



PRODUCT CATALOG





Thern[®]

Winches & Cranes

ABOUT US

Maintaining a Steadfast Reputation of Manufacturing Excellence & Customer Satisfaction SINCE 1948

Founded in Winona, Minnesota by Royal G. Thern and his wife Lucille in 1948, Thern[®] Inc. began manufacturing a handful of winches and other tools, which formed the foundation for the cutting-edge lifting, pulling, positioning, and tensioning solutions we offer today.

Upholding a legacy built on innovation, we have leveraged over 75 years of continuous research, development, and testing to establish a worldwide reputation for toughness, versatility, and reliability. We stand by our tagline of "Leave the Heavy Lifting to Us." Thern winches and cranes are engineered to perform and last, guaranteed.

As a family-owned manufacturer with an experienced in-house engineering team, we are dedicated to providing you with the best solutions by carefully listening to all your needs to exceed your expectations. We take pride in offering top-quality products and services, timely responses, and accurate information for every project.

Some of the key industries that we serve include but are not limited to water/wastewater, theater, entertainment, construction, bulk material handling, mining, marine, defense/aerospace, energy, manufacturing, and OEMs. Backed by a diverse portfolio of reputable clients from NASA to the Times Square Ball, you can rely on Thern to move it all from big to small.

SERVICES

THERN® CUSTOMER SERVICE

Hours 7:00 am – 5:00 pm Central Time Zone

Toll-Free 800.843.7648

Phone 507.454.2996

Email info@thern.com

Web www.thern.com

EXPECT MORE OF YOUR WINCH AND CRANE MANUFACTURER

Technical Assistance:

Not sure how to select the right winch for your application? Let an experienced member of our Technical Sales Department help you every step of the way.

System Solutions:

Sheaves, controls, rigging—we can help put together the best system to solve your lifting, pulling, or tensioning needs.

Engineered Solutions:

We embrace the opportunity to help you configure a unique custom-engineered solution to your most demanding applications.

Expedited Delivery:

When you have a demanding schedule, we can hand-hold your order from entry to shipment to ensure the best delivery schedule possible.

Wire Rope:

Winches require wire rope, and we can help you select the most appropriate style/size for your application.

We can even spool it onto the drum for you, saving you valuable time during installation.

QUALITY ASSURANCE

Each product we manufacture must meet our strict quality standards, or it doesn't carry the Thern name. Our quality management system is certified to ISO 9001 standards. Inspection tools are maintained and calibrated regularly, and all new products are rigorously tested to ensure performance and durability. Thern has the ability to test products statically and dynamically with load capacities up to 55,000 lbs and line speeds of up to 200 fpm. Test and inspection certificates are additional services that are available upon request.

OUR MISSION

We like to say that our passion is helping our customers defy gravity. While that statement is a bit tongue-in-cheek, our employees love solving demanding challenges. We do this with a combination of top-quality products and services, along with timely responses and the best technical solutions in the industry.

TABLE OF CONTENTS

6 HAND WINCHES

- 8 Spur Gear *up to 2,000 lb capacity*
- 10 Spur Gear *up to 10,000 lb capacity*
- 12 Worm Gear *up to 4,600 lb capacity*

14 PORTABLE ELECTRIC WINCHES

- 16 Liberty Series Swivel Base *up to 1,000 lb capacity*
- 18 Liberty Series Options and Accessories
- 22 Dura-Hoist Series *up to 2,000 lb capacity*
- 24 Atlas Series *up to 2,000 lb capacity*
- 26 Atlas II Series *up to 4,600 lb capacity*

28 HEAVY-DUTY ELECTRIC POWER WINCHES

- 30 4WS Series *up to 26,000 lb capacity*
- 32 4HS Series *up to 26,000 lb capacity*
- 34 4HWF Series *up to 8,000 lb capacity*
- 36 4HPF Series *up to 25,000 lb capacity*
- 38 4HBN Series *up to 25,000 lb capacity*
- 40 4HBP Series *up to 100,000 lb capacity*
- 42 Vertical Lead Blocks *The Redline Series*

44 AIR WINCHES

- 46 Mini TA Series *up to 2,700 lb capacity*
- 48 Big Red *up to 37,000 lb capacity*

50 DAVIT CRANES

- 52 Ease of Assembly
- 54 First Mate 500 (5PF5) Series *up to 850 lb capacity*
- 56 Ensign 500 (5PA5) Series *up to 500 lb capacity*
- 58 Ensign 1000 (5PA10) Series *up to 1,200 lb capacity*
- 60 Commander AL (5AT1/5AT2) Series *up to 1200 lb capacity*
- 62 Commander 500 (5PT5) Series *up to 650 lb capacity*
- 64 Commander 1000 (5PT10) Series *up to 1,200 lb capacity*
- 66 Commander 2000 (5PT20) Series *up to 2,000 lb capacity*
- 68 Rescue Rated Series *up to 2,000 lb capacity*
- 70 Rescue Rated Series Accessories
- 72 Long Lift Series *up to 2,000 lb capacity*
- 74 Captain 2000 (5FT20) Series *up to 2,000 lb capacity*
- 76 Captain 2500 (5FT25) Series *up to 2,800 lb capacity*
- 78 Captain 4000 (5FT40) Series *up to 5,500 lb capacity*
- 80 Captain 10,000 (5PT100) Series *up to 11,000 lb capacity*
- 82 Captain 10,000 Series Options and Accessories
- 84 Admiral 3000 (5PT30) Series *up to 3,000 lb capacity*
- 82 Crane Options & Accessories

TECHNICAL PAGES

- 88 Spur Gear Series
- 94 Worm Gear Series
- 98 Liberty Series
- 102 Dura-Hoist Series
- 104 Atlas Series
- 108 Atlas II Series
- 110 4WS Series
- 116 4HS Series
- 122 4HWF Series
- 126 4HPF Series
- 132 4HBN Series
- 136 Vertical Lead Blocks
- 138 Mini TA Series
- 142 Big Red
- 146 First Mate 500 (5PF5) Series
- 152 Ensign 500 (5PA5) Series
- 156 Ensign 1000 (5PA10) Series
- 160 Commander AL (5AT1/5AT2) Series
- 171 Commander Comparison Chart
- 172 Commander 500 (5PT5) Series
- 178 Commander 1000 (5PT10) Series
- 184 Commander 2000 (5PT20) Series
- 190 Rescue Rated Series
- 193 Crane Component Weights
- 194 Long Lift Series
- 196 Captain 2000 (5FT20) Series
- 200 Captain 2500 (5FT25) Series
- 204 Captain 4000 (5FT40) Series
- 208 Captain 10,000 (5FT100) Series
- 212 Admiral 3000 (5PT30) Series
- 216 Wire Ropes
- 218 Controls
- 222 Rigging Layouts
- 224 Rail Car Pulling Calculations
- 225 Engineering Information

RESOURCES

- 226 Application Data Sheet
- 228 Quote Form
- 229 Terms and Conditions

TERN® HAND WINCHES

Dependable Manual Control of Heavy Loads Without Power

No power? No problem. If you need to lift, pull, or position loads up to 10,000 lbs without a power source, rely on Thern hand winches to keep your job moving forward. Built to last, these durable winches feature automatic brakes for positive load control and adjustable handles to increase your mechanical advantage for the ultimate user-friendly experience. Depend on this equipment to streamline work on the construction site, elevated platforms, and marine applications.

Worm Gear Series

Up to 4,600 lb / 2,085 kg Capacity



Here's your ideal solution to lift and lower large loads quietly, with less effort. Thern's Worm Gear hand winches feature an innovative design that allows for more precise positioning and extra load-holding power, enabling secure control. Machine-cut bronze gearing and a cast aluminum gearbox enhance durability and resist the elements. Automated drill-drivable options are available up to 400 rpm.

Spur Gear Series

Up to 10,000 lb / 4,535 kg Capacity

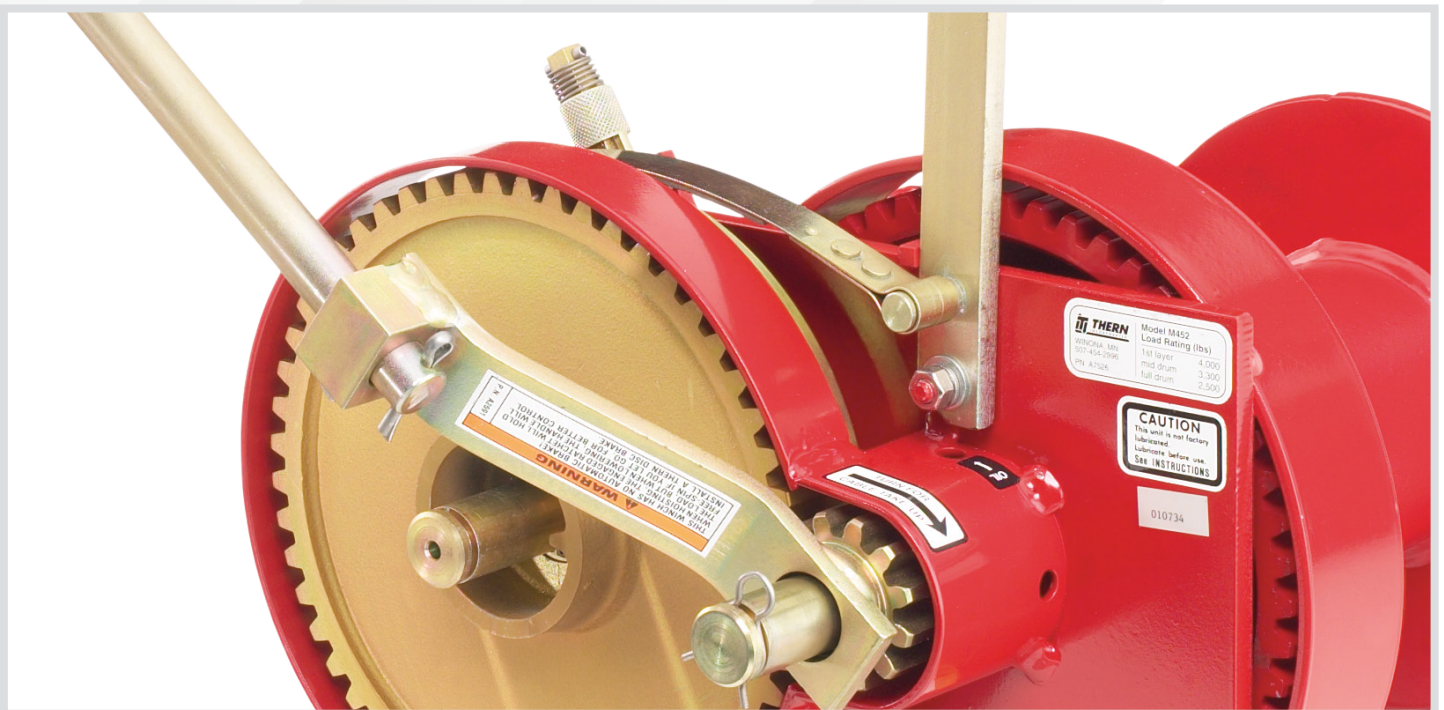


Get power and performance in the palm of your hands. When you need to lift, lower, and position large loads, including high-capacity holds and tensioning, rely on Thern's Spur Gear hand winches to deliver exceptional results. Heavy steel construction, optional stainless-steel finish, machine-cut steel gears, and radial ball bearings promote efficient operation.

UP TO 10,000 LB CAPACITY **FEATURES***

- Machine Cut Gears Increase Efficiency & Service Life
- Automatic Brake Models for Positive Load Control
- Corrosion-Resistant Finishes to Withstand Harsh Environments
- Quick-Disconnect Anchor for Streamlined Attachment or Removal of Wire Rope
- Bronze/Radial Ball Bearings Provide Smooth & Efficient Operation
- Gear Covers (Spur Gear Models) Protect Gears & Prevent Injuries
- Enclosed Oil Bath (Worm Gear Models) Minimizes Wear & Reduces Maintenance Costs
- Adjustable Handles Increase Mechanical Advantage
- Industry-Leading Warranty to Ensure Your Complete Satisfaction

*Features will vary depending on the model.



These products are not for lifting people or things over people.

Complete, downloadable details online
thern.com



SPUR GEAR

HAND WINCHES—UP TO 2,000 LBS

LIGHT-DUTY PERFORMANCE

with Robust Construction & Features

The Spur Gear Series of hand winches (up to 2,000 pounds) is a popular, versatile solution for lifting, lowering, and positioning loads in a variety of applications. Yet, it incorporates the same uncompromising quality and features for which Thern is known. Heavy steel construction, clear zinc-coated finish, machine-cut steel gears, bronze bushings, and radial ball bearings deliver rugged-duty service that will last. It's perfect for construction, maritime, and manufacturing environments.

Adjustable Handle

- Adjustable handle provides ability to increase mechanical advantage or speed as load weight varies

Solid Steel Machine-Cut Gears

- Precision-cut, zinc-coated steel gears resist corrosion, increase efficiency, and provide accurate and durable operation

Composite Gear Guards

- Glass-filled nylon, encased gear guard enhances safety and includes grease zerks for easy lubrication

Welded Steel Drum

- Robust drum design and large spool diameter minimize drum wear and extend wire rope life

Quick-Disconnect Anchor

- Swagged ball fitting holds load and allows additional flexibility for quickly attaching or removing wire rope

Product Shown:
M4312PB

Automatic Weston-Style Brake

- Spring-engaged, ratchet-pawl design offers additional reliability and positive load control for lifting and lowering
- Enclosed (pawl and ratchet) envelope keeps brake clean, dry, and protected for reliable service and haptic feedback
- Durable friction discs reduce wear and increase service life

PERFORMANCE

Series	IMPERIAL					
	Load Rating	Finish	Drum	Brake	Drum Capacity	Force to Lift 1,000 lbs
M4022PB	1,000 lbs	Clear Zinc Plating	Narrow	Yes	130 ft	41 lbs
M4032PB	1,000 lbs	Clear Zinc Plating	Wide	Yes	250 ft	41 lbs
M4042PBSS	1,000 lbs	Stainless	Wide	Yes	240 ft	46 lbs
M4312PB	2,000 lbs	Clear Zinc Plating	Narrow	Yes	110 ft	17 lbs
M4312PBSS	2,000 lbs	Stainless	Narrow	Yes	110 ft	17 lbs
M4412PB	2,000 lbs	Clear Zinc Plating	Wide	Yes	210 ft	17 lbs

Available Non-Brake Units

- Non-brake unit allows additional flexibility in horizontal pulling applications only

Series	METRIC					
	Load Rating	Finish	Drum	Brake	Drum Capacity	Force to Lift 453 kg
M4022PB	450 kg	Clear Zinc Plating	Narrow	Yes	39 m	19 kg
M4032PB	450 kg	Clear Zinc Plating	Wide	Yes	76 m	19 kg
M4042PBSS	450 kg	Stainless	Wide	Yes	73 m	21 kg
M4312PB	905 kg	Clear Zinc Plating	Narrow	Yes	33 m	8 kg
M4312PBSS	905 kg	Stainless	Narrow	Yes	33 m	8 kg
M4412PB	905 kg	Clear Zinc Plating	Wide	Yes	64 m	8 kg



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

SPUR GEAR

HAND WINCHES—UP TO 10,000 LBS

ROBUST CONSTRUCTION for Dependable Heavy-Duty Service

The Spur Gear Series of hand winches (up to 10,000 pounds) is designed to lift, lower, and position heavy loads, dependably. It is also a perfect solution for high-capacity stabilization and tensioning needs. The rugged design features heavy steel construction, machine-cut steel gears, bronze bushings, and radial ball bearings. You can count on long, rugged service life for many applications, like construction and aerospace.

Adjustable Handle

- Adjustable handle provides ability to increase mechanical advantage or speed accordingly as load weight varies

Spring-Loaded Ratchets & Locking Mechanism

- Ratchets automatically engage to hold loads securely when winch is not being operated
- Frame-based, gear-locking mechanism enhances load control

Steel Gear Guards

- Steel-encased gear guard enhances safety

Available Non-Brake Units

- Non-brake unit allows additional flexibility in horizontal pulling applications only
- Two gear ratios increase efficiency, depending on load

Solid Steel Machine-Cut Gears

- Precision-cut, zinc gears resist corrosion, increase efficiency, and provide precise operation for outdoor use

Product Shown:
M452

Automatic Weston-Style Brake*

- Spring-engaged, ratchet-pawl design offers additional reliability and positive load control for lifting and lowering
- Enclosed (pawl and ratchet) envelope keeps brake clean, dry, and protected for reliable service and haptic feedback
- Durable friction discs reduce wear and increase service life

**Available without brake for pulling applications only*

Welded Steel Drum

- Robust drum design and large spool diameter minimizes drum wear and extends wire rope life

PERFORMANCE

Series	IMPERIAL			
	Load Rating	Brake	Drum Capacity	Low-Speed Force to Lift 1,000 lbs at Base Layer
M452	4,000 lbs	No	300 ft	10 lbs
M452B	4,000 lbs	Yes	300 ft	10 lbs
M492	10,000 lbs	No	540 ft	8 lbs
M492B	10,000 lbs	Yes	540 ft	8 lbs

Series	METRIC			
	Load Rating	Brake	Drum Capacity	Low-Speed Force to Lift 1,000 lbs at Base Layer
M452	1,810 kg	No	91 m	5 kg
M452B	1,810 kg	Yes	91 m	5 kg
M492	4,535 kg	No	164 m	4 kg
M492B	4,535 kg	Yes	164 m	4 kg



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

WORM GEAR

HAND WINCHES

MEASURED, STEADY PRECISION with Less Force

The Worm Gear Series of hand winches (up to 4,600 lbs) is designed to lift and lower heavy loads quietly, with less effort. The worm-gear design allows for more precise positioning and extra load-holding power for secure control. Machine-cut bronze gearing and a cast aluminum gearbox enhance durability and resist the elements. Multiple configurations make it ideal for maritime, rail yards, construction, and manufacturing.



Adjustable Handle

- Adjustable handle provides ability to increase mechanical advantage or speed accordingly as load weight varies

Machine-Cut Bronze Gears

- Bronze worm gears reduce noise, enhance precision, and extend service life while facilitating drill-drivable operation*

*4WM2 & 2W40-BM Models

Flexible Operation Design

- Operate winch using adjustable handle or portable drill-drive on 4WM2 and 2W40-BM models for longer lift applications that lack a permanent power supply
- Drill drive operation* allows faster lifting/lowering speed (400 RPM Drive Maximum)

Product Shown:
4WM2

Enclosed Oil Bath

- An oil bath provides continuous lubrication of gearbox components to minimize wear, extend life, and reduce maintenance

Cast-Aluminum Gear Box

- Lightweight, corrosion-resistant design enhances portability and increases service life

PERFORMANCE

Automatic Brake

- Adjustable brake provides positive load control for lifting/lowering
- Oil bath provides continuous lubrication to reduce heat, minimize wear, and extend service life

Load-Locking Mechanism

- Frame-based, gear-locking mechanism enhances load control



Large-Diameter Drum

- Large diameter drum extends wire rope life and increases travel distance

IMPERIAL

Series	IMPERIAL			
	Load Rating	Brake	Drum Capacity	Force to Lift 1,000 lbs
4622PB	1,000 lbs	Yes	140 ft	26 lbs
4WM2	2,000 lbs	Yes	77 ft	14 lbs
2W40-BM	4,000 lbs	Yes	200 ft	11 lbs

IMPERIAL

Series	IMPERIAL			
	Load Rating	Brake	Drum Capacity	Force to Lift 1,000 lbs
4622PB	450 kg	Yes	42 m	12 kg
4WM2	905 kg	Yes	23 m	7 kg
2W40-BM	2,085 kg	Yes	60 m	5 kg



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Refer to technical pages for detailed performance information.

THERN® PORTABLE ELECTRIC WINCHES

Delivering Unmatched Power in a Lightweight Package

Move up to 4,600 lbs with confidence using a portable electric winch from Thern. Constructed of durable cast aluminum, these lightweight winches are designed for maximum portability to deliver superior strength and performance where and when you need it. They're ideal for construction sites, in the mines, at wastewater treatment plants, and even aerospace facilities. Special coating finishes are available to withstand even the harshest environments.

Liberty® Series

Up to 2,000 lb /
900 kg Capacity



Built to last, this capstan winch maintains quiet operation to enhance team communication for increased productivity. The enclosed motor housing, powder-coat finish, and corrosion-resistant components ensure dependable performance for years to come. Now available in 230V option.

Dura-Hoist Series

Up to 2,000 lb /
907 kg Capacity



Engineered with a compact, vertical design, this helical/worm gear winch offers the perfect solution when you need robust power in tight spaces. Featuring solid construction, internal lubrication, and pendant control, the only thing you won't need is worry.

Atlas Series

Up to 2,000 lb /
907 kg Capacity



This popular winch series combines portability, strength, and precision in a compact envelope. Ergonomic handles and pendant control make positioning and operation ultra-convenient. Plus, a built-in pressure plate secures the wire rope tightly on the drum when the winch is not in use.

Atlas II Series

Up to 4,600 lb /
2,086 kg Capacity

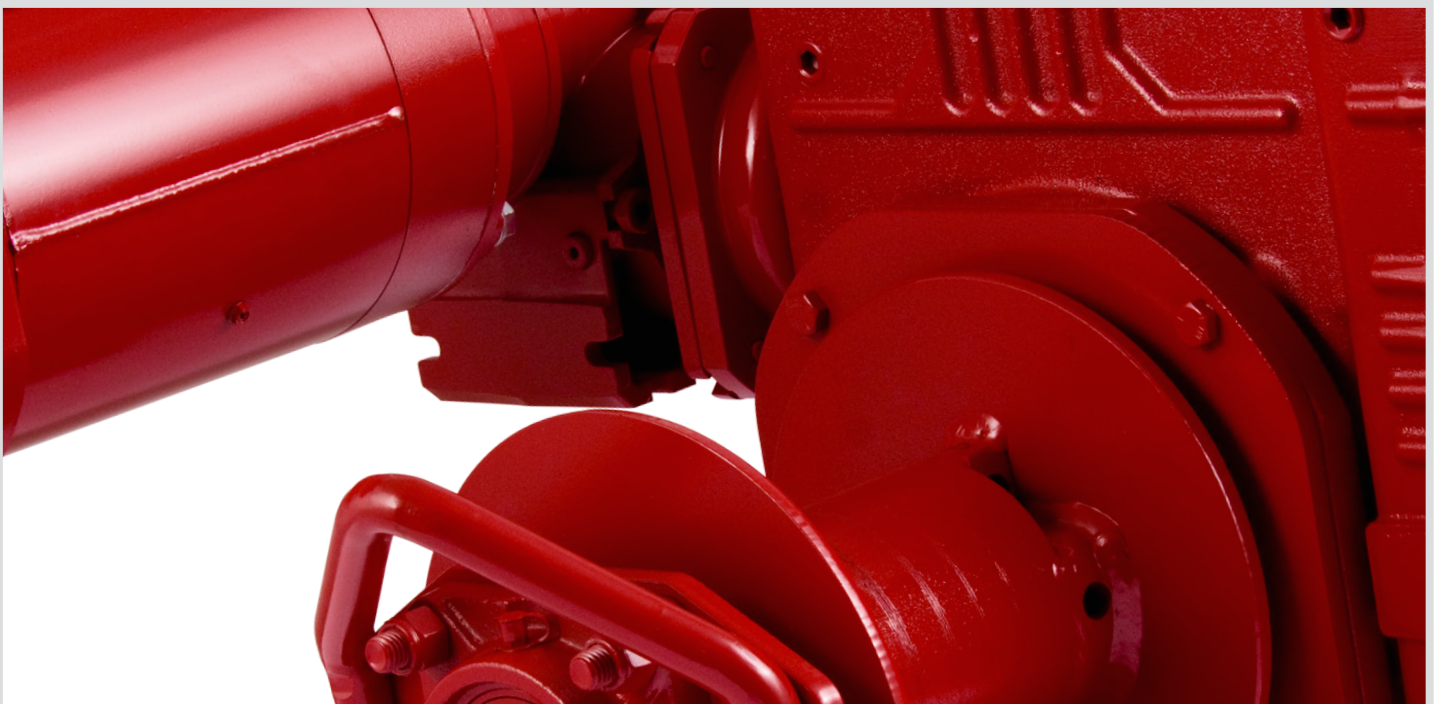


Get the best of both worlds. When you need extra power but can't lose portability, the 3WG4 is your go-to winch. With double the load capacity of the 4WP2, you get the power you need with all the convenience of a smaller winch.

UP TO 4,600 LB CAPACITY **FEATURES***

- Premium, Industrial-Duty Electric Motors
- Worm Gearing for Precise Load Control
- Enclosed Oil Bath Dissipates Heat & Provides Continuous Lubrication
- Load-Holding Brakes Facilitate Safe Operation
- Cast-Aluminum Construction for Lightweight Portability
- Mount on Floor, Wall, or Ceiling for Flexible Installation and Use
- Weather-tight NEMA Controls Available
- Ergonomic Lifting Handles for Easy Transport
- Clutch Models Available for Quick Wire Rope Payout
- Industry-Leading Warranty to Ensure Your Complete Satisfaction

*Features will vary depending on the model.



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Complete, downloadable details online
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LIBERTY® SERIES

PORTABLE CAPSTAN WINCH W/ INTEGRAL SWIVEL BASE

Quiet Performance and Long Life at Any Angle

The Thern Liberty® Series capstan winch delivers portable strength and performance. More importantly, quiet operation enhances team communication for increased productivity. A powder-coat finish and corrosion-resistant components ensure dependable operation for many years. The swivel base allows operation at almost any angle—especially when paired with the optional hitch mount. Position your truck once, rotate the winch (15° increments) to align the load, and lock it down. It's perfect for energy sector tasks in remote locations, including pole setting, stringing lines, maintaining wind turbines, and erecting cell towers. Now available in 230V option.

Engineered Drum Design

- Keeps load line from moving during operation, enhancing productivity
- Nickel-plated steel construction for optimum performance and durability

Integral Rope Keep

- Spring-loaded rope keep helps prevent accidental removal of hand line from drum
- Corrosion-resistant components improve durability
- Rope keep bar serves as a carrying handle

Premium Motor with Handle

- Premium motor offers quiet operation (80 dBA)* enhancing clear communication between operators
- Durable powder-coat finish resists contamination for increased reliability
- Maintenance-free, permanently lubricated, planetary gearbox for smooth operation and long life
- UL-Recognized motor

Foot Switch Control

- Foot switch-controlled operation delivers productivity and safety
- IP65, sealed foot switch allows outdoor use
- Painted, cast-iron construction and anti-skid feet promote durability and stability for outdoor applications
- 10-foot cord and twist-lock plug design avoids untimely power disruption, increasing productivity

Product Shown:
3CP15-AFS

Durable Swivel Frame with Integral Lock Option Available

- Adjustable rotation in 15° increments to align loads and lock securely with swivel stop
- Lightweight, engineered design and steel construction provides portability
- Powder-coated steel finish resists wear and promotes durability
- Half-inch, Grade 5 mounting hardware enhances security
- Optional heavy-duty fixed mount frame

Integral Rope Lock

- Rope lock prevents unintentional lowering of load
- Nickel-plated and anodized components ensure durability and smooth handling of load
- Adjustable rope lock accommodates various line exit angles and operator heights



PERFORMANCE

IMPERIAL									
Series	Maximum Capacity	Rope Diameter Range**	Maximum Line Speed Range***	Rated Current Draw	Input Voltage	Ship Weight	Ambient Operating Temperature Range	Duty Cycle	Mount Type
3CP1M-AFS	1,000 lbs	½ - ¾ in	35-50 fpm	15 amp	115V/1 Phase /50-60Hz	63 lbs	-4 °F – +105 °F	20 mins full load	Fixed
3CP1S-AFS	1,000 lbs	½ - ¾ in	35-50 fpm	15 amp	115V/1 Phase /50-60Hz	78 lbs	-4 °F – +105 °F	20 mins full load	Swivel
3CP1M-BFS	1,000 lbs	½ - ¾ in	30-50 fpm	10 amp	230V/1 Phase /50-60Hz	67 lbs	-4 °F – +104 °F	20 mins full load	Fixed
3CP1S-BFS	1,000 lbs	½ - ¾ in	30-50 fpm	10 amp	230V/1 Phase /50-60Hz	82 lbs	-4 °F – +104 °F	20 mins full load	Swivel
3CP1H-BFS	1,000 lbs	½ - ¾ in	30-50 fpm	10 amp	230V/1 Phase /50-60Hz	80 lbs	-4 °F – +104 °F	20 mins full load	Hitch Ball
3CP2S-AFS	2,000 lbs	½ - ¾ in	12-20 fpm	15 amp	115V/1 Phase /50-60Hz	93 lbs	-4 °F – +105 °F	20 mins full load	Swivel
3CP2M-AFS	2,000 lbs	½ - ¾ in	12-20 fpm	15 amp	115V/1 Phase /50-60Hz	71 lbs	-4 °F – +105 °F	20 mins full load	Fixed
METRIC									
Series	Maximum Capacity	Rope Diameter Range**	Maximum Line Speed Range***	Rated Current Draw	Input Voltage	Ship Weight	Ambient Operating Temperature Range	Duty Cycle	Mount Type
3CP1M-AFS	450 kg	13-19 mm	11-15 mpm	15 amp	115V/1 Phase /50-60Hz	29 kg	-20°C – +40°C	20 mins full load	Fixed
3CP1S-AFS	450 kg	13-19 mm	11-15 mpm	15 amp	115V/1 Phase /50-60Hz	36 kg	-20°C – +40°C	20 mins full load	Swivel
3CP1M-BFS	450 kg	13-19 mm	9-15 mpm	10 amp	230V/1 Phase /50-60Hz	31 kg	-20°C – +40°C	20 mins full load	Fixed
3CP1S-BFS	450 kg	13-19 mm	9-15 mpm	10 amp	230V/1 Phase /50-60Hz	37 kg	-20°C – +40°C	20 mins full load	Swivel
3CP1H-BFS	450 kg	13-19 mm	9-15 mpm	10 amp	230V/1 Phase /50-60Hz	36 kg	-20°C – +40°C	20 mins full load	Hitch Ball
3CP2S-AFS	900 kg	13-19 mm	3.5-6 mpm	15 amp	115V/1 Phase /50-60Hz	43 kg	-20°C – +40°C	20 mins full load	Swivel
3CP2M-AFS	900 kg	13-19 mm	3.5-6 mpm	15 amp	115V/1 Phase /50-60Hz	32 kg	-20°C – +40°C	20 mins full load	Fixed

** Synthetic rope only. Available for purchase through Thern.

*** Load dependent.

Motor Safety Features

- Over-temperature light indicates high temperatures caused by over current or environmental factors
- Integrated breaker automatically provides overload protection to extend life of equipment
- Quiet, vented, fan cooled permanent magnet motor
- Momentary single speed, single direction operation via foot switch on 10 foot (3 meter) cord with secure connection to motor

230V Additional Features

- Equipped with 1 foot (0.3 meter) power cord with 2-prong Type F Schuko plug
- Foot switch with emergency stop



**Liberty Capstan
230V Foot Switch**



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

OPTIONS & ACCESSORIES

LIBERTY® SERIES

PORTABLE CAPSTAN WINCHES

Liberty Capstan Hitch Mounts - sold separately

Model 3CP1S-HM

- Compatible with 3CP1S 1,000 pound capacity Liberty Capstan winch only
- Heavy-duty (ASTM-grade steel) construction
- For use on vehicles with 2-inch hitch receiver
- Hitch mount includes standard receiver clevis and cotter pins
- Red powder-coat finish
- Weighs approximately 26 pounds for easy handling

Model 3CP2S-HM

- Compatible with both 3CP1S 1,000 pound capacity and 3CP2S 2,000 pound capacity Liberty Capstan winches
- Heavy-duty (ASTM-grade steel) construction
- For use on vehicles with 2 1/2-inch hitch receiver
- Hitch includes standard receiver clevis and cotter pins
- Red powder-coat finish
- Weighs approximately 45 pounds for easy handling



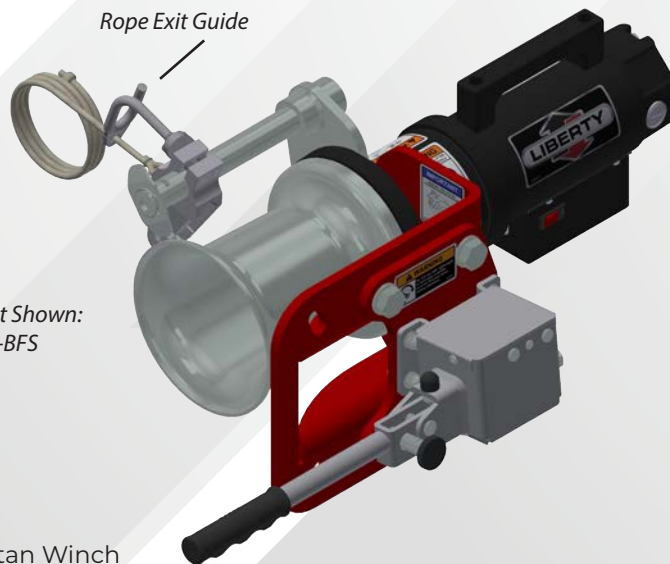
Product Shown:
3CP1S-HM

230V Liberty Capstan Hitch Mount - sold separately

Model 3CP1H-HM

- Hitch Mount Kit for 1,000 pound (450 kg) Capstan Winch
- Quick-Connector allows convenient attachment and removal without tools
- For use on vehicles with a 2-inch (50mm) hitch ball
- Powder-coat finish
- Product weight is approximately 13 pounds (6 kg)

Hitch Mount With Winch



Product Shown:
3CP1H-BFS

Model 3CP-RG Rope Guide



- Rope Exit Guide for Capstan Winch
- Helps maintain proper fleet angle for various operator positions
- Includes attachment hardware
- Polished stainless-steel finish
- Product weight is approximately 0.5 pounds (0.2 kg)

Product Shown:
3CP-RG

Liberty Capstan Pole Mount - sold separately

Model 3CP1M-PM

Adjustable Pole / I-Beam Mounting Frame
for Liberty Capstan 1,000 pound Winch

This versatile mounting frame provides a secure and adaptable solution for installing the Liberty Capstan Winch on utility poles or I-beams.

The steel frame has a durable powder coat finish and the unit features two lengths of durable Grade 43 galvanized chain, it easily wraps around poles of varying diameters, offering a strong and corrosion-resistant hold.

The adjustable design allows use with a wide range of I-beams, making it a dependable choice for various job site configurations.

Engineered for flexibility and reliability, this mounting frame simplifies setup and enhances stability in the field.



Product Shown:
3CP1M-PM



Product Shown:
3CP1M-PM with
3CP1S-AFS



Product Shown:
3CP-RH

Antenna Pipe Rooster Head - sold separately

Model 3CP-RH

The Thern Rooster Head is a rugged, easy-to-install lifting solution designed for telecom professionals who climb and maintain cell towers.

Built with welded structural steel and a corrosion-resistant galvanized finish, it handles loads up to 500 lbs and accommodates 1/2" to 5/8" synthetic lines.

Featuring a 4" Nylatron sheave with a steel roller bearing that requires no tools for removal, it streamlines rigging and includes a secondary attachment point for two-part line configurations.

Compliant with ANSI/TIA 322 and ANSI/ASSP A10.48 standards, this accessory is built for safety and reliability in demanding environments.



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

OPTIONS & ACCESSORIES

LIBERTY® SERIES

PORTABLE CAPSTAN WINCHES

Liberty Capstan Series Travel Case - sold separately



Custom designed
foam insert

Model 3CP-CASE

Liberty Capstan Series Travel Case is the ultimate solution for protecting and transporting your capstan winch.

Crafted from ultra high-strength polypropylene copolymer resin, it's built to withstand UV, solvents, corrosion, and impact while maintaining a watertight seal (MIL-STD-810H compliant).

With custom foam inserts to securely fit 1,000 and 2,000 pound winch models, in both fixed and swivel configurations, plus in-line skate wheels and a telescoping handle, it offers unmatched durability and ease of transport.

Safeguard your investment with industrial-strength construction designed for demanding environments.



Industrial strength injection
molded pull handle

In-line skate style wheels





NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

DURA-HOIST SERIES

PORTABLE ELECTRIC WINCHES

QUIET PORTABILITY with Quick Cable Disconnect

The 477 Series features a compact, vertical design when robust power is needed in tight spaces. Lift/pull up to 2,000 pounds in any direction or orientation: floor, ceiling, or wall. Machine-cut helical and worm gears offer quiet and precise power transfers and continuous lubrication ensures long life. Ideal for wastewater, construction, and manufacturing applications.

Portable Design

- Optional integrated pressure plate prevents unspooling during transport
- Mounts on wall, ceiling, or floor for maximum flexibility
- Lightweight cast aluminum drum and gearbox

Premium Motor & Configurations

- Brushless-design, totally enclosed AC induction motor provides superior life
- Quiet operation in both directions
- 115-volt single phase standard, with other voltages available (single-and three-phase configurations)

Durable Winch Frame & Component Construction

- Cast aluminum drum, frame, and gearbox (with enamel or optional epoxy coating) resist corrosion for extreme conditions and applications

Internal Mechanical Load Brake

- Internal mechanical brake helps control loads and facilitates controlled operation
- Wet-brake design increases durability by dissipating heat and reducing wear

Product Shown:
4777



Premium Gearbox Design

- Helical and worm gears provide increased load control and quiet operation
- Fully enclosed oil bath reducer dissipates heat and provides continuous lubrication for long service life

Enhanced Load Handling

- Quickly disconnect loads when needed to speed labor/time

Ready-to-Work Controls

- Standard push-button pendant and power cord standard on 4771 and 4777
- NEMA 4 rating for outdoor use

PERFORMANCE

Series	IMPERIAL				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Drum (Wide or Narrow)
4771	2,000 lbs 1st layer	115 / 1 / 60 VAC	13–22 fpm	90–120 ft	Wide
4771PN	1,500 lbs 1st layer	Pneumatic	13–22 fpm	90–120 ft	Wide
4771HY	2,000 lbs 1st layer	Hydraulic	13–22 fpm	90–120 ft	Wide
4771DC	2,000 lbs 1st layer	12 VDC	13–22 fpm	90–120 ft	Wide
4777	2,000 lbs 1st layer	115 / 1 / 60 VAC	13–22 fpm	60–89 ft	Narrow

Series	IMPERIAL				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Drum (Wide or Narrow)
4771	907 kg 1st layer	115 / 1 / 60 VAC	3–6 mpm	27–36 m	Wide
4771PN	680 kg 1st layer	Pneumatic	3–6 mpm	27–36 m	Wide
4771HY	907 kg 1st layer	Hydraulic	3–6 mpm	27–36 m	Wide
4771DC	907 kg 1st layer	12 VDC	3–6 mpm	27–36 m	Wide
4777	907 kg 1st layer	115 / 1 / 60 VAC	3–6 mpm	18–27 m	Narrow



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

ATLAS SERIES

PORTABLE ELECTRIC WINCHES

SPEED & PORTABILITY in a Compact Envelope

The 4WP2 Series electric winches combine portability with strength and precision—all in a compact envelope. The portable design makes it ideal for multiple industries and applications including manufacturing, construction, steel industry, wastewater treatment, rail operations, and more. Lift or pull in any direction and in any orientation: floor, ceiling, or wall.

Premium Motor & Configurations

- Brushless, totally enclosed AC induction motor provides superior life
- Quiet operation in both directions
- 115-volt single phase standard, with other voltages available (single, three-phase, and DC configurations)

Ready-to-Work Controls

- Standard push-button pendant and power cord standard on 4WP2 and 4WP2T8 for ready operation
- NEMA 4 rating for outdoor use

Durable Winch Frame & Component Construction

- Cast aluminum drum and gearbox (with enamel or optional epoxy coating) resists corrosion for extreme conditions and applications
- Coated steel frame resists elements and wear

Enhanced Load Handling

- Large-capacity drum for long travel distances
- Quick-disconnect anchor for 1/4" wire rope reduces labor/time

Product Shown:
4WP2T8



PERFORMANCE

Premium Gearbox Design

- Gear box reducer with worm gear design for increased load control and quiet operation
- Fully enclosed oil bath dissipates heat and provides continuous lubrication for long service life

Internal Mechanical Load Brake

- Internal mechanical brake helps control loads and facilitates safe operation
- Oil-bath brake design increases durability by dissipating heat and reducing wear

Portable Design

- Ergonomic lifting handles enhance portability
- Integrated pressure plate prevents unspooling during transport
- Mounts on wall, ceiling, or floor for maximum flexibility
- Lightweight cast aluminum drum and gearbox

IMPERIAL

Series	Load Rating	Clutch	Line Speed	Drum Capacity	Drum (Wide or Narrow)
4WP2	2,000 lbs 1st layer	No	8–13 fpm	52–77 ft	Narrow
4WP2D8	1,500 lbs 1st layer	No	40–97 fpm	190–280 ft	Wide
4WP2DC*	1,500 lbs 1st layer	Yes	40–97 fpm	130–190 ft	Narrow
4WP2T8	2,000 lbs 1st layer	No	8–19 fpm	190–280 ft	Wide
4WP2TC*	2,000 lbs 1st layer	Yes	8–19 fpm	130–190 ft	Narrow

IMPERIAL

Series	Load Rating	Clutch	Line Speed	Drum Capacity	Drum (Wide or Narrow)
4WP2	907 kg 1st layer	No	2–3 mpm	15–23 m	Narrow
4WP2D8	680 kg 1st layer	No	12–29 mpm	57–85 m	Wide
4WP2DC*	680 kg 1st layer	Yes	12–29 mpm	39–57 m	Narrow
4WP2T8	907 kg 1st layer	No	2–5 mpm	57–85 m	Wide
4WP2TC*	907 kg 1st layer	Yes	2–5 mpm	39–57 m	Narrow

* For horizontal pulling applications only.



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

ATLAS II SERIES

PORTABLE ELECTRIC WINCHES

High-Power Capacity with Portable Convenience

The 3WG4 Series offers up to 4,600 pounds of secure lift and pull capacity, while retaining the versatility of a portable winch—just right for a variety of demanding applications. Lift or pull in any direction or orientation: floor, ceiling, or wall. Ideal for communication tower assembly, rail yards, steel operations, mining, heavy construction, and manufacturing applications.

Easy-to-Use Controls

- 115-volt pendant control and power cord included (3WG4, 3WG4-B, 3WG4-M)
- NEMA 4 rating for outdoor use

Premium Motor & Configurations

- Brushless-design, totally enclosed AC induction motor provides superior life
- Quiet operation in both directions
- 115-volt single phase standard, with other voltages available (single- and three-phase configurations)

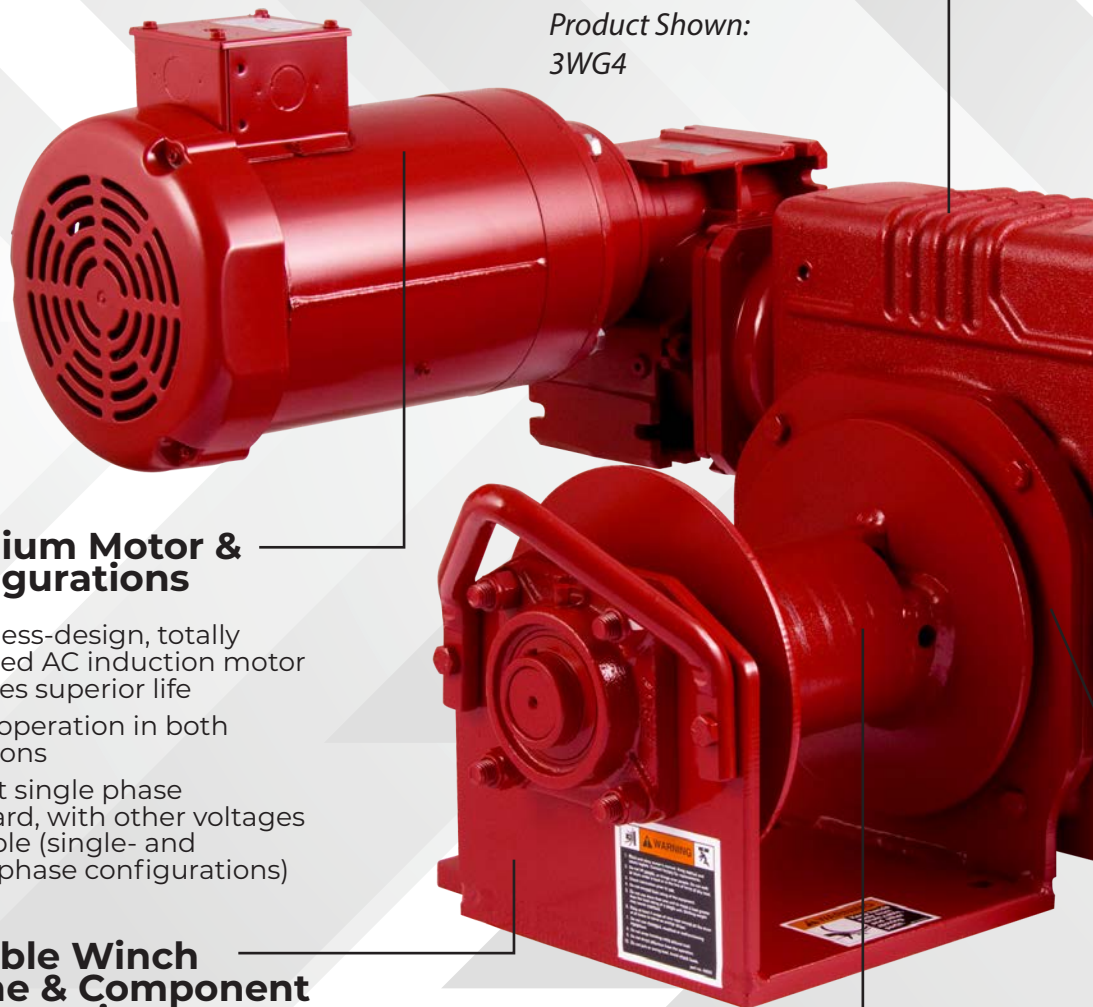
Durable Winch Frame & Component Construction

- Cast aluminum gearbox (with enamel or optional epoxy coating) resists corrosion for extreme conditions and applications
- Painted steel frame resists elements and wear

Product Shown:
3WG4

Enhanced Load Handling

- Large-capacity drum for long travel distances



Premium Gearbox Design

- Fully enclosed oil bath for reducer dissipates heat and provides continuous lubrication for long service life
- Double-worm gearing



Internal Mechanical Load Brake

- M-Models feature a spring-applied, electrically released motor disk brake
- B-Models feature an internal, mechanical brake to help control loads and facilitate safe operation
- Wet brake design on B-Models increases durability by dissipating heat and reducing wear

PERFORMANCE

Series	IMPERIAL			
	Load Rating	Power Supply	Line Speed	Drum Capacity
3WG4-B	4,000 lbs 1st layer	115 / 1 / 60	9-16 fpm	140-200 ft
3WG4-B	4,600 lbs 1st layer	230 / 3 / 60	13-24 fpm	140-200 ft
3WG4-M	4,000 lbs 1st layer	115 / 1 / 60	9-16 fpm	140-200 ft
3WG4-M	4,600 lbs 1st layer	230 / 3 / 60	13-24 fpm	140-200 ft
3WG4T-M	4,600 lbs 1st layer	230 / 3 / 60	13-28 fpm	220-300 ft

Series	METRIC			
	Load Rating	Power Supply	Line Speed	Drum Capacity
3WG4-B	1,814 kg 1st layer	115 / 1 / 60	2-4 mpm	42-60 m
3WG4-B	2,086 kg 1st layer	230 / 3 / 60	4-7 mpm	42-60 m
3WG4-M	1,814 kg 1st layer	115 / 1 / 60	2-4 mpm	42-60 m
3WG4-M	2,086 kg 1st layer	230 / 3 / 60	4-7 mpm	42-60 m
3WG4T-M	2,086 kg 1st layer	230 / 3 / 60	4-8 mpm	67-91 m



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

THERN® HEAVY-DUTY ELECTRIC POWER WINCHES

Engineered to Effortlessly Move the World's Largest Loads

When you need serious winch power, don't settle for less than the best. Thern's heavy-duty electric power winches can lift, pull, or position up to 100,000 lbs. They're designed to traverse long distances, accommodate rapid line speeds, and give you ultimate control. Backed by a steadfast reputation of toughness, versatility, and reliability, you can rely on our power winches to perform flawlessly in rail yards, on construction sites, positioning barges, and within mining operations to keep the world moving.

4WS Series

Up to 26,000 lb / 11,793 kg Capacity



Perfect for long-lift or long-pull applications with single-phase power, these economical winches with helical/worm and spur gearing provide all the flexibility you need.

4HS Series

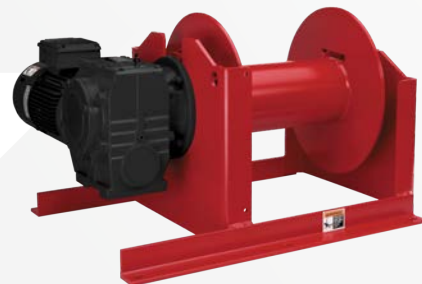
Up to 26,000 lb / 11,790 kg Capacity



Here's your ideal solution with dual-stage gear reduction for pulling jobs that require a clutch for paying out line, while traversing long distances and maintaining fast line speeds.

4HWF Series

Up to 8,000 lb / 3,628 kg Capacity



Look no further for an electric winch with helical/worm gears that's built for extreme environments, hard-to-reach locations, and operations requiring high-duty cycles/continuous use.

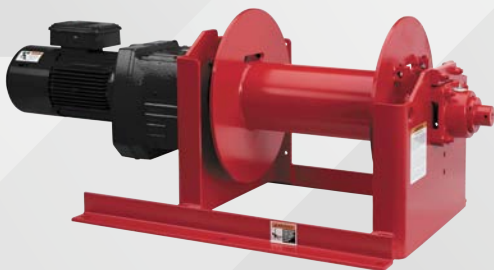
UP TO 100,000 LB CAPACITY FEATURES*

- Premium, Industrial-Duty Electric Motors
- Worm Gearing for Precise Load Control
- Enclosed Oil Bath Dissipates Heat & Provides Continuous Lubrication
- Load-Holding Brakes Facilitate Safe Operation
- Mount on Floor, Wall, or Ceiling for Flexible Installation and Use
- Weather-tight NEMA Controls Available
- Modular Designs for Quick Customization to Meet Your Specific Requirements
- Industry-Leading Warranty to Ensure Your Complete Satisfaction

*Features will vary depending on the model.

4HPF Series

Up to 25,000 lb / 11,339 kg Capacity



Cut your maintenance costs with these highly efficient power winches with a helical/parallel gear set that delivers consistent performance for your most demanding pulling applications.

4HBP Series

Up to 100,000 lb / 45,359 kg Capacity



If you need significant pulling or lifting power, rely on Thern's 4HBP winches with high-torque planetary gearing to tackle the biggest and toughest jobs.



These products are not for lifting people or things over people.

Complete, downloadable details online
thern.com



4WS SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

HEAVY-DUTY, DIRECT-DRIVE GEARS

Enhance Load Control and Positioning

The 4WS Series of power winches (800 to 26,000 pounds) is designed to lift, lower, pull, or position heavy loads. Heavy-duty spur and worm gears, plus direct-drive gearing enhance load security and positioning accuracy. Sealed cast-iron gear case housing with integral oil bath lubricates rotating gears for long service life. Ideal for long-lift or long-pull applications with single-phase power.

Flange-Mounted Premium Motor & Enclosure

- Reversible, three-phase, industrial-grade motor, endures continuous operation. Single-phase version also available
- A totally enclosed, fan-cooled (TEFC) design, featuring IP44+ and F-class insulation, resists debris and contamination for long service life
- Standard motors comply with industry standards: UL, CSA, IEC, and NEMA MG1

Durable Gears & Gearbox Design

- Heavy-duty spur gears, providing secondary reduction, are guarded with grease zerks for easy lubrication and maintenance
- Large-capacity bearings enhance smooth operation and durability
- Sealed, cast-iron gearbox with integral oil bath for primary gears dissipates heat and provides continuous lubrication for enhanced service life
- Direct-drive gearing, featuring spur and worm gears, enhance load control and positioning while resisting wear
- Primary speed reducers meet AGMA and/or DIN standards

Load-Holding Motor Disk Brake

- Spring-set, electrically-released brake helps control loads and facilitates safe operation



Product Shown:
4WS6M12

PERFORMANCE

ASME B30.7 Compliance Available

- Contact Thern for details

Integral Drum & Shaft Design

- Large-diameter, welded-steel drum, featuring outside flange anchors, promotes uniform winding and life of wire rope
- Anchors allow cable to be over or under wound and provide multiple drum exit angles
- Flange-style, self-aligning roller bearings with cast-iron housing maintain smooth drum rotation
- Continuous, solid-steel drum shaft and steel frame provide optimal strength and security
- Complete wire rope assemblies available upon request

IMPERIAL

Series	IMPERIAL				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4WS1M6	1,500 lbs	.5-1.5 hp	17-44 fpm	260 ft	Yes
4WS3M10	3,700 lbs	1-3 hp	8-23 fpm	500 ft	Yes
4WS6M12	6,400 lbs	1-5 hp	4-24 fpm	660 ft	Yes
4WS9M18	10,000 lbs	5-10 hp	13-32 fpm	1,500 ft	No
4WS16M20	16,000 lbs	7.5-15 hp	12-35 fpm	1,530 ft	No
4WS26M26	26,200 lbs	10-25 hp	10-36 fpm	1,480 ft	No

METRIC

Series	METRIC				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4WS1M6	680 kg	.37-1.1 kW	5-13 mpm	79 m	Yes
4WS3M10	1,675 kg	.75-2.2 kW	2-7 mpm	152 m	Yes
4WS6M12	2,900 kg	.75-3.7 kW	1-7 mpm	201 m	Yes
4WS9M18	4,535 kg	3.7-7.5 kW	3-9 mpm	457 m	No
4WS16M20	7,255 kg	5.5-11 kW	3-10 mpm	466 m	No
4WS26M26	11,880 kg	7.5-18.5 kW	3-10 mpm	451 m	No



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

4HS SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

DUAL-STAGE GEAR REDUCTION

for Economical Handling of Large Loads

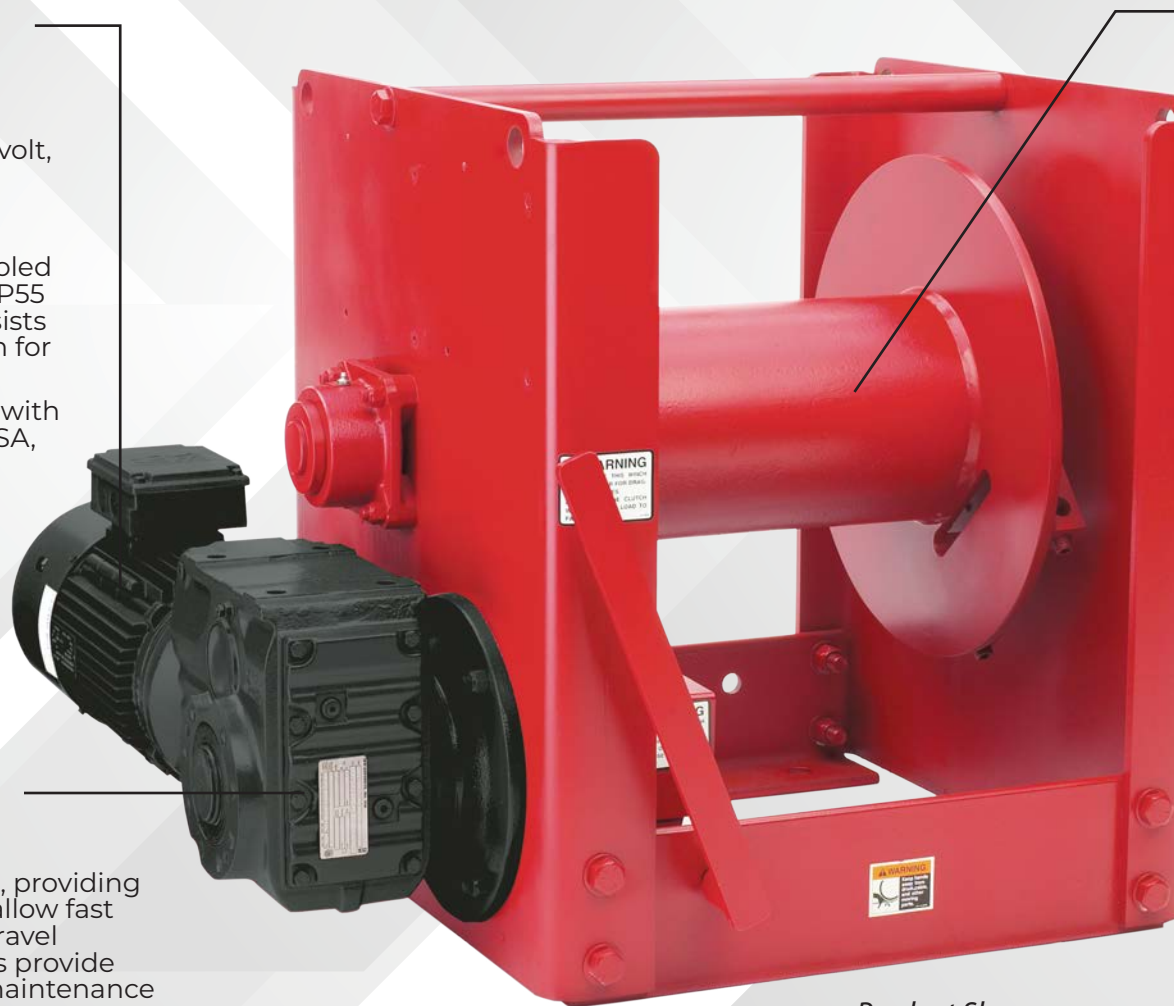
The 4HS Series of power winches (5,000 to 26,000 pounds) is designed for applications requiring long travel distances and fast line speeds. A combination of directly driven, helical/bevel or helical/parallel and spur gearing provides durability and high efficiency—up to 89 percent. Modular design allows customization to meet specific customer specifications. Typical applications include rail yards, conveyor belt tensioning, and barge or dredge positioning.

Flange-Mounted Premium Motor & Enclosure

- Energy-efficient 230/460 volt, reversible, three-phase, industrial-grade motor, endures continuous use
- A totally enclosed, fan-cooled (TEFC) design, featuring IP55 and F-class insulation, resists debris and contamination for long service life
- Standard motors comply with industry standards: UL, CSA, IEC, and NEMA MG1

Durable Gears & Gearbox Design

- Heavy-duty spur gears, providing secondary reduction, allow fast line speeds and long travel distances. Grease zerks provide easy lubrication and maintenance
- Large-capacity bearings enhance smooth operation and durability
- Sealed, cast-iron gearbox with integral oil bath for rotating gears dissipates heat and provides continuous lubrication for enhanced service life
- Primary speed reducers meet AGMA and/or DIN standards



Product Shown:
4HS11M

Modular Design

- Flexible winch design allows customization by Thern to meet specific customer requirements

PERFORMANCE

Series	IMPERIAL				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HS6M	6,600 lbs	2–7.5 hp	13–39 fpm	850 ft	Yes
4HS11M	11,000 lbs	5–10 hp	15–37 fpm	1,170 ft	Yes
4HS16M	16,100 lbs	5–15 hp	11–37 fpm	1,530 ft	Yes
4HS26M	26,000 lbs	10–20 hp	13–29 fpm	1,070 ft	Yes
Series	METRIC				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HS6M	2,290 kg	1.5–5.5 kW	4–11.9 mpm	259 m	Yes
4HS11M	4,985 kg	3.7–7.5 kW	4.6–11.3 mpm	356 m	Yes
4HS16M	7,300 kg	3.7–11 kW	3.4–11.3 mpm	466 m	Yes
4HS26M	11,790 kg	7.5–15 kW	4–8.8 mpm	326 m	Yes

Integral Drum & Shaft Design

- Large-diameter, welded-steel drum, featuring outside flange anchors, promotes uniform winding and life of wire rope
- Anchors allow cable to be over or under wound and provide multiple drum exit angles
- Flange-style, self-aligning roller bearings with cast-iron housing maintain smooth drum rotation
- Continuous, solid-steel drum shaft and steel frame provide optimal strength and security
- Complete wire rope assemblies available upon request

ASME B30.7 Compliance Available

- Contact Thern for details

Load-Holding Motor Disk Brake

- Spring-set, electrically-released brake helps control loads and facilitates safe operation



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

4HWF SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

HELICAL/WORM GEARS

Enhance Load Control & Positioning Accuracy

The 4HWF Series of power winches (1,500 to 8,000 pounds) is designed to lift, lower, pull, or position heavy loads. A combination of directly driven, helical and worm gears, minimizes maintenance while delivering dependable operation. A modular design allows easy customization to exact customer specifications. These winches are perfect for extreme environments, hard-to-reach locations, and operations requiring high-duty cycles/continuous use. Typical applications include shipboard winches, mining, construction, rail yards, wind turbines, and cargo handling facilities.

Flange-Mounted Premium Motor & Enclosure

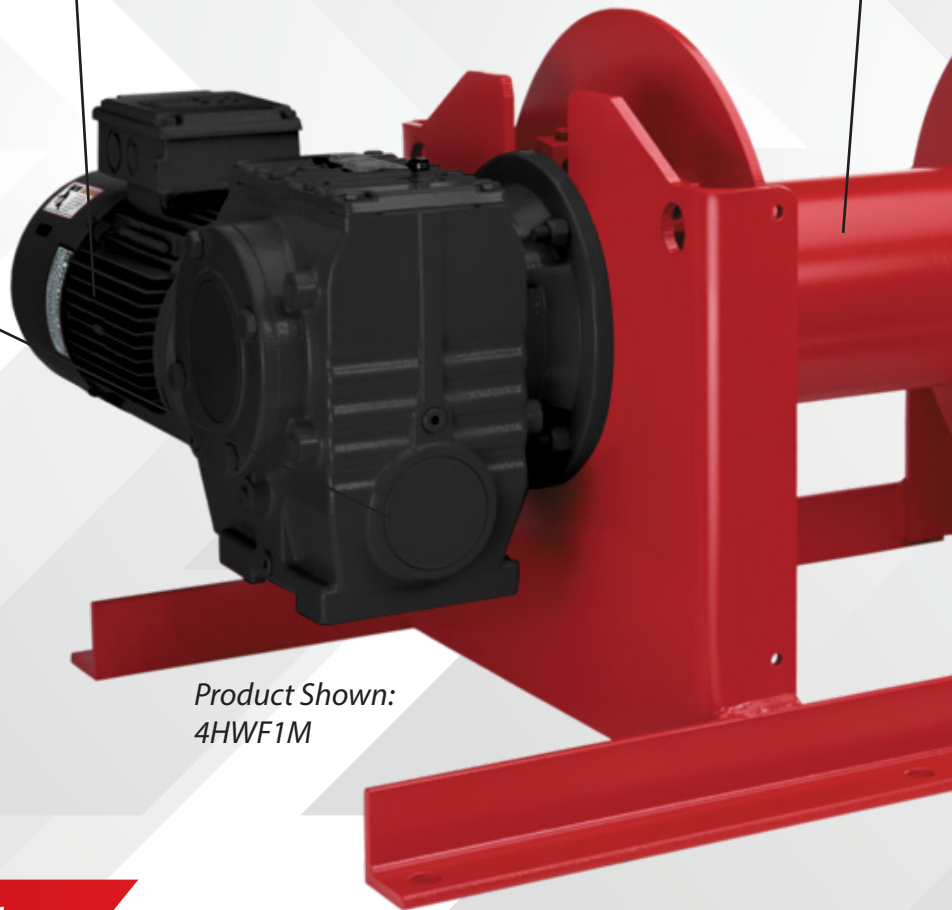
- Energy-efficient 230/460 volt, reversible, three-phase, industrial-grade motor, endures continuous use
- A totally enclosed, fan-cooled (TEFC) design, featuring IP66 and F-class insulation, resists debris and contamination for long service life
- Standard motors comply with industry standards: UL, CSA, IEC, and NEMA MG1

Direct-Drive Gear Reducers & Right-Angle Gearbox Design

- Right-angle gearbox decreases overall product length for tight spaces
- Direct-drive gear reducers, comprised of heat-treated helical/worm gears, deliver 65 to 76 percent efficiency and enhance load control and positioning
- Large-capacity bearings enhance smooth operation and durability
- Sealed, cast-iron gearbox with integral oil bath for rotating gears dissipates heat and provides continuous lubrication for enhanced service life
- Primary speed reducers meet AGMA and/or DIN standards

ASME B30.7 Compliance Available

- Contact Thern for details



Product Shown:
4HWF1M

Load-Holding Motor Disk Brake

- Spring-set, electrically released brake helps control loads and facilitates safe operation

Modular Design

- Flexible winch design allows customization by Thern to meet specific customer requirements

Integral Drum & Shaft Design

- Large-diameter, welded-steel drum, featuring outside flange anchors, promotes uniform winding and life of wire rope
- Anchors allow cable to be over or under wound and provide multiple drum exit angles
- Flange-style, self-aligning roller bearings with cast-iron housing maintain smooth drum rotation
- Continuous, solid-steel drum shaft and steel frame provide optimal strength and security
- Complete wire rope assemblies available upon request



PERFORMANCE

Series	IMPERIAL				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HWF1M	1,500 lbs	1.5–2 hp	23–32 fpm	830 ft	No
4HWF2M	2,200 lbs	2–3 hp	22–34 fpm	750 ft	No
4HWF4M	4,000 lbs	3–5 hp	21–35 fpm	2,120 ft	No
4HWF6M	6,000 lbs	5–7.5 hp	24–35 fpm	990 ft	No
4HWF8M	8,100 lbs	7.5–10 hp	27–39 fpm	1,210 ft	No

Series	METRIC				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HWF1M	680 kg	1.1–1.5 kW	7–9 mpm	253 m	No
4HWF2M	995 kg	1.5–2.2 kW	6–10 mpm	228 m	No
4HWF4M	1,810 kg	2.2–3.7 kW	6–10 mpm	646 m	No
4HWF6M	2,721 kg	3.7–5.5 kW	7–10 mpm	301 m	No
4HWF8M	3,670 kg	5.5–7.5 kW	8–11 mpm	368 m	No



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

4HPF SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

HELICAL/PARALLEL IN-LINE GEARING for Highly Efficient Load Handling

The 4HPF Series of power winches (5,000 to 25,000 pounds) is designed for applications requiring long travel distances and fast line speeds. The heat-treated, helical/parallel gear set provides durability and high efficiency—up to 94 percent. A modular design allows configuration to a variety of customer specifications. These winches are ideal for harsh and hazardous environments, including hard-to-reach locations. Typical applications include ship winches, mining, construction, and rail yards.

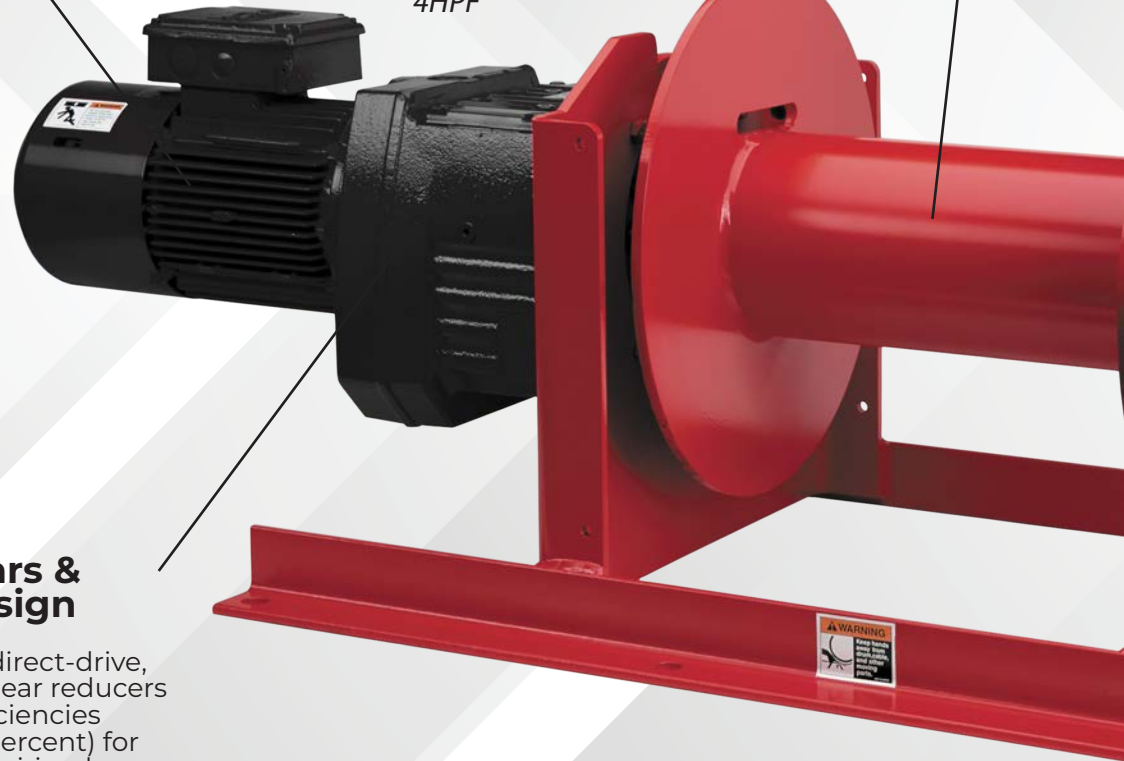
Energy-Efficient Premium Motor

- Energy-efficient 230/460 volt, reversible, three-phase, industrial-grade motor, endures continuous use
- A totally enclosed, fan-cooled (TEFC) design, featuring IP66 and F-class insulation, resists debris and contamination for long service life
- Standard motors comply with industry standards: UL, CSA, IEC, and NEMA MG1

Durable Gears & Gearbox Design

- Fully enclosed, direct-drive, helical/parallel gear reducers deliver high efficiencies (from 88 to 94 percent) for applications requiring long travel distances and fast line speeds
- Large-capacity bearings enhance smooth operation and durability
- Sealed, cast-iron gearbox with integral oil bath for rotating gears dissipates heat and provides continuous lubrication for enhanced service life
- Primary speed reducers meet AGMA and/or DIN standards

Product Shown:
4HPF



Modular Design

- Common componentry allows the winch to be easily configured to adapt to specific customer requirements

ASME B30.7 Compliance Available

- Contact Thern for details

Integral Drum & Shaft Design

- Large-diameter, welded-steel drum, featuring outside flange anchors, promotes uniform winding and life of wire rope
- Anchors allow cable to be over or under wound and provide multiple drum exit angles
- Flange-style, self-aligning roller bearings with cast-iron housing maintain smooth drum rotation
- Continuous, solid-steel drum shaft and steel frame provide optimal strength and security
- Complete wire rope assemblies available upon request



PERFORMANCE

Series	IMPERIAL				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HPF2M	2,100 lbs	1-2 hp	17-34 fpm	830 ft	Yes
4HPF3M	3,300 lbs	1.5-3 hp	17-34 fpm	750 ft	Yes
4HPF5M	5,000 lbs	3-5 hp	21-37 fpm	2,120 ft	Yes
4HPF7M	7,300 lbs	5-7.5 hp	24-38 fpm	990 ft	Yes
4HPF9M	9,000 lbs	5-10 hp	21-41 fpm	1,210 ft	Yes
4HPF15M	15,200 lbs	10-15 hp	22-36 fpm	940 ft	Yes
4HPF20M	20,100 lbs	10-25 hp	17-43 fpm	2,070 ft	Contact Factory
4HPF25M	25,200 lbs	15-30 hp	20-42 fpm	1,050 ft	Contact Factory

Series	METRIC				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HPF2M	950 kg	.75-1.5 kW	5.2-10.4 mpm	253 m	Yes
4HPF3M	1,495 kg	1.1-2.2 kW	5.2-10.4 mpm	228 m	Yes
4HPF5M	2,265 kg	2.2-3.7 kW	6.4-11.3 mpm	646 m	Yes
4HPF7M	3,310 kg	3.7-5.5 kW	7.3-11.6 mpm	301 m	Yes
4HPF9M	4,080 kg	3.7-7.5 kW	6.4-12.5 mpm	368 m	Yes
4HPF15M	6,890 kg	7.5-11 kW	6.7-11 mpm	286 m	Yes
4HPF20M	9,115 kg	7.5-18.5 kW	5.2-13.1 mpm	630 m	Contact Factory
4HPF25M	11,430 kg	11-22 kW	6.1-12.8 mpm	320 m	Contact Factory



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

4HBN SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

HELICAL/BEVEL RIGHT ANGLE GEARING for Highly Efficient Load Handling

The 4HBN Series of power winches (2,000 to 25,000 pounds) is designed for applications requiring long travel distances and fast line speeds. The heat-treated, helical/bevel gear set provides durability and high efficiency—up to 94 percent. A modular design allows configuration to a variety of customer specifications. These winches are ideal for harsh and hazardous environments, including hard-to-reach locations. Typical applications include ship winches, mining, construction, and rail yards.

Energy-Efficient Premium Motor

- Energy-efficient 230/460 volt, reversible, three-phase, industrial-grade motor, endures continuous use
- A totally enclosed, fan-cooled (TEFC) design, featuring IP66 and F-class insulation, resists debris and contamination for long service life
- Standard motors comply with industry standards: UL, CSA, IEC, and NEMA MG1

Load Holding Motor Disk Brake

- Spring-set, electrically released brake helps control loads and facilitates safe operation

Durable Gears & Right Angle Gearbox Design

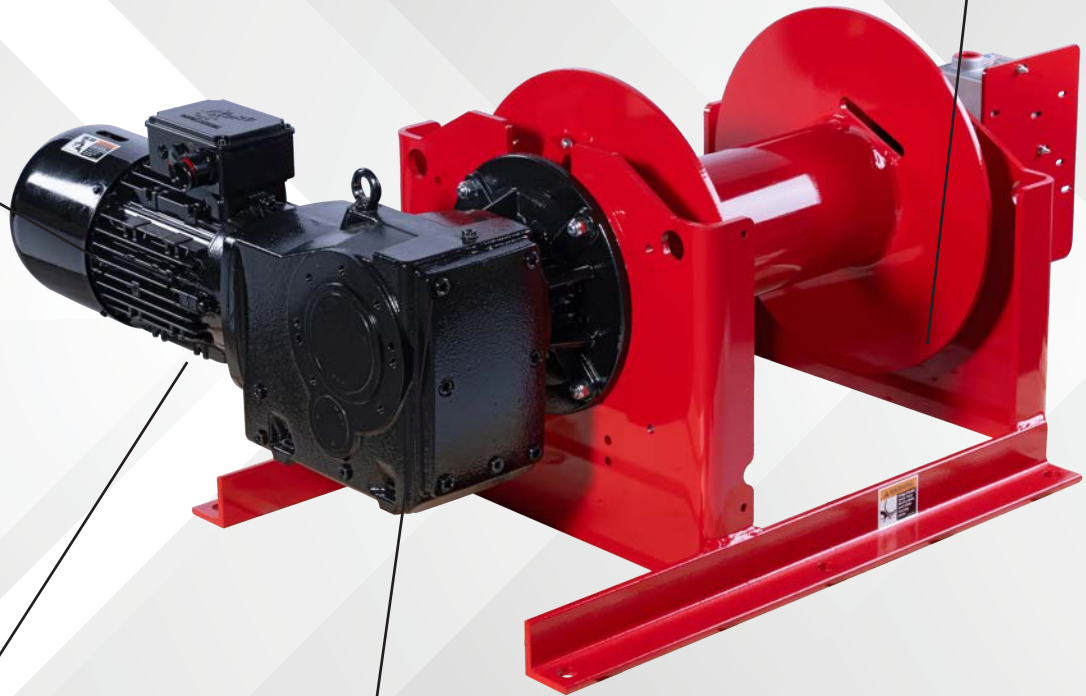
- Fully enclosed, direct-drive, helical/bevel gear reducers deliver high efficiencies (from 88 to 94 percent) for applications requiring long travel distances and fast line speeds
- Large-capacity bearings enhance smooth operation and durability
- Sealed, cast-iron gearbox with integral oil bath for rotating gears dissipates heat and provides continuous lubrication for enhanced service life

Modular Design

- Flexible winch design allows customization by Thern to meet specific customer requirements

ASME B30.7 Compliance Available

- Contact Thern for details



Integral Drum & Shaft Design

- Large-diameter, welded-steel drum, featuring outside flange anchors, promotes uniform winding and life of wire rope
- Anchors allow cable to be over or under wound and provide multiple drum exit angles
- Flange-style, self-aligning roller bearings with cast-iron housing maintain smooth drum rotation
- Continuous, solid-steel drum shaft and steel frame provide optimal strength and security
- Complete wire rope assemblies available upon request



PERFORMANCE

Series	IMPERIAL				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HBN2M	2,000 lbs	1–3 hp	18–53 fpm	830 ft	No
4HBN3M	3,100 lbs	1.5–5 hp	16–55 fpm	750 ft	No
4HBN5M	4,600 lbs	2–7.5 hp	15–54 fpm	2,120 ft	No
4HBN7M	6,800 lbs	3–10 hp	16–51 fpm	990 ft	No
4HBN9M	9,000 lbs	5–10 hp	21–44 fpm	1,210 ft	No
4HBN15M	15,300 lbs	10–20 hp	21–51 fpm	940 ft	No
4HBN20M	19,500 lbs	10–25 hp	18–47 fpm	2,070 ft	No
4HBN25M	25,100 lbs	15–30 hp	21–46 fpm	1,050 ft	No

Series	METRIC				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HBN2M	900 kg	.75–2.2 kW	5–16 mpm	253 m	No
4HBN3M	1,400 kg	1.1–3.7 kW	4–15 mpm	228 m	No
4HBN5M	2,080 kg	1.5–5.5 kW	4–16 mpm	646 m	No
4HBN7M	3,080 kg	2.2–7.5 kW	4–15 mpm	301 m	No
4HBN9M	4,080 kg	3.7–7.5 kW	6–13 mpm	368 m	No
4HBN15M	6,940 kg	7.5–15 kW	6–15 mpm	286 m	No
4HBN20M	8,840 kg	7.5–18.5 kW	5–14 mpm	630 m	No
4HBN25M	11,380 kg	11–22 kW	6–14 mpm	320 m	No



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

4HBP SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

HIGH-TORQUE PLANETARY GEARING

Moves the Heaviest Loads

The 4HBP Series of power winches (35,000 to 100,000 pounds) is designed for the heaviest loads that require fast line speeds over long travel distances. Planetary gearing provides high torque in a compact envelope while providing high efficiencies—up to 88 percent. A modular design allows easy customization to exact customer specifications. Perfect for mining, rail car positioning, and construction.

Modular Design

- Flexible winch design allows customization by Thern to meet specific customer requirements

Integral Drum & Shaft Design

- Large-diameter, welded-steel drum, featuring outside flange anchors, promotes uniform winding and extends life of wire rope
- Anchors allow cable to be over or under wound and allow multiple drum exit angles
- Flange-style, self-aligning roller bearings with cast-iron housing maintain smooth drum rotation
- Continuous, solid-steel drum shaft and steel frame provide optimal strength and security
- Complete wire rope assemblies available upon request

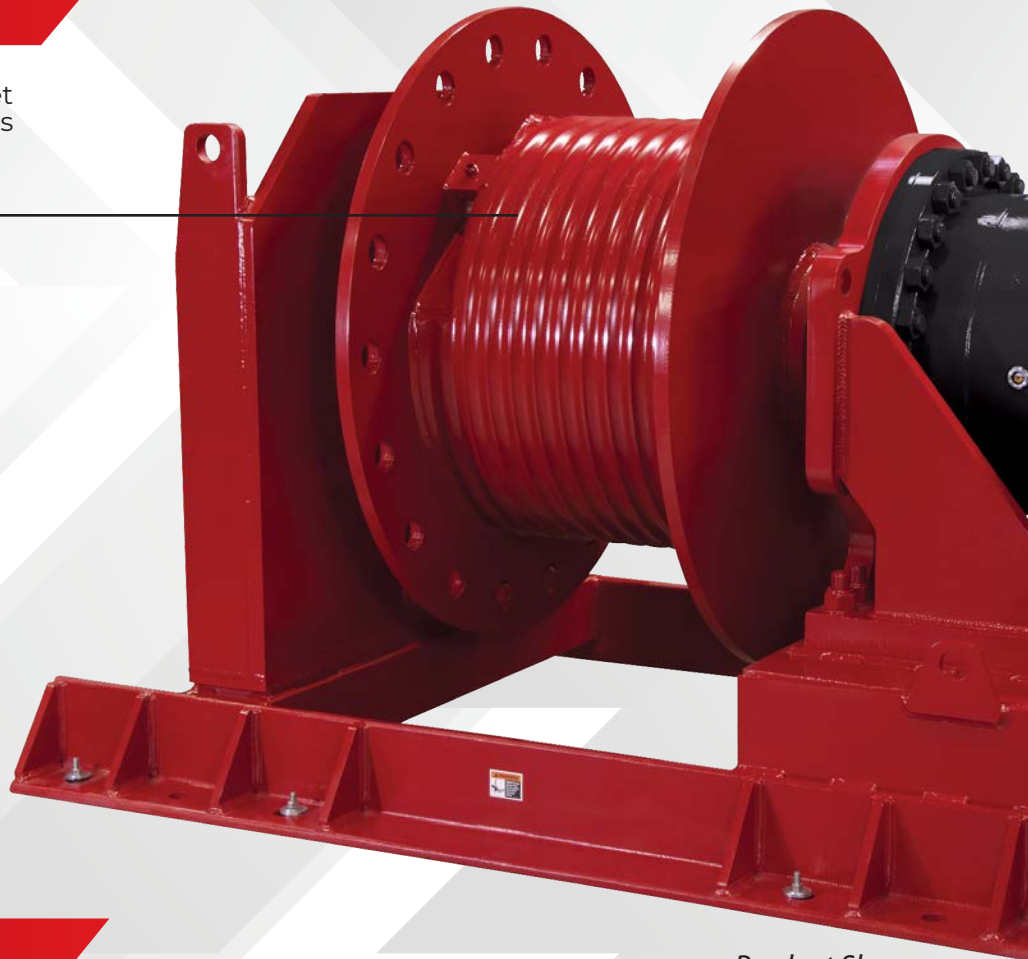
ASME B30.7 Compliance Available

- Contact Thern for details

Load-Holding Motor Disk Brake

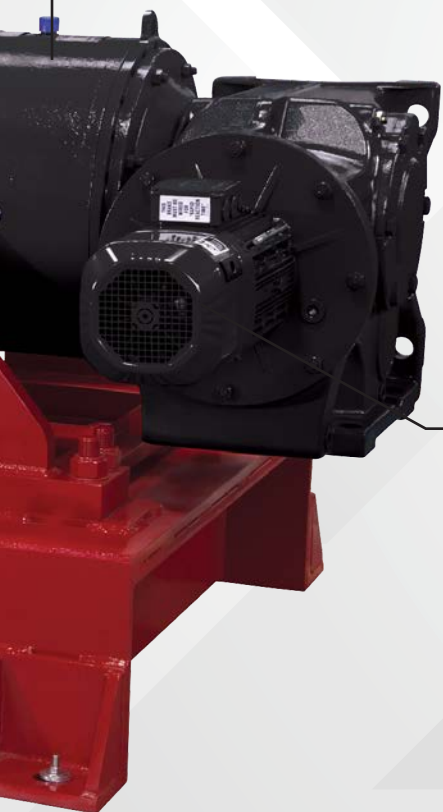
- Spring-set, electrically released brake helps control loads and facilitates safe operation

Product Shown:
4HBF70M



Durable Gears & Gearbox Design

- High-torque, helical-bevel/planetary gears allow high line-load ratings with large drum diameters
- Fully enclosed, direct-drive gearing delivers dependable operation with minimal maintenance
- Large-capacity bearings enhance smooth operation and durability
- Sealed, cast-iron gearbox with integral oil bath for direct-drive gearing dissipates heat and provides continuous lubrication for enhanced service life
- Primary speed reducers meet AGMA and/or DIN standards



PERFORMANCE

Series	IMPERIAL				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HBP	100,000 lbs	15-100 hp	10-100 fpm	1,000 ft	No

Series	METRIC				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HBP	45,000 kg	11-75 kW	3-30 mpm	300 m	No

Energy-Efficient Premium Motor

- Energy-efficient 230/460 volt, reversible, three-phase, 60-cycle industrial-grade motor endures continuous use. Also available in worldwide power supplies
- A totally enclosed, fan-cooled (TEFC) design, featuring IP66 and F-class insulation, resists debris and contamination for long service life
- Standard motors comply with industry standards: UL, CSA, IEC, and NEMA MG1



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

VERTICAL LEAD BLOCKS

RIGGING ACCESSORY

MAKE A CHANGE IN DIRECTION with THERN REDLINE VERICAL LEAD BLOCKS

The Redline Series is used to change the direction of the rope, so the winch can be mounted in a convenient location. The Redline Lead Block will control the path of the rope to avoid obstacles, reduce hazard, and extend rope life.

