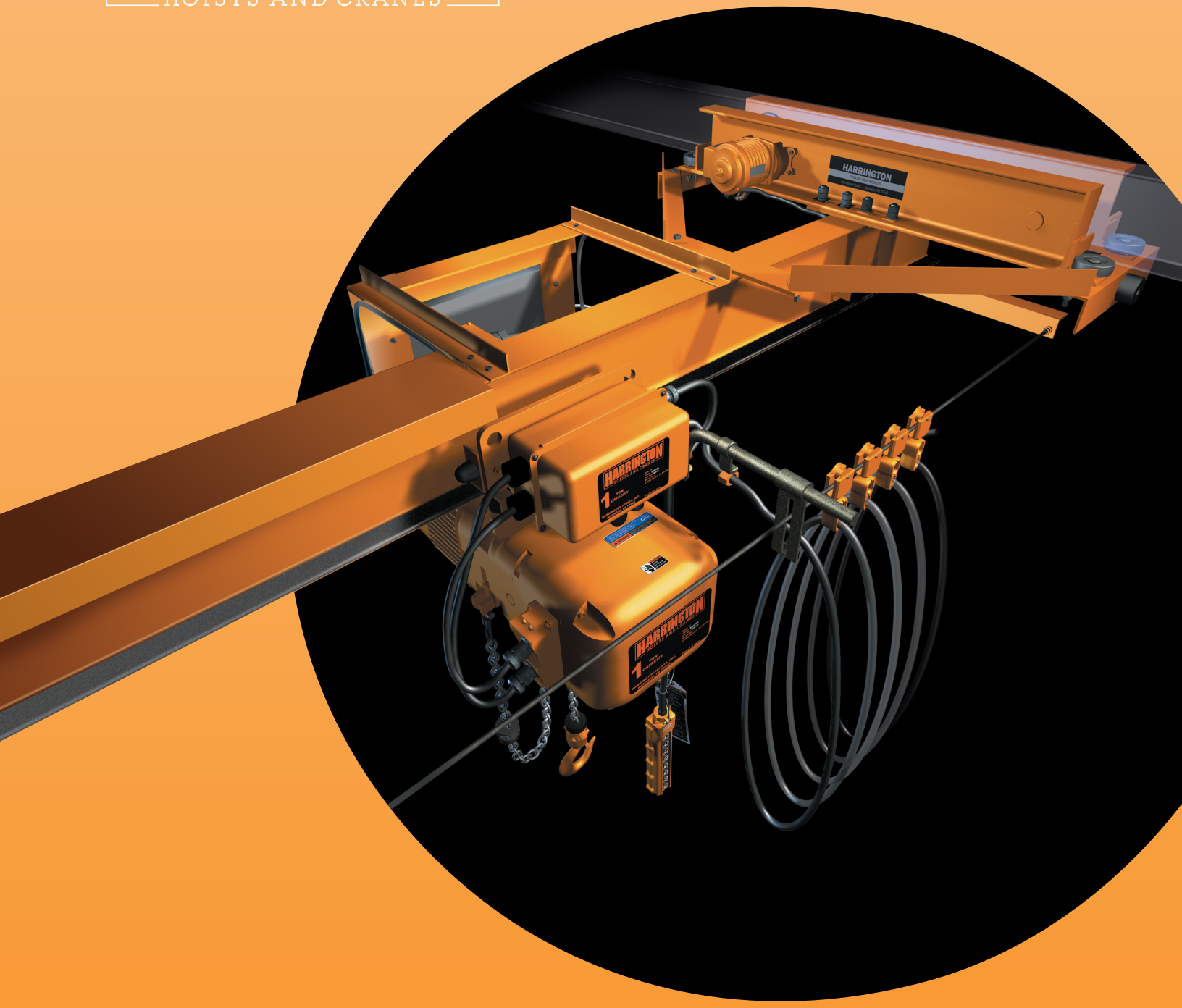
HARRINGTON
HOISTS AND CRANES

TAYLOR
MATERIAL HANDLING & CONVEYOR
Phone: 419-867-3560
www.taylormhc.com



COMPLETE
CRANES

Working Harder For You

In 1876, Edwin Harrington dramatically improved the self-sustaining hoist by introducing the worm-gear design. Since then, the company he founded has earned a proud reputation for product innovations and consistent quality that our customers count on to meet their diverse requirements.

Over the years, we have developed and grown by recognizing the value of our customers and responding to your needs. The daily mission of our organization is to provide you, the customer, with the highest quality in our products, service and support.

In addition to our superior products and expanded facilities, we offer a Sales and Customer Service team that is dedicated to serving you, a well qualified Engineering Department to support your technical needs and a full support staff who all know the importance of working together to provide solutions for your material handling projects.

We are working harder to be the supplier-of-choice for all of your hoist and crane applications.

Table of Contents

Heavy Duty Class C Single Girder Complete Cranes

Series 3 Top Running Complete Cranes 4
Motorized 6
Geared 8
Push 10
Series 3 Underhung Complete Cranes 12
Motorized 14
Geared 16
Push 18

Heavy Duty Class C Double Girder Complete Cranes

Series 3 Top Running Max-E-Lift Complete Cranes 20
Series 3 Underhung Max-E-Lift Complete Cranes 22

Medium Duty Complete Cranes

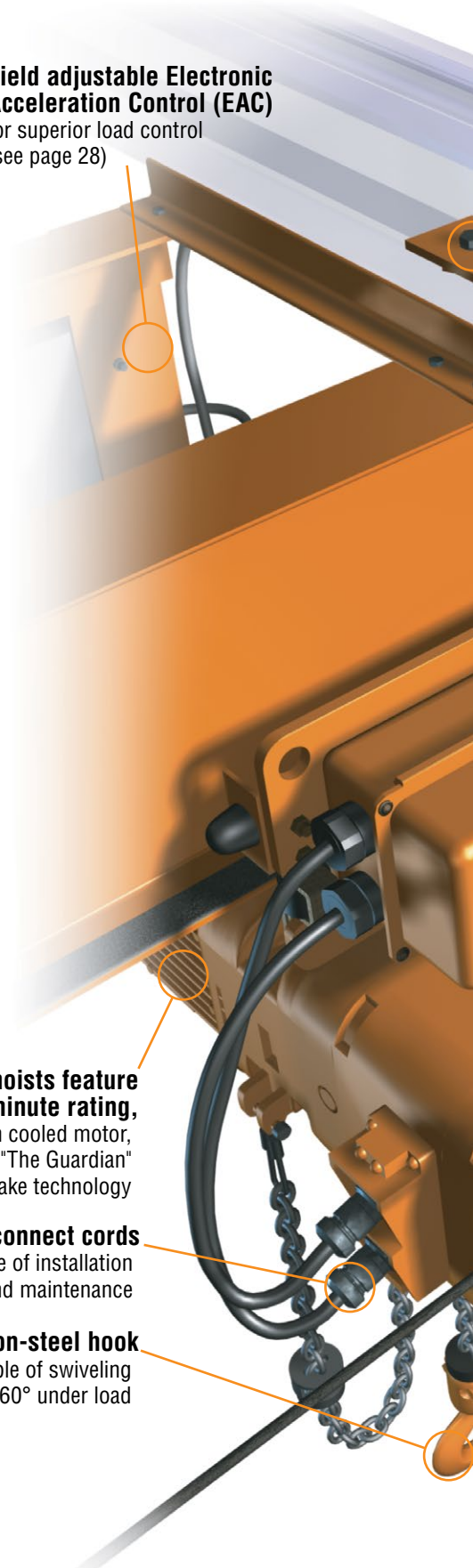
Series 500 Top Running Push Complete Cranes 24
Series 500 Underhung Push Complete Cranes 24

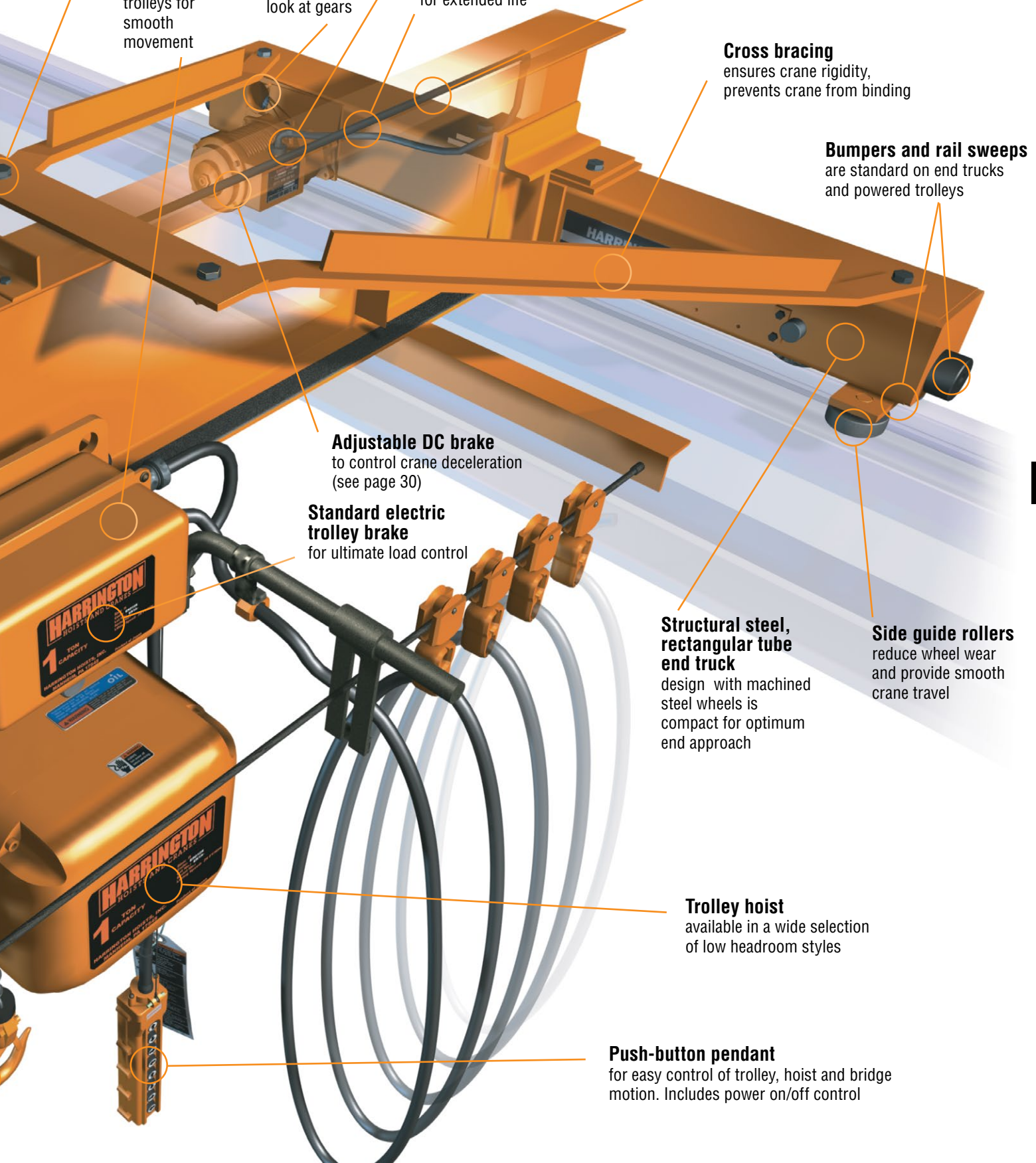
Technical Information

Plug and Play Crane Kits 26
Crane Service Classifications 27
Compliance 27
Bridge Crane Control Panels 28
Motor and Brake 30
Underhung Crane Drive Wheels 31
Bridge Beam Selection Charts 32
Product Specification Form 33
Options 34
Glossary. 34
Complete Product Offering 35

Heavy Duty Class C Single Girder Series 3 Top Running Complete Cranes

Harrington Top Running cranes are high-performance systems that easily handle today's most demanding Class "C" applications. Examples include fabricating, machining, die handling, production, assembly and maintenance. Bolted assembly makes installation quick and easy—minimal welding required. Most wiring connections are factory installed or plug-in type. You can rely on Harrington cranes for durability, reliability and years of trouble-free service. Count on Harrington to include standard features that are options on competitors' cranes.





Bolted construction
with minimal welding required for ease in assembly

Side guide rollers
on motorized trolleys for smooth movement

Convenient inspection port
allows an inside look at gears

Totally enclosed, non-ventilated motor
ensures long life

Helical and spur gears are induction-hardened
for extended life

Crane wiring enclosed
in conduit for code compliance

Cross bracing
ensures crane rigidity, prevents crane from binding

Bumpers and rail sweeps
are standard on end trucks and powered trolleys

Adjustable DC brake
to control crane deceleration
(see page 30)

Standard electric trolley brake
for ultimate load control

Structural steel, rectangular tube end truck
design with machined steel wheels is compact for optimum end approach

Side guide rollers
reduce wheel wear and provide smooth crane travel

Trolley hoist
available in a wide selection of low headroom styles

Push-button pendant
for easy control of trolley, hoist and bridge motion. Includes power on/off control

Heavy Duty Class C Single Girder
Series 3 Top Running Motorized Complete Cranes

Many benefits from more features:

- Adjustable Electronic Acceleration Control (EAC) and adjustable brake allow customized speed control to avoid load swing and optimize load control.
- Standard rubber bumpers on cranes and motorized trolleys comply with ASME requirements.
- Side guide rollers reduce wheel friction and noise, providing smooth crane travel and increased wheel and runway life.
- Stationary crane wires are enclosed in conduit to comply with NEC requirements.
- Thermal motor protection is standard to protect motor from overheating.
- Electric hoists with ASME H4 rating maximize lifting capability while minimizing downtime and expense.
- Sealed motors enhance motor life and minimize repair costs.

