

Purpose

To provide dimension and specification information for the Series 3 Single Girder Crane System.

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Technical Information

System Maximum Wheel Load	This value is given in lbs (or kg) per wheel for Top Runners and in lbs (or kg) per wheel pair for Bottom Runners. It is the maximum load that a wheel (or pair of wheels) will experience for the standard Harrington crane in question. It takes into consideration the weight of the crane and its appurtenances, as well as the hoist/trolley and its load located at its maximum end approach. The value listed in the charts is for a crane with maximum span and capacity, and with Harrington's standard ER2M hoist/trolley configured for 40 ft of lift with a steel chain container.
Clearance	OSHA regulations require minimum clearances between the crane and stationary obstructions. In the vertical direction this minimum clearance is 3 inches (76mm) from the upper most part of the crane. In the horizontal direction this minimum clearance is 2 inches (51mm) in any direction from any part of the crane.
Crane Service Class	The Crane Manufacturer's Association of America (CMAA) has established seven service classes for cranes. These classes are Class A through Class F, and are based on load cycles and load magnitude. Class A cranes are suited for the least severe service, and Class F cranes are suited for the most severe service.
Class C Service Class	The load cycle and magnitude combinations that define the Class C Service Class are: <ul style="list-style-type: none">• Load is usually between 1/3 and 2/3 of rated capacity, and is frequently equal to rated capacity, and design service life is 20,000 to 200,000 cycles.• Load is usually 1/3 of rated capacity and is rarely equal to rated capacity, and design service life is 200,000 to 600,000 cycles.• Load is usually very light and rarely is equal to rated capacity, and design service life is 600,000 to 2,000,000 cycles
Span to Length Ratio	The CMAA has established maximum recommended values for the ratio of a crane's span to its end truck's length. For Single Girder Cranes this value is 8 to 1. Harrington's cranes meet this based on the end truck's roller base.



Imperial

SERIES 3 TOP RUNNING MOTORIZED SPECIFICATIONS										
Crane Product Code	Speed Codes L and S			Speed Code H			Speed Code D			System Max. Wheel Load* (lbs/wheel)
	One Motor Per End Truck 3 Phase 60 Hz			One Motor Per End Truck 3 Phase 60 Hz			One Motor Per End Truck 3 Phase 60 Hz			
	Output (Hp)	Rated Current (amps ea.)		Output (Hp)	Rated Current (amps ea.)		Output (Hp)	Rated Current (amps ea.)		
		@208/230V	@380/460V		@208/230V	@380/460V		@208/230V	@380/460V	
CTML/S/H/D-3-0135	0.33	1.5	0.9	0.5	1.8	1.1	0.33/0.08	1.3/1.0	0.8/0.7	1,978
CTML/S/H/D-3-0160										2,856
CTML/S/H/D-3-0335										4,968
CTML/S/H/D-3-0360										6,256
CTML/S/H/D-3-0535										7,731
CTML/S/H/D-3-0560	0.5	1.8	1.1	1.0	3.1	1.8	0.5/0.13	1.7/1.2	1.0/0.7	9,500
CTML/S/H/D-3-1035	1.0	3.1	1.8	2.0	5.8	3.2	1.0/0.25	3.1/2.0	1.8/1.2	15,136
CTML/S/H/D-3-1060										17,160

*See explanation in Technical Information Section
Speed Code

L - Designates 40 ft/min

S - Designates 80 ft/min

H - Designates 120 ft/min

D - Designates dual speed 80/20 ft/min

Product code derivation - example: CTML-3-0135

CT - Complete Crane, Top Running

M - Motorized

L - Speed of 40 ft/min

3 - Series number

01 - Max. Capacity - 1 Ton

35 - Maximum span - 35 feet

Metric

SERIES 3 TOP RUNNING MOTORIZED SPECIFICATIONS										
Crane Product Code	Speed Codes L and S			Speed Code H			Speed Code D			System Max. Wheel Load* (kg/wheel)
	One Motor Per End Truck 3 Phase 60 Hz			One Motor Per End Truck 3 Phase 60 Hz			One Motor Per End Truck 3 Phase 60 Hz			
	Output (kW)	Rated Current (amps ea.)		Output (kW)	Rated Current (amps ea.)		Output (kW)	Rated Current (amps ea.)		
		@208/230V	@380/460V		@208/230V	@380/460V		@208/230V	@380/460V	
CTML/S/H/D-3-0135	0.25	1.5	0.9	0.4	1.8	1.1	0.25/0.063	1.3/1.0	0.8/0.7	897
CTML/S/H/D-3-0160										1,295
CTML/S/H/D-3-0335										2,253
CTML/S/H/D-3-0360										2,838
CTML/S/H/D-3-0535										3,507
CTML/S/H/D-3-0560	0.4	1.8	1.1	0.75	3.1	1.8	0.4/0.1	1.7/1.2	1.0/0.7	4,309
CTML/S/H/D-3-1035	0.75	3.1	1.8	1.5	5.8	3.2	0.75/0.19	3.1/2.0	1.8/1.2	6,866
CTML/S/H/D-3-1060										7,784

*See explanation in Technical Information Section
Speed Code

L - Designates 12 m/min

S - Designates 24 m/min

H - Designates 36 m/min

D - Designates dual speed 24/6 m/min

Product code derivation - example: CTML-3-0135

CT - Complete Crane, Top Running

M - Motorized

L - Speed of 12 m/min

3 - Series number

01 - Max. Capacity - 1 Ton

35 - Maximum span 10.7 Meters

Imperial

SERIES 3 TOP RUNNING MOTORIZED SPECIFICATIONS							
Crane Product Code	Speed Codes L and S		Speed Code H		Speed Code D		System Max. Wheel Load* (lbs/wheel)
	One Motor Per End Truck 3 Phase 50 Hz		One Motor Per End Truck 3 Phase 50 Hz		One Motor Per End Truck 3 Phase 50 Hz		
	Output (Hp)	Rated Current (amps ea.) @380V	Output (Hp)	Rated Current (amps ea.) @380V	Output (Hp)	Rated Current (amps ea.) @380V	
CTML/S/H/D-3-0135	0.28	0.9	0.46	1.1	0.28/0.071	0.8/0.6	1,978
CTML/S/H/D-3-0160							2,856
CTML/S/H/D-3-0335							4,968
CTML/S/H/D-3-0360							6,256
CTML/S/H/D-3-0535							7,731
CTML/S/H/D-3-0560	0.46	1.1	0.84	1.8	0.46/0.113	1.0/0.7	9,500
CTML/S/H/D-3-1035	0.84	1.8	1.68	3.2	0.84/0.21	1.8/1.2	15,136
CTML/S/H/D-3-1060							17,160

*See explanation in Technical Information Section
Speed Code

L - Designates 34 ft/min

S - Designates 67 ft/min

H - Designates 101 ft/min

D - Designates dual speed 67/17 ft/min

Product code derivation - example: CTML-3-0135

CT - Complete Crane, Top Running

M - Motorized

L - Speed of 34 ft/min

3 - Series number

01 - Max. Capacity - 1 Ton

35 - Maximum span - 35 feet

Metric

SERIES 3 TOP RUNNING MOTORIZED SPECIFICATIONS							
Crane Product Code	Speed Codes L and S		Speed Code H		Speed Code D		System Max. Wheel Load* (kg/wheel)
	One Motor Per End Truck 3 Phase 50 Hz		One Motor Per End Truck 3 Phase 50 Hz		One Motor Per End Truck 3 Phase 50 Hz		
	Output (kW)	Rated Current (amps ea.) @380V	Output (kW)	Rated Current (amps ea.) @380V	Output (kW)	Rated Current (amps ea.) @380V	
CTML/S/H/D-3-0135	0.21	0.9	0.34	1.1	0.21/0.053	0.8/0.6	897
CTML/S/H/D-3-0160							1,295
CTML/S/H/D-3-0335							2,253
CTML/S/H/D-3-0360							2,838
CTML/S/H/D-3-0535							3,507
CTML/S/H/D-3-0560	0.34	1.1	0.63	1.8	0.34/0.084	1.0/0.7	4,309
CTML/S/H/D-3-1035	0.63	1.8	1.25	3.2	0.63/0.16	1.8/1.2	6,866
CTML/S/H/D-3-1060							7,784

