



Thern PRODUCT CATALOG



Made in USA



www.thern.com

SERVICES

Thern Customer Service

Hours	7:30 am - 4:30 pm CST
Toll-Free	800.843.7648
Phone	507.454.2996
Fax	507.454.5282
eMail	info@thern.com
Web	www.thern.com

Ask Us About Our Value-Added Services

Expedited Delivery. When you need better than standard delivery, we can hand-hold your order from entry to shipment to ensure best delivery.

Engineered Solutions. We embrace any opportunity to put our years of experience to the task to help you come up with a unique, custom engineered solution to your most demanding applications.

System Solutions. Sheaves, controls, rigging – we can help put together the best system to solve your lifting, pulling or tensioning need.

Technical Assistance. Not sure how to select the right winch for your application? Let one of our experienced technical sales engineers help you, every step of the way.

Wire Rope. Winches need wire rope, and we can help you select the best wire rope for your application and supply it with the winch, if you wish. We can even spool it onto the drum for you, saving you valuable time in installation.

Quality Assurance

Every product we manufacture must meet our strict quality standards or it doesn't carry the Thern name. Our quality management system is certified to ISO 9001/2008 standards. All inspection tools are maintained and calibrated regularly as required under the ISO standard. All new products are rigorously tested to ensure performance and durability. Thern has the ability to test products statically and dynamically with load capacities up to 55,000 lbs. and line speeds of up to 200 fpm. Test and inspection certificates are available upon request.

Our 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.

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

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PORTABLE CRANES

Capacity 0 to ▶	850 lbs	500 lbs	1200 lbs	1200 lbs	2000 lbs
Max Lift	up to 285 ft	up to 235 ft	up to 280 ft	up to 285 ft	up to 435 ft
Series	First Mate	Ensign	Ensign	Commander	Commander
Model	5PF5	5PA5	5PA10	5PT10	5PT20

STATIONARY CRANES

Capacity 0 to ▶	1500 lbs	2200 lbs	3000 lbs
Max Lift	up to 280 ft	up to 475 ft	up to 475 ft
Series	Captain	Captain	Admiral
Model	571	572	5PT30

ELECTRIC WINCHES

WS Series

Capacities	600 lbs	→	26,000 lbs
Line Speeds	1 fpm	→	100 + fpm
Travel Distance	1ft	→	400 + ft
H.P.	1	→	30 +
4WS Models	1M 3M 6M 9M 16M 26M		

HS Series

Capacities	1100 lbs	→	56,000 lbs
Line Speeds	1 fpm	→	100 + fpm
Travel Distance	1 ft	→	1500 + ft
H.P.	1	→	60
4HS Models	6M 11M 16M 26M 40M 56M		

ELECTRIC WINCHES

HWF Series

Capacities	1000 lbs	→	8,000 lbs
Line Speeds	1 fpm	→	70 + fpm
Travel Distance	1ft	→	2,000 + ft
H.P.	1	→	15 +
4HWF Models	1M 2M 4M 6M 8M		

HPF

Capacities	1000 lbs	→	25,000 lbs
Line Speeds	1 fpm	→	600 + fpm
Travel Distance	1ft	→	10,000 + ft
H.P.	1	→	75 +
4HPF Models	2M 3M 5M 7M 9M 15M 20M 25M		

HBP

Capacities	35,000 lbs	→	100,000 lbs
Line Speeds	1 fpm	→	100 + fpm
Travel Distance	1ft	→	12,000 + ft
H.P.	2	→	75 +
4HBP Models	35M	→	100M

AIR WINCHES

Mini Series

Capacity 0 to ▶	1400 lbs	2700 lbs
Line Speed	52 fpm	67 fpm
H.P.	1.35	3.5
Series	Mini	Mini
Model	MTA 1000	MTA 2000

Legacy Series

Capacity 0 to ▶	3600 lbs	7200 lbs	7200 lbs	18,000 lbs	23,600 lbs	37,000 lbs
Line Speed	94 fpm	46 fpm	114 fpm	47 fpm	29 fpm	34 fpm
H.P.	7.1	18.3	18.3	17.8	14.4	27
Series	Big Red	Big Red	Big Red	Big Red	Big Red	Big Red
Model	TA2H	TA2	TA2.5	TA5	TA7	TA10

AIR WINCHES DNV-CE-ATEX

C Series

Capacity 0 to ▶	5500 lbs	11,000 lbs	22,000 lbs
Line Speed	127 fpm	55 fpm	31 fpm
H.P.	TAC	TAC	TAC
Model	TA2.5C	TA5C	TA10C

PORTABLE ELECTRIC WINCHES

Max Capacity	2000 lbs	1500 lbs	2000 lbs	4600 lbs
Line Speed	19 fpm	97 fpm	22 fpm	24 fpm
H.P.	1.3	3	1.5	3
Series	Atlas	Atlas	Dura Hoist	Atlas II
Model	4WP2T8	4WP2D8	4771	3WG4

HAND WINCHES

Spur Gear

Capacity 0 to ▶	1000 lbs	2000 lbs	2000 lbs	4000 lbs	10,000 lbs
Gear Ratio	3:1	15:1	15:1	20:1	25:1
Aprox. Weight	17 lbs	28 lbs	28 lbs	91 lbs	173 lbs
Model	M4022PB	M4312PB	M4312PBSS	M452B	M492B

Worm Gear

Capacity 0 to ▶	1000 lbs	2000 lbs	4600 lbs
Gear Ratio	15:1	32:1	31:1
Aprox. Weight	21 lbs	41 lbs	123 lbs
Model	4622PB	4WM2	2W40

World-Wide Distribution



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



Winona, MN USA

ABOUT US

What We Do

Thern specializes in the design and manufacture of winches and cranes. Thern winches and cranes have established a world-wide reputation for toughness, versatility and reliability. Our ability to provide clients with a full range of services, and custom-built solutions has made us a leader among our peers. Whether you need to lift, pull, tension or position, from 100 lbs. to 100,000 lbs., Thern has the perfect product for you.

Design Leader

Superior quality is designed into every product we manufacture. Any manufacturer can say they build a better crane or winch. Thern can back that claim up with a steadfast reputation for dependable products chosen time and again by companies worldwide. Thern products are manufactured to high quality standards because your application is our application. We also understand that some jobs require a tool that isn't available right off the shelf. That's why Thern employs an experienced engineering and technical sales staff that can consult, design and manufacture custom products to provide the best possible solution for your application.

Quality Assurance

Every product we manufacture must meet our strict quality standards or it doesn't carry the Thern name. Our quality management system is certified to ISO 9001/2008. All new products are rigorously tested to ensure performance and durability. Thern has the ability to test products statically and dynamically with load capacities up to 55,000 lb and line speeds of up to 200 fpm. Test and inspection certificates are available upon request.

Markets We Serve

Since 1948, Thern has been serving a broad range of industries all over the world. Some key industries served by our products include: Water/Wastewater, Entertainment, Oil and Gas, Bulk Handling, Government/Defense, Mining, Construction, Manufacturing and Marine.

Customer Care

The glue that holds our performance together is "service." We specialize in getting the job done right. Thern is a professional company that is easy to do business with, whether you want to lower the Ball in Time's Square every New Year's Eve or position a load-out chute at a mine in Australia, our expertise and experience is here to serve you. It's been said before, and it's worth saying again: Thern is big enough to handle any project yet small enough to care.



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HAND WINCHES



MAKE LIGHT WORK OF HEAVY LOADS

When you need to lift, lower or position a heavy load, Thern is ready to lend a hand with our dependable line of hand winches. Our worm gear and spur gear hand winches are designed to deliver excellent performance and long life no matter what your application. From construction to manufacturing to aerospace and more, our hand winches are built tough to meet the demands of almost any job.

For standard catalog products, contact your regional Sales and Service Representative. If you're not sure or need a quote, visit us online and fill out our Request a Quote form.

SPUR GEAR

Up to 10,000 lb Capacity
LIFTS FASTER, but takes
MORE FORCE than a worm gear.

Lift or pull up to 10,000 lb.
Machine-cut spur gears provide long-lasting service. Available in a variety of configurations to meet the performance requirements of your manual pulling, hoisting or lowering application. Also available in stainless steel with ratings up to 2000 lb.



WORM GEAR

Up to 4000 lb Capacity
LIFTS SLOWER, but takes
LESS FORCE than a spur gear.

Lift or pull up to 4000 lb.
Available in multiple configurations and performance ratings designed to keep things moving smooth and efficient. Worm gearing provides extra load holding power for accurate positioning and secure control of loads.



HAND WINCHES

SPUR GEAR | WORM GEAR

Up to
10,000 lb Capacity

- Machine Cut Gears
- Automatic Brake Models
- Corrosion Resistant Finishes
- Quick Disconnect Anchor
- Bronze / Radial Ball Bearings
- Gear Covers (Spur Gear Models)
- Enclosed Oil Bath (Worm Gear Models)
- Adjustable Handles
- 2-Year Warranty

MODEL M4022PB
Up to 1000 lb



MODEL 4WM2
Up to 2000 lb

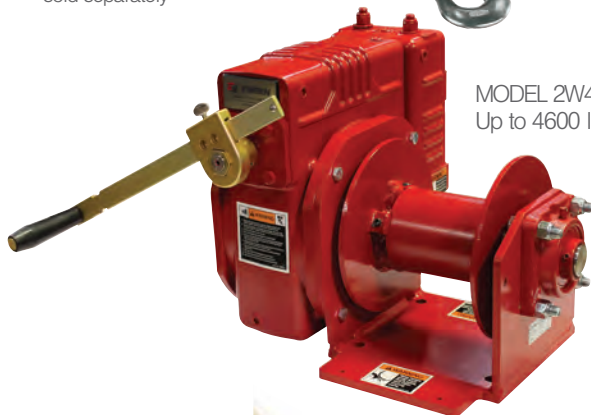


MODEL M4312PBSS
Up to 2000 lb



Wire rope assemblies
sold separately

MODEL 2W40-BM
Up to 4600 lb



MODEL M492
Up to 10,000 lb



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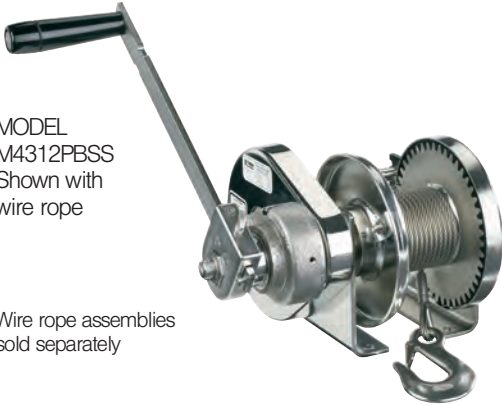
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SPUR GEAR HAND WINCHES

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 a PB or B suffix.
- **Corrosion Resistant** trivalent zinc plated finish protects against corrosion in harsh environments.
- **Quick Disconnect Anchor¹** 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

Model	Description	LOAD RATING						Wire Rope Dia. ¹		DRUM CAPACITY ²						Single Gear Ratio	Double Gear Ratio	Force ³ to lift 1000 lb		Approx. Ship Weight	
		1st Layer		Mid Drum		Full Drum				1st Layer		Mid Drum		Full Drum							
		(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(in)	(mm)	(ft)	(m)	(ft)	(m)	(ft)	(m)			(lb)	(kg)	(lb)	(kg)
M401	500 lb – marine duty (for pulling only)	500	226	400	181	300	136	1/8	3.2	7	2	60	18	130	39	–	–	–	–	8	3
								3/16	4.8	4	1	27	8	60	18						
M4022	1000 lb – marine duty (for pulling only)	1000	453	700	317	500	226	1/8	3.2	4	1	52	15	130	39	2.85:1	–	40	18.1	12	5
								3/16	4.8	3	0.9	26	7	57	17						
M4022PB	1000 lb – marine duty with brake (for lifting)	1000	453	700	317	500	226	1/8	3.2	4	1	52	15	130	39	2.85:1	–	41	18.6	17	7
								3/16	4.8	3	0.9	26	7	57	17						
M4032	1000 lb – marine duty (for pulling only)	1000	453	700	317	500	226	1/8	3.2	11	3	110	33	250	76	2.85:1	–	40	18.1	14	6
								3/16	4.8	7	2	51	15	110	33						
M4032PB	1000 lb – marine duty with brake (for lifting)	1000	453	700	317	500	226	1/8	3.2	11	3	110	33	250	76	2.85:1	–	41	18.6	18	8
								3/16	4.8	7	2	51	15	110	33						
M4042PBSS	1000 lb – stainless steel with brake (for lifting)	1000	453	800	362	600	272	1/8	3.2	12	3	110	33	240	73	3.83:1	–	46	20.9	24	10
								3/16	4.8	8	2	48	14	110	33			(sgl gear)			
								1/4	6.4	5	1	27	8	59	17						
M4312	2000 lb – marine duty (for pulling only)	2000	907	1600	725	1200	544	3/16	4.8	8	2	48	14	110	33	3.83:1	14.7:1	20	9.1	23	10
								1/4	6.4	5	1	27	8	59	17			(dbl gear)			
								5/16	7.9	4	1	17	5	39	11						
M4312PB	2000 lb – marine duty with brake (for lifting)	2000	907	1600	725	1200	544	3/16	4.8	8	2	48	14	110	33	–	14.7:1	17	7.7	28	12
								1/4	6.4	5	1	27	8	59	17			(dbl gear)			
								5/16	7.9	4	1	17	5	39	11						
M4312PBSS	2000 lb – stainless steel with brake (for lifting)	2000	907	1600	725	1200	544	3/16	4.8	8	2	48	14	110	33	–	14.7:1	17	7.7	28	12
								1/4	6.4	5	1	27	8	59	17			(dbl gear)			
								5/16	7.9	4	1	17	5	39	11						
M4412	2000 lb – marine duty (for pulling only)	2000	907	1600	725	1200	544	3/16	4.8	18	5	97	29	210	64	3.83:1	14.7:1	20	9.1	25	11
								1/4	6.4	14	4	52	15	120	36			(dbl gear)			
								5/16	7.9	11	3	35	10	77	23						
M4412PB	2000 lb – marine duty with brake (for lifting)	2000	907	1600	725	1200	544	3/16	4.8	18	5	97	29	210	64	–	14.7:1	17	7.7	30	13
								1/4	6.4	14	4	52	15	120	36			(dbl gear)			
								5/16	7.9	11	3	35	10	77	23						

Please contact Thern 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 4042PBSS, 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 lbs with an empty drum and maximum handle length.



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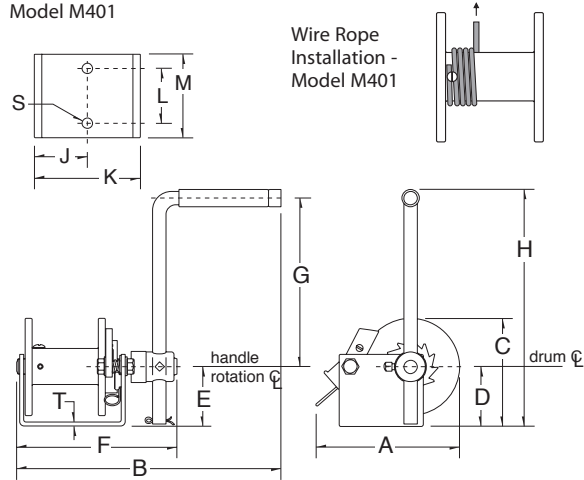
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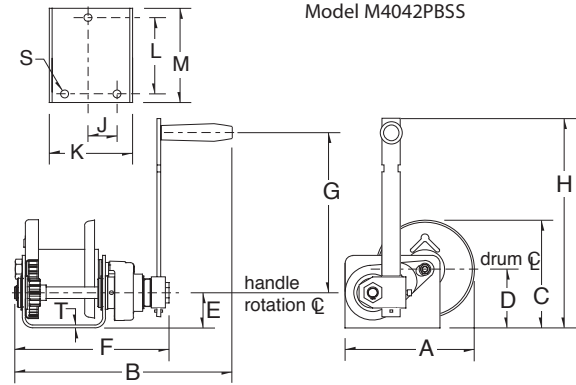
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HAND WINCHES SPUR GEAR

Model M401

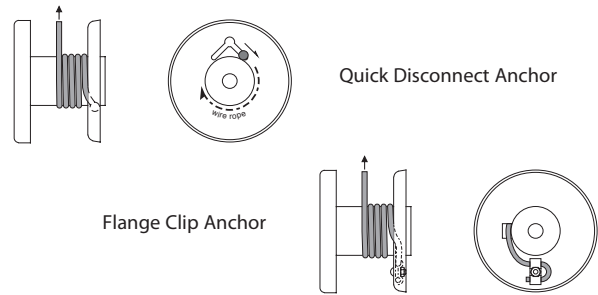
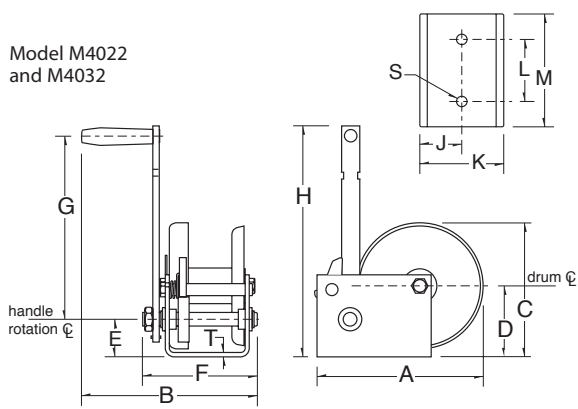


Model M4042PBSS

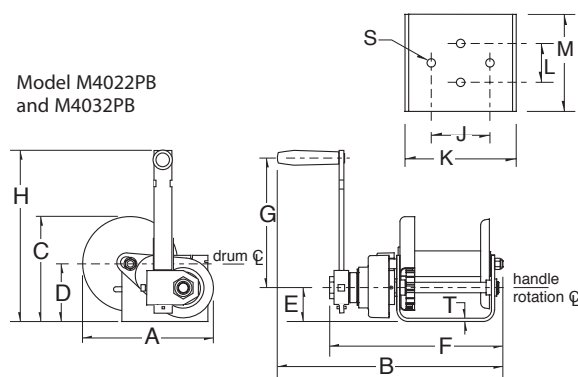


Wire Rope Installation - Models M4042PBSS

Model M4022 and M4022PB Base



Model M4032 and M4032PB Base

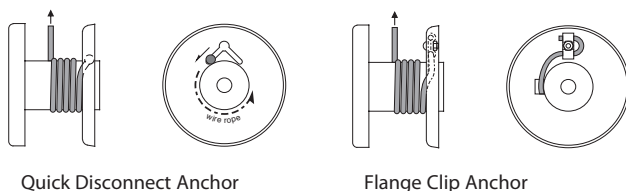


Spur Gear Hand Winches – Dimensions (in)

	M401	M4022	M4022PB	M4032	M4032PB	M4042PBSS
Drum Diameter	1.50	1.50	1.50	1.50	1.50	2.50
Flange Diameter	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.

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



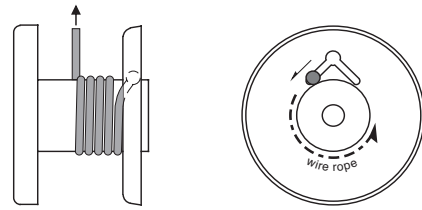
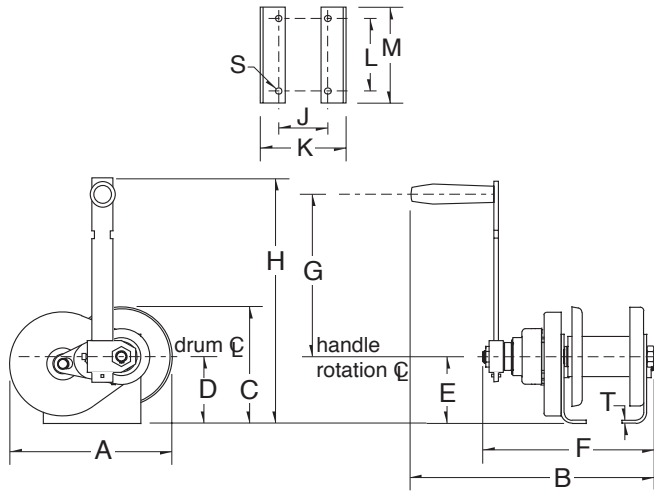
IMPORTANT:

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.

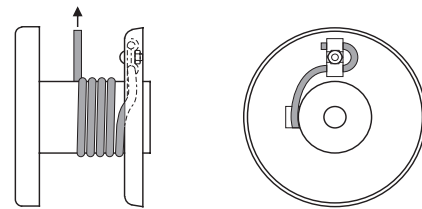
SPUR GEAR HAND WINCHES

Models M4312PB, M4412PB and M4312PBSS

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

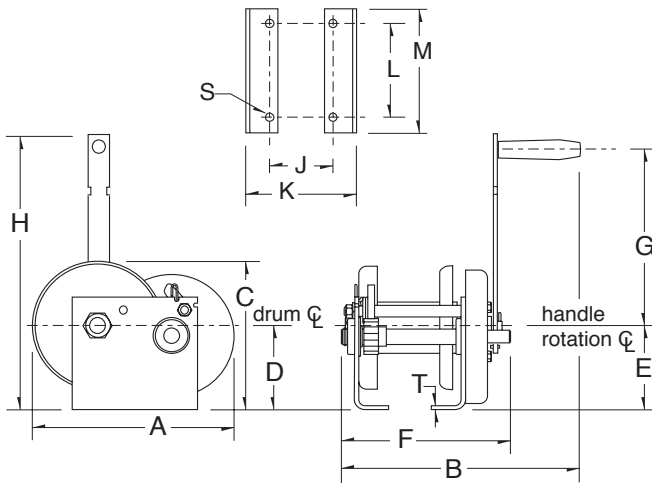


Quick Disconnect Anchor



Flange Clip Anchor

Models M4312 and M4412



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.

Spur Gear Hand Winches – Dimensions

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

Model	G ¹		H ¹		J		K		L		M		S (hole dia.)		T	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
M4312	8.75	222.25	13.35	339.09	3.34	84.84	5.31	134.87	5	127	6	152.4	.40	10.16	.18	4.57
M4312PB	10.59	268.99	15.19	385.83	3.34	84.84	5.31	134.87	5	127	6	152.4	.40	10.16	.18	4.57
M4312PBSS	10.59	268.99	15.19	385.83	3.34	84.84	5.31	134.87	5	127	6	152.4	.40	10.16	.18	4.57
M4412	8.75	222.25	13.35	339.09	6.34	161.04	8.31	211.07	5	127	6	152.4	.40	10.16	.18	4.57
M4412PB	10.59	268.99	15.19	385.83	6.34	161.04	8.31	211.07	5	127	6	152.4	.40	10.16	.18	4.57

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

Spur Gear 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

Model	Description	LOAD RATING						Wire Rope Dia.		DRUM CAPACITY ¹						Sgl Gear Ratio	Dbl Gear Ratio	Force ² to lift 1000 lbs		Approx. Ship Wt.		
		1st Layer		Mid Drum		Full Drum				1st Layer		Mid Drum		Full Drum				(lb)	(kg)	(lb)	(kg)	
		(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(in)	(mm)	(ft)	(m)	(ft)	(m)	(ft)	(m)							
M452	4000 lb – marine duty (for pulling only)	4000	1814	3300	1496	2500	1133	1/4	6.4	23	7	130	39	300	91	4.42:1	19.54:1	10	4.5	83	38	
								5/16	7.9	18	5	89	27	200	60							
								3/8	9.5	14	4	64	19	140	42							
M452B	4000 lb – marine duty with brake (for lifting)	4000	1814	3300	1496	2500	1133	1/4	6.4	23	7	130	39	300	91	–	19.54:1	10	4.5	91	42	
								5/16	7.9	18	5	89	27	200	60							
								3/8	9.5	14	4	64	19	140	42							
M452B-A	4000 lb – marine duty with brake (for lifting) 4-inch drum width	4000	1814	3300	1496	2500	1133	1/4	6.4	13	3	83	25	190	57	–	19.54:1	10	4.5	83	38	
								5/16	7.9	9	2	56	17	120	36							
								3/8	9.5	7	2	40	12	89	27							
M492	10,000 lb – marine duty (for pulling only)	10,000	4535	7400	3356	5400	2449	5/16	7.9	27	8	240	73	540	164	5.00:1	25.00:1	8	3.6	166	76	
								3/8	9.5	21	6	170	51	390	118							
								1/2	12.7	15	4	100	30	230	70							
M492B	10,000 lb – marine duty with brake (for lifting)	10,000	4535	7400	3356	5400	2449	5/16	7.9	27	8	240	73	540	164	–	25.00:1	8	3.6	173	79	
								3/8	9.5	21	6	170	51	390	118							
								1/2	12.7	15	4	100	30	230	70							
M492-12	10,000 lb – marine duty (for pulling only) 12-inch drum width	10,000	4535	7400	3356	5400	2449	5/16	7.9	46	14	380	115	850	259	5.00:1	25.00:1	8	3.6	175	80	
								3/8	9.5	37	11	270	82	610	185							
								1/2	12.7	27	8	160	48	360	109							
M492B-12	10,000 lb – marine duty with brake (for lifting) 12-inch drum width	10,000	4535	7400	3356	5400	2449	5/16	7.9	46	14	380	115	850	259	–	25.00:1	8	3.6	190	87	
								3/8	9.5	37	11	270	82	610	185							
								1/2	12.7	27	8	160	48	360	109							
MB451	Disc brake only for M452 (for lifting)																				13	6
MB491	Disc brake only for M492 and M492-12 (for lifting)																				15	7

Please contact Them or nearest Them 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.



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

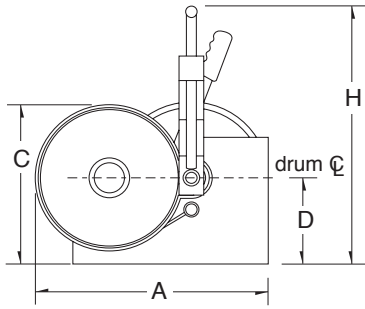
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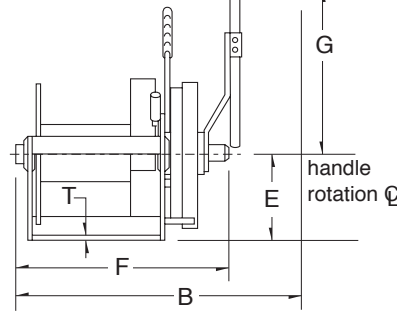


SPUR GEAR HAND WINCHES

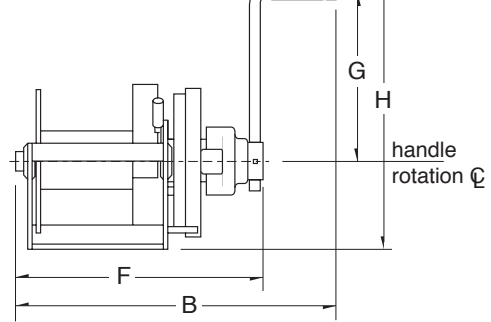
All Models



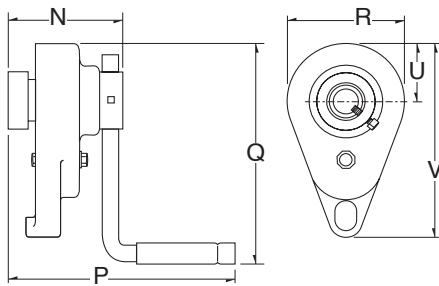
Models M452, M492 and M492-12



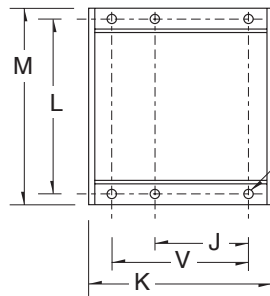
Models M452B, M452B-A, M492B and M492B-12



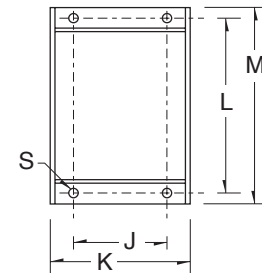
Models MB451 and MB491



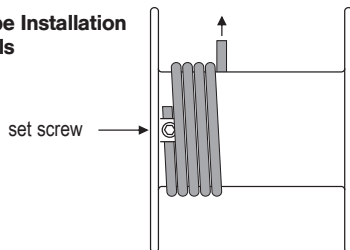
Base for M492-12 and M492B-12



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



Wire Rope Installation All Models



Disc Brakes – Dimensions

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

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

Spur Gear Double Reduction Hand Winches – Dimensions

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

Model	G ¹		H ¹		J		K		L		M		S (hole dia.)		T		V	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
M452	18.62	472.9	24.44	620.7	6.75	171.4	9.50	241.3	11.25	285.7	12.50	317.5	.56	14.2	.25	6.3	-	-
M452B	18.38	466.8	24.19	614.4	6.75	171.4	9.50	241.3	11.25	285.7	12.50	317.5	.56	14.2	.25	6.3	-	-
M452B-A	18.38	466.8	24.19	614.4	4.50	114.3	7.12	180.8	11.25	285.7	12.50	317.5	.56	14.2	.25	6.3	-	-
M492	22.50	571.5	30.00	762.0	8.00	203.2	12.00	304.8	15.50	393.7	17.00	431.8	.81	20.5	.38	9.6	-	-
M492B	18.50	469.9	26.00	660.4	8.00	203.2	12.00	304.8	15.50	393.7	17.00	431.8	.81	20.5	.38	9.6	-	-
M492-12	22.50	571.5	30.00	762.0	8.00	203.2	16.38	416.0	15.50	393.7	17.00	431.8	.81	20.5	.38	9.6	12.38	314.4
M492B-12	18.50	469.9	26.00	660.4	8.00	203.2	16.38	416.0	15.50	393.7	17.00	431.8	.81	20.5	.38	9.6	12.38	314.4

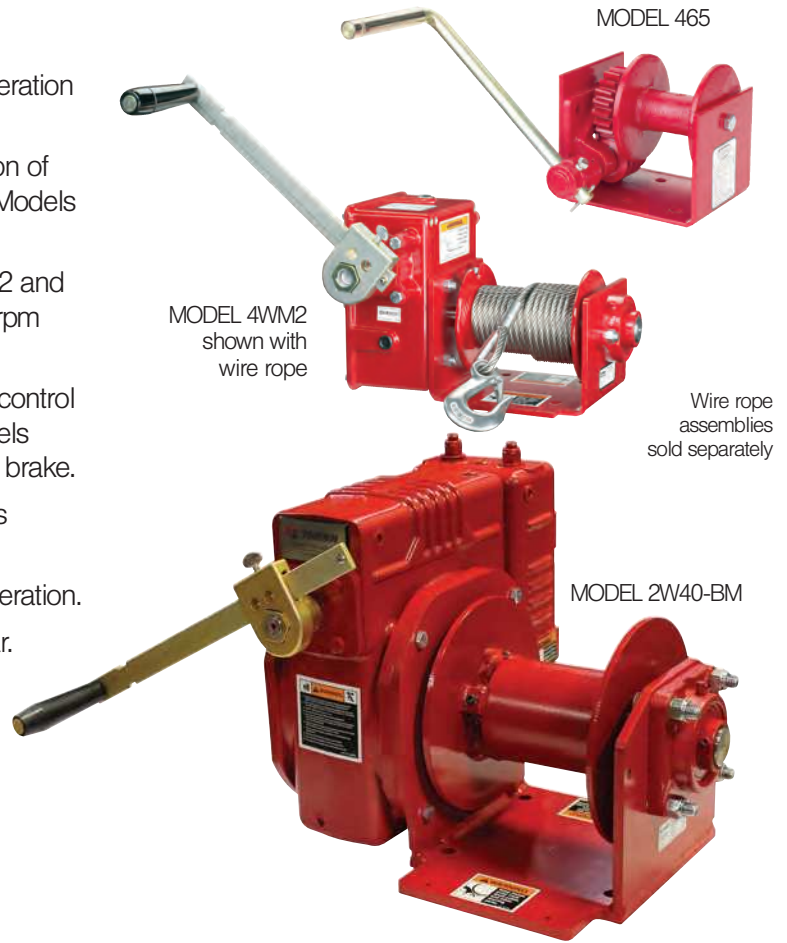
¹ Models M4312PB, M4312PBSS and M4412PB handles are adjustable. Dimension shown is for maximum handle length. Dimensions are for reference only and subject to change without notice.

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 Models 4WM2 and 2W40, oil seals keep oil in and dirt out.
- **Hex Drive** and handle are included. Models 4WM2 and 2W40* can be power driven with a maximum 300 rpm drill-motor.
- **Automatic Brake Models** provide positive load control for lifting. Brake models have a PB or B suffix. Models 4WM2 and 2W40-B feature 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 Them.
- **Two-year Limited Warranty**

*See Drill Drive performance chart on page 11.



Worm Gear Hand Winches – Configurations and Performance Characteristics

Model	Description	Load Rating						Wire Rope Dia.		Drum Capacity ¹						Gear Ratio	Force ² to lift 1000 lbs		Approx. Ship Weight	
		1st Layer		Mid Drum		Full Drum		(in)	(mm)	1st Layer		Mid Drum		Full Drum			(lb)	(kg)	(lb)	(kg)
465	750 lb – open gears (recommended for pulling only)	750	340	600	272	400	181	1/8	3.2	7	2	58	17	130	39	20:1	21	9.5	12	5
		3/16	4.8	4	1	27	8	59	17											
462	1000 lb – enclosed gearing (recommended for pulling only)	1000	453	700	317	500	226	1/8	3.2	7	2	61	18	140	42	15:1	34	15.4	15	7
		3/16	4.8	4	1	28	8	61	18											
4622PB	1000 lb – enclosed gearing with brake (for lifting)	1000	453	700	317	500	226	1/8	3.2	7	2	61	18	140	42	15:1	26	11.8	21	10
472	2000 lb – enclosed gearing (recommended for pulling only)	2000	907	1700	771	1300	589	3/16	4.8	15	4	65	19	140	42	24:1	24	10.9	32	15
								1/4	6.4	11	3	35	10	77	23					
								5/16	7.9	8	0	23	7	52	15					
4WM2	2000 lb – enclosed gearing with brake (for lifting) Drill Driveable	2000	907	1500	680	1200	544	1/4	6.4	11	3	35	10	77	23	32:1	14	6.4	41	19
2W40-L	4000 lb – enclosed gearing (recommended for pulling only)	4000	1814	2800	1270	2200	997	5/16	7.9	18	5	91	27	200	60	26:1	18	8.2	126	58
								3/8	9.5	14	4	65	19	140	42					
2W40-BL	4000 lb – enclosed gearing with brake (for lifting)	4000	1814	2800	1270	2200	997	5/16	7.9	18	5	91	27	200	60				145	66
								3/8	9.5	14	4	65	19	140	42					
2W40-M	4600 lb – enclosed gearing (recommended for pulling only) Drill Driveable*	4600	2086	3300	1496	2500	1133	5/16	7.9	18	5	91	27	200	60	31:1	11	5.0	123	56
								3/8	9.5	14	4	65	19	140	42					
2W40-BM	4600 lb – enclosed gearing with brake (for lifting) Drill Driveable*	4600	2086	3300	1496	2500	1133	5/16	7.9	18	5	91	27	200	60				141	64
								3/8	9.5	14	4	65	19	140	42					

Please contact Them or nearest Them 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.



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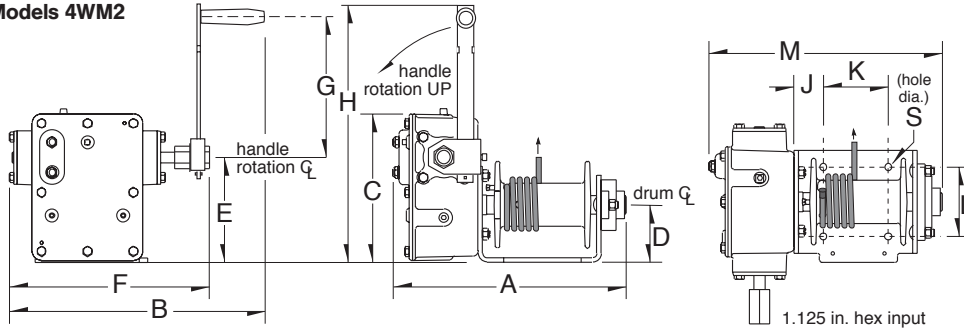
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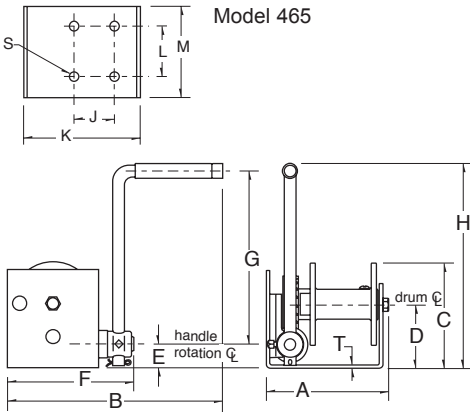
WORM GEAR HAND WINCHES

Models 4WM2

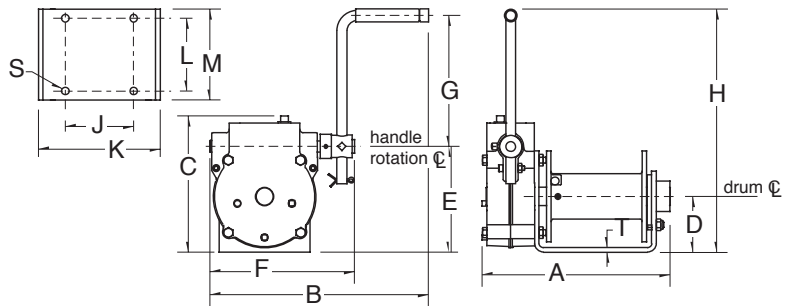


Install wire rope correctly as shown, or brake will not operate properly.

