



**SHAW-BOX<sup>®</sup>**

# **YK<sup>™</sup> & SK<sup>™</sup>**

ELECTRIC WIRE ROPE HOISTS



C O L U M B U S   M C K I N N O N   C O R P O R A T I O N



**SHAW-BOX®**

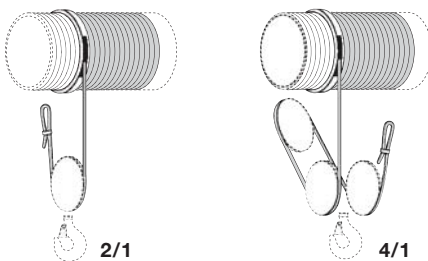
# YK™ & SK™ ELECTRIC WIRE ROPE HOISTS

When you need quality and performance in a wire rope hoist, turn to the Yale® YK™ and Shaw-Box® SK™ hoists from Columbus McKinnon. Based on German technology, the YK and SK deliver the industry-leading technology and safety you need for your lifting applications in a design that is compact and easy to maintain. Precision engineered for optimal performance, these monorail units are built for reliable operation, high efficiency and long service life and are competitively priced for the U.S. market.

Operators, crane manufacturers and system manufacturers can benefit from the hoists' modular system that allows you to configure the hoist and crane system to your exact application needs. And, complete with a low-headroom trolley, the YK and SK are ideal for applications with space limitations.

**CAPACITIES: 1 TO 10 TONS**

**LIFT: MAXIMUM 131 FT.**



## **SINGLE-GROOVED ROPE DRUM**

2-part single or 4-part single reeving are available, depending on the application.

## **FLEXIBLE CONFIGURATIONS**

Hoists can be configured to your unique application needs. Available in 3 frame sizes with 11 load capacity variants.

## **SHORT LEAD TIMES**

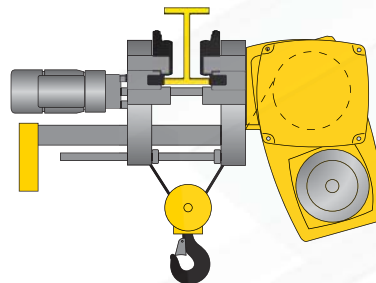
Assembled in Wadesboro, North Carolina, with German-made components, these units have short lead times to meet tight deadlines.

## **COMPACT DESIGN**

Compact dimensions due to U-shape design. Exceptionally short approach allows for optimum use of work area when space is limited.

## **SMOOTH OPERATION**

Extremely smooth starting and braking characteristics.



## **LOW-HEADROOM MONORAIL TROLLEY**

The KE monorail trolley is used on monorail runways and single-girder overhead travelling cranes. Trolley is easily adjustable for different beam sizes and comes standard with two speeds.

## **LOW MAINTENANCE**

Largely maintenance-free design with ISO field-proven components designed for low wear and long service life.

## **EXTENSIVE SAFETY FEATURES**

Standard safety features include block-operated limit switch, adjustable geared limit switch, motor temperature control and overload protection.