*See explanation in Technical Information Section
Speed Code

L - Designates 10 m/min

S - Designates 20 m/min

H - Designates 31 m/min

D - Designates dual speed 20/5 m/min

Product code derivation - example: CTML-3-0135

CT - Complete Crane, Top Running

M - Motorized

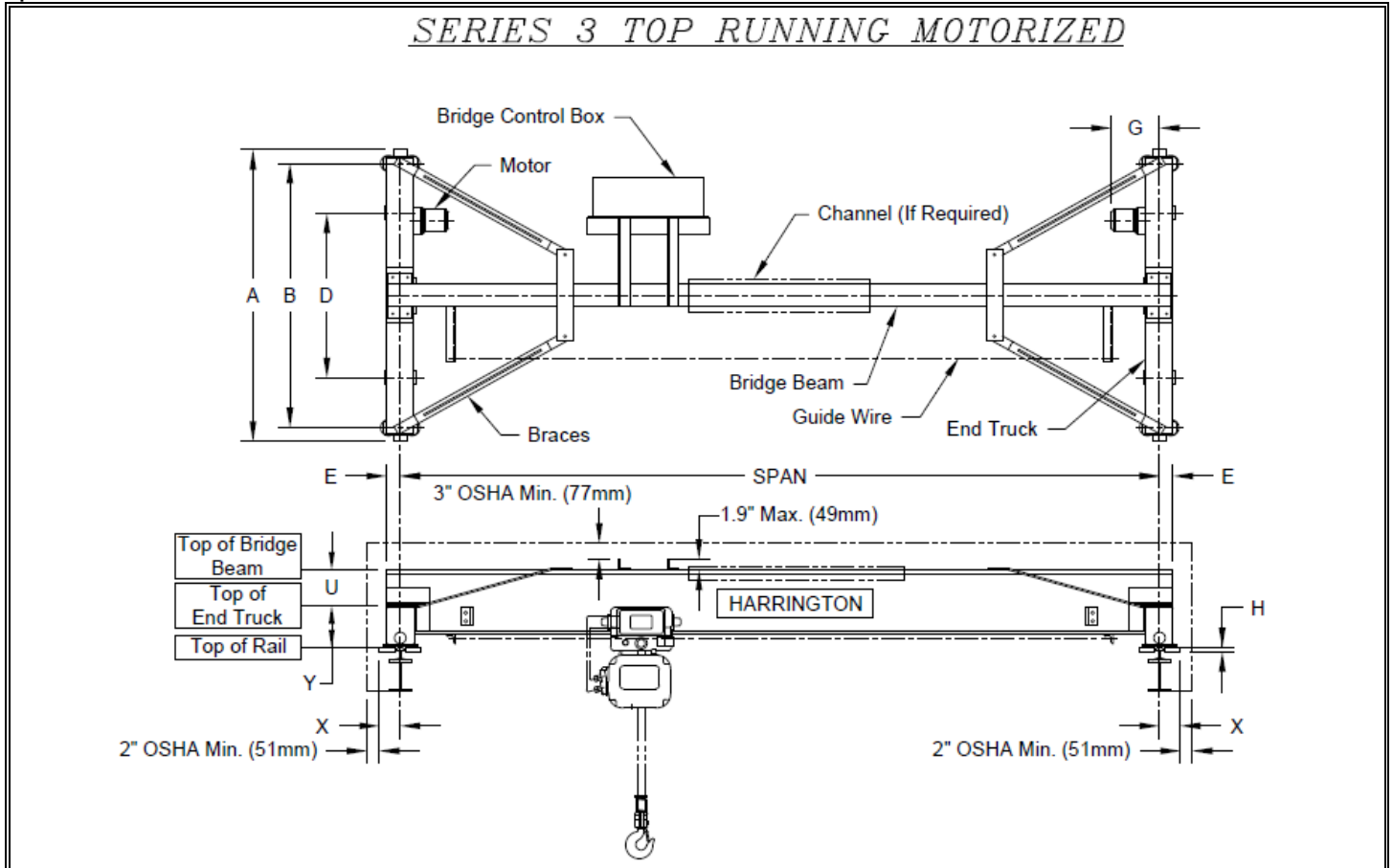
L - Speed of 10 m/min

3 - Series number

01 - Max. Capacity - 1 Ton

35 - Maximum span 10.7 Meters

Imperial



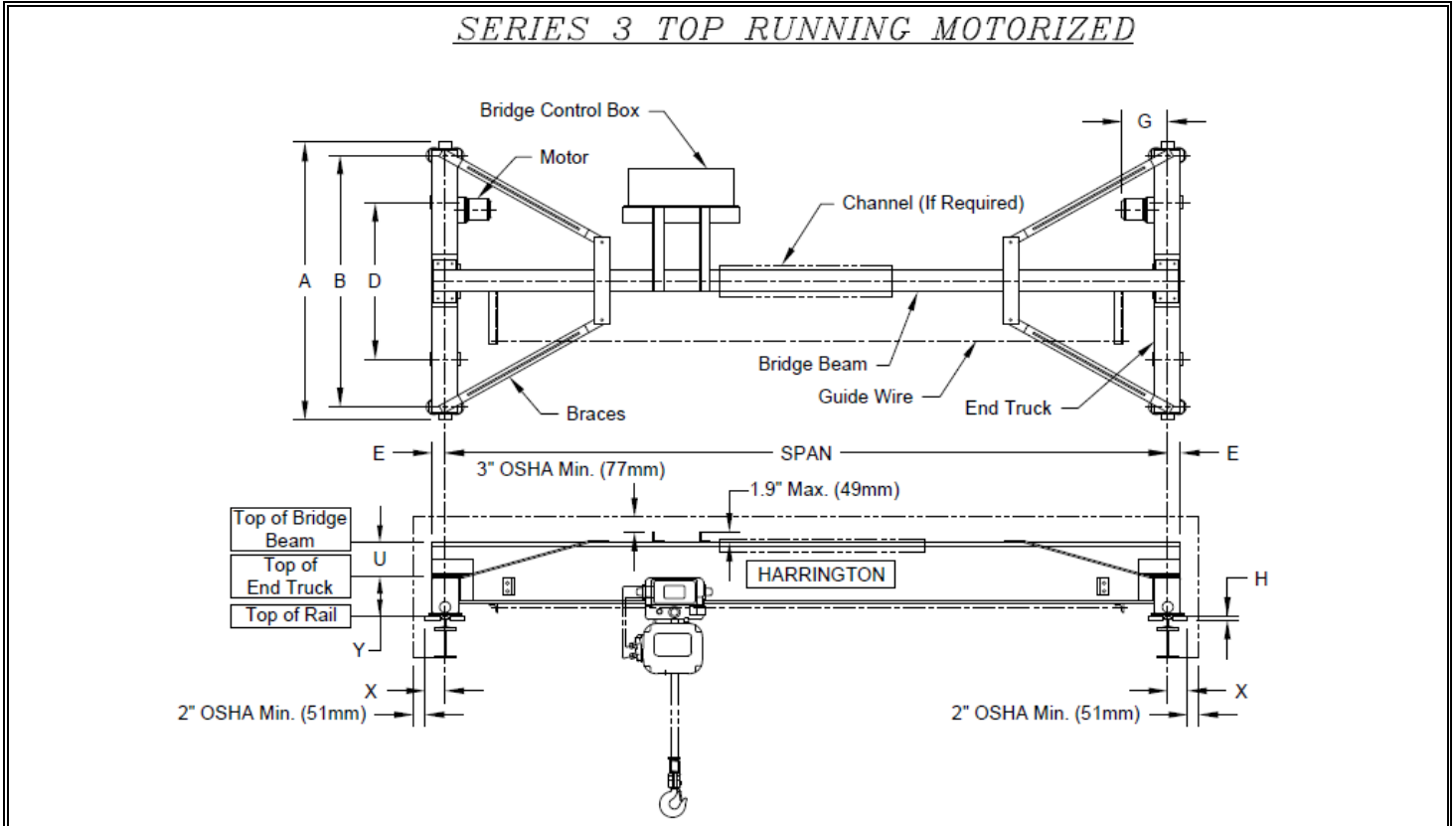
SERIES 3 TOP RUNNING MOTORIZED DIMENSIONS

Cap. (Tons)	Max. Span (ft)	Crane Product Code	Wheel Diameter (in)	Sug. Min. Runway Rail (ACSE#)	A* Overall Length (in)	B* Roller Base (in)	D Wheel Base (in)	E Beam Beyond Span (in)	U Top of End Truck to Top of Beam (in)	X** Width Beyond Span (in)	Y Top of Rail to Top of End Truck (in)	G Motor (in)				
1	35	CTML/S/H/D-3-0135	3.74	30	61	53	43	2.4	8.4 (10.4 for cranes using 10" beam)	4.6	7.1	12.7 (L/S) 13.1 (H) 14.0 (D)				
	60	CTML/S/H/D-3-0160			98	90	80									
3	35	CTML/S/H/D-3-0335	6.10		40	62	54	43				4.1	8.5	4.7	9.2	13.0 (L/S) 13.4 (H) 14.3 (D)
	60	CTML/S/H/D-3-0360				99	91	80								
5	35	CTML/S/H/D-3-0535	8.27		60	62	54	43				6.0	12.5	6.3	11.3	15.0 (L/S/D) 15.4 (H)
	60	CTML/S/H/D-3-0560				99	90	74								
10	35	CTML/S/H/D-3-1035	9.84	60	63	53	37	6.0	12.5	6.3	11.3	17.4 (L/S/D) 18.7 (H)				
	60	CTML/S/H/D-3-1060			100	90	74									

* See Appendix A for additional details.