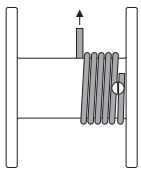
Model 465



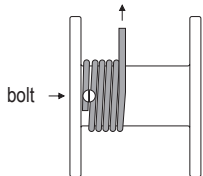
Models 462 and 472



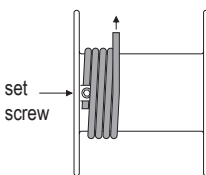
Wire Rope Installation Model 465



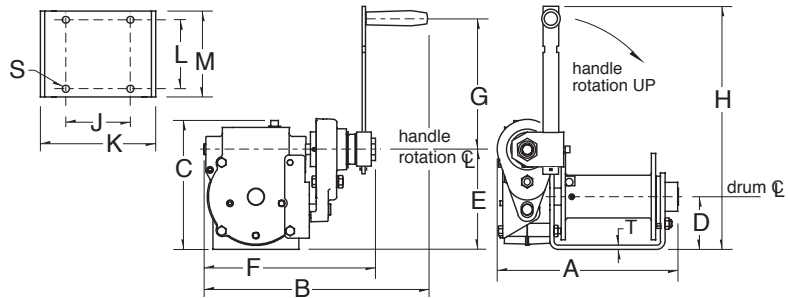
Wire Rope Installation Models 462 and 4622PB



Wire Rope Installation Model 472



Model 4622PB



Worm Gear Hand Winches – Dimensions

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

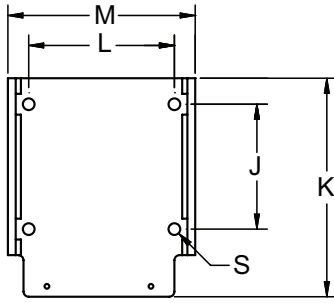
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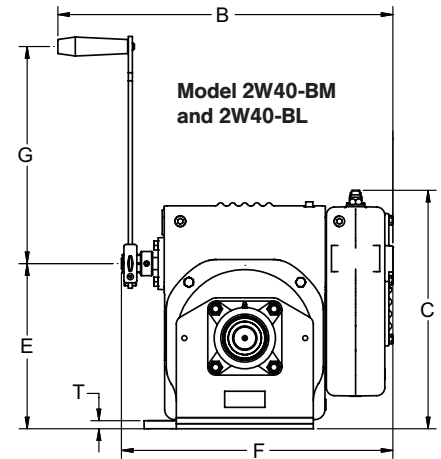
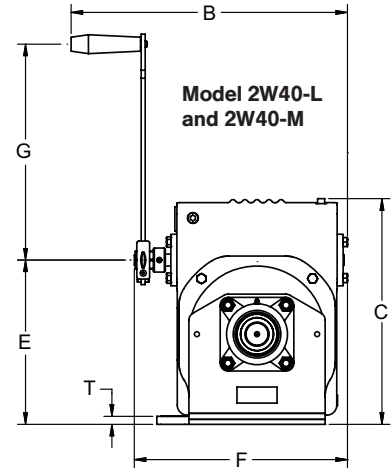
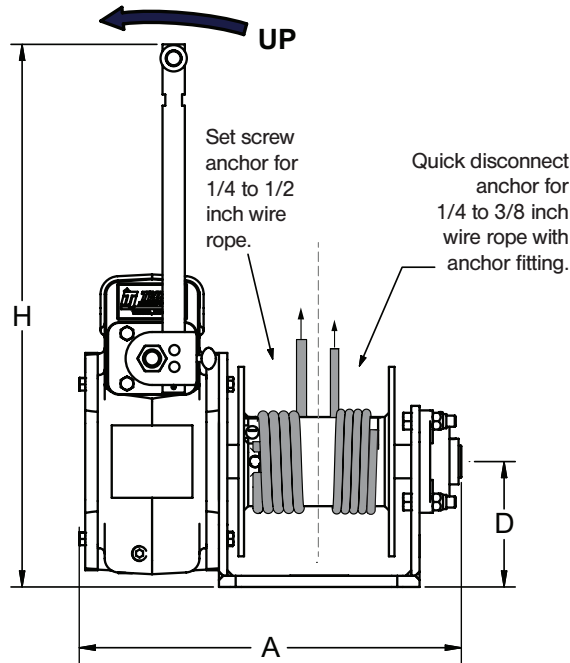
It is the owner or operator's responsibility to determine the suitability of the equipment to its intended use. Study all applicable codes, manuals and regulations. Be sure to read the Owner's Manual supplied with the equipment before operating it.



HAND WINCHES WORM GEAR



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



2W40 Series Worm Gear Hand Winches – Dimensions

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

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

2W40 Series Performance Characteristics – Drill Drive¹

Model	Load Rating						Drill Model: ED300-DW11		
	1st Layer		Mid Drum		Full Drum		RPM	Volts	Duty Cycle ²
	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)			
2W40-M	2300	1043	1650	748	1250	566	300	120	40 ft of life or 5 min of operation
2W40-BM	2300	1043	1650	748	1250	566	300	120	40 ft of life or 5 min of operation

¹ Performance Characteristics refer to standard products. Non-standard products may vary from the original design. Contact Them for this information.

² Duty cycle includes lifting and lowering and may vary depending on load or application. Allow components to cool between cycles.

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



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

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PORTABLE POWER WINCHES



MOVE IT WITH CONFIDENCE

Move up to 2000 lb with confidence using a portable power winch from Thern. Constructed of cast aluminum, these lightweight winches are designed to deliver the muscle where and when you need it – on the construction site, in the mines, at the wastewater treatment plant, even aerospace facilities.

For standard catalog products, contact your regional Sales and Service Representative. If you're not sure or need a quote, fill out our Request a Quote form online.

DURA-HOIST



SERIES 477 DURA-HOIST HELICAL/WORM GEAR PORTABLE POWER WINCH

Up to 2000 lb Capacity

Anchor your operation with the reliability of the Dura-Hoist. With solid construction, internal lubrication and pendant control, the only thing you won't need is worry.



SERIES 4WP2 ATLAS WORM GEAR PORTABLE POWER WINCH

Up to 2000 lb Capacity

Thern Atlas winches give you lifting power when and where you need it. Convenient lifting handles and pendant control make positioning and operation convenient, with a built in pressure plate to help keep wire rope tight on the drum when the winch is not in use.



SERIES 3WG4 ATLAS II WORM GEAR PORTABLE POWER WINCH

Up to 4600 lb Capacity

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



PORTABLE POWER WINCHES

Dura-Hoist
4771



Atlas
4WP2T8-2000-8
shown

Wire rope assemblies
sold separately



Atlas
4WP2D8



Atlas II
3WG4-B3500-9S6



Made in the USA

Up to 4600 lb Capacity Portable Power Winches

- Industrial-Duty Electric Motors
- Worm Gearing for Precise Load Control
- Enclosed Oil Bath
- Load Holding Brakes
- Aluminum Construction for Lightweight Portability
- Mount on Floor, Wall or Ceiling
- Weathertight Nema Controls Available
- Lifting Handles
- Clutch Models Available
- 2-Year Warranty

Portable power winches from Thern deliver dependable power and performance to lift, pull and position up to 4600 lb when and where you need it.



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

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POWER WINCHES PORTABLE

DURA-HOIST

Dura-Hoist 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

Model Number	Motor Description	Motor HP	Load Rating			Wire Rope Dia.	Line Speed		Drum Capacity ¹			Approx. Ship Weight
			1st Layer	Mid Drum	Full Drum		1st Layer	Full Drum	1st Layer	Mid Drum	Full Drum	
			(lb)	(lb)	(lb)	(in)	(fpm)	(fpm)	(ft)	(ft)	(ft)	(lb)
4771 ²	115/1/60 VAC - 6 ft pendant	1.3	2000	1500	1200	5/16	13	22	13	40	90	88
4771AC-1PH	115/1/60 VAC - less controls	1.3	2000	1500	1200	5/16	13	22	13	40	90	87
4771AC-1PH ^{2,3}	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 - 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	1.3	2000	1500	1200	5/16	13	22	7	27	60	93
4777DC ^{4,6}	12 VDC - 10 ft pendant	1.0	2000	1500	1200	5/16	13	22	7	27	60	105

Please contact Them or nearest Them 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.

⁶ Controls are separate.

Series 477 – Controls

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
10L2A1 ⁶	NEMA 1 control switch – mounted and wired	3	2
10L2A4 ⁶	NEMA 4 watertight control switch – mounted and wired	7	4
477PN-CNTRL	Pneumatic control valve – not mounted or plumbed, no hoses	6	3
477PN-HS6	6-ft hoses for pneumatic controls – not plumbed	4	2
477HY-CNTRL	Hydraulic control valve – not mounted or plumbed, no hoses	5	3
477HY-HS6	6-ft hoses for hydraulic controls – not plumbed	4	2

Please contact Them or nearest Them 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.

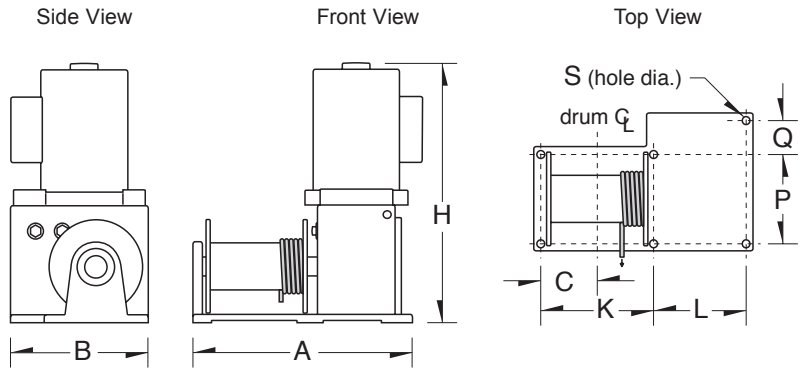
Notes:

- For more information and other control options, please see pages 93-95.
- Custom controls are available including wireless remote control, variable speed control, electronic overload, and enclosures for special environments.



Series 477 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.

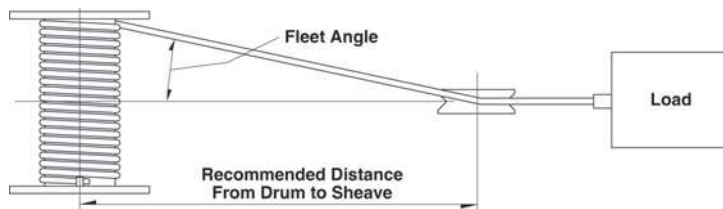


Install wire rope correctly as shown, or brake will not operate properly.

Series 477 – Winch Dimensions

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

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



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.

Series 477 – Drum Dimensions

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

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

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

POWER WINCHES PORTABLE

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**
- **Cast Aluminum** construction for lightweight strength.



Atlas Model 4WP2T8-2000-8 shown with wire rope



Wire rope assemblies sold separately

- **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

Model Number	Motor Description	Motor HP	Load Rating			Wire Rope Dia. ¹	Line Speed		Drum Capacity ²			Approx. Ship Weight
			1st Layer	Mid Drum	Full Drum		1st Layer	Full Drum	1st Layer	Mid Drum	Full Drum	
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	1.3	2000	1200	800	1/4	8	19	12	87	190	106
	clutch model - 5.5" drum - for horizontal pulling only											

Motor Options

Standard motor is 115/1/60 VAC TENV. For other configurations, add motor code to model number when ordering.

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

A ⁵	115 volt 1 phase – 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

Notes:

- For more information and other control options, please see pages 93-95.
- Custom controls are available including wireless remote control, variable speed control, electronic overload, and enclosures for special environments.

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 control on 6-foot cord.

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

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

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

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

Control Options and Accessories

Model	Description	Approx. Ship Wt.
10L2A1 ⁷	NEMA 1 control switch - mounted and wired	3 lb
10L2A4 ⁷	NEMA 4 watertight control switch - mounted and wired	7 lb
TPL-4WP2T8	Two Part Line Kit – not available for 4WP2 Series	4 lb

⁷ Controls for 115 volt, single phase, 60 cycle include 8-foot power cord with grounded plug. Please contact Them or nearest Them Distributor for firm, fixed price and delivery.



PORTABLE POWER WINCHES

Options and Accessories

- **Emergency Hand Crank** for manual operation in case of power failure.
- **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.

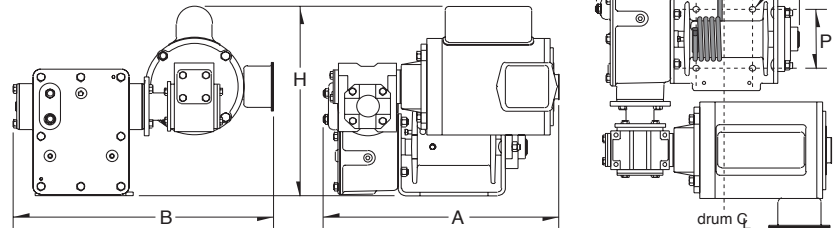
Side View

Rear View

Top View

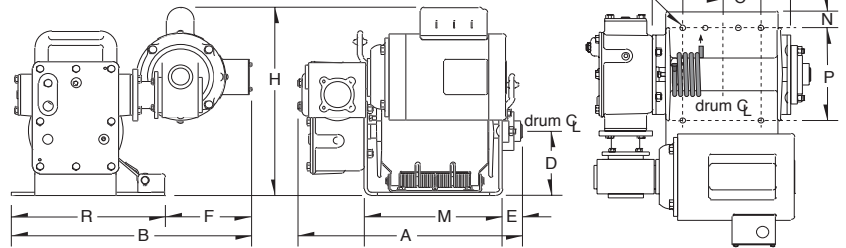
Series 4WP2

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



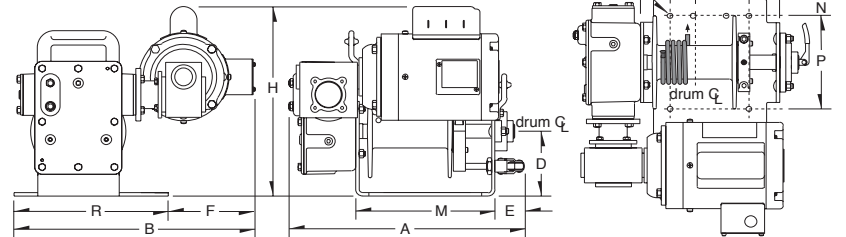
Series 4WP2T8

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.



IMPORTANT:

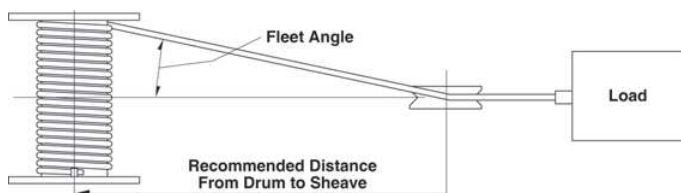
It is the owner or operator's responsibility to determine the suitability of the equipment to its intended use. Study all applicable codes, manuals and regulations. Be sure to read the Owner's Manual supplied with the equipment before operating it.

Series 4WP2 and 4WP2T – Dimensions

Model	A ¹	B ¹	C	D	E	F	H ¹	J	K	M	N	P	R	S (hole dia.)
	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)
4WP2	15.63 (397.01)	17.28 (438.92)	1.72 (43.69)	-	-	-	12.84 (326.14)	1.72 (43.69)	3.75 (95.25)	13.50 (342.9)	-	4.00 (101.6)	-	.41 (10.42)
4WP2T8-2000-8	16.62 (422.15)	17.80 (452.12)	2.75 (69.85)	4.88 (123.96)	1.44 (36.58)	6.43 (163.33)	14.25 (361.95)	2.25 (57.15)	5.81 (147.58)	10.25 (260.35)	1.25 (31.75)	7.00 (177.8)	11.38 (289.06)	.41 (10.42)
4WP2TC-2000-8	17.34 (440.44)	17.80 (452.12)	4.02 (102.11)	4.88 (123.96)	2.16 (54.87)	6.43 (163.33)	14.25 (361.95)	2.25 (57.15)	5.81 (147.58)	10.25 (260.35)	1.25 (31.75)	7.00 (177.8)	11.38 (289.06)	.41 (10.42)

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

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



Series 4WP2 and 4WP2T – Drum Dimensions

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

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

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



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

FLCL-0618

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POWER WINCHES PORTABLE

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.



Atlas Model 4WP2D8-1500-40 shown with wire rope

Wire rope assemblies and controls sold separately

- **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

Model Number	Model Number Extensions				Motor	Load Rating						Wire Rope Dia. ¹		Line Speed				Drum Capacity ²				Approx. Ship Weight ³					
	Load Rating		Line Speed			Motor Codes	1st Layer		Mid Drum		Full Drum		in	mm	1st Layer		Full Drum		1st Layer		Mid Drum		Full Drum		lb	kg	
	(lb)	(kg)	(fpm)	(mpm)		(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(in)	(mm)	(fpm)	(mpm)	(fpm)	(mpm)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(lb)	(kg)	
High Speed Atlas winches for lifting or pulling																											
4WP2D8	800	362	26	7.9	A,B,D,E	1	800	362	460	208	330	149	1/4	6.4	26	7	65	19	19	5	130	39	280	85	100	46	
4WP2D8	800	362	40	12.1	D,E	1.5	800	362	460	208	330	149	1/4	6.4	40	12	97	29	19	5	130	39	280	85	100	46	
4WP2D8	1500	680	26	7.9	D,E	2	1500	680	900	408	600	272	1/4	6.4	26	7	65	19	19	5	130	39	280	85	100	46	
4WP2D8	1500	680	40	12.1	B,D,E	3	1500	680	900	408	600	272	1/4	6.4	40	12	97	29	19	5	130	39	280	85	100	46	
High Speed Clutch Models for HORIZONTAL PULLING ONLY																											
4WP2DC	800	362	26	7.9	A,B,D,E	1	800	362	460	208	330	149	1/4	6.4	26	7	65	19	12	3	87	26	190	57	100	46	
4WP2DC	800	362	40	12.1	D,E	1.5	800	362	460	208	330	149	1/4	6.4	40	12	97	29	12	3	87	26	190	57	100	46	
4WP2DC	1500	680	26	7.9	D,E	2	1500	680	900	408	600	272	1/4	6.4	26	7	65	19	12	3	87	26	190	57	100	46	
4WP2DC	1500	680	40	12.1	B,D,E	3	1500	680	900	408	600	272	1/4	6.4	40	12	97	29	12	3	87	26	190	57	100	46	

When ordering, please indicate Model Number and Extensions. Examples: 4WP2D8-800-26-A (without clutch); 4WP2DC-800-40-A (with clutch).

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

¹ Minimum wire rope diameter is 1/4 inch.

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

³ Weight may vary with motor.

Control Options and Accessories

Model	Description	115/1/60 ⁴	230/1/60	230/3/60	460/3/60
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-foot pendant control	to 1 hp	—	—	—
TPL-4WP2T8	Two-Part Line Kit				

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

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

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 Them.	
PN	Please contact Them	

- For more information and other control options, please see pages 93-95.
- Custom controls are available including wireless remote control, variable speed control, electronic overload, and enclosures for special environments.

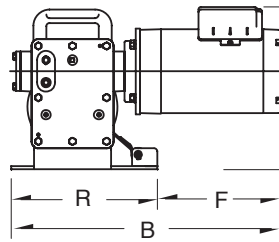


PORTABLE POWER WINCHES

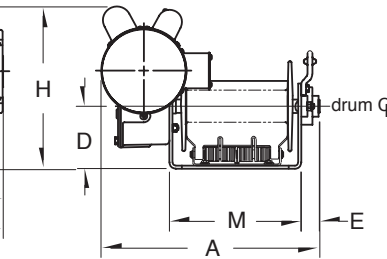
Options and Accessories

- **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.

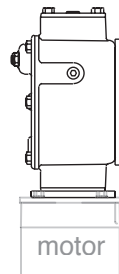
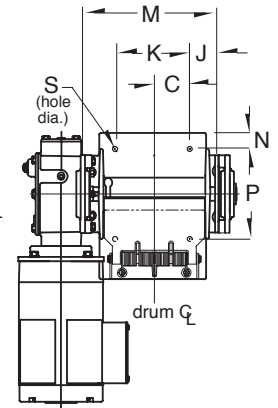
Side View
Series 4WP2D8



Rear View

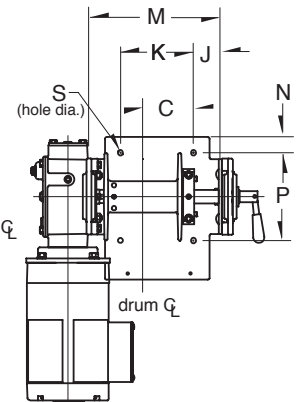
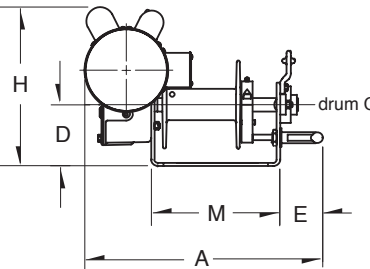
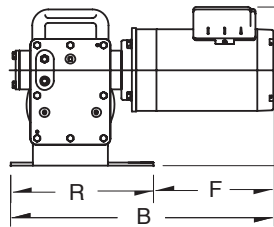


Top View



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

Series 4WP2DC



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.

Series 4WP2D – Dimensions

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

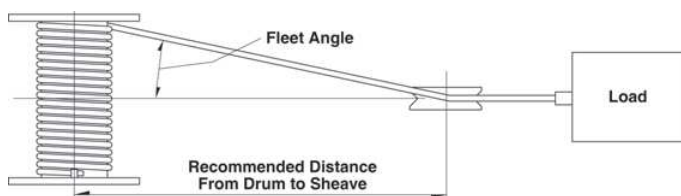
Dimensions are for reference only and subject to change without notice.
¹ Dimensions A, B and H may vary with motor selection.

Series 4WP2D – Drum Dimensions

Model	Drum Diameter		Flange Diameter		Drum Width		Fleet Angle Distance ²	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4WP2D8	2.50	63.5	7.00	177.8	8.00	203.2	13.00	4.0
4WP2DC	2.50	63.5	7.00	177.8	5.50	139.7	9.00	2.75

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

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



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Winches & Cranes

POWER WINCHES PORTABLE



Model 3WG4-B3500-9S6



Drum features dual function cable anchors.



Series 3WG4 Worm Gear Power Winches

- **Machine Cut Gears** provide high efficiency and smooth operation.
- **Enclosed Oil Bath** reduced wear on gears for long operating life. Oil seals keep oil in and dirt out.
- **Cast Aluminum** combines rugged work site durability with a lightweight package.
- **Internal Mechanical or Motor Brake** provides positive load control for lifting and lowering operations.
- **Ball Bearings** provide smooth and efficient operation.
- **Lifting Handles** aid in work site lifting and positioning.
- **Dual Function Cable Anchor** has both standard set screw slot and keyhole slot on drum for quick disconnect with 3/8 inch swaged ball ends.
- **Mounting Options** include floor, wall and ceiling configurations.
- **Modular Design** for easy product customization and quick lead times.
- **2 Year Limited Warranty** leads the industry.

3WG4 Series Performance Characteristics

Model	Brake Style	Duty Rating ¹ (mins)	Motor Codes	Motor HP	Load Rating						Line Speed				Approx. Ship. Wt. ²	
					1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum		(lb)	(kg)
					(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)		
3WG4-B3500-9S6	Internal	15	B,C,D,E	1.5	3500	1587	2500	1134	1900	861	9	2.7	16	4.9	186	85
3WG4-B3500-13S6	Internal	15	B,C,D,E	2	3500	1587	2500	1134	1900	861	13	4.0	24	7.3	191	87
3WG4-B4000-9S6	Internal	15	A	1.5	4000	1814	2800	1270	2200	997	9	2.7	16	4.9	181	83
3WG4-B4600-9S6	Internal	15	B,C,D,E	2	4600	2086	3300	1496	2500	1134	9	2.7	16	4.9	191	87
3WG4-B4600-13S6	Internal	15	C,D,E	3	4600	2086	3300	1496	2500	1134	13	4.0	24	7.3	190	87
3WG4-M3500-9S6	Motor	60	D,E	1.5	3500	1587	2500	1134	1900	861	9	2.7	16	4.9	171	78
3WG4-M3500-13S6	Motor	60	B,D,E	2	3500	1587	2500	1134	1900	861	13	4.0	24	7.3	182	83
3WG4-M4000-9S6	Motor	60	A	1.5	4000	1814	2800	1270	2200	997	9	2.7	16	4.9	181	83
3WG4-M4600-9S6	Motor	60	B,D,E	2	4600	2086	3300	1496	2500	1134	9	2.7	16	4.9	182	83
3WG4-M4600-13S6	Motor	60	D,E	3	4600	2086	3300	1496	2500	1134	13	4.0	24	7.3	181	83

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

¹ Duty rating represents maximum operating time at full load. Rating includes lifting and lowering. Allow components to cool between cycles.

² Weight may vary with motor selection.

Control Options and Accessories

Model	Description	115/1/60	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

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

NOTES:

■ For more information and other control options, please see pages 94-96.

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

Motor Codes

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

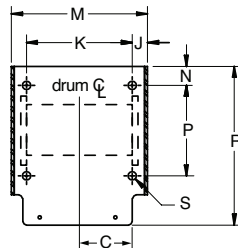


PORTABLE POWER WINCHES

3WG4 Options and Accessories

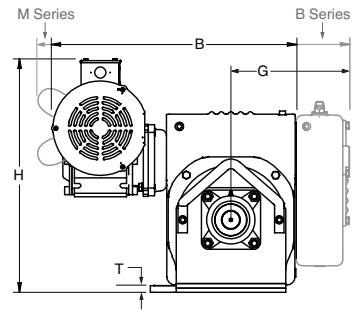
- **Emergency Hand Crank** for manual operation in power loss situations.
- **Rotary Limit Winches** provide secondary shut-off for load travel in one or two directions.
- **Internal Mechanical Brake** available for motor brake models to provide dual braking.
- **Special Finishes** for harsh or hazardous environments.
- **Special Motors and Controls** are available in a wide range of standard and custom configurations for single or variable speed.
- **Torque Limiters** as part of the motor controls.
- **Extreme Temperature Option** available with special seals and motors for high temperature environments - up to 65° C (149° F).

Mounting - Top View

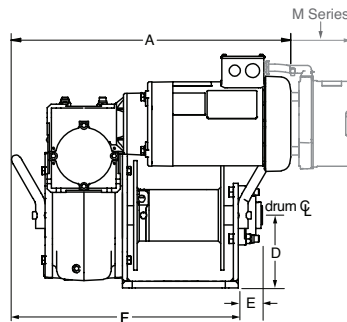


3WG4 Series

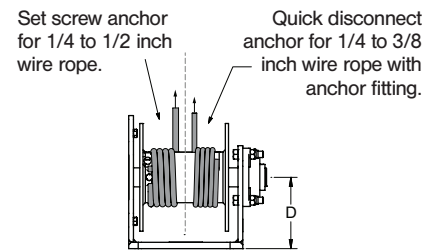
Side View



Back View



Cable Install



3WG4 Series Winch Dimensions (in)

Model	Approx. Ship Wt.	A ³	B ³	C	D	E	F	G	H ³	J	K	M	N	P	R	S	T
3WG4-B3500-9S6	240	22.5	24.5	3.63	5.63	1.88	17.75	9.5	18.5	1	7	9	1.25	6	10.5	9/16	0.5
3WG4-B3500-13S6	245	23.5	24.5	3.63	5.63	1.88	17.75	9.5	18.5	1	7	9	1.25	6	10.5	9/16	0.5
3WG4-B4000-9S6	235	23	24.5	3.63	5.63	1.88	17.75	9.5	18	1	7	9	1.25	6	10.5	9/16	0.5
3WG4-B4600-9S6	245	23.5	24.5	3.63	5.63	1.88	17.75	9.5	18.5	1	7	9	1.25	6	10.5	9/16	0.5
3WG4-B4600-13S6	245	22	23.5	3.63	5.63	1.88	17.75	9.5	18.5	1	7	9	1.25	6	10.5	9/16	0.5
3WG4-M3500-9S6	225	26.5	19.5	3.63	5.63	1.88	17.75	5.75	18	1	7	9	1.25	6	10.5	9/16	0.5
3WG4-M3500-13S6	235	28	21	3.63	5.63	1.88	17.75	5.75	18.5	1	7	9	1.25	6	10.5	9/16	0.5
3WG4-M4000-9S6	235	28	20.5	3.63	5.63	1.88	17.75	5.75	18	1	7	9	1.25	6	10.5	9/16	0.5
3WG4-M4600-9S6	235	28	21	3.63	5.63	1.88	17.75	5.75	18.5	1	7	9	1.25	6	10.5	9/16	0.5
3WG4-M4600-13S6	235	27.5	19.5	3.63	5.63	1.88	17.75	5.75	18.5	1	7	9	1.25	6	10.5	9/16	0.5

³Dimensions A, B and H may vary with motor selection. Dimensions are for reference only and subject to change without notice.

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.

3WG4 Series Drum Capacities⁴

Model	Wire Rope Diameter		Breaking Strength		Drum Layer					
	(in)	(mm)	(lb)	(kg)	1st Layer		Mid Drum		Full Drum	
					(ft)	(m)	(ft)	(m)	(ft)	(m)
3WG4-B/M	5/16	1.9	9800 ⁵	4445.2	18	5.4	91	27.7	200	60.9
3WG4-B/M	3/8	9.5	15,100 ⁵	6849.0	14	4.2	65	19.8	140	42.6

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

⁵Values based on 7x19 Galvanized Aircraft cable.

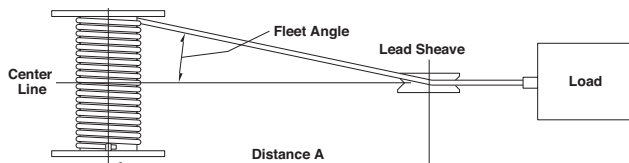
⁶Values based on 6x37 EIPS wire rope.

3WG Series Drum Dimensions

Model	Drum Dia.		Flange Dia.		Drum Width		Fleet Angle Distance ⁷	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
3WG4-M	4.00	102	8.50	216	6.50	166	10.5	3.2

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

⁷Recommended minimum distance between drum and lead sheave for smooth drum.



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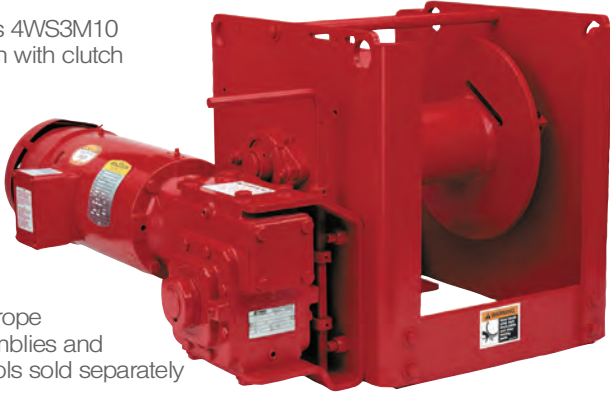
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POWER WINCHES WORM / SPUR GEAR

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

Model Number	Model Number Extensions				Motor (hp)	Load Rating						Wire Rope Dia.		Line Speed				Drum Capacity ¹						Approx. Ship Weight ²			
	Load Rating		Line Speed	Motor Codes		Clutch Opt	1st Layer		Mid Drum		Full Drum		(in)	(mm)	1st Layer		Full Drum		1st Layer		Mid Drum		Full Drum		(lb)	(kg)	
	(lb)	(kg)	(fpm)	(mpm)			(lb)	(kg)	(lb)	(kg)	(lb)	(kg)			(fpm)	(mpm)	(fpm)	(mpm)	(ft)	(m)	(ft)	(m)	(ft)	(m)			
4WS1M6	800	362	15	4	ABDEF	C	.5	800	362	550	249	420	190	3/16	4.8	17	5	33	10	21	6	110	33	260	79	155	71
4WS1M6	800	362	30	9	ABDEF	C	.75	800	362	550	249	420	190	3/16	4.8	29	8	55	16	21	6	110	33	260	79	165	75
4WS1M6	800	362	40	12	ABDEF	C	1	800	362	550	249	420	190	3/16	4.8	43	13	82	24	21	6	110	33	260	79	175	80
4WS1M6	1100	498	20	6	ABDEF	C	.75	1100	498	800	362	600	272	1/4	6.4	18	5	32	9	16	4	62	18	140	42	165	75
4WS1M6	1100	498	30	9	ABDEF	C	1	1100	498	800	362	600	272	1/4	6.4	30	9	54	16	16	4	62	18	140	42	175	80
4WS1M6	1100	498	40	12	DEF	C	1.5	1100	498	800	362	600	272	1/4	6.4	44	13	81	24	16	4	62	18	140	42	170	77
4WS1M6	1500	680	20	6	ABDEF	C	1	1500	680	1000	453	800	362	1/4	6.4	18	5	32	9	16	4	62	18	140	42	175	80
4WS1M6	1500	680	30	9	DEF	C	1.5	1500	680	1100	498	800	362	1/4	6.4	30	9	54	16	16	4	62	18	140	42	170	77
4WS1M6	1500	680	40	12	BDEF	C	2	1500	680	1100	498	800	362	1/4	6.4	44	13	81	24	16	4	62	18	140	42	180	82
Clutch option for 4WS1M6 (for horizontal pulling only)																								add:	5	3	
4WS3M10	2000	907	15	4	ABDEF	C	1	2000	907	1300	589	1000	453	5/16	7.9	14	4	29	8	34	10	220	67	500	152	310	141
4WS3M10	2000	907	20	6	DEF	C	1.5	2200	997	1400	635	1000	453	5/16	7.9	18	5	39	11	34	10	220	67	500	152	305	139
4WS3M10	2500	1133	20	6	BDEF	C	2	2500	1133	1600	725	1200	544	3/8	9.5	22	6	46	14	27	8	160	48	360	109	320	146
4WS3M10	3000	1360	15	4	DEF	C	1.5	3000	1360	2000	907	1500	680	3/8	9.5	14	4	29	8	27	8	160	48	360	109	305	139
4WS3M10	3000	1360	20	6	BDEF	C	2	3000	1360	2000	907	1500	680	3/8	9.5	19	5	39	11	27	8	160	48	360	109	320	146
4WS3M10	3500	1587	7	2	ABDEF	C	1	3500	1587	2300	1043	1700	771	7/16	11.1	8	2	15	4	23	7	120	36	270	82	330	150
4WS3M10	3500	1587	15	4	BDEF	C	2	3700	1678	2500	1133	1800	816	7/16	11.1	14	4	29	8	23	7	120	36	270	82	320	146
4WS3M10	3500	1587	20	6	DEF	C	3	3700	1678	2500	1133	1800	816	7/16	11.1	23	7	46	14	23	7	120	36	270	82	330	150
Clutch option for 4WS3M10 (for horizontal pulling only)																								add:	8	4	
4WS6M12	3000	1360	10	3	DEF	C	1.5	3400	1542	2200	997	1600	725	3/8	9.5	12	3	25	7	40	12	300	91	660	201	515	234
4WS6M12	3000	1360	20	6	BDEF	C	2	3100	1406	2000	907	1500	680	3/8	9.5	20	6	42	12	40	12	300	91	660	201	530	241
4WS6M12	4000	1814	6	2	ABDEF	C	1	4500	2041	2900	1315	2200	997	7/16	11.1	6	2	13	4	34	10	220	67	500	152	535	243
4WS6M12	4000	1814	10	3	BDEF	C	2	4500	2041	2900	1315	2100	952	7/16	11.1	12	3	25	7	34	10	220	67	500	152	530	241
4WS6M12	4000	1814	20	6	DEF	C	3	4000	1814	2500	1133	1900	861	7/16	11.1	24	7	50	15	34	10	220	67	500	152	540	245
4WS6M12	6000	2721	4	1	ABDEF	C	1	6200	2812	4000	1814	3000	1360	1/2	12.7	4	1	8	2	30	9	170	51	390	118	535	243
4WS6M12	6000	2721	10	3	DEF	C	3	6400	2902	4200	1905	3100	1406	9/16	14.2	12	3	25	7	26	7	140	42	310	94	540	245
4WS6M12	6000	2721	20	6	DEF	C	5	6400	2902	4200	1905	3100	1406	9/16	14.2	24	7	50	15	26	7	140	42	310	94	585	266
Clutch option for 4WS6M12 (for horizontal pulling only)																								add:	12	6	

When ordering, please indicate Model Number and Extensions. Examples: 4WS1M6-1100-20-A (without clutch); 4WS1M6-1100-20-A-C (with clutch).

Please contact Them or nearest Them 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

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
10PIA46	6-foot pendant control	to 1 hp	–	–	–

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

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

NOTES:

- For more information and other control options, please see pages 93-95.
- Custom controls are available including wireless remote control, variable speed control, electronic overload, and enclosures for special environments.

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

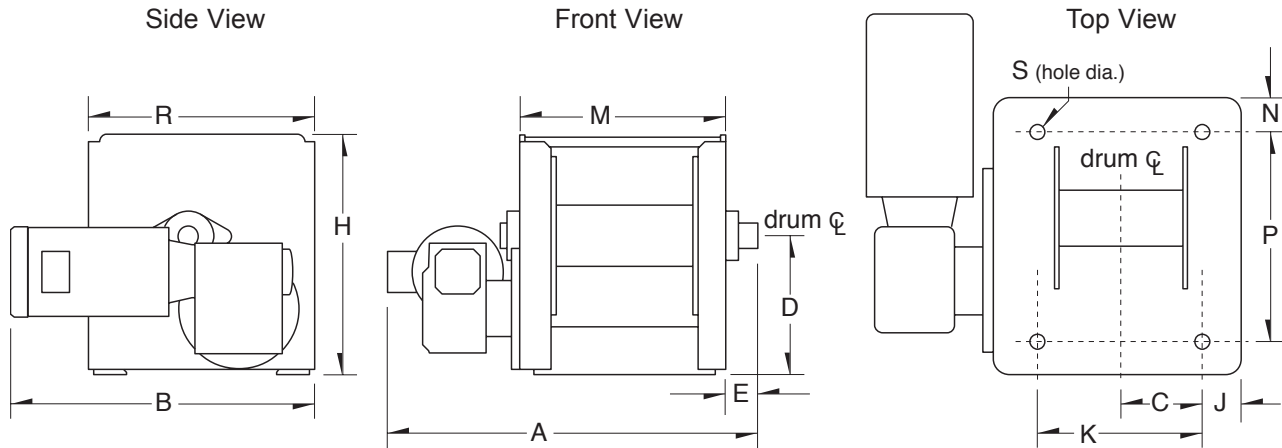


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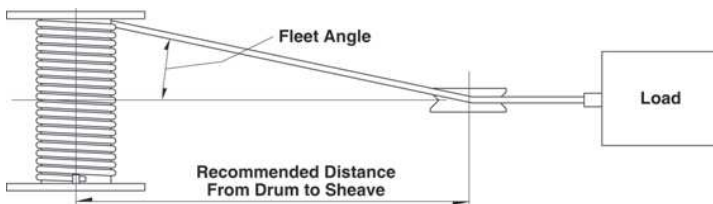


4WS Series – Winch Dimensions (in)

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

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

⁴ Dimensions A and B may vary with motor selection.



4WS Series – Drum Dimensions

Model	Drum Diameter		Flange Diameter		Drum Width		Flange Angle Distance ⁵	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4WS1M6	2.88	73.16	7.0	177.8	6.0	152.4	10.0	3.05
4WS3M10	4.50	114.3	11.50	292.1	10.0	254	16.0	4.88
4WS6M12	5.50	139.7	14.0	355.6	12.0	304.8	20.0	6.10

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

⁵ Recommended minimum distance between drum and lead sheave for smooth drum.