Top and Side Cable Keepers

- Provides additional security to prevent rope from jumping out of the sheave in slack line conditions
- Allows for a variety of rope configurations

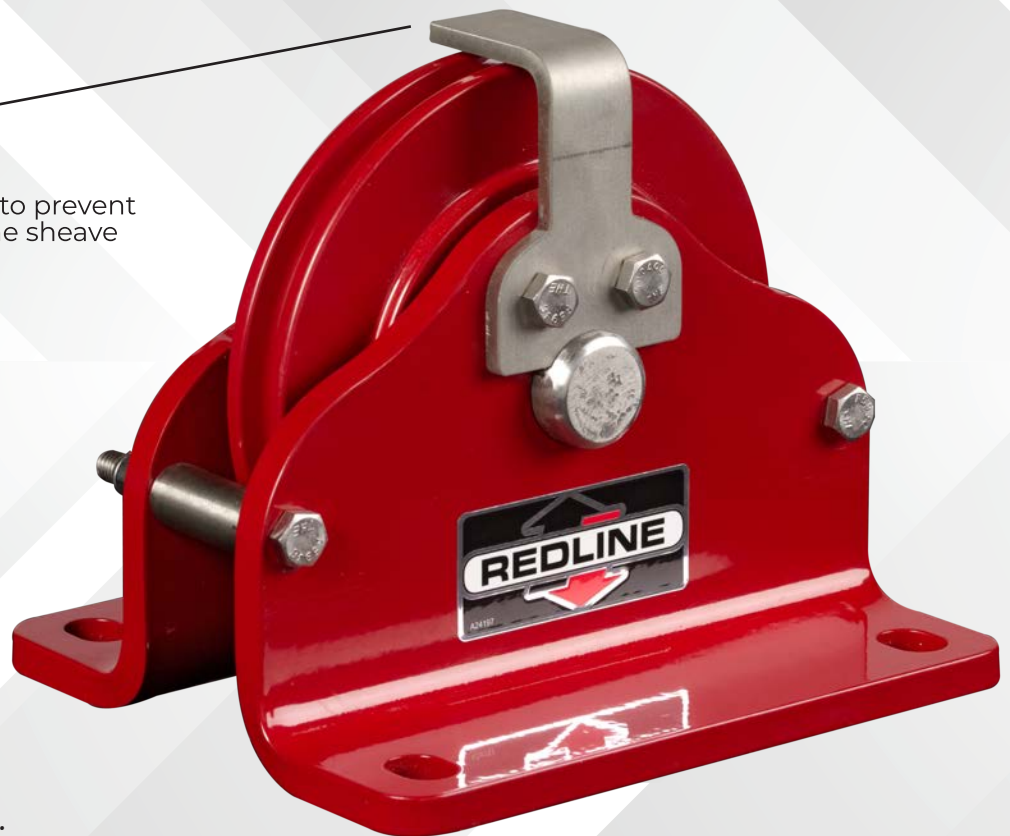
Large Diameter Sheaves

- Large D:d ratios
- Lifting eyes with rounded Helps to reduce wear and tear to extend rope life
- Steel sheaves for added strength and long life

Product Shown:
VLB-G31

Low Profile Design with Wide Mounting Base

- Provides strength and stability to support high load capacity in many configurations



Sealed Needle Roller Bearings

- Provide smooth rotation with load bearing strength for larger loads, couples with easy maintenance
- Easily accessible grease fittings

PERFORMANCE

Series	IMPERIAL				
	Sheave Outer Diameter	Rope Diameter	Total Working Load Limit, R	Line Load Limit, L	Finish
VLB-G25	4.5 in	1/4 in	4000 lbs	2000 lbs	Powder Coat
VLB-G31	6 in	5/16 in	6000 lbs	3000 lbs	Powder Coat
VLB-G38	7 in	3/8 in	9600 lbs	4800 lbs	Powder Coat
VLB-G44	8 in	7/16 in	11,600 lbs	5800 lbs	Powder Coat
VLB-G50	9 in	1/2 in	14,000 lbs	7000 lbs	Powder Coat

Series	METRIC				
	Sheave Outer Diameter	Rope Diameter	Total Working Load Limit, R	Line Load Limit, L	Finish
VLB-G25	114 mm	6 mm	1814 kg	907 kg	Powder Coat
VLB-G31	152 mm	8 mm	2722 kg	1361 kg	Powder Coat
VLB-G38	178 mm	10 mm	4354 kg	2177 kg	Powder Coat
VLB-G44	203 mm	11 mm	5262 kg	2631 kg	Powder Coat
VLB-G50	229 mm	13 mm	6350 kg	3175 kg	Powder Coat



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

TERN® AIR WINCHES

Pneumatic-Powered Tuggers that You Can Depend On

High heat, bitter cold, salt, sand, dirt, and grime are no match for TERN's air winches. You can lift, pull, or position loads up to 37,000 lbs with confidence in even the harshest environments. These specialized pneumatic winches are expertly engineered to meet the demanding needs of multiple industries, including oil and gas, construction, mining, and marine, to name a few.

Mini TA Series

Up to 2,700 lb / 1,225 kg Capacity



Here's everything you need in a compact, high-speed, and powerful package. These mini air winches are ideal when access to a three-phase electrical source is limited. You can count on smooth control and variable-speed operation for precise spotting and long lifts.

Big Red Series

Up to 37,000 lb / 16,780 kg Capacity



Every job is different, so we work with you every step of the way to ensure you have the right tool for the job, with exceptional lead time on standard and custom products.

UP TO 37,000 LB CAPACITY **FEATURES***

- Radial Piston Motor for Reliable Power & Long Life
- Precise Control Valve for Smooth Control with Variable Speed
- Welded Steel Frame for Optimal Strength & Security (Big Red Series)
- Planetary Gears Reduce Power Loss & Heat Generation (Big Red Series)
- Manual or Automatic Band Brake for Maximum Stopping Power (Mini TA & Big Red Series)
- Meets ASME 30.7 Requirements for Operation Safety and Performance
- Industry-Leading Warranty to Ensure Your Complete Satisfaction
- Spring-Engaged, Air Pressure-Released & Oil-Cooled Automatic Disk Brake for Extended Duty Cycles

*Features will vary depending on the model.



These products are not for lifting people or things over people.

Complete, downloadable details online
thern.com



MINI TA SERIES

LIGHT-DUTY AIR WINCHES

POWER & UTILITY for Multiple Tasks & Environments

The Mini TA Series of air winches (1,400- or 2,700-pound capacity) or “tuggers” are the utility players on construction and mining sites, as well as on oil and gas rigs. Compact envelopes and variable-speed operation make lifting, moving, and positioning materials fast and easy. They’re ideal in hazardous environments or when access to three-phase electrical sources is limited. You can count on smooth control and variable-speed operation for precise spotting and long lifts.

ASME B30.7 Compliance Available

- Contact Thern for details

Smooth Operation

- Anti-friction ball bearings, equipped with grease zerks, provide smooth operation and long life
- Variable-speed control smooths operation for precise spotting and long lifts

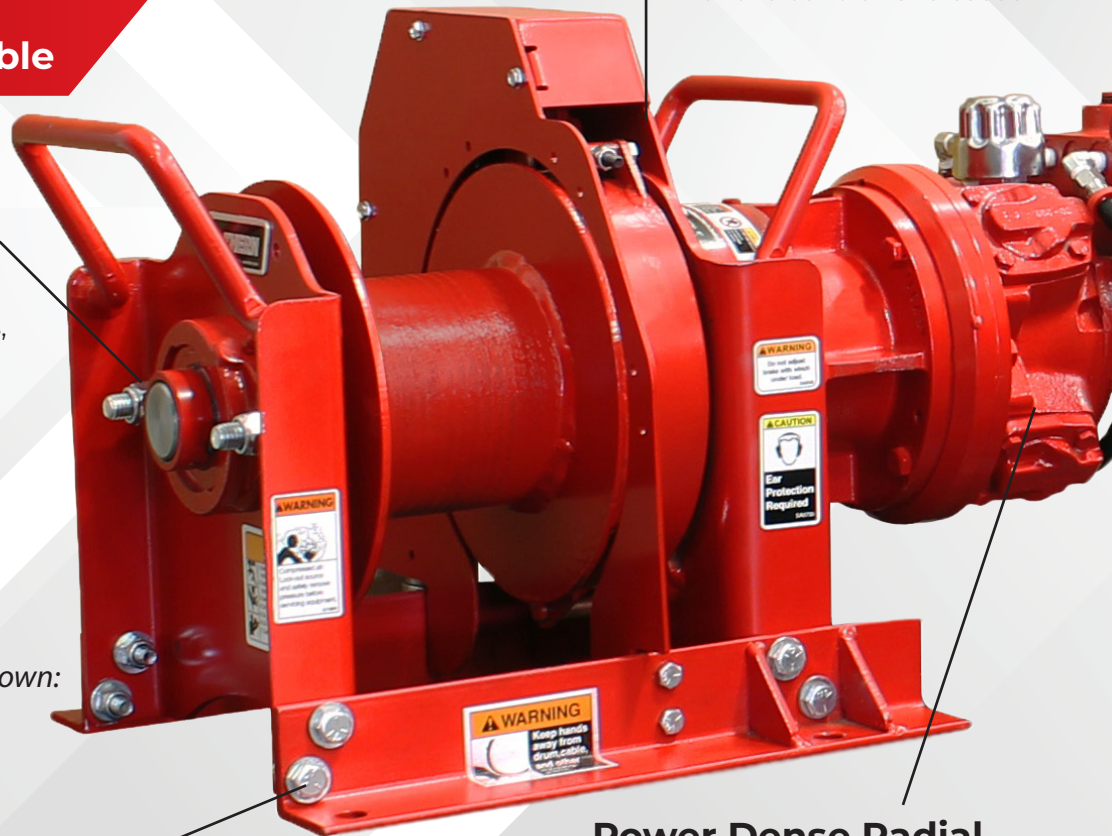
Product Shown:
MTA1000

Standard Convenience Features

- Bolt-together construction promotes easy maintenance, repair, and customization
- Lifting eyes with rounded edges provide easy positioning while extending sling life

Automatic or Manual Band Brake

- Lever engaged/disengaged manual band brake for simple operation
- Automatic band brake enhances operator autonomy. Brake releases upon activation and sets when power is removed, or the control is released



Power Dense Radial Piston Motor & Cycloidal Drive

- Internally lubricated for reliable operation and long service life
- Reversible, high-torque design allows precise yet flexible operation
- Drive design provides superior working speed, efficiency, and shock protection

Flexible Operation

- Available winch/valve-mounted manual control lever
- Operator-friendly, remote pendant control (up to 20 feet) with E-Stop reduces operator fatigue (due to vibration) and promotes freedom of movement for better load/task visibility

PERFORMANCE

Series	IMPERIAL				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
MTA1000	1,400 lbs	1.35 hp	30 fpm	190 ft	No
MTA2000	2,700 lbs	3.5 hp	40 fpm	220 ft	No
MTA2000L	2,700 lbs	3.5 hp	40 fpm	580 ft	No

Series	METRIC				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
MTA1000	635 kg	1 kW	9.1 mpm	57.9 m	No
MTA2000	1,225 kg	2.6 kW	12.2 mpm	67.0 m	No
MTA2000L	1,225 kg	2.6 kW	12.2 mpm	176.7 m	No

Corrosion Protection

- Red enamel coating with zinc-plated hardware resists the elements for longer wear. Optional three-part epoxy coating is available for corrosive environments



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

BIG RED SERIES

HEAVY-DUTY AIR WINCHES

POWER & VERSATILITY

Configured Your Way to Suit any Job

The Big Red Series of air winches (7,200 to 37,000 pounds) is designed to lift, lower, pull, or position heavy loads in the harshest environments. Numerous options and accessories allow customization to meet your specific needs—but at off-the-shelf lead-times. A heavy-duty radial piston motor and multiple control and brake configurations make it perfect for marine, mining, construction, and oil and gas applications.

Robust Frame & Drum

- Welded steel frame and drum components provide superior durability
- Multiple drum widths increase rope life and accommodate various load travel distances and fleet angles

ASME B30.7 Compliance Available

- Contact Thern for details

Product Shown:
TA2

Durable Gears & Compact Gearbox Design

- Gearbox location within the drum and high-efficiency planetary gearing provides high torque and enhanced power in a compact envelope
- Oil bath, featuring double-lip seals, provides continuous lubrication for gears, minimizes heat, and increases service life while resisting contamination

Multiple Brake Configurations

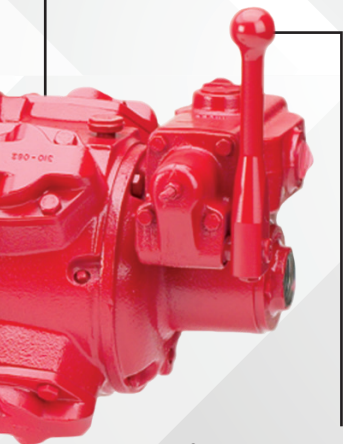
- Lever engaged/disengaged band brake for simple operation
- Automatic band brake enhances operator autonomy
- Sealed, automatic multi-disk brake, featuring continuous lubrication, allows extended duty cycles and resists contamination—ideal for corrosive and dirty environments



PERFORMANCE

Power Dense Radial Piston Motor

- Internally lubricated for reliability and exceptionally long service life
- Reversible, high-torque design allows precise yet flexible operation
- Powerful operation allows high capacity and faster line speeds



Flexible Operation & Control

- Variable-speed control promotes smooth operation—perfect for precise spotting and long lifts
- Available manual control lever simplifies operation
- Operator-friendly, remote pendant control (up to 50 feet) reduces operator fatigue (due to vibration) and promotes freedom of movement for better load/task visibility

IMPERIAL

Series	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
TA2	7,200 lbs	7.1 hp	30 fpm	1,270 ft	No
TA2H	3,600 lbs	7.1 hp	61 fpm	1,270 ft	No
TA2.5	7,200 lbs	18.3 hp	79 fpm	860 ft	No
TA5	18,000 lbs	17.8 hp	30 fpm	1,520 ft	No
TA7	23,600 lbs	14.4 hp	19 fpm	1,730 ft	No
TA10	37,000 lbs	27 hp	20 fpm	2,780 ft	No

IMPERIAL

Series	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
TA2	3,265 kg	5.3 kW	9 mpm	385 m	No
TA2H	1,630 kg	5.3 kW	18.5 mpm	385 m	No
TA2.5	3,265 kg	13.6 kW	24 mpm	260 m	No
TA5	8,160 kg	13.3 kW	9 mpm	460 m	No
TA7	10,700 kg	10.7 kW	5.5 mpm	525 m	No
TA10	16,780 kg	20 kW	6 mpm	845 m	No



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

TERN® DAVIT CRANES

Superior Lifting Equipment that Towers Above the Rest

Elevate your expectations with a Thern crane that's built to last, lift after lift. Whether you are looking for a lightweight portable crane or a heavy-duty stationary crane, we have the perfect solution for you. Countless clients across the world have turned to Thern to replace their inefficient jib and gantry cranes with our flexible range of davits. Spot our cranes everywhere, from hoisting pumps at wastewater plants to lifting HVAC components on the roof of a building. Special coating finishes are available to withstand even the harshest environments.



PORTABLE

First Mate®

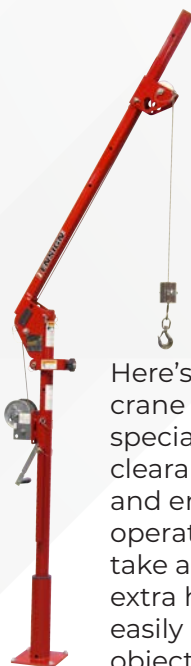
Up to 850 lb / 385 kg Capacity



Lightweight, economical, comfortable to carry, and easy to use, this portable crane is perfect for a wide variety of simple jobs where adjustable height and reach are not required.

Ensign®

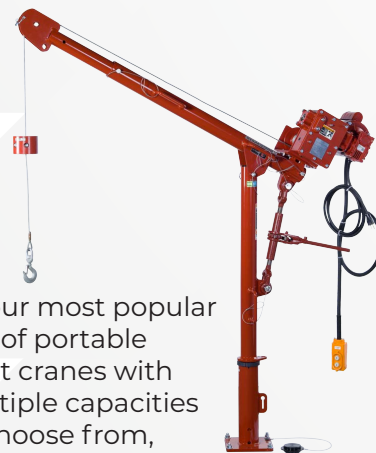
Up to 1,200 lb / 544 kg Capacity



Here's a cost-efficient crane series that's specially designed for clearance, lift height, and ergonomic operation. You can take advantage of the extra hook height to easily clear tall objects.

Commander®

Up to 2,000 lb / 907 kg Capacity



As our most popular line of portable davit cranes with multiple capacities to choose from, this series offers innovative features such as extra hook height, streamlined set-up/disassembly, and ergonomic operation, to name a few.

UP TO 11,000 LB CAPACITY FEATURES*

- Fixed or Adjustable Boom Lengths & Angles for Maximum Operation Flexibility
- Variety of Bases in Numerous Protective Finishes Allow for Effortless Mounting & Installation
- Heavy-Gauge Steel Construction Provides Long Service Life
- Rugged 6061 Aluminum Option For Strength and Corrosion-Resistance
- Manual, Electric, Hydraulic, Pneumatic, or DC Volt Winch Operation to Perform Lifts of Any Size
- Streamlined Set-Up & Disassembly Saves Valuable Time & Effort
- Easy Transport & Storage for Optimal Accessibility
- Smooth 360° Rotation
- Quick-Disconnect Anchor for Easy Attachment or Removal of Wire Rope
- Corrosion-Resistant Finishes to Withstand the Harshest Environments

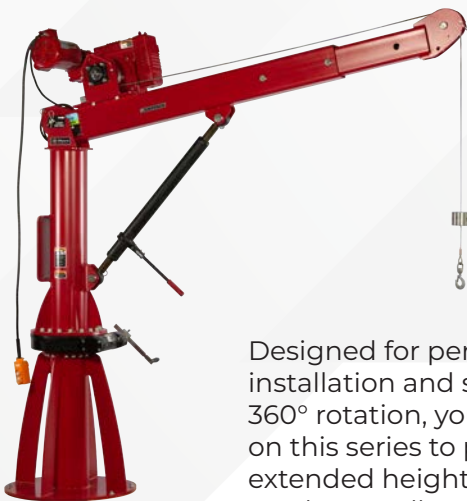
CRANE OPTIONS & ACCESSORIES

Choose between numerous customization options such as base anchor kits and limit switches to enhance our wide variety of davit cranes to meet your specific needs.

STATIONARY

Captain®

Up to 11,000 lb / 5000 kg Capacity



Designed for permanent installation and smooth 360° rotation, you can rely on this series to provide extended height and reach, as well as heavy-duty capacity.

TRANSPORTABLE

Admiral®

Up to 3,000 lb / 1,360 kg Capacity

You get it all with this powerhouse crane that can handle large loads up to 1.5 tons and still be disassembled for relocation. Featuring an adjustable boom for high lifts and long reach, this will become your go-to crane for years to come.



These products are not for lifting people or things over people.

Complete, downloadable details online
thern.com





MINIMUM ASSEMBLY. MAXIMUM PRODUCTIVITY. THERN®

At Thern, we know “some assembly required” should mean minutes—not hours. Our **portable davit cranes** come pre-assembled, with hardware and quick-release clevis pins already attached—no special tools required. That means quick assembly. It also means quick disassembly and transport to storage or bases at other work sites. At Thern, we make things simple...and fast.

STEP 1

FASTEN CRANE BASE SECURELY

Fasten crane base to level, suitable concrete foundation. Consult a structural engineer about the foundation as necessary and adhere to applicable installation codes and regulations.

STEP 2

INSERT MAST INTO BASE

Insert mast into base, ensuring flange bearing is properly seated.

STEP 3

ATTACH MAIN BOOM & ROTATIONAL HANDLE TO MAST

Attach main boom first and then rotational handle next. Secure using attached clevis and lynch pins.

STEP 4

ATTACH RATCHET JACK TO MAST & MAIN BOOM

Attach one end of ratchet jack to mounting ear on main boom and secure with attached clevis and lynch pins. Carefully pivot boom up to fasten other end of ratchet jack to mast mounting ear—secure with clevis and lynch pins.

STEP 5

INSERT BOOM EXTENSION INTO MAIN BOOM

Rotate ratchet jack to lower main boom to just above horizontal position. Insert boom extension and secure with attached clevis and lynch pins.

STEP 6

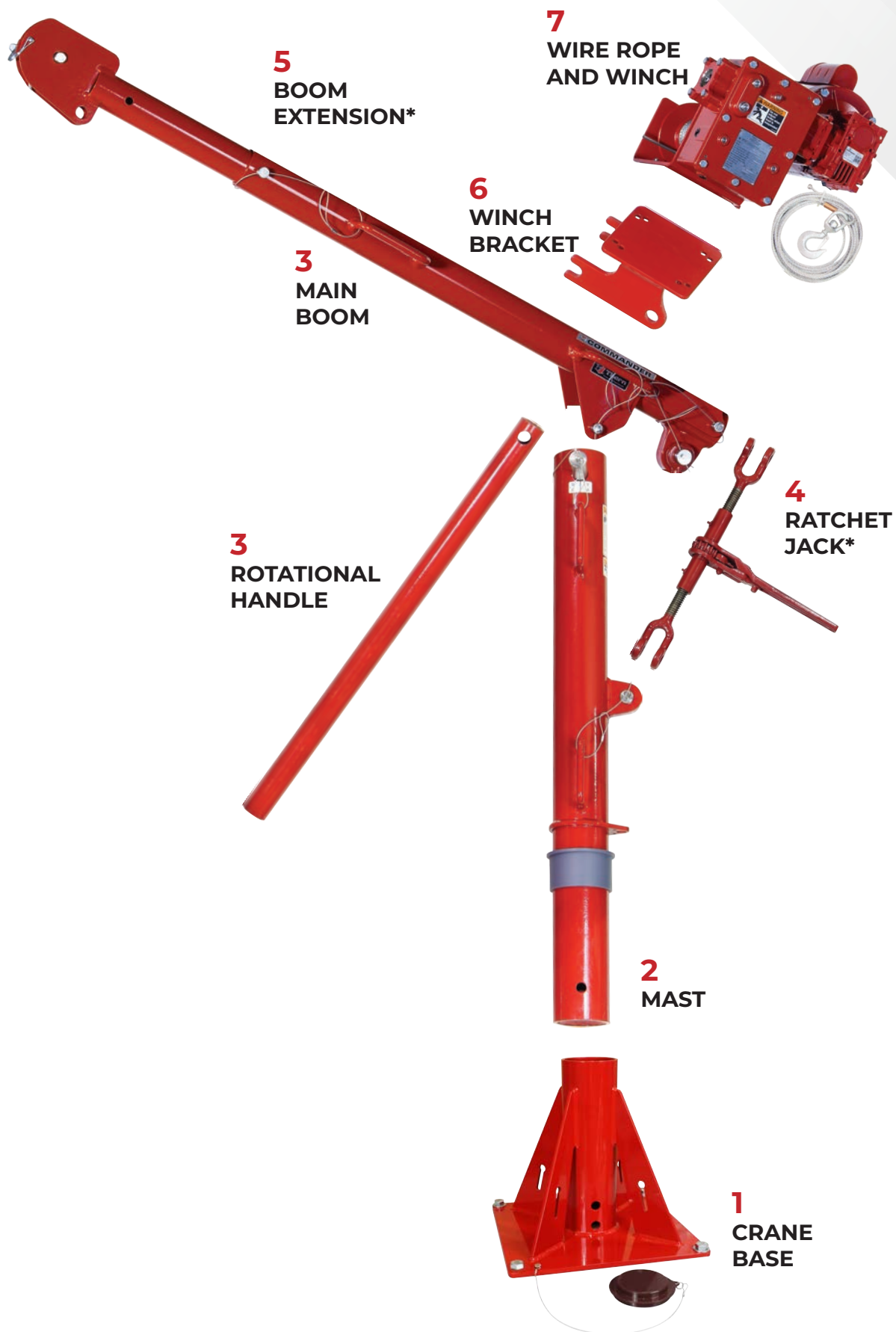
ATTACH WINCH/BRACKET TO MAIN BOOM

Remove winch bracket from end of main boom and attach winch using fasteners provided. Align notches on load end of winch bracket with tabs on main boom and secure winch/bracket with clevis and lynch pins. Attach winch handle or connect to power if winch is electric.

STEP 7

ATTACH WIRE ROPE

Locate the quick-connect anchor on the drum of the winch. Thread swaged-ball end of the wire rope through the crane sheaves, working from the front of the boom back to the winch. Insert the swaged ball into the anchor and carefully under wind the wire rope onto the winch.



**May not be applicable to all portable cranes*

FIRST MATE® 5PF5

PORTABLE DAVIT CRANE

ECONOMICAL, LIGHTWEIGHT & Easy-to-Use Lifting Power

The 5PF5 First Mate 500 portable davit crane (up to 850 pounds) isn't complicated—but it gets the job done with features and quality you expect from Thern. A fixed boom length, with three operating angles, makes it lightweight, easy to carry, and easy to use. It is perfect for simple jobs where adjustable length is not required. An ergonomic design makes it ideal for water/wastewater applications.



*Product Shown:
5PF5-E2*

Enhanced Portability

- Disassemble and reassemble easily, using quick-release hardware and pins for quick transport or storage—no tools required
- Move your crane to another location while keeping the wire rope attached to the load using the quick-disconnect feature. Insert the swaged-ball end of the wire rope into the keyhole slot on the tab of the pedestal base or into an optional wire rope keeper or cable spool

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet/exceed ASTM standards
- Corrosion-resistant, powder-coated frame, mast cap, and stainless-steel fasteners resist the elements for long service life
- Galvanized, epoxy, and 304 or 316 stainless-steel finishes are available for corrosive environments

STANDARD CONFIGURATIONS

Series	IMPERIAL/METRIC	
	Description	Up To Capacity
5PF5-M1	Powder-coat crane with M4022PB spur gear hand winch	850 lbs / 385 kg
5PF5G-M1	Galvanized crane with M4022PB spur gear hand winch	850 lbs / 385 kg
5PF5-M2	Powder-coat crane with 4WM2 worm gear hand winch	850 lbs / 385 kg
5PF5G-M2	Galvanized crane with 4WM2 worm gear hand winch	850 lbs / 385 kg
5PF5S-M3	Stainless-steel crane with M4042PBSS spur gear hand winch	850 lbs / 385 kg
5PF5-E2	Powder-coat crane with 4WP2 electric winch	850 lbs / 385 kg

Flexible Configurations

- A variety of base and mounting options, including pedestal, flush, and wall-mount, as well as wheel-base, help meet a variety of lifting needs
- A quick-mount winch bracket is standard (no tools required) and accommodates several Thern winches
- Optional base extension provides additional height without affecting the crane's load rating. Ideal for wall- or flush-mount situations to create additional crane height for obstacle clearance or other needs when 15 inches (381 mm) of additional height is required

360° Rotation & Flexible Operation

- Nylatron® bushing at base enhances smooth, 360-degree rotation under load for precise load placement. Optional rotation lock maintains load position for easier unloading
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of light or heavy loads and travel distances. DC motors and various voltage AC motors available



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

ENSIGN® 5PA5

PORTABLE DAVIT CRANE

PORTABLE LIFTING POWER for Tall Obstacles

The 5PA5 Ensign 500 portable davit crane (up to 500 pounds) is designed to lift and smoothly rotate taller loads, 360 degrees, with minimal boom adjustment. A longer mast and boom provide the extra hook height (up to 101 inches with pedestal base) required to clear safety gates, rails, and other obstacles. An ergonomic design, winch options, quick-disconnect feature, and boom adjustment knob make it extremely user-friendly. Add an optional rotation lock to further enhance unloading. Easy disassembly and reassembly with quick-release hardware and pins maximize portability for storage or use with other bases. Ideal for water/wastewater applications.

Enhanced Portability

- Disassembles and reassemble easily, using quick-release hardware and pins for quick transport to storage or bases at other work sites—no tools required
- Move your crane to another location while keeping the wire rope attached to the load using the quick-disconnect feature. Insert the swaged-ball end of the wire rope into the keyhole slot on the tab of the pedestal base or into an optional wire rope keeper or cable pool

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet/exceed ASTM standards
- Corrosion-resistant, powder-coated frame, mast cap, and stainless-steel fasteners resist the elements for long service life
- Galvanized, epoxy, and 304 or 316 stainless-steel finishes are available for corrosive environments

Flexible Configurations

- A variety of base mounting options, including pedestal, flush, and wall-mount, help meet numerous lifting needs
- A quick-mount winch bracket is standard (no tools required) and accommodates several Thern winches. Fits any three convenient/ergonomic positions on the mast via quick-connect pins

Product Shown:
5PA5-M1

360° Rotation & Flexible Operation

- Nylatron® bushing at base enhances smooth, 360-degree rotation under load for precise load placement. Optional rotation lock facilitates unloading ease
- Rotation handle design does not interfere with boom angle adjustment for easier operation
- Adjustable boom angles and four sheave assembly positions along boom are easily changed (without tools) to accommodate a variety of applications. Boom adjustment knob allows for easy, one-hand adjustment when not under load
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of speed and power requirements. DC motors and various voltage AC motors available



STANDARD CONFIGURATIONS

Series	IMPERIAL/METRIC	
	Description	Up To Capacity
5PA5-M1	Powder-coat crane with M4022PB spur gear hand winch	500 lbs / 226 kg
5PA5G-M1	Galvanized crane with M4022PB spur gear hand winch	500 lbs / 226 kg
5PA5-M2	Powder-coat crane with 4WM2V worm gear hand winch	500 lbs / 226 kg
5PA5G-M2	Galvanized crane with 4WM2V worm gear hand winch	500 lbs / 226 kg
5PA5S-M3	Stainless-steel crane with M4042PBSS spur gear hand winch	500 lbs / 226 kg
5PA5-E2	Powder-coat crane 4WP2V electric winch	500 lbs / 226 kg
5PA5X-E2X	Epoxy-gray crane with epoxy-gray 4WP2VEGRA electric winch	500 lbs / 226 kg



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

ENSIGN® 5PA10

PORTABLE DAVIT CRANE

PORTABLE LIFTING POWER for the Tallest Jobs

The 5PA10 Ensign 1000 portable davit crane (up to 1,200 pounds) is designed to lift and smoothly rotate heavier, taller loads, 360 degrees, with minimal boom adjustment. A longer mast and boom provide the extra hook height (up to 120 inches with pedestal base) required to clear safety gates, rails, and other obstacles. An ergonomic design, winch options, quick-disconnect feature, and boom adjustment knob make it extremely user-friendly. Included on all standard models, roller-ball bearings and rotation lock enhances unloading. Easy disassembly and reassembly with quick-release hardware and pins \maximize portability for storage or use with \other bases. Ideal for water/wastewater applications.

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet/exceed ASTM standards
- Corrosion-resistant, powder-coated frame, mast cap, and stainless-steel fasteners resist the elements and for long service life
- Galvanized, epoxy, and 304 or 316 stainless-steel and epoxy finishes are available for corrosive environments

360° Rotation & Flexible Operation

- Specially designed roller bearing at top of base comes standard to enhance smooth, 360-degree rotation under load for precise load placement. Stainless-steel rotation lock comes standard and facilitates unloading ease
- Rotation handle design does not interfere with boom angle adjustment for easier operation
- Adjustable boom angles and four sheave assembly positions along boom are easily changed (without tools) to accommodate a variety of applications. Boom adjustment knob allows for easy, one-hand adjustment when not under load
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of speeds and power needs. DC motors and various voltage AC motors available



Product Shown:
5PA10-M1

STANDARD CONFIGURATIONS

Series	IMPERIAL/METRIC	
	Description	Up To Capacity
5PA10-M1	Powder-coat crane with M4312PB spur gear hand winch	1,200 lbs / 544 kg
5PA10G-M1	Galvanized crane with M4312PB spur gear hand winch	1,200 lbs / 544 kg
5PA10-M2	Powder-coat crane with 4WM2V worm gear hand winch	1,200 lbs / 544 kg
5PA10G-M2	Galvanized crane with 4WM2V worm gear hand winch	1,200 lbs / 544 kg
5PA10S-M3	Stainless-steel crane with M4312PBSS spur gear hand winch	1,200 lbs / 544 kg
5PA10X-E2X	Epoxy-gray crane with epoxy-gray 4WP2VEGRA electric winch	1,200 lbs / 544 kg

Enhanced Portability

- Disassembles and reassembles easily, using quick-release hardware and pins for quick transport to storage on bases at other work sites—no tools required
- Move your crane to another location while keeping the wire rope attached to the load using the quick-disconnect feature. Insert the swaged-ball end of the wire rope into the keyhole slot on the tab of the pedestal base or into an optional wire rope keeper or cable spool

Flexible Configurations

- A variety of base mounting options, including pedestal, flush, and wall-mount, help meet numerous lifting needs
- A quick-mount winch bracket is standard (no tools required) and accommodates several Thern winches. Fits any three convenient/ergonomic positions on the mast via quick-connect pins



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

COMMANDER® AL

PORTABLE ALUMINUM DAVIT CRANE 5AT1 & 5AT2

LIFTING POTENTIAL

Mobility and Enhanced Versatility

Introducing the 5AT1 and 5AT2 Commander AL portable aluminum davit crane, Thern's cutting-edge advancement in portable lifting solutions, now crafted from lightweight aluminum. With a remarkable lifting capacity of up to 1,200 pounds, this innovative crane offers unprecedented portability and adaptability to diverse work environments. Featuring a towering maximum hook height of 85 inches, it effortlessly navigates obstacles and elevates heavy loads with precision and ease. The seamless integration of a 360-degree lifting, lowering, and rotating mechanism ensures seamless maneuverability for swift and efficient operations. When incorporating an optional rotation bearing and a 12-position lock system, this crane streamlines movement and enhances load stability during unloading processes. Swift disassembly and reassembly facilitated by quick-release hardware and pins optimize transportability, making it an indispensable asset across various industries including water/wastewater, manufacturing, marine, construction, and oil and gas sectors.

Versatile Configurations

- Boasting an array of base mounting options such as pedestal, flush, wall-mount, and wheel-base configurations, the crane effortlessly adapts to diverse lifting requirements with precision and ease.
- Standard quick-mount winch bracket requires minimal tools for installation and is compatible with various Thern winches, ensuring seamless integration and operational efficiency.
- For enhanced flexibility, an optional base extension is available, offering added height without compromising the crane's load rating. Particularly beneficial for wall- or flush-mount installations, where increased crane height is necessary for obstacle clearance or specific operational demands, providing an impressive additional 15 inches (38cm) of elevation.

Enhanced Portability

- Effortlessly disassembles and reassembles utilizing quick-release hardware and pins, facilitating rapid transport to storage or alternate job sites without additional tools.
- Seamlessly relocate your crane to another site while retaining the wire rope connected to the load through the convenient quick-disconnect feature. Simply insert the swaged-ball end of the wire rope into the keyhole slot on the gusset of the pedestal base or into an optional wire rope keeper or cable spool.
- Ergonomically designed with no individual components exceeding 50 lbs in weight, ensuring ease of handling during setup and breakdown.



Product Shown:
5AT2-M2

STANDARD CONFIGURATIONS

IMPERIAL/METRIC

Series	Description	Up To Capacity
5AT1-M1	Powder-coat crane with M4022PB spur gear hand winch	650 lbs / 300 kg
5AT1-M2	Powder-coat crane with 4WM2 worm gear hand winch	650 lbs / 300 kg
5AT1-M3	Powder-coat crane with M4042PBSS spur gear hand winch	650 lbs / 300 kg
5AT1-E2	Powder-coat crane with 4WP2 electric winch	650 lbs / 300 kg
5AT1-E4	Powder-coat crane with 4777 electric winch	650 lbs / 300 kg

IMPERIAL/METRIC

Series	Description	Up To Capacity
5AT2-M1	Powder-coat crane with M4312PB spur gear hand winch	1,200 lbs / 540 kg
5AT2-M2	Powder-coat crane with 4WM2 worm gear hand winch	1,200 lbs / 540 kg
5AT2-M3	Powder-coat crane with M4312PBSS spur gear hand winch	1,200 lbs / 540 kg
5AT2-E2	Powder-coat crane with 4WP2 electric winch	1,200 lbs / 540 kg
5AT2-E4	Powder-coat crane with 4777 electric winch	1,200 lbs / 540 kg

Robust Build & Impeccable Finish

- Crafted from rugged, welded 6061 aluminum pipe and tubing, ensures minimal deflection.
- Shielded against corrosion by a resilient powder-coated frame, mast cap, and stainless-steel fasteners, fortifies the crane against the elements and extends its operational lifespan. Additionally, an epoxy finish option is available for environments prone to corrosion, further enhancing its longevity in harsh conditions.



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

COMMANDER® 5PT5

PORTABLE DAVIT CRANE

HEAVY-DUTY FEATURES in a Light-Duty Package

The 5PT5 Commander 500 portable davit crane (up to 650 pounds) is packed with features, giving it the same versatility and flexibility of its larger cousins. It is designed to lift, lower, and rotate loads 360 degrees, easily and smoothly. Easy disassembly and reassembly with quick-release hardware and pins maximize portability. A variety of base options, manual or power operation, and telescoping boom with adjustable boom angles make it perfect for water/wastewater, manufacturing, marine, construction, and oil and gas applications.

360° Rotation & Flexible Operation

- Heavy-duty Nylatron® bushing at base enhances smooth, 360-degree rotation under load for precise load placement. Optional rotation lock maintains load position for easier unloading
- Innovative rotation handle design does not interfere with boom angle adjustment for easier operation
- Telescoping boom and adjustable boom angles allow for precise reach and height positioning
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of light or heavy loads and speeds. DC motors and various voltage AC motors available



*Product Shown:
5PT5-E2*

Enhanced Portability

- Disassembles and reassembles easily, using quick-release hardware and pins for quick transport to storage on bases at other work sites—no tools required
- Move your crane to another location while keeping the wire rope attached to the load using the quick-disconnect feature. Insert the swaged-ball end of the wire rope into the keyhole slot on the tab of the pedestal base or into an optional wire rope keeper or cable spool

STANDARD CONFIGURATIONS

Series	IMPERIAL/METRIC	
	Description	Up To Capacity
5PT5G-M1	Galvanized crane with M4022PB spur gear hand winch	650 lbs / 294 kg
5PT5-M2	Powder-coat crane with 4WM2 worm gear hand winch	650 lbs / 294 kg
5PT5G-M2	Galvanized crane with 4WM2 worm gear hand winch	650 lbs / 294 kg
5PT5S-M3	Stainless-steel crane with M4042PBSS spur gear hand winch	650 lbs / 294 kg
5PT5-E2	Powder-coat crane with 4WP2 electric winch	650 lbs / 294 kg
5PT5S-E2X	Stainless-steel crane with gray-epoxy 4WP2EGRA electric winch	650 lbs / 294 kg

Flexible Configurations

- A variety of base and mounting options, including pedestal, flush and wall-mount, as well as wheel-base, help meet unique lifting needs
- A quick-mount winch bracket (no tools required) accommodates several Thern winches. Fits any three convenient/ergonomic positions on the mast via quick-connect pins
- Base extension provides additional height without affecting the crane's load rating. Ideal in wall- or flush-mount situations to maintain crane height for obstacle clearance or other needs when 15 inches (381 mm) of additional height is required

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet/exceed ASTM standards
- Corrosion-resistant, powder-coated frame, mast cap, and stainless-steel fasteners resist the elements for long service life
- Galvanized, epoxy, and 304 or 316 stainless-steel finishes are available for corrosive environments



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

COMMANDER® 5PT10

PORTABLE DAVIT CRANE

A WORKHORSE DAVIT CRANE

Packed with Thoroughbred Features

The 5PT10 Commander 1000 portable davit crane (up to 1,200 pounds) is packed with features making it the “go to” davit crane for many applications. It is designed to lift, lower, and rotate loads 360 degrees, easily and smoothly. Add an optional rotational bearing and 12-position lock system to facilitate moving heavier loads. Easy disassembly and reassembly with quick-release hardware and pins maximize portability. A variety of base options, manual or power operation, and telescoping boom with adjustable boom angles makes it perfect for water/wastewater, manufacturing, marine, construction, and oil and gas applications.

Product Shown:
5PT10-M1

Enhanced Portability

- Disassembles and reassemble easily, using quick-release hardware and pins for quick transport to storage on bases at other work sites—no tools required
- Move your crane to another location while keeping the wire rope attached to the load using the quick-disconnect feature. Insert the swaged-ball end of the wire rope into the keyhole slot on the tab of the pedestal base or into an optional wire rope keeper or cable spool

360° Rotation & Flexible Operation

- Heavy-duty Nylatron® bushing at base enhances smooth, 360-degree rotation under load for precise load placement. Optional rotation bearing and lock ease movement and stabilize unloading
- Innovative rotation handle design does not interfere with boom angle adjustment for easier operation
- Telescoping boom and adjustable boom angles allow for precise reach and height positioning
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of light or heavy loads and speeds. DC motors and various voltage AC motors available



STANDARD CONFIGURATIONS

Series	IMPERIAL/METRIC	
	Description	Up To Capacity
5PT10-M1	Powder-coat crane with M4312PB spur gear hand winch	1,200 lbs / 544 kg
5PT10G-M1	Galvanized crane with M4312PB spur gear hand winch	1,200 lbs / 544 kg
5PT10-M2	Powder-coat crane with 4WM2 worm gear hand winch	1,200 lbs / 544 kg
5PT10G-M2	Galvanized crane with 4WM2 worm gear hand winch	1,200 lbs / 544 kg
5PT10S-M3	Stainless-steel crane with M4312PBSS spur gear hand winch	1,200 lbs / 544 kg
5PT10-E2	Powder-coat crane with 4WP2 electric winch	1,200 lbs / 544 kg
5PT10S-E2X	Stainless-steel crane with gray-epoxy 4WP2EGRA electric winch	1,200 lbs / 544 kg

Flexible Configurations

- A variety of base mounting options, including pedestal, flush and wall-mount, as well as wheel-base, help meet unique lifting needs
- A quick-mount winch bracket is standard (no tools required) and accommodates several Thern winches.
- Optional base extension provides additional height without affecting the crane's load rating. Ideal for wall- or flush-mount installations to increase crane height for obstacle clearance or other needs. Creates 15 inches (381 mm) of additional height

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet/exceed ASTM standards
- Corrosion-resistant, powder-coated frame, mast cap, and stainless-steel fasteners resist the elements for long service life
- Galvanized, epoxy, and 304 or 316 stainless-steel finishes are available for corrosive environments



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

COMMANDER® 5PT20

PORTABLE DAVIT CRANE

HEAVY LIFTING POWER

with Enhanced Flexibility and Portability

The 5PT20 Commander 2000 portable davit crane (up to 2,000 pounds) is one of Thern's largest capacity, portable davit cranes. A maximum hook height (with pedestal base) of 97 inches allows it to hoist large loads and reach over walls, rails, and obstacles. It is designed to lift, lower, and rotate loads 360 degrees, easily and smoothly. Add an optional rotation bearing and 12-position lock system to ease movement and stabilize unloading. Easy disassembly and reassembly with quick-release hardware and pins maximize portability. A variety of base options, manual or power operation, and telescoping boom with adjustable boom angles makes it perfect for water/wastewater, manufacturing, marine, construction, and oil and gas applications.

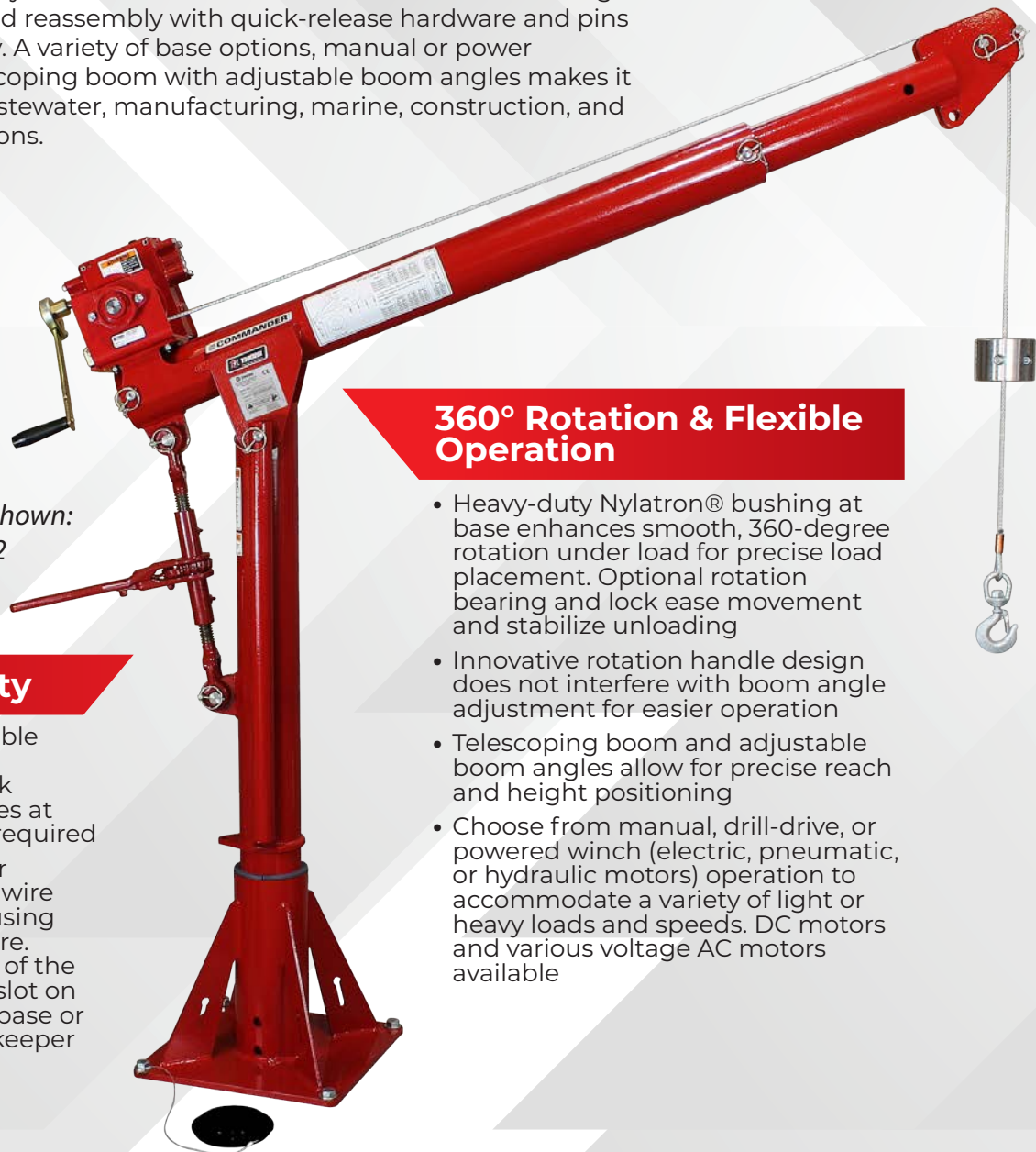
*Product Shown:
5PT20-M2*

Enhanced Portability

- Disassembles and reassemble easily, using quick-release hardware and pins for quick transport to storage onbases at other work sites—no tools required
- Move your crane to another location while keeping the wire rope attached to the load using the quick-disconnect feature. Insert the swaged-ball end of the wire rope into the keyhole slot on the gusset of the pedestal base or into an optional wire rope keeper or cable spool

360° Rotation & Flexible Operation

- Heavy-duty Nylatron® bushing at base enhances smooth, 360-degree rotation under load for precise load placement. Optional rotation bearing and lock ease movement and stabilize unloading
- Innovative rotation handle design does not interfere with boom angle adjustment for easier operation
- Telescoping boom and adjustable boom angles allow for precise reach and height positioning
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of light or heavy loads and speeds. DC motors and various voltage AC motors available



STANDARD CONFIGURATIONS

Series	IMPERIAL/METRIC	
	Description	Up To Capacity
5PT20-M1	Powder-coat crane with M4312PB spur gear hand winch	2,000 lbs / 907 kg
5PT20G-M1	Galvanized crane with M4312PB spur gear hand winch	2,000 lbs / 907 kg
5PT20-M2	Powder-coat crane with 4WM2 worm gear hand winch	2,000 lbs / 907 kg
5PT20G-M2	Galvanized crane with 4WM2 worm gear hand winch	2,000 lbs / 907 kg
5PT20S-M3	Stainless-steel crane with M4312PBSS spur gear hand winch	2,000 lbs / 907 kg
5PT20-E2	Powder-coat crane with 4WP2 electric winch	2,000 lbs / 907 kg
5PT20S-E2X	Stainless-steel crane with gray-epoxy 4WP2EGRA electric winch	2,000 lbs / 907 kg

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet/exceed ASTM standards
- Corrosion-resistant, powder-coated frame, mast cap, and stainless-steel fasteners resist the elements for long service life
- Galvanized, epoxy, and 304 or 316 stainless-steel finishes are available for corrosive environments

Flexible Configurations

- A variety of base mounting options, including pedestal, flush and wall-mount, as well as wheel-base, help meet unique lifting needs
- A quick-mount winch bracket is standard (no tools required) and accommodates several Thern winches.
- Optional base extension provides additional height without affecting the crane's load rating. Ideal for wall- or flush-mount installations to increase crane height for obstacle clearance or other needs. Creates 15 inches (381 mm) of additional height



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

RESCUE RATED

PORTABLE DAVIT CRANE

HEAVY LIFTING POWER

with Enhanced Flexibility and Portability

Retaining all the same quality and material handling benefits as the original Commander Series, Thern's 5PT10 and 5PT20 are now available in new configurations that extend their superior performance to the personnel rescue arena. Thern Rescue Rated Davits are preconfigured with a manually operated worm gear hand winch, ¼" wire rope, and an anchorage connector that are all compliant with ANSI / OSHA standards and can be used as part of a complete one or two person rescue system to rescue individuals from land and water or provide rescue to persons trapped in confined spaces (shafts, tanks, exhaust stacks, etc.) Rescue configurations come with multiple base options to meet a variety of mounting needs. Stainless-steel cranes and bases are also available for the most corrosive environments.

Product Shown:
5PT20R-M2R

Enhanced Portability

- Disassembles and reassemble easily, using quick-release hardware and pins for quick transport to storage onbases at other work sites—no tools required
- Perfect for applications that require material handling and also require a rescue plan for personnel working in the area. These cranes provide robust capabilities for the most demanding loads and can also be quickly deployed should the unthinkable occur and a team member requires lifesaving assistance

360° Rotation & Flexible Operation

- Heavy-duty Nylatron® bushing at base enhances smooth, 360-degree rotation under load for precise load placement. Optional rotation bearing and lock ease movement and stabilize unloading
- Innovative rotation handle design does not interfere with boom angle adjustment for easier operation
- Telescoping boom and adjustable boom angles allow for precise reach and height positioning
- Telescoping boom and adjustable boom angles allow for precise reach and height positioning



STANDARD CONFIGURATIONS

Series	IMPERIAL/METRIC		
	Description	Material Capacity	Rescue Capacity
5PT10R-M2R	Powder-coat crane with 4WM2R worm gear hand winch	1,200 lbs / 540 kg	310 lbs / 141 kg
5PT10RS-M2R	Stainless Steel crane with 4WM2R worm gear hand winch	1,200 lbs / 540 kg	310 lbs / 141 kg
5PT10RS-M2RX	Stainless Steel crane with epoxy 4WM2R worm gear hand winch	1,200 lbs / 540 kg	310 lbs / 141 kg
5PT20R-M2R	Powder-coat crane with 4WM2R worm gear hand winch	2,000 lbs / 905 kg	620 lbs / 282 kg
5PT20RS-M2R	Stainless Steel crane with 4WM2R worm gear hand winch	2,000 lbs / 905 kg	620 lbs / 282 kg
5PT20RS-M2RX	Stainless Steel crane with epoxy 4WM2R worm gear hand winch	2,000 lbs / 905 kg	620 lbs / 282 kg

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet/exceed ASTM standards
- Corrosion-resistant, powder-coated frame, mast cap, and stainless-steel fasteners resist the elements for long service life
- 304 stainless-steel finishes are available for corrosive environments

Flexible Configurations

- A variety of base mounting options, including pedestal, flush and wall-mount, as well as wheel-base, help meet unique lifting needs
- A quick-mount winch bracket is standard (no tools required) and accommodates the Thern4WM2R worm gear hand winch



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

ACCESSORIES

RESCUE RATED PORTABLE DAVIT CRANE

Already have a Thern 5PT10-M2 or 5PT20-M2 that you would like to convert to a Rescue Rated Configuration? Thern Rescue Rated Conversion kits are available that contain the correct wire rope assembly, labels, and supplemental instructions required to give your Thern Davit crane rescue capabilities.



Rescue Rated Kit

5PT10R-M2R-KIT

5PT20R-M2R-KIT

Comes with the following items:

- **WA25-60NT** – Sixty Feet of ¼" Galvanized Aircraft Cable. One end finished with a swaged ball, and the other with a thimble. **Note: Thern Rescue Rated Davit systems were designed, tested, and rated using this specific wire rope assembly. Other types of wire rope or assemblies may not meet required specifications.**
- **ANSI Rated Carabiner** – Triple lock gate, 40kN, carbon steel carabiner rated to ANSI Z359.12.
- **Rescue Rated Labels** – All equipment labels as required by Thern's Rescue Rated design intent and applicable standards.
- **Supplemental Rescue Rated Instructions** – Additional information related to the rescue rated configuration, its capabilities, restrictions, and important safety notes. Also outlines, labeling inspection, and personnel training requirements per ANSI standards.

NOTE: Rescue Rated Conversion Kits currently not available for model numbers other than the 5PT10-M2 and 5PT20-M2 (steel or stainless steel versions).



NOTICE: These products are not for
lifting people or things over people.

Refer to technical pages for detailed performance information.

LONG LIFT CRANES

PORTABLE DAVIT CRANE

CRANE FEATURES

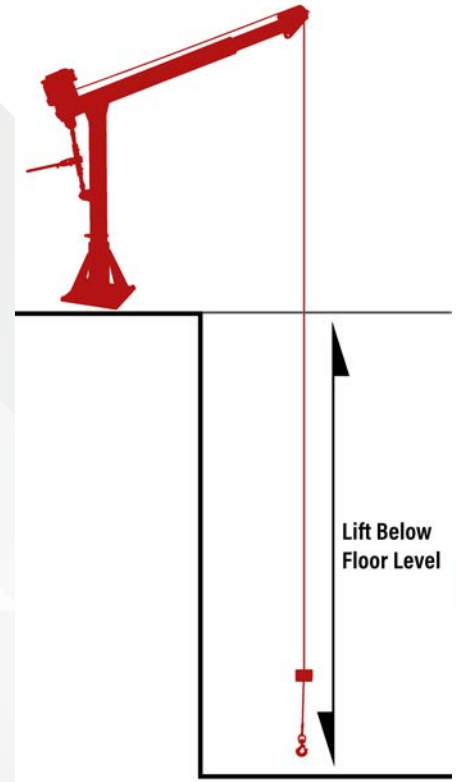
- 115 and 230 Volt Option
- Powder Coat, Stainless Steel or Epoxy Finishes
- Effortless Ratchet Boom Adjustment
- No Tools Required for Crane/Winch Assembly
- Limit Switch Ready Versions Available
- Lift up to 2,000 pounds and 385 feet below floor



*Product Shown:
5PT10-E2*

CRANE INFORMATION

Crane Model	Maximum Lift Below Floor ¹		Line Speed		Maximum Load Rating at Maximum Lift Below Floor		Wire Rope Diameter	
	ft	m	fpm	mpm	lbs	kg	in	mm
5PT10-E2T	237	72.2	8 - 19	2.4 - 5.8	1000	453	3/16	5
	137	41.7	8 - 19	2.4 - 5.8	1000	453	1/4	6
	77	23.4	8 - 19	2.4 - 5.8	1000	453	5/16	8
5PT20-E2T	135	41.1	8 - 19	2.4 - 5.8	1000	453	1/4	6
	75	22.8	8 - 19	2.4 - 5.8	1000	453	5/16	8
5PT20-E3T	385	117.3	9 - 19	2.7 - 5.8	2000	907	1/4	6
	235	71.6	9 - 19	2.7 - 5.8	2000	907	5/16	8
	135	41.1	9 - 19	2.7 - 5.8	2000	907	3/8	10



¹ On Pedestal Base.

Cranes available in powder coat, galvanized, stainless steel and epoxy finishes

BASES (sold separately)

Select the appropriate base(s) for your application from the chart below. Matching your crane with multiple bases provides optimal worksite flexibility and an economical solution for servicing multiple lift stations.

CRANE BASE OPTIONS

Crane Series	Model	Style	Finishes
5PT10	5BP10	Pedestal Mount	Powder Coat, Stainless, Epoxy
	5BF10	Flush Mount	Powder Coat, Stainless, Epoxy
	5BW10	Wall Mount	Powder Coat, Stainless, Epoxy
5PT20	5BP20	Pedestal Mount	Powder Coat, Stainless, Epoxy
	5BF20	Flush Mount	Powder Coat, Stainless, Epoxy
	5BW20	Wall Mount	Powder Coat, Stainless, Epoxy



WIRE ROPE Assembly
(sold separately)



Pedestal



Flush



Wall Mount



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

CAPTAIN® 5FT20

STATIONARY DAVIT CRANE

STATIONARY LIFTING POWER with Extended Reach

The 5FT20 Captain 2000 stationary davit crane (up to 2,000 pounds) is designed for permanent installation. It features a telescoping boom to reach, lift, and rotate very heavy loads 360 degrees—smoothly and easily. A screw jack comes standard to facilitate boom angle adjustments. For long or heavy lifts, add a Thern power winch for greater speed. Red-enamel finish and stainless-steel hardware resist wear in harsh conditions or environments. It's perfect for water/wastewater, manufacturing, marine, construction, and oil and gas applications.



360° Rotation & Flexible Operation

- Tapered roller bearing enhances smooth, 360-degree rotation under load for precise load placement. Integral 12-position (every 30 degrees) boom rotation lock facilitates heavy lifting and stabilizes unloading
- Rotation handle design does not interfere with boom angle adjustment for easier operation
- Telescoping boom length and adjustable boom angles accommodate a variety of height and reach requirements
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of speed and power requirements. DC motors and various voltage AC motors available

Product Shown:
5PT20-E2

STANDARD CONFIGURATIONS

Series	IMPERIAL/METRIC	
	Description	Up To Capacity
5FT20-M1	Red-enamel crane and ratchet jack with M4312PB spur gear hand winch	2,000 lbs / 907 kg
5FT20-M2	Red-enamel crane and ratchet jack with 4WM2V worm gear hand winch	2,000 lbs / 907 kg
5FT20X-M2X	Gray-epoxy crane and ratchet jack with gray-epoxy 4WM2VEGRA worm hand winch	2,000 lbs / 907 kg
5FT20-E2	Red-enamel crane and ratchet jack with 4WP2 electric winch	2,000 lbs / 907 kg
5FT20X-E2X	Gray-epoxy crane and ratchet jack with gray-epoxy 4WP2EGRA electric winch	2,000 lbs / 907 kg

Durable Construction & Finish

- Boom, mast, and base are fabricated from heavy-gauge steel that limits deflection and meets/exceeds ASTM standards
- Red-enamel finish and stainless-steel fasteners resist the elements for long service life
- Epoxy finishes are available for corrosive environments



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

CAPTAIN® 5FT25

STATIONARY DAVIT CRANE

MAXIMUM, STATIONARY LIFTING POWER with Extended Reach

The 5FT25 Captain 2500 stationary davit crane (up to 2,800 pounds) is designed for some of your heaviest loads. Permanently installed, it features a telescoping boom to reach, lift, and rotate loads a full 360 degrees—smoothly and easily. A screw jack comes standard to facilitate boom angle adjustments. For long or heavy lifts, add a Thern power winch for greater speed. Red-enamel finish and stainless-steel hardware resist wear in harsh conditions or environments. It is perfect for water/wastewater, manufacturing, marine, construction, and oil and gas applications.

360° Rotation & Flexible Operation

- Tapered roller bearing enhances smooth, 360-degree rotation under load for precise load placement. Integral 12-position (every 30 degrees) boom rotation lock facilitates heavy lifting and stabilizes unloading
- Rotation handle design does not interfere with boom angle adjustment for easier operation
- Telescoping boom length and adjustable boom angles accommodate a variety of height and reach requirements
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of speed and power requirements. DC motors and various voltage AC motors available



*Product Shown:
5FT25-M1*

Durable Construction & Finish

- Boom, mast, and base are fabricated from heavy-gauge steel that limits deflection and meets/exceeds ASTM standards
- Red-enamel finish and stainless-steel fasteners resist the elements for long service life
- Epoxy finishes are available for corrosive environments

STANDARD CONFIGURATIONS

Series	IMPERIAL/METRIC	
	Description	Up To Capacity
5FT25-M1	Red-enamel crane and ratchet jack with M452B spur gear hand winch	2,800 lbs / 1,270 kg
5FT25X-M1X	Gray-epoxy crane and ratchet jack with gray-epoxy M452BEGRA spur gear hand winch	2,800 lbs / 1,270 kg
5FT25-M2	Red-enamel crane and ratchet jack with 2W40V-BM worm gear hand winch	2,800 lbs / 1,270 kg
5FT25X-M2X	Gray-epoxy crane and ratchet jack with gray-epoxy 2W40V-BMX worm gear hand winch	2,800 lbs / 1,270 kg
5FT25-E2	Red-enamel crane and ratchet jack with 3WG4B electric winch	2,800 lbs / 1,270 kg
5FT25X-E2X	Gray-epoxy crane and ratchet jack with gray-epoxy 3WG4B electric winch	2,800 lbs / 1,270 kg



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

CAPTAIN® 5FT40

STATIONARY DAVIT CRANE

MASSIVE LIFTING POWER with Extensive Reach

The 5FT40 Captain Series stationary davit crane is designed for heavy loads up to 5,500 pounds (2,500 kg) and extended reach (ten feet). It also features a maximum hook height of 12 feet. The integral slewing drive withstands large axial, radial, and moment loads while allowing 360 degrees of smooth and easy rotation. A screw jack comes standard for boom angle adjustments. To ease operation and speed productivity, specify an optional power winch or the optional hydraulic boom angle adjustment—or both! Stainless-steel hardware and corrosion-resistant finishes, including an epoxy-based safety-yellow, resist wear in harsh environments. The 5FT40 is perfect for wind energy, marine, construction, water/wastewater, and oil and gas applications.

360° Rotation & Flexible Operation

- Standard with manually operated slewing drive enhances smooth, 360-degree mast rotation under extreme loads for precise load placement
- Standard screw jack for easy boom angle adjustment
- Optional hydraulic boom adjustment package (includes cylinder, hand pump, and control valve) for boom angle adjustments while under load (5FT40H)

Crane Features & Configurations

- Telescoping boom and adjustable boom angles accommodate a variety of applications
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of light or heavy loads and speeds. DC motors and various voltage AC motors available
- Standard recommended rope size is 3/8–1/2 inch based on your lifting requirements
- Configurable to meet European CE and ATEX standards



Product Shown:
5FT40-E2

STANDARD CONFIGURATIONS

Series	IMPERIAL/METRIC	
	Description	Up To Capacity
5FT40-M1	Red-enamel crane and ratchet jack with M452B spur gear hand winch	5,500 lbs / 2,500 kg
5FT40-M2	Red-enamel crane with 2W40V-BM worm gear hand winch and ratchet jack	5,500 lbs / 2,500 kg
5FT40X-M2X	Gray-epoxy crane with 2W40VEGRA-BMX worm spur gear hand winch and ratchet jack	5,500 lbs / 2,500 kg
5FT40-E2	Red-enamel crane with 3WG4B electric winch and ratchet jack	5,500 lbs / 2,500 kg
5FT40X-E2X	Gray-epoxy crane with 3WG4B electric winch and ratchet jack	5,500 lbs / 2,500 kg
5FT40-E3	4HWF6M electric winch—see tech pages for winch options	5,500 lbs / 2,500 kg
5FT40X-E3	Gray-epoxy 4HWF6M electric winch—see tech pages for winch options	5,500 lbs / 2,500 kg

All configurations available with 5FT40H crane excluding M1

Durable Construction & Finish

- Boom, mast, and base are fabricated from heavy-duty steel that limits deflection and meets ASTM standards
- Corrosion-resistant finishes and stainless-steel fasteners resist the elements and harsh environments for long service life
- Standard red-enamel finish, optional galvanized, or epoxy (gray, safety-yellow, or custom-color) finishes are available



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

CAPTAIN® 5FT100

STATIONARY DAVIT CRANE

UNMATCHED LIFTING CAPACITY

with Superior Reach

The 5FT100 Captain Series stationary davit crane is engineered for extraordinary lifting power, handling loads up to 11,000 pounds (5000 kg) with ease. Its extended capabilities include a hook height and reach of over 10 feet (3 m), making it ideal for demanding tasks in marine, industrial, and energy applications. The integral slewing drive ensures smooth, 360-degree rotation under load, allowing precise positioning of heavy equipment. Featuring a durable epoxy finish, the 5FT100 resists corrosion in the harshest environments for long-lasting performance. Available with multiple winch options the crane provides versatility to match your operational needs.

360° Rotation & Powerful Functionality

- Slewing drive facilitates smooth, 360-degree rotation under heavy loads for precise placement.
- Telescoping boom offers 3 extended positions for increased versatility.
- Compatible with CE standards.

Crane Features & Configurations

- Robust epoxy finish standard, ensuring superior resistance to corrosion and wear.
- Available winches include manually operated and electric models in various voltages to meet a variety of needs.



Product Shown:
5FT100HX-E4X

STANDARD CONFIGURATIONS

Series	IMPERIAL/METRIC	
	Description	Up To Capacity
5FT100HX-M1X	Gray epoxy crane with hydraulic cylinder and M492BEGRA spur gear hand winch	11,000 lbs/ 5000 kg
5FT100HX5-M1X5	Safety yellow epoxy crane with hydraulic cylinder and M492BEYEL spur gear hand winch	11,000 lbs/ 5000 kg
5FT100HX-E3X	Gray epoxy crane with hydraulic cylinder and 4HWF6M helical-worm gear power winch	11,000 lbs/ 5000 kg
5FT100HX5-E3X5	Safety yellow epoxy crane with hydraulic cylinder and 4HWF6M helical-worm gear power winch	11,000 lbs/ 5000 kg
5FT100HX-E4X	Gray epoxy crane with hydraulic cylinder and 4HBN7M helical-bevel power winch	11,000 lbs/ 5000 kg
5FT100HX5-E4X5	Safety yellow crane with hydraulic cylinder and 4HBN7M helical-bevel power winch	11,000 lbs/ 5000 kg

Built for Durability & Extreme Conditions

- Heavy-duty steel construction meets ASTM standards for strength and reliability.
- Durable epoxy finish offers the ultimate in corrosion resistance, suitable for saltwater and other harsh environments.
- Standard color is gray. Safety yellow and other color options also available.

Note: Requires two-part line kit sold separately.

Exceptional Versatility

- The 5FT100 is the go-to solution for lifting applications requiring immense power, precise control, and long-lasting durability. Its innovative design and advanced features make it an essential tool for industries such as marine, construction, oil and gas, and water/wastewater management.



NOTICE: These products are not for lifting people or things over people.

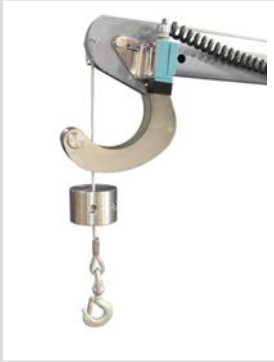
Refer to technical pages for detailed performance information.

CAPTAIN® 5FT100

STATIONARY DAVIT CRANE ACCESSORIES

Limit Switch Ready Winch Options

NOTE: Limit switch winch option requires purchase of Limit Switch and Headache Ball (sold separately)



Model	Description
5FT100LS-EL-TPL	For two-part line

Two-Part Line Kit



Model	Description
5FT100TPL	Yellow crane block for two part line Swivel hook with safety latch and split pin

Headache Ball



Model	Description
HB30S-44-63	Stainless steel 30 lb fits 7/16-5/8 rope
HB30X-44-63	Gray epoxy 30 lb fits 7/16-5/8 rope
HB30X5-44-63	Yellow epoxy 30 lb fits 7/16-5/8 rope



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lifting people or things over people.

Refer to technical pages for detailed performance information.

ADMIRAL® 5PT30

TRANSPORTABLE DAVIT CRANE

MAXIMUM LIFTING POWER with Portable Utility

The 5PT30 Admiral Series davit crane (up to 3,000 pounds) is Thern's largest capacity transportable davit crane. An adjustable boom for high lifts provides almost 10 feet of reach to clear safety gates, rails, and other obstacles. Easy disassembly and reassembly with quick-release hardware and pins enhance transport to storage or other work bases. A combination of roller and needle bearings allow it to lift, lower, and rotate loads 360 degrees, easily and smoothly. A variety of base options and manual or powered operation makes it perfect for construction, manufacturing, marine, and oil and gas applications.

360° Rotation & Flexible Operation

- Tapered roller and needle bearings enhance smooth, 360-degree rotation under load for precise load placement. Integral 12-position (every 30 degrees) boom rotation lock facilitates heavy lifting and stabilizes unloading
- Rotation handle design does not interfere with boom angle adjustment for easier operation
- Davit boom, supported by integral screw jack or boom brace, telescopes to five different lengths to accommodate a variety of applications
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of loads and speeds. DC motors and various voltage AC motors, including three-phase, are available

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet ASTM standards
- Red-enamel finish, mast cap and stainless-steel fasteners resist the elements and harsh environments for long service life
- Galvanized and epoxy finishes are available

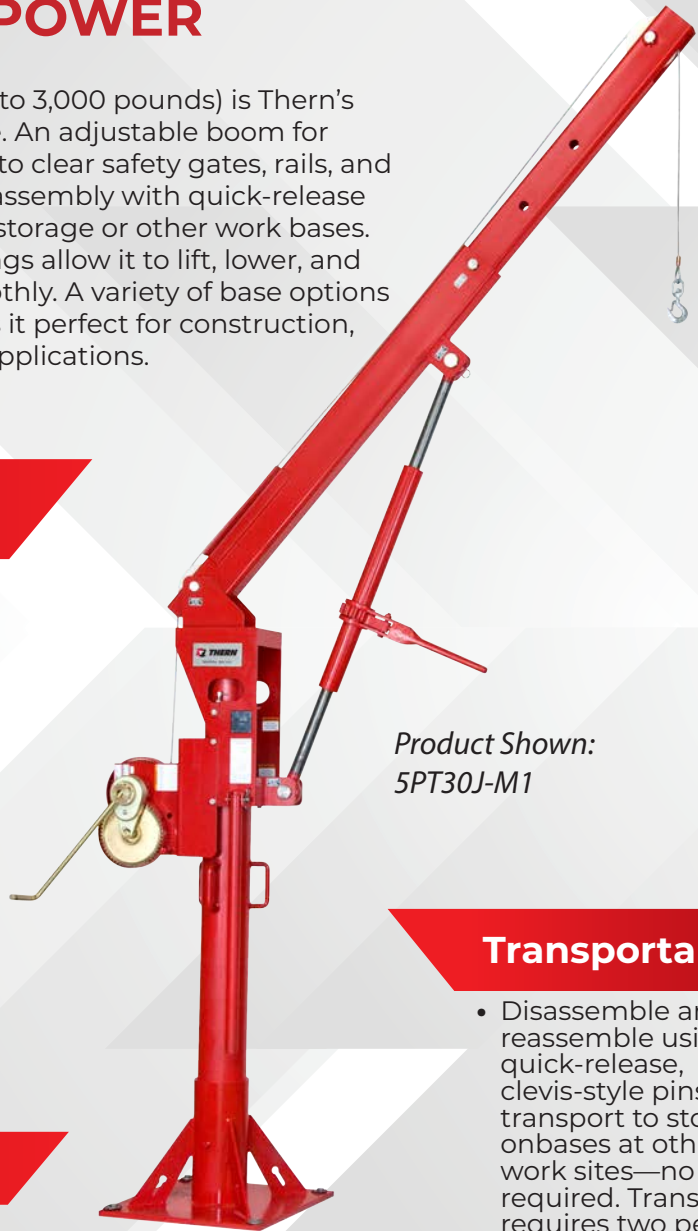
Product Shown:
5PT30J-M1

Transportable

- Disassemble and reassemble using quick-release, clevis-style pins for transport to storage on bases at other work sites—no tools required. Transport requires two people

Flexible Configurations

- A variety of base and mounting options, including pedestal-, flush-, and wall-mount, help meet multiple lifting needs



STANDARD CONFIGURATIONS

Series	IMPERIAL/METRIC	
	Description	Up To Capacity
5PT30J-M1	Enamel crane and ratchet jack with M452B spur gear hand winch	3,000 lbs / 1,360 kg
5PT30JG-M1	Galvanized crane and ratchet jack with M452B spur gear hand winch	3,000 lbs / 1,360 kg
5PT30J-M2	Enamel crane and ratchet jack with 2W40V-BMT4P worm gear hand winch	3,000 lbs / 1,360 kg
5PT30JG-M1X	Galvanized crane and ratchet jack with gray-epoxy M452BEGRA spur gear hand winch	3,000 lbs / 1,360 kg
5PT30JX-M1X	Gray-epoxy crane and ratchet jack with gray-epoxy M452BEGRA spur gear hand winch	3,000 lbs / 1,360 kg
5PT30J-E2	Enamel crane and ratchet jack with 3WG4B electric winch	3,000 lbs / 1,360 kg
5PT30JG-E2	Galvanized crane and ratchet jack with 3WG4B electric winch	3,000 lbs / 1,360 kg
5PT30JX-E2X	Gray-epoxy crane and ratchet jack with gray-epoxy 3WG4B electric winch	3,000 lbs / 1,360 kg



NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

CRANE

OPTIONS & ACCESSORIES



Base Anchor Kit	
Model	Description
AN50A-5	(4) Hilti® zinc-plated steel fasteners 1/2" X 5.50" STL (5PA5, 5PF5, and 5PT5 cranes)
AN50A-5S	(4) Hilti® 304 stainless-steel fasteners 1/2" X 5.50" SST304 (5PA5, 5PF5, and 5PT5 cranes)
AN50A-5S316	(4) Hilti® 316 stainless-steel fasteners 1/2" X 5.50" SST316 (5PA5, 5PF5, and 5PT5 cranes)
AN62A-6	(4) Hilti® zinc-plated steel fasteners 5/8" X 6.00" STL (5PA10, 5PT10, 5PT20, and 5FT20 cranes)
AN62A-6S	(4) Hilti® 304 stainless-steel fasteners 5/8" X 6.00" SST304 (5PA10, 5PT10, 5PT20, and 5FT20 cranes)
AN62A-6S316	(4) Hilti® 316 stainless-steel fasteners 5/8" X 6.00" SST316 (5PA10, 5PT10, 5PT20, and 5FT20 cranes)



Rotational Lock	
Model	Description
5P5LCK	For pedestal, wall, and flush-mount bases, 316 stainless steel—available for use 5PA5, 5PF5, and 5PT5



Cable Spooler	
Model	Description
RW50	304 stainless-steel reel winds up wire rope when detached from crane



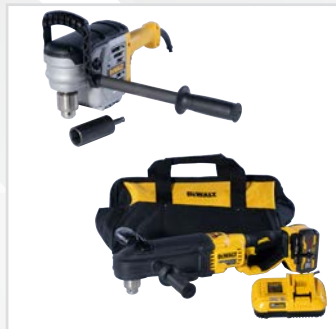
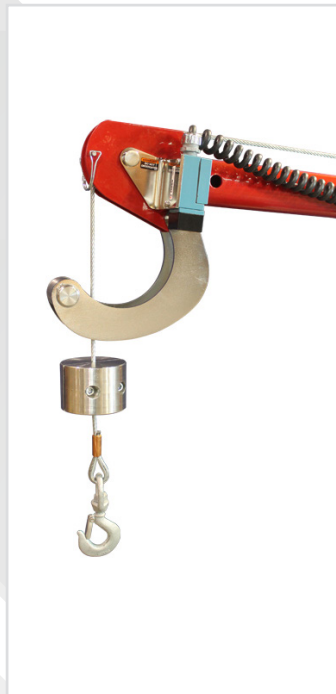
Wire Rope Keeper	
Model	Description
RK19-25S	304 stainless-steel bracket holds free end of the wire rope when detached from the crane
RK19-25S316	316 stainless-steel bracket holds free end of the wire rope when detached from the crane



Roller Ball Bearing for 5PT10 Series Crane	
Model	Description
5PT10BRG	Red electrostatic, powder-coat paint finish
5PT10BRG-S	304 stainless-steel, electro-polished finish for added protection against corrosion
5PT10BRG-S316	Stainless-steel, electro-polished finish for maximum protection against corrosion
5PT10BRG-SS	304 stainless steel, for use with stainless-steel base only
5PT10BRG-SS316	316 stainless steel, for use with stainless-steel base only



Roller Ball Bearing for 5PT20 Series Crane	
Model	Description
5PT20BRG	Red electrostatic, powder-coat paint finish
5PT20BRG-S	304 stainless-steel, electro-polished finish for added protection against corrosion
5PT20BRG-S316	Stainless-steel, electro-polished finish for maximum protection against corrosion
5PT20BRG-SS	304 stainless steel, for use with stainless-steel base only
5PT20BRG-SS316	316 stainless steel, for use with stainless-steel base only



Limit Switch Ready Winch Options	
Model	Description
NOTE: Limit switch winch option requires purchase of limit switch and headache ball (sold separately)	
For 5PF5, 5PA5, 5PA10, 5AT1, 5AT2, 5PT5, 5PT10, 5PT20 Series Cranes (sold separately)	
E2L (5PA5, 5PA10)	4WP2V electric winch—115/1/60 VAC with 6 ft pendant control—enamel
E2LX (5PA5, 5PA10)	4WP2VEGRA electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray
E4L	4777 electric winch—115/1/60 VAC with 6 ft pendant control—enamel
E4LX	4777EGRA electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray
E4DCL	4777DC electric winch—12 volt DC with 10 ft pendant control—enamel
E4DCLX	4777DCEGRA electric winch—12 volt DC with 10 ft pendant control—epoxy gray
For 5FT20 Series Crane Only (sold separately)	
E2L	4WP2 electric winch—115/1/60 VAC with 6 ft pendant control—enamel
E2LX	4WP2EGRA electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray
E4L	4771 electric winch—115/1/60 VAC with 6 ft pendant control—enamel finish
E4LX	4771EGRA electric winch—115/1/60 VAC with 6 ft pendant control—gray-epoxy finish
E4DCL	E4DCL 4771DC electric winch—12 volt DC with 10 ft pendant control—enamel finish
E4DCLX	4771DCEGRA electric winch—12 volt DC with 10 ft pendant control—gray-epoxy finish
For 5PT30, 5FT25, 5FT40 Series Crane Only (sold separately)	
E2L	3WG4B electric winch—115/1/160 VAC with 6 ft pendant control—enamel finish
E2LX	3WG4BEGRA electric winch—115/1/160 VAC with 6 ft pendant control—epoxy-gray finish
E2TL	3WG4BMT electric winch—115/1/160 VAC with 6 ft pendant control—enamel finish (Unavailable for use with 5FT40)
E2TLX	3WG4MTX electric winch—115/1/160 VAC with 6 ft pendant control—epoxy-gray finish

Drill Drive Kit	
Model	Description
ED330-DW11	Corded Kit: 120 VAC, 11.5 amp, 330rpm drill-motor to power drive the hand winch. Only available for cranes.
ED400-DW09	Cordless Kit: 120 VAC, 9 amp, 400rpm drill-motor to power drive the hand winch. Only available for cranes configured with the M2 winch option. Includes 1-1/8" hex drive socket.

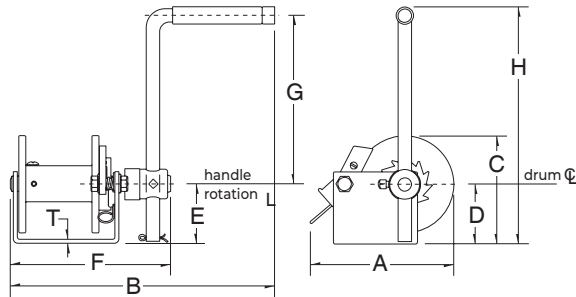
Headache Ball	
Model	Description
HB10-12-25	Red enamel painted 10 lb fits 1/8" to 1/4" rope
HB10-25-38	Red enamel painted 10 lb fits 1/4" to 3/8" rope
HB10S-12-25	Stainless-steel 10 lb fits 1/8" to 1/4" rope
HB10S-25-38	Stainless-steel 10 lb fits 1/4" to 3/8" rope
HB10S-44-50	Stainless-steel 10 lb fits 7/16" to 1/2" rope

Base Extension	
Model	Description
5ABE1-15	15" (38 cm) base extension available for 5PF5, 5PT5, 5PT10, 5PT20, 5AT1 and 5AT2 cranes with powder-coat, galvanized, 304 & 316 stainless-steel, and epoxy finishes. Aluminum base extension available in powder coat finish.
5ABE2-15	
5BE5-15	
5BE10-15	
5BE20-15	

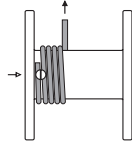
Workmate	
Model	Description
5BH5	Portable hitch-mounted crane base is compatible with the 5PF5, 5PT5, and 5PA5 davit models.

