



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 135 years of experience in meeting the needs of our customers – Columbus McKinnon.

### **TABLE OF CONTENTS**

Lodestar 2
Lodestar D8+6
Lodestar BGV-C17
ShowPro
Prostar
Manual Hoists10
Trolleys & Clamps 12
Rigging & Accessories 14
Winches 18





# LODESTAR®

### CAPACITIES

1/8 to 2 TON

### LIFT

60 feet standard (other lifts available)

### **SPEEDS**

5 to 100 feet/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

### **STANDARD** FEATURES

### **HEAVY DUTY DC BRAKE**

Designed for a long service life, the brake location allows for quick access & easy inspection.

### **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**

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

### **ELECTRICAL**

Finger safe wiring meets all electrical codes. Quick change plugs allow for voltages 208 through 460. 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.

### **OPTIONAL FEATURES**

### **DOUBLE DC BRAKE**

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

### **AC ELECTRIC BRAKE**

### **ENCODERS AVAILABLE**

Incremental & Absolute.

### CHAIN BAGS

Cloth type bags easy-to-mount.

### VARIABLE SPEED UNITS AVAILABLE

### **ALLOY LATCHLOK HOOKS**

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

# DIRECT CONTROL UNIT OPTION

The CM Lodestar is available as a Direct Control Unit. Featuring a single cable, this Direct Control Unit can be used as part of a system with multiple units with a single control. The Lodestar is compatible with most Direct Control Motor Controllers.

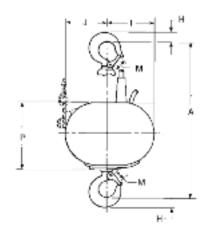


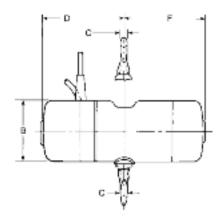


### Specifications, Dimensions & Key Components

### **DIMENSIONS**

DRAWING	LOE	DESTAR MOD	ELS
LEGEND	B, C, F	J, JJ, L, LL	R, RR
A	16.20"	18.5625"	24.125"
В	6.08"	7.62"	7.62"
С	.67"	.875"	1.125"
D	11.80"	10.03"	10.03"
F	8.94"	13.01"	13.01"
Н	1"	1.1875"	1.5"
1	4.46"	6.93"	5.57"
J	4.22"	5.69"	7.05"
M	1"	1.125"	1.3125"
P	6.62"	8.22"	8.22"





### **SPECIFICATIONS** D8

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MODEL	RATED LOAD TON	LIFTING SPEED (FPM)	MOTOR HP	OPERATING VOLTAGE **	FULL LOAD AMPS	WORK HMI	RATING FEM	REEVING	PROTECTION CLASS	NOISE LEVEL	LIFT (FEET)	
В	1/4	16	1/4	230/460-3-60	1.8/1.1	H4	2M+	1	IP54	73 dB	60	
С	1/4	32	1/2	230/460-3-60	2.2/1.3	H4	2M+	1	IP54	73 dB	60	
F	1/2	16	1/2	230/460-3-60	2.2/1.3	H4	2M+	1	IP54	73 dB	60	
J	1/2	32	1	230/460-3-60	3.7/2.2	H4	2M+	1	IP54	73 dB	60	
JJ	1/2	64	2	230/460-3-60	7.9/5.0	H4	2M+	1	IP54	73 dB	60	
L	1	16	1	230/460-3-60	3.7/2.2	H4	2M+	1	IP54	73 dB	60	
LL	1	32	2	230/460-3-60	7.9/5.0	H4	2M+	1	IP54	73 dB	60	
R	2	8	1	230/460-3-60	3.7/2.2	H4	2M+	2	IP54	73 dB	60	
RR	2	16	2	230/460-3-60	7.9/5.0	H4	2M+	2	IP54	73 dB	60	

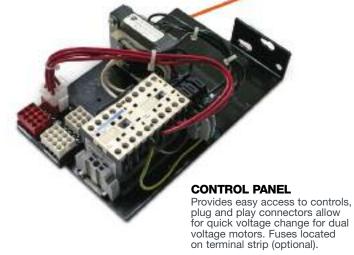
\* Metric Tons
\*\* Single Phase Models available
\*\*\* Lifts other than 60ft available (Standard Units shipped less chain unless specified)

Consult factory for additional speeds and capacities



### **LOAD CHAIN**

Sizes available from 1/4 in. to 5/16 in. Meets or exceeds many national and international standards. Zinc plated supplied as standard. Black phosphate finish available. 100% proof tested.



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ENTERTAINMENT TECHNOLOGY



# **LODESTAR®**

**ELECTRIC CHAIN MOTOR** 

### 2-TON, SINGLE-REEVED

The CM° entertainment Lodestar° is now available as an economical 2-ton, single-reeved unit that's ideal for a variety of lifting applications. And, because it's a single-reeved unit, overall weight is decreased making it easier to transport and rig compared to a traditional double-reeved unit.

