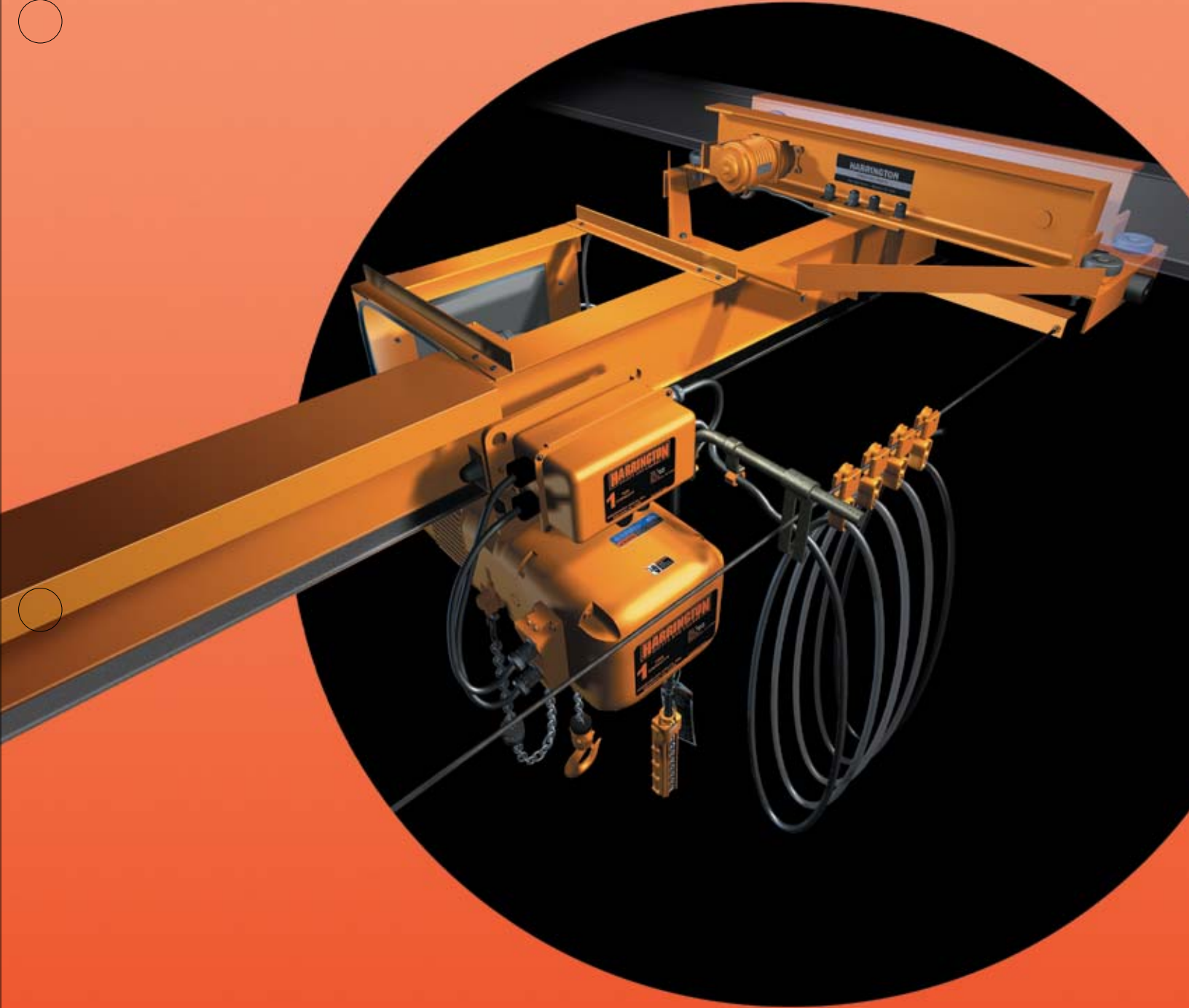


HARRINGTON
HOISTS AND CRANES



COMPLETE

CRANES

The Capability To Do The Job You Want

Traditional values in design, engineering, and professional expertise are the hallmarks of Harrington people and products. That's because Harrington is built upon one of the richest heritages in the history of hoists and cranes. In 1876, Edwin Harrington dramatically improved the self-sustaining hoist by introducing the worm-gear design. Since then, the company he founded has constantly found ways to add value, introducing such developments as the spur gear hoist, anti-friction bearings, the electric chain hoist, and other **innovations**.

The hallmark of Harrington value is seen in our comprehensive offering, making us one of the few single-source, U.S.-based suppliers of crane systems. It's also seen in the responsiveness and technical expertise of our dedicated engineering staff, who take personal **pride** in solving your problems. Traditional value—it's what we build into all Harrington products, which are used by thousands of satisfied customers around the globe.

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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. 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.

Field adjustable Electronic Acceleration Control (EAC)
*for superior load control
(See page 30)*

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

Quick disconnect cords
*for ease of installation
and maintenance*

Forged carbon-steel hook
*capable of swiveling
360° under load*

All bolted construction for ease in assembly

Totally enclosed, non-ventilated motor ensures long life

Side guide rollers on motorized trolleys for smooth movement

Convenient inspection port allows an inside look at gears

Helical gears are induction-hardened for extended life

Crane wiring enclosed in conduit for code compliance

Cross bracing ensures crane rigidity for longer life

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

Adjustable DC brake to control crane deceleration (see page 32)

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).
- Hoist speeds: See page 34.
- 3 phase voltages: 208, 230/460, 380, 575 (50 or 60 Hz).
- Suitable for use on ASCE crane rail or square bar.

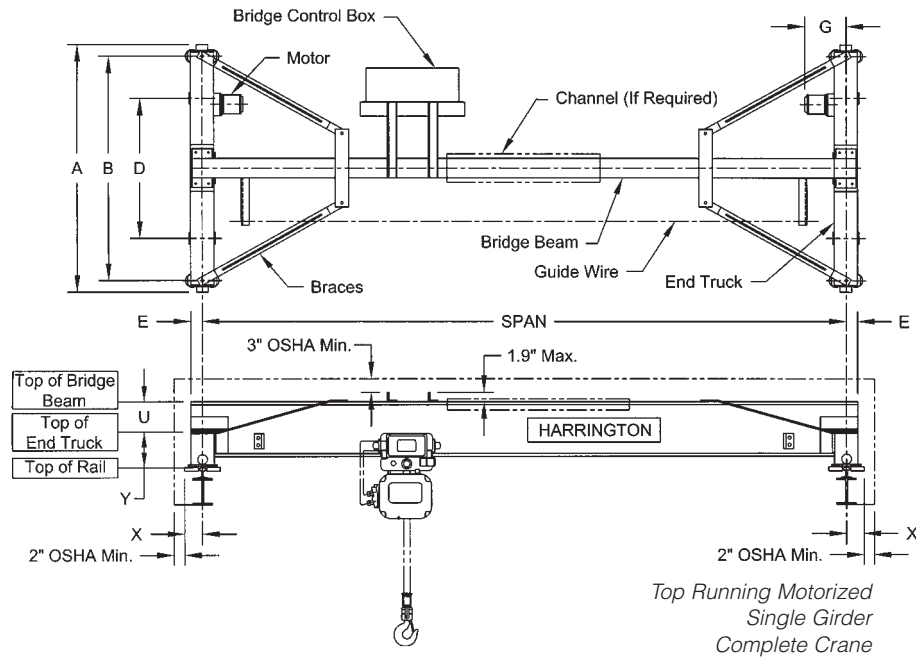
Complete crane system includes:

- 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 30.)
- 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 (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)
	60	CTML/S/H/D-3-0160			98	90	80					13.1 (H)
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)
	60	CTML/S/H/D-3-0360			99	91	80					13.4 (H)
5	35	CTML/S/H/D-3-0535	8.27	60	62	54	43	6.0	12.5	6.3	11.3	14.3 (D)
	60	CTML/S/H/D-3-0560			99	90	74					15.0 (L/S/D)
10	35	CTML/S/H/D-3-1035	9.84	60	63	53	37	6.0	12.5	6.3	11.3	15.4 (D)
	60	CTML/S/H/D-3-1060			100	90	74					17.4 (L/S/D)

**Based on suggested minimum runway



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			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.)		
	@230V	@460V		@230V	@460V		@230V	@460V		
CTML/S/H/D-3-0135	0.33	1.6	1.0	0.5	2.1	1.3	0.33/0.1	1.6/1.1	0.9/0.8	1,980
CTML/S/H/D-3-0160										2,840
CTML/S/H/D-3-0335										4,440
CTML/S/H/D-3-0360										5,690
CTML/S/H/D-3-0535	0.5	2.1	1.3	1.0	3.3	2.0	0.5/0.1	2.0/1.5	1.2/0.9	6,910
CTML/S/H/D-3-0560										8,450
CTML/S/H/D-3-1035	1.0	3.3	2.0	2.0	5.8	3.1	1.0/0.6	3.7/2.1	2.3/1.4	13,500
CTML/S/H/D-3-1060										15,050

*See definition on page 28.