Capabilities to count on:

- Capacities through 10 Ton and spans through 60 feet.
- Crane speeds: 40, 80, 120 ft/min single speed, 80/20 ft/min dual speed, or variable speed.
- Motorized trolley speeds: 40 or 80 ft/min single speed, 80/20 ft/min dual speed or variable speed. Also available with manual trolley (geared or push).
- 3 phase voltages: 208, 230/460, 380, 575 (50 or 60 Hz).
- Suitable for use on ASCE crane rail or square bar.

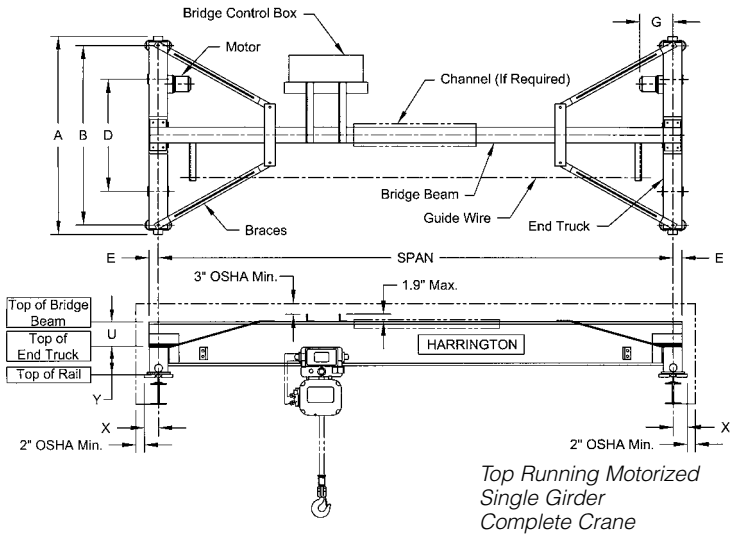
Complete crane system includes:

- End trucks come standard with drives, brakes, bumpers, drop stops, and rail sweeps.
- Crane control panel with adjustable Electronic Acceleration Control (EAC) and thru-the-door lock-out disconnect switch. (See page 28.)
- Crane wiring installed in code-compliant conduit.
- Standard bridge beam assembly with bracing and capacity labels.
- Trolley hoist supplied with operator control pendant.
- Optional runway electrification.
- Documentation including assembly and installation instructions, crane operator's guide and owner's manuals.
- Touch-up paint.
- One year warranty.

SERIES 3 TOP RUNNING MOTORIZED SINGLE GIRDER COMPLETE CRANES — DIMENSIONS

Cap. (Tons)	Max. Span (ft)	Crane Product Code	Wheel Dia. (in)	Sug. Min. Runway Rail (ASCE#)	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		62	54	43	4.1				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		40	62	54	43		8.5	4.7	9.2	
	60	CTML/S/H/D-3-0560	8.27		99	90	74	3.9			9.3	15.0 (L/S/D) 15.4 (H)
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					

**Based on suggested minimum runway rail.*



Top Running Motorized Single Girder Complete Crane

SERIES 3 TOP RUNNING MOTORIZED SINGLE GIRDER COMPLETE CRANES — SPECIFICATIONS

Crane Product Code	Speed Codes L and S — One Motor Per End Truck 3 Phase 60 Hz			Speed Code H — One Motor Per End Truck 3 Phase 60 Hz			Speed Code D — One Motor Per End Truck 3 Phase 60 Hz			System Max. Wheel Load* (lbs/ wheel)
	Output (Hp)	Rated Current (amps ea.) @230V	Rated Current (amps ea.) @460V	Output (Hp)	Rated Current (amps ea.) @230V	Rated Current (amps ea.) @460V	Output (Hp)	Rated Current (amps ea.) @230V	Rated Current (amps ea.) @460V	
CTML/S/H/D-3-0135	0.33	1.6	1.0	0.5	2.1	1.3	0.33/0.08	1.6/1.1	0.9/0.8	1,937
CTML/S/H/D-3-0160										2,729
CTML/S/H/D-3-0335										4,843
CTML/S/H/D-3-0360										6,004
CTML/S/H/D-3-0535										7,620
CTML/S/H/D-3-0560	0.5	2.1	1.3	1.0	3.3	2.0	0.5/0.13	2.0/1.5	1.2/0.9	9,209
CTML/S/H/D-3-1035	1.0	3.3	2.0	2.0	5.8	3.1	1.0/0.25	3.7/2.1	2.3/1.4	14,977
CTML/S/H/D-3-1060										16,784

See definition on page 26.

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 Top Running Crane
M - Motorized
L - Speed of 40 ft/min
3 - Series number
01 - Max. capacity - 1 Ton
35 - Maximum span - 35 feet

Heavy Duty Class C Single Girder Series 3 Top Running Geared Complete Cranes

Harrington's top running geared cranes offer an economical alternative to motorized systems. Side guide rollers mean these cranes operate much easier than flanged wheel cranes. Consider geared operation where precision control is required, such as die handling or fabrication assembly operations. Geared cranes are easily upgradable to motorized systems to meet changing customer needs.

Many benefits from more features:

- Ideal for precision spotting requirements where motorized operation is not necessary.
- Standard rubber bumpers on cranes and motorized trolleys comply with ASME requirements.
- Side guide rollers reduce wheel friction and noise, providing smooth crane travel and increased wheel and runway life.
- Electric hoists with ASME H4 rating maximize lifting capability while minimizing downtime and expense.
- Sealed hoist and trolley motors enhance motor life and minimize repair costs.

Capabilities to count on:

- Capacities through 5 Ton and spans through 50 feet.
- Motorized trolley speeds: 40 or 80 ft/min single speed, 80/20 ft/min dual speed or variable speed. Manual trolleys also available (push or geared).
- Suitable for use on ASCE crane rail or square bar.

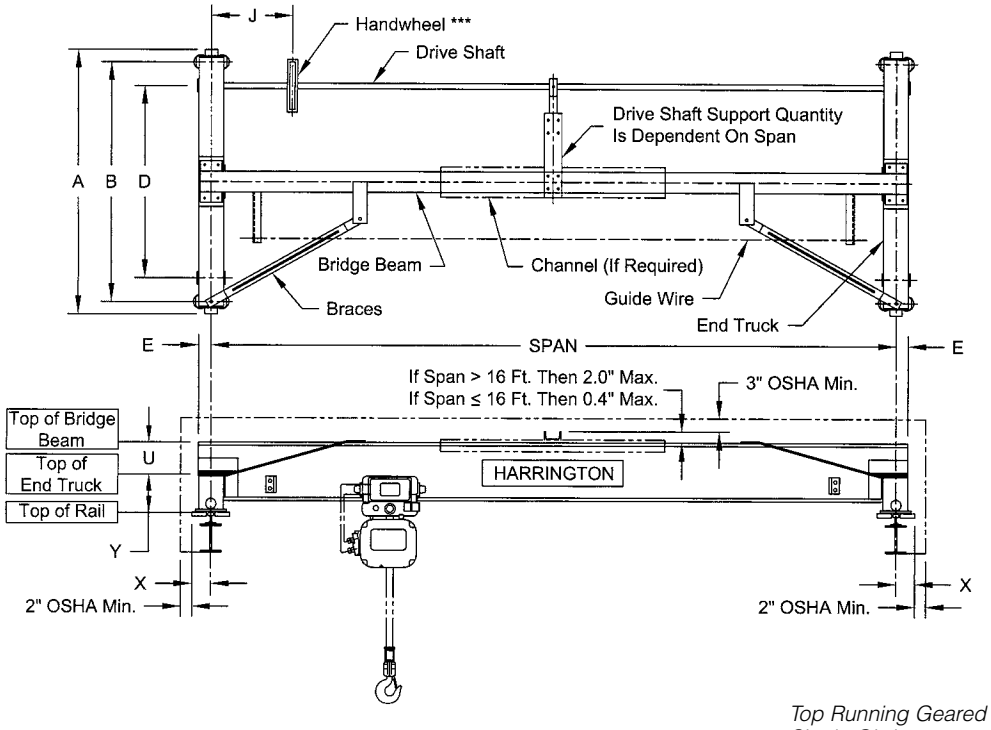
Complete crane system includes:

- End trucks come standard with bumpers, drop stops, and rail sweeps.
- Drive shaft assembly with hand wheel and hand chain.
- Standard bridge beam assembly with bracing and capacity labels.
- Trolley hoist available in a wide selection of styles.
- Power supply to trolley hoist (if required).
- Optional runway electrification.
- Documentation including assembly and installation instructions, crane operator's guide, and owner's manuals.
- Touch-up paint.
- One year warranty.

SERIES 3 TOP RUNNING GEARED SINGLE GIRDER COMPLETE CRANES — SPECIFICATIONS & DIMENSIONS

Cap. (Tons)	Max. Span (ft)	Crane Product Code	Wheel Dia. (in)	Sug. Min. Runway Rail (ASCE#)	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	1,921
	50	CTG-3-0150			98	90	80						2,322
3	35	CTG-3-0335	6.10		62	54	43	4.1	10.0				4,827
	50	CTG-3-0350			99	91	80						5,311
5	35	CTG-3-0535		40	62	54	43			8.5	4.7	9.2	7,604
	50	CTG-3-0550	8.27		99	90	74	3.9	10.3			9.3	8,219

*Based on suggested minimum runway rail.
**See definition on page 26.
***Standard hand chain drop is 8 ft from top of runway rail.



Top Running Geared Single Girder Complete Crane

Heavy Duty Class C Single Girder Series 3 Top Running Push Complete Cranes

Harrington's top running push cranes offer an economical alternative to other cranes. Side guide rollers mean these cranes operate much easier than flanged wheel cranes. Push cranes are easily upgradable to motorized or geared operations to meet changing customer needs.

Many benefits from more features:

- Side guide rollers reduce wheel friction and noise, providing smooth crane travel and increased wheel and runway life.
- Compared to flanged wheel cranes, Harrington's push cranes operate easily, particularly in long span applications.
- Standard rubber bumpers on cranes and motorized trolleys comply with ASME requirements.
- Electric hoists with ASME H4 rating maximize lifting capability while minimizing downtime and expense.
- Sealed hoist and trolley motors enhance motor life and minimize repair costs.

Capabilities to count on:

- Capacities through 5 Ton and spans through 45 feet.
- Motorized trolley speeds: 40 or 80 ft/min single speed, 80/20 ft/min dual speed or variable speed. Manual trolleys also available (push or geared).
- Suitable for use on ASCE crane rail or square bar.

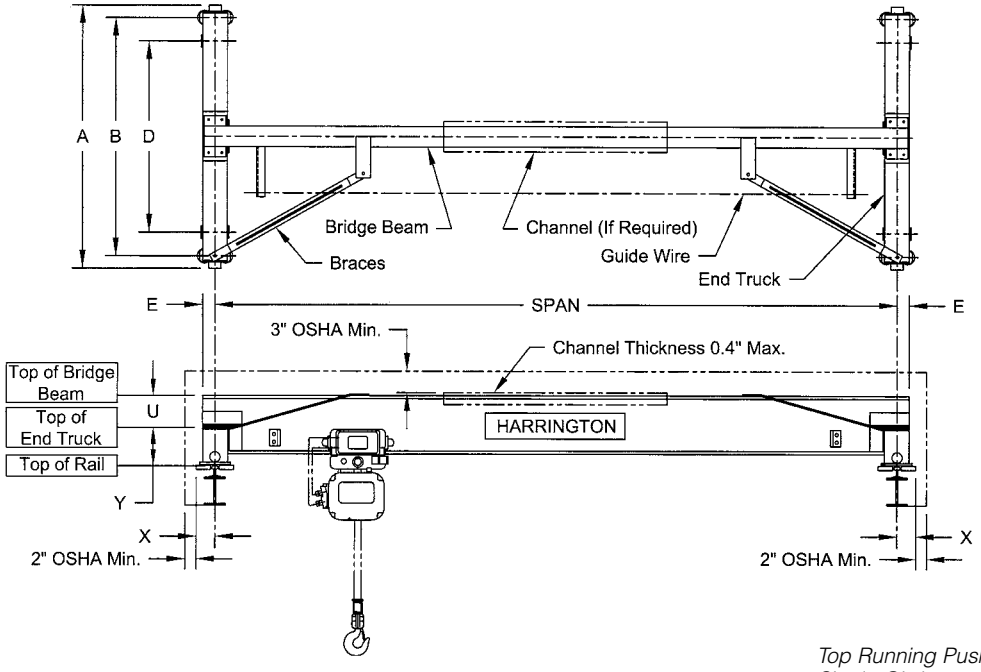
Complete crane system includes:

- End trucks come standard with bumpers, drop stops, and rail sweeps.
- Standard bridge beam assembly with bracing and capacity labels.
- Trolley hoist available in a wide selection of styles.
- Power supply to trolley hoist (if required).
- Optional runway electrification.
- Documentation including assembly and installation instructions, crane operator's guide, and owner's manuals.
- Touch-up paint.
- One year warranty.