SPUR GEAR SERIES HAND WINCHES

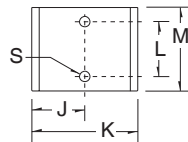
Model M401



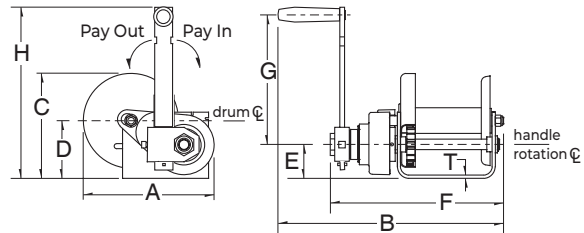
Wire Rope Installation:
Model M401



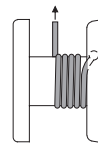
Model M401 Base



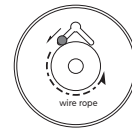
Models M4022PB and M4032PB



Wire Rope Installation: Models M4022,
M4022PB, M4032, and M4032PB

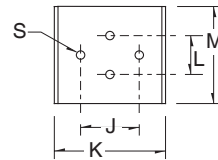


Quick-Disconnect Anchor

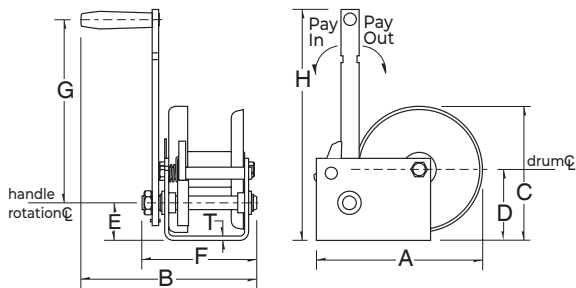


Flange-Clip Anchor

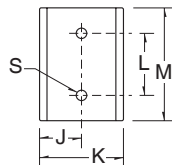
Model M4032 and M4032PB Base



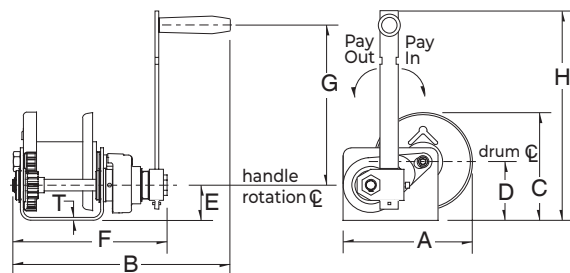
Models M4022 and M4032



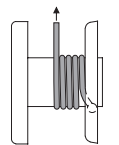
Model M4022 and M4022PB Base



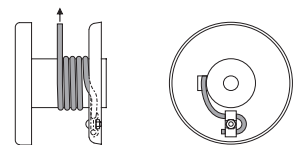
Model M4042PBSS



Wire Rope Installation: Model M4042PBSS

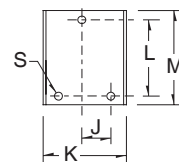


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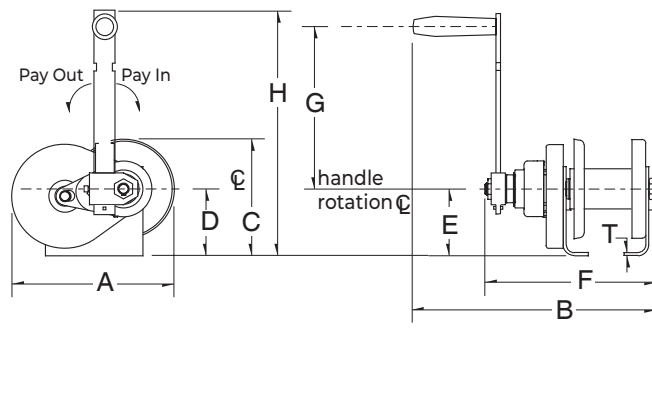


Flange-Clip Anchor

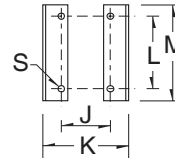
M4042PBSS Base



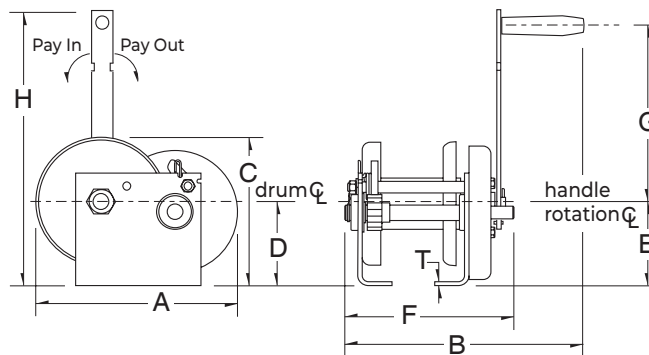
Models M4312PB, M4412PB, and M4312PBSS



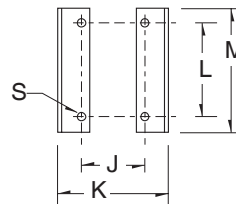
M4312PB, M4412PB, and M4312PBSS Base



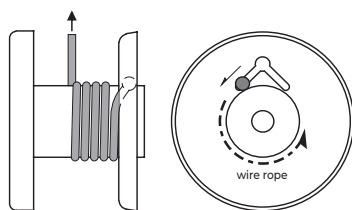
Models M4312 and M4412



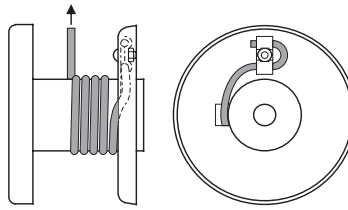
M4042PBSS and M4412 Base



Wire Rope Installation: Models M4312, M4312PB, M4312PBSS, M4412, and M4412PB



Quick-Disconnect Anchor



Flange-Clip Anchor

Spur Gear Hand Winches—Dimensions

	M401		M4022		M4022PB		M4032		M4032PB		M4042PBSS		M4312	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
Drum Diameter	1.50	38.10	1.50	38.10	1.50	38.10	1.50	38.10	1.50	38.10	2.50	63.50	2.50	63.50
Flange Diameter	4.06	103.12	4.56	115.82	4.56	115.82	4.56	115.82	4.56	115.82	5.50	139.70	5.50	139.70
Drum Width	2.75	69.85	2.00	50.80	2.00	50.80	4.00	101.60	4.00	101.6	3.00	76.20	3.00	76.20
A	6.56	166.62	7.34	187.00	7.34	186.60	7.36	187.00	7.36	187.00	8.30	211.00	10.70	272.00
B	10.56	268.22	8.97	228.00	12.12	310.40	11.00	278.00	14.22	361.00	13.90	354.00	13.00	330.00
C	4.56	115.82	6.12	156.00	6.12	156.00	6.12	156.00	6.12	156.00	6.90	176.00	7.20	183.00
D	2.50	63.50	3.27	83.00	3.27	83.00	3.37	83.00	3.27	83.00	3.80	96.00	4.00	101.00
E	2.50	63.50	1.88	48.00	2.00	48.00	1.88	48.00	2.00	48.00	2.30	58.00	4.00	101.00
F	5.81	147.57	5.25	133.00	8.22	209.00	7.19	183.00	10.19	259.00	9.90	249.00	8.30	210.00
G ¹	8.50	215.90	10.53	267.50	10.53	268.00	10.53	268.00	10.53	268.00	10.50	267.00	8.80	222.00
H ¹	11.28	288.51	13.56	344.00	13.12	333.00	13.56	344.00	13.12	333.00	13.40	343.00	13.30	339.00
J	2.19	55.63	1.84	47.00	1.84	47.00	3.00	76.00	3.00	76.00	1.40	37.00	3.30	85.00
K	4.38	111.25	3.68	94.00	3.68	94.00	5.68	145.00	5.68	145.00	5.30	134.00	5.30	134.00
L	2.50	63.50	2.82	72.00	2.82	72.00	2.00	51.00	2.00	51.00	5.00	127.00	5.00	127.00
M	3.50	88.90	5.00	127.00	5.00	127.00	5.00	127.00	5.00	127.00	6.00	152.00	6.00	153.00
S (hole dia.)	.40	10.16	.43	11.00	.43	11.00	.43	11.00	.43	11.00	.40	10.00	.40	10.00
T	.18	4.57	.18	5.00	.18	5.00	.18	5.00	.18	5.00	.20	5.00	.20	5.00

Dimensions are for reference only and subject to change without notice.

¹ Models M401, M4022PB, M4032PB, and M4042PBSS handles are adjustable.

Dimension shown is for maximum handle length.

Spur Gear Hand Winches—Dimensions

Model	Drum Dia.		Flange Dia.		Drum Width		A		B		C		D		E		F	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
M4312	2.5	63.5	5.5	139.7	3	76.2	10	254	12.7	322.6	7.15	181.6	4	101.6	4	101.6	8	203.2
M4312PB	2.5	63.5	5.5	139.7	3	76.2	10	254	14.5	368.3	7.15	181.6	4	101.6	4	101.6	10.78	273.8
M4312PBSS	2.5	63.5	5.5	139.7	3	76.2	10	254	14.5	368.3	7.15	181.6	4	101.6	4	101.6	10.78	273.8
M4412	2.5	63.5	5.5	139.7	6	152.4	10	254	15.7	398.8	7.15	181.6	4	101.6	4	101.6	11	279.4
M4412PB	2.5	63.5	5.5	139.7	6	152.4	10	254	17.5	444.5	7.15	181.6	4	101.6	4	101.6	13.78	350.0

¹ Models M4312PB, M4312PBSS, and M4412PB handles are adjustable. Dimension shown is for maximum handle length. Dimensions are for reference only and subject to change without notice.

Spur Gear Double Reduction Hand Winches—Dimensions

Model	Drum Dia.		Flange Dia.		Drum Width		A		B		C		D		E		F	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
M452	4.00	101.6	8.50	215.9	6.38	162.0	15.25	387.3	22.00	558.8	10.69	271.5	5.81	147.5	5.81	147.5	14.81	376.1
M452B	4.00	101.6	8.50	215.9	6.38	162.0	15.25	387.3	21.90	556.2	10.69	271.5	5.81	147.5	5.81	147.5	16.43	417.3
M452B-A	4.00	101.6	8.50	215.9	4.00	101.6	15.25	387.3	19.62	498.3	10.83	275.0	5.81	147.5	5.81	147.5	14.06	357.1
M492	5.00	127	12.38	314.4	7.62	193.5	20.38	517.6	25.12	638.0	14.00	355.6	7.50	190.5	7.50	190.5	18.44	468.3
M492B	5.00	127	12.38	314.4	7.62	193.5	20.38	517.6	25.00	635.0	14.00	355.6	7.50	190.5	7.50	190.5	19.53	496.0
M492-12	5.00	127	12.38	314.4	12.00	304.8	20.38	517.6	29.50	749.3	14.00	355.6	7.50	190.5	7.50	190.5	22.82	579.6
M492B-12	5.00	127	12.38	314.4	12.00	304.8	20.38	517.6	29.38	746.2	14.00	355.6	7.50	190.5	7.50	190.5	23.90	607.0

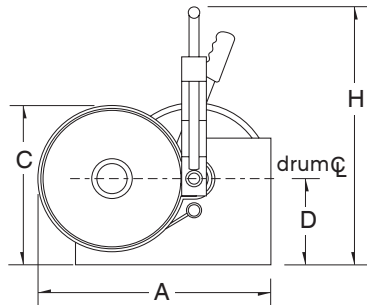
¹ Models M4312PB, M4312PBSS, and M4412PB handles are adjustable. Dimension shown is for maximum handle length. Dimensions are for reference only and subject to change without notice.

M4312PB		M4312PBSS		M4412		M4412PB	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
2.50	63.50	2.50	63.50	2.50	63.50	2.50	63.50
5.50	139.70	5.50	139.70	5.50	139.70	5.50	139.70
3.00	76.20	3.00	76.20	6.00	152.40	6.00	152.40
10.70	272.00	10.20	259.00	13.70	348.00	13.70	348.00
14.40	367.00	14.20	360.00	16.00	406.00	17.40	443.00
7.20	183.00	7.20	183.00	7.20	183.00	7.20	183.00
4.00	101.00	4.00	101.00	4.00	101.00	4.00	101.00
4.40	101.00	4.00	101.00	4.00	101.00	4.00	101.00
10.80	275.00	10.70	273.00	11.30	286.00	13.80	351.00
10.50	268.00	10.50	267.00	8.80	222.00	10.50	268.00
15.10	387.00	15.20	386.00	13.30	339.00	15.10	387.00
3.30	85.00	3.30	85.00	6.30	161.00	6.30	161.00
5.30	134.00	5.30	134.00	8.30	210.00	8.30	210.00
5.00	127.00	5.00	127.00	5.00	127.00	5.00	127.00
6.00	152.00	6.00	152.00	6.00	152.00	6.00	153.00
.40	10.00	.40	10.00	.40	10.00	.40	10.00
.20	5.00	.20	5.00	.20	5.00	.20	5.00

G ¹		H ¹		J		K		L		M		S (hole dia.)		T	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
8.75	222.25	13.35	339.09	3.34	84.84	5.31	134.87	5	127	6	152.4	.40	10.16	.18	4.57
10.59	268.99	15.19	385.83	3.34	84.84	5.31	134.87	5	127	6	152.4	.40	10.16	.18	4.57
10.59	268.99	15.19	385.83	3.34	84.84	5.31	134.87	5	127	6	152.4	.40	10.16	.18	4.57
8.75	222.25	13.35	339.09	6.34	161.04	8.31	211.07	5	127	6	152.4	.40	10.16	.18	4.57
10.59	268.99	15.19	385.83	6.34	161.04	8.31	211.07	5	127	6	152.4	.40	10.16	.18	4.57

G ¹		H ¹		J		K		L		M		S (hole dia.)		T		V	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
18.62	472.9	24.44	620.7	6.75	171.4	9.50	241.3	11.25	285.7	12.50	317.5	.56	14.2	.25	6.3	—	—
18.38	466.8	24.19	614.4	6.75	171.4	9.50	241.3	11.25	285.7	12.50	317.5	.56	14.2	.25	6.3	—	—
18.38	466.8	24.19	614.4	4.50	114.3	7.12	180.8	11.25	285.7	12.50	317.5	.56	14.2	.25	6.3	—	—
22.50	571.5	30.00	762.0	8.00	203.2	12.00	304.8	15.50	393.7	17.00	431.8	.81	20.5	.38	9.6	—	—
18.50	469.9	26.00	660.4	8.00	203.2	12.00	304.8	15.50	393.7	17.00	431.8	.81	20.5	.38	9.6	—	—
22.50	571.5	30.00	762.0	8.00	203.2	16.38	416.0	15.50	393.7	17.00	431.8	.81	20.5	.38	9.6	12.38	314.4
18.50	469.9	26.00	660.4	8.00	203.2	16.38	416.0	15.50	393.7	17.00	431.8	.81	20.5	.38	9.6	12.38	314.4

All Models

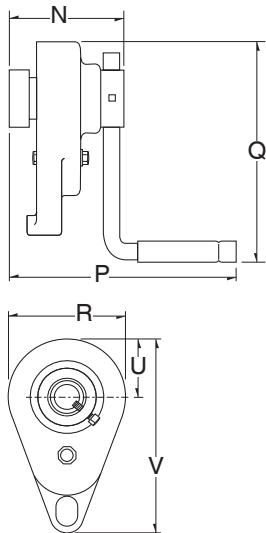


Disc Brakes—Dimensions

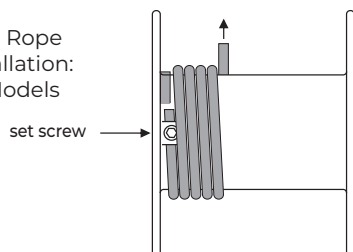
Model	N		P		Q ¹		R		U		V	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
MB451	4.97	126.2	10.44	265.1	21.25	539.7	4.87	123.6	2.44	61.9	8.62	218.9
MB491	5.15	130.8	10.62	269.7	21.38	543.0	4.87	123.6	2.44	61.9	10.56	268.2

¹ Handles are adjustable. Dimension shown is for maximum handle length. Dimensions are for reference only and subject to change without notice.

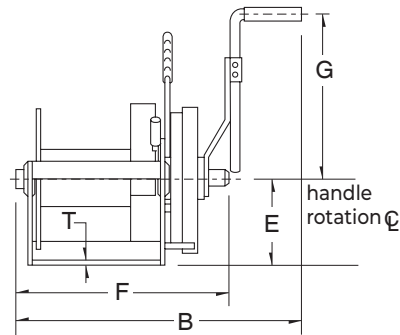
Models MB451 and MB491



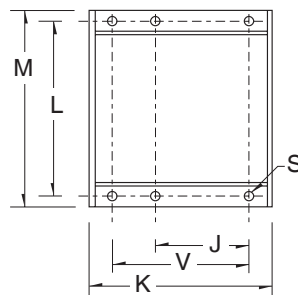
Wire Rope Installation:
All Models



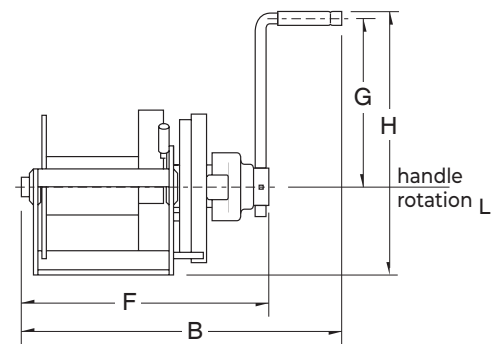
Models M452, M492, and M492-12



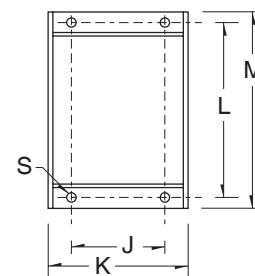
Base for M492-12
and M492B-12



Models M452B, M452B-A, M492B, and M492B-12



Base for M452, M452B,
M452B-A, M492, and
M492B Models



Configurations and Performance Characteristics—Up to 2,000 lbs

Model	Description	LOAD RATING						Wire Rope Dia. ¹		DRUM CAPACITY ²						Single Gear Ratio	Double Gear Ratio	Force ³ to lift 1,000 lb		Approx. Ship Weight	
		1st Layer		Mid Drum		Full Drum				1st Layer		Mid Drum		Full Drum							
		(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(in)	(mm)	(ft)	(m)	(ft)	(m)	(ft)	(m)			(lb)	(kg)	(lb)	(kg)
M401	500 lb—marine duty (for pulling only)	500	226	400	181	300	136	1/8 3/16	3.2 4.8	7 4	2 1	60 27	18 8	130 60	39 18	—	—	—	—	8	3
M4022	1,000 lb—marine duty (for pulling only)	1,000	453	700	317	500	226	1/8 3/16	3.2 4.8	4 3	1 0.9	52 26	15 7	130 57	39 17	2.85:1	—	40	18.1	12	5
M4022PB	1,000 lb—marine duty with brake (for lifting)	1,000	453	700	317	500	226	1/8 3/16	3.2 4.8	4 3	1 0.9	52 26	15 7	130 57	39 17	2.85:1	—	41	18.6	17	7
M4032	1,000 lb—marine duty (for pulling only)	1,000	453	700	317	500	226	1/8 3/16	3.2 4.8	11 7	3 2	110 51	33 15	250 110	76 33	2.85:1	—	40	18.1	14	6
M4032PB	1,000 lb—marine duty with brake (for lifting)	1,000	453	700	317	500	226	1/8 3/16	3.2 4.8	11 7	3 2	110 51	33 15	250 110	76 33	2.85:1	—	41	18.6	18	8
M4042PBSS	1,000 lb—stainless steel with brake (for lifting)	1,000	453	800	362	600	272	1/8 3/16 1/4	3.2 4.8 6.4	12 8 5	3 2 1	110 48 27	33 14 8	240 110 59	73 33 17	3.83:1	—	46 (sgl gear)	20.9	24	10
M4312	2,000 lb—marine duty (for pulling only)	2,000	907	1,600	725	1,200	544	3/16 1/4 5/16	4.8 6.4 7.9	8 5 4	2 1 1	48 27 17	14 8 5	110 59 39	33 17 11	3.83:1	14.7:1	20 (dbl gear)	9.1	23	10
M4312PB	2,000 lb—marine duty with brake (for lifting)	2,000	907	1,600	725	1,200	544	3/16 1/4 5/16	4.8 6.4 7.9	8 5 4	2 1 1	48 27 17	14 8 5	110 59 39	33 17 11	—	14.7:1	17 (dbl gear)	7.7	28	12
M4312PBSS	2,000 lb—stainless steel with brake (for lifting)	2,000	907	1,600	725	1,200	544	3/16 1/4 5/16	4.8 6.4 7.9	8 5 4	2 1 1	48 27 17	14 8 5	110 59 39	33 17 11	—	14.7:1	17 (dbl gear)	7.7	28	12
M4412	2,000 lb—marine duty (for pulling only)	2,000	907	1,600	725	1,200	544	3/16 1/4 5/16	4.8 6.4 7.9	18 14 11	5 4 3	97 52 35	29 15 10	210 120 77	64 36 23	3.83:1	14.7:1	20 (dbl gear)	9.1	25	11
M4412PB	2,000 lb—marine duty with brake (for lifting)	2,000	907	1,600	725	1,200	544	3/16 1/4 5/16	4.8 6.4 7.9	18 14 11	5 4 3	97 52 35	29 15 10	210 120 77	64 36 23	—	14.7:1	17 (dbl gear)	7.7	30	13

Please contact Thern or nearest Thern Distributor for firm fixed price and delivery.

¹For Models M4022, M4022PB, M4032, and M4032PB, ball end is available for 1/8 inch and 3/16 inch only. For Models 4042PBSS, M4312, M4312PB, M4312PBSS, M4412, and M4412PB, ball end is available for 3/16-inch and 1/4 inch only.

²Actual drum capacities may be 25-30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.

³Approximate handle force required to lift 1,000 lbs with an empty drum and maximum handle length.

Configurations and Performance Characteristics—Up to 10,000 lbs

Model	Description	LOAD RATING						Wire Rope Dia.		DRUM CAPACITY ¹						Single Gear Ratio	Double Gear Ratio	Force ² to lift 1,000 lb		Approx. Ship Weight	
		1st Layer		Mid Drum		Full Drum				1st Layer		Mid Drum		Full Drum							
		(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(in)	(mm)	(ft)	(m)	(ft)	(m)	(ft)	(m)			(lb)	(kg)	(lb)	(kg)
M452	4,000 lb—marine duty (for pulling only)	4,000	1,814	3,300	1,496	2,500	1,133	1/4 5/16 3/8	6.4 7.9 9.5	23 18 14	7 5 4	130 89 64	39 27 19	300 200 140	91 60 42	4.42:1	19.54:1	10 (dbl gear)	4.5	83	38
M452B	4,000 lb—marine duty with brake (for lifting)	4,000	1,814	3,300	1,496	2,500	1,133	1/4 5/16 3/8	6.4 7.9 9.5	23 18 14	7 5 4	130 89 64	39 27 19	300 200 140	91 60 42	—	19.54:1	10 (dbl gear)	4.5	91	42
M452B-A	4,000 lb—marine duty with brake (for lifting) 4-inch drum width	4,000	1,814	3,300	1,496	2,500	1,133	1/4 5/16 3/8	6.4 7.9 9.5	13 9 7	3 2 2	83 56 40	25 17 12	190 120 89	57 36 27	—	19.54:1	10 (dbl gear)	4.5	83	38
M492	10,000 lb—marine duty (for pulling only)	10,000	4,535	7,400	3,356	5,400	2,449	5/16 3/8 1/2	7.9 9.5 12.7	27 21 15	8 6 4	240 170 100	73 51 30	540 390 230	164 118 70	5.00:1	25.00:1	8 (dbl gear)	3.6	166	76
M492B	10,000 lb—marine duty with brake (for lifting)	10,000	4,535	7,400	3,356	5,400	2,449	5/16 3/8 1/2	7.9 9.5 12.7	27 21 15	8 6 4	240 170 100	73 51 30	540 390 230	164 118 70	—	25.00:1	8 (dbl gear)	3.6	173	79
M492-12	10,000 lb—marine duty (for pulling only) 12-inch drum width	10,000	4,535	7,400	3,356	5,400	2,449	5/16 3/8 1/2	7.9 9.5 12.7	46 37 27	14 11 8	380 270 160	115 82 48	850 610 360	259 185 109	5.00:1	25.00:1	8 (dbl gear)	3.6	175	80
M492B-12	10,000 lb—marine duty with brake (for lifting) 12-inch drum width	10,000	4,535	7,400	3,356	5,400	2,449	5/16 3/8 1/2	7.9 9.5 12.7	46 37 27	14 11 8	380 270 160	115 82 48	850 610 360	259 185 109	—	25.00:1	8 (dbl gear)	3.6	190	87
MB451	Disc brake only for M452 (for lifting)																			13	6
MB491	Disc brake only for M492 and M492-12 (for lifting)																			15	7

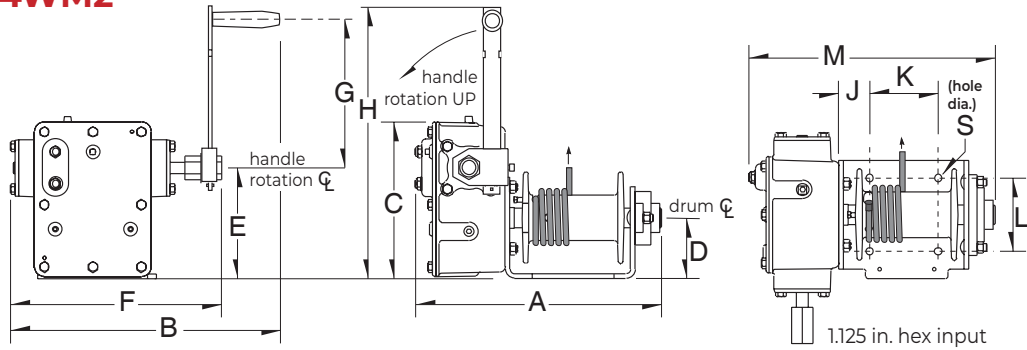
Please contact Thern or nearest Thern Distributor for firm fixed price and delivery.

¹Actual drum capacities may be 25-30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.

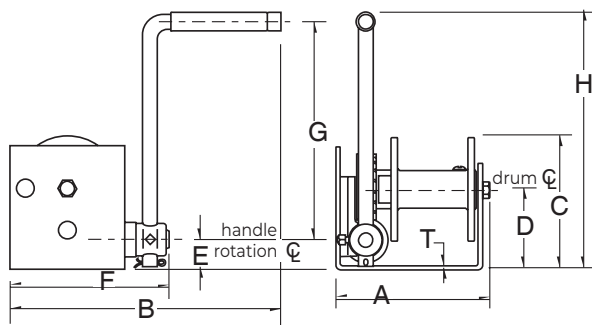
²Approximate handle force required to lift 1,000 lbs with an empty drum and maximum handle length.

WORM GEAR SERIES HAND WINCHES

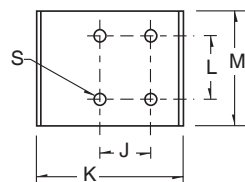
Model 4WM2



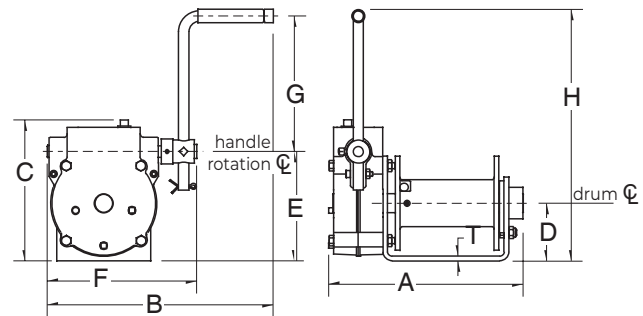
Model 465



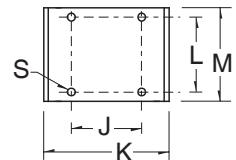
Base Model 465



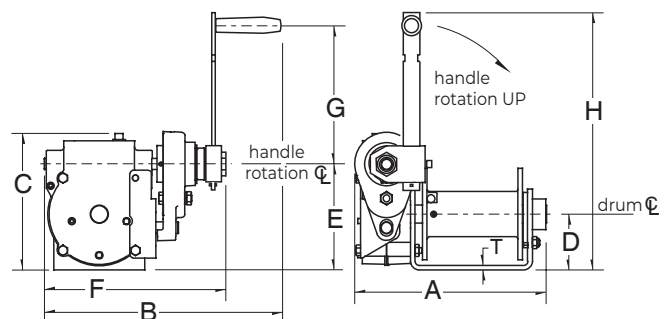
Models 462 and 472



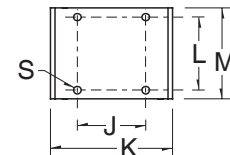
Base Models 462 and 472



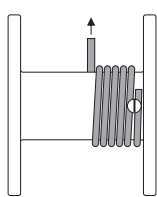
Model 4622PB



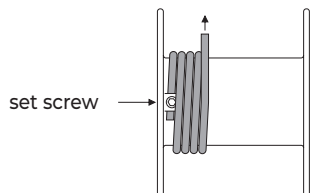
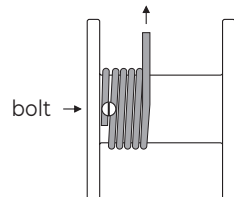
Base Model 4622PB



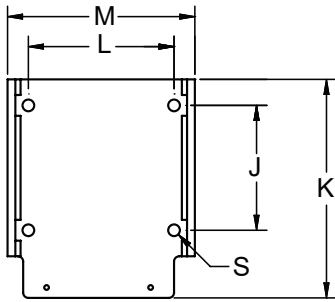
Wire Rope Installation
Model 465



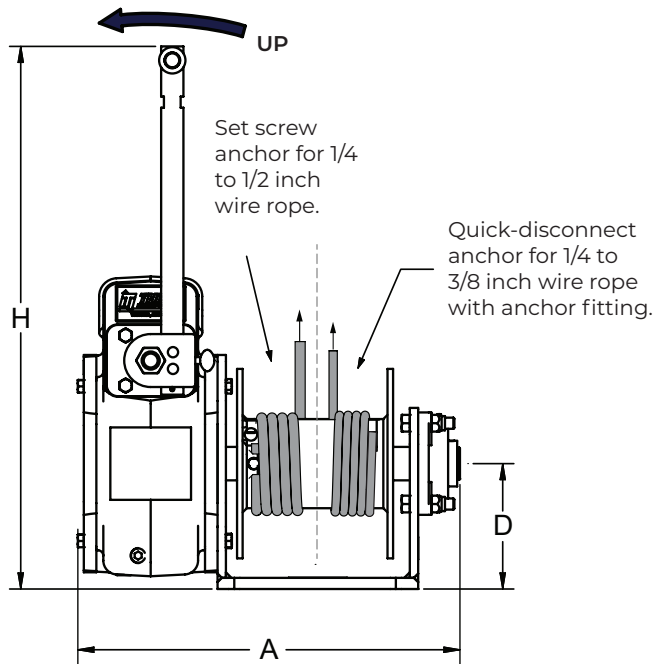
Wire Rope Installation
Models 462 and 4622PB



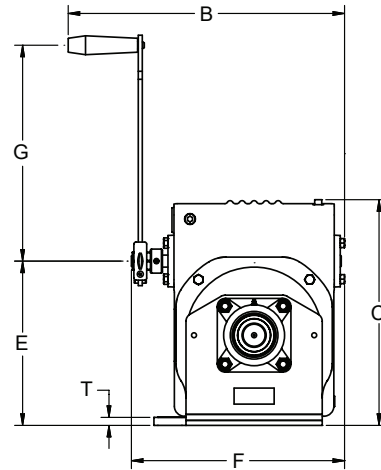
Wire Rope Installation
Model 472



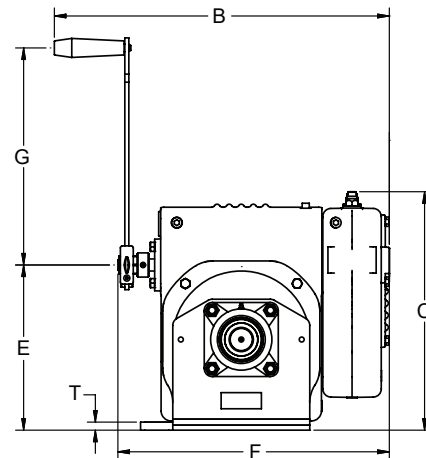
Install wire rope correctly as shown, or brake will not operate properly.
Underwound: set screw or quick-disconnect anchors



Models 2W40-L and 2W40-M



Models 2W40-BM and 2W40-BL



Worm Gear Hand Winches—Dimensions

Model	465		462		4622PB		472		4WM2	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
Drum Diameter	1.50	38.1	1.50	38.1	1.50	38.1	2.50	63.5	2.50	63.5
Flange Diameter	4.00	101.6	4.06	103.1	4.06	103.1	5.00	127	5.00	127
Drum Width	2.81	71.3	2.81	71.3	2.81	71.3	5.00	127	5.00	127
A	6.50	165.1	7.75	196.8	7.50	190.5	10.12	257.0	13.50	342.9
B	10.50	266.7	10.25	260.3	11.81	299.9	12.00	304.8	15.56	395.2
C	5.44	138.1	5.63	143.0	5.62	142.7	7.12	180.8	8.56	217.4
D	3.40	86.3	2.38	60.4	2.40	60.9	3.06	77.7	3.31	84.0
E	1.40	35.5	4.38	111.2	4.38	111.2	5.81	147.5	6.04	153.4
F	6.38	162.0	5.88	149.3	7.60	193.0	7.94	201.6	11.56	293.6
G	8.75	222.2	9.00	228.6	10.59	268.9	7.25	184.1	10.59	268.9
H	10.59	268.9	13.38	339.8	15.59	395.9	13.38	339.8	17.30	439.4
J	2.00	50.8	2.00	50.8	2.00	50.8	3.75	95.2	1.75	44.4
K	5.75	146.0	4.44	112.7	4.44	112.7	6.69	169.9	3.75	95.2
L	2.50	63.5	2.50	63.5	2.50	63.5	4.00	101.6	4.00	101.6
M	4.50	114.3	3.50	88.90	3.50	88.90	5.00	127	13.50	342.9
S (hole diameter)	.40	10.1	.40	10.1	.40	10.1	.40	10.1	.41	10.4
T	.19	4.8	.19	4.8	.19	4.8	.25	6.3	—	—

Dimensions are for reference only and subject to change without notice.

Worm Gear Hand Winches—Configurations and Performance Characteristics

Model	Description	Load Rating						Wire Rope Dia. ²		Drum Capacity ¹					
		1st Layer		Mid Drum		Full Drum				1st Layer		Mid Drum		Full Drum	
		(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(in)	(mm)	(ft)	(m)	(ft)	(m)	(ft)	(m)
465	750 lb—open gears (recommended for pulling only)	750	340	600	272	400	181	1/8	3.2	7	2	58	17	130	39
								3/16	4.8	4	1	27	8	59	17
462	1,000 lb—enclosed gearing (recommended for pulling only)	1,000	453	700	317	500	226	1/8	3.2	7	2	61	18	140	42
								3/16	4.8	4	1	28	8	61	18
4622PB	1,000 lb—enclosed gearing with brake (for lifting)	1,000	453	700	317	500	226	1/8	3.2	7	2	61	18	140	42
								3/16	4.8	4	1	28	8	61	18
472	2,000 lb—enclosed gearing (recommended for pulling only)	2,000	907	1,700	771	1,300	589	3/16	4.8	15	4	65	19	140	42
								1/4	6.4	11	3	35	10	77	23
								5/16	7.9	8	0	23	7	52	15
4WM2	2,000 lb—enclosed gearing with brake (for lifting) Drill Driveable*	2,000	907	1,500	680	1,200	544	1/4	6.4	11	3	35	10	77	23
								3/16	(not recommended for this winch)						
2W40-L	4,000 lb—enclosed gearing (recommended for pulling only)	4,000	1,814	2,800	1,270	2,200	997	5/16	7.9	18	5	91	27	200	60
								3/8	9.5	14	4	65	19	140	42
2W40-BL	4,000 lb—enclosed gearing with brake (for lifting)	4,000	1,814	2,800	1,270	2,200	997	5/16	7.9	18	5	91	27	200	60
								3/8	9.5	14	4	65	19	140	42
2W40-M	4,600 lb—enclosed gearing (recommended for pulling only) Drill Driveable*	4,600	2,086	3,300	1,496	2,500	1,133	5/16	7.9	18	5	91	27	200	60
								3/8	9.5	14	4	65	19	140	42
2W40-BM	4,600 lb—enclosed gearing with brake (for lifting) Drill Driveable*	4,600	2,086	3,300	1,496	2,500	1,133	5/16	7.9	18	5	91	27	200	60
								3/8	9.5	14	4	65	19	140	42

Please contact Thern or nearest Thern Distributor for firm fixed price and delivery.

¹ Actual drum capacities may be 25–30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.

² Approximate handle force required to lift 1,000 lb with an empty drum and maximum handle length

2W40 Series Worm Gear Hand Winches—Dimensions

Model	A	B	C	D	E	F	G	H	J	K	L	M	S (hole dia.)	T	Flange Dia.	Drum Width	Drum Dia.
	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
2W40-L	17.25	19.75	14.25	5.63	10.25	14.5	18.5	29.25	6	10.5	7	9	9/16	.5	8.5	6.5	4
2W40-M	17.25	17.25	14.25	5.63	10.25	13.5	13.5	24.50	6	10.5	7	9	9/16	.5	8.5	6.5	4
2W40-BL	17.25	23.5	15	5.63	10.25	18.25	18.5	29.25	6	10.5	7	9	9/16	.5	8.5	6.5	4
2W40-BM	17.25	21	15	5.63	10.25	17	13.5	24.50	6	10.5	7	9	9/16	.5	8.5	6.5	4

Dimensions are for reference only and subject to change without notice.

Gear Ratio	Force ² to lift 1,000 lb		Approx. Ship Weight	
	(lb)	(kg)	(lb)	(kg)
20:1	21	9.5	12	5
15:1	34	15.4	15	7
15:1	26	11.8	21	10
24:1	24	10.9	32	15
32:1	14	6.4	41	19
26:1	18	8.2	126	58
			145	66
31:1	11	5.0	123	56
			141	64

Drill Drive Performance Characteristics

	Winch Model	Wire Rope Diameter	Load (lbs)	Distance (ft)	Lift Time (minutes)
ED330-DW11 and ED300-DW06	4WM2	1/4"	500	135*	15
			1,000	75	10
			1,500	45	7
	2W40	5/16"	500	200	15
			1,000	100	9
			1,800	50	5
ED400-DW09	4WM2	1/4"	800	200*	15
			1,200	90	9
			1,500	45	5
	2W40	5/16"	1,000	200	12
			2,000	100	7
			2,500	50	4

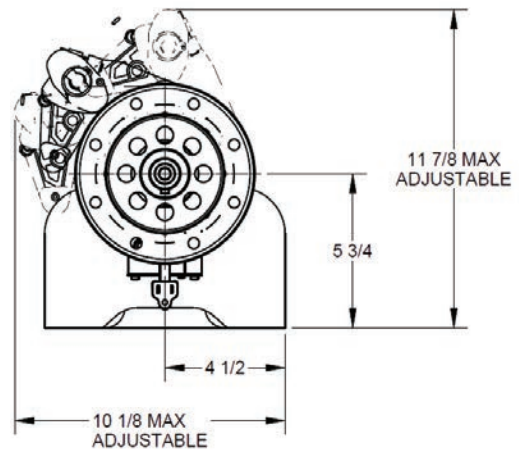
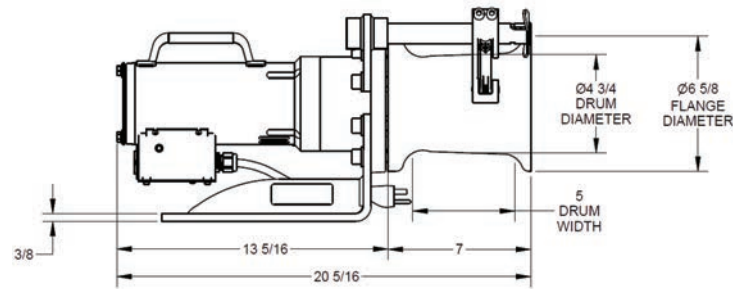
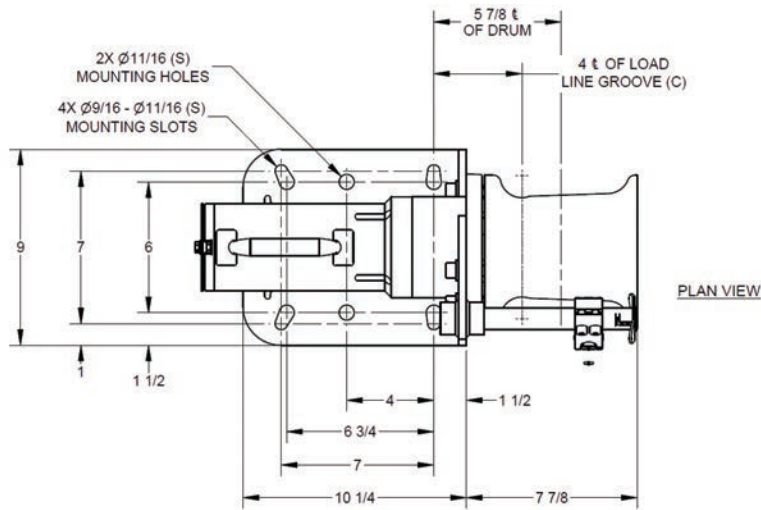
*Long lift model

TECHNICAL DRAWINGS & SPECIFICATIONS

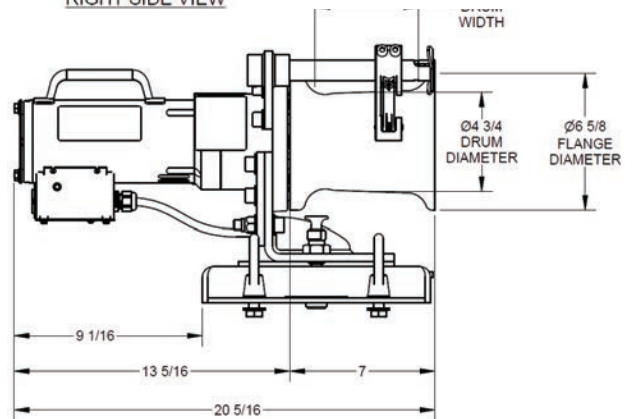
LIBERTY® SERIES

PORTABLE CAPSTAN WINCHES

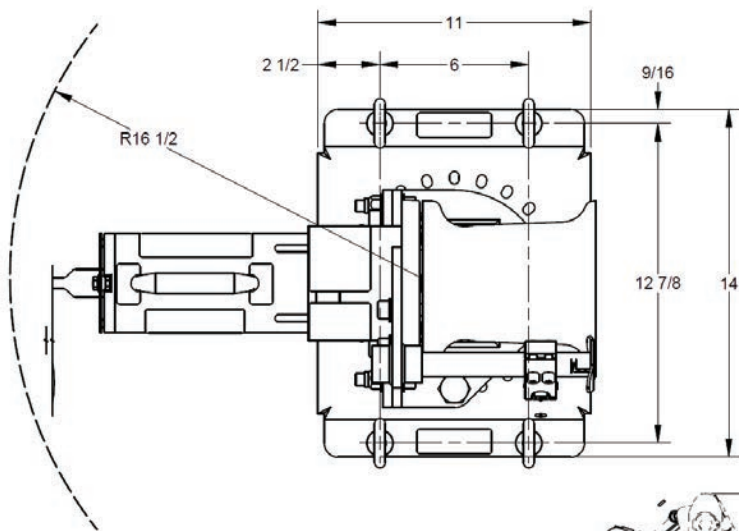
Model 3CP1M-AFS*



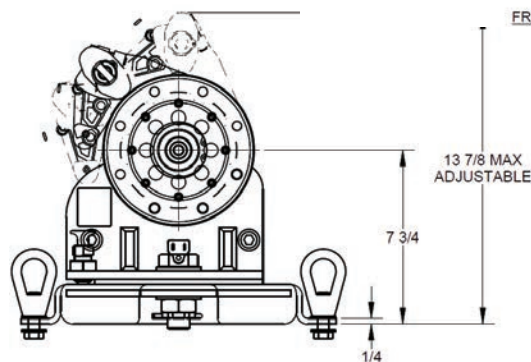
RIGHT SIDE VIEW



FRONT VIEW



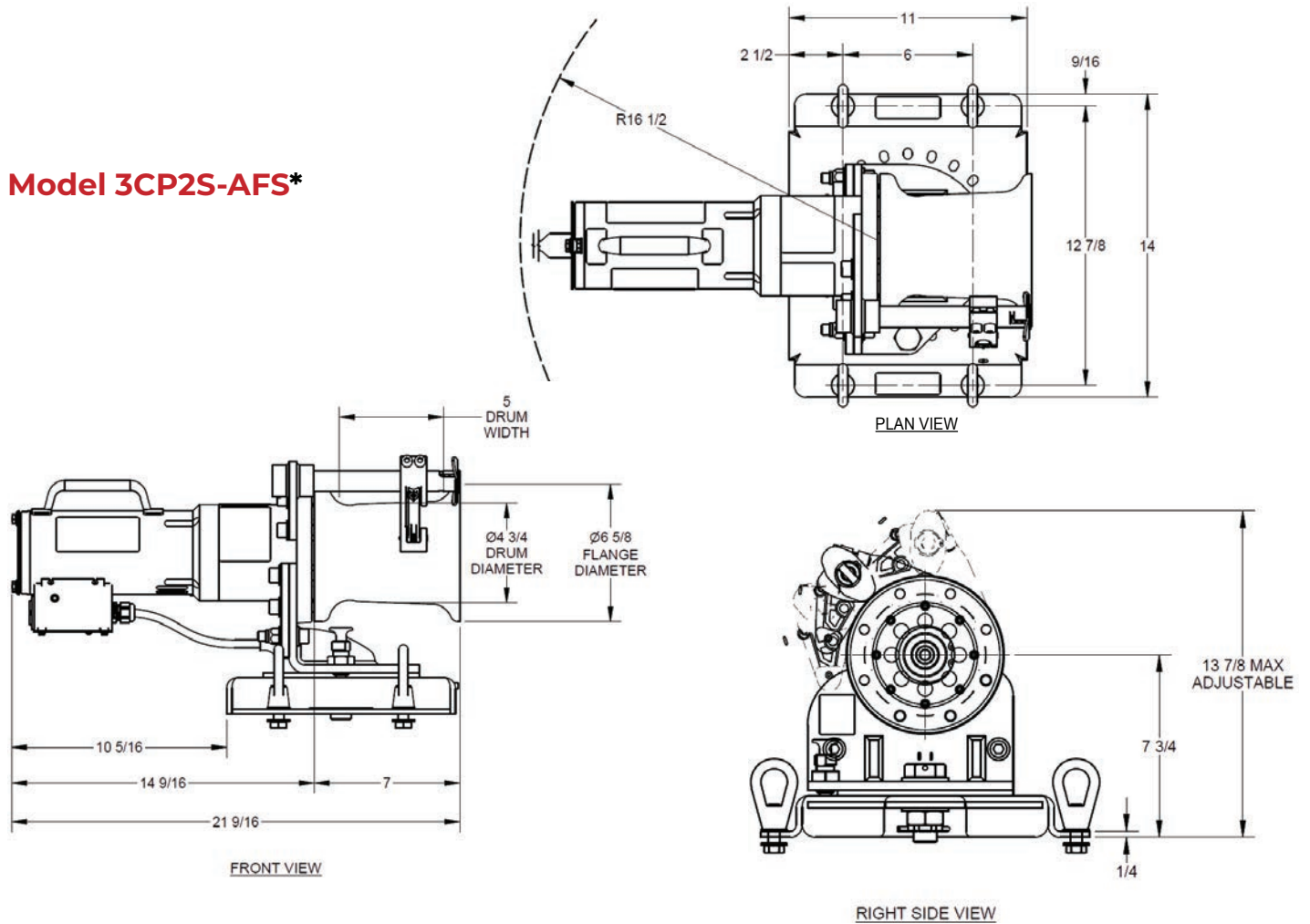
PLAN VIEW



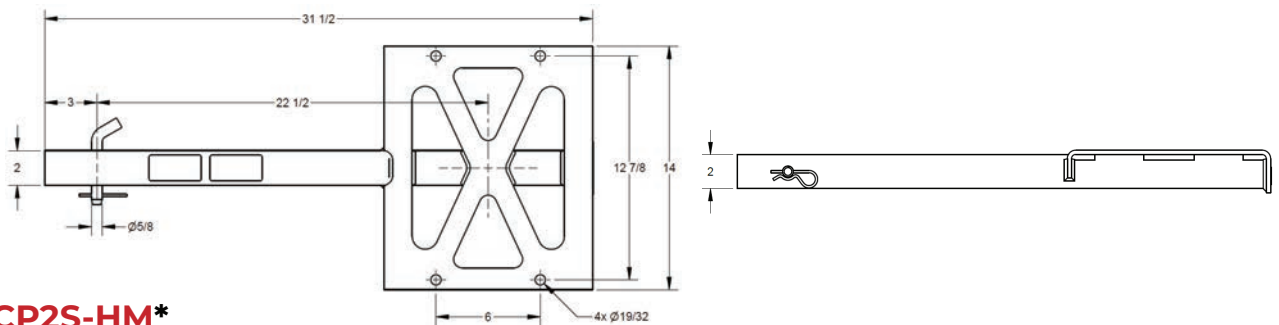
RIGHT SIDE VIEW

*Dimensions given in inches

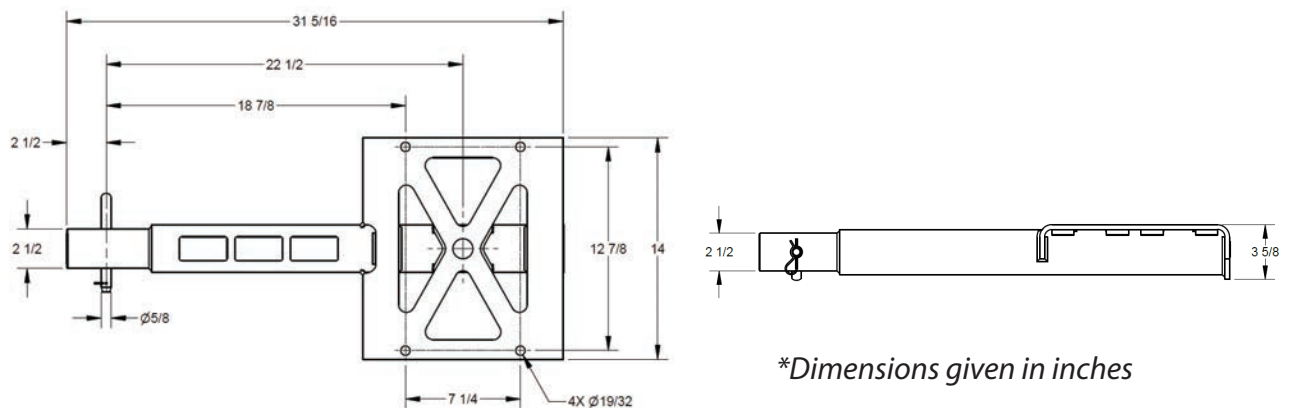
Model 3CP2S-AFS*



Model 3CP1S-HM*



Model 3CP2S-HM*



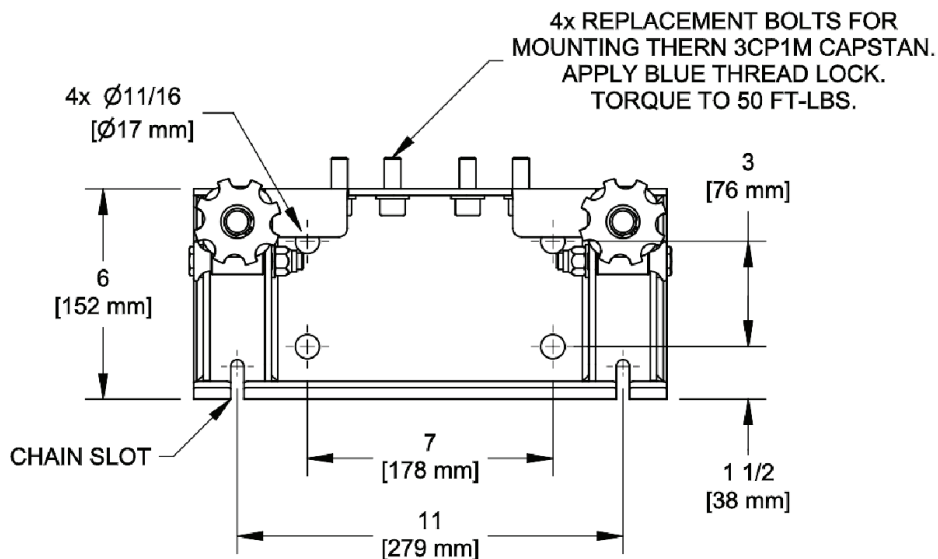
*Dimensions given in inches

TECHNICAL DRAWINGS & SPECIFICATIONS

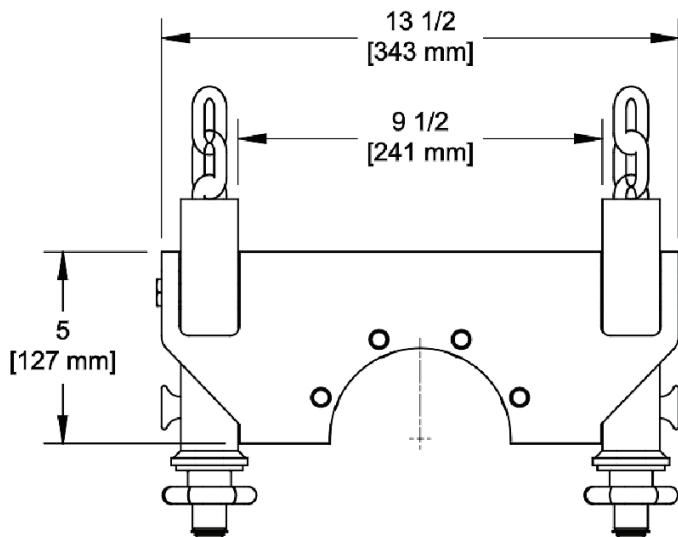
LIBERTY® SERIES

PORTABLE CAPSTAN WINCHES

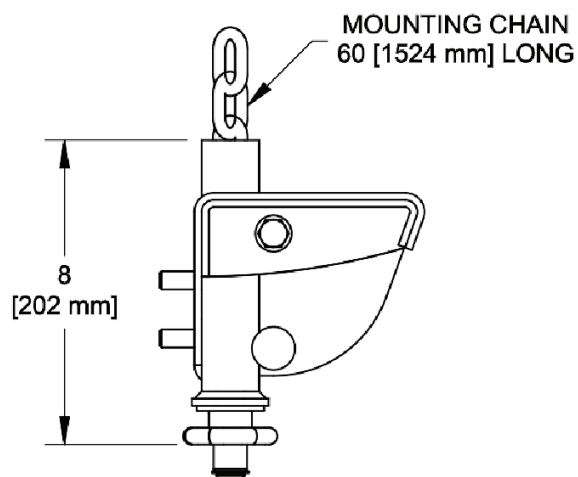
Model 3CP1M-PM*



Top View

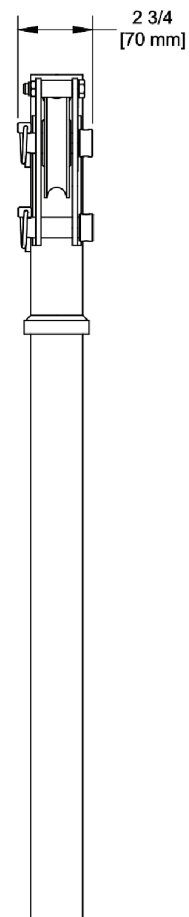
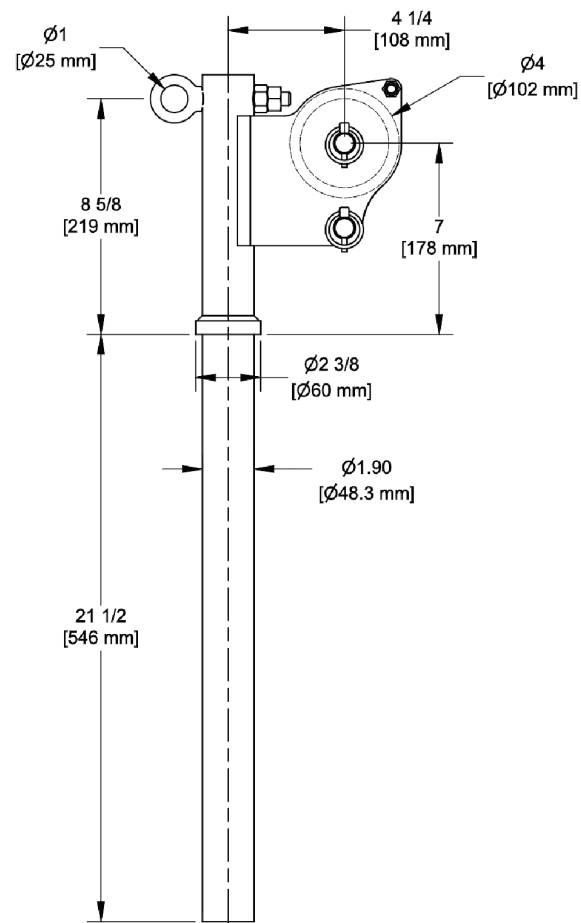
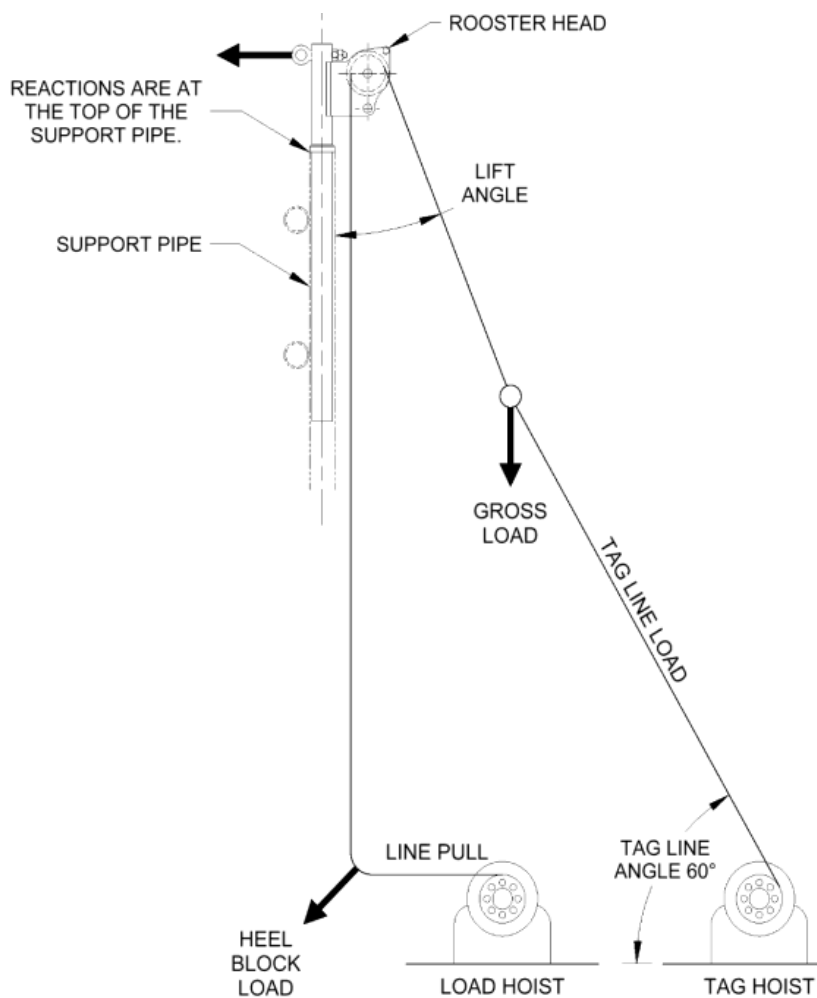


Side View



*Dimensions given in inches

Model 3CP-RH



ROOSTER HEAD WITH STRAIGHT TAG								
MAX LIFT ANGLE	TAG LINE ANGLE	MAX GROSS LOAD	LINE PULL	TAG LINE LOAD	HEEL BLOCK LOAD	SUPPORT PIPE LOADS		
						VERTICAL	HORIZONTAL	MOMENT
(DEG)	(DEG)	LBS	LBS	LBS	LBS	LBS	LBS	FT-LBS
0.0	60	500	500	0	707	1000	0	355
2.5	60	450	487	43	689	974	21	358
5.0	60	400	473	82	669	945	41	359
7.5	60	350	457	119	647	911	60	358
10.0	60	305	446	155	631	885	77	359
12.5	60	260	432	187	611	854	94	357
15.0	60	220	425	220	601	836	110	360
17.5	60	180	416	250	588	812	125	361
20.0	60	140	403	276	570	782	138	358

*Loads are based on a maximum Tag Line Angle of 60 degrees.

*Use a rigging calculator to determine loads for other conditions.

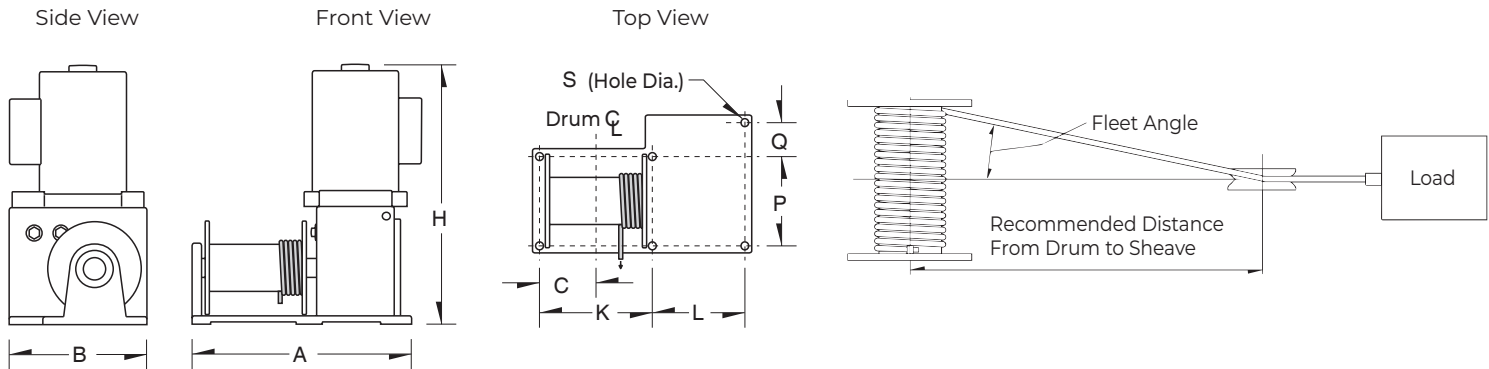
See owner's manual for additional information and load ratings.

TECHNICAL DRAWINGS & SPECIFICATIONS

DURA-HOIST SERIES

PORTABLE ELECTRIC WINCHES

Model 4771



Install wire rope correctly as shown, or brake will not operate properly.

Series 477 Configurations and Performance Characteristics

Model Number	Motor Description	Motor HP	Load Rating			Wire Rope Dia.	Line Speed		Drum Capacity ¹			Approx. Ship Weight
			1st Layer	Mid Drum	Full Drum		1st Layer	Full Drum	1st Layer	Mid Drum	Full Drum	
			(lb)	(lb)	(lb)	(in)	(fpm)	(fpm)	(ft)	(ft)	(ft)	(lb)
4771 ²	115/1/60 VAC—6 ft pendant	1.3	2,000	1,500	1,200	5/16	13	22	13	40	90	88
4771AC-1PH	115/1/60 VAC—less controls	1.3	2,000	1,500	1,200	5/16	13	22	13	40	90	87
4771AC-1PH2 ³	115/230/1/60 VAC—less controls	1.5	2,000	1,500	1,200	5/16	13	22	13	40	90	115
4771AC-3PH ³	230/460/3/60 VAC—less controls	1.5	2,000	1,500	1,200	5/16	13	22	13	40	90	111
4771DC ⁴	12 VDC—10 ft pendant	1.0	2,000	1,500	1,200	5/16	13	22	13	40	90	105
4771PN ^{4,5}	Pneumatic—less controls	1.2	2,000	1,500	1,200	5/16	13	22	13	40	90	70
4771HY ^{4,5}	Hydraulic—less controls	2.3	2,000	1,500	1,200	5/16	13	22	13	40	90	72
4777 ²	115/1/60 VAC—6 ft pendant	1.3	2,000	1,500	1,200	5/16	13	22	7	27	60	93
4777DC ^{4,6}	12 VDC—10 ft pendant	1.0	2,000	1,500	1,200	5/16	13	22	7	27	60	105

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

¹ Actual drum capacities may be 25–30% less due to nonuniform winding. Tension in wire rope will also affect drum capacity.

² Motor includes an 8-ft power cord with grounded plug and a push button pendant control on 6-ft cord.

³ For models 4771AC-1PH2 and 4471AC-3PH, please specify voltage when ordering.

⁴ For pneumatic, hydraulic, and DC models, line speed is based on rated load. Actual line speed varies with load weight and power supply.

⁵ For Model 4771PN, ratings are for 80 cfm at 100 psi. For Model 4771HY, ratings are for 4 gpm at 1000, psi.

⁶ Controls are separate.

Series 477 Controls

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
10L2A1 ⁶	NEMA 1 control switch—mounted and wired	3	2
10L2A4 ⁶	NEMA 4 watertight control switch—mounted and wired	7	4
A22787 ⁷	Control assembly 477 PN pneumatic pendant	15	7
A23076 ⁷	Control assembly 477 PN pneumatic pendant with E-Stop and F/R-L	43	20
477PN-CNTRL	Pneumatic control valve—not mounted or plumbed, no hoses	6	3
477PN-HS6	6-ft hoses for pneumatic controls—not plumbed	4	2
477HY-CNTRL	Hydraulic control valve—not mounted or plumbed, no hoses	5	3
477HY-HS6	6-ft hoses for hydraulic controls—not plumbed	4	2

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

⁶ Controls for 115 volt, single phase, 60 cycle include an 8-ft power cord with grounded plug (drum control switches are not available for this model).

⁷ Length of pendant to be specified at time of order. 30 ft maximum length.

Series 477 Winch Dimensions

Model	A		B		C		H		K		L		P		Q		S (Hole Dia.)	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4771	14.38	365.25	8.86	225.04	3.55	90.17	17.45	443.23	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63
4771AC-1PH	14.38	365.25	8.86	225.04	3.55	90.17	22.00	558.8	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63
4771AC-1PH2	14.38	365.25	8.86	225.04	3.55	90.17	21.00	533.4	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63
4771AC-3PH	14.38	365.25	8.86	225.04	3.55	90.17	19.00	482.6	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63
4771DC	14.38	365.25	8.86	225.04	3.55	90.17	18.69	474.72	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63
4771PN	14.38	365.25	8.86	225.04	3.55	90.17	14.94	379.47	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63
4771HY	14.38	365.25	8.86	225.04	3.55	90.17	11.84	300.73	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63
4777	14.38	365.25	8.86	225.04	3.49	90.17	17.45	443.23	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63
4777DC	14.38	365.25	8.86	225.04	3.49	90.17	18.69	474.72	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63

Dimensions are for reference only and subject to change without notice.

Series 477 Drum Dimensions

Model	Drum Diameter		Flange Diameter		Drum Width		Fleet Angle ¹ Distance	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4771	3.00	76.2	6.00	152.4	6.00	152.4	10	3.04
4771AC-1PH	300	76.2	6.00	152.4	6.00	152.4	10	3.04
4771AC-1PH2	300	76.2	6.00	152.4	6.00	152.4	10	3.04
4771AC-3PH	300	76.2	6.00	152.4	6.00	152.4	10	3.04
4771DC	300	76.2	6.00	152.4	6.00	152.4	10	3.04
4771P N	300	76.2	6.00	152.4	4.00	152.4	10	3.04
4771HY	300	76.2	6.00	152.4	4.00	152.4	10	3.04
4777	300	76.2	6.00	152.4	4.00	101.6	7	2.13
4777DC	3.00	76.2	6.00	152.4	4.00	101.6	7	2.13

Dimensions are for reference only and subject to change without notice.

¹Recommended minimum distance between drum and lead sheave for smooth drum.

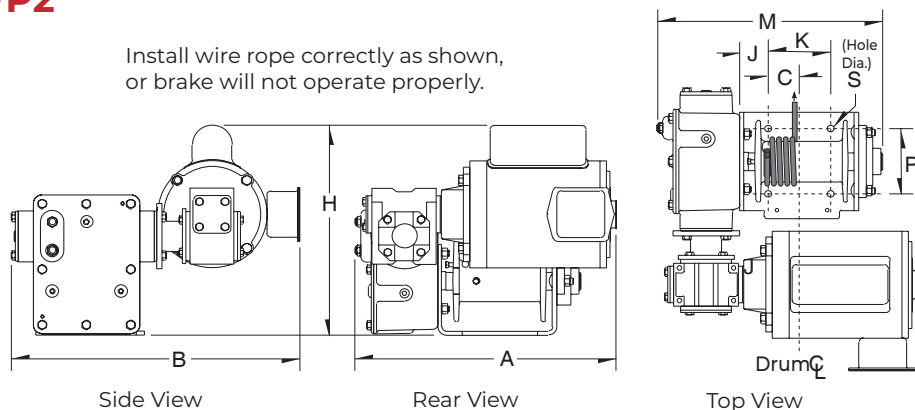
TECHNICAL DRAWINGS & SPECIFICATIONS

ATLAS SERIES

PORTABLE ELECTRIC WINCHES

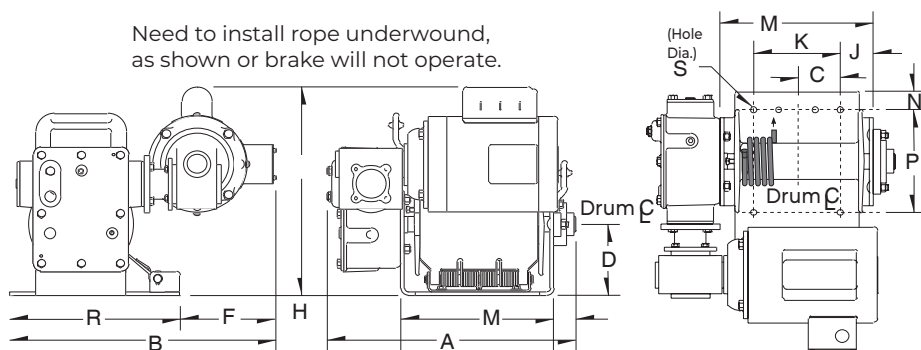
Series 4WP2

Install wire rope correctly as shown,
or brake will not operate properly.



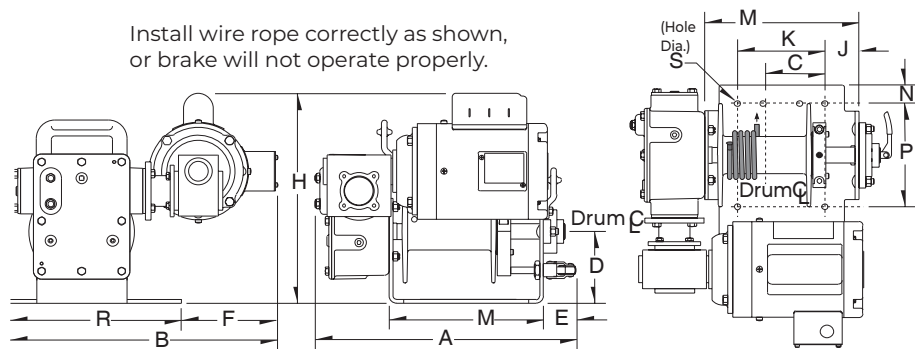
Series 4WP2T8

Need to install rope underground,
as shown or brake will not operate.



Series 4WP2TC Clutch Models

Install wire rope correctly as shown,
or brake will not operate properly.



Series 4WP2 and 4WP2T Performance Characteristics

Model Number	Motor Description	Motor HP	Load Rating			Wire Rope Dia. ¹	Line Speed		Drum Capacity ²			Approx. Ship Weight
			1st Layer	Mid Drum	Full Drum		1st Layer	Full Drum	1st Layer	Mid Drum	Full Drum	
			(lb)	(lb)	(lb)	(in)	(fpm)	(fpm)	(ft)	(ft)	(ft)	(lb)
4WP2 ³	Includes controls	1.3	2,000	1,500	1,200	1/4	8	13	11	35	77	85
4WP2T8-2000-8 ⁴	Includes controls	1.3	2,000	1,200	800	1/4	8	19	19	130	280	101
	ATLAS winch—8" drum—for pulling or lifting					5/16	8	19	15	85	190	
4WP2TC-2000-8 ⁴	Includes controls	1.3	2,000	1,200	800	1/4	8	19	12	87	190	106
	Clutch model—5.5" drum—for horizontal pulling only											

¹ Minimum wire rope diameter is 1/4 inch.

² Actual drum capacities may be 25–30% less due to nonuniform winding. Tension in wire rope will also affect drum capacity.

³ Model 4WP2: 115 VAC motor includes 8-foot power cord with grounded plug and NEMA4 push button pendant control on 6-foot cord.

⁴ Models 4WP2T8 and 4WP2TC: 115 VAC motor includes 16-foot power cord with grounded plug and push button pendant control on 16-foot cord.

⁵ Controls are sold separately for all non-standard electric motors (A,B,D, and E). See table below.

⁶ For PN models, ratings are for 80 cfm at 100 psi.

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

Motor Options

Standard motor is 115/1/60 VAC TENV. For other configurations, add motor code to model number when ordering. EX: 4WP2T8-2000-8-PN (pneumatic winch)

A ⁵	115 volt, 1 phase, 60 Hz—no controls or power cord—TENV
B ⁵	230 volt, 1 phase, 60 Hz—no controls or power cord—TEFC
D ⁵	230 volt, 3 phase, 60 Hz—no controls or power cord—TEFC
E ⁵	460 volt, 3 phase, 60 Hz—no controls or power cord—TEFC
F	All other voltages or hertz
PN ⁶	8-vane air motor with local lever control or remote pendant. Standard is local lever control mounted.
DC	12 volt DC with 10-foot pendant control

Control Options and Accessories

Model	Description	Approx. Ship Wt.
10L2A1 ⁷	NEMA 1 control switch—mounted and wired	3 lb
10L2A4 ⁷	NEMA 4 water tight control switch—mounted and wired	7 lb
TPL-4WP2T8	Two-part line kit—not available for 4WP2 Series	4 lb

⁷ Controls for 115 volt, single phase, 60 cycle include 8-foot power cord with grounded plug. (drum control switches are not available for this model)

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

Series 4WP2 and 4WP2T Dimensions

Model	A ¹	B ¹	C	D	E	F	H ¹	J	K	M	N	P	R	S ¹ (Hole Dia.)
	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)
4WP2	15.63 (397.01)	17.28 (438.92)	1.72 (43.69)	—	—	—	12.84 (326.14)	1.72 (43.69)	3.75 (95.25)	13.50 (342.9)	—	4.00 (101.6)	—	.41 (10.42)
4WP2T8-2000-8	16.62 (422.15)	17.80 (452.12)	2.75 (69.85)	4.88 (123.96)	1.44 (36.58)	6.43 (163.33)	14.25 (361.95)	2.25 (57.15)	5.81 (147.58)	10.25 (260.35)	1.25 (31.75)	7.00 (177.8)	11.38 (289.06)	.41 (10.42)
4WP2TC-2000-8	17.34 (440.44)	17.80 (452.12)	4.02 (102.1)	4.88 (123.96)	2.16 (54.87)	6.43 (163.33)	14.25 (361.95)	2.25 (57.15)	5.81 (147.58)	10.25 (260.35)	1.25 (31.75)	7.00 (177.8)	11.38 (289.06)	.41 (10.42)

Dimensions are for reference only and subject to change without notice.

¹ Dimensions A, B, and H may vary with motor selection.

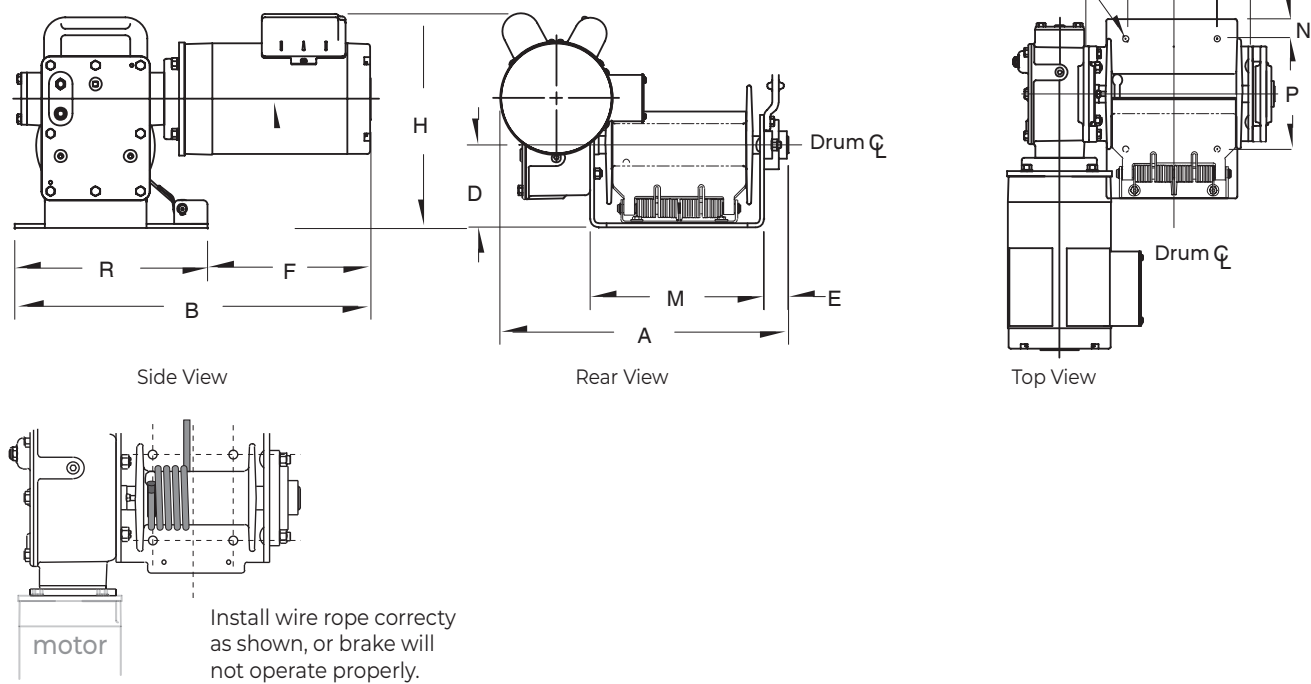
Series 4WP2 and 4WP2T Drum Dimensions

Model	Drum Diameter		Flange Diameter		Drum Width		Fleet Angle Distance ²	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4WP2	2.50	63.5	5.00	127	5.00	127	8	2.4
4WP2T8-2000-8	2.50	63.5	7.00	177.8	8.00	203.2	13	4.0
4WP2TC-2000-8	2.50	63.5	7.00	177.8	5.50	139.7	9	2.7

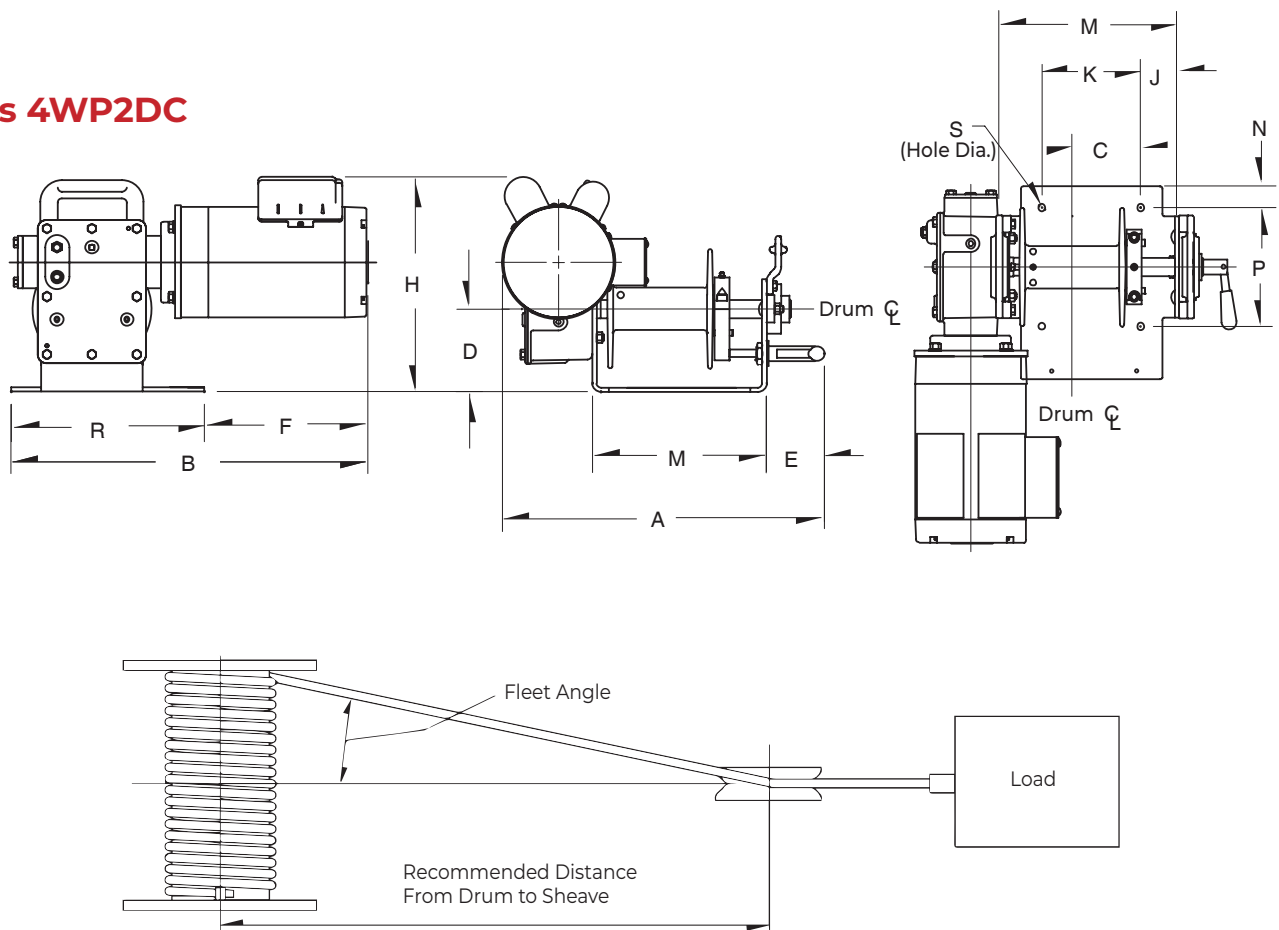
Dimensions are for reference only and subject to change without notice.

² Recommended minimum distance between drum and lead sheave for smooth drum.

Series 4WP2D8



Series 4WP2DC



Series 4WP2 and 4WP2T Performance Characteristics

Model	Model Number Extensions						Motor	Load Rating						Wire Rope Dia. ¹		Line Speed				Drum Capacity ²						Approx. Ship Weight ³	
	Load Rating		Line Speed		Motor Codes	1st Layer		Mid Drum		Full Drum		1st Layer	Full Drum			1st Layer	Mid Drum	Full Drum									
	(lb)	(kg)	(fpm)	(mpm)		(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(in)	(mm)	(fpm)	(mpm)	(fpm)	(mpm)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(lb)	(kg)	
High-Speed Atlas winches for lifting or pulling																											
4WP2D8	800	362	26	7.9	A,B,D,E	1	800	362	460	208	330	149	1/4	6.4	26	7	65	19	19	5	130	39	280	85	100	46	
4WP2D8	800	362	40	12.1	D,E	1.5	800	362	460	208	330	149	1/4	6.4	40	12	97	29	19	5	130	39	280	85	100	46	
4WP2D8	1,500	680	26	7.9	D,E	2	1,500	680	900	408	600	272	1/4	6.4	26	7	65	19	19	5	130	39	280	85	100	46	
4WP2D8	1,500	680	40	12.1	B,D,E	3	1,500	680	900	408	600	272	1/4	6.4	40	12	97	29	19	5	130	39	280	85	100	46	
High-Speed Clutch Model for horizontal pulling only																											
4WP2DC	800	362	26	7.9	A,B,D,E	1	800	362	460	208	330	149	1/4	6.4	26	7	65	19	12	3	87	26	190	57	100	46	
4WP2DC	800	362	40	12.1	D,E	1.5	800	362	460	208	330	149	1/4	6.4	40	12	97	29	12	3	87	26	190	57	100	46	
4WP2DC	1,500	680	26	7.9	D,E	2	1,500	680	900	408	600	272	1/4	6.4	26	7	65	19	12	3	87	26	190	57	100	46	
4WP2DC	1,500	680	40	12.1	B,D,E	3	1,500	680	900	408	600	272	1/4	6.4	40	12	97	29	12	3	87	26	190	57	100	46	

When ordering, please indicate model number and extensions. Examples: 4WP2D8-800-26-A (without clutch); 4WP2DC-800-40-A (with clutch). Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

¹ Minimum wire rope diameter is 1/4 inch.

² Actual drum capacities 25–30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.

³ Weight may vary with motor.

Control Options and Accessories

Model	Description	115/1/60 ⁴	230/1/60	230/3/60	460/3/60	Motor Codes	
10L2A1	NEMA 1	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp	A	115 volt 1 phase
10L7E1	NEMA 1	to 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp	B	230 volt 1 phase
10L2A4	NEMA 4—watertight	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp	D	230 volt 3 phase
10L7E4	NEMA 4—watertight	to 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp	E	460 volt 3 phase
10PIA46	6-foot pendant control	to 1 hp	—	—	—	F	All other voltages, please contact Thern
TPL-4WP2T8	Two-part line kit					PN	Please contact Thern

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.
⁴Controls for 115V, single-phase motors up to 1 hp, include an 8-foot power cord with grounded plug (drum control switches are not available for this model).