## **H4 DUTY CYCLE**

## **OPTIONAL PUSHBUTTON STATION**



## STANDARD FEATURES

<b>Ambient Temperature</b>	-4°F to +104°F (-20°C to +40°C)
<b>Protection to IEC/EN 60529</b>	IP55 or NEMA 4
<b>Rope Guide</b>	Cast iron spheroidal graphite
<b>Rope Drive</b>	Bottom hook block, rope return sheaves, rope suspension and wire rope with 2/1, 4/1
<b>Hook Assembly:</b>	360° rotation with safety latch
<b>Hoist Gearing</b>	Helical lubed for life
<b>Hoist Drum</b>	Machined steel – 40% grooved depth
<b>Hoist Motor</b>	3 phase A.C. squirrel cage induction motor, 2/12 poles with cylindrical rotor and low flywheel mass 6:1 ratio with class F insulation, S4 duty class, 40/20% duty cycle IP55 or NEMA 4
<b>Hoist Motor Brake</b>	DC power/twin disc/180% of torque, no adjustment needed IP66 or NEMA 4/4X Monodisc spring-loaded brake with asbestos-free brake linings
<b>Hoist Control</b>	Magnetic contactor, 2-speed control Hoist motor connection wired into motor terminal box IP55 or NEMA 4 Complete Hoist Control: Includes mainline contactor K10, transformer & trolley fuses. Does not include: main hoist fuses to be sized for both hoist and trolley Crane MFG Control: Includes safety contactor K20, trolley fuses hoist control does not include: transformer, mainline, main fuses sized for hoist & trolley (items not included to be located in bridge control panel)
<b>Hoist Monitor Management</b>	SLE Standard
<b>Hoist Limit Switch</b>	IP66 or NEMA 4/4X-Upper/lower control circuit
<b>Hoist Motor Control</b>	Pole-changing
<b>Motor Thermal Protection</b>	PTC thermistors temperature sensors
<b>Motor Supply Voltage 60 Hz</b>	208/230V & 460V (3 phases)
<b>Overcapacity Lift Limit Switch</b>	IP55 or NEMA 4
<b>Emergency Hoist Limit Switch (Gear Limit Switch)</b>	For top and bottom hook position and operational limit switch for top hook position
<b>Mechanical Safety Devices</b>	All trolleys come standard with anti-tipping devices and trolley guards
<b>Travel Limit Switch</b>	For up to four switching functions: pre- and end-limiting in both directions of travel, carriage spacing
<b>Travel Motor Control 60 Hz</b>	80/20 fpm
<b>Overload Cut-off</b>	SLE
<b>Trolley Gearing</b>	Helical
<b>Temperature Control of Travel Motors</b>	PTC thermistors including tripping device
<b>Trolley Motor</b>	2 speed, S4 duty class, class F insulation, IP55 or NEMA 4
<b>Trolley Brake</b>	DC brake
<b>Trolley Control</b>	Magnetic contactor – 2 speed
<b>Wheel Material</b>	Ductile Iron 240 BHN
<b>Control Enclosure</b>	Fiberglass – IP66 or NEMA 4/4X
<b>Control System</b>	120V
<b>Block-Operated Limit Switch</b>	Standard
<b>Bearings</b>	Anti-friction. All sealed for life
<b>Bumpers</b>	Rubber bumpers/drop lugs standard
<b>Paint</b>	Two part-polyurethane base and top coat to 3.2mil thickness on engine parts and powder coat to 2.4 mil on steel parts, Yale yellow / Shaw-Box blue.



# THE TECHNOLOGY

You can work with confidence, knowing the technology behind the Yale YK and Shaw-Box SK is built to the highest industry standards. Working together, these low-maintenance components provide best-in-class performance, high efficiency and long service for any application. The YK and SK are also designed with safety in mind, including features such as geared limit switches, motor temperature control and overload protection.

## 1 ROPE AND ROPE GUIDE



- Specialized wire rope is highly flexible and features a long service life
- Field-proven enclosed rope guide constructed of spheroidal graphite cast iron for high-temperature environments
- GJS material (previously designated GGG40) is suitable for extreme high and low temperatures
- 360° rope tensioner prevents rope slackening for added safety and performance
- Prevents overwrap and slack rope

## 2 PAINT



- Standard paint treatment. Choose from Yale yellow or Shaw-Box blue
- High-quality primer and top coats also available as standard

## 3 OVERLOAD PROTECTION



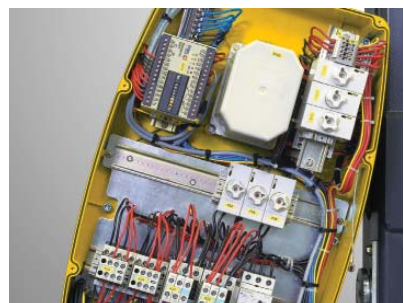
- Continuous electronic load monitoring when load is suspended
- Limitation on maximum load determined by load measurement at the rope anchorage point