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.



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

Complete, downloadable details on line
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POWER WINCH APPLICATIONS



- Rail Car Pulling
- Barge Positioning
- Conveyer Belt Tensioning
- Chute Positioning

- Cable Stay Handling
- Bridge Falsework
- Steel Erection
- Utility/Maintenance



- Conveyor Positioning
- Conveyor Take-up
- Plumb-bob winches
- Utility/Maintenance

- Accommodation Ladder Winches
- Towed Array Winches
- Specialty Winches
- Recovery Winches

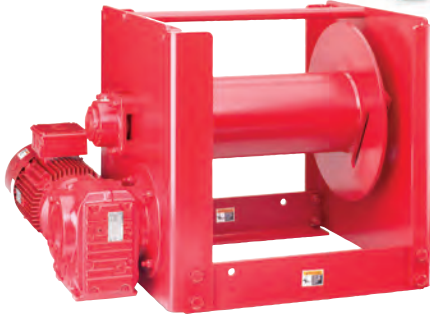


HEAVY DUTY POWER WINCHES

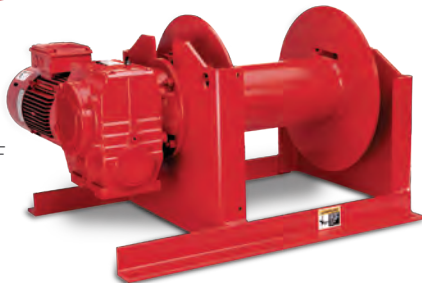
Series 4WS



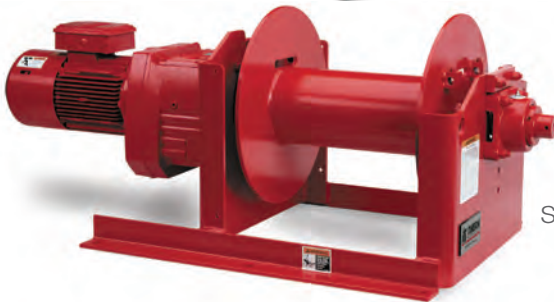
Series 4HS



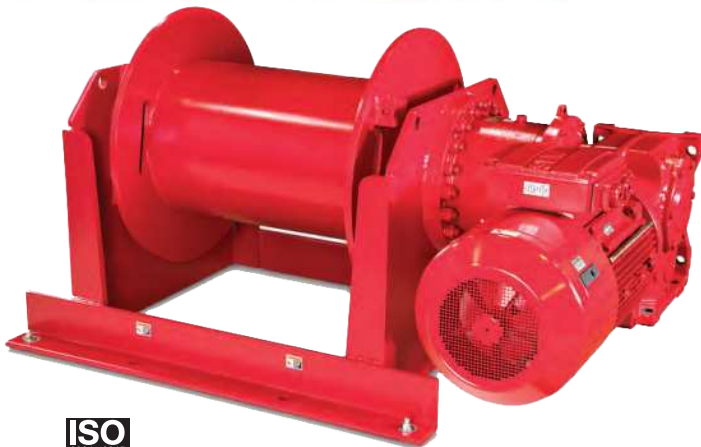
Series 4HWF



Series 4HPF



Series 4HBP



Up to 100,000 lb Capacity Power Winches

- Industrial-Duty Electric Motors
- Worm Gearing for Precise Load Control
- Enclosed Oil Bath
- Load Holding Brakes
- Mount on Floor, Wall or Ceiling
- Watertight NEMA Controls Available
- 2-Year Warranty

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.



Made in the USA



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

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1.800.843.7648 Winona, MN USA | www.thern.com

Industrial Distribution Associates 1.206.999.7220

POWER WINCHES HEAVY DUTY

4WS Series - 7000 to 26,000 lb capacity

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 brake motor.

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

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

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

¹ Does not apply to 4WS9M18



HEAVY DUTY POWER WINCHES

7000 to 26,000 lb capacity - 4WS Series

Model	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.

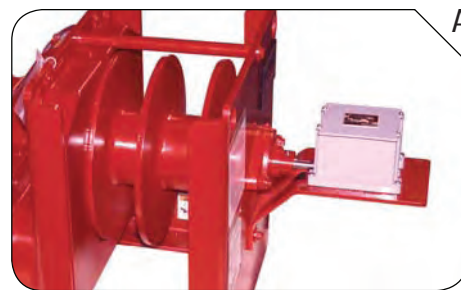
DUTY RATINGS include IEEE 45 marine duty, tropical duty, severe duty and explosion proof ratings.

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.



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

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Winches & Cranes

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POWER WINCHES HEAVY DUTY

4WS Series Performance Characteristics

Model	Model Number Extensions			Motor	Load Rating						Line Speed			
	Load Rating	Line Speed	Motor Codes ¹		1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum	
	(lb)	(fpm)		(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)
4WS9M18	7000	20	D,E,F	5	7300	3312	5000	2268	3800	1724	21	6.4	41	12.5
4WS9M18	7000	30	D,E,F	7.5	7500	3402	5200	2359	4000	1815	32	9.8	61	18.6
4WS9M18	10000	10	D,E,F	5	10,000	4536	6900	3130	5300	2405	13	4.0	24	7.3
4WS9M18	10000	20	D,E,F	7.5	10,000	4536	6900	3130	5300	2405	21	6.4	41	12.5
4WS9M18	10000	30	D,E,F	10	10,000	4536	6900	3130	5200	2359	32	9.8	61	18.6
4WS16M20	13000	15	D,E,F	7.5	13,000	5897	8800	3992	6700	3040	14	4.3	26	7.9
4WS16M20	13000	20	D,E,F	10	13,300	6033	9100	4128	6900	3130	18	5.5	35	10.7
4WS16M20	13000	35	D,E,F	15	13,000	5897	8900	4038	6700	3040	35	10.7	68	20.7
4WS16M20	16000	15	D,E,F	7.5	16,000	7258	11,100	5035	8500	3856	12	3.7	24	7.3
4WS16M20	16000	20	D,E,F	10	16,000	7258	11,100	5035	8500	3856	16	4.9	31	9.4
4WS26M26	22000	20	D,E,F	15	22,800	10,343	16,700	7576	13200	5988	18	5.5	31	9.4
4WS26M26	22000	25	D,E,F	20	22,600	10,252	16,500	7485	13100	5943	25	7.6	43	13.1
4WS26M26	22000	35	D,E,F	25	22,200	10,070	16,300	7394	12,900	5852	36	11.0	63	19.2
4WS26M26	26000	10	D,E,F	10	26,200	11,885	19,400	8800	15,400	6986	10	3.0	17	5.2
4WS26M26	26000	15	D,E,F	15	26,000	11,794	20,200	9163	16,500	7485	16	4.9	27	8.2

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

Please contact Them or nearest Them 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)				
					1st	87	26.5	-	-	-	-			
7/16	11.2	20,400	9,254	Mid	670	204.2	-	-	-	-	-			
				Full	1500	457.2	-	-	-	-	-	-		
				1st	76	23.2	-	-	-	-	-	-		
1/2	12.7	26,600	12,066	Mid	520	158.5	-	-	-	-	-			
				Full	1170	356.6	-	-	-	-	-	-		
				1st	67	20.4	89	27.1	-	-	-	-		
9/16	14.2	33,600	15,240	Mid	420	128.0	690	210.3	-	-	-			
				Full	930	283.5	1,530	466.3	-	-	-	-		
				1st	59	18	78	23.8	-	-	-	-		
5/8	16.0	41,200	18,688	Mid	340	103.6	560	170.7	-	-	-			
				Full	760	231.6	1250	381	-	-	-	-		
				1st	48	14.6	65	19.8	110	33.5	-	-		
3/4	19.1	58,800	26,671	Mid	240	73.2	400	121.9	670	204.2	-			
				Full	540	164.6	880	268.2	1480	451.1	-	-		
				1st	-	-	54	16.5	94	28.7	-	-		
7/8	22.4	79,600	36,106	Mid	-	-	290	88.4	480	146.3	-			
				Full	-	-	640	195.1	1070	326.1	-	-		
				1st	-	-	47	14.3	82	25.0	-	-		
1	25.4	103,400	46,902	Mid	-	-	220	67.1	370	112.8	-			
				Full	-	-	490	149.4	830	253.0	-	-		
				1st	-	-	-	-	71	21.6	-	-		
1-1/8	28.7	130,000	58,968	Mid	-	-	-	-	300	91.4	-			
				Full	-	-	-	-	660	201.2	-	-		
				1st	-	-	-	-	63	19.2	-	-		
1-1/4	31.8	159,800	72,485	Mid	-	-	-	-	240	73.2	-			
				Full	-	-	-	-	530	161.5	-	-		
				1st	-	-	-	-	56	17.1	-	-		
1-3/8	34.9	192,000	87,090	Mid	-	-	-	-	200	61.0	-			
				Full	-	-	-	-	440	134.1	-	-		
				1st	-	-	-	-	-	-	-	-		

Values based on 6x37 IWRC EIPS wire rope.

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

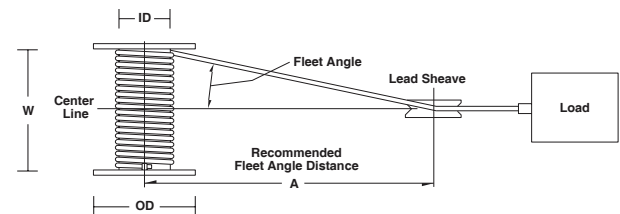
² Wire rope should be selected based on the breaking strength to load rating ratio and application parameters. Industry standards suggest a 5:1 breaking strength to load rating ratio for lifting and a 3:1 ratio for pulling.

Electric Motor Controls

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

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

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



4WS Series Drum Dimensions

Model	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)		Fleet Angle Distance (A) ³	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4WS9M18	9	229	20	508	18	457	29	8.8
4WS16M20	10.75	273	24	610	20	508	32	9.8
4WS26M26	14	356	28	711	26	660	42	12.8

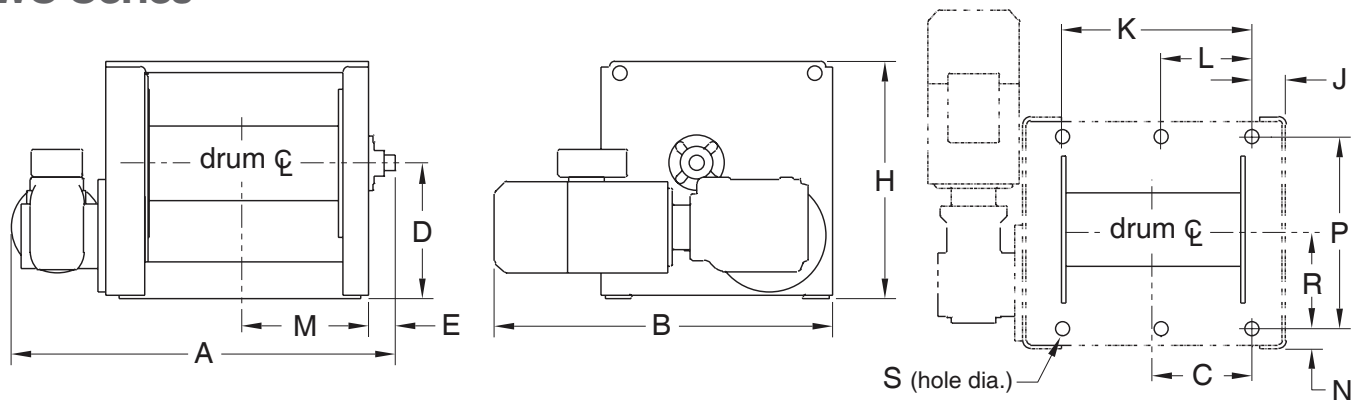
³ Recommended minimum distance between drum and lead sheave for smooth drum.

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

Please contact Them for exact dimensions.

HEAVY DUTY POWER WINCHES

4WS Series



4WS Series Winch Dimensions

Model	A		B		C		D		E		H		J		K	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4WS9M18-7000-20	44	1118	33.75	857	8.5	216	17.75	451	5.13	130	31	787	4	102	18	457
4WS9M18-7000-30	45.5	1156	38.5	978	8.5	216	17.75	451	5.13	130	31	787	4	102	18	457
4WS9M18-10000-10	44	1118	33.75	857	8.5	216	17.75	451	5.13	130	31	787	4	102	18	457
4WS9M18-10000-20	45.5	1156	38.5	978	8.5	216	17.75	451	5.13	130	31	787	4	102	18	457
4WS9M18-10000-30	45.5	1156	40	1016	8.5	216	17.75	451	5.13	130	31	787	4	102	18	457
4WS16M20-13000-15	48	1219	34.75	883	9.5	241	20	508	6.25	159	34	864	4	102	20	508
4WS16M20-13000-20	48	1219	37	940	9.5	241	20	508	6.25	159	34	864	4	102	20	508
4WS16M20-13000-35	48	1219	39.5	1003	9.5	241	20	508	6.25	159	34	864	4	102	20	508
4WS16M20-16000-15	48	1219	34.75	883	9.5	241	20	508	6.25	159	34	864	4	102	20	508
4WS16M20-16000-20	48	1219	37	940	9.5	241	20	508	6.25	159	34	864	4	102	20	508
4WS26M26-22000-20	60.5	1537	43.5	1105	12.38	314	25.38	645	8.06	205	44.5	1130	5.88	149	26	660
4WS26M26-22000-25	60.5	1537	47	1194	12.38	314	25.38	645	8.06	205	44.5	1130	5.88	149	26	660
4WS26M26-22000-35	60.5	1537	50	1270	12.38	314	25.38	645	8.06	205	44.5	1130	5.88	149	26	660
4WS26M26-26000-10	60.5	1537	42	1067	12.38	314	25.38	645	8.06	205	44.5	1130	5.88	149	26	660
4WS26M26-26000-15	60.5	1537	43.5	1105	12.38	314	25.38	645	8.06	205	44.5	1130	5.88	149	26	660

	L		M		N		P		R		S (hole dia.)		Ship Weight	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
4WS9M18-7000-20	-	-	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1100	499
4WS9M18-7000-30	-	-	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1100	499
4WS9M18-10000-10	-	-	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1100	499
4WS9M18-10000-20	-	-	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1100	499
4WS9M18-10000-30	-	-	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1160	527
4WS16M20-13000-15	10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1550	704
4WS16M20-13000-20	10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1610	731
4WS16M20-13000-35	10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1650	749
4WS16M20-16000-15	10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1550	704
4WS16M20-16000-20	10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1610	731
4WS26M26-22000-20	13	330	18.25	464	3	76	36	914	21.75	552	1-3/8	35	3110	1411
4WS26M26-22000-25	13	330	18.25	464	3	76	36	914	21.75	552	1-3/8	35	3290	1493
4WS26M26-22000-35	13	330	18.25	464	3	76	36	914	21.75	552	1-3/8	35	3350	1520
4WS26M26-26000-10	13	330	18.25	464	3	76	36	914	21.75	552	1-3/8	35	3070	1393
4WS26M26-26000-15	13	330	18.25	464	3	76	36	914	21.75	552	1-3/8	35	3110	1411

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



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

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POWER WINCHES HEAVY DUTY

4HS Series - 5000 to 56,000 lb capacity

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 brake 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.

DUAL STAGE GEARING

comprised of a helical/bevel or helical/parallel and 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 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, heated treated spur gearing provides secondary reduction. Grease zerks allow for easy lubrication.

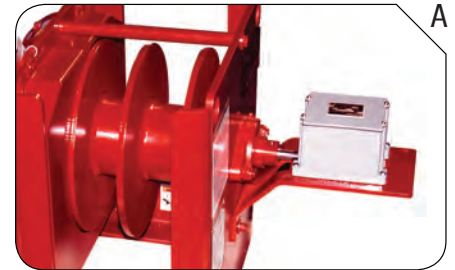
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2 YEAR "MOVE IT WITH CONFIDENCE" LIMITED WARRANTY leads the industry.

HEAVY DUTY POWER WINCHES

5000 to 56,000 lb capacity - 4HS Series

Model	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



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



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 cable pressure bar and grooved drum modification.



Shown with double compartment drum modification and gray epoxy finish.

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

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POWER WINCHES HEAVY DUTY

4HS Series Performance Characteristics

Model	Model Number Extensions				Motor (hp)	Load Rating						Line Speed			
	Load Rating	Line Speed	Motor Codes ¹	Clutch Option ²		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	5100	2314	3800	1725	3100	1407	13	4.0	22	6.7
4HS6M	5000	20	D, E, F	C	3	5100	2314	3800	1725	3100	1407	20	6.1	33	10.1
4HS6M	5000	30	D, E, F	C	5	5100	2314	3800	1725	3100	1407	33	10.1	55	16.8
4HS6M	6600	15	D, E, F	C	3	6600	2994	5000	2269	4000	1815	15	4.6	25	7.6
4HS6M	6600	25	D, E, F	C	5	6600	2994	4900	2224	4000	1815	25	7.6	41	12.5
4HS6M	6600	40	D, E, F	C	7.5	6600	2994	5000	2269	4000	1815	39	11.9	64	19.5
4HS11M	9000	20	D, E, F	C	5	9000	4083	6200	2814	4700	2132	19	5.8	35	10.7
4HS11M	9000	30	D, E, F	C	7.5	9000	4083	6200	2814	4700	2132	27	8.2	51	15.5
4HS11M	9000	40	D, E, F	C	10	9000	4083	6200	2814	4700	2132	37	11.3	70	21.3
4HS11M	11000	15	D, E, F	C	5	11,000	4990	7600	3449	5800	2631	15	4.6	28	8.5
4HS11M	11000	20	D, E, F	C	7.5	11,000	4990	7600	3449	5800	2631	21	6.4	40	12.2
4HS11M	11000	30	D, E, F	C	10	11,000	4990	7600	3449	5800	2631	27	8.2	51	15.5
4HS16M	13000	20	D, E, F	C	7.5	13,000	5897	8900	4039	6700	3040	19	5.8	37	11.3
4HS16M	13000	25	D, E, F	C	10	13,000	5897	8900	4039	6700	3040	24	7.3	46	14.0
4HS16M	13000	40	D, E, F	C	15	13,000	5897	8900	4039	6700	3040	37	11.3	72	21.9
4HS16M	16000	10	D, E, F	C	5	16,100	7303	11,000	4992	8300	3765	11	3.4	21	6.4
4HS16M	16000	15	D, E, F	C	7.5	16,000	7258	10,900	4947	8300	3765	16	4.9	30	9.1
4HS16M	16000	20	D, E, F	C	10	16,100	7303	11,000	4992	8300	3765	20	6.1	38	11.6
4HS26M	22000	15	D, E, F	C	10	22,000	9980	16,200	7352	12,800	5807	16	4.9	27	8.2
4HS26M	22000	25	D, E, F	C	15	22,000	9980	16,100	7307	12,700	5761	23	7.0	40	12.2
4HS26M	22000	30	D, E, F	C	20	22,900	10,388	16,800	7624	13,200	5988	29	8.8	50	15.2
4HS26M	26000	15	D, E, F	C	10	26,000	11,794	19,000	8623	15,000	6804	13	4.0	23	7.0
4HS26M	26000	20	D, E, F	C	15	26,000	11,794	19,000	8623	15,100	6850	19	5.8	33	10.1
4HS26M	26000	25	D, E, F	C	20	26,000	11,794	19,100	8668	15,000	6804	26	7.9	45	13.7
4HS40M	33000	20	D, E, F	C	20	33,100	15,015	24,100	10,937	18,900	8574	19	5.8	34	10.4
4HS40M	33000	30	D, E, F	C	30	33,000	14,969	24,100	10,937	18,900	8574	29	8.8	51	15.5
4HS40M	33000	40	D, E, F	C	40	33,100	15,015	24,100	10,937	18,900	8574	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 Them or nearest Them Distributor for firm fixed price and delivery.

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

Electric Motor Controls

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

Controls include NEMA 4 rated enclosure, and NEMA X rated pendant control on 50 foot cord. Motor Controls sold separately. Please contact Them or nearest Them Distributor for firm, fixed price and delivery. All prices include mounting and wiring to motor.

4HS Series Drum Dimensions

Model	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)		Fleet Angle Dist (A) ³	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4HS6M	7	178	14	356	18	457	29	8.8
4HS11M	9	229	20	508	18	457	29	8.8
4HS16M	10.75	273	24	610	20	508	32	9.8
4HS26M	14	356	28	711	26	660	42	12.8
4HS40M	18	457	36	914	30	762	48	14.6
4HS56M	24	610	43	1092	36	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 Them for exact dimensions.



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HEAVY DUTY POWER WINCHES

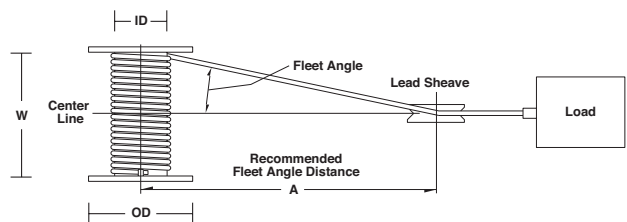
4HS Series Drum Capacities

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	6849	1st	80	24.4	-	-	-	-	-	-	-	-	-	-	
				Mid	380	115.8	-	-	-	-	-	-	-	-	-	-	-
				Full	850	259.1	-	-	-	-	-	-	-	-	-	-	-
7/16	11.2	20,400	9254	1st	68	20.7	-	-	-	-	-	-	-	-	-	-	
				Mid	290	88.4	-	-	-	-	-	-	-	-	-	-	-
				Full	640	195.1	-	-	-	-	-	-	-	-	-	-	-
1/2	12.7	26,600	12,066	1st	60	18.3	76	23.2	-	-	-	-	-	-	-	-	
				Mid	220	67.1	520	158.5	-	-	-	-	-	-	-	-	-
				Full	500	152.4	1,170	356.6	-	-	-	-	-	-	-	-	-
9/16	14.2	33,600	15,240	1st	53	16.2	67	20.4	89	27.1	-	-	-	-	-	-	
				Mid	180	54.9	420	128.0	690	210.3	-	-	-	-	-	-	-
				Full	400	121.9	930	283.5	1,530	466.3	-	-	-	-	-	-	-
5/8	16.0	41,200	18,688	1st	-	-	59	18.0	78	23.8	-	-	-	-	-	-	
				Mid	-	-	340	103.6	560	170.7	-	-	-	-	-	-	-
				Full	-	-	760	231.6	1,250	381.0	-	-	-	-	-	-	-
3/4	19.1	58,800	26,671	1st	-	-	48	14.6	65	19.8	-	-	-	-	-	-	
				Mid	-	-	240	73.2	400	121.9	-	-	-	-	-	-	-
				Full	-	-	540	164.6	880	268.2	-	-	-	-	-	-	-
7/8	22.4	79,600	36,106	1st	-	-	-	-	54	16.5	94	28.7	-	-	-	-	
				Mid	-	-	-	-	290	88.4	480	146.3	-	-	-	-	-
				Full	-	-	-	-	640	195.1	1,070	326.1	-	-	-	-	-
1	25.4	103,400	46,902	1st	-	-	-	-	47	14.3	82	25.0	-	-	-	-	
				Mid	-	-	-	-	220	67.1	370	112.8	-	-	-	-	-
				Full	-	-	-	-	490	149.4	830	253.0	-	-	-	-	-
1-1/8	28.7	130,000	58,968	1st	-	-	-	-	-	-	71	21.6	110	33.5	-	-	
				Mid	-	-	-	-	-	-	300	91.4	580	176.8	-	-	-
				Full	-	-	-	-	-	-	660	201.2	1,290	393.2	-	-	-
1-1/4	31.8	159,800	72,485	1st	-	-	-	-	-	-	63	19.2	95	29.0	160	48.8	
				Mid	-	-	-	-	-	-	240	73.2	460	140.2	730	222.5	
				Full	-	-	-	-	-	-	530	161.5	1,030	313.9	1,630	496.8	
1-3/8	34.9	192,000	87,090	1st	-	-	-	-	-	-	56	17.1	85	25.9	140	42.7	
				Mid	-	-	-	-	-	-	200	61.0	390	118.9	610	185.9	
				Full	-	-	-	-	-	-	440	134.1	860	262.1	1,360	414.5	
1-1/2	38.1	228,000	103,420	1st	-	-	-	-	-	-	-	-	77	23.5	130	39.6	
				Mid	-	-	-	-	-	-	-	-	-	330	100.6	510	155.4
				Full	-	-	-	-	-	-	-	-	-	720	219.5	1,140	347.5
1-5/8	41.3	264,000	119,750	1st	-	-	-	-	-	-	-	-	-	-	110	33.5	
				Mid	-	-	-	-	-	-	-	-	-	-	-	430	131.1
				Full	-	-	-	-	-	-	-	-	-	-	-	950	289.6
1-3/4	44.5	306,000	138,800	1st	-	-	-	-	-	-	-	-	-	-	110	33.5	
				Mid	-	-	-	-	-	-	-	-	-	-	-	370	112.8
				Full	-	-	-	-	-	-	-	-	-	-	-	820	249.9
1-7/8	47.7	348,000	157,851	1st	-	-	-	-	-	-	-	-	-	-	97	29.6	
				Mid	-	-	-	-	-	-	-	-	-	-	-	320	97.5
				Full	-	-	-	-	-	-	-	-	-	-	-	720	219.5

⁴ Values based on 6x37 IWRC EIPS wire rope.

Actual drum capacities 25-30% less, due to nonuniform winding. Wire rope tension will also affect drum capacity.
Wire rope should be selected based on the breaking strength to load rating ratio and application parameters. Industry standards suggest a 5:1 breaking strength to load rating ratio for lifting and a 3:1 ratio for pulling.

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.



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

FLCL-0618

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POWER WINCHES HEAVY DUTY

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

Model	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	914	27.25	692	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572	3.25	83
4HS6M-5000-20	36	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572	3.25	83
4HS6M-5000-30	36	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572	3.25	83
4HS6M-6600-15	36	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572	3.25	83
4HS6M-6600-25	36	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572	3.25	83
4HS6M-6600-40	36	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572	3.25	83
4HS11M-9000-20	41	1041	31.75	806	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787	4	102
4HS11M-9000-30	41.5	1054	34.75	883	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787	4	102
4HS11M-9000-40	42.5	1080	37	940	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787	4	102
4HS11M-11000-15	41	1041	31.75	806	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787	4	102
4HS11M-11000-20	41.5	1054	34.75	883	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787	4	102
4HS11M-11000-30	42.5	1080	37	940	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787	4	102
4HS16M-13000-20	46	1168	37.5	953	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864	4	102
4HS16M-13000-25	47	1194	39.5	1003	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864	4	102
4HS16M-13000-40	47	1194	42	1067	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864	4	102
4HS16M-16000-10	46	1168	34.5	876	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864	4	102
4HS16M-16000-15	46	1168	37.5	953	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864	4	102
4HS16M-16000-20	47	1194	39.5	1003	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864	4	102
4HS26M-22000-15	60.5	1537	42.5	1080	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1130	5.88	149
4HS26M-22000-25	60.5	1537	45	1143	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1130	5.88	149
4HS26M-22000-30	60.5	1537	48.5	1232	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1130	5.88	149
4HS26M-26000-15	60.5	1537	42.5	1080	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1130	5.88	149
4HS26M-26000-20	60.5	1537	45	1143	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1130	5.88	149
4HS26M-26000-25	60.5	1537	48.5	1232	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1130	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	457	-	-	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	570	259
4HS6M-5000-20	18	457	-	-	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	590	268
4HS6M-5000-30	18	457	-	-	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	590	268
4HS6M-6600-15	18	457	-	-	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	590	268
4HS6M-6600-25	18	457	-	-	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	590	268
4HS6M-6600-40	18	457	-	-	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	650	295
4HS11M-9000-20	18	457	-	-	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1080	490
4HS11M-9000-30	18	457	-	-	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1120	509
4HS11M-9000-40	18	457	-	-	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1160	527
4HS11M-11000-15	18	457	-	-	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1080	490
4HS11M-11000-20	18	457	-	-	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1120	509
4HS11M-11000-30	18	457	-	-	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1160	527
4HS16M-13000-20	20	508	10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1580	717
4HS16M-13000-25	20	508	10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1640	744
4HS16M-13000-40	20	508	10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1680	763
4HS16M-16000-10	20	508	10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1520	690
4HS16M-16000-15	20	508	10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1580	717
4HS16M-16000-20	20	508	10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1640	744
4HS26M-22000-15	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3130	1420
4HS26M-22000-25	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3170	1438
4HS26M-22000-30	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3350	1520
4HS26M-26000-15	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3130	1420
4HS26M-26000-20	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3170	1438
4HS26M-26000-25	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3350	1520

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

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



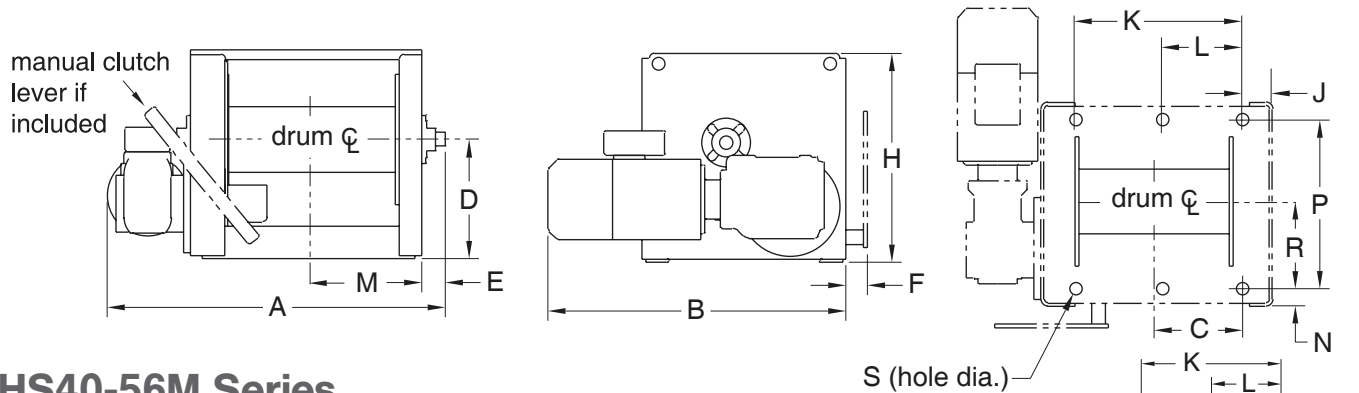
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These products are not for lifting people, or things over people.

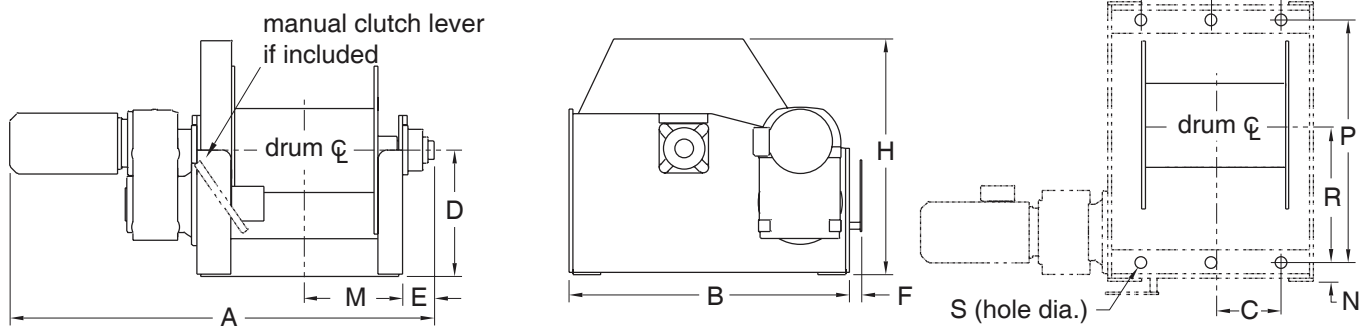


HEAVY DUTY POWER WINCHES

4HS6-26M Series



4HS40-56M Series



4HS40-56M Series Winch Dimensions

Model	A		B		C		D		E		F		G		H	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4HS40M-33000-20	91	2311	60	1524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1295
4HS40M-33000-30	94	2388	60	1524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1295
4HS40M-33000-40	96	2438	60	1524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1295
4HS40M-40000-20	91	2311	60	1524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1295
4HS40M-40000-25	94	2388	60	1524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1295
4HS40M-40000-35	96	2438	60	1524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1295
4HS56M-48000-20	108	2743	72	1829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1575
4HS56M-48000-30	110	2794	72	1829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1575
4HS56M-52000-35	113	2870	72	1829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1575
4HS56M-56000-20	108	2743	72	1829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1575
4HS56M-56000-25	110	2794	72	1829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1575
4HS56M-56000-30	113	2870	72	1829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1575

	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	178	30	762	-	-	21	533	4	102	52	1321	31.5	800	1-3/4	44	5570	2527
4HS40M-33000-30	7	178	30	762	-	-	21	533	4	102	52	1321	31.5	800	1-3/4	44	5660	2568
4HS40M-33000-40	7	178	30	762	-	-	21	533	4	102	52	1321	31.5	800	1-3/4	44	5800	2631
4HS40M-40000-20	7	178	30	762	-	-	21	533	4	102	52	1321	31.5	800	1-3/4	44	5570	2527
4HS40M-40000-25	7	178	30	762	-	-	21	533	4	102	52	1321	31.5	800	1-3/4	44	5660	2568
4HS40M-40000-35	7	178	30	762	-	-	21	533	4	102	52	1321	31.5	800	1-3/4	44	5800	2631
4HS56M-48000-20	7	178	36	914	18	457	25	635	4.5	114	63	1600	34.5	876	1-3/4	44	9220	4183
4HS56M-48000-30	7	178	36	914	18	457	25	635	4.5	114	63	1600	34.5	876	1-3/4	44	9370	4251
4HS56M-52000-35	7	178	36	914	18	457	25	635	4.5	114	63	1600	34.5	876	1-3/4	44	9480	4301
4HS56M-56000-20	7	178	36	914	18	457	25	635	4.5	114	63	1600	34.5	876	1-3/4	44	9220	4183
4HS56M-56000-25	7	178	36	914	18	457	25	635	4.5	114	63	1600	34.5	876	1-3/4	44	9370	4251
4HS56M-56000-30	7	178	36	914	18	457	25	635	4.5	114	63	1600	34.5	876	1-3/4	44	9480	4301

¹Weight shown without clutch; contact Them for clutch weight.
Dimensions are for reference only and subject to change without notice. Please contact Them for exact dimensions.

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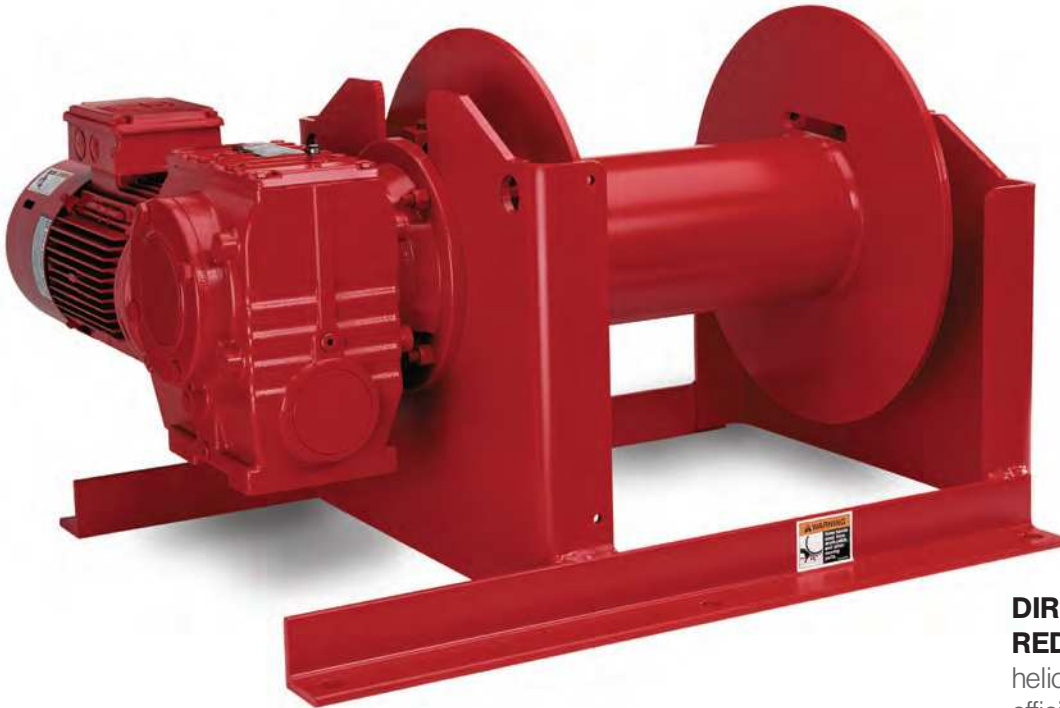
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Thern
Winches & Cranes

POWER WINCHES HEAVY DUTY

4HWF Series - 1500 to 8000 lb capacity

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 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.

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 brake 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 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 Thern.

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

HEAVY DUTY POWER WINCHES

1500 to 8000 lb capacity - 4HWF Series

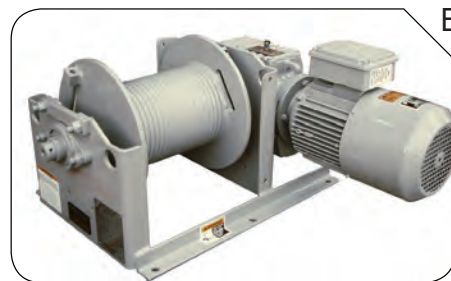
Model	HP	Load Rating	Line Speed
4HWF1M	1.5 - 2	1,500 lb	25 - 35 fpm
4HWF2M	2 - 3	2,000 lb	25 - 35 fpm
4HWF4M	3 - 5	4,000 lb	25 - 35 fpm
4HWF6M	5 - 7.5	6,000 lb	25 - 35 fpm
4HWF8M	7.5 - 10	8,000 lb	25 - 35 fpm



Shown with double compartment drum modification.



Shown with cable pressure bar and grooved drum modification.



Shown with grooved drum modification and gray epoxy finish.

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.