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 upgradeable 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).
- Hoist speeds: See page 34.
- 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.

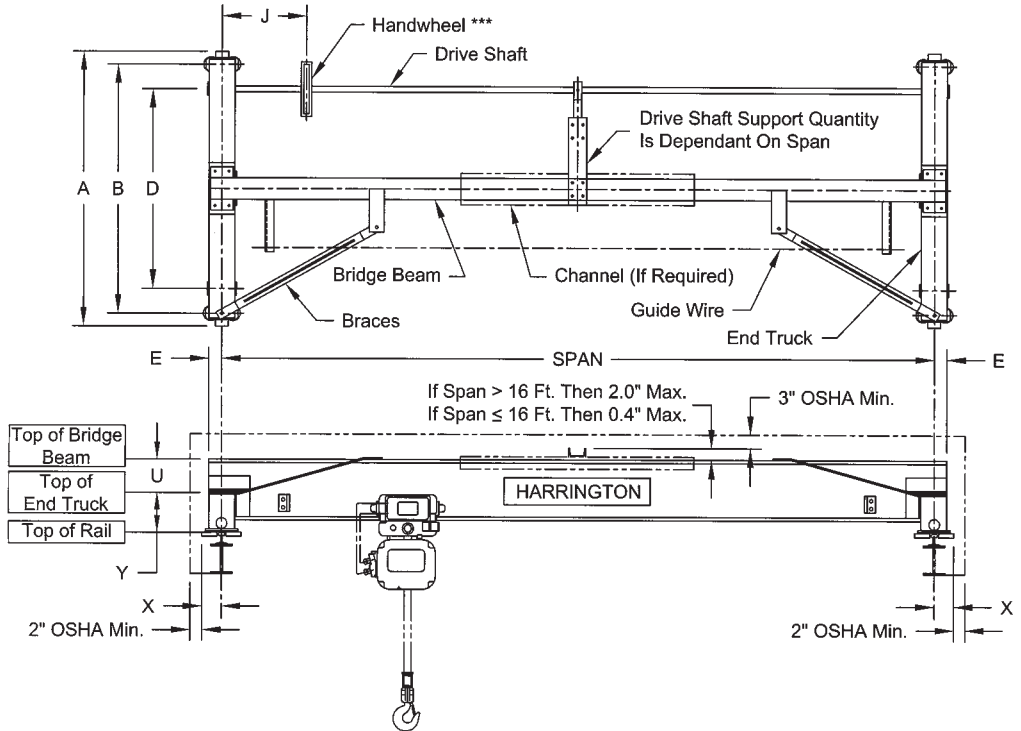
Series 3 Top Running Geared Single Girder Complete Cranes Specifications & Dimensions

Cap. (Tons)	Max. Span (ft)	Crane Product Code	Wheel Dia. (in)	Sug. Min. Runway Rail (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	1,770
	50	CTG-3-0150			98	90	80						2,570
3	35	CTG-3-0335	6.10	30	62	54	43	4.1	10.0	8.4 (10.4 for cranes using 10" beam)	4.6	7.1	4,400
	50	CTG-3-0350			99	91	80						5,060
5	35	CTG-3-0535	8.27	40	62	54	43	3.9	10.3	8.5	4.7	9.2	6,860
	50	CTG-3-0550			99	90	74						7,700

*Based on suggested minimum runway rail.

**See definition on page 28.

***Standard hand chain drop is 8ft. 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 upgradeable 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 or long lift 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).
- Hoist speeds: See page 34.
- Suitable for use on ASCE crane rail or square bar.

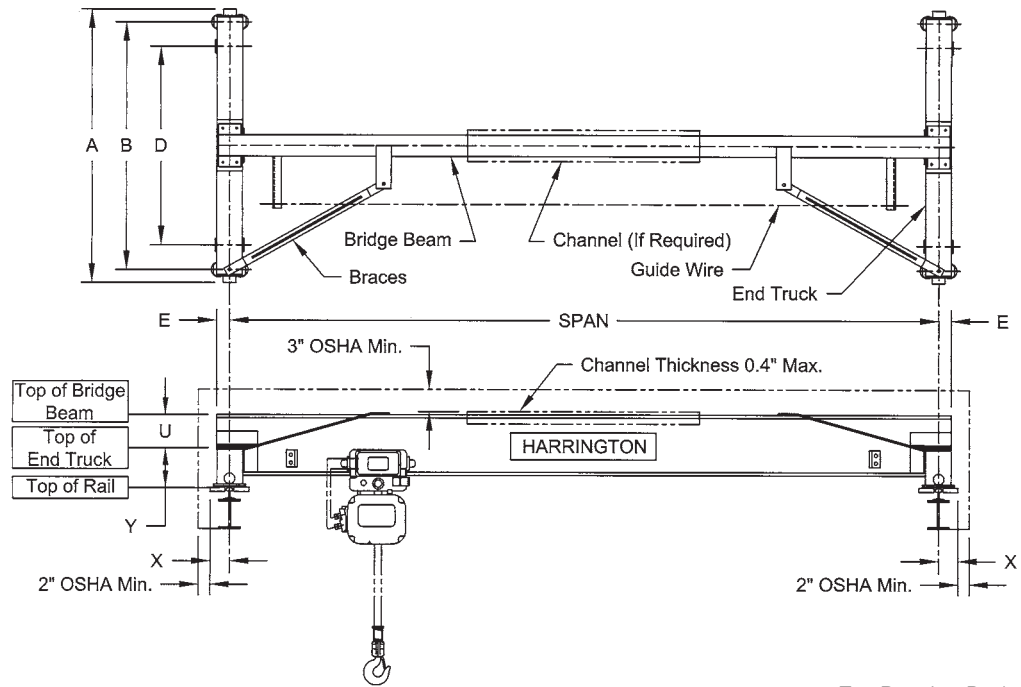
Complete crane system includes:

- 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 (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	CIP-3-0135	3.74	30	61	53	43	2.4	8.4 (10.4 for cranes using 10" beam)	4.6	7.1	1,760
	45	CIP-3-0145			98	90	80					2,140
2	45	CIP-3-0245	6.10	40	99	91	80	4.1	8.5	4.7	9.2	6,410
3	35	CIP-3-0335			62	54	43					4,410
5	35	CIP-3-0535			62	54	43					6,850

*Based on suggested minimum runway rail.
 **See definition on page 28.



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.

All bolted construction
for ease in assembly

Field adjustable Electronic Acceleration Control (EAC) *for superior load control (See page 30)*

Side guide rollers *on motorized trolleys for smooth movement*

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

Quick disconnect cords *for ease of installation and maintenance*

Forged carbon-steel hook *capable of swiveling 360° under load*

Helical 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 for longer life

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

Adjustable DC brake to control crane deceleration (See page 32)

