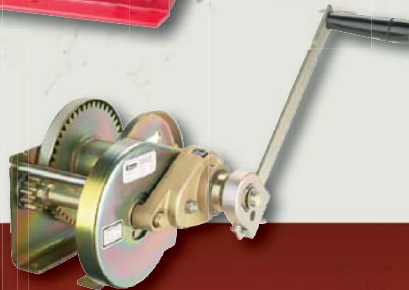




***Quality Winches, Cranes
and Hoists since 1948***



Thern, Inc. Terms

Visit our website at www.thern.com/customer/terms for most recent terms of sale.

All orders are subject to Credit Department approval and are F.O.B., Winona, MN.

Freight: To minimize any shipping delays, Thern, Inc. reserves the right to use the carrier of its choice. For separate freight charge invoices, terms are net 15 days. Thern, Inc. reserves the right to apply a shipping and handling fee to all freight charges. We do not supply copies of original freight invoices. Thern, Inc. will attempt to comply with specific routing instructions, designated as the purchaser's responsibility, only when provided on each individual order. **Blanket instructions are not acceptable.** Shipments are F.O.B. Winona, MN unless otherwise specified.

Small Package Service: Shipments routed via United Parcel Service (UPS) or Federal Express will have a \$5.00 handling charge.

Claims: On all F.O.B. factory shipments, title to the merchandise passes to the purchaser at the time the merchandise leaves Thern, Inc.'s factory dock. The purchaser should inspect the merchandise thoroughly when received for damage or shortages and should not sign for the merchandise until satisfied that all merchandise has arrived in good condition. Any claim for loss or damage by the purchaser must be settled with the carrier. Thern, Inc. accepts no responsibility for losses or delays in transit.

Minimum Billing: The minimum billing is \$25.00 per order, plus freight charges.

Returns: Thern, Inc.'s prior approval is required before any merchandise is returned. Approved returned merchandise must have an RGA# (Returned Goods Authorization Number) issued by Thern, Inc.

No returns will be accepted by Thern, Inc. without an RGA#. Approved returned merchandise will have a minimum applied charge of 25% of original cost, subject to condition upon receipt. Thern does not accept collect shipments. Non-standard or modified products are non-returnable.

Any approved merchandise returned to Thern, Inc. will be reviewed by Thern, Inc. and the purchaser shall be notified of the cost for reconditioning within 30 days. The purchaser shall have 30 days after notification by Thern, Inc. to either authorize reconditioning of the merchandise or otherwise direct the disposition of the merchandise. In the event the purchaser does not notify Thern, Inc. within the 30 day period, Thern, Inc. shall consider the merchandise abandoned and shall dispose of the merchandise.

Conditions: Possession of this catalog is not to be construed as an offer to sell by Thern, Inc. Products may be discontinued or changed (modified and/or improved) without notice. All orders are subject to prices established by Thern, Inc. at the time of shipment and prices are subject to change without notice. Please contact Thern, Inc. for current pricing.

Certificates: There is a minimum \$25.00 charge for a Quality Assurance Certification.

Cancellation: Orders may be cancelled only with written approval from Thern, Inc. and with terms that will indemnify Thern, Inc. against all loss.

Documents: Thern, Inc. will supply up to two (2) owner's manuals and two (2) assembly drawings at no charge. Additional manuals and drawings are \$5.00 each.

Payment Options

Best Source: Thern, Inc. sells through a nationwide network of industrial and specialty distributors. For the name of a Thern Distributor near you, call Thern Customer Service at 1-800-843-7648 or visit us online at www.thern.com.

Account: Orders can ship to open accounts upon Credit Department approval.

MasterCard or VISA: Thern, Inc. accepts MasterCard and VISA with no surcharge. All credit card orders are processed immediately upon authorization. Your account will not be charged until we have shipped your order.

COD: Thern, Inc. can ship your order COD.

Special needs need special products.

Our standard Thern winches and cranes accommodate a wide variety of tasks in a wide variety of applications. But for those really special demands, we'll customize a Thern product to do exactly what you need with maximum efficiency and minimum maintenance.

In addition to the special products shown on these pages, we also offer:

- Manual clutches for quick payout of unloaded wire rope
- Grooved drums for better wire rope winding
- Multiple compartment drums for additional wire ropes
- Modified drum widths or diameters to meet fleet angle requirements, accommodate longer cables, or alter line speeds
- Mechanical torque limiters to provide overload protection
- Special finishes for extra protection in harsh or hazardous environments
- Special secondary or overspeed brakes
- Variable speed motor controls
- Special controls for almost any requirement

4HPF Special

shown with drum shaft mounted encoder, grooved drum and custom finish.



4HWF Special

shown with rotary limit switch, grooved drum, and special finish.



4HWF Special

shown with modified drum diameter and length, grooved drum, secondary centrifugal brake and rotary limit switch.



Electrical Control Panel

for remote pendant control operation of power winches.



www.thern.com

1.800.843.7648

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

Form FF10-0910

We adjust to any market demands.

If your market involves special sizes, portability features, wire rope attachment methods or other unique adaptations – we're here to do it for you. Tell us about your application and we'll work with you to find the perfect fit.



series **548**
collapsible floor crane
for lifting up to 1000 lb.



Rolling Base
for use with portable cranes.



Wire Rope Assemblies
with different length and hook configurations for use with Thern winches and cranes.



series **FVC-1000**
special purpose hand winch for
closing and testing fire vents.



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1.800.843.7648

Hand Winches – for Lifting or Pulling – Section 1
pages 2 – 9

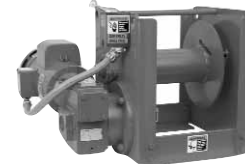
 Spur Gear
 up to 2,000 lb

 Spur Gear
 up to 10,000 lb

 Worm Gear
 up to 4,000 lb

Power Winches – for Lifting or Pulling – Section 2
pages 10 – 17

 Series 4WP and 4WP2T
 up to 2,000 lb

 Series 477
 up to 2,000 lb

 Series 4WS
 up to 6,000 lb

Power Winches – for Lifting or Pulling – Section 3
pages 18 – 45

 Control Switches
 up to 7.5 hp

 Single Speed Controls
 up to 60 hp

 Variable Speed Controls
 up to 25 hp

Air Winches – Sections 15
pages 46 – 59

 Utility
 up to 23,600 lb

 Personnel
 up to 18,000 lb

 TA10
 up to 37,000 lb

Davit and Floor Cranes – Section 4
pages 60 – 79

 Series 5124
 up to 2,000 lb

 Series 5PT30
 up to 3,000 lb

 Series 57
 up to 2,200 lb

 Series 548
 up to 1,000 lb

Controls and Wire Rope – Section 8 and 9
pages 80 – 83

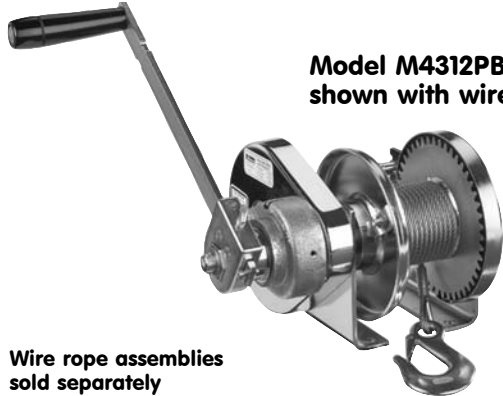
 Control Switches
 up to 7.5 hp

 Single Speed Controls
 up to 60 hp

 Variable Speed Controls
 up to 25 hp

 Wire Rope
 assemblies

Model M4022PB

Model M4312PBSS
 shown with wire rope


Wire rope assemblies
sold separately

Spur Gear Hand Winches

Up to 2000 lb capacity

- **Machine Cut Spur Gears** for accurate and long lasting service.
- **Automatic Brake Models** provide positive load control for lifting and lowering operations. Brake models have PB suffix.
- **Corrosion Resistant** trivalent zinc plated finish protects against corrosion in harsh environments.
- **Quick Disconnect Anchor**¹ for quickly attaching or removing wire rope equipped with a swaged ball fitting.
- **Bronze and Radial Ball Bearings** provide smooth and efficient operation.
- **Large Diameter Drums** minimize wear to extend wire rope life.
- **Gear Covers** protect gears and help prevent injuries.
- **Stainless Steel Models Available** for harsh environments, see models with SS suffix. Stainless steel models are electro-polished for added corrosion resistance.
- **Two-year Limited Warranty**

Spur Gear Hand Winches – Configurations and Performance Characteristics – Section 1

model number	description	load rating (lb)			wire rope dia. (in)	drum capacity (ft) ²			single gear ratio	double gear ratio	force ³ to lift 1000 lb	approx. ship wt. (lb)
		1st layer	mid drum	full drum		1st layer	mid drum	full drum				
M401	500 lb – marine duty (for pulling only)	500	400	300	1/8 3/16	7 4	60 27	130 60	—	—	—	8
M4022	1000 lb – marine duty (for pulling only)	1000	700	500	1/8 3/16	4 3	52 26	130 57	2.85:1	—	40 lb	12
M4022PB	1000 lb – marine duty with brake (for lifting)	1000	700	500	1/8 3/16	4 3	52 26	130 57	2.85:1	—	41 lb	17
M4032	1000 lb – marine duty (for pulling only)	1000	700	500	1/8 3/16	11 7	110 51	250 110	2.85:1	—	40 lb	14
M4032PB	1000 lb – marine duty with brake (for lifting)	1000	700	500	1/8 3/16	11 7	110 51	250 110	2.85:1	—	41 lb	18
M4042PBSS	1000 lb – stainless steel with brake (for lifting)	1000	800	600	1/8 3/16 1/4	12 8 5	110 48 27	240 110 59	3.83:1	—	46 lb (single gear)	24
M4312	2000 lb – marine duty (for pulling only)	2000	1600	1200	3/16 1/4 5/16	8 5 4	48 27 17	110 59 39	3.83:1	14.7:1	20 lb (double gear)	23
M4312PB	2000 lb – marine duty with brake (for lifting)	2000	1600	1200	3/16 1/4 5/16	8 5 4	48 27 17	110 59 39	—	14.7:1	17 lb (double gear)	28
M4312PBSS	2000 lb – stainless steel with brake (for lifting)	2000	1600	1200	3/16 1/4 5/16	8 5 4	48 27 17	110 59 39	—	14.7:1	17 lb (double gear)	28
M4412	2000 lb – marine duty (for pulling only)	2000	1600	1200	3/16 1/4 5/16	18 14 11	97 52 35	210 120 77	3.83:1	14.7:1	20 lb (double gear)	25
M4412PB	2000 lb – marine duty with brake (for lifting)	2000	1600	1200	3/16 1/4 5/16	18 14 11	97 52 35	210 120 77	—	14.7:1	17 lb (double gear)	30

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

¹ For Models M4022, M4022PB, M4032, M4032PB ball end is available for 1/8 inch and 3/16 inch only.

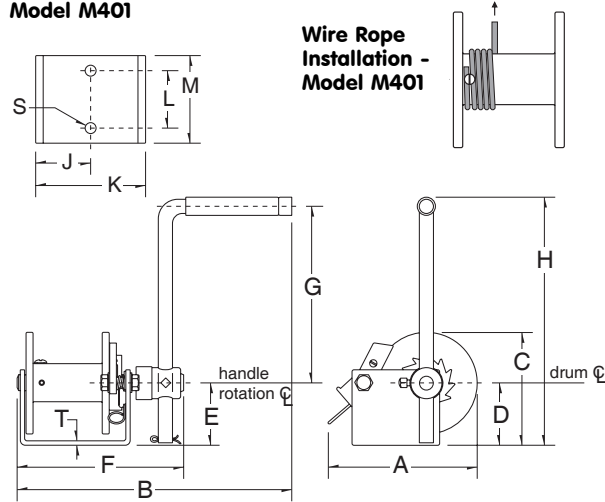
For Models M4042PBSS, M4312, M4312PB, M4312PBSS, M4412, M4412PB ball end is available for 3/16 inch and 1/4 inch only.

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

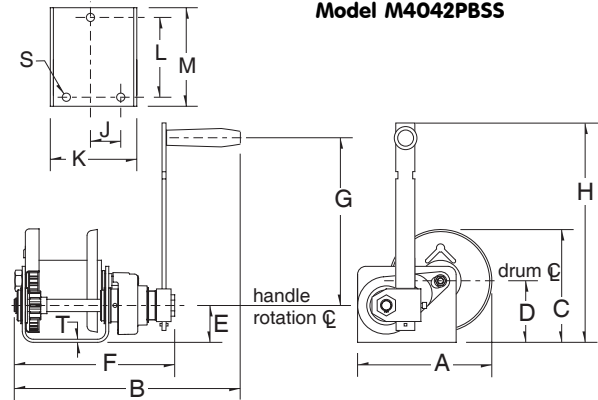
³ Approximate handle force required to lift 1000 lb with an empty drum, and maximum handle length.

See Dimensions on Next Page

Model M401



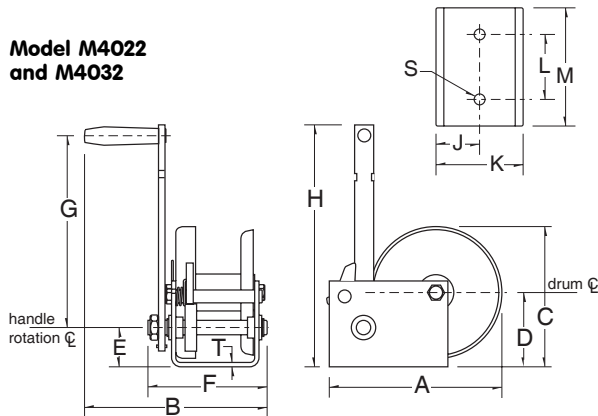
Model M4042PBSS



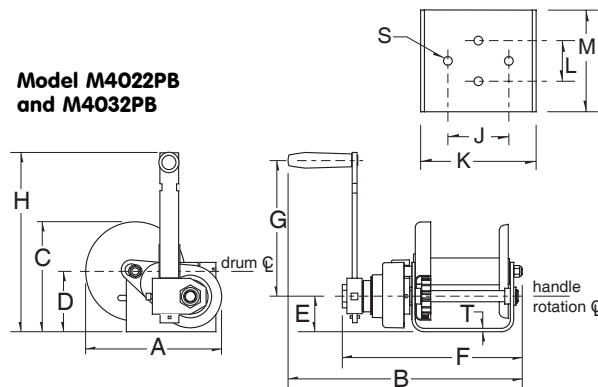
Wire Rope Installation - Models M4042PBSS

Model M4022 and M4022PB Base

Model M4022 and M4032



Model M4032 and M4032PB Base



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



Quick Disconnect Anchor

Flange Clip Anchor

Quick Disconnect Anchor

Flange Clip Anchor

Spur Gear Hand Winches – Dimensions (in)

	M401	M4022	M4022PB	M4032	M4032PB	M4042PBSS
drum dia.	1.50	1.50	1.50	1.50	1.50	2.50
flange dia.	4.06	4.56	4.56	4.56	4.56	5.50
drum width	2.75	2.00	2.00	4.00	4.00	3.00
A	6.56	7.27	7.27	7.27	7.27	8.21
B	10.56	9.00	12.12	11.00	14.12	13.77
C	4.56	6.12	6.12	6.12	6.12	6.90
D	2.50	3.31	3.31	3.31	3.31	3.75
E	2.50	2.00	2.00	2.00	2.00	2.25
F	5.81	5.25	8.12	7.25	10.12	9.76
G ¹	8.50	11.03	10.59	11.03	10.59	10.59
H ¹	11.28	13.56	13.12	13.56	13.12	13.50
J	2.19	1.84	1.84	3.00	3.00	1.44
K	4.38	3.68	3.68	5.68	5.68	5.26
L	2.50	2.82	2.82	2.00	2.00	5.00
M	3.50	5.00	5.00	5.00	5.00	6.00
S(hole dia.)	.40	.43	.43	.43	.43	.41
T	.18	.18	.18	.18	.18	.18

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

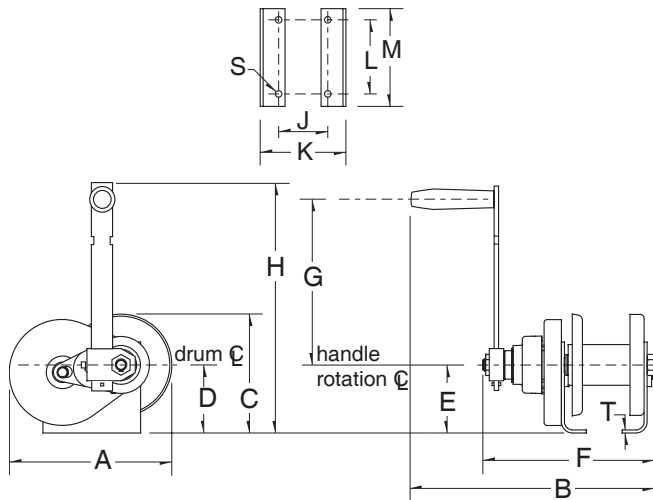
¹ Models M401, M4022PB, M4032PB and M4042PBSS handles are adjustable, dimension shown is for maximum handle length.

Important:

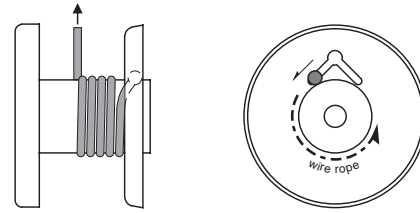
It is the owner's or operator's responsibility to determine the suitability of the equipment to its intended use. Study all applicable codes, manuals, and regulations. Be sure to read the Owner's Manual supplied with the equipment before operating it.

See Additional Dimensions on Next Page

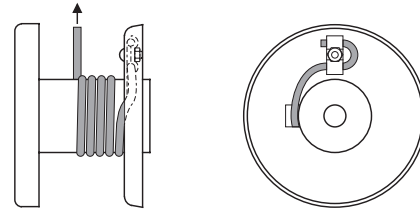
Models M4312PB, M4412PB and M4312PBSS



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

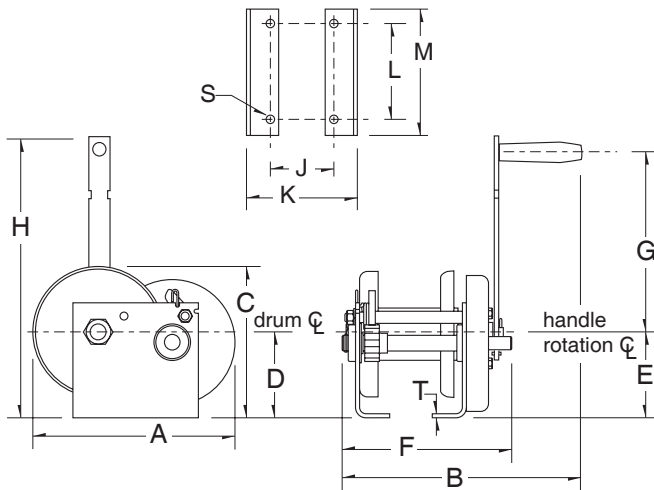


Quick Disconnect Anchor



Flange Clip Anchor

Models M4312 and M4412



Spur Gear Hand Winches – Dimensions (in)

	M4312	M4312PB	M4312PBSS	M4412	M4412PB
drum dia.	2.50	2.50	2.50	2.50	2.50
flange dia.	5.50	5.50	5.50	5.50	5.50
drum width	3.00	3.00	3.00	6.00	6.00
A	10.00	10.00	10.00	10.00	10.00
B	12.70	14.50	14.50	15.70	17.50
C	7.15	7.15	7.15	7.15	7.15
D	4.00	4.00	4.00	4.00	4.00
E	4.00	4.00	4.00	4.00	4.00
F	8.00	10.78	10.78	11.00	13.78
G ¹	8.75	10.59	10.59	8.75	10.59
H ¹	13.35	15.19	15.19	13.35	15.19
J	3.34	3.34	3.34	6.34	6.34
K	5.31	5.31	5.31	8.31	8.31
L	5.00	5.00	5.00	5.00	5.00
M	6.00	6.00	6.00	6.00	6.00
S (hole dia.)	.40	.40	.41	.40	.40
T	.18	.18	.18	.18	.18

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

¹ Models M4312PB, M4312PBSS and M4412PB handles are adjustable, dimension shown is for maximum handle length.

Important:

It is the owner's 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.



Model M452B shown with disc brake and wire rope

Wire rope assemblies sold separately

Model M492



Spur Gear Hand Winches Double Reduction

Up to 10,000 lb capacity

- **Machine Cut Spur Gears** for accurate and long lasting service.
- **Automatic Brake Models** provide positive load control for lifting and lowering operations. Brake models have B suffix.
- **Corrosion Resistant** durable paint finish combined with trivalent zinc plating protects against corrosion.
- **Bronze and Radial Ball Bearings** provide smooth and efficient operation.
- **Large Diameter Drums** minimize wear to extend wire rope life.
- **Spring Loaded Ratchets** for positive engagement with gear.
- **Steel Gear Covers** protect gears and help prevent injuries.
- **Handles Adjust** in length to change force required to move load.
- **Two-year Limited Warranty**

Spur Gear Hand Winches – Configurations and Performance Characteristics – Section 1

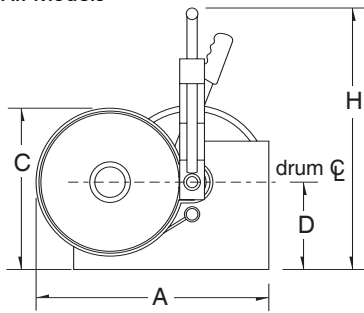
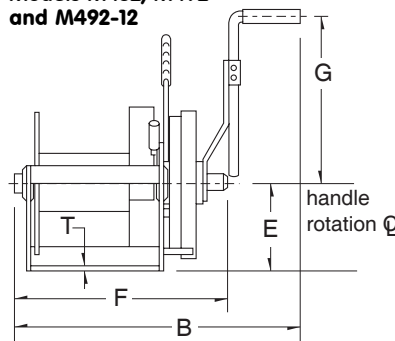
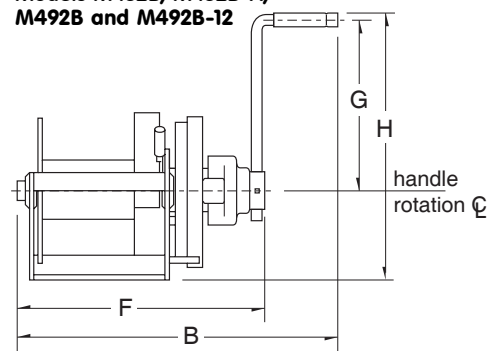
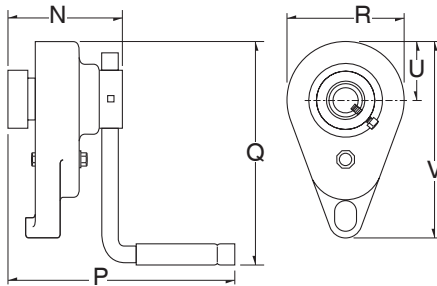
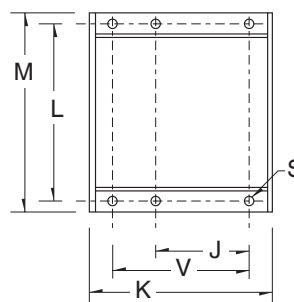
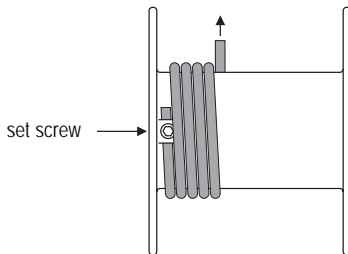
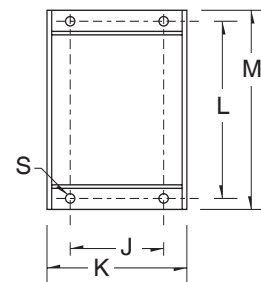
model number	description	load rating (lb)			wire rope dia. (in)	drum capacity (ft) ¹			single gear ratio	double gear ratio	force ² to lift 1000 lb	approx. ship wt. (lb)
		1st layer	mid drum	full drum		1st layer	mid drum	full drum				
M452	4000 lb – marine duty (for pulling only)	4000	3300	2500	1/4 5/16 3/8	23 18 14	130 89 64	300 200 140	4.42:1	19.54:1	10 lb (double gear)	83
M452B	4000 lb – marine duty with brake (for lifting)	4000	3300	2500	1/4 5/16 3/8	23 18 14	130 89 64	300 200 140	—	19.54:1	10 lb (double gear)	91
M452B-A	4000 lb – marine duty with brake (for lifting) 4 inch drum width	4000	3300	2500	1/4 5/16 3/8	13 9 7	83 56 40	190 120 89	—	19.54:1	10 lb (double gear)	83
M492	10,000 lb – marine duty (for pulling only)	10,000	7400	5400	5/16 3/8 1/2	27 21 15	240 170 100	540 390 230	5.00:1	25.00:1	8 lb (double gear)	166
M492B	10,000 lb – marine duty with brake (for lifting)	10,000	7400	5400	5/16 3/8 1/2	27 21 15	240 170 100	540 390 230	—	25.00:1	8 lb (double gear)	173
M492-12	10,000 lb – marine duty (for pulling only) 12 inch drum width	10,000	7400	5400	5/16 3/8 1/2	46 37 27	380 270 160	850 610 360	5.00:1	25.00:1	8 lb (double gear)	175
M492B-12	10,000 lb – marine duty with brake (for lifting) 12 inch drum width	10,000	7400	5400	5/16 3/8 1/2	46 37 27	380 270 160	850 610 360	—	25.00:1	8 lb (double gear)	190
MB451	disc brake only for M452 (for lifting)											13
MB491	disc brake only for M492 and M492-12 (for lifting)											15
HW452	hand wheel only for M452 (for pulling only)											19
HW492	hand wheel only for M492 and M492-12 (for pulling only)											20

Please contact factory 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 1000 lb with an empty drum, and maximum handle length.

See Dimensions on Next Page

All Models

Models M452, M492 and M492-12

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

Models MB451 and MB491

Base for M492-12 and M492B-12

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

Wire Rope Installation - All Models

Disc Brakes – Dimensions (in)

	MB451	MB491
N	4.97	5.15
P	10.44	10.62
Q ¹	21.25	21.38
R	4.87	4.87
U	2.44	2.44
V	8.62	10.56

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

¹ Handles are adjustable, dimension shown is for maximum handle length.

Important:

It is the owner's 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.

Spur Gear Hand Winches – Dimensions (in)

	M452	M452B	M452B-A	M492	M492B	M492-12	M492B-12
drum dia.	4.00	4.00	4.00	5.00	5.00	5.00	5.00
flange dia.	8.50	8.50	8.50	12.38	12.38	12.38	12.38
drum width	6.38	6.38	4.00	7.62	7.62	12.00	12.00
A	15.25	15.25	15.25	20.38	20.38	20.38	20.38
B	22.00	21.90	19.62	25.12	25.00	29.50	29.38
C	10.69	10.69	10.83	14.00	14.00	14.00	14.00
D	5.81	5.81	5.81	7.50	7.50	7.50	7.50
E	5.81	5.81	5.81	7.50	7.50	7.50	7.50
F	14.81	16.43	14.06	18.44	19.53	22.82	23.90
G ¹	18.62	18.38	18.38	22.50	18.50	22.50	18.50
H ¹	24.44	24.19	24.19	30.00	26.00	30.00	26.00
J	6.75	6.75	4.50	8.00	8.00	8.00	8.00
K	9.50	9.50	7.12	12.00	12.00	16.38	16.38
L	11.25	11.25	11.25	15.50	15.50	15.50	15.50
M	12.50	12.50	12.50	17.00	17.00	17.00	17.00
S (hole dia.)	.56	.56	.56	.81	.81	.81	.81
T	.25	.25	.25	.38	.38	.38	.38
V	—	—	—	—	—	12.38	12.38

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

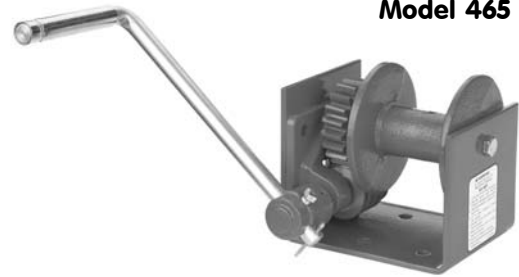
¹ Handles are adjustable, dimension shown is for maximum handle length.

Worm Gear Hand Winches

Up to 4000 lb capacity

- **Machine Cut Worm Gears** provide accurate operation and long lasting service.
- **Enclosed Oil Bath** provides continuous lubrication of gears to minimize wear, except on Model 465. On Model 4WM2 oil seals keep oil in and dirt out.
- **Hex Drive** and handle are included. Model 4WM2 can be power driven with a maximum 400 rpm drill-motor.
- **Automatic Brake Models** provide positive load control for lifting. Brake models have a PB or B suffix. Model 4WM2 features an internal mechanical brake.
- **Corrosion Resistant** durable paint finish protects against corrosion in harsh environments.
- **Bronze Bearings** on most models for smooth operation.
- **Large Diameter Drums** minimize wire rope wear.
- **Handles Adjust** in length to change force required to move the load.
- **Mounting Options** include floor, wall, or ceiling. Adapter plate may be required, contact factory.
- **Two-year Limited Warranty**

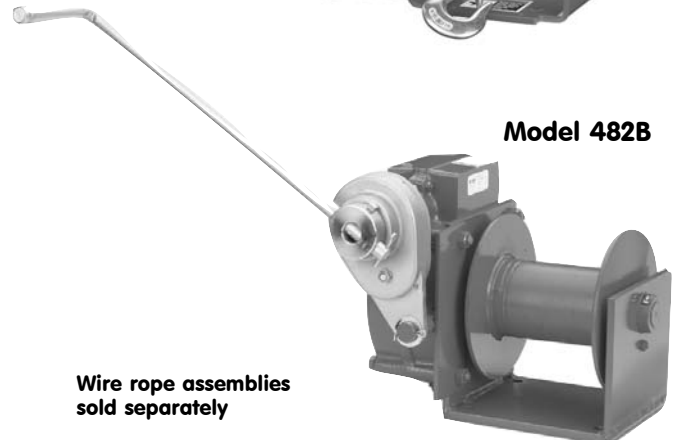
Model 465



Model 4WM2 shown with wire rope



Model 482B



Wire rope assemblies sold separately

Worm Gear Hand Winches – Configurations and Performance Characteristics – Section 1

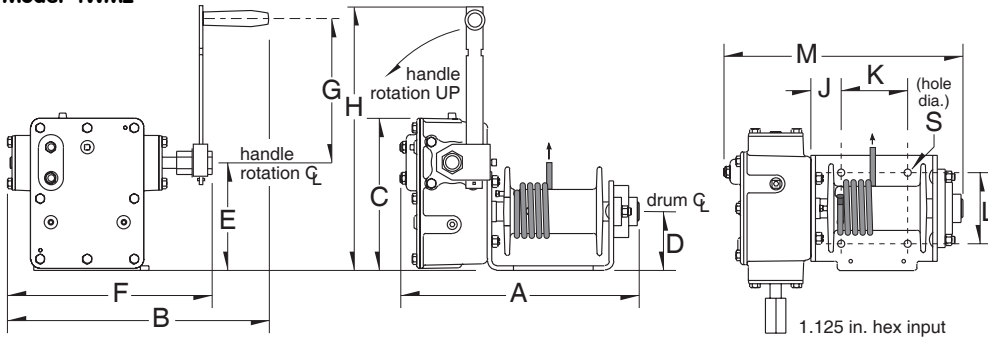
model number	description	load rating (lb)			wire rope dia. (in)	drum capacity (ft) ¹			gear ratio	force ² to lift 1000 lb	approx. ship wt. (lb)
		1st layer	mid drum	full drum		1st layer	mid drum	full drum			
465	750 lb – open gears (recommended for pulling only)	750	600	400	1/8 3/16	7 4	58 27	130 59	20:1	21 lb	12
462	1000 lb – enclosed gearing (recommended for pulling only)	1000	700	500	1/8 3/16	7 4	61 28	140 61	15:1	34 lb	15
4622PB	1000 lb – enclosed gearing with brake (for lifting)	1000	700	500	1/8 3/16	7 4	61 28	140 61	15:1	26 lb	21
472	2000 lb – enclosed gearing (recommended for pulling only)	2000	1700	1300	3/16 1/4 5/16	15 11 8	65 35 23	140 77 52	24:1	24 lb	32
4WM2	2000 lb – enclosed gearing with brake (for lifting) Drill Driveable	2000	1500	1200	1/4 3/16 (not recommended for this winch)	11	35	77	32:1	14 lb	41
482	4000 lb – enclosed gearing (recommended for pulling only)	4000	3300	2500	1/4 5/16 3/8	23 18 14	140 91 65	300 200 140	26:1	31 lb	100
482B	4000 lb – enclosed gearing with brake (for lifting)	4000	3300	2500	1/4 5/16 3/8	23 18 14	140 91 65	300 200 140	26:1	21 lb	113

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

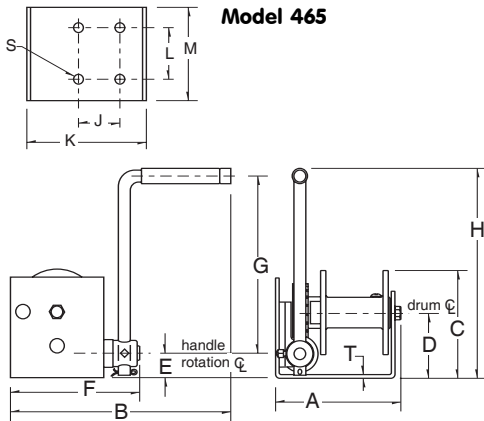
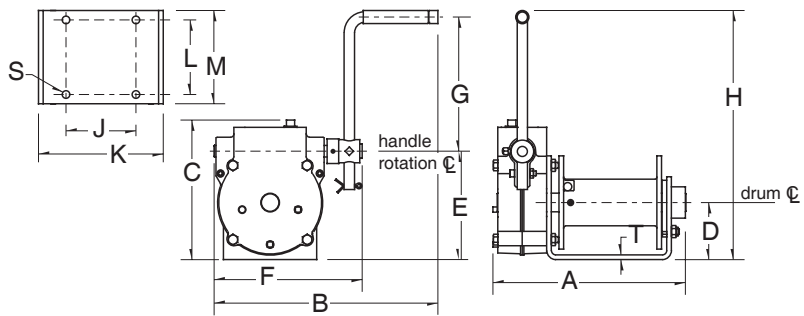
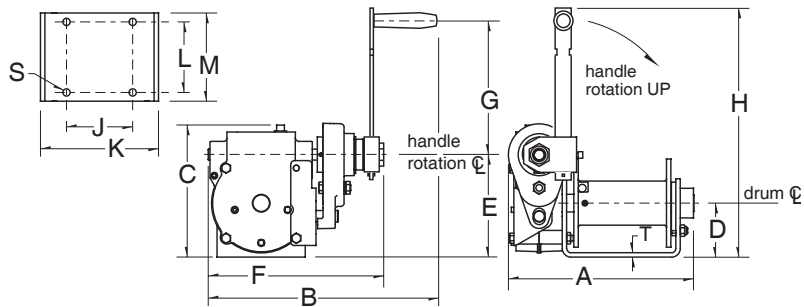
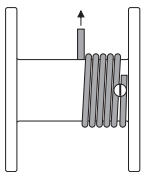
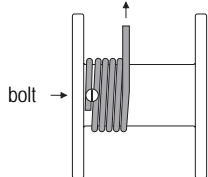
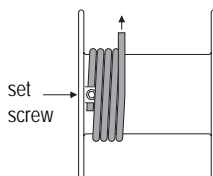
¹ Actual drum capacities may be 25-30% less, due to nonuniform winding. Wire rope tension will also affect drum capacity.

² Approximate handle force required to lift 1000 lb with an empty drum, and maximum handle length.

See Dimensions on Next Page

Model 4WM2


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

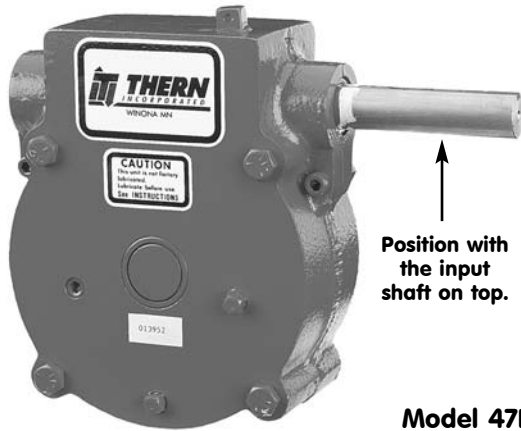
Model 465

Models 462, 472 and 482

Models 4622PB and 482B

Wire Rope Installation Model 465

Wire Rope Installation Models 462 and 4622PB

Wire Rope Installation Models 472, 482 and 482B

Worm Gear Hand Winches – Dimensions (in)

	465	462	4622PB	472	482	482B	4WM2
drum dia.	1.50	1.50	1.50	2.50	4.00	4.00	2.50
flange dia.	4.00	4.06	4.06	5.00	8.50	8.50	5.00
drum width	2.81	2.81	2.81	5.00	6.50	6.50	5.00
A	6.50	7.75	7.50	10.12	13.97	13.97	13.50
B	10.50	10.25	11.81	12.00	18.88	20.94	15.56
C	5.44	5.63	5.62	7.12	12.80	12.80	8.56
D	3.40	2.38	2.40	3.06	5.75	5.75	3.31
E	1.40	4.38	4.38	5.81	10.38	10.38	6.04
F	6.38	5.88	7.60	7.94	12.50	15.47	11.56
G	8.75	9.00	10.59	7.25	12.25	18.38	10.59
H	10.59	13.38	15.59	13.38	22.62	29.19	17.30
J	2.00	2.00	2.00	3.75	7.00	7.00	1.75
K	5.75	4.44	4.44	6.69	9.00	9.00	3.75
L	2.50	2.50	2.50	4.00	6.00	6.00	4.00
M	4.50	3.50	3.50	5.00	8.00	8.00	13.50
S (hole dia.)	.40	.40	.40	.40	.56	.56	.41
T	.19	.19	.19	.25	.50	.50	—

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

Important:

It is the owner's 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.


Model 47P
Important:

Not recommended for medium-speed or high-speed continuous duty applications due to low heat dissipation.

Worm Gear Speed Reducers

750 to 4000 lb-in. ratings

- **Machine Cut Worm Gears** for accurate and long lasting service.
- **Enclosed Oil Bath** provides continuous lubrication of gears to minimize wear. P Series includes oil seals to keep oil in and contaminants out.
- **Corrosion Resistant** durable paint finish protects against corrosion.
- **Bronze Bearings** on input and output shafts of P Series Reducers provide smooth and efficient operation. Models 47P and 48P include ball thrust bearings on the input shaft. H Series Reducers operate without bearings.
- **Handle Assemblies** are available for H Series.
- **Two-year Limited Warranty**

Worm Gear Speed Reducers – Performance Characteristics – Section 1

	reducers for manual input			reducers for power input		
	46H ¹	47H ¹	48H ¹	46P	47P	48P
gear ratio	15:1	24:1	26:1	20:1	32:1	62:1
input – 100 rpm						
output rpm	–	–	–	5 rpm	3.1 rpm	1.62 rpm
input horsepower	–	–	–	.10 hp	.09 hp	.17 hp
output torque	–	–	–	750 lb-in.	1089 lb-in.	4000 lb-in.
input – 580 rpm						
output rpm	–	–	–	29 rpm	18 rpm	9.35 rpm
input horsepower	–	–	–	.41 hp	.39 hp	.82 hp
output torque	–	–	–	580 lb-in.	880 lb-in.	3590 lb-in.
approx. ship weight	8 lb	18 lb	55 lb	5 lb	17 lb	50 lb
handle weight	3 lb	3 lb	5 lb	–	–	–
handle model	B4559	B4559	B4560	–	–	–

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

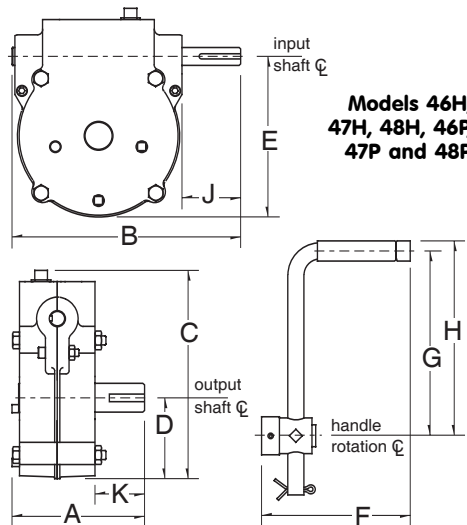
¹ Please contact the factory for specifications on Series H speed reducers.

Worm Gear Speed Reducers – Dimensions (in)

	46H	46P	47H	47P	48H	48P
input shaft dia.	.62	.62	.62	.75	1.00	.75
output shaft dia.	.75	.75	1.00	1.00	1.50	1.50
A	7.62	5.44	10.12	5.62	13.60	7.94
B	4.62	6.81	6.75	8.94	12.10	15.00
C	5.06	5.06	7.25	6.94	12.25	12.25
D	1.81	1.81	2.81	2.81	5.44	5.44
E	3.81	3.81	5.56	5.56	10.06	10.06
F	5.94	–	5.94	–	7.81	–
G ²	7.25	–	7.25	–	12.25	–
H ²	7.59	–	7.59	–	12.69	–
J	.88	3.06	.88	3.06	.88	4.06
K	5.31	3.06	7.50	3.06	9.75	4.06
input shaft keyway	–	.19 x 3.00	–	.19 x 3.00	–	.19 x 4.00
output shaft keyway	–	.19 x 3.00	–	.25 x 3.00	–	.38 x 3.00

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

² Handles are adjustable, dimension shown is for maximum handle length.



Shafts on H Series are not Keyed

Handle Assembly for H Series Only

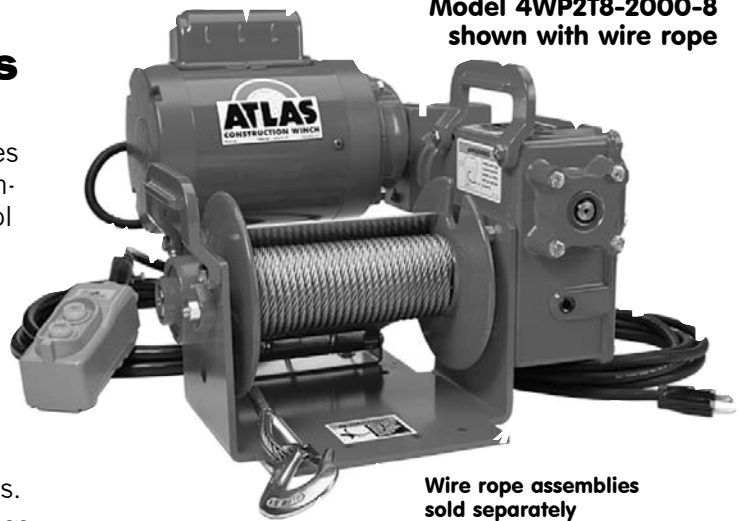
Important:

It is the owner's 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.

