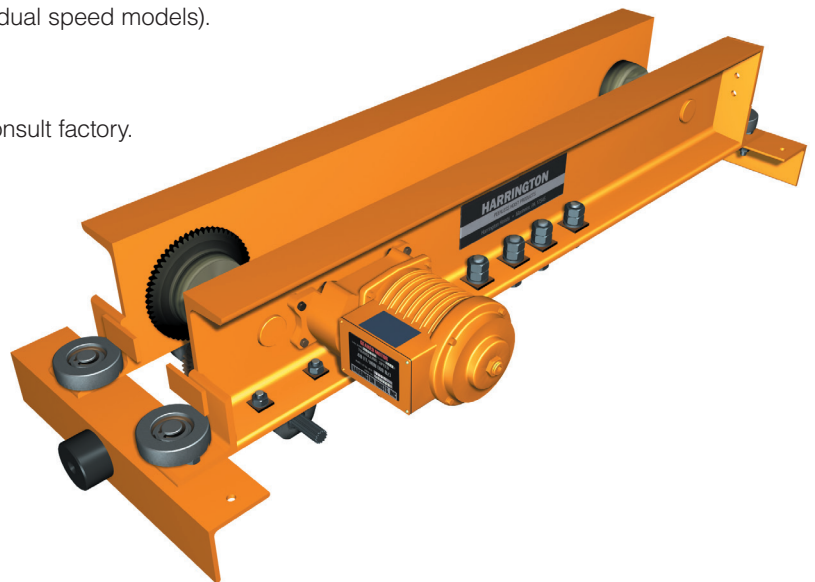


UM—Single Girder Underhung Motorized End Trucks

For heavy-duty class “C” single girder crane applications, Harrington underhung motorized end trucks combine superior performance with underhung space savings. Along with a full range of features, end truck kits include: two trucks; two sealed, totally enclosed, non-ventilated (TENV) motors with adjustable D.C. brakes; two helical gear reducers; rubber bumpers; and bridge beam fastener set. All trucks are fully painted. Bridge fabrication prints are also included. As a member of the Crane Manufacturers Association of America (CMAA), Harrington builds UM trucks to meet current industry and regulatory codes.

Benefits to count on:

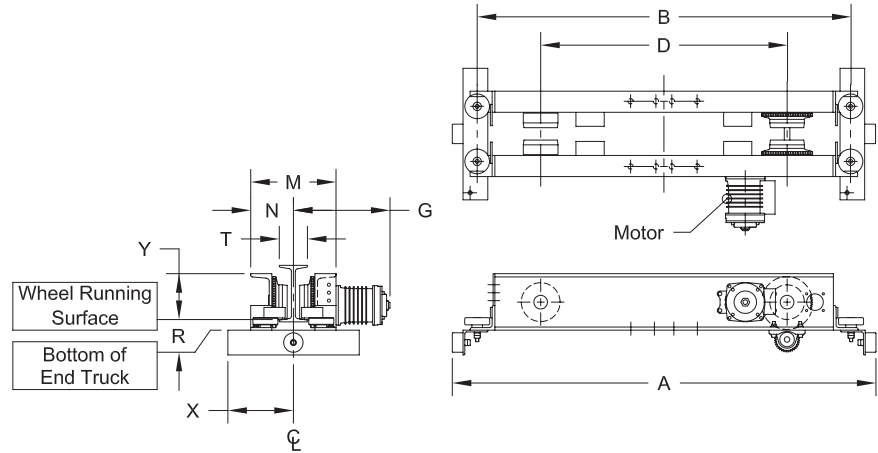
- Frames fabricated from MC channel provide superior strength, rigidity and structural integrity.
- Reduced wheel friction due to heavy-duty side guide rollers results in smooth crane travel—guide rollers are 3 1/2" O.D. with fixed steel axles.
- Dual tread wheels for use on S or W shaped runway beams—each wheel fitted with 2 deep groove ball bearings, meeting L10 bearing life criteria for class C cranes.
- Runway flange widths up to 6" standard, with wider ranges also available (trucks for patented track available).
- Minimize assembly labor with fully machined frames—girder connection, bracing and collector mounting bracket holes are pre-drilled for easy installation.
- Purchase the right component for the job—dedicated models for capacities of 2, 3, and 5 Ton, with maximum span increments of 35' or 50'.
- Sealed TENV drives with quiet, smooth-operating helical gear reducers.
- Gear reducer is designed for easy field conversion between L and S speeds.
- Drives are designed for crane service, with 30 minute rating and feature cooling fins for efficient heat dissipation.
- Thermal motor protection is standard.
- Externally adjustable D.C. brakes allow controlled deceleration—adjustable up to 50% of rated motor torque.
- Drives and brakes are compatible with Electronic Acceleration Control (EAC) and Variable Frequency Drive (VFD).
- Drives are connectable for 230/460V-3-60 (including dual speed models). Other voltages available.
- Rail sweeps and drop stops are standard.
- Longer or shorter end truck lengths are available—consult factory.



