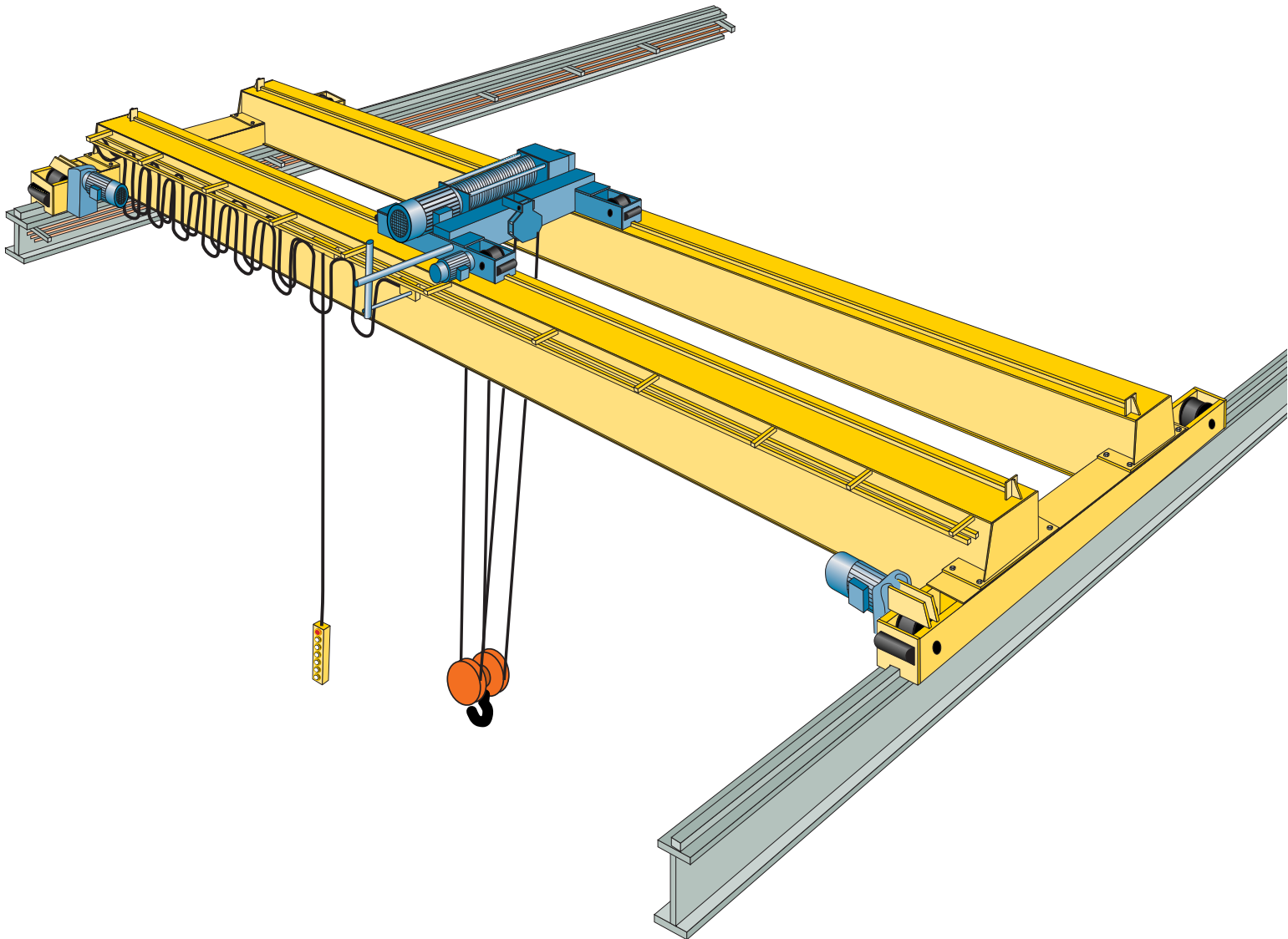


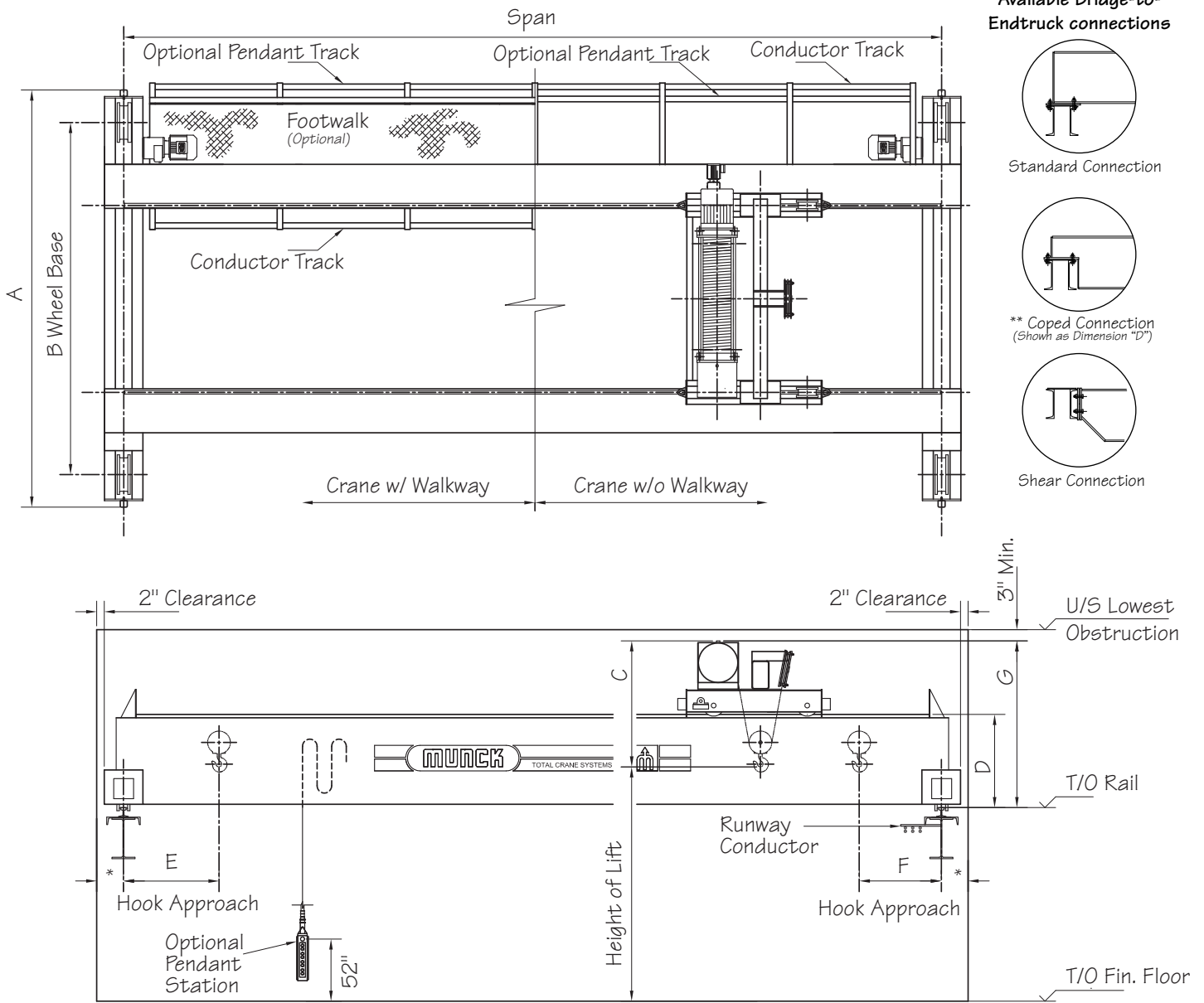
# Top Running, Double Girder Overhead Cranes

## Engineering & Design Data



## Crane Reference Diagram

All data may be referenced to the following crane diagram. Travel speeds are nominal and may vary  $\pm 10\%$ . Other travel speeds are available on request. Dimensions E & F are given at high hook and are measured from the centerline of the runway rail to the centerline of the hoist hook and do not take into consideration the downshop conductor system.



\* 8" Minimum for 5-15 tonne capacity  
10" Minimum for 20-70 tonne capacity

Munck Cranes Inc. assumes no responsibility for, but not limited to, any events or damages which occur as a result of the use of any data contained in this brochure. It should be noted that these figures are supplied to give a general understanding of the specifications relating to any particular capacity of top running, double girder, overhead crane and should not be taken as a basis for construction of any kind. All calculations for actual work to be performed should be done so only by a recognized professional in the industry and only after the unique situations and circumstances to the particular job or job site are considered.