Series 4WP2 and 4WP2T Worm Gear Power Winches

Up to 2000 lb capacity

- **115 Volt Single Phase Electric Motor** includes power cord with grounded plug and a momentary contact-type push button pendant control on a control cord.
- **Machine Cut Worm Gears** provide accurate operation and long lasting service.
- **Enclosed Oil Bath** provides continuous lubrication of gears to minimize wear. Oil seals keep oil in and dirt out.
- **Internal Mechanical Brake** provides positive load control for lifting and lowering operations.
- **Ball Bearings** and self-aligning bronze bearings provide smooth and efficient operation.
- **Pressure Plate** on series 4WP2T8 only, applies pressure to drum and wire rope to help maintain uniform winding.
- **Dual Function Cable Anchor** for quick disconnect of wire rope with swaged ball fitting, or recessed cable anchor with set screw for wire rope with unfinished end.
- **Mounting Options** include floor, wall, or ceiling.
- **Two-year Limited Warranty**



Model 4WP2T8-2000-8
shown with wire rope

Wire rope assemblies
sold separately

- **Cast Aluminum** construction, for lightweight strength.
- **Corrosion Resistant** durable paint finish protects against corrosion in harsh environments.
- **Large Diameter Drums** minimize wear to the wire rope and help extend its life.
- **Clutch Model** allows operator to manually disengage the drum to rapidly unwind wire rope. **Clutch models do not include pressure plates.**

Series 4WP2 and 4WP2T – Performance Characteristics – Section 2

series	description	motor hp	load rating (lb)			wire rope dia. (in) ¹	line speed (fpm)		drum capacity (ft) ²			approx. ship wt. (lb)
			1st layer	mid drum	full drum		1st layer	full drum	1st layer	mid drum	full drum	
4WP2 ³	includes controls	1.3	2000	1500	1200	1/4	8	13	11	35	77	85
4WP2T8-2000-8 ⁴	includes controls	1.3	2000	1200	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 clutch model – 5.5" drum – for horizontal pulling only	1.3	2000	1200	800	1/4	8	19	12	87	190	106

Motor Options – standard motor is 115/1/60 VAC TENV, for other configurations add motor code to model number when ordering.

Example: 4WP2T8-2000-8-PN (pneumatic winch)

A ⁵	115 volt 1 phase – no controls or power cord – TENV
B ⁵	230 volt 1 phase – no controls or power cord – TEFC
D ⁵	230 volt 3 phase – no controls or power cord – TEFC
E ⁵	460 volt 3 phase – no controls or power cord – TEFC
F	all other voltages or hertz
PN ⁶	8-vane air motor with controls (mounted)
DC	12 volt DC with 10 foot pendant control

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 NEMA 4 push button pendant on 6 foot cord.

⁴ For 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 factory or nearest Thern Distributor for firm fixed price and delivery.

Notes:

- For more information and other control options, please see pages 46-47.
- Custom controls are available including wireless remote control, variable speed control, electronic overload, and enclosures for special environments.

Control Options and Accessories – Section 2

model	description	approx. ship wt.
10L2A1 ⁶	NEMA 1 control switch – mounted and wired	3 lb
10L2A4 ⁶	NEMA 4 watertight control switch – mounted and wired	7 lb
TPL-4WP2T8	Two Part Line Kit – not available for 4WP2 Series	4 lb

Please contact factory 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.

See Dimensions on Next Page

Options and Accessories

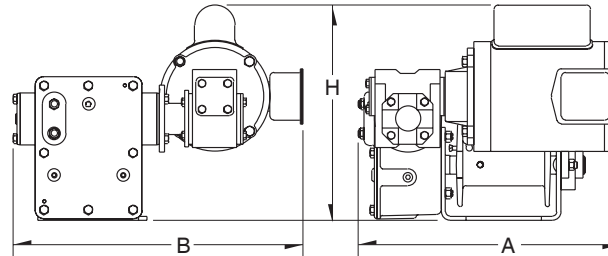
- **Emergency Hand Crank** for manual operation in case of power failure. Does not include handle.
- **Two Part Line Kit** to convert to double line rigging. **Not available for 4WP2 Series.**
- **Rotary Limit Switches** for secondary shut-off to limit load travel in one or two directions. **Not available on clutch models.**
- **Special Motors and Controls** including severe duty and explosion proof.
- **Special Finishes** for hazardous environments.
- **Torque Limiters** as part of the motor controls on electric models.

Important:

It is the owner's 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.

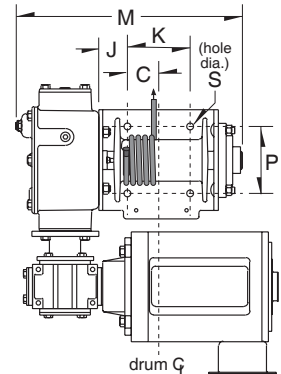
Side View

Series 4WP2



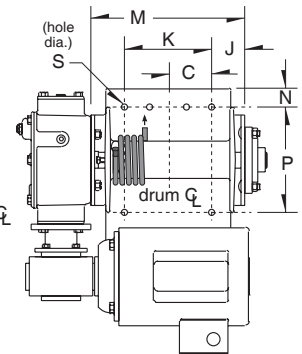
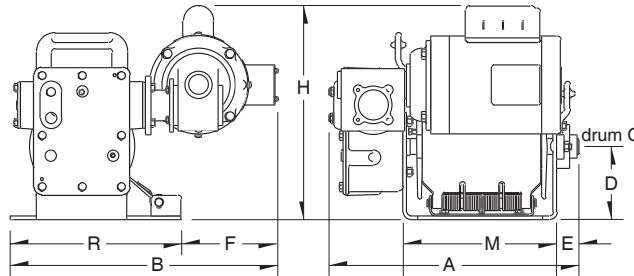
Rear View

Top View



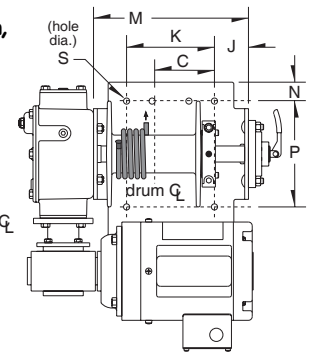
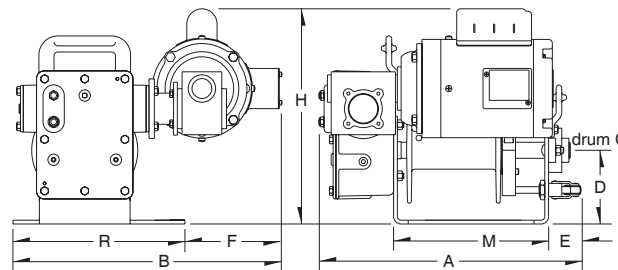
Series 4WP2T8

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



Series 4WP2TC clutch models

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

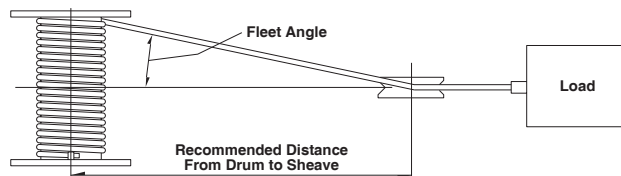


Series 4WP2 and 4WP2T – Dimensions (in)

model number	A ¹	B ¹	C	D	E	F	H ¹	J	K	M	N	P	R	S (hole dia.)
4WP2	15.63	17.28	1.72	—	—	—	12.84	1.72	3.75	13.50	—	4.00	—	.41
4WP2T8-2000-8	16.62	17.80	2.75	4.88	1.44	6.43	14.25	2.25	5.81	10.25	1.25	7.00	11.38	.41
4WP2TC-2000-8	17.34	17.80	4.02	4.88	2.16	6.43	14.25	2.25	5.81	10.25	1.25	7.00	11.38	.41

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 extension	drum diameter	flange diameter	drum width	fleet angle distance ²
4WP2	2.50 in	5.00 in	5.00 in	8 ft
4WP2T8-2000-8	2.50 in	7.00 in	8.00 in	13 ft
4WP2TC-2000-8	2.50 in	7.00 in	5.50 in	9 ft

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

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

Series 4WP2D High Speed Worm Gear Power Winches

Up to 1500 lb capacity

- **Direct Drive Design** delivers high speed operation in both directions, even under full load.
- **Machine Cut Bronze Worm Gears** provide accurate operation and long lasting service.
- **Enclosed Oil Bath** provides continuous lubrication of gears to minimize wear. Oil seals keep oil in and dirt out.
- **Internal Mechanical Brake** provides positive load control for lifting and lowering operations.
- **Ball Bearings** and self-aligning bronze bearings provide smooth and efficient operation.
- **Pressure Plate** applies pressure to drum and wire rope to help maintain uniform winding. Not available on clutch models.
- **Dual Function Cable Anchor** for quick disconnect of wire rope with swaged ball fitting, or recessed cable anchor with set screw for wire rope with unfinished end.
- **Mounting Options** include floor, wall, or ceiling.
- **Two-year Limited Warranty**
- **Cast Aluminum** construction, for lightweight strength.
- **Corrosion Resistant** durable paint finish protects against corrosion in harsh environments.

Model 4WP2D8-1500-40
shown with wire rope



Wire rope assemblies and controls sold separately

- **Large Diameter Drums** minimize wear to the wire rope and help extend its life.
- **Clutch Model** allows operator to manually disengage the drum to rapidly unwind wire rope. **Clutch models do not include pressure plates.**

Series 4WP2D – Performance Characteristics – Section 2

When ordering, please indicate Model Number and Extensions

Examples: 4WP2D8-800-26-A (without clutch); 4WP2DC-800-40-A (with clutch)

Examples: 4WP 2DC 800 26 A (without clutch); 4WP 2DC 800 40 A (with clutch)														
model number extensions					load rating (lb)			wire	line speed (fpm)		drum capacity(ft) ³			approx. ³
model number	load rating	line speed	motor codes	motor hp	1st layer	mid drum	full drum	rope dia.(in) ¹	1st layer	full drum	1st layer	mid drum	full drum	ship wt.(lb)
High Speed Atlas winches for lifting or pulling														
4WP2D8	800	26	A,B,D,E	1	800	460	330	1/4	26	65	19	130	280	100
4WP2D8	800	40	D,E	1.5	800	460	330	1/4	40	97	19	130	280	100
4WP2D8	1500	26	D,E	2	1500	900	600	1/4	26	65	19	130	280	100
4WP2D8	1500	40	B,D,E	3	1500	900	600	1/4	40	97	19	130	280	100
High Speed Clutch Models for HORIZONTAL PULLING ONLY														
4WP2DC	800	26	A,B,D,E	1	800	460	330	1/4	26	65	12	87	190	100
4WP2DC	800	40	D,E	1.5	800	460	330	1/4	40	97	12	87	190	100
4WP2DC	1500	26	D,E	2	1500	900	600	1/4	26	65	12	87	190	100
4WP2DC	1500	40	B,D,E	3	1500	900	600	1/4	40	97	12	87	190	100

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 factory	
PN	please contact factory	

- For more information and other control options, please see pages 46-47.
- Custom controls are available including wireless remote control, variable speed control, electronic overload, and enclosures for special environments.

Please contact factory 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 – Section 2

model	description	115/1/60 ⁴	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 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp
10P1A46	6 ft pendant control	to 1 hp	—	—	—
TPL-4WP2T8	Two Part Line Kit	—	—	—	—

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

⁴ Controls for 115V single phase motors up to 1 hp, include an 8 ft power cord with grounded plug.

See Dimensions on Next Page

Options and Accessories

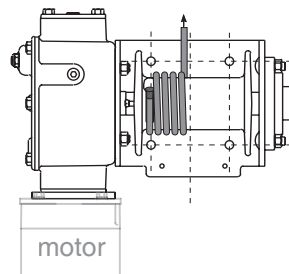
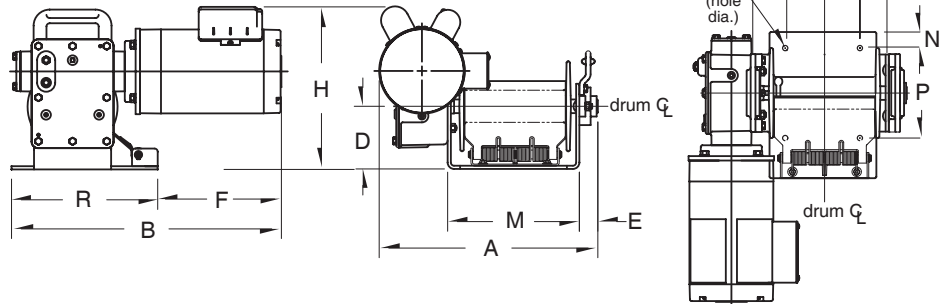
- **Emergency Hand Crank** for manual operation in case of power failure. Does not include handle.
- **Two Part Line Kit** to convert to double line rigging.
- **Rotary Limit Switches** for secondary shut-off to limit load travel in one or two directions. **Not available on clutch models.**
- **Special Motors and Controls** including severe duty and explosion proof.
- **Special Finishes** for hazardous environments.
- **Torque Limiters** as part of the motor controls on electric models.

Side View

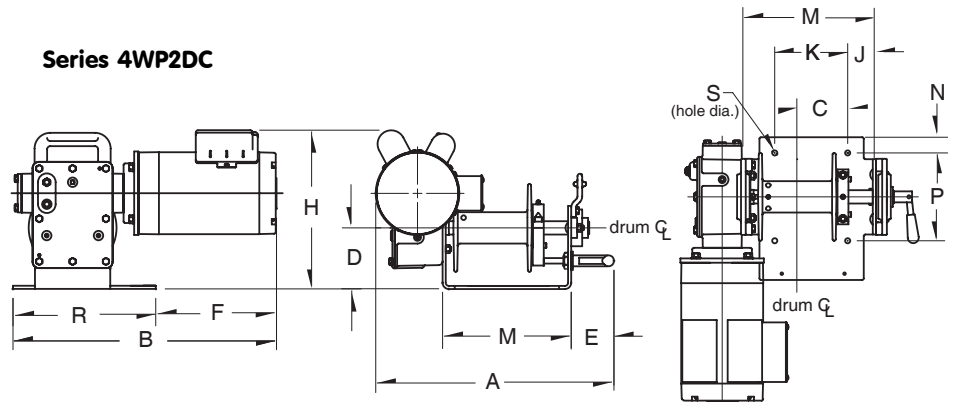
Rear View

Top View

Series 4WP2D8



Series 4WP2DC



Important:

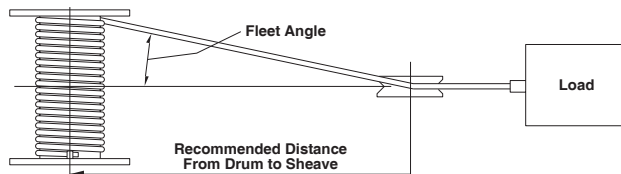
It is the owner's or operator's responsibility to determine the suitability of the equipment to its intended use. Study all applicable codes, manuals, and regulations. Be sure to read the Owner's Manual supplied with the equipment before operating it.

Series 4WP2D – Dimensions (in)

series	A ¹	B ¹	C	D	E	F	H ¹	J	K	M	N	P	R	S (hole dia.)
4WP2D8	17.50	21.00	2.75	5.00	1.50	9.50	12.75	2.25	5.81	10.25	1.25	7.00	11.50	.41
4WP2DC	19.00	21.00	4.00	5.00	3.50	9.50	12.75	2.25	5.81	10.25	1.25	7.00	11.50	.41

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

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



Series 4WP2D – Drum Dimensions

model extension	drum diameter	flange diameter	drum width	fleet angle distance ²
4WP2D8	2.50 in	7.00 in	8.00 in	13 ft
4WP2DC	2.50 in	7.00 in	5.50 in	9 ft

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

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

Model 4771
shown with
wire rope



Wire rope assemblies
sold separately

Model 4771PN



Series 477 Helical/Worm Gear Power Winches

Up to 2000 lb capacity

- **Machine Cut Gears** for accurate and long lasting service.
- **Enclosed Oil Bath** provides continuous lubrication of gears to minimize wear. Oil seals keep oil in and dirt out.
- **Internal Mechanical Brake** for positive load control.
- **Cast Aluminum** construction for lightweight strength, with durable paint finish to resist corrosion.
- **Ball Bearings** ensure smooth and efficient operation.
- **Series 4777** is designed with a 4 inch wide drum for tight fleet angle installations.
- **Accessory Options** include limit switches, cable pressure plates, torque limiting controls, and manual overrides.
- **Large Diameter Drums** minimize wear to the wire rope and help extend its life.
- **Mounting Options** include floor, wall, or ceiling.
- **Two-year Limited Warranty**

Series 477 – Configurations and Performance Characteristics – Section 2

model number	motor description	motor hp	load rating (lb)			wire rope dia. (in)	line speed (fpm)		drum capacity (ft) ¹			approx. ship wt. (lb)
			1st layer	mid drum	full drum		1st layer	full drum	1st layer	mid drum	full drum	
4771 ²	115/1/60 VAC – 6 ft pendant	1.2	2000	1500	1200	5/16	13	22	13	40	90	88
4771AC-1PH	115/1/60 VAC – less controls	1.2	2000	1500	1200	5/16	13	22	13	40	90	87
4771AC-1PH2 ³	115/230/1/60 VAC – less controls	1.5	2000	1500	1200	5/16	13	22	13	40	90	115
4771AC-3PH ³	230/460/3/60 VAC – less controls	1.5	2000	1500	1200	5/16	13	22	13	40	90	111
4771DC ⁴	12 VDC – with 10 ft pendant	1.0	2000	1500	1200	5/16	13	22	13	40	90	105
4771PN ^{4,5}	pneumatic – less controls	1.2	2000	1500	1200	5/16	13	22	13	40	90	70
4771HY ^{4,5}	hydraulic – less controls	2.3	2000	1500	1200	5/16	13	22	13	40	90	72
4777 ²	115/1/60 VAC – 6 ft pendant	1.2	2000	1500	1200	5/16	13	22	7	27	60	93
4777DC ⁴	12 VDC – with 10 ft pendant	1.0	2000	1500	1200	5/16	13	22	7	27	60	105

Please contact factory 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 4771AC-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.

Notes:

■ For more information and other control options, please see pages 46-47.

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

Series 477 – Controls – Section 2

model	description	approx. ship wt.
10L2A1 ⁶	NEMA 1 control switch – mounted and wired	3 lb
10L2A4 ⁶	NEMA 4 watertight control switch – mounted and wired	7 lb
477PN-CNTRL	pneumatic control valve (not mounted or plumbed, no hoses)	6 lb
477PN-HS6	6 ft hoses for pneumatic controls (not plumbed)	4 lb
477HY-CNTRL	hydraulic control valve (not mounted or plumbed, no hoses)	5 lb
477HY-HS6	6 ft hoses for hydraulic controls (not plumbed)	4 lb

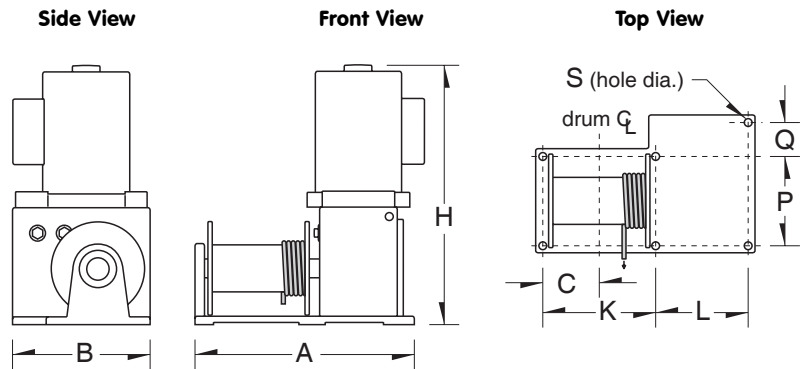
Please contact factory or nearest Thern Distributor for firm fixed price and delivery.

⁶ Controls for 115 volt, single phase, 60 cycle include an 8 ft. power cord with grounded plug.

See Dimensions on Next Page

Options and Accessories

- **Emergency Hand Crank** for manual operation in case of power failure. Does not include handle.
- **Rotary Limit Switches** for secondary shut-off to limit load travel in one or two directions.
- **Special Motors and Controls** including severe duty and explosion proof.
- **Special Finishes** for hazardous environments.
- **Torque Limiters** as part of the motor controls on electric models.

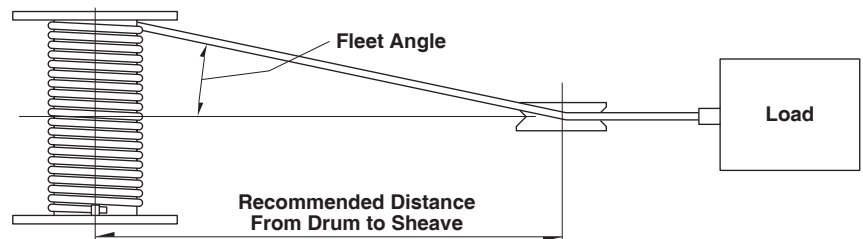


Install wire rope correctly as shown, or brake will not operate properly.

Series 477 – Winch Dimensions (in)

model number	A	B	C	H	K	L	P	Q	S (hole dia.)
4771	14.38	8.86	3.55	17.45	6.75	6.31	5.70	2.16	.34
4771AC-1PH	14.38	8.86	3.55	22.00	6.75	6.31	5.70	2.16	.34
4771AC-1PH2	14.38	8.86	3.55	21.00	6.75	6.31	5.70	2.16	.34
4771AC-3PH	14.38	8.86	3.55	19.00	6.75	6.31	5.70	2.16	.34
4771DC	14.38	8.86	3.55	18.69	6.75	6.31	5.70	2.16	.34
4771PN	14.38	8.86	3.55	14.94	6.75	6.31	5.70	2.16	.34
4771HY	14.38	8.86	3.55	11.84	6.75	6.31	5.70	2.16	.34
4777	14.38	8.86	3.49	17.45	6.75	6.31	5.70	2.16	.34
4777DC	14.38	8.86	3.49	18.69	6.75	6.31	5.70	2.16	.34

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



Series 477 – Drum Dimensions

model extension	drum diameter	flange diameter	drum width	fleet angle distance ¹
4771	3.00 in	6.00 in	6.00 in	10 ft
4771AC-1PH	3.00 in	6.00 in	6.00 in	10 ft
4771AC-1PH2	3.00 in	6.00 in	6.00 in	10 ft
4771AC-3PH	3.00 in	6.00 in	6.00 in	10 ft
4771DC	3.00 in	6.00 in	6.00 in	10 ft
4771PN	3.00 in	6.00 in	6.00 in	10 ft
4771HY	3.00 in	6.00 in	6.00 in	10 ft
4777	3.00 in	6.00 in	4.00 in	7 ft
4777DC	3.00 in	6.00 in	4.00 in	7 ft

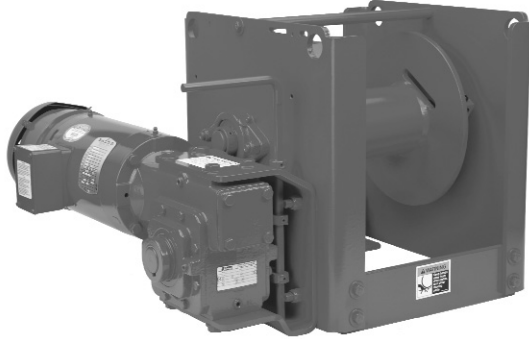
Dimensions are for reference only and subject to change without notice.

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

Important:

It is the owner's 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.

Series 4WS3M10 shown with clutch



Wire rope assemblies and controls sold separately

Series 4WS Worm/Spur Gear Power Winches

Up to 6000 lb capacity

- **Modular Design** allows us to make-to-order each winch to meet your exact needs.
- **Standard Features** include TEFC brake motors, enclosed machine cut gearing and flange style ball bearings.
- **Custom Modifications** available include grooved drums, special drum lengths and diameters, limit switches, roller pressure bars, and special finishes. Pneumatic, hydraulic and alternate motor voltages are also available.
- **Two-year Limited Warranty**

Series 4WS Electric – Configurations and Performance Characteristics – Section 2

When ordering, please indicate Model Number and Extensions

Examples: 4WS1M6-1100-20-A (without clutch); 4WS1M6-1100-20-A-C (with clutch)

model number	model number extensions					load rating(lb)			wire	line speed(fpm)		drum capacity(ft) ¹			approx. ²
	load rating	line speed	motor codes	clutch option	motor hp	1st layer	mid drum	full drum	rope dia.(in)	1st layer	full drum	1st layer	mid drum	full drum	ship wt.(lb)
4WS1M6	800	15	A, B, D, E, F	C	.5	800	550	420	3/16	17	33	21	110	260	155
4WS1M6	800	30	A, B, D, E, F	C	.75	800	550	420	3/16	29	55	21	110	260	165
4WS1M6	800	40	A, B, D, E, F	C	1	800	550	420	3/16	43	82	21	110	260	175
4WS1M6	1100	20	A, B, D, E, F	C	.75	1100	800	600	1/4	18	32	16	62	140	165
4WS1M6	1100	30	A, B, D, E, F	C	1	1100	800	600	1/4	30	54	16	62	140	175
4WS1M6	1100	40	D, E, F	C	1.5	1100	800	600	1/4	44	81	16	62	140	170
4WS1M6	1500	20	A, B, D, E, F	C	1	1500	1000	800	1/4	18	32	16	62	140	175
4WS1M6	1500	30	D, E, F	C	1.5	1500	1100	800	1/4	30	54	16	62	140	170
4WS1M6	1500	40	B, D, E, F	C	2	1500	1100	800	1/4	44	81	16	62	140	180
clutch option for 4WS1M6 (for horizontal pulling only)														add:	5
4WS3M10	2000	15	A, B, D, E, F	C	1	2000	1300	1000	5/16	14	29	34	220	500	310
4WS3M10	2000	20	D, E, F	C	1.5	2200	1400	1000	5/16	18	39	34	220	500	305
4WS3M10	2500	20	B, D, E, F	C	2	2500	1600	1200	3/8	22	46	27	160	360	320
4WS3M10	3000	15	D, E, F	C	1.5	3000	2000	1500	3/8	14	29	27	160	360	305
4WS3M10	3000	20	B, D, E, F	C	2	3000	2000	1500	3/8	19	39	27	160	360	320
4WS3M10	3500	7	A, B, D, E, F	C	1	3500	2300	1700	7/16	8	15	23	120	270	330
4WS3M10	3500	15	B, D, E, F	C	2	3700	2500	1800	7/16	14	29	23	120	270	320
4WS3M10	3500	20	D, E, F	C	3	3700	2500	1800	7/16	23	46	23	120	270	330
clutch option for 4WS3M10 (for horizontal pulling only)														add:	8
4WS6M12	3000	10	D, E, F	C	1.5	3400	2200	1600	3/8	12	25	40	300	660	515
4WS6M12	3000	20	B, D, E, F	C	2	3100	2000	1500	3/8	20	42	40	300	660	530
4WS6M12	4000	10	B, D, E, F	C	2	4500	2900	2100	7/16	12	25	34	220	500	530
4WS6M12	4000	20	D, E, F	C	3	4000	2500	1900	7/16	24	50	34	220	500	540
4WS6M12	6000	4	A, B, D, E, F	C	1	6200	4000	3000	1/2	4	8	30	170	390	535
4WS6M12	6000	10	D, E, F	C	3	6400	4200	3100	9/16	12	25	26	140	310	540
4WS6M12	6000	20	D, E, F	C	5	6400	4200	3100	9/16	24	50	26	140	310	585
clutch option for 4WS6M12 (for horizontal pulling only)														add:	12

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 factory.	

- For more information and other control options, please see pages 46-48.
- Custom controls are available including wireless remote control, variable speed control, electronic overload, and enclosures for special environments.

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

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

² Weight may vary with motor.

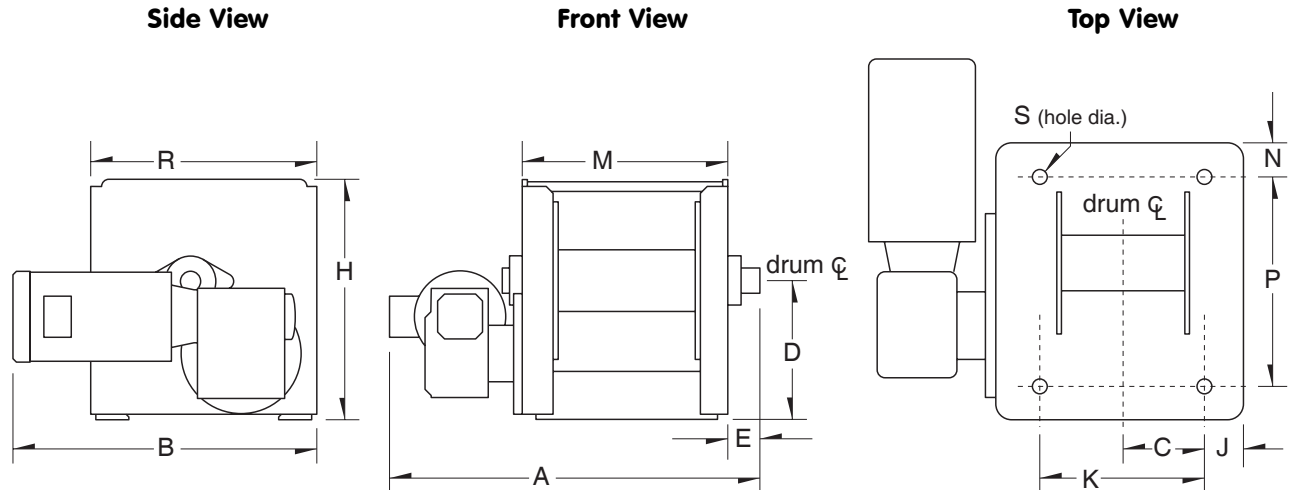
Electric Drum Control Switches – Order Separately – Section 2

model	description	115/1/60 ³	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 ft pendant control	to 1 hp	—	—	—

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

³ Controls for 115V single phase motors up to 1.5 hp, include an 8 ft power cord with grounded plug.

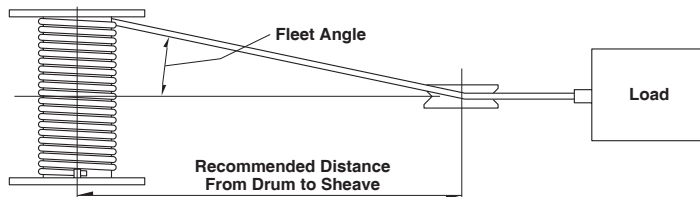
See Dimensions on Next Page



Series 4WS – Winch Dimensions (in)

model extension	A	B	C	D	E	H	J	K	M	N	P	R	S (hole dia.)
4WS1M6-800-15	21.00	21.62	3.00	6.75	2.25	11.75	1.75	6.00	9.75	1.25	8.50	11.00	.44
4WS1M6-800-30	21.00	22.38	3.00	6.75	2.25	11.75	1.75	6.00	9.75	1.25	8.50	11.00	.44
4WS1M6-800-40	21.75	23.38	3.00	6.75	2.25	11.75	1.75	6.00	9.75	1.25	8.50	11.00	.44
4WS1M6-1100-20	21.00	22.38	3.00	6.75	2.25	11.75	1.75	6.00	9.75	1.25	8.50	11.00	.44
4WS1M6-1100-30	21.75	23.38	3.00	6.75	2.25	11.75	1.75	6.00	9.75	1.25	8.50	11.00	.44
4WS1M6-1100-40	21.75	22.38	3.00	6.75	2.25	11.75	1.75	6.00	9.75	1.25	8.50	11.00	.44
4WS1M6-1500-20	21.75	23.38	3.00	6.75	2.25	11.75	1.75	6.00	9.75	1.25	8.50	11.00	.44
4WS1M6-1500-30	21.75	22.38	3.00	6.75	2.25	11.75	1.75	6.00	9.75	1.25	8.50	11.00	.44
4WS1M6-1500-40	21.75	25.00	3.00	6.75	2.25	11.75	1.75	6.00	9.75	1.25	8.50	11.00	.44
4WS3M10-2000-15	27.75	26.75	5.00	10.12	2.38	17.50	2.38	10.00	15.00	1.88	12.75	16.50	.59
4WS3M10-2000-20	27.75	25.75	5.00	10.12	2.38	17.50	2.38	10.00	15.00	1.88	12.75	16.50	.59
4WS3M10-2500-20	27.75	28.25	5.00	10.12	2.38	17.50	2.38	10.00	15.00	1.88	12.75	16.50	.59
4WS3M10-3000-15	27.75	25.75	5.00	10.12	2.38	17.50	2.38	10.00	15.00	1.88	12.75	16.50	.59
4WS3M10-3000-20	27.75	28.25	5.00	10.12	2.38	17.50	2.38	10.00	15.00	1.88	12.75	16.50	.59
4WS3M10-3500-7	27.75	32.00	5.00	10.12	2.38	17.50	2.38	10.00	15.00	1.88	12.75	16.50	.59
4WS3M10-3500-15	27.75	28.25	5.00	10.12	2.38	17.50	2.38	10.00	15.00	1.88	12.75	16.50	.59
4WS3M10-3500-20	28.81	33.00	5.00	10.12	2.38	17.50	2.38	10.00	15.00	1.88	12.75	16.50	.59
4WS6M12-3000-10	33.00	26.75	5.62	12.88	2.50	22.50	3.25	12.00	19.00	1.88	18.25	22.00	.88
4WS6M12-3000-20	33.00	29.50	5.62	12.88	2.50	22.50	3.25	12.00	19.00	1.88	18.25	22.00	.88
4WS6M12-4000-10	33.00	29.50	5.62	12.88	2.50	22.50	3.25	12.00	19.00	1.88	18.25	22.00	.88
4WS6M12-4000-20	34.00	29.25	5.62	12.88	2.50	22.50	3.25	12.00	19.00	1.88	18.25	22.00	.88
4WS6M12-6000-4	33.00	27.75	5.62	12.88	2.50	22.50	3.25	12.00	19.00	1.88	18.25	22.00	.88
4WS6M12-6000-10	34.00	29.25	5.62	12.88	2.50	22.50	3.25	12.00	19.00	1.88	18.25	22.00	.88
4WS6M12-6000-20	34.00	31.00	5.62	12.88	2.50	22.50	3.25	12.00	19.00	1.88	18.25	22.00	.88

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



Important:

It is the owner's 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.

Series 4WS – Drum Dimensions

model extension	drum diameter	flange diameter	drum width	fleet angle distance ¹
4WS1M6	2.88 in	7.00 in	6.00 in	10 ft
4WS3M10	4.50 in	11.50 in	10.00 in	16 ft
4WS6M12	5.50 in	14.00 in	12.00 in	20 ft

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

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



LIFT 50 TONS, WHAT DO YOU GET? SIMPLE, RESPECT

Mighty and reliable, Thern power winches can lift, hoist, pull or position up to 100,000 lb to handle any task you've got. Our broad range of standard models can be quickly adapted to suit custom applications. Plus our power winches feature top of the line gear reducers, rugged steel construction, load holding brake motors, and legendary performance and craftsmanship.

➤ CUSTOMIZABLE

We build to suit. Thern power winches come in a wide variety of base configurations, making it fast and affordable to customize a winch to your application.

➤ DURABLE

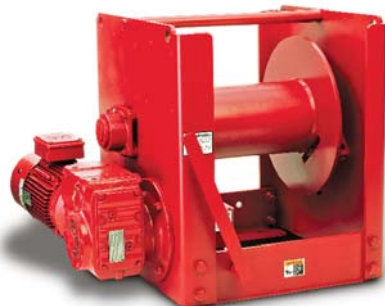
Thern's heavy duty power winches are built to take the around the clock punishment of hard working jobsites. Everything about them, from fabricated steel frame to industrial strength controls, says "no kid gloves" required.

➤ EXPERIENCE

Thern has the experienced people you rely on to get the right product for the job. Our unmatched know-how means you won't end up with a solution that only creates new problems.

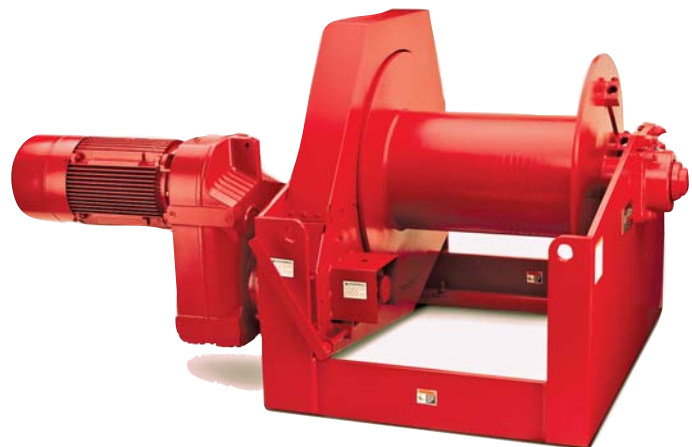


Series 4WS



Series 4HS6-26M

Clutch model shown



Series 4HS40-56M

Clutch model shown



www.thern.com

1.800.843.7648



ONE IF BY LAND, THERN IF BY SEA

Just because something floats, doesn't mean it isn't heavy. Try raising and lowering accommodation ladders, launching deep water research equipment or towing a vessel. It takes strength, control and stamina. It takes a Thern heavy duty power winch.

A MINER'S BEST FRIEND

Hard, heavy, dirty. That's everything you need to know about mining. Conditions are poor, mechanical strain constant, and loads a bear, but Thern power winches can handle any task you find in a mine.

WHEN IT COMES TO HANDLING, THERE'S BULK AND THERE'S BULK

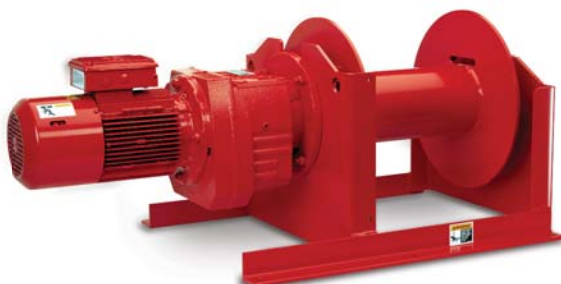
Thern power winches are used to pull trains, position barges, or lift behemoth conveyors. Why? They have the muscle and endurance to do it over the long haul without failure.

POWERFUL ENOUGH FOR POWER PLANTS

Everything about a power plant is big – from steel doors to flare stacks, and it all needs to be lifted, lowered, or positioned. Durable and easily customized, Thern power winches help keep power plants running.



Series 4HWF



Series 4HPF



Series 4HPFC

Clutch model shown



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4WS SERIES

Thern 4WS series power winches feature dual stage gear reduction for economical handling of large loads. The combination of helical/worm and spur gearing make these winches ideal for applications requiring secure load control and accurate positioning. Our modular design also means we can quickly customize these winches to meet your specific requirements.



FLANGE STYLE ROLLER BEARINGS are self-aligning bearings with cast housing to maintain smooth drum rotation.

WELDED STEEL DRUM with outside flange anchors allow for uniform winding and help extend life of wire rope. Anchors allow cable to be over wound or under wound from either side of the drum.

EXTENDED STEEL DRUM SHAFT with both ends captured in fabricated steel frame for optimal strength and security.

WIRE ROPE ASSEMBLIES sold separately per customer request.

FLANGE MOUNTED MOTOR is a 230/460 volt 3 phase motor, 60 cycle, IP 54¹, TEFC severe duty, reversible, class B or F insulated, continuous duty brakemotor.

Standard motors comply with relevant standards including NEMA, MG1, ANSI, CSA, IEC¹ and ABS.

LOAD HOLDING MOTOR DISC BRAKE is spring set, electrically released for positive load control.

DUAL STAGE GEARING, comprised of a worm or helical/worm and spur gears, make winches well suited for applications requiring secure load control and accurate positioning.

The heat treated worm or helical/worm gear set provides improved durability and operates in an oil bath, enclosed in a high strength cast iron gearcase, SAE class 30. Double-lip oil seals keep oil in and contaminants out. Large capacity bearings ensure long life. Speed reducers meet AGMA standards.

Guarded, heat treated spur gearing provides secondary reduction. Grease zerks allow for easy lubrication.

ANSI B30.7 COMPLIANCE is available. Please contact the factory.

2 YEAR "MOVE IT WITH CONFIDENCE" LIMITED WARRANTY leads the industry.

¹Does not apply to 4WS9M18 Series winches.

4WS SERIES

	HP	Load Rating	Line Speed
4WS9M18	5 - 10	7,000 - 10,000 lb	10 - 30 fpm
4WS16M20	7.5 - 15	13,000 - 16,000 lb	15 - 35 fpm
4WS26M26	15 - 25	22,000 - 26,000 lb	10 - 35 fpm

OPTIONS AND ACCESSORIES

DRUM MODIFICATIONS (A) include grooved drums, multiple compartment drums and modified drum widths and diameters.

WINCH MOUNTING OPTIONS include base, wall or under hung installation.

CABLE PRESSURE BARS (B) help maintain uniform winding of wire rope.

LIMIT SWITCHES (A) provide secondary shut-off for load travel in one or two directions.

MOTOR OPTIONS include air or hydraulic, voltage or phase changes, IP 55 or 65, class F or H insulated and multi-speed operation.

DUTY RATINGS include IEEE 45 marine duty, tropical duty, severe duty and explosion proof ratings.

BRAKE OPTIONS include over-speed, caliper style, band, and more.

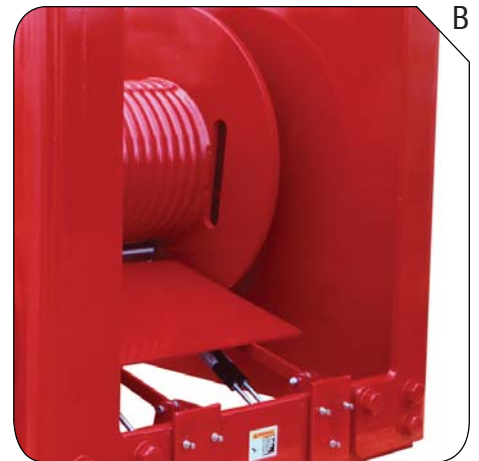
CONTROLS (C) are available in a wide range of standard and custom configurations for single or variable speed.

CORROSION RESISTANT FINISHES (D) for harsh or hazardous environments.

MANUAL OVERRIDES for winch operation in power loss situations.



Shown with double compartment and narrow drum width modifications and rotary limit switch.



Shown with cable pressure bar and grooved drum modification.



Shown with grooved drum modification and gray epoxy finish.