SERIES 3 TOP RUNNING PUSH SINGLE GIRDER COMPLETE CRANES — SPECIFICATIONS & DIMENSIONS

Cap. (Tons)	Max. Span (ft)	Crane Product Code	Wheel Dia. (in)	Sug. Min. Runway Rail (ASCE#)	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	1,916
	45	CTP-3-0145			98	90	80					2,207
2	45	CTP-3-0245	6.10		99	91		4.1				3,755
3	35	CTP-3-0335			62	54	43					4,822
5	35	CTP-3-0535		40					8.5	4.7	9.2	7,597

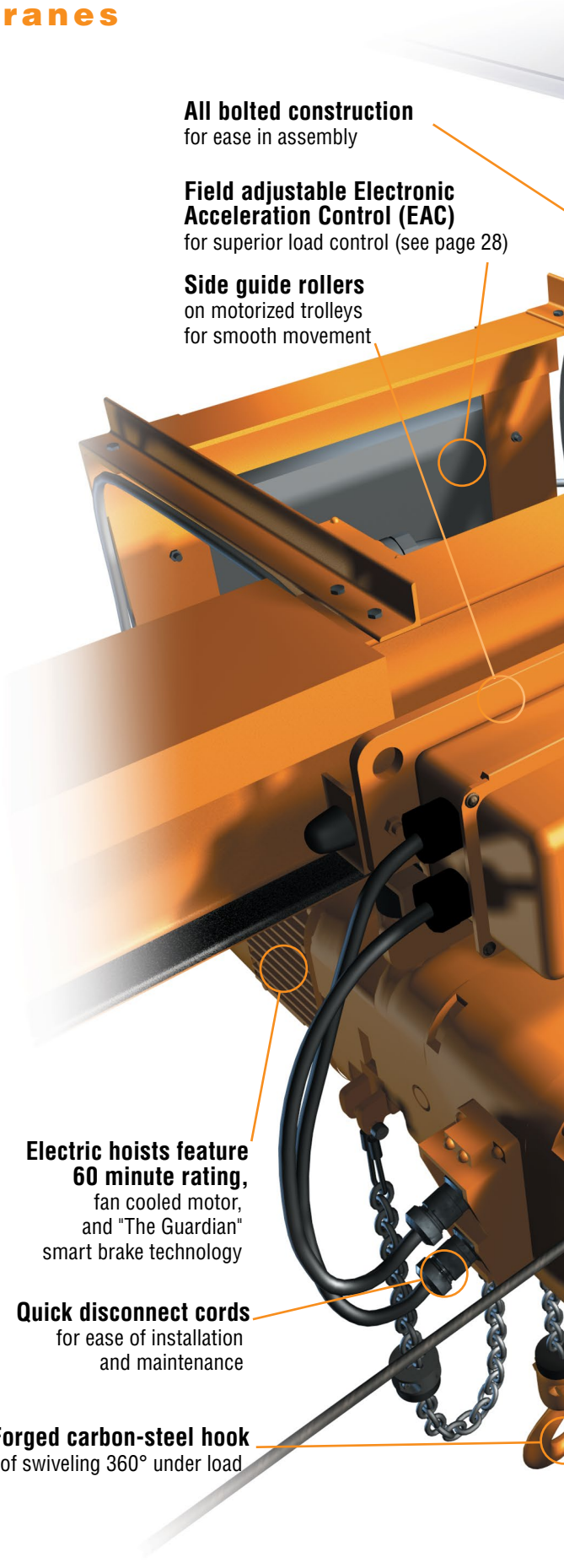
*Based on suggested minimum runway rail.
**See definition on page 26.

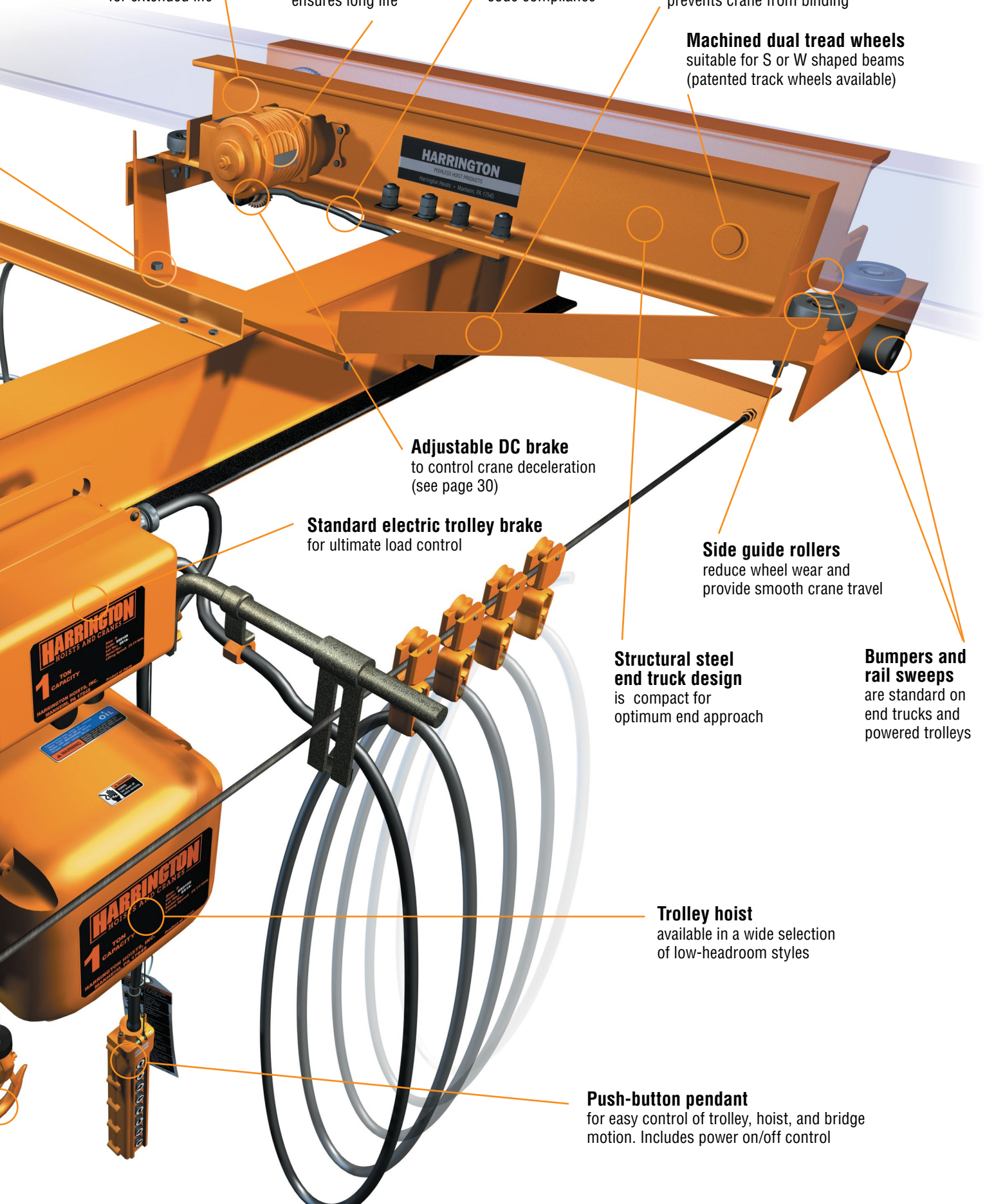


Top Running Push Single Girder Complete Crane

Heavy Duty Class C Single Girder Series 3 Underhung Complete Cranes

Harrington Underhung cranes combine superior performance with underhung space savings. It's a rugged design that easily handles today's most demanding Class "C" applications, including fabricating, machining, die handling, production, assembly and maintenance. All bolted assembly makes installation quick and easy—no welding required. Most wiring connections are factory installed or plug-in type. You can rely on Harrington cranes for durability, reliability and years of trouble-free service. Count on Harrington to include standard features that are options on competitors' cranes.





Helical and spur gears are induction hardened
for extended life

Totally enclosed, non-ventilated motor
ensures long life

Crane wiring enclosed
in conduit for code compliance

Cross-bracing
ensures crane rigidity, prevents crane from binding

Machined dual tread wheels
suitable for S or W shaped beams (patented track wheels available)

Adjustable DC brake
to control crane deceleration (see page 30)

Standard electric trolley brake
for ultimate load control

Side guide rollers
reduce wheel wear and provide smooth crane travel

Structural steel end truck design
is compact for optimum end approach

Bumpers and rail sweeps
are standard on end trucks and powered trolleys

Trolley hoist
available in a wide selection of low-headroom styles

Push-button pendant
for easy control of trolley, hoist, and bridge motion. Includes power on/off control

Heavy Duty Class C Single Girder
Series 3 Underhung Motorized Complete Cranes

Many benefits from more features:

- Adjustable Electronic Acceleration Control (EAC) and adjustable brake allow customized speed control to avoid load swing and optimize load control.
- Standard rubber bumpers on cranes and motorized trolleys comply with ASME requirements.
- Side guide rollers reduce wheel friction and noise, providing smooth crane travel and increased wheel and runway life.
- Stationary crane wires are enclosed in conduit to comply with NEC requirements.
- Thermal motor protection is standard to protect motor from overheating.
- Electric hoists with ASME H4 rating maximize lifting capability while minimizing downtime and expense.
- Sealed motors enhance motor life and minimize repair costs.
- Drives deliver synchronous power to two wheels on each end truck for smooth positive traction. (See page 31)

Capabilities to count on:

- Capacities through 5 Ton and spans through 50 feet.
- Crane speeds: 40, 80, 120 ft/min single speed, 80/20 ft/min dual speed, or variable speed.
- Motorized trolley speeds: 40 or 80 ft/min single speed, 80/20 ft/min dual speed or variable speed. Also available with manual trolley (geared or push).
- 3 phase voltages: 208, 230/460, 380, 575 (50 or 60 Hz).
- Suitable for use on S or W shaped beam (patented track models available).

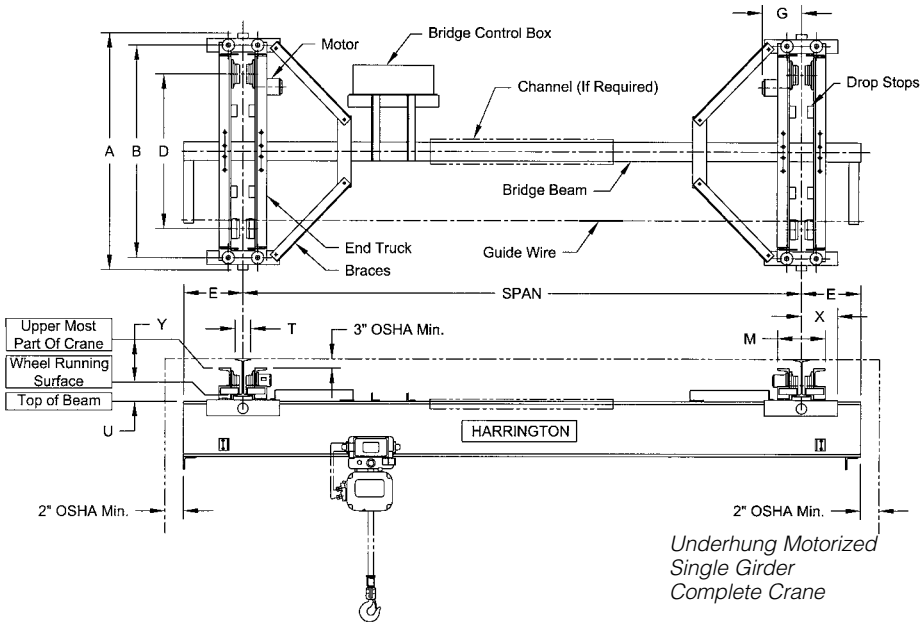
Complete crane system includes:

- End trucks come standard with drives, brakes, bumpers, drop stops, and rail sweeps.
- Crane control panel with adjustable Electronic Acceleration Control (EAC) and thru-the-door lock-out disconnect switch. (See page 28.)
- Crane wiring installed in code-compliant conduit.
- Standard bridge beam assembly with bracing and capacity labels.
- Trolley hoist supplied with operator control pendant.
- Optional runway electrification.
- Documentation including assembly and installation instructions, crane operator's guide, and owner's manuals.
- Touch-up paint.
- One year warranty.

