

HAND WINCH

VITALI-INTL® Hand Winch

Backward & Forward lever – placed in tandem providing a slim design and assuring power transfer along the center.

Built-in shearing pin – prevent overload. It functions at approx. 25% overload. The pins can be replaced without removing the load.

Safety pin – fastens the anchor bolt.

Anchor bolt – offers numerous and versatile connection possibilities with load hooks, sling ropes and sling chains.

Spare shear pins – Two pieces of spare shear pins located in the carrying handle.

Rope clamp system – easily disengaged with a lever allowing smooth installation of the wire rope.

High strength cast aluminum alloy body – Light weight, simple to operate. Smooth contour design with large, flat bottom surface for increased stability in horizontal as well as vertical working position.

Stamped serial number – for easy identification

Galvanized steel wire rope mounted on a reel – Every rope is operationally tested to 150% of the rated capacity and is issued with an individual test certificate.



MODEL NO.		YAL008	YAL016	YAL032
Lifting Capacity (Rated Load)	(tonnes)	0.8	1.6	3.2
*Pulling Capacity	(tonnes)	1.2	2.4	4
Lever Pull at Rated Load	(N)	284	412	441
Forward Travel	(mm)	52	55	28
Wire Rope Diameter	(mm)	8.3	11	16
Net Weight (Body)	(kg)	6.4	12.4	23.3
Net Weight (20 metres Wire Rope)	(kg)	7	11.5	23.5
Net Weight (Lever Handle)	(kg)	1.15	2.5	2.5
Dimensions (Body) L x W x H	(mm)	440 x 70 x 255	560 x 100 x 295	675 x 120 x 350

*Observe local regulations

SASKATOON - 3235 Millar Avenue, Saskatoon SK S7K 5Y3
 FAX: (306) 249-4374 **Ph: (306) 242-7073** Toll Free: 1-800-242-7073
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REGINA - 125 Henderson Drive, Regina SK S4N 5W4
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THERN POWER WINCHES

Rail Car Pulling Winch



Problem

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

Solution

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

Product Features

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



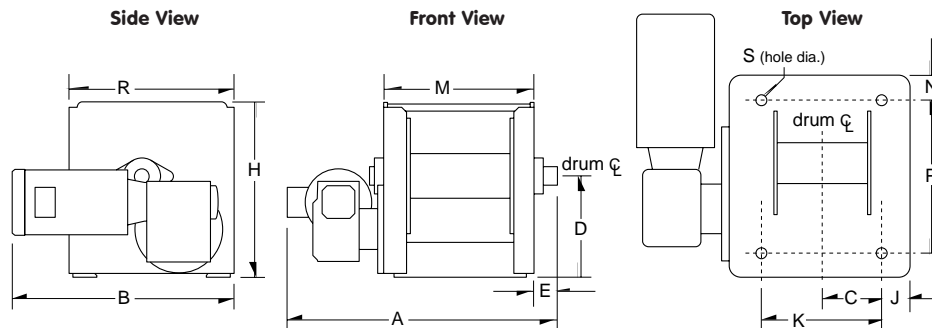
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THERN POWER WINCHES

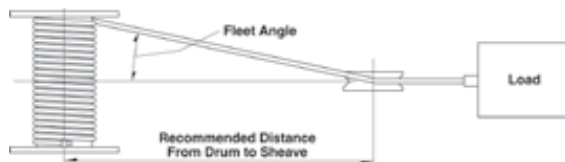


4WS Series - Winch Dimensions (in)

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
4WS6M12-4000-10	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.

THERN POWER WINCHES

Series 4WS3M10
shown with clutch



Wire rope assemblies and
controls sold separately

Series 4WS Worm/Spur Gear Power Winches

- **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. Pneumatics, hydraulic and alternate motor voltages are also available.
- **Two-year Limited Warranty** leads the industry.

Series 4WS Electric — Configurations and Performance Characteristics

Model Number	Model Number Extensions						Motor	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				1st Layer		Full Drum		1st Layer		Mid Drum		Full Drum				
	(lb)	(kg)	(fpm)	(mpm)			(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(in)	(mm)	(fpm)	(mpm)	(fpm)	(mpm)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(lb)	(kg)	
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	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	40	12	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 Control Drum 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 ??
- 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.	



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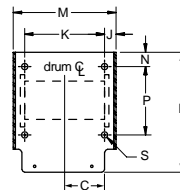
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POWER WINCHES

3WG4 Options and Accessories

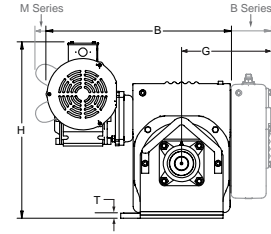
- **Emergency Hand Crank** for manual operation in case of power loss situations.
- **Rotary Limit Switches** provide secondary shut-off to limit load travel in one or two directions.
- **Internal Mechanical Brake** available for motor brake models to provide dual braking.
- **Special Finishes** for 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

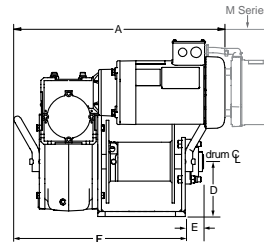


3WG4 Series

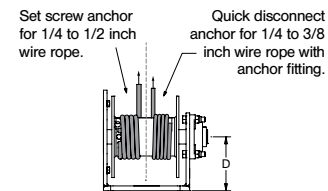
Side View



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.