## 4 PRECISION GEARING

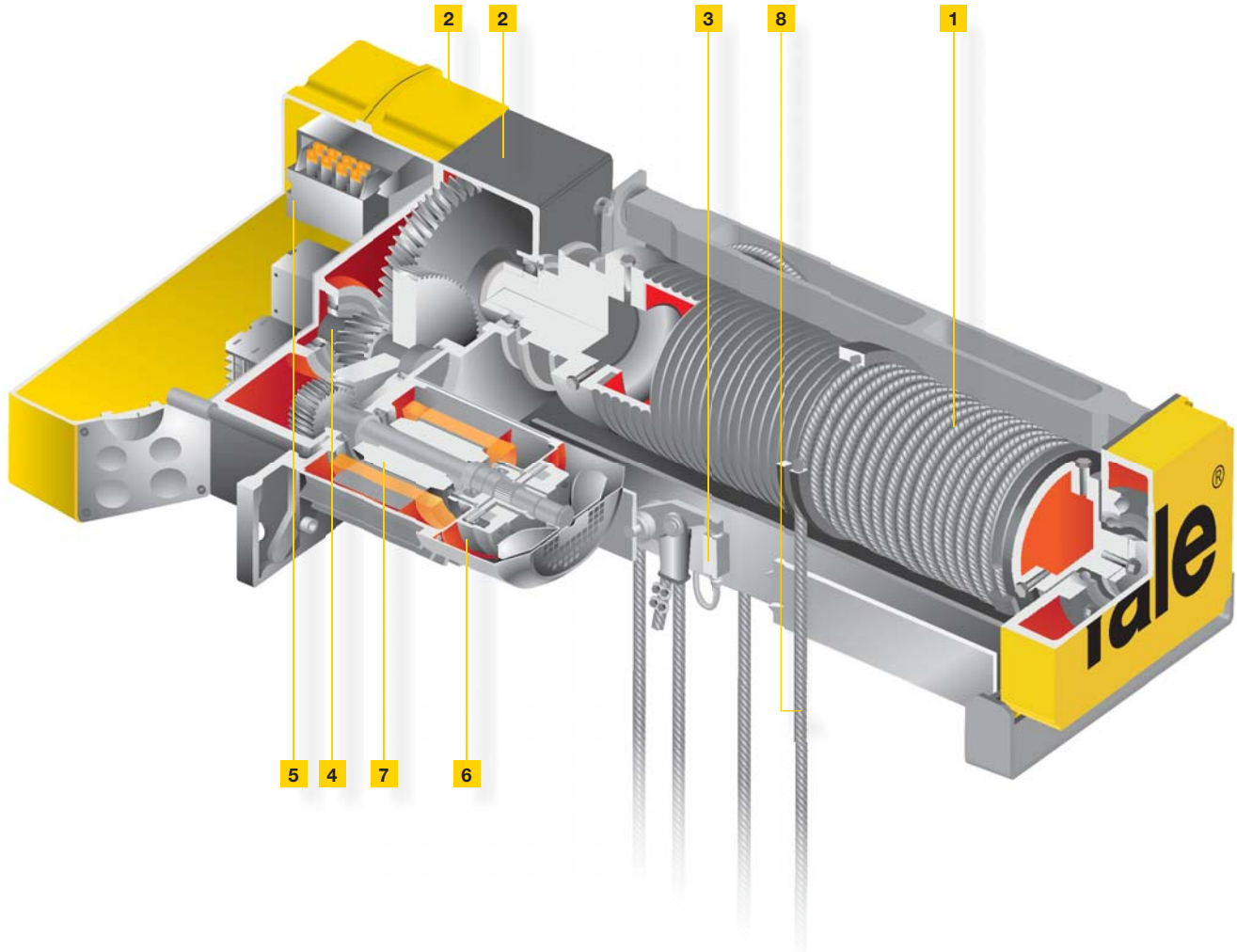


- Lifetime oil-lubricated gear box means no oil change out is required
- Precision gearing for quiet operation
- Enclosed housing for maximum accuracy and stability

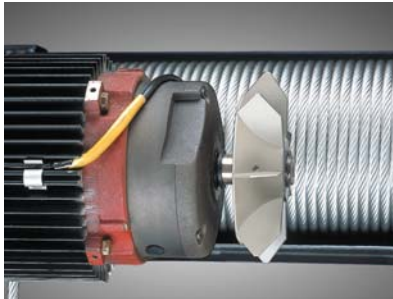
## 5 SLE/SMC CONTROL AND MOTOR MANAGEMENT



- Standard motor performance monitoring
- Inching operation is suppressed for reduced stress
- Over-sized contactors for added safety
- Standard temperature monitoring of hoist and travel motors