### **BENEFITS & FEATURES**

### LESS MAINTENANCE & EASIER INSPECTION

- Brake location allows for quick access and easy inspection.
- Lifetime grease-lubricated Gear Box means no oil change is required.
- Clutch located outside the Gear Box allows for easy access which eliminates the need for complete disassembly and reduces downtime.

### **IMPROVED SERVICEABILITY**

Easy access to the Clutch, Motor, Electrical Control Panel and Brake Assembly.

### **LONGER SERVICE LIFE**

- Heavy-duty DC brake is designed for a long service life.
- Lifetime grease-lubricated Gear Box and helical gearing ensures better wear and smooth operation. Heavy-duty rated motors.

### **IMPROVED LOAD SAFETY**

Clutch is located outside the load path preventing slipping of the load in an overload condition when the brake is not powered.

### **IMPROVED CHAIN LIFE**

5-Pocket Lift Wheel provides better chain and lift wheel engagement for smoother lifting and reduced vibration equating to less wear and a longer chain life. Zinc plating protects chain from environmental conditions.

### **EASY ACCESS CONTROL PANEL**

Finger-safe wiring and plug-and-play connectors on the Control Panel allow for quick voltage change, easy access to terminal strips and simple fuse installation.

### ZINC PLATED LOAD CHAIN

Designed and manufactured in the USA by Columbus McKinnon. 10 millimeter, zinc plated Star Grade load chain protects against corrosion.

### **ADJUSTABLE LIMIT SWITCH**

Easy-to-adjust screw limit switch automatically stops the hook at any predetermined point when either lifting or lowering, preventing overtravel.

### **OVERLOAD PROTECTOR**

Helps prevent lifting of dangerous overloads.

### **METRIC RATED**

### **LIFETIME WARRANTY**

The industry's best warranty against manufacturing and material defects.

### STANDARD ROTATABLE LIMIT SWITCH

Designed for quick reset of limit position.

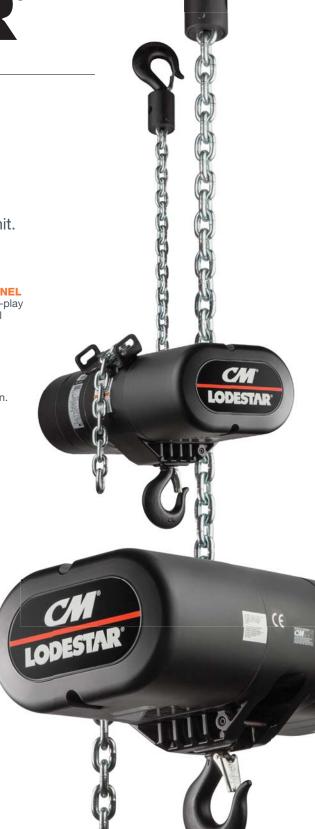
SWIVEL OR RIGID HOOK SUSPENSION AVAILABLE



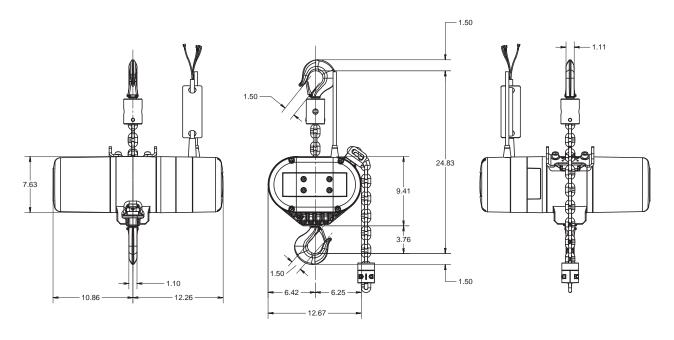












Dimensions (in inches) are RRS model CM-ET Lodestar 2 Ton Single Reeved with Swivel Latch Type Hook Suspension.

### **OPTIONAL FEATURES**

### **DIRECT CONTROL**

Direct Control allows multiple motor units to be operated with a single control.

### **D8**4

Meets all Standard VPLT SR 2.0/SQP2 requirements.

### **BGV-C**1

Meets all standard C1 and DIN 56950 requirements.

### **VARIABLE SPEED DRIVE (VFD)**

### **DOUBLE DC BRAKE**

Two independent acting DC Brakes for redundant braking. Field installation kit available.