HOIST DATA								CRANE DATA						
Crane Capacity (Tonnes)	Hoist Model	Available Lift Height (ft.)	Trolley Hoist Weight (lbs.)	C	E	F	Hoist Speed (ft./min.)	SPAN (ft.)	A	B	D** (in.)	G (in.)	Crane Weight Excluding Hoist (lbs.)	Maximum Static Wheel Load (lbs.)
3	3101-1426 3101-2426 3101-3426 3101-4426 3101-5426	23 33 41 56 * 70 *	990 1015 1035 1125 1145	2'-2" 2'-2" 2'-2" 2'-2" 2'-2"	2'-4" 2'-4" 2'-4" 2'-4" 2'-4"	2'-1" 2'-1" 2'-1" 2'-1" 2'-1"	Single Speed: 15.5  Two Speed: 15.5 & 2.4	-20	10'-8"	9'-6"	13	32	2735	4150
								21-25	10'-8"	9'-6"	15	34	3435	4405
								26-30	10'-8"	9'-6"	16	35	4415	4705
								31-35	10'-8"	9'-6"	19	38	5600	5040
								36-40	10'-8"	9'-6"	19	38	6990	5420
								41-45	10'-8"	9'-6"	21	40	8190	5740
								46-50	10'-8"	9'-6"	24	43	10075	6225
								51-55	10'-8"	9'-6"	24	43	11745	6660
								56-60	10'-8"	9'-6"	27	46	14435	7345
								61-65	10'-10"	9'-6"	35	54	15220	7555
								66-70	13'-4"	12'-0"	38	57	17370	8100
								71-75	13'-4"	12'-0"	39	58	19410	8615
								76-80	13'-4"	12'-0"	42	61	21560	9165
								81-85	16'-4"	15'-0"	44	63	24295	9850
								86-90	16'-4"	15'-0"	49	68	27800	10735
91-95	16'-4"	15'-0"	50	69	30800	11490								
96-100	16'-4"	15'-0"	51	70	32485	11915								
5	3111-1426 3111-2426 3111-3426 3111-4426 3111-5426	23 33 41 56 * 70 *	990 1015 1035 1125 1145	2'-2" 2'-2" 2'-2" 2'-2" 2'-2"	2'-4" 2'-4" 2'-4" 2'-4" 2'-4"	2'-1" 2'-1" 2'-1" 2'-1" 2'-1"	Single Speed: 15.5  Two Speed: 15.5 & 2.4	-20	10'-8"	9'-6"	15	34	3075	6205
								21-25	10'-8"	9'-6"	16	35	3975	6560
								26-30	10'-8"	9'-6"	19	38	5395	6995
								31-35	10'-10"	9'-6"	19	38	7055	7475
								36-40	10'-10"	9'-6"	21	40	8600	7900
								41-45	10'-10"	9'-6"	24	43	9475	8160
								46-50	10'-10"	9'-6"	24	43	11705	8745
								51-55	10'-10"	9'-6"	32	51	11750	8780
								56-60	10'-10"	9'-6"	32	51	13050	9125
								61-65	10'-10"	9'-6"	35	54	15220	9685
								66-70	13'-4"	12'-0"	38	57	17195	10190
								71-75	13'-4"	12'-0"	39	58	18950	10640
								76-80	13'-4"	12'-0"	42	61	21570	11310
								81-85	16'-4"	15'-0"	44	63	24545	12060
								86-90	16'-4"	15'-0"	49	68	28010	12935