#### 6 BRAKE



- Low-maintenance, asbestos-free brake; needs no adjustment
- Oversized, heavy-duty brake for long service life
- Brake is easily accessible from the outside for ease of maintenance and inspection from outside
- Motor management ensures low wear
- IP66 or NEMA 4/4X & 6 protection

#### 7 MOTOR



- Specially designed motor specific to hoisting applications with high operational demands
- Classified according to FEM (ISO) with high duty cycle and switching operation frequency
- IP55 or NEMA 4, thermal class F
- Motor outside rope drum ensures highly efficient motor cooling and is easy to maintain
- PTC thermistors ensure reliable temperature control for low or fast speeds
- Reliable operation, even with low voltage or heavy loads

#### 8 ROPE DRIVE



- Optimal drum-to-sheave diameter ratio for reduced rope wear
- Wire rope is flexible and durable for long life
- Wear-resistant return sheaves. Fine machining provides rope-friendly grooves in rope drum to reduce wear on wire rope
- Drum is easily accessible for rope maintenance or replacement
- Robust bottom hook block with low headroom for use in tight spaces



# INDUSTRY-LEADING SERVICE & TRAINING

Columbus McKinnon is committed to developing products that meet the highest levels of quality, right down to the smallest details. This not only includes our products and the technology behind them, but also the service and support we provide to our customers.

With a legacy spanning more than 140 years, Columbus McKinnon products are widely used all around the world. Developed by our team of product managers, engineers and manufacturing professionals, our products are designed for best-in-class performance, reliability and safety. Backed by our industry experts, who span the globe, we are committed to providing you with the highest levels of service and support to keep your business running. Whether you need help choosing the best product or system for your lifting application or want assistance with a routine maintenance activity, we are always here for you.

## KNOW HOW. KNOW WHY.

Columbus McKinnon provides expert safety training on the proper use and inspection of rigging and overhead lifting equipment. We offer a variety of comprehensive hoist, crane and rigging training held at our national training centers, including our state-of-the-art Niagara Training Center, as well as on-site at customer facilities.

Some of our most popular training includes Crane & Hoist Inspection and Maintenance, Crane Operator Training, and Rigging Certificate courses. We also offer CMCO University™ – a program designed to give Channel Partners extensive product and application knowledge they can use to advise their customers during the product selection and purchasing processes



## **BUILT TO PERFORM: THE YK AND SK IN ACTION**

Columbus McKinnon's rich history and dedication to innovation have allowed us to become one of the preeminent material handling companies in the world. The Yale YK and Shaw-Box SK continue to build on that legacy, proving to be a high-performing hoist for a variety of applications. Easy to configure and design to your unique needs, the YK and SK allow for safe and efficient lifting and positioning everywhere from equipment production lines to warehousing facilities.





