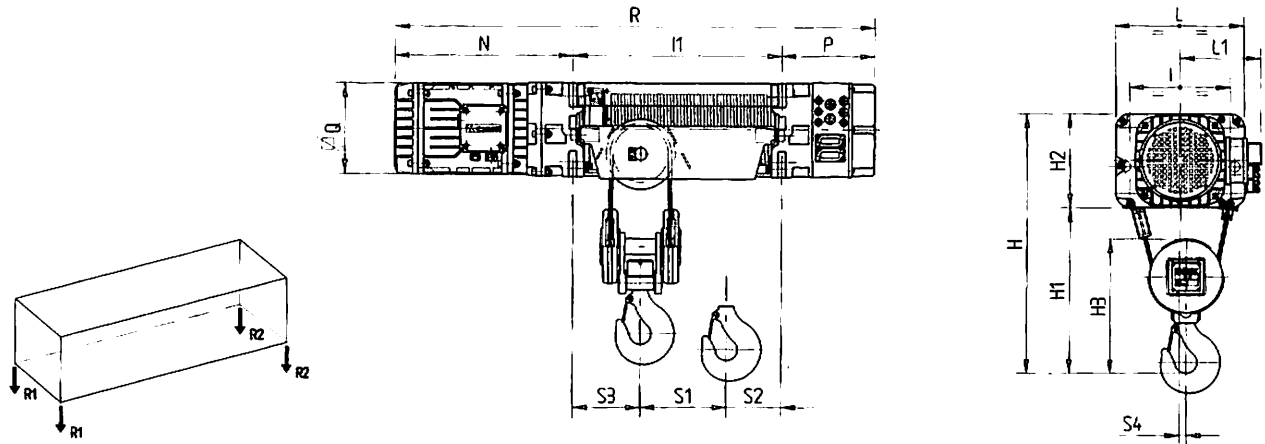


Overall dimensions - Weights - Reactions on the supports

WANTGCC04



$S2 = I1 - S3 - S1$

Series DRH electric wire rope hoists serie DRH with 2 and 4 falls of rope in fixed, standing and suspended configuration

Falls of rope N°	DRH	Type of drum C-N-L	Hoist weight (kg)	Overall dimensions (mm)														
				H	H1	H2	H3	I	I1	L	L1	R	N	P	Q	S1	S3	S4
2/1	1	C	132	690	460	230	390	250	400	320	210	1135	480	255	225	125	95	28
		N	141	690	460	230	390	250	515	320	210	1250	480	255	225	185	95	28
		L	160	690	460	230	390	250	890	320	210	1625	480	255	225	275	95	28
	2	C	180	820	550	270	445	290	480	370	235	1275	525	270	260	160	100	30
		N	195	820	550	270	445	290	600	370	235	1395	525	270	260	220	100	30
		L	215	820	550	270	445	290	1000	370	235	1795	525	270	260	310	100	30
	3	C	460	1090	710	380	595	370	600	480	290	1510	705	205	300	195	130	40
		N	490	1090	710	380	595	370	740	480	290	1650	705	205	300	265	130	40
		L	565	1090	710	380	595	370	1260	480	290	2170	705	205	300	375	130	40
	4	C	855	1400	920	470	750	460	720	600	360	1795	855	220	340	220	170	45
		N	890	1400	920	470	750	460	860	600	360	1935	855	220	340	290	170	45
		L	1010	1400	920	470	750	460	1420	600	360	2495	855	220	340	400	170	45
4/1	1	C	140	650	420	230	345	250	400	320	210	1135	480	255	225	70	150	15
		N	150	650	420	230	345	250	515	320	210	1250	480	255	225	100	150	15
		L	170	650	420	230	345	250	890	320	210	1625	480	255	225	160	165	15
	2	C	195	750	480	270	390	290	480	370	235	1275	525	270	260	105	180	19
		N	205	750	480	270	390	290	600	370	235	1395	525	270	260	135	180	19
		L	235	750	480	270	390	290	1000	370	235	1795	525	270	260	210	200	19
	3	C	515	1020	640	380	540	370	600	480	290	1510	705	205	300	130	240	23
		N	540	1020	640	380	540	370	740	480	290	1650	705	205	300	160	240	23
		L	625	1020	640	380	540	370	1260	480	290	2170	705	205	300	240	270	23
	4	C	960	1320	850	470	700	460	720	600	360	1795	855	220	340	150	350	25
		N	1000	1320	850	470	700	460	860	600	360	1935	855	220	340	180	350	25
		L	1140	1320	850	470	700	460	1420	600	360	2495	855	220	340	220	350	25

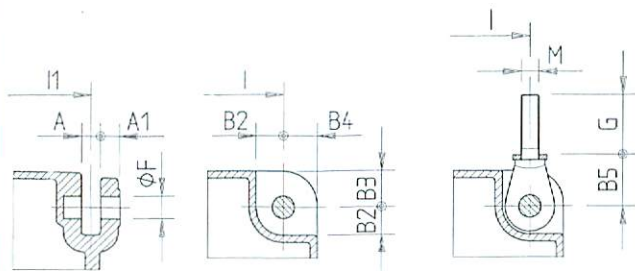
Hoist DRH	Capacity kg	Version with 2 falls of rope (2/1) Static reactions: R1; R2 = daN					
		Drum C		Drum N		Drum L	
		R1	R2	R1	R2	R1	R2
1	800	345	117	373	97	410	69
	1000	425	141	455	115	500	79
	1250	521	170	557	138	611	93
	1600	654	212	699	171	768	111
	2000	806	260	863	207	946	133
2	1250	555	160	583	136	634	99
	1600	693	197	730	165	792	116
	2000	852	238	897	198	972	136
	2500	1050	290	1105	240	1197	161
	3200	1327	363	1396	299	1512	196
3	2500	1133	347	1193	302	1309	223
	3200	1407	423	1482	363	1623	259
	4000	1721	509	1812	433	1982	300
	5000	2112	618	2224	521	2430	352
	6300	2621	759	2760	635	3013	419
4	4000	1813	614	1901	543	2097	407
	5000	2195	732	2302	642	2536	468
	6300	2691	886	2823	771	3109	545
	8000	3341	1086	3505	939	3857	647
	10000	4104	1323	4308	1136	4736	768

Hoist DRH	Capacity kg	Version with 4 falls of rope (4/1) Static reactions: R1; R2 = daN					
		Drum C		Drum N		Drum L	
		R1	R2	R1	R2	R1	R2
1	1600	546	324	617	258	708	176
	2000	671	399	759	316	871	213
	2500	826	494	935	389	1074	260
	3200	1046	624	1184	491	1360	324
	4000	1296	774	1468	607	1686	398
2	2500	847	500	943	409	1078	289
	3200	1065	632	1188	514	1358	359
	4000	1315	782	1468	634	1678	439
	5000	1627	970	1818	784	2078	539
	6300	2034	1213	2273	979	2598	669
3	5000	1672	1086	1870	900	2172	640
	6300	2062	1346	2308	1112	2683	779
	8000	2572	1686	2882	1388	3351	961
	10000	3172	2086	3558	1712	4137	1175
	12500	3922	2586	4403	2117	5118	1444
4	8000	2654	1826	2938	1561	3535	1035
	10000	3237	2243	3589	1910	4324	1246
	12500	3966	2764	4403	2346	5310	1510
	16000	4987	3493	5543	2956	6690	1880
	20000	6154	4326	6845	3654	8268	2302

Fixing of the DRH wire rope hoists in suspended or set-down execution

Fixing in suspended execution:

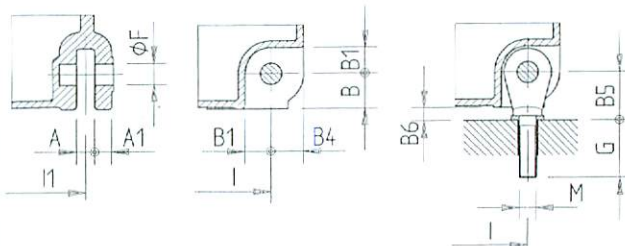
Detail of the hole and the connection zone of the universal suspension/set-down eye bolt



The universal suspension/set-down eye bolt is included in the supply

Fixing in set-down execution:

Detail of the support foot and the connection zone of the universal suspension/set-down eye bolt



The universal suspension/set-down eye bolt is included in the supply

NOTE: Fixing in set-down execution:

- Using the universal eyebolt, the headroom of the hoist (height H2 on page 18), in relation to the level of setting down of the hoist itself, must be increased by the "B6" dimension.
- The eyebolt supplied with double girder trolley complete with DRH hoist fitted on top of trolley is frame can be used exclusively in this application.