Series 4WP2 and 4WP2T Dimensions

Model	A ¹	B ¹	C	D	E	F	H ¹	J	K	M	N	P	R	S ¹ (Hole Dia.)
	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)
4WP2D8	17.50 (444.5)	21.00 (533.4)	2.75 (69.85)	5.00 (127)	1.50 (38.1)	9.50 (241.3)	12.75 (323.85)	2.25 (57.15)	5.81 (147.58)	10.25 (260.35)	1.25 (31.75)	7.00 (177.8)	11.50 (292.1)	.41 (10.42)
4WP2DC	19.00 (482.6)	21.00 (533.4)	4.00 (101.6)	4.88 (123.96)	3.50 (88.9)	9.50 (241.3)	12.75 (323.85)	2.25 (57.15)	5.81 (147.58)	10.25 (260.35)	1.25 (31.75)	7.00 (177.8)	11.50 (292.1)	.41 (10.42)

Dimensions are for reference only and subject to change without notice.
¹Dimensions A, B, and H may vary with motor selection.

Series 4WP2 and 4WP2T Drum Dimensions

Model	Drum Diameter		Flange Diameter		Drum Width		Fleet Angle Distance ²	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4WPD8	2.50	63.5	7.00	177.8	8.00	203.2	13.00	4.0
4WPDC	2.50	63.5	7.00	177.8	5.50	139.7	9.00	2.75

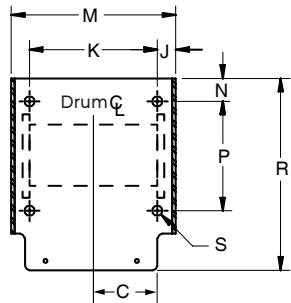
Dimensions are for reference only and subject to change without notice.
²Recommended minimum distance between drum and lead sheave for smooth drum.

TECHNICAL DRAWINGS & SPECIFICATIONS

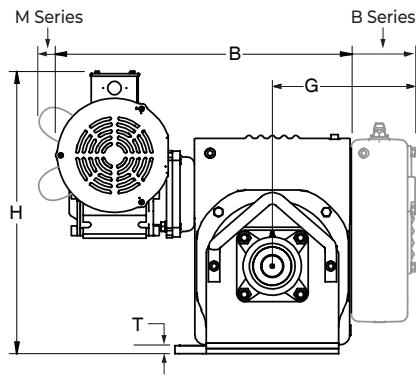
ATLAS II SERIES

PORTABLE ELECTRIC WINCHES

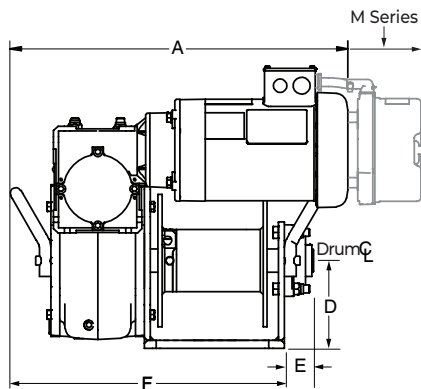
Mounting - Top View



Side View



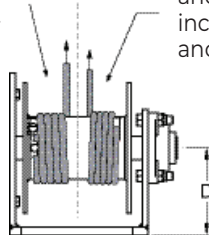
Back View



Cable Install

Set screw anchor for 1/4 to 1/2 inch wire rope.

Quick disconnect anchor for 1/4 to 5/16 inch wire rope with anchor fitting.



3WG4 Series Winch Dimensions

Model	Approx. Ship Wt.		A ¹		B ¹		C		D		E		F		G		H ¹		J	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
3WG4-B3500-9S6	240	108	22.5	571	24.5	622	3.63	92	5.63	143	1.88	47	17.75	450	9.5	241	18.5	469	1	25
3WG4-B3500-13S6	245	111	23.5	596	24.5	622	3.63	92	5.63	143	1.88	47	17.75	450	9.5	241	18.5	469	1	25
3WG4-B4000-9S6	235	106	23	584	24.5	622	3.63	92	5.63	143	1.88	47	17.75	450	9.5	241	18	457	1	25
3WG4-B4600-9S6	245	111	23.5	596	24.5	622	3.63	92	5.63	143	1.88	47	17.75	450	9.5	241	18.5	469	1	25
3WG4-B4600-13S6	245	111	22	558	23.5	596	3.63	92	5.63	143	1.88	47	17.75	450	9.5	241	18.5	469	1	25
3WG4-M3500-9S6	225	102	26.5	673	19.5	495	3.63	92	5.63	143	1.88	47	17.75	450	5.75	146	18	457	1	25
3WG4-M3500-13S6	235	106	28	711	21	533	3.63	92	5.63	143	1.88	47	17.75	450	5.75	146	18.5	469	1	25
3WG4-M4000-9S6	235	106	28	711	20.5	520	3.63	92	5.63	143	1.88	47	17.75	450	5.75	146	18	457	1	25
3WG4-M4600-9S6	235	106	28	711	21	533	3.63	92	5.63	143	1.88	47	17.75	450	5.75	146	18.5	469	1	25
3WG4-M4600-13S6	235	106	27.5	698	19.5	495	3.63	92	5.63	143	1.88	47	17.75	450	5.75	146	18.5	469	1	25

¹Dimensions A, B, and H may vary with motor selection. Dimensions are for reference only and subject to change without notice.

3WG4 Series Performance Characteristics

Model	Brake Style	Duty Rating ²	Motor Codes	Motor	Load Rating						Line Speed				Approx. Ship. Wt. ³	
					1st Layer		Mid Drum		Mid Drum		1st Layer		Full Drum			
		(mins)		(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)	(lb)	(kg)
3WG4-B3500-9S6	Infernal	15	B,C,D,E	1.5	3,500	1,587	2,500	1,134	1,900	861	9	2.7	16	4.9	186	85
3WG4-B3500-13S6	Infernal	15	B,C,D,E	2	3,500	1,587	2,500	1,134	1,900	861	13	4.0	24	7.3	191	87
3WG4-B4000-9S6	Internal	15	A	1.5	4,000	1,814	2,800	1,270	2,200	997	9	2.7	16	4.9	181	83
3WG4-B4600-9S6	Internal	15	B,C,D,E	2	4,600	2,086	3,300	1,496	2,500	1,134	9	2.7	16	4.9	191	87
3WG4-B4600-13S6	Internal	15	C,D,E	3	4,600	2,086	3,300	1,496	2,500	1,134	13	4.0	24	7.3	190	87
3WG4-M3500-9S6	Motor	60	D,E	1.5	3,500	1,587	2,500	1,134	1,900	861	9	2.7	16	4.9	171	78
3WG4-M3500-13S6	Motor	60	B,D,E	2	3,500	1,587	2,500	1,134	1,900	861	13	4.0	24	7.3	182	83
3WG4-M4000-9S6	Motor	60	A	1.5	4,000	1,814	2,800	1,270	2,200	997	9	2.7	16	4.9	181	83
3WG4-M4600-9S6	Motor	60	B,D,E	2	4,600	2,086	3,300	1,496	2,500	1,134	9	2.7	16	4.9	182	83
3WG4-M4600-13S6	Motor	60	D,E	3	4,600	2,086	3,300	1,496	2,500	1,134	13	4.0	24	7.3	181	83

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

² Duty rating represents maximum operating time at full load. Rating includes lifting and lowering. Allow components to cool between cycles.

³ Weight may vary with motor selection.

Control Options and Accessories

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
¹⁰ S ³ D ⁴	Electric motor controls 230/3/60 to 3hp	25	12

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

NOTES:

For more information and other control options, please see pages 94-96. (the page number will need to be updated)

Custom controls are available including wireless remote control, variable speed control, electronic overload, and enclosures for special environments.

Motor Codes		
A	115 volt	1 phase
B	230 volt	1 phase
C	208 volt	3 phase
D	230 volt	3 phase
E	460 volt	3 phase
F	All other voltages, please contact Thern.	

3WG4 Series Drum Capacities⁴

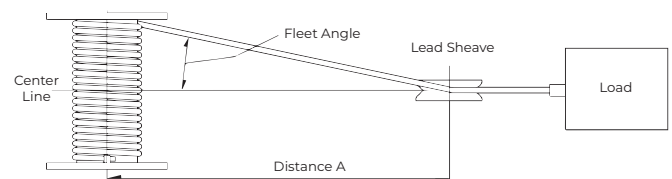
Model	Wire Rope Diameter		Drum Layer					
			1st Layer		Mid Drum		Full Drum	
	(in)	(mm)	(ft)	(m)	(ft)	(m)	(ft)	(m)
3WG4-B/M	5/16	1.9	18	5.4	91	27.7	200	60.9
3WG4-B/M	3/8	9.5	14	4.2	65	19.8	140	42.6

⁴Actual drum capacities may be 25–30% less due to nonuniform winding. Tension in wire rope will also affect drum capacity.

3WG4 Series Drum Dimensions

Model	Drum Dia.		Flange Dia.		Drum Width		Fleet Angle Distance ⁵	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
3WG4-M	4.00	102	8.50	216	6.50	166	10.5	3.2

Dimensions are for reference only and subject to change without notice.
⁵Recommended minimum distance between drum and lead sheave for smooth drum.

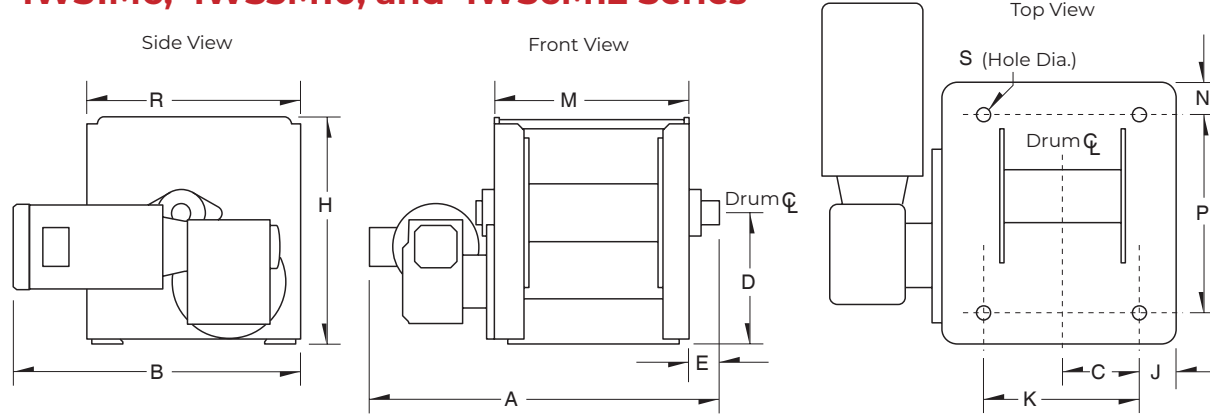


K		M		N		P		R		S		T	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12

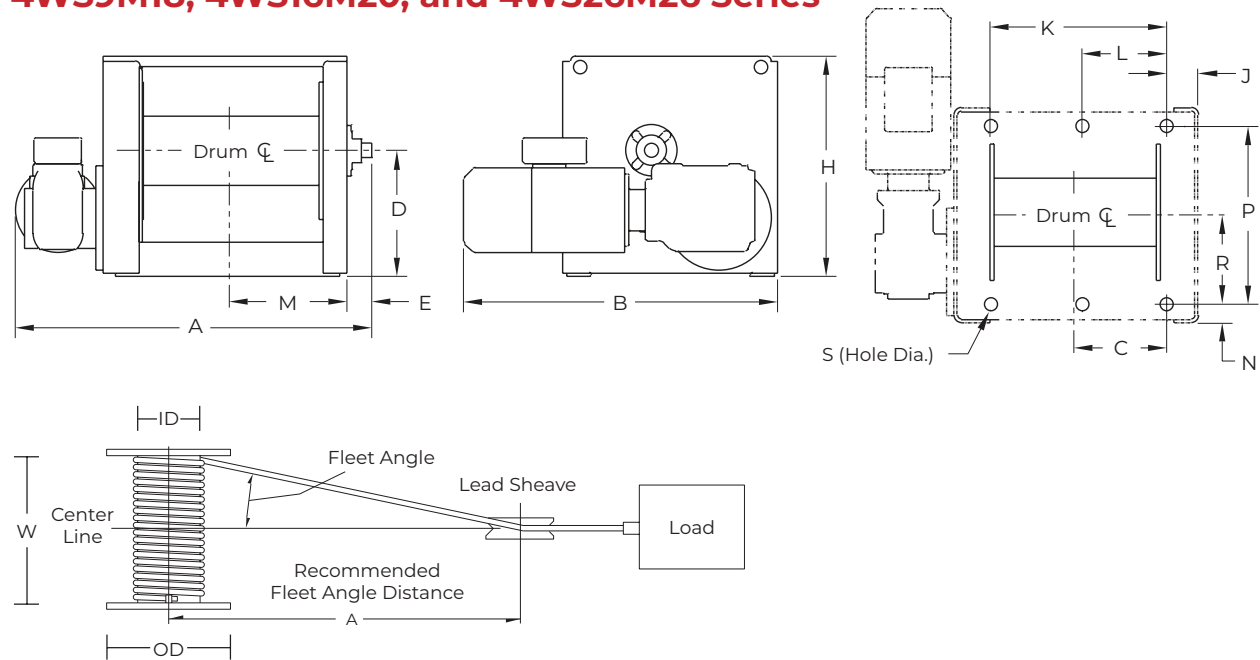
4WS SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

4WS1M6, 4WS3M10, and 4WS6M12 Series



4WS9M18, 4WS16M20, and 4WS26M26 Series



4WS Series Drum Dimensions

Model	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)		Fleet Angle Distance (A) ¹	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4WS1M6	2.88	73.16	7	177.8	6	152.4	10	3.05
4WS3M10	4.5	114.3	11.5	292.1	10	254	16	4.88
4WS6M12	5.5	139.7	14	355.6	12	304.8	20	6.1
4WS9M18	9	229	20	508	18	457	29	8.8
4WS16M20	10.75	273	24	610	20	508	32	9.8
4WS26M26	14	356	28	711	26	660	42	12.8

¹ Recommended minimum distance between drum and lead sheave for smooth drum.

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

Electric Drum Control Switches

Model	Description	115/1/60 ²	230/1/60	230/3/60	460/3/60
10L2A1	NEMA 1	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp
10L7E1	NEMA 1	to 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp
10L2A4	NEMA 4 — watertight	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp
10L7E4	NEMA 4 — watertight	—	to 3 hp	to 5 hp	to 7.5 hp
10P1A46	6-foot pendant control	to 1 hp	—	—	—

Please contact Thern or nearest Thern distributor for firm, fixed price and delivery.

²Controls for 115V single phase motors up to 1.5 hp, include an 8-foot power cord with grounded plug.

Controls include NEMA 4 rated enclosure and NEMA 4X rated pendant control on 50-foot cord.

Motor controls sold separately. Please contact Thern or nearest Thern distributor for firm, fixed price and delivery. All prices include mounting and wiring to motor.

Electric Motor Controls

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
10S3D4	electric motor controls 230/3/60 to 3 hp	25	12
10S7D4	electric motor controls 230/3/60 to 7.5 hp	25	12
10S10D4	electric motor controls 230/3/60 to 10 hp	28	13
10S20D4	electric motor controls 230/3/60 to 20 hp	28	13
10S30D4	electric motor controls 230/3/60 to 30 hp	60	28
10S7E4	electric motor controls 460/3/60 to 7.5 hp	25	12
10S15E4	electric motor controls 460/3/60 to 15 hp	25	12
10S20E4	electric motor controls 460/3/60 to 20 hp	28	13
10S40E4	electric motor controls 460/3/60 to 40 hp	60	28

4WS Series Drum Capacities

Wire Rope Diameter		Breaking Strength ³		Drum Capacity	4WS1M6		4WS3M10		4WS6M12		4WS9M18		4WS16M20		4WS26M26	
(in)	(mm)	(lb)	(kg)		(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
3/16	4.8	4,200	1,905	1st	21	6	—	—	—	—	—	—	—	—	—	—
				Mid	110	33	—	—	—	—	—	—	—	—	—	—
				Full	260	79	—	—	—	—	—	—	—	—	—	—
1/4	6.4	7,000	3,175	1st	16	4	—	—	—	—	—	—	—	—	—	—
				Mid	62	18	—	—	—	—	—	—	—	—	—	—
				Full	140	42	—	—	—	—	—	—	—	—	—	—
5/16	7.9	9,800	4,445	1st	—	—	34	10	—	—	—	—	—	—	—	—
				Mid	—	—	220	67	—	—	—	—	—	—	—	—
				Full	—	—	500	152	—	—	—	—	—	—	—	—
3/8	9.7	15,100	6,849	1st	—	—	27	8	40	12	—	—	—	—	—	—
				Mid	—	—	160	48	300	91	—	—	—	—	—	—
				Full	—	—	360	109	660	201	—	—	—	—	—	—
7/16	11.2	20,400	9,254	1st	—	—	23	7	34	10	87	26.5	—	—	—	—
				Mid	—	—	120	36	220	67	670	204.2	—	—	—	—
				Full	—	—	270	82	500	152	1,500	457.2	—	—	—	—
1/2	12.7	26,600	12,066	1st	—	—	—	—	30	9	76	23.2	—	—	—	—
				Mid	—	—	—	—	170	51	520	158.5	—	—	—	—
				Full	—	—	—	—	390	118	1,170	356.6	—	—	—	—
9/16	14.2	33,600	15,240	1st	—	—	—	—	26	7	67	20.4	89	27.1	—	—
				Mid	—	—	—	—	140	42	420	128.0	690	210.3	—	—
				Full	—	—	—	—	310	94	930	283.5	1,530	466.3	—	—
5/8	16.0	41,200	18,688	1st	—	—	—	—	—	—	59	18	78	23.8	—	—
				Mid	—	—	—	—	—	—	340	103.6	560	170.7	—	—
				Full	—	—	—	—	—	—	760	231.6	1,250	381	—	—
3/4	19.1	58,800	26,671	1st	—	—	—	—	—	—	48	14.6	65	19.8	110	33.5
				Mid	—	—	—	—	—	—	240	73.2	400	112.9	670	204.2
				Full	—	—	—	—	—	—	540	164.6	880	268.2	1,480	451.1
7/8	22.4	79,600	36,106	1st	—	—	—	—	—	—	—	—	54	16.5	94	28.7
				Mid	—	—	—	—	—	—	—	—	290	88.4	480	146.3
				Full	—	—	—	—	—	—	—	—	640	195.1	1,070	326.1
1	25.4	103,400	46,902	1st	—	—	—	—	—	—	—	—	47	14.3	82	25.0
				Mid	—	—	—	—	—	—	—	—	220	167.1	370	112.8
				Full	—	—	—	—	—	—	—	—	490	149.4	830	253.0
1-1/8	28.7	130,000	58,968	1st	—	—	—	—	—	—	—	—	—	—	71	21.6
				Mid	—	—	—	—	—	—	—	—	—	—	300	91.4
				Full	—	—	—	—	—	—	—	—	—	—	660	201.2
1-1/4	31.8	159,800	72,485	1st	—	—	—	—	—	—	—	—	—	—	63	19.2
				Mid	—	—	—	—	—	—	—	—	—	—	240	73.2
				Full	—	—	—	—	—	—	—	—	—	—	530	161.5
1-3/8	34.9	192,000	87,090	1st	—	—	—	—	—	—	—	—	—	—	56	17.1
				Mid	—	—	—	—	—	—	—	—	—	—	200	61.0
				Full	—	—	—	—	—	—	—	—	—	—	440	134.1

Values based on 6x37 IWRC EIPS wire rope.

Actual drum capacities 25–30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.

³ Wire rope should be selected based on the breaking strength to load rating ratio and application parameters. Industry standards suggest a 5:1 breaking strength to load rating ratio for lifting and a 3:1 ratio for pulling.

4WS1M6, 4WS3M10, and 4WS6M12 Series Winch Dimensions (in)

Model Extension	A ⁴	B ⁴	C	D	E	H	J	K	M	N	P	R	S (Hole Dia.)
4WS1M6-800-15	21	21.62	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS1M6-800-30	21	22.38	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS1M6-800-40	21.75	23.38	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS1M6-1100-20	21	22.38	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS1M6-1100-30	21.75	23.38	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS1M6-1100-40	21.75	22.38	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS1M6-1500-20	21.75	23.38	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS1M6-1500-30	21.75	22.38	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS1M6-1500-40	21.75	25	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS3M10-2000-15	27.75	26.75	5	10.12	2.38	17.5	2.38	10	15	1.88	12.75	16.5	.59
4WS3M10-2000-20	27.75	25.75	5	10.12	2.38	17.5	2.38	10	15	1.88	12.75	16.5	.59
4WS3M10-2500-20	27.75	28.25	5	10.12	2.38	17.5	2.38	10	15	1.88	12.75	16.5	.59
4WS3M10-3000-15	27.75	25.75	5	10.12	2.38	17.5	2.38	10	15	1.88	12.75	16.5	.59
4WS3M10-3000-20	27.75	28.25	5	10.12	2.38	17.5	2.38	10	15	1.88	12.75	16.5	.59
4WS3M10-3500-7	27.75	32	5	10.12	2.38	17.5	2.38	10	15	1.88	12.75	16.5	.59
4WS3M10-3500-15	27.75	28.25	5	10.12	2.38	17.5	2.38	10	15	1.88	12.75	16.5	.59
4WS3M10-3500-20	28.81	33	5	10.12	2.38	17.5	2.38	10	15	1.88	12.75	16.5	.59
4WS6M12-3000-10	33	26.75	5.62	12.88	2.5	22.5	3.25	12	19	1.88	18.25	22	.88
4WS6M12-3000-20	33	29.5	5.62	12.88	2.5	22.5	3.25	12	19	1.88	18.25	22	.88
4WS6M12-4000-6	33	27.75	5.62	12.88	2.5	22.5	3.25	12	19	1.88	18.25	22	.88
4WS6M12-4000-10	33	29.5	5.62	12.88	2.5	22.5	3.25	12	19	1.88	18.25	22	.88
4WS6M12-4000-20	34	29.25	5.62	12.88	2.5	22.5	3.25	12	19	1.88	18.25	22	.88
4WS6M12-6000-4	33	27.75	5.62	12.88	2.5	22.5	3.25	12	19	1.88	18.25	22	.88
4WS6M12-6000-10	34	29.25	5.62	12.88	2.5	22.5	3.25	12	19	1.88	18.25	22	.88
4WS6M12-6000-20	34	31	5.62	12.88	2.5	22.5	3.25	12	19	1.88	18.25	22	.88

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

⁴ Dimensions A and B may vary with motor selection.

4WS9M18, 4WS16M20, and 4WS26M26 Series Winch Dimensions

Model	A		B		C		D		E		H		J		K	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4WS9M18-7000-20	44	1,118	33.75	857	8.5	216	17.75	451	5.13	130	31	787	4	102	18	457
4WS9M18-7000-30	45.5	1,156	38.5	978	8.5	216	17.75	451	5.13	130	31	787	4	102	18	457
4WS9M18-10000-10	44	1,118	33.75	857	8.5	216	17.75	451	5.13	130	31	787	4	102	18	457
4WS9M18-10000-20	45.5	1,156	38.5	978	8.5	216	17.75	451	5.13	130	31	787	4	102	18	457
4WS9M18-10000-30	45.5	1,156	40	1,016	8.5	216	17.75	451	5.13	130	31	787	4	102	18	457
4WS16M20-13000-15	48	1,219	34.75	883	9.5	241	20	508	6.25	159	34	864	4	102	20	508
4WS16M20-13000-20	48	1,219	37	940	9.5	241	20	508	6.25	159	34	864	4	102	20	508
4WS16M20-13000-35	48	1,219	39.5	1,003	9.5	241	20	508	6.25	159	34	864	4	102	20	508
4WS16M20-16000-15	48	1,219	34.75	883	9.5	241	20	508	6.25	159	34	864	4	102	20	508
4WS16M20-16000-20	48	1,219	37	940	9.5	241	20	508	6.25	159	34	864	4	102	20	508
4WS26M26-22000-20	60.5	1,537	43.5	1,105	12.38	314	25.38	645	8.06	205	44.5	1,130	5.88	149	26	660
4WS26M26-22000-25	60.5	1,537	47	1,194	12.38	314	25.38	645	8.06	205	44.5	1,130	5.88	149	26	660
4WS26M26-22000-35	60.5	1,537	50	1,270	12.38	314	25.38	645	8.06	205	44.5	1,130	5.88	149	26	660
4WS26M26-26000-10	60.5	1,537	42	1,067	12.38	314	25.38	645	8.06	205	44.5	1,130	5.88	149	26	660
4WS26M26-26000-15	60.5	1,537	43.5	1,105	12.38	314	25.38	645	8.06	205	44.5	1,130	5.88	149	26	660

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

L		M		N		P		R		S (hole dia.)		Ship Weight	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
–	–	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1,100	499
–	–	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1,100	499
–	–	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1,100	499
–	–	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1,100	499
–	–	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1,160	527
10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1,550	704
10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1,610	731
10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1,650	749
10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1,550	704
10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1,610	731
13	330	18.25	464	3	76	36	914	21.75	552	1-3/8	35	3,110	1,411
13	330	18.25	464	3	76	36	914	21.75	552	1-3/8	35	3,290	1,493
13	330	18.25	464	3	76	36	914	21.75	552	1-3/8	35	3,350	1,520
13	330	18.25	464	3	76	36	914	21.75	552	1-3/8	35	3,070	1,393
13	330	18.25	464	3	76	36	914	21.75	552	1-3/8	35	3,110	1,411

4WS1M6, 4WS3M10, and 4WS6M12 Series Performance Characteristics

Model Number	Model Number Extensions						Motor	Load Rating						Line Speed						Approx. Ship Weight ⁶	
	Load Rating		Line Speed		Motor Codes ⁵	Clutch Opt		1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum					
	(lb)	(kg)	(fpm)	(mpm)			(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)	(lb)	(kg)		
4WS1M6	800	362	15	4	ABDEF	C	.5	800	362	550	249	420	190	17	5	33	10	155	71		
4WS1M6	800	362	30	9	ABDEF	C	.75	800	362	550	249	420	190	29	8	55	16	165	75		
4WS1M6	800	362	40	12	ABDEF	C	1	800	362	550	249	420	190	43	13	82	24	175	80		
4WS1M6	1,100	498	20	6	ABDEF	C	.75	1,100	498	800	362	600	272	18	5	32	9	165	75		
4WS1M6	1,100	498	30	9	ABDEF	C	1	1,100	498	800	362	600	272	30	9	54	16	175	80		
4WS1M6	1,100	498	40	12	DEF	C	1.5	1,100	498	800	362	600	272	44	13	81	24	170	77		
4WS1M6	1,500	680	20	6	ABDEF	C	1	1,500	680	1,000	453	800	362	18	5	32	9	175	80		
4WS1M6	1,500	680	30	9	DEF	C	1.5	1,500	680	1,100	498	800	362	30	9	54	16	170	77		
4WS1M6	1,500	680	40	12	BDEF	C	2	1,500	680	1,100	498	800	362	44	13	81	24	180	82		
Clutch option for 4WS1M6 (for horizontal pulling only)																		add:	5	3	
4WS3M10	2,000	907	15	4	ABDEF	C	1	2,000	907	1,300	589	1,000	453	14	4	29	8	310	141		
4WS3M10	2,000	907	20	6	DEF	C	1.5	2,200	997	1,400	635	1,000	453	18	5	39	11	305	139		
4WS3M10	2,500	1,133	20	6	BDEF	C	2	2,500	1,133	1,600	725	1,200	544	22	6	46	14	320	146		
4WS3M10	3,000	1,360	15	4	DEF	C	1.5	3,000	1,360	2,000	907	1,500	680	14	4	29	8	305	139		
4WS3M10	3,000	1,360	20	6	BDEF	C	2	3,000	1,360	2,000	907	1,500	680	19	5	39	11	320	146		
4WS3M10	3,500	1,587	7	2	ABDEF	C	1	3,500	1,587	2,300	1,043	1,700	771	8	2	15	4	330	150		
4WS3M10	3,500	1,587	15	4	BDEF	C	2	3,700	1,678	2,500	1,133	1,800	816	14	4	29	8	320	146		
4WS3M10	3,500	1,587	20	6	DEF	C	3	3,700	1,678	2,500	1,133	1,800	816	23	7	46	14	330	150		
Clutch option for 4WS3M10 (for horizontal pulling only)																		add:	8	4	
4WS6M12	3,000	1,360	10	3	DEF	C	1.5	3,400	1,542	2,200	997	1,600	725	12	3	25	7	515	234		
4WS6M12	3,000	1,360	20	6	BDEF	C	2	3,100	1,406	2,000	907	1,500	680	20	6	42	12	530	241		
4WS6M12	4,000	1,814	6	2	ABDEF	C	1	4,500	2,041	2,900	1,315	2,200	997	6	2	13	4	535	243		
4WS6M12	4,000	1,814	10	3	BDEF	C	2	4,500	2,041	2,900	1,315	2,100	952	12	3	25	7	530	241		
4WS6M12	4,000	1,814	20	6	DEF	C	3	4,000	1,814	2,500	1,133	1,900	861	24	7	50	15	540	245		
4WS6M12	6,000	2,721	4	1	ABDEF	C	1	6,200	2,812	4,000	1,814	3,000	1,360	4	1	8	2	535	243		
4WS6M12	6,000	2,721	10	3	DEF	C	3	6,400	2,902	4,200	1,905	3,100	1,406	12	3	25	7	540	245		
4WS6M12	6,000	2,721	20	6	DEF	C	5	6,400	2,902	4,200	1,905	3,100	1,406	24	7	50	15	585	266		
Clutch option for 4WS6M12 (for horizontal pulling only)																		add:	12	6	

When ordering, please indicate Model Number and Extensions. Examples: 4WS1M6-1100-20-A (without clutch); 4WS1M6-1100-20-A-C (with clutch). Please contact Thern or nearest Thern distributor for firm, fixed price and delivery.

⁶ Weight may vary with motor.

Motor Codes		
A	115 volt	1 phase
B	230 volt	1 phase
D	230 volt	3 phase
E	460 volt	3 phase
F	All other voltages, please contact Thern.	

4WS9M18, 4WS16M20, and 4WS26M26 Series Performance Characteristics

Model	Model Number Extensions			Motor	Load Rating						Line Speed			
	Load Rating	Line Speed	Motor Codes ⁷		1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum	
	(lb)	(fpm)		(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)
4WS9M18	7,000	20	D, E, F	5	7,300	3,312	5,000	2,268	3,800	1,724	21	6.4	41	12.5
4WS9M18	7,000	30	D, E, F	7.5	7,500	3,402	5,200	2,359	4,000	1,815	32	9.8	61	18.6
4WS9M18	10,000	10	D, E, F	5	10,000	4,536	6,900	3,130	5,300	2,405	13	4.0	24	7.3
4WS9M18	10,000	20	D, E, F	7.5	10,000	4,536	6,900	3,130	5,300	2,405	21	6.4	41	12.5
4WS9M18	10,000	30	D, E, F	10	10,000	4,536	6,900	3,130	5,200	2,359	32	9.8	61	18.6
4WS16M20	13,000	15	D, E, F	7.5	13,000	5,897	8,800	3,992	6,700	3,040	14	4.3	26	7.9
4WS16M20	13,000	20	D, E, F	10	13,300	6,033	9,100	4,128	6,900	3,130	18	5.5	35	10.7
4WS16M20	13,000	35	D, E, F	15	13,000	5,897	8,900	4,038	6,700	3,040	35	10.7	68	20.7
4WS16M20	16,000	15	D, E, F	7.5	16,000	7,258	11,100	5,035	8,500	3,856	12	3.7	24	7.3
4WS16M20	16,000	20	D, E, F	10	16,000	7,258	11,100	5,035	8,500	3,856	16	4.9	31	9.4
4WS26M26	22,000	20	D, E, F	15	22,800	10,343	16,700	7,576	13,200	5,988	18	5.5	31	9.4
4WS26M26	22,000	25	D, E, F	20	22,600	10,252	16,500	7,485	13,100	5,943	25	7.6	43	13.1
4WS26M26	22,000	35	D, E, F	25	22,200	10,070	16,300	7,394	12,900	5,852	36	11.0	63	19.2
4WS26M26	26,000	10	D, E, F	10	26,200	11,885	19,400	8,800	15,400	6,986	10	3.0	17	5.2
4WS26M26	26,000	15	D, E, F	15	26,000	11,794	20,200	9,163	16,500	7,485	16	4.9	27	8.2

Please contact Thern or nearest Thern distributor for firm, fixed price and delivery.

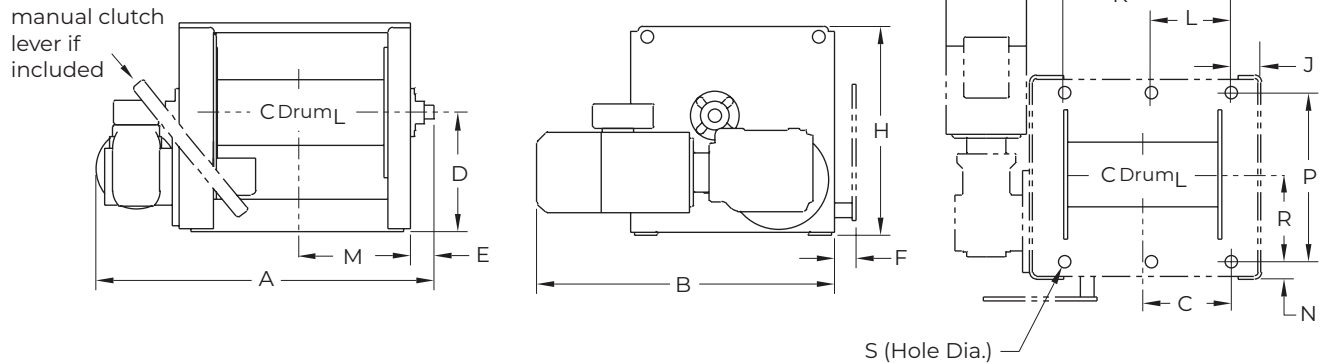
⁷

Motor Codes		
D	230 volt	3 phase
E	460 volt	3 phase
F	All other voltages, please contact Thern.	

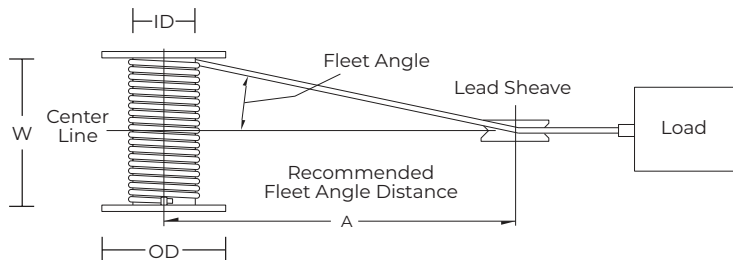
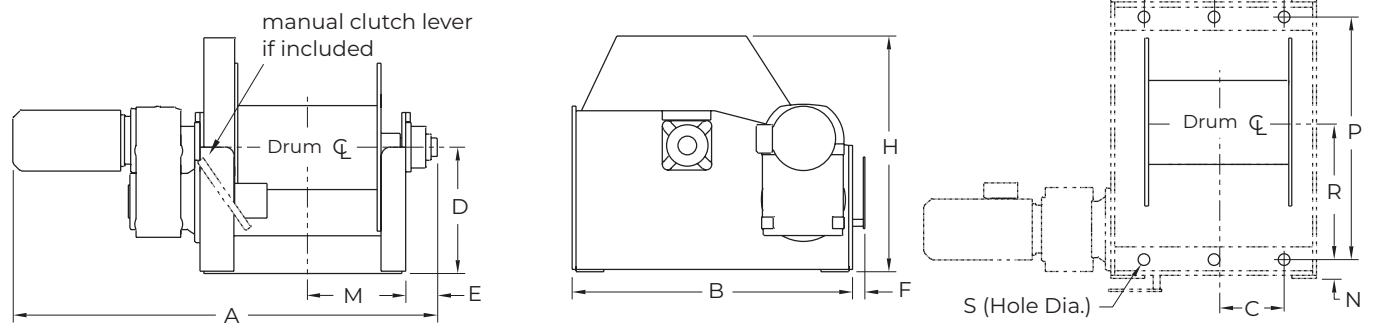
4HS SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

4HS6-26M Series



4HS40-56M Series



4HS Series Drum Dimensions

Model	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)		Fleet Angle Distance (A) ¹	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4HS6M	7	178	14	356	18	457	29	8.8
4HS11M	9	229	20	508	18	457	29	8.8
4HS16M	10.75	273	24	610	20	508	32	9.8
4HS26M	14	356	28	711	26	660	42	12.8
4HS40M	18	457	36	914	30	762	48	14.6
4HS56M	24	610	43	1,092	36	914	58	17.7

¹ Recommended minimum distance between drum and lead sheave for smooth drum.

Dimensions are for reference only and subject to change without notice.
Please contact Thern for exact dimensions.

Electric Motor Controls

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
10S3D4	electric motor controls 230/3/60 to 3 hp	25	12
10S7D4	electric motor controls 230/3/60 to 7.5 hp	25	12
10S10D4	electric motor controls 230/3/60 to 10 hp	28	13
10S20D4	electric motor controls 230/3/60 to 20 hp	28	13
10S30D4	electric motor controls 230/3/60 to 30 hp	60	28
10S7E4	electric motor controls 460/3/60 to 7.5 hp	25	12
10S15E4	electric motor controls 460/3/60 to 15 hp	25	12
10S20E4	electric motor controls 460/3/60 to 20 hp	28	13
10S40E4	electric motor controls 460/3/60 to 40 hp	60	28
10S60E4	electric motor controls 460/3/60 to 60 hp	60	28

Controls include NEMA 4 rated enclosure and NEMA 4X rated pendant control on 50-foot cord.

Motor controls sold separately. Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery. All prices include mounting and wiring to motor.

4HS Series Drum Capacities

Wire Rope Diameter		Breaking Strength ²		Drum Capacity	4HS6M		4HS11M		4HS16M		4HS26M		4HS40M		4HS56M	
(in)	(mm)	(lb)	(kg)		(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
3/8	9.7	15,100	6,849	1st	80	24.4	—	—	—	—	—	—	—	—	—	—
				Mid	380	115.8	—	—	—	—	—	—	—	—	—	—
				Full	850	259.1	—	—	—	—	—	—	—	—	—	—
7/16	11.2	20,400	9,254	1st	68	20.7	—	—	—	—	—	—	—	—	—	—
				Mid	290	88.4	—	—	—	—	—	—	—	—	—	—
				Full	640	195.1	—	—	—	—	—	—	—	—	—	—
1/2	12.7	26,600	12,066	1st	60	18.3	76	23.2	—	—	—	—	—	—	—	—
				Mid	220	67.1	520	158.5	—	—	—	—	—	—	—	—
				Full	500	152.4	1,170	356.6	—	—	—	—	—	—	—	—
9/16	14.2	33,600	15,240	1st	53	16.2	67	20.4	89	27.1	—	—	—	—	—	—
				Mid	180	54.9	420	128.0	690	210.3	—	—	—	—	—	—
				Full	400	121.9	930	283.5	1,530	466.3	—	—	—	—	—	—
5/8	16.0	41,200	18,688	1st	—	—	59	18.0	78	23.8	—	—	—	—	—	—
				Mid	—	—	340	103.6	560	170.7	—	—	—	—	—	—
				Full	—	—	760	231.6	1,250	381.0	—	—	—	—	—	—
3/4	19.1	58,800	26,671	1st	—	—	48	14.6	65	19.8	—	—	—	—	—	—
				Mid	—	—	240	73.2	400	121.9	—	—	—	—	—	—
				Full	—	—	540	164.6	880	268.2	—	—	—	—	—	—
7/8	22.4	79,600	36,106	1st	—	—	—	—	54	16.5	94	28.7	—	—	—	—
				Mid	—	—	—	—	290	88.4	480	146.3	—	—	—	—
				Full	—	—	—	—	640	195.1	1,070	326.1	—	—	—	—
1	25.4	103,400	46,902	1st	—	—	—	—	47	14.3	82	25.0	—	—	—	—
				Mid	—	—	—	—	220	67.1	370	112.8	—	—	—	—
				Full	—	—	—	—	490	149.4	830	253.0	—	—	—	—
1-1/8	28.7	130,000	58,968	1st	—	—	—	—	—	—	71	21.6	110	33.5	—	—
				Mid	—	—	—	—	—	—	300	91.4	580	176.8	—	—
				Full	—	—	—	—	—	—	660	201.2	1,290	393.2	—	—
1-1/4	31.8	159,800	72,485	1st	—	—	—	—	—	—	63	19.2	95	29.0	160	48.8
				Mid	—	—	—	—	—	—	240	73.2	460	140.2	730	222.5
				Full	—	—	—	—	—	—	530	161.5	1,030	313.9	1,630	496.8
1-3/8	34.9	192,000	87,090	1st	—	—	—	—	—	—	56	17.1	85	25.9	140	42.7
				Mid	—	—	—	—	—	—	200	61.0	390	118.9	610	185.9
				Full	—	—	—	—	—	—	440	134.1	860	262.1	1,360	414.5
1-1/2	38.1	228,000	103,420	1st	—	—	—	—	—	—	—	—	77	23.5	130	39.6
				Mid	—	—	—	—	—	—	—	—	330	100.6	510	155.4
				Full	—	—	—	—	—	—	—	—	720	219.5	1,140	347.5
1-5/8	41.3	264,000	119,750	1st	—	—	—	—	—	—	—	—	—	—	110	33.5
				Mid	—	—	—	—	—	—	—	—	—	—	430	131.1
				Full	—	—	—	—	—	—	—	—	—	—	950	289.6
1-3/4	44.5	306,000	138,800	1st	—	—	—	—	—	—	—	—	—	—	110	33.5
				Mid	—	—	—	—	—	—	—	—	—	—	370	112.8
				Full	—	—	—	—	—	—	—	—	—	—	820	249.9
1-7/8	47.7	348,000	157,851	1st	—	—	—	—	—	—	—	—	—	—	97	29.6
				Mid	—	—	—	—	—	—	—	—	—	—	320	97.5
				Full	—	—	—	—	—	—	—	—	—	—	720	219.5

² Values based on 6x37 IWRC EIPS wire rope.

Actual drum capacities 25–30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.

Wire rope should be selected based on the breaking strength to load rating ratio and application parameters. Industry standards suggest a 5:1 breaking strength to load rating ratio for lifting and a 3:1 ratio for pulling.

4HS6-26M Series Winch Dimensions

Model	A		B		C		D		E		F		G		H	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4HS6M-5000-15	36	914	27.25	692	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572
4HS6M-5000-20	36	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572
4HS6M-5000-30	36	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572
4HS6M-6600-15	36	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572
4HS6M-6600-25	36	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572
4HS6M-6600-40	36	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572
4HS11M-9000-20	41	1,041	31.75	806	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787
4HS11M-9000-30	41.5	1,054	34.75	883	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787
4HS11M-9000-40	42.5	1,080	37	940	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787
4HS11M-11000-15	41	1,041	31.75	806	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787
4HS11M-11000-20	41.5	1,054	34.75	883	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787
4HS11M-11000-30	42.5	1,080	37	940	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787
4HS16M-13000-20	46	1,168	37.5	953	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864
4HS16M-13000-25	47	1,194	39.5	1,003	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864
4HS16M-13000-40	47	1,194	42	1,067	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864
4HS16M-16000-10	46	1,168	34.5	876	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864
4HS16M-16000-15	46	1,168	37.5	953	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864
4HS16M-16000-20	47	1,194	39.5	1,003	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864
4HS26M-22000-15	60.5	1,537	42.5	1,080	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1,130
4HS26M-22000-25	60.5	1,537	45	1,143	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1,130
4HS26M-22000-30	60.5	1,537	48.5	1,232	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1,130
4HS26M-26000-15	60.5	1,537	42.5	1,080	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1,130
4HS26M-26000-20	60.5	1,537	45	1,143	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1,130
4HS26M-26000-25	60.5	1,537	48.5	1,232	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1,130

³ Weight shown without clutch; contact Thern for clutch weight.

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

4HS40-56M Series Winch Dimensions

Model	A		B		C		D		E		F		G		H	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4HS40M-33000-20	91	2,311	60	1,524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1,295
4HS40M-33000-30	94	2,388	60	1,524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1,295
4HS40M-33000-40	96	2,438	60	1,524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1,295
4HS40M-40000-20	91	2,311	60	1,524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1,295
4HS40M-40000-25	94	2,388	60	1,524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1,295
4HS40M-40000-35	96	2,438	60	1,524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1,295
4HS56M-48000-20	108	2,743	72	1,829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1,575
4HS56M-48000-30	110	2,794	72	1,829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1,575
4HS56M-52000-35	113	2,870	72	1,829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1,575
4HS56M-56000-20	108	2,743	72	1,829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1,575
4HS56M-56000-25	110	2,794	72	1,829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1,575
4HS56M-56000-30	113	2,870	72	1,829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1,575

³ Weight shown without clutch; contact Thern for clutch weight.

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

J		K		L		M		N		P		R		S (hole dia.)		Ship Wt. ³	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
3.25	83	18	457	–	–	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	570	259
3.25	83	18	457	–	–	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	590	268
3.25	83	18	457	–	–	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	590	268
3.25	83	18	457	–	–	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	590	268
3.25	83	18	457	–	–	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	590	268
3.25	83	18	457	–	–	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	650	295
4	102	18	457	–	–	12.50	318	2.75	70	22	559	12.50	318	1-3/16	30	1,080	490
4	102	18	457	–	–	12.50	318	2.75	70	22	559	12.50	318	1-3/16	30	1,120	509
4	102	18	457	–	–	12.50	318	2.75	70	22	559	12.50	318	1-3/16	30	1,160	527
4	102	18	457	–	–	12.50	318	2.75	70	22	559	12.50	318	1-3/16	30	1,080	490
4	102	18	457	–	–	12.50	318	2.75	70	22	559	12.50	318	1-3/16	30	1,120	509
4	102	18	457	–	–	12.50	318	2.75	70	22	559	12.50	318	1-3/16	30	1,160	527
4	102	20	508	10	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,580	717
4	102	20	508	10	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,640	744
4	102	20	508	10	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,680	763
4	102	20	508	10	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,520	690
4	102	20	508	10	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,580	717
4	102	20	508	10	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,640	744
5.88	149	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3,130	1,420
5.88	149	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3,170	1,438
5.88	149	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3,350	1,520
5.88	149	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3,130	1,420
5.88	149	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3,170	1,438
5.88	149	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3,350	1,520

J		K		L		M		N		P		R		S (hole dia.)		Ship Wt. ³	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
7	178	30	762	–	–	21	533	4	102	52	1,321	31.5	800	1-3/4	44	5,570	2,527
7	178	30	762	–	–	21	533	4	102	52	1,321	31.5	800	1-3/4	44	5,660	2,568
7	178	30	762	–	–	21	533	4	102	52	1,321	31.5	800	1-3/4	44	5,800	2,631
7	178	30	762	–	–	21	533	4	102	52	1,321	31.5	800	1-3/4	44	5,570	2,527
7	178	30	762	–	–	21	533	4	102	52	1,321	31.5	800	1-3/4	44	5,660	2,568
7	178	30	762	–	–	21	533	4	102	52	1,321	31.5	800	1-3/4	44	5,800	2,631
7	178	36	914	18	457	25	635	4.5	114	63	1,600	34.5	876	1-3/4	44	9,220	4,183
7	178	36	914	18	457	25	635	4.5	114	63	1,600	34.5	876	1-3/4	44	9,370	4,251
7	178	36	914	18	457	25	635	4.5	114	63	1,600	34.5	876	1-3/4	44	9,480	4,301
7	178	36	914	18	457	25	635	4.5	114	63	1,600	34.5	876	1-3/4	44	9,220	4,183
7	178	36	914	18	457	25	635	4.5	114	63	1,600	34.5	876	1-3/4	44	9,370	4,251
7	178	36	914	18	457	25	635	4.5	114	63	1,600	34.5	876	1-3/4	44	9,480	4,301

4HS Series Performance Characteristics

Model Number Extensions					Motor	Load Rating						Line Speed			
Model	Load Rating	Line Speed	Motor Codes ⁴	Clutch Option ⁵		1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum	
	(lb)	(fpm)			(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)
4HS6M	5,000	15	D, E, F	C	2	5,100	2,314	3,800	1,725	3,100	1,407	13	4.0	22	6.7
4HS6M	5,000	20	D, E, F	C	3	5,100	2,314	3,800	1,725	3,100	1,407	20	6.1	33	10.1
4HS6M	5,000	30	D, E, F	C	5	5,100	2,314	3,800	1,725	3,100	1,407	33	10.1	55	16.8
4HS6M	6,600	15	D, E, F	C	3	6,600	2,994	5,000	2,269	4,000	1,815	15	4.6	25	7.6
4HS6M	6,600	25	D, E, F	C	5	6,600	2,994	4,900	2,224	4,000	1,815	25	7.6	41	12.5
4HS6M	6,600	40	D, E, F	C	7.5	6,600	2,994	5,000	2,269	4,000	1,815	39	11.9	64	19.5
4HS11M	9,000	20	D, E, F	C	5	9,000	4,083	6,200	2,814	4,700	2,132	19	5.8	35	10.7
4HS11M	9,000	30	D, E, F	C	7.5	9,000	4,083	6,200	2,814	4,700	2,132	27	8.2	51	15.5
4HS11M	9,000	40	D, E, F	C	10	9,000	4,083	6,200	2,814	4,700	2,132	37	11.3	70	21.3
4HS11M	11,000	15	D, E, F	C	5	11,000	4,990	7,600	3,449	5,800	2,631	15	4.6	28	8.5
4HS11M	11,000	20	D, E, F	C	7.5	11,000	4,990	7,600	3,449	5,800	2,631	21	6.4	40	12.2
4HS11M	11,000	30	D, E, F	C	10	11,000	4,990	7,600	3,449	5,800	2,631	27	8.2	51	15.5
4HS16M	13,000	20	D, E, F	C	7.5	13,000	5,897	8,900	4,039	6,700	3,040	19	5.8	37	11.3
4HS16M	13,000	25	D, E, F	C	10	13,000	5,897	8,900	4,039	6,700	3,040	24	7.3	46	14.0
4HS16M	13,000	40	D, E, F	C	15	13,000	5,897	8,900	4,039	6,700	3,040	37	11.3	72	21.9
4HS16M	16,000	10	D, E, F	C	5	16,100	7,303	11,000	4,992	8,300	3,765	11	3.4	21	6.4
4HS16M	16,000	15	D, E, F	C	7.5	16,000	7,258	10,900	4,947	8,300	3,765	16	4.9	30	9.1
4HS16M	16,000	20	D, E, F	C	10	16,100	7,303	11,000	4,992	8,300	3,765	20	6.1	38	11.6
4HS26M	22,000	15	D, E, F	C	10	22,000	9,980	16,200	7,352	12,800	5,807	16	4.9	27	8.2
4HS26M	22,000	25	D, E, F	C	15	22,000	9,980	16,100	7,307	12,700	5,761	23	7.0	40	12.2
4HS26M	22,000	30	D, E, F	C	20	22,900	10,388	16,800	7,624	13,200	5,988	29	8.8	50	15.2
4HS26M	26,000	15	D, E, F	C	10	26,000	11,794	19,000	8,623	15,000	6,804	13	4.0	23	7.0
4HS26M	26,000	20	D, E, F	C	15	26,000	11,794	19,000	8,623	15,100	6,850	19	5.8	33	10.1
4HS26M	26,000	25	D, E, F	C	20	26,000	11,794	19,100	8,668	15,000	6,804	26	7.9	45	13.7
4HS40M	33,000	20	D, E, F	C	20	33,100	15,015	24,100	10,937	18,900	8,574	19	5.8	34	10.4
4HS40M	33,000	30	D, E, F	C	30	33,000	14,969	24,100	10,937	18,900	8,574	29	8.8	51	15.5
4HS40M	33,000	40	D, E, F	C	40	33,100	15,015	24,100	10,937	18,900	8,574	39	11.9	68	20.7
4HS40M	40,000	20	D, E, F	C	20	40,300	18,281	29,300	13,297	23,000	10,433	17	5.2	29	8.8
4HS40M	40,000	25	D, E, F	C	30	40,300	18,281	29,400	13,342	23,100	10,479	23	7.0	41	12.5
4HS40M	40,000	35	D, E, F	C	40	40,000	18,144	29,400	13,342	22,900	10,388	34	10.4	59	18.0
4HS56M	48,000	20	D, E, F	C	30	48,000	21,773	37,200	16,882	30,300	13,745	21	6.4	33	10.1
4HS56M	48,000	30	D, E, F	C	40	48,000	21,773	37,200	16,882	30,300	13,745	28	8.5	44	13.4
4HS56M	52,000	35	D, E, F	C	50	52,200	23,678	40,400	18,334	32,900	14,924	33	10.1	52	15.8
4HS56M	56,000	20	D, E, F	C	30	56,000	25,402	43,300	19,650	35,400	16,058	18	5.5	29	8.8
4HS56M	56,000	25	D, E, F	C	40	56,000	25,402	43,400	19,695	35,400	16,058	24	7.3	38	11.6
4HS56M	56,000	30	D, E, F	C	50	56,200	25,493	43,500	19,741	35,500	16,103	30	9.1	47	14.3

Please contact Thern or nearest Thern distributor for firm, fixed price and delivery.

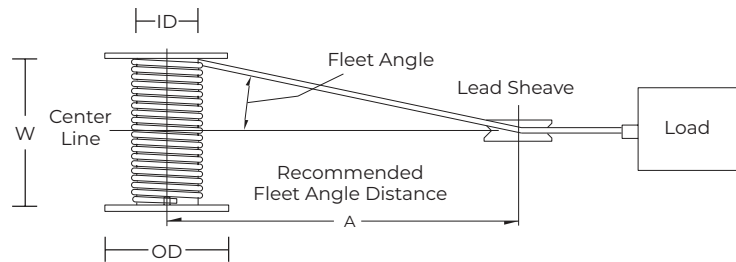
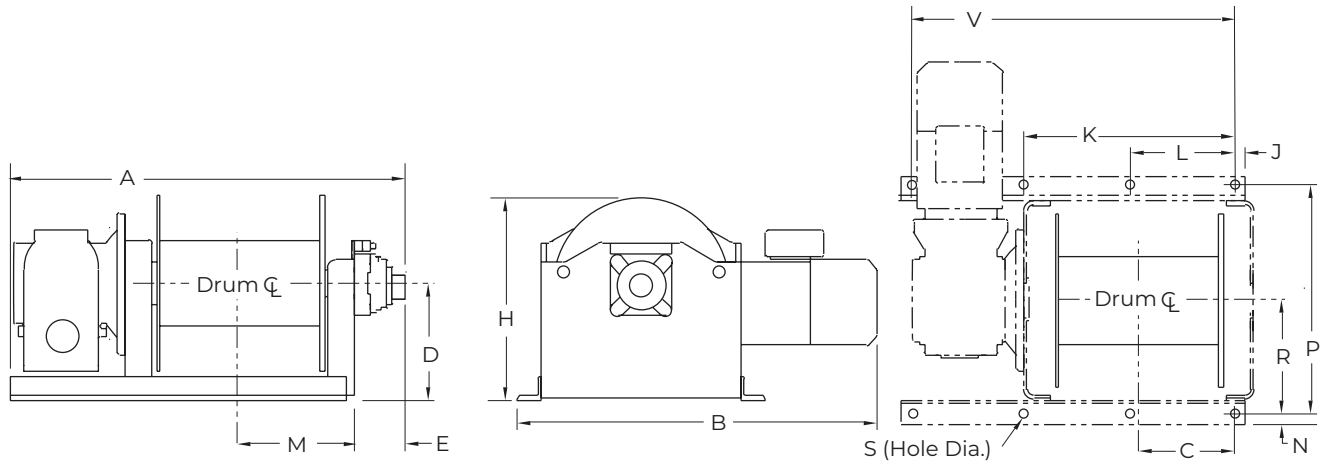
⁵ Clutch option for horizontal pulling only.

Motor Codes		
D	230 volt	3 phase
E	460 volt	3 phase
F	All other voltages, please contact Thern.	

4HWF SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

4HWF Series



4HWF Series Drum Dimensions

Model	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)		Fleet Angle Distance (A) ¹	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4HWF1M	4.5	114	12	305	10	254	16	4.9
4HWF2M	5.5	140	12	305	10	254	16	4.9
4HWF4M	7	178	18	457	16	406	26	7.9
4HWF6M	9	229	18	457	16	406	26	7.9
4HWF8M	10.75	273	22	559	20	508	32	9.8

¹ Recommended minimum distance between drum and lead sheave for smooth drum.

Dimensions are for reference only and subject to change without notice.
Please contact Thern for exact dimensions.

Electric Motor Controls

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
10S3D4	electric motor controls 230/3/60 to 3 hp	25	12
10S7D4	electric motor controls 230/3/60 to 7.5 hp	25	12
10S10D4	electric motor controls 230/3/60 to 10 hp	28	13
10S7E4	electric motor controls 460/3/60 to 7.5 hp	25	12
10S15D4	electric motor controls 460/3/60 to 15 hp	25	12

Controls include NEMA 4 rated enclosure and NEMA 4X rated pendant control on 50-foot cord.

Motor controls sold separately. Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery. All prices include mounting and wiring to motor.

4HWF Series Drum Capacities

Wire Rope Diameter		Breaking Strength ²		Drum Capacity	4HWF1M		4HWF2M		4HWF4M		4HWF6M		4HWF8M	
(in)	(mm)	(lb)	(kg)		(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
¼	6.4	7,000 ³	3,175	1st	43	13.1	51	15.5	–	–	–	–	–	–
				Mid	370	112.8	340	103.6	–	–	–	–	–	–
				Full	830	253	750	228.6	–	–	–	–	–	–
⅝	7.9	9,800 ³	4,445	1st	34	10.4	41	12.5	87	26.5	–	–	–	–
				Mid	250	76.2	230	70.1	950	289.5	–	–	–	–
				Full	560	170.7	500	152.4	2,120	646.2	–	–	–	–
¾	9.7	15,100	6,849	1st	27	8.2	33	10.1	70	21.3	–	–	–	–
				Mid	180	54.9	160	48.8	680	207.3	–	–	–	–
				Full	400	121.9	360	109.7	1,520	463.3	–	–	–	–
7/16	11.2	20,400	9,254	1st	23	7.0	28	8.5	60	18.3	76	23.2	–	–
				Mid	130	39.6	120	36.6	510	155.4	450	137.2	–	–
				Full	300	91.4	270	82.3	1,140	347.5	990	301.8	–	–
½	12.7	26,600	12,066	1st	–	–	–	–	52	15.8	66	20.1	–	–
				Mid	–	–	–	–	400	121.9	350	106.7	–	–
				Full	–	–	–	–	890	271.3	770	234.7	–	–
9/16	14.2	33,600	15,240	1st	–	–	–	–	46	14.0	58	17.7	89	27.1
				Mid	–	–	–	–	320	97.5	280	85.3	540	164.6
				Full	–	–	–	–	710	216.4	620	189	1,210	368.8
5/8	16.0	41,200	18,688	1st	–	–	–	–	–	–	51	15.5	78	23.8
				Mid	–	–	–	–	–	–	230	70.1	440	134.1
				Full	–	–	–	–	–	–	510	155.4	990	301.8
¾	19.1	58,800	26,671	1st	–	–	–	–	–	–	42	12.8	65	19.8
				Mid	–	–	–	–	–	–	160	48.8	310	94.5
				Full	–	–	–	–	–	–	360	109.7	700	213.4
7/8	22.4	79,600	36,106	1st	–	–	–	–	–	–	–	–	54	16.5
				Mid	–	–	–	–	–	–	–	–	230	70.1
				Full	–	–	–	–	–	–	–	–	500	152.4
1	25.4	103,400	46,902	1st	–	–	–	–	–	–	–	–	47	14.3
				Mid	–	–	–	–	–	–	–	–	180	54.9
				Full	–	–	–	–	–	–	–	–	390	118.9

² Values based on 6x37 IWRC EIPS wire rope.

³ Values based on 7x19 galvanized aircraft cable.

Actual drum capacities 25–30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.

Wire rope should be selected based on the breaking strength to load rating ratio and application parameters. Industry standards suggest a 5:1 breaking strength to load rating ratio for lifting and a 3:1 ratio for pulling.

4HWF Series Winch Dimensions

Model	A		B		C		D		E		H		J		K	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4HWF1M-1500-25	25.5	648	27	686	6	152	8	203	2.38	60	14	356	1	25	20	508
4HWF1M-1500-35	25.5	648	27	686	6	152	8	203	2.38	60	14	356	1	25	20	508
4HWF2M-2000-25	26.25	667	28	711	6	152	8	203	2.38	60	14	356	1	25	20	508
4HWF2M-2000-35	26.25	667	29.75	756	6	152	8	203	2.38	60	14	356	1	25	20	508
4HWF4M-4000-25	39	991	35	889	9.63	245	12	305	5.13	130	21	533	1	25	30.5	775
4HWF4M-4000-35	39	991	35	889	9.63	245	12	305	5.13	130	21	533	1	25	30.5	775
4HWF6M-6000-25	41	1,041	36	914	9.63	245	12	305	5.13	130	21	533	1	25	30.5	775
4HWF6M-6000-35	41	1,041	39	991	9.63	245	12	305	5.13	130	21	533	1	25	30.5	775
4HWF8M-8000-25	50	1,270	43.5	1,105	12	305	14.5	368	6.25	159	25.5	648	1.25	32	26.5	673
4HWF8M-8000-35	50	1,270	43.5	1,156	12	305	14.5	368	6.25	159	25.5	648	1.25	32	26.5	673

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

4HWF Series Performance Characteristics

Model	Model Number Extensions			Motor	Load Rating						Line Speed			
	Load Rating	Line Speed	Motor Codes ⁴		1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum	
	(lb)	(fpm)		(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)
4HWF1M	1,500	25	D,E,F	1.5	1,500	681	900	409	700	318	23	7.0	52	15.8
4HWF1M	1,500	35	D,E,F	2	1,500	681	900	409	700	318	32	9.8	73	22.3
4HWF2M	2,000	25	D,E,F	2	2,200	998	1,500	681	1,200	545	22	6.7	40	12.2
4HWF2M	2,000	35	D,E,F	3	2,200	998	1,500	681	1,200	545	34	10.4	63	19.2
4HWF4M	4,000	25	D,E,F	3	4,000	1,815	2,500	1,134	1,800	817	21	6.4	47	14.3
4HWF4M	4,000	35	D,E,F	5	4,000	1,815	2,500	1,134	1,800	817	35	10.7	78	23.8
4HWF6M	6,000	25	D,E,F	5	6,000	2,722	4,400	1,996	3,400	1,543	24	7.3	42	12.8
4HWF6M	6,000	35	D,E,F	7.5	6,000	2,722	4,400	1,996	3,400	1,543	35	10.7	61	18.6
4HWF8M	8,000	25	D,E,F	7.5	8,100	3,675	5,800	2,631	4,500	2,042	27	8.2	47	14.3
4HWF8M	8,000	35	D,E,F	10	8,100	3,675	5,800	2,631	4,500	2,042	39	11.9	64	19.5

Please contact Thern or nearest Thern distributor for firm, fixed price and delivery.

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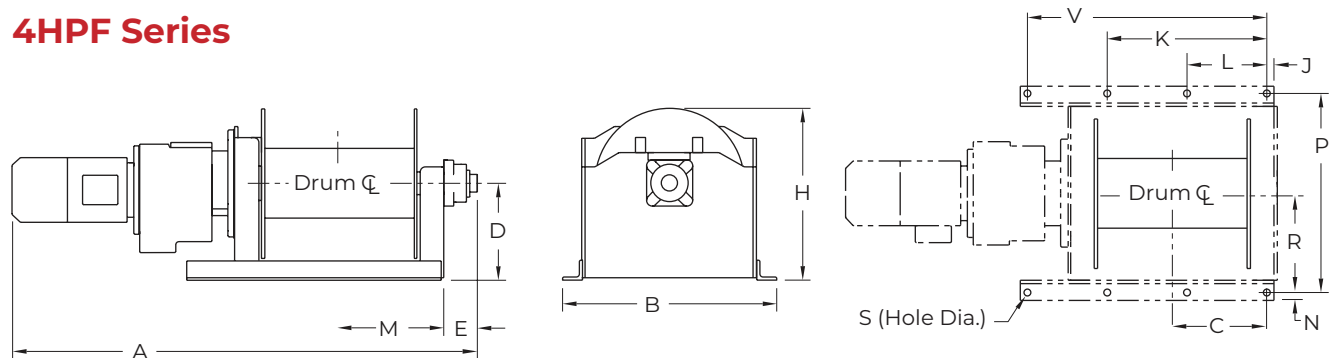
Motor Codes		
D	230 volt	3 phase
E	460 volt	3 phase
F	All other voltages, please contact Thern.	

L		M		N		P		R		S (hole dia.)		V		Ship Weight	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
10	254	7.56	192	0.63	16	15.75	400	7.88	200	$1\frac{9}{32}$	15	–	–	190	87
10	254	7.56	192	0.63	16	15.75	400	7.88	200	$1\frac{9}{32}$	15	–	–	190	87
10	254	7.56	192	0.63	16	15.75	400	7.88	200	$1\frac{9}{32}$	15	–	–	240	109
10	254	7.56	192	0.63	16	15.75	400	7.88	200	$1\frac{9}{32}$	15	–	–	240	109
15.25	387	11.5	292	1	25	24	610	12.00	305	$\frac{7}{8}$	22	–	–	480	218
15.25	387	11.5	292	1	25	24	610	12.00	305	$\frac{7}{8}$	22	–	–	480	218
15.25	387	11.5	292	1	25	24	610	12.00	305	$\frac{7}{8}$	22	–	–	650	295
15.25	387	11.5	292	1	25	24	610	12.00	305	$\frac{7}{8}$	22	–	–	710	323
13.25	337	14.5	368	1.13	29	28.75	730	14.38	365	$1\text{--}\frac{1}{8}$	29	39.75	1,010	1,120	509
13.25	337	14.5	368	1.13	29	28.75	730	14.38	365	$1\text{--}\frac{1}{8}$	29	39.75	1,010	1,180	536

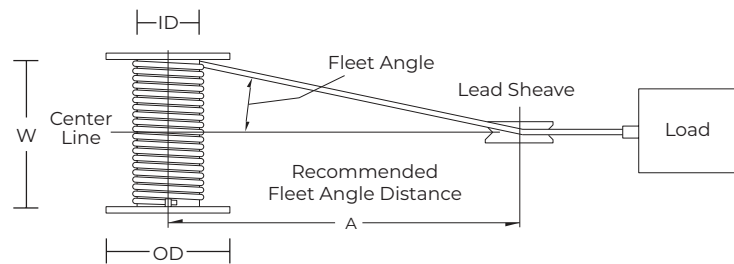
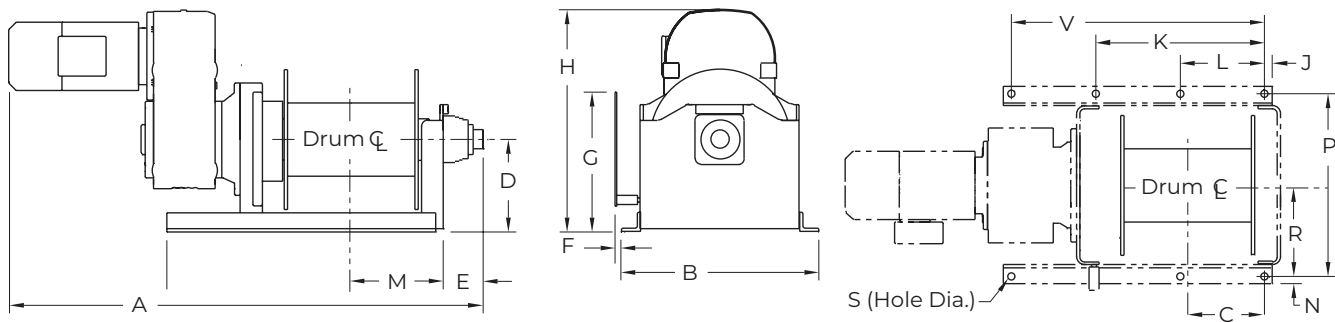
4HPF SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

4HPF Series



4HPFC Series



4HPF Series Drum Dimensions

Model	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)		Fleet Angle Distance (A) ¹	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4HPF2M	4.5	114	12	305	10	254	16	4.9
4HPF3M	5.5	140	12	305	10	254	16	4.9
4HPF5M	7	178	18	457	16	406	26	7.9
4HPF7M	9	229	18	457	16	406	26	7.9
4HPF9M	10.75	273	22	559	20	508	32	9.8
4HPF15M	11.5	292	22	559	20	508	32	9.8
4HPF20M	14	356	30	762	30	762	48	14.6
4HPF25M	16	406	30	762	30	762	48	14.6

¹ Recommended minimum distance between drum and lead sheave for smooth drum.

Dimensions are for reference only and subject to change without notice.
Please contact Thern for exact dimensions.

Electric Motor Controls

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
10S3D4	electric motor controls 230/3/60 to 3 hp	25	12
10S7D4	electric motor controls 230/3/60 to 7.5 hp	25	12
10S10D4	electric motor controls 230/3/60 to 10 hp	28	13
10S20D4	electric motor controls 230/3/60 to 20 hp	28	13
10S30D4	electric motor controls 230/3/60 to 30 hp	60	28
10S7E4	electric motor controls 460/3/60 to 7.5 hp	25	12
10S15E4	electric motor controls 460/3/60 to 15 hp	25	12
10S20E4	electric motor controls 460/3/60 to 20 hp	28	13
10S40E4	electric motor controls 460/3/60 to 40 hp	60	28

Controls include NEMA 4 rated enclosure and NEMA 4X rated pendant control on 50-foot cord.

Motor controls sold separately. Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery. All prices include mounting and wiring to motor.

4HPF Series Drum Capacities

Wire Rope Diameter		Breaking Strength ²		Drum Capacity	4HPF2M		4HPF3M		4HPF5M		4HPF7M		4HPF9M		4HPF15M		4HPF20M		4HPF25M	
(in)	(mm)	(lb)	(kg)		(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
¼	6.4	7,000 ³	3,175	1st	43	13.1	51	15.5	–	–	–	–	–	–	–	–	–	–	–	–
				Mid	370	112.8	340	103.6	–	–	–	–	–	–	–	–	–	–	–	–
				Full	830	253.0	750	228.6	–	–	–	–	–	–	–	–	–	–	–	–
⅓	9.7	15,100	6,849	1st	34	10.4	41	12.5	87	26.5	–	–	–	–	–	–	–	–	–	–
				Mid	250	76.2	230	70.1	950	289.6	–	–	–	–	–	–	–	–	–	–
				Full	560	170.7	500	152.4	2,120	646.2	–	–	–	–	–	–	–	–	–	–
½	12.7	26,600	12,066	1st	27	8.2	33	10.1	70	21.3	–	–	–	–	–	–	–	–	–	–
				Mid	180	54.9	160	48.8	680	207.3	–	–	–	–	–	–	–	–	–	–
				Full	400	121.9	360	109.7	1,520	463.3	–	–	–	–	–	–	–	–	–	–
¾	19.1	58,800	26,671	1st	23	7	28	8.5	60	18.3	76	23.2	–	–	–	–	–	–	–	–
				Mid	130	39.6	120	36.6	510	155.4	450	137.2	–	–	–	–	–	–	–	–
				Full	300	91.4	270	82.3	1,140	347.5	990	301.8	–	–	–	–	–	–	–	–
1	25.4	103,400	46,902	1st	–	–	–	–	52	15	66	20.1	–	–	–	–	–	–	–	–
				Mid	–	–	–	–	400	121	350	106.7	–	–	–	–	–	–	–	–
				Full	–	–	–	–	890	271	770	234.7	–	–	–	–	–	–	–	–
1-⅛	28.7	130,000	58,968	1st	–	–	–	–	46	14.0	58	17.7	89	27.1	–	–	–	–	–	–
				Mid	–	–	–	–	320	97.5	280	85.3	540	164.6	–	–	–	–	–	–
				Full	–	–	–	–	710	216.4	620	189	1,210	368.8	–	–	–	–	–	–
1-¼	31.8	159,800	72,485	1st	–	–	–	–	–	–	51	15.5	78	23.8	84	25.6	–	–	–	–
				Mid	–	–	–	–	–	–	230	70.1	440	134.1	420	128	–	–	–	–
				Full	–	–	–	–	–	–	510	155.5	990	301.8	940	286.5	–	–	–	–
1-⅜	34.9	192,000	87,090	1st	–	–	–	–	–	–	–	–	65	19.8	69	21	130	39.6	–	–
				Mid	–	–	–	–	–	–	–	–	310	94.5	300	91.4	930	283.5	–	–
				Full	–	–	–	–	–	–	–	–	700	213.4	660	201.2	2,070	630.9	–	–
1-½	38.1	228,000	103,420	1st	–	–	–	–	–	–	–	–	54	16.5	57	17.4	110	33.5	–	–
				Mid	–	–	–	–	–	–	–	–	230	70.1	210	64	670	204.2	–	–
				Full	–	–	–	–	–	–	–	–	500	152.4	480	146.3	1,490	454.2	–	–
2	50.8	357,600	162,400	1st	–	–	–	–	–	–	–	–	47	14.3	57	17.4	97	29.6	110	33.5
				Mid	–	–	–	–	–	–	–	–	180	54.9	210	64	520	158.5	470	143.3
				Full	–	–	–	–	–	–	–	–	390	118.9	480	146.3	1,160	353.6	1,050	320
2-⅛	53.5	393,600	178,400	1st	–	–	–	–	–	–	–	–	–	–	–	–	85	25.9	96	29.3
				Mid	–	–	–	–	–	–	–	–	–	–	–	–	420	128	380	115.8
				Full	–	–	–	–	–	–	–	–	–	–	–	–	920	280.4	840	256
2-¼	56.2	429,600	195,000	1st	–	–	–	–	–	–	–	–	–	–	–	–	76	23.2	86	26.2
				Mid	–	–	–	–	–	–	–	–	–	–	–	–	330	100.6	300	91.4
				Full	–	–	–	–	–	–	–	–	–	–	–	–	740	225.6	670	204.2
2-⅜	59.0	465,600	211,600	1st	–	–	–	–	–	–	–	–	–	–	–	–	68	20.7	76	23.2
				Mid	–	–	–	–	–	–	–	–	–	–	–	–	280	85.3	250	76.2
				Full	–	–	–	–	–	–	–	–	–	–	–	–	610	185.9	560	170.7
2-½	61.7	501,600	228,000	1st	–	–	–	–	–	–	–	–	–	–	–	–	–	–	69	21
				Mid	–	–	–	–	–	–	–	–	–	–	–	–	–	–	210	64
				Full	–	–	–	–	–	–	–	–	–	–	–	–	–	–	470	143.3

² Values based on 6x37 IWRC EIPS wire rope.

³ Values based on 7x19 galvanized aircraft cable.

Actual drum capacities 25–30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.

Wire rope should be selected based on the breaking strength to load rating ratio and application parameters. Industry standards suggest a 5:1 breaking strength to load rating ratio for lifting and a 3:1 ratio for pulling.

4HPF Series Winch Dimensions

Model	A		B		C		D		E		H		J		K	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4HPF2M-2000-20	37.50	953	17	432	6.56	167	8	203	2.38	60	14.50	368	1	25	20	508
4HPF2M-2000-35	39	991	17	432	6.56	167	8	203	2.38	60	14.50	368	1	25	20	508
4HPF3M-3000-20	42	1,067	17	432	6.56	167	8	203	2.38	60	14.50	368	1	25	20	508
4HPF3M-3000-35	42	1,067	17	432	6.56	167	8	203	2.38	60	14.50	368	1	25	20	508
4HPF5M-5000-20	54.50	1,384	26	660	9.63	245	12	305	5.13	130	21	533	1	25	30.50	775
4HPF5M-5000-35	54.50	1,384	26	660	9.63	245	12	305	5.13	130	21	533	1	25	30.50	775
4HPF7M-7000-25	56	1,422	26	660	9.63	245	12	305	5.13	130	21	533	1	25	30.50	775
4HPF7M-7000-40	59	1,499	26	660	9.63	245	12	305	5.13	130	21	533	1	25	30.50	775
4HPF9M-9000-20	64.50	1,638	31	787	12	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HPF9M-9000-40	69.50	1,765	31	787	12	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HPF15M-15000-25	71.50	1,816	31	787	12	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HPF15M-15000-35	74	1,880	31	787	12	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HPF20M-20000-20	90	2,286	43	1,092	18.88	480	19.50	495	6.75	171	34.50	876	1.50	38	32	813
4HPF20M-20000-40	97	2,464	43	1,092	18.88	480	19.50	495	6.75	171	34.50	876	1.50	38	32	813
4HPF25M-25000-20	94	2,388	43	1,092	18.88	480	19.50	495	6.75	171	34.50	876	1.50	38	32	813
4HPF25M-25000-40	100	2,540	43	1,092	18.88	480	19.50	495	6.75	171	34.50	876	1.50	38	32	813

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

4HPFC Series Winch Dimensions

Model	A		B		C		D		E		F		G		H	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4HPF2MC-2000-20	38.50	978	17	432	6	152	8	203	2.38	60	0.88	23	19.88	505	17	432
4HPF2MC-2000-35	40	1,016	17	432	6	152	8	203	2.38	60	0.88	23	19.88	505	17	432
4HPF3MC-3000-20	41	1,041	17	432	6	152	8	203	2.38	60	0.88	23	19.88	505	18.25	464
4HPF3MC-3000-35	43	1,092	17	432	6	152	8	203	2.38	60	0.88	23	19.88	505	18.25	464
4HPF5MC-5000-20	55	1,397	26	660	9.63	245	12	305	5.13	130	–	–	22.25	565	24.25	616
4HPF5MC-5000-35	55	1,397	26	660	9.63	245	12	305	5.13	130	–	–	22.25	565	24.25	616
4HPF7MC-7000-25	56	1,422	26	660	9.63	245	12	305	5.13	130	–	–	22.25	565	27	686
4HPF7MC-7000-40	58.50	1,486	26	660	9.63	245	12	305	5.13	130	–	–	22.25	565	27	686
4HPF9MC-9000-20	66	1,676	31	787	12	305	14.50	368	6.25	159	–	–	22	559	32	813
4HPF9MC-9000-40	71	1,803	31	787	12	305	14.50	368	6.25	159	–	–	22	559	32	813
4HPF15MC-15000-25	72.50	1,842	31	787	12	305	14.50	368	6.25	159	–	–	22	559	35	889
4HPF15MC-15000-35	74.50	1,892	31	787	12	305	14.50	368	6.25	159	–	–	22	559	35	889

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

L		M		N		P		R		S (hole dia.)		V		Ship Weight	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
10	254	7.56	192	0.63	16	15.75	400	7.86	200	$1\frac{9}{32}$	15	–	–	170	78
10	254	7.56	192	0.63	16	15.75	400	7.86	200	$1\frac{9}{32}$	15	–	–	200	91
10	254	7.56	192	0.63	16	15.75	400	7.86	200	$1\frac{9}{32}$	15	–	–	250	114
10	254	7.56	192	0.63	16	15.75	400	7.86	200	$1\frac{9}{32}$	15	–	–	260	118
15.25	387	11.50	292	1	25	24	610	12	305	$\frac{7}{8}$	22	–	–	500	227
15.25	387	11.50	292	1	25	24	610	12	305	$\frac{7}{8}$	22	–	–	500	227
15.25	387	11.50	292	1	25	24	610	12	305	$\frac{7}{8}$	22	–	–	650	295
15.25	387	11.50	292	1	25	24	610	12	305	$\frac{7}{8}$	22	–	–	760	345
13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	$1\frac{1}{8}$	29	39.75	1,010	1,000	454
13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	$1\frac{1}{8}$	29	39.75	1,010	1,120	509
13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	$1\frac{1}{8}$	29	39.75	1,010	1,340	608
13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	$1\frac{1}{8}$	29	39.75	1,010	1,370	622
16	406	21	533	1.50	38	40	1,016	20	508	$1\frac{3}{8}$	35	48	1,219	2,400	1,089
16	406	21	533	1.50	38	40	1,016	20	508	$1\frac{3}{8}$	35	48	1,219	2,620	1,189
16	406	21	533	1.50	38	40	1,016	20	508	$1\frac{3}{8}$	35	48	1,219	3,190	1,447
16	406	21	533	1.50	38	40	1,016	20	508	$1\frac{3}{8}$	35	48	1,219	3,440	1,561

J		K		L		M		N		P		R		S (hole dia.)		V		Ship Weight	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
1	25	20	508	10	254	7.56	192	0.63	16	15.75	400	7.88	200	$1\frac{9}{32}$	15	–	–	270	123
1	25	20	508	10	254	7.56	192	0.63	16	15.75	400	7.88	200	$1\frac{9}{32}$	15	–	–	300	137
1	25	20	508	10	254	7.56	192	0.63	16	15.75	400	7.88	200	$1\frac{9}{32}$	15	–	–	280	128
1	25	20	508	10	254	7.56	192	0.63	16	15.75	400	7.88	200	$1\frac{9}{32}$	15	–	–	300	137
1	25	30.50	775	15.25	387	11.50	292	1	25	24	610	12.00	305	$\frac{7}{8}$	22	–	–	550	250
1	25	30.50	775	15.25	387	11.50	292	1	25	24	610	12.00	305	$\frac{7}{8}$	22	–	–	550	250
1	25	30.50	775	15.25	387	11.50	292	1	25	24	610	12.00	305	$\frac{7}{8}$	22	–	–	700	318
1	25	30.50	775	15.25	387	11.50	292	1	25	24	610	12.00	305	$\frac{7}{8}$	22	–	–	760	345
1.25	32	26.50	673	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	$1\frac{1}{8}$	29	39.75	1,010	1,250	567
1.25	32	26.50	673	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	$1\frac{1}{8}$	29	39.75	1,010	1,360	617
1.25	32	26.50	673	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	$1\frac{1}{8}$	29	39.75	1,010	1,580	717
1.25	32	26.50	673	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	$1\frac{1}{8}$	29	39.75	1,010	1,620	735

4HPF Series Performance Characteristics

Model	Model Number Extensions			Motor	Load Rating						Line Speed			
	Load Rating	Line Speed	Motor Codes ⁵		1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum	
	(lb)	(fpm)		(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)
4HPF2M	2,000	20	D, E, F	1	2,100	953	1,300	590	1,000	454	17	5.2	38	11.6
4HPF2M	2,000	35	D, E, F	2	2,100	953	1,300	590	1,000	454	34	10.4	76	23.2
4HPF3M	3,000	20	D, E, F	1.5	3,000	1,361	2,100	953	1,600	726	19	5.8	33	10.1
4HPF3M	3,000	35	D, E, F	3	3,300	1,497	2,300	1,044	1,800	817	33	10.1	59	18.0
4HPF5M	5,000	20	D, E, F	3	5,000	2,268	3,100	1,407	2,300	1,044	22	6.7	49	14.9
4HPF5M	5,000	35	D, E, F	5	5,000	2,268	3,100	1,407	2,300	1,044	37	11.3	81	24.7
4HPF7M	7,000	25	D, E, F	5	7,300	3,312	5,400	2,450	4,300	1,951	24	7.3	40	12.2
4HPF7M	7,000	40	D, E, F	7.5	7,300	3,312	5,400	2,450	4,300	1,951	38	11.6	64	19.5
4HPF9M	9,000	20	D, E, F	5	9,000	4,083	6,500	2,949	5,100	2,314	21	6.4	37	11.3
4HPF9M	9,000	40	D, E, F	10	9,000	4,083	6,500	2,949	5,100	2,314	41	12.5	73	22.3
4HPF15M	15,000	25	D, E, F	10	14,300	6,487	10,900	4,945	8,800	3,992	26	7.9	41	12.5
4HPF15M	15,000	35	D, E, F	15	15,100	6,850	11,500	5,217	9,300	4,219	36	11.0	59	18.0
4HPF20M	20,000	20	D, E, F	10	20,100	9,118	14,100	6,396	10,800	4,899	17	5.2	31	9.4
4HPF20M	20,000	40	D, E, F	25	20,100	9,118	14,000	6,351	10,800	4,899	43	13.1	81	24.7
4HPF25M	25,000	20	D, E, F	15	25,200	11,431	19,200	8,710	15,500	7,031	20	6.1	32	9.8
4HPF25M	25,000	40	D, E, F	30	25,000	11,340	19,000	8,619	15,500	6,986	42	12.8	68	20.7
4HPF2MC ⁴	2,000	20	D, E, F	1	2,100	953	1,300	590	1,000	454	17	5.2	38	11.6
4HPF2MC ⁴	2,000	35	D, E, F	2	2,100	953	1,300	590	1,000	454	34	10.4	75	22.9
4HPF3MC ⁴	3,000	20	D, E, F	1.5	3,300	1,497	2,300	1,044	1,800	817	17	5.2	60	18.3
4HPF3MC ⁴	3,000	35	D, E, F	3	3,300	1,497	2,300	1,044	1,800	817	34	10.4	61	18.6
4HPF5MC ⁴	5,000	20	D, E, F	3	5,000	2,268	3,100	1,407	2,300	1,044	21	6.4	45	13.7
4HPF5MC ⁴	5,000	35	D, E, F	5	5,000	2,268	3,100	1,407	2,300	1,044	36	11.0	80	24.4
4HPF7MC ⁴	7,000	25	D, E, F	5	7,300	3,312	5,400	2,450	4,300	1,951	25	7.6	42	12.8
4HPF7MC ⁴	7,000	35	D, E, F	7.5	7,300	3,312	5,400	2,450	4,300	1,951	36	11.0	61	18.6
4HPF9MC ⁴	9,000	20	D, E, F	5	9,000	4,083	6,500	2,949	5,100	2,314	21	6.4	37	11.3
4HPF9MC ⁴	9,000	40	D, E, F	10	9,000	4,083	6,500	2,949	5,100	2,314	41	12.5	73	22.3
4HPF15MC ⁴	15,000	20	D, E, F	10	15,100	6,850	11,500	5,217	9,300	4,219	22	6.7	36	11.0
4HPF15MC ⁴	15,000	35	D, E, F	15	15,200	6,895	11,600	5,262	9,400	4,264	35	10.7	57	17.4

Please contact Thern or nearest Thern distributor for firm, fixed price and delivery.
⁴ Manual clutch models.

