



# LODESTAR®

C A T A L O G 2 0 1 0





Columbus McKinnon Entertainment Technology (CM-ET), the industry leader in providing quality lifting and positioning equipment for riggers around the globe, presents the new Lodestar Electric Chain Hoist. Generations of users have relied on the Lodestar "Motor" for consistent operation and long-life for years, and now exciting new features have been added to widen the appeal of the Lodestar to the next generation of rigging professionals.

In addition to a product line recognized in venues throughout the world, CM-ET has established a network of distributors that provide the highest level of customer service to users in the industry. Wherever the show takes place, a knowledgeable CM-ET distributor is available to offer assistance with parts, service, or accessories.

When searching for products or services to ensure that your event shines, turn to the company with more than 130 years of experience in meeting the needs of our customers – Columbus McKinnon.



**DOWN  
THE POWER  
TO PERFORM**

# LODESTAR®

## The Rigger's Choice

We've received the best reviews, heard "Bravo" countless times and, like all the greats, we're recognized in every venue around the world.

So how do we make the legendary Lodestar electric chain hoist even better? By incorporating new features that provide steady operation for any application in the entertainment industry.

From today's top-selling musical performers to international sporting competitions, organizers rely on the Lodestar for consistent performance event after event. Professional riggers have trusted the Lodestar for unsurpassed reliability for decades, and now you can experience the quietest, smoothest-running Lodestar ever. What an Encore!

**Specs**

**CAPACITIES**  
125 to 3000 kg

**LIFT**  
18, 20 & 24 meters standard (other lifts available)

**SPEEDS**  
2 to 30 m/min

**VOLTAGES**  
1-phase & 3-phase available

## NEW FEATURES ON THIS NEXT GENERATION OF LODESTAR

**5 POCKET LIFTWHEEL**  
IMPROVED CHAIN WEAR & SMOOTH LIFTING

**CLUTCH OUTSIDE GEAR TRAIN**  
MEETS INTERNATIONAL STANDARDS.

**PRECISION HELICAL GEARING**  
FOR QUIETER OPERATION

**REDESIGNED CONTROL PANEL**  
FOR EASIER ACCESS & FUSE INSTALLATION

### STANDARD FEATURES

**AC ELECTRO-MECHANICAL BRAKE**  
Field tested and proven in over 1 million Lodestars worldwide

**LOW VOLTAGE CONTROL**  
110 Volt for long cable runs without voltage drop 24 & 48 Volt optional. (Low Voltage Unit Only)

**DURABLE & LIGHTWEIGHT HOUSING**  
Cast aluminum. Black powder coated finish for low visibility.

**GEARING**  
Helical design for long wear life and smooth operation

**LOAD CHAIN**  
Designed and manufactured by Columbus McKinnon. Zinc plated to protect against corrosion. Optional black finish available.

**DUTY CYCLE**  
FEM Rating: 2m, designed for heavy duty application. 50% of Duty Cycle or 300 Starts per Hour.

**DIRECT CONTROL UNITS AVAILABLE**

### OPTIONAL FEATURES

**DOUBLE BRAKE**  
Two independent acting DC brakes for redundant braking. Field installation kit available.

**ENCODERS AVAILABLE**  
Incremental & Absolute

**CHAIN BAGS**  
Cloth type bags easy-to-mount

### ELECTRICAL

Finger safe wiring meets all electrical codes. Quick change plugs allow for voltages 190 thru 400. Prevents improper voltage connections which can cause hoist damage. (Low Voltage Unit Only)

### ADJUSTABLE LIMIT SWITCH

Adjustable screw limit switch that will automatically stop the hook at any predetermined point when either lifting or lowering, preventing overtravel. (Low Voltage Unit Only)

### OVERLOAD PROTECTOR

Designed to prevent lifting of excessive overloads. Helps prevent lifting of dangerous overloads.

### METRIC RATED

### MEETS REQUIREMENTS

Meets or exceeds world standards.