Rope falls N°	DRH	Overall dimensions (mm)											
		A	A1	B	B1	B2	B3	B4	B5	B6	ØF	M	G
2/1 4/1	1	20	20	37	21	21	35	35	50	13	20	16x2	65
	2	22	22	42	31	31	40	40	55	13	25	20x2,5	70
	3	32	32	48	36	36	55	55	76	28	35	24x3	93
	4	42	42	60	38	46	70	70	89	29	45	30x3,5	108

DRH wire rope hoists with extra long drum (X) for high lifting height - Temporary service

The DRH electric wire rope hoists are fitted with electric motors designed for intermittent service, conforming with rule FEM 9.683/95.

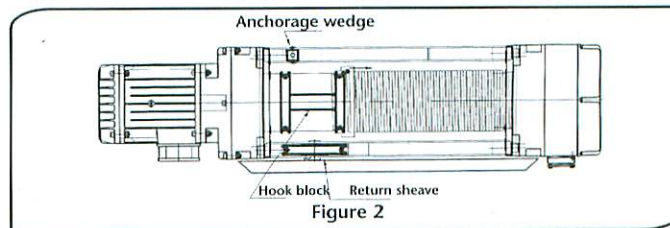
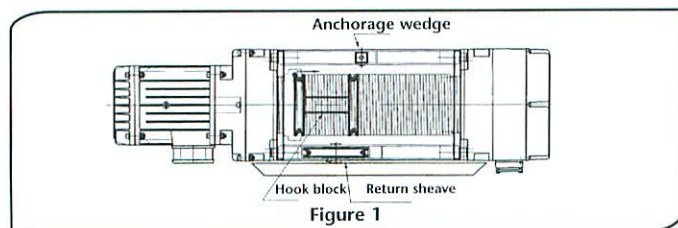
In any cases, where it is necessary to extend the running time of the motor beyond the limits allowed by the ratio of intermittence of the lifting motor, as in the case of high hook runs, the running time of the movement can last as long as the allowed limit temperature for the motor is not exceeded. In these cases, instead of the intermittent service included, use in "temporary service" is required.

For this type of service the hoist must respect the running times for use foreseen for the related FEM group with a maximum number of times started-up not over ten (see table in paragraph 2.2.6). If DRH hoists must be used in temporary service, as well as high lifting height, in addition to the standard versions with drum C - N - L, two sizes of extra long drums (X): 1st size (X1) and 2nd size (X2), are available corresponding to other normalized versions as shown in the table.

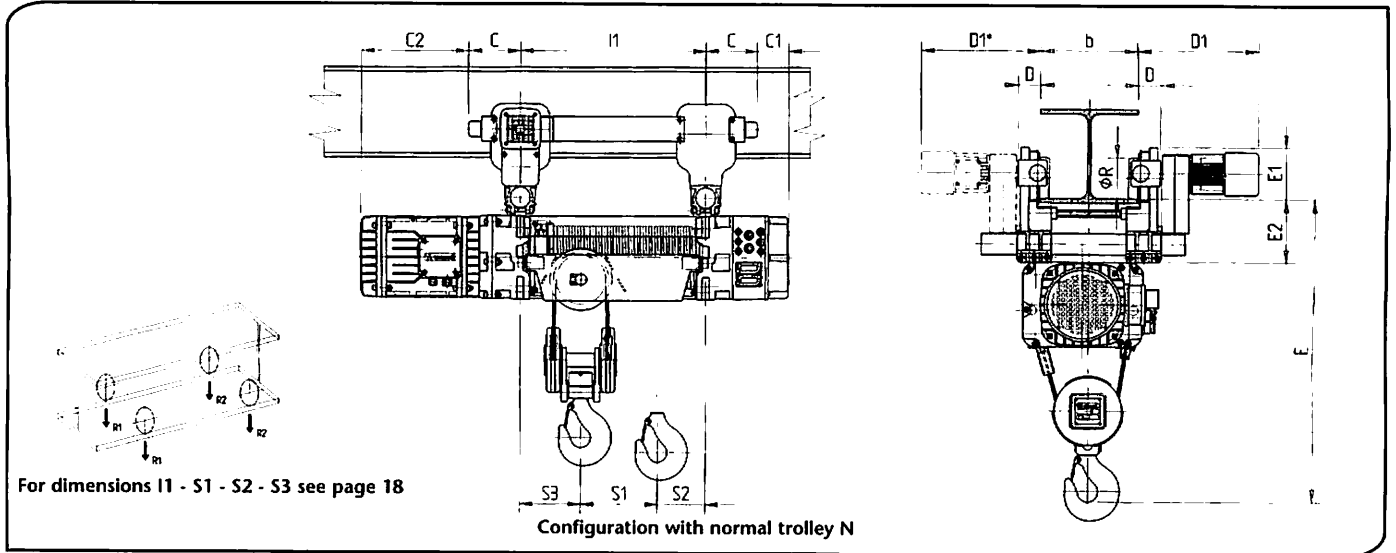
DRH	Rope falls	DRH rope hoists with extra long rope drum (X) for high lifting height							
		Lifting height (m)	Size 1 (X1)			Size 2 (X2)			
			I1 (mm)	S1 (mm)	S3 (mm)	Lifting height (m)	I1 (mm)	S1 (mm)	S3 (mm)
1	2/1	34	1200	380	95	45	1530	490	95
	4/1	14	1200	230	165	19	1530	300	165
2	2/1	34	1260	400	100	43	1530	490	100
	4/1	14	1260	280	200	18	1530	350	200
3	2/1	37	1550	490	130	47	1940	620	130
	4/1	14	1550	280	270	19	1940	350	270
4	2/1	45	1850	580	170	58	2350	750	170
	4/1	17	1850	310	300	24	2350	410	300

Geometric position of the 4 falls hook-block

DRH electric hoists in the 4 rope falls version with a short (C) or normal (N) rope drum are made as shown in figure 1
 DRH electric hoists in the 4 rope falls version with a long (L) or extra long (X) rope drum are made as shown in figure 2



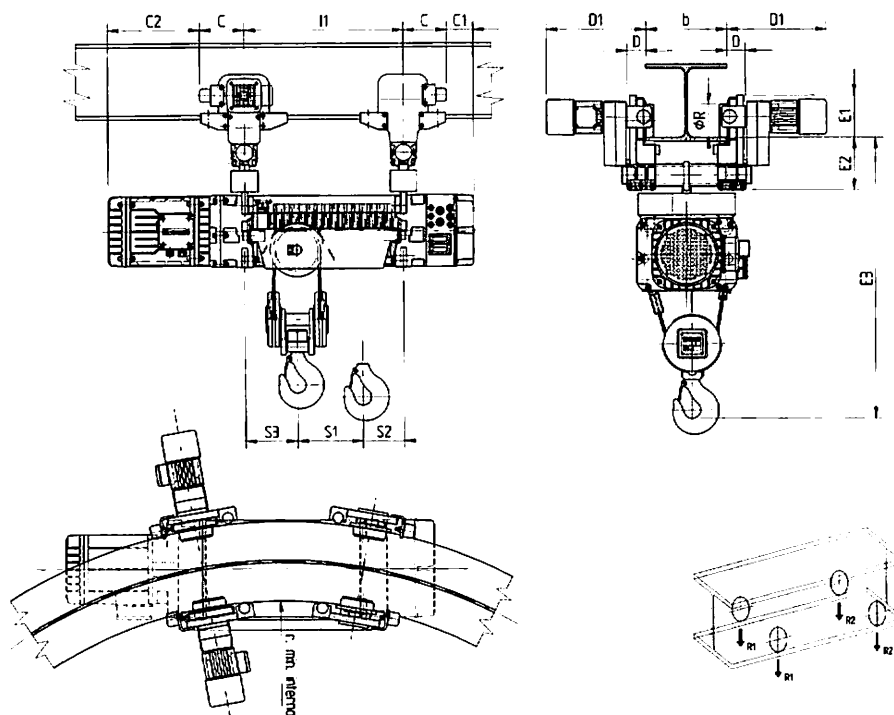
Single girder DST/N/S trolleys for DRH electric wire rope hoists - 2 rope falls version (2/1) and 4 rope falls version (4/1)