** Based on suggested minimum runway rail.

Metric



SERIES 3 TOP RUNNING MOTORIZED DIMENSIONS

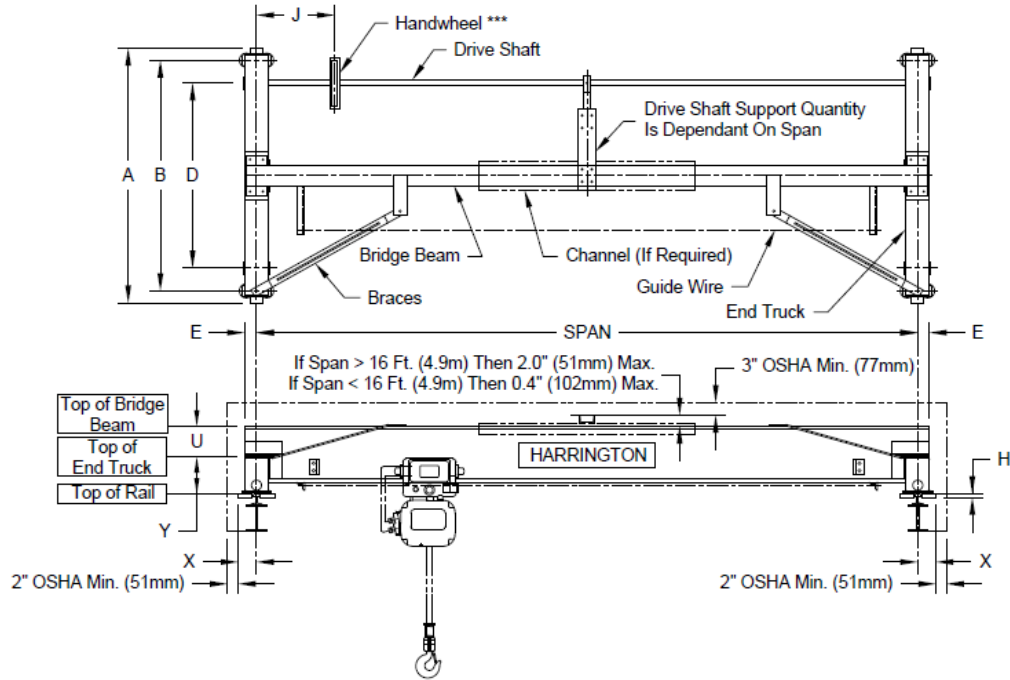
Cap. (Tons)	Max. Span (m)	Crane Product Code	Wheel Diameter (mm)	Sug. Min. Runway Rail (ACSE#)	A* Overall Length (mm)	B* Roller Base (mm)	D Wheel Base (mm)	E Beam Beyond Span (mm)	U Top of End Truck to Top of Beam (mm)	X** Width Beyond Span (mm)	Y Top of Rail to Top of End Truck (mm)	G Motor (mm)
1	10.7	CTML/S/H/D-3-0135	95	30	1549	1346	1092	61	213 (264 for cranes using 254mm beam)	117	180	323(L/S) 333 (H) 356 (D)
	18.3	CTML/S/H/D-3-0160			2489	2286	2032					
3	10.7	CTML/S/H/D-3-0335	155	40	1575	1372	1092	104	216	119	234	330 (L/S) 340 (H) 363 (D)
	18.3	CTML/S/H/D-3-0360			2515	2311	2032					
5	10.7	CTML/S/H/D-3-0535	210	60	1575	1372	1092	99	318	160	287	381 (L/S/D) 391 (H)
	18.3	CTML/S/H/D-3-0560			2515	2286	1880					
10	10.7	CTML/S/H/D-3-1035	250	60	1600	1346	940	152	318	160	287	442 (L/S/D) 475 (H)
	18.3	CTML/S/H/D-3-1060			2540	2286	1880					

* See Appendix A for additional details.

** Based on suggested minimum runway rail.

Imperial

SERIES 3 TOP RUNNING GEARED



SERIES 3 TOP RUNNING GEARED SPECIFICATIONS AND DIMENSIONS

Cap. (Tons)	Max. Span (ft)	Crane Product Code	Wheel Diameter (in)	Sug. Min. Runway Rail (ACSE#)	A**** Overall Length (in)	B**** Roller Base (in)	D Wheel Base (in)	E Beam Beyond Span (in)	J Hand Wheel Offset (in)	U Top of End Truck to Top of Beam (in)	X* Width Beyond Span (in)	Y Top of Rail to Top of End Truck (in)	System Max. Wheel Load** (lbs/wheel)			
1	35	CTG-3-0135	3.74	30	61	53	43	2.4	9.7	8.4 (10.4 for cranes using 10" beam)	4.6	7.1	1,963			
	50	CTG-3-0150			98	90	80						2,403			
3	35	CTG-3-0335	6.10		62	54	43	4.1	10.0				8.5	4.7	9.2	4,958
	50	CTG-3-0350			99	91	80									5,489
5	35	CTG-3-0535	8.27	40	62	54	43	3.9	10.3	8.5	4.7	9.3	7,718			
	50	CTG-3-0550			99	90	74						8,372			

* Based on suggested minimum runway rail.

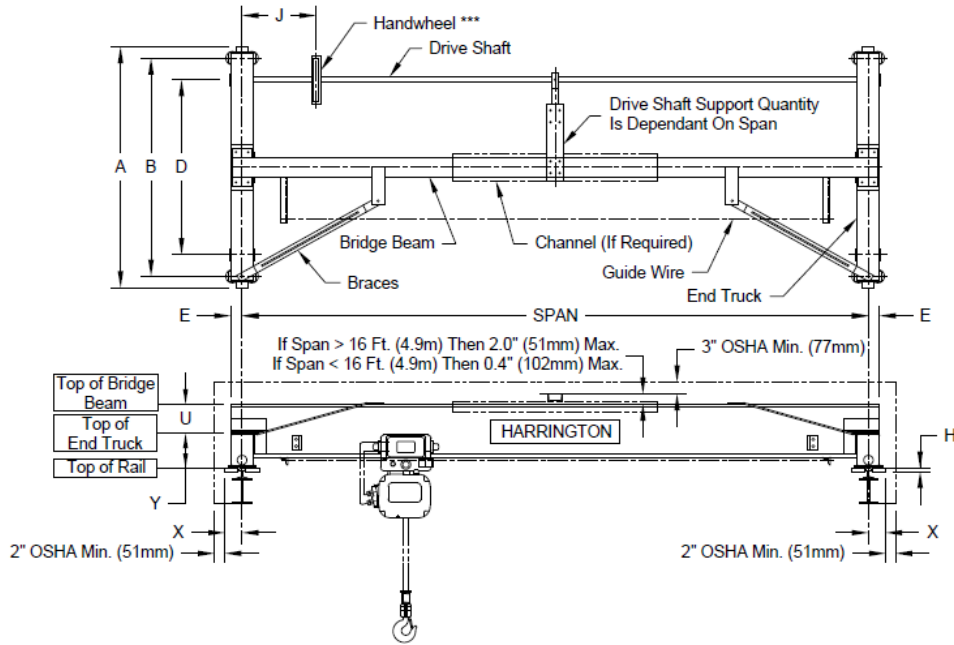
**See explanation in Technical Information Section

***Standard hand chain drop is 8 ft. from top of runway rail

**** See Appendix A for additional details.

Metric

SERIES 3 TOP RUNNING GEARED



SERIES 3 TOP RUNNING GEARED SPECIFICATIONS AND DIMENSIONS

Cap. (Tons)	Max. Span (m)	Crane Product Code	Wheel Diameter (mm)	Sug. Min. Runway Rail (ACSE#)	A**** Overall Length (mm)	B**** Roller Base (mm)	D Wheel Base (mm)	E Beam Beyond Span (mm)	J Hand Wheel Offset (mm)	U Top of End Truck to Top of Beam (mm)	X* Width Beyond Span (mm)	Y Top of Rail to Top of End Truck (mm)	System Max. Wheel Load** (kg/wheel)
1	10.7	CTG-3-0135	95	30	1549	1346	1092	61	247	213 (264 for cranes using 254mm beam)	117	181	890
	15.2	CTG-3-0150			2489	2286							2032
3	10.7	CTG-3-0335	155	30	1575	1372	1092	104	254	213 (264 for cranes using 254mm beam)	117	181	2,249
	15.2	CTG-3-0350			2515	2311							2032
5	10.7	CTG-3-0535	210	40	1575	1372	1092	99	262	216	119	234	3,501
	15.2	CTG-3-0550			2515	2286						1880	236

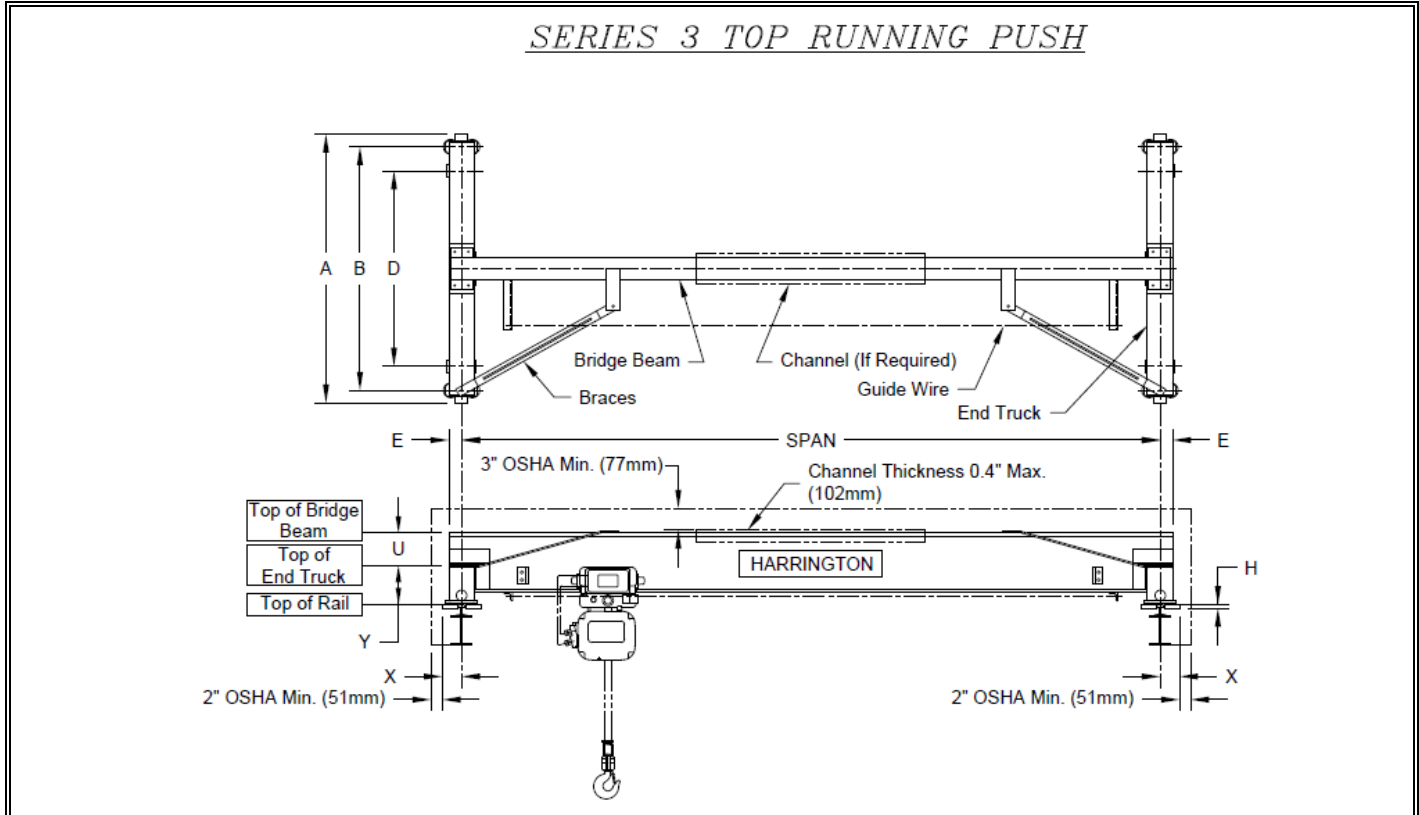
* Based on suggested minimum runway rail.