### ROAD READY

Easy to stow and travel.

### LIFETIME WARRANTY

The industry's best

### VARIABLE SPEED UNITS AVAILABLE

### ALLOY LATCHLOK HOOKS

Remains locked until released by the operator, even if chain goes slack.

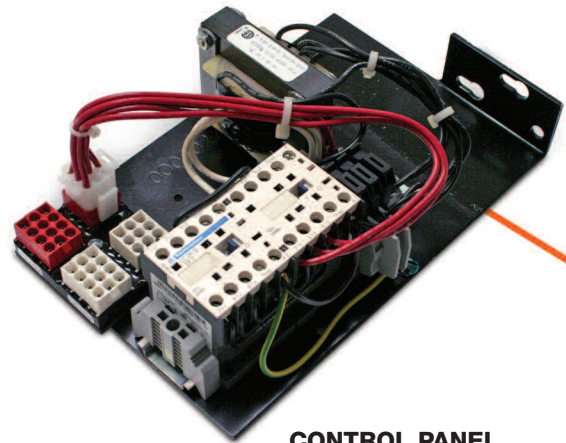
# LODESTAR D8 SERIES

## Specifications, Dimensions & Key Components



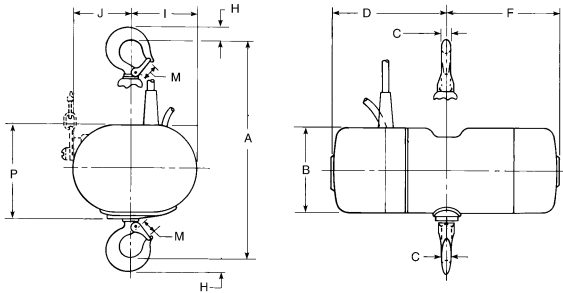
### LOAD CHAIN

Sizes available from 6.35mm to 7.94mm  
Chain is available according to EN 818-7  
Meets or exceeds many national and international standards.  
Zinc plated supplied as standard. Black phosphate finish available.  
100% proof tested



### CONTROL PANEL

Provides easy access to controls, plug & play connectors allow for quick voltage change for dual voltage motors. Fuses located on terminal strip.



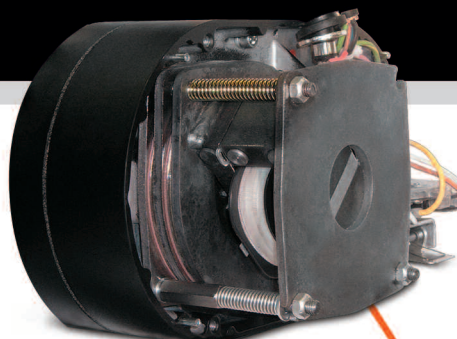
### DIMENSIONS

DRAWING LEGEND	D8 SERIES A, AA, B, C, E, F, H	D8+ SERIES A, AA, B, C, E, F, H	D8 & D8+ SERIES J, L, LL	D8 & D8+ SERIES JJ, R, RR, RT	BGV-C1 SERIES		
					F	L, LL	JJ, RR VARISTAR
B Body High	15,4 cm	15,4 cm	19,4 cm	19,4 cm	15,4 cm	19,4 cm	19,4 cm
C Hook Thickness: Side	1,7 cm	1,7 cm	2,2 cm	2,9 cm	1,7 cm	2,2 cm	2,9 cm
D Housing: Brake Side	29,7 cm	29,7 cm	25,3 cm	25,3 cm	29,7 cm	25,3 cm	25,3 cm
F Housing: Motor Side	22,5 cm	22,5 cm	32,9 cm	32,9 cm	22,5 cm	32,9 cm	32,9 cm
H Hook Thickness: High	2,5 cm	2,5 cm	3,0 cm	3,8 cm	2,5 cm	3,0 cm	3,8 cm
I Housing: Side Right	10,7 cm	10,7 cm	14,5 cm	17,9 cm	10,7 cm	14,5 cm	17,9 cm
J Housing: Side Left	11,3 cm	11,3 cm	17,6 cm	14,2 cm	11,3 cm	17,6 cm	14,2 cm
M Hook Opening	2,5 cm	2,5 cm	2,8 cm	3,3 cm	2,5 cm	2,8 cm	3,3 cm
P Body High with Suspension	16,8 cm	16,8 cm	20,8 cm	20,8 cm	16,8 cm	20,8 cm	20,8 cm