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4WS SERIES POWER WINCHES

4WS Series Performance Characteristics

	Model Number Extensions			Motor hp	Load Rating						Line Speed				1 Motor Codes
	Load Rating	Line Speed	Motor Codes'	hp	1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum		
	(lb)	(fpm)			(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)	
4WS9M18	7000	20	D,E,F	5	7,300	3,312	5,000	2,268	3,800	1,724	21	6.4	41	12.5	F All other voltages please contact factory
4WS9M18	7000	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	10000	10	D,E,F	5	10,000	4,536	6,900	3,130	5,300	2,405	13	4.0	24	7.3	
4WS9M18	10000	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	10000	30	D,E,F	10	10,000	4,536	6,900	3,130	5,200	2,359	32	9.8	61	18.6	
4WS16M20	13000	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	13000	20	D,E,F	10	13,300	6,033	9,100	4,128	6,900	3,130	18	5.5	35	10.7	
4WS16M20	13000	35	D,E,F	15	13,000	5,897	8,900	4,038	6,700	3,040	35	10.7	68	20.7	
4WS16M20	16000	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	16000	20	D,E,F	10	16,000	7,258	11,100	5,035	8,500	3,856	16	4.9	31	9.4	
4WS26M26	22000	20	D,E,F	15	22,800	10,343	16,700	7,576	13,200	5,988	18	5.5	31	9.4	
4WS26M26	22000	25	D,E,F	20	22,600	10,252	16,500	7,485	13,100	5,943	25	7.6	43	13.1	
4WS26M26	22000	35	D,E,F	25	22,200	10,070	16,300	7,394	12,900	5,852	36	11.0	63	19.2	
4WS26M26	26000	10	D,E,F	10	26,200	11,885	19,400	8,800	15,400	6,986	10	3.0	17	5.2	
4WS26M26	26000	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 factory or nearest Thern Distributor for firm fixed price and delivery.

4WS Series Drum Capacities

Wire Rope Dia.		Breaking Strength ²		Drum Capacity	4WS9M18		4WS16M20		4WS26M26	
(in)	(mm)	(lb)	(kg)		(ft)	(m)	(ft)	(m)	(ft)	(m)
7/16	11.2	20,400	9,254	1st	87	26.5	—	—	—	—
				Mid	670	204.2	—	—	—	—
				Full	1,500	457.2	—	—	—	—
1/2	12.7	26,600	12,066	1st	76	23.2	—	—	—	—
				Mid	520	158.5	—	—	—	—
				Full	1,170	356.6	—	—	—	—
9/16	14.2	33,600	15,240	1st	67	20.4	89	27.1	—	—
				Mid	420	128.0	690	210.3	—	—
				Full	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	110	33.5
				Mid	240	73.2	400	121.9	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	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
				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.

² 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.

Electric Motor Controls

	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.

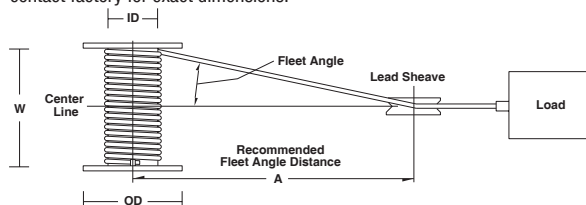
Please contact factory or nearest Thern Distributor for firm fixed price and delivery.

All prices include mounting and wiring to motor.

4WS Series Drum Dimensions

	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)		Fleet Angle Dist (A) ³	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4WS9M18	9.00	229	20.00	508	18.00	457	29	8.8
4WS16M20	10.75	273	24.00	610	20.00	508	32	9.8
4WS26M26	14.00	356	28.00	711	26.00	660	42	12.8

³ Recommended minimum distance between drum and lead sheave for smooth drum. Dimensions are for reference only and subject to change without notice. Please contact factory for exact dimensions.

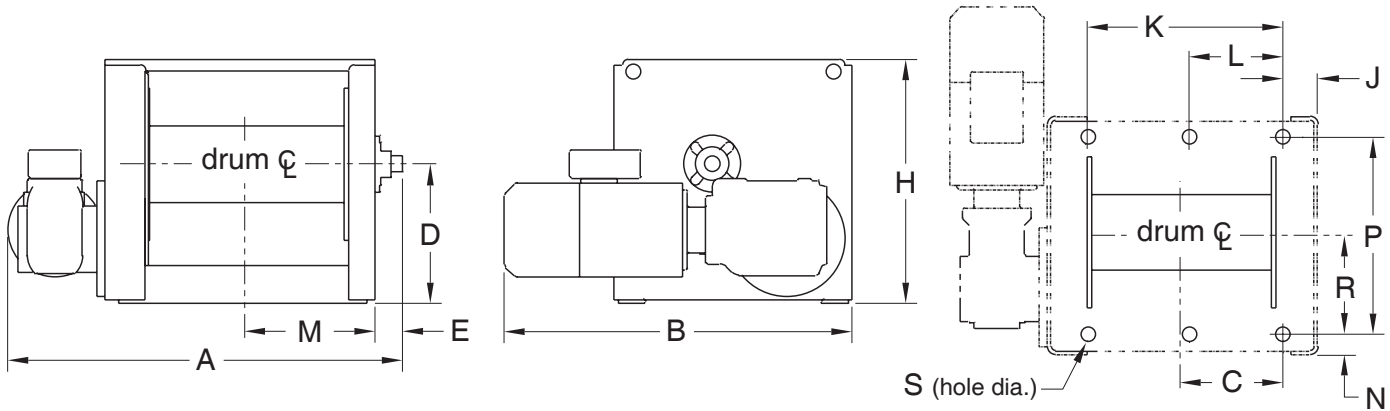


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4WS SERIES POWER WINCHES

4WS Series



4WS Series Winch Dimensions

	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	44.00	1,118	33.75	857	8.50	216	17.75	451	5.13	130	31.00	787	4.00	102	18.00	457
4WS9M18-7000-30	45.50	1,156	38.50	978	8.50	216	17.75	451	5.13	130	31.00	787	4.00	102	18.00	457
4WS9M18-10000-10	44.00	1,118	33.75	857	8.50	216	17.75	451	5.13	130	31.00	787	4.00	102	18.00	457
4WS9M18-10000-20	45.50	1,156	38.50	978	8.50	216	17.75	451	5.13	130	31.00	787	4.00	102	18.00	457
4WS9M18-10000-30	45.50	1,156	40.00	1,016	8.50	216	17.75	451	5.13	130	31.00	787	4.00	102	18.00	457
4WS16M20-13000-15	48.00	1,219	34.75	883	9.50	241	20.00	508	6.25	159	34.00	864	4.00	102	20.00	508
4WS16M20-13000-20	48.00	1,219	37.00	940	9.50	241	20.00	508	6.25	159	34.00	864	4.00	102	20.00	508
4WS16M20-13000-35	48.00	1,219	39.50	1,003	9.50	241	20.00	508	6.25	159	34.00	864	4.00	102	20.00	508
4WS16M20-16000-15	48.00	1,219	34.75	883	9.50	241	20.00	508	6.25	159	34.00	864	4.00	102	20.00	508
4WS16M20-16000-20	48.00	1,219	37.00	940	9.50	241	20.00	508	6.25	159	34.00	864	4.00	102	20.00	508
4WS26M26-22000-20	60.50	1,537	43.50	1,105	12.38	314	25.38	645	8.06	205	44.50	1,130	5.88	149	26.00	660
4WS26M26-22000-25	60.50	1,537	47.00	1,194	12.38	314	25.38	645	8.06	205	44.50	1,130	5.88	149	26.00	660
4WS26M26-22000-35	60.50	1,537	50.00	1,270	12.38	314	25.38	645	8.06	205	44.50	1,130	5.88	149	26.00	660
4WS26M26-26000-10	60.50	1,537	42.00	1,067	12.38	314	25.38	645	8.06	205	44.50	1,130	5.88	149	26.00	660
4WS26M26-26000-15	60.50	1,537	43.50	1,105	12.38	314	25.38	645	8.06	205	44.50	1,130	5.88	149	26.00	660

	L		M		N		P		R		S (Hole Dia.)		Ship Wt.	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
4WS9M18-7000-20	—	—	12.50	318	2.75	70	22.00	559	12.50	318	1-3/16	30	1,100	499
4WS9M18-7000-30	—	—	12.50	318	2.75	70	22.00	559	12.50	318	1-3/16	30	1,100	499
4WS9M18-10000-10	—	—	12.50	318	2.75	70	22.00	559	12.50	318	1-3/16	30	1,100	499
4WS9M18-10000-20	—	—	12.50	318	2.75	70	22.00	559	12.50	318	1-3/16	30	1,100	499
4WS9M18-10000-30	—	—	12.50	318	2.75	70	22.00	559	12.50	318	1-3/16	30	1,160	527
4WS16M20-13000-15	10.00	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,550	704
4WS16M20-13000-20	10.00	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,610	731
4WS16M20-13000-35	10.00	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,650	749
4WS16M20-16000-15	10.00	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,550	704
4WS16M20-16000-20	10.00	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,610	731
4WS26M26-22000-20	13.00	330	18.25	464	3.00	76	36.00	914	21.75	552	1-3/8	35	3,110	1,411
4WS26M26-22000-25	13.00	330	18.25	464	3.00	76	36.00	914	21.75	552	1-3/8	35	3,290	1,493
4WS26M26-22000-35	13.00	330	18.25	464	3.00	76	36.00	914	21.75	552	1-3/8	35	3,350	1,520
4WS26M26-26000-10	13.00	330	18.25	464	3.00	76	36.00	914	21.75	552	1-3/8	35	3,070	1,393
4WS26M26-26000-15	13.00	330	18.25	464	3.00	76	36.00	914	21.75	552	1-3/8	35	3,110	1,411

IMPORTANT:

It is the owner's 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.

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

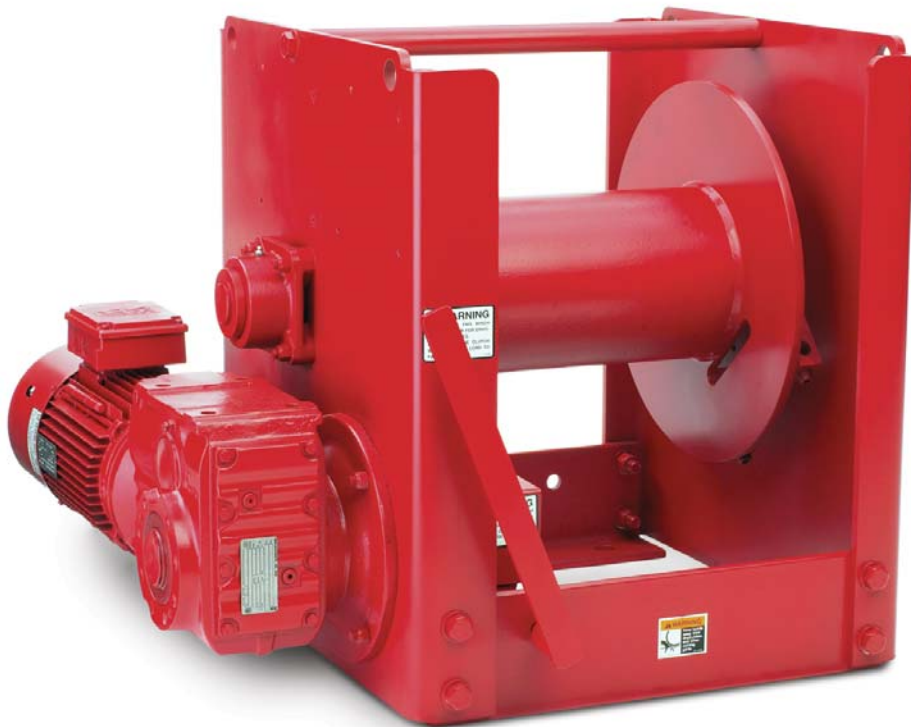


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4HS SERIES

Thern 4HS series power winches feature dual stage gear reduction for economical handling of large loads. The combination of helical/bevel or helical/parallel and spur gearing make these winches ideal for applications requiring long travel distances and faster line speeds. Our modular design also means we can quickly customize these winches to meet your specific requirements.



FLANGE STYLE ROLLER BEARINGS are self-aligning bearings with cast housing to maintain smooth drum rotation.

WELDED STEEL DRUM with outside flange anchors allow for uniform winding and help extend life of wire rope. Anchors allow cable to be over wound or under wound from either side of the drum.

EXTENDED SOLID STEEL DRUM SHAFT with both ends captured in fabricated steel frame for optimal strength and security.

WIRE ROPE ASSEMBLIES sold separately per customer request.

FLANGE MOUNTED MOTOR is a 230/460 volt 3 phase motor, 60 cycle, IP 55, TEFC severe duty, reversible, class F insulated, continuous duty brakemotor.

Standard motors comply with relevant standards including NEMA, MG1, ANSI, CSA, IEC and ABS.

LOAD HOLDING MOTOR DISC BRAKE is spring set, electrically released for positive load handling.

DUAL STAGE GEARING, comprised of a helical/bevel or helical/parallel and a spur gears, make winches well suited for applications requiring long travel distances and faster line speeds.

The heat treated helical/bevel or helical/parallel gear set provides improved durability and operates in oil bath, enclosed in a high strength cast iron gearcase, SAE class 30. Double-lip oil seals keep oil in and contaminants out. Large capacity bearings ensure long life. Speed reducers meet AGMA standards.

Guarded, heat treated spur gearing provides secondary reduction. Grease zerks allow for easy lubrication.

ANSI B30.7 COMPLIANCE is available. Please contact the factory.

2 YEAR "MOVE IT WITH CONFIDENCE" LIMITED WARRANTY leads the industry.



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4HS SERIES

	Clutch Option	HP	Load Rating	Line Speed
4HS6M	x	2 - 7.5	5,000 - 6,600 lb	15 - 40 fpm
4HS11M	x	5 - 10	9,000 - 11,000 lb	15 - 40 fpm
4HS16M	x	5 - 15	13,000 - 16,000 lb	10 - 40 fpm
4HS26M	x	10 - 20	22,000 - 26,000 lb	15 - 30 fpm
4HS40M	x	20 - 40	33,000 - 40,000 lb	20 - 40 fpm
4HS56M	x	30 - 50	48,000 - 56,000 lb	20 - 35 fpm

OPTIONS AND ACCESSORIES

DRUM MODIFICATIONS (A) include grooved drums, multiple compartment drums and modified drum widths and diameters.

MANUALLY OPERATED JAW CLUTCH (B) disengages for rapid payout of wire rope when not under load. Adjustable drag brake on the drum prevents over-spooling during payout. Clutch option is for horizontal pulling only.

WINCH MOUNTING OPTIONS include base, wall or under hung installation.

CABLE PRESSURE BARS (C) help maintain uniform winding of wire rope.

LIMIT SWITCHES (A) provide secondary shut-off for load travel in one or two directions.

MOTOR OPTIONS include air or hydraulic, voltage or phase changes, IP 65, class H insulated and multi-speed operation.

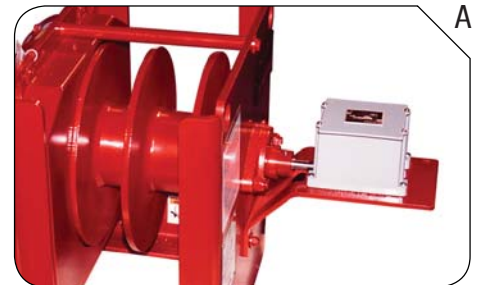
DUTY RATINGS include IEEE 45 marine duty, tropical duty, severe duty and explosion proof ratings.

BRAKE OPTIONS include over-speed, caliper style, band, and more.

CONTROLS (D) are available in a wide range of standard and custom configurations for single or variable speed.

CORROSION RESISTANT FINISHES (E) for harsh or hazardous environments.

MANUAL OVERRIDES for winch operation in power loss situations.



Shown with double compartment and narrow drum width modifications and rotary limit switch.



Shown with cable pressure bar and grooved drum modification.



Shown with double compartment drum modification and gray epoxy finish.



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4HS SERIES POWER WINCHES

4HS Series Performance Characteristics

	Model Number Extensions				Motor hp	Load Rating						Line Speed			
	Load Rating	Line Speed	Motor Codes¹	Clutch Option²	hp	¹st Layer		Mid Drum		Full Drum		¹st Layer		Full Drum	
	(lb)	(fpm)				(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)
4HS6M	5000	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	5000	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	5000	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	6600	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	6600	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	6600	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	9000	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	9000	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	9000	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	11000	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	11000	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	11000	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	13000	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	13000	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	13000	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	16000	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	16000	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	16000	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	22000	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	22000	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	22000	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	26000	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	26000	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	26000	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	33000	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	33000	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	33000	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	40000	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	40000	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	40000	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	48000	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	48000	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	52000	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	56000	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	56000	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	56000	30	D, E, F	C	50	56,200	25,493	43,500	19,741	35,500	16,103	30	9.1	47	14.3

² Clutch option for horizontal pulling only.

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

Electric Motor Controls

	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 factory or nearest Thern Distributor for firm fixed price and delivery.

All prices include mounting and wiring to motor.

Motor Codes		
D	230 volt	3 phase
E	460 volt	3 phase
F	All other voltages please contact factory	

4HS Series Drum Dimensions

	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)		Fleet Angle Dist (A) ³	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4HS6M	7.00	178	14.00	356	18.00	457	29	8.8
4HS11M	9.00	229	20.00	508	18.00	457	29	8.8
4HS16M	10.75	273	24.00	610	20.00	508	32	9.8
4HS26M	14.00	356	28.00	711	26.00	660	42	12.8
4HS40M	18.00	457	36.00	914	30.00	762	48	14.6
4HS56M	24.00	610	43.00	1,092	36.00	914	58	17.7

³ Recommended minimum distance between drum and lead sheave for smooth drum.

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



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4HS SERIES POWER WINCHES

4HS Series Drum Capacities

Wire Rope Dia.		Breaking Strength ⁴		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	—	—	—	—	—	—	—	—	—	—	130	39.6
				Mid	—	—	—	—	—	—	—	—	—	—	510	155.4
				Full	—	—	—	—	—	—	—	—	—	—	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

⁴Values based on 6x37 IWRC EIPS wire rope.

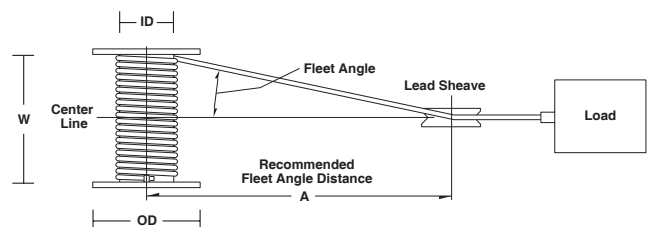
Actual drum capacities 25-30% less, due to nonuniform winding. Wire rope tension will also affect drum capacity.

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.

IMPORTANT:

It is the owner's 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.



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4HS SERIES POWER WINCHES

4HS6-26M Series Winch Dimensions (see opposite page for diagram)

	A		B		C		D		E		F		G		H		J	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4HS6M-5000-15	36.00	914	27.25	692	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.50	572	3.25	83
4HS6M-5000-20	36.00	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.50	572	3.25	83
4HS6M-5000-30	36.00	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.50	572	3.25	83
4HS6M-6600-15	36.00	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.50	572	3.25	83
4HS6M-6600-25	36.00	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.50	572	3.25	83
4HS6M-6600-40	36.00	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.50	572	3.25	83
4HS11M-9000-20	41.00	1,041	31.75	806	8.50	216	17.75	451	5.13	130	2.38	60	18.44	468	31.00	787	4.00	102
4HS11M-9000-30	41.50	1,054	34.75	883	8.50	216	17.75	451	5.13	130	2.38	60	18.44	468	31.00	787	4.00	102
4HS11M-9000-40	42.50	1,080	37.00	940	8.50	216	17.75	451	5.13	130	2.38	60	18.44	468	31.00	787	4.00	102
4HS11M-11000-15	41.00	1,041	31.75	806	8.50	216	17.75	451	5.13	130	2.38	60	18.44	468	31.00	787	4.00	102
4HS11M-11000-20	41.50	1,054	34.75	883	8.50	216	17.75	451	5.13	130	2.38	60	18.44	468	31.00	787	4.00	102
4HS11M-11000-30	42.50	1,080	37.00	940	8.50	216	17.75	451	5.13	130	2.38	60	18.44	468	31.00	787	4.00	102
4HS16M-13000-20	46.00	1,168	37.50	953	9.50	241	20.00	508	6.25	159	2.00	51	18.94	481	34.00	864	4.00	102
4HS16M-13000-25	47.00	1,194	39.50	1,003	9.50	241	20.00	508	6.25	159	2.00	51	18.94	481	34.00	864	4.00	102
4HS16M-13000-40	47.00	1,194	42.00	1,067	9.50	241	20.00	508	6.25	159	2.00	51	18.94	481	34.00	864	4.00	102
4HS16M-16000-10	46.00	1,168	34.50	876	9.50	241	20.00	508	6.25	159	2.00	51	18.94	481	34.00	864	4.00	102
4HS16M-16000-15	46.00	1,168	37.50	953	9.50	241	20.00	508	6.25	159	2.00	51	18.94	481	34.00	864	4.00	102
4HS16M-16000-20	47.00	1,194	39.50	1,003	9.50	241	20.00	508	6.25	159	2.00	51	18.94	481	34.00	864	4.00	102
4HS26M-22000-15	60.50	1,537	42.50	1,080	12.38	314	25.38	645	8.06	205	2.44	62	21.00	533	44.50	1,130	5.88	149
4HS26M-22000-25	60.50	1,537	45.00	1,143	12.38	314	25.38	645	8.06	205	2.44	62	21.00	533	44.50	1,130	5.88	149
4HS26M-22000-30	60.50	1,537	48.50	1,232	12.38	314	25.38	645	8.06	205	2.44	62	21.00	533	44.50	1,130	5.88	149
4HS26M-26000-15	60.50	1,537	42.50	1,080	12.38	314	25.38	645	8.06	205	2.44	62	21.00	533	44.50	1,130	5.88	149
4HS26M-26000-20	60.50	1,537	45.00	1,143	12.38	314	25.38	645	8.06	205	2.44	62	21.00	533	44.50	1,130	5.88	149
4HS26M-26000-25	60.50	1,537	48.50	1,232	12.38	314	25.38	645	8.06	205	2.44	62	21.00	533	44.50	1,130	5.88	149

	K		L		M		N		P		R		S (Hole Dia.)		Ship Wt. ¹	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
4HS6M-5000-15	18.00	457	—	—	11.88	302	1.88	48	18.25	464	11.13	283	⁷ / ₈	22	570	259
4HS6M-5000-20	18.00	457	—	—	11.88	302	1.88	48	18.25	464	11.13	283	⁷ / ₈	22	590	268
4HS6M-5000-30	18.00	457	—	—	11.88	302	1.88	48	18.25	464	11.13	283	⁷ / ₈	22	590	268
4HS6M-6600-15	18.00	457	—	—	11.88	302	1.88	48	18.25	464	11.13	283	⁷ / ₈	22	590	268
4HS6M-6600-25	18.00	457	—	—	11.88	302	1.88	48	18.25	464	11.13	283	⁷ / ₈	22	590	268
4HS6M-6600-40	18.00	457	—	—	11.88	302	1.88	48	18.25	464	11.13	283	⁷ / ₈	22	650	295
4HS11M-9000-20	18.00	457	—	—	12.50	318	2.75	70	22.00	559	12.50	318	1 ⁻³ / ₁₆	30	1,080	490
4HS11M-9000-30	18.00	457	—	—	12.50	318	2.75	70	22.00	559	12.50	318	1 ⁻³ / ₁₆	30	1,120	509
4HS11M-9000-40	18.00	457	—	—	12.50	318	2.75	70	22.00	559	12.50	318	1 ⁻³ / ₁₆	30	1,160	527
4HS11M-11000-15	18.00	457	—	—	12.50	318	2.75	70	22.00	559	12.50	318	1 ⁻³ / ₁₆	30	1,080	490
4HS11M-11000-20	18.00	457	—	—	12.50	318	2.75	70	22.00	559	12.50	318	1 ⁻³ / ₁₆	30	1,120	509
4HS11M-11000-30	18.00	457	—	—	12.50	318	2.75	70	22.00	559	12.50	318	1 ⁻³ / ₁₆	30	1,160	527
4HS16M-13000-20	20.00	508	10.00	254	13.50	343	2.75	70	27.50	699	16.25	413	1 ⁻³ / ₁₆	30	1,580	717
4HS16M-13000-25	20.00	508	10.00	254	13.50	343	2.75	70	27.50	699	16.25	413	1 ⁻³ / ₁₆	30	1,640	744
4HS16M-13000-40	20.00	508	10.00	254	13.50	343	2.75	70	27.50	699	16.25	413	1 ⁻³ / ₁₆	30	1,680	763
4HS16M-16000-10	20.00	508	10.00	254	13.50	343	2.75	70	27.50	699	16.25	413	1 ⁻³ / ₁₆	30	1,520	690
4HS16M-16000-15	20.00	508	10.00	254	13.50	343	2.75	70	27.50	699	16.25	413	1 ⁻³ / ₁₆	30	1,580	717
4HS16M-16000-20	20.00	508	10.00	254	13.50	343	2.75	70	27.50	699	16.25	413	1 ⁻³ / ₁₆	30	1,640	744
4HS26M-22000-15	26.00	660	13.00	330	18.25	464	3.00	76	36.00	914	21.75	552	1 ⁻³ / ₈	35	3,130	1,420
4HS26M-22000-25	26.00	660	13.00	330	18.25	464	3.00	76	36.00	914	21.75	552	1 ⁻³ / ₈	35	3,170	1,438
4HS26M-22000-30	26.00	660	13.00	330	18.25	464	3.00	76	36.00	914	21.75	552	1 ⁻³ / ₈	35	3,350	1,520
4HS26M-26000-15	26.00	660	13.00	330	18.25	464	3.00	76	36.00	914	21.75	552	1 ⁻³ / ₈	35	3,130	1,420
4HS26M-26000-20	26.00	660	13.00	330	18.25	464	3.00	76	36.00	914	21.75	552	1 ⁻³ / ₈	35	3,170	1,438
4HS26M-26000-25	26.00	660	13.00	330	18.25	464	3.00	76	36.00	914	21.75	552	1 ⁻³ / ₈	35	3,350	1,520

¹Weight shown without clutch; contact factory for clutch weight.

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

IMPORTANT:

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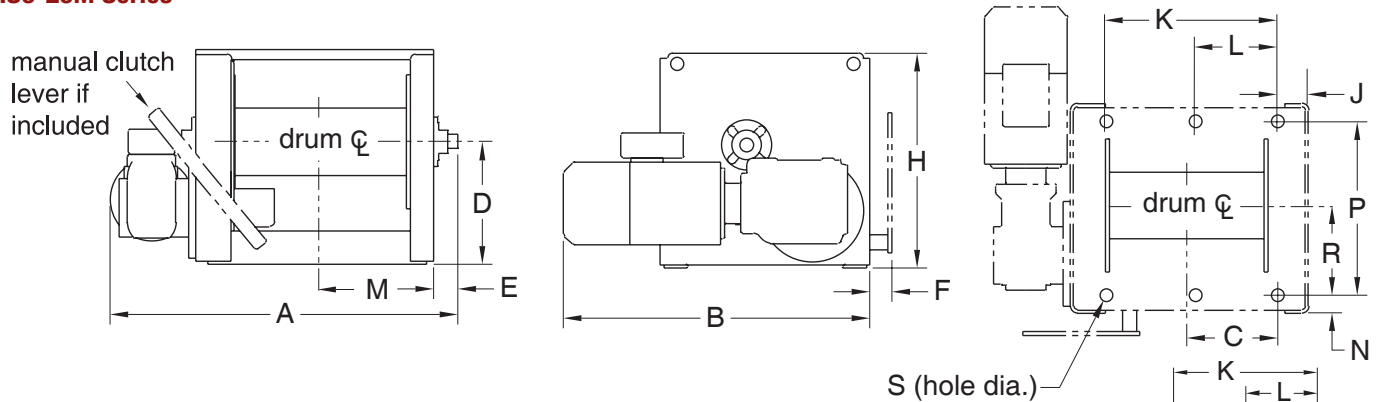


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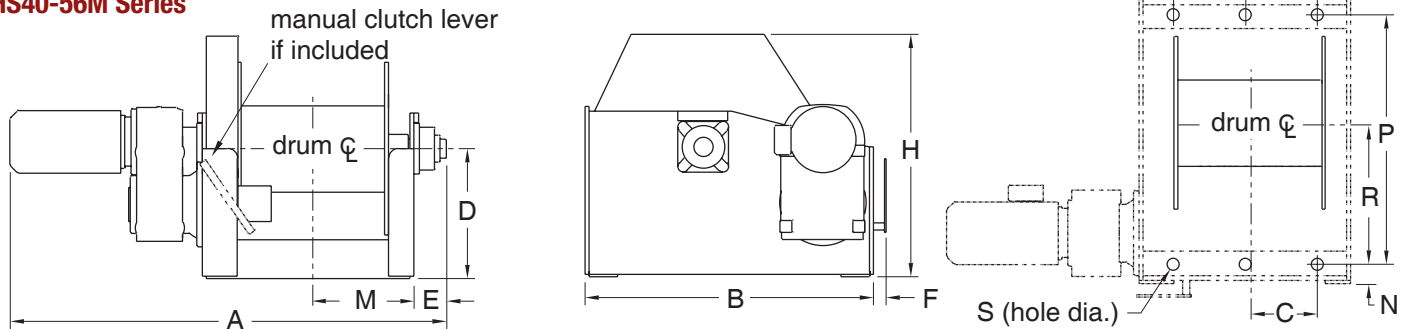
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4HS SERIES POWER WINCHES

4HS6-26M Series



4HS40-56M Series



4HS40-56M Series Winch Dimensions

	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	91.00	2,311	60.00	1,524	14.00	356	27.00	686	6.75	171	2.63	67	24.63	626	51.00	1,295
4HS40M-33000-30	94.00	2,388	60.00	1,524	14.00	356	27.00	686	6.75	171	2.63	67	24.63	626	51.00	1,295
4HS40M-33000-40	96.00	2,438	60.00	1,524	14.00	356	27.00	686	6.75	171	2.63	67	24.63	626	51.00	1,295
4HS40M-40000-20	91.00	2,311	60.00	1,524	14.00	356	27.00	686	6.75	171	2.63	67	24.63	626	51.00	1,295
4HS40M-40000-25	94.00	2,388	60.00	1,524	14.00	356	27.00	686	6.75	171	2.63	67	24.63	626	51.00	1,295
4HS40M-40000-35	96.00	2,438	60.00	1,524	14.00	356	27.00	686	6.75	171	2.63	67	24.63	626	51.00	1,295
4HS56M-48000-20	108.00	2,743	72.00	1,829	18.00	457	32.00	813	8.75	222	2.63	67	23.13	588	62.00	1,575
4HS56M-48000-30	110.00	2,794	72.00	1,829	18.00	457	32.00	813	8.75	222	2.63	67	23.13	588	62.00	1,575
4HS56M-52000-35	113.00	2,870	72.00	1,829	18.00	457	32.00	813	8.75	222	2.63	67	23.13	588	62.00	1,575
4HS56M-56000-20	108.00	2,743	72.00	1,829	18.00	457	32.00	813	8.75	222	2.63	67	23.13	588	62.00	1,575
4HS56M-56000-25	110.00	2,794	72.00	1,829	18.00	457	32.00	813	8.75	222	2.63	67	23.13	588	62.00	1,575
4HS56M-56000-30	113.00	2,870	72.00	1,829	18.00	457	32.00	813	8.75	222	2.63	67	23.13	588	62.00	1,575

	J		K		L		M		N		P		R		S (Hole Dia.)		Ship Wt. ¹	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
4HS40M-33000-20	7.00	178	30.00	762	—	—	21.00	533	4.00	102	52.00	1,321	31.50	800	1-3/4	44	5,570	2,527
4HS40M-33000-30	7.00	178	30.00	762	—	—	21.00	533	4.00	102	52.00	1,321	31.50	800	1-3/4	44	5,660	2,568
4HS40M-33000-40	7.00	178	30.00	762	—	—	21.00	533	4.00	102	52.00	1,321	31.50	800	1-3/4	44	5,800	2,631
4HS40M-40000-20	7.00	178	30.00	762	—	—	21.00	533	4.00	102	52.00	1,321	31.50	800	1-3/4	44	5,570	2,527
4HS40M-40000-25	7.00	178	30.00	762	—	—	21.00	533	4.00	102	52.00	1,321	31.50	800	1-3/4	44	5,660	2,568
4HS40M-40000-35	7.00	178	30.00	762	—	—	21.00	533	4.00	102	52.00	1,321	31.50	800	1-3/4	44	5,800	2,631
4HS56M-48000-20	7.00	178	36.00	914	18.00	457	25.00	635	4.50	114	63.00	1,600	34.50	876	1-3/4	44	9,220	4,183
4HS56M-48000-30	7.00	178	36.00	914	18.00	457	25.00	635	4.50	114	63.00	1,600	34.50	876	1-3/4	44	9,370	4,251
4HS56M-52000-35	7.00	178	36.00	914	18.00	457	25.00	635	4.50	114	63.00	1,600	34.50	876	1-3/4	44	9,480	4,301
4HS56M-56000-20	7.00	178	36.00	914	18.00	457	25.00	635	4.50	114	63.00	1,600	34.50	876	1-3/4	44	9,220	4,183
4HS56M-56000-25	7.00	178	36.00	914	18.00	457	25.00	635	4.50	114	63.00	1,600	34.50	876	1-3/4	44	9,370	4,251
4HS56M-56000-30	7.00	178	36.00	914	18.00	457	25.00	635	4.50	114	63.00	1,600	34.50	876	1-3/4	44	9,480	4,301

Weight shown without clutch; contact factory for clutch weight.

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

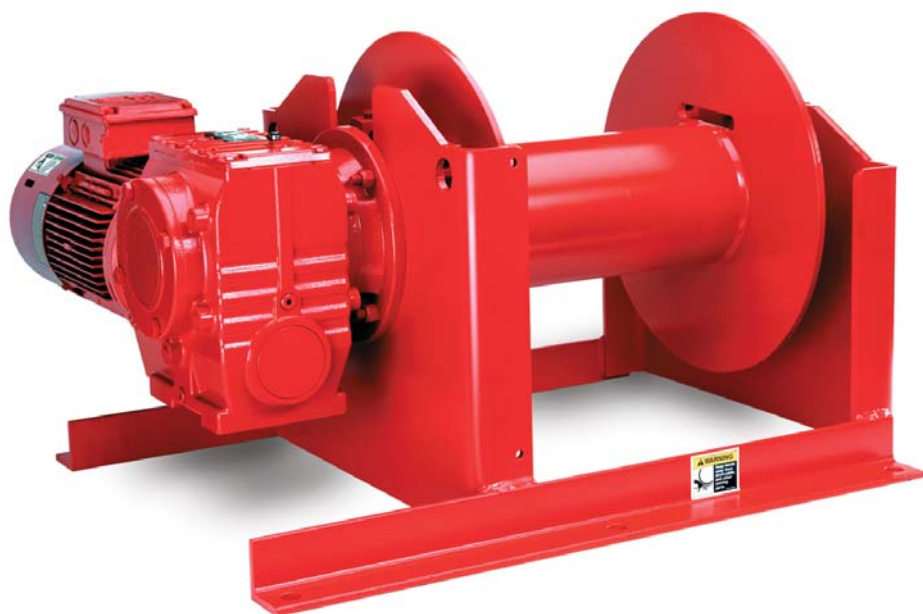


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4HWF SERIES

Thern 4HWF series power winches feature helical/worm gearing making them ideal for applications requiring secure load control and accurate positioning. The enclosed, direct-drive gearing design delivers dependable operation and helps reduce maintenance, while a modular design means we can easily customize these winches to meet your exact specifications.



FLANGE STYLE ROLLER BEARINGS are self-aligning bearings with cast housing to maintain smooth drum rotation.

WELDED STEEL DRUM with outside flange anchors allow uniform winding and help extend life of wire rope. Anchors allow cable to be over wound or under wound from either side of the drum.

EXTENDED SOLID STEEL DRUM SHAFT for uniform loading.

WIRE ROPE ASSEMBLIES sold separately per customer request.

FLANGE MOUNTED MOTOR is a 230/460 volt 3 phase motor, 60 cycle, IP 55, TEFC severe duty, reversible, class F insulated, continuous duty brakemotor.

Standard motors comply with relevant standards including NEMA, MG1, ANSI, CSA, IEC and ABS.

LOAD HOLDING MOTOR DISC BRAKE is spring set, electrically released for positive load control.

DIRECT DRIVE GEAR REDUCERS, comprised of helical/worm gears, deliver lower efficiencies from 65% to 76% making winches well suited for applications requiring secure load control and accurate positioning.

The heat treated helical/worm gear set provides improved durability and operates in an oil bath, enclosed in a high strength cast iron gearcase, SAE class 30. Double-lip oil seals keep oil in and contaminants out. Large capacity bearings ensure long life. Speed reducers meet AGMA standards.

ANSI B30.7 COMPLIANCE is available. Please contact the factory.

2 YEAR "MOVE IT WITH CONFIDENCE" LIMITED WARRANTY leads the industry.



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4HWF SERIES

	HP	Load Rating	Line Speed
4HWF1M	1.5 - 2	1,500 lb	25 - 35 fpm
4HWF2M	2 - 3	2,000 lb	25 - 35 fpm
4HWF4M	3 - 5	4,000 lb	25 - 35 fpm
4HWF6M	5 - 7.5	6,000 lb	25 - 35 fpm
4HWF8M	7.5 - 10	8,000 lb	25 - 35 fpm

OPTIONS AND ACCESSORIES

DRUM MODIFICATIONS (A) include grooved drums, multiple compartment drums and modified drum widths and diameters.

WINCH MOUNTING OPTIONS include base, wall or under hung installation.

CABLE PRESSURE BARS (B) help maintain uniform winding of wire rope.

LIMIT SWITCHES (C) provide secondary shut-off for load travel in one or two directions.

MOTOR OPTIONS include air or hydraulic, voltage or phase changes, IP 65, class F or H insulated, multi-speed operation.

DUTY RATINGS include IEEE 45 marine duty, tropical duty, severe duty and explosion proof ratings.

BRAKE OPTIONS include over-speed, caliper style, band, and more.

CONTROLS (D) are available in a wide range of standard and custom configurations for single or variable speed.

CORROSION RESISTANT FINISHES (E) for harsh or hazardous environments.

MANUAL OVERRIDES for winch operation in power loss situations.



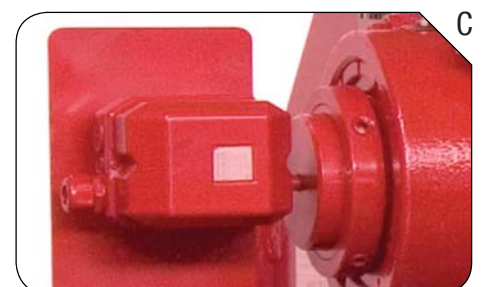
Shown with double compartment drum modification.



Shown with cable pressure bar and grooved drum modification.



Shown with grooved drum modification and gray epoxy finish.



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4HWF SERIES POWER WINCHES

4HWF Series Performance Characteristics

	Model Number Extensions			Motor hp	Load Rating						Line Speed				1 <div>Motor Codes</div> <div>D 230 volt 3 phase</div> <div>E 460 volt 3 phase</div> <div>F All other voltages please contact factory</div>
	Load Rating	Line Speed	Motor Codes ¹	hp	1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum		
	(lb)	(fpm)			(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)	
4HWF1M	1500	25	D, E, F	1.5	1,500	681	900	409	700	318	23	7.0	52	15.8	
4HWF1M	1500	35	D, E, F	2	1,500	681	900	409	700	318	32	9.8	73	22.3	
4HWF2M	2000	25	D, E, F	2	2,200	998	1,500	681	1,200	545	22	6.7	40	12.2	
4HWF2M	2000	35	D, E, F	3	2,200	998	1,500	681	1,200	545	34	10.4	63	19.2	
4HWF4M	4000	25	D, E, F	3	4,000	1,815	2,500	1,134	1,800	817	21	6.4	47	14.3	
4HWF4M	4000	35	D, E, F	5	4,000	1,815	2,500	1,134	1,800	817	35	10.7	78	23.8	
4HWF6M	6000	25	D, E, F	5	6,000	2,722	4,400	1,996	3,400	1,543	24	7.3	42	12.8	
4HWF6M	6000	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	8000	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	8000	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 factory or nearest Thern Distributor for firm fixed price and delivery.

4HWF Series Drum Capacities

Wire Rope Dia.		Breaking Strength ²		Drum Capacity	4HWF1M		4HWF2M		4HWF4M		4HWF6M		4HWF8M	
(in)	(mm)	(lb)	(kg)		(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
1/4	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	—	—	—	—	—	—
5/16	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	—	—	—	—
3/8	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	—	—
1/2	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	189.0	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
3/4	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

¹ Values based on 6x37 IWRC EIPS wire rope.

² Values based on 7x19 galvanized aircraft cable.

³ 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.

IMPORTANT:

It is the owner's 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.

Electric Motor Controls

	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 factory or nearest Thern Distributor for firm fixed price and delivery.

All prices include mounting and wiring to motor.