**PRIMARY & SECONDARY TRANSFORMER FUSING** 



USA: 800.888.0985 • 716.689.5400 • Fax: 716.689.5644

CDN: 877.264.6478 • Fax: 877.264.6477

www.cm-et.com

# **LODESTAR** D8+

**CAPACITIES** 70 to 1500 KG

**LIFT** 60 feet standard

**SPEEDS** 5 to 64 feet/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 BRAKES

### **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

### **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+

MODEL	RATED LOAD (KG)	LIFTING SPEED (FPM)	MOTOR HP	OPERATING VOLTAGE	FULL LOAD AMPS	WORK HMI	RATING FEM	REEVING	PROTECTION CLASS	NOISE LEVEL	LIFT (FEET) *
В	125	16	1/4	230/460-3-60	1.8/1.1	H4	2M+	1	IP54	68 dB	60
С	125	32	1/2	230/460-3-60	2.2/1.3	H4	2M+	1	IP54	68 dB	60
F	250	16	1/2	230/460-3-60	2.2/1.3	H4	2M+	1	IP54	68 dB	60
J	250	32	1	230/460-3-60	3.7/2.2	H4	2M+	1	IP54	68 dB	60
JJ	500	64	2	230/460-3-60	7.9/5.0	H4	2M+	1	IP54	68 dB	60
L	650	16	1	230/460-3-60	3.7/2.2	H4	2M+	1	IP54	68 dB	60
LL	500	32	2	230/460-3-60	7.9/5.0	H4	2M+	1	IP54	68 dB	60
R	1300	8	1	230/460-3-60	3.7/2.2	H4	2M+	2	IP54	68 dB	60
RR	1000	16	2	230/460-3-60	7.9/5.0	H4	2M+	2	IP54	68 dB	60
RT	1500	5	1	230/460-3-60	3.7/2.2	H4	2M+	3	IP54	68 dB	60

<sup>\*</sup> Lifts other than 60ft available (Standard Units shipped less chain unless specified)





# **BGV-C1** SERIES

CAPACITIES 250 to 1300 KG

LIFT 60 feet standard SPEEDS 16 to 100 feet/minute **VOLTAGES**3-phase available

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

### **KEY FEATURES**

### ELECTRO-MECHANICAL DOUBLE BRAKES

### **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

### **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

Meets 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.

# CAM BGV-CI

### **SPECIFICATIONS** BGV-C1

MODEL	RATED LOAD (KG)	LIFTING SPEED (FPM)	MOTOR HP	OPERATING VOLTAGE	FULL LOAD AMPS	REEVING	PROTECTION CLASS	NOISE LEVEL	LIFT (FEET) *
F	250	16	1/2	230/460-3-60	2.2/1.3	1	IP54	68 dB	60
J	250	32	1	230/460-3-60	3.7/2.2	1	IP54	68 dB	60
JJ	500	64	2	230/460-3-60	7.9/5.0	1	IP54	68 dB	60
L	650	16	1	230/460-3-60	3.7/2.2	1	IP54	68 dB	60
LL	500	32	2	230/460-3-60	7.9/5.0	1	IP54	68 dB	60
RR	1000	16	2	230/460-3-60	7.9/5.0	2	IP54	68 dB	60
VARISTAR	500	100	3 1/2	230/460-3-60	10.4/6.2	1	IP54	68 dB	60

<sup>\*</sup> Lifts other than 60ft available (Standard Units shipped less chain unless specified)

See dimensions for BGV-C1 on Page 4



# **SHOWPRO**

**CAPACITIES** 1/2, 1 & 2 Tonne 500, 1000 & 2000 Kgs.

LIFT 66 feet 20 meters SPEEDS
16 feet/minute at 60Hz
4.1 meters/minute at 50Hz

The ShowPro electric chain hoist is designed to meet all basic entertainment rigging needs. Low Voltage Control and Direct Control available. Direct Control hoists offer an optional control cable fitted with IEC style connectors, 4-way hoist controller and chain bag for a complete plug and play system.

### **KEY** FEATURES

### **VERSATILE**

Operates on a wide range of 3-phase voltages.

### **LIGHTWEIGHT**

Aluminum housing.

### EFFICIENT

Engineered for smooth, quiet operation; featuring a 5-pocket lift wheel.

### RELIABLE

Overload clutch protects hoist, operator, structure from damaging overloads.

### LIFETIME WARRANTY

Against defective materials and workmanship.

# ShowPro

### **SPECIFICATIONS SHOWPRO**

MODEL	CAPACITY (TONNE)	NUMBER OF CHAINS	LIFT (FEET)	LIFTING SPEED (FPM)	MOTOR H.P.	MOTOR VOLTAGE/ PHASE/ HERTZ	AMPS	MOTOR VOLTAGE/ PHASE/ HERTZ	AMPS	APX. SHIP WT. W/ 66 FT. LIFT (LBS)
SP1003	1/2	1	66	16	1/2	230/3/60	2	460/3/60	1	119
SP2003	1	1	66	16	1	230/3/60	3.2	460/3/60	1.6	126
SP4003	2	2	66	8	1	230/3/60	3.2	460/3/60	1.6	186
0			000 000	000 445 4	20 @ 50					

Standard operational 3-phase voltages — 208, 230, 380, 415, 460 @ 50 or 60 Hertz

### **DIMENSIONS**

MODEL	CAPACITY (TONNE) (KG.)		CHAII (IN.)	N SIZE (mm)	HOUSING DIMENSIONS (IN.) H W L			
SP1003	1/2	500	9/32	7.1	8 11/16	8 11/16	24 3/8	
SP2003	1	1000	9/32	7.1	8 11/16	8 11/16	24 3/8	
SP4003	2	2000	9/32	7.1	8 11/16	8 11/16	24 3/8	

# **PROSTAR**

**CAPACITIES** 300 to 1000 LBS

60 feet standard

**SPEEDS** 8 to 40 feet/minute

**VOLTAGES**Single & 3-phase available

Lightweight, quiet and portable, the CM Prostar is designed and built for the unique rigging needs encountered at small venues. Featuring an overload device that protects the hoist, operator and structure from damaging overloads.