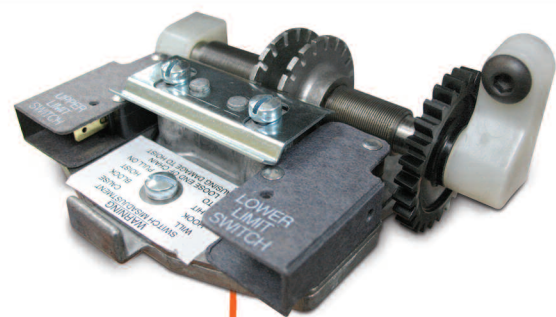
### SPECIFICATIONS D8

	Rate Capacity	Standard Lifting Speed at 50Hz	Operating Voltage	Single Phase Voltage	FEM Class	FEM Duty Factor	Chain Weight per meter lift-EWL	Load Chain EN 818-7	Power Consumption -Full Load	Reeves Falls of Chain	Motor HP	Protection Class	Noise Level
Model A	125 kg	8 m/min	400-3-50	optional	2M	50%	0,89 kg	6,3 x 18,9	1,1 A	1	1/4 HP	IP 55	73 db(A)
Model AA	125 kg	16 m/min	400-3-50	optional	2M	50%	0,89 kg	6,3 x 18,9	1,1 A	1	1/4 HP	IP 55	73 db(A)
Model B	250 kg	4 m/min	400-3-50	optional	2M	50%	0,89 kg	6,3 x 18,9	1,1 A	1	1/4 HP	IP 55	73 db(A)
Model C	250 kg	8 m/min	400-3-50	optional	2M	50%	0,89 kg	6,3 x 18,9	1,2 A	1	1/2 HP	IP 55	73 db(A)
Model E	500 kg	2 m/min	400-3-50	optional	2M	50%	1,78 kg	6,3 x 18,9	1,2 A	2	1/2 HP	IP 55	73 db(A)
Model F	500 kg	4 m/min	400-3-50	optional	2M	50%	0,89 kg	6,3 x 18,9	1,2 A	1	1/2 HP	IP 55	73 db(A)
Model H	1000 kg	2 m/min	400-3-50	optional	2M	50%	1,78 kg	6,3 x 18,9	1,2 A	2	1/2 HP	IP 55	73 db(A)
Model J	500 kg	8 m/min	400-3-50	-	2M	50%	1,42 kg	7,9 x 21,7	2,3 A	1	1 HP	IP 55	73 db(A)
Model JJ	500 kg	16 m/min	400-3-50	-	2M	50%	1,42 kg	7,9 x 21,7	3,6 A	1	2 HP	IP 55	73 db(A)
Model L	1000 kg	4 m/min	400-3-50	optional	2M	50%	1,42 kg	7,9 x 21,7	2,3 A	1	1 HP	IP 55	73 db(A)
Model LL	1000 kg	8 m/min	400-3-50	-	2M	50%	1,42 kg	7,9 x 21,7	3,6 A	1	2 HP	IP 55	73 db(A)
Model R	2000 kg	2 m/min	400-3-50	optional	2M	50%	2,84 kg	7,9 x 21,7	2,3 A	2	1 HP	IP 55	73 db(A)
Model RR	2000 kg	4 m/min	400-3-50	-	2M	50%	2,84 kg	7,9 x 21,7	3,6 A	2	2 HP	IP 55	73 db(A)
Model RT	3000 kg	1,4 m/min	400-3-50	optional	2M	50%	4,26 kg	7,9 x 21,7	3,6 A	3	2 HP	IP 55	73 db(A)