SERIES 3 UNDERHUNG MOTORIZED SINGLE GIRDER COMPLETE CRANES — DIMENSIONS

Cap. (Tons)	Max Span (ft)	Crane Product Code	Wheel Dia. (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	3 - 6	60	53	39	12	T+8.1	1.8	11.3-T/2	6.5	T/2+ 11.9 (L/S) 12.3 (H) 13.3 (D)
	50	CUML/S/H/D-3-0250			82	75	61						
3	35	CUML/S/H/D-3-0335	4.92		60	53	35		T+8.2	1.9			
	50	CUML/S/H/D-3-0350			82	75	57						
5	35	CUML/S/H/D-3-0535	5.51	4 - 6	60	53	33		T+9.8	2.0		6.8	T/2+ 13.7 (L/S/D) 14.2 (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, consult factory.*



Underhung Motorized Single Girder Complete Crane

SERIES 3 UNDERHUNG MOTORIZED SINGLE GIRDER COMPLETE CRANES — SPECIFICATIONS

Crane Product Code	Speed Codes L and S — One Motor Per End Truck 3 Phase 60 Hz			Speed Code H — One Motor Per End Truck 3 Phase 60 Hz			Speed Code D — One Motor Per End Truck 3 Phase 60 Hz			System Max. Wheel Load* (lbs/wheel pair)
	Output (Hp)	Rated Current (amps ea.) @230V	Rated Current (amps ea.) @460V	Output (Hp)	Rated Current (amps ea.) @230V	Rated Current (amps ea.) @460V	Output (Hp)	Rated Current (amps ea.) @230V	Rated Current (amps ea.) @460V	
CUML/S/H/D-3-0235	0.33	1.6	1.0	0.5	2.1	1.3	0.33/0.08	1.6/1.1	0.9/0.8	3,170
CUML/S/H/D-3-0250										3,930
CUML/S/H/D-3-0335										4,480
CUML/S/H/D-3-0350										5,170
CUML/S/H/D-3-0535	0.5	2.1	1.3	1.0	3.3	2.0	0.5/0.13	2.0/1.5	1.2/0.9	6,960
CUML/S/H/D-3-0550										7,670

**See definition on page 26.*

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

Heavy Duty Class C Single Girder
Series 3 Underhung Geared Complete Cranes

Harrington's underhung geared cranes offer an economical alternative to motorized systems. Side guide rollers mean these systems operate much easier than flanged wheel cranes. Consider geared operation where precision control is required, such as die handling or fabrication assembly operations. Geared cranes are easily upgradable to motorized systems to meet changing customer needs.

Many benefits from more features:

- Ideal for precision spotting requirements where motorized operation is not necessary.
- Standard rubber bumpers on cranes and motorized trolleys comply with ASME requirements.
- Side guide rollers reduce wheel friction and noise, providing smooth crane travel and increased wheel and runway life.
- Electric hoists with ASME H4 rating maximize lifting capability while minimizing downtime and expense.
- Sealed hoist and trolley motors enhance motor life and minimize repair costs.

Capabilities to count on:

- Capacities through 5 Ton and spans through 45 feet.
- Motorized trolley speeds: 40 or 80 ft/min single speed, 80/20 ft/min dual speed or variable speed. Manual trolleys also available (push or hand geared).
- Suitable for use on S or W shaped beam (patented track models available).

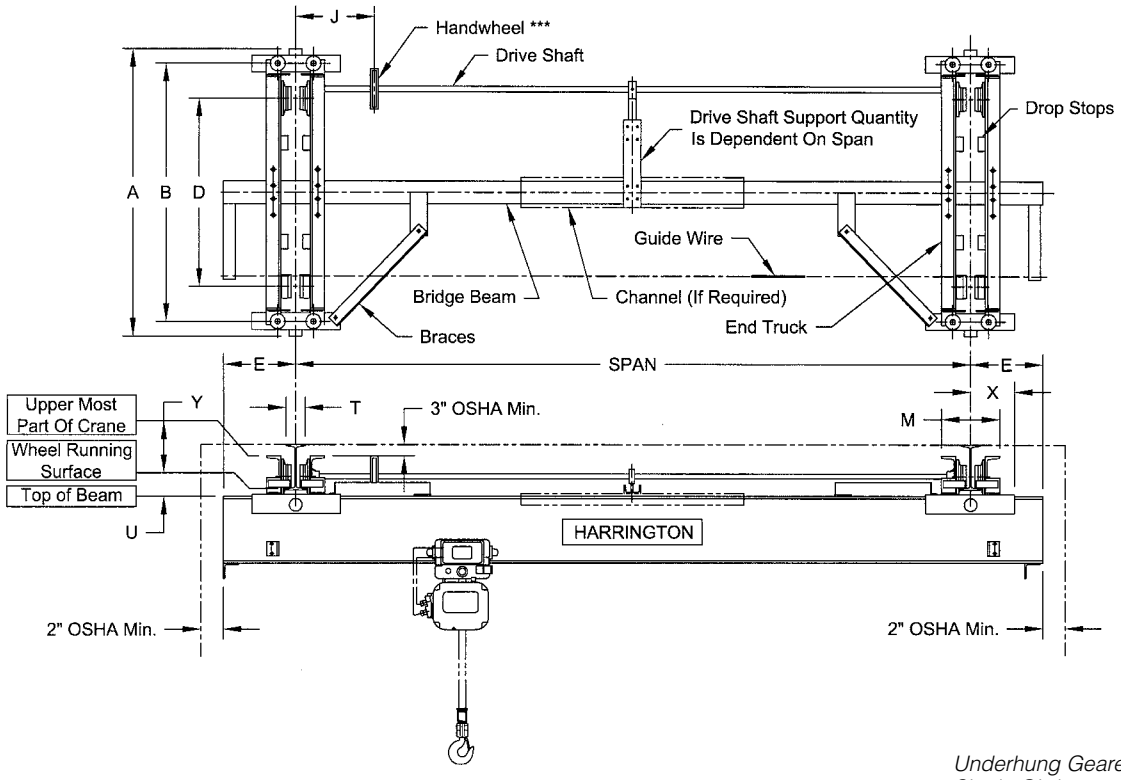
Complete crane system includes:

- End trucks come standard with bumpers, drop stops, and rail sweeps.
- Drive shaft assembly with hand wheel and hand chain.
- Standard bridge beam assembly with bracing and capacity labels.
- Trolley hoist available in a wide selection of styles.
- Power supply to trolley hoist (if required).
- Optional runway electrification.
- Documentation, including assembly and installation instructions, crane operator's guide, and owner's manuals.
- Touch-up paint.
- One year warranty.

SERIES 3 UNDERHUNG GEARED SINGLE GIRDER COMPLETE CRANES — SPECIFICATIONS & DIMENSIONS

Cap. (Tons)	Max Span (ft)	Crane Product Code	Wheel Dia. (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	3 - 6	60	53	39	12	T/2+9.0	T+8.1	1.8	11.3-T/2	6.5	3,160
	45	CUG-3-0245			82	75	61							3,620
3	35	CUG-3-0335	4.92		60	53	35		T/2+8.9	T+8.2	1.9		6.7	4,480
	45	CUG-3-0345			82	75	57							4,990
5	35	CUG-3-0535	5.51	4 - 6	60	53	33		T/2+9.0	T+9.8	2.0		6.8	6,950
	45	CUG-3-0545			82	75	55							7,400

*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, consult factory.
***Standard hand chain drop is 8 ft from bottom of running beam.
† See definition on page 26.



Underhung Geared Single Girder Complete Crane

Heavy Duty Class C Single Girder Series 3 Underhung Push Complete Cranes

Harrington's underhung push cranes offer an economical alternative to other cranes. Side guide rollers mean these systems operate much easier than flanged wheel cranes. Push cranes are easily upgradable to motorized or geared operation to meet changing customer needs.

Many benefits from more features:

- Compared to flanged wheel cranes, Harrington's push cranes operate easily, particularly in long span operations.
- Standard rubber bumpers on cranes and motorized trolleys comply with ASME requirements.
- Side guide rollers reduce wheel friction and noise, providing smooth crane travel and increased wheel and runway life.
- Electric hoists with ASME H4 rating maximize lifting capability while minimizing downtime and expense.
- Sealed hoist and trolley motors enhance motor life and minimize repair costs.

Capabilities to count on:

- Capacities through 5 Ton and spans through 45 feet.
- Motorized trolley speeds: 40 or 80 ft/min single speed, 80/20 ft/min dual speed or variable speed. Manual trolleys also available (push or geared).
- Suitable for use on S or W shaped beam (patented track models available).

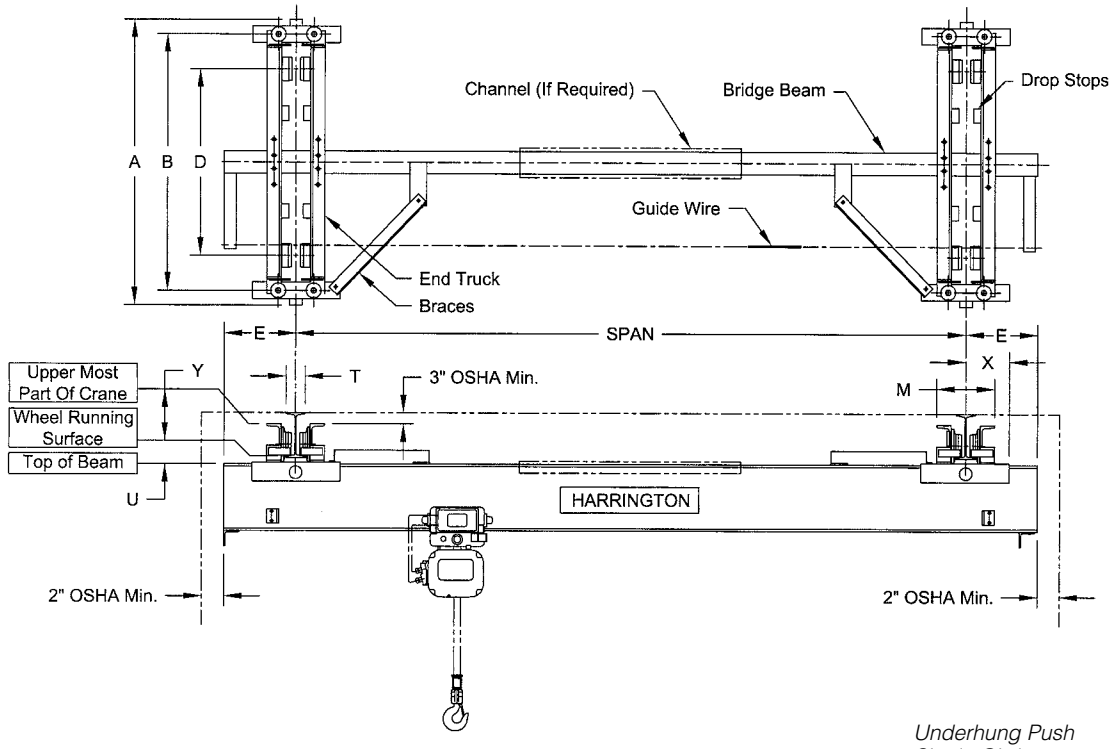
Complete crane system includes:

- End trucks come standard with bumpers, drop stops, and rail sweeps.
- Standard bridge beam assembly with bracing and capacity labels.
- Trolley hoist available in a wide selection of styles.
- Power supply to trolley hoist (if required).
- Optional runway electrification.
- Documentation including assembly and installation instructions, crane operator's guide, and owner's manuals.
- Touch-up paint.
- One year warranty.

SERIES 3 UNDERHUNG PUSH SINGLE GIRDER COMPLETE CRANES — SPECIFICATIONS & DIMENSIONS

Cap. (Tons)	Max Span (ft)	Crane Product Code	Wheel Dia. (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/wheel pair)
2	35	CUP-3-0235	4.33	3 - 6	60	53	39	12	T+8.1	1.8	11.3-T/2	6.5	3,150
	45	CUP-3-0245			82	75	61						3,580
3	35	CUP-3-0335	4.92		60	53	35		T+8.2	1.9			4,440
5	35	CUP-3-0535	5.51	4 - 6	60	53	33		T+9.8	2.0		6.4	6,910

