	<input type="checkbox"/> 60Hz	
Operation control by	<input type="checkbox"/> Push button pendant*	<input type="checkbox"/> Radio control	
Length of control cable*	m		
Ambient temperature	°C		

Other

TO: **Munck Cranes AS**  
Postbox 3164  
5829 Aarstad, Bergen  
NORWAY  
www.munck-cranes.no

**MUNCK CRANES USA**

TELEPHONE: 1.800.699.9405

E-mail: [sales@munckcranesusa.com](mailto:sales@munckcranesusa.com)

Web site: [www.munckcranesusa.com](http://www.munckcranesusa.com)

For further information, please contact:



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