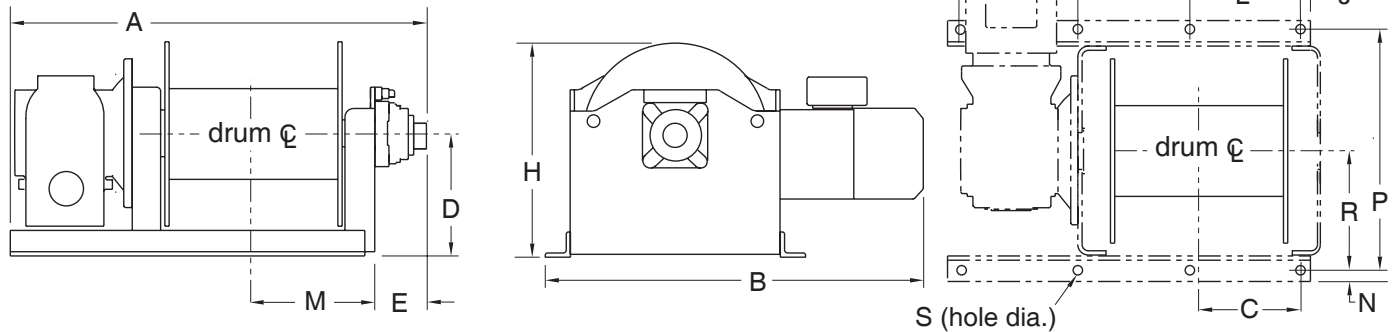


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4HWF SERIES POWER WINCHES

4HWF Series



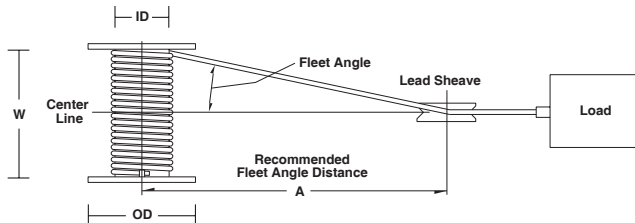
4HWF Series Winch Dimensions

	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	25.50	648	27.00	686	6.00	152	8.00	203	2.38	60	14.00	356	1.00	25	20.00	508
4HWF1M-1500-35	25.50	648	27.00	686	6.00	152	8.00	203	2.38	60	14.00	356	1.00	25	20.00	508
4HWF2M-2000-25	26.25	667	28.00	711	6.00	152	8.00	203	2.38	60	14.00	356	1.00	25	20.00	508
4HWF2M-2000-35	26.25	667	29.75	756	6.00	152	8.00	203	2.38	60	14.00	356	1.00	25	20.00	508
4HWF4M-4000-25	39.00	991	35.00	889	9.63	245	12.00	305	5.13	130	21.00	533	1.00	25	30.50	775
4HWF4M-4000-35	39.00	991	35.00	889	9.63	245	12.00	305	5.13	130	21.00	533	1.00	25	30.50	775
4HWF6M-6000-25	41.00	1,041	36.00	914	9.63	245	12.00	305	5.13	130	21.00	533	1.00	25	30.50	775
4HWF6M-6000-35	41.00	1,041	39.00	991	9.63	245	12.00	305	5.13	130	21.00	533	1.00	25	30.50	775
4HWF8M-8000-25	50.00	1,270	43.50	1,105	12.00	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HWF8M-8000-35	50.00	1,270	45.50	1,156	12.00	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673

	L		M		N		P		R		S (Hole Dia.)		V		Ship. Wt.	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
4HWF1M-1500-25	10.00	254	7.56	192	0.63	16	15.75	400	7.88	200	19/32	15	—	—	190	87
4HWF1M-1500-35	10.00	254	7.56	192	0.63	16	15.75	400	7.88	200	19/32	15	—	—	190	87
4HWF2M-2000-25	10.00	254	7.56	192	0.63	16	15.75	400	7.88	200	19/32	15	—	—	240	109
4HWF2M-2000-35	10.00	254	7.56	192	0.63	16	15.75	400	7.88	200	19/32	15	—	—	240	109
4HWF4M-4000-25	15.25	387	11.50	292	1.00	25	24.00	610	12.00	305	7/8	22	—	—	480	218
4HWF4M-4000-35	15.25	387	11.50	292	1.00	25	24.00	610	12.00	305	7/8	22	—	—	480	218
4HWF6M-6000-25	15.25	387	11.50	292	1.00	25	24.00	610	12.00	305	7/8	22	—	—	650	295
4HWF6M-6000-35	15.25	387	11.50	292	1.00	25	24.00	610	12.00	305	7/8	22	—	—	710	323
4HWF8M-8000-25	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1-1/8	29	39.75	1,010	1,120	509
4HWF8M-8000-35	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1-1/8	29	39.75	1,010	1,180	536

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

4HWF Series Drum Dimensions



	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)		Fleet Angle Dist (A) ⁴	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4HWF1M	4.50	114	12.00	305	10.00	254	16	4.9
4HWF2M	5.50	140	12.00	305	10.00	254	16	4.9
4HWF4M	7.00	178	18.00	457	16.00	406	26	7.9
4HWF6M	9.00	229	18.00	457	16.00	406	26	7.9
4HWF8M	10.75	273	22.00	559	20.00	508	32	9.8

⁴ Recommended minimum distance between drum and lead sheave for smooth drum. Dimensions are for reference only and subject to change without notice. Please contact factory for exact dimensions.

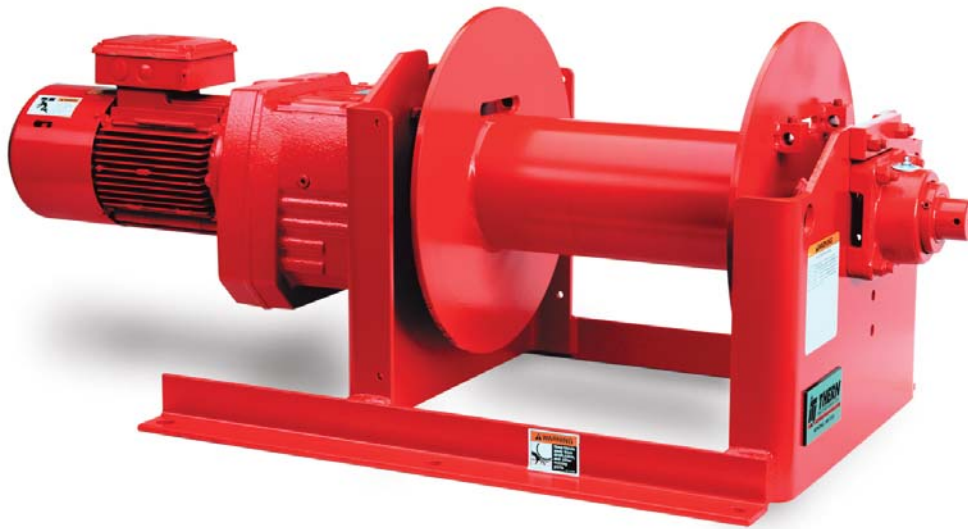


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4HPF SERIES

Thern 4HPF series power winches feature helical/parallel, high efficiency gearing making them ideal for applications requiring long travel distances and faster line speeds. The enclosed, direct-drive gearing design delivers dependable operation and helps reduce maintenance, while a modular design means we can easily customize these winches to meet your exact specifications.



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WELDED STEEL DRUM with outside flange anchors allow for uniform winding and help extend life of wire rope. Anchors allow cable to be over wound or under wound from either side of the drum.

EXTENDED SOLID STEEL DRUM SHAFT for uniform loading.

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FLANGE MOUNTED MOTOR is a 230/460 volt 3 phase, 60 cycle, IP 55, TEFC severe duty, reversible, class F insulated, continuous duty brakemotor.

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2 YEAR "MOVE IT WITH CONFIDENCE" LIMITED WARRANTY leads the industry.



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4HPF SERIES

	Clutch Option	HP	Load Rating	Line Speed
4HPF2M	4HPF2MC	1 - 2	2,000 lb	20 - 35 fpm
4HPF3M	4HPF3MC	1.5 - 3	3,000 lb	20 - 35 fpm
4HPF5M	4HPF5MC	3 - 5	5,000 lb	20 - 35 fpm
4HPF7M	4HPF7MC	5 - 7.5	7,000 lb	25 - 40 fpm
4HPF9M	4HPF9MC	5 - 10	9,000 lb	20 - 40 fpm
4HPF15M	4HPF15MC	10 - 15	15,000 lb	20 - 35 fpm
4HPF20M	-	10 - 25	20,000 lb	20 - 40 fpm
4HPF25M	-	15 - 30	25,000 lb	20 - 40 fpm

OPTIONS AND ACCESSORIES

DRUM MODIFICATIONS (A) include grooved drums, multiple compartment drums and modified drum widths and diameters.

MANUALLY OPERATED JAW CLUTCH (B) disengages for rapid payout of wire rope when not under load. Adjustable drag brake on the drum prevents over-spooling during payout. Clutch option is for horizontal pulling only.

WINCH MOUNTING OPTIONS include base, wall or under hung installation.

CABLE PRESSURE BARS (C) help maintain uniform winding of wire rope.

LIMIT SWITCHES (D) provide secondary shut-off for load travel in one or two directions.

MOTOR OPTIONS include air or hydraulic, voltage or phase changes, IP 65, class F or H insulated and multi-speed operation.

DUTY RATINGS include IEEE 45 marine duty, tropical duty, severe duty and explosion proof ratings.

BRAKE OPTIONS include over-speed, caliper style, band, and more.

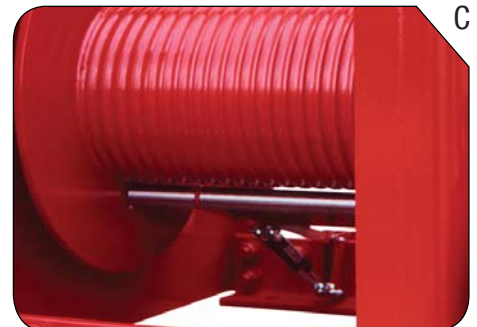
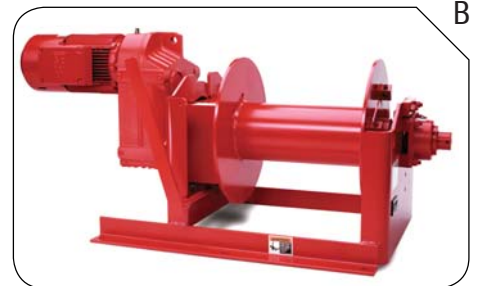
CONTROLS (E) are available in a wide range of standard and custom configurations for single or variable speed.

CORROSION RESISTANT FINISHES for harsh or hazardous environments.

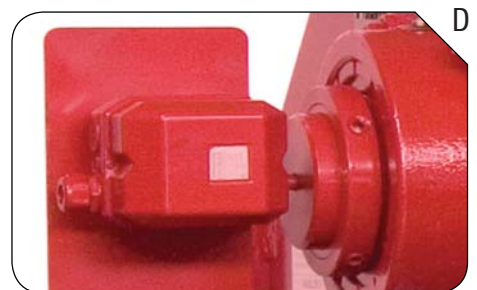
MANUAL OVERRIDES for winch operation in power loss situations.



Shown with double compartment drum modification.



Shown with cable pressure bar and grooved drum modification.



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4HPF SERIES POWER WINCHES

4HPF Series Performance Characteristics

	Model Number Extensions			Motor hp	Load Rating						Line Speed			
	Load Rating	Line Speed	Motor Codes ¹	hp	1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum	
	(lb)	(fpm)			(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)
4HPF2M	2000	20	D, E, F	1	2,100	953	1,300	590	1,000	454	17	5.2	38	11.6
4HPF2M	2000	35	D, E, F	2	2,100	953	1,300	590	1,000	454	34	10.4	76	23.2
4HPF3M	3000	20	D, E, F	1.5	3,000	1,361	2,100	953	1,600	726	19	5.8	33	10.1
4HPF3M	3000	35	D, E, F	3	3,300	1,497	2,300	1,044	1,800	817	33	10.1	59	18.0
4HPF5M	5000	20	D, E, F	3	5,000	2,268	3,100	1,407	2,300	1,044	22	6.7	49	14.9
4HPF5M	5000	35	D, E, F	5	5,000	2,268	3,100	1,407	2,300	1,044	37	11.3	81	24.7
4HPF7M	7000	25	D, E, F	5	7,300	3,312	5,400	2,450	4,300	1,951	24	7.3	40	12.2
4HPF7M	7000	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	9000	20	D, E, F	5	9,000	4,083	6,500	2,949	5,100	2,314	21	6.4	37	11.3
4HPF9M	9000	40	D, E, F	10	9,000	4,083	6,500	2,949	5,100	2,314	41	12.5	73	22.3
4HPF15M	15000	25	D, E, F	10	14,300	6,487	10,900	4,945	8,800	3,992	26	7.9	41	12.5
4HPF15M	15000	35	D, E, F	15	15,100	6,850	11,500	5,217	9,300	4,219	36	11.0	59	18.0
4HPF20M	20000	20	D, E, F	10	20,100	9,118	14,100	6,396	10,800	4,899	17	5.2	31	9.4
4HPF20M	20000	40	D, E, F	25	20,100	9,118	14,000	6,351	10,800	4,899	43	13.1	81	24.7
4HPF25M	25000	20	D, E, F	15	25,200	11,431	19,200	8,710	15,500	7,031	20	6.1	32	9.8
4HPF25M	25000	40	D, E, F	30	25,000	11,340	19,000	8,619	15,400	6,986	42	12.8	68	20.7
4HPF2MC ²	2000	20	D, E, F	1	2,100	953	1,300	590	1,000	454	17	5.2	38	11.6
4HPF2MC ²	2000	35	D, E, F	2	2,100	953	1,300	590	1,000	454	34	10.4	75	22.9
4HPF3MC ²	3000	20	D, E, F	1.5	3,300	1,497	2,300	1,044	1,800	817	17	5.2	60	18.3
4HPF3MC ²	3000	35	D, E, F	3	3,300	1,497	2,300	1,044	1,800	817	34	10.4	61	18.6
4HPF5MC ²	5000	20	D, E, F	3	5,000	2,268	3,100	1,407	2,300	1,044	21	6.4	45	13.7
4HPF5MC ²	5000	35	D, E, F	5	5,000	2,268	3,100	1,407	2,300	1,044	36	11.0	80	24.4
4HPF7MC ²	7000	25	D, E, F	5	7,300	3,312	5,400	2,450	4,300	1,951	25	7.6	42	12.8
4HPF7MC ²	7000	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 ²	9000	20	D, E, F	5	9,000	4,083	6,500	2,949	5,100	2,314	21	6.4	37	11.3
4HPF9MC ²	9000	40	D, E, F	10	9,000	4,083	6,500	2,949	5,100	2,314	41	12.5	73	22.3
4HPF15MC ²	15000	20	D, E, F	10	15,100	6,850	11,500	5,217	9,300	4,219	22	6.7	36	11.0
4HPF15MC ²	15000	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 factory or nearest Thern Distributor for firm fixed price and delivery.

² Manual clutch models.

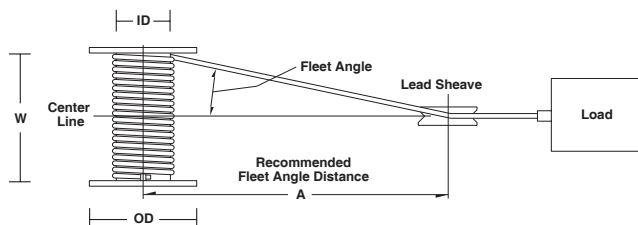
¹

Motor Codes		
D	230 volt	3 phase
E	460 volt	3 phase
F	All other voltages please contact factory	

4HPF Series Drum Dimensions

	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)		Fleet Angle Dist (A) ³	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4HPF2M	4.50	114	12.00	305	10.00	254	16	4.9
4HPF3M	5.50	140	12.00	305	10.00	254	16	4.9
4HPF5M	7.00	178	18.00	457	16.00	406	26	7.9
4HPF7M	9.00	229	18.00	457	16.00	406	26	7.9
4HPF9M	10.75	273	22.00	559	20.00	508	32	9.8
4HPF15M	11.50	292	22.00	559	20.00	508	32	9.8
4HPF20M	14.00	356	30.00	762	30.00	762	48	14.6
4HPF25M	16.00	406	30.00	762	30.00	762	48	14.6

³ Recommended minimum distance between drum and lead sheave for smooth drum. Dimensions are for reference only and subject to change without notice. Please contact factory for exact dimensions.



Electric Motor Controls

	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 factory or nearest Thern Distributor for firm fixed price and delivery.

All prices include mounting and wiring to motor.



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4HPF SERIES POWER WINCHES

4HPF Series Drum Capacities

Wire Rope Dia.		Breaking Strength ⁴		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)
1/4	6.4	7,000 ⁵	3,175	1st	43	13.1	51	15.5	—	—	—	—	—	—	—	—	—	—	—	—
				Mid	370	112.8	340	103.6	—	—	—	—	—	—	—	—	—	—	—	—
				Full	830	253.0	750	228.6	—	—	—	—	—	—	—	—	—	—	—	—
5/16	7.9	9,800 ⁵	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	—	—	—	—	—	—	—	—	—	—
3/8	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	—	—	—	—	—	—	—	—
1/2	12.7	26,600	12,066	1st	—	—	—	—	52	15	66	20.1	—	—	—	—	—	—	—	—
				Mid	—	—	—	—	400	121	350	106.7	—	—	—	—	—	—	—	—
				Full	—	—	—	—	890	271	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	189.0	1,210	368.8	—	—	—	—	—	—
5/8	16.0	41,200	18,688	1st	—	—	—	—	—	—	51	15.5	78	23.8	84	25.6	—	—	—	—
				Mid	—	—	—	—	—	—	230	70.1	440	134.1	420	128.0	—	—	—	—
				Full	—	—	—	—	—	—	510	155.5	990	301.8	940	286.5	—	—	—	—
3/4	19.1	58,800	26,671	1st	—	—	—	—	—	—	—	—	65	19.8	69	21.0	130	39.6	—	—
				Mid	—	—	—	—	—	—	—	—	310	94.5	300	91.4	930	283.5	—	—
				Full	—	—	—	—	—	—	—	—	700	213.4	660	201.2	2,070	630.9	—	—
7/8	22.4	79,600	36,106	1st	—	—	—	—	—	—	—	—	54	16.5	57	17.4	110	33.5	—	—
				Mid	—	—	—	—	—	—	—	—	230	70.1	210	64.0	670	204.2	—	—
				Full	—	—	—	—	—	—	—	—	500	152.4	480	146.3	1,490	454.2	—	—
1	25.4	103,400	46,902	1st	—	—	—	—	—	—	—	—	47	14.3	57	17.4	97	29.6	110	33.5
				Mid	—	—	—	—	—	—	—	—	180	54.9	210	64.0	520	158.5	470	143.3
				Full	—	—	—	—	—	—	—	—	390	118.9	480	146.3	1,160	353.6	1,050	320.0
1-1/8	28.7	130,000	58,968	1st	—	—	—	—	—	—	—	—	—	—	—	—	85	25.9	96	29.3
				Mid	—	—	—	—	—	—	—	—	—	—	—	—	420	128.0	380	115.8
				Full	—	—	—	—	—	—	—	—	—	—	—	—	920	280.4	840	256.0
1-1/4	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
1-3/8	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
1-1/2	38.1	228,000	103,420	1st	—	—	—	—	—	—	—	—	—	—	—	—	—	—	69	21.0
				Mid	—	—	—	—	—	—	—	—	—	—	—	—	—	—	210	64.0
				Full	—	—	—	—	—	—	—	—	—	—	—	—	—	—	470	143.3

⁴ Values based on 6x37 IWRC EIPS wire rope.

⁵ 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.

IMPORTANT:

It is the owner's 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.

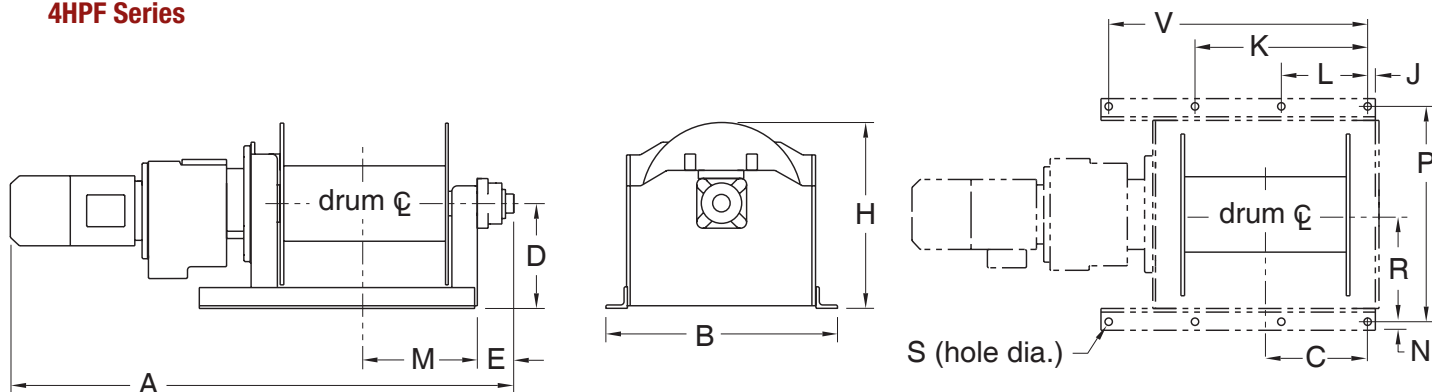


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4HPF SERIES POWER WINCHES

4HPF Series



4HPF Series Winch Dimensions

	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	17.00	432	6.56	167	8.00	203	2.38	60	14.50	368	1.00	25	20.00	508
4HPF2M-2000-35	39.00	991	17.00	432	6.56	167	8.00	203	2.38	60	14.50	368	1.00	25	20.00	508
4HPF3M-3000-20	42.00	1,067	17.00	432	6.56	167	8.00	203	2.38	60	14.25	362	1.00	25	20.00	508
4HPF3M-3000-35	42.00	1,067	17.00	432	6.56	167	8.00	203	2.38	60	14.25	362	1.00	25	20.00	508
4HPF5M-5000-20	54.50	1,384	26.00	660	9.63	245	12.00	305	5.13	130	21.00	533	1.00	25	30.50	775
4HPF5M-5000-35	54.50	1,384	26.00	660	9.63	245	12.00	305	5.13	130	21.00	533	1.00	25	30.50	775
4HPF7M-7000-25	56.00	1,422	26.00	660	9.63	245	12.00	305	5.13	130	21.00	533	1.00	25	30.50	775
4HPF7M-7000-40	59.00	1,499	26.00	660	9.63	245	12.00	305	5.13	130	21.00	533	1.00	25	30.50	775
4HPF9M-9000-20	64.50	1,638	31.00	787	12.00	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HPF9M-9000-40	69.50	1,765	31.00	787	12.00	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HPF15M-15000-25	71.50	1,816	31.00	787	12.00	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HPF15M-15000-35	74.00	1,880	31.00	787	12.00	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HPF20M-20000-20	90.00	2,286	43.00	1,092	18.88	480	19.50	495	6.75	171	34.50	876	1.50	38	32.00	813
4HPF20M-20000-40	97.00	2,464	43.00	1,092	18.88	480	19.50	495	6.75	171	34.50	876	1.50	38	32.00	813
4HPF25M-25000-20	94.00	2,388	43.00	1,092	18.88	480	19.50	495	6.75	171	34.50	876	1.50	38	32.00	813
4HPF25M-25000-40	100.00	2,540	43.00	1,092	18.88	480	19.50	495	6.75	171	34.50	876	1.50	38	32.00	813

	L		M		N		P		R		S (Hole Dia.)		V		Ship Wt.	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
4HPF2M-2000-20	10.00	254	7.56	192	0.63	16	15.75	400	7.86	200	¹⁹ / ₃₂	15	—	—	170	78
4HPF2M-2000-35	10.00	254	7.56	192	0.63	16	15.75	400	7.86	200	¹⁹ / ₃₂	15	—	—	200	91
4HPF3M-3000-20	10.00	254	7.56	192	0.63	16	15.75	400	7.86	200	¹⁹ / ₃₂	15	—	—	250	114
4HPF3M-3000-35	10.00	254	7.56	192	0.63	16	15.75	400	7.86	200	¹⁹ / ₃₂	15	—	—	260	118
4HPF5M-5000-20	15.25	387	11.50	292	1.00	25	24.00	610	12.00	305	⁷ / ₈	22	—	—	500	227
4HPF5M-5000-35	15.25	387	11.50	292	1.00	25	24.00	610	12.00	305	⁷ / ₈	22	—	—	500	227
4HPF7M-7000-25	15.25	387	11.50	292	1.00	25	24.00	610	12.00	305	⁷ / ₈	22	—	—	650	295
4HPF7M-7000-40	15.25	387	11.50	292	1.00	25	24.00	610	12.00	305	⁷ / ₈	22	—	—	760	345
4HPF9M-9000-20	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1 ¹ / ₈	29	39.75	1,010	1,000	454
4HPF9M-9000-40	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1 ¹ / ₈	29	39.75	1,010	1,120	509
4HPF15M-15000-25	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1 ¹ / ₈	29	39.75	1,010	1,340	608
4HPF15M-15000-35	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1 ¹ / ₈	29	39.75	1,010	1,370	622
4HPF20M-20000-20	16.00	406	21.00	533	1.50	38	40.00	1,016	20.00	508	1 ³ / ₈	35	48.00	1,219	2,400	1,089
4HPF20M-20000-40	16.00	406	21.00	533	1.50	38	40.00	1,016	20.00	508	1 ³ / ₈	35	48.00	1,219	2,620	1,189
4HPF25M-25000-20	16.00	406	21.00	533	1.50	38	40.00	1,016	20.00	508	1 ³ / ₈	35	48.00	1,219	3,190	1,447
4HPF25M-25000-40	16.00	406	21.00	533	1.50	38	40.00	1,016	20.00	508	1 ³ / ₈	35	48.00	1,219	3,440	1,561

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

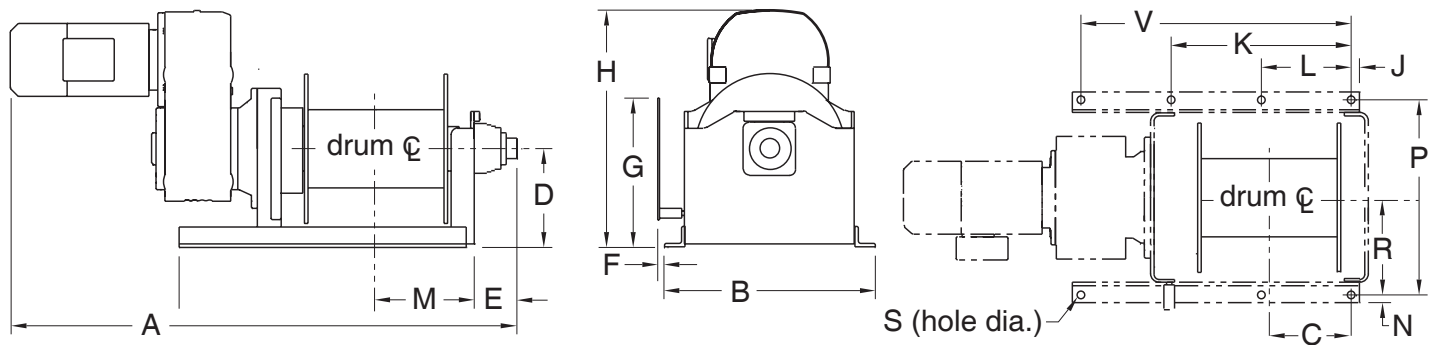


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4HPF SERIES POWER WINCHES

4HPFC Series



4HPFC Series Winch Dimensions

	A		B		C		D		E		F		G		H		J	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4HPF2MC-2000-20	38.50	978	17.00	432	6.00	152	8.00	203	2.38	60	0.88	23	19.88	505	17.00	432	1.00	25
4HPF2MC-2000-35	40.00	1,016	17.00	432	6.00	152	8.00	203	2.38	60	0.88	23	19.88	505	17.00	432	1.00	25
4HPF3MC-3000-20	41.00	1,041	17.00	432	6.00	152	8.00	203	2.38	60	0.88	23	19.88	505	18.25	464	1.00	25
4HPF3MC-3000-35	43.00	1,092	17.00	432	6.00	152	8.00	203	2.38	60	0.88	23	19.88	505	18.25	464	1.00	25
4HPF5MC-5000-20	55.00	1,397	26.00	660	9.63	245	12.00	305	5.13	130	—	—	22.25	565	24.25	616	1.00	25
4HPF5MC-5000-35	55.00	1,397	26.00	660	9.63	245	12.00	305	5.13	130	—	—	22.25	565	24.25	616	1.00	25
4HPF7MC-7000-25	56.00	1,422	26.00	660	9.63	245	12.00	305	5.13	130	—	—	22.25	565	27.00	686	1.00	25
4HPF7MC-7000-40	58.50	1,486	26.00	660	9.63	245	12.00	305	5.13	130	—	—	22.25	565	27.00	686	1.00	25
4HPF9MC-9000-20	66.00	1,676	31.00	787	12.00	305	14.50	368	6.25	159	—	—	22.00	559	32.00	813	1.25	32
4HPF9MC-9000-40	71.00	1,803	31.00	787	12.00	305	14.50	368	6.25	159	—	—	22.00	559	32.00	813	1.25	32
4HPF15MC-15000-25	72.50	1,842	31.00	787	12.00	305	14.50	368	6.25	159	—	—	22.00	559	35.00	889	1.25	32
4HPF15MC-15000-35	74.50	1,892	31.00	787	12.00	305	14.50	368	6.25	159	—	—	22.00	559	35.00	889	1.25	32

	K		L		M		N		P		R		S (Hole Dia.)		V		Ship Wt.	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
4HPF2MC-2000-20	20.00	508	10.00	254	7.56	192	0.63	16	15.75	400	7.88	200	19/32	15	—	—	270	123
4HPF2MC-2000-35	20.00	508	10.00	254	7.56	192	0.63	16	15.75	400	7.88	200	19/32	15	—	—	300	137
4HPF3MC-3000-20	20.00	508	10.00	254	7.56	192	0.63	16	15.75	400	7.88	200	19/32	15	—	—	280	128
4HPF3MC-3000-35	20.00	508	10.00	254	7.56	192	0.63	16	15.75	400	7.88	200	19/32	15	—	—	300	137
4HPF5MC-5000-20	30.50	775	15.25	387	11.50	292	1.00	25	24.00	610	12.00	305	7/8	22	—	—	550	250
4HPF5MC-5000-35	30.50	775	15.25	387	11.50	292	1.00	25	24.00	610	12.00	305	7/8	22	—	—	550	250
4HPF7MC-7000-25	30.50	775	15.25	387	11.50	292	1.00	25	24.00	610	12.00	305	7/8	22	—	—	700	318
4HPF7MC-7000-40	30.50	775	15.25	387	11.50	292	1.00	25	24.00	610	12.00	305	7/8	22	—	—	760	345
4HPF9MC-9000-20	26.50	673	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1-1/8	29	39.75	1,010	1,250	567
4HPF9MC-9000-40	26.50	673	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1-1/8	29	39.75	1,010	1,360	617
4HPF15MC-15000-25	26.50	673	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1-1/8	29	39.75	1,010	1,580	717
4HPF15MC-15000-35	26.50	673	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1-1/8	29	39.75	1,010	1,620	735

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

IMPORTANT:

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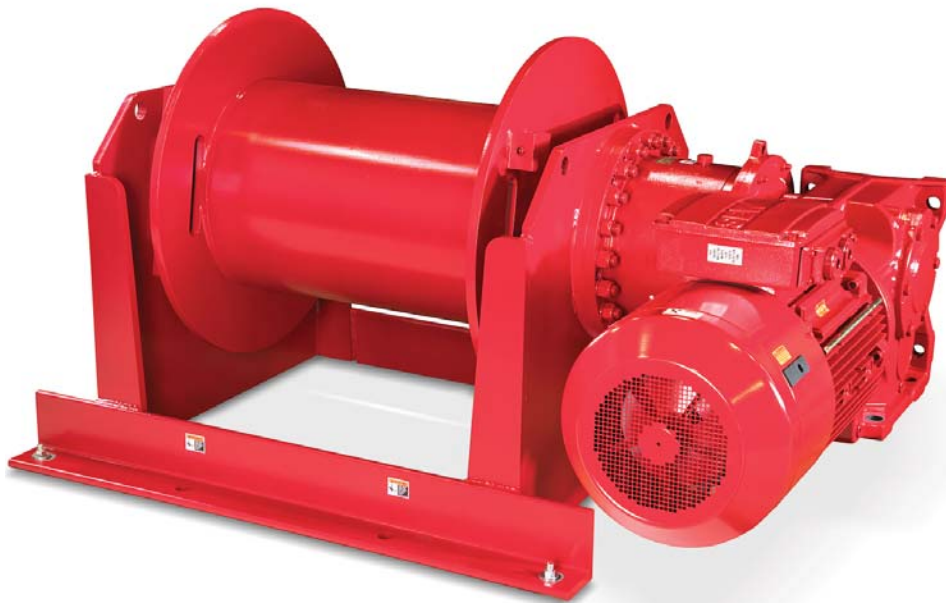
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4HBP SERIES

capacity up to 100,000 lbs

Thern 4HBP series power winches feature high efficiency helical-bevel/planetary gearing making them ideal for heavy-duty applications requiring long travel distances and quick line speeds.

The enclosed, direct-drive gearing design delivers dependable operation and helps reduce maintenance, while a modular design means we can easily customize these winches to meet exact specifications.



WELDED STEEL DRUM with flange anchors allow for uniform winding and help extend life of wire rope. Anchors allow cable to be over wound or under wound from either side of the drum.

CONTINUOUS SOLID STEEL DRUM SHAFT for uniform loading.

WIRE ROPE ASSEMBLIES sold separately per customer request.

ANSI B30.7 COMPLIANCE is available. Please contact the factory.

2 YEAR MOVE IT WITH CONFIDENCE LIMITED WARRANTY leads the industry.

FLANGE MOUNTED MOTOR is a 230/460 volt 3 phase, 60 cycle, IP 54, TEFC severe duty, reversible, class F insulated, continuous duty braked motor.

Standard motors comply with relevant standards including NEMA, MG1, ANSI, CSA, IEC and ABS.

LOAD HOLDING MOTOR DISC BRAKE is spring set, electrically released for positive load control.

DIRECT DRIVE GEAR REDUCER with helical-bevel/planetary gearing delivers high efficiencies up to 88% making winches well suited for heavy-duty applications requiring long travel distances and faster line speeds.

The heat treated helical-bevel/planetary gear set provides improved durability and operates in an oil bath, enclosed in a high strength cast iron gear case, SAE class 30. Double-lip oil seals keep oil in and contaminants out. Large capacity bearings ensure long life. Speed reducers meet AGMA standards.

PLANETARY GEAR DRIVE is a compact design that results in a lighter weight winch compared to conventional gearing. Planetary gearing also provides a high peak load capacity.

FLANGE STYLE ROLLER BEARINGS are self-aligning with cast housings to maintain smooth drum rotation.



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4HBP SERIES

capacity up to 100,000 lbs

	Load Rating	Line Speed
4HBP Series	35,000 - 100,000 lbs	up to 70 fpm

OPTIONS AND ACCESSORIES

DRUM MODIFICATIONS (A) include grooved drums, multiple compartment drums and modified drum widths and diameters.

WINCH MOUNTING OPTIONS include base, wall or under hung installation.

CABLE PRESSURE BARS (B) help maintain uniform winding of wire rope.

LIMIT SWITCHES (C) provide secondary shut-off for load travel in one or two directions.

MOTOR OPTIONS include air or hydraulic, voltage or phase changes, IP 55 or IP65, Class H insulated and multi-speed operation.

DUTY RATINGS include IEEE 45 marine duty, tropical duty, severe duty and explosion proof ratings.

BRAKE OPTIONS include over-speed, caliper style, band, and more.

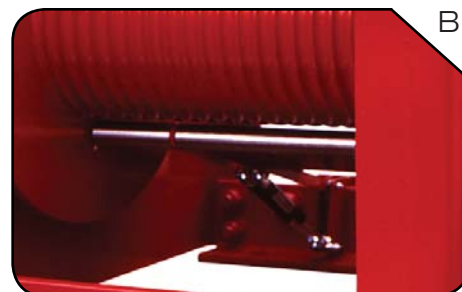
CONTROLS (D) are available in a wide range of standard and custom configurations for single or variable speed.

CORROSION RESISTANT FINISHES for harsh or hazardous environments.

MANUAL OVERRIDES for winch operation in power loss situations.



Shown with double compartment drum modification.



Shown with cable pressure bar and grooved drum modification.



Shown with RLS option.



Standard control option.



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CUSTOM APPLICATIONS

TUG BOAT TOW WINCH OIL REFINERY DOCKING TERMINAL



PROBLEM

to tow large vessels into port during docking operations.

SOLUTION

large capacity winch designed for heavy load handling in saltwater environment.

PRODUCT FEATURES

- Load Rating: 50,000 lb
- Line Speed: 25 fpm
- Travel Distance: 1,500 ft
- Power: 408 VAC, 3 Phase
- Large capacity drum to accommodate long travel distances.
- Stainless steel level wind for uniform spooling of cable onto drum.
- Double disc brake for additional static load holding capacity.
- Epoxy finish for corrosion resistance in marine environment.
- ABS design compliance

TOWED ARRAY SLIP RING WINCH FOREIGN NAVY



PROBLEM

deploying and retrieving underwater sensor equipment.

SOLUTION

custom winch fitted with slip ring and level wind to receive feedback.

PRODUCT FEATURES

- Load Rating: 3,000 lb
- Line Speed: 190 fpm
- Travel Distance: 1,300 ft
- Power: 440 VAC, 3 phase
- Slip ring to receive electronic feedback from towed array.
- Level wind to ensure uniform spooling of cable.
- Variable speed drive for precise control of load.
- Large diameter drum for faster line speeds.
- Epoxy finish for corrosion resistance in saltwater environment.

ANNEALING FURNACE DOOR WINCH FLAT ROLLED STEEL MILL

PROBLEM

to simultaneously lift multiple doors on furnace during the annealing process.

SOLUTION

single drum winch system to lift different sized doors in unison.



PRODUCT FEATURES

- Load Rating: 2,000 lb
- Line Speed: 28 fpm and 56 fpm
- Travel Distance: 14 ft and 6 ft
- Power: 460 VAC, 3 phase
- 4-drum compartments with different diameters for different line speeds.
- Grooved drums with pressure roller bars for uniform winding of wire rope.
- Extended drum with two compartments at each end to separate cable center lines.
- Drum guard to help prevent injury.
- Slack line detector to prevent shock load if doors jam while lowering.
- Rotary and paddle style limit switches to provide automatic shut off with overtravel protection.



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CUSTOM APPLICATIONS

SCREEN RAKE LIFTING WINCH METROPOLITAN WATER DISTRICT



PROBLEM

to lift screen rakes out of water canal for removal of debris.

SOLUTION

electric winch system with two part rigging and custom bolt hole pattern to meet existing requirements.

PRODUCT FEATURES

- Load Rating: 9,000 lb to deliver 18,000 lb with two-part rigging
- Line Speed: 10 fpm
- Travel Distance: 17 ft
- Power: 460 VAC, 3 Phase
- Narrow drum to accommodate short fleet angle distance.
- Epoxy finish for durability in corrosive environment.

CONVEYOR MAINTENANCE WINCH COAL MINE IN WYOMING

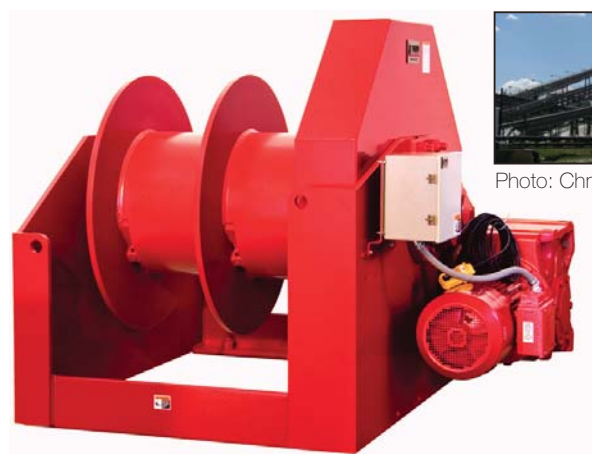


Photo: Chmee

PROBLEM

to lift a 50 ton conveyor counterweight in gravity take up tower during routine conveyor maintenance.

SOLUTION

winch mounted at top of tower with two separate two-part rigging lines to load.

PRODUCT FEATURES

- Load Rating: 56,000 lb to deliver 100,000 lb with two-part rigging
- Line Speed: 18 fpm
- Travel Distance: 50 ft
- Power: 460 VAC, 3 phase
- Dual compartment drum for two lift lines.
- Controls with pendant for remote operation.

RAIL CAR PULLING WINCH SHIP UNLOADING TERMINAL IN CHILE



Photo: Chris McKenna

PROBLEM

to position up to ten railcars during loading and unloading process.

SOLUTION

closed loop, single winch system to move large loads in two directions.

PRODUCT FEATURES

- Load Rating: 30,000 lb
- Line Speed: 40 fpm
- Travel Distance: 625 ft
- Power: 380 VAC, 3 phase, 50 hertz.
- Extended grooved drum for single layer wrapping and uniform speed.
- Chain driven rotary limit switch to limit travel in both directions.
- Epoxy gray finish for improved corrosion resistance in marine environment.



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CUSTOM APPLICATIONS

SUBMERGED LID LIFTING WINCH NUCLEAR POWER PLANT

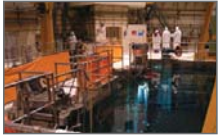


Photo: Simone Ramella

PROBLEM

to raise hinged lids during removal of fuel rods from cylinders in a cooling pool.

SOLUTION

overhead mounted winch to provide smooth lifting control.



PRODUCT FEATURES

- Load Rating: 4,000 lb
- Line Speed: 10 fpm
- Travel Distance: 8 ft
- Power: 460 VAC, 3 phase
- Variable speed controls for smooth operation and overload protection.
- Stainless steel drum and white epoxy finish for corrosion resistance.
- Rotary limit switch to limit travel in both directions.
- Grooved drum for uniform winding of wire rope.

LAUNCH WAY RETRIEVAL WINCH BARGE MANUFACTURER



Photo: Alexander Solch

PROBLEM

to pull barges into position during production at ship building and repair facility.

SOLUTION

large capacity winch system to move barges.



PRODUCT FEATURES

- Load Rating: 20,000 lb
- Line Speed: 54 fpm
- Travel Distance: 600 ft
- Power: 460 VAC, 3 phase
- Manual clutch to disengage drum for quick payout of unloaded cable.
- Level wind to accommodate short fleet angle distances.

DREDGE POSITIONING WINCHES COUNTY WATER DISTRICT

PROBLEM

economical continuous back and forth positioning of floating dredges in water settling basin.

SOLUTION

multiple winch systems operating simultaneously from different locations around the basin.



PRODUCT FEATURES

- Load Rating: 12,000 lb
- Line Speed: 15 fpm
- Travel Distance: 1,600 ft
- Power: 460 VAC, 3 phase
- Drum guard to help prevent injury.
- Programmable computerized variable speed controls for automatic operation.
- Extended length drum with single layer wrapping for uniform tensioning.

CASCADING CHUTE POSITIONING WINCH BULK HANDLING FACILITY



PROBLEM

to vertically position cascading load out chute during barge loading process.



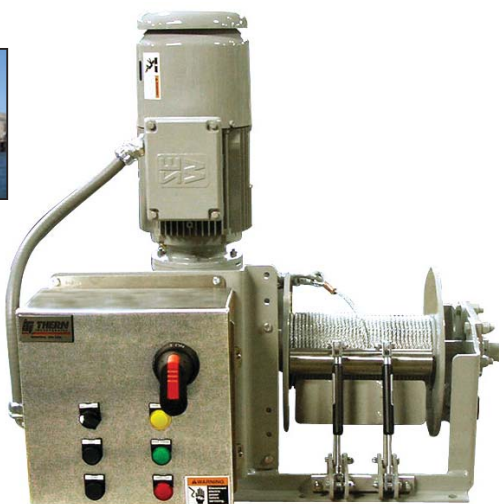
SOLUTION

winch system with two lift lines for controlled positioning of chute.

PRODUCT FEATURES

- Load Rating: 9,800 lb
- Line Speed: 15 fpm
- Travel Distance: 40 ft
- Power: 460 VAC, 3 phase
- Grooved drum for uniform spooling of wire rope.
- Non-standard drum length to increase cable capacity.
- Rotary limit switch to limit travel in both directions.
- Two cable anchors to accommodate two lift lines.
- Custom color epoxy finish to meet customer's safety specifications.

ACCOMMODATION LADDER WINCH SERVICE VESSEL OPERATOR



PROBLEM

to raise and lower service vessel accommodation ladder during boarding and disembarking.

SOLUTION

small, conveniently located winch for controlled positioning of ladder.

PRODUCT FEATURES

- Load Rating: 1,500 lb
- Line Speed: 65 fpm
- Travel Distance: 65 ft
- Power: 460 VAC, 3 phase
- Pressure roller bar for uniform winding of wire rope.
- Stainless steel control enclosure and epoxy finish for corrosion resistance in marine environment.

ORBITER DOOR POSITIONING WINCH AEROSPACE COMPANY



PROBLEM

to open and close large steel orbiter door at launch platform during pre-launch operations.