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

FLCL-0618

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POWER WINCHES HEAVY DUTY

4HWF Series Performance Characteristics

Model	Model Number Extensions			Motor HP	Load Rating						Line Speed			
	Load Rating	Line Speed	Motor Codes		1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum	
					(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)
4HWF1M	1500	25	D, E, F	1.5	1500	681	900	409	700	318	23	7.0	52	15.8
4HWF1M	1500	35	D, E, F	2	1500	681	900	409	700	318	32	9.8	73	22.3
4HWF2M	2000	25	D, E, F	2	2200	998	1500	681	1200	545	22	6.7	40	12.2
4HWF2M	2000	35	D, E, F	3	2200	998	1500	681	1200	545	34	10.4	63	19.2
4HWF4M	4000	25	D, E, F	3	4000	1815	2500	1134	1800	817	21	6.4	47	14.3
4HWF4M	4000	35	D, E, F	5	4000	1815	2500	1134	1800	817	35	10.7	78	23.8
4HWF6M	6000	25	D, E, F	5	6000	2722	4400	1996	3400	1543	24	7.3	42	12.8
4HWF6M	6000	35	D, E, F	7.5	6000	2722	4400	1996	3400	1543	35	10.7	61	18.6
4HWF8M	8000	25	D, E, F	7.5	8100	3675	5800	2631	4500	2042	27	8.2	47	14.3
4HWF8M	8000	35	D, E, F	10	8100	3675	5800	2631	4500	2042	39	11.9	64	19.5

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

Please contact Them or nearest Them 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	3175	1st	43	13.1	51	15.5	-	-	-	-	-	-	
				Mid	370	112.8	340	103.6	-	-	-	-	-	-	
				Full	830	253	750	228.6	-	-	-	-	-	-	
5/16	7.9	9,800 ³	4445	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	6849	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	9254	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	1140	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	1210	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

² Values based on 6x37 IWRC EIPS wire rope.

³ Values based on 7x19 galvanized aircraft cable.

Actual drum capacities 25-30% less, due to nonuniform winding. Wire rope tension will also affect drum capacity. Wire rope should be selected based on the breaking strength to load rating ratio and application parameters. Industry standards suggest a 5:1 breaking strength to load rating ratio for lifting and a 3:1 ratio for pulling.

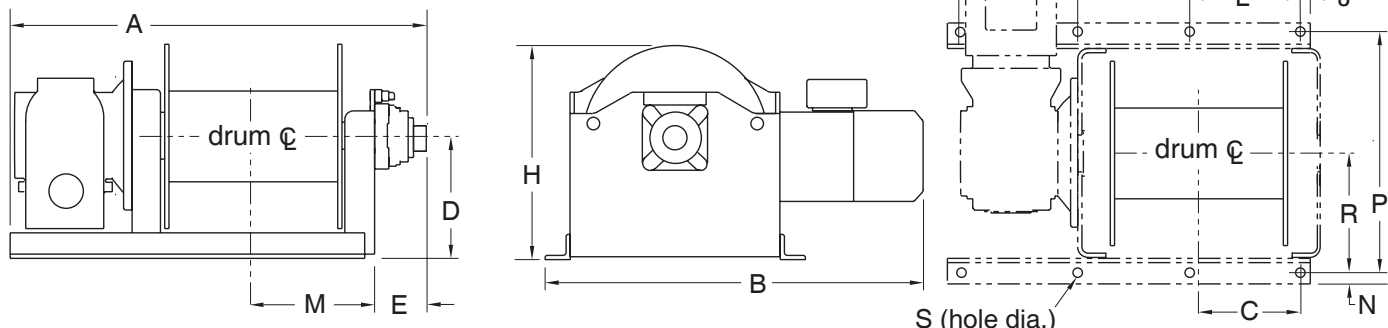
Electric Motor Controls

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

Controls include NEMA 4 rated enclosure, and NEMA 4X rated pendant control on 50-foot cord. Motor controls sold separately. Please contact Them or nearest Them Distributor for firm fixed price and delivery. All prices include mounting and wiring to motor.

HEAVY DUTY POWER WINCHES

4HWF Series



4HWF Series Winch Dimensions

Model	A		B		C		D		E		H		J		K	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4HWF1M-1500-25	25.5	648	27	686	6	152	8	203	2.38	60	14	356	1	25	20	508
4HWF1M-1500-35	25.5	648	27	686	6	152	8	203	2.38	60	14	356	1	25	20	508
4HWF2M-2000-25	26.25	667	28	711	6	152	8	203	2.38	60	14	356	1	25	20	508
4HWF2M-2000-35	26.25	667	29.75	756	6	152	8	203	2.38	60	14	356	1	25	20	508
4HWF4M-4000-25	39	991	35	889	9.63	245	12	305	5.13	130	21	533	1	25	30.5	775
4HWF4M-4000-35	39	991	35	889	9.63	245	12	305	5.13	130	21	533	1	25	30.5	775
4HWF6M-6000-25	41	1041	36	914	9.63	245	12	305	5.13	130	21	533	1	25	30.5	775
4HWF6M-6000-35	41	1041	39	991	9.63	245	12	305	5.13	130	21	533	1	25	30.5	775
4HWF8M-8000-25	50	1270	43.5	1105	12	305	14.5	368	6.25	159	25.5	648	1.25	32	26.5	673
4HWF8M-8000-35	50	1270	45.5	1156	12	305	14.5	368	6.25	159	25.5	648	1.25	32	26.5	673

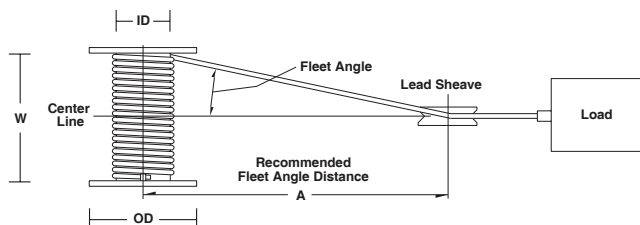
	L		M		N		P		R		S (Hole Dia.)		V		Ship. Wt.	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
4HWF1M-1500-25	10	254	7.56	192	0.63	16	15.75	400	7.88	200	¹⁹ / ₃₂	15	-	-	190	87
4HWF1M-1500-35	10	254	7.56	192	0.63	16	15.75	400	7.88	200	¹⁹ / ₃₂	15	-	-	190	87
4HWF2M-2000-25	10	254	7.56	192	0.63	16	15.75	400	7.88	200	¹⁹ / ₃₂	15	-	-	240	109
4HWF2M-2000-35	10	254	7.56	192	0.63	16	15.75	400	7.88	200	¹⁹ / ₃₂	15	-	-	240	109
4HWF4M-4000-25	15.25	387	11.5	292	1	25	24	610	12.00	305	⁷ / ₈	22	-	-	480	218
4HWF4M-4000-35	15.25	387	11.5	292	1	25	24	610	12.00	305	⁷ / ₈	22	-	-	480	218
4HWF6M-6000-25	15.25	387	11.5	292	1	25	24	610	12.00	305	⁷ / ₈	22	-	-	650	295
4HWF6M-6000-35	15.25	387	11.5	292	1	25	24	610	12.00	305	⁷ / ₈	22	-	-	710	323
4HWF8M-8000-25	13.25	337	14.5	368	1.13	29	28.75	730	14.38	365	1- ¹ / ₈	29	39.75	1010	1120	509
4HWF8M-8000-35	13.25	337	14.5	368	1.13	29	28.75	730	14.38	365	1- ¹ / ₈	29	39.75	1010	1180	536

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

4HWF Series Drum Dimensions

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

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



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

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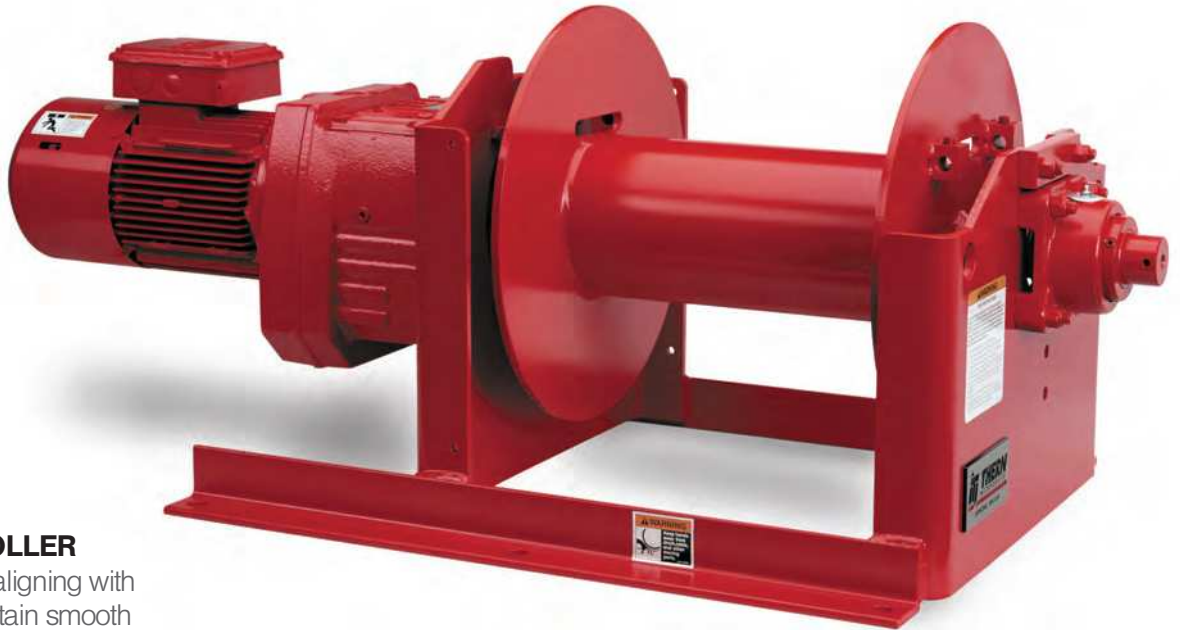
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Winches & Cranes

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POWER WINCHES HEAVY DUTY

4HPF Series - 2000 to 25,000 lb capacity

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.



FLANGE STYLE ROLLER

BEARINGS are self-aligning with cast housings 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 for uniform loading.

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

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

DIRECT DRIVE GEAR

REDUCERS, comprised of helical/parallel gears, deliver high efficiencies from 88% to 94% making winches well suited for applications requiring long travel distances and faster line speeds.

The heat treated helical/parallel 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.

LOAD HOLDING MOTOR

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

WIRE ROPE ASSEMBLIES sold separately per customer request.

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

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



HEAVY DUTY POWER WINCHES

2000 to 25,000 lb capacity - 4HPF Series

Model	Clutch Option	HP	Load Rating	Line Speed
4HPF2M	4HPF2MC	1 - 2	2000 lb	20 - 35 fpm
4HPF3M	4HPF3MC	1.5 - 3	3000 lb	20 - 35 fpm
4HPF5M	4HPF5MC	3 - 5	5000 lb	20 - 35 fpm
4HPF7M	4HPF7MC	5 - 7.5	7000 lb	25 - 40 fpm
4HPF9M	4HPF9MC	5 - 10	9000 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.

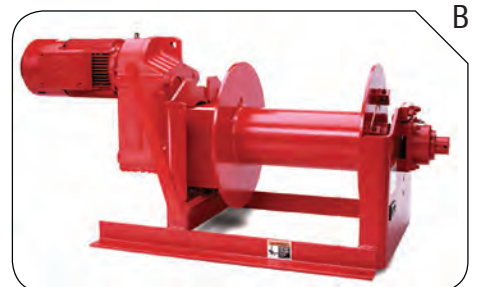
CONTROLS (E) are available in a wide range of standard and custom configurations for single or variable speed.

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.



POWER WINCHES HEAVY DUTY

4HPF Series Performance Characteristics

Model	Model Number Extensions			Motor HP	Load Rating						Line Speed			
	Load Rating	Line Speed	Motor Codes ¹		1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum	
					(lb)	(fpm)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)
4HPF2M	2000	20	D, E, F	1	2100	953	1300	590	1000	454	17	5.2	38	11.6
4HPF2M	2000	35	D, E, F	2	2100	953	1300	590	1000	454	34	10.4	76	23.2
4HPF3M	3000	20	D, E, F	1.5	3000	1361	2100	953	1600	726	19	5.8	33	10.1
4HPF3M	3000	35	D, E, F	3	3300	1497	2300	1044	1800	817	33	10.1	59	18.0
4HPF5M	5000	20	D, E, F	3	5000	2268	3100	1407	2300	1044	22	6.7	49	14.9
4HPF5M	5000	35	D, E, F	5	5000	2268	3100	1407	2300	1044	37	11.3	81	24.7
4HPF7M	7000	25	D, E, F	5	7300	3312	5400	2450	4300	1951	24	7.3	40	12.2
4HPF7M	7000	40	D, E, F	7.5	7300	3312	5400	2450	4300	1951	38	11.6	64	19.5
4HPF9M	9000	20	D, E, F	5	9000	4083	6500	2949	5100	2314	21	6.4	37	11.3
4HPF9M	9000	40	D, E, F	10	9000	4083	6500	2949	5100	2314	41	12.5	73	22.3
4HPF15M	15,000	25	D, E, F	10	14,300	6487	10,900	4945	8800	3992	26	7.9	41	12.5
4HPF15M	15,000	35	D, E, F	15	15,100	6850	11,500	5217	9300	4219	36	11.0	59	18.0
4HPF20M	20,000	20	D, E, F	10	20,100	9118	14,100	6396	10,800	4899	17	5.2	31	9.4
4HPF20M	20,000	40	D, E, F	25	20,100	9118	14,000	6351	10,800	4899	43	13.1	81	24.7
4HPF25M	25,000	20	D, E, F	15	25,200	11,431	19,200	8710	15,500	7031	20	6.1	32	9.8
4HPF25M	25,000	40	D, E, F	30	25,000	11,340	19,000	8619	15,400	6986	42	12.8	68	20.7
4HPF2MC ²	2000	20	D, E, F	1	2100	953	1300	590	1000	454	17	5.2	38	11.6
4HPF2MC ²	2000	35	D, E, F	2	2100	953	1300	590	1000	454	34	10.4	75	22.9
4HPF3MC ²	3000	20	D, E, F	1.5	3300	1497	2300	1044	1800	817	17	5.2	60	18.3
4HPF3MC ²	3000	35	D, E, F	3	3300	1497	2300	1044	1800	817	34	10.4	61	18.6
4HPF5MC ²	5000	20	D, E, F	3	5000	2268	3100	1407	2300	1044	21	6.4	45	13.7
4HPF5MC ²	5000	35	D, E, F	5	5000	2268	3100	1407	2300	1044	36	11.0	80	24.4
4HPF7MC ²	7000	25	D, E, F	5	7300	3312	5400	2450	4300	1951	25	7.6	42	12.8
4HPF7MC ²	7000	35	D, E, F	7.5	7300	3312	5400	2450	4300	1951	36	11.0	61	18.6
4HPF9MC ²	9000	20	D, E, F	5	9000	4083	6500	2949	5100	2314	21	6.4	37	11.3
4HPF9MC ²	9000	40	D, E, F	10	9000	4083	6500	2949	5100	2314	41	12.5	73	22.3
4HPF15MC ²	15,000	20	D, E, F	10	15,100	6850	11,500	5217	9300	4219	22	6.7	36	11.0
4HPF15MC ²	15,000	35	D, E, F	15	15,200	6895	11,600	5262	9400	4264	35	10.7	57	17.4

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

² Manual clutch models.

Electric Motor Controls

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

Controls include NEMA 4 rated enclosure, and NEMA 4x rated pendant control on 50 foot cord.

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

Motor Codes

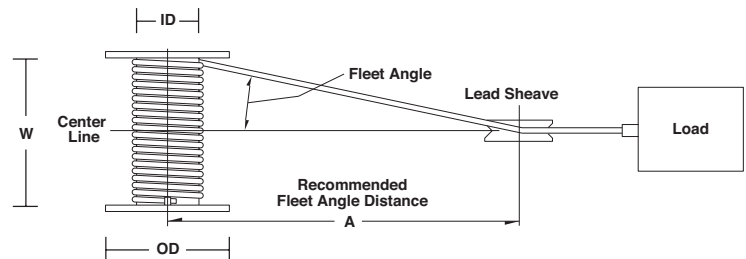
D	230 volt	3 phase
E	460 volt	3 phase
F	All other voltages, please contact Them	

4HPF Series Drum Dimensions

Model	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)		Fleet Angle Dist (A) ³	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4HPF2M	4.5	114	12	305	10	254	16	4.9
4HPF3M	5.5	140	12	305	10	254	16	4.9
4HPF5M	7	178	18	457	16	406	26	7.9
4HPF7M	9	229	18	457	16	406	26	7.9
4HPF9M	10.75	273	22	559	20	508	32	9.8
4HPF15M	11.5	292	22	559	20	508	32	9.8
4HPF20M	14	356	30	762	30	762	48	14.6
4HPF25M	16	406	30	762	30	762	48	14.6

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 Them for exact dimensions.



HEAVY DUTY 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	2120	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	1520	463.3	-	-	-	-	-	-	-	-	-	-	-	-
7/16	11.2	20,400	9,254	1st	23	7	28	8.5	60	18.3	76	23.2	-	-	-	-	-	-	-	-		
				Mid	130	39.6	120	36.6	510	155.4	450	137.2	-	-	-	-	-	-	-	-	-	-
				Full	300	91.4	270	82.3	1140	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	1210	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	-	-	-	-	-	
				Full	-	-	-	-	-	-	510	155.5	990	301.8	940	286.5	-	-	-	-	-	
3/4	19.1	58,800	26,671	1st	-	-	-	-	-	-	-	-	65	19.8	69	21	130	39.6	-	-		
				Mid	-	-	-	-	-	-	-	-	-	310	94.5	300	91.4	930	283.5	-	-	
				Full	-	-	-	-	-	-	-	-	-	700	213.4	660	201.2	2070	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	670	204.2	-	-		
				Full	-	-	-	-	-	-	-	-	500	152.4	480	146.3	1490	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	520	158.5	470	143.3		
				Full	-	-	-	-	-	-	-	-	390	118.9	480	146.3	1160	353.6	1050	320		
1-1/8	28.7	130,000	58,968	1st	-	-	-	-	-	-	-	-	-	-	-	-	85	25.9	96	29.3		
				Mid	-	-	-	-	-	-	-	-	-	-	-	-	420	128	380	115.8		
				Full	-	-	-	-	-	-	-	-	-	-	-	-	920	280.4	840	256		
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			
				Mid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	64		
				Full	-	-	-	-	-	-	-	-	-	-	-	-	-	-	470	143.3		

⁴ Values based on 6x37 MRC 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 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.



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

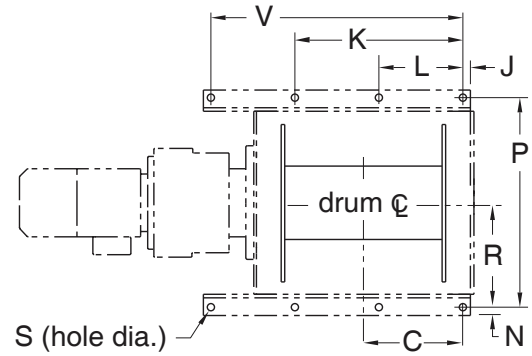
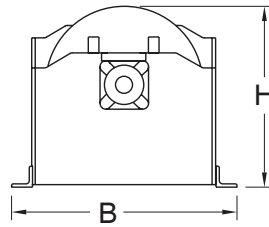
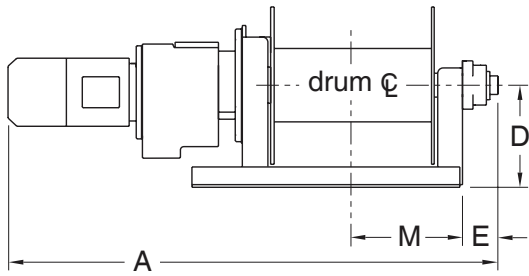
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POWER WINCHES HEAVY DUTY

4HPFC Series



4HPF Series Winch Dimensions

Model	A		B		C		D		E		H		J		K	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4HPF2M-2000-20	37.50	953	17	432	6.56	167	8	203	2.38	60	14.50	368	1	25	20	508
4HPF2M-2000-35	39	991	17	432	6.56	167	8	203	2.38	60	14.50	368	1	25	20	508
4HPF3M-3000-20	42	1067	17	432	6.56	167	8	203	2.38	60	14.50	368	1	25	20	508
4HPF3M-3000-35	42	1067	17	432	6.56	167	8	203	2.38	60	14.50	368	1	25	20	508
4HPF5M-5000-20	54.50	1384	26	660	9.63	245	12	305	5.13	130	21	533	1	25	30.50	775
4HPF5M-5000-35	54.50	1384	26	660	9.63	245	12	305	5.13	130	21	533	1	25	30.50	775
4HPF7M-7000-25	56	1422	26	660	9.63	245	12	305	5.13	130	21	533	1	25	30.50	775
4HPF7M-7000-40	59	1499	26	660	9.63	245	12	305	5.13	130	21	533	1	25	30.50	775
4HPF9M-9000-20	64.50	1638	31	787	12	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HPF9M-9000-40	69.50	1765	31	787	12	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HPF15M-15000-25	71.50	1816	31	787	12	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HPF15M-15000-35	74	1880	31	787	12	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HPF20M-20000-20	90	2286	43	1092	18.88	480	19.50	495	6.75	171	34.50	876	1.50	38	32	813
4HPF20M-20000-40	97	2464	43	1092	18.88	480	19.50	495	6.75	171	34.50	876	1.50	38	32	813
4HPF25M-25000-20	94	2388	43	1092	18.88	480	19.50	495	6.75	171	34.50	876	1.50	38	32	813
4HPF25M-25000-40	100	2540	43	1092	18.88	480	19.50	495	6.75	171	34.50	876	1.50	38	32	813

	L		M		N		P		R		S (hole diameter)		V		Ship Weight	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
4HPF2M-2000-20	10	254	7.56	192	0.63	16	15.75	400	7.86	200	19/32	15	-	-	170	78
4HPF2M-2000-35	10	254	7.56	192	0.63	16	15.75	400	7.86	200	19/32	15	-	-	200	91
4HPF3M-3000-20	10	254	7.56	192	0.63	16	15.75	400	7.86	200	19/32	15	-	-	250	114
4HPF3M-3000-35	10	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	25	24	610	12	305	7/8	22	-	-	500	227
4HPF5M-5000-35	15.25	387	11.50	292	1	25	24	610	12	305	7/8	22	-	-	500	227
4HPF7M-7000-25	15.25	387	11.50	292	1	25	24	610	12	305	7/8	22	-	-	650	295
4HPF7M-7000-40	15.25	387	11.50	292	1	25	24	610	12	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	1010	1000	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	1010	1120	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	1010	1340	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	1010	1370	622
4HPF20M-20000-20	16	406	21	533	1.50	38	40	1016	20	508	1 3/8	35	48	1219	2400	1089
4HPF20M-20000-40	16	406	21	533	1.50	38	40	1016	20	508	1 3/8	35	48	1219	2620	1189
4HPF25M-25000-20	16	406	21	533	1.50	38	40	1016	20	508	1 3/8	35	48	1219	3190	1447
4HPF25M-25000-40	16	406	21	533	1.50	38	40	1016	20	508	1 3/8	35	48	1219	3440	1561

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



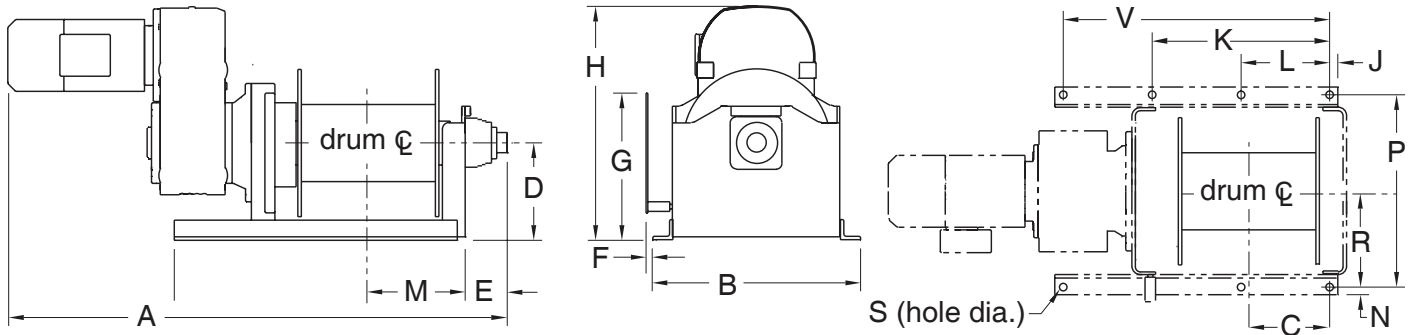
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HEAVY DUTY POWER WINCHES

4HPFC Series



4HPFC Series Winch Dimensions

Model	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	432	6	152	8	203	2.38	60	0.88	23	19.88	505	17	432	1	25
4HPF2MC-2000-35	40	1016	17	432	6	152	8	203	2.38	60	0.88	23	19.88	505	17	432	1	25
4HPF3MC-3000-20	41	1041	17	432	6	152	8	203	2.38	60	0.88	23	19.88	505	18.25	464	1	25
4HPF3MC-3000-35	43	1092	17	432	6	152	8	203	2.38	60	0.88	23	19.88	505	18.25	464	1	25
4HPF5MC-5000-20	55	1397	26	660	9.63	245	12	305	5.13	130	-	-	22.25	565	24.25	616	1	25
4HPF5MC-5000-35	55	1397	26	660	9.63	245	12	305	5.13	130	-	-	22.25	565	24.25	616	1	25
4HPF7MC-7000-25	56	1422	26	660	9.63	245	12	305	5.13	130	-	-	22.25	565	27	686	1	25
4HPF7MC-7000-40	58.50	1486	26	660	9.63	245	12	305	5.13	130	-	-	22.25	565	27	686	1	25
4HPF9MC-9000-20	66	1676	31	787	12	305	14.50	368	6.25	159	-	-	22	559	32	813	1.25	32
4HPF9MC-9000-40	71	1803	31	787	12	305	14.50	368	6.25	159	-	-	22	559	32	813	1.25	32
4HPF15MC-15000-25	72.50	1842	31	787	12	305	14.50	368	6.25	159	-	-	22	559	35	889	1.25	32
4HPF15MC-15000-35	74.50	1,892	31	787	12	305	14.50	368	6.25	159	-	-	22	559	35	889	1.25	32

	K		L		M		N		P		R		S (Hole Dia.)		V		Ship Weight	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
4HPF2MC-2000-20	20	508	10	254	7.56	192	0.63	16	15.75	400	7.88	200	1 ⁹ / ₃₂	15	-	-	270	123
4HPF2MC-2000-35	20	508	10	254	7.56	192	0.63	16	15.75	400	7.88	200	1 ⁹ / ₃₂	15	-	-	300	137
4HPF3MC-3000-20	20	508	10	254	7.56	192	0.63	16	15.75	400	7.88	200	1 ⁹ / ₃₂	15	-	-	280	128
4HPF3MC-3000-35	20	508	10	254	7.56	192	0.63	16	15.75	400	7.88	200	1 ⁹ / ₃₂	15	-	-	300	137
4HPF5MC-5000-20	30.50	775	15.25	387	11.50	292	1	25	24	610	12	305	7/ ₈	22	-	-	550	250
4HPF5MC-5000-35	30.50	775	15.25	387	11.50	292	1	25	24	610	12	305	7/ ₈	22	-	-	550	250
4HPF7MC-7000-25	30.50	775	15.25	387	11.50	292	1	25	24	610	12	305	7/ ₈	22	-	-	700	318
4HPF7MC-7000-40	30.50	775	15.25	387	11.50	292	1	25	24	610	12	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	1010	1250	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	1010	1360	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	1010	1580	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	1010	1620	735

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



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

Complete, downloadable details on line
www.thern.com



POWER WINCHES HEAVY DUTY

4HBP Series - 35,000 to 100,000 lb capacity

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.

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

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.

WIRE ROPE ASSEMBLIES sold separately per customer request.

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

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

HEAVY DUTY POWER WINCHES

35,000 to 100,000 lb capacity - 4HBP Series

Series	Load Rating	Line Speed
4HBP	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.

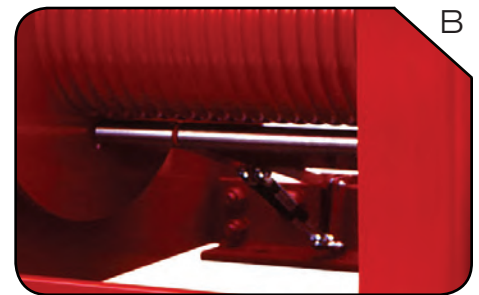
CONTROLS (D) are available in a wide range of standard and custom configurations for single or variable speed.

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.

POWER WINCHES 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.



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

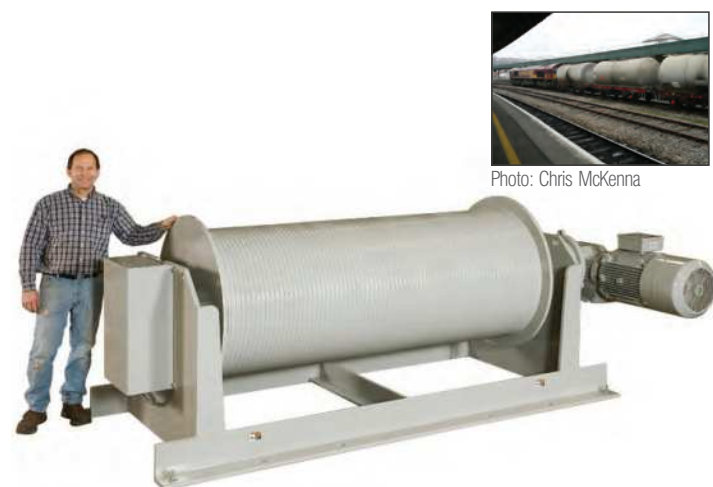


Photo: Chris McKenna

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 grey finish for improved corrosion resistance in marine environment.



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POWER WINCHES CUSTOM APPLICATIONS

SUBMERGED LID LIFTING WINCH NUCLEAR POWER PLANT



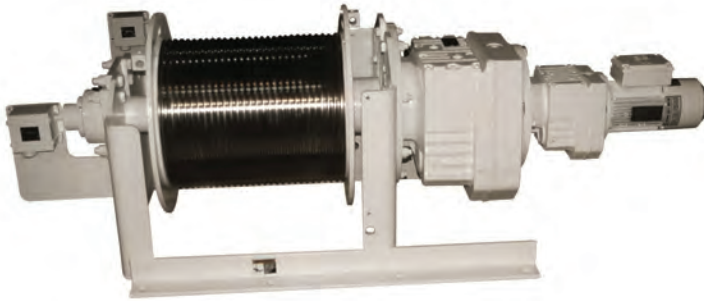
Photo: Simone Ramella

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.

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

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AIR WINCHES APPLICATIONS



Pipe Handling
Flare Tip Boom
Dedicated Personnel
Utility/Maintenance

Cable Stay Handling
Bridge Falsework
Steel Erection
Utility/Maintenance



Conveyor Positioning
Barge Positioning
Dedicated Personnel
Utility/Maintenance

Artifact Recovery
Bunker Hose Handling
Dredge Positioning
Utility/Maintenance



POWERFUL AIR WINCHES

Up to 37,000 lb Capacity Thern Air (TA) Winches

Big Red
Thern Air
Winch
TA Series



- Radial Piston Motor
- Precise Control Valve
- Automatic Disc Brake
- Manual Band Brake
- Welded Steel Frame
- Planetary gears
- Meets ASME 30.7 Requirements
- 2-Year Warranty



Big Red
Thern Air TA10-40X1
with automatic band brake

Thern is a small company with a big reputation for quality and quick turn-around times — especially on custom winches. Thern strives to deliver world-class custom winches in “off-the-shelf” time.



Made in the USA



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

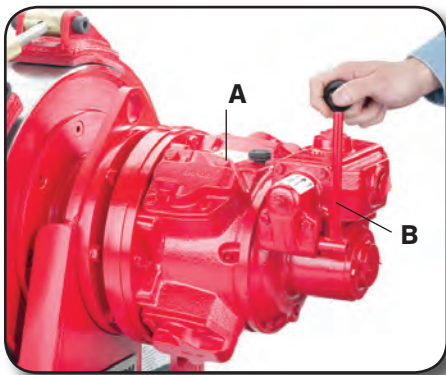
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1.800.843.7648 Winona, MN USA | www.thern.com

Industrial Distribution Associates 1.206.999.7220

BigRed Legacy Series

Model	Drum Width (inches)				HP	Winch Load Rating (Full Drum)	Winch Line Speed
	16	24	30	36			
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 Thern.

Meets ASME 30.7 Requirements

Standard units designed and built to meet this specification.

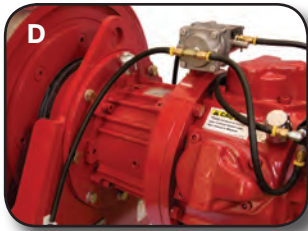
2-Year Warranty

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



Legacy Series **BigRed**

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.

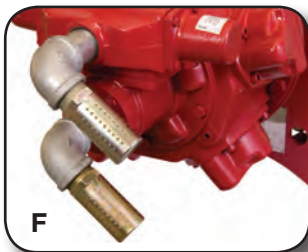


Marine Grade Epoxy

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.



Filter, Regulator and Lubricator (I)

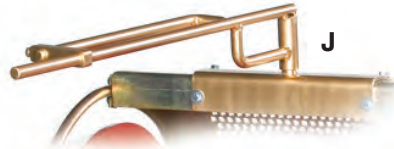
Maintains air quality to the winch. Required for warranty compliance.

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.



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

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Complete, downloadable details on line
www.thern.com

Thern
Winches & Cranes

55

AIR WINCHES UTILITY RATED

BigRed Legacy Series

BIG RED TA Series UTILITY RATED Air Winch Performance Characteristics

	TA2 Series		TA2H Series		TA2.5 Series		TA5 Series		TA7 Series	
Load Rating 1st Layer	7200 lb	3265 kg	3600 lb	1632 kg	7200 lb	3265 kg	18,000 lb	8164 kg	23,600 lb	10,704 kg
Load Rating Mid-Drum	5700 lb	2585 kg	2900 lb	1315 kg	5900 lb	2676 kg	14,000 lb	6350 kg	19,000 lb	8618 kg
Load Rating Full Drum	4700 lb	2131 kg	2400 lb	1088 kg	5000 lb	2268 kg	11,500 lb	5216 kg	15,900 lb	7212 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	9000 lb	4082 kg	4500 lb **	2041kg **	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. Line speeds may run up to 20% slower when configured with auto band brakes.

** Estimated value.

BIG RED TA Series UTILITY RATED Air Winch Drum Capacities*

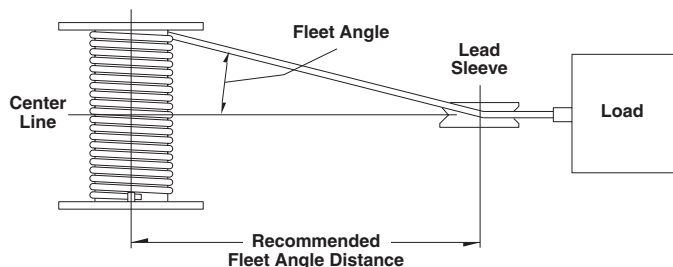
Model	Wire Rope		Drum Width																				
			16 in (407 mm)				24 in (610 mm)				30 in (762 mm)				36 in (915 mm)								
	Diameter	Breaking Strength**	1st Layer		Mid Drum		Full Drum		1st Layer		Mid Drum		Full Drum		1st Layer		Mid Drum		Full Drum				
	(in)	(mm)	(lb)	(kg)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	
TA2	0.5	12.7	26,600	12,065	83	25	380	115	850	259	130	39	570	173	1270	387	-	-	-	-	-	-	-
TA2H	0.5	12.7	26,600	12,065	83	25	380	115	850	259	130	39	570	173	1270	387	-	-	-	-	-	-	-
TA2.5	0.63	16.0	41,200	18,688	71	21	260	79	580	176	110	33	390	118	860	262	-	-	-	-	-	-	-
TA5	0.75	19.1	58,800	26,671	72	21	360	109	810	246	120	36	550	167	1210	368	150	45	680	207	1520	463	-
TA7	0.88	22.4	79,600	36,106	-	-	-	-	-	-	120	36	520	158	1150	350	160	48	650	198	1440	438	190

* 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.