### **KEY FEATURES**

### DC ELECTRO-MECHANICAL DOUBLE BRAKES

Non-adjusting for low maintenance and quite operation.

### **GEARING**

Precision machined gears heat treated for strength and durability.

### **CHAIN GUIDE**

One piece jam free for smooth operation.

### HOUSING

Lightweight, cast aluminum, durable and strong black powder coated finish for low visibility.

### **LIFT WHEEL**

CM patented 10 pocket oblique lift wheel for quiet and smooth operation.

### **LOW VOLTAGE CONTROL**

110 Volt for long cable runs without voltage drop. 24 and 48 Volt optional.

### **DUTY CYCLE**

H-4 duty rated, designed for heavy duty application.

### **STANDARD** FEATURES

### **OVERLOAD PROTECTION**

Helps prevent lifting of dangerous overloads.

### **CHAIN STOP**

Mounted on Load Chain prevents over-travel.

### **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

### **OPTIONAL FEATURES**

### CHAIN BAC

Easy-to-Mount Cloth Type Bags.

### **DOUBLE BRAKE**

**ENCODER** 

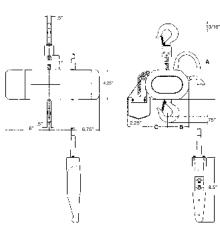
### SPECIFICATIONS PROSTAR

CAPACITY	NUMBER OF CHAINS	MOTOR (HP)	LIFT SPEED (FPM)	WT. LESS LESS CHAIN	WEIGHT 1FT OF	FULL LOA	D AMPS
	01 01 11 11 10			(LBS)	CHAIN (LBS)	1-PHASE	3-PHASE
300	1	1/6	16	28	.35	3.6	.6* / 1.2°
300	1	1/6	16	28	.35		.6* / 1.1°
500	1	1/6	16	28	.35		.7* / 1.2°
500	1	1/6	12	28	.35	4	-
600	2	1/6	8	36	.7	3.6	.6* / 1.1°
600	2	1/6	8	36	.7	3.6	.6* / 1.1°
1000	2	1/6	8	36	.7		.7* / 1.2

\*415 Volt operation \*220 Volt operation

MODELS (LBS)	LIFT SPEED (FPM)	SINGLE	OPERATING PHASE	VOLTAGE THREE PHASE			
300	16	115-1-50/60	220-1-50/60	220-3-50/60	415-3-50/60		
300	24	-	-	220-3-50/60	415-3-50/60		
300	40	-	-	220-3-50/60	415-3-50/60		
500	12	115-1-50/60	220-1-50/60	-	-		
500	16	-	-	220-3-50/60	415-3-50/60		
500	20	-	-	220-3-50/60	415-3-50/60		
600	8	115-1-50/60	220-1-50/60	-	-		
600	12	-	-	220-3-50/60	415-3-50/60		
1000	6	115-1-50/60	220-1-50/60	-	-		
1000	8	-	-	220-3-50/60	415-3-50/60		
1000	12	-	-	220-3-50/60	415-3-50/60		





### **DIMENSIONS**

DRAWING	REEVING					
LEGEND	SINGLE	DOUBLE				
Α	11"	12 1/8"				
В	2 15/16"	3 1/2"				
С	2 7/8"	2 3/8"				



RODUCT

# **MANUAL HOISTS**

### Hand Chain & Cable Lever Hoists



### **HURRICANE 360° HAND CHAIN HOIST**

- Capacities: 1/2 to 10 tons
- Standard Load Limiter for simple, automatic overload protection.
- Improved braking system is exceptionally quiet, and improves operational safety and serviceability.
- Powder coated finish for corrosion protection.
- All internal gears and pinions are heat treated steel for high strength and long life.

- Chain Guide and Stripper assures load chain alignment.
- Precision 4-Pocket Liftwheel is fully machined for better chain fit and reduced wear allowing for accurate movement of the load chain.
- Alloy steel load chain assures high strength and long wear life.
- Minimal maintenance, easily dis-assembled, requiring no special tools.
- Metric rated



### **SERIES 622 HAND CHAIN HOIST**

- Capacities: 1000 lbs. to 10 tons
- Simple, efficient, economical design.
- Compact design, low headroom and lightweight steel construction for easy installation, even in confined spaces.
- Weston-type load brake requires no lubrication.
- Hand wheel cover with guide slots minimizes jamming and slipping.