Standard electric trolley brake for ultimate load control

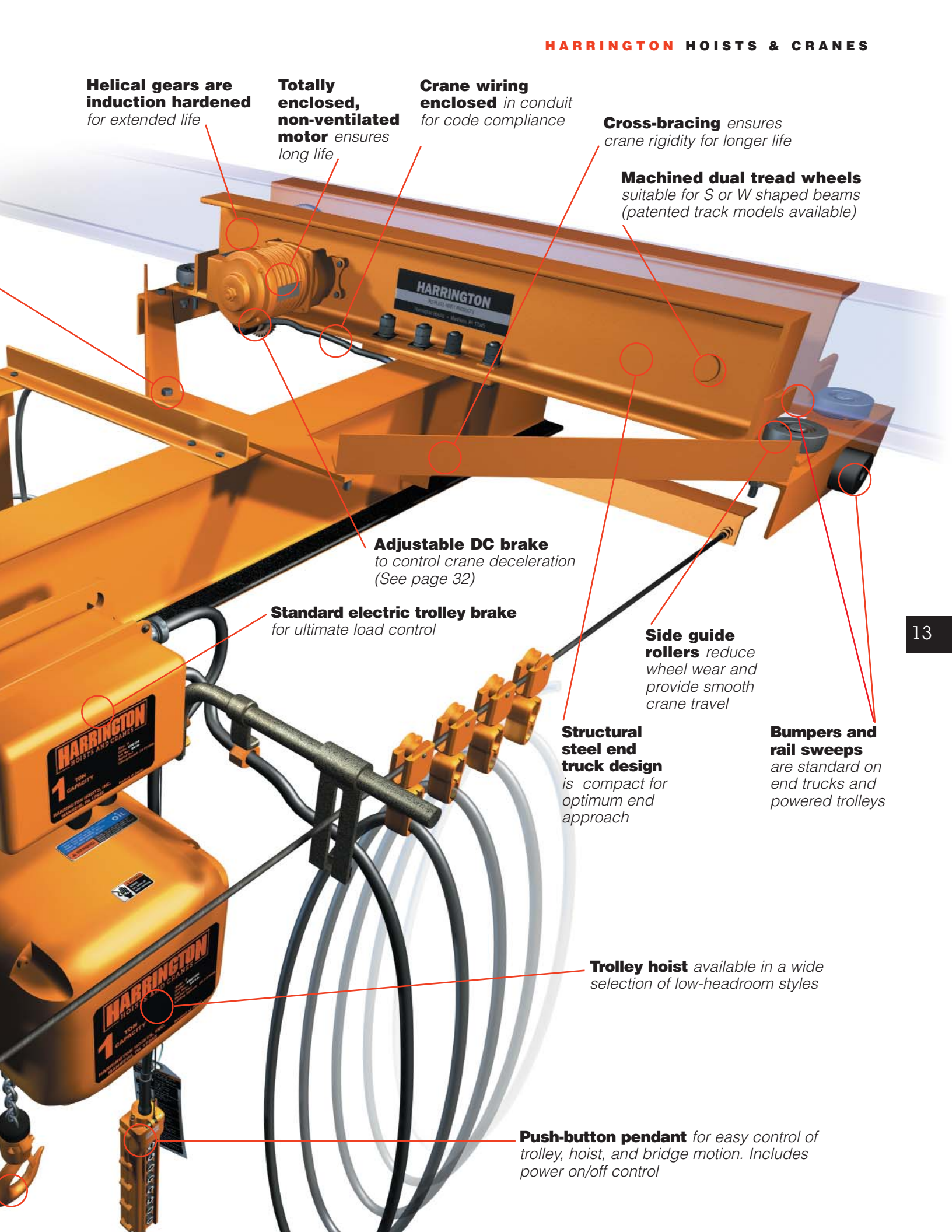
Side guide rollers reduce wheel wear and provide smooth crane travel

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 33)

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).
- Hoist speeds: See page 34.
- 3 phase voltages: 208, 230/460, 380, 575 (50 or 60Hz)
- Suitable for use on S or W shaped beam (patented track models available).

Complete crane system includes:

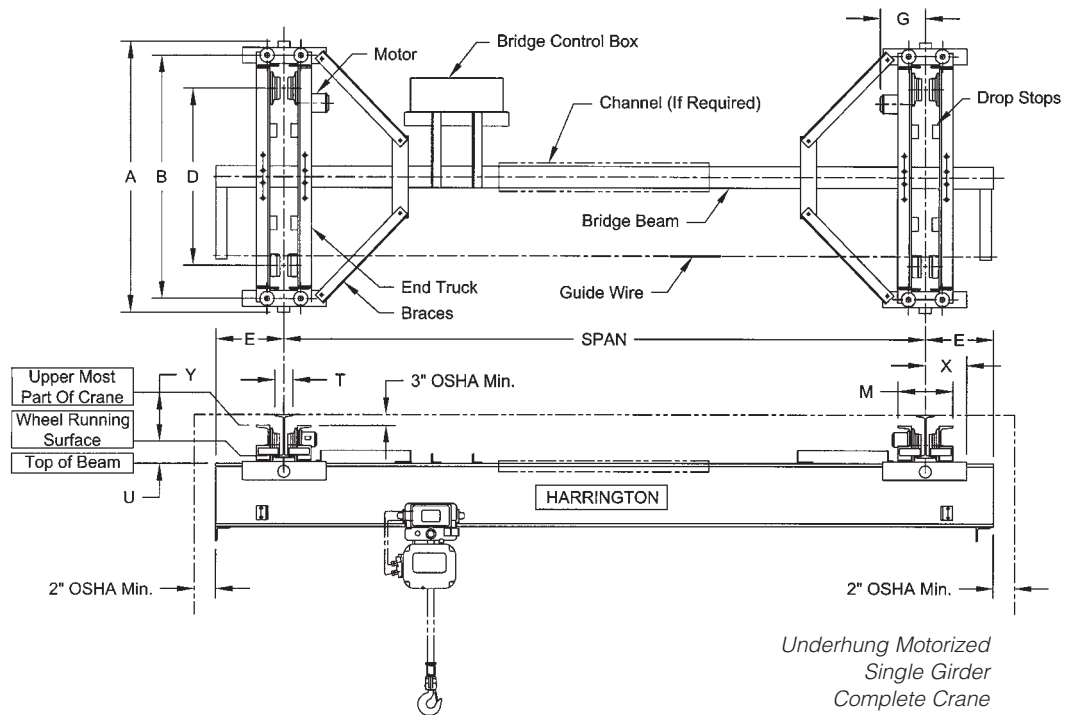
- End trucks come standard with drives, brakes, bumpers, drop stops, and rail sweeps.
- Crane control panel with adjustable Electronic Acceleration Control (EAC) and thru-the-door lock-out disconnect switch. (See page 30.)
- Crane wiring installed in code-compliant conduit.
- Standard bridge beam assembly 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		T+8.2	1.9			
3	35	CUML/S/H/D-3-0335	4.92	3 - 6	60	53	35	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-3-0350			82	75	57		T+8.2	1.9			
5	35	CUML/S/H/D-3-0535	5.51	4 - 6	60	53	33	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-3-0550			82	75	55		T+8.2	1.9			

* 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.



Series 3 Underhung Motorized Single Girder Complete Cranes Specifications

Crane Product Code	Speed Codes L and S			Speed Code H			Speed Code D			System Max. Wheel Load* (lbs/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.)		
	@230V	@460V	@230V	@460V	@230V	@460V	@230V	@460V		
CUML/S/H/D-3-0235	0.33	1.6	1.0	0.5	2.1	1.3	0.33/0.1	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	0.5/0.1	2.0/1.5	1.2/0.9	6,960
CUML/S/H/D-3-0550										7,670

*See definition on page 28.

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 upgradeable 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).
- Hoist speeds: See page 34.
- Suitable for use on S or W shaped beam (patented track models available).