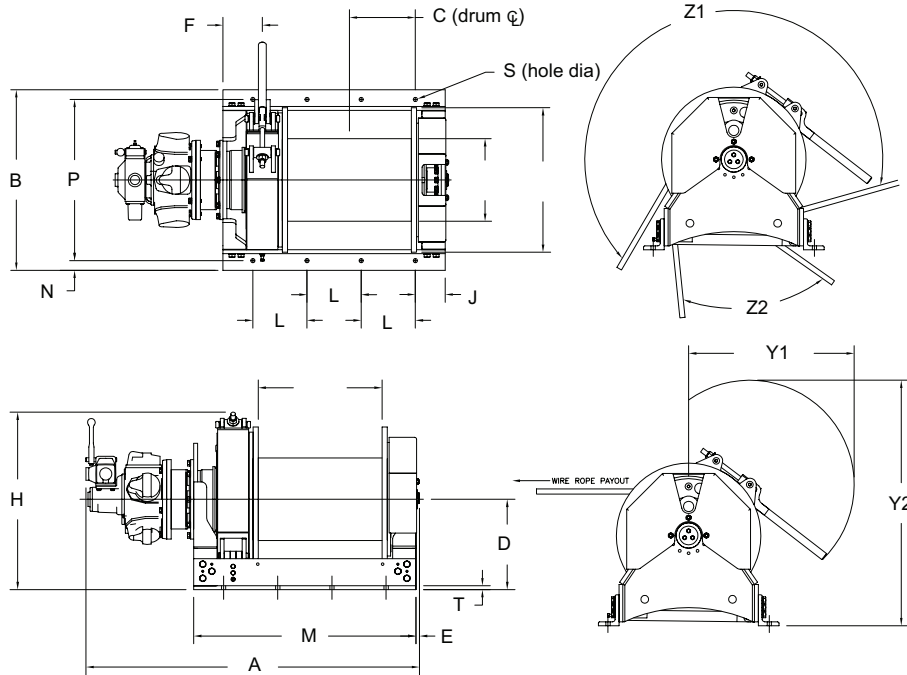
Model	Drum Diameter		Flange Diameter		Drum Width		Fleet Angle Distance	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
TA2-16	11.50	292	20	508	16	406	26	8
TA2-24	11.50	292	20	508	24	610	39	12
TA2H-16	11.50	292	20	508	16	406	26	8
TA2H-24	11.50	292	20	508	24	610	39	12
TA2.5-16	12.75	324	21	533	16	406	26	8
TA2.5-24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

BIG RED TA10 Series UTILITY RATED Air Winch Fleet Angle Requirements



UTILITY RATED AIR WINCHES

Legacy Series **BigRed**



BIG RED TA Series UTILITY RATED Air Winch Dimensions

Model	A		B		C		D		E		F		H		J		L	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
TA2-16	44	1118	24	610	9.06	230	14	356	0.54	14	5.25	133	28.50	724	2.88	73	7.50	191
TA2-24	52	1321	24	610	12.81	325	14	356	0.54	14	5.25	133	28.50	724	3.13	80	10	254
TA2H-16	44	1118	24	610	9.06	230	14	356	0.54	14	5.25	133	28.50	724	2.88	73	7.50	191
TA2H-24	52	1321	24	610	12.81	325	14	356	0.54	14	5.25	133	28.50	724	3.13	80	10	254
TA2.5-16	50	1270	24	610	9	229	14	356	0.73	19	5.25	133	30	762	2.88	73	7.50	191
TA2.5-24	58	1473	24	610	12.75	324	14	356	0.73	19	5.25	133	30	762	3.13	80	10	254
TA5-16	57	1448	35	889	10.53	267	17.50	445	0.68	17	7.75	197	34.50	876	4.03	102	9	229
TA5-24	65	1651	35	889	12.78	325	17.50	445	0.68	17	7.75	197	34.50	876	5.78	147	10.5	267
TA5-30	71	1803	35	889	17.03	433	17.50	445	0.68	17	7.75	197	34.50	876	4.53	115	10	254
TA7-24	69	1753	38	965	15.41	391	20	508	1	25	9.25	235	37	940	5.38	137	9	229
TA7-30	75	1905	38	965	17.41	442	20	508	1	25	9.25	235	37	940	6.38	162	10	254
TA7-36	81	2057	38	965	19.41	493	20	508	1	25	9.25	235	37	940	7.38	187	11	279

	M		N		P		S		T		Y1		Y2		Z1	Z2	Bolts	Bolt Size	Weight *	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(degrees)	(degrees)	(qty)	(in - G8)	(lb)	(kg)
TA2-16	28.5	724	2	51	20	508	0.69	18	0.50	13	20	508	37	940	223	34	8	5/8	990	450
TA2-24	36.5	927	2	51	20	508	0.69	18	0.50	13	20	508	37	940	223	34	8	5/8	1080	490
TA2H-16	28.5	724	2	51	20	508	0.69	18	0.50	13	20	508	37	940	223	34	8	5/8	990	450
TA2H-24	36.5	927	2	51	20	508	0.69	18	0.50	13	20	508	37	940	223	34	8	5/8	1080	490
TA2.5-16	28.5	724	2	51	20	508	0.69	18	0.50	13	20	508	37	940	228	27	8	5/8	1315	597
TA2.5-24	36.5	927	2	51	20	508	0.69	18	0.50	13	20	508	37	940	228	27	8	5/8	1400	636
TA5-16	35.5	902	1.88	48	31.25	794	0.81	21	0.75	19	32.5	826	48	1219	224	50	8	3/4	2585	1173
TA5-24	43.5	1105	1.88	48	31.25	794	0.81	21	0.75	19	32.5	826	48	1219	224	50	8	3/4	2745	1246
TA5-30	49.5	1257	1.88	48	31.25	794	0.81	21	0.75	19	32.5	826	48	1219	224	50	10	3/4	2870	1302
TA7-24	47	1194	1.88	48	34.25	870	0.94	24	0.75	19	32	813	51	1295	210	39	10	7/8	3600	1633
TA7-30	53	1346	1.88	48	34.25	870	0.94	24	0.75	19	32	813	51	1295	210	39	10	7/8	3765	1708
TA7-36	59	1499	1.88	48	34.25	870	0.94	24	0.75	19	32	813	51	1295	210	39	10	7/8	3965	1799



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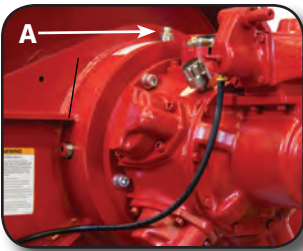
BigRed TA10 Series



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.



Rotary cable anchor for easy
installation from either direction.

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.



TA10 Series **BigRed**



TA10-40AX1 shown with automatic band brake.

Every job is different, so we allow you to order Them 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.

Marine Grade Epoxy

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



Convenience of pendant controls for remote operation.

Automatic Band Brake

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

Drum Guard

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



Protect motor from contaminants with Filter-Regulator-Lubricator.

Mufflers (C)

Attached to exhaust ports to reduce noise.

Filter, Regulator and Lubricator (E)

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

Control Options (D)

Winch mounted, full flow remote pendant control valve.

Multiple Drum Compartments

Allow for multiple line connections and operation.

AIR WINCHES TA10 SERIES

BigRed TA10 Series

BIG RED TA10 Series Performance Characteristics

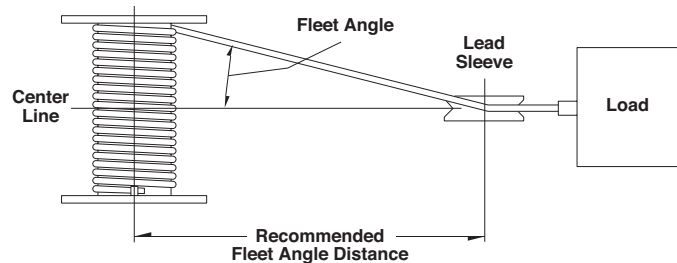
TA10 Series		
Load Rating 1st Layer	37,000 lb	16,783 kg
Load Rating Mid-Drum	27,400 lb	12,428 kg
Load Rating Full Drum	21,800 lb	9,888 kg
Line Speed 1st Layer *	20 fpm	6.1 m/min
Line Speed Mid-Drum *	27 fpm	8.2 m/min
Line Speed Full Drum *	34 fpm	10.4 m/min
Input HP	27 hp	27 hp
Max Stall Pull 1st Layer	63,000 lb **	28,576 kg
Pressure	90 psi	6.3 kgf/cm2
Flow	900 scfm	25 m3/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. Line speeds may run up to 20% slower when configured with auto band brakes.

** Estimated value.

BIG RED TA10 Series Fleet Angle Requirements

Model	Rope Diameter		Flange Diameter		Drum Width		Fleet Angle Distance	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
TA10-30	20	508	38	965	30	762	48	15
TA10-40	20	508	38	965	40	1016	64	20
TA10-60	20	508	38	965	60	1524	95	29



BIG RED TA10 Series Air Winch Drum Capacities*

Model	Wire Rope		Drum Width																			
			30 in (762 mm)				40 in (1016 mm)				60 in (1524 mm)											
	Diameter	Breaking Strength**	1st Layer		Mid Drum		Full Drum		1st Layer		Mid Drum		Full Drum		1st Layer		Mid Drum		Full Drum			
(in)	(mm)	(lb)	(kg)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	
TA10	1-1/8	28.7	130,000	58,968	120	36	620	188	1390	423	160	48	830	252	1850	563	260	79	1250	381	2780	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

Model	A		B		C		D		E		H1		H2		J		L	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
TA10-30	69	1753	45.75	1162	19.5	495	21	533	2.25	57	41.50	1054	50	1270	2	51	8	203
TA10-40	79	2007	45.75	1162	24.5	622	21	533	2.25	57	41.50	1054	50	1270	2	51	8	203
TA10-60	998	2515	45.75	1162	34.5	876	21	533	2.25	57	41.50	1054	50	1270	2	51	8	203

	M		P		S (hole diameter)		Y1 (man)		Y1 (auto)		Y2		# Bolts	Bolt Size	Weight *	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)			(lb)	(kg)
TA10-30	48	1219	42.25	1073	.94	24	42	1067	35.25	895	62.5	1588	12	7/8 - G8	3220	1461
TA10-40	58	1473	42.25	1073	.94	24	42	1067	35.25	895	62.5	1588	12	7/8 - G8	3515	1595
TA10-60	78	1981	42.25	1073	.94	24	42	1067	35.25	895	62.5	1588	12	7/8 - G8	4105	1862

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

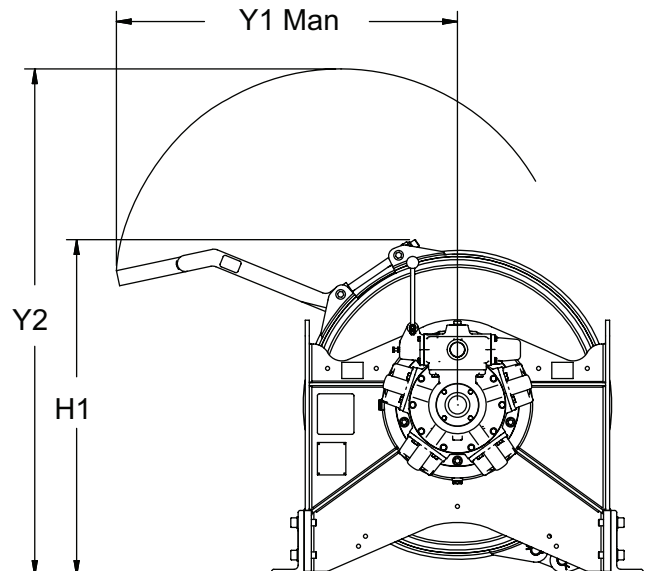
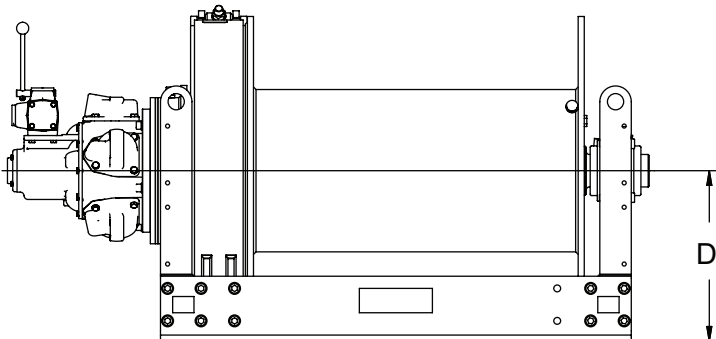
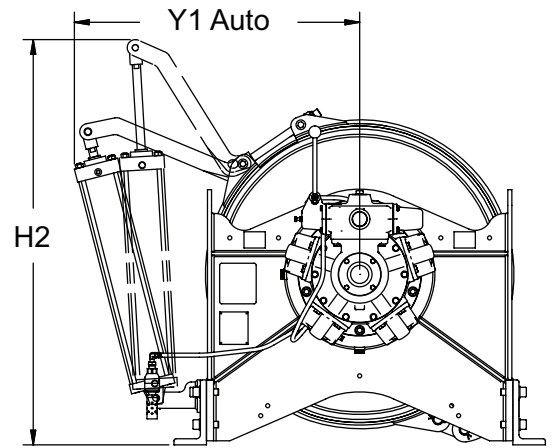
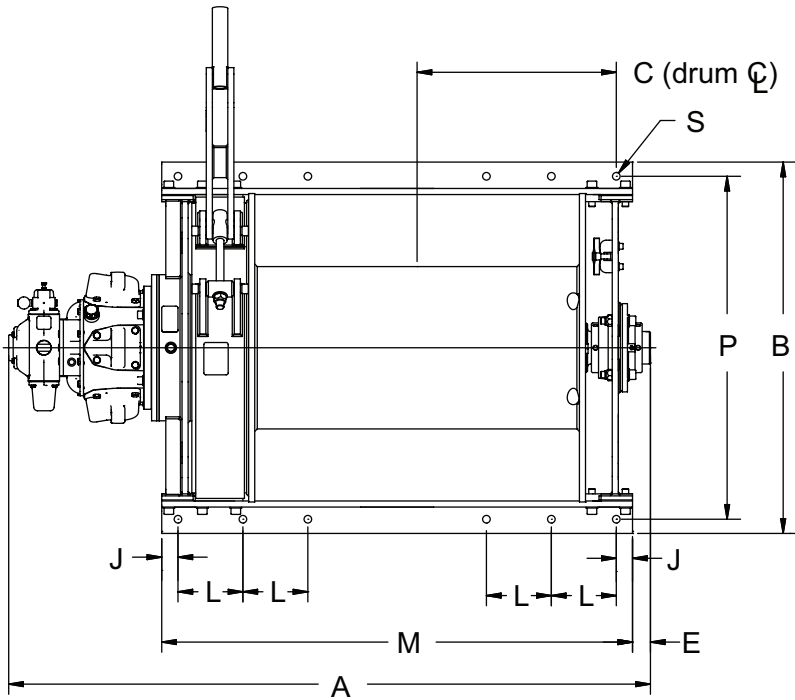
IMPORTANT:


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.



TA10 SERIES AIR WINCHES

TA10 Series **BigRed**



 These products are not for lifting people, or things over people.
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 **Thern**
Winches & Cranes

DAVIT CRANES APPLICATIONS



- Pump Hoists
- Mixer Lifts
- UV Panel Hoists
- Trash Basket Hoists

- Workstation Cranes
- Tower Cranes
- Rooftop Cranes
- Loading Dock Cranes



- Equipment Handling
- Tower Crane
- Loading/Unloading
- Utility/Maintenance

- Boat Lifting
- Hose Handling
- Dock Cranes
- Deck Cranes



DAVIT CRANES

PORTABLE | TRANSPORTABLE | STATIONARY

Up to 3000 lb Capacity

- Adjustable Boom Lengths and Angles
- Smooth 360° Rotation
- Manual or Power Winch Operation
- Corrosion-Resistant Finishes
- Variety of Bases
- 2-Year Warranty



First Mate
850 lb Capacity

Ensign 500
500 lb Capacity

Ensign 1000
1000 lb Capacity

Admiral
3000 lb Capacity

Captain Series
1500 and 2200 lb Capacities

Commander 1000
1000 lb Capacity

Commander 2000
2000 lb Capacity



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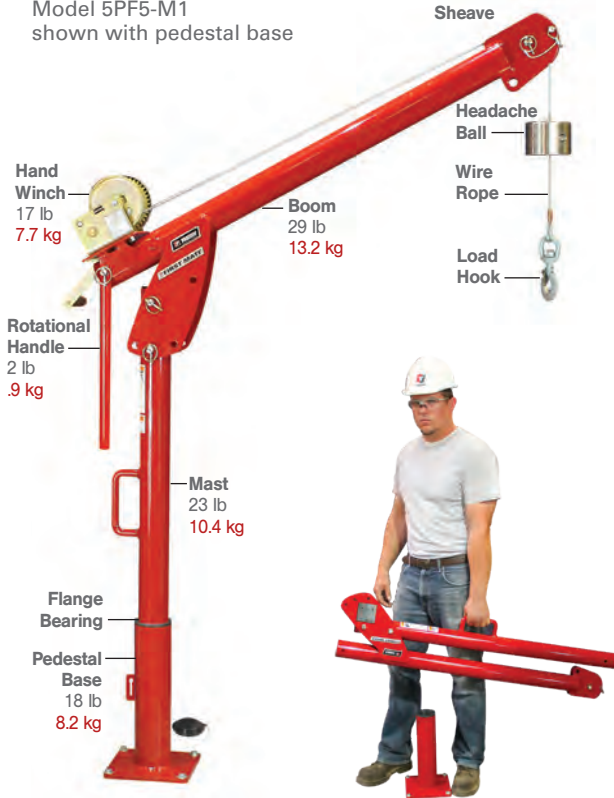
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1.800.843.7648 Winona, MN USA | www.thern.com

Industrial Distribution Associates 1.206.999.7220

FIRST MATE PORTABLE DAVIT CRANE

Model 5PF5-M1
shown with pedestal base



FIRST MATE

Portable Davit Cranes

Hand Winch Operation
Up to 850 lb (385 kg) 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 number.

1 Crane	2 Optional Finish*	3 Winch
5PF5		

i.e. 5PF5G-M1

* 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 sleeve bearing in the base. Handle on crane makes rotation easy.
- **Adjustable Boom Angle** with 3 different positions for operation.
- **Crane** folds down for storage or transport.
- **Optional Lock** holds crane position at 30° increments.

1 CRANE MODEL 5PF5

Model	Description	Approx. Ship Weight
5PF5 ¹	Up to 850 lb capacity - portable davit crane	54 lb 24.5 kg

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

¹ **Base Model includes corrosion resistant electrostatic powder coated finish. Other finishes available. See option 2.**

OPTIONAL FINISHES

- **Galvanized Finish** provides extra protection against corrosion.
- **Stainless Steel Models** are constructed of 304 or 316 stainless steel with an electro-polished finish for superior corrosion resistance.
- **Epoxy Grey Finish** provides extra protection against corrosion.

2 OPTIONAL FINISH (Crane Only)

Finish	Description
G	Galvanized finish - crane only
S	304 Stainless steel construction - crane only
S316	316 Stainless steel construction - crane only
X	Grey* Epoxy Paint Finish - crane only

*Custom colors available - Contact factory

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, 300 rpm max.
- **Power Winch Operated Models** include electric winch with pendant control and brake. Other power options available, please contact Them.
- **Quick Disconnect Anchor** for quickly attaching or removing wire rope equipped with a swaged ball fitting.

3 WINCH OPTIONS

Winch	Description	Aprx. Ship Weight
M1	M4022PB-K - zinc plated spur gear hand winch	17 lb 7.7 kg
M2	4WM2-K - red powder coat worm gear hand winch	42 lb 19.1 kg
M2X	4WM2EGRA-K - grey epoxy worm gear hand winch	42 lb 19.1 kg
M3	M4042PBSS-K - stainless steel spur gear hand winch	24 lb 10.9 kg
E2	4WP2-K red enamel electric winch - 115/1/60 VAC w/6 ft pendant control	85 lb 39 kg
E2X	4WP2EGRA-K grey epoxy electric winch - 115/1/60 VAC w/6 ft pendant control	85 lb 39 kg
E4	4777-K red enamel electric winch - 115/1/60 VAC w/6 ft pendant control	110 lb 50 kg
E4X	4777EGRA-K grey epoxy electric winch - 115/1/60 VAC w/6 ft pendant control	110 lb 50 kg
E4DC	4777DC-K red enamel electric winch - 12 volt DC w/10 ft pendant control	124 lb 57 kg
E4DCX	4777DCEGRA-K grey epoxy electric winch - 12 volt DC w/10 ft pendant control	124 lb 57 kg



4 First Mate Series Bases, Wire Rope Assemblies and Accessories

INDEPENDENT BASES – sold separately

- **Pedestal, Socket (flush mount) or Wall** mount style
- **Wheel Base** for floor crane operation. Base includes stationary front wheels and rear caster wheels for 360° maneuverability. See Model 5BR5.
- **Important:** Base installation is purchaser's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.



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

WIRE ROPE ASSEMBLIES – sold separately

- **Galvanized or Stainless Steel** wire rope assemblies with swaged ball fitting to work with the quick disconnect anchor on the winch. 316 Stainless Steel assemblies available - contact factory.

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

*For approximate ship weights - See page 93

ACCESSORIES - Sold Separately

Base Installation Anchor Kits

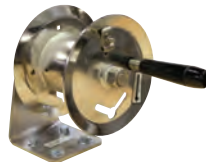
4 Hilti® Torque controlled expansion anchors
1.4 lb 0.64 kg

- AN50A-5** - Zinc plated steel STL KB-TZ
- AN50A-5S** - 304 Stainless steel SST304 KB-TZ
- AN50A-5S316** - 316 Stainless steel SST316 KB-TZ



Cable Spool - 316 Stainless steel reel winds up wire rope when detached from crane.

Model No. RW50 - 12 lb 5.5 kg



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

Model RK19-25S - 304 Stainless Steel
Model RK19-25S316 - 316 Stainless Steel



Headache Ball

Keeps cable taut when no load is attached
Fits 1/8" (3mm) to 1/4" (6mm) wire rope diameters

- HB10-12-25** - Painted steel 10 lb 4.5 kg
- HB10S-12-25** - Polished 316 Stainless steel 10 lb 4.5 kg



Drill Drive Kits - 300 rpm drill motor to power drive the M2 hand winch option.
Includes 1-1/8" hex drive socket

- Model ED300-DW11** - 120 VAC power drill kit
- Model ED300-DW06** - Cordless drill kit



5PF5 Series Rotational Lock

Holds crane position at 30° increments.

Model No. 5PF5LCK - 316 Stainless Steel

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.



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

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FIRST MATE PORTABLE DAVIT CRANE

PERFORMANCE

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

Lift Below ² Floor		Wire Rope Diameter		Wire Rope Length		Winch Configurations						
Minimum (C)		Maximum (A)				M1	M2	M3	E2	E4		
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)					
6	1.8	9	2.7	3/16	5	20	6.0	x	-	x	-	x
14	4.2	17	5.1	3/16	5	28	8.5	x	-	x	-	x
22	6.7	25	7.6	3/16	5	36	10.9	x	-	x	-	x
31	9.4	34	10.3	3/16	5	45	13.7	x	-	x	-	x
46	14.0	49	14.9	3/16	5	60	18.2	-	-	x	-	x
61	18.5	64	19.5	3/16	5	75	22.8	-	-	x	-	x
76	23.1	79	24.0	3/16	5	90	27.4	-	-	x	-	x
6	1.8	9	2.7	1/4	6	20	6.0	-	x	x	x	x
14	4.2	17	5.1	1/4	6	28	8.5	-	x	x	x	x
22	6.7	25	7.6	1/4	6	36	10.9	-	x	x	x	x
31	9.4	34	10.3	1/4	6	45	13.7	-	x	x	x	x
46	14.0	49	14.9	1/4	6	60	18.2	-	x	-	x	x
61	18.5	64	19.5	1/4	6	75	22.8	-	x	-	x	x



For longer lifts - Up to 285 ft. (86.8 m) - Please contact factory

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

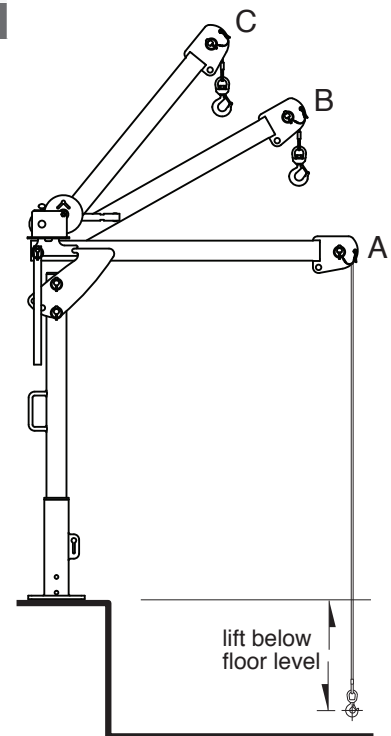
² Lift below floor level varies depending on boom position and base configuration. **For longer lifts please contact factory.**

First Mate 5PF5 Performance Ratings¹ For all winch configurations

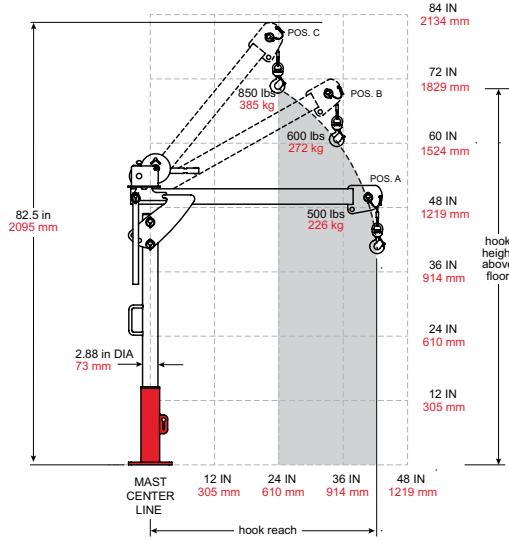
Boom Position	Load Rating ² 1/8" (3mm) Diameter wire rope		Load Rating ² 3/16" and 1/4" (5 & 6mm) Diameter wire rope	
	(lb)	(kg)	(lb)	(kg)
A	500	226	500	226
B	570	258	600	272
C	570	258	850	385

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

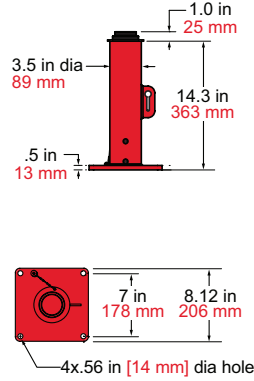
² Load Rating with 7x19 Galvanized Aircraft Cable. Load Rating may be reduced with other rope types.



Pedestal Base



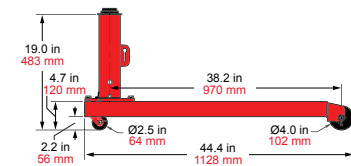
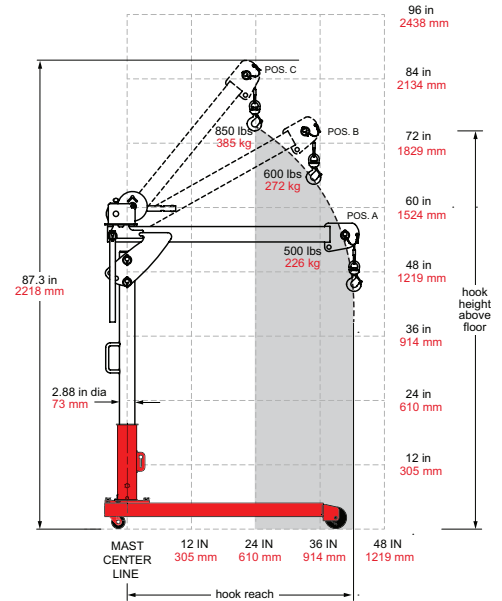
Pedestal Base
5BP5, 5BP5G, 5BP5S,
5BP5S316, 5BP5X



DIMENSIONS

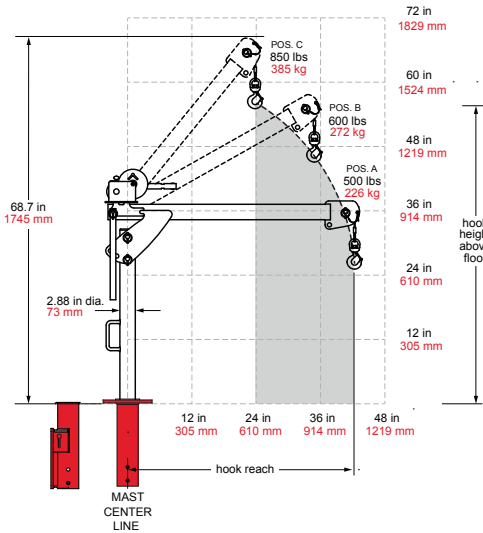
Wheel Base

Wheel Base 5BR5, 5BR5X

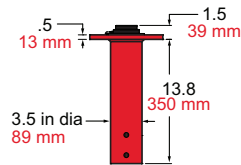
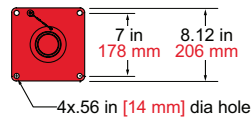


IMPORTANT: Crane DOES NOT rotate in base when assembled in 5BR5 wheel base.

Flush or Wall Mount Base

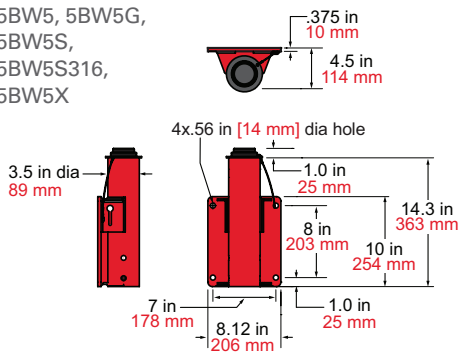


Flush Mount Base
5BF5, 5BF5G, 5BF5S,
5BF5S316, 5BF5X



Wall-Mount Base

5BW5, 5BW5G,
5BW5S,
5BW5S316,
5BW5X



First Mate Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height					
	(in)	(mm)	Pedestal Base		Roll Base		Flush or Wall Base	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
A	42	1066	40	1016	44.5	1130	26	660
B	35	889	60	1524	64.5	1638	46	1168
C	24	609	70	1778	74.5	1892	56	1422

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

IMPORTANT:

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

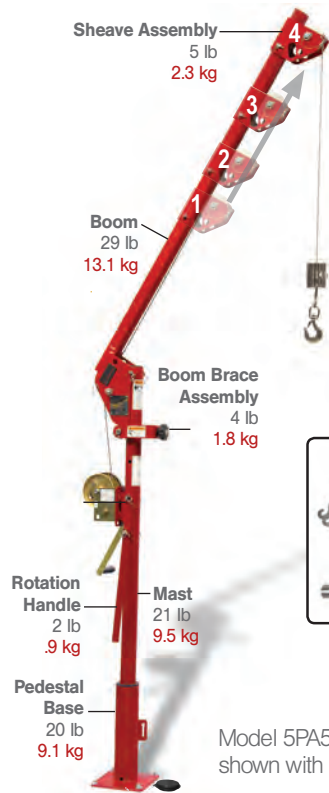
FLCL-0618

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Thern
Winches & Cranes

67

ENSIGN 500 PORTABLE DAVIT CRANE



SERIES 5PA5 CAPACITY 500 LB 226 KG

Simple set-up and easy to use. This economical series is specially designed for clearance, lift height, and ergonomic operation.



Crane disassembles easily for transport

Model 5PA5-M1 shown with pedestal base

ENSIGN 500

Portable Davit Cranes

Hand or Power 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 number.

1 Crane	2 Optional Finish*	3 Winch
5PA5		

i.e. 5PA5G-M2

* 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 tapered roller bearing in the base. Handle on the mast makes rotation easy.
- **Adjustable Sheave Assembly** easily adjusts without tools to 4 different positions.
- **Adjustable Boom Angle** using boom brace with comfortable adjustment knob allows for easy, one-hand boom adjustment when not under load.

1 CRANE MODEL 5PA5

Model	Description	Approx. Ship Weight
5PA5	Up to 500 lb capacity - portable davit crane	67 lb 31 kg

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

1 Base Model includes corrosion resistant electrostatic powder coated finish. Other finishes available. See option 2.

OPTIONAL FINISHES

- **Galvanized Finish** provides extra protection against corrosion.
- **Stainless Steel Models** are constructed of 304 or 316 stainless steel with an electro-polished finish for superior corrosion resistance.
- **Epoxy Grey Finish** provides extra protection against corrosion.

2 OPTIONAL FINISH (Crane Only)

Finish	Description
G	Galvanized finish - crane only
S	304 Stainless steel construction - crane only
S316	316 Stainless steel construction - crane only
X	Grey* Epoxy Paint Finish - crane only

*Custom colors available - Contact factory

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, 300 rpm max.
- **Power Winch Operated Models** include electric winch with pendant control and brake. Other power options available, please contact Them.
- **Quick Disconnect Anchor** for quickly attaching or removing wire rope equipped with a swaged ball fitting.

3 WINCH OPTIONS

Winch	Description	Aprx. Ship Weight
M1	M4022PB-K - zinc plated spur gear hand winch	17 lb 7.7 kg
M2	4WM2V-K - red powder coat worm gear hand winch	42 lb 19.1 kg
M2X	4WM2VEGRA-K - grey epoxy worm gear hand winch	42 lb 19.1 kg
M3	M4042PBSS-K - stainless steel spur gear hand winch	24 lb 10.9 kg
E2	4WP2V-K red enamel electric winch - 115/1/60 VAC w/6 ft pendant control	85 lb 39 kg
E2X	4WP2VEGRA-K grey epoxy electric winch - 115/1/60 VAC w/6 ft pendant control	85 lb 39 kg
E4	4777-K red enamel electric winch - 115/1/60 VAC w/6 ft pendant control	110 lb 50 kg
E4X	4777EGRA-K grey epoxy electric winch - 115/1/60 VAC w/6 ft pendant control	110 lb 50 kg
E4DC	4777DC-K red enamel electric winch - 12 volt DC w/10 ft pendant control	124 lb 57 kg
E4DCX	4777DCEGRA-K grey epoxy electric winch - 12 volt DC w/10 ft pendant control	124 lb 57 kg



4 Ensign 500 Series Bases, Wire Rope Assemblies and Accessories

INDEPENDENT BASES – sold separately

■ Pedestal, Socket (flush mount) or Wall mount style

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



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

WIRE ROPE ASSEMBLIES – sold separately

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

Wire Rope Length		Galvanized Aircraft Cable		304 Stainless Steel Wire Rope	
		3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)	3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.
20	6	WA19-20NS	WA25-20NS	WS19-20NS	WS25-20NS
28	8.5	WA19-28NS	WA25-28NS	WS19-28NS	WS25-28NS
36	10.9	WA19-36NS	WA25-36NS	WS19-36NS	WS25-36NS
45	13.7	WA19-45NS	WA25-45NS	WS19-45NS	WS25-45NS
60	18.2	WA19-60NS		WS19-60NS	
75	22.8	WA19-75NS		WS19-75NS	

*For approximate ship weights - See page 93

ACCESSORIES - Sold Separately

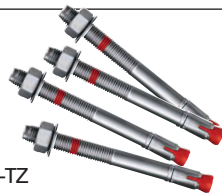
Base Installation Anchor Kits

4 Hilti® Torque controlled expansion anchors
1.4 lb 0.64 kg

AN50A-5 - Zinc plated steel STL KB-TZ

AN50A-5S - 304 Stainless steel SST304 KB-TZ

AN50A-5S316 - 316 Stainless steel SST316 KB-TZ



Cable Spool - 316 Stainless steel reel winds up wire rope when detached from crane.

Model No. RW50 - 12 lb 5.5 kg



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

Model RK19-25S - 304 Stainless Steel

Model RK19-25S316 - 316 Stainless Steel

Headache Ball

Keeps cable taut when no load is attached
Fits 1/8" (3mm) to 1/4" (6mm) wire rope diameters

HB10-12-25 - Painted steel 10 lb 4.5 kg

HB10S-12-25 - Polished 316 Stainless steel 10 lb 4.5 kg



5PA5 Series Rotational Lock

Holds crane position at 30° increments.

Model No. 5PA5LCK - 316 Stainless Steel



Drill Drive Kits - 300 rpm drill motor to power drive the M2 hand winch option. Includes 1-1/8" hex drive socket

Model ED300-DW11 - 120 VAC power drill kit

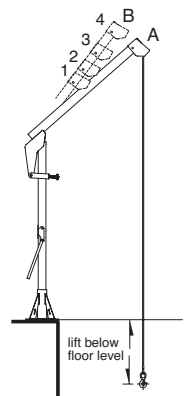
Model ED300-DW06 - Cordless drill kit

Lift Below Floor Level with 3/16" Wire Rope²

Lift Below Floor ¹		Wire Rope Diameter		Wire Rope Length		Winch Configurations						
Min. (B4)	Max. (A1)	(ft)	(m)	(in)	(mm)	(ft)	(m)	M1	M2	M3	E2	E4
0	0	5	1.5	3/16	4.8	20	6.0	x	-	x	-	x
8	2.4	13	3.9	3/16	4.8	28	8.5	x	-	x	-	x
16	4.8	21	6.4	3/16	4.8	36	10.9	x	-	x	-	x
25	7.6	30	9.1	3/16	4.8	45	13.7	x	-	x	-	x
40	12.1	45	13.7	3/16	4.8	60	18.2	-	-	x	-	x
55	16.7	60	18.2	3/16	4.8	75	22.8	-	-	x	-	x

Lift Below Floor Level with 1/4" Wire Rope²

Lift Below Floor ¹		Wire Rope Diameter		Wire Rope Length		Winch Configurations						
Min. (B4)	Max. (A1)	(ft)	(m)	(in)	(mm)	(ft)	(m)	M1	M2	M3	E2	E4
0	0	5	1.5	1/4	6.4	20	6.0	-	x	x	x	x
8	2.4	13	3.9	1/4	6.4	28	8.5	-	x	x	x	x
16	4.8	21	6.4	1/4	6.4	36	10.9	-	x	x	x	x
25	7.6	30	9.1	1/4	6.4	45	13.7	-	x	x	x	x



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

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

IMPORTANT:

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ENSIGN 500 PORTABLE DAVIT CRANE

Performance Ratings with Pedestal Base ¹

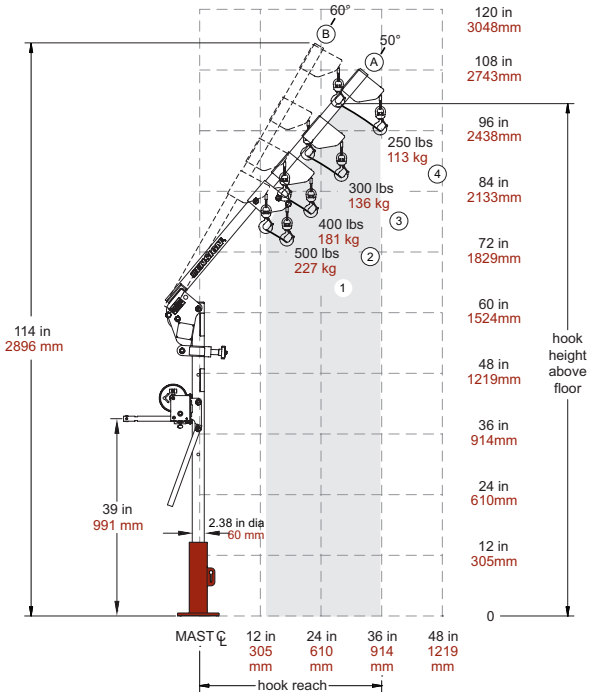
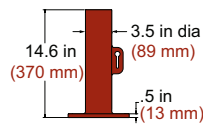
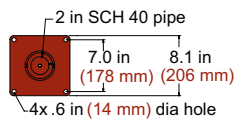
Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A-1	500	227	17	431	74	1879
A-2	400	181	22	558	79	2006
A-3	300	136	28	711	87	2209
A-4	250	113	36	914	96	2438
B-1	500	227	14	355	76	1930
B-2	400	181	17	431	83	2108
B-3	300	136	22	558	91	2311
B-4	250	113	28	711	101	2565

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

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

Pedestal Base

5BP5, 5BP5G, 5BP5S, 5BP5S316, 5BP5X

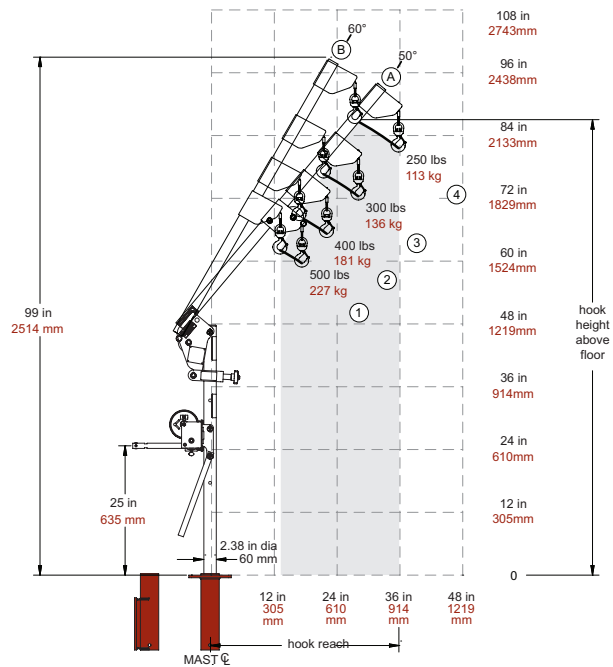


Performance Ratings with Flush or Wall-Mount Bases ¹

Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A-1	500	227	17	431	60	1524
A-2	400	181	22	558	65	1651
A-3	300	136	28	711	73	1854
A-4	250	113	36	914	82	2082
B-1	500	227	14	355	62	1574
B-2	400	181	17	431	69	1752
B-3	300	136	22	558	77	1955
B-4	250	113	28	711	87	2209

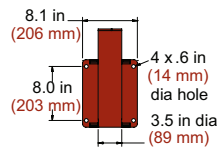
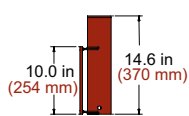
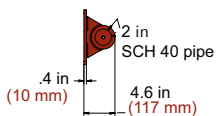
¹ Performance Characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

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



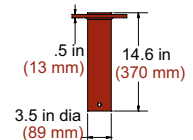
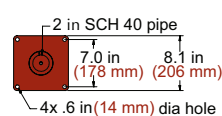
Wall-Mount Base

5BW5, 5BW5G, 5BW5S, 5BW5S316, 5BW5X



Flush Mount Base

5BF5, 5BF5G, 5BF5S, 5BF5S316, 5BF5X



IMPORTANT:

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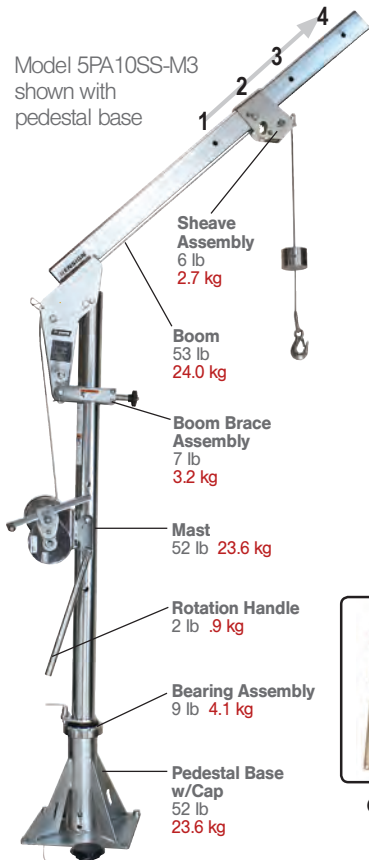


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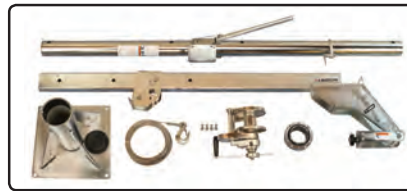


Model 5PA10SS-M3
shown with
pedestal base



SERIES 5PA10
CAPACITY 1200 LB
544 KG

Simple set-up and easy to use.
This economical series is
specially designed for
clearance, lift height,
and ergonomic
operation.