Falls of rope N°	DRH	Type of drum C-N-L	Trolley DST N/S	Weight DRH+DST (kg)	Overall dimensions (mm)									
					C	C1	C2	D	D1	E	E1	E2	E3	r. min.
2/1	1	C	1	222	170	85	310	62	370	870	150	180	960	1500
		N	1	231	170	85	310	62	370	870	150	180	960	1500
		L	1	250	170	85	310	62	370	870	150	180	960	1500
	2	C	1	270	170	100	355	62	370	1000	150	180	1090	1500
		N	1	280	170	100	355	62	370	1000	150	180	1090	1500
		L	1	305	170	100	355	62	370	1000	150	180	1090	1500
	3	C	2	595	205	0	500	68	375	1290	158	195	1400	1600
		N	2	625	205	0	500	68	375	1290	158	195	1400	1600
		L	2	700	205	0	500	68	375	1290	158	195	1400	1600
	4	C	3	1185	290	-70	565	90	400	1670	250	265	1840	1800
		N	3	1220	290	-70	565	90	400	1670	250	265	1840	1800
		L	3	1340	290	-70	565	90	400	1670	250	265	1840	1800
4/1	1	C	1	230	170	85	310	62	370	830	150	180	920	1500
		N	1	240	170	85	310	62	370	830	150	180	920	1500
		L	1	260	170	85	310	62	370	830	150	180	920	1500
	2	C	2	320	205	65	320	68	375	950	158	195	1060	1600
		N	2	330	205	65	320	68	375	950	158	195	1060	1600
		L	2	360	205	65	320	68	375	950	158	195	1060	1600
	3	C	3	835	290	-85	415	90	400	1290	250	265	1460	1600
		N	3	870	290	-85	415	90	400	1290	250	265	1460	1600
		L	3	945	290	-85	415	90	400	1290	250	265	1460	1600
	4	C	4	1480	360	-140	495	100	410	1620	310	305	1810	1800
		N	4	1520	360	-140	495	100	410	1620	310	305	1810	1800
		L	4	1660	360	-140	495	100	410	1620	310	305	1810	1800

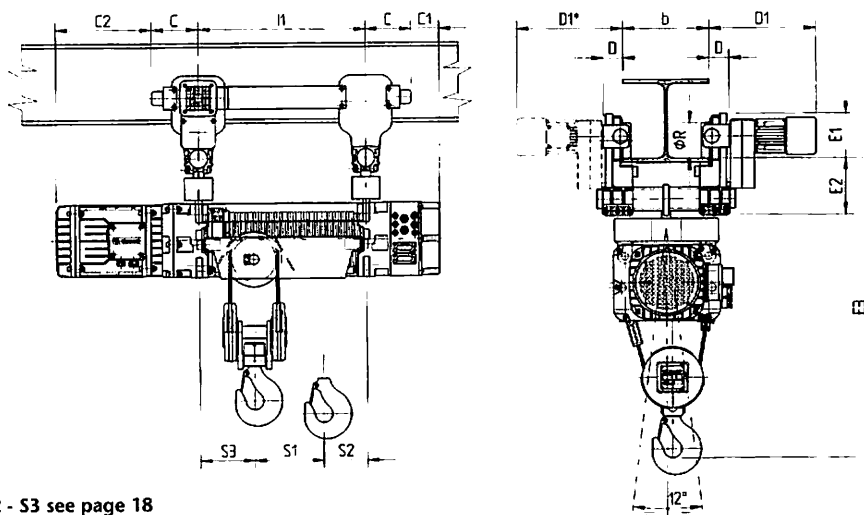
2-rope-fall version (2/1)		Static reactions: R1; R2 = daN					
DRH	Capacity kg	Drum C		Drum N		Drum L	
		R1	R2	R1	R2	R1	R2
1	800	379	132	403	112	440	85
	1000	455	156	485	130	530	95
	1250	551	185	587	153	641	109
	1600	684	227	729	186	798	127
	2000	836	275	893	222	976	149
2	1250	585	175	613	150	663	114
	1600	723	212	760	179	821	131
	2000	882	253	927	212	1001	151
	2500	1080	305	1135	254	1226	176
	3200	1357	378	1426	313	1541	211
3	2500	1177	370	1238	324	1354	245
	3200	1451	446	1527	385	1668	281
	4000	1765	532	1857	455	2027	322
	5000	2156	641	2269	543	2475	374
	6300	2665	782	2805	657	3058	441
4	4000	1923	667	2011	598	2207	462
	5000	2305	787	2412	697	2646	523
	6300	2801	941	2933	826	3219	600
	8000	3451	1141	3615	994	3967	702
	10000	4214	1378	4418	1191	4846	823

4-rope-fall version (4/1)		Static reactions: R1; R2 = daN					
DRH	Capacity kg	Drum C		Drum N		Drum L	
		R1	R2	R1	R2	R1	R2
1	1600	576	338	647	273	738	192
	2000	701	413	789	331	901	229
	2500	856	508	965	404	1104	276
	3200	1076	638	1214	506	1390	340
	4000	1326	788	1498	622	1716	414
2	2500	888	521	985	430	1120	310
	3200	1106	653	1230	535	1400	380
	4000	1356	803	1510	655	1720	460
	5000	1668	991	1860	805	2120	560
	6300	2075	1234	2315	1000	2640	690
3	5000	1778	1140	1980	955	2279	694
	6300	2168	1400	2418	1167	2790	833
	8000	2678	1740	2992	1443	3458	1015
	10000	3278	2140	3668	1767	4244	1229
	12500	4028	2640	4513	2172	5225	1498
4	8000	2827	1912	3111	1649	3708	1122
	10000	3410	2329	3762	1998	4497	1333
	12500	4139	2850	4576	2434	5483	1597
	16000	5160	3579	5716	3044	6863	1966
	20000	6327	4412	7018	3742	8441	2388



For dimensions l1 - S1 - S2 - S3 see page 18

Configurations with articulated trolley S

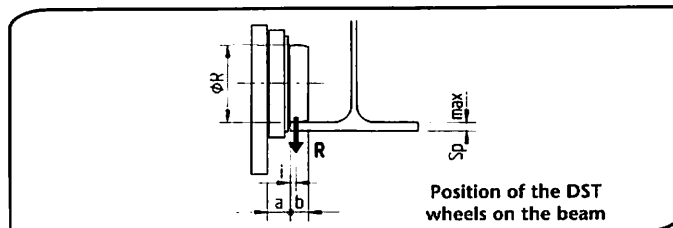


For dimensions l1 - S1 - S2 - S3 see page 18

Configurations with hoist in oscillating execution

Position of the DST wheels on the beam

DST N/S R	Ø R Ruota mm.	Dimensions mm			Thick max. mm.
		i	a	b	
DST 1	100	8	35	18	20
DST 2	125	12	35	29	23
DST 3	200	19	45	38	38
DST 4	250	22	50	43	43