- Forged swivel hooks with latches reduce twisting of chain and unintentional unhooking of load when chain is slack.
- Standard hand chain drop is 2 feet less than lift (example: 8 ft. lift hoist has 6 ft. hand chain drop).
- One-year warranty
- Metric rated



### **SERIES 653** LEVER OPERATED HOIST

- Capacities: 3/4 to 6 tons
- Hardened steel load sharing gears.
- Double pawl arrangement for assured load control.
- Two chain guide rollers for positive chain engagement.
- Weston type braking system for positive load control and positioning.
- Simple one-handed, free chaining for fast load attachment.

- Hardened steel chain for strength and long wear life.
- Forged upper and lower hooks with heavy cast steel latches.
- 5-year warranty against defects in materials and workmanship.
- Meets ASME B30.21 Manually Lever Operated Hoist Standard and European CE Standard.
- Metric rated





### **SERIES 602/603** LEVER OPERATED HOISTS

- Capacities: 500 lbs. & 1000 lbs.
- Plated load chain is standard.
- Weston-type load brake.
- Rubber hand grip for better comfort and security.
- Lightweight design for ease of portability. Use in confined conditions with one-hand operation.
- Forged upper and lower hooks with latches standard.

- Impact resistant, all-steel frame, gear case and cover.
- Hardened link-type alloy steel load chain for strength and long wear.
- Free wheeling feature serves to quickly attach the load.
- Metric rated



### **CABLE LEVER OPERATED HOIST**

- Capacities: 500 lbs. to 2 tons
- Handle design for overload protection – bends to prevent overload.
- Hooks with safety latches 360° swiveling hooks equipped with safety latches for positive load engagement.
- Lightweight and rugged special cast aluminum alloy housings.
- Corrosion resistant all stainless steel springs and shafts.
- Easy load positioning utilizes a double interlocking pawl system for precise load adjustment.
- Open construction allows for easy cleaning and inspection.
- Self-storage cable drum provides compact operation.



### **GT SERIES** GRIP & PULL WIRE ROPE LEVER TOOL

- Capacities: 1 to 3 tons
- Smooth Operation and Low Wear –
   The large surface area of the clamping jaws provides an evenly distributed grip.
- Unique jaw design prevents damage to the wire rope.
- Limitless Wire Rope Travel –
   Versatility for use over long distances
   specially suits this tool for use in the
   entertainment industry.
- Durability Lightweight and compact design for portability, yet built tough for long life and trouble free service.

- Overload Protection Easily replaceable, shear pin design to protect against dangerous overloads.
- Telescopic Handle Enhances portability and ease of operation.
- Minimal Maintenance Periodic cleaning, inspection, and lubrication is all that is required.
- Lifetime warranty Lifetime warranty against defects in materials and workmanship.



# PRODUCT CATALO

# TROLLEYS & CLAMPS

### Full Complement to our Hoists



### **PLAIN & GEARED TROLLEYS**

- Capacities: Rated loads from 500 lbs. to 5 tons in plain and geared models.
- Economical Excellent low cost choice for manual and powered hoists.
- Rugged Designed to provide superior performance and long, efficient service.
- Low Rolling Effort Geared models have standard 6 ft. hand chain drop. Other hand chain drops available.
- Universal Hanging Clevis Accepts most hook mounted hoists.
- Adjustable Trolley easily adjusts to fit any beam flange within range of adjustment, up to an 8.7" flange width.
- Wrap-Around Side Plates Lugs provide additional security to increase operator safety and act as bumpers to protect wheels.
- Dual Tread Wheels Will fit either tapered or flat beam flange within range of adjustment. Wheels include permanently lubricated, shielded ball bearings for long life and low maintenance.
- Lifetime Warranty



### CM SERIES 632 CLOSE RADIUS TROLLEY

- Capacities: Rated loads from 500 lbs. to 3 tons
- Negotiates radius curves as tight as 7" to 10".
- Made of highest quality rolled steel.
- Unique double row, ball bearing wheel design for greater wear capacity.
- Larger V-bars available for wider flange adjustment.
- For low headroom applications.
- Permanently lubricated bearings.
- Exclusive Dial-Fit collar quickly adapts trolley to wide range of beams and patented rails.
- Dust covers shield and protect bearings.
- Trolleys available for larger beams, rails or tracks.
- Cast iron trolley guards available (except for 3 ton).
- Lifetime Warranty



# **VTE** ELECTRIC MOTOR DRIVEN TROLLEY WITH ENCODER

- Specially designed to be operated with a VFD for use in moving video screens or when variable speed and smooth movement is needed.
- The trolley motor has a worm gear transmission that ensures smooth starting, stopping and self braking.
- The sturdy compact frame has a low overall height and is very easy to install and adjustable to different beam sizes.
- Motor protected to IP55
- Maximum Travel Speed: 70 fpm



### **CM BEAM CLAMP**

- Working load limit up to 10 tons
- Suitable for use with powered hoists and chain blocks.
- Load pin incorporated for load suspension with reduced headroom.
- Designed to fit flanges of most structural beams.
- All CM Screwlok girder clamps are factory proof tested and a certification is shipped with each product.