Control Options and Accessories

Model	Wire Rope Diameter		Breaking Strength		Drum Layer					
					1st Layer		Mid Drum		Full Drum	
	(in)	(mm)	(lb)	(kg)	(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 ⁶	6849.0	14	4.2	65	19.8	140	42.6

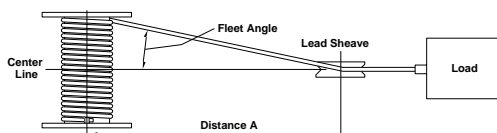
⁴Actual drum capacities may be 25-30% less, due to nonuniform winding. Tension in wire rope will also affect drum capacity.

⁵Values based on 7x19 Galvanized Aircraft cable.

⁶Values based on 6x37 EIPS wire rope.

IMPORTANT:

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



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Model	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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THERN POWER WINCHES



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 Brake** provides positive load control for lifting and lowering operations.
- **Ball Bearings** provides smooth and efficient operation.
- **Pressure Plate** applies pressure to drum and wire rope to help maintain uniform winding. Not available on clutch models.
- **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.
- **Two-year Limited Warranty** leads the industry.

3WG4 Series Performance Characteristics

Model	Brake Style	Duty Rating ¹	Motor Codes	Motor HP	Load Rating						Line Speed				Approx. Ship. Wt. ²	
					1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum		(lb)	(kg)
		(mins)			(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 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

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

Notes:

- For more information and other control options, please see pages ??
- 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.	



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THERN POWER WINCHES

Options and Accessories

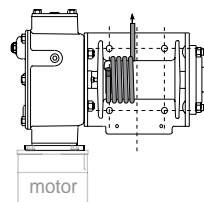
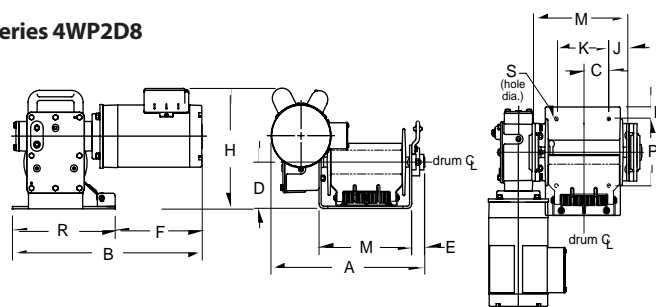
- **Emergency Hand Crank** for manual operation in case of power failure. Does not include handle.
- **Two-Part Line Kit** to convert to double line rigging.
- **Rotary Limit Switches** for secondary shut-off to limit load travel in one or two directions. **Not available on clutch models.**
- **Special 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

Rear View

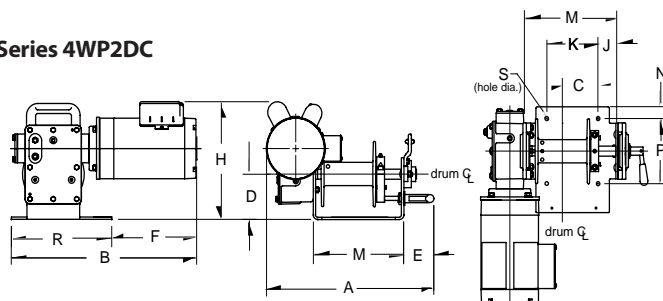
Top View

Series 4WP2D8



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.



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

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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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THERN POWER WINCHES

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.



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



Wire rope assemblies
sold separately

- **Mounting Options** include floor, wall, or ceiling.
- **Two-year Limited Warranty**
- **Cast Aluminum** construction for lightweight strength.
- **Corrosion Resistant** durable paint finish protects against corrosion in harsh environments.
- **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 44WP2 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				1st Layer		Full Drum		1st Layer		Mid Drum		Full Drum					
	(lb)	(kg)	(fpm)	(mpm)		(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(in)	(mm)	(fpm)	(mpm)	(fpm)	(mpm)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(lb)	(kg)	
High Speed Atlas winches for lifting or pulling																											
4WP2D8	800	362	26	7.9	A,B,D,E	1	800	362	460	208	330	149	1/4	6.4	26	7	65	19	19	5	130	39	280	85	100	46	
4WP2D8	800	362	40	12.1	D,E	1.5	800	362	460	208	330	149	1/4	6.4	40	12	97	29	19	5	130	39	280	85	100	46	
4WP2D8	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	5	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	5	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	5	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	5	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	



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Notes:

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

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THERN 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.