Crane disassembles easily for transport

ENSIGN 1000

Portable Davit Cranes

Hand or Power Winch Operation
Up to 1200 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 number.

1 Crane	2 Optional Finish*	3 Winch
5PA10		

i.e. 5PA10G-M2

* 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 roller/ball bearing with locking pin installed in the base. Handle on the mast makes rotation easy.
- **Adjustable Sheave Assembly** easily adjusts without tools to 4 different positions.
- **Adjustable Boom Angle** using boom brace with comfortable adjustment knob allows for easy, one-hand boom adjustment when not under load.

OPTIONAL FINISHES

- **Galvanized Finish** provides extra protection against corrosion.
- **Stainless Steel Models** are constructed of 304 or 316 stainless steel with an electro-polished finish for superior corrosion resistance.
- **Epoxy Grey Finish** provides extra protection against corrosion.

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, 300 rpm max.
- **Power Winch Operated Models** include electric winch with pendant control and brake. Other power options available, please contact Thern.
- **Quick Disconnect Anchor** for quickly attaching or removing wire rope equipped with a swaged ball fitting.

1 CRANE MODEL 5PA10

Model	Description	Approx. Ship Weight
5PA10	Up to 1200 lb capacity - portable davit crane	143 lb 65 kg

Please contact Thern 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 2.

2 OPTIONAL FINISH (Crane Only)

Finish	Description
G	Galvanized finish - crane only
S	304 Stainless steel construction - crane only
S316	316 Stainless steel construction - crane only
X	Grey* Epoxy Paint Finish - crane only

*Custom colors available - Contact factory

3 WINCH OPTIONS

Winch	Description	Aprx. Ship Weight
M1	M4312PB-K - zinc plated spur gear hand winch	27 lb 13 kg
M2	4WM2V-K - red powder coat worm gear hand winch	42 lb 19.1 kg
M2X	4WM2VEGRA-K - grey epoxy worm gear hand winch	42 lb 19.1 kg
M3	M4312PBSS-K - stainless steel spur gear hand winch	27 lb 13 kg
E2	4WP2V-K red enamel electric winch - 115/1/60 VAC w/6 ft pendant control	85 lb 39 kg
E2X	4WP2VEGRA-K grey epoxy electric winch - 115/1/60 VAC w/6 ft pendant control	85 lb 39 kg
E4	4777-K red enamel electric winch - 115/1/60 VAC w/6 ft pendant control	110 lb 50 kg
E4X	4777EGRA-K grey epoxy electric winch - 115/1/60 VAC w/6 ft pendant control	110 lb 50 kg
E4DC	4777DC-K red enamel electric winch - 12 volt DC w/10 ft pendant control	124 lb 57 kg
E4DCX	4777DCEGRA-K grey epoxy electric winch - 12 volt DC w/10 ft pendant control	124 lb 57 kg

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ENSIGN 1000 PORTABLE DAVIT CRANE

4 Ensign 1000 Series Bases, Wire Rope Assemblies and Accessories

INDEPENDENT BASES – sold separately

■ Pedestal, Socket (flush mount) or Wall mount style

■ **Important:** Base installation is purchaser's responsibility. Them recommends consulting a civil engineer or other qualified professional. Contact Them for installation guidelines.



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

WIRE ROPE ASSEMBLIES – sold separately

■ **Galvanized or Stainless Steel** wire rope assemblies with swaged ball fitting to work with the quick disconnect anchor on the winch. 316 Stainless Steel also available. Please contact the Them.

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

*For approximate ship weights - See page 93

ACCESSORIES - Sold Separately

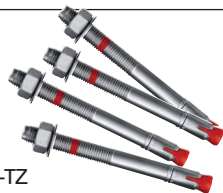
Base Installation Anchor Kits

4 Hilti® Torque controlled expansion anchors
2.3 lb (1.0 kg)

AN62A-6 - Zinc plated steel STL KB-TZ

AN62A-6S - 304 Stainless steel SST304 KB-TZ

AN62A-6S316 - 316 Stainless steel SST316 KB-TZ



Cable Spool - 316 Stainless steel reel winds up wire rope when detached from crane.

Model No. RW50 - 12 lb 5.5 kg



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

Model RK19-25S - 304 Stainless Steel

Model RK19-25S316 - 316 Stainless Steel

Headache Ball

Keeps cable taut when no load is attached
Fits 1/8" (3mm) to 1/4" (6mm) wire rope diameters

HB10-12-25 - Painted steel 10 lb 4.5 kg

HB10S-12-25 - Polished 316 Stainless steel 10 lb 4.5 kg



Drill Drive Kits - 300 rpm drill motor to power drive the M2 hand winch option. Includes 1-1/8" hex drive socket

Model ED300-DW11 - 120 VAC power drill kit
12 lb. (5.5 kg)

Model ED300-DW06 - Cordless drill kit
10.6 lb (4.8 kg)

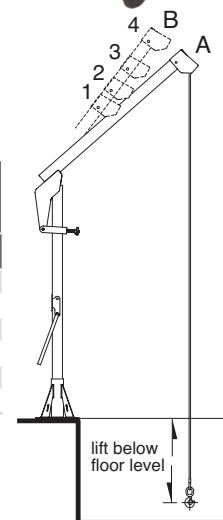


Lift Below Floor Level with 3/16" Wire Rope ²

Lift Below Floor ¹				Wire Rope Diameter		Wire Rope Length		Winch Configurations				
Min. (B4)		Max. (A1)		(in)	(mm)	(ft)	(m)	M1	M2	M3	E2	E4
(ft)	(m)	(ft)	(m)									
5	1.5	9	2.7	3/16	4.8	28	8.5	x	-	x	-	x
13	3.9	17	5.1	3/16	4.8	36	10.9	x	-	x	-	x
22	6.7	26	7.9	3/16	4.8	45	13.7	x	-	x	-	x
37	11.2	41	12.4	3/16	4.8	60	18.2	x	-	x	-	x
52	15.8	56	17.0	3/16	4.8	75	22.8	x	-	x	-	x
67	20.4	71	21.6	3/16	4.8	90	27.4	x	-	x	-	x

Lift Below Floor with 1/4" Wire Rope ²

Lift Below Floor ¹				Wire Rope Diameter		Wire Rope Length		Winch Configurations				
Min. (B4)		Max. (A1)		(in)	(mm)	(ft)	(m)	M1	M2	M3	E2	E4
(ft)	(m)	(ft)	(m)									
4	1.2	9	2.7	1/4	6.4	28	8.5	x	x	x	x	x
12	3.6	17	5.1	1/4	6.4	36	10.9	x	x	x	x	x
21	6.4	26	7.9	1/4	6.4	45	13.7	x	x	x	x	x
36	10.9	41	12.4	1/4	6.4	60	18.2	-	x	x	x	x
51	15.5	56	17.0	1/4	6.4	75	22.8	-	-	-	-	x



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

² Performance Characteristics are for standard products. Non-standard products may vary from the original design. Contact Them, Inc. for this information.

IMPORTANT:

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PORTABLE DAVIT CRANE **ENSIGN 1000**

Performance Ratings with Pedestal Base ¹

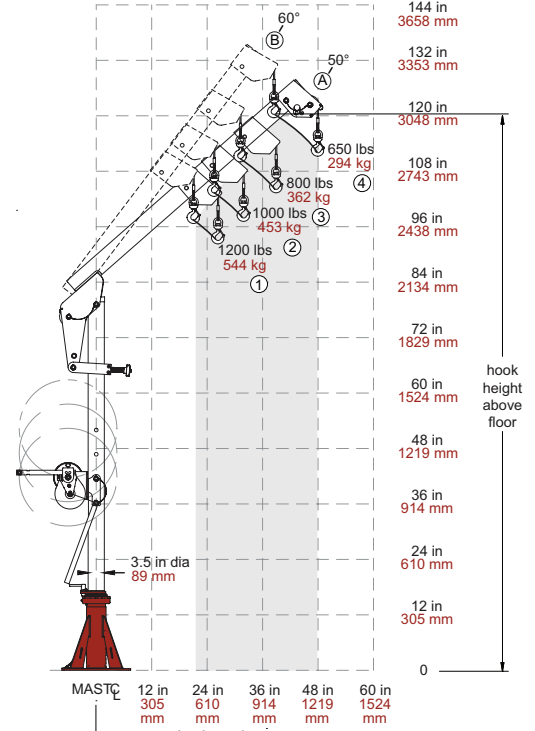
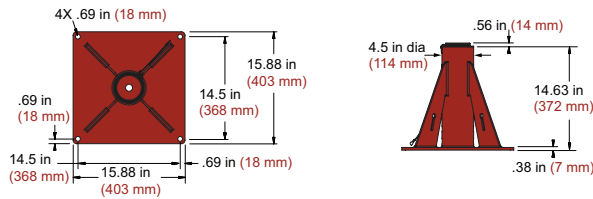
Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A-1	1200	544	26	660	93	2362
A-2	1000	453	32	812	98	2489
A-3	800	362	39	990	104	2641
A-4	650	294	48	1219	112	2844
B-1	1200	544	22	558	97	2463
B-2	1000	453	26	660	103	2616
B-3	800	362	32	812	110	2794
B-4	650	294	39	990	120	3048

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

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

Pedestal Base

5BP10, 5BP10G, 5BP10S, 5BP10S316, 5BP10X



Performance Ratings with Flush or Wall-Mount Bases ¹

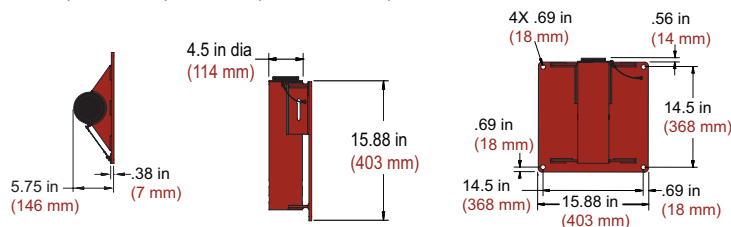
Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A-1	1200	544	26	660	79	2007
A-2	1000	453	32	812	84	2134
A-3	800	362	39	990	90	2286
A-4	650	294	48	1219	98	2489
B-1	1200	544	22	558	83	2108
B-2	1000	453	26	660	89	2261
B-3	800	362	32	812	96	2438
B-4	650	294	39	990	106	2692

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

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

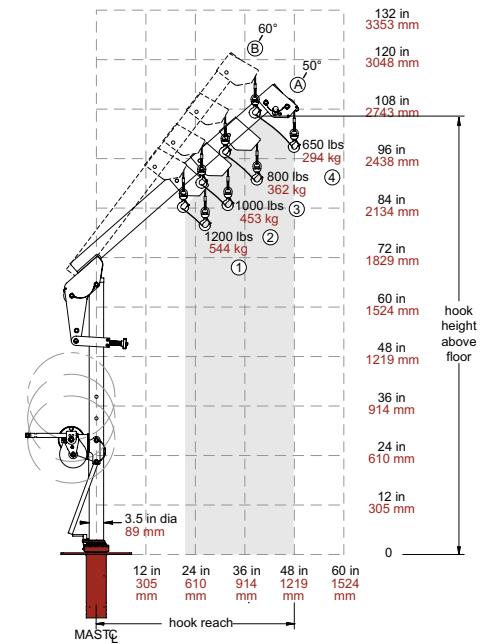
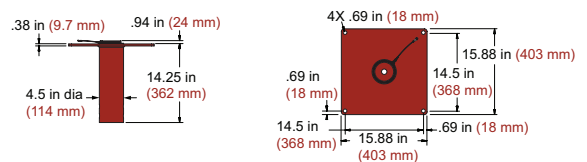
Wall-Mount Base

5BW10, 5BW10G, 5BW10S, 5BW10S316, 5BW10X



Flush Mount Base

5BF10, 5BF10G, 5BF10S, 5BF10S316, 5BF10X



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.



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

Complete, downloadable details on line
www.thern.com



COMMANDER 1000 PORTABLE DAVIT CRANE

SERIES 5PT10
CAPACITY 1200 LB
544 KG

COMMANDER 1000



Boom
34 lb / 15.4 kg

Boom Extension
24 lb / 10.9 kg

Mast
36 lb / 16.3 kg

Rotation Handle
7 lb / 3.2 kg

Ratchet Jack
12 lb / 5.5 kg

Pedestal Base
52 lb / 23.6 kg

Model 5PT10-M2
shown with
pedestal base

Crane disassembles easily for transport

Portable Davit Cranes

Hand or Power Winch Operation
Up to 1200 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 number.

1 Crane	2 Optional Finish*	3 Winch
5PT10	<input type="text"/>	<input type="text"/>

i.e. 5PT10G-M2

* 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 mast makes rotation easy.
- **Adjustable Boom** telescopes to 4 different lengths and adjusts in height with ratchet style screw-jack.
- **Crane Breaks Down** for storage and transport.

1 CRANE MODEL 5PT10

Model	Description	Approx. Ship Weight
5PT10 ¹	Up to 1200 lb capacity - portable davit crane	122 lb 56 kg

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

¹ Base Model includes corrosion resistant electrostatic powder coated finish. Other finishes available. See option 2.

OPTIONAL FINISHES

- **Galvanized Finish** provides extra protection against corrosion.
- **Stainless Steel Models** are constructed of 304 or 316 stainless steel with an electro-polished finish for superior corrosion resistance.
- **Epoxy Grey Finish** provides extra protection against corrosion.

2 OPTIONAL FINISH (Crane Only)

Finish	Description
G	Galvanized finish - crane only
S	304 Stainless steel construction - crane only
S316	316 Stainless steel construction - crane only
X	Grey* Epoxy Paint Finish - crane only

*Custom colors available - Contact factory

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, 300 rpm max.
- **Power Winch Operated Models** include electric winch with pendant control and brake. Other power options available, please contact Them.
- **Quick Disconnect Anchor** for quickly attaching or removing wire rope equipped with a swaged ball fitting.

3 WINCH OPTIONS

Winch	Description	Aprx. Ship Weight
M1	M4312PB-K - zinc plated spur gear hand winch	27 lb 13 kg
M2	4WM2-K - red powder coat worm gear hand winch	42 lb 19.1 kg
M2X	4WM2EGRA-K - grey epoxy worm gear hand winch	42 lb 19.1 kg
M3	M4312PBSS-K - stainless steel spur gear hand winch	27 lb 13 kg
E2	4WP2-K red enamel electric winch - 115/1/60 VAC w/6 ft pendant control	85 lb 39 kg
E2X	4WP2EGRA-K grey epoxy electric winch - 115/1/60 VAC w/6 ft pendant control	85 lb 39 kg
E4	4777-K red enamel electric winch - 115/1/60 VAC w/6 ft pendant control	110 lb 50 kg
E4X	4777EGRA-K grey epoxy electric winch - 115/1/60 VAC w/6 ft pendant control	110 lb 50 kg
E4DC	4777DC-K red enamel electric winch - 12 volt DC w/10 ft pendant control	124 lb 57 kg
E4DCX	4777DCEGRA-K grey epoxy electric winch - 12 volt DC w/10 ft pendant control	124 lb 57 kg



PORTABLE DAVIT CRANE 1000 COMMANDER

4 Commander 1000 Series 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 5BR10.

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



Finish	Pedestal	Flush	Wall	Wheel	Extension
Powder Coat Paint	5BP10	5BF10	5BW10	5BR10	5BE10-15
Galvanized	5BP10G	5BF10G	5BW10G	-	5BE10-15G
304 Stainless Steel	5BP10S	5BF10S	5BW10S	-	5BE10-15S
316 Stainless Steel	5BP10S316	5BF10S316	5BW10S316	-	5BE10-15S316
Epoxy Paint	5BP10X	5BF10X	5BW10X	5BR10X	5BE10-15X
Approximate Ship Weight	52 lb (24 kg)	44 lb (20 kg)	48 lb (22 kg)	285 lb (130 kg)	

WIRE ROPE ASSEMBLIES – sold separately

■ **Galvanized or Stainless Steel** wire rope assemblies with swaged ball fitting to work with the quick disconnect anchor on the winch. 316 stainless also available. Please contact Them.

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

*For approximate ship weights - See page 93

ACCESSORIES - Sold Separately

Headache Ball

Keeps cable taut when no load is attached
HB10-12-25 Fits 1/8" - 1/4" wire rope
HB10-25-38 Fits 1/4" - 3/8" wire rope
 Painted steel 10 lb 4.5 kg



HB10S-12-25 Fits 1/8" - 1/4" wire rope
HB10S-25-38 Fits 1/4" - 3/8" wire rope
 316 Stainless steel 10 lb 4.5 kg

Base Installation Anchor Kits

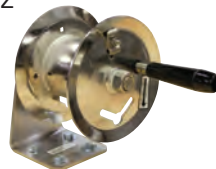
4 Hilti® Torque controlled expansion anchors
 2.3 lb (1.0 kg)

AN62A-6 - Zinc plated steel STL KB-TZ
AN62A-6S - 304 Stainless steel SST304 KB-TZ
AN62A-6S316 - 316 Stainless steel SST316 KB-TZ



Cable Spool - 316 Stainless steel reel winds up wire rope when detached from crane.

Model No. RW50 - 12 lb 5.5 kg



Roller/Ball Bearing w/lock - For smooth, easy 360° rotation under load. 9 lb 4.1 kg Red powder coat finish.

5PT10BRG - Red powder coat **5PT10BRG-SS*** - 304 Stainless Steel
5PT10BRG-S - 304 Stainless Steel **5PT10BRG-SS316*** - 316 Stainless Steel
5PT10BRG-S316 - 316 Stainless Steel **5PT10BRG-X** - Grey Epoxy finish



*Compatible only with stainless bases and base extensions

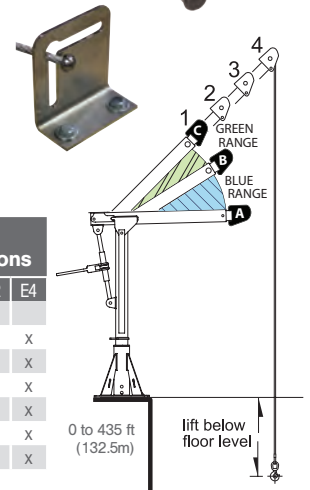
Drill Drive Kits - 300 rpm drill motor to power drive the M2 hand winch option. Includes 1-1/8" hex drive socket

Model ED300-DW11 - 120 VAC power drill kit 12 lb. (5.5 kg)
Model ED300-DW06 - Cordless drill kit 10.6 lb (4.8 kg)



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

Model RK19-25S - 304 Stainless Steel
Model RK19-25S316 - 316 Stainless Steel



Lift Below Floor Level with 3/16" Wire Rope²

Lift Below Floor ¹		Wire Rope Diameter	Wire Rope Length	Winch Configurations								
Min. (C4)	Max. (A1)			M1	M2	M3	E2	E4				
(ft)	(m)	(in)	(mm)	(ft)	(m)							
2	0.69	9	2.7	3/16	4.8	20	6.0	x	-	x	-	x
10	3.0	17	5.1	3/16	4.8	28	8.5	x	-	x	-	x
18	5.4	25	7.6	3/16	4.8	36	10.9	x	-	x	-	x
27	8.2	34	10.3	3/16	4.8	45	13.7	x	-	x	-	x
42	12.8	49	14.9	3/16	4.8	60	18.2	x	-	x	-	x
57	17.3	64	19.5	3/16	4.8	75	22.8	x	-	x	-	x
72	21.9	79	24.0	3/16	4.8	90	27.4	x	-	x	-	x

Lift Below Floor Level with 1/4" Wire Rope²

Lift Below Floor ¹		Wire Rope Diameter	Wire Rope Length	Winch Configurations								
Min. (C4)	Max. (A1)			M1	M2	M3	E2	E4				
(ft)	(m)	(in)	(mm)	(ft)	(m)							
2	0.6	9	2.7	1/4	6.4	20	6.0	x	x	x	x	x
10	3.0	17	5.1	1/4	6.4	28	8.5	x	x	x	x	x
18	5.4	25	7.6	1/4	6.4	36	10.9	x	x	x	x	x
27	8.2	34	10.3	1/4	6.4	45	13.7	x	x	x	x	x
42	12.8	49	14.9	1/4	6.4	60	18.2	x	x	x	x	x
57	17.3	64	19.5	1/4	6.4	75	22.8	-	x	-	x	x

¹ Based on pedestal base. Lift below floor level varies depending on boom position and base configuration. For long lifts, please contact Them.

² Performance Characteristics are for standard products. Non-standard products may vary from the original design. Contact Them, Inc. for this information.

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

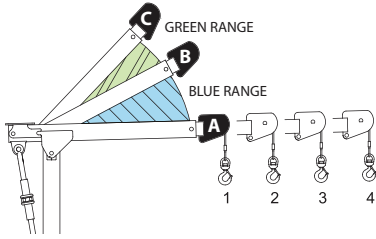
FLCL-0618

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Thern
Winches & Cranes

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COMMANDER 1000 PORTABLE DAVIT CRANE

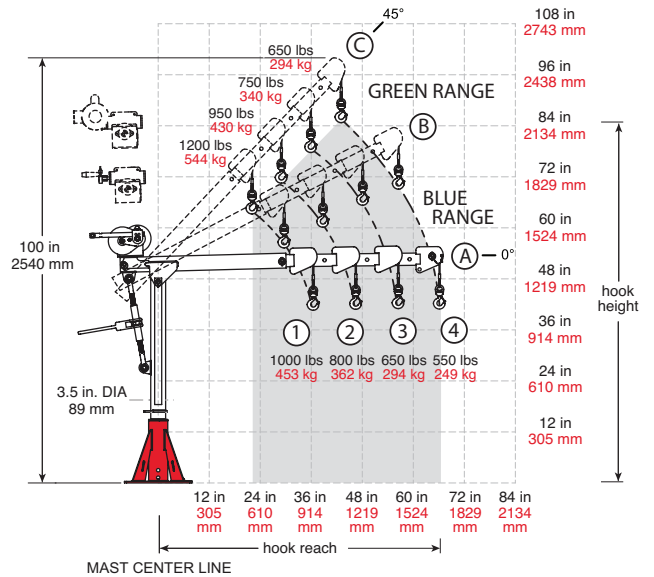


Performance Ratings with Pedestal Base¹

	Boom Position	Load Rating 1st Layer		Hook Reach		Hook Height	
		(lb)	(kg)	(in)	(mm)	(in)	(mm)
BLUE RANGE	A-1	1000	453	36	914	42	1066
	A-2	800	362	46	1168	42	1066
	A-3	650	294	56	1422	42	1066
	A-4	550	249	66	1676	42	1066
GREEN RANGE	B-1	1200	544	29	736	56	1422
	B-2	950	430	38	965	60	1524
	B-3	750	340	47	1193	65	1651
	B-4	650	294	56	1422	69	1752
GREEN RANGE	C-1	1200	544	22	558	64	1625
	C-2	950	430	29	736	71	1803
	C-3	750	340	36	914	78	1981
	C-4	650	294	43	1092	85	2159

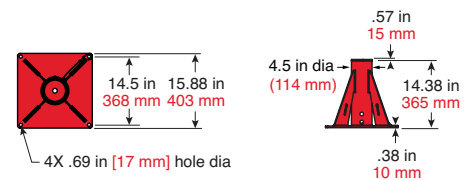
¹ Performance Characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

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



Pedestal Base

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

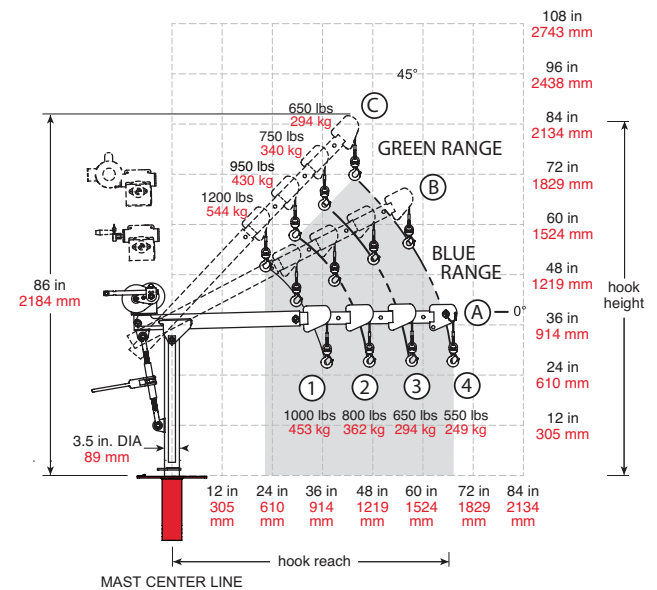


Performance Ratings with Flush or Wall Mount Base¹

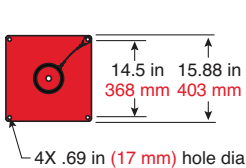
	Boom Position	Load Rating 1st Layer		Hook Reach		Hook Height	
		(lb)	(kg)	(in)	(mm)	(in)	(mm)
BLUE RANGE	A-1	1000	453	36	914	28	711
	A-2	800	362	46	1168	28	711
	A-3	650	294	56	1422	28	711
	A-4	550	249	66	1676	28	711
GREEN RANGE	B-1	1200	544	29	736	42	1066
	B-2	950	430	38	965	46	1168
	B-3	750	340	47	1193	51	1295
	B-4	650	294	56	1422	55	1397
GREEN RANGE	C-1	1200	544	22	558	50	1270
	C-2	950	430	29	736	57	1447
	C-3	750	340	36	914	64	1625
	C-4	650	294	43	1092	71	1803

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

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

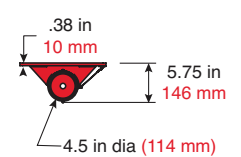
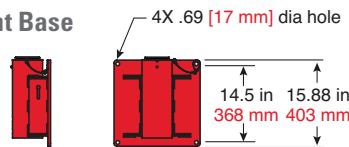


Flush-Mount Base 5BF10, 5BF10G, 5BF10S, 5BF10S316, 5BF10X



Wall-Mount Base

- 5BW10
- 5BW10G
- 5BW10S
- 5BW10S316
- 5BW10X

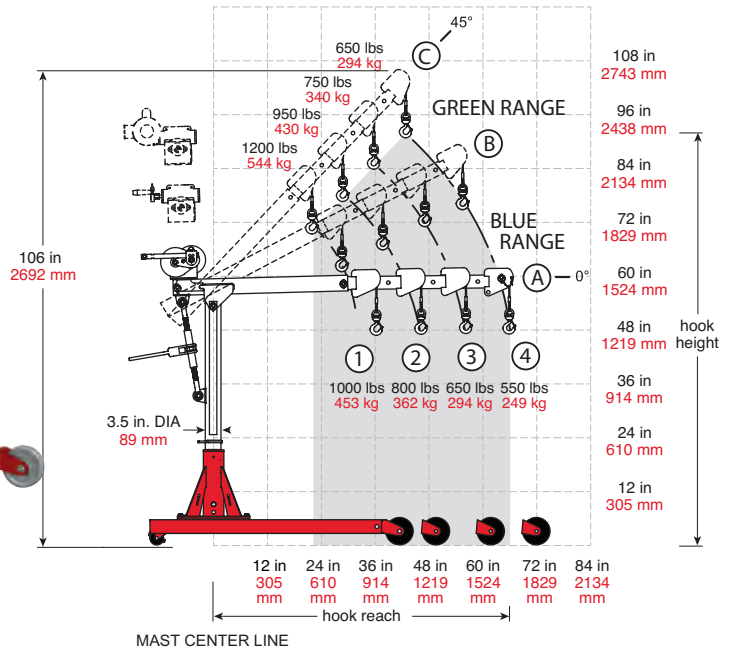


IMPORTANT:

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.

PORTABLE DAVIT CRANE 1000 COMMANDER

Commander 1000 with Wheel Base



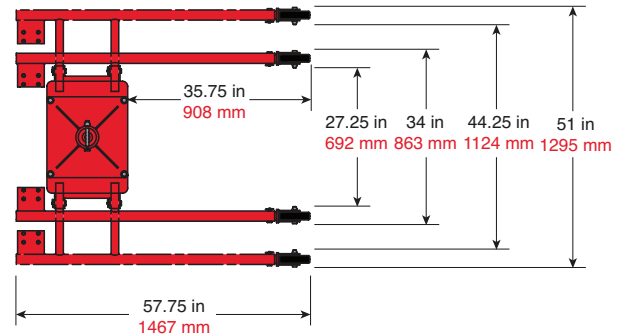
IMPORTANT:
Crane DOES NOT rotate when assembled in 5BR10 wheel base.

Commander 1000 On Wheel Base Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	48	1219
A-2	46	1168	48	1219
A-3	56	1422	48	1219
A-4	66	1676	48	1219
B-1	29	736	62	1574
B-2	38	965	66	1676
B-3	47	1193	71	1803
B-4	56	1422	75	1905
C-1	22	558	70	1778
C-2	29	736	77	1955
C-3	36	914	84	2133
C-4	43	1092	91	2311

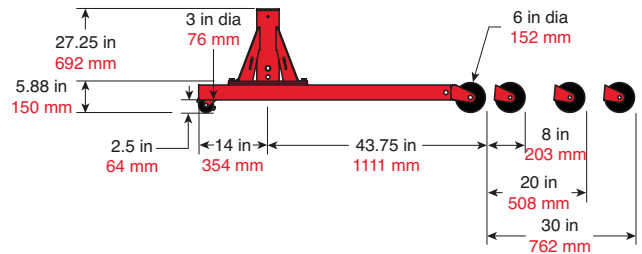
Dimensions are for reference only and subject to change without notice.

Wheel Base 5BR10, 5BR10X



Wheel Base Load Ratings

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



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

FLCL-0618

Complete, downloadable details on line
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COMMANDER 2000 PORTABLE DAVIT CRANE

Model 5PT20-E2
shown with
pedestal base

SERIES 5PT20
CAPACITY 2000 LB
907 KG

COMMANDER 2000

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 number.

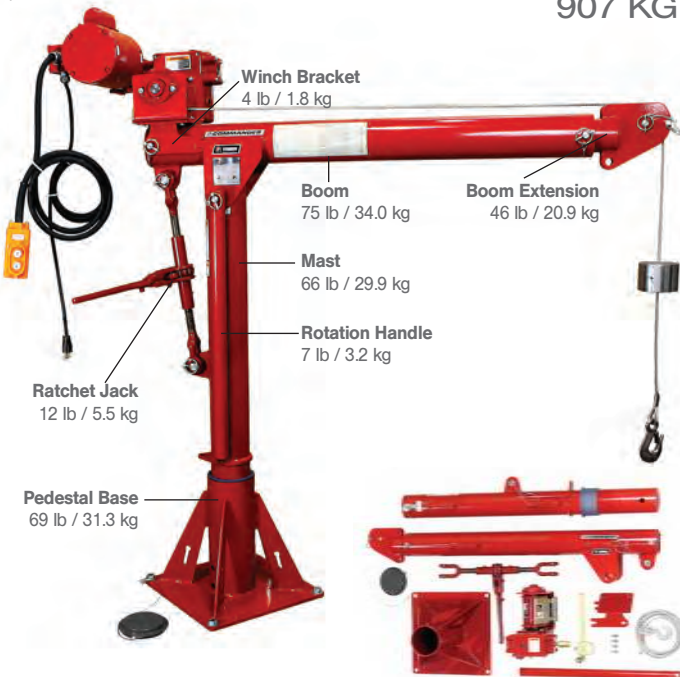
1 Crane	2 Optional Finish*	3 Winch
5PT20		

i.e. 5PT20G-M2

* 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 disassembles easily for transport

CRANE MODEL

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

1 CRANE MODEL 5PT20		
Model	Description	Approx. Ship Weight
5PT20 ¹	Up to 2000 lb capacity - portable davit crane	213 lb 97 kg

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

¹ **Base Model includes corrosion resistant electrostatic powder coated finish. Other finishes available. See option 2.**

OPTIONAL FINISHES

- **Galvanized Finish** provides extra protection against corrosion.
- **Stainless Steel Models** are constructed of 304 or 316 stainless steel with an electro-polished finish for superior corrosion resistance.
- **Epoxy Grey Finish** provides extra protection against corrosion.

2 OPTIONAL FINISH (Crane Only)	
Finish	Description
G	Galvanized finish - crane only
S	304 Stainless steel construction - crane only
S316	316 Stainless steel construction - crane only
X	Grey* Epoxy Paint Finish - crane only

*Custom colors available - Contact factory

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, 300 rpm max.
- **Power Winch Operated Models** include electric winch with pendant control and brake. Other power options available, please contact Them.
- **Quick Disconnect Anchor** for quickly attaching or removing wire rope equipped with a swaged ball fitting.

3 WINCH OPTIONS		
Winch	Description	Aprx. Ship Weight
M1	M4312PB-K - zinc plated spur gear hand winch	27 lb 13 kg
M2	4WM2-K - red powder coat worm gear hand winch	42 lb 19.1 kg
M2X	4WM2EGRA-K - grey epoxy worm gear hand winch	42 lb 19.1 kg
M3	M4312PBSS-K - stainless steel spur gear hand winch	27 lb 13 kg
E2	4WP2-K red enamel electric winch - 115/1/60 VAC w/6 ft pendant control	85 lb 39 kg
E2X	4WP2EGRA-K grey epoxy electric winch - 115/1/60 VAC w/6 ft pendant control	85 lb 39 kg
E4	4777-K red enamel electric winch - 115/1/60 VAC w/6 ft pendant control	110 lb 50 kg
E4X	4777EGRA-K grey epoxy electric winch - 115/1/60 VAC w/6 ft pendant control	110 lb 50 kg
E4DC	4777DC-K red enamel electric winch - 12 volt DC w/10 ft pendant control	124 lb 57 kg
E4DCX	4777DCEGRA-K grey epoxy electric winch - 12 volt DC w/10 ft pendant control	124 lb 57 kg



Complete, downloadable details on line
www.them.com

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



PORTABLE DAVIT CRANE 2000 COMMANDER

4 Commander 2000 Series 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.

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



Finish	Pedestal		Flush		Wall		Wheel		Extension	
	Model No.	Weight	Model No.	Weight	Model No.	Weight	Model No.	Weight	Model No.	Weight
Powder Coat Paint	5BP20	66 lb (30 kg)	5BF20	57 lb (26 kg)	5BW20	64 lb (30 kg)	5BR20	375 lb (171 kg)	5BE20-15	53 lb (25 kg)
Galvanized	5BP20G		5BF20G		5BW20G		-		5BE20-15G	
304 Stainless Steel	5BP20S		5BF20S		5BW20S		-		5BE20-15S	
316 Stainless Steel	5BP20S316		5BF20S316		5BW20S316		-		5BE10-15S316	
Epoxy Paint	5BP20X		5BF20X		5BW20X		5BR20X		5BE20-15X	

WIRE ROPE ASSEMBLIES – sold separately

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

Wire Rope Length		Galvanized Aircraft Cable		304 Stainless Steel Wire Rope	
		1/4" Dia. (6.4 mm)	5/16" Dia. (7.9 mm)	1/4" Dia. (6.4 mm)	5/16" Dia. (7.9 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.
20 ft	6.0 m	WA25-20NS	WA31-20DS	WS25-20NS	WA31-20DS
28 ft	8.5 m	WA25-28NS	WA31-28DS	WS25-28NS	WA31-28DS
36 ft	10.9 m	WA25-36NS	WA31-36DS	WS25-36NS	WA31-36DS
45 ft	13.7 m	WA25-45NS	WA31-45DS	WS25-45NS	WA31-45DS
60 ft	18.2 m	WA25-60NS	WA31-60DS	WS25-60NS	WA31-60DS
75 ft	22.8 m	WA25-75NS		WS25-750NE	

*For approximate ship weights - See page 93

ACCESSORIES - Sold Separately

Headache Ball

Keeps cable taut when no load is attached

HB10-12-25 Fits 1/8" - 1/4" wire rope

HB10-25-38 Fits 1/4" - 3/8" wire rope

Painted steel 10 lb 4.5 kg

HB10S-12-25 Fits 1/8" - 1/4" wire rope

HB10S-25-38 Fits 1/4" - 3/8" wire rope

316 Stainless steel 10 lb 4.5 kg



Base Installation Anchor Kits

4 Hilti® Torque controlled expansion anchors

2.3 lb (1.0 kg)

AN62A-6 - Zinc plated steel STL KB-TZ

AN62A-6S - 304 Stainless steel SST304 KB-TZ

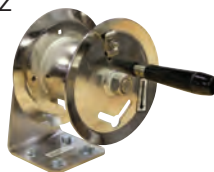
AN62A-6S316 - 316 Stainless steel SST316 KB-TZ



Cable Spool

316 Stainless steel reel winds up wire rope when detached from crane.

Model No. RW50 - 12 lb 5.5 kg



Roller/Ball Bearing w/lock

For smooth, easy 360° rotation under load. 11 lb 5.0 kg Red powder coat finish.