\*415 Volt Operation      \*220 Volt Operation



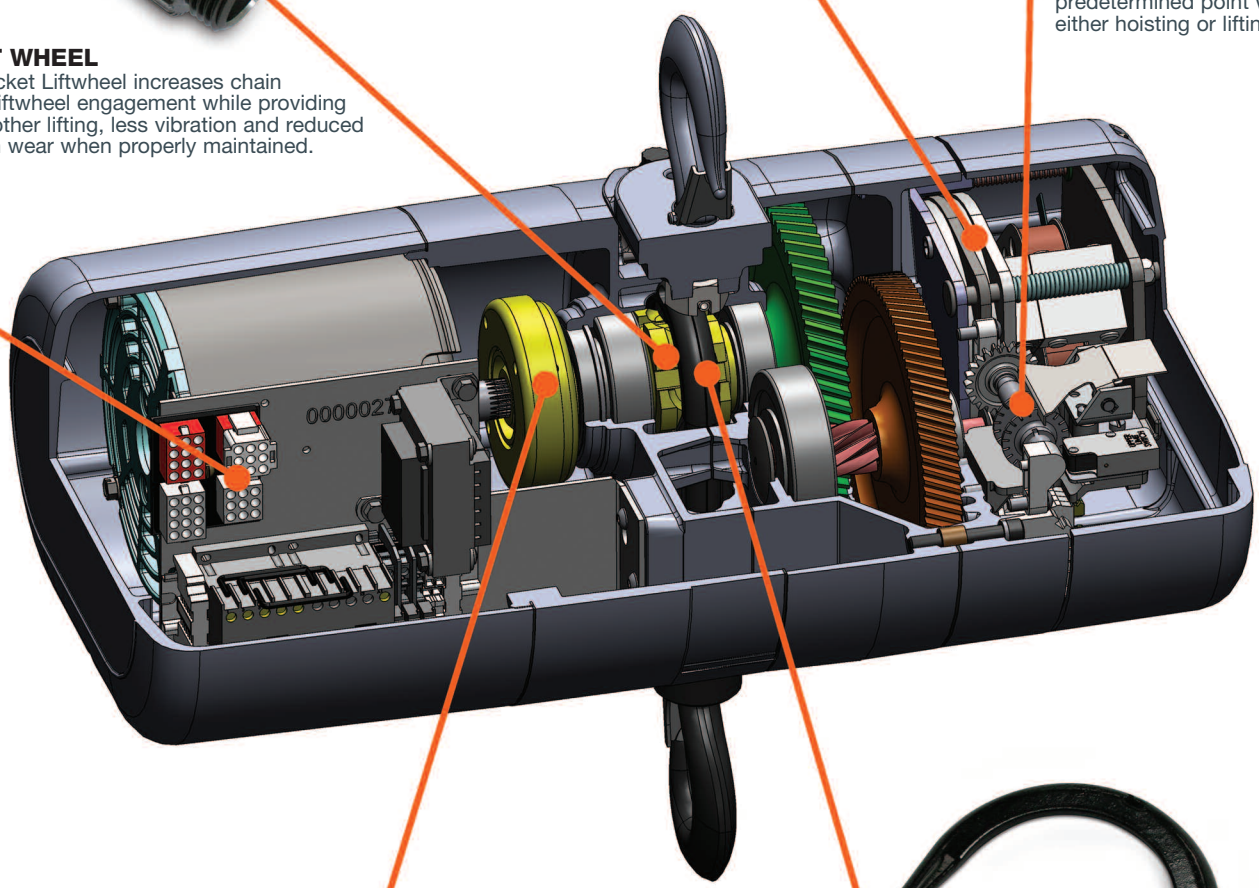
**BRAKE**  
Heavy Duty AC Brake proven design in more than 1 million Lodestars. (Double DC Brake available)



**LIMIT SWITCH**  
Adjustable screw limit switch that will automatically stop the hook at any predetermined point when either hoisting or lifting.