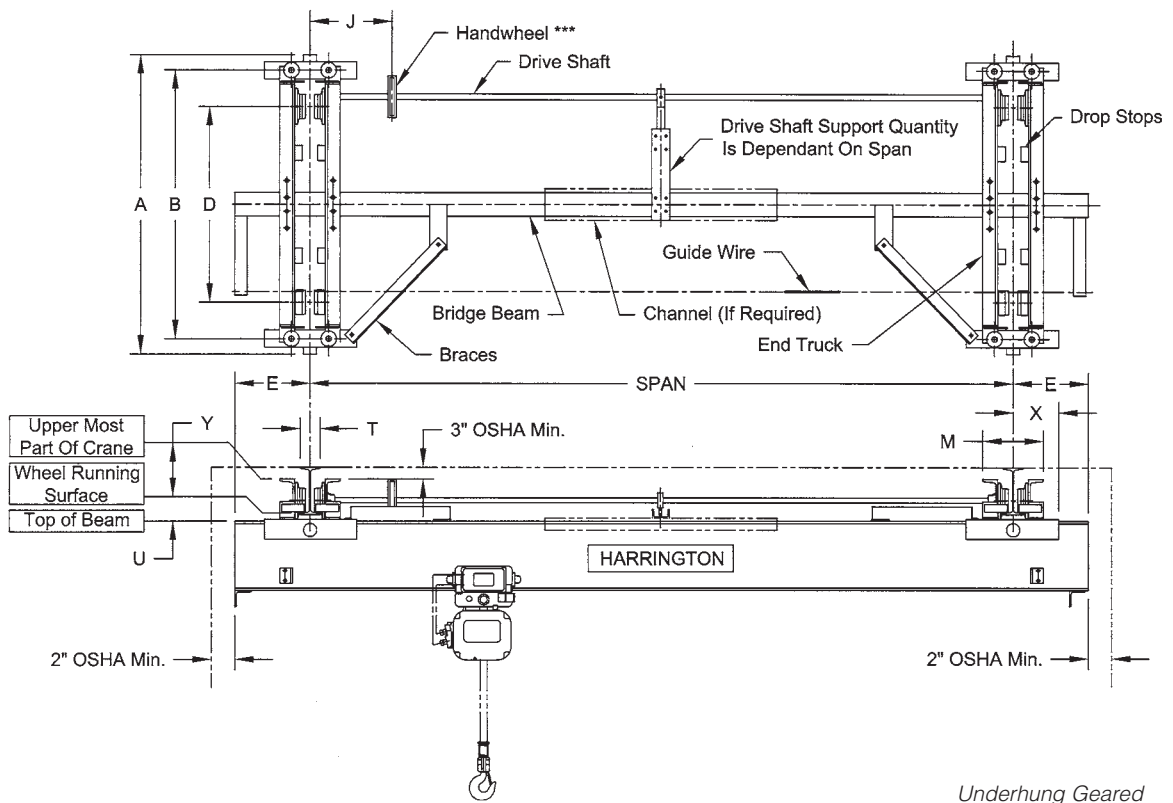
Complete crane system includes:

- 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	3 - 6	60	53	35	12	T/2+8.9	T+8.2	1.9	11.3 - T/2	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	12	T/2+9.0	T+9.8	2.0	11.3 - T/2	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 28.



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 upgradeable 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 or long lift 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).
- Hoist speeds: See page 34.
- 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.

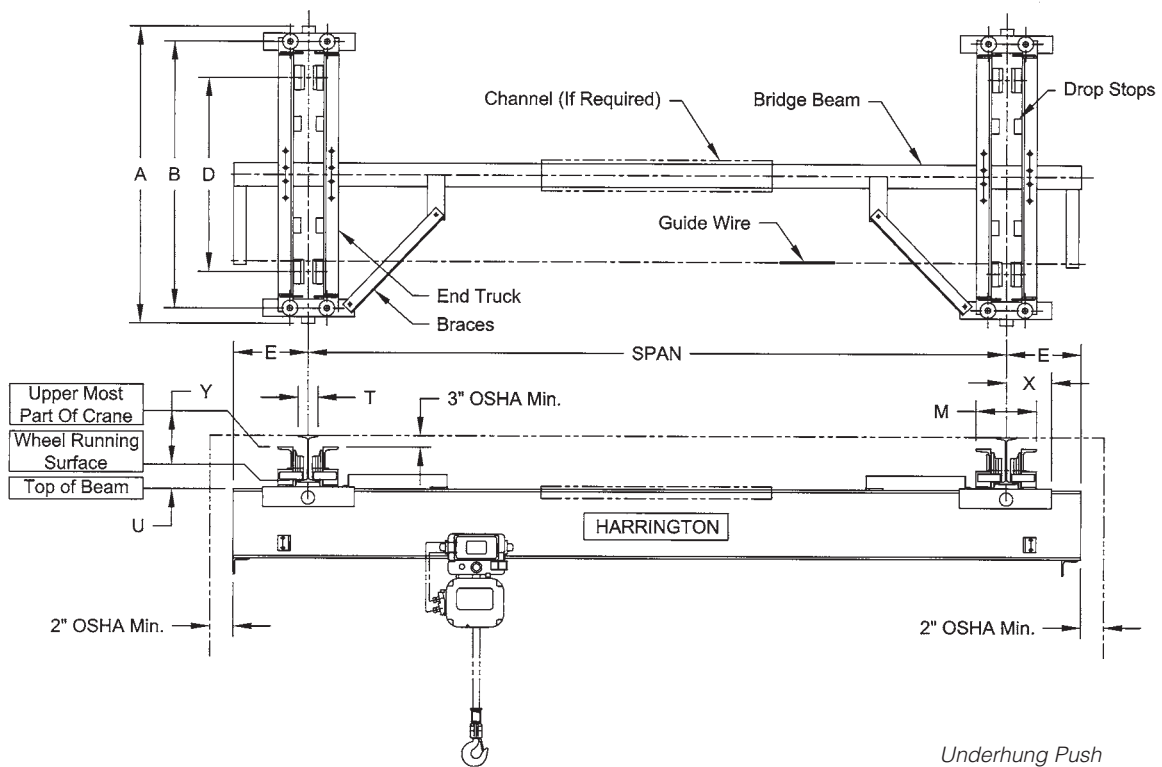
Series 3 Underhung Push Single Girder Complete Cranes Specifications & Dimensions

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		T+8.2	1.9			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 28.

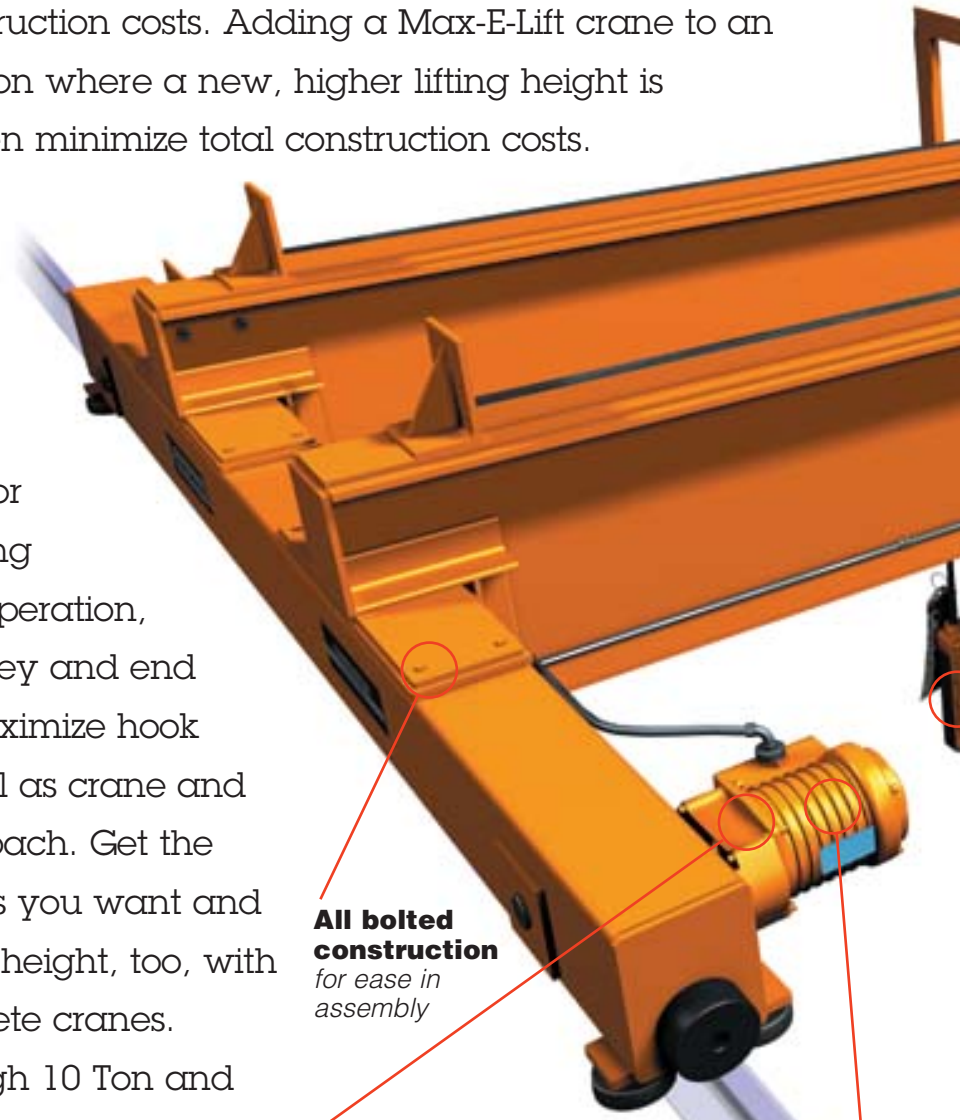


Underhung Push
Single Girder
Complete Crane

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 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 cranes. Capacities through 10 Ton and spans through 60 feet.