SOLUTION

closed loop winch system to pull protective door in front of orbiter.

PRODUCT FEATURES

- Load Rating: 65,000 lb
- Line Speed: 13 fpm
- Travel Distance: 63 ft
- Power: 460 VAC, 3 phase
- Single drum with two cable anchors for closed loop operation.
- Grooved drum for uniform winding of cable.
- Rotary limit switch to limit travel in both directions.
- Yellow epoxy finish provides protection in harsh environment.
- Variable speed controls with encoder for accurate positioning and soft starting and stopping.



TA2.5 shown with auto band brake, drum guard and line guide.

Let Us Raise Your Expectations.

Winches built to last from a brand that's known to perform. The "Big Red" TA series Air winches from Thern fuse a field proven radial piston motor with industrial grade welded steel construction for ultimate dependability. Whether you're dealing with heat, frost, dust, sand or salt, if you're counting on anything less than a Thern Big Red winch, you're counting on trouble.

Much more than reliable, Thern Big Red winches allow you to customize the set up to suit your specific task, giving you the right tool for the job – without paying special mark-ups or facing long lead times. In fact, you'll receive special orders in off-the-shelf time.

You've got a tough job to do, and an even tougher environment to do it in. Luckily, you also have Thern Big Red winches working for you.

QUICK DELIVERY

Order a custom winch and receive it in off-the-shelf time.

RUGGED DESIGN

All Thern air winches are manufactured under strict quality standards to meet industry certifications.

SERVICE

Leading the industry with a two year limited warranty, we're dedicated to providing top-notch customer service.

UTILITY/PERSONNEL

Thern Big Red air winches are available with ABS type approval in utility and personnel rated models.



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Tough conditions demand tough winches – like the Big Red air winches from Thern. Few if any other winches can accommodate such a daunting array of challenges. From blistering heat, bitter cold, salty-aired and sand blown environments associated with oil rigs to the damp, saltwater encrusted working conditions of maritime industries, Thern winches are up to the challenge.



TA5 shown with manual band brake and muffler kit.

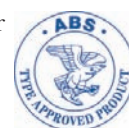


TA5P shown with manual band brake and auto disc brake.



Big Red Seeks Black Gold In Oil And Gas

Oil and gas rigs demand one thing above all else from a winch. Reliability. When you're hours from anywhere, failure is not an option. Whether you're setting up the rig, pulling pipe, moving materials, positioning equipment or just putting in an honest day's work, you'll want the Thern ABS type approved Big Red or Big Red Rider at your command for utility and personnel lifting. These are heavy-duty winches, even by heavy-duty standards, with all the power you'll need.



Big Red Digs Deep In Mining

Dust, dirt, grit, grime, moisture and debris come with the territory. Big Red air winches from Thern welcome them all with open arms. Tough as the miners who use them, Big Red Winches are made with heavy-duty welded steel construction. So forge ahead, raise or pull mighty loads with confidence all the livelong day. Big Red will never let you down.

Big Red Meets Deep Blue In Marine

Add water, and suddenly your job gets a lot tougher. This makes working in a shipyard among the most demanding environments imaginable. Moisture makes things slip, corrode and fail, unless you're talking about Thern Big Red air winches. Thern excels in marine operations. Whether it's laying pipe, positioning barges, or lifting and positioning propellers and rudders, you can count on Thern to be in ship shape condition and up to the task.

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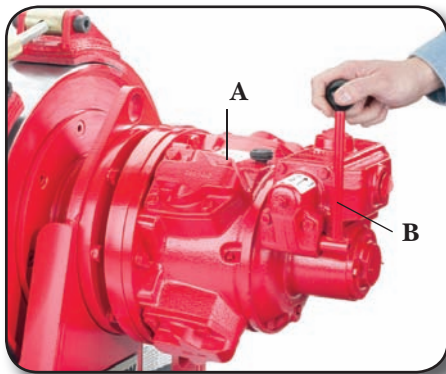


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Everything You Need, More Than You Expect.

	Model	Drum Width (inches)				HP	Winch Load Rating (Full Drum)	Winch Line Speed
		16	24	30	36			
UTILITY	TA2 Series	●	●	-	-	7.1	4,700 lbs	30-46 fpm
	TA2H Series	●	●	-	-	7.1	2,400 lbs	61-94 fpm
	TA2.5 Series	●	●	-	-	18.3	5,000 lbs	79-114 fpm
	TA5 Series	●	●	●	-	17.8	11,500 lbs	30-47 fpm
	TA7 Series	-	●	●	●	14.4	15,900 lbs	19-29 fpm



Features and Benefits

Radial Piston Motor (A)

Internally lubricated for reliable power and an exceptionally long service life.

Precise Control Valve (B)

Count on smooth control with variable speed, making it ideal for both precision spotting and long lifts.

Manual Band Brake (C)

The heavy duty, long handled steel band brake requires less force to engage and provides up to 150% holding capacity.



Welded Steel Frame

Captures both drum ends for optimal strength and security.

Planetary Gears

Compact design and high efficiency gearing reduce power loss and heat generation while increasing service life. Gears operate in oil bath. Double lip oil seals keep oil in and contaminants out.

Wire Rope Assemblies

Sold separately. A variety of wire rope assemblies and fittings are available per customer request. Please contact the factory.

Meets ASME 30.7 Requirements

Standard units designed and built to meet this specification.

2-Year Warranty

Leading the industry with our *Move It with Confidence* Two Year Limited Warranty.

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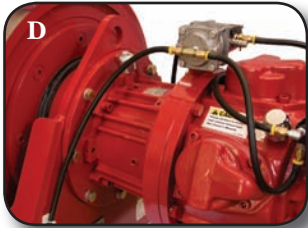
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No One Knows What You Need Better Than You.

Every job is different, so we allow you to build the Thern BIG RED TA Series air winches to suit your specific needs using our extensive line of accessories and options. The better suited the winch, the better completed the task.



Options and Accessories

Automatic Disc Brake (D)

Spring engaged, air pressure released and oil cooled for extended duty cycles and long life.



Automatic Band Brake (E)

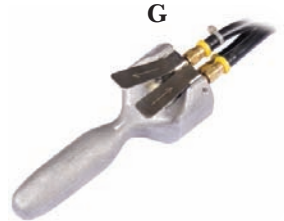
Spring engaged, air pressure released, with heavy-duty construction that provides up to 150% holding capacity (replaces manual brake).

Mufflers (F)

Attached to the exhaust ports to reduce noise.

Control Options (G)

Winch mounted, full flow remote pendant control valve.

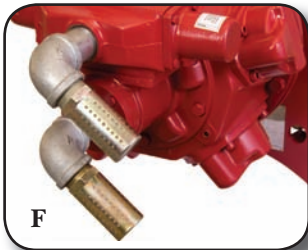


Marine Grade Epoxy

Applied with a zinc primer for ultimate protection in harsh environments.

Drum Guard (H)

Heavy-duty steel mesh helps to protect operators. Adjusts for different rope payout angles.



ABS Type Approvals Available

Please contact factory.



Filter, Regulator and Lubricator (I)

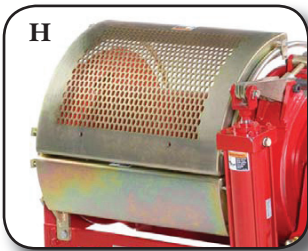
Maintains air quality to the winch. Required for warranty compliance.

Line Guide (J)

Steel construction and hand operated to help wire rope unwind uniformly.

Stackable Construction Winch Cage

Protects motor and winch during operation. Movable with forklift.



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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***	2,041 kg***	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
Minimum Design Temp	(-4°) F	(-20°) C	(-4°) F	(-20°) C	(-4°) F	(-20°) C	(-4°) F	(-20°) C	(-4°) F	(-20°) C

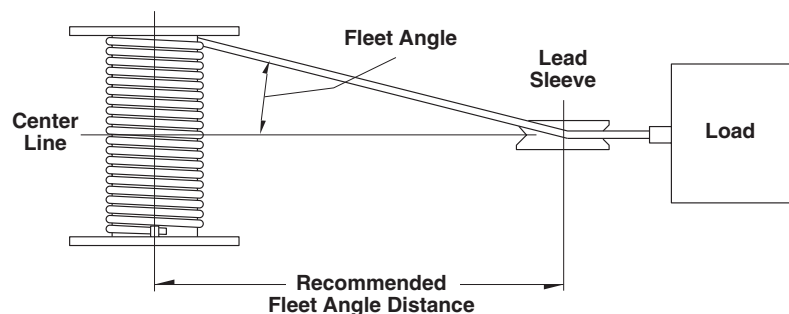
* Line speeds vary based on conditions of air supply. ** ABS certifications may specify slower line speeds than those published due to variances in air flow at time of actual test. *** Estimated Value.

BIG RED TA Series UTILITY RATED Air Winch Drum Capacities*

Drum Width			16 in (407 mm)			24 in (610 mm)			30 in (762 mm)			36 in (915 mm)		
	Rope 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 Series	0.5 12.7	26,600 12,065	83 25	380 115	850 259	130 39	570 173	1,270 387	- -	- -	- -	- -	- -	- -
TA2H Series	0.5 12.7	26,600 12,065	83 25	380 115	850 259	130 39	570 173	1,270 387	- -	- -	- -	- -	- -	- -
TA2.5 Series	0.63 16.0	41,200 18,688	71 21	260 79	580 176	110 33	390 118	860 262	- -	- -	- -	- -	- -	- -
TA5 Series	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 Series	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

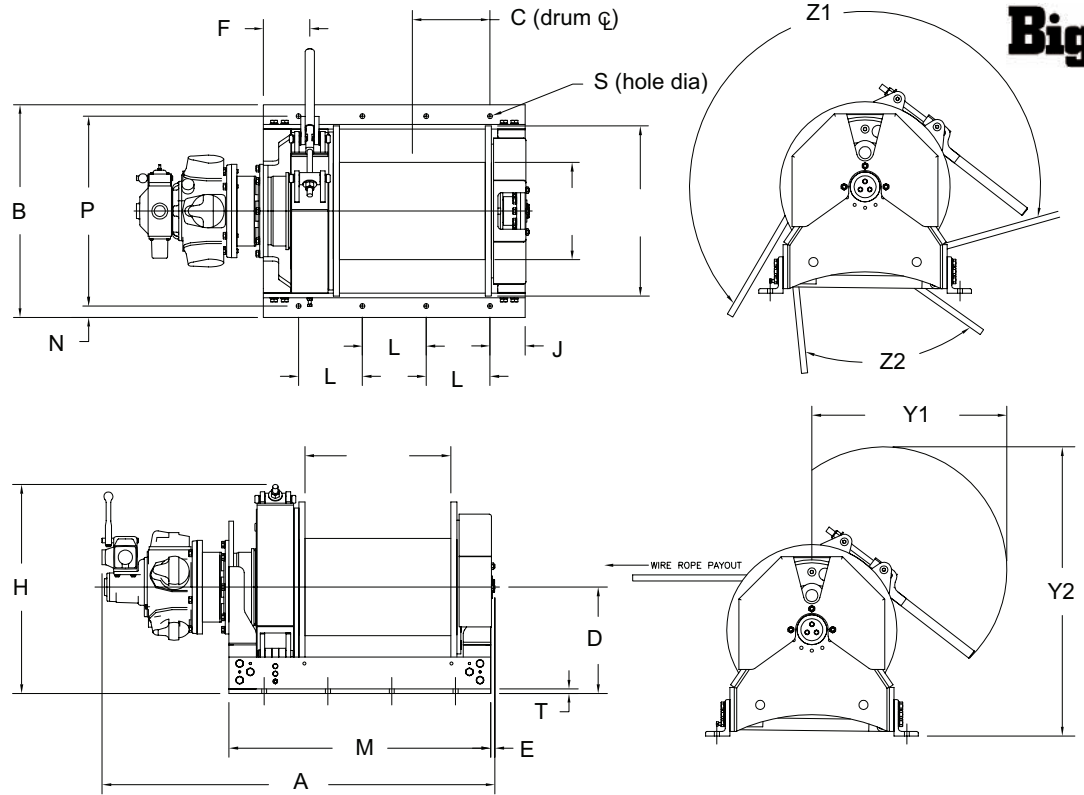
* Drum capacity is based on 0.5 inch flange clearance at top layer per ASME B30.7. ** Values based on 6x37 IWRC EIPS wire rope.

Series	Drum Diameter (in) (mm)	Flange Diameter (in) (mm)	Drum Width (in) (mm)	Fleet Angle Dist. (ft) (m)
TA2-16	11.50 292	20.00 508	16.00 406	26 8
TA2-24	11.50 292	20.00 508	24.00 610	39 12
TA2H-16	11.50 292	20.00 508	16.00 406	26 8
TA2H-24	11.50 292	20.00 508	24.00 610	39 12
TA2.5-16	12.75 324	21.00 533	16.00 406	26 8
TA2.5-24	12.75 324	21.00 533	24.00 610	39 12
TA5-16	16.00 406	28.00 711	16.00 406	26 8
TA5-24	16.00 406	28.00 711	24.00 610	39 12
TA5-30	16.00 406	28.00 711	30.00 762	48 15
TA7-24	20.00 508	33.00 838	24.00 610	39 12
TA7-30	20.00 508	33.00 838	30.00 762	48 15
TA7-36	20.00 508	33.00 838	36.00 914	58 18



Big Red TA Series Air Winches

UTILITY RATED



BIG RED TA Series UTILITY RATED Air Winch Dimensions

	A		B		C		D		E		F		H		J		L		M		N	
Series	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
TA2-16	44.00	1,118	24.00	610	9.06	230	14.00	356	0.54	14	5.25	133	28.50	724	2.88	73	7.50	191	28.50	724	2.00	51
TA2-24	52.00	1,321	24.00	610	12.81	325	14.00	356	0.54	14	5.25	133	28.50	724	3.13	80	10.00	254	36.50	927	2.00	51
TA2H-16	44.00	1,118	24.00	610	9.06	230	14.00	356	0.54	14	5.25	133	28.50	724	2.88	73	7.50	191	28.50	724	2.00	51
TA2H-24	52.00	1,321	24.00	610	12.81	325	14.00	356	0.54	14	5.25	133	28.50	724	3.13	80	10.00	254	36.50	927	2.00	51
TA2.5-16	50.00	1,270	24.00	610	9.00	229	14.00	356	0.73	19	5.25	133	30.00	762	2.88	73	7.50	191	28.50	724	2.00	51
TA2.5-24	58.00	1,473	24.00	610	12.75	324	14.00	356	0.73	19	5.25	133	30.00	762	3.13	80	10.00	254	36.50	927	2.00	51
TA5-16	57.00	1,448	35.00	889	10.53	267	17.50	445	0.68	17	7.75	197	34.50	876	4.03	102	9.00	229	35.50	902	1.88	48
TA5-24	65.00	1,651	35.00	889	12.78	325	17.50	445	0.68	17	7.75	197	34.50	876	5.78	147	10.50	267	43.50	1,105	1.88	48
TA5-30	71.00	1,803	35.00	889	17.03	433	17.50	445	0.68	17	7.75	197	34.50	876	4.53	115	10.00	254	49.50	1,257	1.88	48
TA7-24	69.00	1,753	38.00	965	15.41	391	20.00	508	1.00	25	9.25	235	37.00	940	5.38	137	9.00	229	47.00	1,194	1.88	48
TA7-30	75.00	1,905	38.00	965	17.41	442	20.00	508	1.00	25	9.25	235	37.00	940	6.38	162	10.00	254	53.00	1,346	1.88	48
TA7-36	81.00	2,057	38.00	965	19.41	493	20.00	508	1.00	25	9.25	235	37.00	940	7.38	187	11.00	279	59.00	1,499	1.88	48

	P		S (hole diameter)		T		Y1		Y2		Z1	Z2	# Bolts	Bolt Size	Weight	
Series	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(Degrees)	(Degrees)	-	-	(lb)	(kg)
TA2-16	20.00	508	0.69	18	0.50	13	20.00	508	37.00	940	223	34	8	5 / 8 in - G8	990	450
TA2-24	20.00	508	0.69	18	0.50	13	20.00	508	37.00	940	223	34	8	5 / 8 in - G8	1,080	490
TA2H-16	20.00	508	0.69	18	0.50	13	20.00	508	37.00	940	223	34	8	5 / 8 in - G8	990	450
TA2H-24	20.00	508	0.69	18	0.50	13	20.00	508	37.00	940	223	34	8	5 / 8 in - G8	1,080	490
TA2.5-16	20.00	508	0.69	18	0.50	13	20.00	508	37.00	940	228	27	8	5 / 8 in - G8	1,315	597
TA2.5-24	20.00	508	0.69	18	0.50	13	20.00	508	37.00	940	228	27	8	5 / 8 in - G8	1,400	636
TA5-16	31.45	794	0.81	21	0.75	19	32.50	826	48.00	1,219	224	50	8	3 / 4 in - G8	2,585	1,173
TA5-24	31.45	794	0.81	21	0.75	19	32.50	826	48.00	1,219	224	50	8	3 / 4 in - G8	2,745	1,246
TA5-30	31.45	794	0.81	21	0.75	19	32.50	826	48.00	1,219	224	50	10	3 / 4 in - G8	2,870	1,302
TA7-24	34.25	870	0.94	24	0.75	19	32.00	813	51.00	1,295	210	39	10	7 / 8 in - G8	3,600	1,633
TA7-30	34.25	870	0.94	24	0.75	19	32.00	813	51.00	1,295	210	39	10	7 / 8 in - G8	3,765	1,708
TA7-36	34.25	870	0.94	24	0.75	19	32.00	813	51.00	1,295	210	39	10	7 / 8 in - G8	3,965	1,799

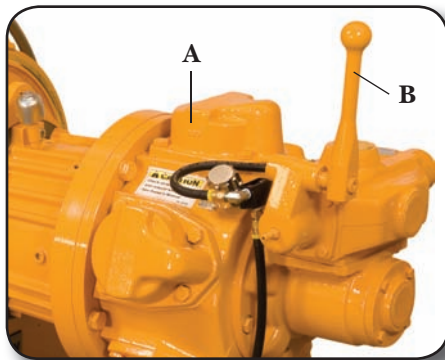


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You Might Call It A Wish List. We Call It A Features List.

	Model	Drum Width (inches)			HP		Winch Load Utility (Full Drum)	Rating Personnel (Full Drum)	Winch Line Speed	
		16	24	30	Utility	Personnel			Utility	Personnel
PERSONNEL	TA2P Series	●	●	-	7.1	6.8	4,700 lbs	2,900 lbs	30-46 fpm	46-70 fpm
	TA2HP Series	●	●	-	7.1	7.1	2,400 lbs	2,400 lbs	61-94 fpm	61-94 fpm
	TA2.5P Series	●	●	-	18.3	16.2	5,000 lbs	3,100 lbs	79-114 fpm	112-162 fpm
	TA5P Series	●	●	●	17.8	16.7	11,500 lbs	6,900 lbs	30-47 fpm	47-74 fpm



Features and Benefits

Radial Piston Motor (A)

Internally lubricated for reliable power and an exceptionally long service life.

Precise Control Valve (B)

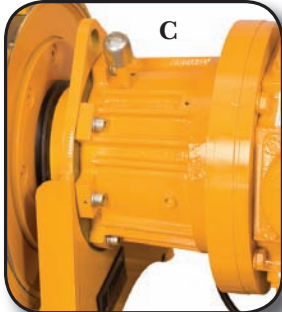
Count on smooth control with variable speed, making it ideal for both precision spotting and long lifts.

Automatic Disc Brake (C)

Spring engaged, air pressure released and oil cooled for extended duty cycles and long life.

Manual Band Brake (D)

The heavy duty, long handled steel band brake requires less force to engage and provides up to 150% winch capacity.

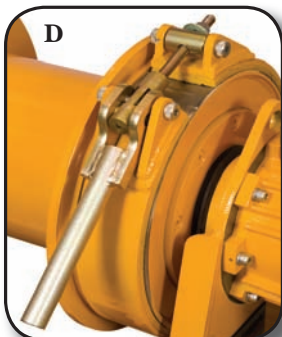


Welded Steel Frame

Captures both drum ends for optimal strength and security.

Planetary Gears

Compact design and high efficiency gearing reduce power loss and heat generation while increasing service life. Gears operate in oil bath. Double lip oil seals keep oil in and contaminants out.



Marine Grade Epoxy

Applied with a zinc primer for ultimate protection in harsh environments.

Wire Rope Assemblies

Sold separately. A variety of wire rope assemblies and fittings are available per customer request. Please contact the factory.

Meets ASME 30.7 Requirements

Standard units designed and built to meet this specification.

ABS Type Approval

With dual rating for both personnel and utility operation. Designed in accordance with ABS CDS 2006 Guide.



2-Year Warranty

Leading the industry with our *Move It with Confidence*
Two Year Limited Warranty.

**Big Red
Rider**

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Looking For The Perfect Hoist? Build It Your Way.

Every job is different, so we allow you to build Thern BIG RED TA Series air winches to suit your specific needs using our extensive line of accessories and options. The better suited the winch, the better completed the task.



Options and Accessories

Automatic Band Brake (E)

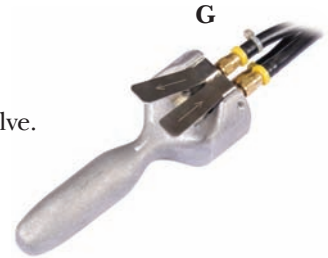
Spring engaged, air pressure released, with heavy-duty construction that provides up to 150% holding capacity (replaces manual brake).

Mufflers (F)

Attached to the exhaust ports to reduce noise.

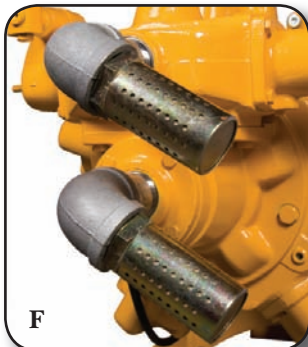
Control Options (G)

Winch mounted, full flow remote pendant control valve.



Drum Guard (H)

Heavy-duty steel mesh helps to protect operators. Adjusts for different rope payout angles.



Filter, Regulator and Lubricator (I)

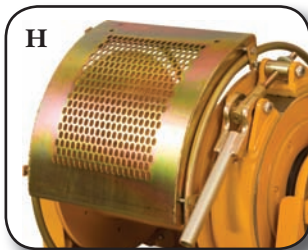
Maintains air quality to the winch. Required for warranty compliance.

Line Guide (J)

Steel construction and hand operated to help wire rope unwind uniformly.

Stackable Construction Winch Cage

Protects motor and winch during operation. Movable with forklift.



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BIG RED TA Series PERSONNEL RATED Air Winch Performance Characteristics

	TA2P Series		TA2HP Series		TA2.5P Series		TA5P Series	
	PERSONNEL	UTILITY	PERSONNEL	UTILITY	PERSONNEL	UTILITY	PERSONNEL	UTILITY
Load Rating 1st Layer	4,500 lb 2,041 kg	7,200 lb 3,265 kg	3,600 lb 1,632 kg	3,600 lb 1,632 kg	4,500 lb 2,041 kg	7,200 lb 3,265 kg	10,700 lb 4,853 kg	18,000 lb 8,164 kg
Load Rating Mid-Drum	3,600 lb 1,632 kg	5,700 lb 2,585 kg	2,900 lb 1,315 kg	2,900 lb 1,315 kg	3,700 lb 1,678 kg	5,900 lb 2,676 kg	8,400 lb 3,810 kg	14,000 lb 6,350 kg
Load Rating Full Drum	2,900 lb 1,315 kg	4,700 lb 2,131 kg	2,400 lb 1,088 kg	2,400 lb 1,088 kg	3,100 lb 1,406 kg	5,000 lb 2,268 kg	6,900 lb 3,129 kg	11,500 lb 5,216 kg
Line Speed 1st Layer *	46 fpm 14.0 m/min	30 fpm** 9.1 m/min**	61 fpm 18.6 m/min	61 fpm 18.6 m/min	112 fpm 34.1 m/min	79 fpm** 24.1 m/min**	47 fpm 14.3 m/min	30 fpm** 9.1 m/min**
Line Speed Mid-Drum *	58 fpm 17.7 m/min	38 fpm** 11.6 m/min**	77 fpm 23.5 m/min	77 fpm 23.5 m/min	137 fpm 41.8 m/min	96 fpm** 29.3 m/min**	61 fpm 18.6 m/min	39 fpm** 11.9 m/min**
Line Speed Full Drum *	70 fpm 21.3 m/min	46 fpm** 14.0 m/min**	94 fpm 28.7 m/min	94 fpm 28.7 m/min	162 fpm 49.4 m/min	114 fpm** 34.7 m/min**	74 fpm 22.6 m/min	47 fpm** 14.3 m/min**
Input HP	6.8 hp 6.8 hp	7.1 hp 7.1 hp	7.1 hp 7.1 hp	7.1 hp 7.1 hp	16.2 hp 16.2 hp	18.3 hp 18.3 hp	16.7 hp 16.7 hp	17.8 hp 17.8 hp
Max. Stall Pull 1st Layer	9,000 lb 4,082 kg	9,000 lb 4,082 kg	4,500 lb*** 2,041kg***	4,500 lb*** 2,041kg***	11,000 lb 4,989 kg	11,000 lb 4,989 kg	33,000 lb 14,968 kg	33,000 lb 14,968 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	90 psi 6.3 kgf/cm2	90 psi 6.3 kgf/cm2	90 psi 6.3 kgf/cm2
Flow	300 scfm 8.5 m3/min	250 scfm 7.0 m3/min	250 scfm 7.0 m3/min	250 scfm 7.0 m3/min	700 scfm 19.8 scfm	600 scfm 17.0 m3/min	700 scfm 19.8 m3/min	550 scfm 15.6 m3/min
Pipe Inlet Size	1 in 25.4 mm	1 in 25.4 mm	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	1.5 in 38.1 mm
Hose Size	1.25 in 31.8 mm	1.25 in 31.8 mm	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	1.5 in 38.1 mm
Minimum Design Temp	(32°F) (0°C)	(32°F) (0°C)	(32°F) (0°C)	(32°F) (0°C)	(32°F) (0°C)	(32°F) (0°C)	(32°F) (0°C)	(32°F) (0°C)

* Line speeds vary based on conditions of air supply. ** ABS certifications may specify slower line speeds than those published due to variances in air flow at time of actual test. *** Estimated Value.

BIG RED TA Series PERSONNEL RATED Air Winch Drum Capacities*

Drum Width			16 in (407 mm)			24 in (610 mm)			30 in (762 mm)		
	Rope 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)
TA2P Series	0.5 12.7	26,600 12,065	83 25	380 115	850 259	130 39	570 173	1,270 387	- -	- -	- -
TA2HP Series	0.5 12.7	26,600 12,065	83 25	380 115	850 259	130 39	570 173	1,270 387	- -	- -	- -
TA2.5P Series	0.63 16.0	41,200 18,688	71 21	260 79	580 176	110 33	390 118	860 262	- -	- -	- -
TA5P Series	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

* Drum capacity is based on 0.5 inch flange clearance at top layer per ASME B30.7. See separate tabel for full drum capacities based on ABS CDS 2006 guide.

** Values based on 6x37 IWRC EIPS wire rope. Breaking strength of new wire rope must comply with appropriate standards; 5:1 for utility winches, 10:1 for personnel winches, based on the largest load placed on the winch.

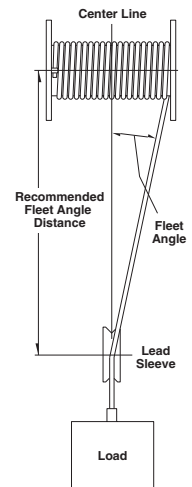
BIG RED TA Series ABS CDS Drum Capacities (Rider)*

Drum Width			16 in (407 mm)	24 in (610 mm)	30 in (762 mm)
	Rope Diameter	Breaking Strength**	Full Layer	Full Drum	Full Drum
	(in) (mm)	(lb) (kg)	(ft) (m)	(ft) (m)	(ft) (m)
TA2P Series	0.5 12.7	26,600 12,065	710 216	1,060 323	- -
TA2HP Series	0.5 12.7	26,600 12,065	710 216	1,060 323	- -
TA2.5P Series	0.63 16.0	41,200 18,688	440 134	650 198	- -
TA5P Series	0.75 19.1	58,800 26,671	630 192	950 289	1,180 359

* Drum capacity is based on 0.5 inch flange clearance at top layer per ABS CDS 2006 guide.

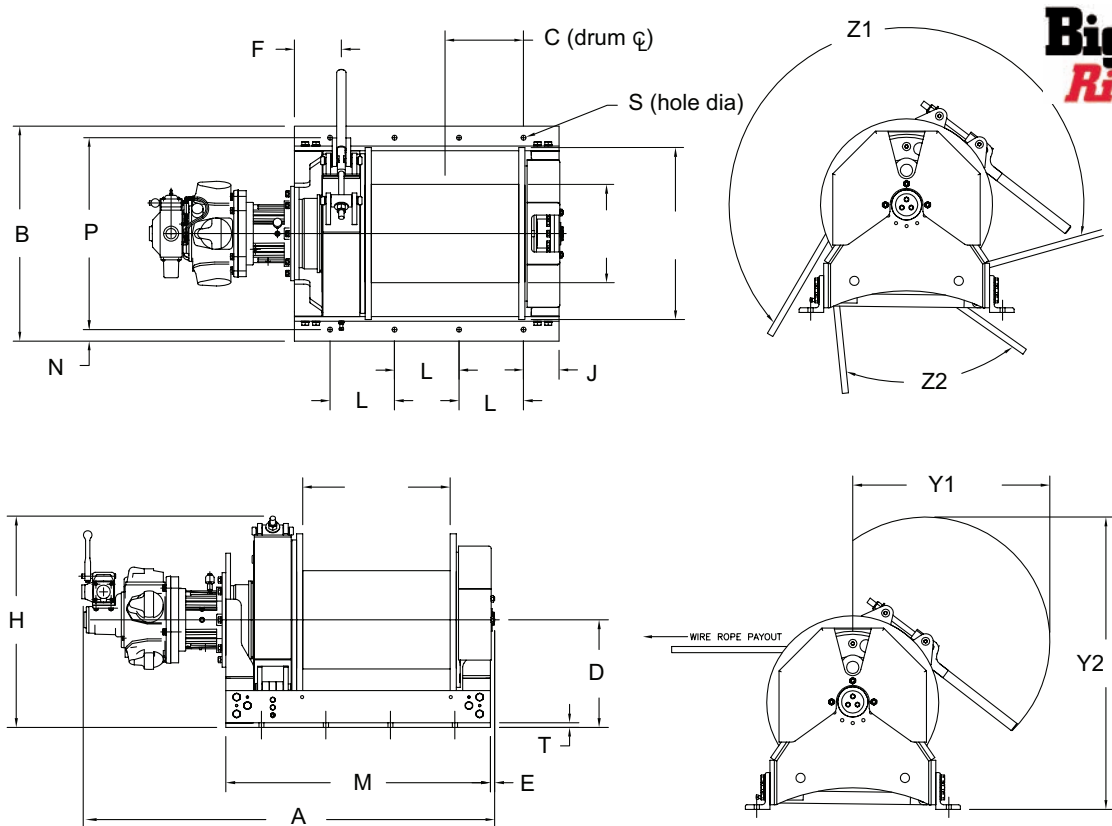
** Values based on 6x37 IWRC EIPS wire rope. Breaking strength of new wire rope must comply with appropriate standards; 5:1 for utility winches, 10:1 for personnel winches, based on the largest load placed on the winch.

Series	Drum Diameter (in) (mm)	Flange Diameter (in) (mm)	Drum Width (in) (mm)	Fleet Angle Dist. (ft) (m)
TA2P-16	11.50 292	20.00 508	16.00 406	26 8
TA2P-24	11.50 292	20.00 508	24.00 610	39 12
TA2HP-16	11.50 292	20.00 508	16.00 406	26 8
TA2HP-24	11.50 292	20.00 508	24.00 610	39 12
TA2.5P-16	12.75 324	20.00 508	16.00 406	26 8
TA2.5P-24	12.75 324	20.00 508	24.00 610	39 12
TA5P-16	16.00 406	31.25 794	16.00 406	26 8
TA5P-24	16.00 406	31.25 794	24.00 610	39 12
TA5P-30	16.00 406	31.25 794	30.00 762	48 15



Big Red TA Series Air Winches

PERSONNEL RATED



BIG RED TA Series PERSONNEL RATED Air Winch Dimensions

	A		B		C		D		E		F		H		J		L		M		N	
Series	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
TA2P-16	55.00	1,397	24.00	610	9.06	230	14.00	356	0.54	14	5.25	133	28.50	724	2.88	73	7.50	191	28.50	724	2.00	51
TA2P-24	63.00	1,600	24.00	610	12.81	325	14.00	356	0.54	14	5.25	133	28.50	724	3.13	80	10.00	254	36.50	927	2.00	51
TA2HP-16	55.00	1,397	24.00	610	9.06	230	14.00	356	0.54	14	5.25	133	28.50	724	2.88	73	7.50	191	28.50	724	2.00	51
TA2HP-24	63.00	1,600	24.00	610	12.81	325	14.00	356	0.54	14	5.25	133	28.50	724	3.13	80	10.00	254	36.50	927	2.00	51
TA2.5P-16	53.00	1,346	24.00	610	9.00	229	14.00	356	0.73	19	5.25	133	30.00	762	2.88	73	7.50	191	28.50	724	2.00	51
TA2.5P-24	61.00	1,549	24.00	610	12.75	324	14.00	356	0.73	19	5.25	133	30.00	762	3.13	80	10.00	254	36.50	927	2.00	51
TA5P-16	61.00	1,549	35.00	889	10.53	267	17.50	445	0.68	17	7.75	197	34.50	876	4.03	102	9.00	229	35.50	902	1.88	48
TA5P-24	69.00	1,753	35.00	889	12.78	325	17.50	445	0.68	17	7.75	197	34.50	876	5.78	147	10.50	267	43.50	1,105	1.88	48
TA5P-30	75.00	1,905	35.00	889	17.03	433	17.50	445	0.68	17	7.75	197	34.50	876	4.53	115	10.00	254	49.50	1,257	1.88	48

	P		S (hole diameter)		T		Y1		Y2		Z1	Z2	# Bolts	Bolt Size	Weight	
Series	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(Degrees)	(Degrees)	-	-	(lb)	(kg)
TA2P-16	20.00	508	0.69	18	0.50	13	20.00	508	37.00	940	223	34	8	5 / 8 in - G8	1,135	515
TA2P-24	20.00	508	0.69	18	0.50	13	20.00	508	37.00	940	223	34	8	5 / 8 in - G8	1,225	556
TA2HP-16	20.00	508	0.69	18	0.50	13	20.00	508	37.00	940	223	34	8	5 / 8 in - G8	1,135	515
TA2HP-24	20.00	508	0.69	18	0.50	13	20.00	508	37.00	940	223	34	8	5 / 8 in - G8	1,225	556
TA2.5P-16	20.00	508	0.69	18	0.50	13	20.00	508	37.00	940	228	27	8	5 / 8 in - G8	1,405	638
TA2.5P-24	20.00	508	0.69	18	0.50	13	20.00	508	37.00	940	228	27	8	5 / 8 in - G8	1,490	676
TA5P-16	31.25	794	0.81	21	0.75	19	32.50	826	48.00	1,219	224	50	8	3 / 4 in - G8	2,715	1,232
TA5P-24	31.25	794	0.81	21	0.75	19	32.50	826	48.00	1,219	224	50	8	3 / 4 in - G8	2,880	1,307
TA5P-30	31.25	794	0.81	21	0.75	19	32.50	826	48.00	1,219	224	50	10	3 / 4 in - G8	3,005	1,364



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TA10 Air Winches

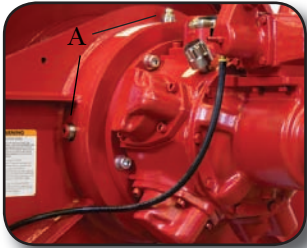
Load Capacity up to 37,000 lbs



TA10-40MX1 shown with manual band brake for positive load control.

The addition of the TA10 to the TA Series from Thern gives users more options than ever before. Featuring new design elements, including frame design, rotary cable anchor, and lifting eyes, the TA10 adds flexibility and ease of use while retaining all of the rugged features found on our TA Series winches.

Features and Benefits



Drain and fill plug location makes maintenance easy.

High Capacity Radial Piston Motor

Internally lubricated for reliable power and long service life providing high capacity with faster line speeds.

Precise Control Valve

Count on smooth control with variable speed, for precision spotting or long lifts.

Manual Band Brake

Heavy-duty handle allows for manual brake operation and provides 150% load holding capacity. Brake can be modified to operate from either side.

Easy Access Drain and Fill Plug (A)

New configuration provides easier access for maintenance; drain and fill plugs now located outside of drum, eliminating need to remove wire rope for maintenance.

Planetary Gears

Compact design and high efficiency gearing reduce power loss and heat generation while increasing service life. Gears operate in oil bath. Double lip oil seals keep oil in and contaminants out.

Rotary Cable Anchor (B)

Innovative cable anchor design is self adjusting for various cable sizes. Anchor is corrosion resistant for operation in harsh environments.

Welded Steel Frame

Captures both drum ends for strength and security. Frame includes convenient lifting eyes for easy handling.

Meets ASME 30.7 Requirements

Standard units designed and built to meet this specification.

2-Year Warranty

Leading the industry with our *Move It With Confidence* Two-Year Limited Warranty.



Rotary cable anchor for easy installation from either direction.

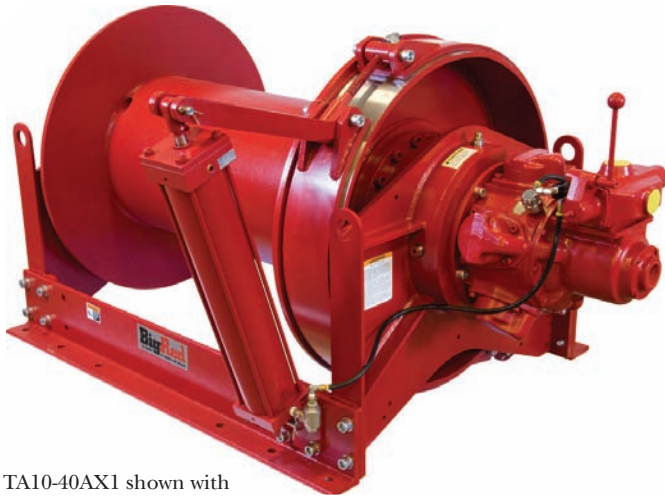
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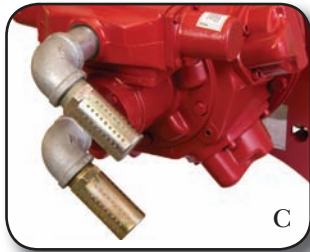
Unmatched Versatility, Customized For Your Job.



TA10-40AX1 shown with automatic band brake.

Every job is different, so we allow you to order Thern BIG RED TA10 air winches to suit your specific needs with a vast array of options and accessories. From automatic brake options to a pendant control, we'll work with you every step of the way to make sure you get exactly what you require.

Options and Accessories



Mufflers help reduce noise during operation.

Automatic Disc Brake

Spring engaged, air pressure released and oil cooled for extended duty cycles and long life.

Automatic Band Brake

Spring engaged, air pressure released, with heavy-duty construction that provides up to 150% holding capacity (replaces manual band brake).



Convenience of pendant controls for remote operation.

Mufflers (C)

Attached to exhaust ports to reduce noise.

Control Options (D)

Winch mounted, full flow remote pendant control valve.

Marine Grade Epoxy

Applied with a zinc primer for ultimate protection in harsh environments.

ABS Survey Available

Please contact factory.



Protect motor from contaminants with Filter-Regulator-Lubricator.

Drum Guard

Heavy-duty steel mesh helps to protect operators. Adjusts for different rope payout angles.

Filter, Regulator and Lubricator (E)

Maintains air quality to the winch. Required for warranty compliance.

Multiple Drum Compartments

Allow for multiple line connections and operation.

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Big Red TA Series Air Winches



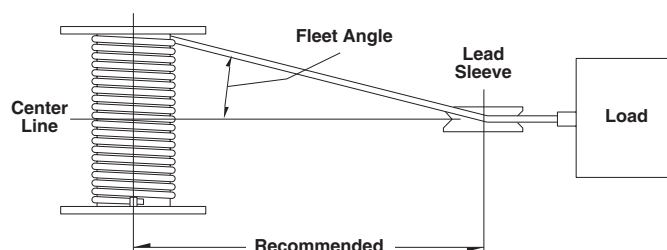
BIG RED TA10 Series Performance Characteristics

	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	47,000 lb**	21,320 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
Minimum Design Temp	(-4°) F	(-20°) C

* Line speeds vary based on conditions of air supply. ** Estimated value.

RED BIG TA10 Series Fleet Angle Requirements

	Drum Diameter		Flange Diameter		Drum Width		Fleet Angle Dist.	
Series	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
TA10-30	20.00	508	38.00	965	30.00	762	48	15
TA10-40	20.00	508	38.00	965	40.00	1016	64	20
TA10-60	20.00	508	38.00	965	60.00	1524	95	29



BIG RED TA10 Series Air Winch Drum Capacities *

Drum Width			30 in (762 mm)			40 in (1016 mm)			60 in (1524 mm)		
	Rope Diameter	Breaking Strength**	1st Layer	Mid Drum	Full Drum	1st Layer	Mid Drum	Full Drum	1st Layer	Mid Drum	Full Drum
Series	(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	620 115	1,390 259	160 48	830 252	1,850 563	260 79	1,250 381	2,780 847

* Drum capacity is based on 0.5 inch flange clearance at top layer per ASME B30.7. ** Values based on 6x37 IWRC EIPS wire rope.

BIG RED TA10 Series Air Winch Dimensions

	A		B		C		D		E		H1		H2		J		L	
Series	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
TA10-30	69.00	1753	45.75	1162	19.50	495	21.00	533	2.25	57	41.50	1054	50.00	1270	2.00	51	8.00	203
TA10-40	79.00	2007	45.75	1162	24.50	622	21.00	533	2.25	57	41.50	1054	50.00	1270	2.00	51	8.00	203
TA10-60	99.00	2515	45.75	1162	34.50	876	21.00	533	2.25	57	41.50	1054	50.00	1270	2.00	51	8.00	203

	M		P		S (hole diameter)		Y1 (Man)		Y1 (Auto)		Y2	# Bolts	Bolt Size	Weight*	
Series	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	-	(lb)	(kg)
TA10-30	48.00	1219	42.25	1073	.94	24	42	1067	35.25	895	62.50	1588	12	3,220	1,461
TA10-40	58.00	1473	42.25	1073	.94	24	42	1067	35.25	895	62.50	1588	12	3,515	1,595
TA10-60	78.00	1981	42.25	1073	.94	24	42	1067	35.25	895	62.50	1588	12	4,105	1,863

* Weights based on MX1 configuration. Weights subject to change with configurations.

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

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.