**See explanation in Technical Information Section

***Standard hand chain drop is 2.4 meters (8ft) from top of runway rail

**** See Appendix A for additional details.

Imperial



**SERIES 3 TOP RUNNING PUSH
SPECIFICATIONS AND DIMENSIONS**

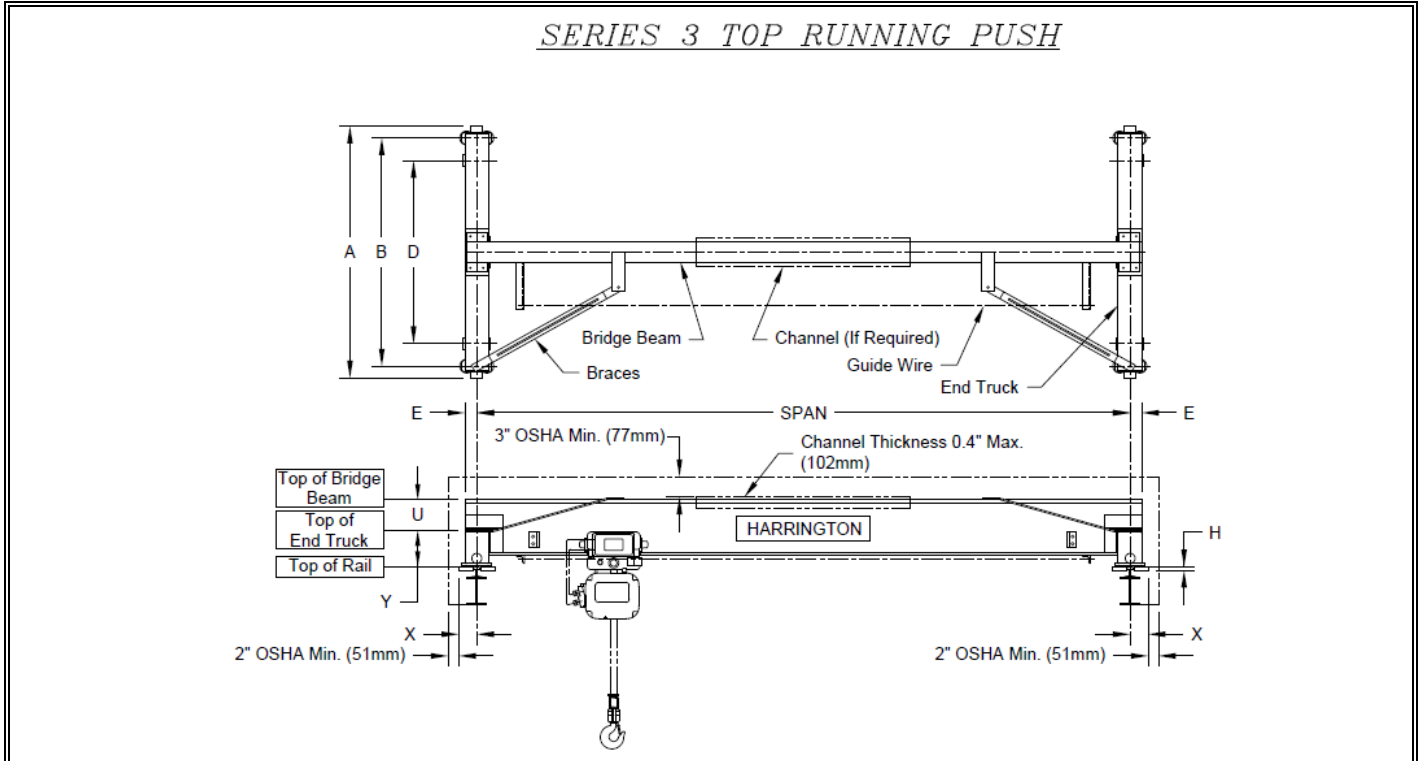
Cap. (Tons)	Max. Span (ft)	Crane Product Code	Wheel Diameter (in)	Sug. Min. Runway Rail (ACSE#)	A*** Overall Length (in)	B*** Roller Base (in)	D Wheel Base (in)	E Beam Beyond Span (in)	U Top of End Truck to Top of Beam (in)	X* Width Beyond Span (in)	Y Top of Rail to Top of End Truck (in)	System Max. Wheel Load** (lbs/wheel)
1	35	CTP-3-0135	3.74	30	61	53	43	2.4	8.4 (10.4 for cranes using 10" beam)	4.6	7.1	1,972
	45	CTP-3-0145			98	90	80					2,275
2	45	CTP-3-0245	99		91	80	4.1	3,834				
3	35	CTP-3-0335	6.10		62	54		43				4,919
5	35	CTP-3-0535			40	62	54	43				8.5

* Based on suggested minimum runway rail.

** See explanation in Technical Information Section

*** See Appendix A for additional details.

Metric



SERIES 3 TOP RUNNING PUSH SPECIFICATIONS AND DIMENSIONS

Cap. (Tons)	Max. Span (m)	Crane Product Code	Wheel Diameter (mm)	Sug. Min. Runway Rail (ACSE#)	A*** Overall Length (mm)	B*** Roller Base (mm)	D Wheel Base (mm)	E Beam Beyond Span (mm)	U Top of End Truck to Top of Beam (mm)	X* Width Beyond Span (mm)	Y Top of Rail to Top of End Truck (mm)	System Max. Wheel Load** (kg/wheel)
1	10.7	CTP-3-0135	95	30	1549	1346	1092	61	213 (264 for cranes using 254m m beam)	117	180	894
	13.7	CTP-3-0145			2489	2286						1,032
2	13.7	CTP-3-0245	155	40	2515	2311	2032	104	216	119	234	1,739
3	10.7	CTP-3-0335			1575	1372	1092					2,231
5	10.7	CTP-3-0535			3,484							

* Based on suggested minimum runway rail.

**See explanation in Technical Information Section

*** See Appendix A for additional details.



Imperial

SERIES 3 UNDERHUNG MOTORIZED SPECIFICATIONS										
Crane Product Code	Speed Codes L and S			Speed Code H			Speed Code D			System Max. Wheel Load* (lbs per wheel pair)
	One Motor Per End Truck 3 Phase 60 Hz			One Motor Per End Truck 3 Phase 60 Hz			One Motor Per End Truck 3 Phase 60 Hz			
	Output (Hp)	Rated Current (amps ea.)		Output (Hp)	Rated Current (amps ea.)		Output (Hp)	Rated Current (amps ea.)		
		@208/230V	@380/460V		@208/230V	@380/460V		@208/230V	@380/460V	
CUML/S/H/D-3-0235	0.33	1.5	0.9	0.5	1.8	1.1	0.33/0.08	1.3/1.0	0.8/0.7	3,441
CUML/S/H/D-3-0250										4,008
CUML/S/H/D-3-0335										4,937
CUML/S/H/D-3-0350										5,465
CUML/S/H/D-3-0535	0.5	1.8	1.1	1.0	3.1	1.8	0.5/0.13	1.7/1.2	1.0/0.7	7,696
CUML/S/H/D-3-0550										8,337

*See explanation in Technical Information Section

Speed Code

- L - Designates 40 ft/min
- S - Designates 80 ft/min
- H - Designates 120 ft/min
- D - Designates dual speed 80/20 ft/min

Product code derivation - example: CUML-3-0235

- CU - Complete Crane, Underhung
- M - Motorized
- L - Speed of 40 ft/min
- 3 - Series number
- 02 - Max. Capacity - 2 Ton
- 35 - Maximum span - 35 feet

Imperial

SERIES 3 UNDERHUNG MOTORIZED SPECIFICATIONS										
Crane Product Code	Speed Codes L and S			Speed Code H			Speed Code D			System Max. Wheel Load* (lbs per wheel pair)
	One Motor Per End Truck 3 Phase 50 Hz			One Motor Per End Truck 3 Phase 50 Hz			One Motor Per End Truck 3 Phase 50 Hz			
	Output (Hp)	Rated Current (amps ea.)		Output (Hp)	Rated Current (amps ea.)		Output (Hp)	Rated Current (amps ea.)		
		@380V			@380V			@380V		
CUML/S/H/D-3-0235	0.28	0.9	0.46	0.46	1.1	0.28/0.071	0.8/0.6			3,441
CUML/S/H/D-3-0250										4,008
CUML/S/H/D-3-0335										4,937
CUML/S/H/D-3-0350										5,465
CUML/S/H/D-3-0535	0.46	1.1	0.84	0.84	1.8	0.46/0.113	1.0/0.7			7,696
CUML/S/H/D-3-0550										8,337