## SPECIFICATIONS: 2-PART REEVED MONORAIL HOIST & TROLLEY

Product Number†	Hoist & Monorail Trolley											
	Hoist						Trolley				Other Data	
	Capacity (Ton)	Reeving	Lift (ft)	Lift Speed (fpm)	Nominal Motor HP	Rating	Trolley Speed (fpm)	Motor HP	Wheel Dia. (in)	Beam Flange Range (in)††	Headroom (in)†††	Net Weight (lb)
KA-L01-039S239-2	1	2 PS	39	39/6.6	3.9/0.5	H4+/M6	80/20	0.6/0.15	3 1/7	3 1/4 19 2/3	28 3/8	584
KA-L01-066S239-2	1	2 PS	66	39/6.6	3.9/0.5	H4+/M6		0.6/0.15	3 1/7	3 1/4 19 2/3	28 3/8	617
KB-L02-040S231-2	2	2 PS	40	31/5.2	7.8/1.3	H4/M5	80/20	0.6/0.15	4	3 5/8 19 2/3	30 7/8	672
KB-L02-066S231-2	2	2 PS	66	31/5.2	7.8/1.3	H4/M5		0.6/0.15	4	3 5/8 19 2/3	30 7/8	732
KB-L02-040S239-2	2.75	2 PS	40	39/6.6	7.8/1.3	H4/M5	80/20	0.6/0.15	4	3 5/8 19 2/3	30 7/8	672
KB-L02-066S239-2	2.75	2 PS	66	39/6.6	7.8/1.3	H4/M5		0.6/0.15	4	3 5/8 19 2/3	30 7/8	732
KB-L02-131S239-2	2.75	2 PS	131	39/6.6	7.8/1.3	H4/M5	80/20	0.6/0.15	4	3 5/8 19 2/3	30 7/8	866
KB-L03-040S231-2	3	2 PS	40	31/5.2	7.8/1.3	H4/M5		0.6/0.15	4	3 5/8 19 2/3	30 7/8	672
KB-L03-066S231-2	3	2 PS	66	31/5.2	7.8/1.3	H4/M5	80/20	0.6/0.15	4	3 5/8 19 2/3	30 7/8	732
KC-L03-040S239-2	3	2 PS	40	39/6.6	14.8/2.1	H4+/M6		0.9/0.2	5 1/2	4 5/8 19 2/3	34	1620
KC-L03-066S239-2	3	2 PS	66	39/6.6	14.8/2.1	H4+/M6	80/20	0.9/0.2	5 1/2	4 5/8 19 2/3	34	1709
KC-L03-131S239-2	3	2 PS	131	39/6.6	14.8/2.1	H4+/M6		0.9/0.2	5 1/2	4 5/8 19 2/3	43 3/8	2181
KC-L04-040S239-2	4	2 PS	40	39/6.6	14.8/2.1	H4/M5	80/20	0.9/0.2	5 1/2	4 5/8 19 2/3	34	1620
KC-L04-066S239-2	4	2 PS	66	39/6.6	14.8/2.1	H4/M5		0.9/0.2	5 1/2	4 5/8 19 2/3	34	1709
KC-L04-131S239-2	4	2 PS	131	39/6.6	14.8/2.1	H4/M5	80/20	0.9/0.2	5 1/2	4 5/8 19 2/3	43 3/8	2182
KC-L05-040S239-2	5	2 PS	40	39/6.6	14.8/2.1	H4/M5		0.9/0.2	5 1/2	4 5/8 19 2/3	34	1620
KC-L05-066S239-2	5	2 PS	66	39/6.6	14.8/2.1	H4/M5	80/20	0.9/0.2	5 1/2	4 5/8 19 2/3	34	1709
KC-L05-131S239-2	5	2 PS	131	39/6.6	14.8/2.1	H4/M5		0.9/0.2	5 1/2	4 5/8 19 2/3	43 3/8	2182
KC-L06-040S225-2	6	2 PS	40	25/3.9	14.8/2.1	H3/M4	80/20	0.9/0.2	5 1/2	4 5/8 19 2/3	34	1988
KC-L06-066S225-2	6	2 PS	66	25/3.9	14.8/2.1	H3/M4		0.9/0.2	5 1/2	4 5/8 19 2/3	34	2027
KC-L07-040S225-2	7.5	2 PS	40	25/3.9	14.8/2.1	H3/M4	80/20	0.9/0.2	5 1/2	4 5/8 19 2/3	34	1988
KC-L07-066S225-2	7.5	2 PS	66	25/3.9	14.8/2.1	H3/M4		0.9/0.2	5 1/2	4 5/8 19 2/3	34	2027