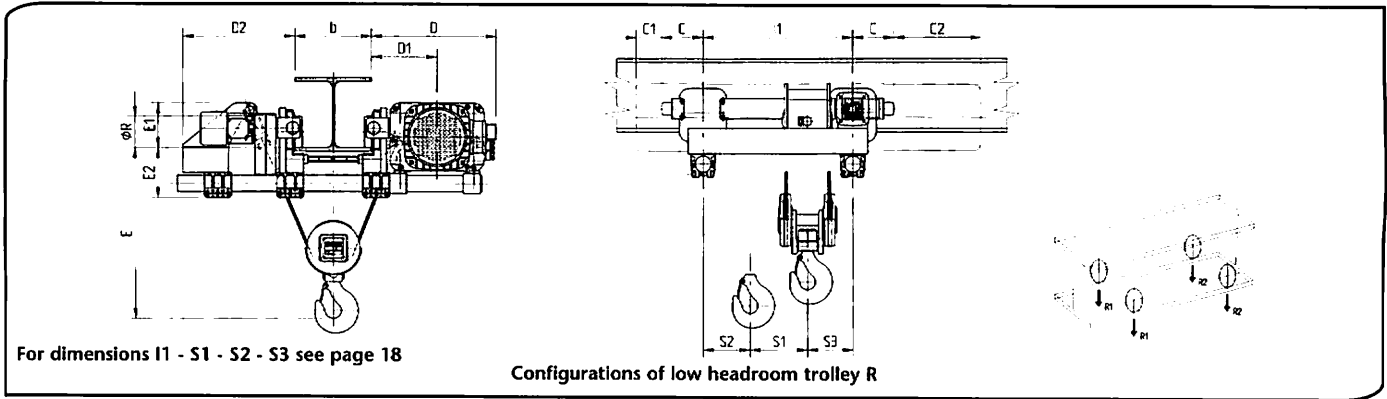
Position of the DST wheels on the beam

BEAMS WIDTH CHARACTERISTICS TABLE FOR DST TROLLEYS

(mm)	DST1N	DST2N	DST3N	DST4N	DST1R	DST2R	DST3R	DST4R	DST1S/O	DST2S/O	DST3S/O	DST4S/O
Min beam width	90	119	135	170	90	119	135	170	100	135	165	210
Max thickness	20	23	38	43	20	23	38	43	20	23	38	43
Min radius	/	/	/	/	/	/	/	/	1500	1600	1600	1800

Minimum beam's width = minimum beam width needed
 Maximum thickness= maximum allowed beam bottom flange thickness
 Minimum radius = minimum Internal radius required for curved beams
 N= normal; R= low headroom; S= articulated; O= oscillating

Monorail DST/R trolleys for electric DRH wire rope hoists – 2 rope falls (2/1) and 4 rope falls versions (4/1)



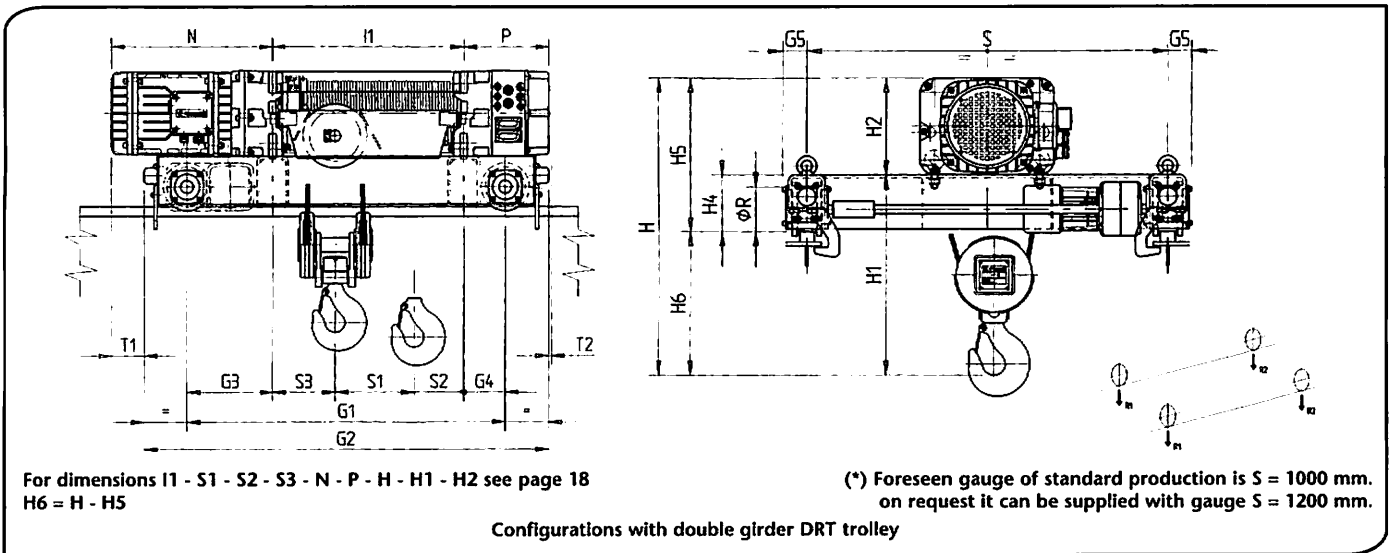
Rope falls N°	DRH	Type of drum C-N-L	Trolley DST/R	Weight DRH+DST (kg)	Overall dimensions (mm)								
					D	D1	D2	E1	E2	ØR	C	C1	C2
2/1	1	C	1	302	440	230	395	150	180	100	170	85	310
		N	1	311	440	230	395	150	180	100	170	85	310
		L	1	330	440	230	365	150	180	100	170	85	310
	2	C	1	395	490	255	450	180	180	100	170	100	355
		N	1	405	490	255	450	180	180	100	170	100	355
		L	1	430	490	255	420	180	180	100	170	100	355
	3	C	2	885	605	315	610	300	195	125	205	0	500
		N	2	915	605	315	610	300	195	125	205	0	500
		L	2	990	605	315	580	300	195	125	205	0	500
	4	C	3	1705	755	395	685	345	265	200	290	-70	565
		N	3	1755	755	395	685	345	265	200	290	-70	565
		L	3	1925	755	395	685	345	265	200	290	-70	565
4/1	1	C	1	310	440	230	395	150	180	100	170	85	310
		N	1	320	440	230	395	150	180	100	170	85	310
		L	1	340	440	230	365	150	180	100	170	85	310
	2	C	2	460	495	260	440	180	195	125	205	65	320
		N	2	470	495	260	440	180	195	125	205	65	320
		L	2	500	495	260	410	180	195	125	205	65	320
	3	C	3	1165	625	335	580	260	265	200	290	-85	415
		N	3	1190	625	335	580	260	265	200	290	-85	415
		L	3	1275	625	335	550	260	265	200	290	-85	415
	4	C	4	2075	765	405	650	345	305	250	360	-140	495
		N	4	2135	765	405	650	345	305	250	360	-140	495
		L	4	2345	765	405	650	345	305	250	360	-140	495

Rope Falls N°	Hook clearance E (mm) in relation to the width of the beam b (mm) and to the size of the DRH wire rope hoist															
	b = 180 mm				b = 220 mm				b = 300 mm				b = 400 mm			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
2/1	630	640	680	830	670	680	680	830	770	780	780	880	890	900	900	1000
4/1	480	500	610	790	530	550	610	790	620	650	650	790	740	770	770	850

2-rope-falls version (2/1)							
Hoist DRH	Capacity kg	Static reactions: R1; R2 = daN					
		Drum C		Drum N		Drum L	
		R1	R2	R1	R2	R1	R2
1	800	405	145	430	126	467	98
	1000	481	169	512	144	557	108
	1250	577	198	614	167	668	122
	1600	710	240	755	200	825	140
	2000	862	288	919	236	1003	162
2	1250	627	196	655	172	705	135
	1600	764	233	802	200	863	152
	2000	923	274	969	234	1043	172
	2500	1121	322	1177	275	1268	197
	3200	1398	399	1468	334	1583	232
3	2500	1274	419	1335	372	1451	294
	3200	1548	495	1624	433	1765	330
	4000	1862	581	1954	503	2124	371
	5000	2253	690	2366	591	2572	423
	6300	2762	831	2902	705	3155	490
4	4000	2096	756	2190	687	2402	559
	5000	2478	874	2591	786	2841	620
	6300	2974	1028	3112	915	3414	697
	8000	3624	1228	3794	1083	4162	799
	10000	4387	1465	4597	1280	5042	920