*See explanation in Technical Information Section

Speed Code

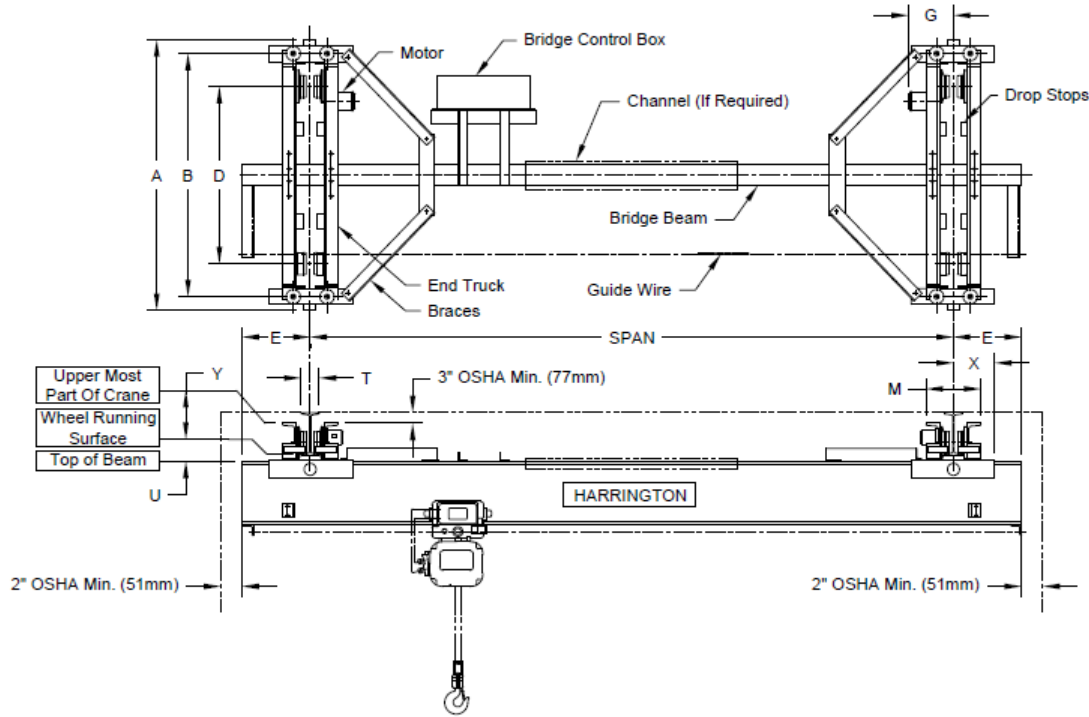
- L - Designates 34 ft/min
- S - Designates 67 ft/min
- H - Designates 101 ft/min
- D - Designates dual speed 67/17 ft/min

Product code derivation - example: CUML-3-0235

- CU - Complete Crane, Underhung
- M - Motorized
- L - Speed of 34 ft/min
- 3 - Series number
- 02 - Max. Capacity - 2 Ton
- 35 - Maximum span - 35 feet

Imperial

SERIES 3 UNDERHUNG MOTORIZED



SERIES 3 UNDERHUNG MOTORIZED DIMENSIONS

Cap. (Tons)	Max. Span (ft)	Crane Product Code	Wheel Diameter (in) †	T Flange Range Std. (in)	A Overall Length (in)	B Roller Base (in)	D Wheel Base (in)	E * Beam Beyond Span (in)	M †† End Truck Frame Width (in)	U Wheel Running Surface to Top of Beam (in)	X ** Width Beyond Span (in)	Y Wheel Running Surface to Upper Most Part of Crane (in)	G †† Motor (in)
2	35	CUML/S/H/D-3-0235	4.33 (4.14)	3 - 6	60	53	39	12	T+8.1	1.8 (1.9) †	11.3-T/2	6.5	T/2 + 11.9 (L/S) T/2 + 12.3 (H) T/2 + 13.2 (D)
	50	CUML/S/H/D-3-0250			82	75	61						
3	35	CUML/S/H/D-3-0335	4.92 (4.77)	3 - 6	60	53	35	12	T+8.2	1.9 (2.0) †	11.3-T/2	6.5 (6.4) †	T/2 + 11.9 (L/S) T/2 + 12.3 (H) T/2 + 13.2 (D)
	50	CUML/S/H/D-3-0350			82	75	57						
5	35	CUML/S/H/D-3-0535	5.51 (5.37)	4 - 6	60	53	33	12	T+9.7	2.0 (2.0) †	11.3-T/2	6.8	T/2+13.7 (L/S/D) T/2+13.8 (H)
	50	CUML/S/H/D-3-0550			82	75	55						

* Minimum E is M/2

**These formulas for Width Beyond Span do not apply for flanges greater than 6 inches. For flanges greater than 6 inches, see Appendix B.

† Value in parentheses is specific to end trucks with wheels modified for patented track runways.

†† See Appendix B for adders to indicated dimension using modified frames for patented track runways.

Metric

SERIES 3 UNDERHUNG MOTORIZED SPECIFICATIONS										
Crane Product Code	Speed Codes L and S			Speed Code H			Speed Code D			System Max. Wheel Load* (kg per wheel pair)
	One Motor Per End Truck 3 Phase 60 Hz			One Motor Per End Truck 3 Phase 60 Hz			One Motor Per End Truck 3 Phase 60 Hz			
	Output (kW)	Rated Current (amps ea.)		Output (kW)	Rated Current (amps ea.)		Output (kW)	Rated Current (amps ea.)		
@208/230V		@380/460V	@208/230V		@380/460V	@208/230V		@380/460V		
CUML/S/H/D-3-0235	0.25	1.5	0.9	0.4	1.8	1.1	0.25/0.063	1.3/1.0	0.8/0.7	1,561
CUML/S/H/D-3-0250										1,818
CUML/S/H/D-3-0335										2,239
CUML/S/H/D-3-0350										2,479
CUML/S/H/D-3-0535	0.4	1.8	1.1	0.75	3.1	1.8	0.4/0.1	1.7/1.2	1.0/0.7	3,491
CUML/S/H/D-3-0550										3,782

*See explanation in Technical Information Section

Speed Code

- L - Designates 12 m/min
- S - Designates 24 m/min
- H - Designates 36 m/min
- D - Designates dual speed 24/6 m/min

Product code derivation - example: CUML-3-0235

- CU - Complete Crane, Underhung
- M - Motorized
- L - Speed of 12 m/min
- 3 - Series number
- 02 - Max. Capacity - 2 Ton
- 35 - Maximum span - 10.7 Meters

Metric

SERIES 3 UNDERHUNG MOTORIZED SPECIFICATIONS										
Crane Product Code	Speed Codes L and S			Speed Code H			Speed Code D			System Max. Wheel Load* (kg per wheel pair)
	One Motor Per End Truck 3 Phase 50 Hz			One Motor Per End Truck 3 Phase 50 Hz			One Motor Per End Truck 3 Phase 50 Hz			
	Output (kW)	Rated Current (amps ea.)		Output (kW)	Rated Current (amps ea.)		Output (kW)	Rated Current (amps ea.)		
@380V		@380V			@380V					
CUML/S/H/D-3-0235	0.21	0.9	0.34	0.34	1.1	1.1	0.21/0.053	0.8/0.6		1,561
CUML/S/H/D-3-0250										1,818
CUML/S/H/D-3-0335										2,239
CUML/S/H/D-3-0350										2,479
CUML/S/H/D-3-0535	0.34	1.1	0.63	0.63	1.8	1.8	0.34/0.084	1.0/0.7		3,491
CUML/S/H/D-3-0550										3,782

*See explanation in Technical Information Section

Speed Code

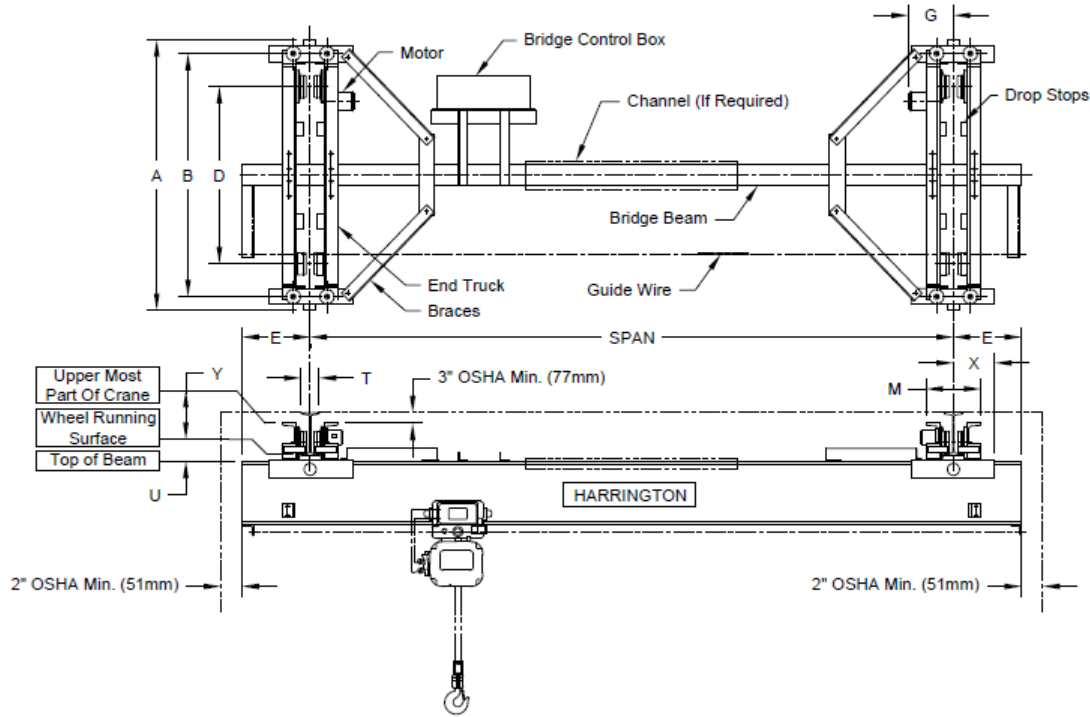
- L - Designates 10 m/min
- S - Designates 20 m/min
- H - Designates 31 m/min
- D - Designates dual speed 20/5 m/min

Product code derivation - example: CUML-3-0235

- CU - Complete Crane, Underhung
- M - Motorized
- L - Speed of 10 m/min
- 3 - Series number
- 02 - Max. Capacity - 2 Ton
- 35 - Maximum span - 10.7 Meters