All bolted construction
for ease in assembly

Totally enclosed, non-ventilated motor
ensures long life

Adjustable DC brake
*to control crane deceleration
(See page 32.)*

Side guide roller trolley
design ensures smooth movement

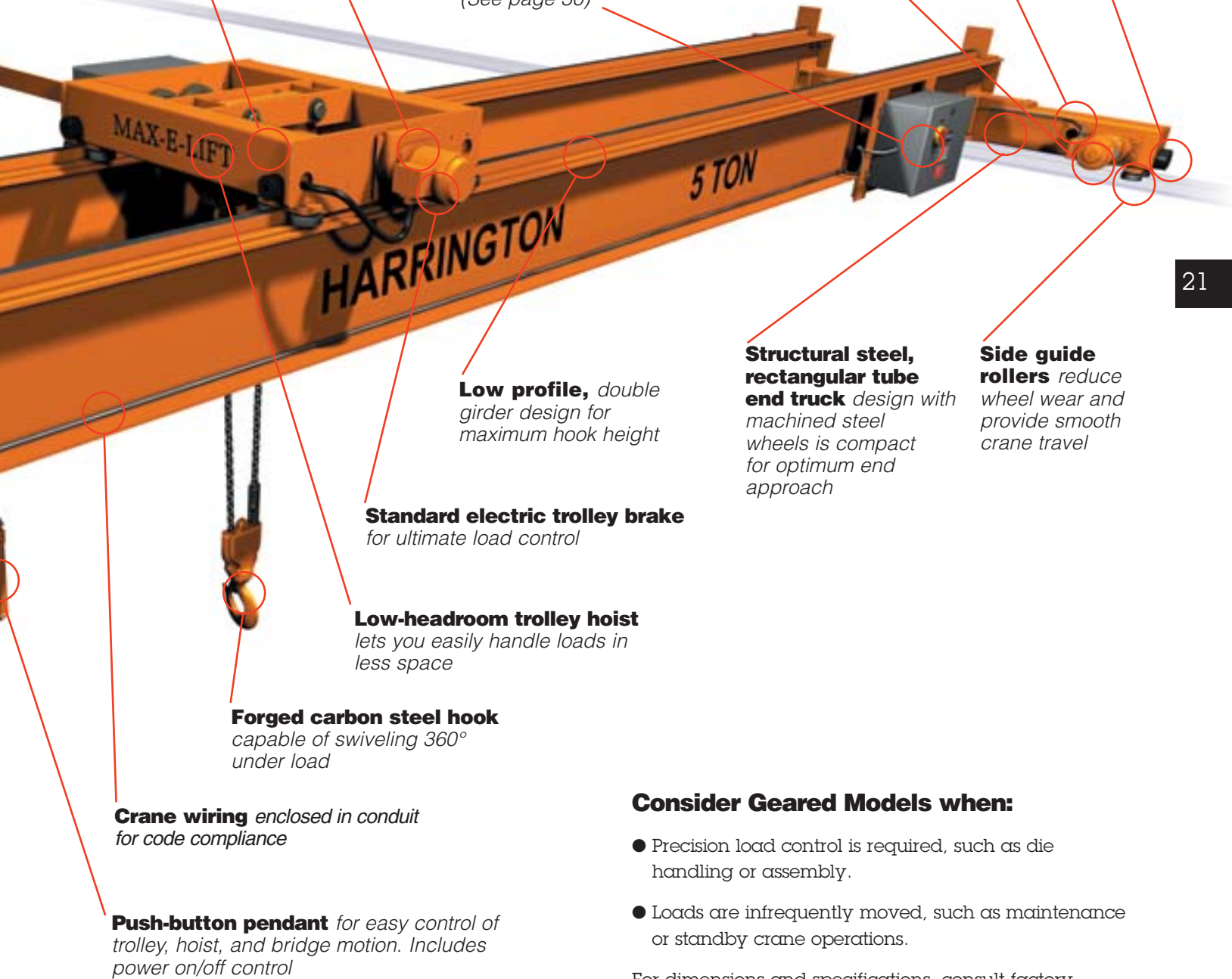
Bumpers and rail sweeps
are standard on end trucks and powered trolleys

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

Helical gears are induction hardened
for extended life

Convenient inspection port *allows an inside look at gears*

Field adjustable Electronic Acceleration Control (EAC)
for superior load control (See page 30)



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.

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

All bolted construction
for ease in assembly

Adjustable DC brake
*to control crane deceleration
(See page 32)*

Totally enclosed, non-ventilated motor
ensures long life



Side guide roller trolley design ensures smooth movement

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

Helical gears are induction-hardened for extended life

Low profile, double girder design for maximum hook height

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



Standard electric trolley brake for ultimate load control

Crane wiring enclosed in conduit for code compliance

Side guide rollers reduce wheel wear and provide smooth crane travel

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

Field adjustable Electronic Acceleration Control (EAC) for superior load control (See page 30)

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 300 Medium Duty Complete Cranes

For medium duty crane applications, the Series 300 crane combines economy and performance. Crane travel is easy and smooth, thanks to solid 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 300 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 and 2 Ton capacity 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 ductile iron and equipped with deep grade 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 300
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.

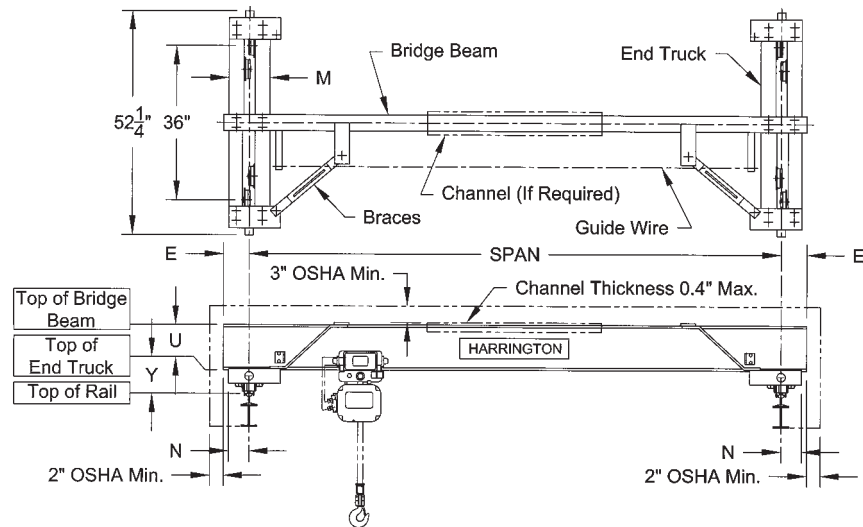


*Series 300
Underhung Push
Complete Crane*

Series 300 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 pr)
1	24	CHPC310	4.50	1.5 - 5	6	T + 8.3	M/2	Beam Depth	5.5	1500
2		CHPC320	4.90						6.0	2820

*Consult factory for widths greater than 5'.
 **Minimum E is M/2.
 ***See definition on page 28.

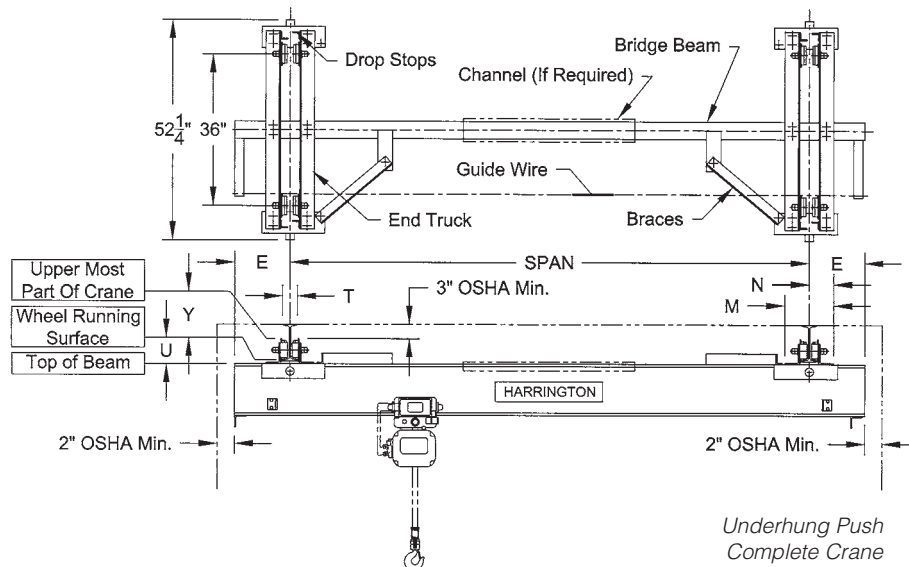


Top Running Push Complete Crane

Series 300 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 pr)
1	24	CHPC310	4.50	3.25 - 5	12	T + 8.3	M/2	1.0	5.0	1510
2		CHPC320	4.90						5.4	2820

*Consult factory for widths greater than 5'.
 **Minimum E is M/2.
 ***See definition on page 28.