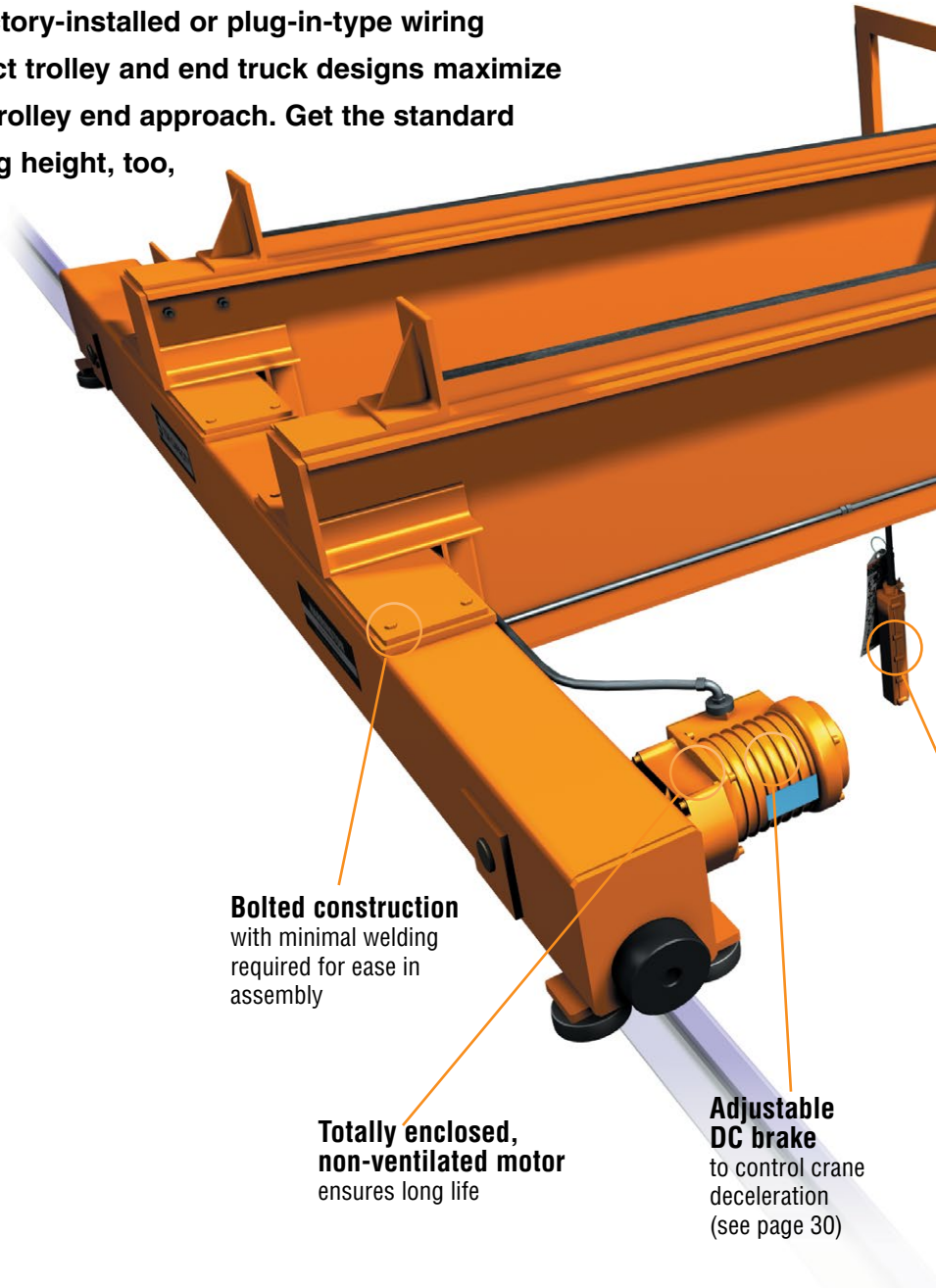
*Minimum E is M/2.
**These formulas for Width Beyond Span do not apply for flanges greater than 6 inches. For flanges greater than 6 inches, consult factory.
***See definition on page 26.



Underhung Push Single Girder Complete Crane

Heavy Duty Class C Double Girder Series 3 Top Running Max-E-Lift Complete Cranes: Top Running Cranes for Ultimate Maximum Lift Height

Minimize wasted overhead space and maximize available lifting height with top-performing Harrington Max-E-Lift top running cranes. This double girder design and low profile trolley hoist saves much of the space "wasted" on conventional single girder designs. So for new installations, the Max-E-Lift system saves valuable overhead room and can reduce building height and construction costs. Adding a Max-E-Lift crane to an existing installation where a new, higher lifting height is required can even minimize total construction costs. Installation is easy, thanks to an assembly using bolted construction with minimal welding required and factory-installed or plug-in-type wiring connections. In operation, the compact trolley and end truck designs maximize hook coverage, as well as crane and trolley end approach. Get the standard features you want and maximum lifting height, too, with Max-E-Lift complete cranes. Capacities through 10 Ton and spans through 60 feet.



Side guide roller trolley
design ensures smooth movement

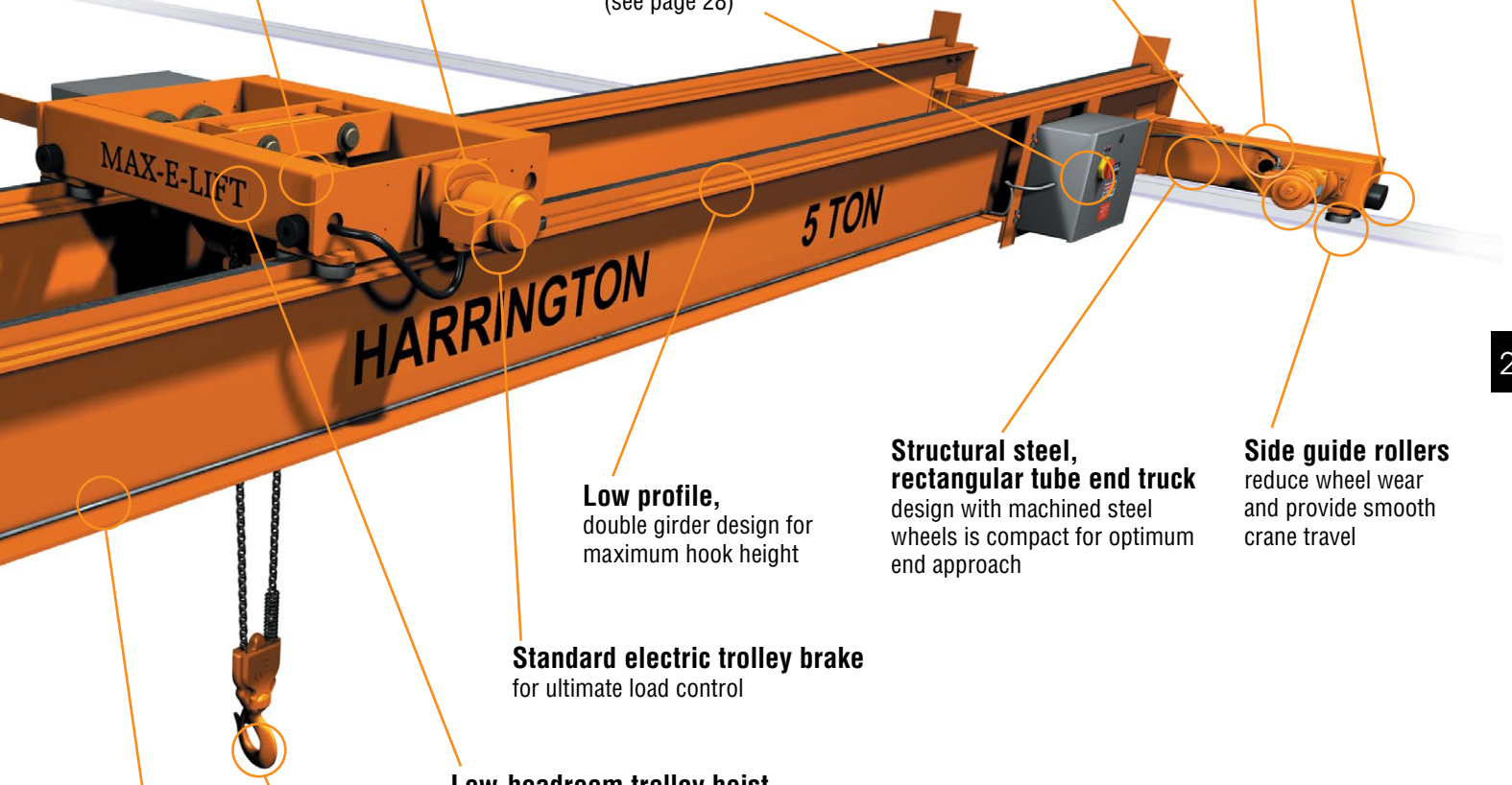
Electric hoists feature 60 minute rating,
fan cooled motor, and low-maintenance pull rotor brake

Field adjustable Electronic Acceleration Control (EAC)
for superior load control
(see page 28)

Helical and spur gears are induction hardened
for extended life

Bumpers and rail sweeps
are standard on end trucks and powered trolleys

Convenient inspection port
allows an inside look at gears



Low profile,
double girder design for maximum hook height

Structural steel, rectangular tube end truck
design with machined steel wheels is compact for optimum end approach

Side guide rollers
reduce wheel wear and provide smooth crane travel

Standard electric trolley brake
for ultimate load control

Low-headroom trolley hoist
lets you easily handle loads in less space

Forged carbon steel hook
capable of swiveling 360° under load

Crane wiring
enclosed in conduit for code compliance

Push-button pendant
for easy control of trolley, hoist, and bridge motion. Includes power on/off control

Consider Geared Models when:

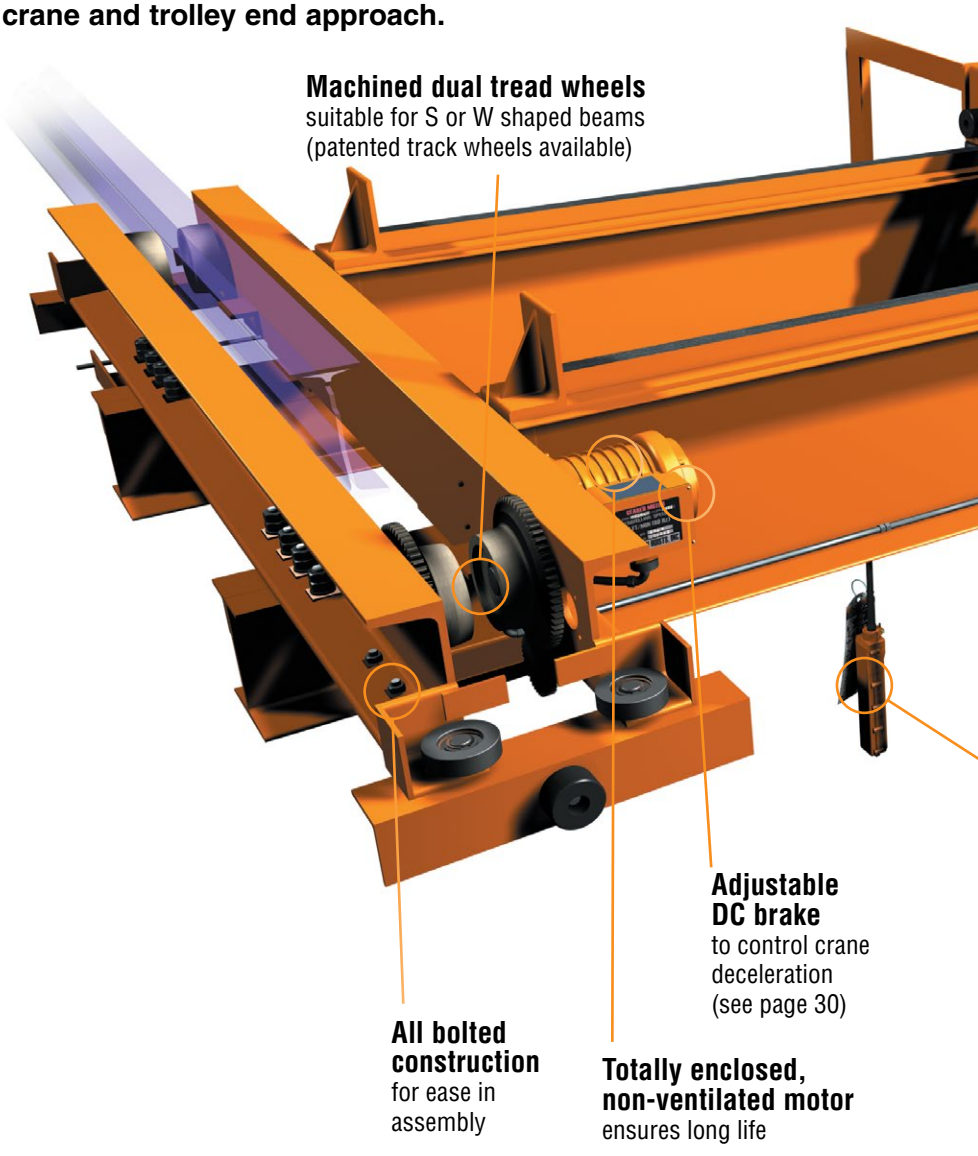
- Precision load control is required, such as die handling or assembly.
- Loads are infrequently moved, such as maintenance or standby crane operations.

For dimensions and specifications, consult factory.

Heavy Duty Class C Double Girder Series 3 Underhung Max-E-Lift Complete Cranes: Underhung Cranes for Maximum Lift Height

Harrington Max-E-Lift underhung double girder cranes pack superior system performance into a space-saving, underhung profile. As a result, they save much of the space "wasted" by conventional single girder designs. For new installations, the Max-E-Lift system saves valuable overhead room and can reduce building height and construction costs. When replacing a conventional single girder underhung crane with a Max-E-Lift system, you can reduce wasted space and total construction costs. Installation is easy, thanks to an assembly using all bolted construction and factory-installed or plug-in-type wiring connections. In operation, the compact trolley and end truck designs maximize hook coverage, as well as crane and trolley end approach.

Get the standard features you want and maximum lifting height, too, with Max-E-Lift complete crane systems. Capacities through 5 Ton and spans through 50 feet.