**LIFT WHEEL**  
5 Pocket Liftwheel increases chain and liftwheel engagement while providing smoother lifting, less vibration and reduced chain wear when properly maintained.



**CLUTCH**  
Designed to prevent lifting of excessive overloads. Located outside the gear box. Adjustable and easy to access.



**INTERNAL CHAIN GUIDE**  
Stamped Steel guide coated for corrosion resistance and quiet operation, while keeping the load chain and liftwheel aligned.

# LODESTAR D8+

**CAPACITIES**  
70 to 1500 kg

**LIFT**  
18, 20 & 24 meters  
standard

**SPEEDS**  
2 to 16 meters/minute

**VOLTAGES**  
3-phase available

The Lodestar D8+ meets all Standard SR2.0 requirements. It's clutch, outside the load path, acts as a precise overload device; and design factor is 10:1 with a double brake installed. The Lodestar D8+ is in accordance with the VPLT Code of Practice.

## KEY FEATURES

### ELECTRO-MECHANICAL DOUBLE BRAKE

**5 POCKET LIFT WHEEL**  
For quiet & smooth operation

**68 dB OPERATIONAL NOISE**  
A result of the Double Brake System

**GEARING**  
Precision machined gears heat treated for strength and durability

**INTERNAL CHAIN GUIDE**  
PVC black coated for quieter operation

**LOW VOLTAGE CONTROL**  
110 Volt for long cable runs without voltage drop. 24 & 48 Volt optional.

**DUTY CYCLE**  
H-4 duty rated for heavy duty application. 2M FEM class. 50% Duty Cycle or 300 on/off per hour.

**10:1 MECHANICAL DESIGN FACTOR**

**14:1 LOAD CHAIN DESIGN FACTOR**

## STANDARD FEATURES

**OVERLOAD PROTECTION**  
Rated operational range between 125 and 150/160%. Clutch is outside the load path when disconnected from power.

**DURABLE & LIGHTWEIGHT HOUSING**  
Cast aluminum. Black powder coated finish for low visibility.

### METRIC RATED

**LOAD CHAIN**  
Designed and manufactured by Columbus McKinnon. Zinc plated to protect against corrosion. Black phosphate finish optional.