UM — UNDERHUNG MOTORIZED END TRUCK — DIMENSIONS

Cap. (Tons)	Max. Span (ft)	End Truck Product Code	Wheel Dia. (in)	T Flange Range Std. (in)	A Overall Length (in)	B Roller Base (in)	D Wheel Base (in)	M End Truck Frame Width (in)	N Runway Ctr. Line to Outer Edge of ET (in)	R Wheel Running Surf. To Bottom of Truck (in)	X* Width Beyond Span (in)	Y Wheel Running Surface to Upper Most Part of ET (in)	G Motor (in)				
2	35	UML/S/H/D-3-0235	4.33	3 - 6	60	53	39	T+8.1	M/2	1.5	11.3 -T/2	6.5	T/2+ 11.9 (L/S) 12.3 (H) 13.3 (D)				
	50	UML/S/H/D-3-0250			82	75	61										
3	35	UML/S/H/D-3-0335	4.92		60	53	35	T+8.2									
	50	UML/S/H/D-3-0350			82	75	57										
5	35	UML/S/H/D-3-0535	5.51		4 - 6	60	53	33						T+9.8	1.6	6.8	T/2+ 13.7 (L/S/D) 14.2 (H)
	50	UML/S/H/D-3-0550				82	75	55									

*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 End Truck

UM - UNDERHUNG MOTORIZED END TRUCK — SPECIFICATIONS

End Truck Product Code	Speed Codes L and S			Speed Code H			Speed Code D			End Truck Weight (lbs/pr)
	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		
UML/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	522
UML/S/H/D-3-0250										659
UML/S/H/S-3-0335										543
UML/S/H/D-3-0350										680
UML/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	638
UML/S/H/D-3-0550										795

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: UML-3-0235

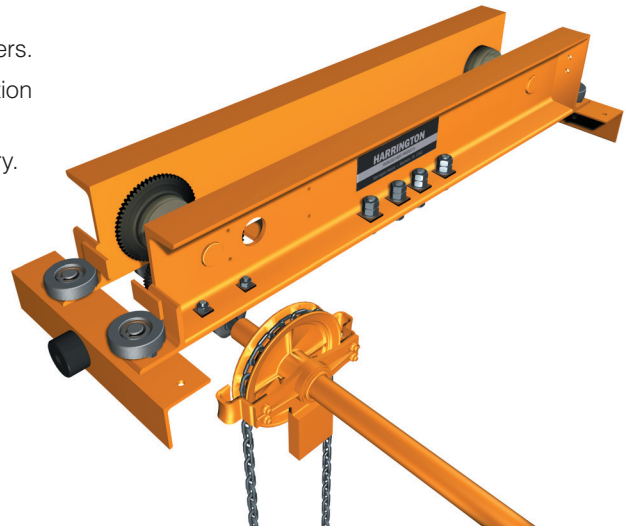
- U - Underhung
- M - Motorized
- L - Speed of 40 ft/min
- 3 - Series number
- 02 - Max. Capacity - 2 Ton
- 35 - Maximum Span - 35 feet

UG—Single Girder Underhung Geared End Trucks

UG end trucks provide similar benefits to the UM truck, but with geared drive. Along with many important features, end truck kits include: two trucks; hand wheel drive; shaft couplers; appropriate drive shaft bearing supports based on span; rubber bumpers; and bridge beam fastener set. All trucks are fully painted. Bridge fabrication prints are also included. As a member of Crane Manufacturers Association of America (CMAA), Harrington builds UG trucks to meet current industry and regulatory codes.

Benefits to count on:

- Versatile design allows hand chain wheel placement anywhere on drive shaft based on application needs.
- Upgrade easily to UM series by simply adding drives and reducers.
- Ideal for precision spotting requirements where motorized operation is not necessary.
- Longer or shorter end truck lengths are available—consult factory.
- Suitable for use on S or W shaped runway beams.