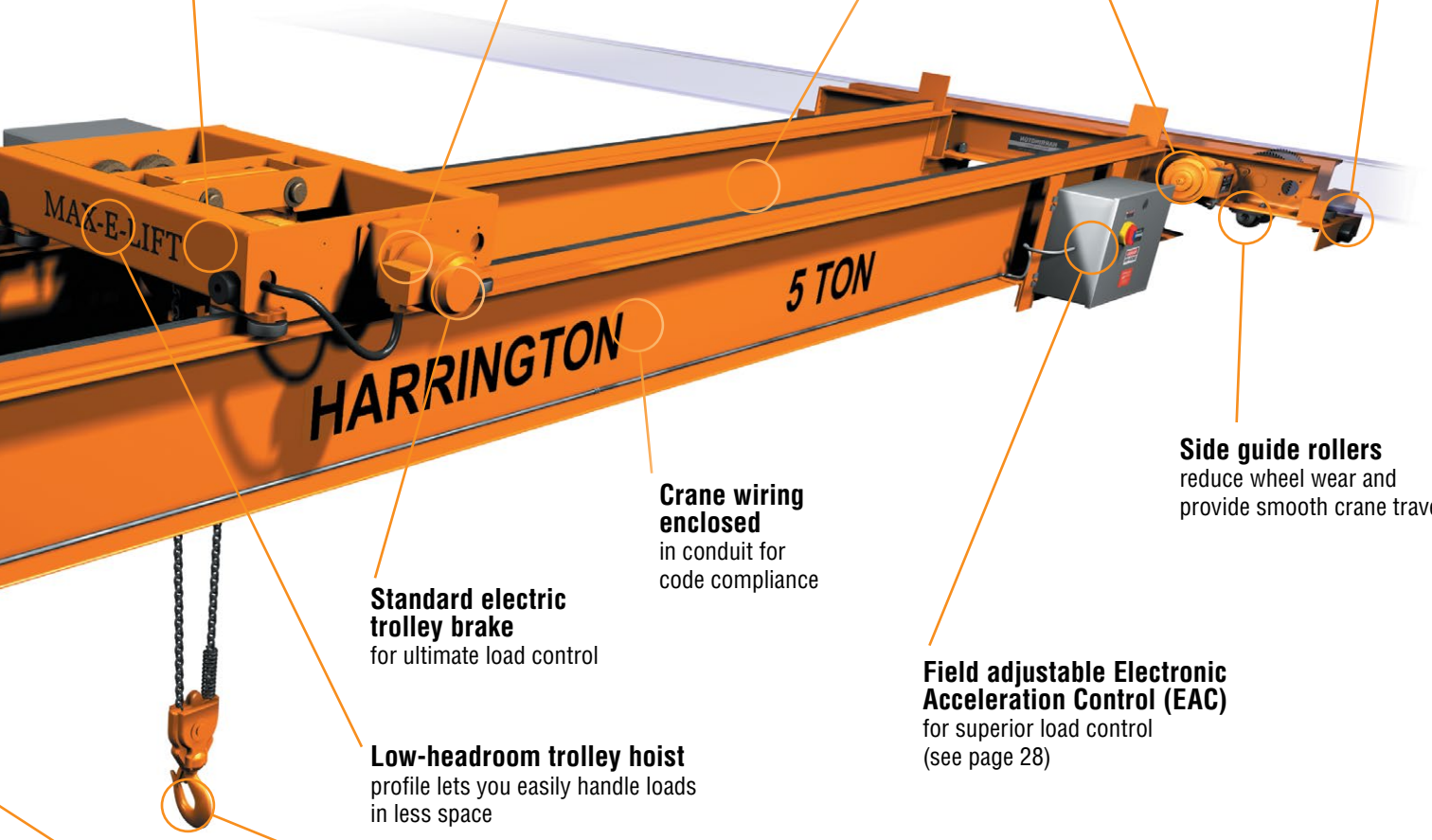
Side guide roller trolley
design ensures smooth movement

Helical and spur gears are induction-hardened
for extended life

Electric hoists feature 60 minute rating,
fan cooled motor,
and "The Guardian"
smart brake technology

Low profile,
double girder design for maximum hook height

Bumpers and rail sweeps
are standard on end trucks and powered trolleys



Crane wiring enclosed
in conduit for code compliance

Side guide rollers
reduce wheel wear and provide smooth crane travel

Standard electric trolley brake
for ultimate load control

Field adjustable Electronic Acceleration Control (EAC)
for superior load control
(see page 28)

Low-headroom trolley hoist
profile lets you easily handle loads in less space

Forged carbon steel hook
capable of swiveling 360° under load

Push-button pendant
for easy control of trolley, hoist, and bridge motion. Includes power on\off control

Consider Geared Models when:

- Precision load control is required, such as die handling or assembly.
- Loads are infrequently moved, such as maintenance or standby crane operations.

For dimensions and specifications, consult factory.

Series HPC 500 Medium Duty Class B Complete Cranes

For medium duty crane applications, the Series HPC 500 crane combines economy and performance. Crane travel is easy and smooth, thanks to machined wheels with sealed ball bearings, while the electric or manual hoist with matching trolley provides positive, controlled lifting motion. All bolted assembly makes installation quick and easy—no welding required. Select Series HPC 500 cranes when you need lifting power, economy, and flexibility for a wide variety of industrial uses.

Capabilities to count on:

- Capacities in push operation: 1/2, 1 and 2 Ton up to 24' spans, in both top running and underhung designs.
- Fabricated from structural steel for optimal strength and rigidity.
- Large diameter wheels machined from cast iron and equipped with sealed deep groove ball bearings allow the crane to roll easily (wheels are suitable for flat or tapered flange beams).
- Rubber bumpers, drop stops, and rail sweeps are standard.

Series HPC 500 Top Running Push Complete Crane

Supplied components:

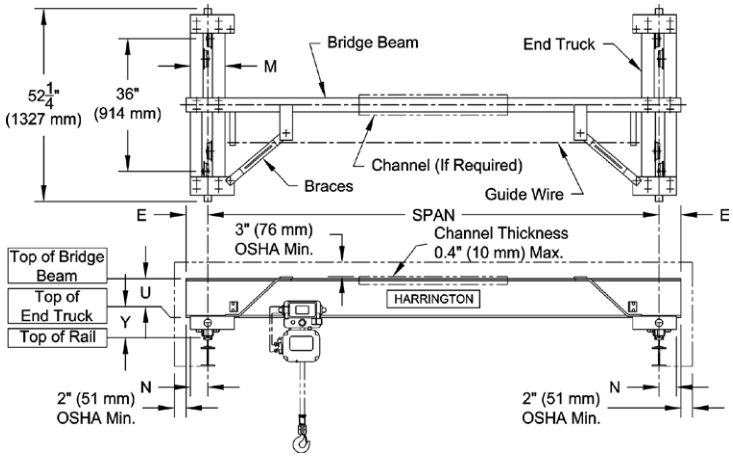
- End trucks.
- Bridge beam assembly with bracing.
- Trolley hoist available in a wide selection of low headroom styles.
- Documentation, including assembly and installation instructions, crane operator's guide, and owner's manuals.
- Touch-up paint.
- One year warranty.

Series HPC 500 Underhung Push Complete Crane

SERIES 500 TOP RUNNING PUSH COMPLETE CRANES — SPECIFICATIONS & DIMENSIONS

Cap. (Tons)	Max. Span (ft)	Crane Product Code	Wheel Tread Dia. (in)	Rail Head Width* (in)	E** Beam Beyond Span (in)	M End Truck Frame Width (in)	N Runway Ctr. Line to Outer Edge of ET (in)	U Top of End Truck to Top of Beam (in)	Y Top of Rail to Top of End Truck (in)	System Max. Wheel Load*** (lbs/ wheel pair)
1/2	24	CHPC505	3.12	1.5 – 6	6	T + 7.3	M/2	Beam Depth	4.3	841
1		CHPC510	4.00			T + 8.3			5.3	1500
2		CHPC520	4.88						5.9	2819

*Consult factory for widths greater than 6".
**Minimum E is M/2.
***See definition on page 26.

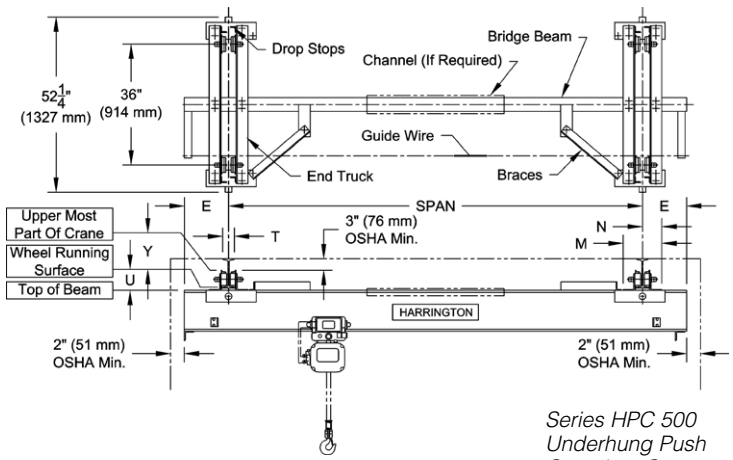


Series HPC 500 Top Running Push Complete Crane

SERIES 500 UNDERHUNG PUSH COMPLETE CRANES — SPECIFICATIONS & DIMENSIONS

Cap. (Tons)	Max. Span (ft)	Crane Product Code	Wheel Tread Dia. (in)	T* Flange Range Std. (in)	E** Beam Beyond Span (in)	M End Truck Frame Width (in)	N Runway Ctr. Line to Outer Edge of ET (in)	U Wheel Running Surface to Top of Beam (in)	Y Wheel Running Surface to Upper Most Part of Crane (in)	System Max. Wheel Load*** (lbs/ wheel pair)
1/2	24	CHPC505	3.12	3 – 6	12	T + 7.3	M/2	1.2	3.6	846
1		CHPC510	4.00			T + 8.3		1.2	4.4	1506
2		CHPC520	4.88	3.3 – 6				1.1	5.3	2827

*Consult factory for widths greater than 6".
**Minimum E is M/2.
***See definition on page 26.



Series HPC 500 Underhung Push Complete Crane

Plug and Play Crane Kits

Harrington's Plug and Play Crane Kits are high-performance, easy-to-install systems that handle today's most demanding Class "C" applications. Conveniently labeled heavy-duty plugs make installation quick and easy. These kits include standard features that are options on most competitive systems. Applications include fabricating, machining, die handling, assembly, production and maintenance. Rely on Harrington Plug and Play Crane Kits for durability, reliability and years of trouble-free service.

Standard Features

- Capacities: 1 – 10 Ton Top Running; 2 – 5 Ton Underhung
- Heavy-duty, plug-in connections on trolley hoist, end trucks, control panel and crane wiring
- Side guide rollers greatly reduce wheel friction and wear, providing smooth crane travel with increased wheel and runway life
- End trucks come standard with drives, brakes, bumpers, drop stops and rail sweeps
- (N)ER electric chain hoists or RHN wire rope hoists available
- UL/C-UL listed control panel
- CSA and UL listed crane wires and festooning

Crane Service Classifications:

Crane Service Class:

- The Crane Manufacturers Association of America (CMAA) has established six 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:

- 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 100,000 cycles.
- Load is usually 1/3 of rated capacity and is rarely equal to rated capacity, and design service life is 100,000 to 500,000 cycles.
- Load is usually very light and rarely is equal to rated capacity, and design service life is 500,000 to 2,000,000 cycles.

Class B Service Class:

The load cycle and magnitude combinations that define the Class B Service Class are:

- Load is usually 1/3 of rated capacity and is rarely equal to rated capacity, and design service life is 20,000 to 100,000 cycles.
- Load is usually very light and rarely is equal to rated capacity, and design service life is 200,000 to 500,000 cycles.

Compliance

In order to meet requirements of the Crane Manufacturers Association of America (CMAA), the National Electric Code (NEC) and the American National Standards Institute (ANSI/ASME), Harrington cranes include:

- Thermal protection for all motors.
- Stationary crane wires that are enclosed in conduit.
- Rubber bumpers for crane and powered trolleys.
- Hoists load tested to 125% of rated capacity.
- Drop stops for cranes.
- Rail sweeps for top running and underhung cranes.