Underhung Push Complete Crane

Series 200 Light Duty Complete Cranes

For light duty and standby crane applications, the Series 200 crane combines economy and performance. Crane travel is easy and smooth, thanks to wheels with ball bearings and grease fittings, 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 200 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 capacity up to 24' spans, in both top running and underhung designs.
- Fabricated from structural steel for optimal strength and rigidity.
- Steel wheels with tapered treads, steel ball bearings and grease fittings provide smooth crane travel. (Wheels for flat flange beams available. Consult factory.)
- Drop stops and rail sweeps are standard.



*Series 200
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.

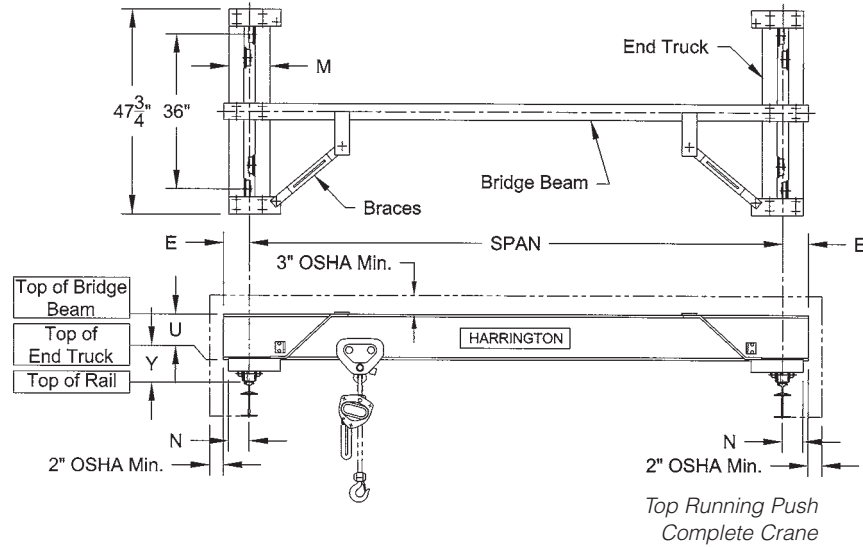


*Series 200
Underhung Push
Complete Crane*

Series 200 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 pr)
1/2	24	CHPC205A	3.12	1.5 - 5	6	T + 7.3	M/2	Beam Depth	4.3	700
1		CHPC210A	4.00			T + 8.3			5.3	1260
2		CHPC220A	4.88						5.9	2330

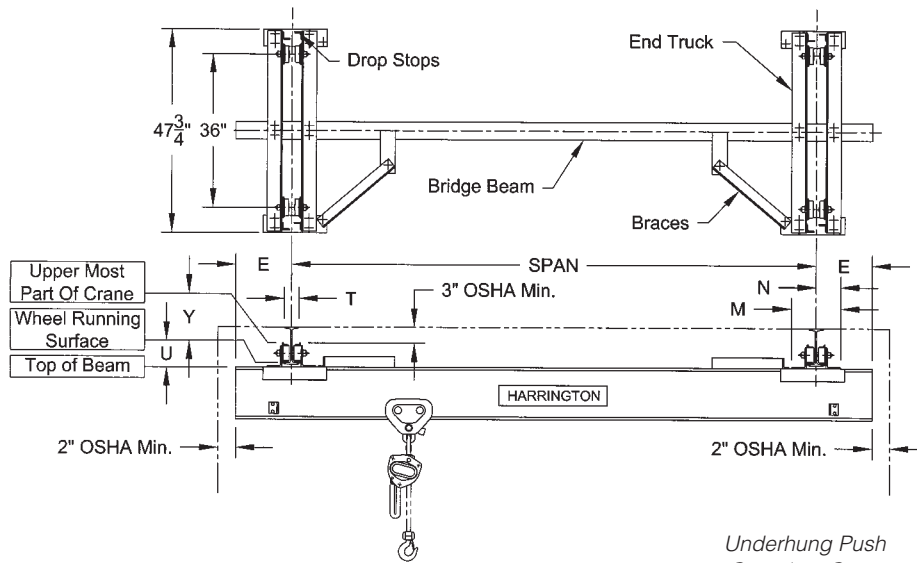
*Consult factory for flanges greater than 5".
 ** Minimum E is M/2.
 *** When using S6 beam, add 3/8 inch to U.
 † See definition on page 28.



Series 200 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 pr)
1/2	24	CHPC205A	3.12	3 - 5	12	T + 7.3	M/2	1.2	3.6	710
1		CHPC210A	4.00			T + 8.3		1.3	4.4	1260
2		CHPC220A	4.88			3.3 - 5			1.1	5.4

*Consult factory for flanges greater than 5".
 ** Minimum E is M/2.
 ***When using S6 beam, add 3/8 inch to U.
 † See definition on page 28.



Glossary of Common Crane Terms:

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

Bridge beam: Travelling 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 as lbs./wheel for top running and lbs./wheel pair for underhung cranes.

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.

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.

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 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.

Crane Control Panels

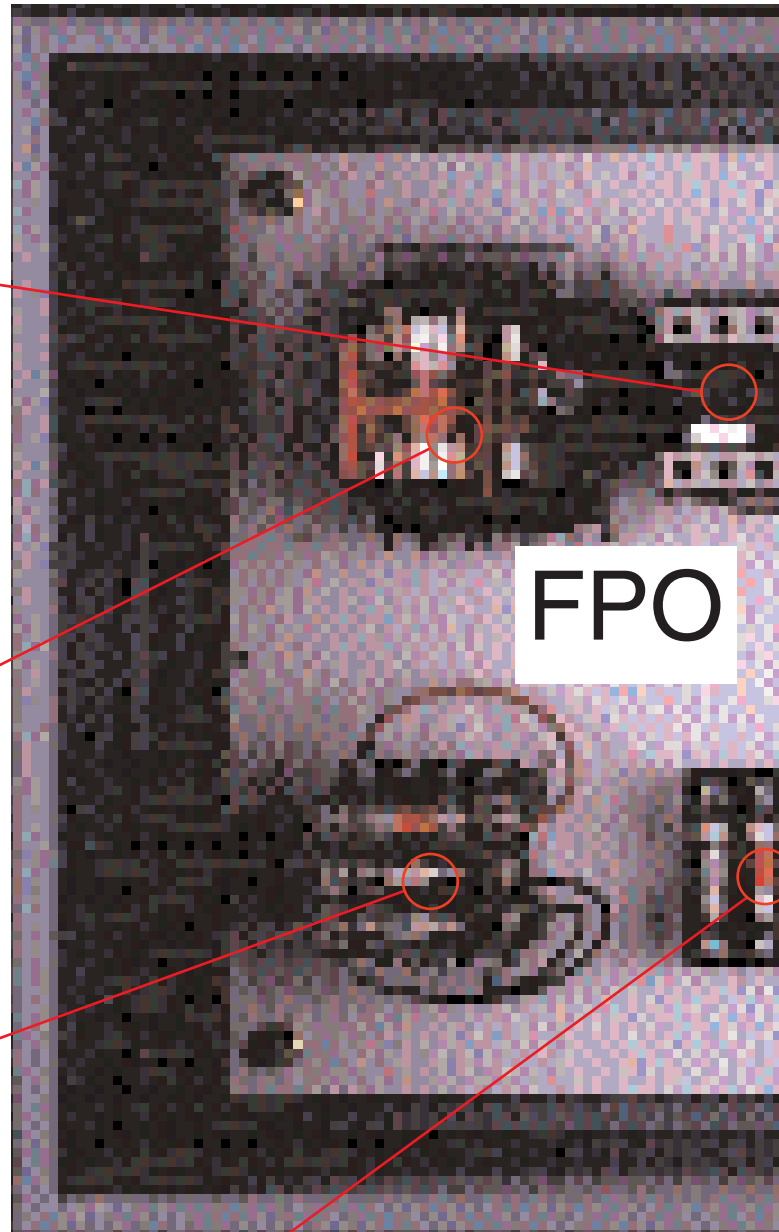
All motorized bridge cranes require a master panel to control crane functions. Harrington control panels are completely pre-wired and tested, and mounted on bridge beam. Basic panel is NEMA 1 rated and includes:

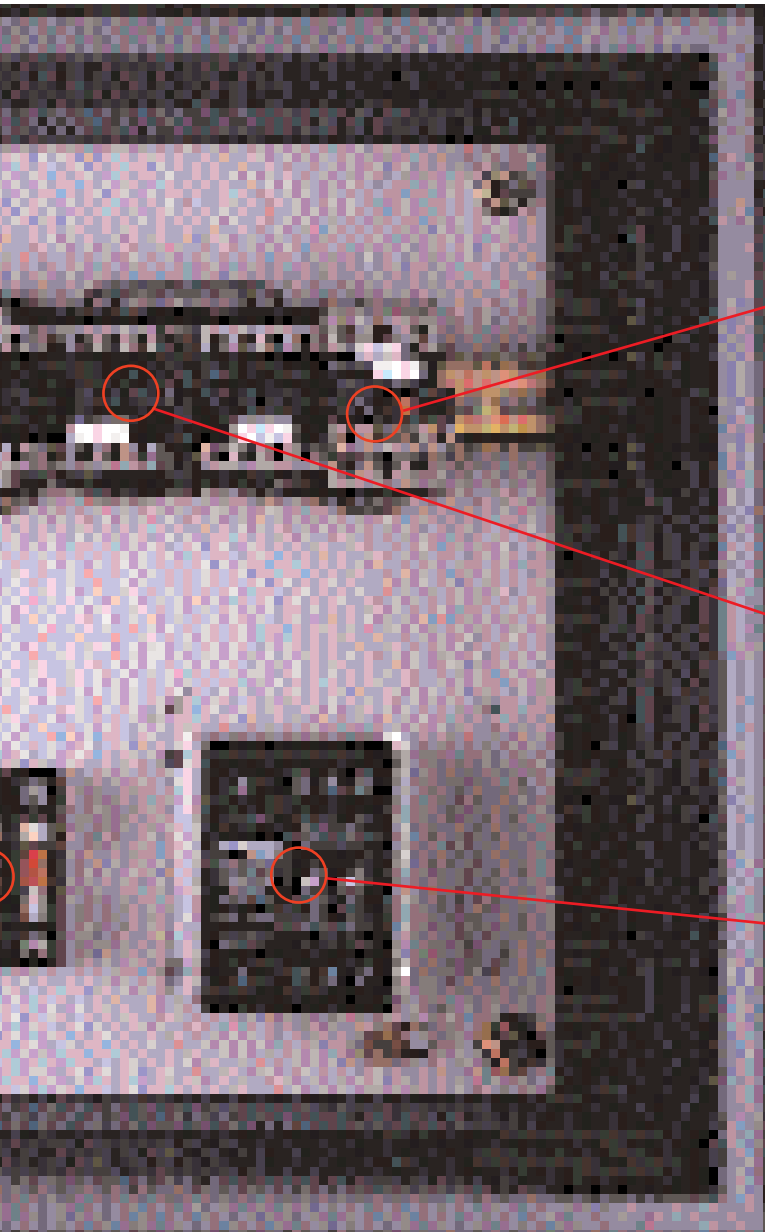
Main line contactor allows the crane to be turned on and off from the pendant.

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

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

Fusing for crane drives protect motors and are NEC compliant





Thermal overload relay
(auto-reset) protects crane drives from overheating

Reversing Contactor *provides crane forward and reverse control*

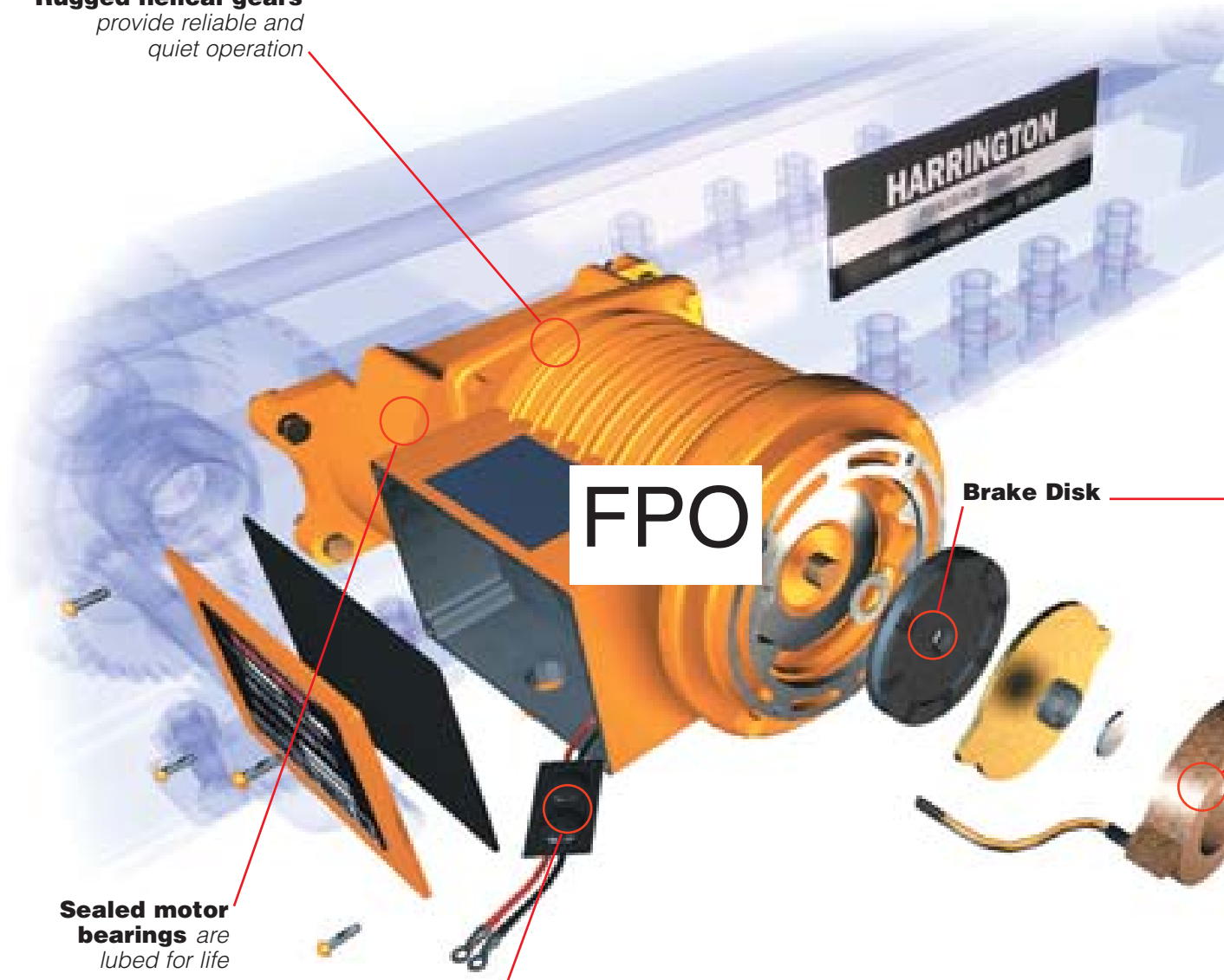
Electric Acceleration Control (EAC) *allows easy field adjustment of crane acceleration and helps minimize load swing*