91-95	16'-4"	15'-0"	50	69	30875	13605								
96-100	16'-4"	15'-0"	51	70	32565	14090								
7.5	3121-1426 3121-2426 3121-3426 3121-4426 3121-5426	21 29 40 55 * 68 *	1210 1255 1390 1540 1585	2'-9" 2'-9" 2'-9" 2'-9" 2'-9"	2'-4" 2'-4" 2'-4" 2'-4" 2'-4"	2'-1" 2'-1" 2'-1" 2'-1" 2'-1"	Single Speed: 16  Two Speed: 16 & 5	-20	10'-10"	9'-6"	17	38	3660	9010
								21-25	10'-10"	9'-6"	19	40	4945	9520
								26-30	10'-10"	9'-6"	19	40	6275	9980
								31-35	10'-10"	9'-6"	21	42	7315	10330
								36-40	10'-10"	9'-6"	24	45	9180	10865
								41-45	10'-10"	9'-6"	24	45	11135	11405
								46-50	10'-10"	9'-6"	27	48	13090	11935
								51-55	10'-10"	9'-6"	35	56	12340	11785
								56-60	10'-10"	9'-6"	35	56	13625	12135
								61-65	10'-10"	9'-6"	38	59	16085	12775
								66-70	13'-4"	12'-0"	38	59	17700	13200
								71-75	13'-5"	12'-0"	39	60	19425	13645
								76-80	13'-7"	12'-0"	42	63	22225	14365
								81-85	16'-7"	15'-0"	44	65	24785	15015
								86-90	16'-7"	15'-0"	49	70	28290	15905
91-95	16'-7"	15'-0"	50	71	30065	16365								
96-100	16'-7"	15'-0"	51	72	32755	17045								
10	3122-1426 3122-2426 3122-3426 3122-4426 3122-5426	21 29 40 55 * 69 *	1265 1310 1445 1595 1640	2'-9" 2'-9" 2'-9" 2'-9" 2'-9"	2'-4" 2'-4" 2'-4" 2'-4" 2'-4"	2'-1" 2'-1" 2'-1" 2'-1" 2'-1"	Single Speed: 16  Two Speed: 16 & 5	-20	10'-10"	9'-6"	17	38	3890	11555
								21-25	10'-10"	9'-6"	19	40	4885	12050
								26-30	10'-10"	9'-6"	21	42	6520	12625
								31-35	10'-10"	9'-6"	24	45	7740	13045
								36-40	10'-10"	9'-6"	24	45	10090	13725
								41-45	10'-10"	9'-6"	27	48	11935	14255
								46-50	10'-10"	9'-6"	35	56	11280	14145
								51-55	11'-0"	9'-6"	38	59	13735	14805
								56-60	11'-0"	9'-6"	38	59	15035	15165
								61-65	11'-0"	9'-6"	40	61	17180	15735
								66-70	13'-7"	12'-0"	42	63	19100	16245
								71-75	13'-7"	12'-0"	44	65	21215	16795
								76-80	13'-7"	12'-0"	45	66	23130	17295
								81-85	16'-7"	15'-0"	49	70	26380	18125
								86-90	16'-7"	15'-0"	49	70	28425	18650
91-95	16'-7"	15'-0"	49	70	31695	19490								
96-100	16'-7"	15'-0"	51	72	34010	20075								