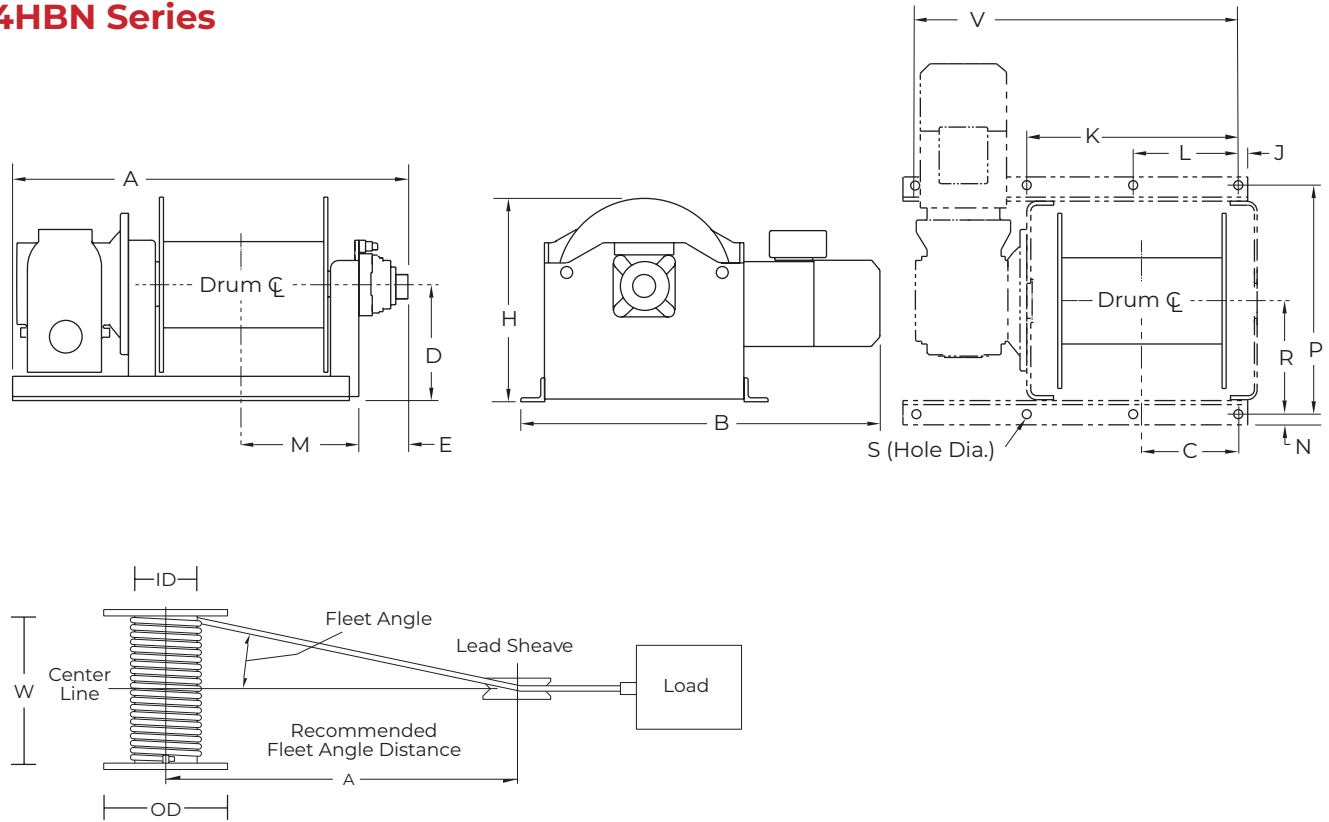
⁵

Motor Codes		
D	230 volt	3 phase
E	460 volt	3 phase
F	All other voltages, please contact Thern.	

4HBN SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

4HBN Series



4HBN Series Drum Dimensions

Model	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)		Fleet Angle Distance (A) ¹	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4HBN2M4	.5	114	12	3051	0	254	16	4.9
4HBN3M5	.5	140	12	3051	0	254	16	4.9
4HBN5M7		178	18	457	16	406	26	7.9
4HBN7M9		229	18	457	16	406	26	7.9
4HBN9M1	0.75	273	22	5592	05	08	32	9.8
4HBN15M	11.52	92	22	5592	05	08	32	9.8
4HBN20M	14	356	30	7623	07	62	481	4.6
4HBN25M	16	406	30	7623	07	62	481	4.6

¹ Recommended minimum distance between drum and lead sheave for smooth drum.

Dimensions are for reference only and subject to change without notice.
Please contact Thern for exact dimensions.

Electric Motor Controls

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
10S3D4	electric motor controls 230/3/60 to 3 hp	25	12
10S7D4	electric motor controls 230/3/60 to 7.5 hp	25	12
10S10D4	electric motor controls 230/3/60 to 10 hp	28	13
10S20D4	electric motor controls 230/3/60 to 20 hp	28	13
10S30D4	electric motor controls 230/3/60 to 30 hp	60	28
10S7E4	electric motor controls 460/3/60 to 7.5 hp	25	12
10S15E4	electric motor controls 460/3/60 to 15 hp	25	12
10S20E4	electric motor controls 460/3/60 to 20 hp	28	13
10S40E4	electric motor controls 460/3/60 to 40 hp	60	28

Controls include NEMA 4 rated enclosure and NEMA 4X rated pendant control on 50-foot cord.

Motor controls sold separately. Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery. All prices include mounting and wiring to motor.

4HBN Series Drum Capacities

Wire Rope Diameter		Breaking Strength ²		Drum Capacity	4HBN2M		4HBN3M		4HBN5M		4HBN7M		4HBN9M		4HBN15M		4HBN20M		4HBN25M	
(in)	(mm)	(lb)	(kg)		(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
¼	6.4	7,000 ³	3,175	1st	43	13.1	51	15.5	–	–	–	–	–	–	–	–	–	–	–	–
				Mid	370	112.8	340	103.6	–	–	–	–	–	–	–	–	–	–	–	–
				Full	830	253.0	750	228.6	–	–	–	–	–	–	–	–	–	–	–	–
⅓	7.9	9,800 ³	4,445	1st	34	10.4	41	12.5	87	26.5	–	–	–	–	–	–	–	–	–	–
				Mid	250	76.2	230	70.1	950	289.6	–	–	–	–	–	–	–	–	–	–
				Full	560	170.7	500	152.4	2,120	646.2	–	–	–	–	–	–	–	–	–	–
½	9.7	15,100	6,849	1st	27	8.2	33	10.1	70	21.3	–	–	–	–	–	–	–	–	–	–
				Mid	180	54.9	160	48.8	680	207.3	–	–	–	–	–	–	–	–	–	–
				Full	400	121.9	360	109.7	1,520	463.3	–	–	–	–	–	–	–	–	–	–
⅝	11.2	20,400	9,254	1st	23	7	28	8.5	60	18.3	76	23.2	–	–	–	–	–	–	–	–
				Mid	130	39.6	120	36.6	510	155.4	450	137.2	–	–	–	–	–	–	–	–
				Full	300	91.4	270	82.3	1,140	347.5	990	301.8	–	–	–	–	–	–	–	–
¾	12.7	26,600	12,066	1st	–	–	–	–	52	15	66	20.1	–	–	–	–	–	–	–	–
				Mid	–	–	–	–	400	121	350	106.7	–	–	–	–	–	–	–	–
				Full	–	–	–	–	890	271	770	234.7	–	–	–	–	–	–	–	–
⅞	14.2	33,600	15,240	1st	–	–	–	–	46	14.0	58	17.7	89	27.1	–	–	–	–	–	–
				Mid	–	–	–	–	320	97.5	280	85.3	540	164.6	–	–	–	–	–	–
				Full	–	–	–	–	710	216.4	620	189	1,210	368.8	–	–	–	–	–	–
1	16.0	41,200	18,688	1st	–	–	–	–	–	–	51	15.5	78	23.8	84	25.6	–	–	–	–
				Mid	–	–	–	–	–	–	230	70.1	440	134.1	420	128	–	–	–	–
				Full	–	–	–	–	–	–	510	155.5	990	301.8	940	286.5	–	–	–	–
1-¼	19.1	58,800	26,671	1st	–	–	–	–	–	–	–	–	65	19.8	69	21	130	39.6	–	–
				Mid	–	–	–	–	–	–	–	–	310	94.5	300	91.4	930	283.5	–	–
				Full	–	–	–	–	–	–	–	–	700	213.4	660	201.2	2,070	630.9	–	–
1-½	22.4	79,600	36,106	1st	–	–	–	–	–	–	–	–	54	16.5	57	17.4	110	33.5	–	–
				Mid	–	–	–	–	–	–	–	–	230	70.1	210	64	670	204.2	–	–
				Full	–	–	–	–	–	–	–	–	500	152.4	480	146.3	1,490	454.2	–	–
1-¾	25.4	103,400	46,902	1st	–	–	–	–	–	–	–	–	47	14.3	57	17.4	97	29.6	110	33.5
				Mid	–	–	–	–	–	–	–	–	180	54.9	210	64	520	158.5	470	143.3
				Full	–	–	–	–	–	–	–	–	390	118.9	480	146.3	1,160	353.6	1,050	320
1-⅞	28.7	130,000	58,968	1st	–	–	–	–	–	–	–	–	–	–	–	–	85	25.9	96	29.3
				Mid	–	–	–	–	–	–	–	–	–	–	–	–	420	128	380	115.8
				Full	–	–	–	–	–	–	–	–	–	–	–	–	920	280.4	840	256
2	31.8	159,800	72,485	1st	–	–	–	–	–	–	–	–	–	–	–	–	76	23.2	86	26.2
				Mid	–	–	–	–	–	–	–	–	–	–	–	–	330	100.6	300	91.4
				Full	–	–	–	–	–	–	–	–	–	–	–	–	740	225.6	670	204.2
2-¼	34.9	192,000	87,090	1st	–	–	–	–	–	–	–	–	–	–	–	–	68	20.7	76	23.2
				Mid	–	–	–	–	–	–	–	–	–	–	–	–	280	85.3	250	76.2
				Full	–	–	–	–	–	–	–	–	–	–	–	–	610	185.9	560	170.7
2-½	38.1	228,000	103,420	1st	–	–	–	–	–	–	–	–	–	–	–	–	–	–	69	21
				Mid	–	–	–	–	–	–	–	–	–	–	–	–	–	–	210	64
				Full	–	–	–	–	–	–	–	–	–	–	–	–	–	–	470	143.3

² Values based on 6x37 IWRC EIPS wire rope.

³ Values based on 7x19 galvanized aircraft cable.

Actual drum capacities 25–30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.

Wire rope should be selected based on the breaking strength to load rating ratio and application parameters. Industry standards suggest a 5:1 breaking strength to load rating ratio for lifting and a 3:1 ratio for pulling.

4HBN Series Winch Dimensions

Model/A			B		C		DE				H		JK			
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4HBN2M	VARIES	VARIES	VARIES	VARIES	61	52	82	03	2.25	57	14	356	12	52	05	08
4HBN3M	VARIES	VARIES	VARIES	VARIES	61	52	82	03	2.38	60	14	356	12	52	05	08
4HBN5M	VARIES	VARIES	VARIES	VARIES	9.63	2441	23	05	5.13	130	21	533	12	53	0.5	775
4HBN7M	VARIES	VARIES	VARIES	VARIES	9.63	2441	2	305	5.19	132	21	533	12	53	0.5	775
4HBN9M	49.75	1,263.75	VARIES	VARIES	12	305	14.5	368	6.25	159	25.5	6481	.253	2	26.5	673
4HBN15M	VARIES	VARIES	VARIES	VARIES	12	3051	4.5	368	6.25	159	VARIES	VARIES	1.25	32	26.5	673
4HBN20M	VARIES	VARIES	VARIES	VARIES	18.884	79	19.5	4956	.191	57	34.25	8761	.5	38	32	8131
4HBN25M	VARIES	VARIES	VARIES	VARIES	18.884	79	19.5	4956	.191	57	VARIES	VARIES	1.53	83	28	13

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

LM				NP				S (hole dia.)		V		Ship Weight	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
10	254	7.56	1920	.631	61	5.75	400	¹⁹ / ₃₂	15	—		VARIES	VARIES
10	254	7.56	1920	.631	61	5.75	400	¹⁹ / ₃₂	15	—		VARIES	VARIES
15.253	88	11.5	292	12	52	46	10	⁷ / ₈	22	—		VARIES	VARIES
15.253	88	11.5	292	12	52	46	10	⁷ / ₈	22	—		VARIES	VARIES
13.25	337	14.5	368	1.13	29	28.75	730	1 ¹ / ₈	29	39.75	1,010	VARIES	VARIES
13.25	337	14.5	368	1.13	29	28.75	730	1 ¹ / ₈	29	39.75	1,010	VARIES	VARIES
6	406	21.565	48	1.53	84	01	,016	1 ³ / ₈	35	48	1,219	VARIES	VARIES
16	406	21.565	48	1.53	84	01	,016	1 ³ / ₈	35	48	1,219	VARIES	VARIES

VERTICAL LEAD BLOCKS

THE REDLINE SERIES

Vertical Lead Block Performance

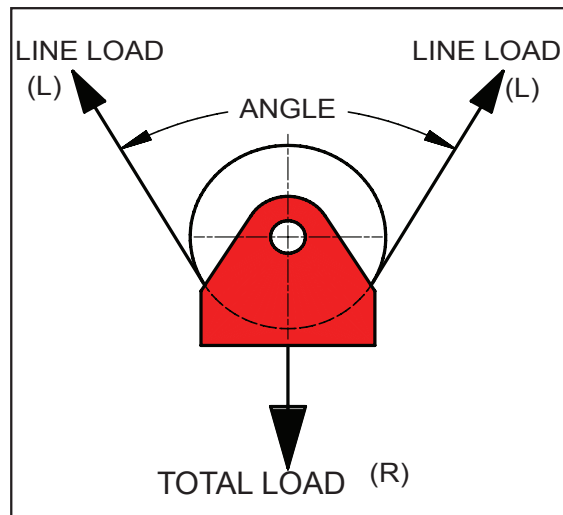
Model	Sheave Outer Diameter		Rope Diameter		Total Working Load Limit, R		Total Working Load Limit, L		Finish
	(in)	(mm)	(in)	(mm)	(lbs)	(kg)	(lbs)	(kg)	
VLB-G25	4.5	114	1/4	6	4000	1814	2000	907	Powder Coat
VLB-G31	6	152	5/16	8	6000	2722	3000	1361	Powder Coat
VLB-G38	7	178	3/8	10	9600	4354	4800	2177	Powder Coat
VLB-G44	8	203	7/16	11	11,600	5262	5800	2631	Powder Coat
VLB-G50	9	229	1/2	13	14,000	6350	7000	3175	Powder Coat

Vertical Lead Block Mounting Fasteners

Model Number	
VLB-G257	/16 inch Grade 5 min or M12 grade 8.8 min
VLB-G311	/2 inch Grade 5 min or M12 grade 8.8 min
VLB-G385	/8 inch Grade 5 min or M16 grade 8.8 min
VLB-G443	/4 inch Grade 5 min or M20 grade 8.8 min
VLB-G503	/4 inch Grade 5 min or M20 grade 8.8 min

Vertical Lead Block Load Factor Table

ANGLE (DEGREES)	FACTOR (K)
02	.00
10	1.99
20	1.97
30	1.93
40	1.87
45	1.84
50	1.81
60	1.73
70	1.64
80	1.53
90	1.41
100	1.29
110	1.15
120	1.00
130	0.84
135	0.76
140	0.68
150	0.52
160	0.35
170	0.17
180	0.00



When in service the Line Load Limit must not be exceeded. To calculate an applied Line Load from a known Total Load, the following formula can be used:

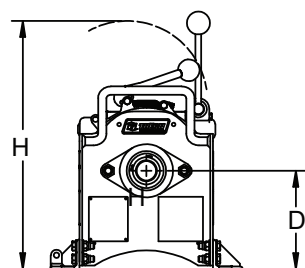
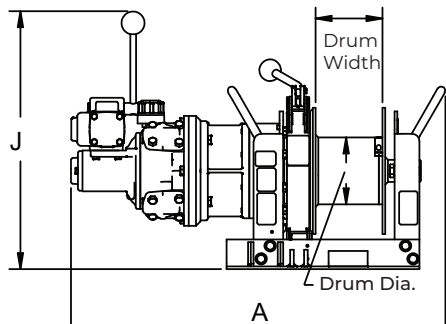
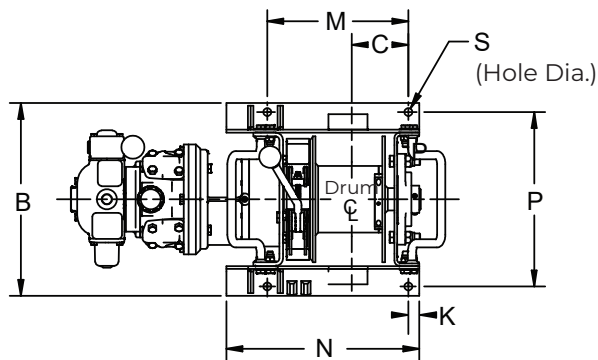
$$\text{Line Load} = \text{Total Load} / K$$

***IMPORTANT:** The applied Line Load must also not exceed the level appropriate for the utilized rope.

MINI TA SERIES

AIR WINCHES

Model MTA1000



MTA1000 Load Rating

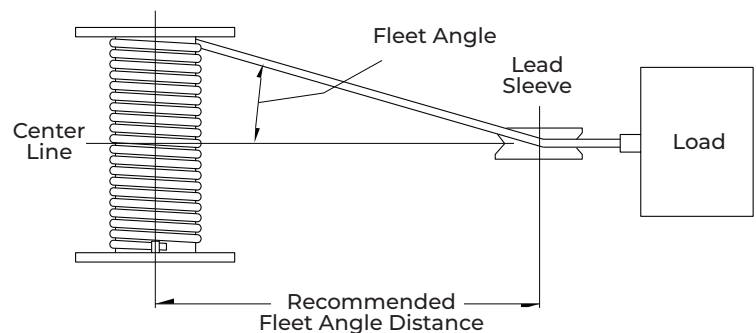
Load Rating 1st Layer	1,400 lb	635 kg
Load Rating Mid Drum	1,000 lb	453 kg
Load Rating Full Drum	800 lb	362 kg
Line Speed 1st Layer*	30 fpm	9 m/min
Line Speed Mid Drum*	41 fpm	12.5 m/min
Line Speed Full Drum*	52 fpm	15.8 m/min
Input HP	1.35 hp	1.0 kw
Max. Stall Pull 1st Layer**	2,600 lbs	1,179 kg
Pressure	90 psi	6.2 bar
Flow	60 scfm	1.69 m3/min
Pipe Inlet Size	0.5 in	12.7 mm
Hose Size	.75 in	19.0 mm

* Line speeds are estimated values based on testing and may vary based on conditions of air supply. Speeds shown are at max line pull.

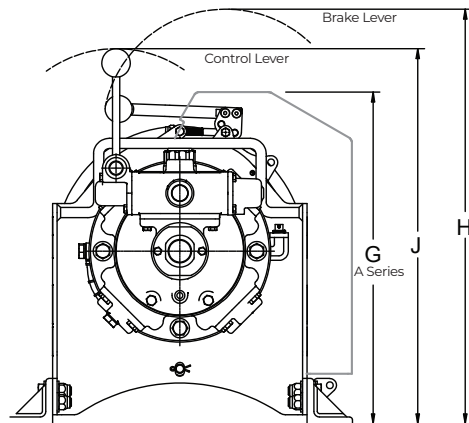
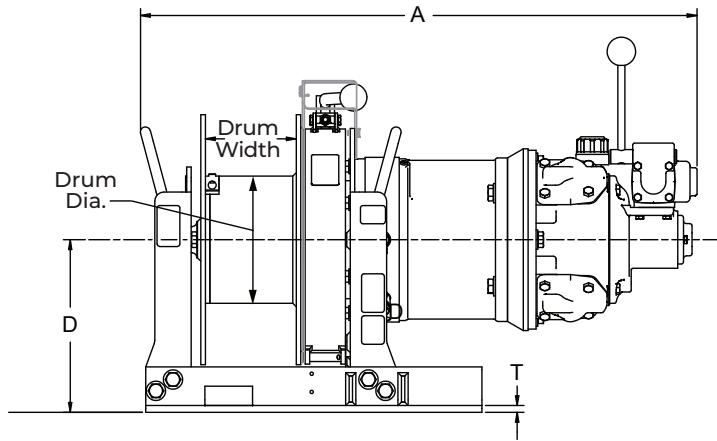
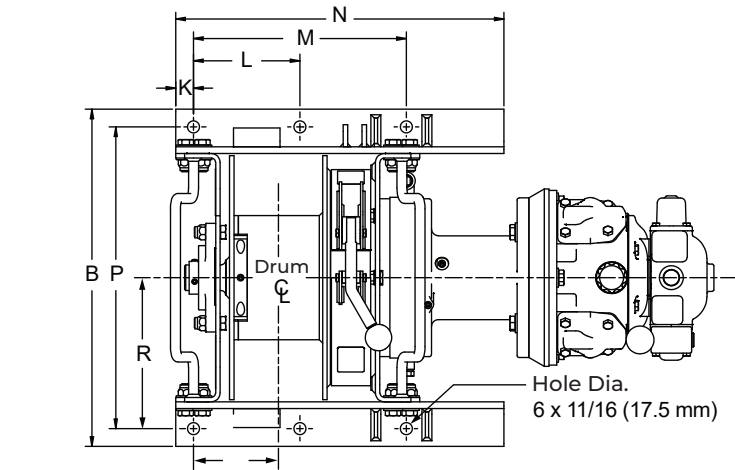
** Estimated value

MTA1000 & MTA2000 Minimum Fleet Angle Distances

Model	Drum Diameter		Flange Diameter		Drum Width		Fleet Angle Distance	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
MTA1000	4.5	114	8.5	216	4.5	114	7.16	2.18
MTA2000-5	7	177.8	13.75	349	5.0	127	7.95	2.4
MTA2000-13	7	177.8	13.75	349	13.0	330	20.67	6.3



Model MTA2000



MTA2000 Load Rating

Load Rating 1st Layer	2,700 lb	1,224 kg
Load Rating Mid Drum	2,000 lb	907 kg
Load Rating Full Drum	1,600 lb	725 kg
Line Speed 1st Layer*	40 fpm	12.2 m/min
Line Speed Mid Drum*	54 fpm	16.4 m/min
Line Speed Full Drum*	67 fpm	20.4 m/min
Input HP	3.5 hp	2.6 kw
Max. Stall Pull 1st Layer**	5,800 lbs	2,630 kg
Pressure	90 psi	6.2 bar
Flow	140 scfm	3.96 m3/min
Pipe Inlet Size	0.75 in	19.0 mm
Hose Size	1.0 in	25.4 mm

* Line speeds are estimated values based on testing and may vary based on conditions of air supply. Speeds shown are at max line pull.

** Estimated value

MTA1000 Drum Capacities

Drum Width		4.5 in (114 mm)							
Rope Diameter		Breaking Strength*		1st Layer		Mid Drum		Full Drum	
(in)	(mm)	(lb)	(kg)	(ft)	(m)	(ft)	(m)	(ft)	(m)
1/4	6.35	7,000	3,175	16	4.8	87	26.5	190	57.9

* Values based on 7x19 galvanized aircraft cable wire rope.

MTA2000 Drum Capacities*

Drum Width		Rope Diameter		Breaking Strength**		1st Layer		Mid Drum		Full Drum	
(in)	(mm)	(in)	(mm)	(lb)	(kg)	(ft)	(m)	(ft)	(m)	(ft)	(m)
5	127	3/8	9.5	15,100	6,849	17	5.1	100	30.4	220	67
13	330	3/8	9.5	15,100	6,849	55	16.7	260	79.2	580	176

* Drum capacity is based on a drum flange clearance at the top layer per ASME B30.7.

** Values based on 6x37 IWRC EIPS wire rope.

MTA1000 Series Winch Dimensions

Model	A		B		C		D		H		J		K		M		N	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
MTA1000 4M1	25.25	641	13	330	3.81	97	6.625	168	16.75	425	17.375	441	0.75	19	9.5	241	13	330
MTA1000 4A1	25.25	641	13	330	3.81	97	6.625	168	-	-	17.375	441	0.75	19	9.5	241	13	330
MTA1000 4A3	25.25	641	13	330	3.81	97	6.625	168	-	-	-	-	0.75	19	9.5	241	13	330

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

MTA2000 Series Winch Dimensions

Model	A		B		C		D		E		H		J		K	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
MTA2000-5M1	30.625	778	19	482	4.781	121	9.5	241	-	-	22.8	579	20.625	524	1.0	25.4
MTA2000-5A1	30.625	778	19	482	4.781	121	9.5	241	18.25	463	-	-	20.625	524	1.0	25.4
MTA2000-5A3	30.625	778	19	482	4.781	121	9.5	241	18.25	463	-	-	-	-	1.0	25.4
MTA2000-13M1	30.625	778	19	482	8.781	223	9.5	241	-	-	22.8	579	20.625	524	1.0	25.4
MTA2000-13A1	30.625	778	19	482	8.781	223	9.5	241	18.25	463	-	-	20.625	524	1.0	25.4
MTA2000-13A3	30.625	778	19	482	8.781	223	9.5	241	18.25	463	-	-	-	-	1.0	25.4

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

P		S (hole dia.)		Ship Wt.	
(in)	(mm)	(in)	(mm)	(lb)	(kg)
11.75	298	.56	14	124	56
11.75	298	.56	14	133	60
11.75	298	.56	14	153	69

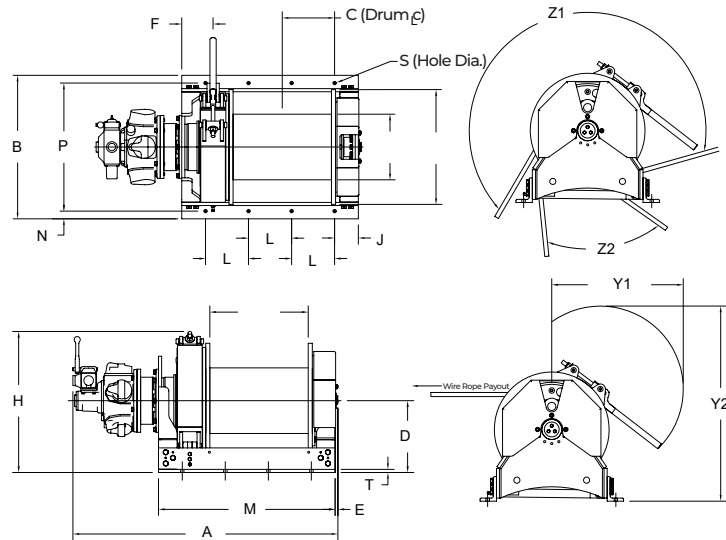
L		M		N		P		S (hole dia.)		T		Ship Weight	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
6	152	12	305	18.5	470	17	432	.6875	17.5	.375	9.5	282	128
6	152	12	305	18.5	470	17	432	.6875	17.5	.375	9.5	294	134
6	152	12	305	18.5	470	17	432	.6875	17.5	.375	9.5	315	143
10	254	20	508	26.5	673	17	432	.6875	17.5	.375	9.5	320	145
10	254	20	508	26.5	673	17	432	.6875	17.5	.375	9.5	332	151
10	254	20	508	26.5	673	17	432	.6875	17.5	.375	9.5	353	160

TECHNICAL DRAWINGS & SPECIFICATIONS

BIG RED SERIES

AIR WINCHES

**Model TA2 Series,
TA2H Series,
TA2.5 Series,
TA5 Series, and
TA7 Series**



BIG RED TA Series UTILITY RATED Air Winch Performance Characteristics

	TA2 Series		TA2H Series		TA2.5 Series		TA5 Series		TA7 Series	
Load Rating 1st Layer	7,200 lb	3,265 kg	3,600 lb	1,632 kg	7,200 lb	3,265 kg	18,000 lb	8,164 kg	23,600 lb	10,704 kg
Load Rating Mid Drum	5,700 lb	2,585 kg	2,900 lb	1,315 kg	5,900 lb	2,676 kg	14,000 lb	6,350 kg	19,000 lb	8,618 kg
Load Rating Full Drum	4,700 lb	2,131 kg	2,400 lb	1,088 kg	5,000 lb	2,268 kg	11,500 lb	5,216 kg	15,900 lb	7,212 kg
Line Speed 1st Layer *	30 fpm	9.1 m/min	61 fpm	18.6 m/min	79 fpm	24.1 m/min	30 fpm	9.1 m/min	19 fpm	5.8 m/min
Line Speed Mid Drum *	38 fpm	11.6 m/min	77 fpm	23.5 m/min	96 fpm	29.3 m/min	39 fpm	11.9 m/min	24 fpm	7.3 m/min
Line Speed Full Drum *	46 fpm	14.0 m/min	94 fpm	28.7 m/min	114 fpm	34.7 m/min	47 fpm	14.3 m/min	29 fpm	8.8 m/min
Input HP	7.1 hp	7.1 hp	7.1 hp	7.1 hp	18.3 hp	18.3 hp	17.8 hp	17.8 hp	14.4 hp	14.4 hp
Max. Stall Pull 1st Layer	9,000 lb	4,082 kg	4,500 lb **	2,041kg **	11,000 lb	4,989 kg	33,000 lb	14,968 kg	38,000 lb	17,236 kg
Pressure	90 psi	6.3 kgf/cm2	90 psi	6.3 kgf/cm2	90 psi	6.3 kgf/cm2	90 psi	6.3 kgf/cm2	90 psi	6.3 kgf/cm2
Flow	250 scfm	7.0 m3/min	250 scfm	7.0 m3/min	600 scfm	17.0 m3/min	550 scfm	15.6 m3/min	550 scfm	15.6 m3/min
Pipe Inlet Size	1 in	25.4 mm	1 in	25.4 mm	1.5 in	38.1 mm	1.5 in	38.1 mm	1.5 in	38.1 mm
Hose Size	1.25 in	31.8 mm	1.25 in	31.8 mm	1.5 in	38.1 mm	1.5 in	38.1 mm	1.5 in	38.1 mm

* Line speeds vary based on conditions of air supply. Line speeds may run up to 20% slower when configured with auto band brakes.

** Estimated value

BIG RED TA Series UTILITY RATED Air Winch Drum Capacities*

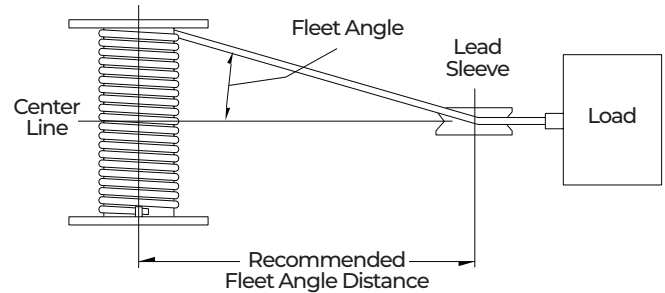
Model	Wire Rope		Drum Width											
			16 in (407 mm)				24 in (610 mm)				30 in (762 mm)			
	Diameter	Breaking Strength**	1st Layer	Mid Drum	Full Drum	1st Layer	Mid Drum	Full Drum	1st Layer	Mid Drum	Full Drum	1st Layer	Mid Drum	Full Drum
	(in) (mm)	(lb) (kg)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)
TA2	0.5 12.7	26,600 12,065	83 25	380 115	850 259	130 39	570 173	1,270 387	—	—	—	—	—	—
TA2H	0.5 12.7	26,600 12,065	83 25	380 115	850 259	130 39	570 173	1,270 387	—	—	—	—	—	—
TA2.5	0.63 16.0	41,200 18,688	71 21	260 79	580 176	110 33	390 118	860 262	—	—	—	—	—	—
TA5	0.75 19.1	58,800 26,671	72 21	360 109	810 246	120 36	550 167	1,210 368	150 45	680 207	1,520 463	—	—	—
TA7	0.88 22.4	79,600 36,106	—	—	—	120 36	520 158	1,150 350	160 48	650 198	1,440 438	190 57	780 237	1,730 527

* Drum capacity is based on a drum flange clearance at the top layer per ASME B30.7

** Values based on 6x37 IWRC EIPS wire rope.

Minimum Fleet Angle Distances

Model	Drum Diameter		Flange Diameter		Drum Width		Fleet Angle Distance	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
TA2-16	11.50	292	20	508	16	406	26	8
TA2-24	11.50	292	20	508	24	610	39	12
TA2H-16	11.50	292	20	508	16	406	26	8
TA2H-24	11.50	292	20	508	24	610	39	12
TA2.5-16	12.75	324	21	533	16	406	26	8
TA2.5-24	12.75	324	21	533	24	610	39	12
TA5-16	16	406	28	711	16	406	26	8
TA5-24	16	406	28	711	24	610	39	12
TA5-30	16	406	28	711	30	762	48	15
TA7-24	20	508	33	838	24	610	39	12
TA7-30	20	508	33	838	30	762	48	15
TA7-36	20	508	33	838	36	914	58	18



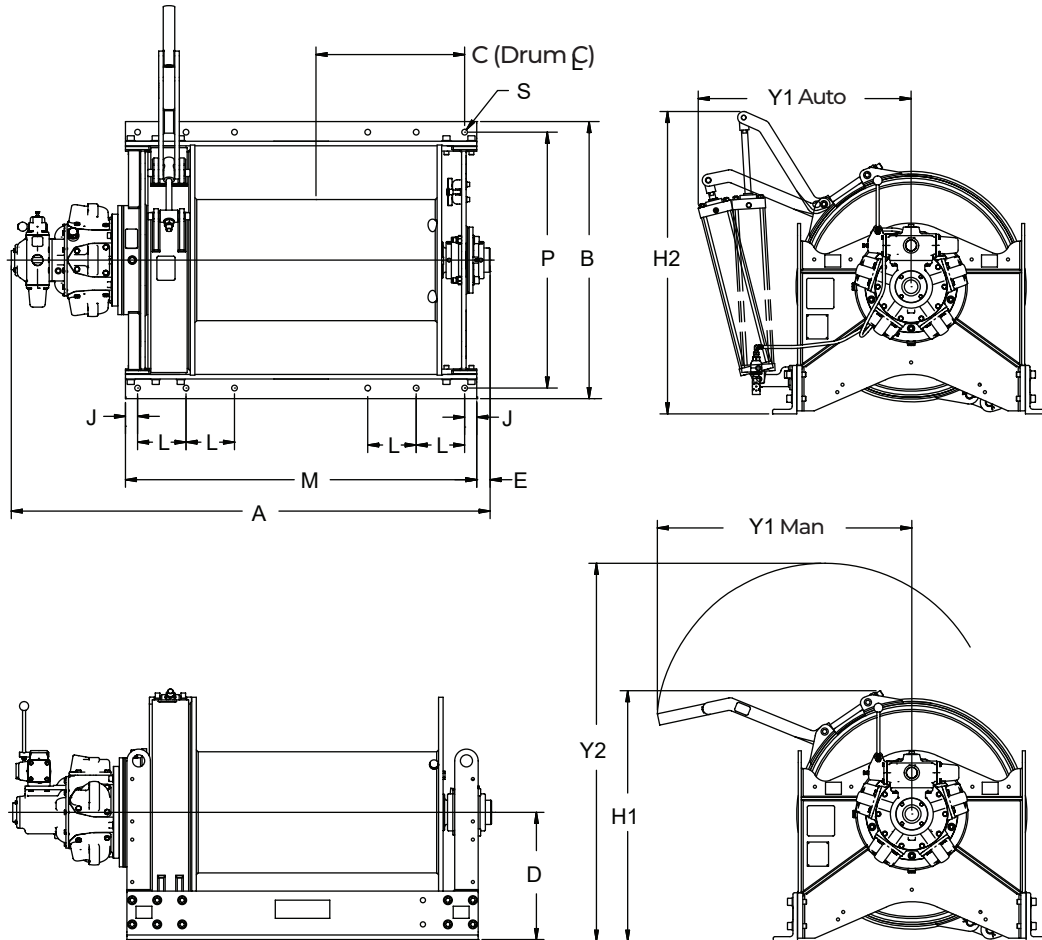
BIG RED TA Series UTILITY RATED Air Winch Dimensions

Model	A		B		C		D		E		F		H		J		L	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
TA2-16	44	1,118	24	610	9.06	230	14	356	0.54	14	5.25	133	28.50	724	2.88	73	7.50	191
TA2-24	52	1,321	24	610	12.81	325	14	356	0.54	14	5.25	133	28.50	724	3.13	80	10	254
TA2H-16	44	1,118	24	610	9.06	230	14	356	0.54	14	5.25	133	28.50	724	2.88	73	7.50	191
TA2H-24	52	1,321	24	610	12.81	325	14	356	0.54	14	5.25	133	28.50	724	3.13	80	10	254
TA2.5-16	50	1,270	24	610	9	229	14	356	0.73	19	5.25	133	30	762	2.88	73	7.50	191
TA2.5-24	58	1,473	24	610	12.75	324	14	356	0.73	19	5.25	133	30	762	3.13	80	10	254
TA5-16	57	1,448	35	889	10.53	267	17.50	445	0.68	17	7.75	197	34.50	876	4.03	102	9	229
TA5-24	65	1,651	35	889	12.78	325	17.50	445	0.68	17	7.75	197	34.50	876	5.78	147	10.5	267
TA5-30	71	1,803	35	889	17.03	433	17.50	445	0.68	17	7.75	197	34.50	876	4.53	115	10	254
TA7-24	69	1,753	38	965	15.41	391	20	508	1	25	9.25	235	37	940	5.38	137	9	229
TA7-30	75	1,905	38	965	17.41	442	20	508	1	25	9.25	235	37	940	6.38	162	10	254
TA7-36	81	2,057	38	965	19.41	493	20	508	1	25	9.25	235	37	940	7.38	187	11	279

	M		N		P		S (hole dia.)		T		Y1		Y2		Z1	Z2	Bolts	Bolt Size	Weight *	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(degrees)	(degrees)	(qty)	(in - G8)	(lb)	(kg)
TA2-16	28.5	724	2	51	20	508	0.69	18	0.50	13	20	508	37	940	223	34	8	5/8	990	450
TA2-24	36.5	927	2	51	20	508	0.69	18	0.50	13	20	508	37	940	223	34	8	5/8	1,080	490
TA2H-16	28.5	724	2	51	20	508	0.69	18	0.50	13	20	508	37	940	223	34	8	5/8	990	450
TA2H-24	36.5	927	2	51	20	508	0.69	18	0.50	13	20	508	37	940	223	34	8	5/8	1,080	490
TA2.5-16	28.5	724	2	51	20	508	0.69	18	0.50	13	20	508	37	940	228	27	8	5/8	1,315	597
TA2.5-24	36.5	927	2	51	20	508	0.69	18	0.50	13	20	508	37	940	228	27	8	5/8	1,400	636
TA5-16	35.5	902	1.88	48	31.25	794	0.81	21	0.75	19	32.5	826	48	1,219	224	50	8	3/4	2,585	1,173
TA5-24	43.5	1,105	1.88	48	31.25	794	0.81	21	0.75	19	32.5	826	48	1,219	224	50	8	3/4	2,745	1,246
TA5-30	49.5	1,257	1.88	48	31.25	794	0.81	21	0.75	19	32.5	826	48	1,219	224	50	10	3/4	2,870	1,302
TA7-24	47	1,194	1.88	48	34.25	870	0.94	24	0.75	19	32	813	51	1,295	210	39	10	7/8	3,600	1,633
TA7-30	53	1,346	1.88	48	34.25	870	0.94	24	0.75	19	32	813	51	1,295	210	39	10	7/8	3,765	1,708
TA7-36	59	1,499	1.88	48	34.25	870	0.94	24	0.75	19	32	813	51	1,295	210	39	10	7/8	3,965	1,799

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

Model TA10 Series



BIG RED TA10 Series Performance Characteristics

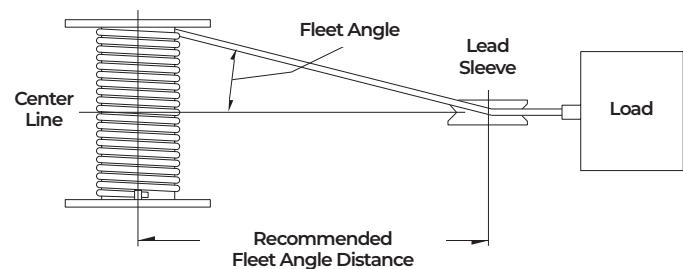
TA10 Series		
Load Rating 1st Layer	37,000 lb	16,783 kg
Load Rating Mid Drum	27,400 lb	12,428 kg
Load Rating Full Drum	21,800 lb	9,888 kg
Line Speed 1st Layer *	20 fpm	6.1 m/min
Line Speed Mid Drum *	27 fpm	8.2 m/min
Line Speed Full Drum *	34 fpm	10.4 m/min
Input HP	27 hp	27 hp
Max. Stall Pull 1st Layer	63,000 lb **	28,576 kg
Pressure	90 psi	6.3 kgf/cm ²
Flow	900 scfm	25 m ³ /min
Pipe Inlet Size	1.5 in	38.1 mm
Hose Size	1.5 in	38.1 mm

* Line speeds vary based on conditions of air supply. Line speeds may run up to 20% slower when configured with auto band brakes.

** Estimated value

BIG RED TA10 Series Fleet Angle Requirements

Model	Drum Diameter		Flange Diameter		Drum Width		Fleet Angle Distance	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
TA10-30	20	508	38	965	30	762	48	15
TA10-40	20	508	38	965	40	1,016	64	20
TA10-60	20	508	38	965	60	1,524	95	29



BIG RED TA10 Series Air Winch Drum Capacities*

Model	Wire Rope				Drum Width																	
					30 in (762 mm)						40 in (1,016 mm)						60 in (1,524 mm)					
	Diameter		Breaking Strength**		1st Layer		Mid Drum		Full Drum		1st Layer		Mid Drum		Full Drum		1st Layer		Mid Drum		Full Drum	
	(in)	(mm)	(lb)	(kg)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
TA10	1-1/8	28.7	130,000	58,968	120	36	620	188	1,390	423	160	48	830	252	1,850	563	260	79	1,250	381	2,780	847

* Drum capacity is based on a drum flange clearance at the top layer per ASME B30.7 ** Values based on 6x37 IWRC EIPS wire rope.

BIG RED TA10 Series Air Winch Dimensions

Model	A		B		C		D		E		H1		H2		J		L	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
TA10-30	69	1,753	45.75	1,162	19.5	495	21	533	2.25	57	41.50	1,054	50	1,270	2	51	8	203
TA10-40	79	2,007	45.75	1,162	24.5	622	21	533	2.25	57	41.50	1,054	50	1,270	2	51	8	203
TA10-60	99	2,515	45.75	1,162	34.5	876	21	533	2.25	57	41.50	1,054	50	1,270	2	51	8	203

	M		P		S (hole diameter)		Y1 (man)		Y1 (auto)		Y2		# Bolts	Bolt Size	Weight *	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)		(in)	(lb)	(kg)
TA10-30	48	1,219	42.25	1,073	.94	24	42	1,067	35.25	895	62.5	1,588	12	7/8 - G8	3,220	1,461
TA10-40	58	1,473	42.25	1,073	.94	24	42	1,067	35.25	895	62.5	1,588	12	7/8 - G8	3,515	1,595
TA10-60	78	1,981	42.25	1,073	.94	24	42	1,067	35.25	895	62.5	1,588	12	7/8 - G8	4,105	1,862

* Weights based on MX1 configuration. Weights subject to change with configurations. Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

FIRST MATE®

PORTABLE DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5PF5-M1	up to 850 lb capacity with M4022PB spur gear hand winch—powder-coat crane	76	34
5PF5G-M1	up to 850 lb capacity with M4022PB spur gear hand winch—galvanized crane	76	34
5PF5-M2	up to 850 lb capacity with 4WM2-K worm gear hand winch—powder-coat crane	101	46
5PF5G-M2	up to 850 lb capacity with 4WM2-K worm gear hand winch—galvanized crane	101	46
5PF5S-M3	up to 850 lb capacity with M4042PBSS spur gear hand winch—stainless-steel crane	83	38
5PF5-E2	up to 850 lb capacity with 4WP2-K electric winch—powder-coat crane	144	65
Crane Only			
5PF5	up to 850 lb capacity—base model—powder-coat finish	59	27
5PF5G	up to 850 lb capacity—base model—galvanized finish	59	27
5PF5S	up to 850 lb capacity—base model—304 stainless-steel finish	59	27
5PF5S316	up to 850 lb capacity—base model—316 stainless-steel finish	59	27
5PF5X	up to 850 lb capacity—base model—epoxy-gray finish	59	27
Winch Only			
M1	M4022PB—spur gear hand winch only—zinc plated	17	8
M2	4WM2-K—worm gear hand winch only—powder coat	42	19
M2X	4WM2EGRA-K—worm gear hand winch only—epoxy gray	42	19
M3	M4042PBSS—spur gear hand winch only—stainless steel	24	11
E2	4WP2-K electric winch—115/1/60 VAC with 6 ft pendant control—enamel	85	39
E2X	4WP2EGRA-K electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	85	39
E4	4777-K electric winch—115/1/60 VAC with 6 ft pendant control—enamel	110	50
E4X	4777EGRA-K electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	110	50
E4DC	4777DC-K electric winch—12 volt DC with 10 ft pendant control—enamel	105	48
E4DCX	4777DCEGRA-K electric winch—12 volt DC with 10 ft pendant control—epoxy gray	105	48

Independent Bases—sold separately

Pedestal, socket (flush-mount), or wall-mount style.

Wheel base for floor crane operation. Base includes stationary front wheels and rear caster wheels for 360° maneuverability. See Model 5BR5.

IMPORTANT: Base installation is the purchaser's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.

Wire Rope Assemblies—sold separately

Galvanized or stainless steel wire rope assemblies with swaged-ball fitting to work with the quick-disconnect anchor on the winch. See wire rope page for stainless steel and additional wire rope options.

Finishes	MODELS				
	Pedestal	Flush	Wall	Wheel	Extension
Powder Coat Paint	5BP5	5BF5	5BW5	5BR5	5BE5-15
Galvanized	5BP5G	5BF5G	5BW5G	–	5BE5-15G
304 Stainless Steel	5BP5S	5BF5S	5BW5S	–	5BE5-15S
316 Stainless Steel	5BP5S316	5BF5S316	5BW5S316	–	5BE5-15S316
Epoxy Paint	5BP5X	5BF5X	5BW5X	5BR5X	5BE5-15X
Approximate Ship Weight	21 lbs (9.5 kg)	21 lbs (9.5 kg)	23 lbs (10.4 kg)	77 lbs (35 kg)	17 lbs (7.7 kg)



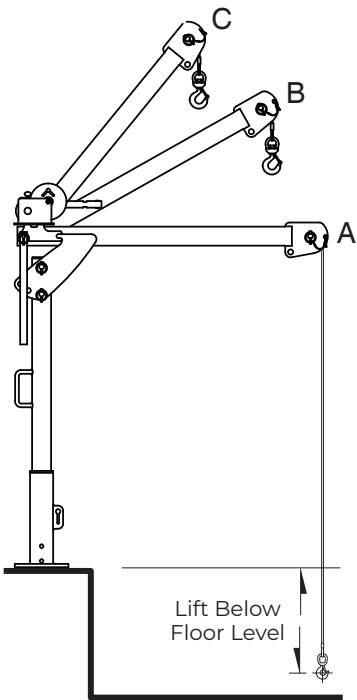
Wire Rope Length		Galvanized Aircraft Cable		304 Stainless Steel Wire Rope	
		3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)	3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.
20	6.0	WA19-20NS	WA25-20NS	WS19-20NS	WS25-20NS
28	8.5	WA19-28NS	WA25-28NS	WS19-28NS	WS25-28NS
36	10.9	WA19-36NS	WA25-36NS	WS19-36NS	WS25-36NS
45	13.7	WA19-45NS	WA25-45NS	WS19-45NS	WS25-45NS
60	18.2	WA19-60NS	WA25-60NS	WS19-60NS	WS25-60NS
75	22.8	WA19-75NS	WA25-75NS	WS19-75NS	WS25-75NS
90	27.4	WA19-90NS	–	WS19-90NS	–

PERFORMANCE

First Mate 5PF5 Series Performance¹
Lift Below Floor Level with Pedestal Base

Lift Below Floor ²				Wire Rope Diameter		Wire Rope Length		Winch Configurations Maximum Winch Rating									
Minimum (C)		Maximum (A)						M1		M2		M3		E2		E4	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
6	1.8	9	2.7	3/16"	5	20	6.0	850	385	–	–	850	385	–	–	850	385
14	4.2	17	5.1	3/16"	5	28	8.5	750	340	–	–	850	385	–	–	850	385
22	6.7	25	7.6	3/16"	5	36	10.9	660	299	–	–	850	385	–	–	850	385
31	9.4	34	10.3	3/16"	5	45	13.7	600	272	–	–	810	367	–	–	850	385
46	14.0	49	14.9	3/16"	5	60	18.2	–	–	–	–	740	335	–	–	850	385
61	18.5	64	19.5	3/16"	5	75	22.8	–	–	–	–	690	312	–	–	850	385
76	23.1	79	24.0	3/16"	5	90	27.4	–	–	–	–	640	290	–	–	850	385
106	32.3	109	33.2	3/16"	5	120	36.5	–	–	–	–	–	–	–	–	850	385
6	1.8	9	2.7	1/4"	6	20	6.0	–	–	850	385	850	385	850	385	850	385
14	4.2	17	5.1	1/4"	6	28	8.5	–	–	850	385	830	376	850	385	850	385
22	6.7	25	7.6	1/4"	6	36	10.9	–	–	850	385	740	335	850	385	850	385
31	9.4	34	10.3	1/4"	6	45	13.7	–	–	850	385	740	335	850	385	850	385
46	14.0	49	14.9	1/4"	6	60	18.2	–	–	850	385	–	–	850	385	850	385
61	18.5	64	19.5	1/4"	6	75	22.8	–	–	850	385	–	–	850	385	850	385
For longer lifts, please contact factory.																	

¹ Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
² Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.



Winch Configurations



First Mate Performance Ratings with Pedestal Base¹

Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A	500	226	42	1,066	40	1,016
B	600	272	35	889	60	1,524
C	850	385	27	609	70	1,778

¹ Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
Dimensions are for reference only and subject to change without notice.

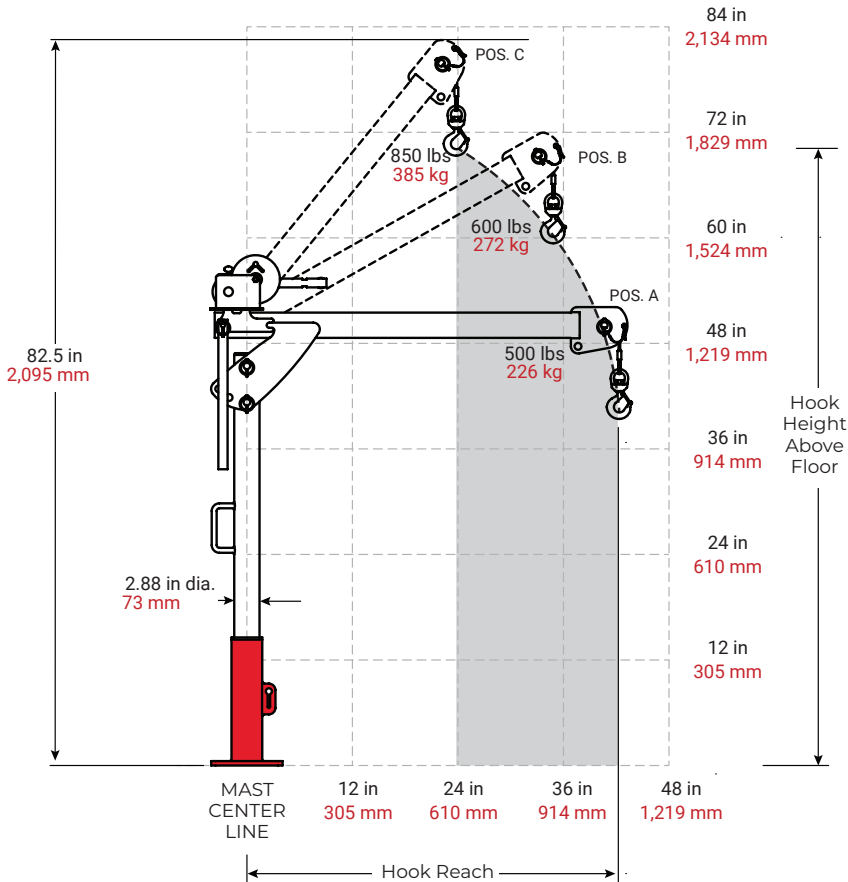
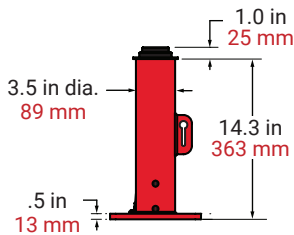
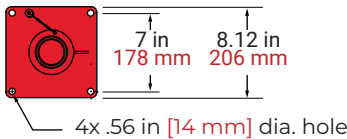
First Mate Pedestal Base

5BP5
5BP5G

5BP5S
5BP5S316

5BP5X

Pedestal Base



First Mate Performance Ratings with Flush- or Wall-Mount Bases¹

Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A	500	226	42	1,066	26	660
B	600	272	35	889	46	1,168
C	850	385	24	609	56	1,422

¹ Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
 Dimensions are for reference only and subject to change without notice.

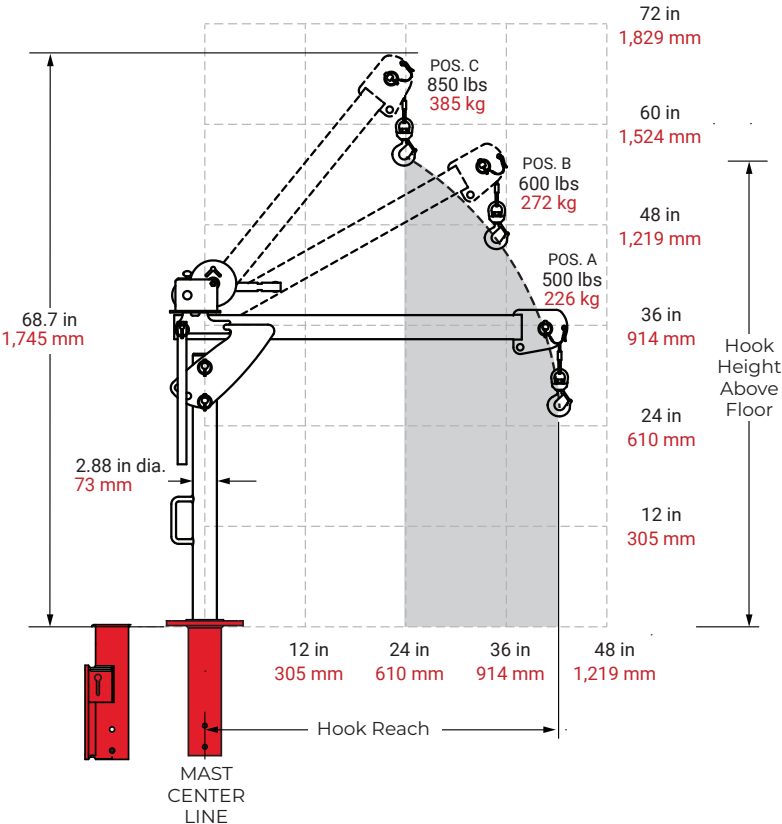
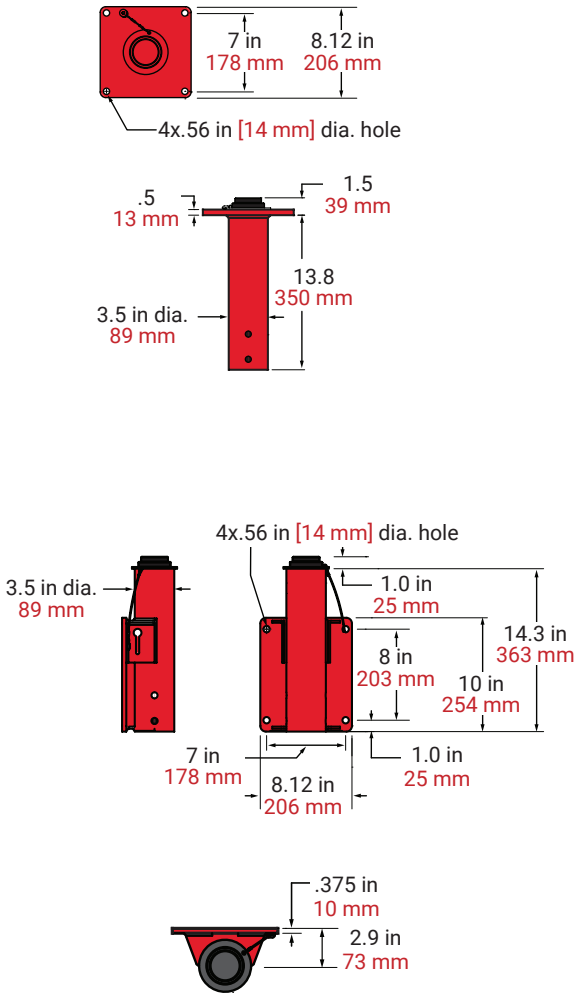
First Mate Flush-Mount Base

- 5BF5
5BF5G
- 5BF5S
5BF5S316
- 5BF5X

First Mate Wall-Mount Base

- 5BW5
5BW5G
- 5BW5S
5BW5S316
- 5BW5X

Flush- or Wall-Mount Base



First Mate Performance Ratings with Wheel Base¹

Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A	500	226	42	1,066	44.5	1,130
B	600	272	35	1,524	64.5	1,638
C	850	385	24	1,778	74.5	1,892

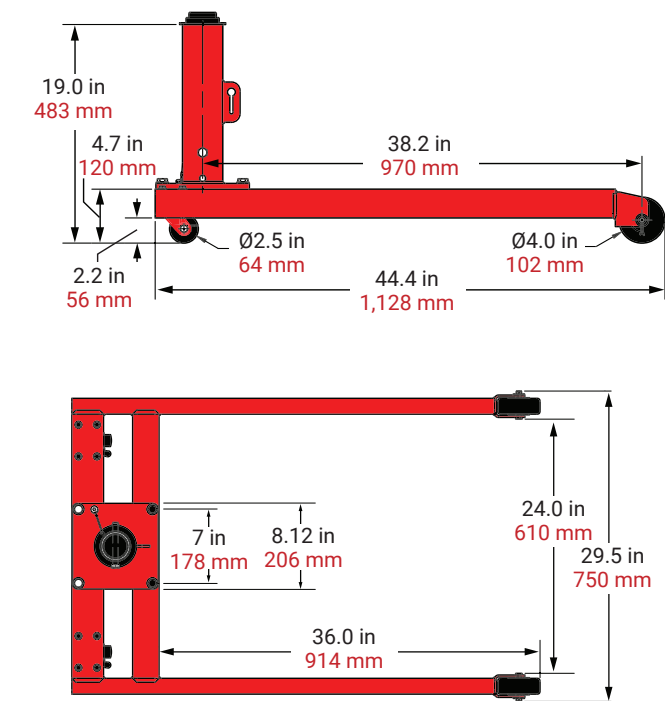
¹ Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
 Dimensions are for reference only and subject to change without notice.

First Mate Wheel Base

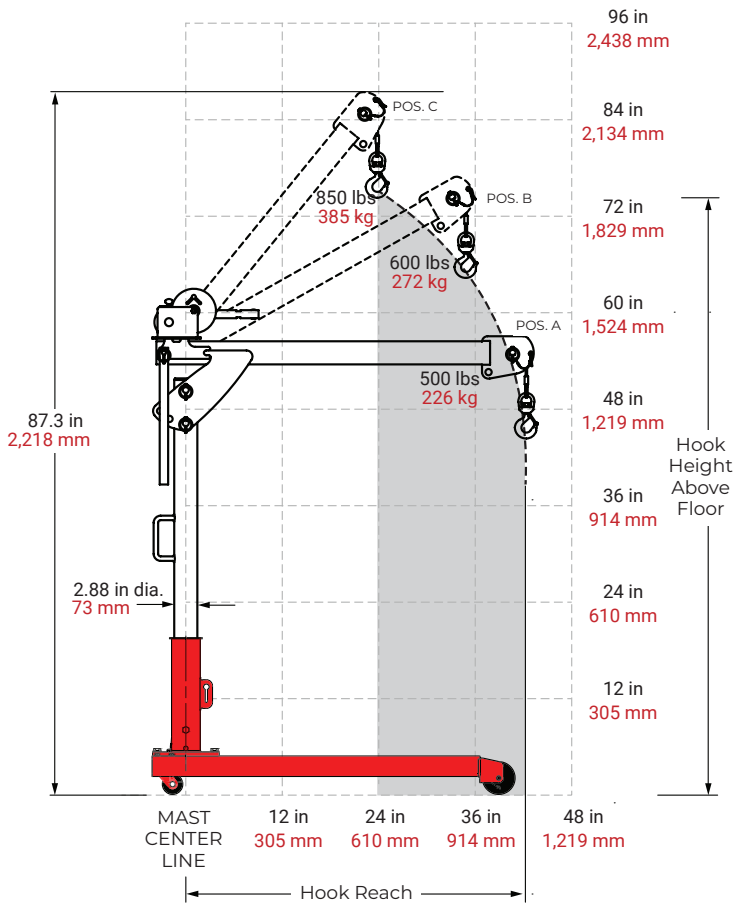
5BR5

5BR5X

Wheel Base



IMPORTANT:
 Crane DOES NOT rotate when assembled in 5BR wheel base.



TECHNICAL DRAWINGS & SPECIFICATIONS

ENSIGN® 500

PORTABLE DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5PA5-M1	up to 500 lb capacity with M4022PB spur gear hand winch—powder-coat crane	82	37
5PA5G-M1	up to 500 lb capacity with M4022PB spur gear hand winch—galvanized crane	82	37
5PA5-M2	up to 500 lb capacity with 4WM2V-K worm gear hand winch—powder-coat crane	107	49
5PA5G-M2	up to 500 lb capacity with 4WM2V-K worm gear hand winch—galvanized crane	107	49
5PA5S-M3	up to 500 lb capacity with M4042PBSS spur gear hand winch—stainless-steel crane	89	40
5PA5-E2	up to 500 lb capacity with 4WP2V-K electric winch—powder-coat crane	150	68
Crane Only			
5PA5	up to 500 lb capacity—base model—powder-coat finish	65	29
5PA5G	up to 500 lb capacity—base model—galvanized finish	65	29
5PA5S	up to 500 lb capacity—base model—304 stainless-steel finish	65	29
5PA5S316	up to 500 lb capacity—base model—316 stainless-steel finish	65	29
5PA5X	up to 500 lb capacity—base model—epoxy-gray finish	65	29
Winch Only			
M1	M4022PB—spur gear hand winch only—zinc plated	17	8
M2	4WM2V-K—worm gear hand winch only—powder coat	42	19
M2X	4WM2VEGRA-K—worm gear hand winch only—epoxy gray	42	19
M3	M4042PBSS—spur gear hand winch only—stainless steel	24	11
E2	4WP2V-K electric winch—115/1/60 VAC with 6 ft pendant control—enamel	85	39
E2X	4WP2VEGRA-K electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	85	39
E4	4777-K electric winch—115/1/60 VAC with 6 ft pendant control—enamel	110	50
E4X	4777EGRA-K electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	110	50
E4DC	4777DC-K electric winch—12 volt DC with 10 ft pendant control—enamel	105	48
E4DCX	4777DCEGRA-K electric winch—12 volt DC with 10 ft pendant control—epoxy gray	105	48

Independent Bases—sold separately

Pedestal, socket (flush-mount), or wall-mount style.

IMPORTANT: Base installation is the purchaser's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.

Finishes	MODELS		
	Pedestal	Flush	Wall
Powder Coat Paint	5BP5	5BF5	5BW5
Galvanized	5BP5G	5BF5G	5BW5G
304 Stainless Steel	5BP5S	5BF5S	5BW5S
316 Stainless Steel	5BP5S316	5BF5S316	5BW5S316
Epoxy Paint	5BP5X	5BF5X	5BW5X
Approximate Ship Weight	21 lbs (9.5 kg)	21 lbs (9.5 kg)	23 lbs (10.4 kg)



Wire Rope Assemblies—sold separately

Galvanized or stainless steel wire rope assemblies with swaged-ball fitting to work with the quick-disconnect anchor on the winch. See wire rope page for stainless steel and additional wire rope options. 1/8" wire rope is available with reduced load capacity. Please contact factory.

Wire Rope Length		Galvanized Aircraft Cable		304 Stainless Steel Wire Rope	
		3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)	3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.
20	6.0	WA19-20NS	WA25-20NS	WS19-20NS	WS25-20NS
28	8.5	WA19-28NS	WA25-28NS	WS19-28NS	WS25-28NS
36	10.9	WA19-36NS	WA25-36NS	WS19-36NS	WS25-36NS
45	13.7	WA19-45NS	WA25-45NS	WS19-45NS	WS25-45NS
60	18.2	WA19-60NS	—	WS19-60NS	—
75	22.8	WA19-75NS	—	WS19-75NS	—

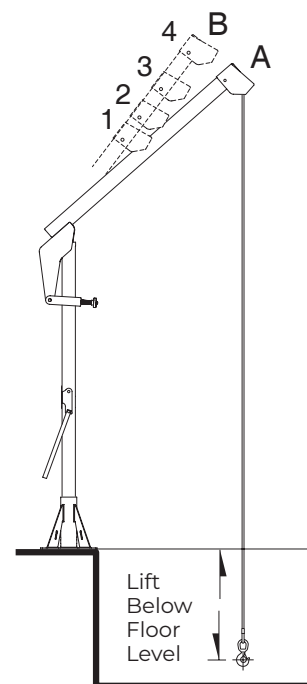
PERFORMANCE

Ensign 500 5PA5 Series Lift Below Floor¹ Level

Lift Below Floor ²				Wire Rope Diameter		Wire Rope Length		Winch Configurations Maximum Winch Rating									
Minimum (B4)		Maximum (B1)						M1	M2	M3	E2	E4					
0	0.0	7	2.1	3/16"	5	20	6.0	500	226	–	–	500	226	–	–	500	226
8	2.4	15	4.5	3/16"	5	28	8.5	500	226	–	–	500	226	–	–	500	226
16	4.8	23	7.0	3/16"	5	36	10.9	500	226	–	–	500	226	–	–	500	226
25	7.6	32	9.7	3/16"	5	45	13.7	500	226	–	–	500	226	–	–	500	226
40	12.1	47	14.3	3/16"	5	60	18.2	–	–	–	–	500	226	–	–	500	226
55	16.7	62	18.8	3/16"	5	75	22.8	–	–	–	–	500	226	–	–	500	226
70	21.3	77	23.4	3/16"	5	90	27.4	–	–	–	–	–	–	–	–	500	226
100	30.4	107	32.6	3/16"	5	120	36.5	–	–	–	–	–	–	–	–	500	226
2	0.6	7	2.1	1/4"	6	20	6.0	–	–	500	226	500	226	500	226	500	226
10	3.0	15	4.5	1/4"	6	28	8.5	–	–	500	226	500	226	500	226	500	226
18	5.4	23	7.0	1/4"	6	36	10.9	–	–	500	226	500	226	500	226	500	226
27	8.2	32	9.7	1/4"	6	45	13.7	–	–	500	226	500	226	500	226	500	226
42	12.8	47	14.3	1/4"	6	60	18.2	–	–	500	226	–	–	500	226	500	226
57	17.3	62	18.8	1/4"	6	75	22.8	–	–	–	–	–	–	–	–	500	226

¹ Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

² Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.



Winch Configurations



Ensign 500 Performance Ratings with Pedestal Base¹

Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A-1	500	227	17	431	74	1,879
A-2	400	181	22	558	79	2,006
A-3	300	136	28	711	87	2,209
A-4	250	113	36	914	96	2,438
B-1	500	227	14	355	76	1,930
B-2	400	181	17	431	83	2,108
B-3	300	136	22	558	91	2,311
B-4	250	113	28	711	101	2,565

¹ Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
Dimensions are for reference only and subject to change without notice.

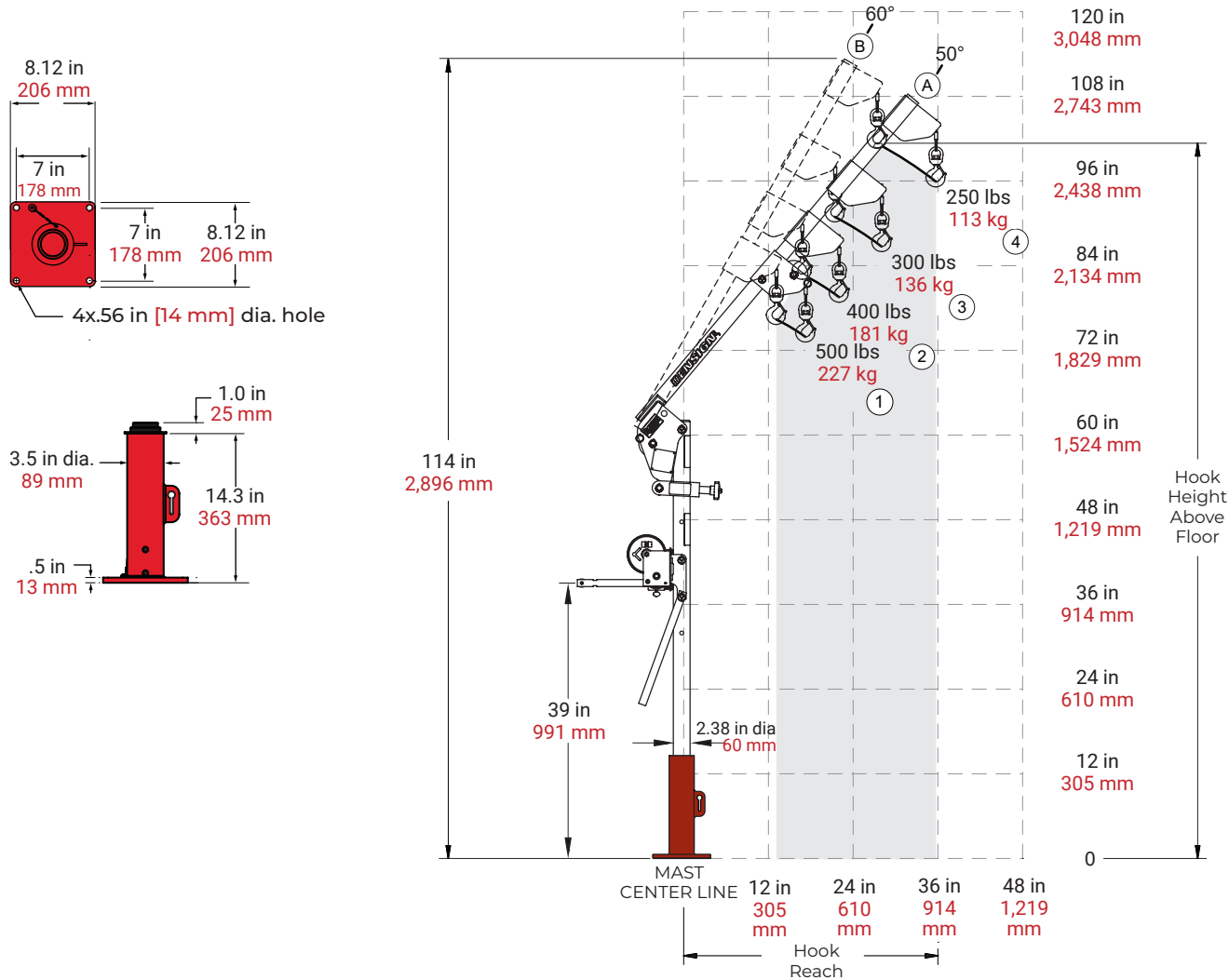
Ensign 500 Pedestal Base

5BP5
5BP5G

5BP5S
5BP5S316

5BP5X

Pedestal Base



Ensign 500 Performance Ratings with Flush- or Wall-Mount Bases¹

Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A-1	500	227	17	431	60	1,524
A-2	400	181	22	558	65	1,651
A-3	300	136	28	711	73	1,854
A-4	250	113	36	914	82	2,082
B-1	500	227	14	355	62	1,574
B-2	400	181	17	431	69	1,752
B-3	300	136	22	558	77	1,955
B-4	250	113	28	711	87	2,209

¹ Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
Dimensions are for reference only and subject to change without notice.

Ensign 500 Flush-Mount Base

5BF5
5BF5G

5BF5S
5BF5S316

5BF5X

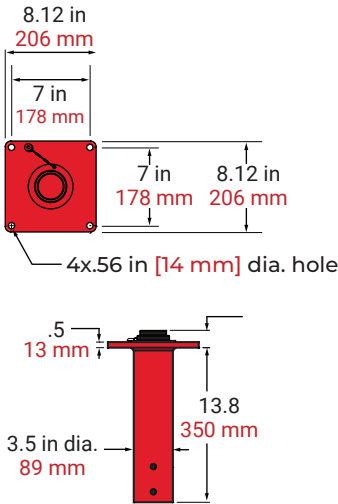
Ensign 500 Wall-Mount Base

5BW5
5BW5G

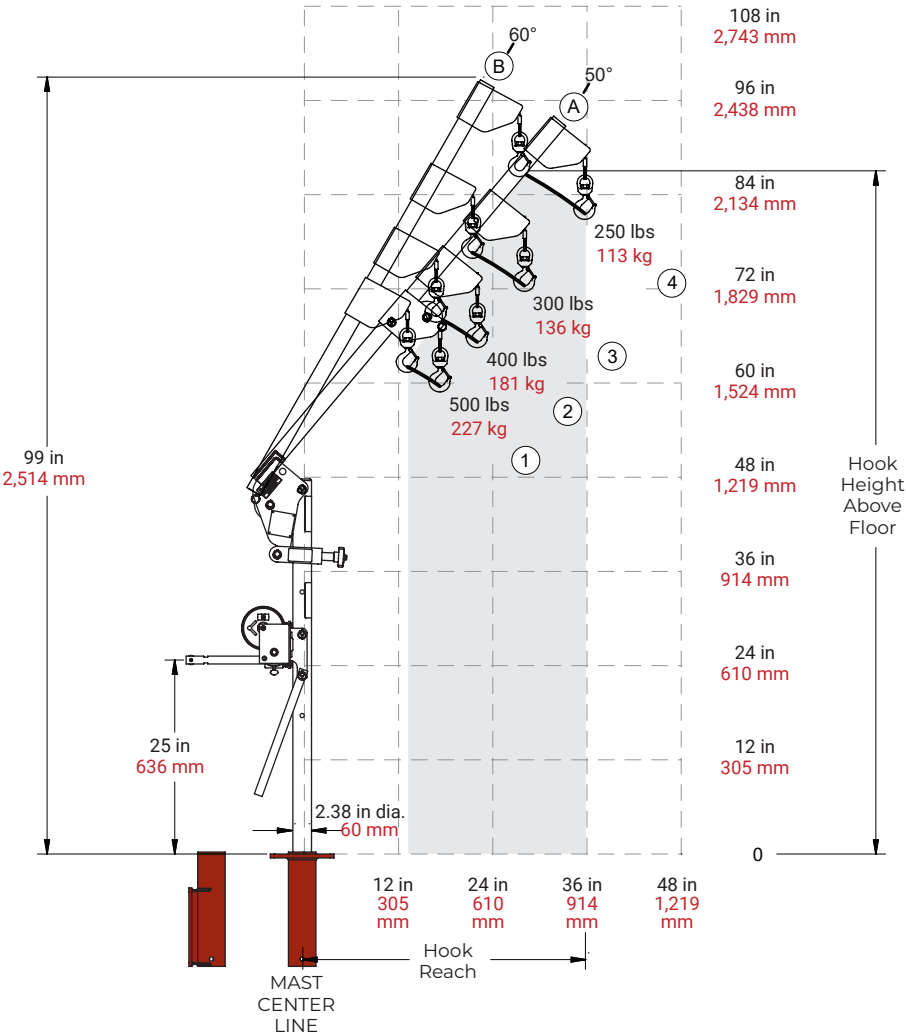
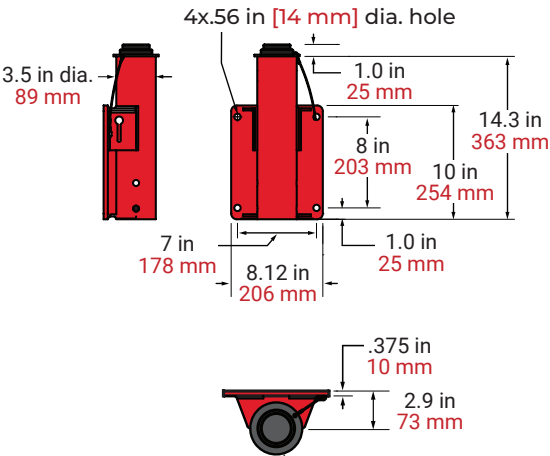
5BW5S
5BW5S316

5BW5X

Flush-Mount Base



Wall-Mount Base



TECHNICAL DRAWINGS & SPECIFICATIONS

ENSIGN® 1000

PORTABLE DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5PA10-M1	up to 1,200 lb capacity with M4312PB spur gear hand winch—powder-coat crane	160	73
5PA10G-M1	up to 1,200 lb capacity with M4312PB spur gear hand winch—galvanized crane	160	73
5PA10-M2	up to 1,200 lb capacity with 4WM2V-K worm gear hand winch—powder-coat crane	185	84
5PA10G-M2	up to 1,200 lb capacity with 4WM2V-K worm gear hand winch—galvanized crane	185	84
5PA10S-M3	up to 1,200 lb capacity with M4312PBSS spur gear hand winch—stainless-steel crane	167	76
5PA10-E2	up to 1,200 lb capacity with 4WP2V-K electric winch—powder-coat crane	228	103
Crane Only			
5PA10	up to 1,200 lb capacity—base model—powder-coat finish	143	65
5PA10G	up to 1,200 lb capacity—base model—galvanized finish	143	65
5PA10S	up to 1,200 lb capacity—base model—304 stainless-steel finish	143	65
5PA10S316	up to 1,200 lb capacity—base model—316 stainless-steel finish	143	65
5PA10X	up to 1,200 lb capacity—base model—epoxy-gray finish	143	65
Winch Only			
M1	M4312PB—spur gear hand winch only—zinc plated	17	8
M2	4WM2V-K—worm gear hand winch only—powder coat	42	19
M2X	4WM2VEGRA-K—worm gear hand winch only—epoxy gray	42	19
M3	M4312PBSS—spur gear hand winch only—stainless steel	24	11
E2	4WP2V-K electric winch—115/1/60 VAC with 6 ft pendant control—enamel	85	39
E2X	4WP2VEGRA-K electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	85	39
E4	4777-K electric winch—115/1/60 VAC with 6 ft pendant control—enamel	110	50
E4X	4777EGRA-K electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	110	50
E4DC	4777DC-K electric winch—12 volt DC with 10 ft pendant control—enamel	105	48
E4DCX	4777DCEGRA-K electric winch—12 volt DC with 10 ft pendant control—epoxy gray	105	48

Independent Bases—sold separately

Pedestal, socket (flush-mount), or wall-mount style.

IMPORTANT: Base installation is the purchaser's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.

Finishes	MODELS		
	Pedestal	Flush	Wall
Powder Coat Paint	5BP10	5BF10	5BW10
Galvanized	5BP10G	5BF10G	5BW10G
304 Stainless Steel	5BP10S	5BF10S	5BW10S
316 Stainless Steel	5BP10S316	5BF10S316	5BW10S316
Epoxy Paint	5BP10X	5BF10X	5BW10X
Approximate Ship Weight	52 lbs (24 kg)	44 lbs (20 kg)	48 lbs (22 kg)



Wire Rope Assemblies—sold separately

Galvanized or stainless steel wire rope assemblies with swaged-ball fitting to work with the quick-disconnect anchor on the winch. See wire rope page for stainless steel and additional wire rope options.

Wire Rope Length		Galvanized Aircraft Cable			304 Stainless Steel Wire Rope		
		3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)	5/16" Dia. (8.0 mm)	3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)	5/16" Dia. (8.0 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.	Model No.	Model No.
20	6.0	—	—	WA31-20DS	—	—	WS31-20DS
28	8.5	WA19-28NS	WA25-28NS	WA31-28DS	WS19-28NS	WS25-28NS	WS31-28DS
36	10.9	WA19-36NS	WA25-36NS	WA31-36DS	WS19-36NS	WS25-36NS	WS31-36DS
45	13.7	WA19-45NS	WA25-45NS	WA31-45DS	WS19-45NS	WS25-45NS	WS31-45DS
60	18.2	WA19-60NS	WA25-60NS	WA31-60DS	WS19-60NS	WS25-60NS	WS31-60DS
75	22.8	WA19-75NS	—	WA31-75DS	WS19-75NS	—	WS31-75DS
90	27.4	WA19-90NS	—	—	WS19-90NS	—	—

PERFORMANCE

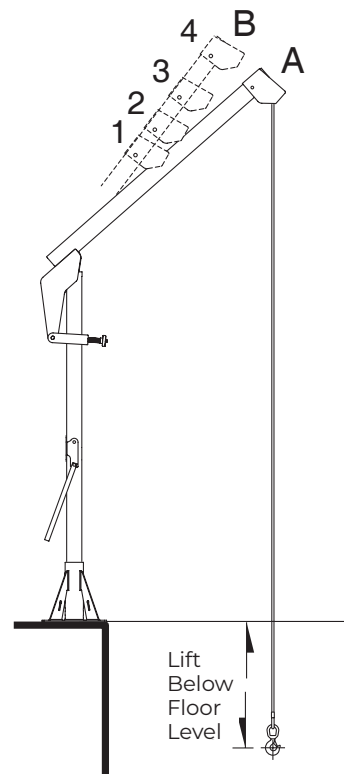
Ensign 1000 5PA10 Series Lift Below Floor¹ Level

Lift Below Floor ²				Wire Rope Diameter		Wire Rope Length ³		Winch Configurations Maximum Winch Rating									
Minimum (C4)		Maximum (C1)						M1		M2		M3		E2		E4	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
-3	-0.9	1	0.3	3/16"	5	20	6.0	1,200	544	-	-	1,200	544	-	-	1,200	544
5	1.5	9	2.7	3/16"	5	28	8.5	1,200	544	-	-	1,200	544	-	-	1,200	544
13	3.9	17	5.1	3/16"	5	36	10.9	1,200	544	-	-	1,200	544	-	-	1,200	544
22	6.7	26	7.9	3/16"	5	45	13.7	1,200	544	-	-	1,200	544	-	-	1,200	544
37	11.2	41	12.4	3/16"	5	60	18.2	1,200	544	-	-	1,200	544	-	-	1,200	544
52	15.8	56	17.0	3/16"	5	75	22.8	1,200	544	-	-	1,200	544	-	-	1,200	544
67	20.4	71	21.6	3/16"	5	90	27.4	1,200	544	-	-	1,200	544	-	-	1,200	544
97	29.5	101	30.7	3/16"	5	120	36.5	-	-	-	-	-	-	-	-	1,200	544
-3	-0.9	1	0.3	1/4"	6	20	6.0	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
5	1.5	9	2.7	1/4"	6	28	8.5	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
13	3.9	17	5.1	1/4"	6	36	10.9	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
22	6.7	26	7.9	1/4"	6	45	13.7	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
37	11.2	41	12.4	1/4"	6	60	18.2	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
52	15.8	56	17.0	1/4"	6	75	22.8	-	-	1,200	544	-	-	1,200	544	1,200	544
67	20.4	71	21.6	1/4"	6	90	27.4	-	-	-	-	-	-	-	-	1,200	544
-3	-0.9	1	0.3	5/16"	8	20	6.0	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
5	1.5	9	2.7	5/16"	8	28	8.5	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
13	3.9	17	5.1	5/16"	8	36	10.9	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
22	6.7	26	7.9	5/16"	8	45	13.7	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
37	11.2	41	12.4	5/16"	8	60	18.2	-	-	-	-	-	-	-	-	1,200	544

¹ Performance characteristics are for standard products. Non-standard products may vary from the original design.