4-rope-falls version (4/1)							
Hoist DRH	Capacity kg	Static reactions: R1; R2 = daN					
		Drum C		Drum N		Drum L	
		R1	R2	R1	R2	R1	R2
1	1600	603	352	673	286	765	204
	2000	728	427	815	344	928	241
	2500	883	522	991	417	1131	288
	3200	1103	652	1240	519	1417	352
	4000	1353	802	1524	635	1743	426
	2500	935	545	1031	453	1166	333
2	3200	1153	677	1276	558	1446	403
	4000	1403	827	1556	678	1766	483
	5000	1715	1015	1906	828	2166	583
	6300	2122	1258	2361	1023	2686	713
	5000	1888	1194	2086	1008	2389	748
	6300	2278	1444	2524	1220	2900	887
3	8000	2788	1794	3098	1496	3568	1069
	10000	3388	2194	3774	1820	4354	1283
	12500	4138	2694	4619	2225	5335	1552
	8000	3025	2011	3316	1750	3936	1235
	10000	3608	2428	3967	2099	4725	1446
	12500	4337	2949	4781	2535	5711	1710
4	16000	5358	3678	5921	3145	7091	2080
	20000	6525	4517	7223	3843	8669	2502

DRT double girder trolleys for electric DRH wire rope hoists – 2 rope falls (2/1) and 4 rope falls versions (4/1)



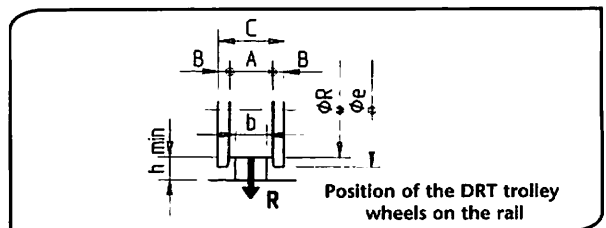
Rope falls N°	DRH	Type of drum C-N-L	Trolley DRT	Weight DRH+DRT (kg)	Overall dimensions (mm)											
					G1	G2	G3	G4	G5	T1	T2	S (*)	ØR	H4	H5	
2/1	1	C	1	310	1000	1270	470	130	67	-125	-10	1000	125	158	388	
		N	1	320	1000	1270	355	130	67	-10	-10	1000	125	158	388	
		L	1	370	1400	1670	380	130	67	-35	-10	1000	125	158	388	
	4/1	2	C	1	365	1000	1270	390	130	67	0	5	1000	125	158	428
			N	1	375	1000	1270	270	130	67	120	5	1000	125	158	428
			L	1	435	1400	1670	270	130	67	120	5	1000	125	158	428
4/1	3	C	2	780	1200	1520	440	160	82	105	-115	1000	160	200	580	
		N	2	805	1200	1520	300	160	82	245	-115	1000	160	200	580	
		L	2	925	1700	2020	280	160	82	265	-115	1000	160	200	580	
	4	C	3	1355	1400	1790	490	190	97	170	-165	1000	200	240	710	
		N	3	1395	1400	1790	350	190	97	310	-165	1000	200	240	710	
		L	3	1600	2000	2390	350	230	97	310	-205	1000	200	240	710	

Hoist		2-rope-falls version (2/1)					
DRH	Capacity kg	Drum C		Drum N		Drum L	
		R1	R2	R1	R2	R1	R2
1	800	274	276	323	232	384	196
	1000	318	332	378	277	451	229
	1250	372	403	447	333	533	272
	1600	448	502	543	412	649	331
	2000	535	615	653	502	780	400
2	1250	435	364	514	291	598	234
	1600	524	450	624	356	727	280
	2000	626	548	750	430	874	333
	2500	754	670	908	522	1058	399
3	3200	932	842	1128	652	1315	492
	2500	897	715	1053	574	1237	445
	3200	1081	881	1278	699	1502	530
	4000	1291	1071	1535	842	1806	626
	5000	1614	1308	1855	1022	2185	747
4	6300	1894	1618	2273	1254	2678	904
	4000	1473	1151	1685	957	1928	804
	5000	1738	1386	2000	1142	2288	944
	6300	2081	1694	2408	1384	2756	1126
	8000	2531	2094	2942	1700	3368	1364
	10000	3059	2566	3571	2071	4088	1644

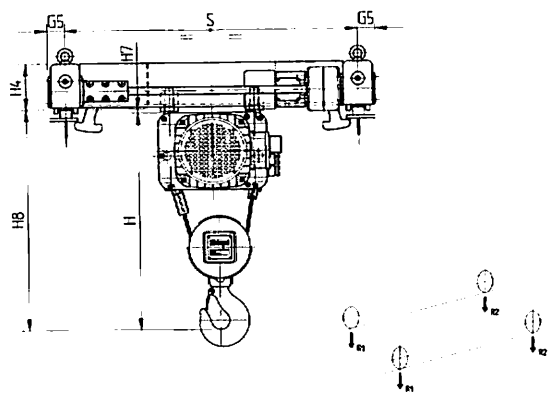
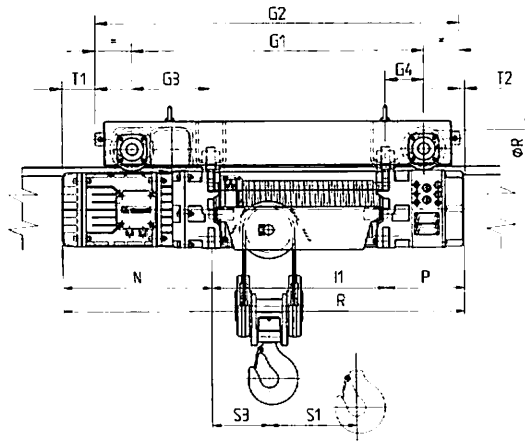
Hoist		4-rope-falls version (4/1)					
DRH	Capacity kg	Drum C		Drum N		Drum L	
		R1	R2	R1	R2	R1	R2
1	1600	407	548	503	458	612	373
	2000	483	672	602	559	734	451
	2500	578	827	725	685	886	549
	3200	711	1044	898	862	1101	724
	4000	863	1292	1096	1064	1345	840
	2500	659	773	813	624	975	492
2	3200	809	973	1005	782	1208	609
	4000	981	1201	1225	962	1474	743
	5000	1196	1486	1500	1187	1806	1011
	6300	1476	1856	1858	1480	2238	1130
3	5000	1343	1547	1645	1259	1999	963
	6300	1625	1915	2000	1552	2429	1173
	8000	1993	2397	2468	1934	3014	1448
	10000	2427	2963	3018	2384	3691	1771
	12500	2968	3672	3706	2946	4536	2176
4	8000	2195	2483	2608	2089	3153	1646
	10000	2630	3047	3144	2553	3808	1991
	12500	3175	3753	3813	3134	4627	2422
	16000	3938	4740	4751	3946	5773	3026
	20000	4810	5868	5822	4875	7083	3716

Dimensions of the DRT wheels and relevant rails

DRT	Ø R Wheel mm.	Dimensions mm						
		Wheel				h	Rail b	b
		A	B	C	Ø e	min	min	max
DRT 1	125	50	15	80	150	30	30	40
DRT 2	160	55	19	93	190	30	30	45
DRT 3	200	60	20	100	230	30	40	50



DRT double girder trolleys for DRH wire rope hoist suspended execution - Version 2 rope falls and 4 rope falls



For dimensions H1 - S1 - S2 - S3 - N - P - H - H1 - H2 see page 18
 HB = H + H7

(*) The normal gauge for series production is S = 1000 mm
 on request can be supplied with gauge S = 1200 mm