\* Note: Crane wheel base (B) may vary with these hoist selections.

HOIST DATA								CRANE DATA						
Crane Capacity (Tonnes)	Hoist Model	Available Lift Height (ft.)	Trolley Hoist Weight (lbs.)	C	E	F	Hoist Speed (ft./min.)	SPAN (ft.)	A	B	D ** (in.)	G (in.)	Crane Weight Excluding Hoist (lbs.)	Maximum Static Wheel Load (lbs.)
15	3131-1426 3131-2426 3131-3426 3131-4426	26 36 49 70 *	2115 2180 2325 2465	3'-3"	2'-8"	2'-6"	Single Speed: 16  Two Speed: 16 & 5	-20	11'-0"	9'-6"	21	47	5165	16810
								21-25	11'-0"	9'-6"	21	47	6530	17590
								26-30	11'-0"	9'-6"	24	50	7835	18215
								31-35	11'-0"	9'-6"	24	50	10295	19040
								36-40	11'-0"	9'-6"	27	53	11990	19625
								41-45	11'-0"	9'-6"	38	64	11555	19635
								46-50	11'-2"	9'-6"	38	64	13710	20275
								51-55	11'-2"	9'-6"	41	67	15600	20830
								56-60	11'-2"	9'-6"	43	69	17515	21375
								61-65	11'-2"	9'-6"	49	75	20105	23500
								66-70	13'-9"	12'-0"	49	75	22120	22630
								71-75	13'-9"	12'-0"	49	75	25015	23395
								76-80	13'-9"	12'-0"	50	76	27280	24000
								81-85	16'-9"	15'-0"	50	76	32200	25260
								86-90	16'-9"	15'-0"	52	78	34755	25930
								91-95	16'-9"	15'-0"	53	79	38345	26855
96-100	16'-9"	15'-0"	56	82	41350	27625								
20	3141-1426 3141-2426 3141-3426 3141-5426	26 39 * 63 * 82 *	2970 3125 3235 3565	3'-5"	2'-8"	2'-6"	Single Speed: 16  Two Speed: 16 & 5	-20	11'-2"	9'-6"	20	49	6000	22310
								21-25	11'-2"	9'-6"	24	53	7320	23235
								26-30	11'-2"	9'-6"	25	54	9375	24145
								31-35	11'-2"	9'-6"	28	57	11680	25005
								36-40	11'-2"	9'-6"	39	68	11530	25180
								41-45	11'-2"	9'-6"	42	71	13100	25740
								46-50	11'-3"	9'-6"	46	75	15070	26360
								51-55	11'-3"	9'-6"	50	79	17575	27095
								56-60	11'-3"	9'-6"	50	79	19655	27705
								61-65	11'-3"	9'-6"	50	79	22000	28370
								66-70	13'-9"	12'-0"	51	80	25750	29370
								71-75	13'-9"	12'-0"	53	82	28410	30100
								76-80	13'-9"	12'-0"	56	85	31220	30845
								81-85	17'-1"	15'-0"	56	85	36655	32250
								86-90	17'-1"	15'-0"	63	92	40715	33300
								91-95	17'-1"	15'-0"	63	92	44885	34380
96-100	17'-1"	15'-0"	63	92	46955	34925								
25	3131-1626 3131-2626 3131-3626 3131-4626	17 24 33 * 46 *	2995 3105 3545 3685	4'-7"	3'-2"	3'-1"	Single Speed: 11  Two Speed: 11 & 4	-20	11'-2"	9'-6"	20	48	6535	26430
								21-25	11'-2"	9'-6"	24	52	7795	27655
								26-30	11'-2"	9'-6"	27	55	10010	28815
								31-35	11'-2"	9'-6"	28	56	13075	30015
								36-40	11'-2"	9'-6"	39	67	12115	30100
								41-45	11'-2"	9'-6"	43	71	13920	30800
								46-50	11'-2"	9'-6"	47	75	15975	31520
								51-55	14'-1"	12'-0"	50	78	20325	32770
								56-60	14'-1"	12'-0"	48	76	22600	33475
								61-65	14'-1"	12'-0"	51	79	25545	34330
								66-70	14'-1"	12'-0"	55	83	27740	34980
								71-75	14'-1"	12'-0"	56	84	31370	35975
								76-80	14'-1"	12'-0"	57	85	34600	36855
								81-85	17'-1"	15'-0"	58	86	39665	38190
								86-90	17'-1"	15'-0"	63	91	42500	38960
								91-95	17'-1"	15'-0"	63	91	46655	40050
96-100	17'-1"	15'-0"	63	91	50425	41040								
30	3141-1626 3141-2626 3141-3626 3141-5626	17 26 42 * 55 *	3875 3985 4425 4565	5'-9"	3'-4"	2'-11"	Single Speed: 11  Two Speed: 11 & 4	-20	11'-5"	9'-6"	25	61	7725	32100
								21-25	11'-5"	9'-6"	25	61	9890	33665
								26-30	11'-5"	9'-6"	28	64	11745	34810
								31-35	11'-5"	9'-6"	39	75	11980	35355
								36-40	11'-7"	9'-6"	42	78	13940	36245
								41-45	14'-1"	12'-0"	45	81	16330	37090
								46-50	14'-1"	12'-0"	50	86	18700	37915
								51-55	14'-1"	12'-0"	51	87	20885	38645
								56-60	14'-1"	12'-0"	51	87	24100	39600
								61-65	14'-1"	12'-0"	54	90	26655	40375
								66-70	14'-1"	12'-0"	57	93	29630	41230
								71-75	14'-1"	12'-0"	62	98	32945	42155
								76-80	14'-1"	12'-0"	62	98	37635	43415
								81-85	17'-1"	15'-0"	63	99	41000	44330
								86-90	17'-1"	15'-0"	63	99	45550	45535
								91-95	17'-1"	15'-0"	67	103	49385	46555
96-100	17'-1"	15'-0"	67	103	53845	47720								

\* Note: Crane wheel base (B) may vary with these hoist selections.