Contact Thern, Inc. for this information.

² Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.



Winch Configurations



Ensign 1000 Performance Ratings with Pedestal Base¹

Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A-1	1,200	544	26	660	93	2,362
A-2	1,000	453	32	812	98	2,489
A-3	800	362	39	990	104	2,641
A-4	650	294	48	1,219	112	2,844
B-1	1,200	544	22	558	97	2,463
B-2	1,000	453	26	660	103	2,616
B-3	800	362	32	812	110	2,794
B-4	650	294	39	990	120	3,048

¹ Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
Dimensions are for reference only and subject to change without notice.

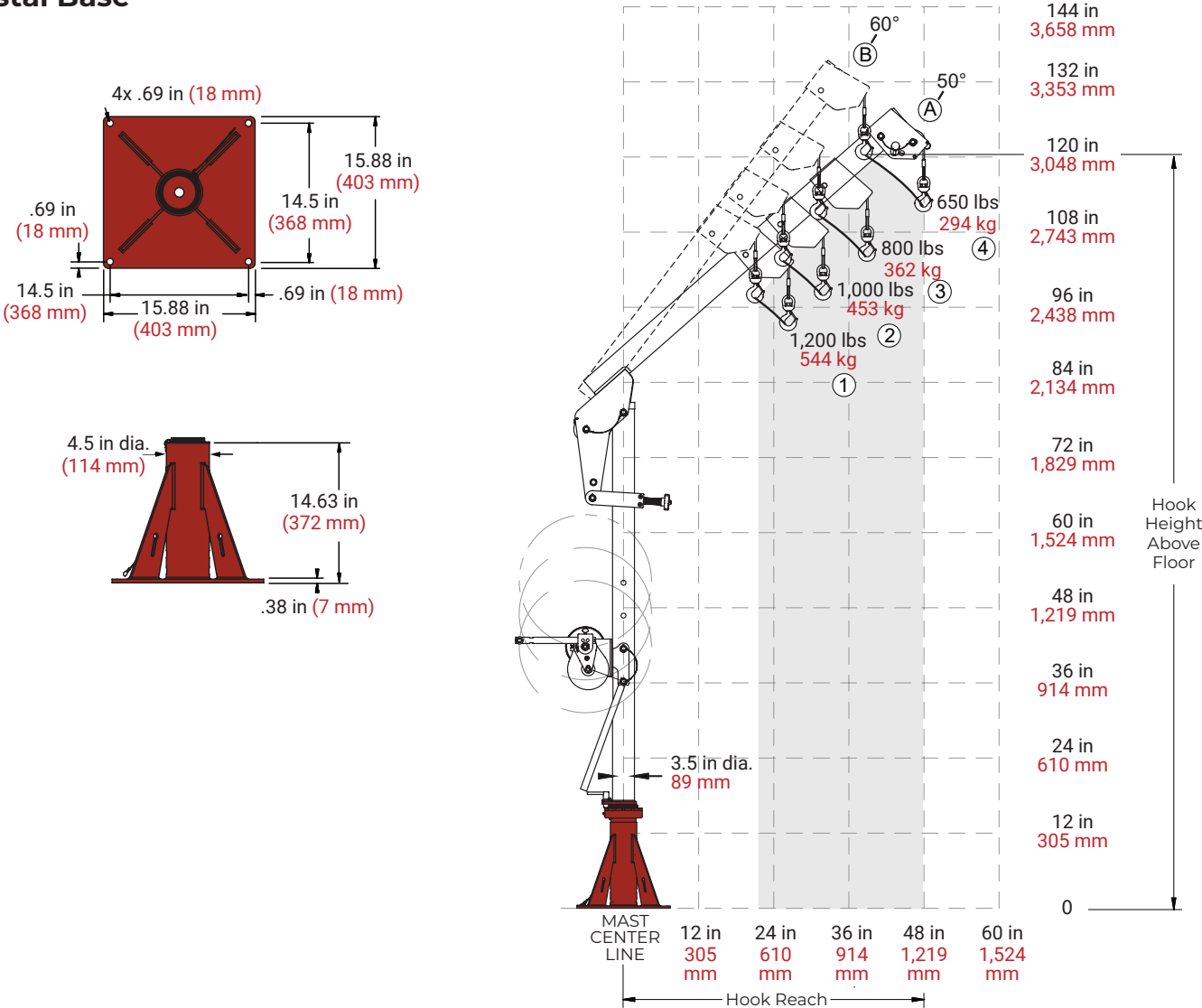
Ensign 1000 Pedestal Base

5BP10
5BP10G

5BP10S
5BP10S316

5BP10X

Pedestal Base



Ensign 1000 Performance Ratings with Flush- or Wall-Mount Bases¹

Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A-1	1,200	544	26	660	79	2,007
A-2	1,000	453	32	812	84	2,134
A-3	800	362	39	990	90	2,286
A-4	650	294	48	1,219	98	2,489
B-1	1,200	544	22	558	83	2,108
B-2	1,000	453	26	660	89	2,261
B-3	800	362	32	812	96	2,438
B-4	650	294	39	990	106	2,692

¹ Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
 Dimensions are for reference only and subject to change without notice.

Ensign 1000 Flush-Mount Base

5BF10
5BF10G

5BF10S
5BF10S316

5BF10X

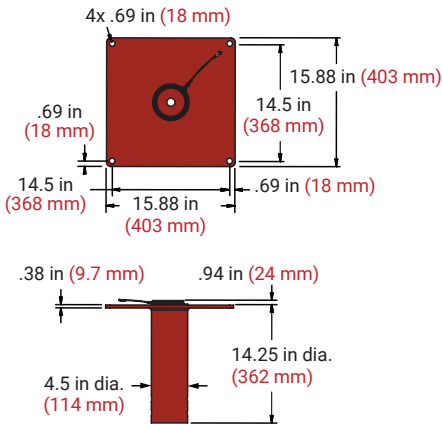
Ensign 1000 Wall-Mount Base

5BW10
5BW10G

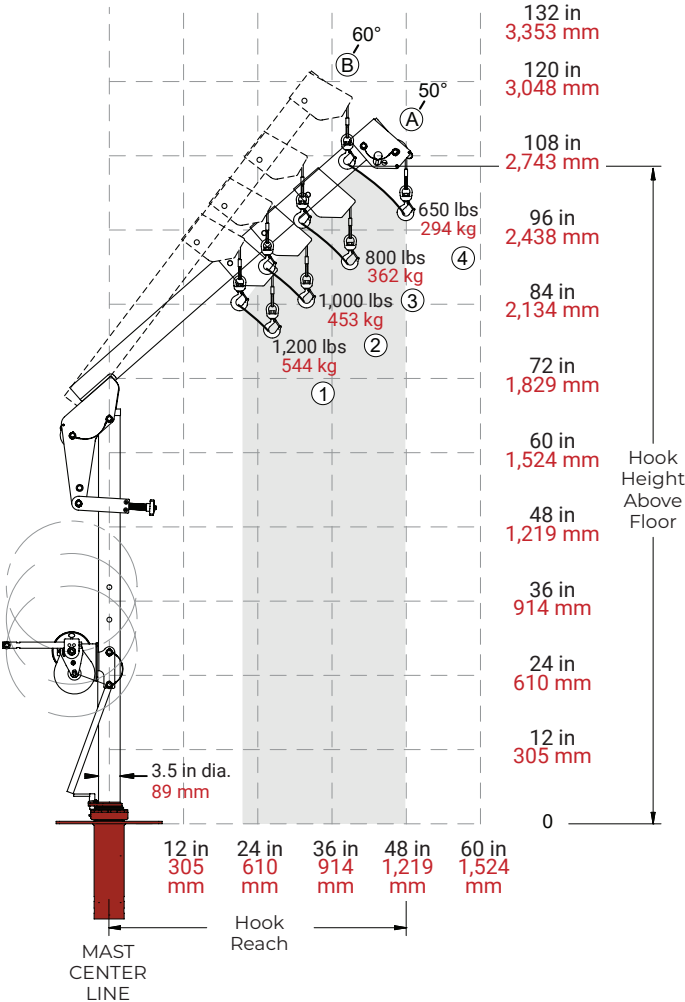
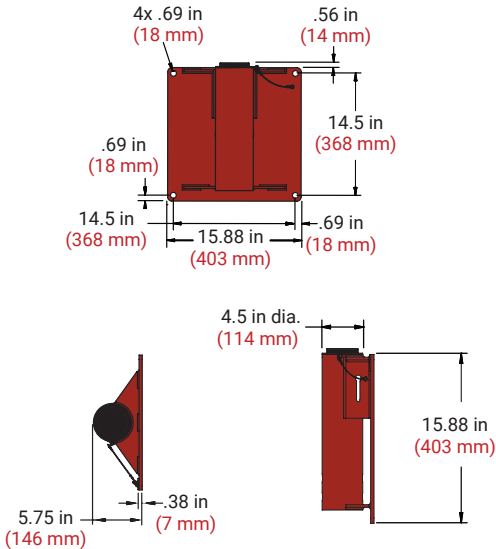
5BW10S
5BW10S316

5BW10X

Flush-Mount Base



Wall-Mount Base



TECHNICAL DRAWINGS & SPECIFICATIONS

COMMANDER® AL

PORTABLE ALUMINUM DAVIT CRANE

5AT1 CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5ATI-M1	Up to 650 lb capacity with M4022PB super gear hand winch – powder-coat crane	70	32
5ATI-M2	Up to 650 lb capacity with 4WM2 worm gear hand winch - powder-coat crane	91	42
5ATI-M3	Up to 650 lb capacity with M4042PBSS spur gear hand winch - powder-coat crane	78	36
5ATI-E2	Up to 650 lb capacity with 4WP2 electric winch - powder-coat crane	127	58
5ATI-E2L	Up to 650 lb capacity with 4WP2 limit switch ready electric winch - powder-coat crane	127	58
5ATI-E4	Up to 650 lb capacity with 4777 electric winch - powder-coat crane	149	68
5ATI-E4L	Up to 650 lb capacity with 4777 limit switch ready electric winch - powder-coat crane	149	68
5ATI-E4DC	Up to 650 lb capacity with 4777, 12V DC electric winch - powder-coat crane	173	79
5ATI-E4DCL	Up to 650 lb capacity with 4777, limit switch ready,12V DC electric winch - powder-coat crane	173	79
Crane Only			
5ATI	Up to 650 lb capacity – base model- powder-coat finish	53	24.1
Winch Only			
M1	M4022PB super gear hand winch only – clear zinc coating	17	8
M2	4WM2-K worm gear hand winch only – powder-coat	38	17
M3	M4042PBSS spur gear hand winch only – stainless steel	24	11
E2	4WP2-K electric winch only – 115/1/60 VAC with 6 ft pendant control - enamel	73	33
E2L	4WP2-K limit switch ready electric winch only – 115/1/60 VAC with 6 ft pendant control - enamel	73	33
E4	4777-K electric winch only – 115/1/60 VAC with 6 ft pendant control - enamel	95	43
E4L	4777-K limit switch ready electric winch only – 115/1/60 VAC with 6 ft pendant control - enamel	95	43
E4DC	4777DC-K electric winch -12 Volt DC with 10ft pendant control – enamel	119	54
E4DCL	4777DC-K limit switch ready electric winch -12 Volt DC with 10ft pendant control – enamel	119	54

Commander 5AT1 Winch Configurations



5AT1 & 5AT2 Bases and Wire Rope

Independent Bases—sold separately

Pedestal, socket, or wall-mount style.

Wheel base for floor crane operation. Base legs adjust in length and width. See Model 5BR10.

IMPORTANT: Base installation is the customer's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.

Aluminum Pedestal												
Finish	5AT1	5AT2										
Powder Coat Paint	5ABP1	5ABP2										
Approx. Ship Wt.	18 lbs (8 kg)	23 lbs (10 kg)										
												
Finish	Pedestal (Steel)		Flush (Steel Only)		Wall (Steel Only)		Wheel (Steel Only)		Extension (Steel Only)			
	5AT1	5AT2	5AT1	5AT2	5AT1	5AT2	5AT1	5AT2	5AT1	5AT2		
Powder Coat Paint	5BP10	5BP20	5BF10	5BF20	5BW10	5BW20	5BR10	5BR20	5BE10-15	5BE20-15		
Galvanized	5BP10G	5BP20G	5BF10G	5BF10G	5BW10G	5BW20G	—	—	5BE10-15G	5BE20-15G		
304 Stainless Steel	5BP10S	5BP20S	5BF10S	5BF20S	5BW10S	5BW20S	—	—	5BE10-15S	5BE20-15S		
316 Stainless Steel	5BP10S316	5BP20S316	5BF10S316	5BF20S316	5BW10S316	5BW20S316	—	—	5BE10-15S316	5BE20-15S316		
Epoxy Paint	5BP10X	5BP20X	5BF10X	5BF20X	5BW10X	5BW20X	5BR10X	5BR20X	5BE10-15X	5BE20-15X		
Approximate Ship Weight	52 lbs (24 kg)	66lbs (30 kg)	44 lbs (20 kg)	57 lbs (26 kg)	48 lbs (22 kg)	64 lbs (30 kg)	285 lbs (130 kg)	375 lbs (171 kg)	33 lbs (15 kg)	53 lbs (25 kg)		



Wire Rope Assemblies—sold separately

Galvanized or stainless steel wire rope assemblies with swaged-ball fitting to work with the quick-disconnect anchor on the winch. 316 stainless also available. Please contact Thern.

Wire Rope Length		Galvanized Aircraft Cable		304 Stainless Steel Wire Rope	
		3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)	3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.
20	6.0	WA19-20NS	WA25-20NS	WS19-20NS	WS25-20NS
28	8.5	WA19-28NS	WA25-28NS	WS19-28NS	WS25-28NS
36	10.9	WA19-36NS	WA25-36NS	WS19-36NS	WS25-36NS
45	13.7	WA19-45NS	WA25-45NS	WS19-45NS	WS25-45NS
60	18.2	WA19-60NS	WA25-60NS	WS19-60NS	WS25-60NS
75	22.8	WA19-75NS	WA25-75NS	WS19-75NS	WS25-75NS
90	27.4	WA19-90NS	—	WS19-90NS	—



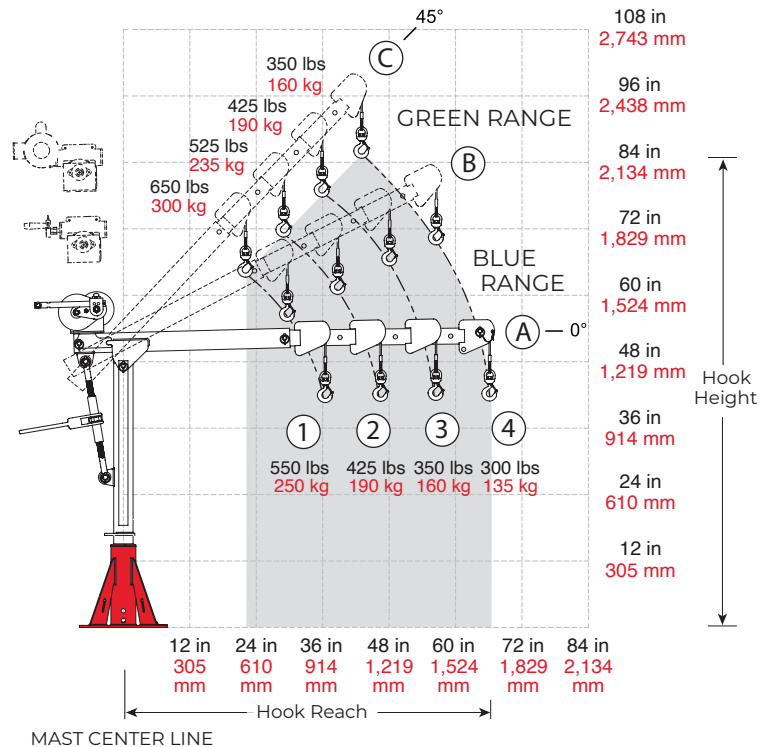
COMMANDER® AL 5AT1 PERFORMANCE RATINGS

5AT1 Series Lift Below Floor²

Lift Below ¹ Floor				Wire Rope Diameter		Wire Rope ³ Length		Winch Configurations				
Minimum (C4)		Maximum (C1)						M1	M2	M3	E2	E4
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)					
2	0.6	7	2.1	3/16	5	20	6.0	x	-	x	-	x
10	3.0	15	4.5	3/16	5	28	8.5	x	-	x	-	x
18	5.4	23	7.0	3/16	5	36	10.9	x	-	x	-	x
27	8.2	32	9.7	3/16	5	45	13.7	x	-	x	-	x
42	12.8	47	14.3	3/16	5	60	18.2	x	-	x	-	x
57	17.3	62	18.8	3/16	5	75	22.8	-	-	x	-	x
72	21.9	77	23.4	3/16	5	90	27.4	-	-	x	-	x
2	0.6	7	2.1	1/4	6	20	6.0	-	x	x	x	x
10	3.0	15	4.5	1/4	6	28	8.5	-	x	x	x	x
18	5.4	23	7.0	1/4	6	36	10.9	-	x	x	x	x
27	8.2	32	9.7	1/4	6	45	13.7	-	x	x	x	x
42	12.8	47	14.3	1/4	6	60	18.2	-	x	x	x	x
57	17.3	62	18.8	1/4	6	75	22.8	-	x	-	x	x
72	21.9	77	23.4	1/4	6	90	27.4	-	-	-	-	x

Commander 5AT1 Hook Height and Reach²

	Boom Position	Load Rating		Hook Reach		Hook Height	
		(lb)	(kg)	(in)	(mm)	(in)	(mm)
BLUE RANGE	A-1	550	250	36	914	42	1066
	A-2	425	190	46	1168	42	1066
	A-3	350	160	56	1422	42	1066
	A-4	300	135	66	1676	42	1066
GREEN RANGE	B-1	650	300	29	736	56	1422
	B-2	525	235	38	965	60	1524
	B-3	425	190	47	1193	65	1651
	B-4	350	160	56	1422	69	1752
	C-1	650	300	22	558	64	1625
	C-2	525	235	29	736	71	1803
	C-3	425	190	36	914	78	1981
	C-4	350	160	43	1092	85	2159



IMPORTANT:

It is the owner or operator's responsibility to determine the suitability of the equipment to its intended use. Study all applicable codes, manuals and regulations. Be sure to read the Owner's Manual supplied with the equipment before operating it.

¹ Lift below floor level varies depending on boom position and base configuration. For longer lifts, including use with two-part lines kits, please contact factory.

² Performance Characteristics are for standard products referred to in this manual. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

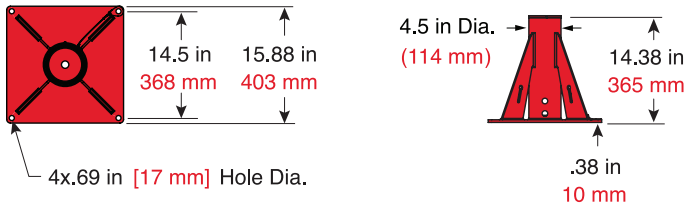
³ Wire rope assemblies include a hook and a swaged ball fitting to work with quick disconnect anchor on the winch. 316SS wire rope is available. Please contact the factory.

Commander® AL 5AT1 with Pedestal Base
Reach & Height Above Floor¹

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	42	1,066
A-2	46	1,168	42	1,066
A-3	56	1,422	42	1,066
A-4	66	1,676	42	1,066
B-1	29	736	56	1,422
B-2	38	965	60	1,524
B-3	47	1,193	65	1,651
B-4	56	1,422	69	1,752
C-1	22	558	64	1,625
C-2	29	736	71	1,803
C-3	36	914	78	1,981
C-4	43	1,092	85	2,159

¹ Performance Characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

Dimensions are for reference only and subject to change without notice.

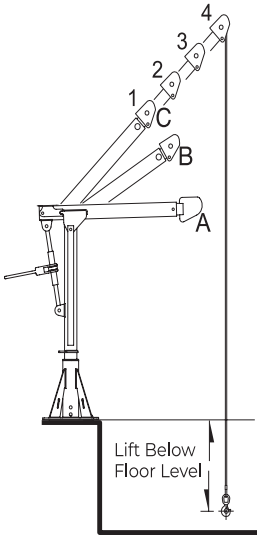
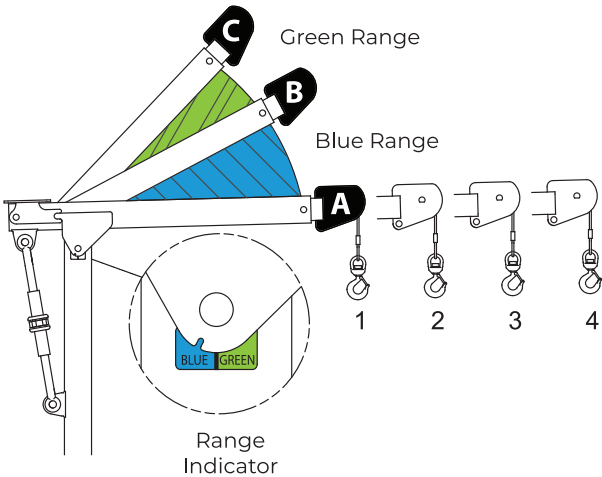


Commander® AL 5AT1 Pedestal Base

- 5BP10
5BP10G
- 5BP10S
5BP10S316
- 5BP10X
5ABP1

Commander® AL 5AT1
Performance Ratings²

	Boom Position	Load Rating	
		(lb)	(kg)
BLUE RANGE	A-1	550	250
	A-2	425	190
	A-3	350	160
	A-4	300	135
GREEN RANGE	B-1	650	300
	B-2	525	235
	B-3	425	190
	B-4	350	160
	C-1	650	300
	C-2	525	235
	C-3	425	190
	C-4	350	160



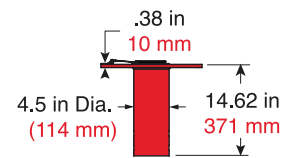
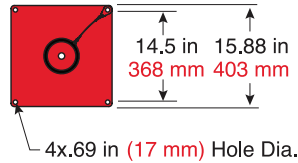
COMMANDER® AL 5AT1 PERFORMANCE RATINGS CONTINUED

Commander® AL 5AT1 with Flush- or Wall-Mount Base Reach & Height Above Floor¹

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	28	711
A-2	46	1,168	28	711
A-3	56	1,422	28	711
A-4	66	1,676	28	711
B-1	29	736	42	1,066
B-2	38	965	46	1,168
B-3	47	1,193	51	1,295
B-4	56	1,422	55	1,397
C-1	22	558	50	1,270
C-2	29	736	57	1,447
C-3	36	914	64	1,625
C-4	43	1,092	71	1,803

¹Performance Characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

Dimensions are for reference only and subject to change without notice.

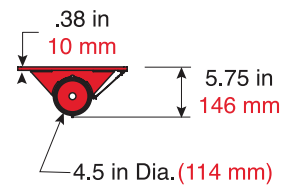
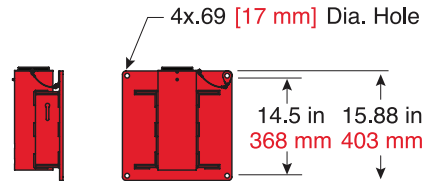


Commander® AL 5AT1 Flush-Mount Base

5BF10
5BF10S316

5BF10G
5BF10X

5BF10S

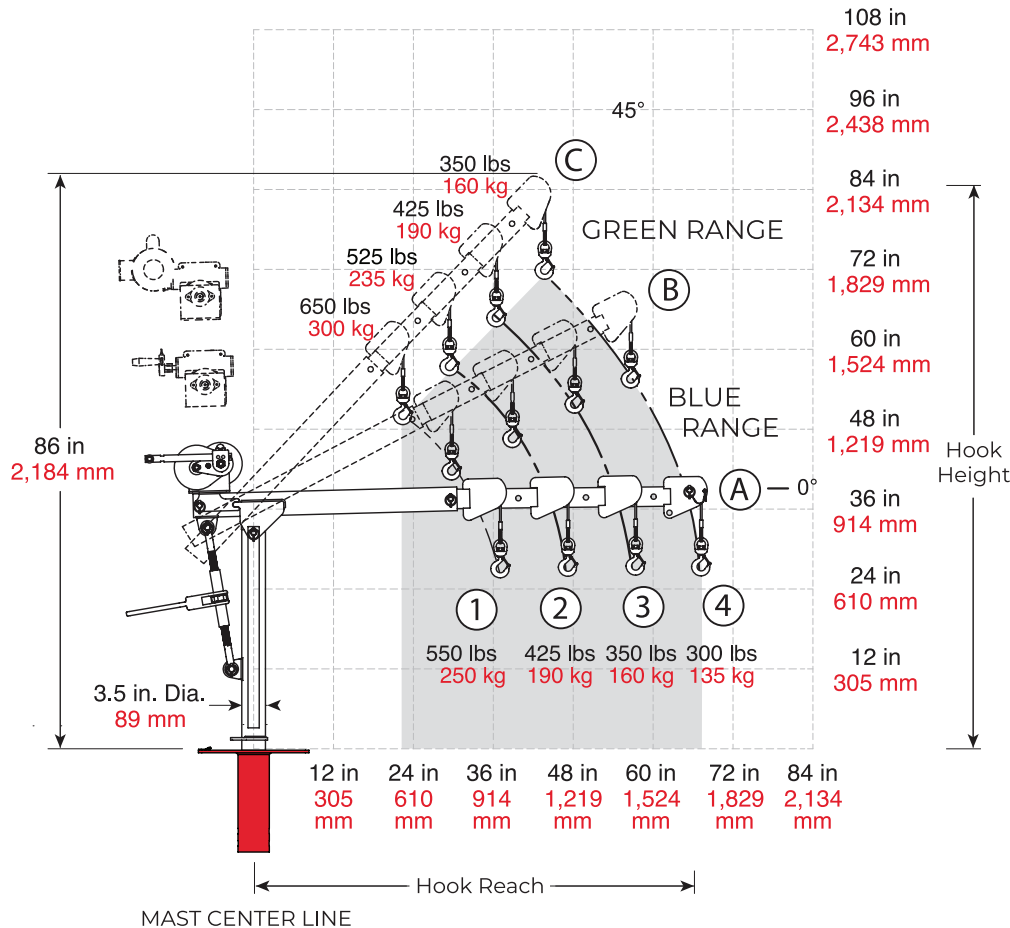


Commander® AL 5AT1 Wall-Mount Base

5BW10
5BW10S316

5BW10G
5BW10X

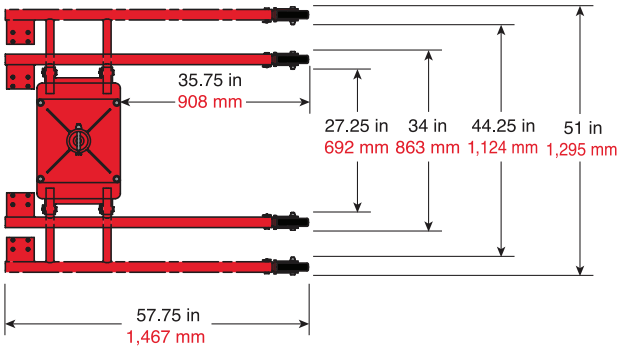
5BW10S



COMMANDER® AL 5AT1 PERFORMANCE RATINGS

Commander® AL 5AT1 on Wheel Base
Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	48	1,219
A-2	46	1,168	48	1,219
A-3	56	1,422	48	1,219
A-4	66	1,676	48	1,219
B-1	29	736	62	1,574
B-2	38	965	66	1,676
B-3	47	1,193	71	1,803
B-4	56	1,422	75	1,905
C-1	22	558	70	1,778
C-2	29	736	77	1,955
C-3	36	914	84	2,133
C-4	43	1,092	91	2,311



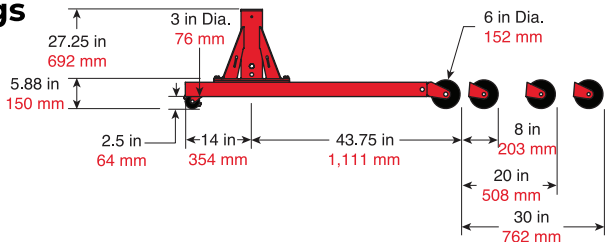
Commander® AL 5AT1 Wheel Base
5BR10 5BR10X

Dimensions are for reference only and subject to change without notice.

Commander® AL 5AT1 Wheel Base Load Ratings

Boom Position	Leg Pos. 1		Leg Pos. 2		Leg Pos. 3		Leg Pos. 4	
	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)
A-1	SEE LOAD RATINGS ON CRANE							
A-2								
A-3								
A-4	DO NOT USE							
Boom Position	Leg Pos. 1		Leg Pos. 2		Leg Pos. 3		Leg Pos. 4	
	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)
B-1	SEE LOAD RATINGS ON CRANE							
B-2								
B-3								
B-4	DO NOT USE							

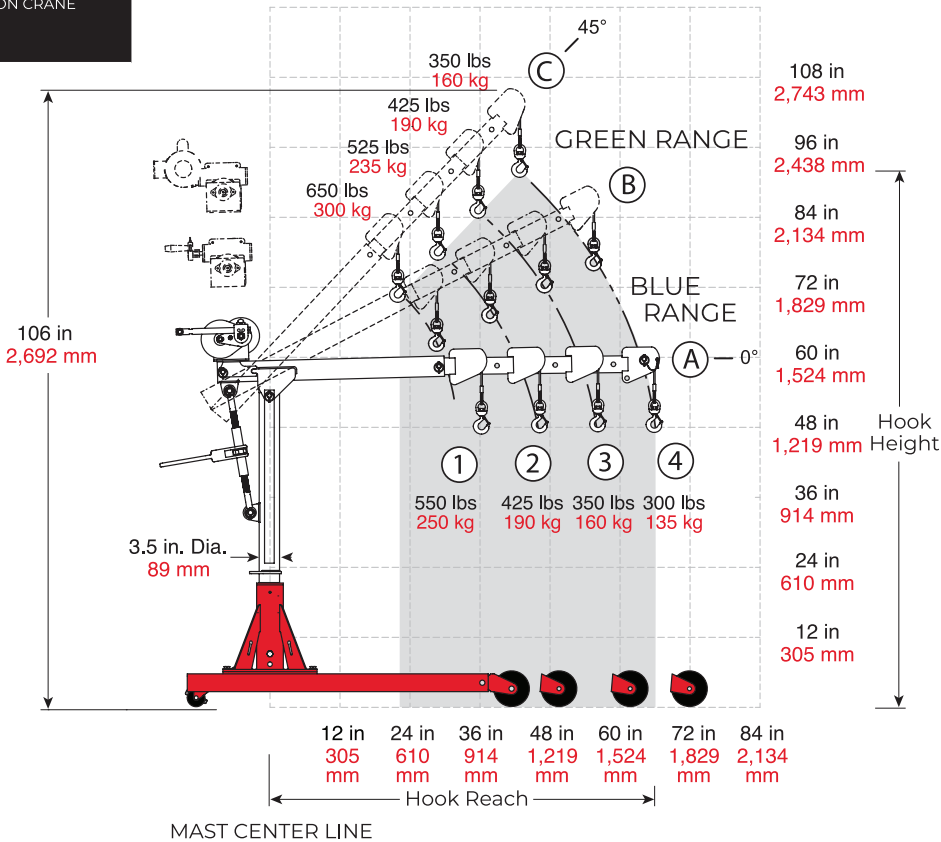
Dimensions are for reference only and subject to change without notice.



Commander® AL 5AT1
on Wheel Base



IMPORTANT:
Crane DOES NOT rotate when assembled in 5BR10 wheel base.



COMMANDER® AL 5AT2 CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5AT2-M1	Up to 1200 lb capacity with M4312PB spur gear hand winch – powder-coat crane	109	50
5AT2-M2	Up to 1200 lb capacity with 4WM2 worm gear hand winch - powder-coat crane	120	55
5AT2-M3	Up to 1200 lb capacity with M4312PBSS spur gear hand winch – powder-coat crane	109	50
5AT2-E2	Up to 1200 lb capacity with 4WP2 electric winch - powder-coat crane	154	70
5AT2-E2L	Up to 1200 lb capacity with 4WP2 limit switch ready electric winch - powder-coat crane	154	70
5AT2-E2T	Up to 1200 lb capacity with 4WP2 electric winch with additional drum capacity - powder-coat crane	164	75
5AT2-E2TL	Up to 1200 lb capacity with 4WP2 limit switch ready electric winch with additional drum capacity- powder-coat crane	164	75
5AT2-E4	Up to 1200 lb capacity with 4777 electric winch - powder-coat crane	176	80
5AT2-E4L	Up to 1200 lb capacity with 4777 limit switch ready electric winch - powder-coat crane	176	80
5AT2-E4DC	4777DC electric winch -12 Volt DC with 10ft pendant control – enamel	200	91
5AT2-E4DCL	4777DC limit switch ready electric winch -12 Volt DC with 10ft pendant control – enamel	200	91
Crane Only			
5AT2	Up to 1200 lb capacity – base model- powder-coat finish	81	38
Winch Only			
M1	M4312PB spur gear hand winch – clear zinc coating	29	13
M2	4WM2-K worm gear hand winch only – powder-coat	39	18
M3	M4312PBSS spur gear hand winch – stainless steel	29	13
E2	4WP2-K electric winch only – 115/1/60 VAC with 6 ft pendant control - enamel	74	34
E2L	4WP2-K limit switch ready electric winch only – 115/1/60 VAC with 6 ft pendant control - enamel	74	34
E2T	4WP2-K electric winch with additional drum capacity only - 115/1/60 VAC with 6 ft pendant control - enamel	80	36
E2TL	4WP2 -K limit switch ready electric winch with additional drum capacity only - 115/1/60 VAC with 6 ft pendant control - enamel	80	36
E4	4777-K electric winch only – 115/1/60 VAC with 6 ft pendant control - enamel	96	44
E4L	4777-K limit switch ready electric winch only – 115/1/60 VAC with 6 ft pendant control - enamel	96	44
E4DC	4777DC-K electric winch -12 Volt DC with 10ft pendant control – enamel	120	55
E4DCL	4777DC-K limit switch ready electric winch -12 Volt DC with 10ft pendant control – enamel	120	55

Commander 5AT2 Winch Configurations *See bases and wire rope section for available options.*



COMMANDER® AL 5AT2 PERFORMANCE RATINGS

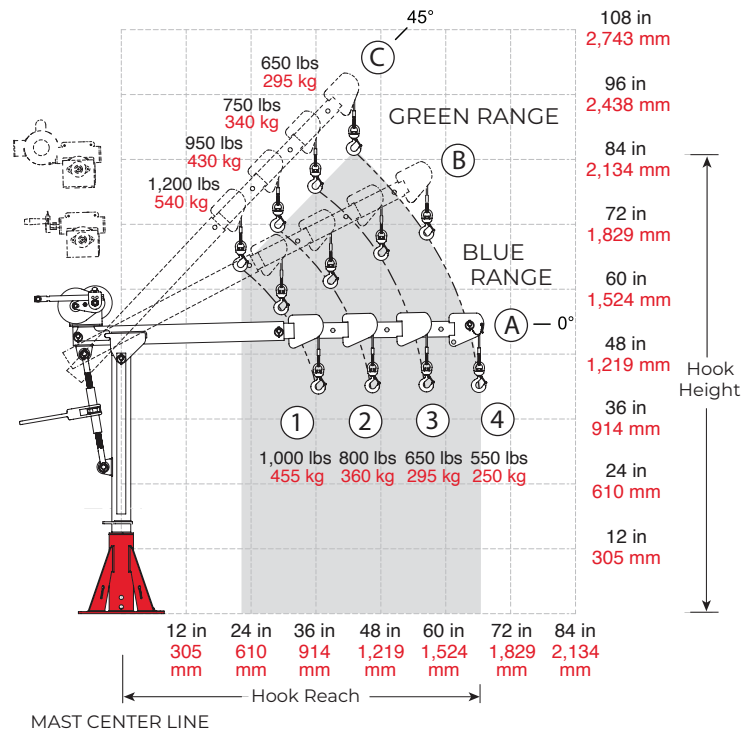
5AT2 Series Lift Below Floor²

Lift Below ¹ Floor				Wire Rope Diameter		Wire Rope ³ Length		Winch Configurations					
Minimum (C4)		Maximum (C1)						M1	M2	M3	E2	E2T	E4
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)						
2	0.6	7	2.1	3/16	5	20	6.0	x	-	x	-	x	x
10	3.0	15	4.5	3/16	5	28	8.5	x	-	x	-	x	x
18	5.4	23	7.0	3/16	5	36	10.9	x	-	x	-	x	x
27	8.2	32	9.7	3/16	5	45	13.7	x	-	x	-	x	x
42	12.8	47	14.3	3/16	5	60	18.2	x	-	x	-	x	x
57	17.3	62	18.8	3/16	5	75	22.8	-	-	x	-	x	x
72	21.9	77	23.4	3/16	5	90	27.4	-	-	x	-	x	x
102	31.0	107	32.6	3/16	5	120	36.5	-	-	-	-	x	x
132	40.2	137	41.7	3/16	5	150	45.7	-	-	-	-	x	x
2	0.6	7	2.1	1/4	6	20	6.0	-	x	x	x	x	x
10	3.0	15	4.5	1/4	6	28	8.5	-	x	x	x	x	x
18	5.4	23	7.0	1/4	6	36	10.9	-	x	x	x	x	x
27	8.2	32	9.7	1/4	6	45	13.7	-	x	x	x	x	x
42	12.8	47	14.3	1/4	6	60	18.2	-	x	x	x	x	x
57	17.3	62	18.8	1/4	6	75	22.8	-	x	-	x	x	x
72	21.9	77	23.4	1/4	6	90	27.4	-	-	-	-	x	x
102	31.0	107	32.6	1/4	6	120	36.5	-	-	-	-	x	-
132	40.2	137	41.7	1/4	6	150	45.7	-	-	-	-	x	-

Commander 5AT2 Hook Height and Reach²

	Boom Position	1st Layer Load Rating*		Hook Reach		Hook Height	
		(lb)	(kg)	(in)	(mm)	(in)	(mm)
BLUE RANGE	A-1	1000	455	36	914	42	1066
	A-2	800	360	46	1168	42	1066
	A-3	650	295	56	1422	42	1066
	A-4	550	250	66	1676	42	1066
GREEN RANGE	B-1	1200	540	29	736	56	1422
	B-2	950	430	38	965	60	1524
	B-3	750	340	47	1193	65	1651
	B-4	650	295	56	1422	69	1752
	C-1	1200	540	22	558	64	1625
	C-2	950	430	29	736	71	1803
	C-3	750	340	36	914	78	1981
	C-4	650	295	43	1092	85	2159

* Crane maximum load rating; load rating may decrease as layers of rope wind into the winch drum. Refer to winch load rating



IMPORTANT:

It is the owner or operator's responsibility to determine the suitability of the equipment to its intended use. Study all applicable codes, manuals and regulations. Be sure to read the Owner's Manual supplied with the equipment before operating it.

¹ Lift below floor level varies depending on boom position and base configuration. For longer lifts, including use with two-part lines kits, please contact factory.

² Performance Characteristics are for standard products referred to in this manual. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

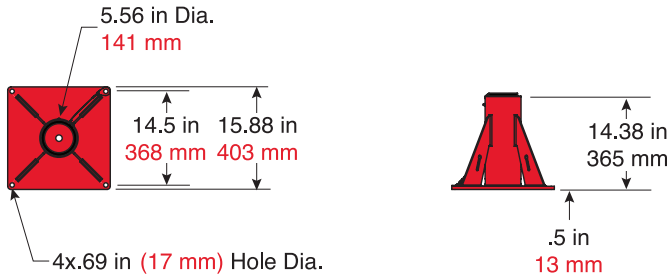
³ Wire rope assemblies include a hook and a swaged ball fitting to work with quick disconnect anchor on the winch.

Commander® AL 5AT2 with Pedestal Base
Reach & Height Above Floor¹

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	42	1,066
A-2	46	1,168	42	1,066
A-3	56	1,422	42	1,066
A-4	66	1,676	42	1,066
B-1	29	736	56	1,422
B-2	38	965	60	1,524
B-3	47	1,193	65	1,651
B-4	56	1,422	69	1,752
C-1	22	558	64	1,625
C-2	29	736	71	1,803
C-3	36	914	78	1,981
C-4	43	1,092	85	2,159

¹Performance Characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

Dimensions are for reference only and subject to change without notice.

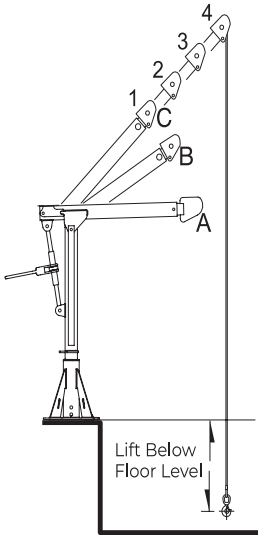
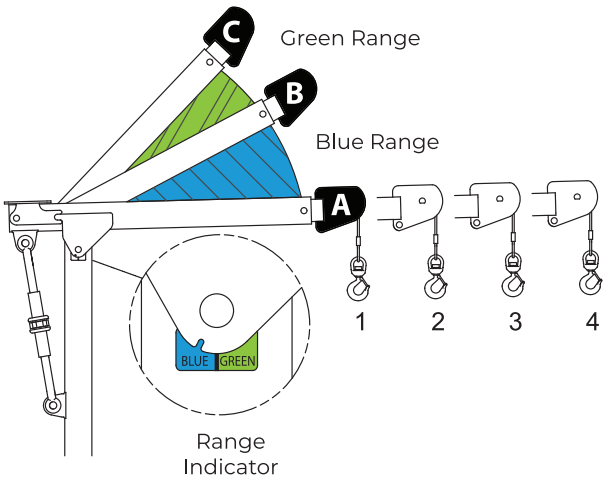


Commander® AL 5AT2 Pedestal Base

5BP20 5BP20S 5BP20X
5BP20G 5BP20S316 5ABP2

Commander® AL 5AT2
Performance Ratings²

	Boom Position	Load Rating	
		(lb)	(kg)
BLUE RANGE	A-1	1,000	455
	A-2	800	360
	A-3	650	295
	A-4	550	250
GREEN RANGE	B-1	1,200	540
	B-2	950	430
	B-3	750	340
	B-4	650	295
	C-1	1,200	540
	C-2	950	430
	C-3	750	340
	C-4	650	295

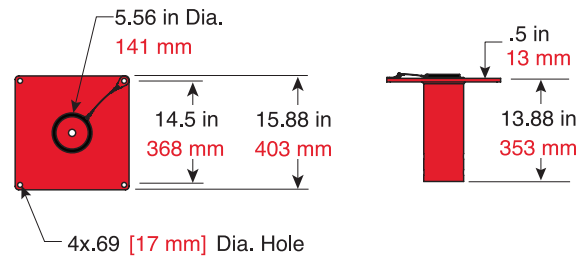


COMMANDER® AL 5AT2 PERFORMANCE RATINGS

Commander® AL 5AT2 with
Flush- or Wall-Mount Base
Reach & Height Above Floor¹

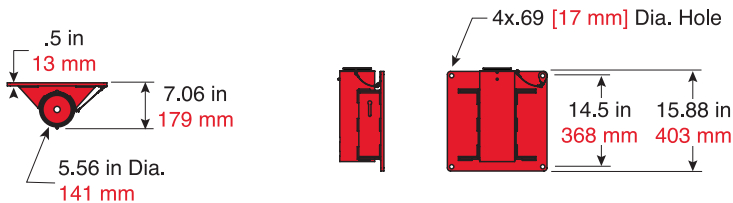
Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	28	711
A-2	46	1,168	28	711
A-3	56	1,422	28	711
A-4	66	1,676	28	711
B-1	29	736	42	1,066
B-2	38	965	46	1,168
B-3	47	1,193	51	1,295
B-4	56	1,422	55	1,397
C-1	22	558	50	1,270
C-2	29	736	57	1,447
C-3	36	914	64	1,625
C-4	43	1,092	71	1,803

¹ Performance Characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
Dimensions are for reference only and subject to change without notice.



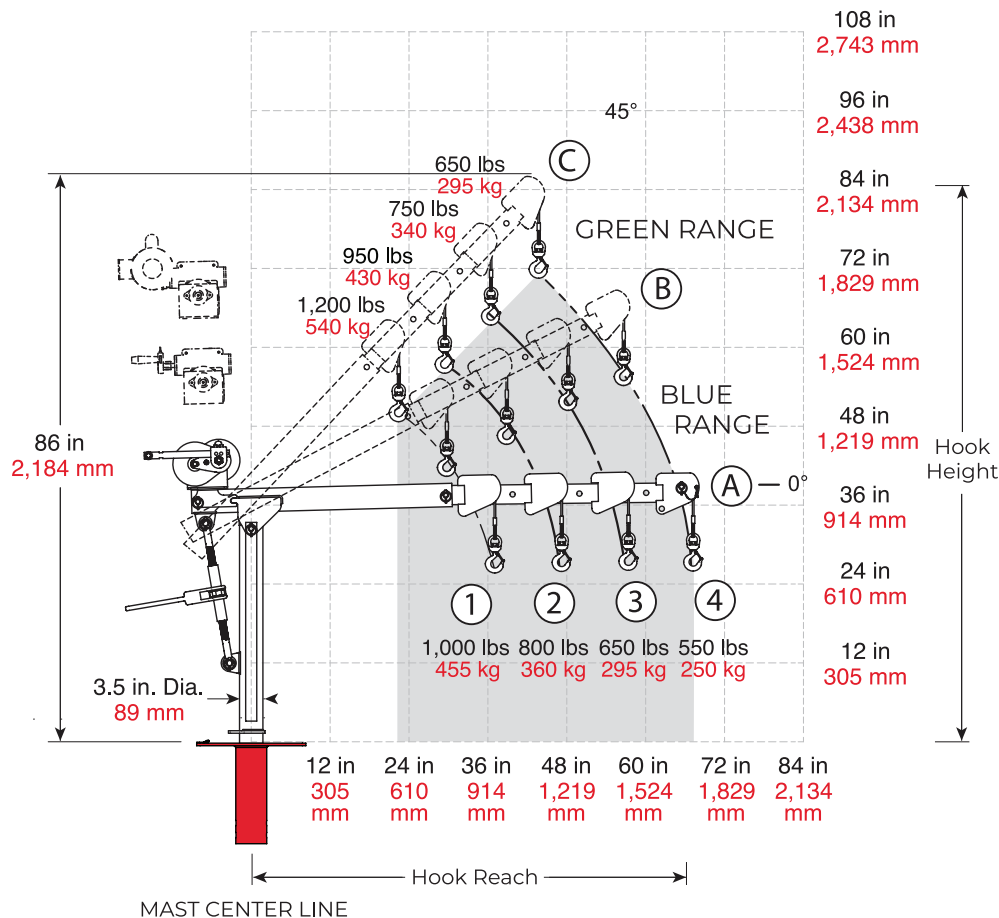
Commander® AL 5AT2 Flush-Mount Base

5BF20 5BF20G 5BF20S
5BF20S316 5BF20X



Commander® AL 5AT2 Wall-Mount Base

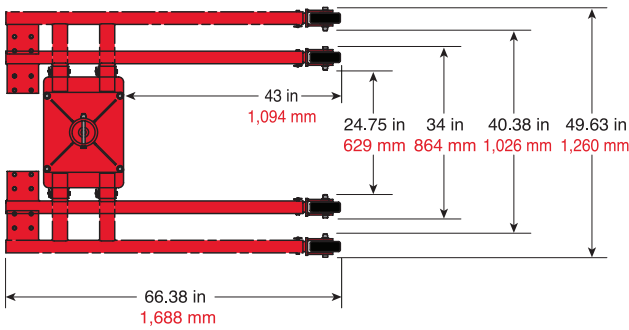
5BW20 5BW20G 5BW20S
5BW20S316 5BW20X



COMMANDER® AL 5AT2 PERFORMANCE RATINGS CONTINUED

Commander® AL 5AT2 on Wheel Base
Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	48	1,219
A-2	46	1,168	48	1,219
A-3	56	1,422	48	1,219
A-4	66	1,676	48	1,219
B-1	29	736	62	1,574
B-2	38	965	66	1,676
B-3	47	1,193	71	1,803
B-4	56	1,422	75	1,905
C-1	22	558	70	1,778
C-2	29	736	77	1,955
C-3	36	914	84	2,133
C-4	43	1,092	91	2,311



Commander 5AT2 Wheel Base
5BR20 5BR20X

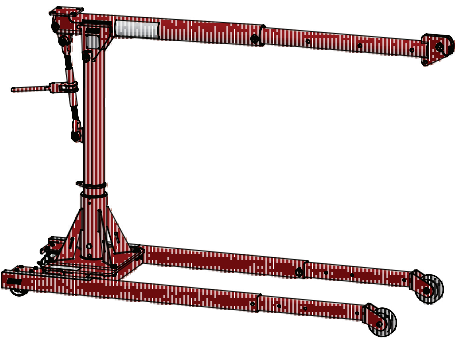
Dimensions are for reference only and subject to change without notice.

Commander® AL 5AT2 Wheel Base
Load Ratings

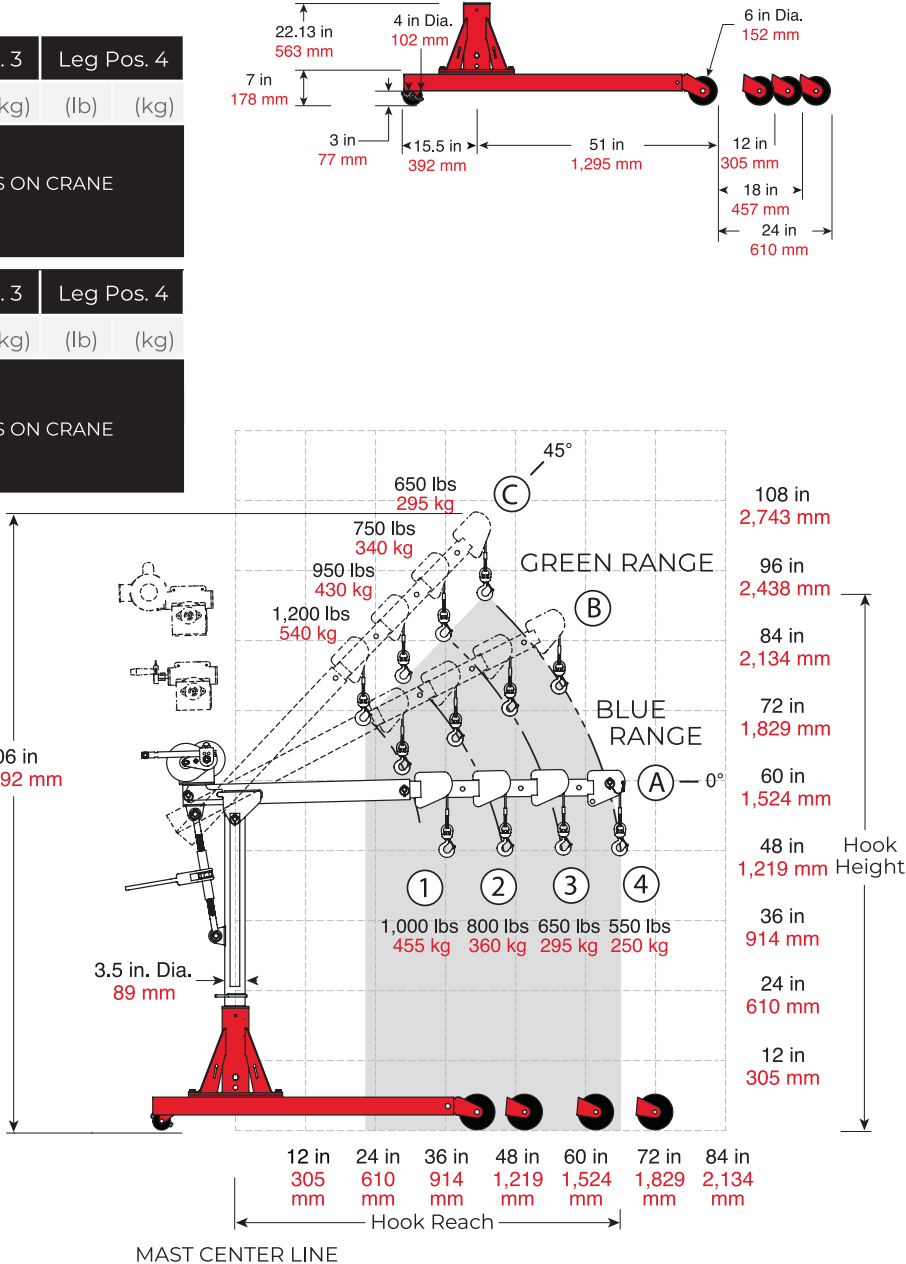
Boom Position	Leg Pos. 1		Leg Pos. 2		Leg Pos. 3		Leg Pos. 4	
	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)
A-1	SEE LOAD RATINGS ON CRANE							
A-2								
A-3								
A-4								
B-1	SEE LOAD RATINGS ON CRANE							
B-2								
B-3								
B-4								

Dimensions are for reference only and subject to change without notice.

Commander® AL 5AT2
on Wheel Base



IMPORTANT:
Crane DOES NOT rotate when assembled in 5BR20 wheel base.



COMMANDER SERIES AT A GLANCE

COMPARISON CHART

MODEL	Crane Weight	Max Capacity	Reach	MAXIMUM HOOK			FINISHES				
				Height (Above Floor)	Lift Distance* (Below Floor)	Long Lift** (Below Floor)	Powder Coat (Red)	Galv	304 SS	316 SS	Epoxy Paint (Gray)
Commander AL Series 5AT1	53 lbs 24 kg	650 lbs 300 kg	66 in 1,676 mm	85 in 2,159 mm	77 ft 23.4 m	287 ft 87.4 m	•				•
Commander AL Series 5AT2	81 lbs 38 kg	1200 lbs 540 kg	66 in 1,676 mm	85 in 2,159 mm	77 ft 23.4 m	287 ft 87.4 m	•				•
Commander 500 Series 5PT5	86 lbs 39 kg	650 lbs 300 kg	66 in 1,676 mm	85 in 2,159 mm	77 ft 23.4 m	287 ft 87.4 m	•	•	•	•	•
Commander 1000 Series 5PT10	122 lbs 55 kg	1200 lbs 540 kg	66 in 1,676 mm	85 in 2,159 mm	77 ft 23.4 m	287 ft 87.4 m	•	•	•	•	•
Commander 2000 Series 5PT20	213 lbs 97 kg	2000 lbs 905 kg	82 in 2,082 mm	97 in 2,463 mm	60 ft 18.2 m	435 ft 132.5 m	•	•	•	•	•

*Maximum lift distance may vary based on winch selection. See crane Performance Rating table.

**Contact factory for long lift ratings requirements. Max capacity may vary depending on wire rope diameters.

TECHNICAL DRAWINGS & SPECIFICATIONS

COMMANDER® 500

PORTABLE DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5PT5-M1	up to 650 lb capacity with M4022PB spur gear hand winch—powder-coat crane	102	46
5PT5G-M1	up to 650 lb capacity with M4022PB spur gear hand winch—galvanized crane	102	46
5PT5-M2	up to 650 lb capacity with 4WM2-K worm gear hand winch—powder-coat crane	123	56
5PT5G-M2	up to 650 lb capacity with 4WM2-K worm gear hand winch—galvanized crane	123	56
5PT5S-M3	up to 650 lb capacity with M4042PBSS spur gear hand winch—stainless-steel crane	110	50
5PT5-E2	up to 650 lb capacity with 4WP2-K electric winch—powder-coat crane	158	72
Crane Only			
5PT5	up to 650 lb capacity—base model—powder-coat finish	86	39
5PT5G	up to 650 lb capacity—base model—galvanized finish	86	39
5PT5S	up to 650 lb capacity—base model—304 stainless-steel finish	86	39
5PT5S316	up to 650 lb capacity—base model—316 stainless-steel finish	86	39
5PT5X	up to 650 lb capacity—base model—epoxy-gray finish	86	39
Winch Only			
M1	M4022PB—spur gear hand winch only—clear zinc coating	17	8
M2	4WM2-K—worm gear hand winch only—powder coat	42	19
M2X	4WM2EGRA-K—worm gear hand winch only—epoxy gray	42	19
M3	M4042PBSS—spur gear hand winch only—stainless steel	24	11
E2	4WP2-K electric winch—115/1/60 VAC with 6 ft pendant control—enamel	85	39
E2X	4WP2EGRA-K electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	85	39
E4	4777-K electric winch—115/1/60 VAC with 6 ft pendant control—enamel	110	50
E4X	4777EGRA-K electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	110	50
E4DC	4777DC-K electric winch—12 volt DC with 10 ft pendant control—enamel	105	48
E4DCX	4777DCEGRA-K electric winch—12 volt DC with 10 ft pendant control—epoxy gray	105	48

Independent Bases—sold separately

Pedestal, socket (flush-mount), or wall-mount style.

Wheel base for floor crane operation. Base includes stationary front wheels and rear locking caster wheels for 360° maneuverability. See Model 5BR5.

IMPORTANT: Base installation is the customer’s responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.



Finish	Pedestal	Flush	Wall	Wheel	Extension
Powder Coat Paint	5BP5	5BF5	5BW5	5BR5	5BE5-15
Galvanized	5BP5G	5BF5G	5BW5G	—	5BE5-15G
304 Stainless Steel	5BP5S	5BF5S	5BW5S	—	5BE5-15S
316 Stainless Steel	5BP5S316	5BF5S316	5BW5S316	—	5BE5-15S316
Epoxy Paint	5BP5X	5BF5X	5BW5X	5BR5X	5BE5-15X
Approximate Ship Weight	21 lbs (9.5 kg)	21 lbs (9.5 kg)	23 lbs (10.4 kg)	77 lbs (35 kg)	17 lbs (7.7) kg

Wire Rope Assemblies—sold separately

Galvanized or stainless steel wire rope assemblies with swivel hook and latch complete with swaged-ball fitting to work with the quick-disconnect anchor on the winch. See wire rope page for stainless steel and additional wire rope options.

Wire Rope Length		Galvanized Aircraft Cable		304 Stainless Steel Wire Rope	
		3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)	3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.
20	6.0	WA19-20NS	WA25-20NS	WS19-20NS	WS25-20NS
28	8.5	WA19-28NS	WA25-28NS	WS19-28NS	WS25-28NS
36	10.9	WA19-36NS	WA25-36NS	WS19-36NS	WS25-36NS
45	13.7	WA19-45NS	WA25-45NS	WS19-45NS	WS25-45NS
60	18.2	WA19-60NS	WA25-60NS	WS19-60NS	WS25-60NS
75	22.8	WA19-75NS	WA25-75NS	WA19-75NS	WS25-75NS
90	27.4	WA19-90NS	—	WA19-90NS	—

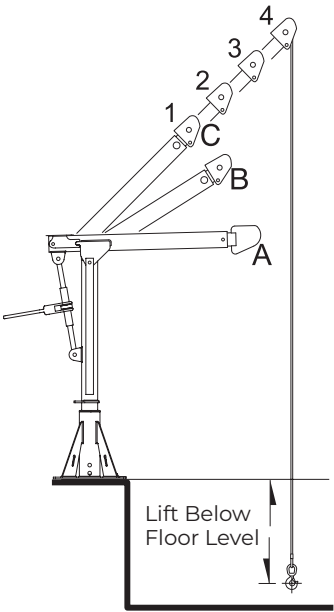


PERFORMANCE

Commander 500
Lift Below Floor² Level

Lift Below Floor ¹		Wire Rope Diameter		Wire Rope Length ³		Winch Configurations Maximum Winch Rating									
Minimum (C4) Maximum (C1)						M1		M2		M3		E2		E4	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
2	0.6	7	2.1	3/16"	5	20	6.0	650	294	–	–	650	294	–	–
10	3.0	15	4.5	3/16"	5	28	8.5	650	294	–	–	650	294	–	–
18	5.4	23	7.0	3/16"	5	36	10.9	650	294	–	–	650	294	–	–
27	8.2	32	9.7	3/16"	5	45	13.7	650	294	–	–	650	294	–	–
42	12.8	47	14.3	3/16"	5	60	18.2	–	–	–	–	650	294	–	–
57	17.3	62	18.8	3/16"	5	75	22.8	–	–	–	–	650	294	–	–
72	21.9	77	23.4	3/16"	5	90	27.4	–	–	–	–	640	290	–	–
102	31.0	107	32.6	3/16"	5	120	36.5	–	–	–	–	–	–	650	294
2	0.6	7	2.1	1/4"	6	20	6.0	–	–	650	294	650	294	650	294
10	3.0	15	4.5	1/4"	6	28	8.5	–	–	650	294	650	294	650	294
18	5.4	23	7.0	1/4"	6	36	10.9	–	–	650	294	650	294	650	294
27	8.2	32	9.7	1/4"	6	45	13.7	–	–	650	294	650	294	650	294
42	12.8	47	14.3	1/4"	6	60	18.2	–	–	650	294	600	272	650	294
57	17.3	62	18.8	1/4"	6	75	22.8	–	–	650	294	–	–	650	294
72	21.9	77	23.4	1/4"	6	90	27.4	–	–	–	–	–	–	650	294

¹ Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.
² Performance characteristics are for standard products referred to in this manual. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
³ Wire rope assemblies include a hook and a swaged-ball fitting to work with quick-disconnect anchor on winches, and 316SS wire rope is also available. Please contact the factory.

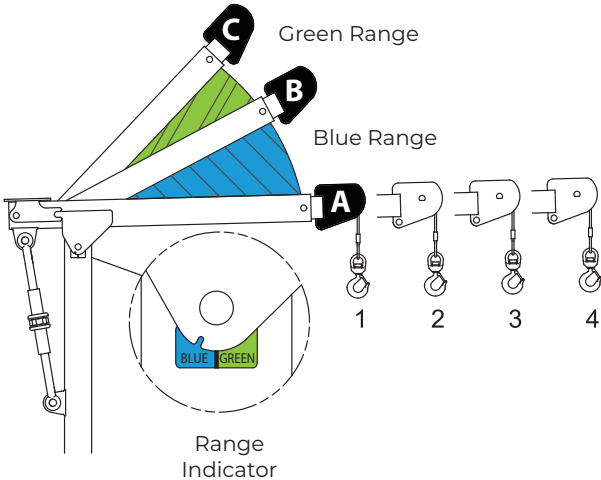


Winch
Configurations



Commander 500
Performance Ratings²

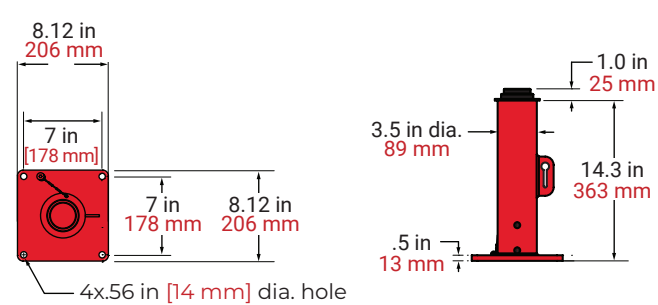
		Load Rating	
Boom Position		(lb)	(kg)
BLUE RANGE	A-1	550	250
	A-2	425	190
	A-3	350	160
	A-4	300	135
GREEN RANGE	B-1	650	300
	B-2	525	235
	B-3	425	190
	B-4	350	160
	C-1	650	300
	C-2	525	235
	C-3	425	190
	C-4	350	160



Commander 500 with Pedestal Base Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	42	1,066
A-2	46	1,168	42	1,066
A-3	56	1,422	42	1,066
A-4	66	1,676	42	1,066
B-1	29	736	56	1,422
B-2	38	965	60	1,524
B-3	47	1,193	65	1,651
B-4	56	1,422	69	1,752
C-1	23	584	64	1,625
C-2	30	762	71	1,803
C-3	37	940	78	1,981
C-4	44	1,117	85	2,159

Dimensions are for reference only and subject to change without notice.

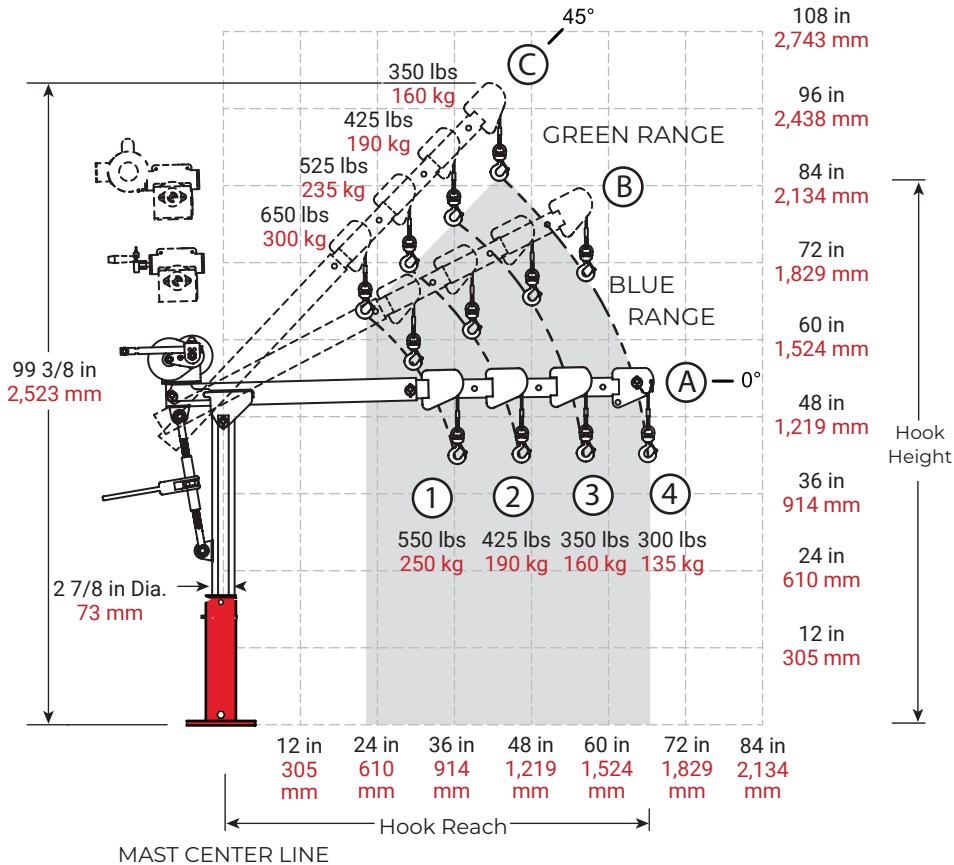


Commander 500 Pedestal Base

5BP5
5BP5G

5BP5S
5BP5S316

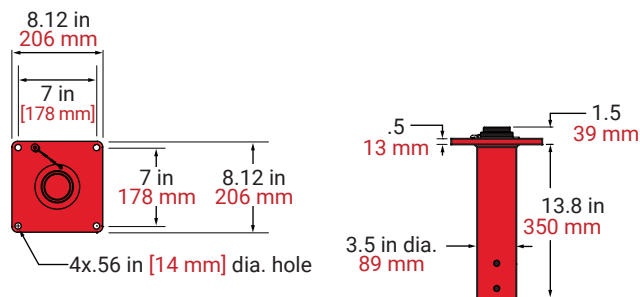
5BP5X



Commander 500 with Flush- or Wall-Mount Base Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	28	711
A-2	46	1,168	28	711
A-3	56	1,422	28	711
A-4	66	1,676	28	711
B-1	30	762	42	1,066
B-2	38	965	46	1,168
B-3	46	1,168	51	1,295
B-4	54	1,371	55	1,397
C-1	23	584	50	1,270
C-2	29	736	57	1,447
C-3	36	914	63	1,600
C-4	42	1,066	70	1,778

¹ Dimensions are for reference only and subject to change without notice.

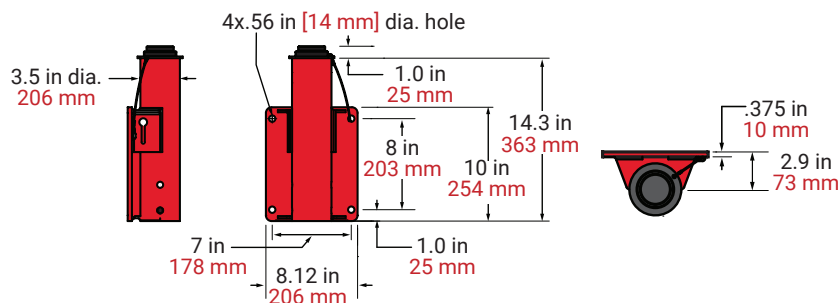


Commander 500 Flush-Mount Base

5BF5
5BF5G

5BF5S
5BF5S316

5BF5X

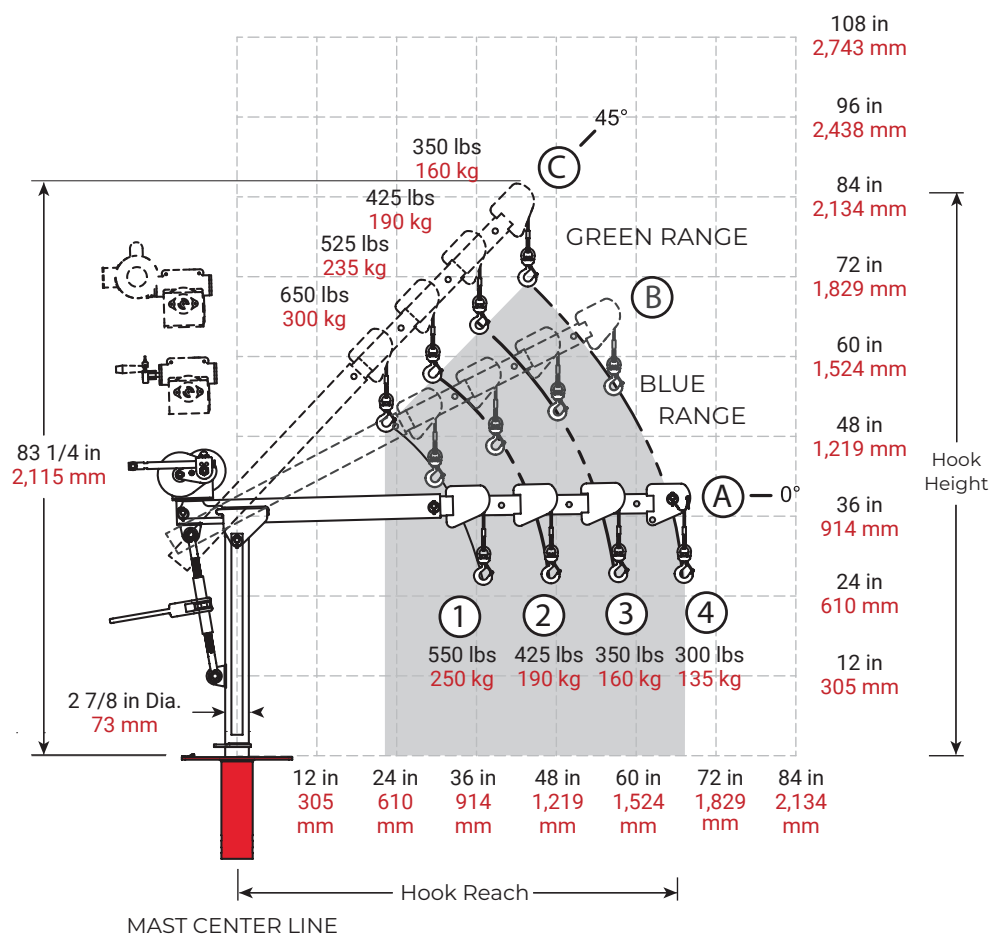


Commander 500 Wall-Mount Base

5BW5
5BW5G

5BW5S
5BW5S316

5BW5X



Commander 500 with Wheel Base Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	46	1,168
A-2	46	1,168	46	1,168
B-1	30	762	60	1,524
B-2	38	965	64	1,625
C-1	23	584	68	1,727
C-2	29	736	75	1,905

Dimensions are for reference only and subject to change without notice.

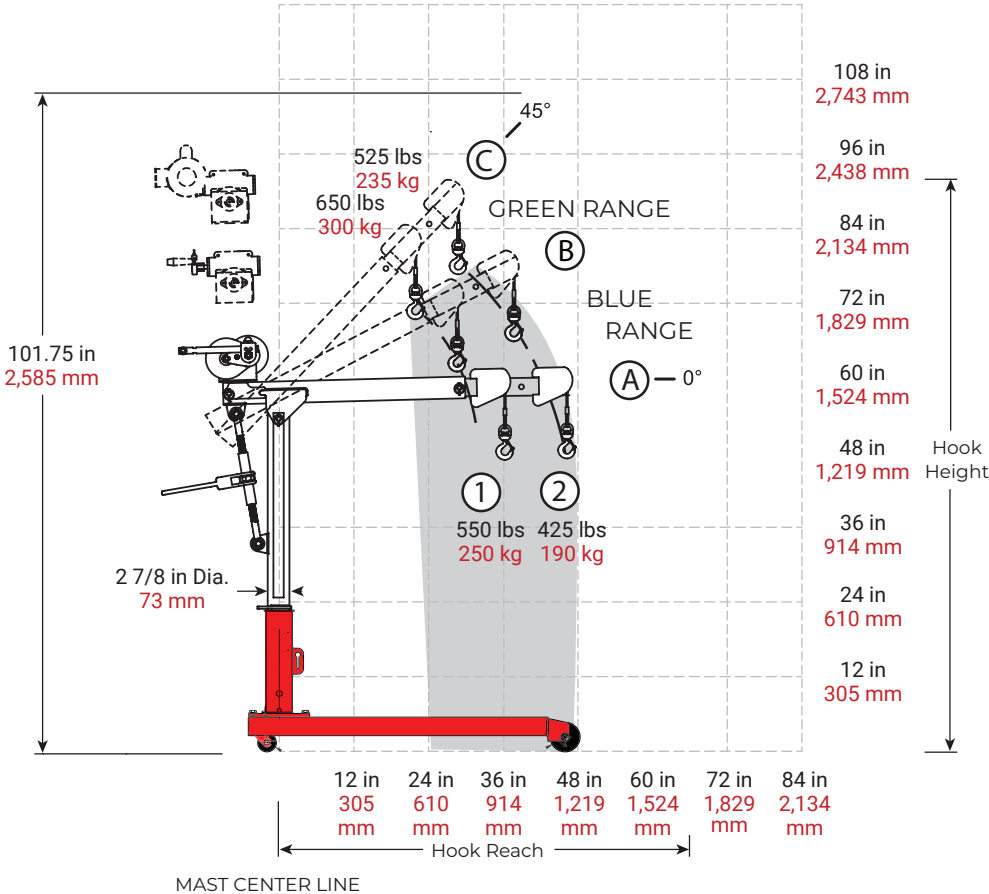
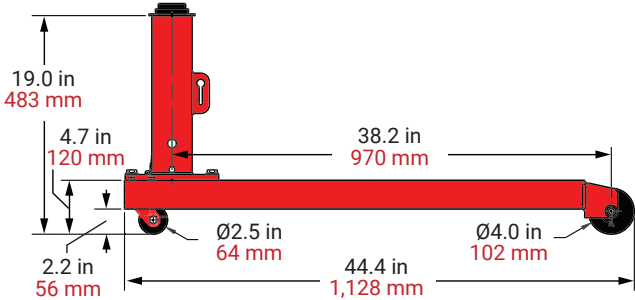
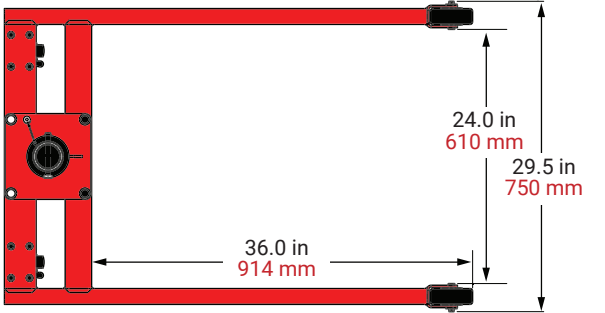
Commander 5000 Wheel Base Load Ratings

Boom Position	Load Rating	
	(lb)	(kg)
1	SEE LOAD RATING ON CRANE	
2		
3	DO NOT USE	
4		

Dimensions are for reference only and subject to change without notice.



IMPORTANT:
Crane DOES NOT rotate when assembled in SBR wheel base.



TECHNICAL DRAWINGS & SPECIFICATIONS

COMMANDER® 1000

PORTABLE DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5PT10-M1	up to 1,200 lb capacity with M4312PB spur gear hand winch—powder-coat crane	150	68
5PT10G-M1	up to 1,200 lb capacity with M4312PB spur gear hand winch—galvanized crane	150	68
5PT10-M2	up to 1,200 lb capacity with 4WM2-K worm gear hand winch—powder-coat crane	164	74
5PT10G-M2	up to 1,200 lb capacity with 4WM2-K worm gear hand winch—galvanized crane	164	74
5PT10S-M3	up to 1,200 lb capacity with M4312PBSS spur gear hand winch—stainless-steel crane	150	68
5PT10-E2	up to 1,200 lb capacity with 4WP2-K electric winch—powder-coat crane	207	94
Crane Only			
5PT10	up to 1,200 lb capacity—base model—powder-coat finish	122	55
5PT10G	up to 1,200 lb capacity—base model—galvanized finish	122	55
5PT10S	up to 1,200 lb capacity—base model—304 stainless-steel finish	122	55
5PT10S316	up to 1,200 lb capacity—base model—316 stainless-steel finish	122	55
5PT10X	up to 1,200 lb capacity—base model—gray-epoxy finish	122	55
Winch Only			
M1	M4312PB—spur gear hand winch only—zinc plated	28	13
M2	4WM2-K—worm gear hand winch only—powder coat	42	19
M2X	4WM2EGRA-K—worm gear hand winch only—epoxy gray	42	19
M3	M4312PBSS—spur gear hand winch only—stainless steel	28	13
E2	4WP2-K electric winch—115/1/60 VAC with 6 ft pendant control—enamel	85	39
E2X	4WP2EGRA-K electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	85	39
E4	4777-K electric winch—115/1/60 VAC with 6 ft pendant control—enamel	110	50
E4X	4777EGRA-K electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	110	50
E4DC	4777DC-K electric winch—12 volt DC with 10 ft pendant control—enamel	105	48
E4DCX	4777DCEGRA-K electric winch—12 volt DC with 10 ft pendant control—epoxy gray	105	48

Independent Bases—sold separately

Pedestal, socket (flush-mount), or wall-mount style.

Wheel base for floor crane operation. Base legs adjust in length and width. See Model 5BR10.

IMPORTANT: Base installation is the customer's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.



Finish	Pedestal	Flush	Wall	Wheel	Extension
Powder Coat Paint	5BP10	5BF10	5BW10	5BR10	5BE1015
Galvanized	5BP10G	5BF10G	5BW10G	—	5BE1015G
304 Stainless Steel	5BP10S	5BF10S	5BW10S	—	5BE1015S
316 Stainless Steel	5BP10S316	5BF10S316	5BW10S316	—	5BE1015S316
Epoxy Paint	5BP10X	5BF10X	5BW10X	5BR10X	5BE1015X
Approximate Ship Weight	52 lbs (24 kg)	44 lbs (20 kg)	48 lbs (22 kg)	285 lbs (130 kg)	—

Wire Rope Assemblies—sold separately

Galvanized or stainless steel for wire rope assemblies with swaged-ball fitting to work with the quick-disconnect anchor on the winch. 316 stainless also available. Please contact Thern.

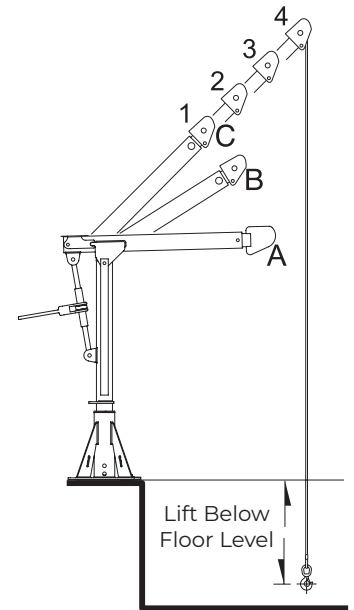
Wire Rope Length		Galvanized Aircraft Cable		304 Stainless Steel Wire Rope	
		3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)	3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.
20	6.0	WA19-20NS	WA25-20NS	WS19-20NS	WS25-20NS
28	8.5	WA19-28NS	WA25-28NS	WS19-28NS	WS25-28NS
36	10.9	WA19-36NS	WA25-36NS	WS19-36NS	WS25-36NS
45	13.7	WA19-45NS	WA25-45NS	WS19-45NS	WS25-45NS
60	18.2	WA19-60NS	WA25-60NS	WS19-60NS	WS25-60NS
75	22.8	WA19-75NS	WA25-75NS	WA19-75NS	WS25-75NS
90	27.4	WA19-90NS	—	WA19-90NS	—



PERFORMANCE

Commander 1000 Lift Below Floor² Level

Lift Below Floor ¹		Wire Rope Diameter		Wire Rope Length ³		Winch Configurations Maximum Winch Rating									
Minimum (C4) Maximum (C1)						M1		M2		M3		E2		E4	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
2	0.6	7	2.1	3/16"	5	20	6.0	1,200	544	–	–	1,200	544	–	–
10	3.0	15	4.5	3/16"	5	28	8.5	1,200	544	–	–	1,200	544	–	–
18	5.4	23	7.0	3/16"	5	36	10.9	1,200	544	–	–	1,200	544	–	–
27	8.2	32	9.7	3/16"	5	45	13.7	1,200	544	–	–	1,200	544	–	–
42	12.8	47	14.3	3/16"	5	60	18.2	1,200	544	–	–	1,200	544	–	–
57	17.3	62	18.8	3/16"	5	75	22.8	1,200	544	–	–	1,200	544	–	–
72	21.9	77	23.4	3/16"	5	90	27.4	1,200	544	–	–	1,200	544	–	–
102	31.0	107	32.6	3/16"	5	120	36.5	–	–	–	–	–	–	1,200	544
2	0.6	7	2.1	1/4"	6	20	6.0	1,200	544	1,200	544	1,200	544	1,200	544
10	3.0	15	4.5	1/4"	6	28	8.5	1,200	544	1,200	544	1,200	544	1,200	544
18	5.4	23	7.0	1/4"	6	36	10.9	1,200	544	1,200	544	1,200	544	1,200	544
27	8.2	32	9.7	1/4"	6	45	13.7	1,200	544	1,200	544	1,200	544	1,200	544
42	12.8	47	14.3	1/4"	6	60	18.2	1,200	544	1,200	544	1,200	544	1,200	544
57	17.3	62	18.8	1/4"	6	75	22.8	–	–	1,200	544	–	–	1,200	544
72	21.9	77	23.4	1/4"	6	90	27.4	–	–	–	–	–	–	1,200	544
102	31.0	107	32.6	1/4"	6	120	36.5	–	–	–	–	–	–	–	–
2	0.6	7	2.1	5/16"	8	20	6.0	1,200	544	1,200	544	1,200	544	1,200	544
10	3.0	15	4.5	5/16"	8	28	8.5	1,200	544	1,200	544	1,200	544	1,200	544
18	5.4	23	7.0	5/16"	8	36	10.9	1,200	544	1,200	544	1,200	544	1,200	544
27	8.2	32	9.7	5/16"	8	45	13.7	1,200	544	1,200	544	1,200	544	1,200	544
42	12.8	47	14.3	5/16"	8	60	18.2	–	–	–	–	–	–	1,200	544



¹ Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.