Configurations with double girder trolley DRT

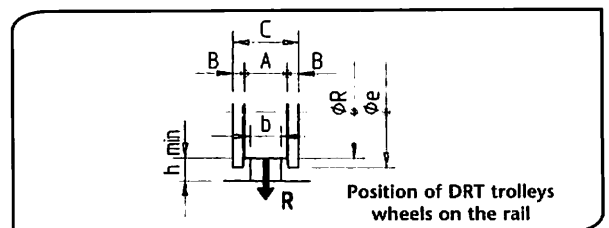
Falls of rope N°	DRH	Drum type C-N-L	Trolley DRT	Weight DRH+DRT (kg)	Overall dimensions (mm)										
					G1	G2	G3	G4	G5	T1	T2	S (*)	ØR	H4	H7
2/1 4/1	1	C	1	310	1000	1270	470	130	67	-125	-10	1000	125	158	15
		N	1	320	1000	1270	355	130	67	-10	-10	1000	125	158	15
		L	1	370	1400	1670	380	130	67	-35	-10	1000	125	158	15
	2	C	1	365	1000	1270	390	130	67	0	5	1000	125	158	15
		N	1	375	1000	1270	270	130	67	120	5	1000	125	158	15
		L	1	435	1400	1670	270	130	67	120	5	1000	125	158	15
3	3	C	2	780	1200	1520	440	160	82	105	-115	1000	160	200	6
		N	2	805	1200	1520	300	160	82	245	-115	1000	160	200	6
		L	2	925	1700	2020	280	160	82	265	-115	1000	160	200	6
	4	C	3	1355	1400	1790	490	190	97	170	-165	1000	200	240	3
		N	3	1395	1400	1790	350	190	97	310	-165	1000	200	240	3
		L	3	1600	2000	2390	350	230	97	310	-205	1000	200	240	3

Hoist DRH	Capacity kg	Static reactions: R1; R2 = daN					
		Drum C		Drum N		Drum L	
		R1	R2	R1	R2	R1	R2
1	800	274	276	323	232	384	196
	1000	318	332	378	277	451	229
	1250	372	403	447	333	533	272
	1600	448	502	543	412	649	331
	2000	535	615	653	502	780	400
	2500	635	735	773	592	925	479
2	1250	435	364	514	291	598	234
	1600	524	450	624	356	727	280
	2000	626	548	750	430	874	333
	2500	754	670	908	522	1058	399
	3200	932	842	1128	652	1315	492
	4000	1160	1060	1408	802	1640	600
3	2500	897	715	1053	574	1237	445
	3200	1081	881	1278	699	1502	530
	4000	1291	1071	1535	842	1806	626
	5000	1614	1308	1855	1022	2185	747
	6300	1894	1618	2273	1254	2678	904
	8000	2380	2060	2840	1560	3400	1140
4	4000	1473	1151	1685	957	1928	804
	5000	1738	1386	2000	1142	2288	944
	6300	2081	1694	2408	1384	2756	1126
	8000	2531	2094	2942	1700	3368	1364
	10000	3059	2566	3571	2071	4088	1644

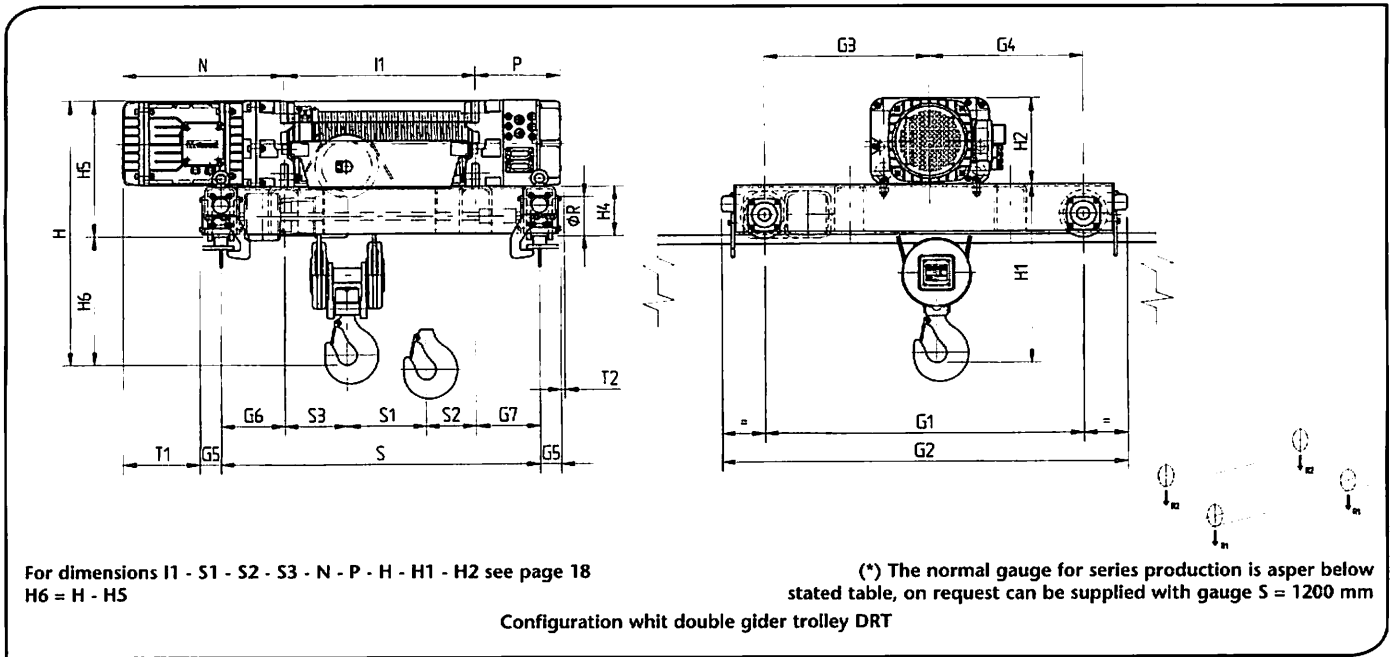
Hoist DRH	Capacity kg	Static reactions: R1; R2 = daN					
		Drum C		Drum N		Drum L	
		R1	R2	R1	R2	R1	R2
1	1600	407	548	503	458	612	373
	2000	483	672	602	559	734	451
	2500	578	827	725	685	886	549
	3200	711	1044	898	862	1101	724
	4000	863	1292	1096	1064	1345	840
	5000	1060	1580	1340	1280	1640	1040
2	2500	659	773	813	624	975	492
	3200	809	973	1005	782	1208	609
	4000	981	1201	1225	962	1474	743
	5000	1196	1486	1500	1187	1806	1011
	6300	1476	1856	1858	1480	2238	1130
	8000	1820	2320	2320	1880	2800	1440
3	5000	1343	1547	1645	1259	1999	963
	6300	1625	1915	2000	1552	2429	1173
	8000	1993	2397	2468	1934	3014	1448
	10000	2427	2963	3018	2384	3691	1771
	12500	2968	3672	3706	2946	4536	2176
	16000	3720	4640	4640	3720	5840	2840
4	8000	2195	2483	2608	2089	3153	1646
	10000	2630	3047	3144	2553	3808	1991
	12500	3175	3753	3813	3134	4627	2422
	16000	3938	4740	4751	3946	5773	3026
	20000	4810	5868	5822	4875	7083	3716

DRT wheels dimensions and relevant rails

DRT	Ø R Wheel mm.	Dimensions mm						
		Wheel				h min	Rail b min	b max
		A	B	C	Ø e			
DRT 1	125	50	15	80	150	30	30	40
DRT 2	160	55	19	93	190	30	30	45
DRT 3	200	60	20	100	230	30	40	50



DRT double girder trolley for DRH wire rope hoist in trasversal position with 2 rope falls (2/1) and 4 rope falls (4/1)