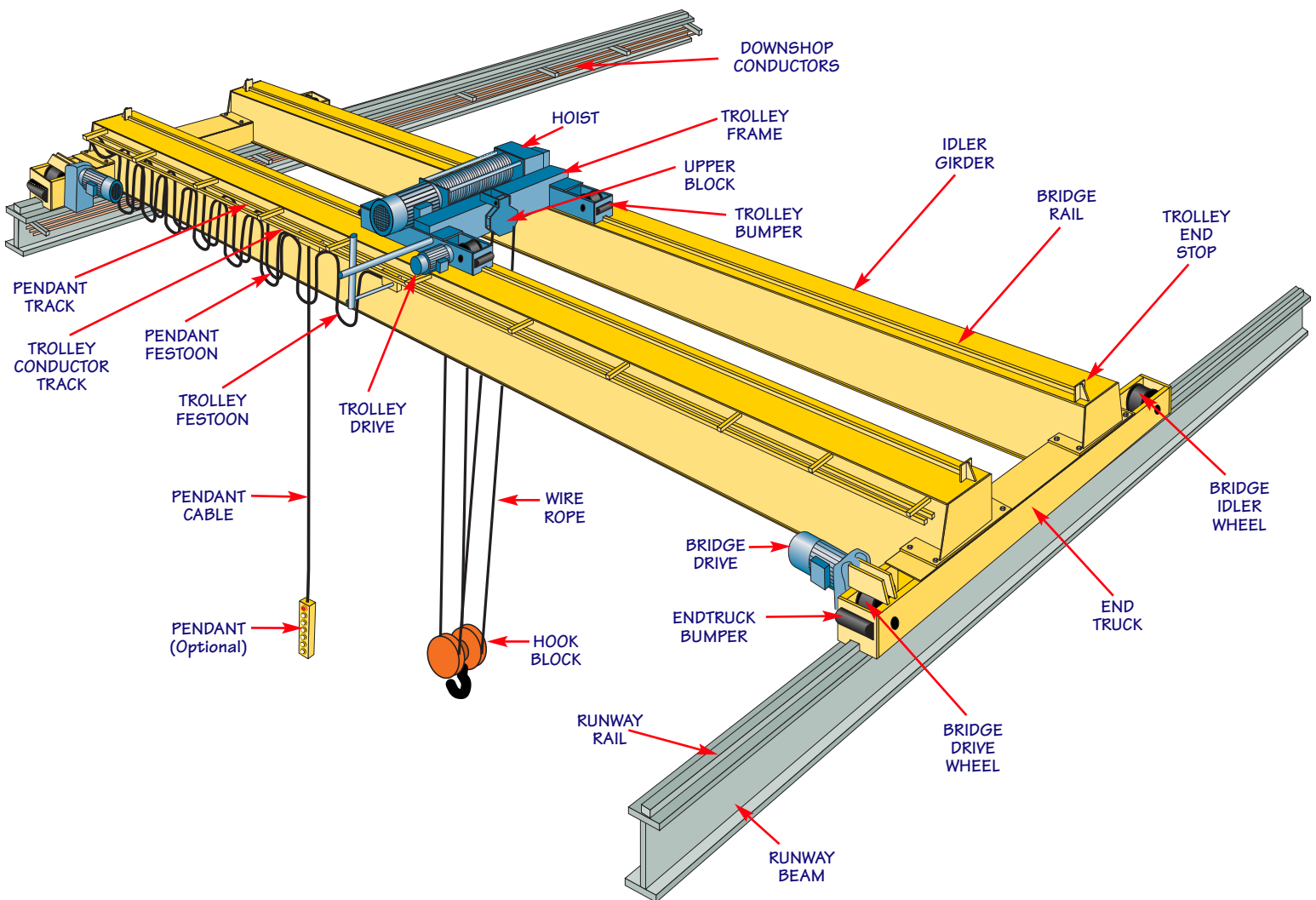
HOIST DATA								CRANE DATA						
Crane Capacity (Tonnes)	Hoist Model	Available Lift Height (ft.)	Trolley Hoist Weight (lbs.)	C	E	F	Hoist Speed (ft./min.)	SPAN (ft.)	A	B	D ** (in.)	G (in.)	Crane Weight Excluding Hoist (lbs.)	Maximum Static Wheel Load (lbs.)
40	3141-1826 3141-2826 3141-3826 3141-5826	13 20 31 * 41 *	4150 4260 4810 5185	5'-1" 5'-1" 5'-1" 5'-1"	3'-5" 3'-5" 3'-5" 3'-5"	3'-0" 3'-0" 3'-0" 3'-0"	Single Speed: 8  Two Speed: 8 & 2.5	-20	11'-5"	9'-6"	28	64	8375	41700
								21-25	11'-5"	9'-6"	28	64	10140	43535
								26-30	11'-5"	9'-6"	39	75	10855	44645
								31-35	11'-7"	9'-6"	43	79	12695	45775
								36-40	14'-1"	12'-0"	46	82	15370	46940
								41-45	14'-1"	12'-0"	51	87	18310	48065
								46-50	14'-1"	12'-0"	51	87	20195	48845
								51-55	14'-1"	12'-0"	53	89	23320	49885
								56-60	14'-1"	12'-0"	55	91	26470	50880
								61-65	14'-1"	12'-0"	59	95	29580	51840
								66-70	14'-1"	12'-0"	63	99	32610	52750
								71-75	14'-1"	12'-0"	63	99	37975	54225
								76-80	14'-1"	15'-0"	63	99	41460	55210
								81-85	17'-1"	15'-0"	63	99	48455	57060
								86-90	17'-1"	15'-0"	67	103	51495	57915
								91-95	17'-1"	15'-0"	70	106	55160	58915
96-100	17'-1"	15'-0"	75	111	58760	59885								
50	3171-1626 3171-2626 3171-4626 3171-5626 3171-6626	22 33 44 * 49 * 58 *	5610 6160 6820 6930 7425	6'-10" 6'-10" 6'-10" 6'-10" 6'-10"	4'-8" 4'-8" 4'-8" 4'-8" 4'-8"	3'-4" 3'-4" 3'-4" 3'-4" 3'-4"	Single Speed: 11  Two Speed: 11 & 2	-20	11'-7"	9'-6"	28	72	9055	51290
								21-25	11'-7"	9'-6"	31	75	11100	53740
								26-30	14'-1"	12'-0"	39	83	12590	55400
								31-35	14'-1"	12'-0"	43	87	14800	56875
								36-40	14'-1"	12'-0"	47	91	17270	58190
								41-45	14'-1"	12'-0"	51	95	19545	59295
								46-50	14'-1"	12'-0"	53	97	22845	60550
								51-55	14'-1"	12'-0"	56	100	26185	61735
								56-60	14'-1"	12'-0"	58	102	30560	63125
								61-65	14'-1"	12'-0"	63	107	33660	64150
								66-70	14'-1"	12'-0"	63	107	39610	65850
								71-75	14'-1"	12'-0"	65	109	43250	66940
								76-80	14'-1"	12'-0"	68	112	46920	68020
								81-85	17'-1"	15'-0"	75	119	51445	69295