Bridge Crane Control Panels

All motorized bridge cranes require a master panel to control bridge crane functions. Harrington control panels are completely pre-wired and tested, and ready to mount on bridge beam. Standard panel is NEMA 4/12 rated and includes:

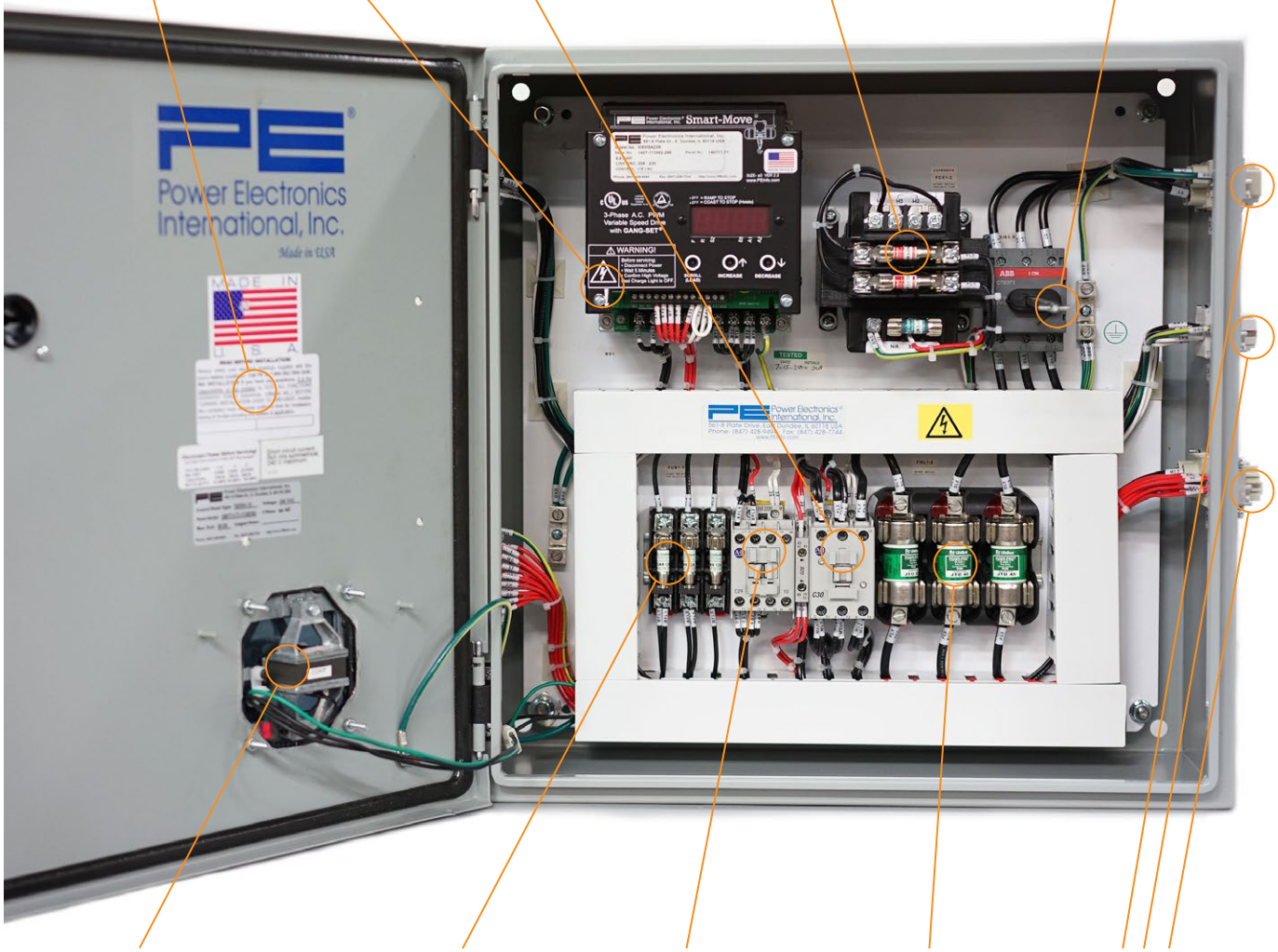
Sales order and wiring diagram number
for easy reference

VFD
Variable Frequency Drive

Main line contactor
allows the crane to be turned on and off from the pendant

Control transformer
(with primary and secondary fusing) provides low voltage control circuit for pendant

Through-the-door fused disconnect switch
is OSHA compliant lock-out capable



"Warning Device" (horn)
as required by CMAA when crane is equipped with a radio powered traversing function

Branch circuit fusing for crane drives

Brake relay

Main line disconnect fusing

Plug and play connectivity

NEMA 4 bridge crane control panels available upon request.

Bridge Crane Control Panels

These panels are for use with all Harrington Series 3 motorized end trucks and are NEC compliant for overhead bridge cranes. All panels include bridge mounting bracket and wiring diagram. Specify voltage when ordering.

Standard Panel – Single and Dual Speeds

All panels are NEMA 4/12 type and c UL us LISTED.

Actual crane drive amps will be determined by system requirements.

Plug and play connection available up to 80A system.

Standard Panel features include:

Lock-out compatible through-the-door manual disconnect switch with system fusing, 110 volt control circuit transformer with primary and secondary fusing, mainline contactor, mechanically interlocked reversing contactor, time and torque adjustable Electronic Acceleration Control (EAC), branch circuit fusing for bridge, auto-reset thermal overload relay and hinged door.

Optional Panel – Variable Frequency Drive (VFD)

All panels NEMA 4/12 type and c UL us LISTED.

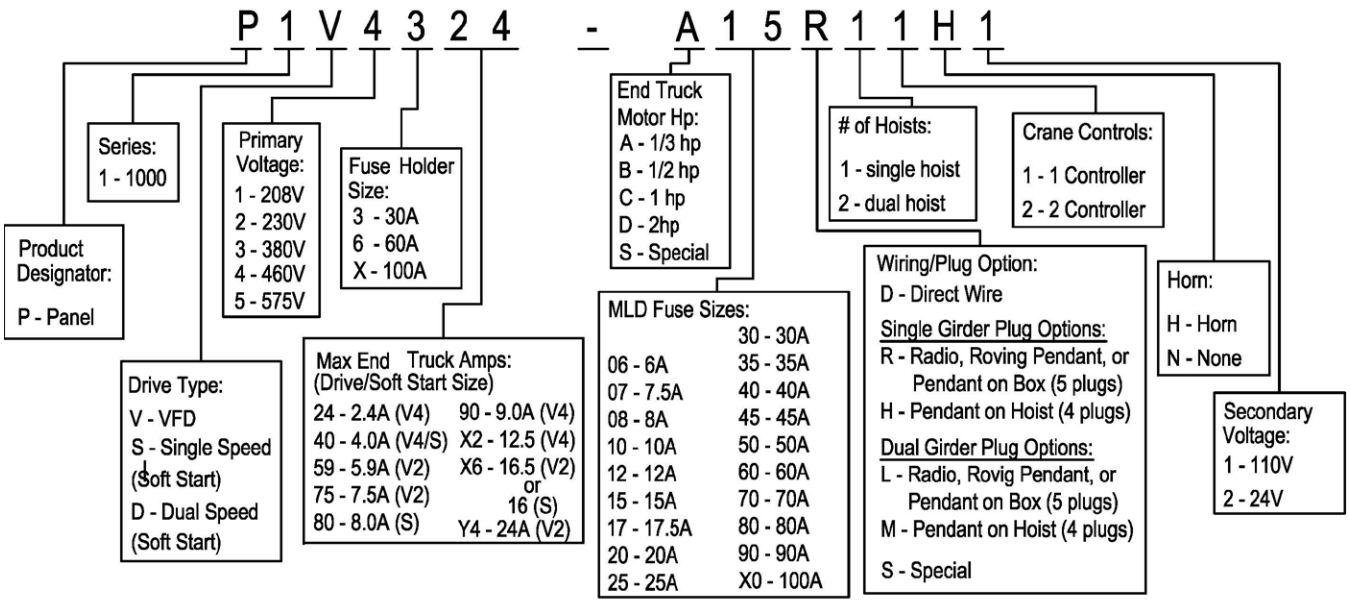
Actual crane drive amps will be determined by system requirements.

Plug and play connection available up to 80A system

Optional Panel features include:

Lock-out compatible through-the-door manual disconnect switch with system fusing, 110 volt control circuit transformer with primary and secondary fusing, mainline contactor, Variable Frequency Drive (VFD), brake relay, branch circuit fusing for bridge and hinged door.

These panels can be used for dual- and multiple-speed applications, infinitely variable speed applications and programmed acceleration/deceleration control, using single-speed end trucks. VFD comes pre-loaded with many easy-to-select programs to fit virtually any crane control application and includes fault-code troubleshooting

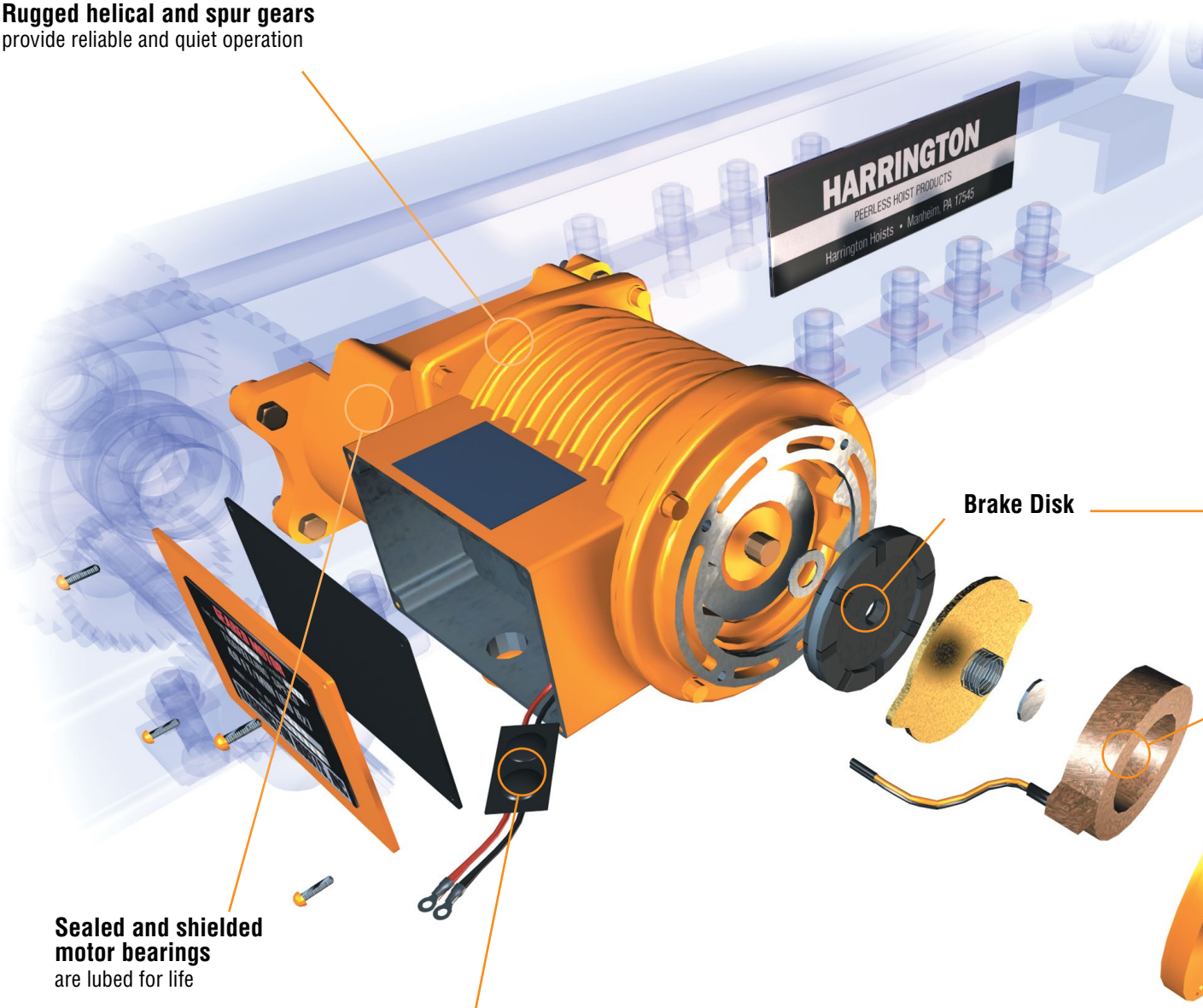


Product Code

Motor and Brake

Harrington motorized cranes are dual drive type, employing two totally enclosed non-ventilated drives per crane. Drives use helical and spur gearing and are equipped with adjustable DC brakes.

Rugged helical and spur gears
provide reliable and quiet operation

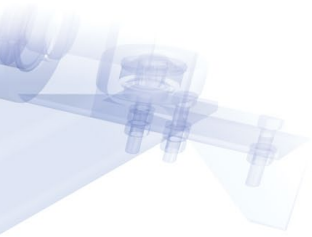


Sealed and shielded motor bearings
are lubed for life

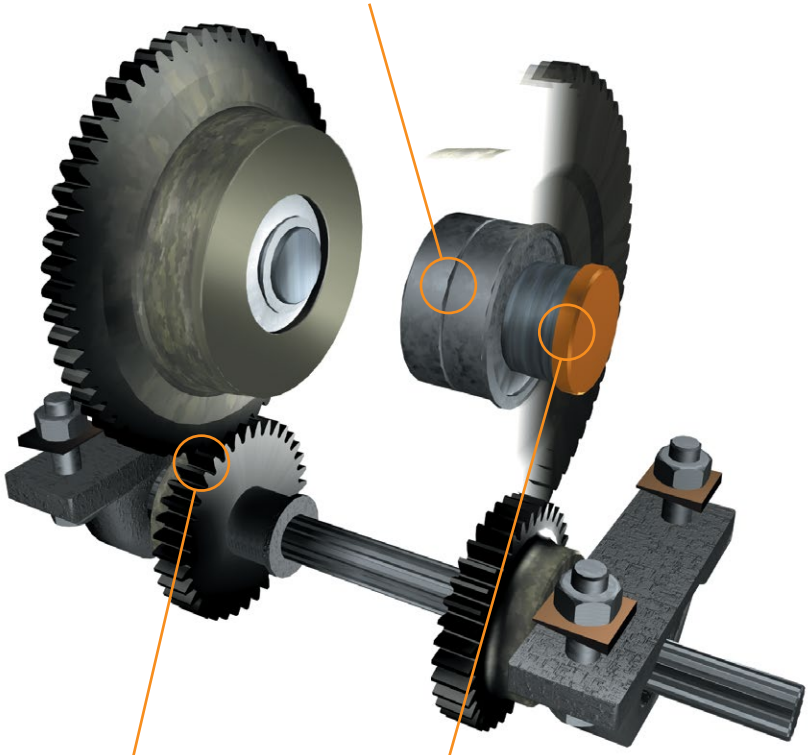
Rectifier
for brake circuit supplies
DC voltage to brake coil

Series 3 Underhung Crane Drive Wheels

Harrington's motorized and geared underhung cranes use a gear system that drives two of the four wheels on each end truck. All Series 3 underhung cranes have two bearings in each wheel.