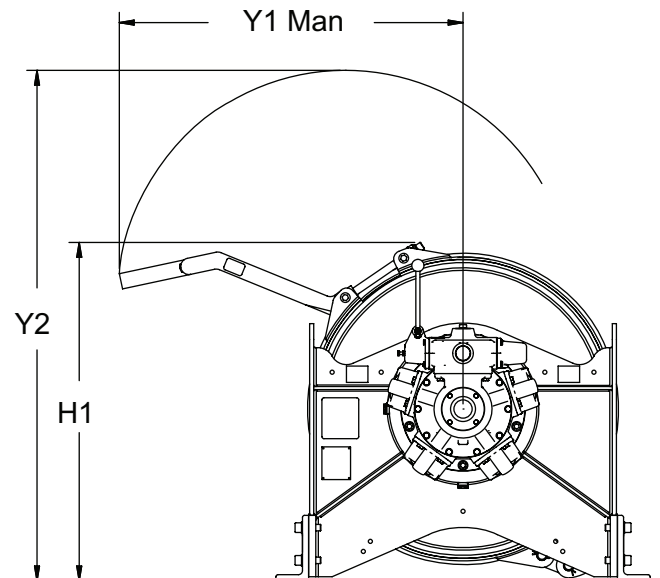
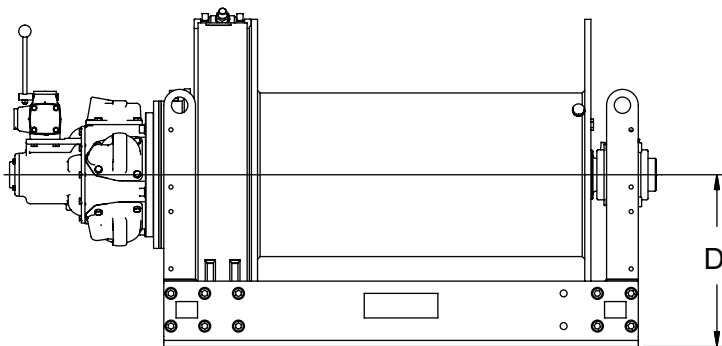
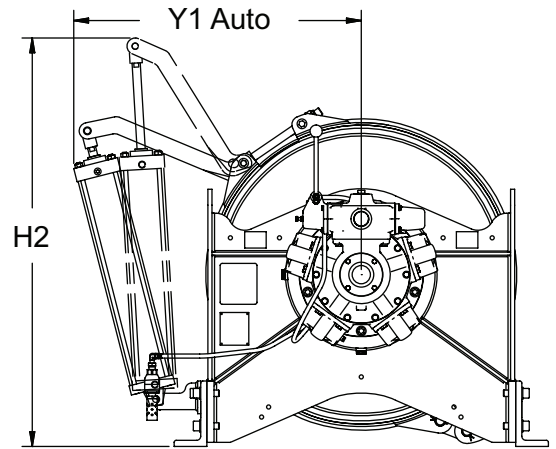
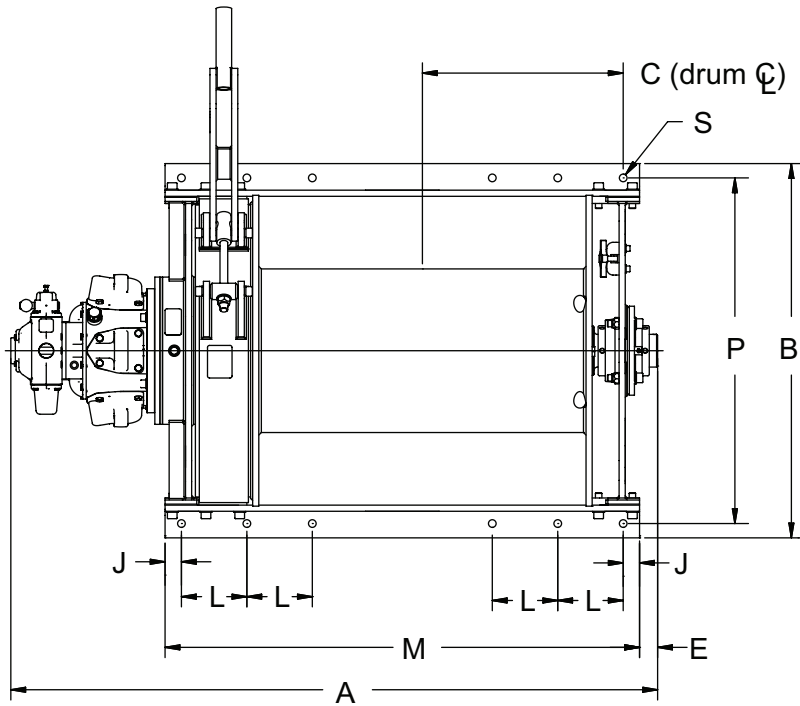


www.thern.com

1.800.843.7648

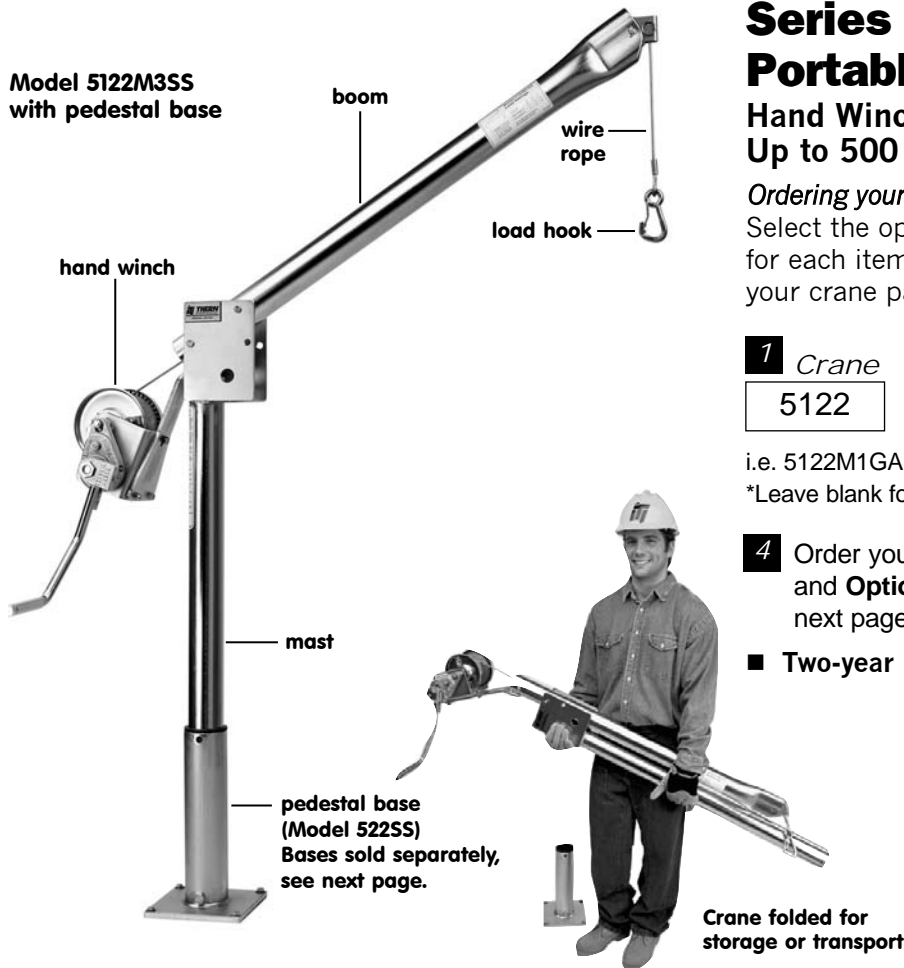
Big Red TA Series Air Winches

BigRed



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1.800.843.7648



Series 5122

Portable Davit Cranes

Hand Winch Operation

Up to 500 lb capacity

Ordering your crane is as easy as 1...2...3...

Select the option that best suits your needs for each item. Fill in the boxes below to create your crane part number.

1 Crane	2 Winch	3 Optional Finish*
5122		

i.e. 5122M1GAL

*Leave blank for standard powder coat finish

4 Order your **Base, Wire Rope Assembly** and **Optional Accessories** separately. See next page.

■ **Two-year Limited Warranty**

Crane Model

- **Adjustable Boom** with 2 different positions for operation.
- **Crane Rotates** 360° in a sleeve bearing in the base.
- **Crane** folds down for storage or transport.

1 Base Model 5122 – Section 4

base model	description	approx. ship wt.
5122 ¹	up to 500 lb – portable davit	54 lb

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

¹ Base Model includes corrosion resistant electrostatic powder coated finish. Other finishes available see Option 3.

Winch Models

- **Hand Winch Operation** with spur gear hand winch equipped with automatic disc brake for load control.
- **Quick Disconnect Anchor** for quickly attaching or removing wire rope equipped with a swaged ball fitting.

2 Winch Options – Section 4

winch	description	approx. ship wt.
M1	M4022PB-K – zinc plated spur gear hand winch	17
M3	M4042PBSS-K – stainless steel spur gear hand winch	24

Optional Finishes

- **Galvanized Finish** provides extra protection against corrosion.
- **Stainless Steel Models** are constructed from all stainless steel with an electro-polished finish for superior corrosion resistance.

3 Optional Finish (crane only) – Section 4

finish	description
GAL	galvanized finish – crane only
SS	stainless steel construction – crane only

4 Series 5122 Bases, Wire Rope Assemblies and Accessories

INDEPENDENT BASES – sold separately

- **Pedestal, Socket, or Wall** mount style.
- **Wheel Base** for floor crane operation. Base includes steel front wheels and rear caster wheels for 360° maneuverability. See Model 514.
- **Important:** Base installation is purchaser's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact factory for installation guidelines.

Independent Bases – Section 4

base	description	approx. ship wt.
522	pedestal/socket base – powder coat finish (upright or flush mount)	18 lb
522GAL	pedestal/socket base – galvanized finish (upright or flush mount)	18 lb
522SS	pedestal/socket base – stainless steel (upright or flush mount)	18 lb
522W	wall mount base – powder coat finish	21 lb
522WGAL	wall mount base – galvanized finish	21 lb
522SSW	wall mount base – stainless steel	21 lb
514	wheel base – enamel finish	80 lb

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.

Wire Rope Assemblies – Section 9

model number	wire rope diameter x length	approx. ship weight
galvanized aircraft cable with swivel hook and swaged ball fitting		
WA19-20NS	3/16 in x 20 ft	3 lb
WA19-28NS	3/16 in x 28 ft	4 lb
WA19-36NS	3/16 in x 36 ft	4 lb
WA19-45NS	3/16 in x 45 ft	5 lb
304 stainless steel wire rope with SS oval hook and swaged ball fitting - swivel hook also available please contact factory		
WS19-20NO	3/16 in x 20 ft	3 lb
WS19-28NO	3/16 in x 28 ft	3 lb
WS19-36NO	3/16 in x 36 ft	3 lb
WS19-45NO	3/16 in x 45 ft	4 lb
WS19-60NO	3/16 in x 60 ft	9 lb
WS19-75NO	3/16 in x 75 ft	11 lb

ACCESSORIES – Section 4

Base Cover – plastic cover fits in the mast hole in the base to help keep water from collecting inside the base when the crane is removed.



Model No. TK2P

Cable Spool – 316 stainless steel reel winds up wire rope when detached from crane.

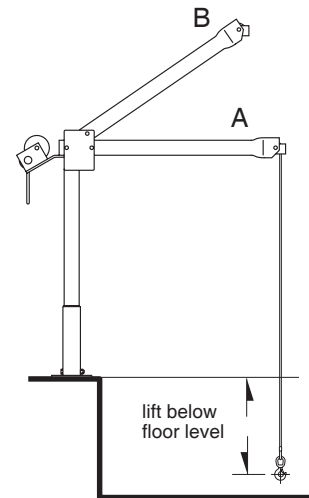


Model No. RW50 12 lb

Wire Rope Keeper – metal bracket attaches to base or other structure to hold free end of the wire rope when detached from crane.



Model No. B1766



Series 5122 Performance Characteristics

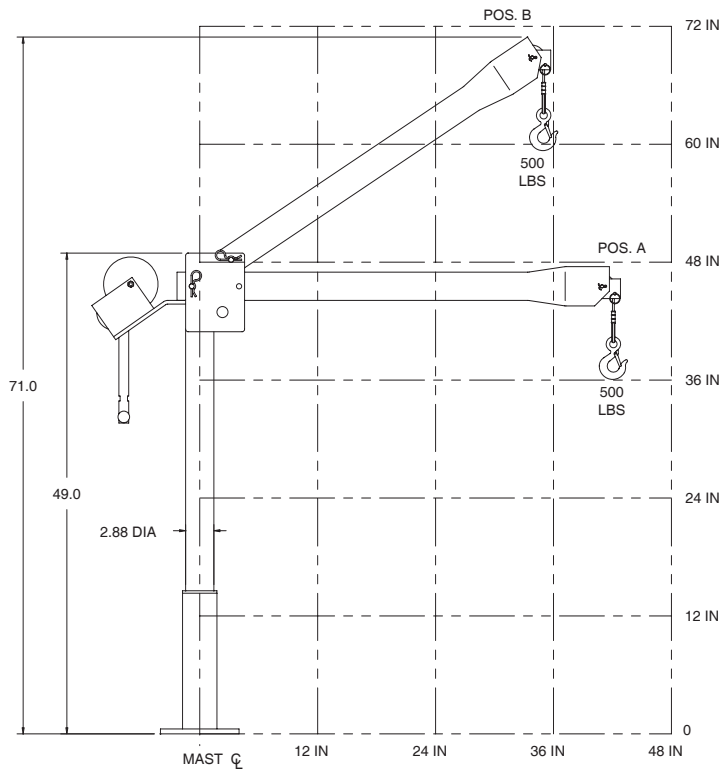
wire rope dia.	wire rope length	5122 Series with M1 winch		5122 Series with M3 winch		lift below floor level (min – max) ¹
		load rating position A	load rating position B	load rating position A	load rating position B	
3/16 in	20 ft	500 lb	500 lb	500 lb	500 lb	9 – 10 ft
3/16 in	28 ft	500 lb	500 lb	500 lb	500 lb	17 – 18 ft
3/16 in	36 ft	500 lb	500 lb	500 lb	500 lb	25 – 26 ft
3/16 in	45 ft	500 lb	500 lb	500 lb	500 lb	34 – 35 ft
3/16 in	60 ft	–	–	500 lb	500 lb	49 – 50 ft
3/16 in	75 ft	–	–	500 lb	500 lb	64 – 65 ft

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

Important:

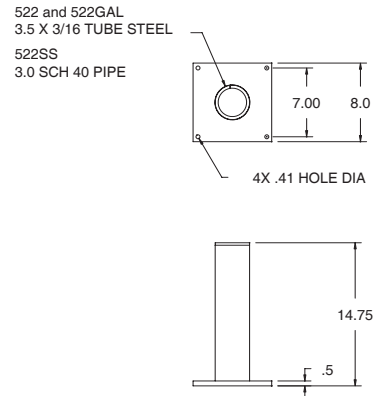
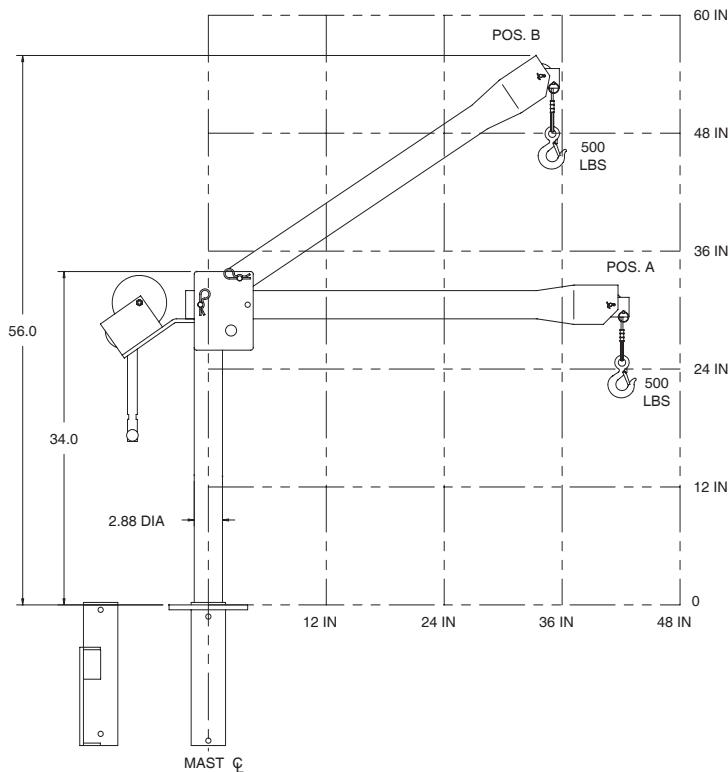
It is the owner's or operator's responsibility to determine the suitability of the equipment to its intended use. Study all applicable codes, manuals, and regulations. Be sure to read the Owner's Manual supplied with the equipment before operating it.

See Dimensions on Next Page

5122 with pedestal/socket base mounted upright

5122 Upright – Height and Reach

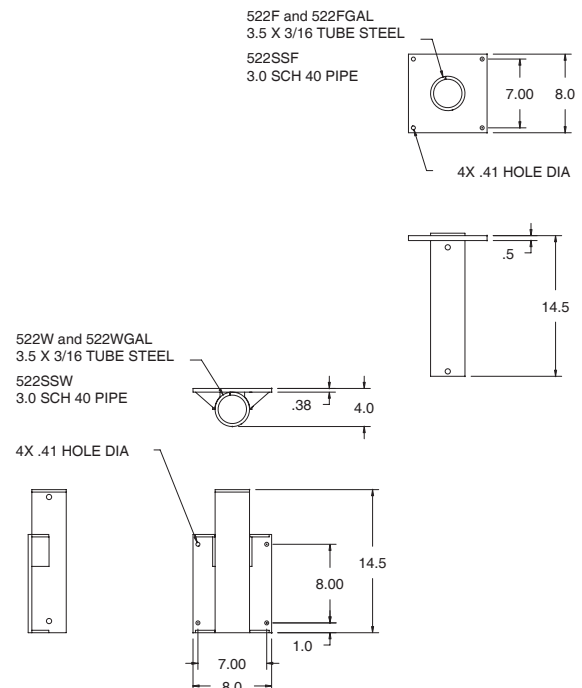
boom position	hook reach	hook height
A	42 in	37 in
B	35 in	60 in

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

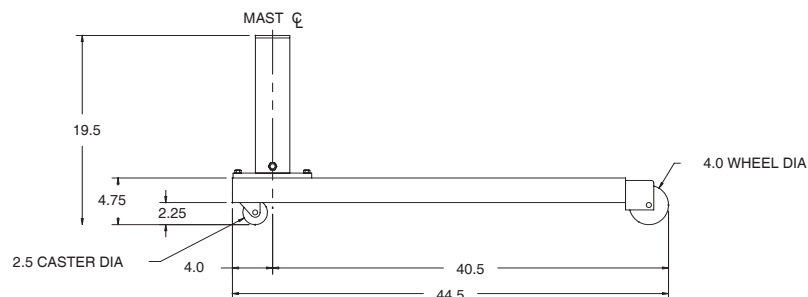
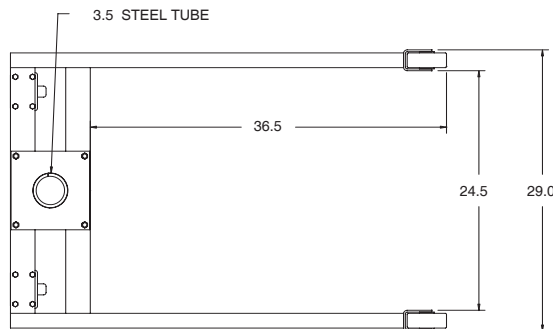
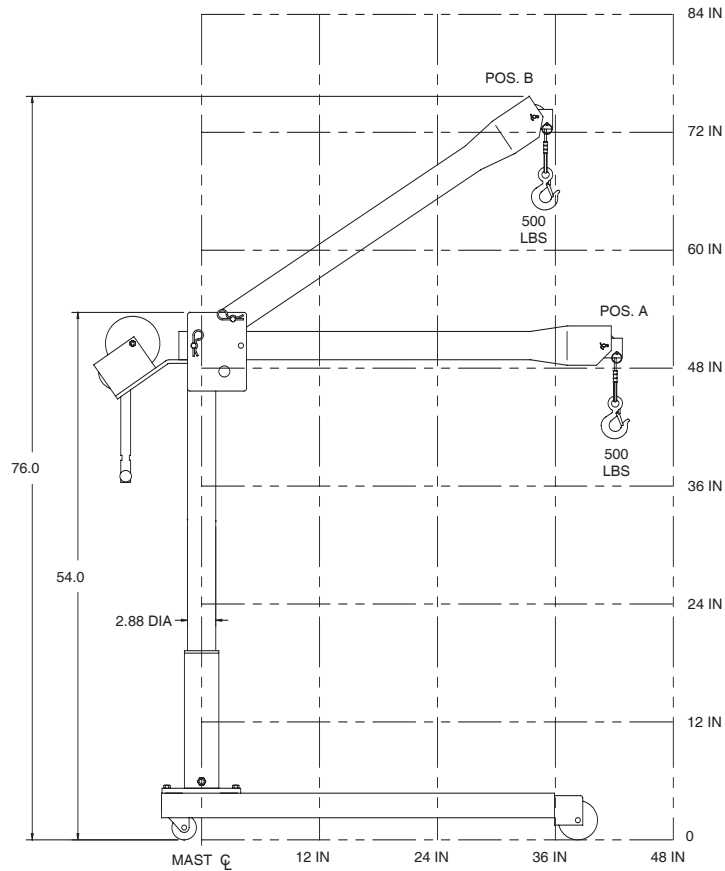

**5122 with wall mount base
 or pedestal/socket base mounted flush**

5122 Flush – Height and Reach

boom position	hook reach	hook height
A	42 in	22 in
B	35 in	45 in

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



See Additional Dimensions on Next Page

5122 with Model 514 wheel base

5122 with 514 Wheel Base – Height and Reach

boom position	hook reach	hook height
A	42 in	42 in
B	35 in	65 in

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

Important:

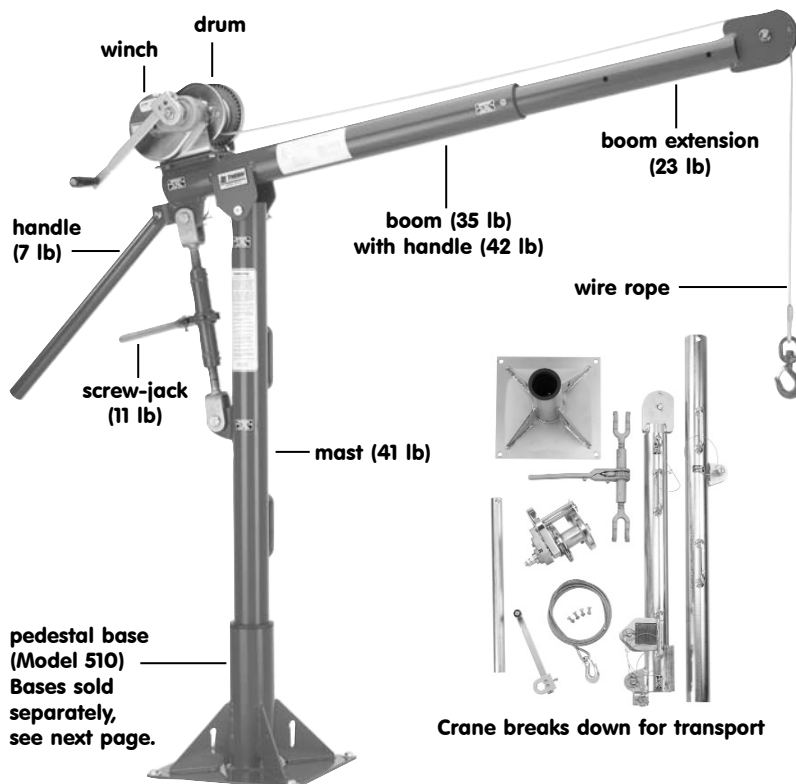
Crane DOES NOT rotate in base when assembled in 514 wheel base.



Wheel Base sold separately for floor crane operation. See Wheel Base Model 514 on page 31.

Important:

It is the owner's 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.

Model 5110M1 with pedestal base


Series 5110 Portable Davit Cranes

**Hand or Power Winch Operation
Up to 1000 lb capacity**

Ordering your crane is as easy as 1...2...3... Select the option that best suits your needs for each item. Fill in the boxes below to create your crane part number.

1 Crane	2 Optional Winch	3 Finish*
5110		

i.e. 5110M2GAL

*Leave blank for standard powder coat finish

4 Order your **Base, Wire Rope Assembly** and **Optional Accessories** separately. See next page.

■ **Two-year Limited Warranty**

Crane Model

- **Crane Rotates 360°** on a pin and sleeve bearing in the base. Handle on the boom makes rotation easy.
- **Adjustable Boom** telescopes to 4 different lengths, and adjusts in height while under load with ratchet style screw-jack.
- **Crane Breaks Down** for storage or transport.

1 Crane Model 5110 – Section 4

base model	description	approx. ship wt.
5110 ¹	up to 1000 lb – portable davit	160 lb

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

¹ **Base Model includes corrosion resistant electrostatic powder coated finish. Other finishes available see Option 3.**

Winch Models

- **Hand Winch Operated Models** include spur gear or worm gear hand winch with brake for load control. Model M2 winch can be drill driven, 400 rpm max.
- **Power Winch Operated Models** include electric winch with pendant control and brake. Other power options available, please contact factory.
- **Quick Disconnect Anchor** for quickly attaching or removing wire rope equipped with a swaged ball fitting.

2 Winch Options – Section 4

winch	description	approx. ship wt.
M1	M4312PB-K – zinc plated spur gear hand winch	28 lb
M2 ²	4WM2-K – worm gear hand winch	42 lb
M3	M4312PBSS-K – stainless steel spur gear hand winch	28 lb
E2 ³	4WP2-K electric winch – 115/1/60 VAC with 6 ft pendant control, see pg. 10, model 4WP2 for details	85 lb
E4 ³	4777-K electric winch – 115/1/60 VAC with 6 ft pendant control, see pg. 14, model 4777 for details	110 lb
E4DC ³	4777DC-K electric winch – 12 volt DC with 10 ft pendant control, see pg 14, model 4777DC for details	105 lb

² Winch finish is powder coated, for epoxy finish contact factory.

³ Winch finish is enamel, for epoxy finish contact factory.

Optional Finishes

- **Galvanized Finish** provides extra protection against corrosion.
- **Stainless Steel Models** are constructed from all stainless steel with an electro-polished finish for superior corrosion resistance.

3 Optional Finish (crane only) – Section 4

finish	description
GAL	galvanized finish – crane only
SS	stainless steel construction – crane only

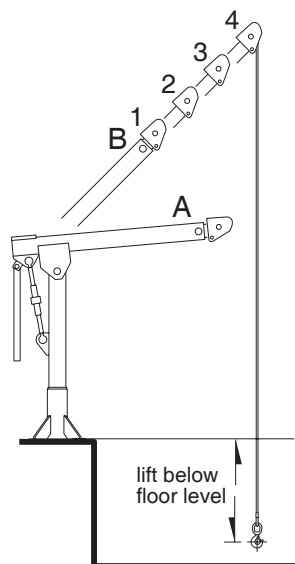
4 Series 5110 Bases, Wire Rope Assemblies and Accessories

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 510R.
- **Important:** Base installation is purchaser's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact factory for installation guidelines.

Independent Bases – Section 4

base	description	approx. ship wt.
510	pedestal base – powder coat finish (upright mount)	52 lb
510GAL	pedestal base – galvanized finish (upright mount)	52 lb
510SS	pedestal base – stainless steel (upright mount)	52 lb
510F	socket base – powder coat finish (flush mount)	45 lb
510FGAL	socket base – galvanized finish (flush mount)	45 lb
510SSF	socket base – stainless steel (flush mount)	45 lb
510W	wall mount base – powder coat finish	52 lb
510WGAL	wall mount base – galvanized finish	52 lb
510SSW	wall mount base – stainless steel	52 lb
510R	wheel base – enamel finish	313 lb



Important:

It is the owner's 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.

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.

Wire Rope Assemblies – Section 9

model number	wire rope diameter x length	approx. ship weight
galvanized aircraft cable with swivel hook and swaged ball fitting		
WA25-20NS	1/4 in x 20 ft	4 lb
WA25-28NS	1/4 in x 28 ft	5 lb
WA25-36NS	1/4 in x 36 ft	6 lb
WA25-45NS	1/4 in x 45 ft	7 lb
WA25-60NS	1/4 in x 60 ft	9 lb
WA25-75NS	1/4 in x 75 ft	10 lb
304 stainless steel wire rope with SS eye hook and swaged ball fitting - swivel hook also available please contact factory		
WS25-20NE	1/4 in x 20 ft	5 lb
WS25-28NE	1/4 in x 28 ft	5 lb
WS25-36NE	1/4 in x 36 ft	6 lb
WS25-45NE	1/4 in x 45 ft	7 lb
WS25-60NE	1/4 in x 60 ft	8 lb
WS25-75NE	1/4 in x 75 ft	10 lb

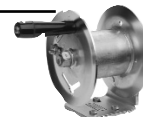
ACCESSORIES – Section 4

Base Cover – plastic cover fits in the mast hole in the base to help keep water from collecting inside the base when the crane is removed.



Model No. TK3P

Cable Spool – 316 stainless steel reel winds up wire rope when detached from crane.



Model No. RW50 12 lb

Wire Rope Keeper – metal bracket attaches to base or other structure to hold free end of the wire rope when detached from crane.



Model No. B1766

Drill-Motor Drive – 7 amp, 400 rpm drill-motor to power drive the hand winch. Only available for cranes configured with the M2 winch option. 120 VAC drill-motor includes 1-1/8" hex socket drive.



Model No. ED120BD 12 lb

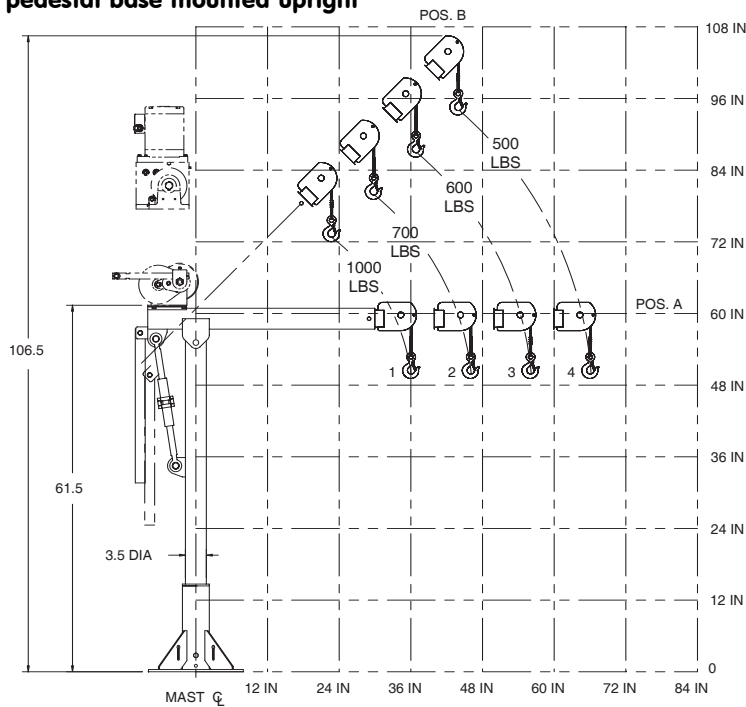
Series 5110 Performance Characteristics

wire rope dia.	wire rope length	load rating for 5110M1 and M3				load rating for 5110M2, E2, E4, and E4DC				lift below floor level (min – max) ¹
		position 1	position 2	position 3	position 4	position 1	position 2	position 3	position 4	
1/4 in	20 ft	1000 lb	700 lb	600 lb	500 lb	1000 lb	700 lb	600 lb	500 lb	1 – 5 ft
1/4 in	28 ft	1000 lb	700 lb	600 lb	500 lb	1000 lb	700 lb	600 lb	500 lb	9 – 13 ft
1/4 in	36 ft	1000 lb	700 lb	600 lb	500 lb	1000 lb	700 lb	600 lb	500 lb	17 – 21 ft
1/4 in	45 ft	1000 lb	700 lb	600 lb	500 lb	1000 lb	700 lb	600 lb	500 lb	26 – 30 ft
1/4 in	60 ft	1000 lb	700 lb	600 lb	500 lb	1000 lb	700 lb	600 lb	500 lb	41 – 45 ft
1/4 in	75 ft	–	–	–	–	1000 lb	700 lb	600 lb	500 lb	56 – 60 ft

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

See Dimensions on Next Page

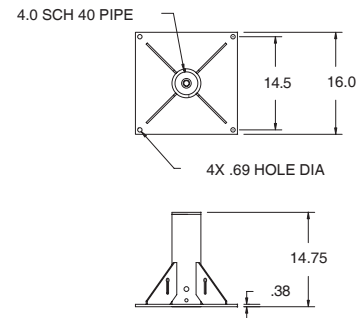
5110 with pedestal base mounted upright



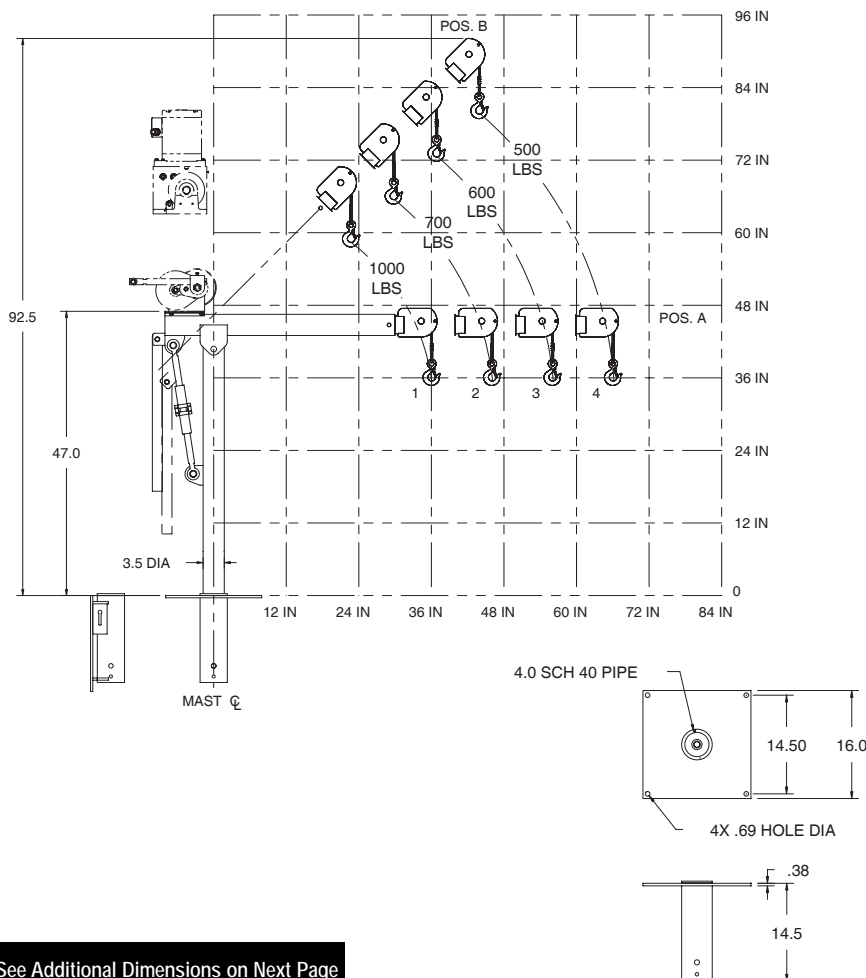
5110 Upright – Height and Reach

boom position	hook reach	hook height
A-1	36 in	50 in
A-2	46 in	50 in
A-3	56 in	50 in
A-4	66 in	50 in
B-1	23 in	73 in
B-2	30 in	80 in
B-3	37 in	87 in
B-4	44 in	94 in

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



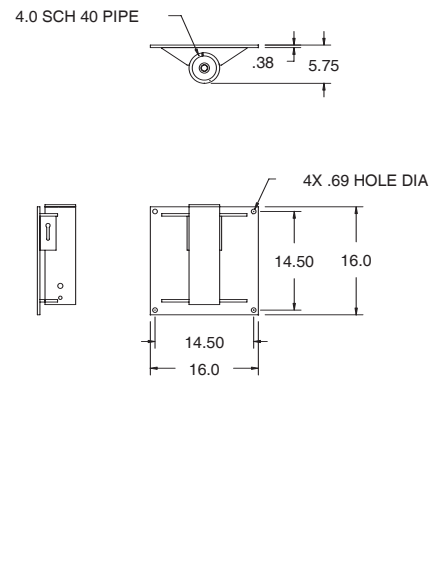
5110 with wall mount base or socket base mounted flush



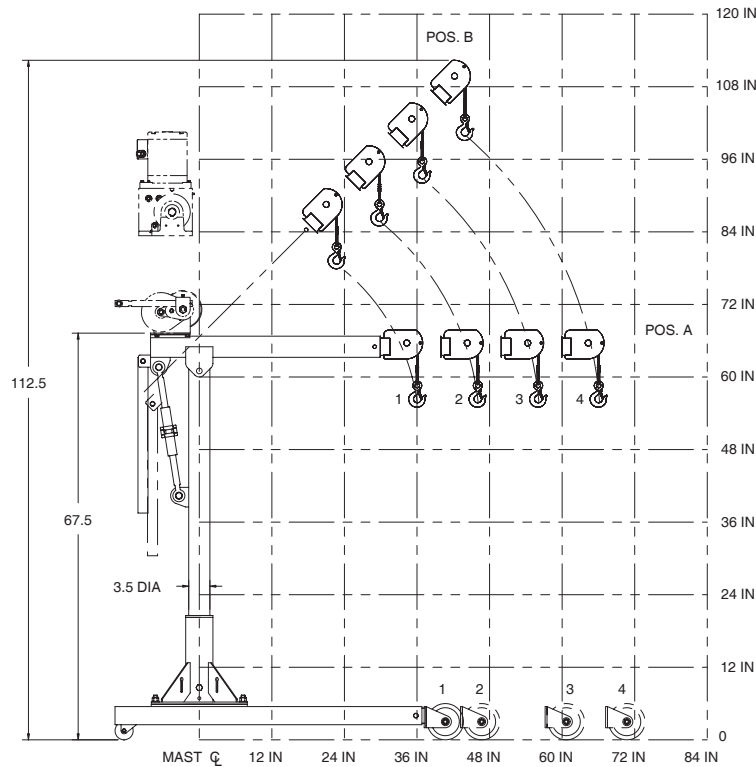
5110 Flush – Height and Reach

boom position	hook reach	hook height
A-1	36 in	36 in
A-2	46 in	36 in
A-3	56 in	36 in
A-4	66 in	36 in
B-1	23 in	59 in
B-2	30 in	66 in
B-3	37 in	73 in
B-4	44 in	80 in

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



See Additional Dimensions on Next Page

5110 with Model 510R wheel base

5110 with 510R Wheel Base – Height and Reach

boom position	hook reach	hook height
A-1	36 in	56 in
A-2	46 in	56 in
A-3	56 in	56 in
A-4	66 in	56 in
B-1	23 in	79 in
B-2	30 in	86 in
B-3	37 in	93 in
B-4	44 in	100 in

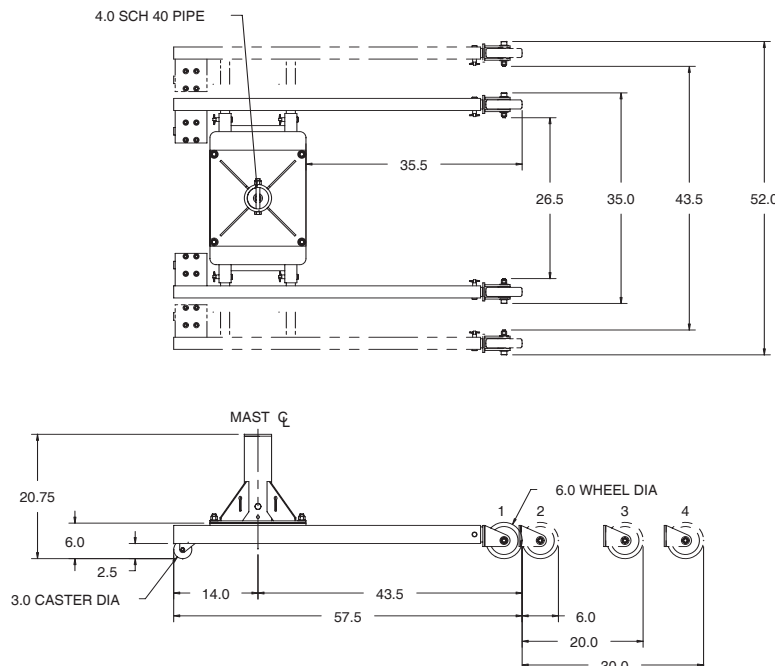
Dimensions are for reference only and subject to change without notice.

Important:

Crane DOES NOT rotate in base when assembled in 510R wheel base.



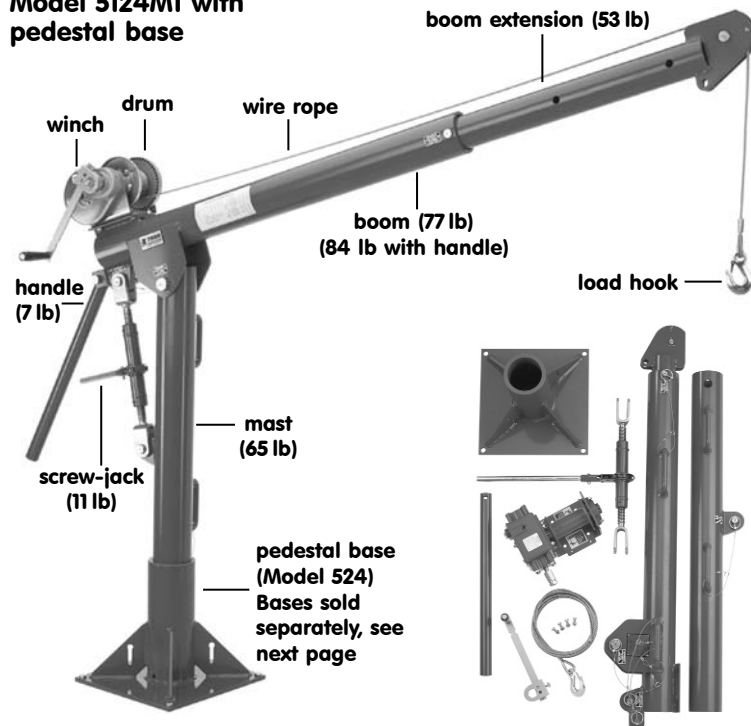
Wheel Base sold separately for floor crane operation. See Wheel Base Model 510R on page 35.


Load Ratings for 5110 with 510R Wheel Base

Crane Load Ratings	Leg Position 1	Leg Position 2	Leg Position 3	Leg Position 4
Boom Position 1	1000 lb	1000 lb	1000 lb	1000 lb
Boom Position 2	700 lb	700 lb	700 lb	700 lb
Boom Position 3	do not use	600 lb	600 lb	600 lb
Boom Position 4	do not use	500 lb	500 lb	500 lb

Important:

It is the owner's 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.