								86-90	17'-1"	15'-0"	75	119	56600	70710
								91-95	17'-1"	15'-0"	75	119	62420	72280
96-100	17'-1"	15'-0"	75	119	70805	74480								
60	3161-1826 3161-2826 3161-4826 3161-5826 3161-6826	16 25 * 33 * 37 * 44 *	6050 6600 7370 7480 8030	6'-10" 6'-10" 6'-10" 6'-10" 6'-10"	3'-9" 3'-9" 3'-9" 3'-9" 3'-9"	3'-3" 3'-3" 3'-3" 3'-3" 3'-3"	Single Speed: 10  Two Speed: 10 & 2	-20	11'-7"	9'-6"	28	76	9600	60865
								21-25	14'-1"	12'-0"	39	87	10855	63490
								26-30	14'-1"	12'-0"	39	87	13160	65605
								31-35	14'-1"	12'-0"	43	91	15485	67285
								36-40	14'-1"	12'-0"	50	98	17780	68685
								41-45	14'-1"	12'-0"	50	98	20705	70055
								46-50	14'-1"	12'-0"	55	103	23265	71210
								51-55	14'-1"	12'-0"	58	106	26505	72440
								56-60	14'-1"	12'-0"	58	106	31260	73980
								61-65	14'-1"	12'-0"	63	111	34620	75120
								66-70	14'-1"	12'-0"	63	111	38970	76455
								71-75	14'-1"	12'-0"	63	111	44610	78085
								76-80	14'-1"	12'-0"	69	117	47520	79010
								81-85	17'-1"	15'-0"	75	123	53710	80725
								86-90	17'-1"	15'-0"	75	123	58970	82190
								91-95	17'-1"	15'-0"	75	123	66575	84225
96-100	17'-4"	15'-0"	75	123	74400	86305								
70	3171-1826 3171-2826 3171-4826 3171-5826 3171-6826	16 25 * 33 * 37 * 44 *	6050 6600 7370 7480 8030	6'-10" 6'-10" 6'-10" 6'-10" 6'-10"	3'-9" 3'-9" 3'-9" 3'-9" 3'-9"	3'-3" 3'-3" 3'-3" 3'-3" 3'-3"	Single Speed: 8  Two Speed: 8 & 1	-20	11'-7"	9'-6"	31	79	10025	70155
								21-25	14'-1"	12'-0"	39	87	11315	73190
								26-30	14'-1"	12'-0"	39	87	13635	75515
								31-35	14'-1"	12'-0"	45	93	16035	77385
								36-40	14'-1"	12'-0"	50	98	18945	79080
								41-45	14'-1"	12'-0"	52	100	21890	80550
								46-50	14'-1"	12'-0"	57	105	24645	81830
								51-55	14'-1"	12'-0"	59	107	29065	83420
								56-60	14'-1"	12'-0"	62	110	32650	84720
								61-65	14'-4"	12'-0"	63	111	38315	86480
								66-70	14'-4"	12'-0"	63	111	42730	87880
								71-75	14'-4"	12'-0"	66	114	47745	89390
								76-80	14'-4"	12'-0"	68	116	52985	90920
								81-85	17'-7"	15'-0"	77	125	60025	92880
								86-90	17'-7"	15'-0"	77	125	66265	94610
								91-95	17'-7"	15'-0"	77	125	75015	96955
96-100	17'-7"	15'-0"	77	125	81085	98615								