² Performance characteristics are for standard products referred to in this manual. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

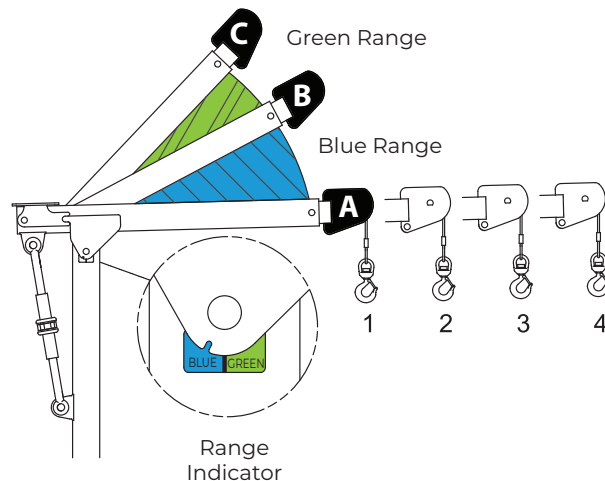
³ Wire rope assemblies include a hook and a swaged-ball fitting to work with quick-disconnect anchor on winches, and 316SS wire rope is also available. Please contact the factory.

Winch Configurations



Commander 1000 Performance Ratings²

Boom Position		Load Rating	
		(lb)	(kg)
BLUE RANGE	A-1	1,000	453
	A-2	800	362
	A-3	650	294
	A-4	550	249
GREEN RANGE	B-1	1,200	544
	B-2	950	430
	B-3	750	340
	B-4	650	294
GREEN RANGE	C-1	1,200	544
	C-2	950	430
	C-3	750	340
	C-4	650	294

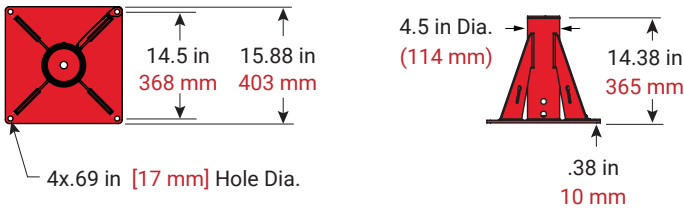


Commander 1000 with Pedestal Base Reach & Height Above Floor¹

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	42	1,066
A-2	46	1,168	42	1,066
A-3	56	1,422	42	1,066
A-4	66	1,676	42	1,066
B-1	29	736	56	1,422
B-2	38	965	60	1,524
B-3	47	1,193	65	1,651
B-4	56	1,422	69	1,752
C-1	22	558	64	1,625
C-2	29	736	71	1,803
C-3	36	914	78	1,981
C-4	43	1,092	85	2,159

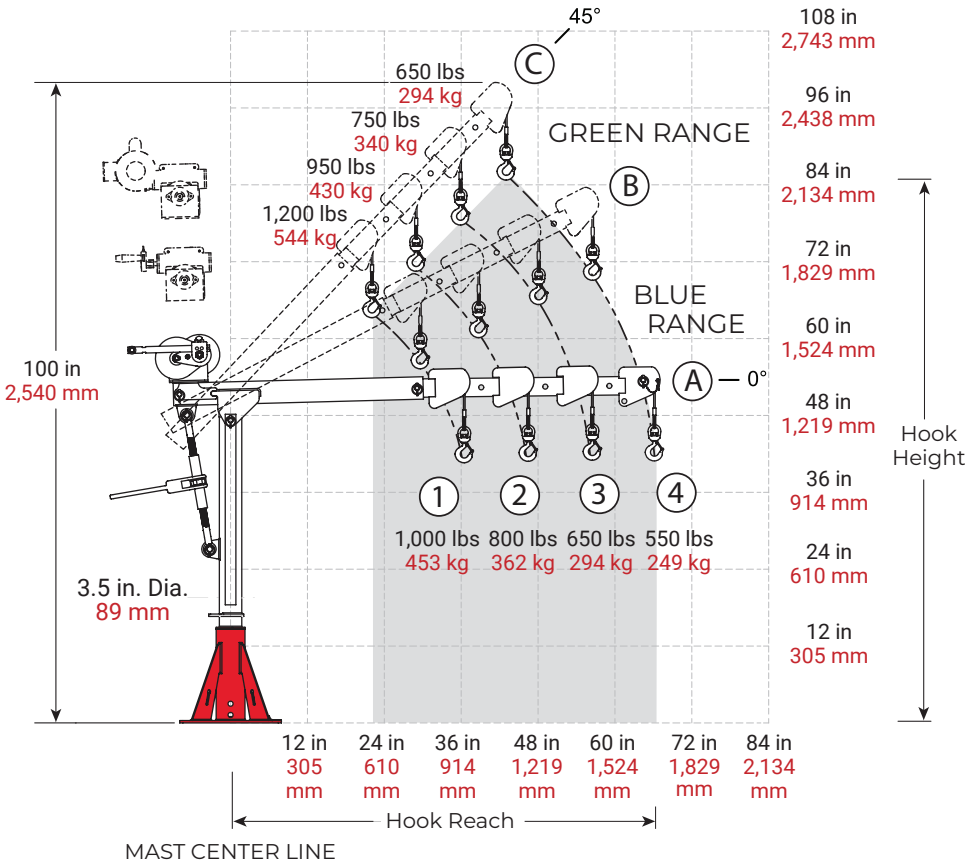
¹ Performance Characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

Dimensions are for reference only and subject to change without notice.



Commander 1000 Pedestal Base

- 5BP10
 5BP10G
- 5BP10S
 5BP10S316
- 5BP10X

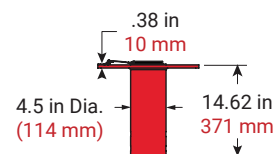
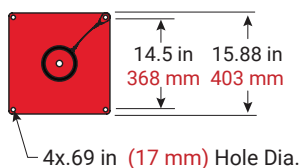


Commander 1000 with Flush- or Wall-Mount Base Reach & Height Above Floor¹

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	28	711
A-2	46	1,168	28	711
A-3	56	1,422	28	711
A-4	66	1,676	28	711
B-1	29	736	42	1,066
B-2	38	965	46	1,168
B-3	47	1,193	51	1,295
B-4	56	1,422	55	1,397
C-1	22	558	50	1,270
C-2	29	736	57	1,447
C-3	36	914	64	1,625
C-4	43	1,092	71	1,803

¹ Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

Dimensions are for reference only and subject to change without notice.

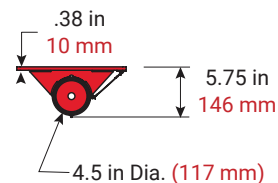
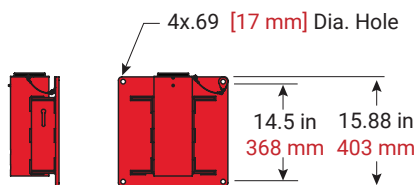


Commander 1000 Flush-Mount Base

5BF10
5BF10S316

5BF10G
5BF10X

5BF10S

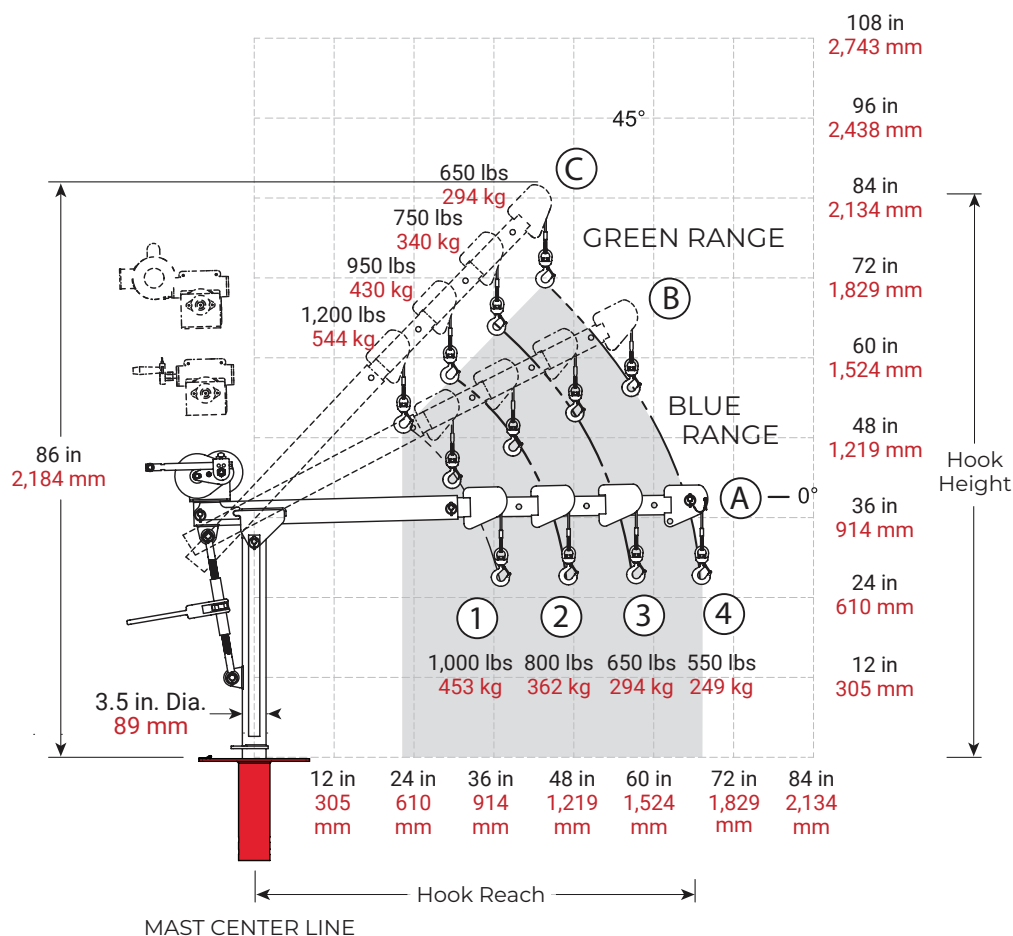


Commander 1000 Wall-Mount Base

5BW10
5BW10S316

5BW10G
5BW10X

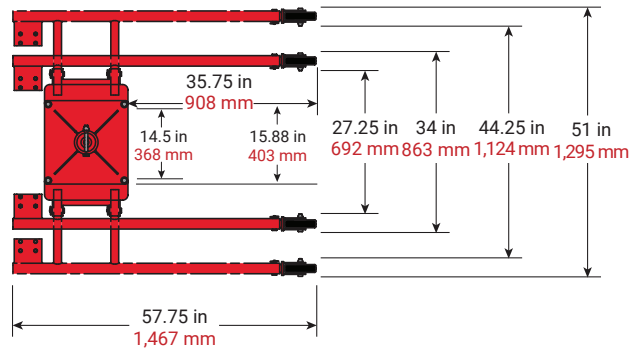
5BW10S



Commander 1000 on Wheel Base Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	48	1,219
A-2	46	1,168	48	1,219
A-3	56	1,422	48	1,219
A-4	66	1,676	48	1,219
B-1	29	736	62	1,574
B-2	38	965	66	1,676
B-3	47	1,193	71	1,803
B-4	56	1,422	75	1,905
C-1	22	558	70	1,778
C-2	29	736	77	1,955
C-3	36	914	84	2,133
C-4	43	1,092	91	2,311

Dimensions are for reference only and subject to change without notice.



Commander 1000 Wheel Base

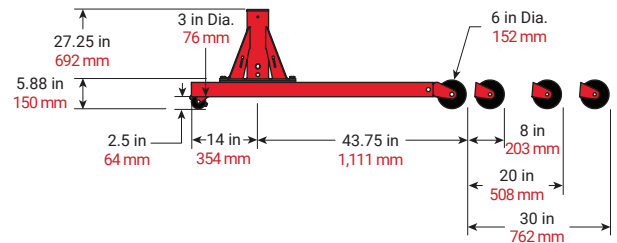
5BR10

5BR10X

Commander 1000 Wheel Base Load Ratings

Boom Position	Leg Pos. 1		Leg Pos. 2		Leg Pos. 3		Leg Pos. 4	
	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)
A/B-1	SEE LOAD RATINGS ON CRANE							
A/B-2								
A/B-3								
A/B-4								

Dimensions are for reference only and subject to change without notice.

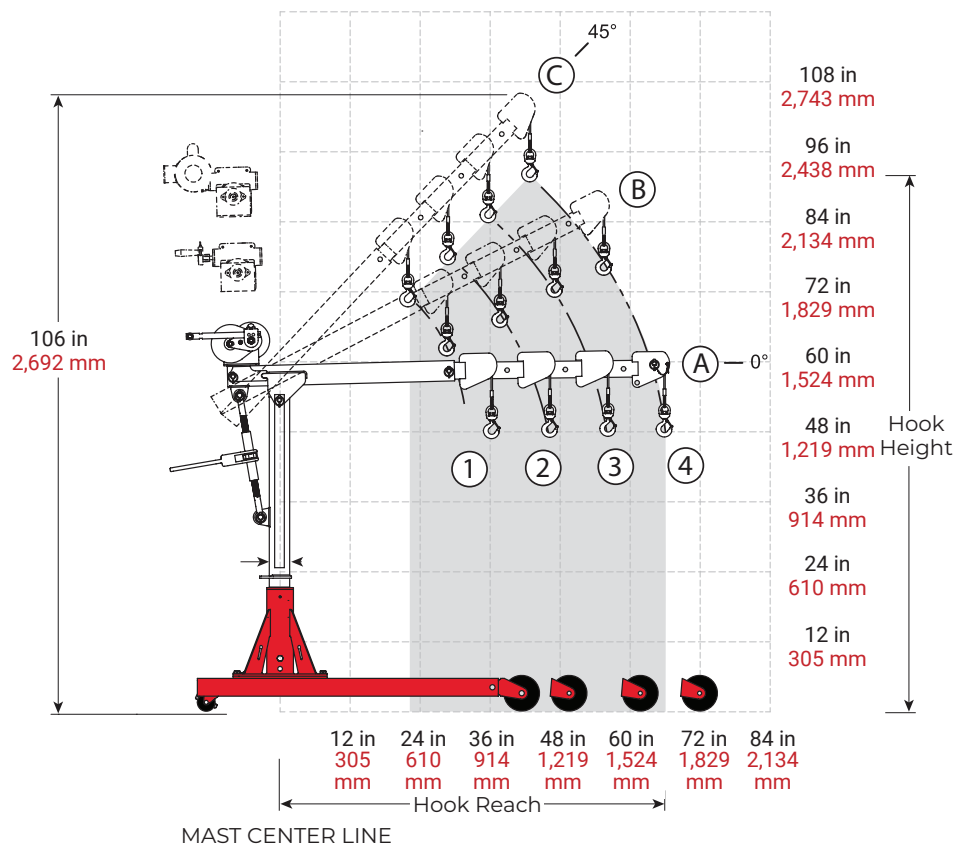


Commander 1000 on Wheel Base



IMPORTANT:

Crane DOES NOT rotate when assembled in 5BR10 wheel base.



TECHNICAL DRAWINGS & SPECIFICATIONS

COMMANDER® 2000

PORTABLE DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5PT20-M1	up to 2,000 lb capacity with M4312PB spur gear hand winch—powder-coat crane	241	109
5PT20G-M1	up to 2,000 lb capacity with M4312PB spur gear hand winch—galvanized crane	241	109
5PT20-M2	up to 2,000 lb capacity with 4WM2-K worm gear hand winch—powder-coat crane	255	116
5PT20G-M2	up to 2,000 lb capacity with 4WM2-K worm gear hand winch—galvanized crane	255	116
5PT20S-M3	up to 2,000 lb capacity with M4312PBSS spur gear hand winch—stainless-steel crane	241	109
5PT20-E2	up to 2,000 lb capacity with 4WP2-K electric winch—powder-coat crane	298	135
Crane Only			
5PT20	up to 2,000 lb capacity—base model—powder-coat finish	213	97
5PT20G	up to 2,000 lb capacity—base model—galvanized finish	213	97
5PT20S	up to 2,000 lb capacity—base model—304 stainless-steel finish	213	97
5PT20S316	up to 2,000 lb capacity—base model—316 stainless-steel finish	213	97
5PT20X	up to 2,000 lb capacity—base model—gray-epoxy finish	213	97
Winch Only			
M1	M4312PB—spur gear hand winch only—zinc plated	28	13
M2	4WM2-K—worm gear hand winch only—powder coat	42	19
M2X	4WM2EGRA-K—worm gear hand winch only—gray epoxy	42	19
M3	M4312PBSS—spur gear hand winch only—stainless steel	28	13
E2	4WP2-K electric winch—115/1/60 VAC with 6 ft pendant control—enamel	85	39
E2X	4WP2EGRA-K electric winch—115/1/60 VAC with 6 ft pendant control—gray epoxy	85	39
E3	3WG4B-K- electric winch —115/1/60 VAC with 6 ft penedant control —enamel		
E3X	3WG4B-KX electric winch—115/1/60 VAC with 6 ft pendant control—enamel		
E4	4777EGRA-K electric winch—115/1/60 VAC with 6 ft pendant control—gray epoxy	110	50
E4X	4777DC-K electric winch—12 volt DC with 10 ft pendant control—enamel	110	50
E4DC	4777DC-K electric winch—12 volt DC with 10 ft pendant control—gray epoxy	105	48

Independent Bases—sold separately

Pedestal, socket, or wall-mount style.

Wheel base for floor cane operation. Base legs adjust in length and width.

IMPORTANT: Base installation is the customer’s responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.



Finish	Pedestal	Flush	Wall	Wheel	Extension
Powder Coat Paint	5BP20	5BF20	5BW20	5BR20	5BE20-15
Galvanized	5BP20G	5BF20G	5BW20G	—	5BE20-15G
304 Stainless Steel	5BP20S	5BF20S	5BW20S	—	5BE20-15S
316 Stainless Steel	5BP20S316	5BF20S316	5BW20S316	—	5BE20-15S316
Epoxy Paint	5BP20X	5BF20X	5BW20X	5BR20X	5BE20-15X
Approximate Ship Weight	66 lbs 30 kg)	57 lbs (26 kg)	64 lbs (30 kg)	375 lbs (171 kg)	53 lbs (25 kg)

Wire Rope Assemblies—sold separately

Galvanized or stainless steel for wire rope assemblies with swaged-ball fitting to work with the quick-disconnect anchor on the winch. 316 stainless also available. Please contact Thern.

Wire Rope Length		Galvanized Aircraft Cable		304 Stainless Steel Wire Rope	
		1/4" Dia. (6.4 mm)	5/16" Dia. (7.9 mm)	1/4" Dia. (6.4 mm)	5/16" Dia. (7.9 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.
20	6.0	WA25-20NS	WA31-20DS	WS25-20NS	WS31-20DS
28	8.5	WA25-28NS	WA31-28DS	WS25-28NS	WS31-28DS
36	10.9	WA25-36NS	WA31-36DS	WS25-36NS	WS31-36DS
45	13.7	WA25-45NS	WA31-45DS	WS25-45NS	WS31-45DS
60	18.2	WA25-60NS	WA31-60DS	WS25-60NS	WS31-60DS
75	22.8	WA25-75NS	—	WS25-75NS	—



PERFORMANCE

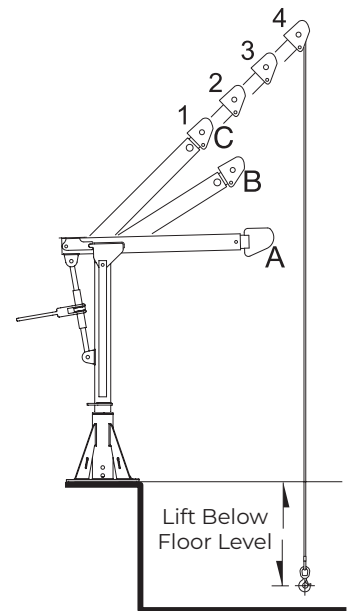
Commander 2000 Lift Below Floor² Level

Lift Below Floor ¹				Wire Rope Diameter		Wire Rope Length ³		Winch Configurations Maximum Winch Rating											
Minimum (C4)		Maximum (C1)						M1		M2		M3		E2		E4			
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)		
0	0.0	5	1.5	1/4"	6	20	6.0	2,000	907	2,000	907	2,000	907	2,000	907	2,000	907		
8	2.4	13	3.9	1/4"	6	28	8.5	1,800	816	1,700	771	1,800	816	1,700	771	1,800	816		
16	4.8	21	6.4	1/4"	6	36	10.9	1,800	816	1,700	771	1,800	816	1,700	771	1,600	725		
25	7.6	30	9.1	1/4"	6	45	13.7	1,600	725	1,500	680	1,600	725	1,500	680	1,600	725		
40	12.1	45	13.7	1/4"	6	60	18.2	1,400	635	1,300	589	1,400	635	1,300	589	1,400	635		
55	16.7	60	18.2	1/4"	6	75	22.8	–	–	1,300	589	–	–	1,300	589	1,300	589		
70	21.3	75	22.8	1/4"	6	90	27.4	–	–	–	–	–	–	–	–	1,300	589		
100	30.4	105	32.0	1/4"	6	120	36.5	–	–	–	–	–	–	–	–	–	–		
0	0.0	5	1.5	5/16"	8	20	6.0	1,900	861	1,900	861	1,900	861	1,900	861	1,300	861		
8	2.4	13	3.9	5/16"	8	28	8.5	1,600	725	1,600	725	1,600	725	1,600	725	1,900	771		
16	4.8	21	6.4	5/16"	8	36	10.9	1,400	635	1,400	635	1,400	635	1,400	635	1,700	680		
25	7.6	30	9.1	5/16"	8	45	13.7	1,300	589	1,400	635	1,300	589	1,400	635	1,500	680		
40	12.1	45	13.7	5/16"	8	60	18.2	–	–	–	–	–	–	–	–	1,500	589		

¹ Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.

² Performance characteristics are for standard products referred to in this manual. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

³ Wire rope assemblies include a hook and a swaged-ball fitting to work with quick-disconnect anchor on winches, and 316SS wire rope is also available. Please contact the factory.

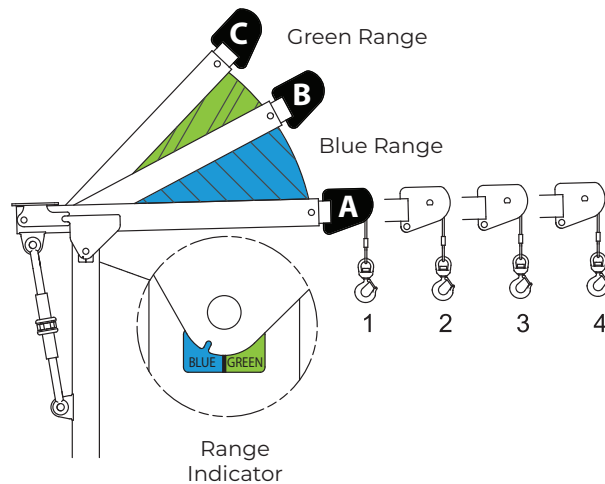


Winch Configurations



Commander 2000 Performance Ratings²

		Load Rating	
Boom Position		(lb)	(kg)
BLUE RANGE	A-1	2,000	907
	A-2	1,600	725
	A-3	1,300	589
	A-4	1,100	498
GREEN RANGE	B-1	2,000	907
	B-2	1,900	861
	B-3	1,500	680
	B-4	1,300	589
	C-1	2,000	907
	C-2	1,900	861
	C-3	1,500	680
	C-4	1,300	589

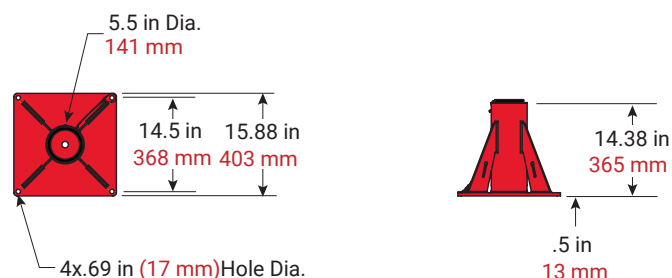


Commander 2000 with Pedestal Base Reach & Height Above Floor¹

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	46	1,168	43	1,092
A-2	58	1,473	43	1,092
A-3	70	1,778	43	1,092
A-4	82	2,082	43	1,092
B-1	37	939	61	1,549
B-2	48	1,219	67	1,701
B-3	58	1,473	72	1,828
B-4	69	1,752	78	1,981
C-1	28	711	71	1,803
C-2	36	914	80	2,032
C-3	45	1,143	88	2,235
C-4	53	1,346	97	2,463

¹ Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

Dimensions are for reference only and subject to change without notice.



Commander 2000 Pedestal Base

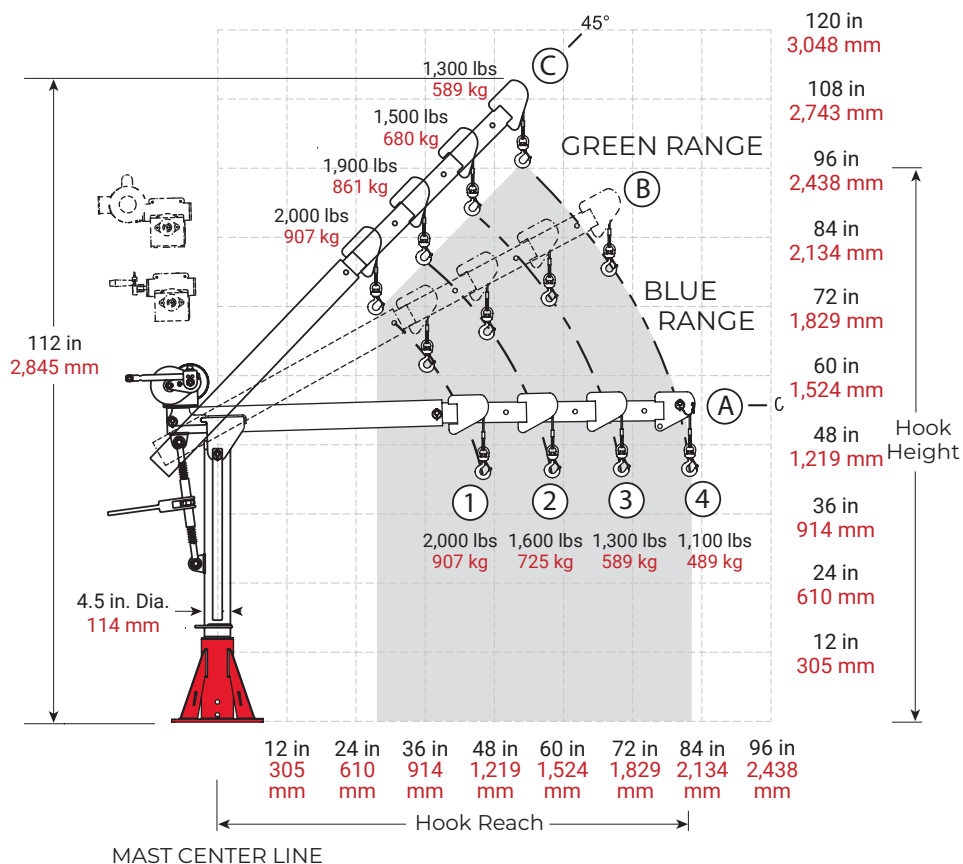
5BP20

5BP20S

5BP20X

5BP20G

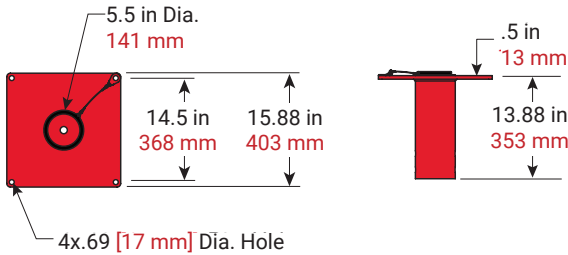
5BP20S316



Commander 2000 with Flush- or Wall-Mount Base Reach & Height Above Floor¹

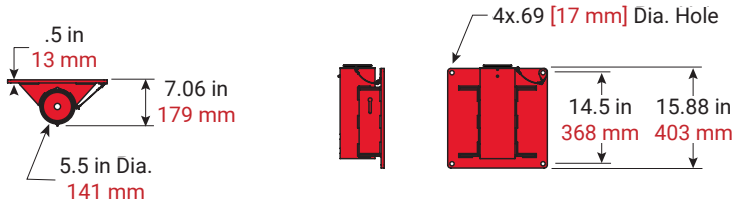
Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	46	1,168	29	736
A-2	58	1,473	29	736
A-3	70	1,778	29	736
A-4	82	2,082	29	736
B-1	37	939	47	1,193
B-2	48	1,219	53	1,346
B-3	58	1,473	58	1,473
B-4	69	1,752	64	1,625
C-1	28	711	57	1,447
C-2	36	914	66	1,676
C-3	45	1,143	74	1,879
C-4	53	1,346	83	2,108

¹ Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
Dimensions are for reference only and subject to change without notice.



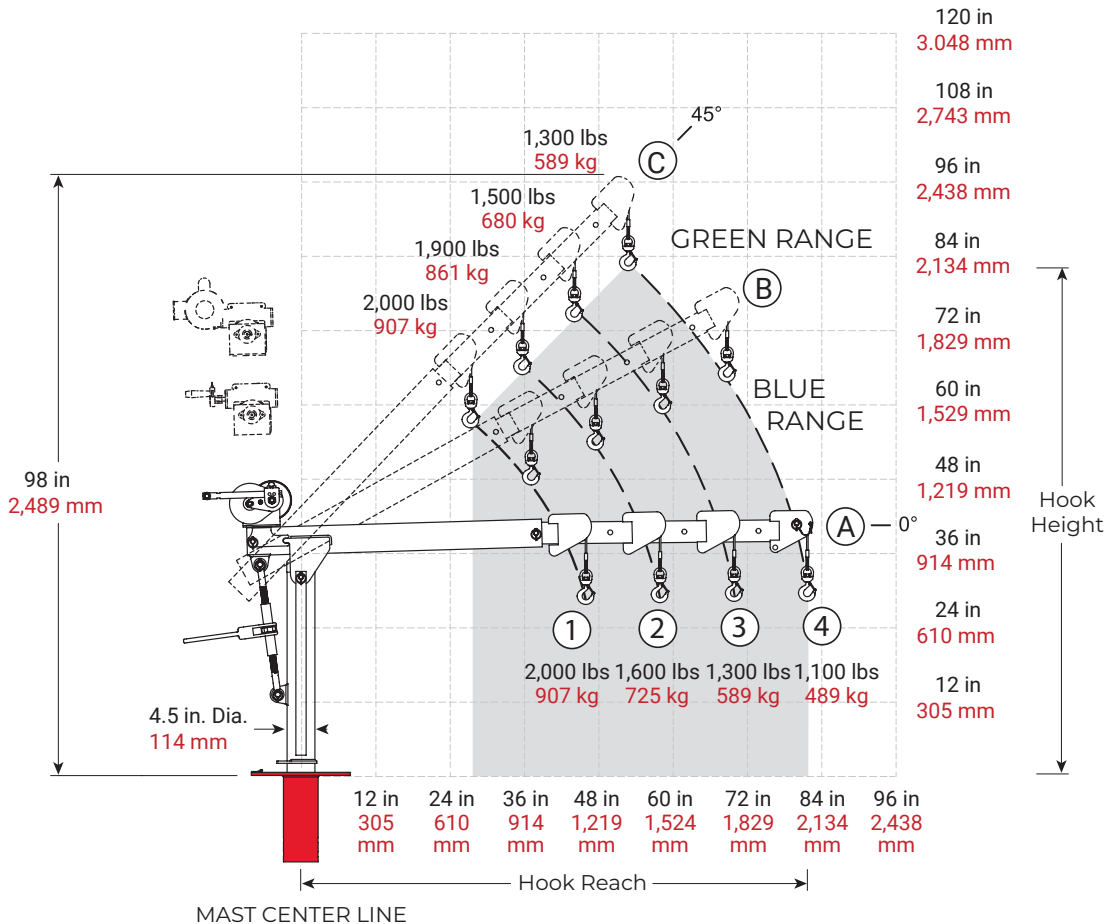
Commander 2000 Flush-Mount Base

5BW20 5BW20G 5BW20S
5BW20S316 5BW20X



Commander 2000 Wall-Mount Base

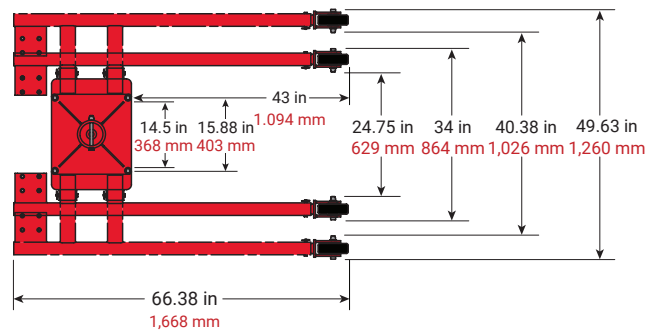
5BW20 5BW20G 5BW20S
5BW20S316 5BW20X



Commander 2000 on Wheel Base Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	46	1,168	50	1,270
A-2	58	1,473	50	1,270
A-3	70	1,778	50	1,270
A-4	82	2,082	50	1,270
B-1	37	939	68	1,727
B-2	48	1,219	74	1,879
B-3	58	1,473	79	2,006
B-4	69	1,752	85	2,159
C-1	28	711	78	1,981
C-2	36	914	87	2,209
C-3	45	1,143	95	2,413
C-4	53	1,346	104	2,641

Dimensions are for reference only and subject to change without notice.

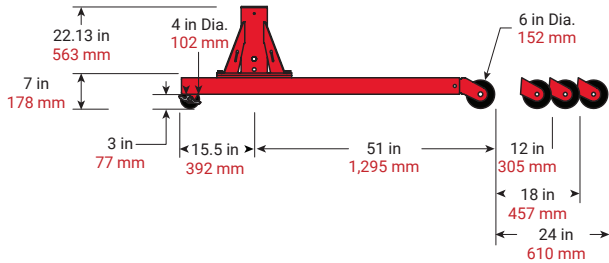


Commander 2000 Wheel Base
5BR20 5BR20X

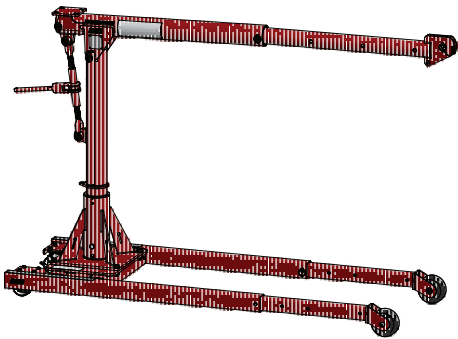
Commander 2000 Wheel Base Load Ratings

Boom Position	Leg Pos. 1		Leg Pos. 2		Leg Pos. 3		Leg Pos. 4	
	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)
A/B/C-1	SEE LOAD RATINGS ON CRANE							
A/B/C-2								
A/B/C-3								
A/B/C-4								

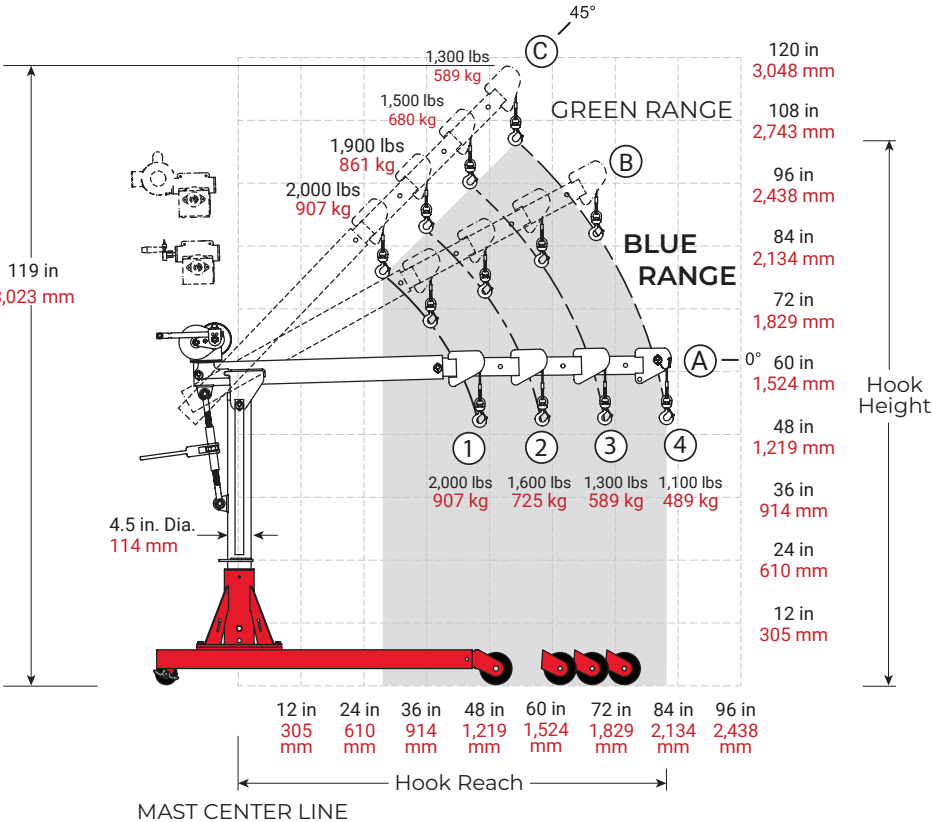
Dimensions are for reference only and subject to change without notice.



Commander 2000 on Wheel Base



IMPORTANT:
Crane DOES NOT rotate when assembled in 5BR20 wheel base.



TECHNICAL DRAWINGS & SPECIFICATIONS

RESCUE RATED

PORTABLE DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Available Configurations			
5PT10R-M2R	up to a 1,200 lbs capacity with 4WM2R worm gear hand winch – powder-coat crane	1647	4
5PT10RS-M2R	up to a 1,200 lbs capacity with 4WM2R worm gear hand winch – stainless steel crane	1647	4
5PT10RS-M2RX	up to a 1,200 lbs capacity with epoxy 4WM2R worm gear hand winch – stainless steel crane	1647	4
5PT20R-M2R	up to 2,000 lbs capacity with 4WM2R worm gear hand winch – powder-coat crane	2551	66
5PT20RS-M2R	up to 2,000 lbs capacity with 4WM2R worm gear hand winch – stainless steel crane	2551	66
5PT20RS-M2RX	up to 2,000 lbs capacity with epoxy 4WM2R worm gear hand winch – stainless steel crane	2551	66

Independent Bases—sold separately

Pedestal, socket, or wall-mount style.

Wheel bases are NOT used for the Rescue Rated Davit Cranes.

IMPORTANT: Base installation is the customer's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.



Pedestal



Flush



Wall Mount

Finish	Pedestal	FlushW	all
Powder Coat Paint	5BP10S	BF10	5BW10
	5BP20	5BF20	5BW20
304 Stainless Steel	5BP10S	5BF10S	5BW10S
	5BP20S	5BF20S5	BW20S
Approximate Ship Weight	66 lbs (30 kg)	57 lbs (26 kg)	64 lbs (30 kg)

Wire Rope Assemblies

Galvanized wire rope assemblies with swaged-ball fitting to work with the quick-disconnect anchor on the winch. Please contact Thern for additional information.

NOTE: Thern Rescue Rated Davit systems were designed, tested, and rated using this specific wire rope assembly. Other types of wire rope or assemblies may not meet required specifications.

Wire Rope Length		Aircraft Cable		
		1/4" Dia. (6.4 mm)	Approx. Ship Weight	
(ft)	(m)	Model No.	(lbs)	(kg)
60	18.2	WA25-60NT	9 lbs	4 kg

PERFORMANCE

Rescue Rated Commander Series Lift Below Floor² Level

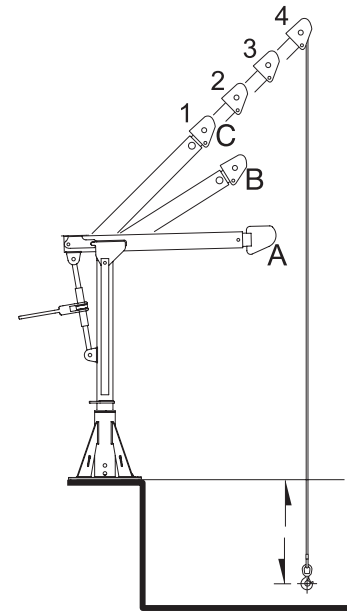
Lift Below Floor ¹				Wire Rope Diameter		Wire Rope Length ³		Winch Configuration Maximum Winch Rating	
5PT10R									
Minimum (C4)		Maximum (C1)				M2R			
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)
2	0.6	7	2.1	1/4"	6	20	6.0	1,200	545
10	3.0	15	4.5	1/4"	6	28	8.5	1,200	545
18	5.4	23	7.0	1/4"	6	36	10.9	1,200	545
27	8.2	32	9.7	1/4"	6	45	13.7	1,200	545
42	12.8	47	14.3	1/4"	6	60	18.2	1,200	545

5PT20R									
0	0.0	5	1.5	1/4"	6	20	6.0	2,000	905
8	2.4	13	3.9	1/4"	6	28	8.5	1,700	770
16	4.8	21	6.4	1/4"	6	36	10.9	1,700	770
25	7.6	30	9.1	1/4"	6	45	13.7	1,500	680
40	12.1	45	13.7	1/4"	6	60	18.2	1,300	590

¹ Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.

² Performance characteristics are for standard products referred to in this manual. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

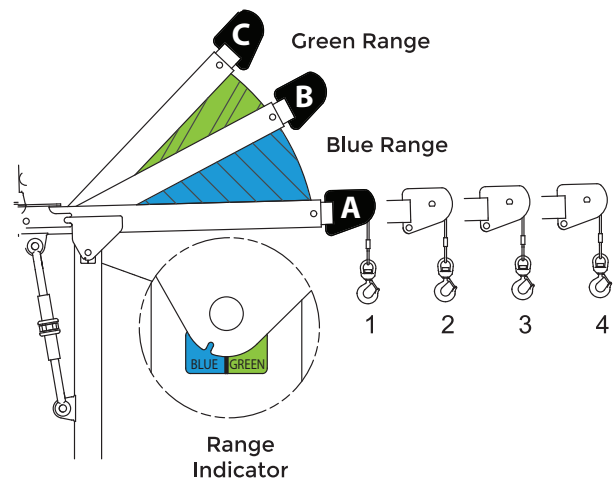
³ Wire rope assemblies include a hook and a swaged-ball fitting to work with quick-disconnect anchor on winches, and ³¹⁶SS wire rope is also available. Please contact the factory.



Lift Below
Floor Level

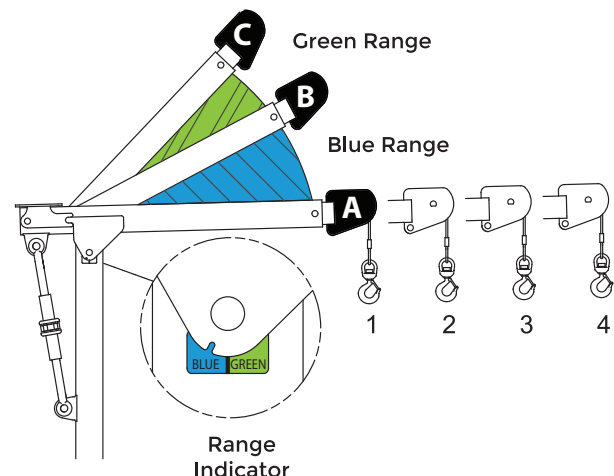
Commander 1000 Performance Ratings²

	Boom Position	Load Rating		Rescue Rated	
		(lb)	(kg)	(lb)	(kg)
BLUE RANGE	A-1	1,000	455	310	144
	A-2	800	360	-	-
	A-3	650	295	-	-
	A-4	550	250	-	-
GREEN RANGE	B-1	1,200	545	310	144
	B-2	950	430	310	144
	B-3	750	340	-	-
	B-4	650	295	-	-
GREEN RANGE	C-1	1,200	545	310	144
	C-2	950	430	310	144
	C-3	750	340	-	-
	C-4	650	295	-	-



Commander 2000 Performance Ratings²

	Boom Position	Load Rating		Rescue Rated	
		(lb)	(kg)	(lb)	(kg)
BLUE RANGE	A-1	2,000	905	620	282
	A-2	1,600	725	-	-
	A-3	1,300	590	-	-
	A-4	1,100	500	-	-
GREEN RANGE	B-1	2,000	905	620	282
	B-2	1,900	860	620	282
	B-3	1,500	680	-	-
	B-4	1,300	590	-	-
GREEN RANGE	C-1	2,000	905	620	282
	C-2	1,900	860	620	282
	C-3	1,500	680	-	-
	C-4	1,300	590	-	-

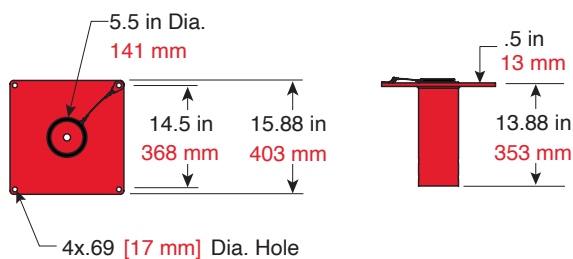


Rescue Rated Series with Pedestal Base Reach & Height Above Floor¹

Boom Position	Hook Reach		Hook Height	
5PT10				
	(in)	(mm)	(in)	(mm)
A-1	36	914	42	1,066
A-2	46	1,168	42	1,066
A-3	56	1,422	42	1,066
A-4	66	1,676	42	1,066
B-1	29	736	56	1,422
B-2	38	965	60	1,524
B-3	47	1,193	65	1,651
B-4	56	1,422	69	1,752
C-1	22	558	64	1,625
C-2	29	736	71	1,803
C-3	36	914	78	1,981
C-4	43	1,092	85	2,159
5PT20				
	(in)	(mm)	(in)	(mm)
A-1	46	1,168	43	1,092
A-2	58	1,473	43	1,092
A-3	70	1,778	43	1,092
A-4	82	2,082	43	1,092
B-1	37	939	61	1,549
B-2	48	1,219	67	1,701
B-3	58	1,473	72	1,828
B-4	69	1,752	78	1,981
C-1	28	711	71	1,803
C-2	36	914	80	2,032
C-3	45	1,143	88	2,235
C-4	53	1,346	97	2,463

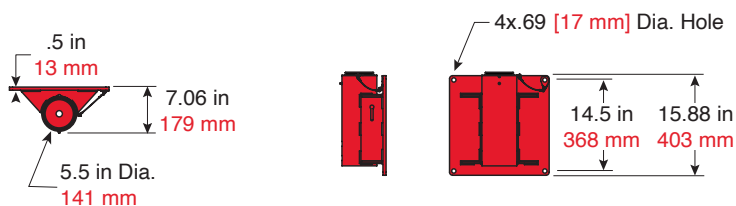
¹Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

Dimensions are for reference only and subject to change without notice.



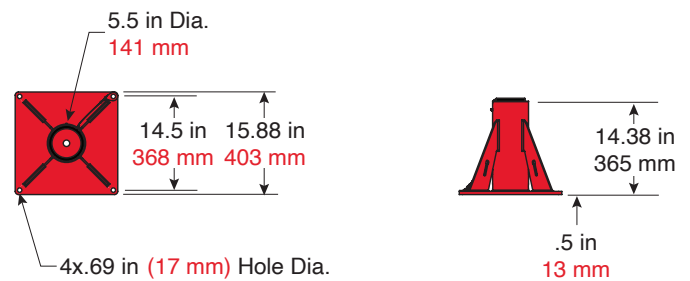
Rescue Rated Compatible Pedestal Base

5BP10 5BP10S 5BP20 5BP20S



Rescue Rated Compatible Wall-Mount Base

5BW10 5BW10S 5BW20 5BW20S



Rescue Rated Compatible Pedestal Base

5BP10 5BP10S
5BP20 5BP20S

Rescue Rated Series with Flush- or Wall-Mount Base Reach & Height Above Floor¹

Boom Position	Hook Reach		Hook Height	
5PT10				
	(in)	(mm)	(in)	(mm)
A-1	36	914	28	711
A-2	46	1,168	28	711
A-3	56	1,422	28	711
A-4	66	1,676	28	711
B-1	29	736	42	1,066
B-2	38	965	46	1,168
B-3	47	1,193	51	1,295
B-4	56	1,422	55	1,397
C-1	22	558	50	1,270
C-2	29	736	57	1,447
C-3	36	914	64	1,625
C-4	43	1,092	71	1,803
5PT20				
	(in)	(mm)	(in)	(mm)
A-1	46	1,168	29	736
A-2	58	1,473	29	736
A-3	70	1,778	29	736
A-4	82	2,082	29	736
B-1	37	939	47	1,193
B-2	48	1,219	53	1,346
B-3	58	1,473	58	1,473
B-4	69	1,752	64	1,625
C-1	28	711	57	1,447
C-2	36	914	66	1,676
C-3	45	1,143	74	1,879
C-4	53	1,346	83	2,108

¹Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

Dimensions are for reference only and subject to change without notice.

CRANE COMPONENT WEIGHT CHART

Model	Assembly	Weight	
		lb	kg
First Mate 5PF5	Boom Assembly	30 lb	13.6 kg
	Mast Assembly	26 lb	11.8 kg
	Rotational Handle	2 lb	0.9 kg
	Winch Bracket	3 lb	1.4 kg
Ensign 500 5PA5	Boom Assembly	29 lb	13.2
	Boom Brace Assembly	4 lb	1.8 kg
	Mast Assembly	21 lb	9.5 kg
	Rotational Handle	2 lb	0.9 kg
	Sheave Assembly	5 lb	2.3 kg
	Winch Bracket	3 lb	1.4 kg
Ensign 1000 5PA10	Bearing Assembly	9 lb	4.1 kg
	Boom Assembly	53 lb	24.0 kg
	Boom Brace Assembly	7 lb	3.2 kg
	Mast Assembly	54 lb	24.5 kg
	Rotational Handle	2 lb	0.9 kg
	Sheave Assembly	6 lb	2.7 kg
	Winch Bracket	4 lb	1.8 kg
Commander 500 5PT5	Boom Assembly	26 lb	11.8
	Boom Extension Assembly	15 lb	6.8 kg
	Mast Assembly	27 lb	12.2 kg
	Ratchet Jack	12 lb	5.5 kg
	Rotational Handle	2 lb	0.9 kg
	Winch Bracket	3 lb	1.4 kg
Commander 1000 5PT10	Boom Assembly	34 lb	15.4 kg
	Boom Extension Assembly	24 lb	10.9 kg
	Mast Assembly	36 lb	16.3 kg
	Ratchet Jack	12 lb	5.5 kg
	Rotational Handle	7 lb	3.2 kg
	Winch Bracket	4 lb	1.8 kg
Commander 2000 5PT20	Boom Assembly	75 lb	34.0 kg
	Boom Extension Assembly	47 lb	21.3 kg
	Mast Assembly	68 lb	30.8 kg
	Ratchet Jack	12 lb	5.5 kg
	Rotational Handle	7 lb	3.2 kg
	Winch Bracket	11 lb	5.0 kg
Admiral 5PT30	Boom Assembly	123 lb	55.8 kg
	Boom Extension Assembly	96 lb	43.6 kg
	Mast Assembly	198 lb	89.8 kg
	Mast Assembly (Upper)	99 lb	44.9 kg
	Ratchet Jack	46 lb	20.9 kg
	Rotational Handle	9 lb	4.1 kg
	Winch Bracket	36 lb	16.3 kg

Rotational Handle



Ratchet Jack



Winch Bracket

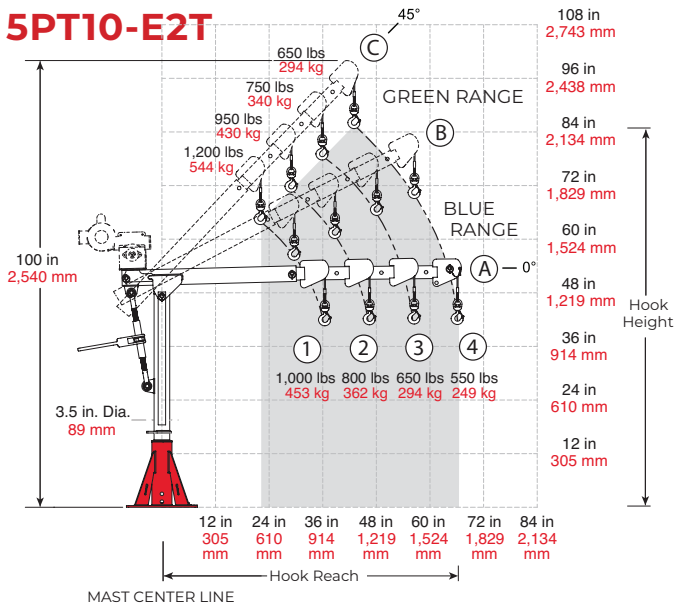


LONG LIFT CRANE

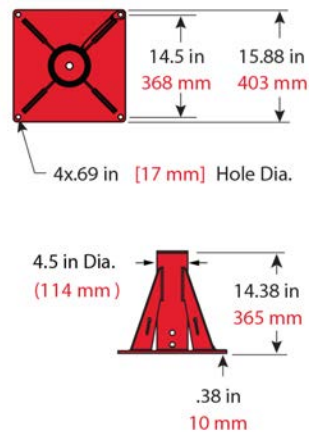
CONFIGURATIONS

PERFORMANCE

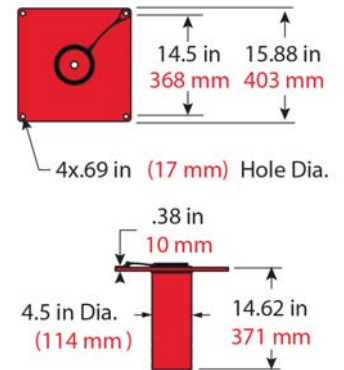
5PT10-E2T



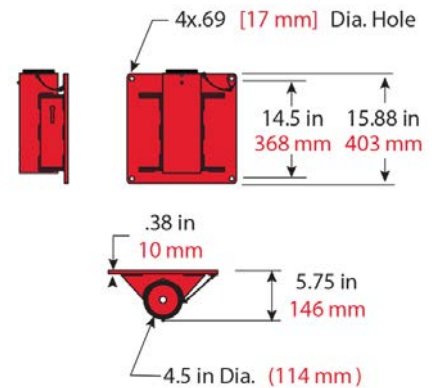
Pedestal Base 5BP10



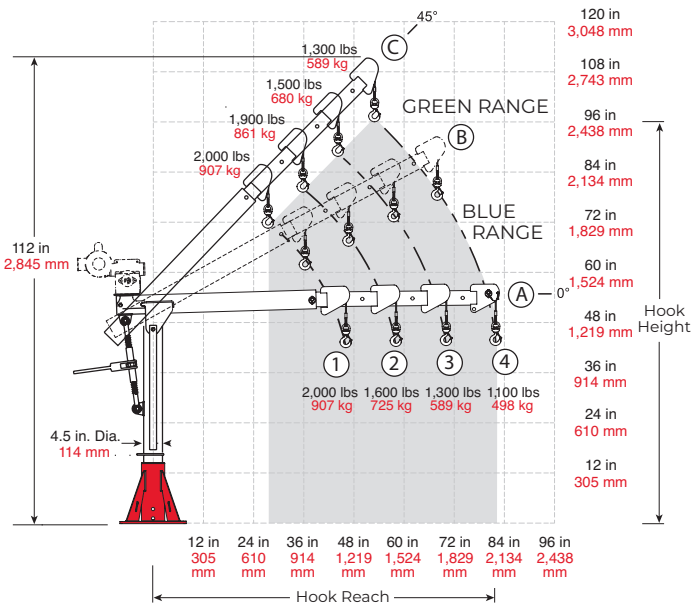
Flush Base 5BF10



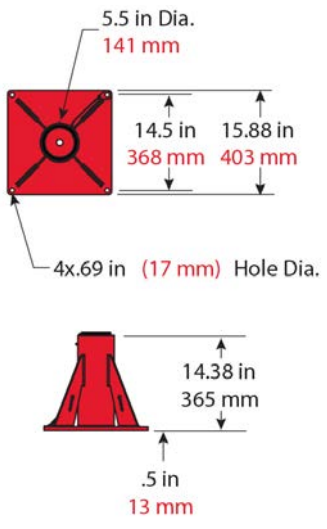
Wall-Mount Base 5BW10



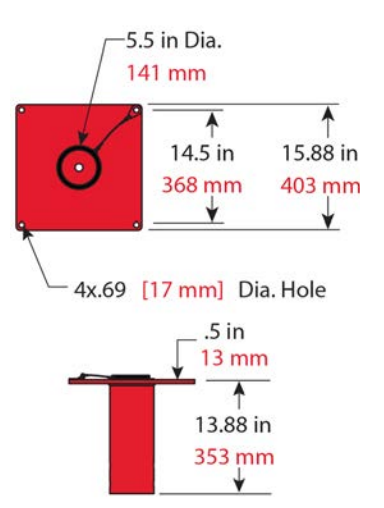
5PT20-E2T & 5PT20-E3T



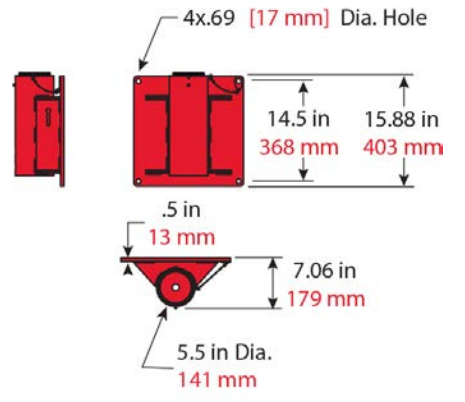
Pedestal Base 5BP20



Flush Base 5BF20



Wall-Mount Base 5BW20



TECHNICAL DRAWINGS & SPECIFICATIONS

CAPTAIN® 2000

STATIONARY DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5FT20-M1	up to 2,000 lb capacity with M4312PB spur gear hand winch and black epoxy-coated ratchet jack—red-enamel crane	376	171
5FT20-M2	up to 2,000 lb capacity with 4WM2V worm gear hand winch and black epoxy-coated ratchet jack—red-enamel crane	387	176
5FT20X-M2X	up to 2,000 lb capacity with 4WM2VEGRA worm spur gear hand winch and black epoxy-coated ratchet jack—gray-epoxy crane	387	176
5FT20-E2	up to 2,000 lb capacity with 4WP2 electric winch and black epoxy-coated ratchet jack—red-enamel crane	423	192
5FT20X-E2X	up to 2,000 lb capacity with 4WP2EGRA electric winch and black epoxy-coated ratchet jack—gray-epoxy crane	423	192
Crane Only			
5FT20	up to 2,000 lb capacity and black epoxy-coated ratchet jack—red-enamel crane	350	159
5FT20X	up to 2,000 lb capacity and black epoxy-coated ratchet jack—gray-epoxy crane	350	159
Winch Only			
M1	M4312PB—spur gear hand winch only—clear zinc coating	26	12
M2	4WM2V worm gear hand winch only—powder-coat finish	37	17
M2X	4WM2VEGRA worm gear hand winch only—gray-epoxy finish	37	17
M3	M4312PBSS—spur gear hand winch only—stainless-steel finish	26	12
M4	2W40V-BM—worm gear hand winch—enamel finish	120	55
E2	4WP2 electric winch—115/1/60 VAC with 6 ft pendant control—enamel finish	73	33
E2X	4WP2EGRA electric winch—115/1/60 VAC with 6 ft pendant control—gray-epoxy finish	73	33
E3	3WG4B electric winch—115/1/160 VAC with 6 ft pendant control—enamel finish	193	88
E4	4771 electric winch—115/1/60 VAC with 6 ft pendant control—enamel finish	89	41
E4X	4771EGRA electric winch—115/1/60 VAC with 6 ft pendant control—gray-epoxy finish	89	41
E4DC	4771DC electric winch—12 volt DC with 10 ft pendant control—enamel finish	107	49
E4DCX	4771DCEGRA electric winch—12 volt DC with 10 ft pendant control—gray-epoxy finish	107	49

Wire Rope Assemblies—sold separately

Galvanized or stainless steel wire rope assemblies with swivel hook and latch complete with swaged-ball fitting to work with the quick-disconnect anchor on the winch. 316 stainless steel assemblies available—contact factory.

Wire Rope Length		Galvanized Aircraft Cable	304 Stainless Steel Wire Rope
		1/4" Dia. (6.4 mm)	1/4" Dia. (6.4 mm)
(ft)	(m)	Model No.	Model No.
28	8.5	WA25-28NS	WS25-28NS
36	10.9	WA25-36NS	WS25-36NS
45	13.7	WA25-45NS	WS25-45NS
60	18.2	WA25-60NS	WS25-60NS
75	22.8	WA25-75NS	WS25-75NS

PERFORMANCE

Captain 2000 5FT20 Series Lift Below Floor¹ Level

Lift Below Floor ²				Wire Rope Diameter		Wire Rope Length ³		Winch Configurations Maximum Winch Rating													
Minimum (D4)		Maximum (D1)						M1		M2		M3		M4		E2		E3		E4	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
-7	-2.1	-2	-0.6	1/4"	6	20	6.0	2,000	(kg)	2,000	907	2,000	907	2,000	907	2,000	907	2,000	907	2,000	907
1	0.3	6	1.8	1/4"	6	28	8.5	2,000	907	2,000	907	2,000	907	2,000	907	2,000	907	2,000	907	2,000	907
9	2.7	14	4.2	1/4"	6	36	10.9	1,800	907	1,700	771	1,800	816	2,000	907	1,700	771	2,000	907	1,800	816
18	5.4	23	7.0	1/4"	6	45	13.7	1,600	816	1,500	680	1,600	725	2,000	907	1,500	680	2,000	907	1,800	816
33	10.0	38	11.5	1/4"	6	60	18.2	1,400	725	1,300	589	1,400	635	2,000	907	1,300	589	2,000	907	1,600	725
48	14.6	53	16.1	1/4"	6	75	22.8	–	635	1,300	589	–	–	2,000	907	1,300	589	2,000	907	1,400	635
63	19.2	68	20.7	1/4"	6	90	27.4	–	–	–	–	–	–	2,000	907	–	–	2,000	907	1,400	635
93	28.3	98	29.8	1/4"	6	120	36.5	–	–	–	–	–	–	2,000	907	–	–	2,000	907	1,300	589
-7	-2.1	-2	-0.6	5/16"	8	20	6.0	1,900	–	2,000	907	1,900	861	2,000	907	2,000	907	2,000	907	2,000	907
1	0.3	6	1.8	5/16"	8	28	8.5	1,600	861	1,600	725	1,600	725	2,000	907	1,600	725	2,000	907	2,000	907
9	2.7	14	4.2	5/16"	8	36	10.9	1,600	725	1,600	725	1,600	725	2,000	907	1,600	725	2,000	907	1,700	771
18	5.4	23	7.0	5/16"	8	45	13.7	1,400	725	1,400	635	1,400	635	2,000	907	1,400	635	2,000	907	1,500	680
33	10.0	38	11.5	5/16"	8	60	18.2	–	635	–	–	–	–	2,000	907	–	–	2,000	907	1,500	680
48	14.6	53	16.1	5/16"	8	75	22.8	–	–	–	–	–	–	2,000	907	–	–	2,000	907	1,300	589
63	19.2	68	20.7	5/16"	8	90	27.4	–	–	–	–	–	–	2,000	907	–	–	2,000	907	1,200	544
93	28.3		29.8	5/16"	8	120	36.5	–	–	–	–	–	–	2,000	907	–	–	2,000	907	–	–

¹ Performance characteristics are for standard products referred to in this manual. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

² Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.

³ Wire rope assemblies include a hook and a swaged-ball fitting to work with quick-disconnect anchor on winches, and 316SS wire rope is also available. Please contact the factory.

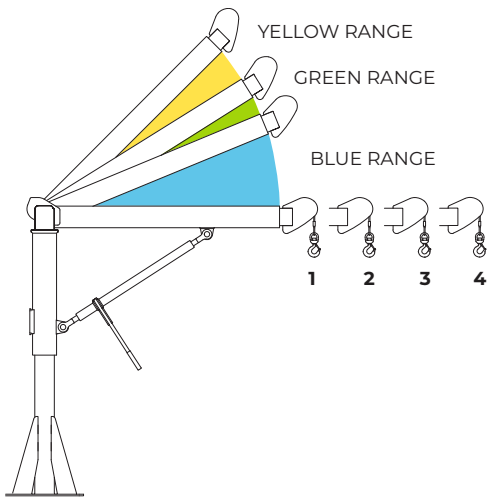
Winch Configurations



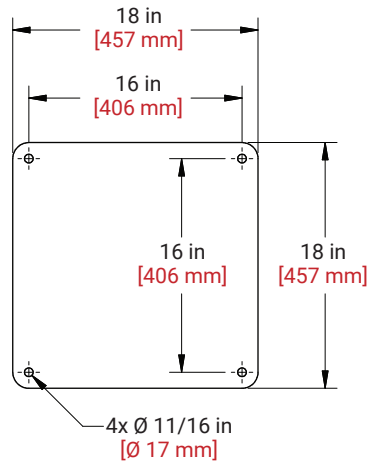
Captain 2000

Performance Ratings

	Boom Position	1st Layer Load Rating	
		(lb)	(kg)
BLUE RANGE	1	1,700	700
	2	1,400	635
	3	1,200	540
	4	1,000	450
GREEN RANGE	1	1,800	815
	2	1,500	680
	3	1,350	610
	4	1,100	500
YELLOW RANGE	1	2,000	905
	2	1,650	750
	3	1,500	680
	4	1,200	540



Base Dimensions

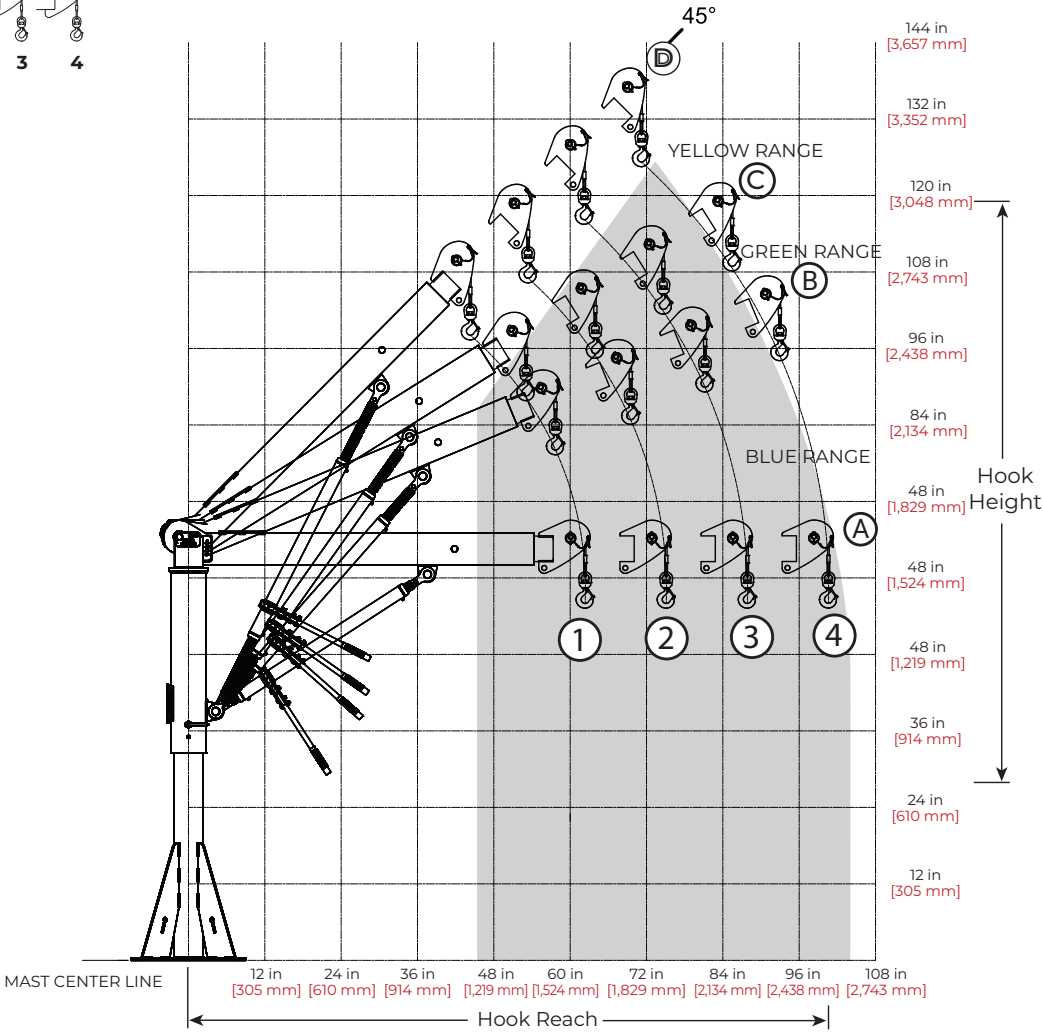


Captain 2000

Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(lb)	(kg)	(lb)	(lb)
A-1	45	1,443	98	2,489
A-2	54	1,371	107	2,717
A-3	63	1,600	116	2,946
A-4	72	1,828	125	3,175
B-1	62	1,574	56	1,422
B-2	75	1,905	56	1,422
B-3	87	2,210	56	1,422
B-4	100	2,540	56	1,422
C-1	57	1,447	80	2,032
C-2	69	1,752	85	2,159
C-3	81	2,057	90	2,286
C-4	93	2,362	94	2,387
D-1	53	1,346	88	2,235
D-2	64	1,625	95	2,413
D-3	74	1,879	102	2,590
D-4	85	2,159	108	2,743

Dimensions are for reference only and subject to change without notice.



TECHNICAL DRAWINGS & SPECIFICATIONS

CAPTAIN® 2500

STATIONARY DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5FT25-M1	up to 2,800 lb capacity with M452B spur gear hand winch and black epoxy-coated ratchet jack—red-enamel crane	640	291
5FT25X-M1X	up to 2,800 lb capacity with M452BEGRA spur gear hand winch and black epoxy-coated ratchet jack—gray-epoxy crane	640	291
5FT25-M2	up to 2,800 lb capacity with 2W40V-BM worm gear hand winch and black epoxy-coated ratchet jack—red-enamel crane	682	310
5FT25X-M2X	up to 2,800 lb capacity with 2W40V-BMX worm gear hand winch and black epoxy-coated ratchet jack—gray-epoxy crane	682	310
5FT25-E2	up to 2,800 lb capacity with 3WG4B electric winch and black epoxy-coated ratchet jack—red-enamel crane	755	343
5FT25X-E2X	up to 2,800 lb capacity with 3WG4B electric winch and black epoxy-coated ratchet jack—gray-epoxy crane	755	343
Crane Only			
5FT25	up to 2,800 lb capacity— black epoxy-coated ratchet jack—red-enamel crane	562	255
5FT25X	up to 2,800 lb capacity— black epoxy-coated ratchet jack—gray-epoxy crane	562	255
Winch Only			
M1	M452B—spur gear hand winch only—red-enamel finish	78	36
M1X	M452BEGRA—spur gear hand winch only—gray-epoxy finish	78	36
M2	2W40V-BM worm gear hand winch only—powder-coat finish	120	55
M2X	2W40V-BMX worm gear hand winch only—gray-epoxy finish	120	55
E2	3WG4B electric winch—115/1/60 VAC with 6 ft pendant control—enamel finish	193	88
E2T	3WG4BMT Tall flange electric winch—15/1/60 VAC with 6 ft pendant control—enamel finish	193	88
E2X	3WG4B electric winch—115/1/60 VAC with 6 ft pendant control—gray-epoxy finish	193	88

Wire Rope Assemblies—sold separately

Galvanized or stainless steel wire rope assemblies with swivel hook and latch complete with plain end. 316 stainless steel assemblies available—contact factory.

Wire Rope Length		Galvanized Aircraft Cable		304 Stainless Steel Wire Rope	
		5/16" Dia. (7.9 mm)	3/8" Dia. (9.5 mm)	5/16" Dia. (7.9 mm)	3/8" Dia. (9.5 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.
28	8.5	WA31-28DS	WA38-28DS	WS31-28DS	WS38-28DS
36	10.9	WA31-36DS	WA38-36DS	WS31-36DS	WS38-36DS
45	13.7	WA31-45DS	WA38-45DS	WS31-45DS	WS38-45DS
60	18.2	WA31-60DS	WA38-60DS	WS31-60DS	WS38-60DS
75	22.8	WA31-75DS	WA38-75DS	WS31-75DS	WS38-75DS

PERFORMANCE

Captain 2500 5FT25 Series Lift Below Floor¹ Level

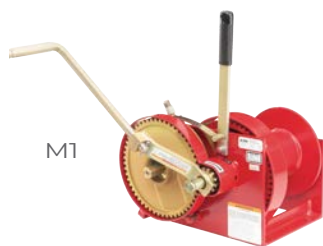
Lift Below Floor ²				Wire Rope Diameter		Wire Rope Length ³		Winch Configurations Maximum Winch Rating							
Minimum (D4)		Maximum (D1)						M1		M2		E2		E2T	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
1	0.3	6	1.8	5/16"	8	28	8.5	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
9	2.7	14	4.2	5/16"	8	36	10.9	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
18	5.4	23	7.0	5/16"	8	45	13.7	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
33	10.0	38	11.5	5/16"	8	60	18.2	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
48	14.6	53	16.1	5/16"	8	75	22.8	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
63	19.2	68	20.7	5/16"	8	90	27.4	2,200	1,270	2,200	1,270	2,200	1,270	2,700	1,224
93	28.3	98	29.8	5/16"	8	120	36.5	–	–	2,200	1,270	2,700	1,224	2,400	1,088
123	37.4	128	39.0	5/16"	8	150	45.7	–	–	–	–	2,500	1,134	2,200	997
173	52.7	178	54.2	5/16"	8	200	60.9	–	–	–	–	–	–	2,100	952
1	0.3	6	1.8	3/8"	10	28	8.5	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
9	2.7	14	4.2	3/8"	10	36	10.9	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
18	5.4	23	7.0	3/8"	10	45	13.7	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
33	10.0	38	11.5	3/8"	10	60	18.2	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
48	14.6	53	16.1	3/8"	10	75	22.8	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
63	19.2	68	20.7	3/8"	10	90	27.4	–	–	2,200	1,270	2,700	1,224	2,500	1,134
93	28.3	98	29.8	3/8"	10	120	36.5	–	–	–	–	2,500	1,134	2,200	997
123	37.4	128	39.0	3/8"	10	150	45.7	–	–	–	–	–	–	2,000	907
173	52.7	178	54.2	3/8"	10	200	60.9	–	–	–	–	–	–	1,900	861

¹ Performance characteristics are for standard products referred to in this manual. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

² Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.

³ Wire rope assemblies include a hook and a swaged-ball fitting to work with quick-disconnect anchor on winches, and 316SS wire rope is also available. Please contact the factory.

Winch Configurations



M1



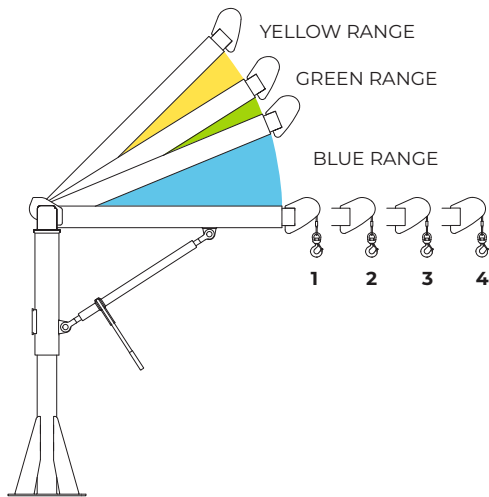
M2



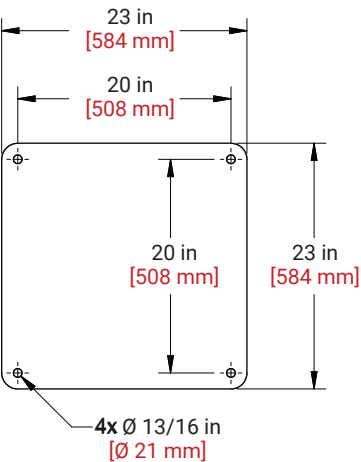
E2 & E2T

Captain 2500 Performance Ratings

	Boom Position	1st Layer Load Rating	
		(lb)	(kg)
BLUE RANGE	1	2,500	1,130
	2	2,500	905
	3	1,700	770
	4	1,500	680
GREEN RANGE	1	2,800	1,270
	2	2,300	1,040
	3	2,000	905
	4	1,700	770
YELLOW RANGE	1	2,800	1,270
	2	2,600	1,180
	3	2,200	1,000
	4	1,800	860



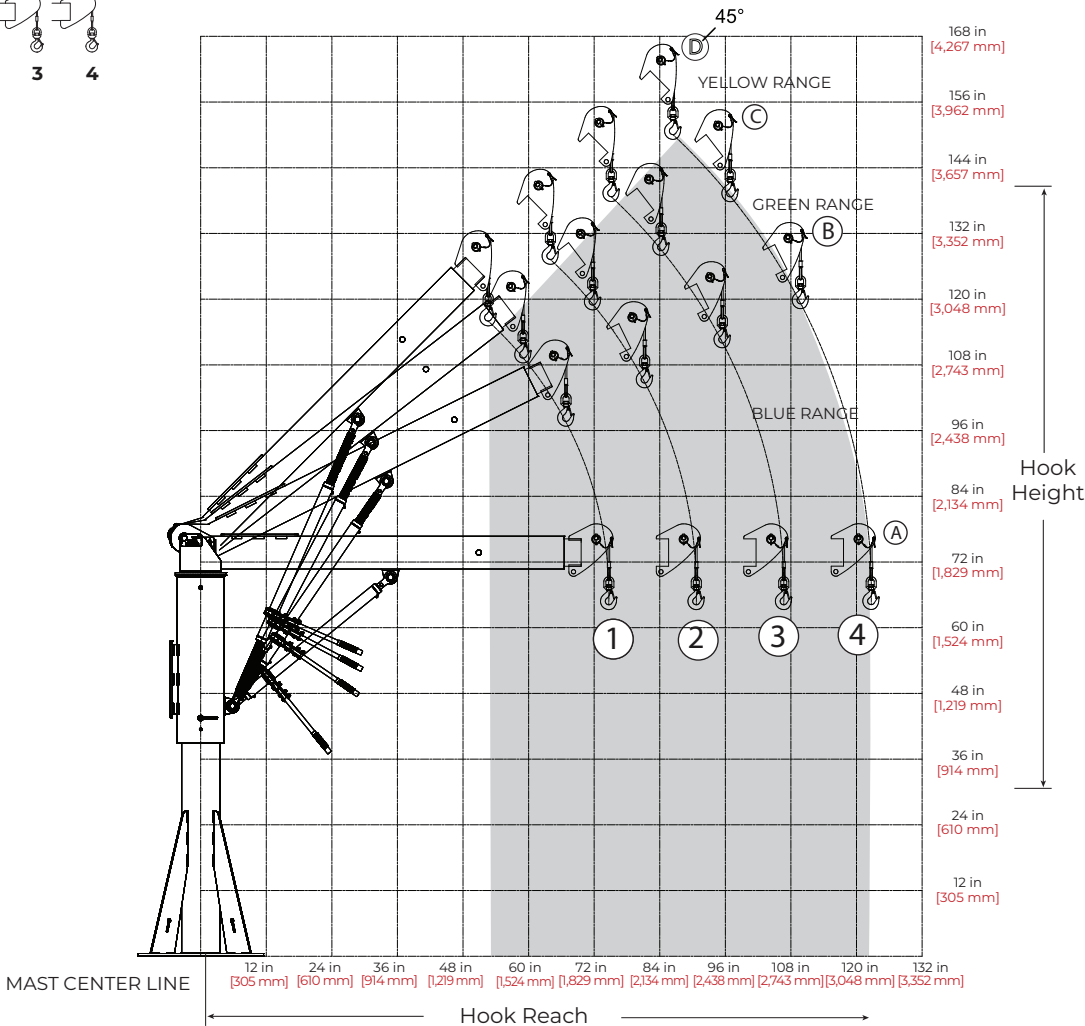
Base Dimensions



Captain 2500 Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	74	1,879	64	1,625
A-2	90	2,286	64	1,625
A-3	106	2,692	64	1,625
A-4	122	3,098	64	1,625
B-1	67	1,701	98	2,489
B-2	81	2,057	105	2,667
B-3	95	2,413	112	2,844
B-4	110	2,794	119	3,022
C-1	59	1,498	109	2,768
C-2	71	1,803	119	3,022
C-3	84	2,133	129	3,276
C-4	97	2,463	138	3,505
D-1	53	1,346	116	2,946
D-2	64	1,625	127	3,225
D-3	75	1,905	139	3,530
D-4	87	2,209	150	3,810

Dimensions are for reference only and subject to change without notice.



TECHNICAL DRAWINGS & SPECIFICATIONS

CAPTAIN® 4000

STATIONARY DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5FT40-M1	up to 4,100 lb capacity with M452B spur gear hand winch and black epoxy-coated ratchet jack—red-enamel crane	1,101	500
5FT40-M2	up to 4,100 lb capacity with 2W40V-BM worm gear hand winch and black epoxy-coated ratchet jack—red-enamel crane	1,146	520
5FT40X-M2X	up to 4,100 lb capacity with 2W40V-BMX worm spur gear hand winch and black epoxy-coated ratchet jack—gray-epoxy crane	1,146	520
5FT40-E2	up to 4,100 lb capacity with 3WG4B electric winch and black epoxy-coated ratchet jack—red-enamel crane	1,216	550
5FT40X-E2X	up to 4,100 lb capacity with 3WG4B electric winch and black epoxy-coated ratchet jack—gray-epoxy crane	1,216	550
*All configurations available with 5FT40H crane excluding M1			
Crane Only			
5FT40	up to 5,500 lb capacity—black epoxy-coated ratchet jack—red-enamel crane	1,024	460
5FT40G	up to 5,500 lb capacity—black epoxy-coated ratchet jack—galvanized crane	1,024	460
5FT40X	up to 5,500 lb capacity—black epoxy-coated ratchet jack—gray-epoxy crane	1,024	460
5FT40H	up to 5,500 lb capacity—hydraulic jack—red-enamel crane	1,064	480
5FT40HG	up to 5,500 lb capacity—hydraulic jack—galvanized crane	1,064	480
5FT40HX	up to 5,500 lb capacity—hydraulic jack—gray-epoxy crane	1,064	480
Winch Only			
M1	M452B-K spur gear hand winch only-clear zinc coating-(Not available for use with the 5FT40H crane)	91	40
M1X	M452BEGRA spur gear hand winch only-gray-epoxy finish-(Not available for use with the 5FT40H crane)	91	40
M2	2W40V-BM worm gear hand winch only-powder coat finish	141	60
M2X	2W40V-BMX worm gear hand winch only-gray-epoxy finish	141	60
E2	3WG4B electric winch—115/1/60 VAC with 6 ft pendant control—enamel finish	188	85
E2X	3WG4 electric winch—115/1/60 VAC with 6 ft pendant control—gray-epoxy finish	188	85
E2L	3WG4B limit switch ready electric winch—115/1/60 VAC with 6 ft pendant control	187	85
E2LX	3WG4BEGRA limit switch ready electric winch—115/1/60 VAC with 6 ft pendant control—gray-epoxy finish	187	85
E3DL	4HWF6M limit switch ready electric winch—230/3/60 VAC with control enclosure, 10' pendant—red-enamel finish	476	215
E3DLX	4HWF6MX limit switch ready electric winch—230/3/60 VAC with control enclosure, 10' pendant—gray-epoxy finish	476	215
E3EL	4HWF6M limit switch ready electric winch—460/3/60 VAC with control enclosure, 10' pendant—red-enamel finish	476	215
E3ELX	4HWF6MX limit switch ready electric winch—460/3/60 VAC with control enclosure, 10' pendant—gray-epoxy finish	476	215

Wire Rope Assemblies—sold separately

Galvanized or stainless steel wire rope assemblies. 316 stainless steel assemblies available—contact factory. For extended wire rope length—contact factory.