**THE INDUSTRY'S BEST LIFETIME WARRANTY**

**MEETS OR EXCEEDS WORLD STANDARDS**  
Meets German Code of Practice VPLT SR2.0

## OPTIONAL FEATURES

**CHAIN BAG**  
Easy-to-Mount Cloth Type Bags

**CHAIN STOP**  
Mounted on load chain to prevent overtravel. Standard on Direct Control.



## SPECIFICATIONS D8+

	Rate Load	Standard Lifting Speed at 50Hz	Operating Voltage	FEM Class	FEM Duty Factor	Chain Weight per meter lift-EWL	Load Chain EN 818-7	Power Consumption -Full Load	Reeves Falls of Chain	Motor HP	Protection Class	Noise Level
Model A	70 kg	8 m/min	400-3-50	2M	50%	0,89 kg	6,3 x 18,9	1,1 A	1	1/4 HP	IP 55	68 db(A)
Model AA	70 kg	16 m/min	400-3-50	2M	50%	0,89 kg	6,3 x 18,9	1,1 A	1	1/4 HP	IP 55	68 db(A)
Model B	125 kg	4 m/min	400-3-50	2M	50%	0,89 kg	6,3 x 18,9	1,1 A	1	1/4 HP	IP 55	68 db(A)
Model C	125 kg	8 m/min	400-3-50	2M	50%	0,89 kg	6,3 x 18,9	1,2 A	1	1/2 HP	IP 55	68 db(A)
Model E	250 kg	2 m/min	400-3-50	2M	50%	1,78 kg	6,3 x 18,9	1,2 A	2	1/2 HP	IP 55	68 db(A)
Model F	250 kg	4 m/min	400-3-50	2M	50%	0,89 kg	6,3 x 18,9	1,2 A	1	1/2 HP	IP 55	68 db(A)
Model H	500 kg	2 m/min	400-3-50	2M	50%	1,78 kg	6,3 x 18,9	1,2 A	2	1/2 HP	IP 55	68 db(A)
Model J	250 kg	8 m/min	400-3-50	2M	50%	1,42 kg	7,9 x 21,7	2,3 A	1	1 HP	IP 55	68 db(A)
Model JJ	500 kg	16 m/min	400-3-50	2M	50%	1,42 kg	7,9 x 21,7	3,6 A	1	2 HP	IP 55	68 db(A)
Model L	500 kg	4 m/min	400-3-50	2M	50%	1,42 kg	7,9 x 21,7	2,3 A	1	1 HP	IP 55	68 db(A)
Model LL	650 kg	8 m/min	400-3-50	2M	50%	1,42 kg	7,9 x 21,7	3,6 A	1	2 HP	IP 55	68 db(A)
Model R	1000 kg	2 m/min	400-3-50	2M	50%	2,84 kg	7,9 x 21,7	2,3 A	2	1 HP	IP 55	68 db(A)
Model RR	1300 kg	4 m/min	400-3-50	2M	50%	2,84 kg	7,9 x 21,7	3,6 A	2	2 HP	IP 55	68 db(A)
Model RT	1500 kg	1,4 m/min	400-3-50	2M	50%	4,26 kg	7,9 x 21,7	3,6 A	3	2 HP	IP 55	68 db(A)

See dimensions for Lodestar D8+ on Page 2

# BGV-C1 SERIES

**CAPACITIES**  
250 to 1300 kg

**LIFT**  
18, 20 & 24 meters  
standard

**SPEEDS**  
2 to 30 meters/minute

**VOLTAGES**  
400VAC 3phase 50Hz only  
No single phase versions

The Lodestar BGV-C1 Series meets the BGV-C1 German regulation for entertainment rigging. Available with fixed or a variable speed,\* the Lodestar BGV-C1 can be adapted to reach a System Integrity Level 3 (SIL3).\*\*

## KEY FEATURES

### ELECTRO-MECHANICAL DOUBLE BRAKE

**5 POCKET LIFT WHEEL**  
For quiet & smooth operation.

**68 dB OPERATIONAL NOISE**  
A result of the Double Brake System

**GEARING**  
Precision machined gears heat treated for strength and durability.

**INTERNAL CHAIN GUIDE**  
PVC black coated for quieter operation

**DUTY CYCLE**  
H-4 duty rated for heavy duty application. 2M FEM class. 50% Duty Cycle or 300 on/off per hour

**10:1 MECHANICAL DESIGN FACTOR**

**14:1 LOAD CHAIN DESIGN FACTOR**

**UNDERLOAD PROTECTION**  
with load cell installed

**MODULAR MULTI-PIN CONNECTOR**  
with multi-wire shielded cable

**4 POSITION LIMIT SWITCH**  
with active spring micro-switch

**BUILT-IN PLC**  
For safety function monitoring, Brake and Limit Switch integrity, Load Cell reading, Overload and Underload settings

## STANDARD FEATURES

**OVERLOAD PROTECTION**  
Rated operational range between 125 and 150/160%. Clutch is outside the load path when disconnected from power.

**DURABLE & LIGHTWEIGHT HOUSING**  
Cast aluminum. Black powder coated finish for low visibility.

### METRIC RATED

**LOAD CHAIN**  
Designed and manufactured by Columbus McKinnon. Zinc plated to protect against corrosion. Black phosphate finish optional.