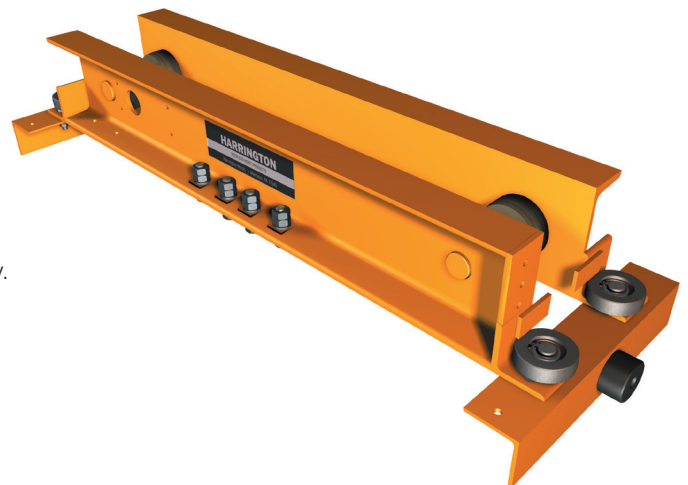


UP—Single Girder Underhung Push End Trucks

UP end trucks provide similar benefits to the UM underhung motorized truck, but for push operation. Along with many important features, end truck kits include: two trucks; rubber bumpers; and bridge beam fastener set. All trucks are fully painted. Bridge fabrication prints are also included. As a member of CMAA, Harrington builds UP trucks to meet current industry and regulatory codes.

Benefits to count on:

- Compared to flanged wheel trucks, UP trucks with guide rollers operate easily, particularly in long span or long lift applications.
- Upgrade easily to underhung geared UG or motorized UM models—frames are fully machined and prepared for conversion.
- Longer or shorter end truck lengths are available—consult factory.
- Suitable for use on S or W shaped runway beams.



UG — UNDERHUNG GEARED END TRUCK — SPECIFICATIONS AND DIMENSIONS

Cap. (Tons)	Max Span (ft)	End Truck Product Code	Wheel Dia. (in)	T Flange Range Std. (in)	A Overall Length (in)	B Roller Base (in)	D Wheel Base (in)	J Hand Wheel Offset (in)	M End Truck Frame Width (in)	N Runway Ctr. Line to Outer Edge of ET (in)	R Wheel Running Surf. to Bottom of Truck (in)	X* Width Beyond Span (in)	Y Wheel Running Surface to Upper Most Part of ET (in)	End Truck Weight (lbs/pr)				
2	35	UG-3-0235	4.33	3-6	60	53	39	T/2+9.0	T+8.1	M/2	1.5	11.3-T/2	6.5	503				
	45	UG-3-0245			82	75	61							640				
3	35	UG-3-0335	4.92		60	53	35	T/2+8.9	T+8.2					529				
	45	UG-3-0345			82	75	57							666				
5	35	UG-3-0535	5.51		4-6	60	53	33	T/2+9.0					T+9.8	1.6	1.6	6.8	611
	45	UG-3-0545				82	75	55										768

*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 runway beam.

UP — UNDERHUNG PUSH END TRUCK — SPECIFICATIONS AND DIMENSIONS

Cap. (Tons)	Max. Span (ft)	End Truck Product Code	Wheel Dia. (in)	T Flange Range Std. (in)	A Overall Length (in)	B Roller Base (in)	D Wheel Base (in)	M End Truck Frame Width (in)	N Runway Ctr. Line to Outer Edge of ET (in)	R Wheel Running Surf. to Bottom of Truck (in)	X* Width Beyond Span (in)	Y Wheel Running Surface to Upper Most Part of ET (in)	End Truck Weight (lbs/pr)	
2	35	UP-3-0235	4.33	3-6	60	53	39	T+8.1	M/2	1.5	11.3-T/2	6.5	448	
	45	UP-3-0245			82	75	61						585	
3	35	UP-3-0335	4.92		60	53	35	T+8.2					472	
5	35	UP-3-0535	5.51		4-6	60	53	33					T+9.8	546

*These formulas for Width Beyond Span do not apply for flanges greater than 6 inches. For flanges greater than 6 inches, consult factory