5PT20BRG - Red powder coat

5PT20BRG-SS* - 304 Stainless Steel

5PT20BRG-S - 304 Stainless Steel

5PT20BRG-SS316* - 316 Stainless Steel

5PT20BRG-S316 - 316 Stainless Steel

5PT20BRG-X - Grey Epoxy finish

*Compatible only with stainless bases and base extensions



Drill Drive Kits

300 rpm drill motor to power drive the M2 hand winch option.

Includes 1-1/8" hex drive socket

Model ED300-DW11 - 120 VAC power drill kit

12 lb. (5.5 kg)

Model ED300-DW06 - Cordless drill kit

10.6 lb (4.8 kg)

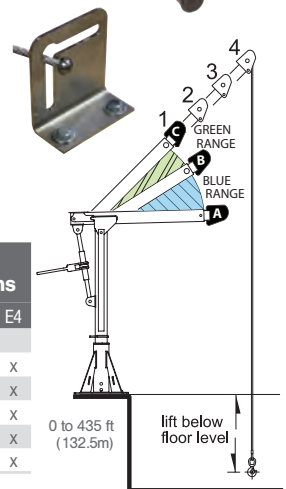


Wire Rope Keeper

Stainless Steel bracket attaches to base or other structure to hold free end of the wire rope when detached from crane.

Model RK19-25S - 304 Stainless Steel

Model RK19-25S316 - 316 Stainless Steel



Lift Below Floor with 1/4" Wire Rope²

Lift Below Floor ¹				Wire Rope Diameter		Wire Rope ³ Length		Winch Configurations							
Min. (C4)		Max. (A1)		(in)	(mm)	(ft)	(m)	M1	M2	M3	E2	E4			
(ft)	(m)	(ft)	(m)												
0	0.0	8	2.4	1/4	6.4	20	6.0	x	x	x	x	x	x		
8	2.4	16	4.8	1/4	6.4	28	8.5	x	x	x	x	x	x		
16	4.8	24	7.3	1/4	6.4	36	10.9	x	x	x	x	x	x		
25	7.6	33	10.0	1/4	6.4	45	13.7	x	x	x	x	x	x		
40	12.1	48	14.6	1/4	6.4	60	18.2	x	x	x	x	x	x		
55	16.7	63	19.2	1/4	6.4	75	22.8	-	x	-	x	-	x		

Lift Below Floor with 5/16" Wire Rope²

Lift Below Floor ¹				Wire Rope Diameter		Wire Rope ³ Length		Winch Configurations							
Min. (C4)		Max. (A1)		(in)	(mm)	(ft)	(m)	M1	M2	M3	E2	E4			
(ft)	(m)	(ft)	(m)												
0	0.0	8	2.5	5/16	7.9	20	6.0	x ⁴	x ⁴	x ⁴	x ⁴	x			
8	2.4	16	4.8	5/16	7.9	28	8.5	x ⁴	x ⁴	x ⁴	x ⁴	x			
16	4.8	24	7.3	5/16	7.9	36	10.9	x ⁴	x ⁴	x ⁴	x ⁴	x			
25	7.6	33	10.0	5/16	7.9	45	13.7	x ⁴	x ⁴	x ⁴	x ⁴	x			
40	12.1	48	14.6	5/16	7.9	60	18.2	-	-	-	-	x			

¹ Based on pedestal base. Lift below floor level varies depending on boom position and base configuration. For long lifts, please contact Thern.

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

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

⁴ 5/16" (8 mm) wire rope assemblies with swaged ball fitting do not fit the winch quick disconnect anchor. - Contact the factory to specify wire rope with an unfinished end.



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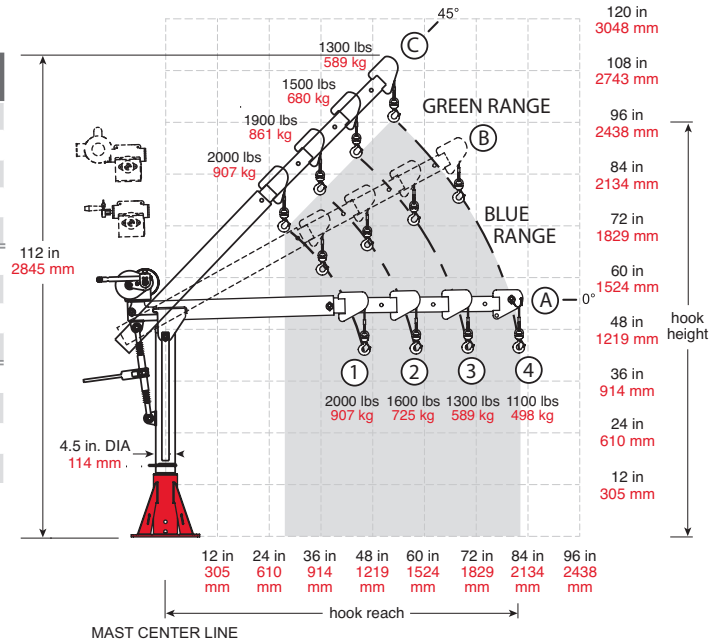
COMMANDER 2000 PORTABLE DAVIT CRANE

Performance Ratings with Pedestal Base¹

	Boom Position	Load Rating 1st Layer		Hook Reach		Hook Height	
		(lb)	(kg)	(in)	(mm)	(in)	(mm)
BLUE RANGE	A-1	2000	907	46	1168	43	1092
	A-2	1600	725	58	1473	43	1092
	A-3	1300	589	70	1778	43	1092
	A-4	1100	498	82	2082	43	1092
GREEN RANGE	B-1	2000	907	37	939	61	1549
	B-2	1900	861	48	1219	67	1701
	B-3	1500	680	58	1473	72	1828
	B-4	1300	589	69	1752	78	1981
	C-1	2000	907	28	711	71	1803
	C-2	1900	861	36	914	80	2032
	C-3	1500	680	45	1143	88	2235
	C-4	1300	589	53	1346	97	2463

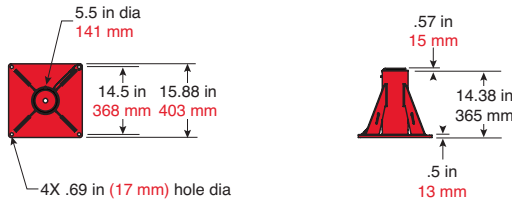
¹ Performance Characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

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



Pedestal Base

- 5BP20
- 5BP20G
- 5BP20S
- 5BP20S316
- 5BP20X

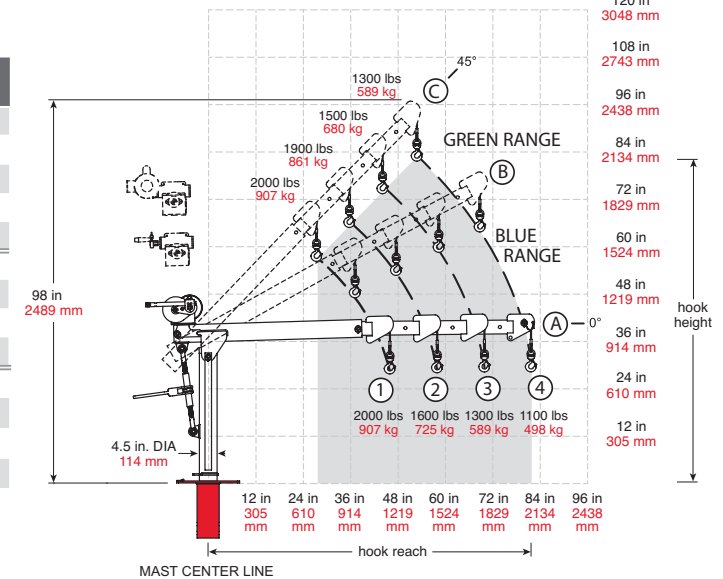


Performance Ratings with Flush or Wall Mount Base¹

	Boom Position A/B/C	Load Rating 1st Layer		Hook Reach		Hook Height	
		(lb)	(kg)	(in)	(mm)	(in)	(mm)
BLUE RANGE	A-1	2000	907	46	1168	29	736
	A-2	1600	725	58	1473	29	736
	A-3	1300	589	70	1778	29	736
	A-4	1100	498	82	2082	29	736
GREEN RANGE	B-1	2000	907	37	939	47	1193
	B-2	1900	861	48	1219	53	1346
	B-3	1500	680	58	1473	58	1473
	B-4	1300	589	69	1752	64	1625
	C-1	2000	907	28	711	57	1447
	C-2	1900	861	36	914	66	1676
	C-3	1500	680	45	1143	74	1879
	C-4	1300	589	53	1346	83	2108

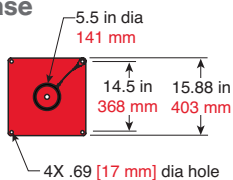
¹ Performance Characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

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



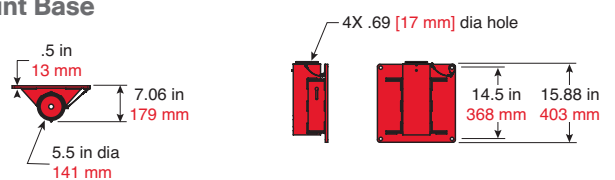
Flush Mount Base

- 5BF20
- 5BF20G
- 5BF20S
- 5BF20S316
- 5BF20X



Wall-Mount Base

- 5BW20
- 5BW20G
- 5BW20S
- 5BW20S316
- 5BW20X



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.



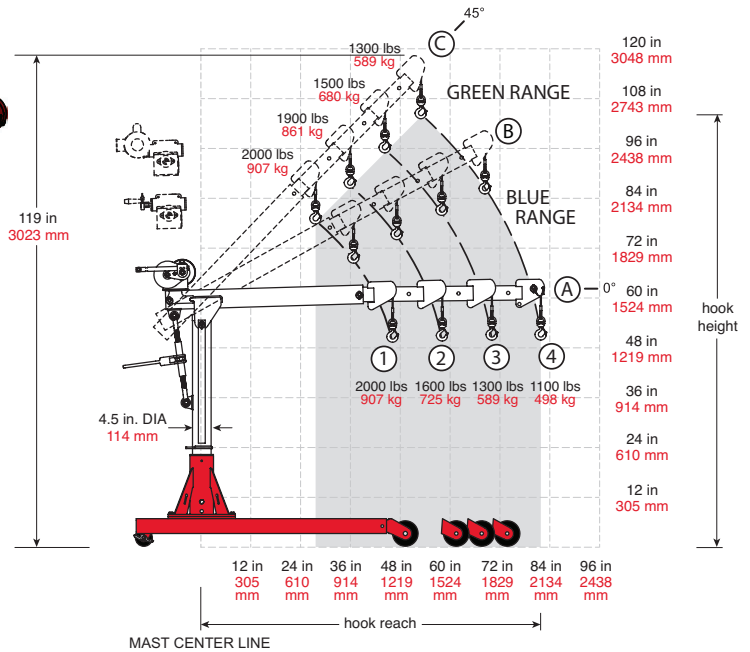
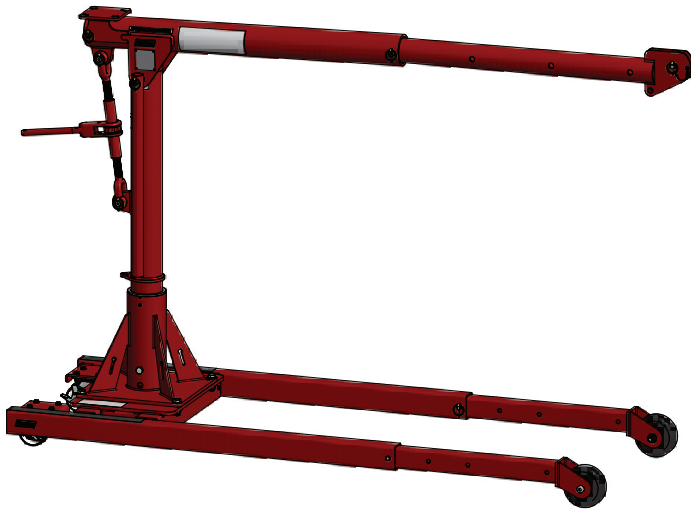
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PORTABLE DAVIT CRANE 2000 **COMMANDER**

Commander 2000 with Wheel Base



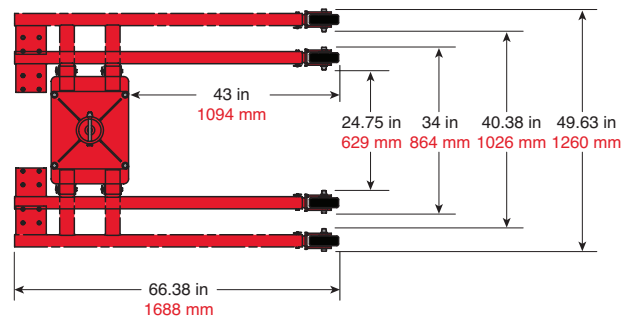
IMPORTANT:
Crane DOES NOT rotate when assembled in 5BR20 wheel base.

Commander 2000 On Wheel Base Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	46	1168	50	1270
A-2	58	1473	50	1270
A-3	70	1778	50	1270
A-4	82	2082	50	1270
B-1	37	939	68	1727
B-2	48	1219	74	1879
B-3	58	1473	79	2006
B-4	69	1752	85	2159
C-1	28	711	78	1981
C-2	36	914	87	2209
C-3	45	1143	95	2413
C-4	53	1346	104	2641

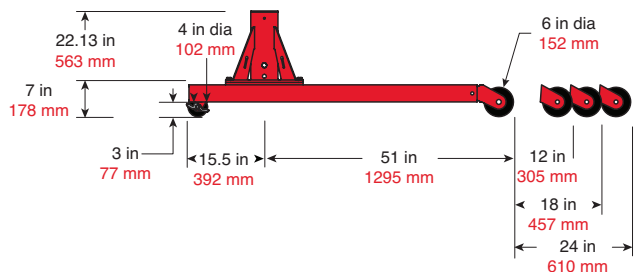
Dimensions are for reference only and subject to change without notice.

Wheel Base 5BR20, 5BR20X



Commander 2000 Wheel Base Load Ratings

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



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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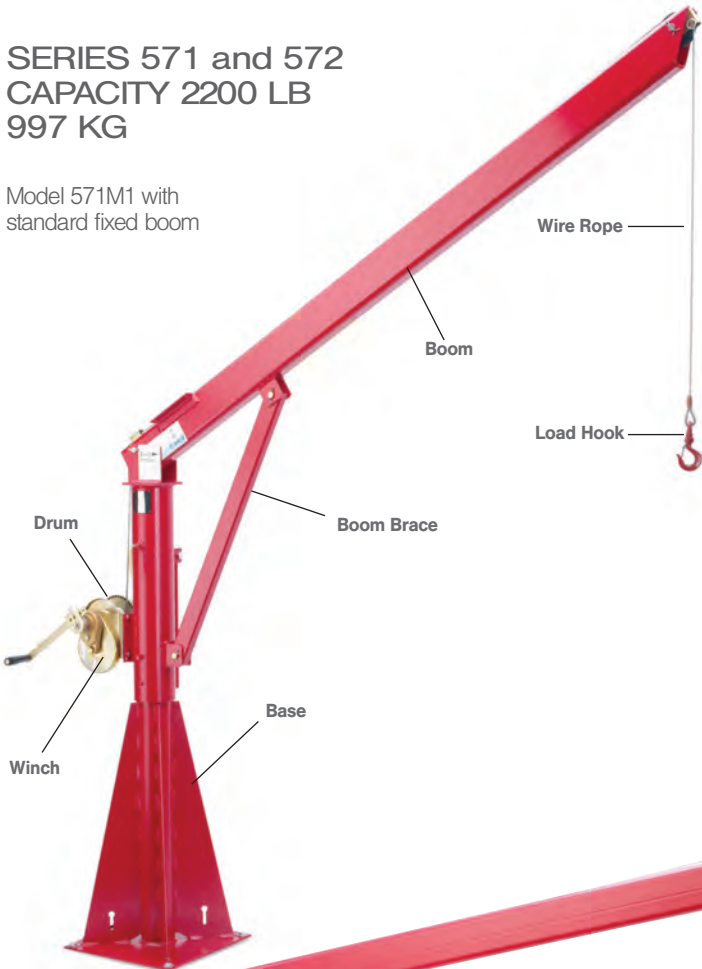
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CAPTAIN STATIONARY DAVIT CRANES

SERIES 571 and 572
CAPACITY 2200 LB
997 KG

Model 571M1 with
standard fixed boom



Model 571M2 with
adjustable boom
option (screw-jack
sold separately)



Stationary 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, 300 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 Them.
- **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 position 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**

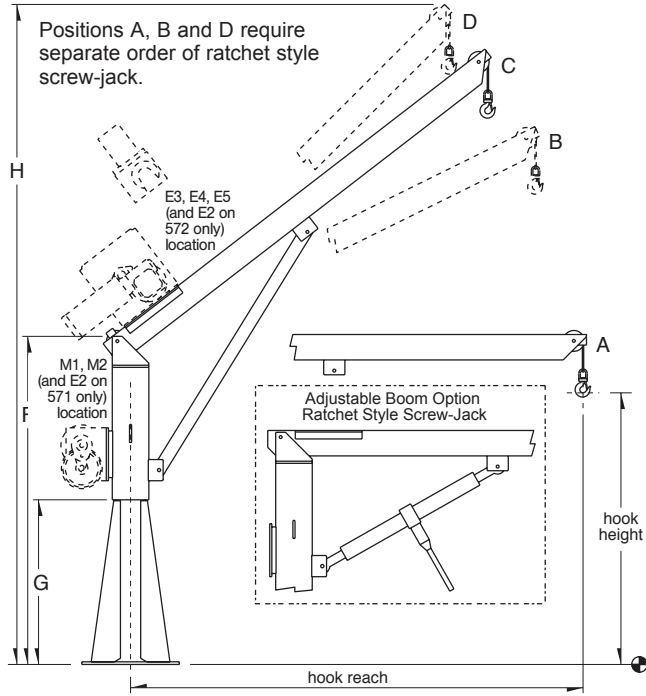
Captain 1500 and Captain 2200 – Crane Configurations and Options

Model	Description	Approx. Ship Weight	
		(lb)	(kg)
571M1	Up to 1500 lb – with M4312PB-K spur gear hand winch	425	193
571M2	Up to 1500 lb – with 4WM2V-K worm gear hand winch – drill driveable	450	205
571E2	Up to 1500 lb – with 4WP2-K electric winch – 115 VAC, 1 phase, 6 ft pendant control	475	216
571E4	Up to 1500 lb – with 4777-K electric winch – 115 VAC, 1 phase, 6 ft pendant control	489	222
572M1	Up to 2200 lb – with M452B-K spur gear hand winch	720	327
572E2	Up to 2200 lb – with 3WG4B-K electric winch – 115 VAC, 1 phase, 6 ft pendant control	970	440
572E3	Up to 2000 lb – with 4771-K electric winch – 115 VAC, 1 phase, 6 ft pendant control	750	341
572E5	Up to 2200 lb – with 4WS3M6-K electric winch – 115 VAC, 1 phase, 6 ft pendant control *	1050	477
SJ1	Ratchet style screw-jack for Series 571 (replaces standard boom brace)	37	17
SJ2	Ratchet style screw-jack for Series 572 (replaces standard boom brace)	97	44

* Other configurations also available. Please contact factor or nearest Them Distributor for firm fixed price and delivery.



STATIONARY DAVIT CRANES CAPTAIN



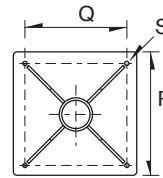
Crane Dimensions

	Series 571		Series 572	
	(in)	(mm)	(in)	(mm)
F	67.19	1706.6	77.41	1966.2
G	32.88	835.1	38.62	980.9
H	131.19	3332.2	155.75	3956.0
Q	16.00	406.4	20.00	508
R	18.00	457.2	23.00	584.2
S (hole dia.)	.56	14.2	.81	20.5

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

IMPORTANT:

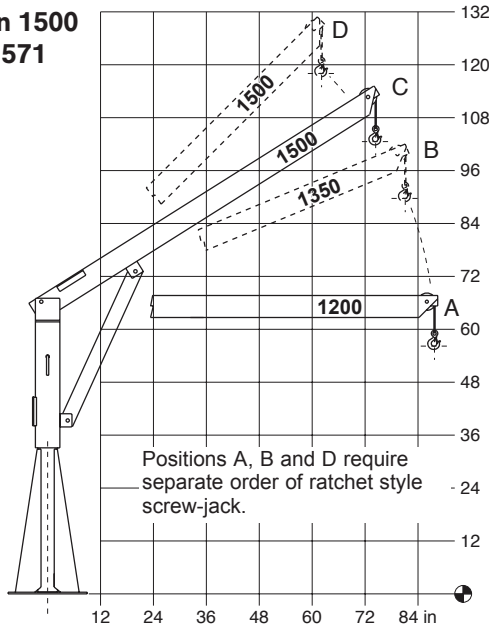
Load rating will vary with wire rope length and boom position. Please see Performance Characteristics table on the following page.



IMPORTANT:

It is the owner 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.

Captain 1500 Series 571



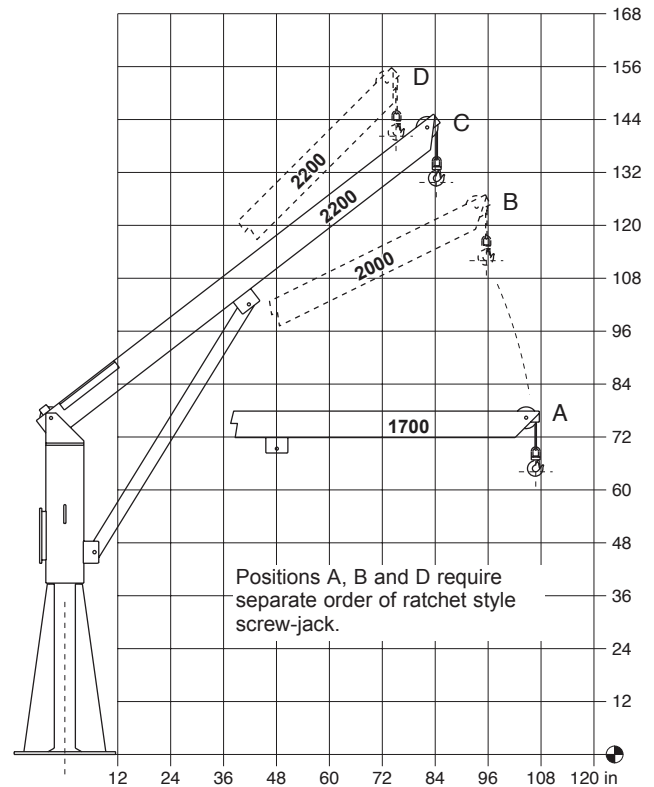
Hook Reach and Height

Series	Boom Position	Hook Reach		Hook Height	
		(in)	(mm)	(in)	(mm)
571	A ¹	87.88	2232.1	56.00	1422.4
	B ¹	81.25	2063.7	90.00	2286
	C (fixed)	74.56	1893.8	102.00	2590.8
	D ¹	62.25	1581.1	118.00	2997.2
572	A ¹	106.75	2711.4	64.00	1625.6
	B ¹	95.50	2425.7	112.00	2844.8
	C (fixed)	84.25	2139.9	130.00	3302
	D ¹	75.00	1905	140.00	3556

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

¹ Boom position requires purchasing the screw-jack option.

Captain 2200 Series 572



IMPORTANT:

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

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Thern
Winches & Cranes

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CAPTAIN STATIONARY DAVIT CRANES

Wire Rope Assemblies

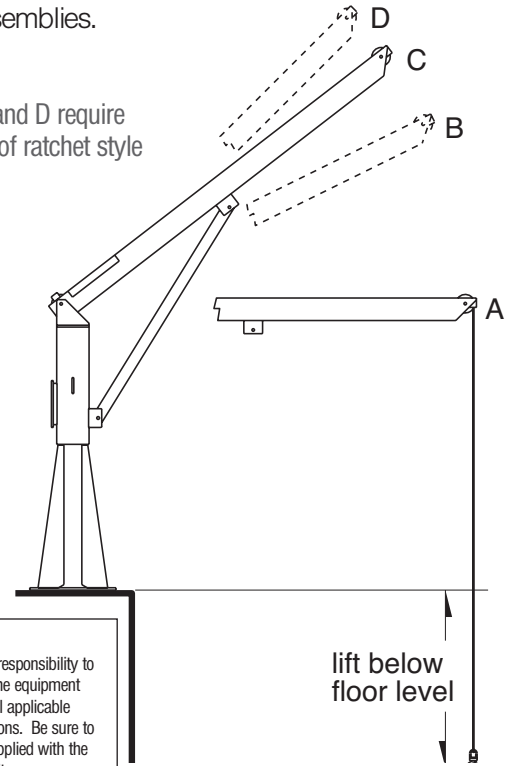
Model Number	Wire Rope Diameter x Length	Approx. Ship Weight	
		(lb)	(kg)
Galvanized aircraft cable with swivel hook and swaged ball fitting.			
WA25-28NS	1/4 in x 28 ft	5	2.3
WA25-36NS	1/4 in x 36 ft	6	2.7
WA25-45NS	1/4 in x 45 ft	7	3.2
WA25-60NS	1/4 in x 60 ft	9	4.1
WA25-75NS	1/4 in x 75 ft	11	5.0
304 Stainless steel wire rope with SS swivel hook and swaged ball fitting. Swivel hook also available. Please call Them.			
WS25-28NS	1/4 in x 28 ft	5	2.3
WS25-36NS	1/4 in x 36 ft	6	2.7
WS25-45NS	1/4 in x 45 ft	7	3.2
WS25-60NS	1/4 in x 60 ft	8	3.6
WS25-75NS	1/4 in x 75 ft	11	5.0
Galvanized aircraft cable with swivel hook and unfinished end.			
WA31-28DS	5/16 in x 28 ft	7	3.2
WA31-36DS	5/16 in x 36 ft	8	3.6
WA31-45DS	5/16 in x 45 ft	10	4.5
WA31-60DS	5/16 in x 60 ft	12	5.4
WA31-75DS	5/16 in x 75 ft	15	6.8
304 Stainless steel wire rope with SS swivel hook and unfinished end. Swivel hook also available. Please call Them.			
WS31-28DS	5/16 in x 28 ft	7	3.2
WS31-36DS	5/16 in x 36 ft	9	4.1
WS31-45DS	5/16 in x 45 ft	11	5.0
WS31-60DS	5/16 in x 60 ft	14	6.4
WS31-75DS	5/16 in x 75 ft	17	7.7

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

WIRE ROPE ASSEMBLIES sold separately

■ Galvanized or Stainless Steel wire rope assemblies.

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



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.

Captain 1500 Performance Characteristics

Wire Rope				Load Ratings for 571M1, 571M2 and 571E2								Load Ratings for 571E4 ¹								Lift Below Floor Level ²			
Dia.		Length		Pos A		Pos B		Pos C		Pos D		Pos A		Pos B		Pos C		Pos D		Min		Max	
(in)	(mm)	(ft)	(m)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(ft)	(m)	(ft)	(m)
1/4	6.35	28	8.53	1200	544	1350	612	1500	680	1500	680	1200	544	1350	612	1500	680	1500	680	4	1.21	9	2.74
1/4	6.35	36	10.97	1200	544	1350	612	1500	680	1500	680	1200	544	1350	612	1500	680	1500	680	12	3.65	17	5.18
1/4	6.35	45	13.71	1200	544	1350	612	1400	635	1400	635	1200	544	1350	612	1500	680	1500	680	21	6.40	26	7.92
1/4	6.35	60	18.28	1200	544	1300	589	1300	589	1300	589	1200	544	1350	612	1400	635	1400	635	36	10.97	41	12.49
1/4	6.35	75	22.86	-	-	-	-	-	-	-	-	1200	544	1300	589	1300	589	1300	589	51	15.54	56	17.06

¹ Add 2 feet 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 Them.

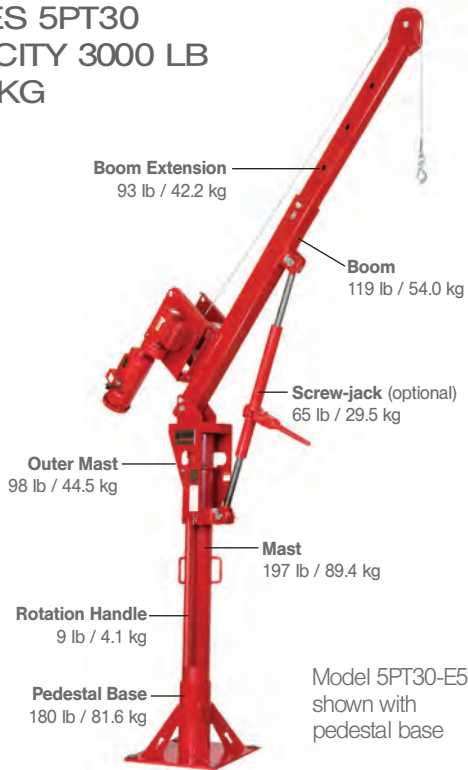
Captain 2200 Performance Characteristics

Wire Rope				Load Ratings for 572M1, 572E2 and 572E5 ¹								Load Ratings for 572E3 ¹								Lift Below Floor Level ²			
Dia.		Length		Pos A		Pos B		Pos C		Pos D		Pos A		Pos B		Pos C		Pos D		Min		Max	
(in)	(mm)	(ft)	(m)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(ft)	(m)	(ft)	(m)
5/16	7.93	28	8.53	1700	771	2000	907	2200	997	2200	997	1700	771	1700	771	1700	771	1700	771	<1	<0.30	5	1.52
5/16	7.93	36	10.97	1700	771	2000	907	2200	997	2200	997	1700	771	1700	771	1700	771	1700	771	7	2.13	13	3.96
5/16	7.93	45	13.71	1700	771	2000	907	2200	997	2200	997	1500	680	1500	680	1500	680	1500	680	16	4.87	22	6.70
5/16	7.93	60	18.28	1700	771	2000	907	2200	997	2200	997	1300	589	1300	589	1300	589	1300	589	31	9.44	37	11.27
5/16	7.93	75	22.86	1700	771	2000	907	2200	997	2200	997	1300	589	1300	589	1300	589	1300	589	46	14.02	52	15.84

¹ Add 3 feet to lift below floor level for Model 572E2, 572E3 and 572E5.

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

SERIES 5PT30
CAPACITY 3000 LB
1361 KG



Davit Cranes

Hand or Power Winch Operation
Up to 3000 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 number.

1 Crane	2 Optional Finish*	3 Winch
5PT30		

i.e. 5PT30G-M1X

* Leave blank for standard enamel 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 tapered roller and needle bearings and locks in twelve positions. Handle on the mast makes rotation easy.
- **Adjustable Boom** telescopes to 5 different lengths to adjust height and reach.
- **Boom Brace** comes standard and holds boom in fixed position during operation - fixed at position B.
- **Adjustable Boom Angle** option allows for 50° of movement with hand operated ratchet style screw-jack (order series 5PT30J).

OPTIONAL FINISHES

- **Galvanized Finish** provides extra protection against corrosion.
- **Epoxy Finish** available for improved protection against corrosion.

WINCH MODELS

- **Hand Winch Operated Models** include spur gear.
- **Power Winch Operated Models** include electric winch with pendant control and brake. Other power options available, please contact Thern.

1 CRANE MODEL 5PT30

Model	Description	Approx. Ship Weight
5PT30	Up to 3000 lb capacity - davit crane	563 lb 256 kg
5PT30J	Up to 3000 lb capacity - davit crane - screw-jack	563 lb 256 kg

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

1 Base Model includes corrosion resistant electrostatic enamel finish.w Other finishes available. See option 2.

2 OPTIONAL FINISH (Crane Only)

Finish	Description
G	Galvanized finish - crane and brace or ratchet jack
X	3 Part Epoxy (gray) finish - crane and brace or ratchet jack

3 WINCH OPTIONS

Winch	Description	Approx. Ship Weight
M1	M452B-K - spur gear hand winch, enamel finish	78 lb 36 kg
M1X	M452BEGRA-K - spur gear hand winch, epoxy finish	78 lb 36 kg
E2	3WG4B-K electric winch - 115/1/60 VAC with 6 ft pendant control - enamel finish	188 lb 85 kg
E2X	3WG4B-KX electric winch - 115/1/60 VAC with 6 ft pendant control - epoxy finish	188 lb 85 kg
E5A1	4WS3MG-K1A1 electric winch - 115/1/60 VAC with 6 ft pendant control - enamel finish	300 lb 137 kg
E5XA1	4WS3MG-K1XA1 electric winch - 115/1/60 VAC with 6 ft pendant control - epoxy finish	300 lb 137 kg

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

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ADMIRAL TRANSPORTABLE DAVIT CRANE

4 Admiral 3000 Series Bases, Wire Rope Assemblies and Accessories

INDEPENDENT BASES – sold separately

■ Pedestal, Socket (flush mount) or Wall mount style

■ **Important:** Base installation is purchaser's responsibility. Them recommends consulting a civil engineer or other qualified professional. Contact Them for installation guidelines.



Independent Bases

Finish	Pedestal	Flush	Wall
Red Enamel	5BP30	5BF30	5BW30
Galvanized	5BP30G	5BF30G	5BW30G
Epoxy	5BP30X	5BF30X	5BW30X
Approximate Ship Weight	180 lb (82 kg)	160 lb (73 kg)	155 lb (71 kg)

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

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.

WIRE ROPE ASSEMBLIES – sold separately

■ **Galvanized or Stainless Steel** wire rope assemblies with swivel hook on one end and unfinished on the other end.

Wire Rope Length		Galvanized Aircraft Cable	304 Stainless Steel Wire Rope
		3/8" Dia. (9.5 mm)	3/8" Dia. (9.5 mm)
(ft)	(m)	Model No.	Model No.
28	8.5	WA38-28DS	WS38-28DS
36	10.9	WA38-36DS	WS38-36DS
45	13.7	WA38-45DS	WS38-45DS
60	18.2	WA38-60DS	WS38-60DS
75	22.8	WA38-75DS	WS38-75DS

*For approximate ship weights - See page 93

Accessories - Sold Separately

Headache Ball

HB10-25-38 Fits 1/4" - 3/8" wire rope
Painted steel 10 lb 4.5 kg

HB10S-25-38 Fits 1/4" - 3/8" wire rope
304 Stainless steel 10 lb 4.5 kg



Admiral Series 5PT30 Crane Performance Characteristics

Wire Rope				Load Ratings for 5PT30M1 and M1X										Load Ratings for 5PT30-E5A1** and E5XA1										Lift Below Floor Level*			
Length		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	3/8	9.5	3000	1361	3000	1361	3000	1361	2700	1225	2400	1089	3000	1361	3000	1361	3000	1361	2700	1225	2400	1089	0	0	8	2.4
36	11	3/8	9.5	3000	1361	3000	1361	3000	1361	2700	1225	2400	1089	2800	1271	2800	1271	2800	1271	2700	1225	2400	1089	8	2.4	16	4.8
45	14	3/8	9.5	3000	1361	3000	1361	3000	1361	2700	1225	2400	1089	2800	1271	2800	1271	2800	1271	2700	1225	2400	1089	17	5.1	25	7.6
60	19	3/8	9.5	2800	1271	2800	1271	2800	1271	2700	1225	2400	1089	2500	1134	2500	1134	2500	1134	2500	1134	2400	1089	32	9.7	40	12.1
75	23	3/8	9.5	2600	1180	2600	1180	2600	1180	2400	1089	2400	1089	2200	998	2200	998	2200	998	2200	998	2200	998	47	14.3	55	16.7

* Based on pedestal base. Lift below floor level varies depending on boom position and winch configuration. For longer lifts, contact Them.

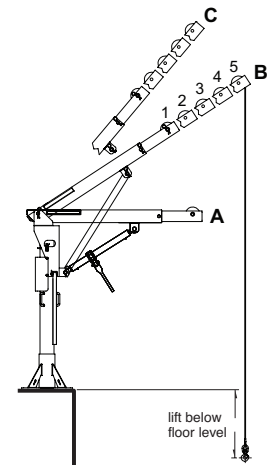
** Add 3 feet to lift below floor level for E2 and E5 models.

Wire Rope				Load Ratings for 5PT30-E2** and E2X										Lift Below Floor Level*			
Length		Diameter		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)	(ft)	(m)	(ft)	(m)
28	9	3/8	9.5	3000	1361	3000	1361	3000	1361	2700	1225	2400	1089	0	0	8	2.4
36	11	3/8	9.5	3000	1361	3000	1361	3000	1361	2700	1225	2400	1089	8	2.4	16	4.8
45	14	3/8	9.5	3000	1361	3000	1361	3000	1361	2700	1225	2400	1089	17	5.1	25	7.6
60	19	3/8	9.5	3000	1361	3000	1361	3000	1361	2700	1225	2400	1089	32	9.7	40	12.1
75	23	3/8	9.5	3000	1361	3000	1361	3000	1361	2700	1225	2400	1089	47	14.3	55	16.7

* Based on pedestal base. Lift below floor level varies depending on boom position and winch configuration.

For longer lifts, contact Them.