Motor and Brake

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

Rugged helical gears
provide reliable and quiet operation

32



FPO

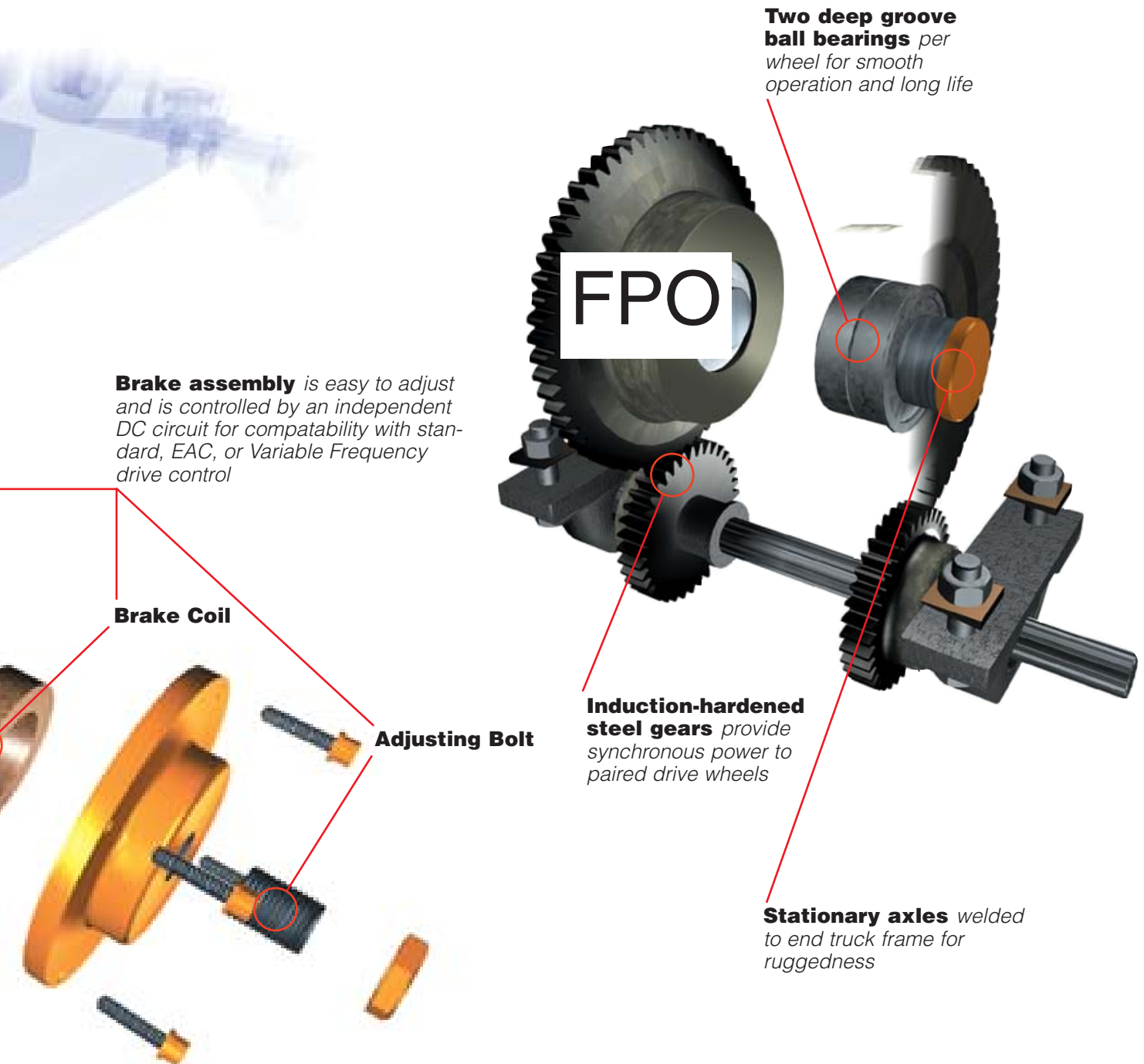
Brake Disk

Sealed 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.



FPO

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

NER/ER Motorized Trolley Hoists



The NER and ER Electric Chain Hoists can improve efficiency in the most severe work environments. Packed with the latest technology, quality components, and superior design characteristics, these hoists will satisfy the most demanding customers.

Ideally suited for bridge crane applications, NER and ER hoists are available in a variety of suspension configurations (see table below), and feature low headroom dimensions, an extra-Heavy Duty cycle, and a compact profile that improves high hook and side approach.

All 3 ton and below models are single chain (2 chains for 5 ton) and feature some of the industry's most powerful motors. All units exceed ASME's H4 rating with fan cooled motors rated for 60 minutes and 360 starts/hour.

Unique chain guides provide smooth guidance of the load chain, resulting in longer life. The NER/ER is ideal for demanding applications such as fabrication or mold handling that can prematurely wear other chain and wire rope hoists.

Models with motorized trolleys include electric trolley brake and side guide rollers, and provide excellent tracking and smooth operation on today's wider-flanged W shape beams.

For additional details and specifications, consult Harrington's electric chain hoists brochures.

Lifting Speed (ft/min)

Models	Lifting Speed		Capacity (Tons)												
			1/8	1/4	1/2	1	1 1/2	2	2 1/2	3	5	Large Capacity Type*			
												8	10	15	20
NER/ER (Hook Suspension Style)	Single Speed	L (Low)	—	—	15	16	—	14	—	16	12	—	7	—	—
		S (Standard)	—	39	30	29	20	28	23	22	—	9**	14	9	7
		H (High)	57	60	—	—	—	—	—	—	—	—	—	—	—
NERM/ERM (Motorized Trolley Type)	Dual Speed	L (Low)	—	—	14/5	14/5	—	15/5	—	17/6	12/4	—	—	—	—
		S (Standard)	—	29/10	30/10	29/10	20/7	29/10	23/8	23/8	—	—	—	—	—
		H (High)	58/19	60/20	—	—	—	—	—	—	—	—	—	—	—
NERG/ERG (Geared Trolley Type)	Dual Speed	L (Low)	—	—	14/5	14/5	—	15/5	—	17/6	12/4	—	—	—	—
		S (Standard)	—	29/10	30/10	29/10	20/7	29/10	23/8	23/8	—	—	—	—	—
		H (High)	58/19	60/20	—	—	—	—	—	—	—	—	—	—	—
NERP/ERP (Plain Trolley Type)	Dual Speed	L (Low)	—	—	14/5	14/5	—	15/5	—	17/6	12/4	—	—	—	—
		S (Standard)	—	29/10	30/10	29/10	20/7	29/10	23/8	23/8	—	—	—	—	—
		H (High)	58/19	60/20	—	—	—	—	—	—	—	—	—	—	—

* Available with ER model only.

** Available in lug mount only.

Selection Form for Harrington Cranes

Crane model: Single Girder Max-E-Lift CHPC

Capacity: _____ Ton

Span: _____ feet - _____ inches

Top running: floor to top of rail _____ feet - _____ inches

Underhung: floor to bottom of runway beam _____ feet - _____ inches

Bridge travel: Motorized (speed _____) geared push

Trolley hoist model: _____

Power supply voltage: _____ / _____ / _____

Runway electrification: NO YES _____ runway length _____ feet

Special dimensional requirements: _____

Options

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 or 48V Control Voltage
(110V is standard)

NEMA 4, 4X, 12, or 13 Bridge
Control Box (NEMA 1 is standard)

NEMA 4 or 4X Pendant

Warning Devices

- Lights
- Horns
- Buzzer

Enclosed Conductor Electrification

- Bridge
- Runway

Multiple Hoists on Single Bridge

Power Supply—Other Voltages Available

Interlocking Bridges

Patented Track

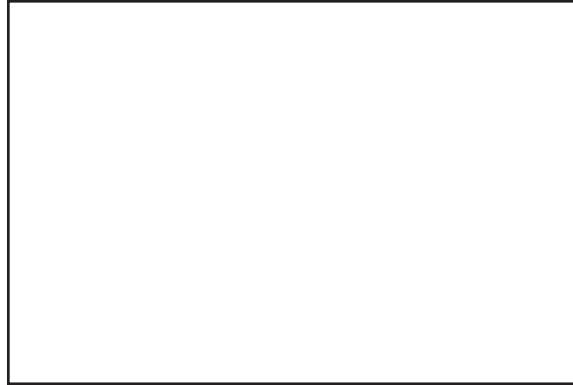
Runway Applications (3 1/4" and above)

Travel Limit Switches

Load Limiting Device

Special Applications

**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:

Manual Hoists & Trolleys - 2 years

Electric Hoists, Air Hoists & Trolleys, Crane Components - 1 year

Spare / Replacement Parts - 1 year

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. 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, injury 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 damage, loss, or expense results from any act or failure to act by Harrington, whether negligent or willful, or from any other reason.



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