### STAC Chain, Shackles & Accessories



### CM SCREW PIN ANCHOR SHACKLES

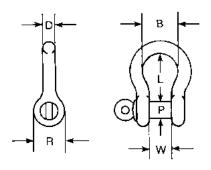
- Work Load Limits: 1/2 to 43 tons
- Size Diameter: 3/16" to 2"
- Surface Finish Self colored, painted or galvanized per ASTM.
- Strength and Abrasion Features All shackle bodies and pins are forged from special steel, heat treated and tempered to give greater strength and abrasion resistance.
- Positive and Easy I.D. All shackles are marked with size (mm and in.) and working load limit in tons.
- Strength Plus Ultimate strength equals 5 times working load limit. Proof load equals 2.2 times working load limit.
- CE Marked

### THEATRICAL SHACKLES - BLACK DIMENSIONS (INCHES)



WORKING LOAD LIMIT (TONS)	D	P	w	L	В	R
3	1/2"	5/8"	13/16"	1 15/16"	1 3/8"	1 3/8"
4 1/2	5/8"	3/4"	1 1/16"	2 3/8"	1 5/8"	1 5/8"
6 1/2	3/4"	7/8"	1 1/4"	2 7/8"	1 3/4"	2 1/8"

Screw pin standard, round pin and bolt and nut type also available. 100% Proof tested at 2.2 times the working load limit. Ultimate strength equals 6 times the working load limit





### ANCHOR SHACKLES, SCREW PIN - CARBON STEEL DIMENSIONS (INCHES)

WORKING LOAD LIMIT (TONS)	D	Р	w	L	В	R
3	1/2"	5/8"	13/16"	1 15/16"	1 3/8"	1 3/8"
4 1/2	5/8"	3/4"	1 1/16"	2 3/8"	1 5/8"	1 5/8"
6 1/2	3/4"	7/8"	1 1/4"	2 7/8"	1 3/4"	2 1/8"

Available in diameters from 3/16" to 2". Available unpainted, black, or galvanized.



### ANCHOR SHACKLES, SCREW PIN - ALLOY STEEL DIMENSIONS (INCHES)

WORKING LOAD LIMIT (TONS)	D	Р	w	L	В	R
3 1/3	1/2"	5/8"	13/16"	1 15/16"	1 3/8"	1 3/8"
5	5/8"	3/4"	1 1/16"	2 3/8"	1 5/8"	1 5/8"
7	3/4"	7/8"	1 1/4"	2 7/8"	1 3/4"	2 1/8"

Available in diameters from 3/16" to 2". Available unpainted, black, or galvanized.



### THE CM SPECIAL THEATRICAL ALLOY CHAIN (STAC)

Ideal for theatrical rigging applications where bridle adjustability is required.

### **SUPER STRENGTH**

Grade 80 alloy material with 1/2" diameter and 6 ton working load limit

### **HEAT TREATED**

Alloy steel provides long life

### **MEETS EUROPEAN STANDARDS FOR LONG LINK CHAIN**

### **PROOF TESTED**

Each link proof tested to assure weld and material integrity

### **FIRE & ABRASION RESISTANT**

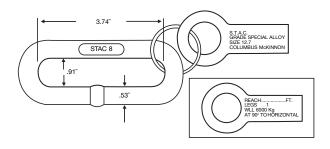
### **4:1 DESIGN FACTOR**

### **POSITIVE AND EASY ID**

Chain embossed with "STAC 8" and "CM USA" for easy identification as CM alloy. Also tagged with size, grade, reach and working load limit.

### **VERSATILITY**

Link accepts up to 3/4" shackle for adjustability



### **WIRE ROPE CLIPS**

Wire rope clips are used to secure the end of wire rope when forming a loop, i.e, for wire rope turn back. Available in mid-grip (double saddle) and single saddle.

Mid-grip clips are available in a drop forged carbon steel material and single saddle clips are available in malleable iron or drop forged carbon steel. Available in sizes up to 1 1/2".



### **LAP LINKS**

A quick permanent way to repair general purpose chains. Chain link and attachments are threaded onto the lap link and the link flattened. Available in a variety of sizes with stock diameters from 1/8" thru 5/8" chain. Not to be used for overhead lifting and prohibited for all load securement applications by CVSA.

### **QUICK LINKS**

Afford quick and easy chain repair and/or attachment of fittings. Easy closing by threading nut onto threaded end. Reusable. Available in stock diameters ranging from 1/8" to 1/2". Not to be used for overhead lifting, and prohibited for all load securement applications by CVSA.

### **SHOULDER EYE BOLTS**

- Forged steel/quenched and tempered.
- Metric sizes available.
- Recommended for straight line pull.