Metric

SERIES 3 UNDERHUNG MOTORIZED



SERIES 3 UNDERHUNG MOTORIZED DIMENSIONS

Cap. (Tons)	Max. Span (m)	Crane Product Code	Wheel Diameter (mm) †	T Flange Range Std. (mm)	A Overall Length (mm)	B Roller Base (mm)	D Wheel Base (mm)	E* Beam Beyond Span (mm)	M†† End Truck Frame Width (mm)	U Wheel Running Surface to Top of Beam (mm)	X** Width Beyond Span (mm)	Y Wheel Running Surface to Upper Most Part of Crane (mm)	G†† Motor (mm)		
2	10.7	CUML/S/H/D-3-0235	110 (105)	76-152	1524	1346	991	305	T+206	47 (49) †	287-T/2	166 (164) †	T/2 + 303 (L/S) T/2 + 312 (H) T/2 + 336 (D)		
	15.2	CUML/S/H/D-3-0250			2083	1905	1549								
3	10.7	CUML/S/H/D-3-0335	125 (121)		1524	1346	889		T+209	48 (50) †		165 (163) †			
	15.2	CUML/S/H/D-3-0350			2083	1905	1448								
5	10.7	CUML/S/H/D-3-0535	140 (136)		102-152	1524	1346		838	T+247		50 (52) †		173 (172) †	T/2+348 (L/S/D) T/2+350 (H)
	15.2	CUML/S/H/D-3-0550				2083	1905		1397						

* Minimum E is M/2

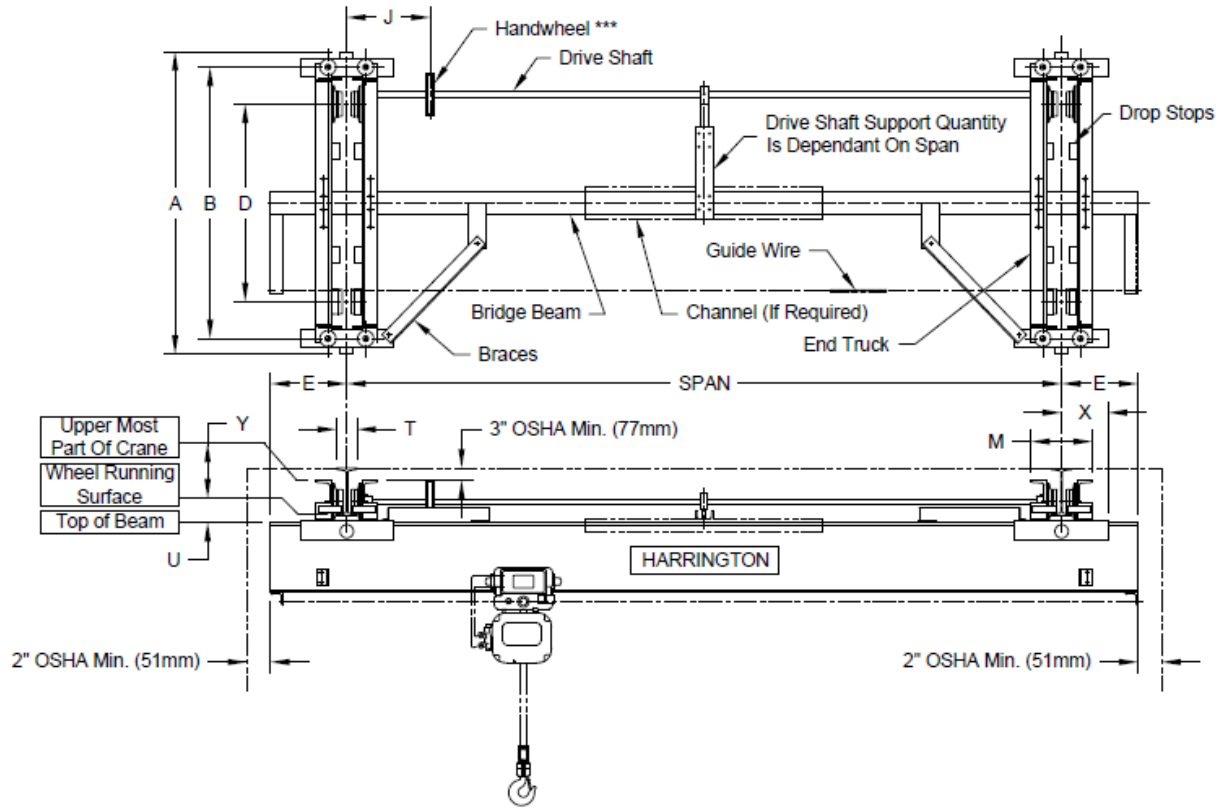
**These formulas for Width Beyond Span do not apply for flanges greater than 152mm (6"). For flanges greater than 152mm (6"), see Appendix B.

† Value in parentheses is specific to end trucks with wheels modified for patented track runways.

†† See Appendix B for adders to indicated dimension using modified frames for patented track runways.

Imperial

SERIES 3 UNDERHUNG GEARED



SERIES 3 UNDERHUNG GEARED SPECIFICATIONS AND DIMENSIONS

Cap. (Tons)	Max. Span (ft)	Crane Product Code	Wheel Diameter (in) †	T Flange Range Std. (in)	A Overall Length (in)	B Roller Base (in)	D Wheel Base (in)	E* Beam Beyond Span (in)	J†† Hand Wheel Offset (in)	M†† End Truck Frame Width (in)	U Wheel Running Surface to Top of Beam (in)	X** Width Beyond Span (in)	Y Wheel Running Surface to Upper Most Part of Crane (in)	System Max. Wheel Load**** (lbs per wheel pair)
2	35	CUG-3-0235	4.33 (4.14)	3 - 6	60	53	39	12	T/2+9.0	T+8.1	1.8 (1.9) †	11.3 - T/2	6.5	3,431
	45	CUG-3-0245			82	75	61		T/2+8.9	T + 8.2	1.9 (2.0) †			4,925
3	35	CUG-3-0335	4.92 (4.77)		60	53	35		T/2+8.9	T + 8.2	1.9 (2.0) †			4,925
	45	CUG-3-0345		82	75	57	T/2+8.9	T + 8.2	1.9 (2.0) †	5,244				
5	35	CUG-3-0535	5.51 (5.37)	4 - 6	60	53	33	12	T/2+9.0	T+9.7	2.0 (2.0) †	11.3 - T/2	6.8	7,681
	45	CUG-3-0545			82	75	55		T/2+9.0	T+9.7	2.0 (2.0) †			8,072

* Minimum E is M/2

**These formulas for Width Beyond Span do not apply for flanges greater than 6 inches. For flanges greater than 6 inches, see Appendix B.

***Standard hand chain drop is 8 ft. from bottom of runway beam

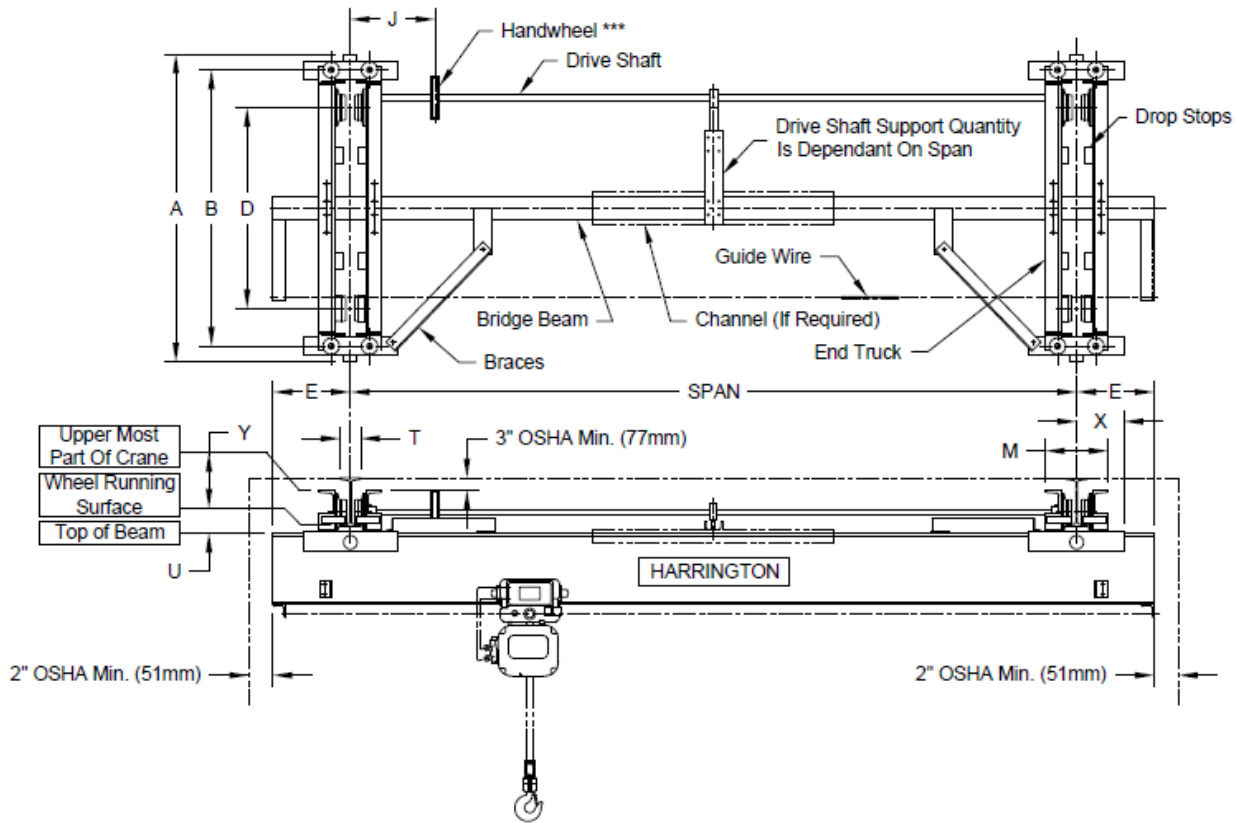
****See explanation in Technical Information Section

† Value in parentheses is specific to end trucks with wheels modified for patented track runways.