## SPECIFICATIONS: 4-PART REEVED MONORAIL HOIST & TROLLEY

Product Number†	Hoist & Monorail Trolley											
	Hoist						Trolley				Other Data	
	Capacity (Ton)	Reeving	Lift (ft)	Lift Speed (fpm)	Nominal Motor HP	Rating	Trolley Speed (fpm)	Motor HP	Wheel Dia. (in)	Beam Flange Range (in)††	Headroom (in)†††	Net Weight (lb)
KA-L02-020S420-2	2	4 PS	20	20/3.3	3.9/0.5	H4+/M6	80/20	0.6/0.15	3 1/7	3 1/4 19 2/3	22 4/8	617
KA-L02-033S420-2	2	4 PS	33	20/3.3	3.9/0.5	H4+/M6		0.6/0.15	3 1/7	3 1/4 19 2/3	22 4/8	650
KA-L03-020S420-2	2.5	4 PS	20	20/3.3	3.9/0.5	H4/M5	80/20	0.6/0.15	3 1/7	3 1/4 19 2/3	22 4/8	617
KA-L03-033S420-2	2.5	4 PS	33	20/3.3	3.9/0.5	H4/M5		0.6/0.15	3 1/7	3 1/4 19 2/3	22 4/8	650
KA-L03-020S420-2	3	4 PS	20	20/3.3	3.9/0.5	H4/M5	80/20	0.6/0.15	3 1/7	3 1/4 19 2/3	22 4/8	617
KA-L03-033S420-2	3	4 PS	33	20/3.3	3.9/0.5	H4/M5		0.6/0.15	3 1/7	3 1/4 19 2/3	22 4/8	650
KB-L04-020S420-2	4	4 PS	20	20/3.3	7.8/1.3	H4/M5	80/20	0.6/0.15	4	3 5/8 19 2/3	26 5/8	728
KB-L04-033S420-2	4	4 PS	33	20/3.3	7.8/1.3	H4/M5		0.6/0.15	4	3 5/8 19 2/3	26 5/8	787
KB-L04-066S420-2	4	4 PS	66	20/3.3	7.8/1.3	H4/M5	80/20	0.6/0.15	4	3 5/8 19 2/3	26 5/8	921
KB-L05-020S420-2	5	4 PS	20	20/3.3	7.8/1.3	H4/M5		0.6/0.15	4	3 5/8 19 2/3	26 5/8	728
KB-L05-033S420-2	5	4 PS	33	20/3.3	7.8/1.3	H4/M5	80/20	0.6/0.15	4	3 5/8 19 2/3	26 5/8	787
KB-L05-066S420-2	5	4 PS	66	20/3.3	7.8/1.3	H4/M5		0.6/0.15	4	3 5/8 19 2/3	26 5/8	866
KB-L06-020S416-2	6	4 PS	20	16/2.6	7.8/1.3	H4/M4+	80/20	0.6/0.15	4	3 5/8 19 2/3	26 5/8	728
KB-L06-033S416-2	6	4 PS	33	16/2.6	7.8/1.3	H4/M4+		0.6/0.15	4	3 5/8 19 2/3	26 5/8	787
KC-L07-020S420-2	7.5	4 PS	20	20/3.3	14.8/2.1	H4+/M6	80/20	0.9/0.2	5 1/2	4 5/8 19 2/3	31 1/8	1664
KC-L07-033S420-2	7.5	4 PS	33	20/3.3	14.8/2.1	H4+/M6		0.9/0.2	5 1/2	4 5/8 19 2/3	31 1/8	1753
KC-L07-066S420-2	7.5	4 PS	66	20/3.3	14.8/2.1	H4+/M6	80/20	0.9/0.2	5 1/2	4 5/8 19 2/3	31 1/8	2116
KB-L07-020S416-2	7.5	4 PS	20	16/2.6	7.8/1.3	H4/M4+		0.9/0.2	4	3 5/8 19 2/3	26 5/8	728
KB-L07-033S416-2	7.5	4 PS	33	16/2.6	7.8/1.3	H4/M4+	80/20	0.9/0.2	4	3 5/8 19 2/3	26 5/8	787
KC-L09-020S420-2	9	4 PS	20	20/3.3	14.8/2.1	H4/M5		0.9/0.2	5 1/2	4 5/8 19 2/3	31 1/8	1664
KC-L09-033S420-2	9	4 PS	33	20/3.3	14.8/2.1	H4/M5	80/20	0.9/0.2	5 1/2	4 5/8 19 2/3	31 1/8	1753
KC-L09-066S420-2	9	4 PS	66	20/3.3	14.8/2.1	H4/M5		0.9/0.2	5 1/2	4 5/8 19 2/3	31 1/8	2116
KC-L10-020S420-2	10	4 PS	20	20/3.3	14.8/2.1	H4/M5	80/20	0.9/0.2	5 1/2	4 5/8 19 2/3	31 1/8	1664
KC-L10-033S420-2	10	4 PS	33	20/3.3	14.8/2.1	H4/M5		0.9/0.2	5 1/2	4 5/8 19 2/3	31 1/8	1753
KC-L10-066S420-2	10	4 PS	66	20/3.3	14.8/2.1	H4/M5	80/20	0.9/0.2	5 1/2	4 5/8 19 2/3	31 1/8	2116

† Insert prefix "Y" for Yale units or "S" for Shaw-Box units when ordering.

†† Give proper beam flange width when ordering, no extra charge.

††† Headroom values may vary depending on trolley flange adjustment.



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