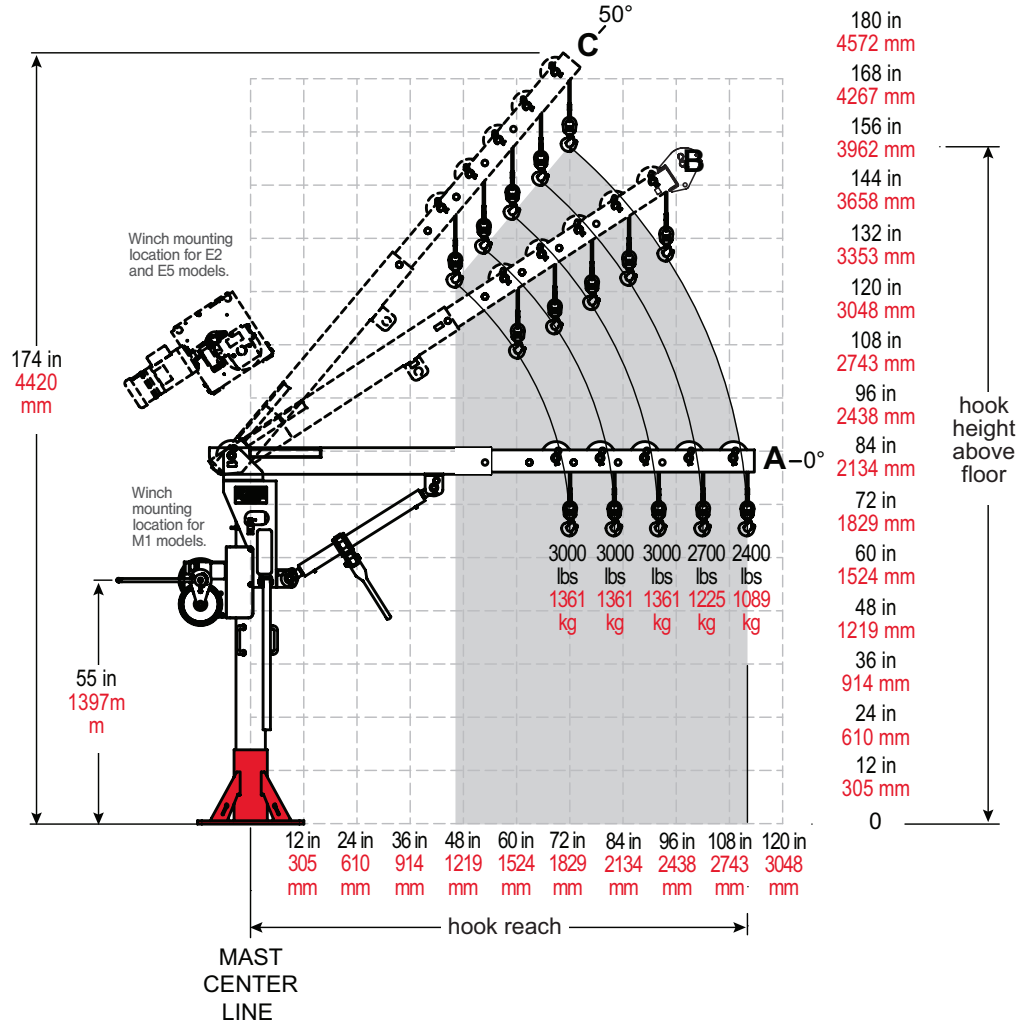
** Add 3 feet to lift below floor level for E2 and E5 models.



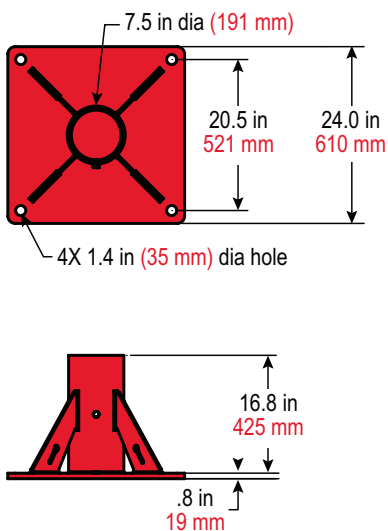
TRANSPORTABLE DAVIT CRANE ADMIRAL

Series 5PT30 with Pedestal Base

Positions A and C require ratchet style screw-jack.



Pedestal Base



Series 5PT30 Pedestal Base Hook Height and Reach

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1*	72	1829	66	1677
A-2*	82	2083	66	1677
A-3*	92	2337	66	1677
A-4*	102	2591	66	1677
A-5*	112	2845	66	1677
B-1 (fixed)	60	1524	106	2693
B-2 (fixed)	69	1753	112	2845
B-3 (fixed)	77	1956	117	2972
B-4 (fixed)	85	2159	123	3125
B-5 (fixed)	94	2388	128	3252
C-1*	46	1169	122	3099
C-2*	53	1347	130	3302
C-3*	59	1499	137	3480
C-4*	66	1677	145	3683
C-5*	72	1829	153	3887

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

IMPORTANT:

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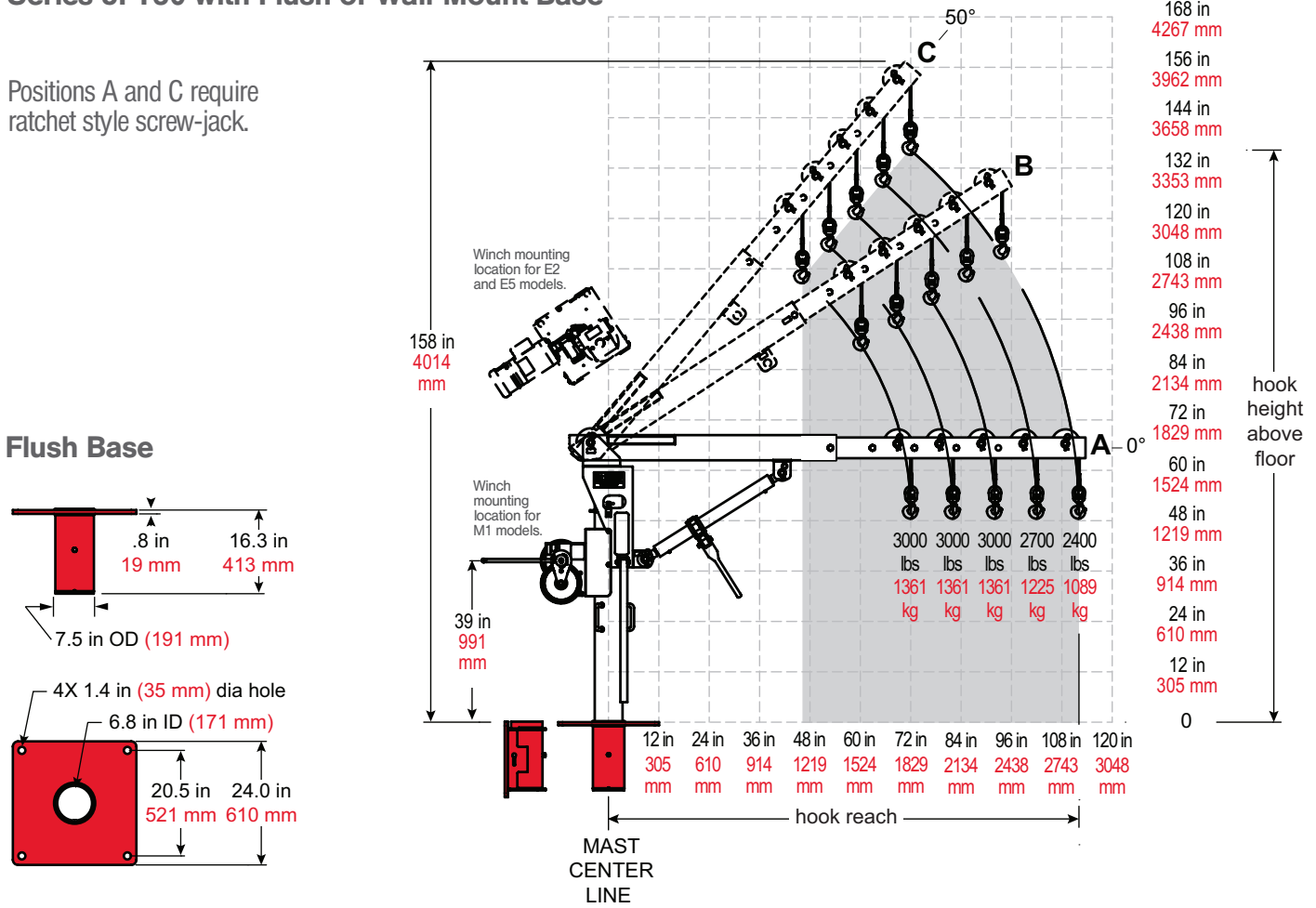


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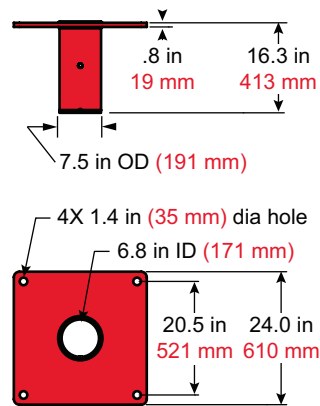
ADMIRAL TRANSPORTABLE DAVIT CRANE

Series 5PT30 with Flush or Wall-Mount Base

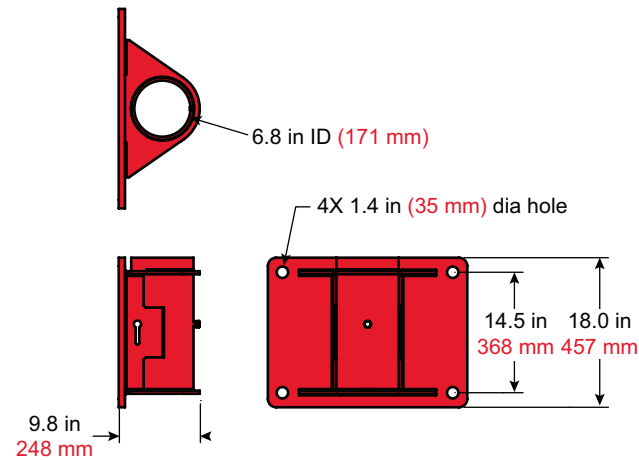
Positions A and C require ratchet style screw-jack.



Flush Base



Wall-Mount Base



Series 5PT30 Flush or Wall-Mount Base Hook Height and Reach

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1*	72	1829	50	1270
A-2*	82	2083	50	1270
A-3*	92	2337	50	1270
A-4*	102	2591	50	1270
A-5*	112	2845	50	1270
B-1 (fixed)	60	1524	90	2286
B-2 (fixed)	69	1753	96	2439
B-3 (fixed)	77	1956	101	2566
B-4 (fixed)	85	2159	107	2718
B-5 (fixed)	94	2388	112	2845
C-1*	46	1169	106	2693
C-2*	53	1347	114	2896
C-3*	59	1499	121	3074
C-4*	66	1677	129	3277
C-5*	72	1829	137	3480

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

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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PORTABLE FLOOR CRANE

Model 548 Portable Floor Crane

Up to 1000 lb Capacity



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.

- **Manually Operated Hydraulic Jack** for raising the boom, equipped with a manual release valve for smooth lowering of loads.
- **Collapsible Crane** folds down into 16 x17x57 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.
- **Four Wheel Base** with scratch and spark resistant wheels in front, and lockable 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

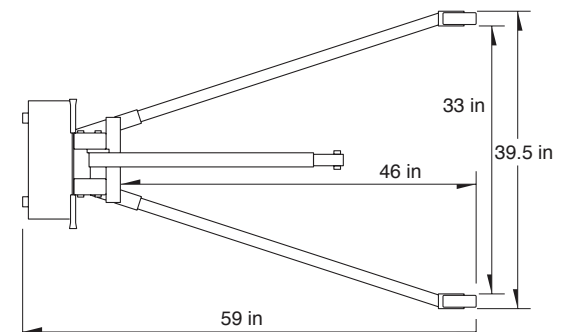
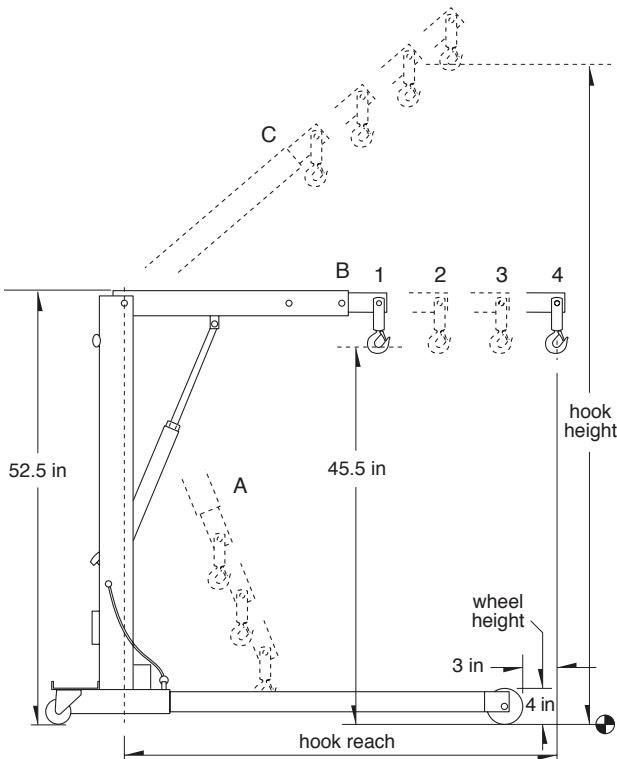
Model	Description	Approx. Ship Weight	
548	1000 lb portable floor crane	154 lb	70 kg

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

Model 548 Specifications

Boom Position	Load Rating		Hook Reach (Max at B)		Hook Height (Max at C)	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
1	1000	453	31	787	65	1651
2	800	362	38	965	69.5	1765
3	680	308	45	1143	74	1879
4	590	267	52	1320	78.5	1993

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



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 Thern
Winches & Cranes

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Electric Drum Control Switches

Single Speed Reversing Drum Controls for 1 and 3 phase motors up to 7.5 hp

- **UL and CSA Recognized** components throughout.
- **Enclosures** to suit your application needs. NEMA 1 (industrial) rated switches provide protection against dirt and corrosion for most indoor applications. NEMA 4 (watertight) rated switches keep dirt and water out and are approved for most outdoor applications.
- **Wiring Diagram** is supplied inside the enclosure for convenient reference.
- **Two-year Limited Warranty**

WHEN ORDERING, PLEASE INCLUDE THE FOLLOWING:

- voltage and phase required
- motor horsepower

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



Electric Drum Control Switches – Horsepower Ratings

Model Number	Description	Voltage / Phase / Hertz with Maximum Rated Motor HP				Approx. Ship Weight	
		115 / 1 / 60 ¹	230 / 1 / 60	230 / 3 / 60	460 / 3 / 60	(lb)	(kg)
10L2A1	NEMA 1	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp	3	2
10L7E1	NEMA 1	to 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp	3	2
10L2A4	NEMA 4 – watertight	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp	7	4
10L7E4	NEMA 4 – watertight	to 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp	7	4

Please contact Them or nearest Them 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 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

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 Thern for more information.
- **Two-year Limited Warranty**

Single Speed – Electric Motor Controls – Horsepower Ratings

Model Number	Maximum Rated Motor Horsepower for Power Supply Current					Approx. Ship Weight	
	115 / 1 / 60	230 / 1 / 60	208 / 3 / 60	230 / 3 / 60	460 / 3 / 60	(lb)	(kg)
10S2A4	to 1.5 hp	–	–	–	–	25	12
10S3B4	–	to 3 hp	–	–	–	25	12
10S3C4	–	–	to 3 hp	–	–	25	12
10S7C4	–	–	to 7.5 hp	–	–	25	12
10S10C4	–	–	to 10 hp	–	–	28	13
10S20C4	–	–	to 20 hp	–	–	28	13
10S3D4	–	–	–	to 3 hp	–	25	12
10S7D4	–	–	–	to 7.5 hp	–	25	12
10S10D4	–	–	–	to 10 hp	–	28	13
10S20D4	–	–	–	to 20 hp	–	28	13
10S30D4	–	–	–	to 30 hp	–	60	28
10S7E4	–	–	–	–	to 7.5 hp	25	12
10S15E4	–	–	–	–	to 15 hp	25	12
10S20E4	–	–	–	–	to 20 hp	28	13
10S40E4	–	–	–	–	to 40 hp	60	28
10S60E4	–	–	–	–	to 60 hp	60	28

Controls include NEMA 4 enclosure and NEMA 4X push button pendant control on 50-foot cord. Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

IMPORTANT:

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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, soft stops, and overload protection.
- **Frequencies greater than 50 Hz** are possible in no load or light load conditions decreasing rigging time.
- **Diagnostic and Troubleshooting Capabilities:** digital display provides drive status.
- **Programmable Performance** keypad is adjustable to control acceleration and deceleration rates.
- **Steel Enclosure 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 Them for more information.
- **Explosion Proof Controls** also available. Please contact Them for more information.
- **Two-year Limited Warranty**

Variable Speed Electric Motor Controls Horsepower Ratings

Model Number	Maximum Rated Motor Horsepower for Power Supply Current		Approx. Ship Weight	
	230 / 3 / 60	460 / 3 / 60	(lb)	(kg)
10V1D12L	1 hp	–	100	46
10V2D12L	2 hp	–	100	46
10V3D12L	3 hp	–	100	46
10V5D12L	5 hp	–	100	46
10V7D12L	7.5 hp	–	120	55
10V10D12L	10 hp	–	120	55
10V15D12L	15 hp	–	120	55
10V20D12L	20 hp	–	210	96
10V25D12L	25 hp	–	210	96
10V1E12L	–	1 hp	100	46
10V2E12L	–	2 hp	100	46
10V3E12L	–	3 hp	100	46
10V5E12L	–	5 hp	100	46
10V7E12L	–	7.5 hp	100	46
10V10E12L	–	10 hp	100	46
10V15E12L	–	15 hp	120	55
10V20E12L	–	20 hp	180	82
10V25E12L	–	25 hp	180	82

When ordering winch, specify brake voltage to be the same as motor voltage, leads must be capable of being wired separate from motor power. Price includes dynamic brake resistor to be mounted and wired by others. Contact Them to verify drive compatibility to winch and motor. Controls shipped separately to be mounted and wired by others.

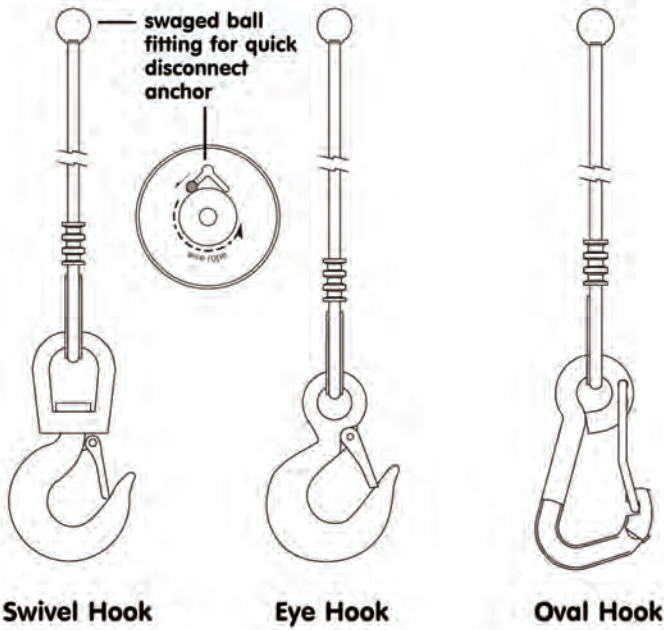
WHEN ORDERING, PLEASE INCLUDE THE FOLLOWING:

- voltage and phase required
- motor horsepower
- pendant control cord length – up to 50 feet
- pendant control labeling – For/Rev or Up/Down

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.





Wire Rope Assemblies How to Order Wire Rope

Thern winches are sold without wire rope.

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

Wire Rope Assemblies

Model Number	Wire Rope Diameter x Length	Approx. Ship Weight	
		(lb)	(kg)
Galvanized aircraft cable with swivel hook and swaged ball fitting.			
WA19-20NS	3/16 in x 20 ft	3	2
WA19-28NS	3/16 in x 28 ft	4	2
WA19-36NS	3/16 in x 36 ft	4	2
WA19-45NS	3/16 in x 45 ft	7	4
WA25-20NS	1/4 in x 20 ft	4	2
WA25-28NS	1/4 in x 28 ft	5	3
WA25-36NS	1/4 in x 36 ft	6	3
WA25-45NS	1/4 in x 45 ft	7	4
WA25-60NS	1/4 in x 60 ft	9	5
WA25-75NS	1/4 in x 75 ft	11	5

Galvanized aircraft cable with swivel hook and unfinished end.			
WA31-20DS	5/16 in x 20 ft	6	3
WA31-28DS	5/16 in x 28 ft	7	4
WA31-36DS	5/16 in x 36 ft	8	4
WA31-45DS	5/16 in x 45 ft	10	5
WA31-60DS	5/16 in x 60 ft	12	6
WA31-75DS	5/16 in x 75 ft	15	7

304 Stainless steel wire rope with SS oval hook and swaged ball fitting. Swivel hook also available. Please call Thern.

WS19-20NS	3/16 in x 20 ft	3	2
WS19-28NS	3/16 in x 28 ft	3	2
WS19-36NS	3/16 in x 36 ft	4	2
WS19-45NS	3/16 in x 45 ft	7	4
WS19-60NS	3/16 in x 60 ft	9	5
WS19-75NS	3/16 in x 75 ft	11	5

304 Stainless steel wire rope with SS eye hook and swaged ball fitting. Swivel hook also available. Please call Thern.

WS25-20NS	1/4 in x 20 ft	5	3
WS25-28NS	1/4 in x 28 ft	5	3
WS25-36NS	1/4 in x 36 ft	6	3
WS25-45NS	1/4 in x 45 ft	7	4
WS25-60NS	1/4 in x 60 ft	9	5
WS25-75NS	1/4 in x 75 ft	11	5

304 Stainless steel wire rope with SS eye hook and unfinished end. Swivel hook also available. Please call Thern.

WS31-20DS	5/16 in x 20 ft	6	3
WS31-28DS	5/16 in x 28 ft	7	4
WS31-36DS	5/16 in x 36 ft	9	5
WS31-45DS	5/16 in x 45 ft	11	5
WS31-60DS	5/16 in x 60 ft	14	7
WS31-75DS	5/16 in x 75 ft	17	8

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

Breaking Strength of 7x19 Wire Rope (lb)

Wire Rope Diameter		Galvanized Aircraft Cable	304 Stainless Steel Wire Rope
1/8 in	(.13)	3000	1760
3/16 in	(.19)	4200	3700
1/4 in	(.25)	7000	6400
5/16 in	(.31)	9800	9000
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 6x37 Wire Rope (lb)

Wire Rope Diameter		IWRC IPS (Improved Plow Steel) Wire Rope	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.

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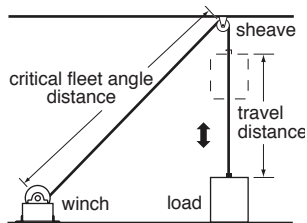
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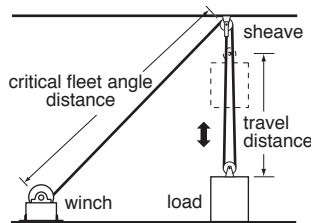
Typical Rigging Layouts for Lifting and Hoisting Applications



Floor Mounted

Lifting with Overhead Sheave

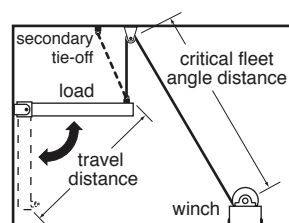
- Wire rope passes through overhead sheave to load.
- Brake Motor provides load control for lifting.
- Winch is easily accessible for maintenance and operation.



Floor Mounted

Lifting with 2-Part Line

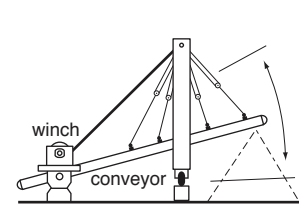
- 2-part line decreases load capacity at the winch.
- Brake Motor provides load control for lifting.
- Winch is easily accessible for maintenance and operation.



Floor Mounted

Lifting Hinged Load

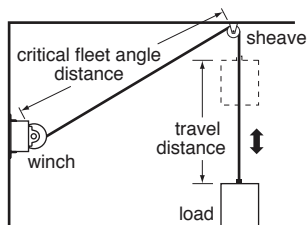
- Wire rope passes through overhead sheave to load.
- Brake Motor provides load control for lifting.
- Winch is easily accessible for maintenance and operation.



Base Mounted

Positioning Radial Stacker

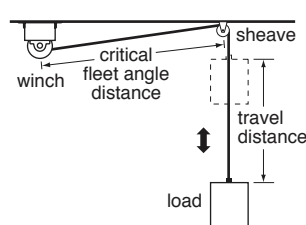
- Multi-part rigging decreases load capacity at the winch.
- Brake Motor provides load control for lifting.
- Winch is easily accessible for maintenance and operation.



Wall Mounted

Lifting with Overhead Sheave

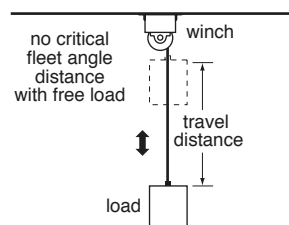
- Wire rope passes through overhead sheave to load.
- Brake Motor provides load control for lifting.
- Winch is easily modified for wall mounting.



Ceiling Mounted

Lifting with Overhead Sheave

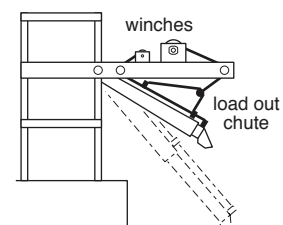
- Wire rope passes through overhead sheave to load.
- Brake Motor provides load control for lifting.
- Winch is easily modified for ceiling mounting.



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.

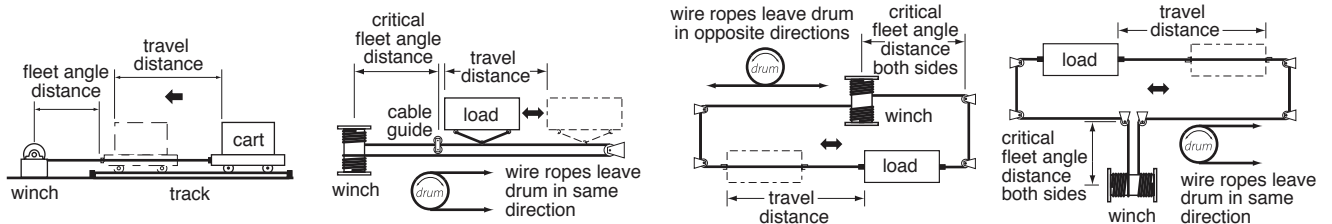


Base Mounted

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

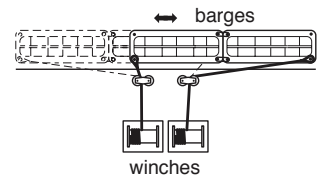
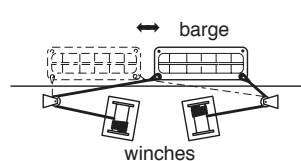
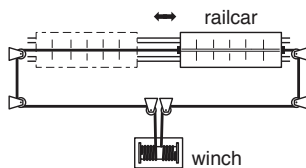
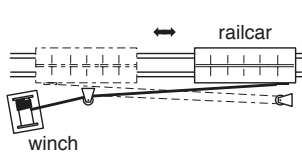
Single Drum Closed Loop

- 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.

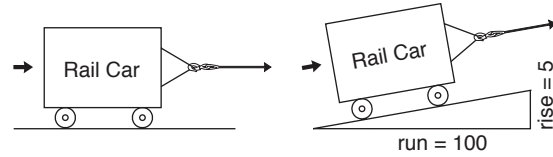
RAIL CAR PULLING CALCULATIONS

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.



The amount of line pull due to slope is dependent on the percent of slope, calculated as follows:

$$\text{slope as percent} = (\text{rise} \div \text{run}) \times 100$$

$$\text{example: } 5 \div 100 \times 100 = 5\%$$

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%	1%	2%	3%	4%	5%	
0 ft	0°	0 in	0	20	40	60	80	100	
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.

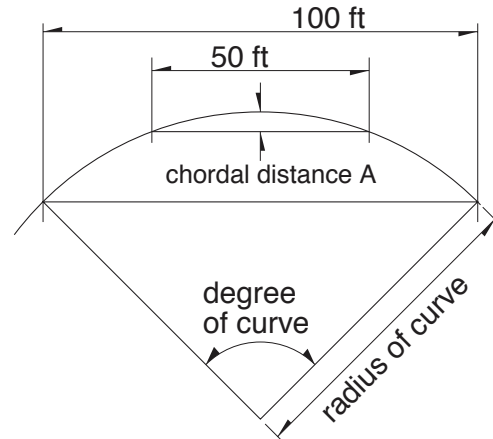
Example: 2 loaded rail cars weighing 120 gross tons each are pulled 800 ft on a track with a curvature of 5° and a slope of 2%. The track is in good clean condition, wheels are well lubricated, and the ambient temperature is frequently below 32° fahrenheit.

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):

$$\begin{aligned} &(\text{gross weight per car}) \times (\text{number of cars}) \times (\text{factor 1} + \text{factor 2}) = \text{total line pull} \\ &(120 \text{ tons}) \times 2 \times (21 \text{ lb/ton} + 45 \text{ lb/ton}) = (240 \text{ ton}) \times (66 \text{ lb/ton}) = 15,840 \text{ lb (line pull)} \\ &800 \text{ ft of travel puts us at mid drum: 4HS16M mid drum running line pull} = 11,000 \text{ lb} \\ &\text{This application would require a 4HS26M (mid drum running line pull} = 19,000 \text{ lb)} \end{aligned}$$

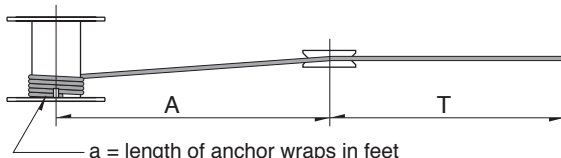


Curved sections of track place side forces on the load which must be overcome by the winch. The amount of line pull due to track curvature is dependent on the sharpness of the curve.

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** = $((D + d) \times \pi \times N) \div 12$
- 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 $N = ((\text{drum width}) \div d)$
- 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

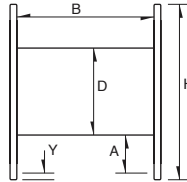


Engineering Information Continued...

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

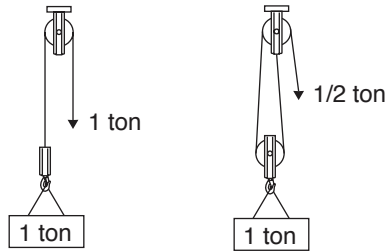
$$A = (H - D - 2Y) \div 2$$

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

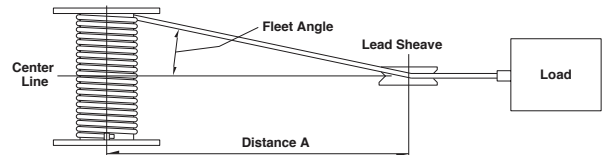
fpm = line speed in feet per minute

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°



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

FLCL-0618

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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:

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

2a LINE PULL REQUIREMENTS – Vertical lift only:	Line Pull:
--	-------------------

Special Considerations:

2b LINE PULL REQUIREMENTS – Horizontal Pull only:	Line Pull:
--	-------------------

 Gross Weight of Load: _____ Measured Line Pull: _____ Load Moves Both Directions? Yes No

 Will Weight be Added/Subtracted During Operation? Yes No How Much: _____

Surface Under Load: _____ Condition: _____

 Slope? Yes No Rise: _____ Run: _____ Or Degrees: _____ Or Percent (%): _____

 Wheels? Yes No Lubrication: _____ Material: _____ Size (dia.): _____

 Track? Yes No Curvature (degrees, chordal line, or other): _____

Special Considerations:

3 LINE SPEED REQUIREMENTS: Minimum Line Speed:	
---	--

 Constant Minimum: _____ Maximum: _____ fpm cycles per minute

 Variable Speed† From: _____ To: _____ fpm cycles per minute

 Stringent Variations Acceptable: _____

Special Considerations:

† This is a complex option, please contact the factory.

4 DISTANCE OF TRAVEL:	<input type="checkbox"/> Single Layer	<input type="checkbox"/> Full Drum
------------------------------	---------------------------------------	------------------------------------

Wire Rope Diameter: _____ Extra Rope Stored on Drum: _____

Wire Rope Specifications: _____

Special Considerations: _____



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
---------------------------------	----------------------------------	---------------------------------	------------------------------------	------------------------------------	--------------	-----------------------------	-----------------------------

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
----------------	-----------------------	----------------	------------------------------------	--------------------------------------

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:	

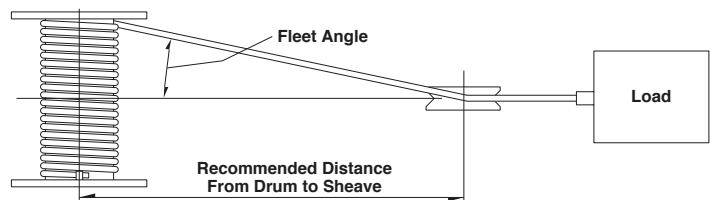
9b MODIFICATIONS:

<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
---------------------------------------	--	---	-------------------------------------	---

Other:

10 SKETCH OF APPLICATION:

- Sketch diagram showing mounting position, rigging layout, and position of load.
- Indicate whether the wire rope will be overwound (↻) or underwound (⊖).
- Indicate the distance between the center of the drum and the lead sheave. (maximum fleet angle: 1-1/2° for smooth drum, 2° for grooved drum)



Submitted By:

Phone:

Fax:

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

1 JOB DESCRIPTION: _____

2 LINE PULL
 Gross Weight of load **(A)** _____ Load moves on track? _____

3 LIFT REQUIREMENTS Hook Height (B) _____ Below Floor Level (C) _____ Load Height (D) _____ Obstacle Height (E) _____ Max Lift Req. TOTAL _____	4 REACH REQUIREMENTS Hook Reach (F) _____ Load Width (G) _____ Min Hook Reach _____ Max Hook Reach _____ Clearance Required _____ Rotation: _____
---	--

5 WINCH REQUIREMENTS (Additional cost*)

<input type="checkbox"/> HAND..... FINISH▶	<input type="checkbox"/> Zinc (standard)	<input type="checkbox"/> Stainless Steel*
<input type="checkbox"/> POWER..... FINISH▶	<input type="checkbox"/> Red Painted (standard)	<input type="checkbox"/> Epoxy*
<input type="checkbox"/> 115 volt AC	<input type="checkbox"/> 12 Volt DC	<input type="checkbox"/> Hydraulic
<input type="checkbox"/> Drill Driven	Other: _____	

6 BASE REQUIREMENTS (bases sold separately)

<input type="checkbox"/> Pedestal Base	<input type="checkbox"/> Socket/Flush Base	<input type="checkbox"/> Wall Base
<input type="checkbox"/> Wheel Base	Mounting surface _____	

7 ENVIRONMENT

<input type="checkbox"/> Indoor	<input type="checkbox"/> Outdoor	<input type="checkbox"/> Marine
<input type="checkbox"/> Corrosive	<input type="checkbox"/> Hazardous	<input type="checkbox"/> Explosive
Temperature Range _____		

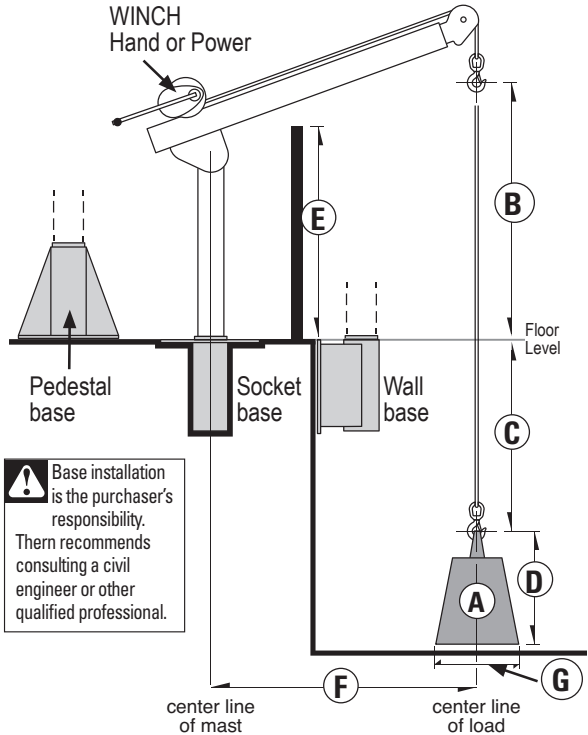
8 FREQUENCY OF OPERATION

Hours per day: _____

Overloads or Shock Loads? _____

9 CRANE FINISH (Additional cost*)

<input type="checkbox"/> Red Powder Coat (standard)	<input type="checkbox"/> Galvanized*
<input type="checkbox"/> 304 Stainless SS*	<input type="checkbox"/> 316 Stainless SS*
<input type="checkbox"/> Epoxy*	



10 BASE FINISH (Additional cost*)

<input type="checkbox"/> Red Powder Coat (standard)	<input type="checkbox"/> Galvanized*
<input type="checkbox"/> 304 Stainless SS*	<input type="checkbox"/> 316 Stainless SS*
<input type="checkbox"/> Epoxy*	

11 ACCESSORIES

<input type="checkbox"/> Roller Bearing	<input type="checkbox"/> Wire Rope Keeper
<input type="checkbox"/> Cable Spool Reel	<input type="checkbox"/> Base Installation Hardware
<input type="checkbox"/> Headache Ball	<input type="checkbox"/> Base Extension
<input type="checkbox"/> Drill Drive Kit	<input type="checkbox"/> Custom Electric Controls
<input type="checkbox"/> Limit Switch	<input type="checkbox"/> Extended 5 Year Warranty

12 WIRE ROPE SPECS: _____

13 FAX COMPLETED FORM TO: 507.454.5282
 or scan and email to sales@thern.com
 In a hurry? Call: 1.800.843.7648

PLEASE PRINT CLEARLY

Name _____
 Company _____
 Address _____
 City _____ State _____ Zip _____
 Phone _____ Mobile _____
 Fax _____ Email _____

QUANTITY NEEDED: _____ DATE NEEDED: _____

NOTES: _____

All orders are subject to Credit Department approval and are Ex Works, Winona, MN

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One World
Trade Center



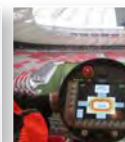
NASA Space Shuttle
Launch Pad



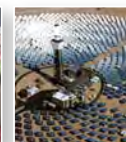
Mining District
In Australia



Land Based and
Off Shore Oil Rigs



BC Place Stadium
Reduction System



Ivanpah World's
Largest Solar GEN



Washington DC
Aquaduct Project