### **GRADE 100 CHAIN**

- Working load limit up to 17 tons.
- Diameter sizes available from (7/32" to 3/4").
- Meets or exceeds many National and International standards.
- 25% higher working load limit when compared to Grade 80.
- Available self-colored, or grey thermal dip.
- Certification included with every drum.
- 100% proof tested.

### THIMBLES-WIRE ROPE

Made specifically for wire rope turn back forming a cable loop. Used in conjunction with wire rope clips. Manufactured of hot rolled steel in accordance with FED. SPEC. FF-T-276. Available in sizes to fit a maximum of 1 1/2" diameter wire rope.

### **TURNBUCKLES**

Turnbuckles find many uses to apply tension to wire rope or cable. They are composed of a forged body and two end fittings. End fittings can be eyes, jaws, or hooks. They must, however, be applied only up to loads within their working load limit as specified for the particular end fitting being applied.

### **EYE SWIVELS**

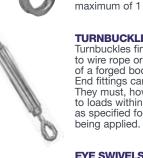
- Hot dip galvanized.
- Ultimate load is 5 times working load limit.
- Meets the performance requirements of RR-C-271D, Type VII, Class 2.
- Made in USA
- Regular forged eye and eye swivels.

### **GRADE 30 CHAIN**

An economical utility chain for apps which do not require a high strength to weight ratio.

- Typically used as trim chain or studio chain.
- Low carbon steel.
- Diameter sizes available from 3/16" to 1"
- Available as self colored, zinc plated, or hot galvanized.
- Also available in Grades 43, 70, 80 and 100





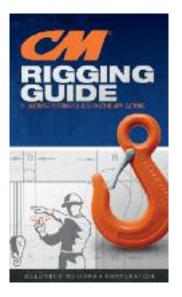






### **CM RIGGING GUIDE**

From determining proper chain sling angles and rigging capacities to calculating tensions and choke reductions, this handy pocket guide is packed full of valuable information for the rigging professional. You'll keep yourself and co-workers safe with current requirements, unit conversion charts, and much more at your fingertips.





CM Cable Reels give you more for your money. They are ruggedly built and their design has been refined over many years of field use. The reels have either fully automatic or ratchet controlled spring rewind and contain all the features found in any reel in this size range. Sliprings can also be supplied for DMX, Cat 5 and Speakon applications.



# LINEAR ACTUATORS & SCREW JACKS

Linear Actuators are utilized in the design, manufacturing and installation of stage equipment in theatres, schools, community centers, special effects in live shows and movies. The carrying capacities are between 1 ton and 25 tons with average lifting speeds of 120 inches per minute. Self-locking screw are designed for lowering podiums, shifting floors, and raising and lowering stages. The carrying capacities are between 10 tons and 50 tons, with average lift speeds of 54 inches per minute.



### **WIRE ROPE GRIPS**

- Capacities: 1,000 to 20,000 lbs.
- Securely holds wire in place while pulling or stretching.
- Versatility All models are rated for a variety of wire sizes and types, so fewer grip changes are required.
- Grips open easily and release instantly to quickly insert or remove wire.
- Large handle eye opening accepts standard hooks and easily attaches to tackle blocks.
- Standard or Aggressive Jaw models available.
- Rugged and Portable Forged steel construction is durable yet lightweight.
- Yellow chromate finish protects components from rust and corrosion.



# WINCHES

### Electric & Hand Wire Rope Winches

CM offers a diverse range of electric and hand wire rope winches for lifting, lowering, pulling and positioning loads to meet your specific needs.

Wall-mounted hand wire rope winches are ideal for the raising and lowering of banners, nets, and scenery. Additionally, console-mounted wire rope winches provide maximum flexibility when used in theatres and studios. Electric wire rope winches provide superior performance when lifting speeds are vital. Whatever the lifting requirement, there is a Meteor winch for the job.



# **SW-E** STANDARD ELECTRIC WIRE ROPE WINCH

- Capacities: up to 8.25 tons
- Rope Speeds: up to 98.4 feet/minute
- The aluminum compact wire rope winch has a closed construction and therefore requires little maintenance.
- Perfect for superstructures on vehicles & trailers and when lifting & lowering a wide variety of loads.
- Overload protection available.
- Multiple line winches available.
- C1 compliance available.





### MODEL RPE ELECTRIC WIRE ROPE WINCH

- Compact dimensions due to internal brake motor.
- Adjustable slip clutch to protect the winch from overloading standard for Model RPE 10-6.
- Spur gear transmission with helical first gear ensures smooth motion. Lubricated by grease and can, therefore, be used in any position.
- Plain rope drum standard. Grooved drum available.
- Spring pressure disc brake incorporated in the motor holds the load secure even in the event of a power failure.
- The rope is secured to the drum in a recess so that the rope can be wound onto the drum in several layers without damage.
- The standard version comes with Low Voltage Control. Direct Control optional.
- Integrated emergency stop.



### **SW-K-LB** WIRE ROPE WINCH

GALVANIZED DESIGN Capacities: 330 to 2,645 lbs.