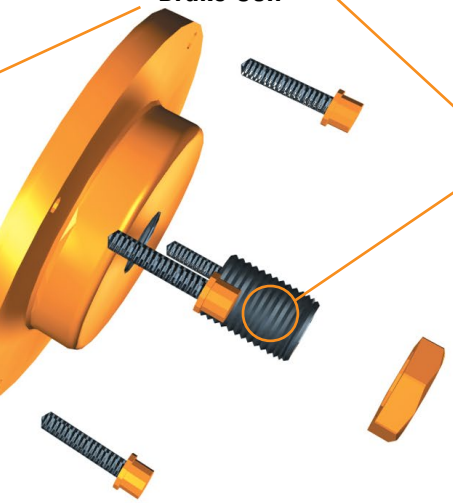


Two deep groove ball bearings
per wheel for smooth operation and long life



Brake assembly
is easy to adjust and is controlled by an independent DC circuit for compatibility with standard, EAC, or Variable Frequency drive control

Brake Coil



Adjusting Bolt

Induction-hardened steel gears
provide synchronous power to paired drive wheels

Stationary axles
welded to end truck frame for ruggedness

Bridge Beam Selection Charts

SERIES 3 — SINGLE GIRDER BEAM SIZES

Bridge beam sizing is based on Harrington chain hoist products' weights and speeds and are for indoor use only. For outdoor applications, consult customer service.

Maximum Allowable Span (ft)	Capacity (Tons)						
	1/2	1	2	3	5	8	10
10	S8x18.4	S8x18.4	S10x25.4	S12x31.8	S12x40.8	W18x71	W21x93
15	S8x18.4	S8x18.4	S10x25.4	S12x40.8	S15x50	W21x83	W18x106
20	S8x18.4	S10x25.4	S12x31.8	S15x42.9	S15x42.9 C8x11.5	W21x93	W18x119
25	S10x25.4	S10x25.4	S12x31.8 C8x11.5	S15x42.9 C8x11.5	S15x42.9 C10x15.3	W24x103	W24x103 C12x20.7
30	S10x25.4	S12x31.8	S15x42.9	S15x42.9 C10x15.3	W16x77	W24x103	W27x129
35	S12x31.8	S15x42.9	S15x42.9 C8x11.5	W16x67	W21x83	W27x114	W30x148
40	S15x42.9	S15x42.9 C8x11.5	W18x60	W18x71	W21x83	W27x114 C12x20.7	W27x129 C15x33.9
45	S15x42.9 C8x11.5	W16x57	W18x71	W18x76	W24x94	W27x114 C15x33.9	W30x148 C15x33.9
50	W16x40	W18x60	W18x76	W21x83	W27x102	W30x124 C15x33.9	W30x148 C15x33.9
55	W16x57	W16x67	W21x83	W24x94	W27x114	W30x132 C15x33.9	W30x148 C15x33.9
60	W16x67	W18x76	W21x93	W27x114	W30x116 C15x33.9	W33x141 C15x33.9	W33x169 C15x33.9

Note: Above channel caps are span less 10'0" for overall length.
Consult Customer Service for wire rope hoist beam sizes.

HPC RECOMMENDED BRIDGE BEAMS — ELECTRIC HOIST

Bridge beam sizing is based on Harrington chain hoist products' weights and speeds and are for indoor use only. For outdoor applications, consult customer service.

1. Includes 15% allowance for Electric Hoist load factor.
2. Based on Harrington's electric chain hoist product.
3. For spans greater than 10 ft, braces between end truck and bridge beam are recommended.

Capacity (Tons)	Maximum Allowable Span (ft)			
	10	15	20	24
1/2	S8x18.4	S8x18.4	S8x18.4	S10x25.4
1	S8x18.4	S8x18.4	S10x25.4	S10x25.4
2	S10x25.4	S10x25.4	S12x31.8	S12x31.8 C8x11.5

Product Specification Form
Harrington Complete Crane Systems

HARRINGTON COMPLETE CRANE SYSTEMS

Quantity	_____
Capacity	_____ (Ton)
Span	_____
Voltage	_____ (If Motorized)
Runway Length	_____
Crane Type	_____ Single Girder _____ Double Girder _____ Top Running _____ Underhung
Structure	_____ Rail Size (If Top Running) _____ Runway Beam Size (If Underhung)
Bridge Travel	_____ Motorized _____ Push _____ Geared
(If Motorized)	_____ Single Speed _____ Dual Speed _____ VFD _____ Desired Speed
(If Geared)	_____ Hand Chain Drop (feet)
Specials:	_____
Bridge Beam	_____ Required _____ Existing _____ Beam Spec. (If Existing)
Hoist Type	_____ Manual Chain _____ Electric Chain _____ Electric Wire Rope
Lift	_____ Feet
(If Electric)	_____ Single Speed _____ Dual Speed _____ VFD _____ Desired Speed
Options:	_____ Canvas Chain Container
Specials:	_____
Trolley Type	_____ Motorized _____ Push _____ Geared
(If Motorized)	_____ Single Speed _____ Dual Speed _____ VFD _____ Desired Speed
(If Geared)	_____ Hand Chain Drop (feet)
Specials:	_____

Form completed by:

Name _____ Company _____

Phone _____ Fax _____

Address _____ City _____ State ____ Zip _____

E-Mail Address _____ Copy & fax to 717-665-7432

Options

Plug and Play Connections
- End Trucks
- Crane Control Panel L
- Crane Wires
- Trolley/Hoist

Flat Cable Festooning
- Roving pendant
- Hoist/trolley power
- Runway—crane power

Variable Frequency Control
- Multiple speeds
- Infinitely variable speeds
- Programmable acceleration and deceleration

Remote Control
- Radio
- Infrared
- Wall-mounted pendant (hard-wired)

24V Control Voltage
(110V is standard)

NEMA 4, 4X, 12, or 13 Bridge Control Box
(NEMA 4/12 is standard)

NEMA 4 or 4X Pendant

Warning Devices
- Lights
- Audible alarms

Enclosed Conductor Electrification
- Bridge
- Runway

Multiple Hoists on Single Bridge

Power Supply—Other Voltages Available

Interlocking Bridges

Patented Track Runway Applications
(3 1/4" and above)

Travel Limit Switches

Load Limiting Device

Special Applications

Glossary of Common Crane Terms:

Adjustable brakes: Electro-mechanical device to control horizontal crane deceleration.

Bridge beam: Traveling beam connected to end trucks - supports trolley hoist and load.

Bumpers: Energy absorbing device mounted on end trucks or trolley that reduces impact when the truck or trolley contacts either its end stop or another truck or trolley.

Capacity: Maximum rated load which a crane is designed to carry. Commonly expressed in Tons. (1 Ton = 2,000 lbs.).

Drop stops: Means to limit the drop of a bridge or trolley in case of wheel or axle failure.

Electronic Acceleration Control (EAC): Electronic control for adjusting rate of crane acceleration; also known as Electronic Soft Start.

End truck: Load-bearing crane component that supports the bridge beam and consists of a frame, wheels, axles, etc.

Festooning: Wiring and support system that delivers power to trolley hoist across bridge or runway beam.

Rail sweeps: Device designed to clear obstructions from wheel running surface.

Runway beam: Stationary beams that support crane and load. Commonly fabricated from S or W beams or patented track.

Runway electrification: Delivers power to crane as it travels along runway.

Span: Dimension from one runway centerline to the other runway centerline.

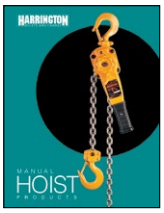
System max wheel load: Maximum load exerted on runway beams for a crane loaded to its rated capacity. It occurs when trolley hoist is located at its maximum end approach and includes an allowance for vertical inertial forces associated with electric hoists. This value is expressed for Series 3 cranes as lbs/wheel for top running and lbs/wheel pair for underhung cranes. For Series HPC 500 cranes, both top running and underhung are lbs/wheel pair.

Top running: Crane type that travels on top of rail or bar attached to runway beams.

Underhung: Crane type that travels on the lower flange of runway beams.

Complete Product Offering

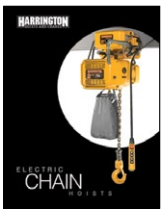
Over the years, Harrington has continued to respond to the needs of our customers by further expanding our product offerings. In addition to the many models described in this catalog, our full series of product catalogs, as shown below, will provide you with all of the information you will need to answer questions, specify a product and place an order. For catalog copies or answers to specific product questions, please contact our Customer Service Department by calling 800-233-3010 (Manheim, PA) or 800-317-7111 (Corona, CA) or e-mail customerservice@harringtonhoists.com



Manual Hoist Products Catalog

Refer to this Harrington catalog for detailed information on the following:

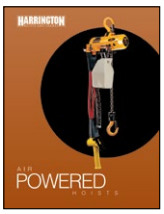
- Lever hoists
- Hand chain hoists
- Hoist and trolley combinations
- Low headroom trolley hoists
- Push and geared trolleys
- Hoist load testers



Electric Chain Hoists Catalog

Refer to this Harrington catalog for detailed information on the following:

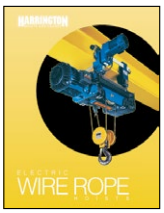
- Three phase electric chain hoists and trolleys
- Single phase electric chain hoists and trolleys
- Ergonomic electric chain hoists



Air Powered Hoists Catalog

Refer to this Harrington catalog for detailed information on the following:

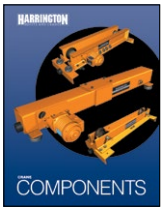
- Compact Mini-Cat with pendant, cord and manipulator controls
- Air hoists with pendant and cord controls
- Air trolleys



Electric Wire Rope Hoists Catalog

Refer to this Harrington catalog for detailed information on the following:

- Deck/base mounted or lug suspended hoists
- Standard headroom trolley hoists
- Ultra-low headroom trolley hoists



Crane Components Catalog

Refer to this Harrington catalog for detailed information on the following:

- End trucks-top running-motorized, geared and push
- End trucks-underhung-motorized, geared and push
- Double girder MAX-E-Lift end trucks
- Convertible push end trucks
- Beam accessory kits

CONTACT YOUR NEARBY
HARRINGTON DISTRIBUTOR

Warranty

All products sold by Harrington Hoists, Inc. are warranted to be free from defects in material and workmanship from date of shipment by Harrington for the following periods:

1 year—Electric and Air Powered Hoists (excluding (N)ER2 Enhanced Features Models), Powered Trolleys, Powered Tiger Track Jibs and Gantries, Crane Components, Spare/Replacement Parts, Below-The-Hook and Material Handling Equipment

2 years—Manual Hoists & Trolleys, Beam Clamps

3 years—(N)ER2 Enhanced Features Model Hoists

5 years—Manual Tiger Track Jibs and Gantries, TNER Pull-Rotor Motor Brake

10 years—(N)ER2 "The Guardian" Smart Brake

The product must be used in accordance with manufacturer's recommendations and must not have been subject to abuse, lack of maintenance, misuse, negligence, or unauthorized repairs or alterations.

Should any defect in material or workmanship occur during the above time period in any product, as determined by Harrington Hoist's inspection of the product, Harrington Hoists, Inc. agrees, at its discretion, either to replace (not including installation) or repair the part or product free of charge and deliver said item F.O.B. Harrington Hoists, Inc. place of business to customer.

Customer must obtain a Return Goods Authorization as directed by Harrington or Harrington's published repair center prior to shipping product for warranty evaluation. An explanation of the complaint must accompany the product. Product must be returned freight prepaid. Upon repair, the product will be covered for the remainder of the original warranty period. Replacement parts installed after the original warranty period will only be eligible for replacement (not including installation) for a period of one year from the installation date. If it is determined there is no defect, or that the defect resulted from causes not within the scope of Harrington's warranty, the customer will be responsible for the costs of returning the product.

Harrington Hoists, Inc. disclaims any and all other warranties of any kind expressed or implied as to the product's merchantability or fitness for a particular application. Harrington will not be liable for death, injuries to persons or property or for incidental, contingent, special or consequential damages, loss or expense arising in connection with the use or inability whatever, regardless of whether

HARRINGTON
HOISTS AND CRANES

www.harringtonhoists.com

Harrington Hoists, Inc.
401 West End Ave., Manheim, PA 17545
717-665-2000 / 800-233-3010
Fax: 717-665-2861

Harrington Hoists, Inc.—Western Division
2341 Pomona Rd., No. 103, Corona, CA 92880-6973
951-279-7100 / 800-317-7111
Fax: 951-279-7500

Rev 6 Copyright © 1999 02-16
Item No. C-CompleteCranes

Specifications and dimensions are subject to change without notice.