Wire Rope Length		Galvanized Aircraft Cable Swivel Hook and Unfinished End	304 Stainless Steel Wire Rope				Galvanized EIPS Steel Wire Rope Carbon Steel Swivel Hook and Unfinished End	
			Swivel Hook and Unfinished End	Carbon Steel Swivel Hook and Unfinished End				
		3/8" Dia. (9.53 mm)	3/8" Dia. (9.53 mm)	7/16" Dia. (11.11 mm)	1/2" Dia. (12.7 mm)		7/16" Dia. (11.11 mm)	1/2" Dia. (12.7 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.		Model No.	Model No.
28	8.5	WA38-28DS	WS38-28DS	WS44-28DS	WS50-28DS		WEG44-28DS	WEG50-28DS
36	10.9	WA38-36DS	WS38-36DS	WS44-36DS	WS50-36DS		WEG44-36DS	WEG50-36DS
45	13.7	WA38-45DS	WS38-45DS	WS44-45DS	WS50-45DS		WEG44-45DS	WEG50-45DS
60	18.2	WA38-60DS	WS38-60DS	WS44-60DS	WS50-60DS		WEG44-60DS	WEG50-60DS
75	22.8	WA38-75DS	WS38-75DS	WS44-75DS	WS50-75DS		WEG44-75DS	WEG50-75DS

PERFORMANCE

Captain 4000 5FT40 Series Lift Below Floor¹ Level

Lift Below Floor ²				Wire Rope Diameter		Wire Rope Length		Winch Configurations Maximum Winch Rating							
Minimum (C4)		Maximum (C1)						M1		M2		E2		E3	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
-4	-1	2	0	3/8"	10	28	8	4,100	1,860	4,100	1,860	4,100	1,860	4,100	1,860
4	1	10	3	3/8"	10	36	10	4,100	1,860	4,100	1,860	3,600	1,630	4,100	1,860
13	3	19	5	3/8"	10	45	13	3,700	1,680	4,100	1,860	3,600	1,630	4,100	1,860
28	8	34	10	3/8"	10	60	18	3,700	1,680	3,700	1,680	3,200	1,450	4,100	1,860
43	13	49	14	3/8"	10	75	22	3,400	1,540	3,400	1,540	3,200	1,450	4,100	1,860
58	17	64	19	3/8"	10	90	27	—	—	3,400	1,540	2,900	1,310	4,100	1,860
88	26	94	28	3/8"	10	120	36	—	—	—	—	2,700	1,220	4,100	1,860
118	35	124	37	3/8"	10	150	45	—	—	—	—	—	—	4,100	1,860
168	51	174	53	3/8"	10	200	60	—	—	—	—	—	—	4,100	1,860
-4	-1	2	0	7/16"	11	28	8	3,900	1,770	3,900	1,770	3,300	1,500	5,500	2,500
4	1	10	3	7/16"	11	36	10	3,400	1,540	3,900	1,770	3,300	1,500	5,500	2,500
13	3	19	5	7/16"	11	45	13	3,400	1,540	3,400	1,540	3,300	1,500	5,500	2,500
28	8	34	10	7/16"	11	60	18	3,000	1,360	3,000	1,360	2,900	1,315	5,500	2,500
43	13	49	14	7/16"	11	75	22	—	—	3,000	1,360	2,600	1,180	5,000	2,270
58	17	64	19	7/16"	11	90	27	—	—	—	—	2,600	1,180	5,000	2,270
88	26	94	28	7/16"	11	120	36	—	—	—	—	—	—	4,600	2,090
118	35	124	37	7/16"	11	150	45	—	—	—	—	—	—	4,200	1,900
168	51	174	53	7/16"	11	200	60	—	—	—	—	—	—	—	—
-4	-1	2	0	1/2"	13	28	8	3,700	1,680	3,700	1,680	3,200	1,450	5,500	2,500
4	1	10	3	1/2"	13	36	10	3,200	1,450	3,700	1,680	3,200	1,450	5,500	2,500
13	3	19	5	1/2"	13	45	13	3,200	1,450	3,200	1,450	2,800	1,270	5,500	2,500
28	8	34	10	1/2"	13	60	18	—	—	—	—	2,800	1,270	5,500	2,500
43	13	49	14	1/2"	13	75	22	—	—	—	—	—	—	5,000	2,270
58	17	64	19	1/2"	13	90	27	—	—	—	—	—	—	5,000	2,270
88	26	94	28	1/2"	13	120	36	—	—	—	—	—	—	4,500	2,040

¹Performance characteristics are for standard products. Non-standard products may vary from the original design.
Contact Thern, Inc. for this information.

²Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.

*Not available for use with the 5FT40H crane.

Winch Configurations



M1



M2



E2

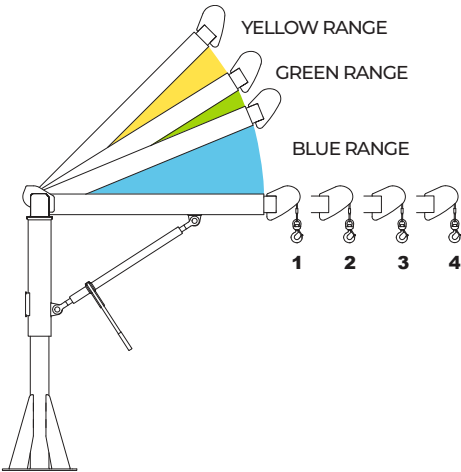


E3

not shown—control enclosure mounted

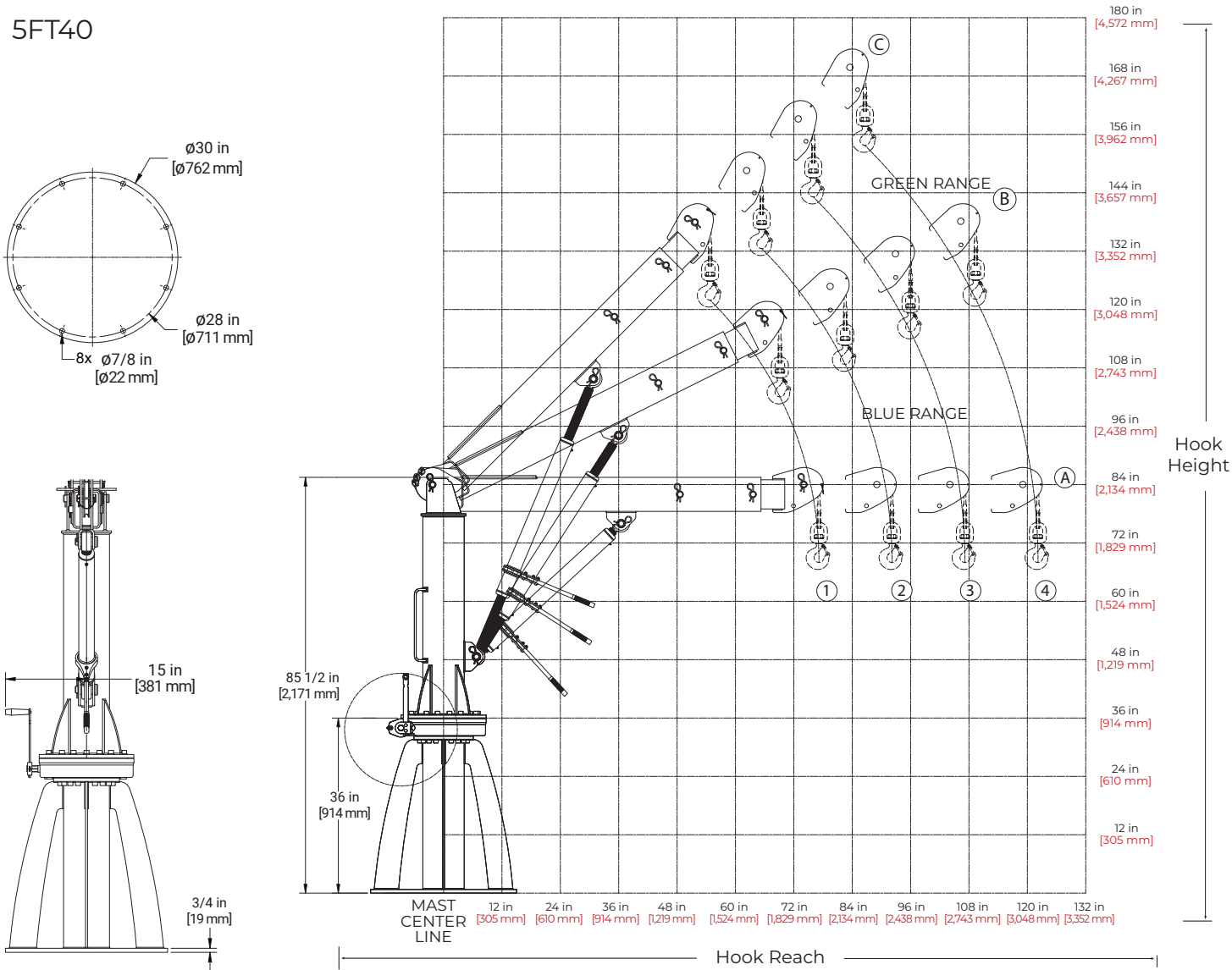
Captain 4000 Performance Ratings

	Boom Position	1st Layer Load Rating		Hook Reach		Hook Height**	
		(lb)	(kg)	(in)	(mm)	(in)	(mm)
BLUE RANGE	A1	5,500	2,500	77	1,955	68	1,727
	A2	4,600	2,090	92	2,337	68	1,727
	A3	4,000	1,810	107	2,718	68	1,727
	A4	3,300	1,500	122	3,099	68	1,727
GREEN RANGE	B1	4,800	2,180	69	1,753	102	2,591
	B2	4,100	1,860	82	2,083	108	2,743
	B3	3,500	1,590	96	2,438	115	2,921
	B4	3,000	1,360	109	2,768	121	3,073
YELLOW RANGE	C1	4,000	1,810	77	1,955	122	3,099
	C2	3,300	1,500	87	2,209	132	3,353
	C3	5,500	2,500	55	1,397	143	3,632
	C4	4,600	2,090	66	1,677	153	3,886

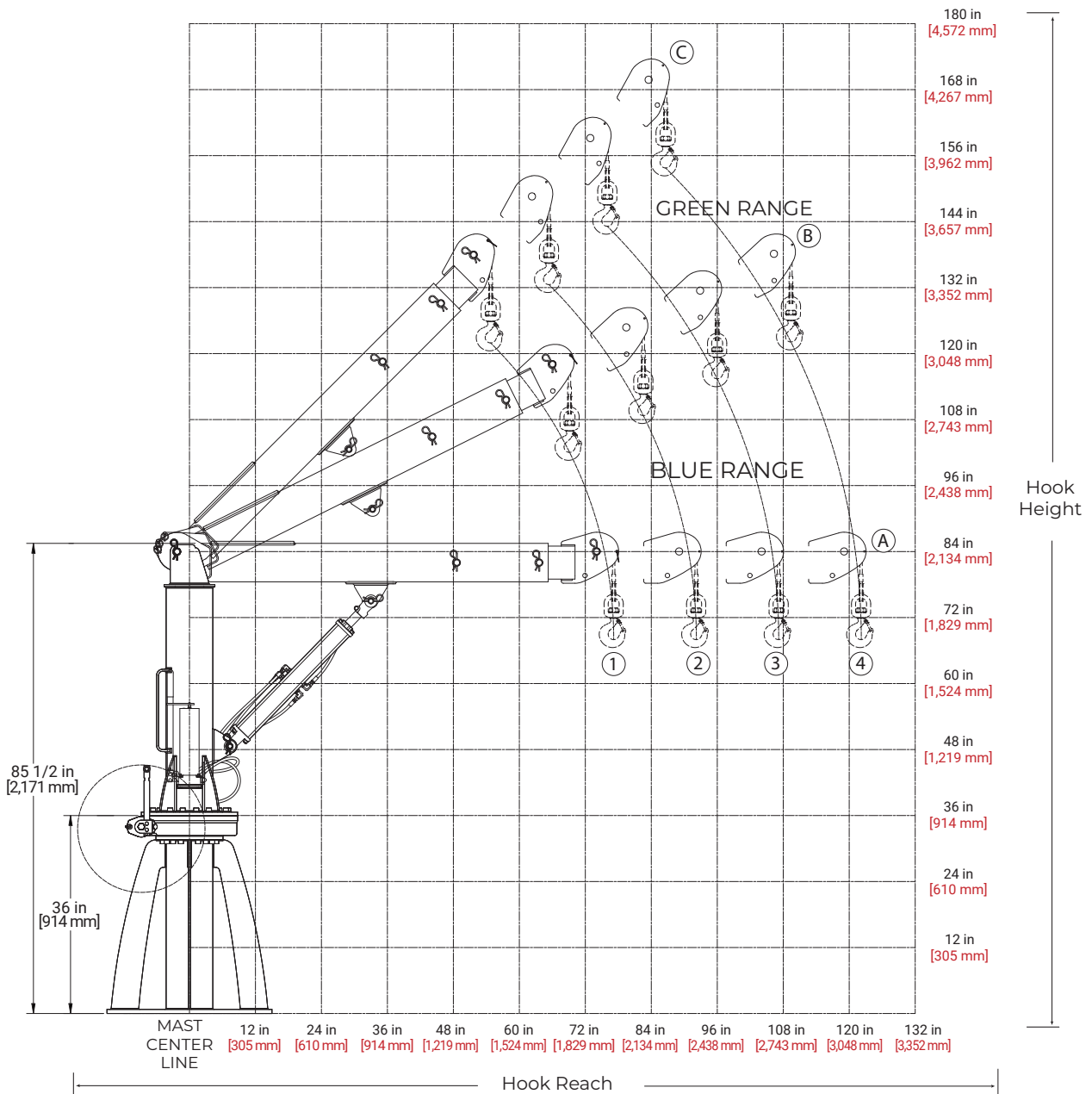
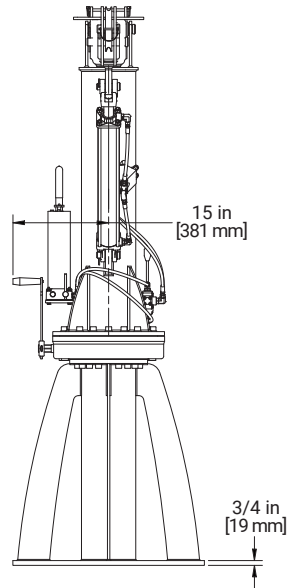
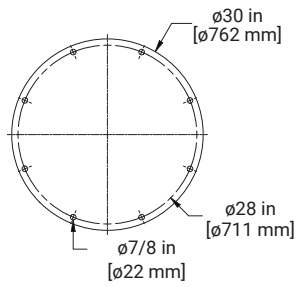


Dimensions are for reference only and subject to change without notice.
 **Crane maximum load rating. Load rating may decrease as layers of rope wind onto the winch-drum. Refer to winch-specific information

5FT40



5FT40H



TECHNICAL DRAWINGS & SPECIFICATIONS

CAPTAIN® 10,000

STATIONARY DAVIT CRANE

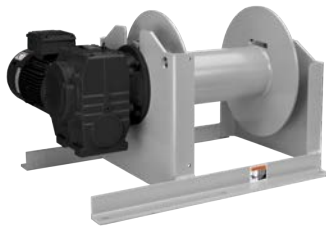
CONFIGURATIONS

MODEL	DESCRIPTION	APPROX. SHIP WT.	
		POUNDS	KILOGRAMS
POPULAR CONFIGURATIONS			
5FT100HX-E3ELX	up to 11,00 lb capacity with 4HWF6MX-KEL limit switch ready helical worm-gear electric winch and hydraulic cylinder—gray epoxy crane	3060	1388
5FT100HX-E4ELX	up to 11,00 lb capacity with 4HBN7MX-KEL limit switch ready helical bevel-gear electric winch and hydraulic cylinder—gray epoxy crane	3125	1418
CRANE ONLY			
5FT100HX	up to 11,000 lb capacity—with hydraulic cylinder—gray epoxy crane	2576	1169
5FT100HX5	up to 11,000 lb capacity—with hydraulic cylinder—safety yellow epoxy crane	2576	1169
WINCH ONLY			
M1X	M492BEGRA spur gear hand winch only—gray epoxy finish	167	74
M1X5	M492BEYEL spur gear hand winch only—yellow epoxy finish	167	74
E3DLX	4HWF6MX-KDL limit switch ready electric winch—230/3/60 VAC with 10 ft pendant control—gray epoxy finish	3060	1388
E3DLX5	4HWF6MX5-KDL limit switch ready electric winch—230/3/60 VAC with 10 ft pendant control—safety yellow epoxy finish	3060	1388
E3ELX	4HWF6MX-KEL limit switch ready electric winch—460/3/60 VAC with a 10 ft pendant control—gray epoxy finish	3060	1388
E3ELX5	4HWF6MX5-KEL limit switch ready electric winch—460/3/60 VAC with a 10 ft pendant control—safety yellow epoxy finish	3060	1388
E4DLX	4HBN7MX-KDL limit switch ready electric winch—230/3/60 VAC with 10 ft pendant control—gray epoxy finish	3125	1418
E4DLX5	4HBN7MX5-KDL limit switch ready electric winch—230/3/60 VAC with 10 ft pendant control—safety yellow epoxy finish	3125	1418
E4ELX	4HBN7MX-KEL limit switch ready electric winch—460/3/60 VAC with 10 ft pendant control—gray epoxy finish	3125	1418
E4ELX5	4HBN7MX5-KEL limit switch ready electric winch—460/3/60 VAC with 10 ft pendant control—safety yellow epoxy finish	3125	1418

Winch Configurations



Model: M1X
Spur Gear Hand Winch



Model: E3X
Electric Winch



Model: E4X
Electric Winch

PERFORMANCE

Captain 10,000 5FT100 Series
Lift Below Floor¹ Level

*Requires two-part line kit sold separately.

IMPERIAL

LIFT BELOW FLOOR ²				WINCH OPTION		
MINIMUM (C3)	MAXIMUM (C1)	WIRE ROPE DIAMETER	WIRE ROPE LENGTH	M1	E3	E4
FEET	FEET	INCHES	FEET	POUNDS		
-3	2	7/16	45	11,000*	11,000*	11,000*
5	10	7/16	60	11,000*	11,000*	11,000*
12	17	7/16	75	11,000*	9800*	11,000*
20	25	7/16	90	11,000*	9800*	11,000*
35	40	7/16	120	11,000*	9000*	11,000*
50	55	7/16	150	11,000*	8200*	11,000*
75	80	7/16	200	11,000*	-	11,000*
100	105	7/16	250	-	-	-
-2	4	1/2	36	7600	5500	7200
7	13	1/2	45	7600	5300	7200
22	28	1/2	60	7600	5300	7200
37	43	1/2	75	7600	4700	7200
52	58	1/2	90	7600	4700	6800
82	88	1/2	120	7600	4300	6800
112	118	1/2	150	7000	-	6200
162	168	1/2	200	-	-	-
-2	4	9/16	36	-	5200	7200
7	13	9/16	45	-	5200	7200
22	28	9/16	60	-	5200	7200
37	43	9/16	75	-	4600	7200
52	58	9/16	90	-	4100	6600
82	88	9/16	120	-	4100	6600
112	118	9/16	150	-	-	-
-2	4	5/8	36	-	-	7200
7	13	5/8	45	-	-	7200
22	28	5/8	60	-	-	7200
37	43	5/8	75	-	-	6400
52	58	5/8	90	-	-	6400
82	88	5/8	120	-	-	5800
112	118	5/8	150	-	-	-

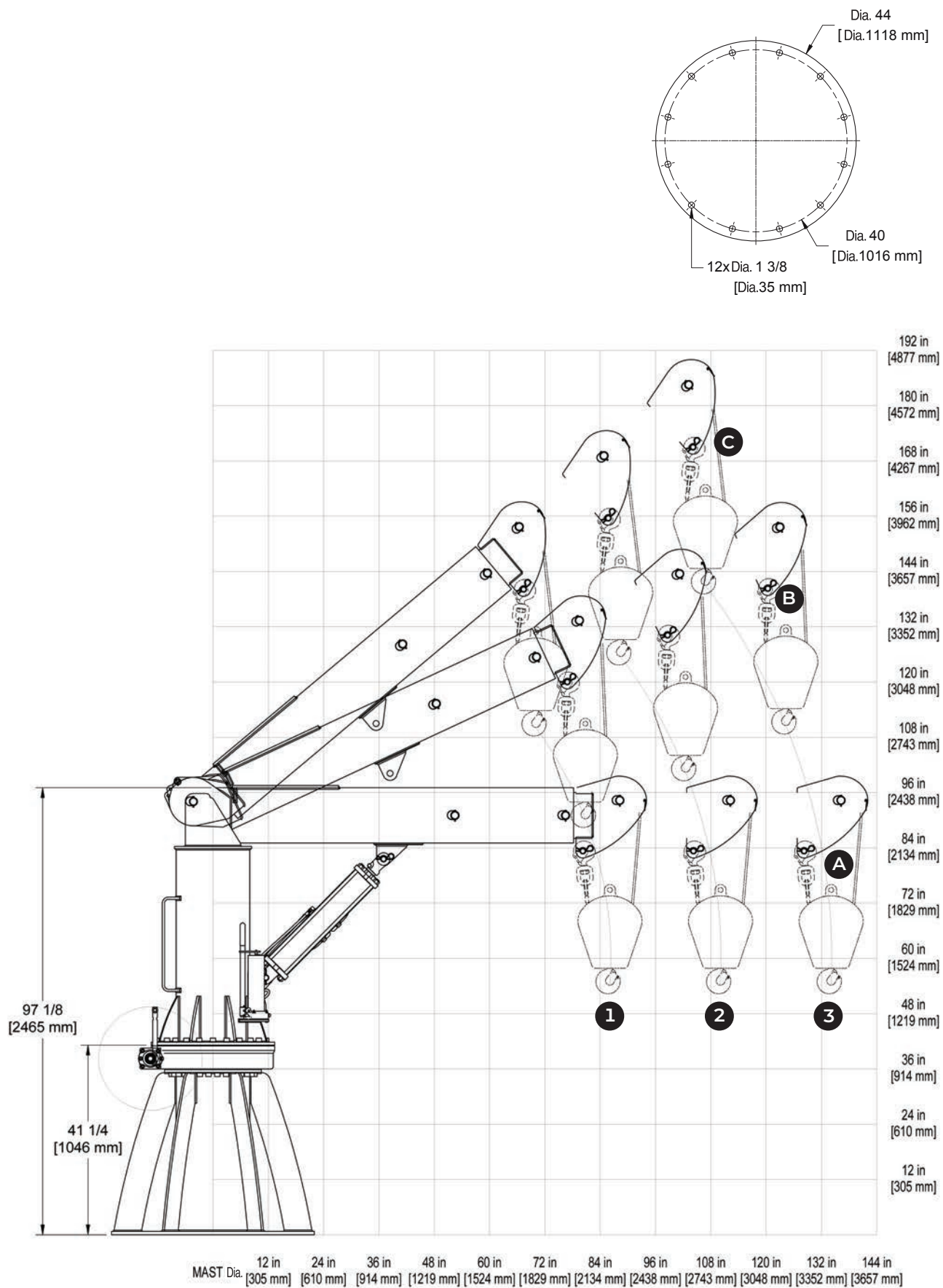
METRIC

LIFT BELOW FLOOR ²				WINCH OPTION		
MINIMUM (C3)	MAXIMUM (C1)	WIRE ROPE DIAMETER	WIRE ROPE LENGTH	M1	E3	E4
M	M	MM	M	KG		
0	0	11	13	5000*	5000*	5000*
1	3	11	18	5000*	5000*	5000*
3	5	11	22	5000*	4445*	5000*
6	7	11	27	5000*	4445*	5000*
10	12	11	36	5000*	4080*	5000*
15	16	11	45	5000*	3720*	5000*
22	24	11	60	5000*	-	5000*
30	32	11	76	-	-	-
0	1	13	10	3445	2495	3265
2	3	13	13	3445	2400	3265
6	8	13	18	3445	2400	3265
11	13	13	22	3445	2130	3265
15	17	13	27	3445	2130	3085
24	26	13	36	3445	1950	3085
34	35	13	45	3175	-	2810
49	51	13	60	-	-	-
0	1	14	10	-	2355	3265
2	3	14	13	-	2355	3265
6	8	14	18	-	2355	3265
11	13	14	22	-	2085	3265
15	17	14	27	-	1860	2990
24	26	14	36	-	1860	2990
34	35	14	45	-	-	-
0	1	16	10	-	-	3265
2	3	16	13	-	-	3265
6	8	16	18	-	-	3265
11	13	16	22	-	-	2900
15	17	16	27	-	-	2900
24	26	16	36	-	-	2630
34	35	16	45	-	-	-

¹Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

²Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.

Captain 10,000 5FT100 Performance Ratings



Captain 10,000 5FT100 Performance Ratings

IMPERIAL

BOOM POSITION	1ST LAYER LOAD RATING*	HOOK REACH	HOOK HEIGHT**
	LB	IN	IN
A-1	11,000	86	56
A-2	9000	110	56
A-3	7500	134	56
B-1	11,000	80	92
B-2	11,000	101	102
B-3	10,000	123	112
C-1	11,000	70	112
C-2	11,000	88	27
C-3	10,000	107	142

METRIC

BOOM POSITION	1ST LAYER LOAD RATING*	HOOK REACH	HOOK HEIGHT**
	KG	MM	MM
A-1	5000	2184	1422
A-2	4080	2794	1422
A-3	3400	3403	1422
B-1	5000	2032	2336
B-2	5000	2565	2590
B-3	4535	3124	2844
C-1	5000	1778	2844
C-2	5000	2235	3225
C-3	4535	2718	3606

*Crane maximum load rating. Load rating may decrease as layers of rope wind onto the winch drum. Refer to winch specific information.

**Hook heights shown with optional 5FT100TPL two-part line kit.

Information is for reference only and subject to change without notice.

Contact factory for non-standard product requirements.

TECHNICAL DRAWINGS & SPECIFICATIONS

ADMIRAL[®] 3000

TRANSPORTABLE DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5PT30J-M1	up to 3,000 lb capacity with M452PB spur gear hand winch and ratchet jack—enamel crane	719	326
5PT30JG-M1	up to 3,000 lb capacity with M452B spur gear hand winch and ratchet jack—galvanized crane	719	326
5PT30JG-M1X	up to 3,000 lb capacity with M452BEGRA spur gear hand winch (epoxy) gray—galvanized ratchet jack and crane	719	326
5PT30J-E2	up to 3,000 lb capacity with 3WG4B electric winch and ratchet jack—enamel crane	816	370
5PT30JG-E2	up to 3,000 lb capacity with 3WG4B electric winch—galvanized ratchet jack and crane	816	370
Crane Only			
5PT30	up to 3,000 lb—boom brace—enamel finish	563	255
5PT30G	up to 3,000 lb—boom brace—galvanized finish	563	255
5PT30X	up to 3,000 lb—boom brace—gray-epoxy finish	563	255
5PT30J	up to 3,000 lb—adjustable ratchet-jack—enamel finish	628	285
5PT30JG	up to 3,000 lb—adjustable ratchet-jack—galvanized finish	628	285
5PT30JX	up to 3,000 lb—adjustable ratchet-jack—gray-epoxy finish	623	283
Winch Only			
M1	M452B—spur gear hand winch only—enamel finish	91	41
M1X	M452BEGRA—spur gear hand winch only—gray-epoxy finish	91	41
M2	2W40V-BMT4P worm gear hand winch—powder-coat fi nish	141	64
M2X	2W40V-BMT4XP worm gear hand winch—gray-epoxy finish	141	141
E2	3WG4B electric winch—115/1/60 VAC with 6 ft pendant control—enamel finish	188	85
E2X	3WG4B electric winch—115/1/60 VAC with 6 ft pendant control—gray-epoxy finish	188	85

Independent Bases—sold separately

Pedestal, socket (flush-mount), or wall-mount style.

IMPORTANT: Base installation is the purchaser's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.



Finishes	MODELS		
	Pedestal	Flush	Wall
Red Enamel	5BP30	5BF30	5BW30
Galvanized	5BP30G	5BF30G	5BW30G
Epoxy Paint	5BP30X	5BF30X	5BW30X
Approximate Ship Weight	180 lbs (82 kg)	160 lbs (73 kg)	155 lbs (71kg)

Wire Rope Assemblies—sold separately

Galvanized or stainless steel wire rope assemblies with swivel hook on one end and unfinished on the other end.

Wire Rope Length		Galvanized Aircraft Cable	304 Stainless Steel Wire Rope
		3/8" Dia. (9.5 mm)	3/8" Dia. (9.5 mm)
(ft)	(m)	Model No.	Model No.
28	8.5	WA38-28DS	WS38-28DS
36	10.9	WA38-36DS	WS38-36DS
45	13.7	WA38-45DS	WS38-45DS
60	18.2	WA38-60DS	WS38-60DS
75	22.8	WA38-75DS	WS38-75DS

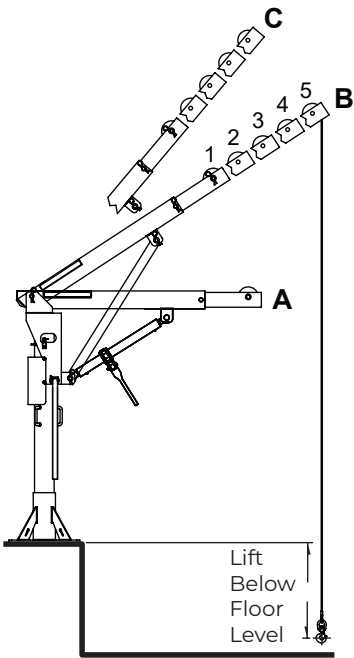
Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

PERFORMANCE

Admiral 3000 5PT30 Series
Lift Below Floor¹ Level

Lift Below Floor ²		Wire Rope Diameter		Wire Rope Length		Winch Configurations Maximum Winch Rating							
Minimum (C5) Maximum (C1)						M1		M2		E2			
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
-4	-1.2	2	0.6	3/8"	10	28	8.5	3,000	1,360	3,000	1,360	3,000	1,360
4	1.2	10	3.0	3/8"	10	36	10.9	3,000	1,360	3,000	1,360	3,000	1,360
13	3.9	19	5.7	3/8"	10	45	13.7	3,000	1,360	3,000	1,360	3,000	1,360
28	8.5	34	10.3	3/8"	10	60	18.2	3,000	1,360	3,000	1,360	3,000	1,360
43	13.1	49	14.9	3/8"	10	75	22.8	3,000	1,360	3,000	1,360	3,000	1,360
58	17.6	64	19.5	3/8"	10	90	27.4	-	-	2,700	1,224	2,700	1,224
88	26.8	94	28.6	3/8"	10	120	36.5	-	-	2,500	1,134	2,500	1,134

¹ Performance characteristics are for standard products. Non-standard products may vary from the original design.
Contact Thern, Inc. for this information.
² Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.



Winch
Configurations



Admiral 3000
Performance Ratings

Boom Position	Load Rating	
	(lb)	(kg)
A-1	3,000	1,360
A-2	3,000	1,360
A-3	3,000	1,360
A-4	2,700	1,224
A-5	2,400	1,088
B-1	3,000	1,360
B-2	3,000	1,360
B-3	3,000	1,360
B-4	2,700	1,224
B-5	2,400	1,088
C-1	3,000	1,360
C-2	3,000	1,360
C-3	3,000	1,360
C-4	2,700	1,224
C-5	2,400	1,088

Admiral 3000 Pedestal Base

Hook Height and Reach

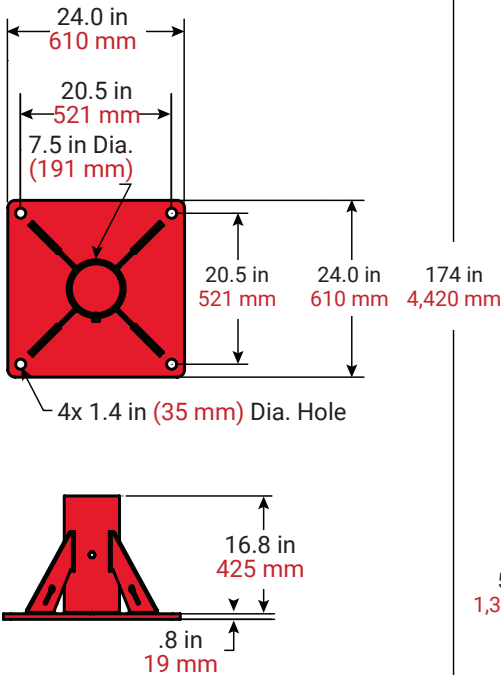
Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1*	72	1,829	66	1,677
A-2*	82	2,083	66	1,677
A-3*	92	2,337	66	1,677
A-4*	10	22,591	66	1,677
A-5*	112	2,845	66	1,677
B-1 (fxed)	60	1,524	106	2,693
B-2 (fxed)	69	1,753	112	2,845
B-3 (fxed)	77	1,956	117	2,972
B-4 (fxed)	85	2,159	123	3,125
B-5 (fxed)	94	2,388	128	3,252
C-1*	46	1,169	122	3,099
C-2*	53	1,347	130	3,302
C-3*	59	1,499	137	3,480
C-4*	66	1,677	145	3,683
C-5*	72	1,829	153	3,887

* Boom position requires purchasing the screw jack.
 Dimensions are for reference only and subject to change without notice.

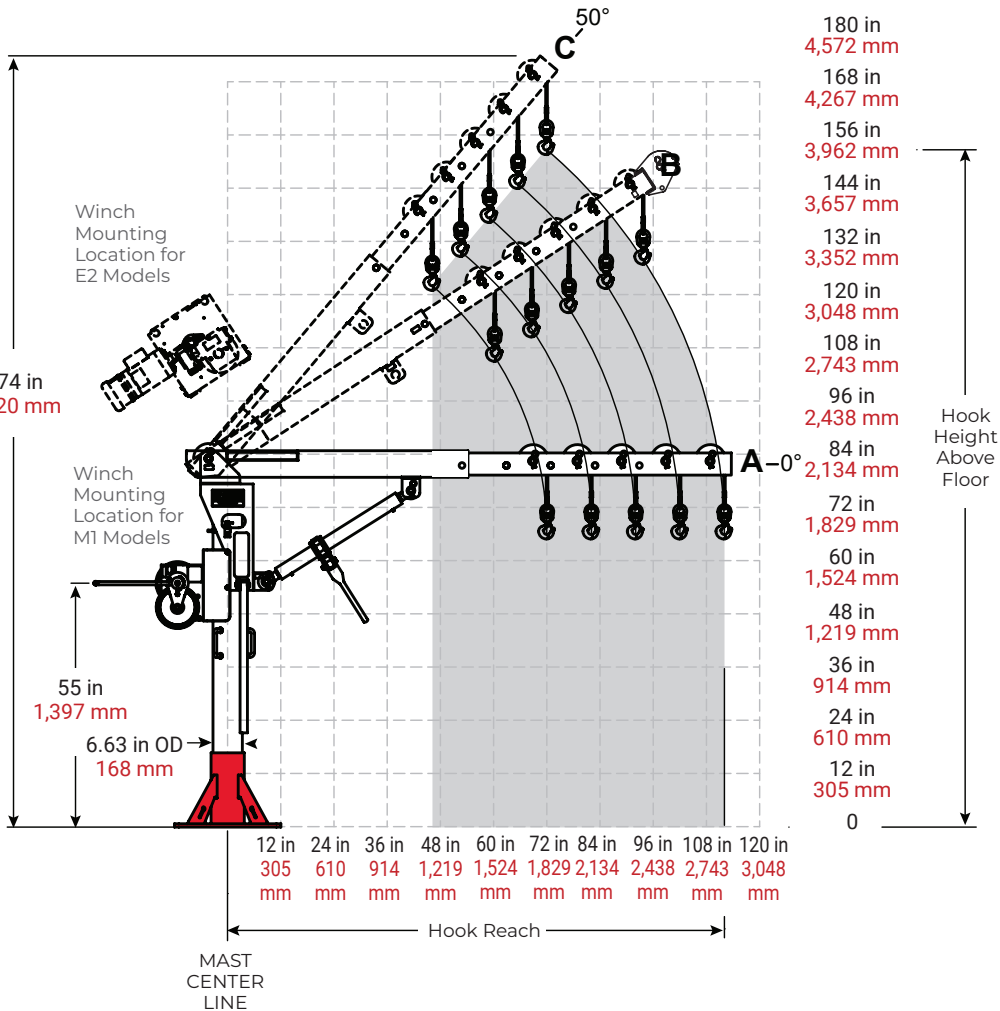
Admiral 3000 Pedestal Base

5BP30 5BP30G 5BP30X

Pedestal Base



Positions A and C require a ratchet-style screw jack.



Admiral 3000 Flush- or Wall-Mount Base

Hook Height and Reach

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1*	72	1,829	50	1,270
A-2*	82	2,083	50	1,270
A-3*	92	2,337	50	1,270
A-4*	10	22,591	50	1,270
A-5*	112	2,845	50	1,270
B-1 (fxd)	60	1,524	90	2,286
B-2 (fxd)	69	1,753	96	2,439
B-3 (fxd)	77	1,956	101	2,566
B-4 (fxd)	85	2,159	107	2,718
B-5 (fxd)	94	2,388	112	2,845
C-1*	46	1,169	106	2,693
C-2*	53	1,347	114	2,896
C-3*	59	1,499	121	3,074
C-4*	66	1,677	129	3,277
C-5*	72	1,829	137	3,480

* Boom position requires purchasing the screw jack.
Dimensions are for reference only and subject to change without notice.

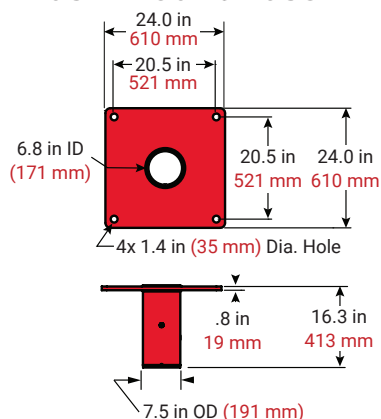
Admiral 3000 Flush-Mount Base

5BF30 5BF30G 5BF30X

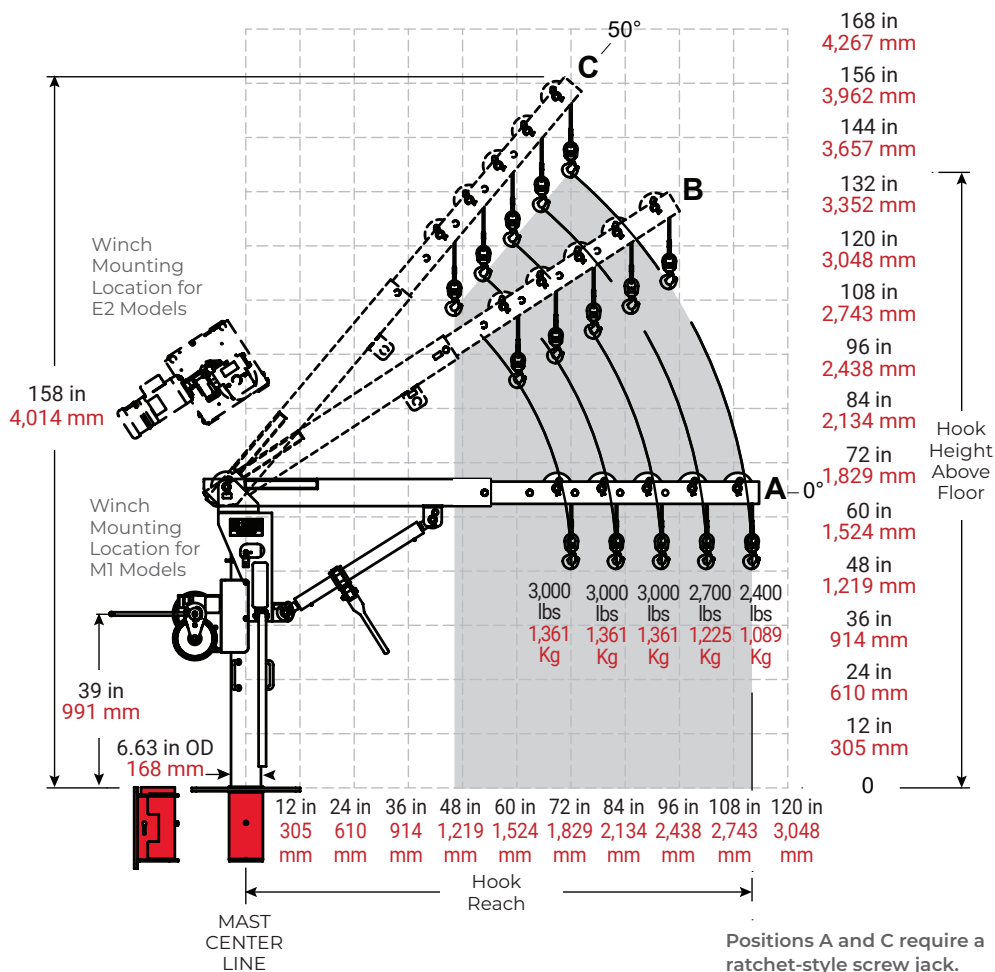
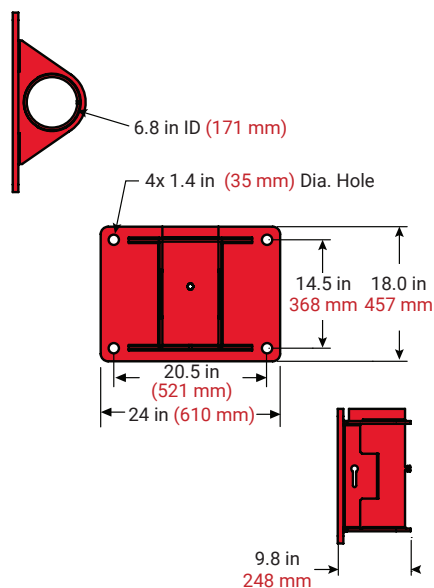
Admiral 3000 Wall-Mount Base

5BF30 5BF30G 5BF30X

Flush-Mount Base



Wall-Mount Base



WIRE ROPES

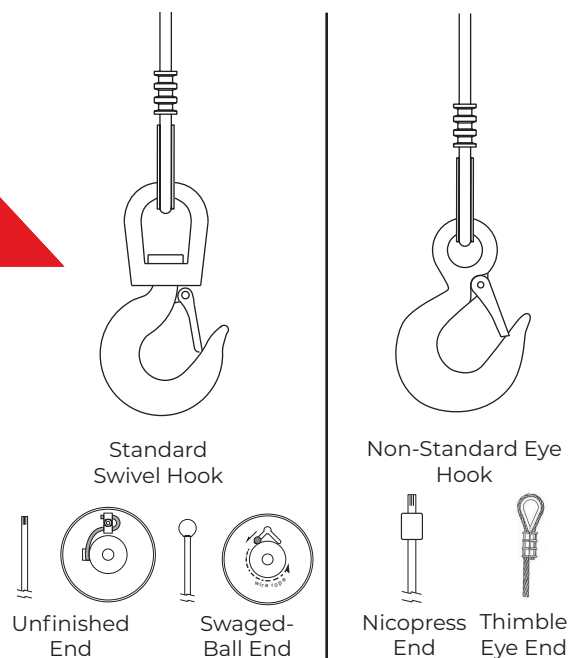
Wire Rope Assemblies

How to Order Wire Rope

Thern winches are sold without wire rope. Order wire rope separately from Thern or a reputable supplier. The breaking strength of new wire rope should be five times the largest load for lifting applications and three times the largest load for pulling applications. All wire rope from Thern ships loose.

Wire Rope Assemblies

Model Number	Wire Rope Diameter x Length	Approx. Ship Weight	
		(lb)	(kg)
Galvanized aircraft cable with swivel hook and swaged-ball fitting			
WA19-20NS	3/16 in x 20 ft	3	1
WA19-28NS	3/16 in x 28 ft	4	2
WA19-36NS	3/16 in x 36 ft	4	2
WA19-45NS	3/16 in x 45 ft	7	3
WA25-20NS	1/4 in x 20 ft	4	2
WA25-28NS	1/4 in x 28 ft	5	2
WA25-36NS	1/4 in x 36 ft	6	3
WA25-45NS	1/4 in x 45 ft	7	3
WA25-60NS	1/4 in x 60 ft	9	4
WA25-75NS	1/4 in x 75 ft	11	5
Galvanized aircraft cable with swivel hook and unfinished end			
WA31-20DS	5/16 in x 20 ft	6	3
WA31-28DS	5/16 in x 28 ft	7	3
WA31-36DS	5/16 in x 36 ft	8	4
WA31-45DS	5/16 in x 45 ft	10	5
WA31-60DS	5/16 in x 60 ft	12	5
WA31-75DS	5/16 in x 75 ft	15	7
WA38-28DS	3/8 in x 28 ft	8	4
WA38-36DS	3/8 in x 36 ft	10	5
WA38-45DS	3/8 in x 45 ft	11	5
WA38-60DS	3/8 in x 60 ft	14	6
WA38-75DS	3/8 in x 75 ft	17	8
Galvanized EIPS steel wire rope with carbon steel swivel hook and unfinished end			
WEG44-28DS	7/16 in x 28 ft	15	7
WEG44-36DS	7/16 in x 36 ft	18	8
WEG44-45DS	7/16 in x 45 ft	21	10
WEG44-60DS	7/16 in x 60 ft	26	12
WEG44-75DS	7/16 in x 75 ft	31.5	14



Model Number	Wire Rope Diameter x Length	Approx. Ship Weight	
		(lb)	(kg)
304 stainless steel wire rope with SS swivel hook and swaged-ball fitting			
WS19-20NS	3/16 in x 20 ft	3	1
WS19-28NS	3/16 in x 28 ft	3	1
WS19-36NS	3/16 in x 36 ft	4	2
WS19-45NS	3/16 in x 45 ft	7	3
WS19-60NS	3/16 in x 60 ft	9	4
WS19-75NS	3/16 in x 75 ft	11	5
WS25-20NS	1/4 in x 20 ft	5	2
WS25-28NS	1/4 in x 28 ft	5	2
WS25-36NS	1/4 in x 36 ft	6	3
WS25-45NS	1/4 in x 45 ft	7	3
WS25-60NS	1/4 in x 60 ft	9	4
WS25-75NS	1/4 in x 75 ft	11	5
304 stainless steel wire rope with SS swivel hook and unfinished end			
WS31-20DS	5/16 in x 20 ft	6	3
WS31-28DS	5/16 in x 28 ft	7	3
WS31-36DS	5/16 in x 36 ft	9	4
WS31-45DS	5/16 in x 45 ft	11	5
WS31-60DS	5/16 in x 60 ft	14	6
WS31-75DS	5/16 in x 75 ft	17	8
304 stainless steel wire rope with SS swivel hook and unfinished end			
WS38-28DS	3/8 in x 28 ft	8	4
WS38-36DS	3/8 in x 36 ft	10	5
WS38-45DS	3/8 in x 45 ft	12	5
WS38-60DS	3/8 in x 60 ft	15	7
WS38-75DS	3/8 in x 75 ft	18	8
304 stainless steel wire rope with carbon steel swivel hook and unfinished end			
WS44-28DS	7/16 in x 28 ft	23	10
WS44-36DS	7/16 in x 36 ft	27	12
WS44-45DS	7/16 in x 45 ft	31	14
WS44-60DS	7/16 in x 60 ft	38	17
WS44-75DS	7/16 in x 75 ft	45	20

Model Number	Wire Rope Diameter x Length	Approx. Ship Weight	
		(lb)	(kg)

316 stainless steel wire rope with SS swivel hook and swaged-ball fitting

WSS19-20NS	3/16 in x 20 ft	3	1
WSS19-28NS	3/16 in x 28 ft	3	1
WSS19-36NS	3/16 in x 36 ft	4	2
WSS19-45NS	3/16 in x 45 ft	7	3
WSS19-60NS	3/16 in x 60 ft	9	4
WSS19-75NS	3/16 in x 75 ft	11	5
WSS25-20NS	1/4 in x 20 ft	5	2
WSS25-28NS	1/4 in x 28 ft	5	2
WSS25-36NS	1/4 in x 36 ft	6	3
WSS25-45NS	1/4 in x 45 ft	7	3
WSS25-60NS	1/4 in x 60 ft	9	4
WSS25-75NS	1/4 in x 75 ft	11	5

316 stainless steel wire rope with SS swivel hook and unfinished end

WSS31-20DS	5/16 in x 20 ft	6	3
WSS31-28DS	5/16 in x 28 ft	7	3
WSS31-36DS	5/16 in x 36 ft	9	4
WSS31-45DS	5/16 in x 45 ft	11	5
WSS31-60DS	5/16 in x 60 ft	14	6
WSS31-75DS	5/16 in x 75 ft	17	8

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

Breaking Strength of Wire Rope (lb)

Wire Rope Diameter	"7x19 Galvanized Aircraft Cable	"7x19 304 Stainless Steel Wire Rope	"7x19 316 Stainless Steel Wire Rope
1/8 in	2,000	1,760	1,530
3/16 in	4,200	3,700	3,210
1/4 in	7,000	6,400	5,600
5/16 in	9,800	9,000	8,200
3/8 in	14,400	12,000	11,000

Values shown are for reference only.

Breaking Strength of Wire Rope (lb)

Wire Rope Diameter	6x37 IWRC (Improved Plow Steel) Wire Rope	6x37 IWRC (Extra Improved Plow Steel) Wire Rope	6x19 IWRC 304 Stainless Wire Rope
3/8 in	13,120	15,100	----
7/16 in	17,780	20,400	16,300
1/2 in	23,000	26,600	22,800
9/16 in	29,000	33,600	28,500
5/8 in	35,800	41,200	35,000
3/4 in	51,200	58,800	49,600
7/8 in	69,200	79,600	66,500
1 in	89,800	103,400	85,400
1-1/8 in	113,000	130,000	106,400
1-1/4 in	138,800	159,800	129,400
1-3/8 in	167,000	192,000	153,600

Values shown are for reference only.

When selecting a wire rope, use the breaking strength specified by the rope manufacturer.

CONTROLS

Smooth, Precision Control Your Way

You selected a Thern electric winch to save time, reduce operator fatigue, and enhance precision. Faster and more accurate lifting, lowering, pulling, and placing is simply more efficient—and that means greater productivity. Why not enhance your productivity with a Thern control that is specifically engineered to match the performance characteristics of your winch as well as the local power supply and demands of your application?

Thern offers a variety of standard controls to complement its line of winches, including a wireless version. Our 10:1 infinitely variable-speed control provides enhanced positioning as well as overload protection and soft starts and stops. Yet, Thern also offers a range of custom solutions that include encoders, operator pedestal stations, as well as concurrent/dependent operation for multiple winches. Every situation and application are different—and Thern gets it. Using only the highest-quality UL-, IEC- and CSA-recognized components and hardware, Thern will design and build a value-added control system to meet your specific application, environment, and needs.

Electric Drum Control Switches

Single-Speed, Reversing-Drum Controls for 1- and 3-phase motors up to 7.5 hp

- **UL and CSA Recognized** components throughout.
- **Enclosures** to suit your application needs. **NEMA 1** (industrial) rated switches provide protection against dirt and corrosion for most indoor applications. **NEMA 4** (watertight) rated switches keep dirt and water out and are approved for most outdoor applications.
- **Wiring Diagram** is supplied inside the enclosure for convenient reference.
- **Two-Year Limited Warranty**

WHEN ORDERING, PLEASE INCLUDE THE FOLLOWING:

- Voltage and phase required
- Motor horsepower

Drum control switches for 115-volt, single-phase motors up to 1.5 hp include 8-foot power cord with grounded plug.



Electric Drum Control Switches—Horsepower Ratings

Model Number	Description	Voltage / Phase / Hertz with Maximum-Rated Motor HP				Approx. Ship Weight	
		115 / 1 / 60 ¹	230 / 1 / 60	230 / 3 / 60	460 / 3 / 60	(lb)	(kg)
10L2A1	NEMA 1	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp	3	2
10L7E1	NEMA 1	to 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp	3	2
10L2A4	NEMA 4—watertight	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp	7	4
10L7E4	NEMA 4—watertight	to 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp	7	4

Please contact Thern or nearest Thern Distributor for firm, fixed price and deliver

¹ Controls for 115-volt, single-phase motors up to 1.5 hp include 8-foot power cord with grounded plug.

Variable-Speed Electric Motor Controls

For 3-phase, 230-VAC motors from 1 to 25 hp
and 3-phase, 460-VAC motors from 1 to 60 hp

10:1 Infinitely Variable-Speed Controls provide accurate positioning of loads, soft starts, soft stops, and overload protection.

- Frequencies greater than 50 Hz are possible in no-load or light-load conditions decreasing rigging time.
- Diagnostic and Troubleshooting Capabilities: digital display provides drive status.
- Programmable Performance keypad is adjustable to control acceleration and deceleration rates.
- Steel Enclosure is NEMA 12 rated (indoor). NEMA 4 rated (watertight) enclosures also available.
- Pendant Control Switch is NEMA 4X rated (watertight) with 3-step, infinitely variable-speed push buttons on a 50-foot cord, which allows the operator to stand away from the winch during operation. Pendant control is operated with momentary contact-type push buttons. Cord lengths of less than 50 feet are available. Please specify when ordering.
- UL, IEC, or CSA Recognized components throughout.
- Electronic Thermal Overload Relay provides motor overload protection and is field programmable.
- Wiring Diagram is supplied inside enclosure.
- Options available include multiple axis, remote controls, mainline contact, disconnect switch, enclosure temperature controls, indicating lights, selector switches, horn and bells, meters, and limit switches. Contact Thern for more information.
- Explosion-Proof Controls also available. Please contact Thern for more information.
- Two-Year Limited Warranty



WHEN ORDERING, PLEASE INCLUDE THE FOLLOWING:

- Voltage and phase required
- Motor horsepower
- Pendant control cord length—up to 50 feet
- Pendant control labeling—for/rev or up/down
- Indoor or outdoor use
- Lifting or pulling application

Variable-Speed Electric Motor Controls—Horsepower Ratings

Model Number	Maximum-Rated Motor Horsepower for Power Supply Current		Approx. Ship Weight	
	230 / 3 / 60	460 / 3 / 60	(lb)	(kg)
10V1D12L	1 hp	—	100	46
10V2D12L	2 hp	—	100	46
10V3D12L	3 hp	—	100	46
10V5D12L	5 hp	—	100	46
10V7D12L	7.5 hp	—	120	55
10V10D12L	10 hp	—	120	55
10V15D12L	15 hp	—	120	55
10V20D12L	20 hp	—	210	96
10V25D12L	25 hp	—	210	96
10V1E12L	—	1 hp	100	46
10V2E12L	—	2 hp	100	46
10V3E12L	—	3 hp	100	46
10V5E12L	—	5 hp	100	46
10V7E12L	—	7.5 hp	100	46
10V10E12L	—	10 hp	100	46
10V15E12L	—	15 hp	120	55
10V20E12L	—	20 hp	180	82
10V25E12L	—	25 hp	180	82

When ordering winch, specify brake voltage to be the same as motor voltage. Leads must be capable of being wired separate from motor power. Price includes dynamic brake resist or to be mounted and wired by others. Contact Thern to verify drive compatibility to winch and motor. Controls shipped separately to be mounted and wired by others.

Single-Speed Electric Motor Controls

Single-Speed, Reversing-Magnetic Controls for 1- and 3-phase motors up to 60 hp



- **UL, IEC, or CSA Recognized** components throughout.
- **Steel Enclosure is NEMA 4** rated (watertight) to keep the dirt and water out. Approved for most outdoor applications.
- **Pendant Control Switch is NEMA 4X** rated (watertight) on a 50-foot cord, which allows the operator to stand away from the winch during operation. Pendant control is operated with momentary contact-type push buttons. Cord lengths of less than 50 feet are available. Please specify when ordering.
- **Reversing Contactor** is electrically and mechanically interlocked to deliver smooth reversing control.
- **Thermal Overload Relay** trips power OFF to protect motor from overheating. Switch is manually reset.
- **Fused Control Circuit** powers pendant with 115-volt, 2-amp current to help protect against high-voltage shocks.
- **Wiring Diagram** is supplied inside enclosure.
- **Steel Mounting Bracket** secures control box to winch.
- **Explosion Proof Controls** also available. Please contact Thern for more information.
- **Two-Year Limited Warranty**

OPTIONS

- Special Current or Horsepower Ratings
- Special-Rated Enclosures for Explosive or Harsh Environments
- Multi-Speed Controls
- Torque-Limiting Controls
- Power Cord Disconnects
- UL-Listed Controls
- Various Selector Switches and Pilot Lights

Single-Speed Electric Motor Controls—Horsepower Ratings

Model Number	Maximum-Rated Motor Horsepower for Power Supply Current					Approx. Ship Weight	
	115 / 1 / 60	230 / 1 / 60	208 / 3 / 60	230 / 3 / 60	460 / 3 / 60	(lb)	(kg)
10S2A4	to 1.5 hp	—	—	—	—	25	12
10S3B4	—	to 3 hp	—	—	—	25	12
10S3C4	—	—	to 3 hp	—	—	25	12
10S7C4	—	—	to 7.5 hp	—	—	25	12
10S10C4	—	—	to 10 hp	—	—	28	13
10S20C4	—	—	to 20 hp	—	—	28	13
10S3D4	—	—	—	to 3 hp	—	25	12
10S7D4	—	—	—	to 7.5 hp	—	25	12
10S10D4	—	—	—	to 10 hp	—	28	13
10S20D4	—	—	—	to 20 hp	—	28	13
10S30D4	—	—	—	to 30 hp	—	60	28
10S7E4	—	—	—	—	to 7.5 hp	25	12
10S15E4	—	—	—	—	to 15 hp	25	12
10S20E4	—	—	—	—	to 20 hp	28	13
10S40E4	—	—	—	—	to 40 hp	60	28
10S60E4	—	—	—	—	to 60 hp	60	28

Controls include NEMA 4 enclosure and NEMA 4X push button pendant control on 50-foot cord. Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

Wireless Single-Speed Electric Motor Controls

Single-Speed, Reversing-Magnetic Controls for 1- and 3-phase motors up to 60 hp

In addition to the following, the wireless single-speed electric motor control has all the same features as the standard version, except for pendant-related features.

- Removes the limitations of a corded pendant's operating position.
- Rechargeable Wireless Transmitter
- A wireless transmitter is easily cloned, if lost.
- The winch can still be operated using the push buttons on the controller's receiver if the wireless transmitter is lost.
- The transmitter circuit board is epoxy-potted making it watertight and vibration-resistant.
- Removes the limitations of a corded pendant's operating position.
- UL, IEC, or CSA Recognized components throughout.
- Steel Enclosure is NEMA 4 rated (watertight) to keep the dirt and water out. Approved for most outdoor applications.
- Reversing Contactor is electrically and mechanically interlocked to deliver smooth reversing control.
- Thermal Overload Relay trips power OFF to protect motor from overheating. Switch is manually reset.
- Wiring Diagram is supplied inside enclosure.
- Steel Mounting Bracket secures control box to winch.
- Two-Year Limited Warranty

WHEN ORDERING, PLEASE INCLUDE THE FOLLOWING:

- Voltage and phase required
- Motor horsepower



OPTIONS

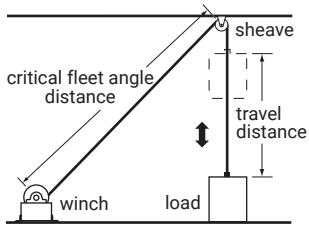
- Special Current or Horsepower Ratings
- Special-Rated Enclosures
- Torque-Limiting Controls
- Power Cord Disconnects
- UL-Listed Controls
- Various Selector Switches and Pilot Lights

Single-Speed Electric Motor Controls—Horsepower Ratings

Model Number	Maximum-Rated Motor Horsepower for Power Supply Current					Approx. Ship Weight	
	115 / 1 / 60	230 / 1 / 60	208 / 3 / 60	230 / 3 / 60	460 / 3 / 60	(lb)	(kg)
10S2A4W	to 1.5 hp	—	—	—	—	25	12
10S3B4W	—	to 3 hp	—	—	—	25	12
10S3C4W	—	—	to 3 hp	—	—	25	12
10S7C4W	—	—	to 7.5 hp	—	—	25	12
10S10C4W	—	—	to 10 hp	—	—	28	13
10S20C4W	—	—	to 20 hp	—	—	28	13
10S3D4W	—	—	—	to 3 hp	—	25	12
10S7D4W	—	—	—	to 7.5 hp	—	25	12
10S10D4W	—	—	—	to 10 hp	—	28	13
10S20D4W	—	—	—	to 20 hp	—	28	13
10S30D4W	—	—	—	to 30 hp	—	60	28
10S7E4W	—	—	—	—	to 7.5 hp	25	12
10S15E4W	—	—	—	—	to 15 hp	25	12
10S20E4W	—	—	—	—	to 20 hp	28	13
10S40E4W	—	—	—	—	to 40 hp	60	28
10S60E4W	—	—	—	—	to 60 hp	60	28

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

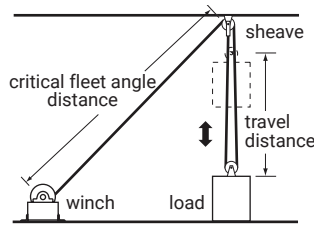
Typical Rigging Layouts for Lifting and Hoisting Applications



Floor Mounted

Lifting with Overhead Sheave

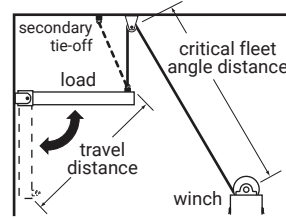
- Wire rope passes through overhead sheave to load.
- Brake motor provides load control for lifting.
- Winch is easily accessible for maintenance and operation.



Floor Mounted

Lifting with Two-Part Line

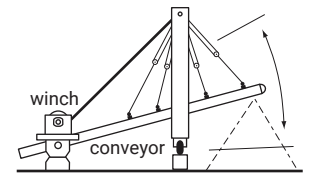
- Two-part line decreases load capacity at the winch.
- Brake motor provides load control for lifting.
- Winch is easily accessible for maintenance and operation.



Floor Mounted

Lifting Hinged Load

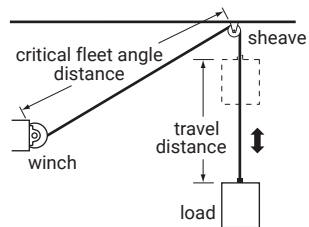
- Wire rope passes through overhead sheave to load.
- Brake motor provides load control for lifting.
- Winch is easily accessible for maintenance and operation.



Base Mounted

Positioning Radial Stacker

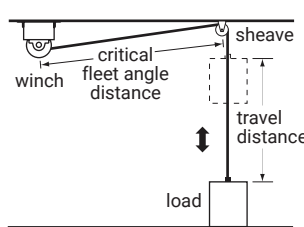
- Multi-part rigging decreases load capacity at the winch.
- Brake motor provides load control for lifting.
- Winch is easily accessible for maintenance and operation.



Wall Mounted

Lifting with Overhead Sheave

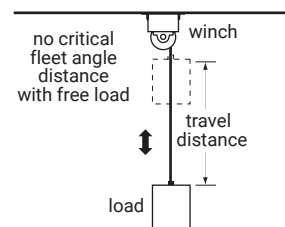
- Wire rope passes through overhead sheave to load.
- Brake motor provides load control for lifting.
- Winch is easily modified for wall mounting.



Ceiling Mounted

Lifting with Overhead Sheave

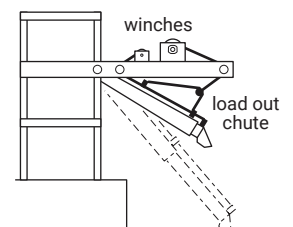
- Wire rope passes through overhead sheave to load.
- Brake motor provides load control for lifting.
- Winch is easily modified for ceiling mounting.



Ceiling Mounted

Lifting Direct to Load

- Load must be free to move side to side or be guided in track.
- Brake motor provides load control for lifting.
- Winch is easily modified for ceiling mounting.

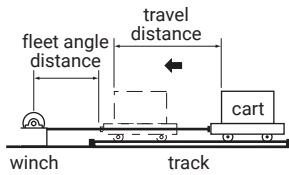


Base Mounted

Positioning Load-Out Chute

- Two winches operate separately to accurately position chute arm.
- Brake motor provides load control for lifting.
- Secondary tie-off secures load when stationary.

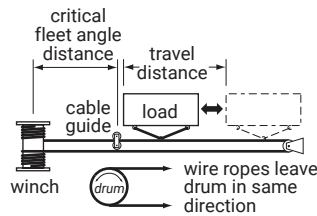
Typical Rigging Layouts for Pulling Applications



Floor Mounted

Pulling Cart on Wheels

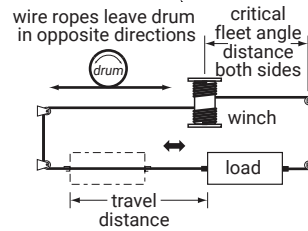
- Cart is pulled in one direction toward winch.
- Manual clutch allows drum to be disengaged for rapid load hookup.
- Cart is guided by tracks or rails to maintain fleet angle.



Mounted In-Line

Single Drum Closed Loop

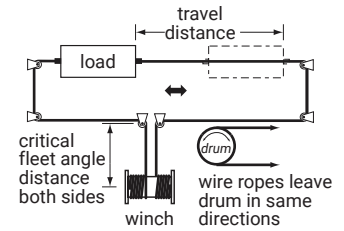
- Cars can be moved in both directions.
- Both ends of the wire rope are anchored to the same drum.
- Spring sheave maintains tension in wire rope.



Mounted Off-Side

Single Drum Closed Loop

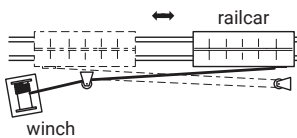
- Cars can be moved in both directions.
- Both ends of the wire rope are anchored to the same drum.
- Spring sheave maintains tension in wire rope.



Mounted Off-Side

Single Drum Closed Loop

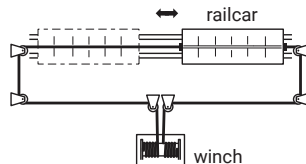
- Cars can be moved in both directions.
- Both ends of the wire rope are anchored to the same drum.
- Spring sheave maintains tension in wire rope.



Mounted In-Line

Single Line Pulling Rail Cars

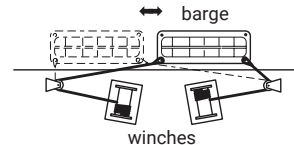
- Rail cars are pulled toward winch, or rope is passed around sheave to reverse direction.
- Manual clutch allows drum to be disengaged for rapid load hookup.



Mounted Off-Side

Closed Loop Pulling Rail Cars

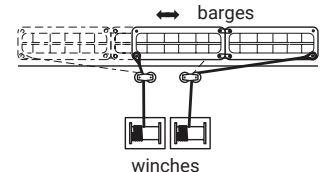
- Cars can be moved in both directions.
- Both ends of the wire rope are anchored to the same drum.
- Spring sheaves maintain tension in wire rope.



Mounted Off-Side

Dual Winch Barge Positioning

- Controls operate each winch individually or both of them together.
- Brake motors maintain tension in line to limit drift and deliver quick and accurate positioning.



Mounted Off-Side

Dual Winch Barge Positioning

- Controls operate each winch individually or both of them together.
- Brake motors maintain tension in line to limit drift and deliver quick and accurate positioning.

Rail Car Pulling Calculations

Calculating Line Pull

Line pull must be calculated by accounting for track curvature, track slope, and ambient temperature. Line pull may be roughly estimated from the tables and diagrams on this page, assuming the track is smooth, clean, and in good condition, and rail car wheels are well lubricated.

We recommend that you have your rail car pulling application carefully reviewed by the factory or a qualified sales person before selecting a winch.

Line Pull Factor Based on Temperature (lb/ton)

ambient temp. below 32° F

ambient temp. above 32° F

21 lb/ton

18 lb/ton

Line pull shown is for each 2,000 lb of total gross load weight.

Line Pull Factor Based on Curvature and Grade (lb/ton)

Track Curvature			Track Grade %						
radius of curve	degree of curve	chordal distance A	lb/ton factor						
			0%	1%	2%	3%	4%	5%	
0 ft	0°	0 in	0	20	40	60	80	100	
1,146 ft	5°	3-1/2 in	5	25	45	65	85	105	
573 ft	10°	6-1/2 in	10	30	50	70	90	110	
388 ft	15°	9-3/4 in	15	35	55	75	95	115	
288 ft	20°	13 in	20	40	60	80	100	120	
231 ft	25°	16-1/2 in	25	45	65	85	105	125	
193 ft	30°	20 in	30	50	70	90	110	130	
166 ft	35°	23-1/5 in	35	55	75	95	115	135	
146 ft	40°	27 in	40	60	80	100	120	140	

Line pull shown is for each 2,000 lb of total gross load weight.

Example:

Two loaded rail cars weighing 120 gross tons each are pulled 800 ft on a track with a curvature of 5° and a slope of 2%. The track is in good, clean condition, wheels are well lubricated, and the ambient temperature is frequently below 32° fahrenheit.

From Table 1:

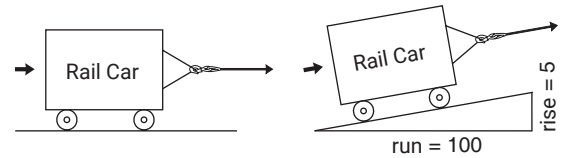
line pull required based on temperature effect = 21 lb/ton (factor 1)

From Table 2:

line pull required based on curvature and slope = 45 lb/ton (factor 2)

Total Line Pull Calculation (Running Pull):

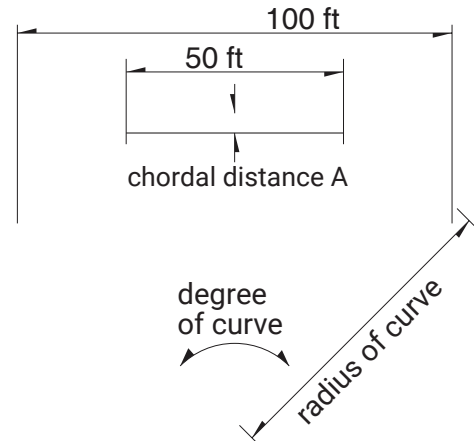
(gross weight per car) x (number of cars) x (factor 1 + factor 2) = total line pull
 (120 tons) x 2 x (21 lb/ton + 45 lb/ton) = (240 ton) x (66 lb/ton) = 15,840 lb (line pull)
 800 ft of travel puts us at mid drum: 4HS16M mid drum running line pull = 11,000 lb
 This application would require a 4HS26M (mid drum running line pull = 19,000 lb)



The amount of line pull due to slope is dependent on the percent of slope, calculated as follows:

slope as percent = (rise ÷ run) x 100

example: (5 ÷ 100) x 100 = 5% Grade

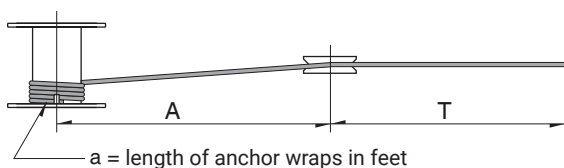


Curved sections of track place side forces on the load which must be overcome by the winch. The amount of line pull due to track curvature is dependent on the sharpness of the curve.

Engineering Information

Anchor Wraps

The first three to four wraps of wire rope must remain on the drum at all times to act as anchor wraps and to help secure the wire rope to the drum. The length of wire rope used for anchor wraps must be added to the total travel distance to determine the length of the wire rope needed for the application.



a = length of anchor wraps in feet

a = ((D + d) x π x N) ÷ 12

D = diameter of drum in inches

d = diameter of wire rope in inches

π = 3.14

N = number of anchor wraps (3 to 4) or if entire first layer N = ((drum width) ÷ d)

L = Total Length of Wire Rope = T + A + a

T = maximum distance load will travel

A = distance between drum and lead sheave to maintain fleet angl

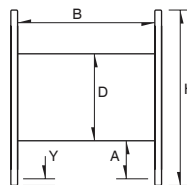
a = length of anchor wraps in feet

INFORMATION ENGINEERING

Engineering Information Continued...

Drum Capacity

Full drum capacity is typically calculated using the formula shown. This formula is based on the practices of wire rope manufacturers and assumes uniform winding of the wire rope. In actual practice, drum capacities may be 25–30% less than the values given by this formula due to uneven spacing, loose winding, and overlapping. Drum capacity often determines the winch you select. Most power winches can be equipped with different sizes of wire rope. Larger diameter wire ropes will decrease drum capacity, while smaller diameter wire ropes will increase drum capacity.



drum capacity in feet = $(A + D) \times A \times B \times K$

K = factor from the table

A = $(H - D - 2Y) \div 2$

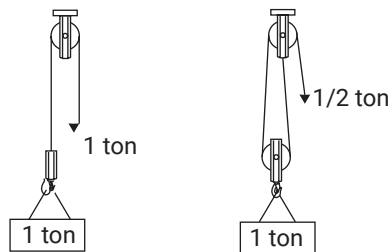
Y = clear distance between edge of flange and wire rope (usually 1/2")

Wire Rope Dia. (in)	1/8	3/16	7/32	1/4	5/16	3/8	7/16	1/2
K Factor	13.6	6.14	4.59	3.29	2.21	1.58	1.19	.925

Wire Rope Dia. (in)	9/16	5/8	3/4	7/8	1	1-1/8	1-1/4	1-3/8
K Factor	.741	.607	.428	.308	.239	.191	.152	.127

Two-Part Line

In some applications, a two-part line can be used to effectively increase the size of load the winch can move. A two-part line reduces tension in the wire rope, it does not change the weight of the load. All equipment supporting the load, such as sheave blocks, must be rated for the full size of the load.



As the number of rigging lines increase, line pull and line speed decrease. Friction in the system also affects performance. As the number of rigging lines increase, friction also increases. Contact a reputable sheave supplier for more information.

Formulas

$$H = \frac{P \times \text{fpm}}{33,000 \times E}$$

$$P = \frac{HP \times 33,000 \times E}{\text{fpm}}$$

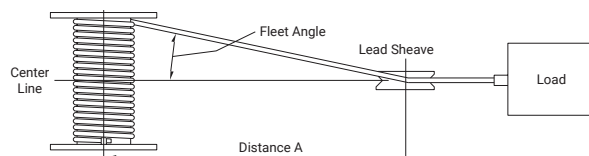
$$\text{fpm} = 0.262 \times \text{rpm} \times D$$

$$\text{rpm} = \frac{3.82 \times \text{fpm}}{D}$$

hp = horsepower
P = line pull
E = efficiency of gears
fpm = line speed in feet per minute
rpm = drum speed in revolutions per minute
D = diameter of drum in inches at point of line entrance

Fleet Angle

Fleet angle is the angle between the wire rope and an imaginary line extending perpendicular to the drum. The fleet angle varies with the distance between the lead sheave and the drum. The proper fleet angle helps the wire rope to wind evenly onto the drum and helps to reduce wear to the wire rope, drum, and lead sheave. Too large a fleet angle will cause the wire rope to wind loosely, overlap, and possibly jump the flange and cause severe damage to the equipment. A maximum fleet angle of 1-1/2° for smooth drums and 2° for grooved drums helps the wire rope wind uniformly.



Distance A in ft : for 1.5° fleet angle = (drum width in inches) x 1.59

Distance A in ft : for 2° fleet angle = (drum width in inches) x 1.19

Recommended Max. Fleet Angle

smooth drum 1.5° grooved drum 2°

APPLICATION DATA SHEET FOR POWER WINCHES

Contact:

Address:

City:

State:

Zip Code:

Phone:

Mobile:

Email:

1a

TIME FRAME:

Today's Date:

Date Needed:

Special Considerations:

1b

PULLING ☐

LIFTING ☐

Dollar Value of Load (Approx.):

Job Description:

If the product will be used in more than one application, please fill out separate data sheets for each application.

2a

LINE PULL REQUIREMENTS—Vertical Lift Only:

Line Pull:

Special Considerations:

2b

LINE PULL REQUIREMENTS—Horizontal Pull Only:

Line Pull:

Gross Weight of Load:

Measured Line Pull:

Load Moves Both Directions?

☐ Yes

☐ No

Will Weight be Added/Subtracted During Operation?

☐ Yes ☐ No

How Much:

Surface Under Load:

Condition:

Slope?

☐ Yes

☐ No

Rise:

Run:

Or Degrees:

Or Percent (%):

Wheels

☐ Yes

☐ No

Lubrication:

Material:

Size (Dia.):

Track?

☐ Yes

☐ No

Curvature (Degrees, Chordal Line, or Other):

Special Considerations:

3

LINE SPEED REQUIREMENTS:

Minimum Line Speed:

☐ Constant

Minimum:

Maximum:

☐ FPM

☐ Cycles Per Minute

☐ Variable Speed[†]

From:

To:

☐ FPM

☐ Cycles Per Minute

☐ Stringent

☐ Variations Acceptable:

Special Considerations:

[†] This is a complex option, please contact the factory.

4

DISTANCE OF TRAVEL:

☐ Single Layer

☐ Full Drum

Wire Rope Diameter:

Extra Rope Stored on Drum:

Wire Rope Specifications:

Special Considerations:

APPLICATION DATA SHEET FOR POWER WINCHES

5 POWER REQUIREMENTS:

☐ Electrical	☐ AC	☐ DC	Voltage:	Phase:	Cycle:
☐ Hydraulic	Pressure:		Flow:	Line Size (Dia.):	
☐ Pneumatic (Air)	Pressure:		Flow:	Line Size (Dia.):	
☐ Other:					

6 INSTALLATION REQUIREMENTS:

☐ Max. Length:	☐ Max. Width:	☐ Max. Height:	☐ Max. Weight:
Installation:	☐ Base	☐ Wall	☐ Ceiling
Clearance Required:			

7 ENVIRONMENT:

☐ Indoor	☐ Outdoor	☐ Marine	☐ Corrosive	☐ Hazardous	Temp. Range:	☐ °F	☐ °C
---------------------------------	----------------------------------	---------------------------------	------------------------------------	------------------------------------	--------------	-----------------------------	-----------------------------

Describe Special Conditions (Dust, Chemicals, Explosives, Etc.):

8 FREQUENCY OF OPERATION:

Hours per Day:	Start/Stops per Hour:	Will There Be	☐ Overloads	☐ Shock Loads
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9a ACCESSORY OPTIONS:

☐ Brake	☐ Limit Switch	☐ Clutch	☐ Pressure Bar	☐ Slack Line Detect
☐ Controls	☐ Torque Limiter	☐ Manual Override	☐ Other:	

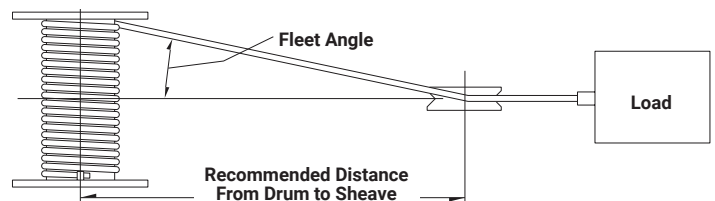
9b MODIFICATIONS:

☐ Grooved Drum	☐ Multiple Drum	☐ Modified Drum Size	☐ Level Wind	☐ Special Finish
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Other:

10 SKETCH OF APPLICATION:

- Sketch diagram showing mounting position, rigging layout, and position of load.
- Indicate whether the wire rope will be overwound (⊖) or underwound (⊕).
- Indicate the distance between the center of the drum and the lead sheave. (maximum fleet angle: 1-1/2° for smooth drum, 2° for grooved drum)



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Submitted By:	Phone:
Email:	

CRANE REQUEST FOR QUOTE

1 JOB DESCRIPTION: _____

2 LINE PULL

Gross Weight of Load **(A)** _____

3 LIFT REQUIREMENTS

Hook Height **(B)** _____
Below Floor Level **(C)** _____
Load Height **(D)** _____
Obstacle Height **(E)** _____
Max Lift Req. TOTAL _____

4 REACH REQUIREMENTS

Hook Reach **(F)** _____
Load Width **(G)** _____
Min. Hook Reach _____
Max. Hook Reach _____
Clearance Required _____
Rotation: _____

5 WINCH REQUIREMENTS (Additional Cost *)

☐ HAND FINISH ☐ Zinc (Standard) ☐ Stainless Steel*
☐ POWER FINISH ☐ Red Painted (Standard) ☐ Epoxy*
☐ 115 Volt AC ☐ 12 Volt DC ☐ Hydraulic ☐ Pneumatic
☐ Drill Driven Other: _____

6 BASE REQUIREMENTS (Bases Sold Separately)

☐ Pedestal Base ☐ Socket/Flush Base ☐ Wall Base
☐ Wheel Base Mounting Surface _____

7 ENVIRONMENT

☐ Indoor ☐ Outdoor ☐ Marine
☐ Corrosive ☐ Hazardous ☐ Explosive
Temperature Range _____

8 FREQUENCY OF OPERATION

Hours per Day: _____
Overloads or Shock Loads? _____

9 CRANE FINISH (Additional Cost*)

☐ Red Powder Coat (Standard) ☐ Galvanized*
☐ 304 Stainless SS* ☐ 316 Stainless SS* ☐ Epoxy*

10 BASE FINISH (Additional Cost*)

☐ Red Powder Coat (Standard) ☐ Galvanized*
☐ 304 Stainless SS* ☐ 316 Stainless SS* ☐ Epoxy*

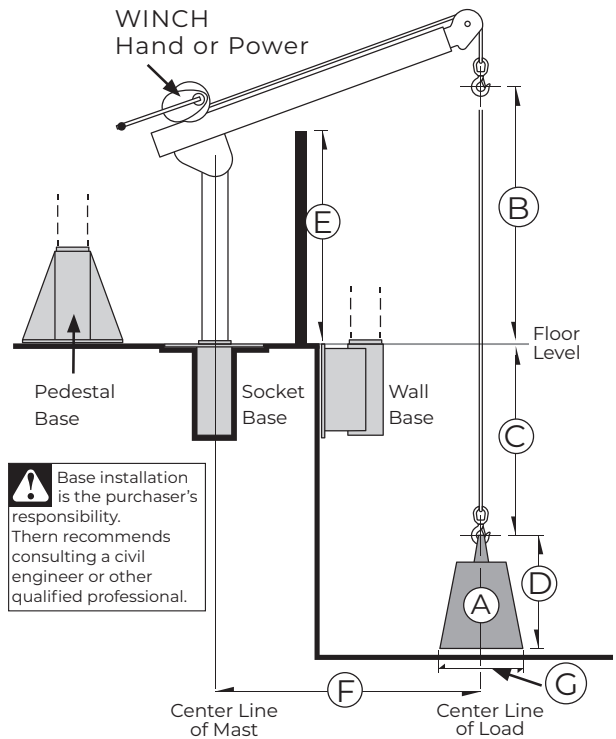
11 ACCESSORIES

☐ Roller Bearing ☐ Wire Rope Keeper
☐ Cable Spool Reel ☐ Base Installation Hardware
☐ Headache Ball ☐ Base Extension
☐ Drill Drive Kit ☐ Custom Electric Controls
☐ Limit Switch ☐ Extended Five-Year Warranty

12 WIRE ROPE SPECS: _____

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Name _____ QUANTITY NEEDED: _____ DATE NEEDED: _____
Company _____ NOTES: _____
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