**THE INDUSTRY'S BEST LIFETIME WARRANTY MEETS OR EXCEEDS WORLD STANDARDS**  
Certified & TUV approved according to German Regulation BGV-C1

## OPTIONAL FEATURES

**CHAIN BAG**  
Easy-to-Mount Cloth Type Bags

**CHAIN STOP**  
Mounted on load chain to prevent overtravel.

**LOAD CELL**  
Built in on the suspension hook

\* SIL3 requires a BGV-C1 SIL3 certified controller not included

\*\* Variable speed version requires a BGV-C1 frequency drive close loop controller not included.



## SPECIFICATIONS BGV-C1

	Rate Load	Standard Lifting Speed at 50Hz	Operating Voltage	FEM Class	FEM Duty Factor	Chain Weight per meter lift-EWL	Load Chain EN 818-7	Power Consumption -Full Load	Reeves Falls of Chain	Motor HP	Motor Kw	Protection Class	Noise Level
Model F	250 kg	4 m/min	400-3-50	2M	50%	0,89 kg	6,3 x 18,9	1,2 A	1	1/2 HP	0,37 Kw	IP 55	68 db(A)
Model JJ	500 kg	16 m/min	400-3-50	2M	50%	1,42 kg	7,9 x 21,7	3,6 A	1	2 HP	1,47 Kw	IP 55	68 db(A)
Model L	500 kg	4 m/min	400-3-50	2M	50%	1,42 kg	7,9 x 21,7	2,3 A	1	1 HP	0,74 Kw	IP 55	68 db(A)
Model LL	650 kg	8 m/min	400-3-50	2M	50%	1,42 kg	7,9 x 21,7	3,6 A	1	2 HP	1,47 Kw	IP 55	68 db(A)
Model RR	1300 kg	4 m/min	400-3-50	2M	50%	2,84 kg	7,9 x 21,7	3,6 A	2	2 HP	1,47 Kw	IP 55	68 db(A)
Varistar	500 kg	30 m/min	400-3-50	2M	50%	1,42 kg	7,9 x 21,7	6 A	1	3 HP	2,27 Kw	IP 55	68 db(A)

See dimensions for BGV-C1 on Page 2

## TRAINING

For decades, the Lodestar Electric Chain Hoist or “Motor” has taken on many different supporting roles in the entertainment industry. From standard lifts to sophisticated computer-automated projects, the Lodestar has been the number one choice in the market. Loyal users trust the Lodestar for unparalleled reliability and durability, show after show.

As the entertainment industry continues to evolve through technological advancements and greater production demands, the need for qualified and trained hoist technicians continues to expand.

From basic motor maintenance training to certification classes, professionals from Columbus McKinnon cover everything from hoist design and operation to maintenance tips of the trade. Participants become well versed in all aspects of hoist technology and understand practices related to safe operation and long hoist life.



In addition to the popular Lodestar, numerous rigging accessories are available as part of the CM-ET line. Theatrical shackles, lever hoists, winches, beam clamps, and wire rope clips provide riggers with numerous options, depending on the venue. Most product categories feature a wide range of capacities, allowing the user to choose the exact product for the job.



## REGULATION & STANDARDS

The Lodestar meets or exceeds the most stringent standards for lifting equipment around the world, including the following: ASME B30.16; ASME HST-1; EC Machine Directive 2006/42 EC; Low Voltage Directive 73/23/EEC; EC EMC Directive 89/336/EEC; FEM 9.511; FEM 9.671; FEM 9.811; FEM 9.683; FEM 9.941; FEM 9.755; EN 12100-1 :2003; EN 12100-2 :2003; EN 60204-1 :2006; EN 349 :1993; EN 60204-32 :1998; EN 55011 :2009; EN 55014 :2006; DIN 568-3; EN ISO 13857 :2008; EN 818-7 :2008-07; EN 14492-2 :2007; DIN 56950; BS 7905-1; BS 7906-1; CWA 15902-1:2008; VPLT SR2.0; BGV-C1



**COLUMBUS MCKINNON CORPORATION**  
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