Model 5124M1 with pedestal base


Crane breaks down for transport

Series 5124 Portable Davit Cranes

Hand or Power Winch Operation
Up to 2000 lb capacity

Ordering your crane is as easy as 1...2...3...

Select the option that best suits your needs for each item. Fill in the boxes below to create your crane part number.

1 Crane	2 Optional Winch	3 Finish*
5124		

i.e. 5124M2GAL

*Leave blank for standard powder coat finish

4 Order your **Base, Wire Rope Assembly** and **Optional Accessories** separately. See next page.

■ **Two-year Limited Warranty**

Crane Model

- **Crane Rotates 360°** on a pin and sleeve bearing in the base. Handle on the boom makes rotation easy.
- **Adjustable Boom** telescopes to 4 different lengths, and adjusts in height while under load with ratchet screw-jack.
- **Crane Breaks Down** for storage or transport.

1 Crane Model 5124 – Section 4

base model	description	approx. ship wt.
5124 ¹	up to 2000 lb – portable davit	253 lb

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

¹ Base Model includes corrosion resistant electrostatic powder coated finish. Other finishes available see Option 3.

Winch Models

- **Hand Winch Operated Models** include spur gear or worm gear hand winch with brake for load control. Model M2 winch can be drill driven, 400 rpm max.
- **Power Winch Operated Models** include electric winch with pendant control and brake. Other power options available, please contact factory.
- **Quick Disconnect Anchor** for quickly attaching or removing wire rope equipped with a swaged ball fitting.

2 Winch Options – Section 4

winch	description	approx. ship wt.
M1	M4312PB-K – zinc plated spur gear hand winch	28 lb
M2 ²	4WM2-K – worm gear hand winch	42 lb
M3	M4312PBSS-K – stainless steel spur gear hand winch	28 lb
E2 ³	4WP2-K electric winch – 115/1/60 VAC with 6 ft pendant control, see pg. 10, model 4WP2 for details	85 lb
E4 ³	4777-K electric winch – 115/1/60 VAC with 6 ft pendant control, see pg. 14, model 4777 for details	110 lb
E4DC ³	4777DC-K electric winch – 12 volt DC with 10 ft pendant control, see pg 14, model 4777DC for details	105 lb

² Winch finish is powder coated, for epoxy finish contact factory.

³ Winch finish is enamel, for epoxy finish contact factory.

Optional Finishes

- **Galvanized Finish** provides extra protection against corrosion.
- **Stainless Steel Models** are constructed from all stainless steel with an electro-polished finish for superior corrosion resistance.

3 Optional Finish (crane only) – Section 4

finish	description
GAL	galvanized finish – crane only
SS	stainless steel construction – crane only

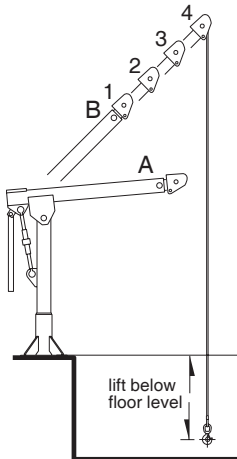
4 Series 5124 Bases, Wire Rope Assemblies and Accessories

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 524R.
- **Important:** Base installation is purchaser's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact factory for installation guidelines.

Independent Bases – Section 4

base	description	approx. ship wt.
524	pedestal base – powder coat finish (upright mount)	69 lb
524GAL	pedestal base – galvanized finish (upright mount)	69 lb
524SS	pedestal base – stainless steel (upright mount)	69 lb
524F	socket base – powder coat finish (flush mount)	58 lb
524FGAL	socket base – galvanized finish (flush mount)	58 lb
524SSF	socket base – stainless steel (flush mount)	58 lb
524W	wall mount base – powder coat finish	85 lb
524WGAL	wall mount base – galvanized finish	85 lb
524SSW	wall mount base – stainless steel	85 lb
524R	wheel base – enamel finish	445 lb



Important:

It is the owner's 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.

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.

Wire Rope Assemblies – Section 9

model number	wire rope diameter and length	approx. ship weight
galvanized aircraft cable with swivel hook and swaged ball fitting		
WA25-20NS	1/4 in x 20 ft	4 lb
WA25-28NS	1/4 in x 28 ft	5 lb
WA25-36NS	1/4 in x 36 ft	6 lb
WA25-45NS	1/4 in x 45 ft	7 lb
WA25-60NS	1/4 in x 60 ft	9 lb
WA25-75NS	1/4 in x 75 ft	10 lb

304 stainless steel wire rope with SS eye hook and swaged ball fitting - swivel hook also available please contact factory

WS25-20NE	1/4 in x 20 ft	4 lb
WS25-28NE	1/4 in x 28 ft	5 lb
WS25-36NE	1/4 in x 36 ft	6 lb
WS25-45NE	1/4 in x 45 ft	7 lb
WS25-60NE	1/4 in x 60 ft	8 lb
WS25-75NE	1/4 in x 75 ft	10 lb

ACCESSORIES – Section 4

Base Cover – plastic cover fits in the mast hole in the base to help keep water from collecting inside the base when the crane is removed.



Model No. TK4P

Cable Spool – 316 stainless steel reel winds up wire rope when detached from crane.



Model No. RW50 12 lb

Wire Rope Keeper – metal bracket attaches to base or other structure to hold free end of the wire rope when detached from crane.



Model No. B1766

Drill-Motor Drive – 7 amp, 400 rpm drill-motor to power drive the hand winch. Only available for cranes configured with the M2 winch option. 120 VAC drill-motor includes 1-1/8" hex socket drive.



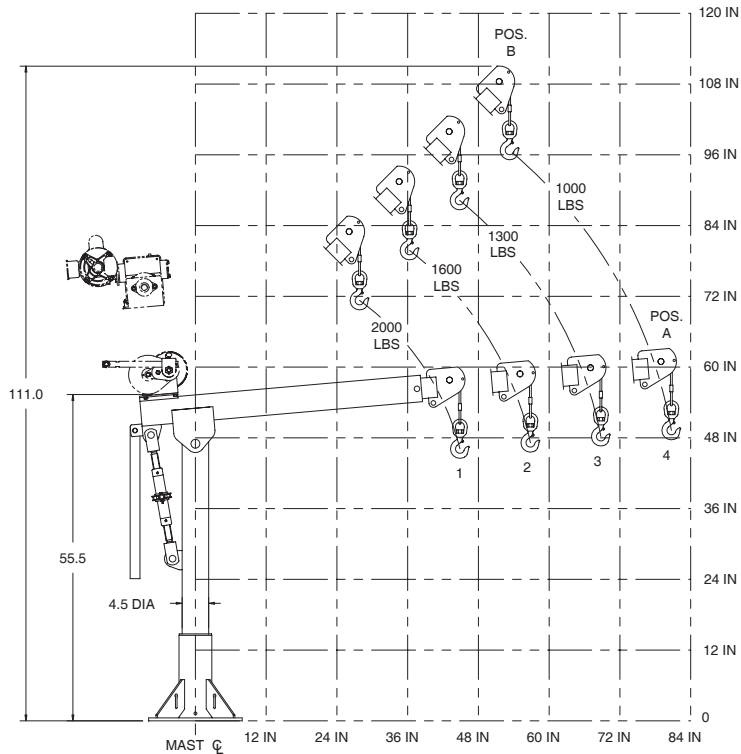
Model No. ED120BD 12 lb

Series 5124 Performance Characteristics

wire rope dia.	wire rope length	load rating for 5124M1 and M3				load rating for 5124M2, E2, E4 and E4DC				lift below floor level (min – max) ¹
		position 1	position 2	position 3	position 4	position 1	position 2	position 3	position 4	
1/4 in	20 ft	2000 lb	1600 lb	1300 lb	1000 lb	2000 lb	1600 lb	1300 lb	1000 lb	0 – 4 ft
1/4 in	28 ft	1800 lb	1600 lb	1300 lb	1000 lb	1700 lb	1600 lb	1300 lb	1000 lb	8 – 12 ft
1/4 in	36 ft	1600 lb	1600 lb	1300 lb	1000 lb	1600 lb	1600 lb	1300 lb	1000 lb	16 – 20 ft
1/4 in	45 ft	1600 lb	1600 lb	1300 lb	1000 lb	1500 lb	1500 lb	1300 lb	1000 lb	25 – 29 ft
1/4 in	60 ft	1300 lb	1300 lb	1300 lb	1000 lb	1300 lb	1300 lb	1300 lb	1000 lb	40 – 44 ft
1/4 in	75 ft	–	–	–	–	1200 lb	1200 lb	1200 lb	1000 lb	55 – 59 ft
5/16 in	20 ft	2000 lb	1600 lb	1300 lb	1000 lb	2000 lb	1600 lb	1300 lb	1000 lb	0 – 4 ft
5/16 in	28 ft	1700 lb	1600 lb	1300 lb	1000 lb	1600 lb	1600 lb	1300 lb	1000 lb	8 – 12 ft
5/16 in	36 ft	1500 lb	1500 lb	1300 lb	1000 lb	1400 lb	1400 lb	1300 lb	1000 lb	16 – 20 ft
5/16 in	45 ft	1400 lb	1400 lb	1300 lb	1000 lb	1400 lb	1400 lb	1300 lb	1000 lb	25 – 29 ft

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

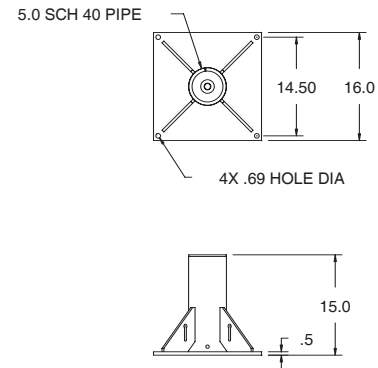
5124 with pedestal base mounted upright



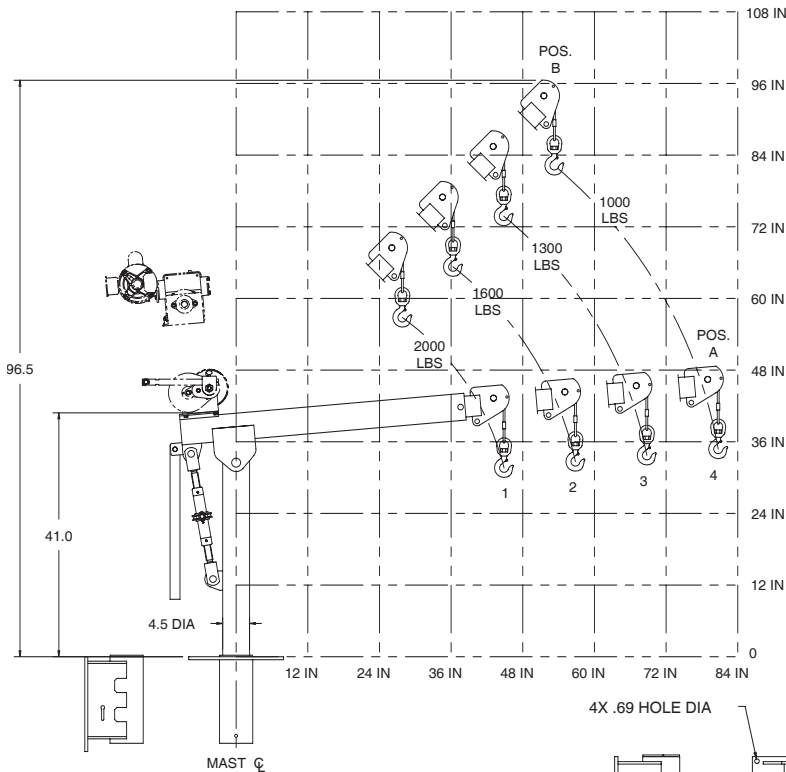
5124 Upright – Height and Reach

boom position	hook reach	hook height
A-1	45 in	46 in
A-2	57 in	47 in
A-3	69 in	48 in
A-4	81 in	49 in
B-1	28 in	71 in
B-2	36 in	80 in
B-3	45 in	88 in
B-4	53 in	97 in

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



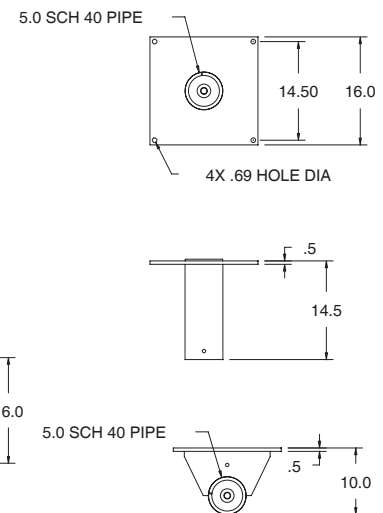
5124 with wall mount base or socket base mounted flush



5124 Flush – Height and Reach

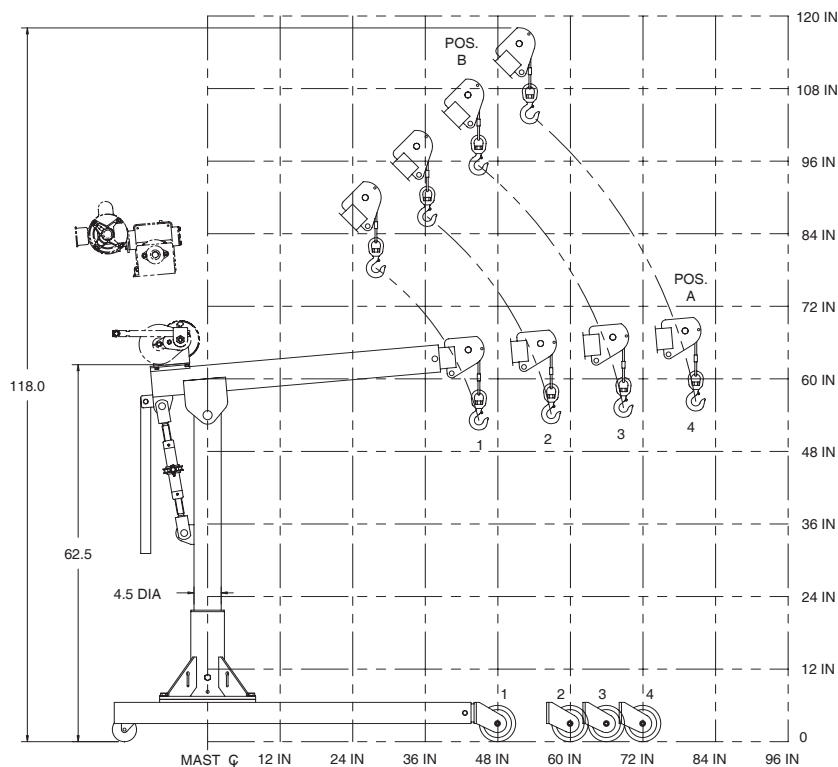
boom position	hook reach	hook height
A-1	45 in	32 in
A-2	57 in	33 in
A-3	69 in	34 in
A-4	81 in	35 in
B-1	28 in	57 in
B-2	36 in	66 in
B-3	45 in	74 in
B-4	53 in	83 in

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



See Additional Dimensions on Next Page

5124 with Model 524R wheel base



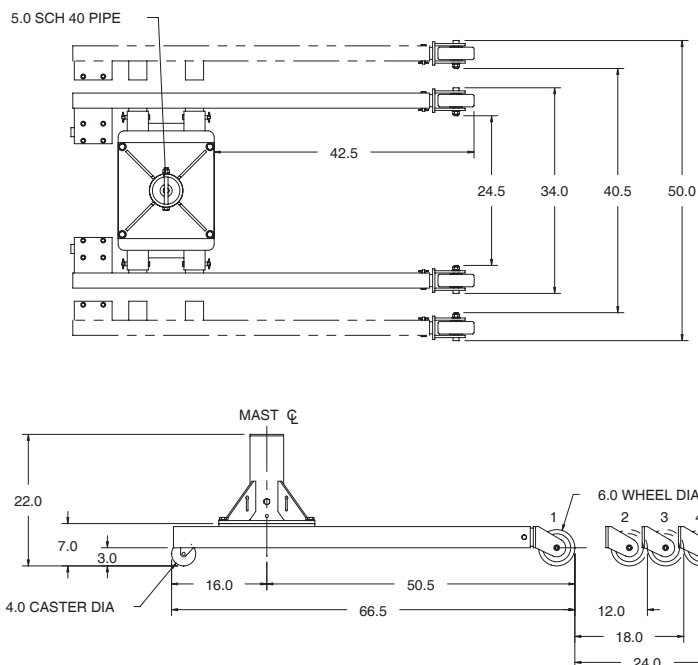
5124 with 524R Wheel Base – Height and Reach

boom position	hook reach	hook height
A-1	45 in	53 in
A-2	57 in	54 in
A-3	69 in	55 in
A-4	81 in	56 in
B-1	28 in	78 in
B-2	36 in	87 in
B-3	45 in	95 in
B-4	53 in	104 in

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

Important:

Crane DOES NOT rotate in base when assembled in 524R wheel base.



Wheel Base sold separately for floor crane operation. See Wheel Base Model 524R on page 39.

Load Ratings for 5124 with 524R Wheel Base

Crane Load Ratings	Leg Position 1	Leg Position 2	Leg Position 3	Leg Position 4
Boom Position 1	2000 lb	2000 lb	2000 lb	2000 lb
Boom Position 2	do not use	1600 lb	1600 lb	1600 lb
Boom Position 3	do not use	1300 lb	1300 lb	1300 lb
Boom Position 4	do not use	do not use	1000 lb	1000 lb

Important:

It is the owner's 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.

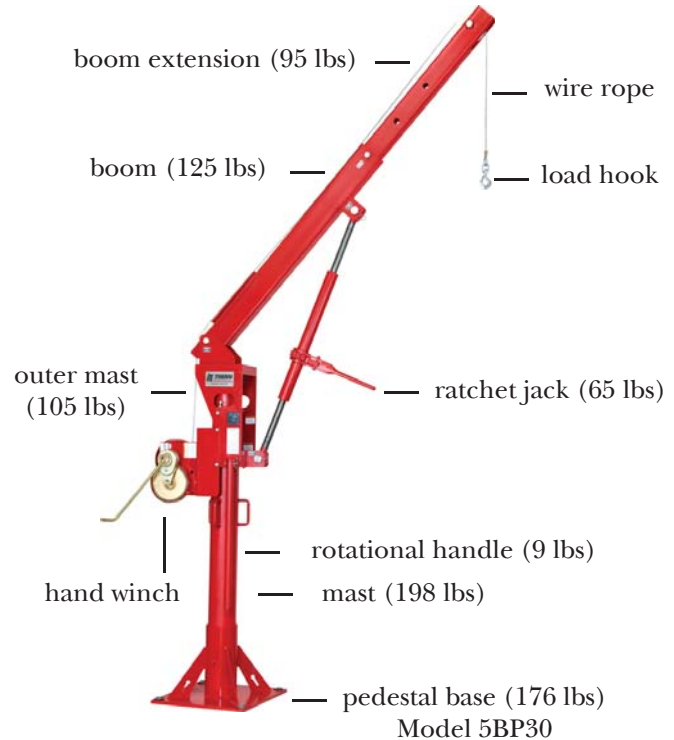
Series 5PT30 Davit Crane

Load Capacity up to 3,000 lbs

Features and Benefits

- **Hand Winch Operated Models** include spur gear hand winch with brake for load control.
- **Power Winch Operated Models** includes 115 volt, single phase AC electric winch with pendant control and brake. Other voltages and phases, 12 volt DC, pneumatic, and hydraulic options available, contact factory.
- **Adjustable Boom Telescopes** to 5 different lengths to adjust height and reach.
- **Adjustable Boom Angle** option allows for 50° of movement between boom position "A" and "C" with hand operated ratchet style screw-jack to adjust height and reach. (A)
- **Boom Brace** option securely holds boom in fixed position during operation. Fixed at position "B".
- **Boom and Outer Mast Rotates** on tapered roller bearings and needle bearings for smooth 360° load movement. (B) Outer mast locks in one of six positions (at 30° increments) with locking pin. (C) Handle on the outer mast makes rotation easy.
- **Crane Breaks Down** for storage or transport.
- **2-Year Limited Warranty.**

Model 5PT30J-M1 with Ratchet Style Screw-Jack



Ratchet jack replaces fixed boom brace to allow for boom angle adjustment.

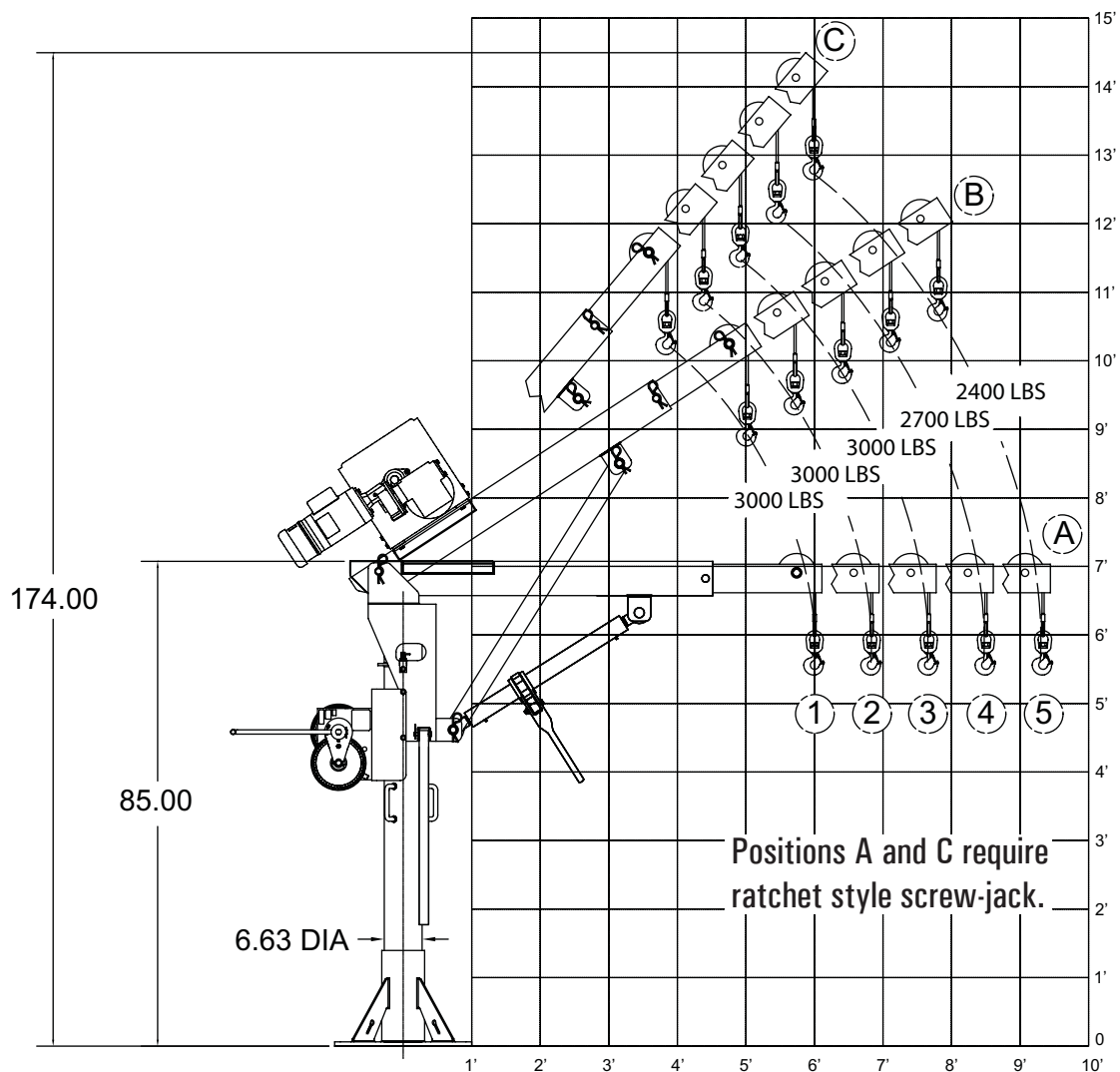


Roller bearings make mast rotation easy and smooth.



Locking pin on outer mast fits into slots securing crane after rotation.

Series 5PT30 with Pedestal Base



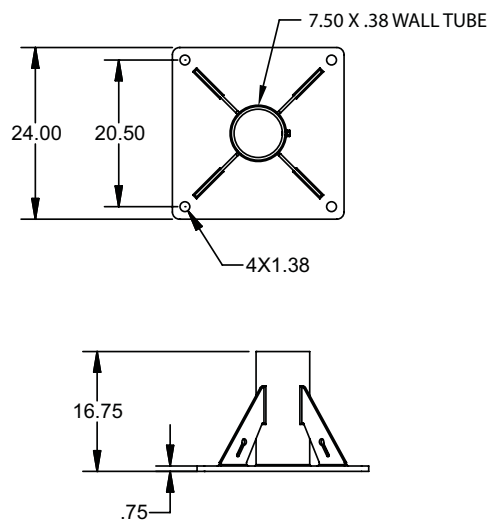
Series 5PT30 Pedestal Base Hook Height and Reach

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1*	72.00	1829	66.00	1677
A-2*	82.00	2083	66.00	1677
A-3*	92.00	2337	66.00	1677
A-4*	102.00	2591	66.00	1677
A-5*	112.00	2845	66.00	1677
B-1 (fixed)	60.00	1524	106.00	2693
B-2 (fixed)	69.00	1753	112.00	2845
B-3 (fixed)	77.00	1956	117.00	2972
B-4 (fixed)	85.00	2159	123.00	3125
B-5 (fixed)	94.00	2388	128.00	3252
C-1*	46.00	1169	122.00	3099
C-2*	53.00	1347	130.00	3302
C-3*	59.00	1499	137.00	3480
C-4*	66.00	1677	145.00	3683
C-5*	72.00	1829	153.00	3887

* Boom position requires purchasing the screw-jack.

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

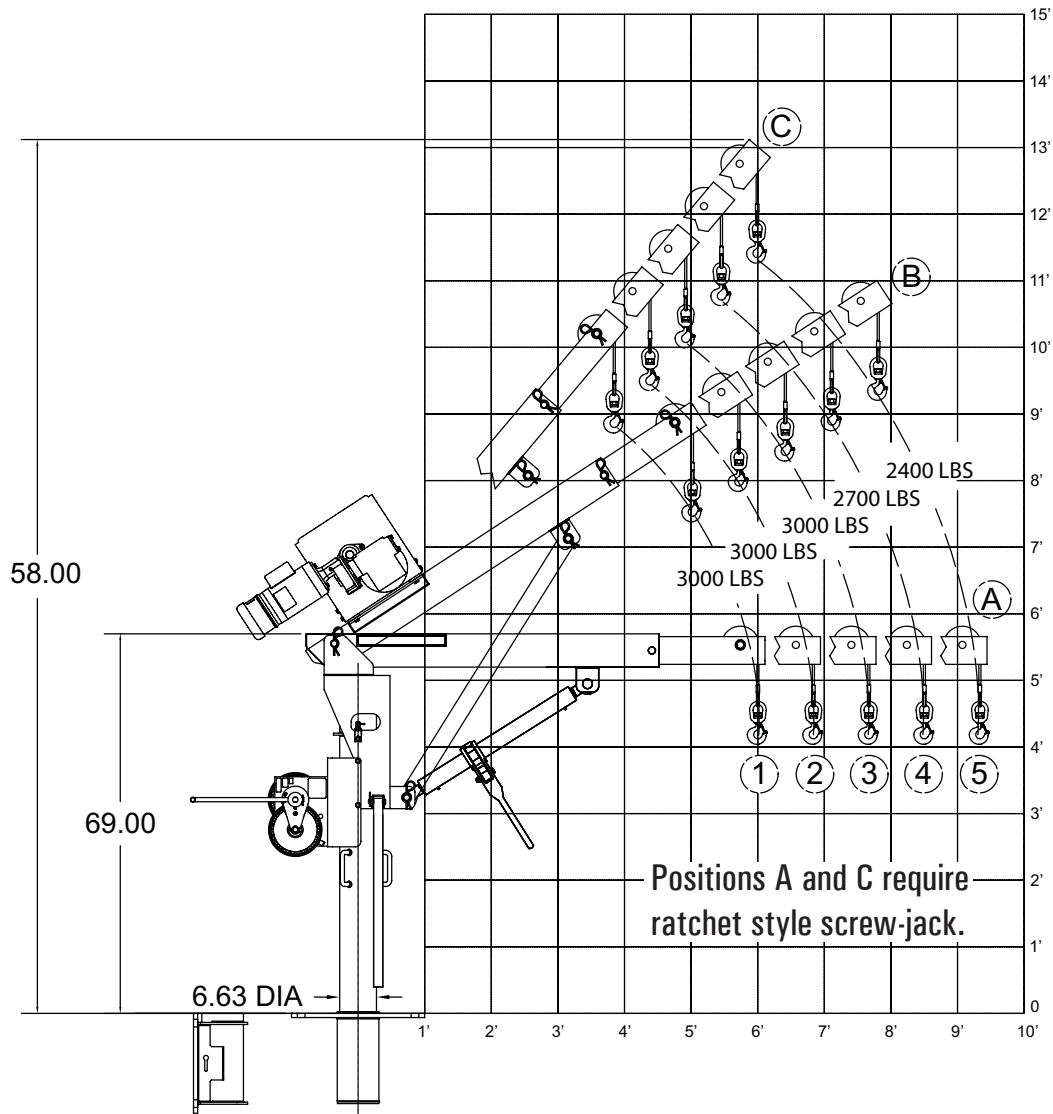
Pedestal Base



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Series 5PT30 with Socket or Wall Mount Base

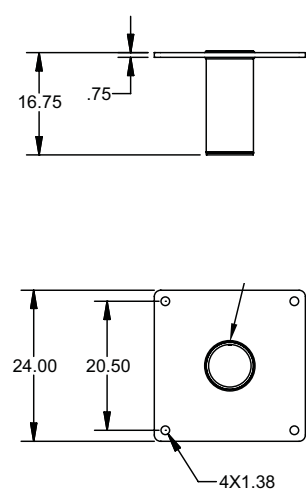


Series 5PT30 Socket/Wall Base Hook Height and Reach

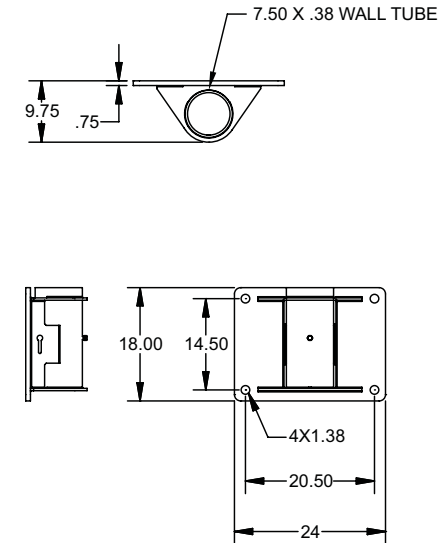
Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1*	72.00	1829	50.00	1270
A-2*	82.00	2083	50.00	1270
A-3*	92.00	2337	50.00	1270
A-4*	102.00	2591	50.00	1270
A-5*	112.00	2845	50.00	1270
B-1 (fixed)	60.00	1524	90.00	2286
B-2 (fixed)	69.00	1753	96.00	2439
B-3 (fixed)	77.00	1956	101.00	2566
B-4 (fixed)	85.00	2159	107.00	2718
B-5 (fixed)	94.00	2388	112.00	2845
C-1*	46.00	1169	106.00	2693
C-2*	53.00	1347	114.00	2896
C-3*	59.00	1499	121.00	3074
C-4*	66.00	1677	129.00	3277
C-5*	72.00	1829	137.00	3480

* Boom position requires purchasing the screw-jack.
Dimensions are for reference only and subject to change without notice.

Socket Base



Wall Base



Series 5PT30 Crane Configurations

Description		Weight
Model		(lb) (kg)
5PT30	up to 3000 lbs - red enamel finish - boom brace - no winch	563 256
5PT30J	up to 3000 lbs - red enamel finish - adjustable ratchet-jack - no winch	628 285
G	galvanized finish - on crane and ratchet-jack	- -
X	epoxy finish - on crane and ratchet-jack	- -
M1	M452B-K spur gear hand winch - enamel finish	78 36
M1X	M452BEGRA-K spur gear hand winch - epoxy finish	78 36
E5A1	4WS3M6-K1A1 electric winch – 115 VAC, 1 phase with 6 ft pendant control - enamel finish	300 137
E5XA1	4WS3M6-K1XA1 electric winch – 115 VAC, 1 phase with 6 ft pendant control - epoxy finish	300 137

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

Series 5PT30 Bases

Description		Weight
Model		(lb) (kg)
5BP30	pedestal base (upright mount) - red enamel finish	200 91
5BP30G	pedestal base (upright mount) - galvanized finish	200 91
5BP30X	pedestal base (upright mount) - epoxy finish	200 91
5BF30	socket base (flush mount) - red enamel finish	200 91
5BF30G	socket base (flush mount) - galvanized finish	200 91
5BF30X	socket base (flush mount) - epoxy finish	200 91
5BW30	wall mount base - red enamel finish	200 91
5BW30G	wall mount base - galvanized finish	200 91
5BW30X	wall mount base - epoxy finish	200 91

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

Series 5PT30 Wire Rope

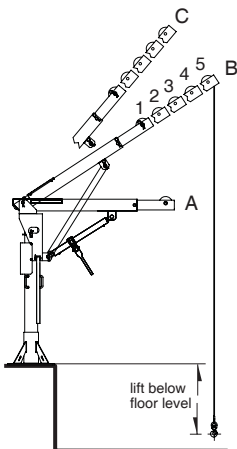
Description		Weight
Model		(lb) (kg)
WA38-28DS	3/8 inch x 28 ft – galvanized aircraft cable with swivel hook and unfinished end	8 4
WA38-36DS	3/8 inch x 36 ft – galvanized aircraft cable with swivel hook and unfinished end	10 5
WA38-45DS	3/8 inch x 45 ft – galvanized aircraft cable with swivel hook and unfinished end	11 5
WA38-60DS	3/8 inch x 60 ft – galvanized aircraft cable with swivel hook and unfinished end	14 7
WA38-75DS	3/8 inch x 75 ft – galvanized aircraft cable with swivel hook and unfinished end	17 8
WS38-28DS	3/8 inch x 28 ft – 304 stainless steel wire rope with swivel hook and unfinished end	8 4
WS38-36DS	3/8 inch x 36 ft – 304 stainless steel wire rope with swivel hook and unfinished end	10 5
WS38-45DS	3/8 inch x 45 ft – 304 stainless steel wire rope with swivel hook and unfinished end	12 6
WS38-60DS	3/8 inch x 60 ft – 304 stainless steel wire rope with swivel hook and unfinished end	15 7
WS38-75DS	3/8 inch x 75 ft – 304 stainless steel wire rope with swivel hook and unfinished end	18 9

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

Series 5PT30 Crane Performance Characteristics

Wire Rope			Load Rating 5PT30M1 and M1X					Load Rating 5PT30-E5A1** and E5XA1					Lift Below Floor Level*	
Rope Length	Rope Diameter		Position 1	Position 2	Position 3	Position 4	Position 5	Position 1	Position 2	Position 3	Position 4	Position 5	Min Below	Max Below
(ft) (m)	(in) (mm)		(lb) (kg)	(lb) (kg)	(lb) (kg)	(lb) (kg)	(lb) (kg)	(lb) (kg)	(lb) (kg)	(lb) (kg)	(lb) (kg)	(lb) (kg)	(ft) (m)	(ft) (m)
28 9	0.38 10		3,000 1,361	3,000 1,361	3,000 1,361	2,700 1,225	2,400 1,089	3,000 1,361	3,000 1,361	3,000 1,361	2,700 1,225	2,400 1,089	0 0	8 3
36 11	0.38 10		3,000 1,361	3,000 1,361	3,000 1,361	2,700 1,225	2,400 1,089	3,000 1,361	3,000 1,361	3,000 1,361	2,700 1,225	2,400 1,089	8 3	16 5
45 14	0.38 10		3,000 1,361	3,000 1,361	3,000 1,361	2,700 1,225	2,400 1,089	3,000 1,361	3,000 1,361	3,000 1,361	2,700 1,225	2,400 1,089	17 6	25 8
60 19	0.38 10		2,800 1,271	2,800 1,271	2,800 1,271	2,700 1,225	2,400 1,089	3,000 1,361	3,000 1,361	3,000 1,361	2,700 1,225	2,400 1,089	32 10	40 13
75 23	0.38 10		2,600 1,180	2,600 1,180	2,600 1,180	2,400 1,225	2,400 1,089	2,700 1,225	2,700 1,225	2,700 1,225	2,700 1,225	2,400 1,089	47 15	55 17

* Lift below floor level varies depending on boom position and winch configuration. For longer lifts contact factory. ** Add 3 ft to lift below floor level for Model 5PT30-E5A1.



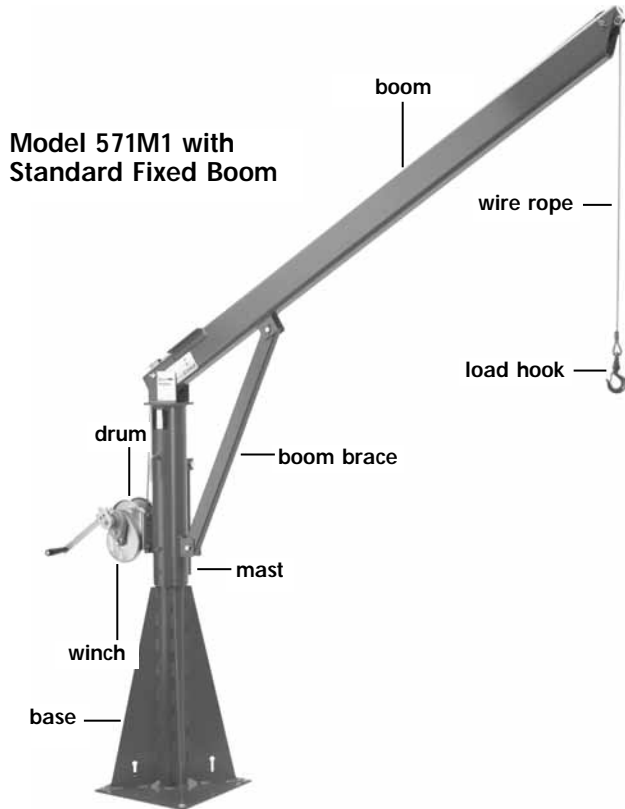
IMPORTANT:

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.



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Model 571M1 with
Standard Fixed Boom



Model 571M2 with
Adjustable Boom Option
(screw-jack sold separately)

Series 571 and 572 Fre Rol Davit Cranes

Hand or Power Winch Operation
Up to 2200 lb capacity

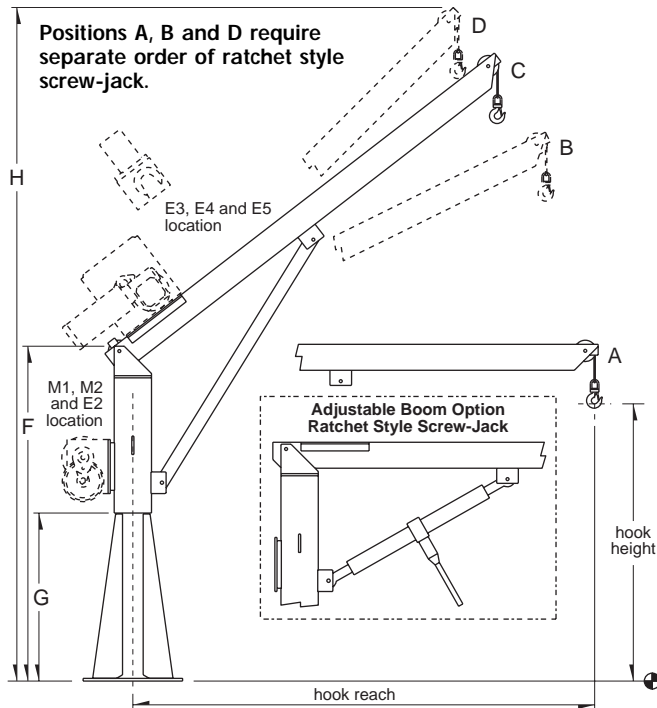
- **Hand Winch Operated Models** include spur gear or worm gear hand winch with brake for load control. Model 571M2 can be drill driven, 400 rpm max.
- **Power Winch Operated Models** include 115 volt 1 phase AC electric winch with pendant control and brake. Other power options available, please contact factory.
- **Fixed Boom – Boom Position C**
- **Adjustable Boom Option** – adjusts between Boom Position A and D – with hand operated ratchet style screw-jack, used to adjust height and reach.
Optional screw-jack sold separately.
- **Mast and Boom Rotate** on tapered roller bearings for smooth 360° load movement. Mast locks in one of four positions with hand tightened lock bolt. Handle on the mast makes rotation easy.
- **Gusset Style Base** for permanent installation and stability under load.
- **Epoxy Finish** available for improved protection against corrosion.
- **Wire Rope Assemblies** sold separately. See tables on following pages.
- **Two-year Limited Warranty**

Series 571 and 572 – Crane Configurations, Bases, and Options – Section 4

model	description	approx. ship wt.
571M1	up to 1500 lb – with M4312PB-K spur gear hand winch	425 lb
571M2	up to 1500 lb – with 4WM2V-K worm gear hand winch	450 lb
571E2	up to 1500 lb – with 4WP2-K electric winch – 115 VAC, 1 phase, 6 ft pendant control	475 lb
571E4	up to 1500 lb – with 4777-K electric winch – 115 VAC, 1 phase, 6 ft pendant control	489 lb
572M1	up to 2200 lb – with M452B-K spur gear hand winch	720 lb
572E3	up to 2000 lb – with 4771-K electric winch – 115 VAC, 1 phase, 6 ft pendant control	750 lb
572E5	up to 2200 lb – with 4WS3M6-K electric winch – 115 VAC, 1 phase, 6 ft pendant control (other configurations available, please contact factory)	1050 lb
SJ1	ratchet style screw-jack for Series 571 (replaces standard boom brace)	37 lb
SJ2	ratchet style screw-jack for Series 572 (replaces standard boom brace)	97 lb

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

See Dimensions on Next Page



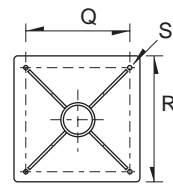
Series 571 and 572 Crane Dimensions

	Series 571	Series 572
F	67.19 in	77.41 in
G	32.88 in	38.62 in
H	131.19 in	155.75 in
Q	16.00 in	20.00 in
R	18.00 in	23.00 in
S (hole dia.)	.56 in	.81 in

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

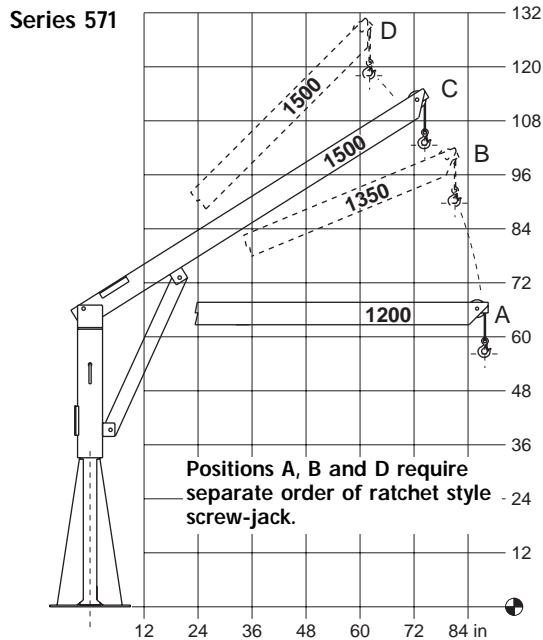
Important:

Load rating will vary with wire rope length and boom position. Please see Performance Characteristics table on the following page.