We have designed manual lifting to be not only secure but also ergonomic: The friction disk brake equipped with a shuttle valve on our wire rope winch prevents unintentional lowering of the load in every position. These wire rope winches have been galvanized for maximum protection against corrosion.

### **SW-K-LB-VA** WIRE ROPE WINCH

STAINLESS STEEL DESIGN Capacities: 550 to 1,985 lbs.

The robust high-quality LB wire rope winch is made of V2A stainless steel – suitable for outside use.

Whether used for lifting, opening gates, or for lifting & lowering portable staging, this console-mounted hand wire rope winch effortlessly handles the job.

# WINCHES

### Electric & Hand Wire Rope Winches



# **SW-W** WALL-MOUNTED WIRE ROPE WINCH

Capacities: 176 to 2,204 lbs.

With a removable crank, inside braked spring retention, and aluminum housing, workers in gymnasiums, auditoriums, aquatic centers and arenas will find the SW-W winch the perfect equipment for most requirements.

The versatile SW-W, equipped with a toothed spur wheel back gear, has a low net weight and compact design which allows it to meet an abundance of requirements. Easily mounts onto the wall and permits rope output in any direction.



# **SW-W-SGO** WALL-MOUNTED WIRE ROPE WINCH WITH WORM GEAR

For the lifting and lowering of a wide range of loads, our manual wire rope winch with worm gear and additional friction disk brake is mounted onto the wall and takes up to 5 tonnes tension loads. Winch housing and rope drum are made of sturdy steel plate. Sizes from 2 tonnes upwards are equipped with an additional speed increasing ratio used for overdrive.

OPTIONS: Multi-compartment, Zinc plated, Grooved drum



### **DSR SHEAVES**

The steel DSR sheaves feature a wear-resistant rope guide where the machine groove is perfectly adjusted to the wire rope. Fifteen different types guarantee a made-to-specification solution at loads of up to 8 tons. The sheaves can be varied in wire and sheave diameter (from 3.125" up to 19.3125") – and as standard all sheaves are equipped with ball bearings. The sheaves are one of the guiding elements within the comprehensive CM product range of wire rope winches, wire rope and wire rope pulley blocks.



# **TRAINING**

### Be Safe. Get Trained.

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 he 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.

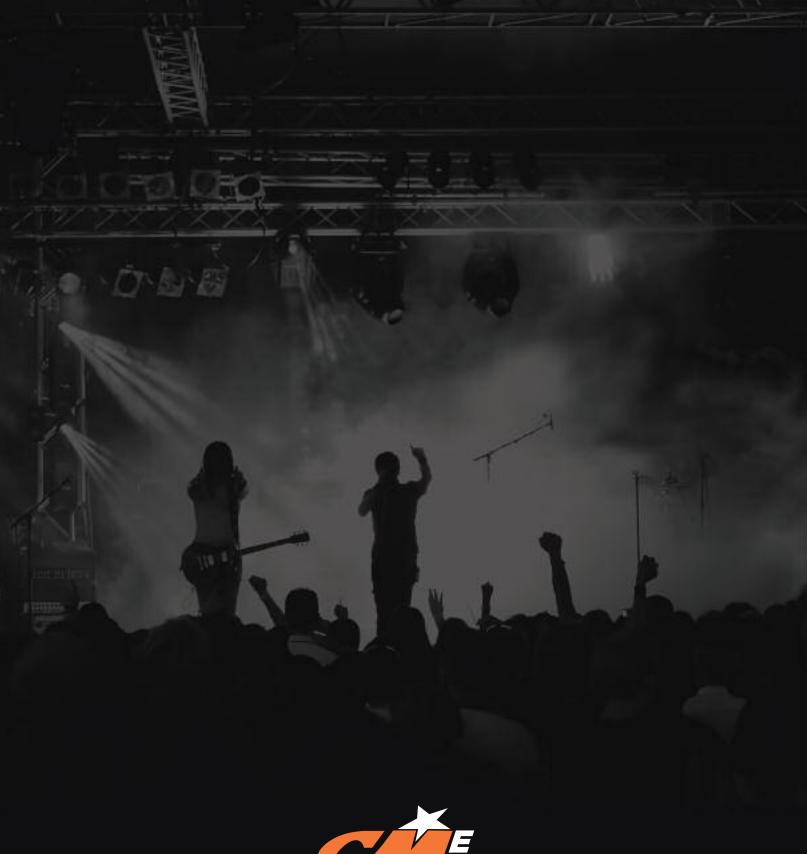
Columbus McKinnon offers classes covering many areas of entertainment technology industry including:

- Basic Lodestar Introduction & Maintenance
- Road Hoist Technician Certification
- Entertainment Rigging
- Truss Safety & Standards
- Rigging Hoist Technician Certification

Motor Technician Certification

For course information and schedules, please visit www.cmcodepot.com or call 1-877-298-6511







# COLUMBUS MCKINNON CORPORATION ENTERTAINMENT PRODUCTS

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