†† See Appendix B for adders to indicated dimension using modified frames for patented track runways.

Metric

SERIES 3 UNDERHUNG GEARED



SERIES 3 UNDERHUNG GEARED SPECIFICATIONS AND DIMENSIONS

Cap. (Tons)	Max. Span (m)	Crane Product Code	Wheel Diameter (mm) †	T Flange Range Std. (mm)	A Overall Length (mm)	B Roller Base (mm)	D Wheel Base (mm)	E* Beam Beyond Span (mm)	J†† Hand Wheel Offset (mm)	M†† End Truck Frame Width (mm)	U Wheel Running Surface to Top of Beam (mm)	X** Width Beyond Span (mm)	Y Wheel Running Surface to Upper Most Part of Crane (mm)	System Max. Wheel Load**** (kg per wheel pair)	
2	10.7	CUG-3-0235	110 (105)	76-152	1524	1346	991	305	T/2+229	T+206	47 (49) †	287-T/2	166 (164) †	1,556	
	13.7	CUG-3-0245			2083	1905	1549							1,735	
3	10.7	CUG-3-0335	125 (121)		1524	1346	889		T/2+226	T+208	48 (50) †			2,234	
	13.7	CUG-3-0345			2083	1905	1448								2,379
5	10.7	CUG-3-0535	140 (136)		102-152	1524	1346		838	T/2+229	T+247			50 (52) †	3,484
	13.7	CUG-3-0545				2083	1905		1397						

* Minimum E is M/2

**These formulas for Width Beyond Span do not apply for flanges greater than 152mm (6"). For flanges greater than 152mm (6"), see Appendix B.

***Standard hand chain drop is 2.4m (8ft). from bottom of runway beam

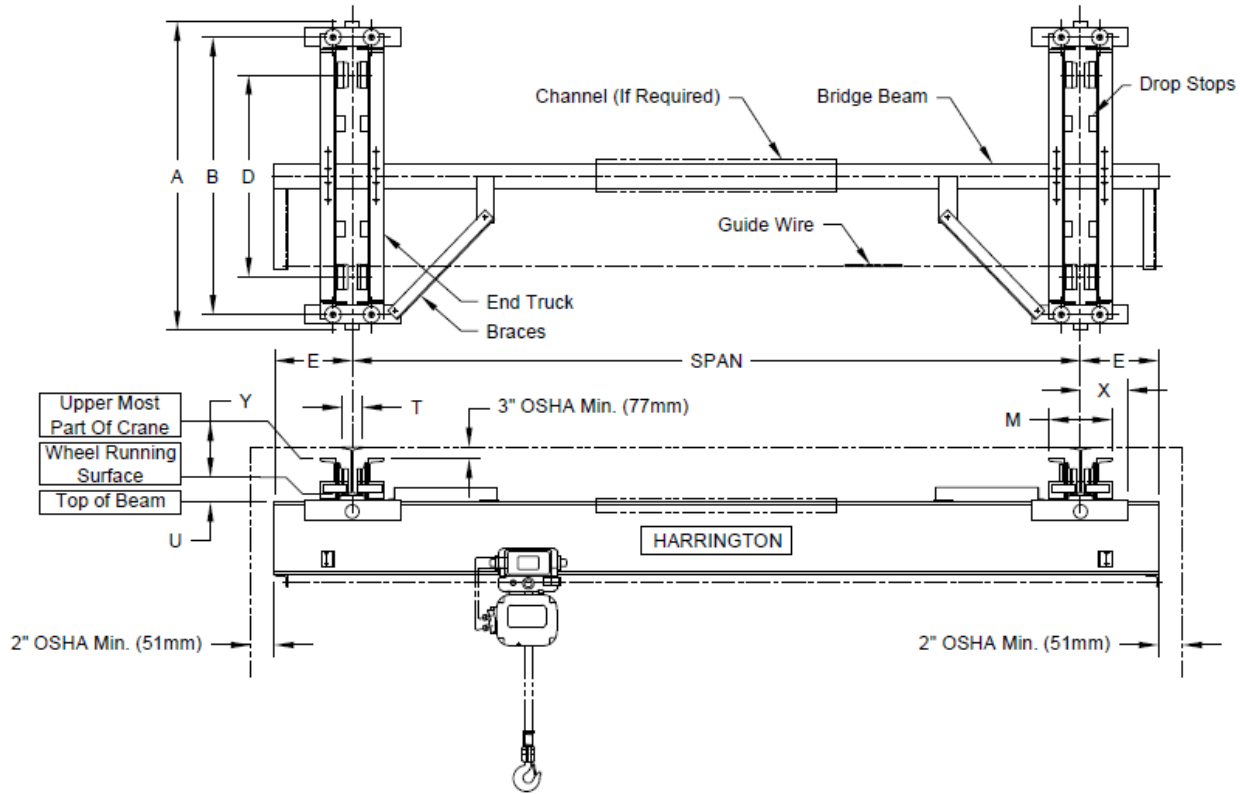
****See explanation in Technical Information Section

† Value in parentheses is specific to end trucks with wheels modified for patented track runways.

†† See Appendix B for adders to indicated dimension using modified frames for patented track runways.

Imperial

SERIES 3 UNDERHUNG PUSH



SERIES 3 UNDERHUNG PUSH SPECIFICATIONS AND DIMENSIONS

Cap. (Tons)	Max. Span (ft)	Crane Product Code	Wheel Diameter (in) †	T Flange Range Std. (in)	A Overall Length (in)	B Roller Base (in)	D Wheel Base (in)	E * Beam Beyond Span (in)	M†† End Truck Frame Width (in)	U Wheel Running Surface to Top of Beam (in)	X** Width Beyond Span (in)	Y Wheel Running Surface to Upper Most Part of Crane (in)	System Max. Wheel Load*** (lbs per wheel pair)
2	35	CUP-3-0235	4.33 (4.14)	3 - 6	60	53	39	12	T+8.1	1.8 (1.9) †	11.3 - T/2	6.5	3,423
	45	CUP-3-0245			82	75	61						3,816
3	35	CUP-3-0335	4.92 (4.77)		60	53	35		T + 8.2	1.9 (2.0) †		6.5 (6.4) †	4,917
5	35	CUP-3-0535	5.51 (5.37)	4 - 6	60	53	33		T+9.8	2.0 (2.0) †		6.4 (6.3) †	7,672

* Minimum E is M/2

**These formulas for Width Beyond span do not apply for flanges greater than 6 inches. For flanges greater than 6 inches, see Appendix B.

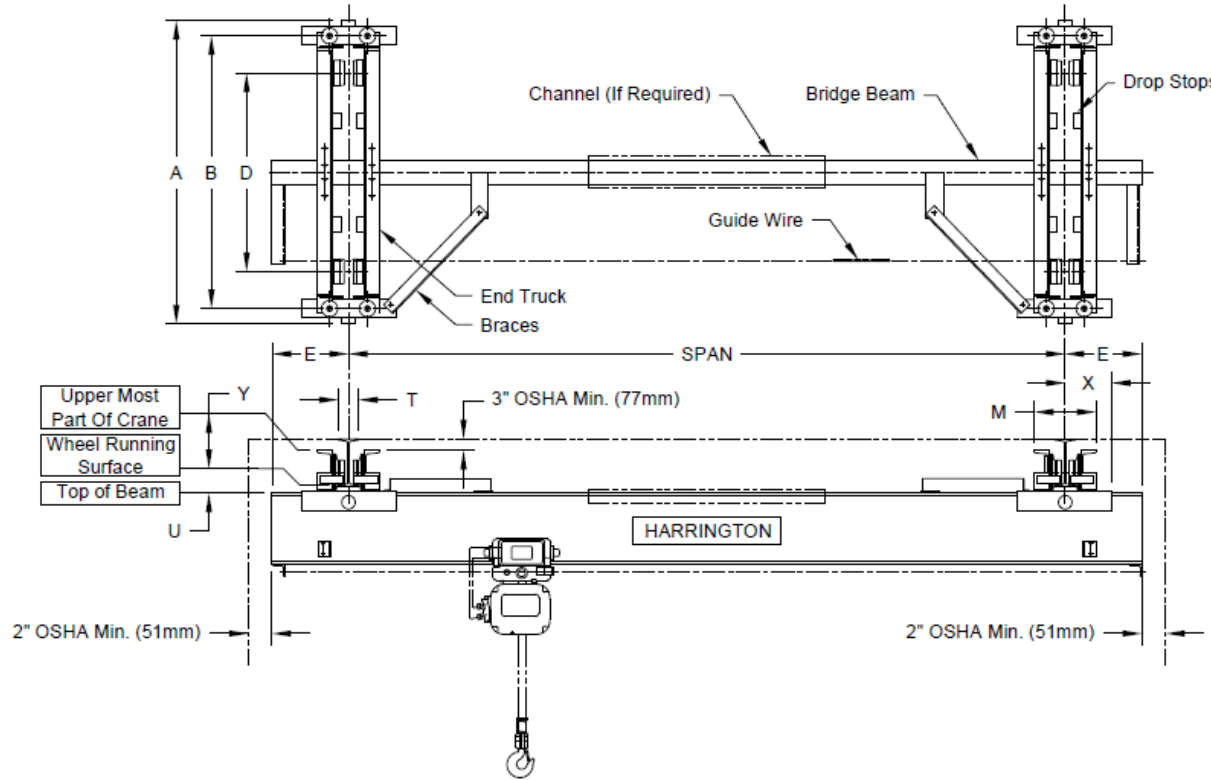
***See explanation in Technical Information Section

† Value in parentheses is specific to end trucks with wheels modified for patented track runways.