\* Note: Crane wheel base (B) may vary with these hoist selections.

**Higher capacities available upon request.**

# Top Running, Double Girder Overhead Cranes

## Crane Component Diagram



## Technical Description

- **MUNCK CRANES INC.** is recognized as a quality manufacturer of wire rope hoists and overhead traveling cranes.
- **MUNCK** cranes are in use in a wide range of lifting applications from the lightest duty to severe industrial applications.
- The New Generation of Heavy Industrial Cranes from **MUNCK** is a result of over 80 years of experience and a total devotion to this market.
- Utilizing the latest technology, the **MUNCK** line of Heavy Duty Electric Wire Rope Hoists and Cranes are manufactured to provide a high performance lifting system.
- The **MUNCK** product provides reliable service in more than 60 countries world wide.
- The **MUNCK** crane is a heavy duty, low maintenance crane. Its rugged construction and space saving design provide maximum utilization of available area.

### STEEL CONSTRUCTION

- The bridge girder of every **MUNCK** crane is designed to the current CMAA specifications and can be engineered to meet other local codes and regulations.
- Both rolled structural shapes and welded plate box girder designs are used depending on design requirements.
- Box girders are fabricated from 44W steel.

### END TRUCKS

- The crane end trucks are manufactured from structural sections and are jig assembled to ensure alignment of bearings and axles.
- Dual motor bridge drives are standard. Other drive types are available upon request.
- Bridge to End Truck connections are bolted.
- Bridge wheels are flanged with anti-friction bearings.
- Rail sweeps and rubber bumpers are standard on all end trucks.

### HOISTING MACHINERY

- The hoisting machinery consists of a **MUNCK** heavy duty industrial type standard wire rope hoist unit mounted on a low headroom type trolley.
- Motors are totally enclosed fan cooled, hoist duty with Class "F" insulation.
- Gears are precision machined from alloy steel and induction hardened. All gearing is enclosed in a rugged steel housing and is oil splash lubricated.
- Steel wire rope drums are precision machined.
- Rope drums are available in both single & double grooved configurations.
- Hoists are equipped with rope guides to prevent over lapping of the rope on the drum and to extend rope life.
- Upper and lower hoisting limit switches are standard equipment.
- The trolley is fabricated from structural shapes and plates to suit the application.

### MOTORS

- All motors are specifically designed for hoist and crane duty.
- All motors are totally enclosed fan cooled with Class "F" insulation.

### BRAKES

- All trolley and bridge drive motors have disc brakes as standard equipment.
- All hoists have two braking systems, one control brake and one holding brake.

### CONTROLS

- Each crane is supplied with a radio control as standard equipment.
- Other types of controls such as cab control, infrared, or pendant control station sliding on independent track are available.
- Munck Cranes are supplied with variable speed controls for the trolley and bridge motions. The hoist is supplied with a 2-speed configuration.
- The electrical components are housed in electrical cabinets to suit the applicable environment.

### BRIDGE ELECTRIFICATION

- Bridge electrification is provided via a flat cable festoon system suspended from a track as standard equipment.

### SURFACE TREATMENT

- The hoist is finished in enamel paint.
- The crane steel structure is thoroughly wire brushed and finished with anti-corrosion paint.

### OPTIONAL FEATURES

The following features can be supplied:

- Overload Switch
- Power Circuit Limit Switch
- Rotation Warning Beacon
- Anti-Collision Equipment
- Runway Electrification
- Travel Limits for Bridge & Trolley
- Weighing Equipment
- Variable Speed Hoist Control
- 2 Speed Bridge & Trolley Motions
- Bridge Lights
- Warning Horn or Bell

Other options are available on request.

### RUNWAY SYSTEMS

- Custom designed to suit many applications as part of a "Total Crane System" package.

## **Munck Cranes Inc.**

403 Dewitt Rd.  
Stoney Creek, Ontario  
Canada  
L8E 4B9

Phone: (905) 561-2100  
Toll Free: 1-866-370-5831  
Fax: (905) 561-1238  
Internet: [www.munckcranes.com](http://www.munckcranes.com)  
E-mail: [sales@munckcranes.com](mailto:sales@munckcranes.com)