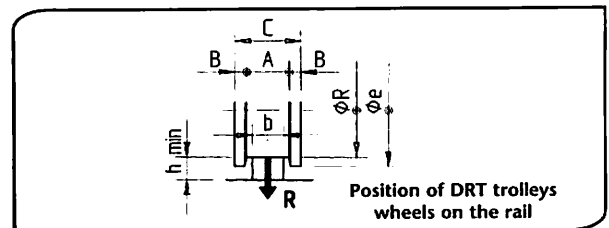
Falls of rope N°	DRH	Drum type C-N-L	Trolley DRT	Weight DRH+DRT (kg)	Overall dimensions (mm)												
					G1	G2	G3	G4	G5	G6	G7	T1	T2	S (*)	ØR	H4	H5
2/1	1	C	1	330	1000	1270	520	480	67	300	300	100	-110	1000	125	158	388
		N	1	340	1000	1270	520	480	67	300	185	100	5	1000	125	158	388
		L	1	350	1000	1270	520	480	67	100	10	300	180	1000	125	158	388
	2	C	1	385	1000	1270	520	480	67	260	260	185	-55	1000	125	158	428
		N	1	395	1000	1270	520	480	67	250	150	195	55	1000	125	158	428
		L	1	405	1000	1270	520	480	67	0	0	445	205	1000	125	158	428
4/1	3	C	2	815	1200	1520	600	600	82	200	200	405	-75	1000	160	200	580
		N	2	845	1200	1520	600	600	82	140	120	465	5	1000	160	200	580
	4	C	3	1380	1400	1790	720	680	97	275	5	465	120	1000	200	240	710
		N	3	1420	1400	1790	720	680	97	135	5	605	120	1000	200	240	710

Hoist DRH		Capacity kg		Static reactions: R1; R2 = daN							
		Drum C		Drum N		Drum L					
		R1	R2	R1	R2	R1	R2				
1	800	352	213	355	215	438	137				
	1000	412	253	415	255	518	157				
	1250	488	302	491	304	619	181				
	1600	594	371	597	373	760	215				
	2000	715	450	718	452	921	254				
2	1250	528	290	538	285	698	130				
	1600	640	352	652	346	855	148				
	2000	768	425	782	416	1035	168				
	2500	928	515	944	504	1261	192				
	3200	1152	640	1172	625	1576	227				
3	2500	1109	549	1195	478	1441	254				
	3200	1344	664	1450	573	1762	283				
	4000	1612	796	1742	681	2128	317				
	5000	1947	961	2106	817	2586	359				
	6300	2383	1175	2580	993	3181	414				
4	4000	1570	1120	1864	846						
	5000	1848	1342	2211	999						
	6300	2208	1632	2663	1197						
	8000	2680	2010	3254	1456						
10000	3235	2455	3949	1761							

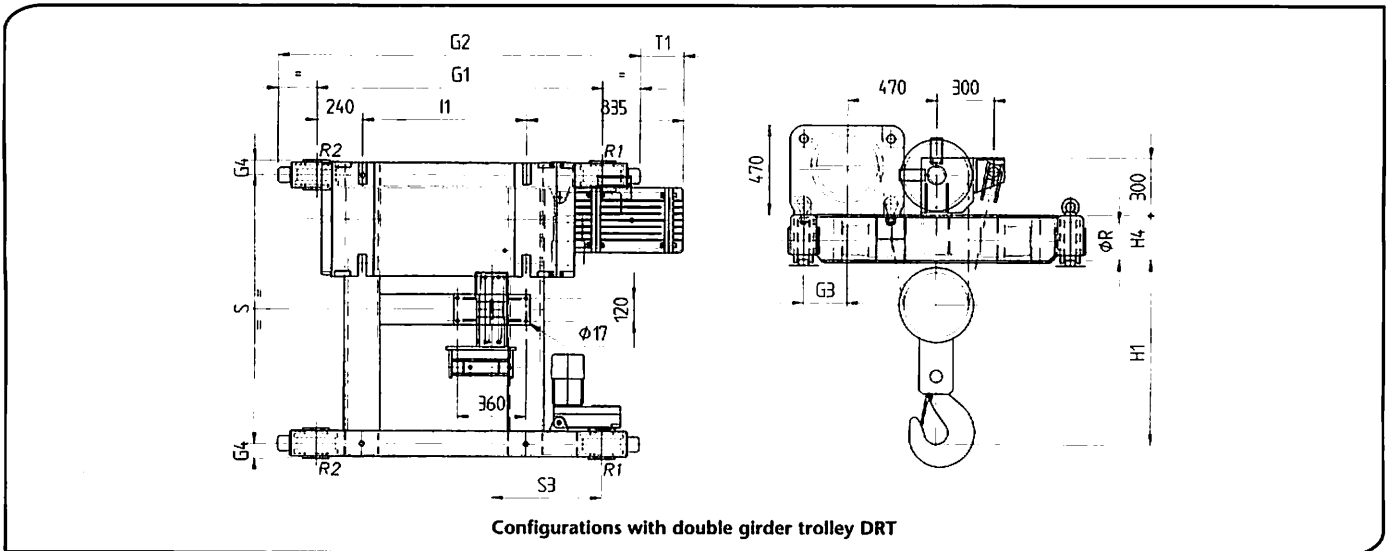
Hoist DRH		Capacity kg		Static reactions: R1; R2 = daN							
		Drum C		Drum N		Drum L					
		R1	R2	R1	R2	R1	R2				
1	1600	550	415	553	417	704	271				
	2000	660	505	663	507	851	324				
	2500	798	617	801	619	1035	390				
	3200	990	775	993	777	1292	483				
	4000	1210	955	1213	957	1586	589				
	5000	1528	1165	1558	1140	2135	698				
2	2500	828	615	845	603	1135	318				
	3200	1024	769	1045	753	1415	388				
	4000	1248	945	1273	925	1735	468				
	5000	1528	1165	1558	1140	2135	568				
	6300	1892	1451	1929	1419	2655	698				
	8000	2335	1765	2411	1761	3411	914				
3	5000	1671	1237	1832	1091	2296	649				
	6300	2035	1523	2235	1338	2816	779				
	8000	2511	1897	2762	1661	3496	949				
	10000	3071	2337	3082	2341	4296	1149				
	12500	3771	2887	4157	2516	5296	1399				
	16000	4941	3711	5411	3241	7041	1849				
4	8000	2760	1930	2734	1976						
	10000	3335	2355	3299	2411						
	12500	4054	2886	4005	2955						
	16000	5060	3630	4994	3716						
	20000	6210	4480	6124	4586						

DRT wheels dimensions and relevant rails

DRT	Ø R Wheel mm.	Dimensions mm						
		Wheel				h min	Rail b min	b max
		A	B	C	Ø e			
DRT 1	125	50	15	80	150	30	30	40
DRT 2	160	55	19	93	190	30	30	45
DRT 3	200	60	20	100	230	30	40	50



DRT double girder trolley for DRH wire rope hoist - Version with 6 rope falls (6/1) and 8 rope falls (8/1)