†† See Appendix B for adders to indicated dimension using modified frames for patented track runways.

Metric

SERIES 3 UNDERHUNG PUSH



SERIES 3 UNDERHUNG PUSH SPECIFICATIONS AND DIMENSIONS

Cap. (Tons)	Max. Span (m)	Crane Product Code	Wheel Diameter (mm) †	T Flange Range Std. (mm)	A Overall Length (mm)	B Roller Base (mm)	D Wheel Base (mm)	E * Beam Beyond Span (mm)	M †† End Truck Frame Width (mm)	U Wheel Running Surface to Top of Beam (mm)	X ** Width Beyond Span (mm)	Y Wheel Running Surface to Upper Most Part of Crane (mm)	System Max. Wheel Load *** (kg per wheel pair)
2	10.7	CUP-3-0235	110 (105)	76-152	1524	1346	991	305	T+206	47 (49) †	287-T/2	166 (164) †	1,553
	13.7	CUP-3-0245			2083	1905	1549						1,731
3	10.7	CUP-3-0335	125 (121)	1524	1346	889	T+208		48 (50) †	165 (163) †		2,230	
5	10.7	CUP-3-0535	140 (136)	102-152	1524	1346	838		T+249	50 (52) †		163 (161) †	3,480

* Minimum E is M/2

**These formulas for Width Beyond span do not apply for flanges greater than 152mm (6"). For flanges greater than 152mm (6"), see Appendix B.

***See explanation in Technical Information Section

† Value in parentheses is specific to end trucks with wheels modified for patented track runways.

†† See Appendix B for adders to indicated dimension using modified frames for patented track runways.

Appendix A: Series 3 Top Running Additional Details

Frame	Raised Guide Rollers			
	Imperial (in)		Metric (mm)	
	A	B	A	B
TMX-3-0135	67.0	60.9	1702	1546
TMX-3-0160	104.0	97.9	2642	2486
TMX-3-0335	67.9	61.9	1726	1572
TMX-3-0360	104.9	98.9	2665	2511
TMX-3-0535	67.9	61.9	1726	1572
TMX-3-0560	104.9	97.9	2665	2487
TMX-3-1035	71.0	63.2	1803	1605
TMX-3-1060	108.0	100.2	2743	2545

Table 1: Series 3 Top Running End-truck changes to overall length (A) and guide roller base (B) for end-trucks with raised guide rollers.

	Rail	Dimension H (in)					Dimension H (mm)				
Standard Guide Rollers	12#										
	20#										
	25#	1.1	1.1	1.1			28	28	28		
	1.25"										
	30#	1.1	1.1	1.1	1.0		28	28	28	26	
	35#	1.1	1.1	1.1	1.0		28	28	28	26	
	40#		1.1	1.1	1.0	1.3		28	28	26	34
	45#		1.1	1.1	1.0	1.3		28	28	26	34
	50#		1.1	1.1	1.0	1.3		28	28	26	34
	55#				1.0	1.3				26	34
	60#				1.0	1.3				26	34
	65#				1.0	1.3				26	34
Raise Guide Rollers	12#	0.7	0.7	0.7	0.6		18	18	18	16	
	20#	0.8	0.8	0.8	0.8		21	21	21	19	
	25#	0.9	0.9	0.9	1.1		23	23	23	27	
	1.25"	0.8	0.8	0.8	1.2		20	20	20	30	
	30#	0.8	0.8	0.8	1.1	0.9	21	21	21	29	22
	35#					0.9					22
	40#					0.9					24
	45#					0.9					24
	50#					1.0					26
	55#					1.0					26
	60#					1.2					29
	60#					1.2					29
		0135 & 0160	0335 & 0360	0535	0560	1035 & 1060	0135 & 0160	0335 & 0360	0535	0560	1035 & 1060
End-truck Frame Size											

Table 2: Series 3 Top Running End-truck additional details for dimension H.

Notes:

1. Dimension 'H' is measured from the track wheel running surface to the lowest point of the end-truck (below the running surface).
2. Rails with a grey interior color and no Dimension H value are not available options for the Standard Series 3 design.

	Rail	Dimension X (in)					Dimension X (mm)				
Standard Guide Rollers	12#										
	20#										
	25#	4.5	4.5	4.5			114	114	114		
	1.25"										
	30#	4.6	4.6	4.6	4.6		117	117	117	117	
	35#	4.6	4.6	4.6	4.6		117	117	117	117	
	40#		4.7	4.7	4.7	6.1		120	120	120	155
	45#		4.7	4.7	4.7	6.1		120	120	120	155
	50#		4.9	4.9	4.9	6.2		123	123	123	158
	55#				4.9	6.2				123	158
	60#				4.9	6.3				125	160
	65#				4.9	6.3				125	160
Raise Guide Rollers	12#	4.3	4.3	4.3	4.3		108	108	108	108	
	20#	4.4	4.4	4.4	4.4		112	112	112	112	
	25#	4.5	4.5	4.5	4.5		114	114	114	114	
	1.25"	4.4	4.4	4.4	4.4		111	111	111	111	
	30#	4.6	4.6	4.6	4.6	6.0	116	116	116	116	152
	35#					6.0					152
	40#					6.1					155
	45#					6.1					155
	50#					6.2					158
	55#					6.2					158
	60#					6.3					160
	60#					6.3					160
		0135 & 0160	0335 & 0360	0535	0560	1035 & 1060	0135 & 0160	0335 & 0360	0535	0560	1035 & 1060
End-truck Frame Size											

Table 3: Series 3 Top Running End-truck additional details for dimension X.

Notes:

1. Dimension 'X' is measured from the runway center line to the outermost point on the endtruck (in a direction parallel to the span line).
2. Rails with a grey interior color and no Dimension X value are not available options for the Standard Series 3 design.

Appendix B: Series 3 Underhung Additional Details

Imperial

Cap.	G Motor	J Hand Wheel Offset	M End Truck Frame Width
<i>Tons</i>	<i>in.</i>	<i>in.</i>	<i>in.</i>
2	+0.13	+0.13	+0.25
3	+0.25	+0.25	+0.50
5	+0.16	+0.16	+0.31

For modified Patented Track frames only.

Flange Range (in)*	X (in)
$3 \leq T \leq 6$	$11.3 - T/2$
$6 < T \leq 8 \frac{1}{2}$	$13.4 - T/2$
$8 \frac{1}{2} < T \leq 11 \frac{1}{2}$	$16.4 - T/2$
$11 \frac{1}{2} < T \leq 14 \frac{1}{2}$	$19.4 - T/2$

*For flanges greater than 14 1/2 inches, consult factory.

Metric

Cap.	G Motor	J Hand Wheel Offset	M End Truck Frame Width
<i>Tons</i>	<i>mm</i>	<i>mm</i>	<i>mm</i>
2	+3.2	+3.2	+6.4
3	+6.4	+6.4	+12.7
5	+4.0	+4.0	+7.9

For modified Patented Track frames only

Flange Range (mm)*	X (mm)
$76 \leq T \leq 152$	$287 - T/2$
$152 < T \leq 216$	$341 - T/2$
$216 < T \leq 292$	$417 - T/2$
$292 < T \leq 368$	$493 - T/2$

*For flanges greater than 493mm (14 1/2"), consult factory.

Appendix C: Series 3 Top Running End-truck Weight

Imperial (lbs/pair)

Frame	Motorized				Geared*	Push	Additional Weight for Raised Guide Rollers
	L	S	H	D			
TMX-3-0135	288	288	288	288	258	288	20
TMX-3-0160	384	384	384	384	354	324	20
TMX-3-0335	462	462	462	462	462	440	20
TMX-3-0360	579	579	579	579	579	323	20
TMX-3-0535	542	542	542	542	542	403	20
TMX-3-0560	712	712	712	712	683		20
TMX-3-1035	906	906	906	906			34.9
TMX-3-1060	1086	1086	1086	1086			34.9

*Geared Endtrucks based off of 8 ft drop of hand chain.

Metric (kg/pair)

Frame	Motorized				Geared*	Push	Additional Weight for Raised Guide Rollers
	L	S	H	D			
TMX-3-0135	131	131	131	131	118	131	9.1
TMX-3-0160	175	175	175	175	161	147	9.1
TMX-3-0335	210	210	210	210	210	200	9.1
TMX-3-0360	263	263	263	263	263	147	9.1
TMX-3-0535	246	246	246	246	246	183	9.1
TMX-3-0560	323	323	323	323	310		9.1
TMX-3-1035	411	411	411	411			15.8
TMX-3-1060	493	493	493	493			15.8

*Geared Endtrucks based off of 2.4m (8 ft) drop of hand chain.

Appendix D: Series 3 Underhung End-truck Weight

Imperial (lbs/pair)

Frame	Motorized				Geared*	Push
	L	S	H	D		
UMX-3-0235	522	522	522	522	503	448
UMX-3-0250	659	659	659	659	640	585
UMX-3-0335	543	543	543	543	529	472
UMX-3-0350	680	680	680	680	666	
UMX-3-0535	638	638	638	638	611	546
UMX-3-0550	795	795	795	795	768	

*Geared Endtrucks based off of 8 ft drop of hand chain.

Metric (kg/pair)

Frame	Motorized				Geared*	Push
	L	S	H	D		
UMX-3-0235	237	237	237	237	229	204
UMX-3-0250	299	299	299	299	291	266
UMX-3-0335	247	247	247	247	240	215
UMX-3-0350	309	309	309	309	303	
UMX-3-0535	290	290	290	290	278	248
UMX-3-0550	361	361	361	361	349	

*Geared Endtrucks based off of 2.4m (8 ft) drop of hand chain.

Appendix E: Series 3 Wheel Hardness

Wheel	BHN	
	Min.	Max.
Standard	160	220
Patented Track	475	560

END