Important:

It is the owner's 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.

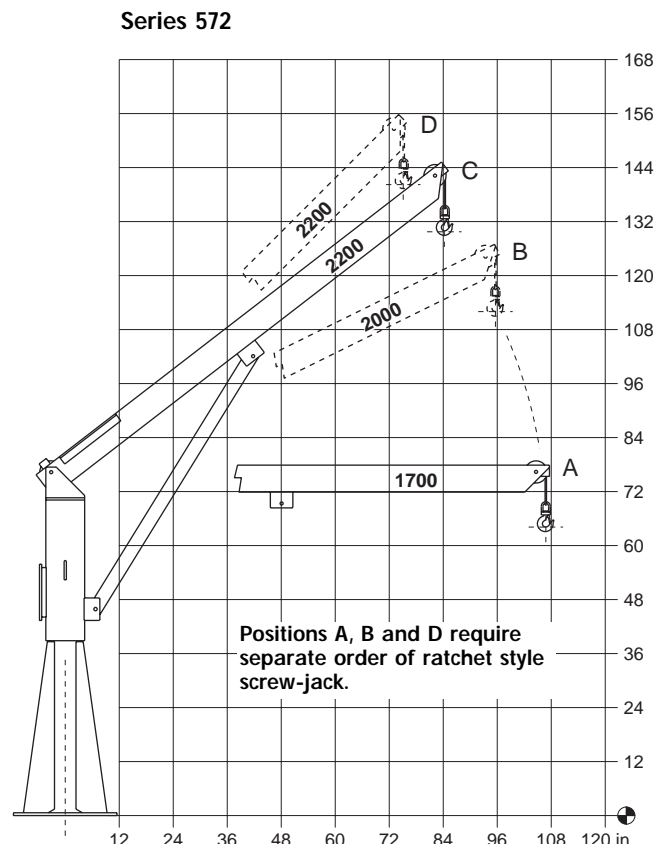


Series 571 and 572 – Height and Reach

series	boom position	hook reach	hook height
571	A ¹	87.88 in	56.00 in
	B ¹	81.25 in	90.00 in
	C (fixed)	74.56 in	102.00 in
	D ¹	62.25 in	118.00 in
572	A ¹	106.75 in	64.00 in
	B ¹	95.50 in	112.00 in
	C (fixed)	84.25 in	130.00 in
	D ¹	75.00 in	140.00 in

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

¹ Boom position requires purchasing the screw-jack option.



Important:

Base installation is purchaser's responsibility. Thern recommends consulting a civil engineer or other qualified professional.

WIRE ROPE ASSEMBLIES – sold separately

- Galvanized or Stainless Steel wire rope assemblies.

Wire Rope Assemblies – Section 9

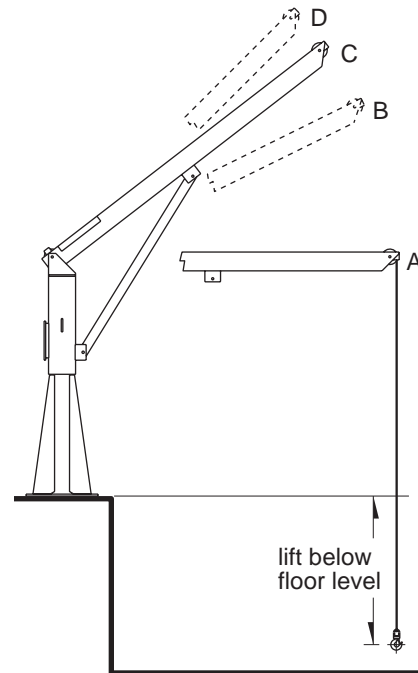
model number	wire rope diameter x length	approx. ship weight
galvanized aircraft cable with swivel hook and swaged ball fitting		
WA25-28NS	1/4 in x 28 ft	5 lb
WA25-36NS	1/4 in x 36 ft	6 lb
WA25-45NS	1/4 in x 45 ft	7 lb
WA25-60NS	1/4 in x 60 ft	9 lb
WA25-75NS	1/4 in x 75 ft	10 lb
304 stainless steel wire rope with SS eye hook and swaged ball fitting - swivel hook also available please contact factory		
WS25-28NE	1/4 in x 28 ft	5 lb
WS25-36NE	1/4 in x 36 ft	6 lb
WS25-45NE	1/4 in x 45 ft	7 lb
WS25-60NE	1/4 in x 60 ft	8 lb
WS25-75NE	1/4 in x 75 ft	10 lb
galvanized aircraft cable with swivel hook and unfinished end		
WA31-28DS	5/16 in x 28 ft	7 lb
WA31-36DS	5/16 in x 36 ft	9 lb
WA31-45DS	5/16 in x 45 ft	10 lb
WA31-60DS	5/16 in x 60 ft	13 lb
WA31-75DS	5/16 in x 75 ft	15 lb
304 stainless steel wire rope with SS eye hook and unfinished end - swivel hook also available please contact factory		
WS31-28DE	5/16 in x 28 ft	7 lb
WS31-36DE	5/16 in x 36 ft	9 lb
WS31-45DE	5/16 in x 45 ft	11 lb
WS31-60DE	5/16 in x 60 ft	14 lb
WS31-75DE	5/16 in x 75 ft	17 lb

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

Important:

It is the owner's 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.

Positions A, B and D require separate order of ratchet style screw-jack.



Series 571 Performance Characteristics

wire rope dia.	wire rope length	load rating for 571M1, 571M2 and 571E2				load rating for 571E4 ¹				lift below floor level (min – max) ²
		position A	position B	position C	position D	position A	position B	position C	position D	
1/4 in	28 ft	1200 lb	1350 lb	1500 lb	1500 lb	1200 lb	1350 lb	1500 lb	1500 lb	4 – 9 ft
1/4 in	36 ft	1200 lb	1350 lb	1500 lb	1500 lb	1200 lb	1350 lb	1500 lb	1500 lb	12 – 17 ft
1/4 in	45 ft	1200 lb	1350 lb	1400 lb	1400 lb	1200 lb	1350 lb	1500 lb	1500 lb	21 – 26 ft
1/4 in	60 ft	1200 lb	1300 lb	1300 lb	1300 lb	1200 lb	1350 lb	1400 lb	1400 lb	36 – 41 ft
1/4 in	75 ft	–	–	–	–	1200 lb	1300 lb	1300 lb	1300 lb	51 – 56 ft

¹ Add 2 ft to lift below floor level for Model 571E4.

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

Series 572 Performance Characteristics

wire rope dia.	wire rope length	load rating for 572M1 and 572E5 ¹				load rating for 572E3 ¹				lift below floor level (min – max) ²
		position A	position B	position C	position D	position A	position B	position C	position D	
5/16 in	28 ft	1700 lb	2000 lb	2200 lb	2200 lb	1700 lb	1700 lb	1700 lb	1700 lb	-1 – 5 ft
5/16 in	36 ft	1700 lb	2000 lb	2200 lb	2200 lb	1700 lb	1700 lb	1700 lb	1700 lb	7 – 13 ft
5/16 in	45 ft	1700 lb	2000 lb	2200 lb	2200 lb	1500 lb	1500 lb	1500 lb	1500 lb	16 – 22 ft
5/16 in	60 ft	1700 lb	2000 lb	2200 lb	2200 lb	1300 lb	1300 lb	1300 lb	1300 lb	31 – 37 ft
5/16 in	75 ft	1700 lb	2000 lb	2200 lb	2200 lb	1300 lb	1300 lb	1300 lb	1300 lb	46 – 52 ft

¹ Add 3 ft to lift below floor level for Model 572E3 and 572E5.

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

Model 548



Important:

It is the owner's 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.

Model 548 Portable Floor Crane Up to 1000 lb Capacity

- **Manually Operated Hydraulic Jack** for raising the boom, equipped with a control knob for smooth lowering of loads.
- **Collapsible Crane** folds down into 16 x 17 x 57 inch compact unit for storage or transport. Boom lowers into mast, legs are removed and placed inside mast uprights.
- **Boom Telescopes** to 4 different lengths to extend reach. Load rating decreases as boom length is increased.
- **Overload Relief Valve** helps prevent overload damage by releasing hydraulic pressure when too large a load is placed on the crane.
- **Four Wheel Base** with scratch and spark resistant wheels in front, and caster wheels in back for 360° maneuverability. Four point support ensures stability under load.
- **Swivel Hook** allows rotation of load for accurate placement.
- **Cabled Pins** secure the legs to the base for quick installation and removal, cables ensure pins are not lost or misplaced when removed.
- **Two-year Limited Warranty**

Model 548 – Section 4

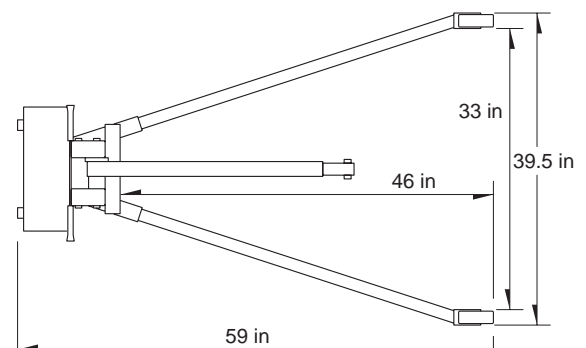
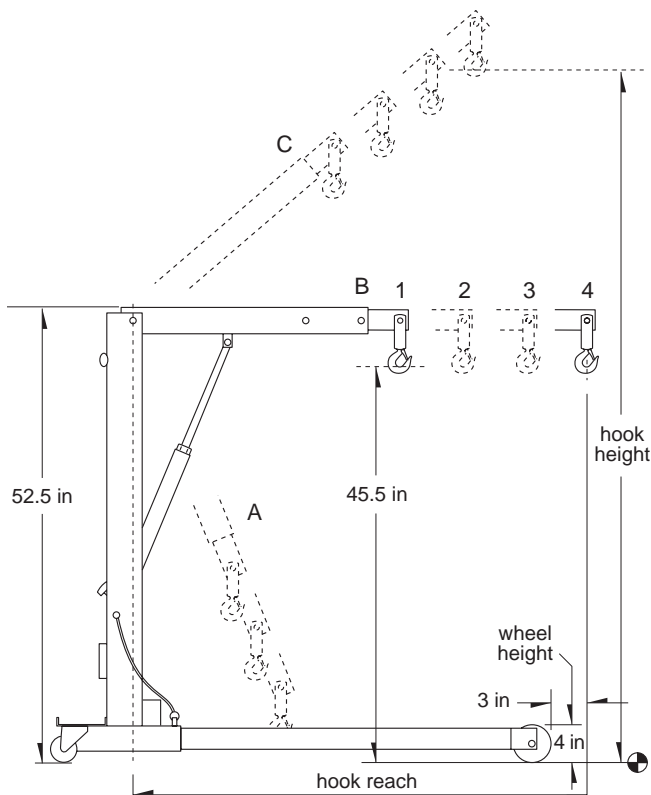
model	description	approx. ship wt.
548	1000 lb portable floor crane	154 lb

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

Model 548 Specifications

	load rating	max. hook reach (at B)	max. hook height (at C)
boom position 1	1000 lb	31.00 in	65.00 in
boom position 2	800 lb	38.00 in	69.50 in
boom position 3	680 lb	45.00 in	74.00 in
boom position 4	590 lb	52.00 in	78.50 in

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





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, and motor horsepower.

Drum control switches for 115 volt single phase motors up to 1.5 hp, include 8 ft power cord with grounded plug.

Electric Drum Control Switches – Horsepower Ratings – Section 2

model number	description	Voltage/Phase/Hertz with maximum rated motor hp				approx. ship wt.
		115/1/60 ¹	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	3 lb
10L7E1	NEMA 1	to 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp	3 lb
10L2A4	NEMA 4 – watertight	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp	7 lb
10L7E4	NEMA 4 – watertight	to 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp	7 lb

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

¹ Controls for 115 volt single phase motors up to 1.5 hp, include 8 foot power cord with grounded plug.

Important:

It is the owner's 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.



WHEN ORDERING PLEASE INCLUDE THE FOLLOWING:
 voltage and phase required, motor horsepower,
 pendant control cord length – up to 50 feet, and
 pendant control labeling – For/Rev or Up/Down.

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.

Important:

It is the owner's 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.

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** NEMA 4 rated (watertight) keeps dirt and water out. Approved for most outdoor applications.
- **Pendant Control Switch** NEMA 4X rated (watertight), on 50 foot cord, allows operator to stand away from 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 factory for more information.
- **Two-Year Limited Warranty**

Single Speed – Electric Motor Controls – Horsepower Ratings – Section 8

Controls include NEMA 4 enclosure and NEMA 4X push button pendant control on 50 foot cord.

model number	maximum rated motor horsepower for power supply current					approx. ship wt.
	115/1/60	230/1/60	208/3/60	230/3/60	460/3/60	
10S2A4	to 1.5 hp	—	—	—	—	25 lb
10S3B4	—	to 3 hp	—	—	—	25 lb
10S3C4	—	—	to 3 hp	—	—	25 lb
10S7C4	—	—	to 7.5 hp	—	—	25 lb
10S10C4	—	—	to 10 hp	—	—	28 lb
10S20C4	—	—	to 20 hp	—	—	28 lb
10S3D4	—	—	—	to 3 hp	—	25 lb
10S7D4	—	—	—	to 7.5 hp	—	25 lb
10S10D4	—	—	—	to 10 hp	—	28 lb
10S20D4	—	—	—	to 20 hp	—	28 lb
10S30D4	—	—	—	to 30 hp	—	60 lb
10S7E4	—	—	—	—	to 7.5 hp	25 lb
10S15E4	—	—	—	—	to 15 hp	25 lb
10S20E4	—	—	—	—	to 20 hp	28 lb
10S40E4	—	—	—	—	to 40 hp	60 lb
10S60E4	—	—	—	—	to 60 hp	60 lb

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

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 Speeds Controls** provide accurate positioning of loads, soft starts and soft stops, and overload protection.
- **Frequencies greater than 60 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 NEMA 12 rated** (indoor). NEMA 4 rated (watertight) enclosures also available.
- **Pendant Control Switch NEMA 4X rated** (watertight) with 3 step infinitely variable speed push buttons on 50 foot cord, allows operator to stand away from 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 factory for more information.
- **Explosion Proof Controls** also available, please contact factory for more information.
- **Two-Year Limited Warranty**

Variable Speed Electric Motor Controls – Horsepower Ratings – Section 8

Please specify voltage, phase, and motor hp when ordering. Contact factory for other required voltages and options. **IMPORTANT! Please see notes below before ordering.**

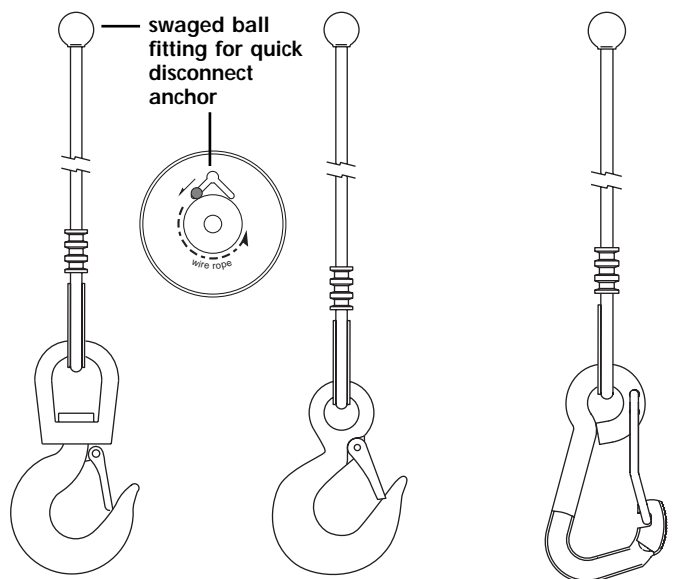
model number	maximum rated motor horsepower for power supply current		approx. ship wt.
	230/3/60	460/3/60	
10V1D12L	1 hp	—	100 lb
10V2D12L	2 hp	—	100 lb
10V3D12L	3 hp	—	100 lb
10V5D12L	5 hp	—	100 lb
10V7D12L	7.5 hp	—	120 lb
10V10D12L	10 hp	—	120 lb
10V15D12L	15 hp	—	120 lb
10V20D12L	20 hp	—	210 lb
10V25D12L	25 hp	—	210 lb
10V1E12L	—	1 hp	100 lb
10V2E12L	—	2 hp	100 lb
10V3E12L	—	3 hp	100 lb
10V5E12L	—	5 hp	100 lb
10V7E12L	—	7.5 hp	100 lb
10V10E12L	—	10 hp	100 lb
10V15E12L	—	15 hp	120 lb
10V20E12L	—	20 hp	180 lb
10V25E12L	—	25 hp	180 lb

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 resistor to be mounted and wired by others. Contact factory to verify drive compatibility to winch and motor. Controls shipped separately to be mounted and wired by others.

WHEN ORDERING PLEASE INCLUDE THE FOLLOWING:
 voltage and phase required, motor horsepower, pendant control cord length – up to 50 feet, and pendant control labeling – For/Rev or Up/Down.

Important:

It is the owner's 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.



Swivel Hook

Eye Hook

Oval Hook

Breaking Strength of New Wire Rope (lb)

wire rope diameter		7 x 19 Galvanized Aircraft Cable	7 x 19 304 Stainless Steel wire rope
1/8 in	(.13)	2,000	1,760
3/16 in	(.19)	4,200	3,700
1/4 in	(.25)	7,000	6,400
5/16 in	(.31)	9,800	9,000
3/8 in	(.38)	14,400	12,000

Values shown are for reference only. When selecting a wire rope, use the breaking strength specified by the rope manufacturer.

Breaking Strength of New Wire Rope (lb)

wire rope diameter		6 x 37 IWRC IPS (Improved Plow Steel) wire rope	6 x 37 IWRC EIPS (Extra Improved Plow Steel) wire rope
3/8 in	(.38)	12,400	15,100
7/16 in	(.44)	16,500	20,400
1/2 in	(.50)	23,000	26,600
9/16 in	(.56)	29,000	33,600
5/8 in	(.63)	35,800	41,200
3/4 in	(.75)	51,200	58,800
7/8 in	(.88)	69,200	79,600
1 in	(1.00)	89,800	103,400
1-1/8 in	(1.13)	113,000	130,000
1-1/4 in	(1.25)	138,800	159,800
1-1/2 in	(1.50)	197,800	228,000

Values shown are for reference only. When selecting a wire rope, use the breaking strength specified by the rope manufacturer.

Important:

It is the owner's 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.

Wire Rope Assemblies

How to Order Wire Rope

Thern winches are sold without wire rope.

Order wire rope separately from the factory or a reputable supplier. The breaking strength of new wire rope should be 5 times the size of the largest load for lifting applications, and 3 times the size of the largest load for pulling applications. Contact a reputable wire rope supplier for more information.

Wire Rope Assemblies – Section 9

model number	wire rope diameter x length	approx. ship weight
galvanized aircraft cable with swivel hook and swaged ball fitting		
WA19-20NS	3/16 in x 20 ft	3 lb
WA19-28NS	3/16 in x 28 ft	4 lb
WA19-36NS	3/16 in x 36 ft	4 lb
WA19-45NS	3/16 in x 45 ft	7 lb
WA25-20NS	1/4 in x 20 ft	4 lb
WA25-28NS	1/4 in x 28 ft	5 lb
WA25-36NS	1/4 in x 36 ft	6 lb
WA25-45NS	1/4 in x 45 ft	7 lb
WA25-60NS	1/4 in x 60 ft	9 lb
WA25-75NS	1/4 in x 75 ft	11 lb

galvanized aircraft cable with swivel hook and unfinished end

WA31-20DS	5/16 in x 20 ft	6 lb
WA31-28DS	5/16 in x 28 ft	7 lb
WA31-36DS	5/16 in x 36 ft	8 lb
WA31-45DS	5/16 in x 45 ft	10 lb
WA31-60DS	5/16 in x 60 ft	12 lb
WA31-75DS	5/16 in x 75 ft	15 lb

304 stainless steel wire rope with SS oval hook and swaged ball fitting - swivel hook also available please call factory

WS19-20NO	3/16 in x 20 ft	3 lb
WS19-28NO	3/16 in x 28 ft	3 lb
WS19-36NO	3/16 in x 36 ft	4 lb
WS19-45NO	3/16 in x 45 ft	7 lb
WS19-60NO	3/16 in x 60 ft	9 lb
WS19-75NO	3/16 in x 75 ft	11 lb

304 stainless steel wire rope with SS eye hook and swaged ball fitting - swivel hook also available please call factory

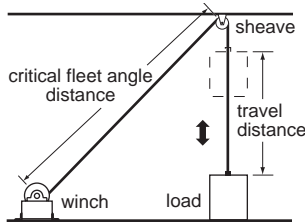
WS25-20NE	1/4 in x 20 ft	5 lb
WS25-28NE	1/4 in x 28 ft	5 lb
WS25-36NE	1/4 in x 36 ft	6 lb
WS25-45NE	1/4 in x 45 ft	7 lb
WS25-60NE	1/4 in x 60 ft	9 lb
WS25-75NE	1/4 in x 75 ft	11 lb

304 stainless steel wire rope with SS eye hook and unfinished end - swivel hook also available please call factory

WS31-20DE	5/16 in x 20 ft	6 lb
WS31-28DE	5/16 in x 28 ft	7 lb
WS31-36DE	5/16 in x 36 ft	9 lb
WS31-45DE	5/16 in x 45 ft	11 lb
WS31-60DE	5/16 in x 60 ft	14 lb
WS31-75DE	5/16 in x 75 ft	17 lb

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

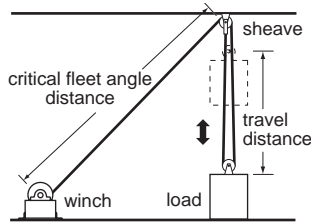
Typical Rigging Layouts for Lifting and Hoisting Applications



Floor Mounted

Lifting with Overhead Sheave

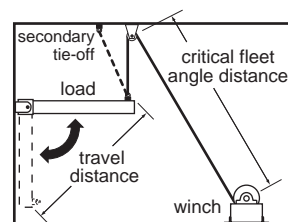
- Wire rope passes through overhead sheave to load.
- Brake Motor provides load control for lifting.
- Winch is easily accessible for maintenance and operation.



Floor Mounted

Lifting with 2-Part Line

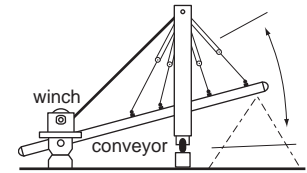
- 2-part line decreases load capacity at the winch.
- Brake Motor provides load control for lifting.
- Winch is easily accessible for maintenance and operation.



Floor Mounted

Lifting Hinged Load

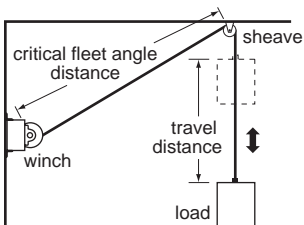
- Wire rope passes through overhead sheave to load.
- Brake Motor provides load control for lifting.
- Winch is easily accessible for maintenance and operation.



Base Mounted

Positioning Radial Stacker

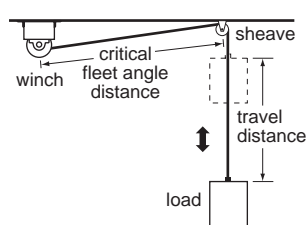
- Multi-part rigging decreases load capacity at the winch.
- Brake Motor provides load control for lifting.
- Winch is easily accessible for maintenance and operation.



Wall Mounted

Lifting with Overhead Sheave

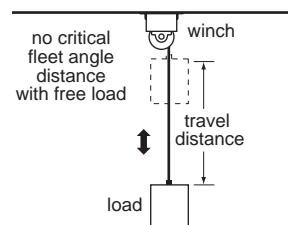
- Wire rope passes through overhead sheave to load.
- Brake Motor provides load control for lifting.
- Winch is easily modified for wall mounting.



Ceiling Mounted

Lifting with Overhead Sheave

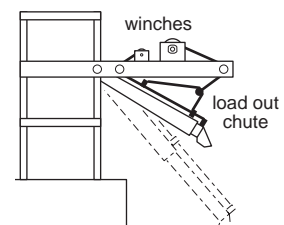
- Wire rope passes through overhead sheave to load.
- Brake Motor provides load control for lifting.
- Winch is easily modified for ceiling mounting.



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.

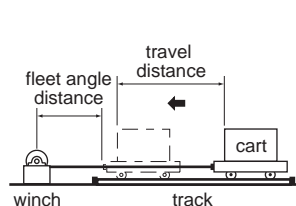


Base Mounted

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.

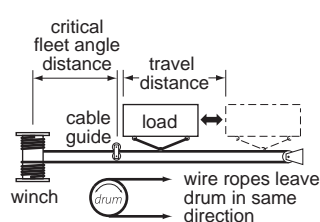
Typical Rigging Layouts for Pulling Applications



Floor Mounted

Pulling Cart on Wheels

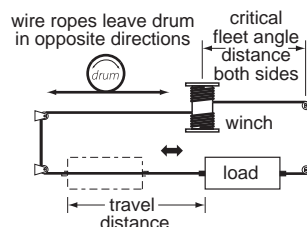
- Cart is pulled in one direction, toward winch.
- Manual clutch allows drum to be disengaged for rapid load hook-up.
- Cart is guided by tracks or rails to maintain fleet angle.



Mounted In-Line

Single Drum Closed Loop

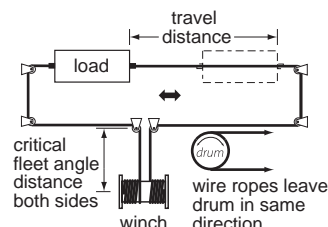
- Cars can be moved in both directions.
- Both ends of the wire rope are anchored to the same drum.
- Spring sheave maintains tension in wire rope.



Mounted Off-Side

Single Drum Closed Loop

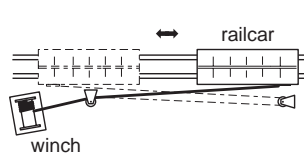
- Cars can be moved in both directions.
- Both ends of the wire rope are anchored to the same drum.
- Spring sheaves maintain tension in wire rope.



Mounted Off-Side

Single Drum Closed Loop

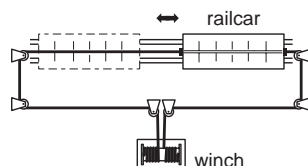
- Cars can be moved in both directions.
- Both ends of the wire rope are anchored to the same drum.
- Spring sheaves maintain tension in wire rope.



Mounted In-Line

Single Line Pulling Rail Cars

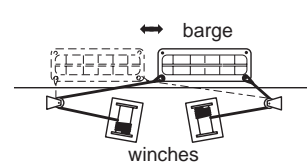
- Rail cars are pulled toward winch, or rope is passed around sheave to reverse direction.
- Manual clutch allows drum to be disengaged for rapid load hook-up.



Mounted Off-Side

Closed Loop Pulling Rail Cars

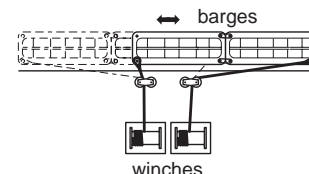
- Cars can be moved in both directions.
- Both ends of the wire rope are anchored to the same drum.
- Spring sheaves maintain tension in wire rope.



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 Required Based on Temperature Effect (lb/ton)

ambient temp. below 32° F	ambient temp. above 32° F
21	18

Line pull shown is for each 2000 lb of total gross load weight.

Line Pull Required Based on Curvature and Slope (lb/ton)

Track Curvature			Track Grade						
radius of curve	degree of curve	chordal distance A	percent of rise						
0 ft	0°	0 in	0%	1%	2%	3%	4%	5%	
1146 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 2000 lb of total gross load weight.

Example: 2 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)

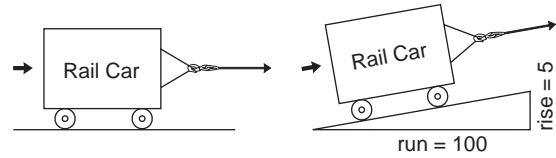
Total Line Pull Calculation (Running Pull):

(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

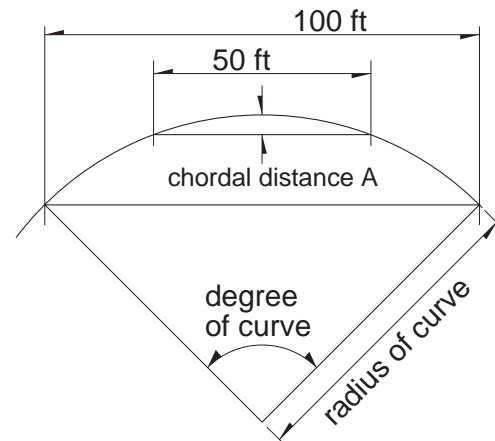
This application would require a 4HS26M (mid drum running line pull = 19,000 lb)



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%

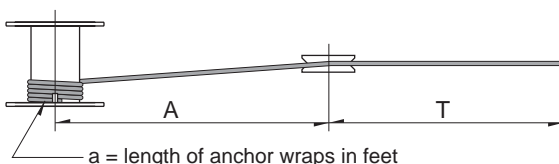


Curved sections of track place side forces on the load which must be overcome by the winch. The amount of line pull due to track curvature is dependent on the sharpness of the curve.

Engineering Information

Anchor Wraps

The first 3 to 4 wraps of wire rope must remain on the drum at all times to act as anchor wraps and 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 = length of anchor wraps in feet

a = $((D + d) \times \pi \times N) \div 12$

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 angle.

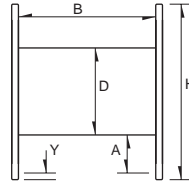
a = length of anchor wraps in feet

Engineering Information Continued...

Drum Capacity

Full drum capacity is typically calculated using the formula shown below. 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, smaller diameter wire ropes will increase drum capacity.



$$\text{drum capacity in feet} = (A + D) \times A \times B \times K$$

K = factor from the table

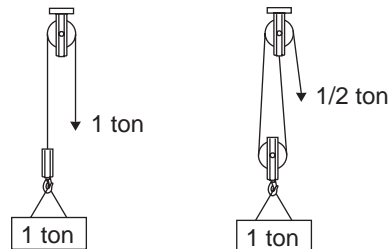
$$A = (H - D - 2Y) \div 2$$

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	9/16	5/8	3/4	7/8	1	1-1/8	1-1/4	1-3/8
K factor	13.6	6.14	4.59	3.29	2.21	1.58	1.19	.925	.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

$$H = \frac{P \times \text{fpm}}{33000 \times E}$$

$$P = \frac{HP \times 33000 \times E}{\text{fpm}}$$

$$\text{fpm} = 0.262 \times \text{rpm} \times D$$

$$\text{rpm} = \frac{3.82 \times \text{fpm}}{D}$$

hp = horsepower

P = line pull

E = efficiency of gears

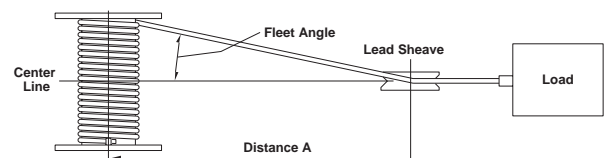
fpm = line speed in feet per minute

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.



$$\begin{aligned} \text{distance A in ft} &= \text{for } 1.5^\circ \text{ fleet angle} = (\text{drum width in inches}) \times 1.59 \\ &= \text{for } 2^\circ \text{ fleet angle} = (\text{drum width in inches}) \times 1.19 \end{aligned}$$

Recommended Max. Fleet Angle

smooth drum 1.5° grooved drum 2°

TO:	FAX:	NO. OF PAGES:	DATE:
From:		CUSTOMER:	
Contact:		Contact:	
Address:		Address:	
City:	State:	City:	State:
Phone:	Zip Code:	Phone:	Zip Code:
FAX:		FAX:	
1a	TIME FRAME:	Today's Date:	Date Needed:
Special Considerations:			
1b	PULLING <input type="checkbox"/>	LIFTING <input type="checkbox"/>	Dollar Value of Load (approx.):
Job Description:			
<i>If product will be used in more than one application, please fill out separate data sheets for each application.</i>			
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? <input type="checkbox"/> Yes <input type="checkbox"/> No
Will Weight be Added/Subtracted During Operation? <input type="checkbox"/> Yes <input type="checkbox"/> No		How Much:	
Surface Under Load:		Condition:	
Slope? <input type="checkbox"/> Yes <input type="checkbox"/> No	Rise:	Run:	Or Degrees: Or Percent (%):
Wheels? <input type="checkbox"/> Yes <input type="checkbox"/> No	Lubrication:	Material:	Size (dia.):
Track? <input type="checkbox"/> Yes <input type="checkbox"/> No	Curvature (degrees, chordal line, or other):		
Special Considerations:			
3	LINE SPEED REQUIREMENTS: Minimum Line Speed:		
<input type="checkbox"/> Constant	Minimum:	Maximum:	<input type="checkbox"/> fpm <input type="checkbox"/> cycles per minute
<input type="checkbox"/> Variable Speed ¹	From:	To:	<input type="checkbox"/> fpm <input type="checkbox"/> cycles per minute
<input type="checkbox"/> Stringent	<input type="checkbox"/> Variations Acceptable:		
Special Considerations:			
¹ This is a complex option, please contact the factory.			
4	DISTANCE OF TRAVEL:	<input type="checkbox"/> Single Layer	<input type="checkbox"/> Full Drum
Wire Rope Diameter:		Extra Rope Stored on Drum:	
Wire Rope Specifications:			
Special Considerations:			

Thern, Inc. • 5712 Industrial Park Road
 PO Box 347 • Winona, MN 55987
 800-843-7648 • 507-454-2996 • Fax 507-454-5282
 e-mail: sales@thern.com • www.thern.com

5 POWER REQUIREMENTS:

<input type="checkbox"/> Electrical	<input type="checkbox"/> AC	<input type="checkbox"/> DC	Voltage:	Phase:	Cycle:
<input type="checkbox"/> Hydraulic			Pressure:	Flow:	Line Size (dia.):
<input type="checkbox"/> Pneumatic (air)			Pressure:	Flow:	Line Size (dia.):
<input type="checkbox"/> Other:					

6 INSTALLATION REQUIREMENTS:

<input type="checkbox"/> Max. Length:	<input type="checkbox"/> Max. Width:	<input type="checkbox"/> Max. Height:	<input type="checkbox"/> Max. Weight:
Installation: <input type="checkbox"/> Base <input type="checkbox"/> Wall <input type="checkbox"/> Ceiling		Clearance Required:	

7 ENVIRONMENT:

<input type="checkbox"/> Indoor	<input type="checkbox"/> Outdoor	<input type="checkbox"/> Marine	<input type="checkbox"/> Corrosive	<input type="checkbox"/> Hazardous	Temp. Range:	<input type="checkbox"/> °F	<input type="checkbox"/> °C
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Describe Special Conditions (dust, chemicals, explosives, etc.):

8 FREQUENCY OF OPERATION:

Hours per Day:	Start/Stops per Hour:	Will There Be?	<input type="checkbox"/> Overloads	<input type="checkbox"/> Shock Loads
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9a ACCESSORY OPTIONS:

<input type="checkbox"/> Brake	<input type="checkbox"/> Limit Switch	<input type="checkbox"/> Clutch	<input type="checkbox"/> Pressure Bar	<input type="checkbox"/> Slack Line Detect
<input type="checkbox"/> Controls	<input type="checkbox"/> Torque Limiter	<input type="checkbox"/> Manual Override	<input type="checkbox"/> Other:	

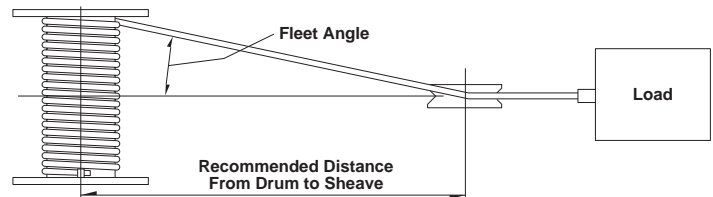
9b MODIFICATIONS:

<input type="checkbox"/> Grooved Drum	<input type="checkbox"/> Multiple Drum	<input type="checkbox"/> Modified Drum Size	<input type="checkbox"/> Level Wind	<input type="checkbox"/> 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 (O) or underwound (U).
- 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)



Submitted By:

Phone:

Fax:

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 PO Box 347 • Winona, MN 55987
 800-843-7648 • 507-454-2996 • Fax 507-454-5282
 e-mail: sales@thern.com • www.thern.com

TO:		FAX:		NO. OF PAGES:		DATE:	
From:				Customer:			
Contact:				Contact:			
Address:				Address:			
City:		State:		City:		State:	
Phone:		Zip Code:		Phone:		Zip Code:	
FAX:				FAX:			

If product will be used in more than one application, please fill out separate data sheets for each application.

1 JOB DESCRIPTION:

Quantity Needed: _____ Date Needed: _____

2 LINE PULL REQUIREMENTS:

Gross Weight of Load: _____
Load Moves on Track? _____

3 LIFT REQUIREMENTS:

Below Base Lift:

Max. Hook Height: _____ Min. Hook Height: _____
Load Height: _____ Clearance Required: _____
Wire rope Specifications: _____

4 REACH REQUIREMENTS:

Hook Reach:

Max. Hook Reach: _____ Min. Hook Reach: _____
Load Width: _____ Clearance Required: _____
Rotation: _____

5 WINCH REQUIREMENTS:

☐ Hand ☐ 115 volt AC ☐ 12 volt DC
☐ Hydraulic ☐ Pneumatic ☐ Drill Motor
☐ Other: _____

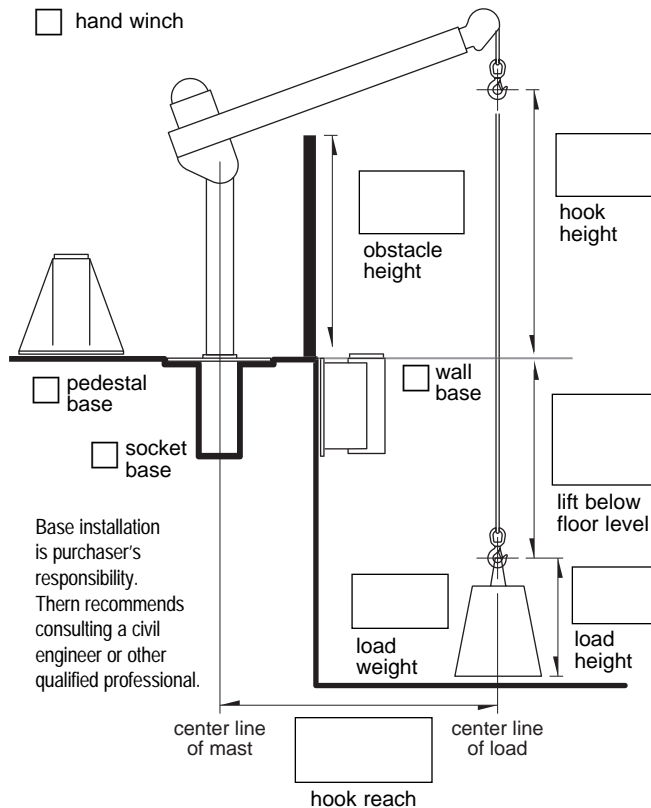
6 BASE REQUIREMENTS:

☐ Pedestal Base ☐ Socket Base ☐ Wall Mount Base
☐ Wheel Base Mounting Surface: _____

7 ENVIRONMENT:

☐ Indoor ☐ Outdoor ☐ Marine ☐ Corrosive
☐ Hazardous ☐ Explosive Temp. Range: _____

- ☐ power winch
☐ hand winch



8 FREQUENCY OF OPERATION:

Hours per Day: _____ Overloads or Shock Loads: _____

9 MODIFICATIONS AND ACCESSORIES:

☐ Galvanized ☐ Stainless Steel ☐ Epoxy Finish
☐ Base Covers ☐ Wire Rope Keepers

Submitted By: _____ Phone: _____ Fax: _____

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PO Box 347 • Winona, MN 55987
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Two-Year Limited Warranty



Thern, Inc. warrants its products against defects in material or workmanship for two years from the date of purchase by the original using buyer, or if this date cannot be established, the date the product was sold by Thern, Inc. to the dealer. To make a claim under this warranty, contact the factory for an RGA number. The product must be returned, prepaid, directly to Thern, Inc., 5712 Industrial Park Road, Winona, Minnesota 55987. The following information must accompany the product: the RGA number, the date of purchase, the description of the claimed defect, and a complete explanation of the circumstances involved. If the product is found to be defective, it will be repaired or replaced free of charge, and Thern, Inc. will reimburse the shipping cost within the contiguous USA.

This warranty does not cover any damage due to accident, misuse, abuse, or negligence. Any alteration, repair or modification of the product outside the Thern, Inc. factory shall void this warranty. This warranty does not cover any costs for removal of our product, downtime, or any other incidental or consequential costs or damages resulting from the claimed defects. This warranty does not cover brake discs, wire rope or other wear components, as their life is subject to use conditions which vary between applications.

FACTORY AUTHORIZED REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY TO THE CONSUMER. THERN, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Thern Vision

- To promote an honest and positive atmosphere where all employees are encouraged to become involved to achieve growth and stability.
- To focus on customers to thoroughly understand their needs and desires.
- To expand our product offering to fully develop diverse market opportunities.
- To lead the competition with our expert reputation for quality and service.
- To build trust by offering superior service and solutions.
- To provide reliable and competitive products that exceed our customer expectations.
- To utilize the full extent of our resources to maximize efficiencies and improvements.

Thern Mission

Thern is a family owned manufacturer focused on building long term relationships by creating personal connections with our customers to ensure stability and mutual success. With careful consideration, we apply all of our abilities to understand our customers' needs and work toward exceeding their expectations. We strive to provide best-fit solutions to our customers' lifting, pulling and tensioning applications, with top quality products and services, timely responses, and accurate information.

A REPUTATION OF EXCELLENCE.

By the time he returned from his Air Force duty during World War II, Royal G. Thern, or Roy for short, had already spent his lifetime around large machines and heavy equipment. Settling in to the small town of Winona, Minnesota with his wife Lucille, the two combined their knowledge to create a lever-operated chain hoist and a differential chain hoist. It was the beginning of a long tradition of lifting and pulling innovation.

Today, Thern continues it's 60-year tradition of excellence by providing standard and customized load handling equipment to leading companies all around the world. The company offers lifting and pulling solutions to a variety of industries, including aerospace, bulk material handling, construction, manufacturing, oil and gas, and water/wastewater.



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