Configurations with double girder trolley DRT

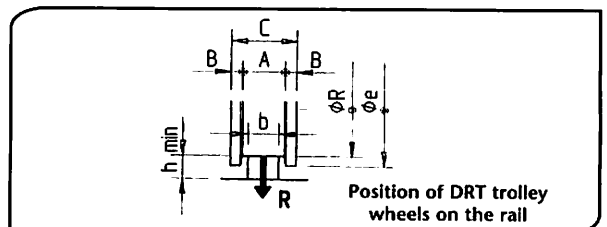
Falls of rope N°	DRH	Drum type N-L-X1	Trolley DRT	Weight DRH+DRT (kg)	Overall dimensions (mm)										
					G1	G2	G3	G4	S3	S	T1	H1	H4	ØR	
6/1	4	N	3	1800	1500	1900	230	83	580	1400	235	960	235	200	
		N	3	2100	1500	1900	650	83	580	2240	235	960	235	200	
		N	3	2400	1500	1900	930	83	580	2800	235	960	235	200	
6/1	4	L	3	2000	2070	2470	230	83	590	1400	225	960	235	200	
		L	3	2300	2070	2470	650	83	590	2240	225	960	235	200	
		L	3	2700	2070	2470	930	83	590	2800	225	960	235	200	
6/1	4	X1	3	2250	2500	2900	230	83	590	1400	225	960	235	200	
		X1	3	2500	2500	2900	650	83	590	2240	225	960	235	200	
		X1	3	2800	2500	2900	930	83	590	2800	225	960	235	200	
8/1	4	N	4	2000	1500	1950	230	90	688	1400	210	930	287	250	
		N	4	2400	1500	1950	650	90	688	2240	210	930	287	250	
		L	4	2300	2060	2510	230	90	708	1400	210	930	287	250	
8/1	4	L	4	2600	2060	2510	650	90	708	2240	210	930	287	250	
		L	4	2800	2060	2510	930	90	708	2800	210	930	287	250	
		X1	4	2500	2500	2950	230	90	738	1400	200	930	287	250	
8/1	4	X1	4	2900	2500	2950	650	90	738	2240	200	930	287	250	
		X1	4	3100	2500	2950	930	90	738	2800	200	930	287	250	

Hoist DRH 4		Static reactions: R1; R2 = daN					
DRT 3	Capacity S	Drum N		Drum L		Drum X1	
	kg	R1	R2	R1	R2	R1	R2
1400	25000	8250	5150	9600	3900	10250	3375
	32000	10400	6500	12100	4900	10950	4175
2240	25000	8350	5200	9700	3950	10350	3400
	32000	10500	6550	12200	4950	13050	4200
2800	25000	8450	5250	9800	4050	10400	3500
	32000	10600	6600	12300	5050	13100	4300

Hoist DRH 4		Static reactions: R1; R2 = daN					
DRT 4	Capacity S	Drum N		Drum L		Drum X1	
	kg	R1	R2	R1	R2	R1	R2
1400	40000	11500	9500	13850	7300	14900	6350
2240	40000	11600	9600	13950	7350	15050	6400
2800	40000	11650	9650	14000	7400	15100	6450

DRT wheels dimensions and relevant rails

DRT	Ø R Wheel mm.	Dimensions mm						
		Wheel			h min	Rail b min	b max	
		A	B	C	Ø e			
DRT 3	200	60	20	100	230	30	40	50
DRT 4	250	70	20	110	280	40	50	60



Position of DRT trolley wheels on the rail

Characteristics of the motors, fuses and power cables

Hoist DRH	Motor Type	Poles	Group FEM	Power kW	COSφ	Ia - (A) 400V - 50Hz	In - (A) 400V - 50Hz	Power current fuse (A) 400V - 50Hz	Minimum section of power cables 400V - (DU20V)	
									Ømm²	L =m
DRH 1	112K4RH1/2	4	1Am	3	0,75	40	8	16	2,5	≤ 30
			2m	2,5	0,7	40	7	16	2,5	≤ 30
			3m	2	0,68	40	6,5	16	2,5	≤ 30
	112K5RH1/2	4/12	1Am	3/1	0,72/0,5	38/13	8/6,6	16	2,5	≤ 30
			2m	2,5/0,86	0,66/0,47	38/13	7,5/6,5	16	2,5	≤ 30
			3m	2/0,65	0,65/0,42	38/13	7/6,5	16	2,5	≤ 30
DRH 2	132K4RH2/2	4	1Am	5	0,75	58	12	20	4	≤ 30
			2m	4	0,7	58	10	20	4	≤ 30
			3m	3	0,64	58	9	20	4	≤ 30
	132K5RH2/2	4/12	1Am	5/1,65	0,78/0,5	50/17	12/10	20	4	≤ 30
			2m	4/1,3	0,74/0,45	50/17	10/9,5	20	4	≤ 30
			3m	3/1	0,7/0,4	50/17	9/9,5	20	4	≤ 30
DRH 3	160K4RH3/2	4	1Am	10	0,8	110	22	32	6	≤ 30
			2m	8	0,75	110	19	32	6	≤ 30
			3m	6	0,72	110	17	32	6	≤ 30
	160K5RH3/2	4/12	1Am	10/3,3	0,77/0,46	100/20	24/18	32	6	≤ 30
			2m	8/2,6	0,74/0,4	100/20	19/16	32	6	≤ 30
			3m	6/2	0,7/0,36	100/20	18/16	32	6	≤ 30
DRH 4	180K4RH4/2	4	1Am	16	0,82	175	34	63	10	≤ 20
			2m	12,5	0,75	175	28	63	10	≤ 20
			3m	10	0,7	175	24	63	10	≤ 20
	180K5RH4/2	4/12	1Am	16/5,3	0,78/0,46	170/50	38/25	63	10	≤ 20
			2m	12,5/4	0,7/0,4	170/50	33/24	63	10	≤ 20
			3m	10/3,3	0,68/0,37	170/50	29/23	63	10	≤ 20

Trolley DST DRT	Motor Type	Poles	Group FEM	Power kW	COSφ	Ia - (A) 400V - 50Hz	In - (A) 400V - 50Hz
DST 1 DST 2 DRT 1	71C3ST1	2/8	1Am	0,37/0,08	0,7/0,55	5/2	1,3/1,2
			2m	0,3/0,07	0,6/0,52	5/2	1,2/1,2
			3m	0,24/0,05	0,5/0,48	5/2	1,1/1,2
	71C2ST1	2	1Am	0,37	0,75	6	1,1
			2m	0,3	0,7	6	1
			3m	0,24	0,65	6	0,9
71C4ST1	4	1Am	0,2	0,5	4	1,1	
		2m	0,15	0,42	4	1	
		3m	0,12	0,40	4	0,9	
DST 3 DST 4 DRT 2	80C3ST2	2/8	1Am	0,55/0,13	0,65/0,6	6/2,5	2,2/1,1
			2m	0,44/0,1	0,6/0,5	6/2,5	2,1/1
			3m	0,35/0,08	0,5/0,4	6/2,5	2/1
	80C2ST2	2	1Am	0,55	0,72	8	1,6
			2m	0,44	0,65	8	1,4
			3m	0,35	0,62	8	1,3
80C4ST2	4	1Am	0,3	0,65	7	1,2	
		2m	0,22	0,55	7	1,1	
		3m	0,2	0,50	7	1,0	
DRT 3	91K3ST3	2/8	1Am	0,9/0,23	0,8/0,5	10/3	2,4/1,5
			2m	0,7/0,16	0,7/0,4	10/3	2,2/1,4
			3m	0,55/0,13	0,66/0,37	10/3	2,1/1,4
	90C2ST3	2	1Am	0,9	0,68	11	2,7
			2m	0,7	0,6	11	2,5
			3m	0,55	0,56	11	2,4
90C4ST3	4	1Am	0,45	0,55	7	1,6	
		2m	0,37	0,5	7	1,5	
		3m	0,3	0,45	7	1,4	

Example calculation of a fall in tension DU, of the length and of the section of the power cable. (DU max 5%)

$$\begin{aligned} \Delta U &= 1.73 \cdot L \cdot I_a \cdot \cos \varphi / X \cdot \Phi & [V] \\ L &= \Delta U \cdot X \cdot \Phi / 1.73 \cdot \cos \varphi \cdot I_a & [m] \\ \Phi &= 1.73 \cdot L \cdot I_a \cdot \cos \varphi / \Delta U \cdot X & [mm^2] \end{aligned}$$

Values in the formula:

$$\begin{aligned} \Delta U &= \text{Fall in tension} & [V] \\ I_a &= \text{Start-up current} & [A] \\ L &= \text{Length of cable} & [m] \\ \Phi &= \text{Section of the cable} & [mm^2] \\ X &= \text{Conductivity} & \text{Cu}=57 \text{ m/Qmm} \\ \cos \varphi &= \text{Power factor} \end{aligned}$$