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.

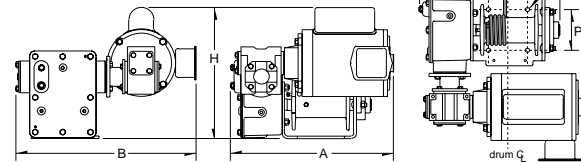
Side View

Rear View

Top View

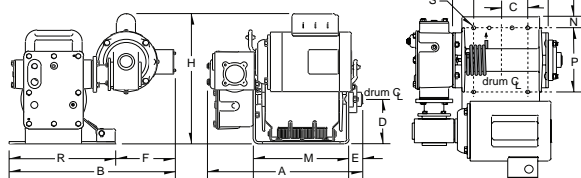
Series 4WP2

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



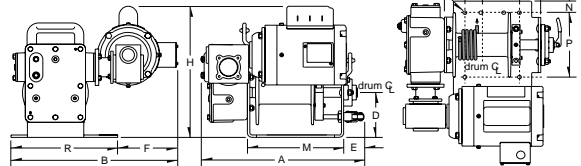
Series 4WP2T8

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.

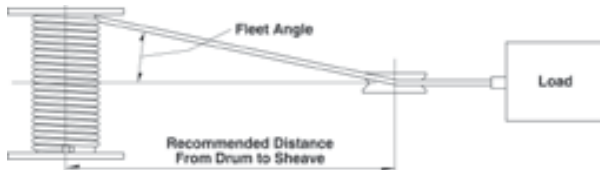


Series 4WP2 and 4WP2T — Dimensions

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.



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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.

THERN POWER WINCHES

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 and long lasting service operation
- **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.



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



Wire rope assemblies
sold separately

- **Mounting Options** include floor, wall, or ceiling.
- **Two-year Limited Warranty**
- **Cast Aluminum** construction for lightweight strength.
- **Corrosion Resistant** durable paint finish protects against corrosion in harsh environments.
- **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 44WP2 and 4WP2T — Performance Characteristics

Model Number	Motor Description	Motor HP	Load Rating			Wire Rope Dia. ¹	Line Speed		Drum Capacity ²			Approx. Ship Weight
			1st Layer	Mid Drum	Full Drum		1st Layer	Full Drum	1st Layer	Mid Drum	Full Drum	
			(lb)	(lb)	(lb)	(in)	(fpm)	(fpm)	(ft)	(ft)	(ft)	(lb)
4WP2 ³	includes controls	1.3	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	
4WP2T8-2000-8 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:

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



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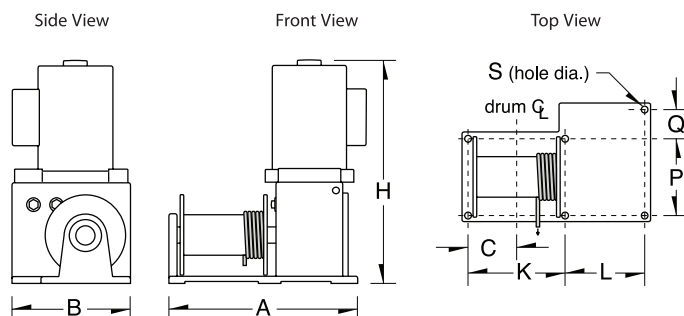
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THERN POWER WINCHES

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.

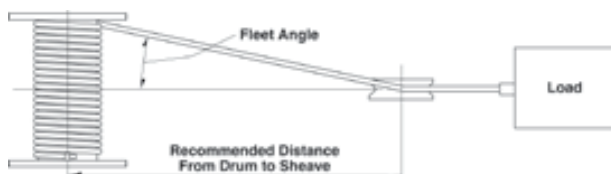


Install wire rope correctly as shown, or brake will not operate properly.

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:

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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.

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THERN POWER WINCHES

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-1PH2 ³	115/230/1/60 VAC - less controls	1.5	2000	1500	1200	5/16	13	22	13	40	90	115
4771AC-3PH ³	230/460/3/60 VAC - less controls	1.5	2000	1500	1200	5/16	13	22	13	40	90	111
4771DC ⁴	12 VDC - 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:

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



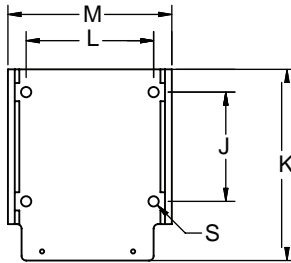
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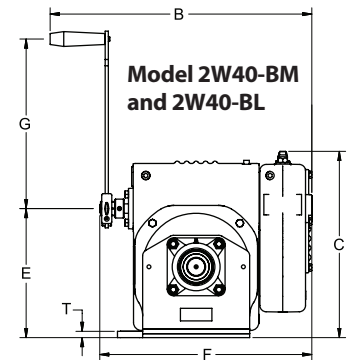
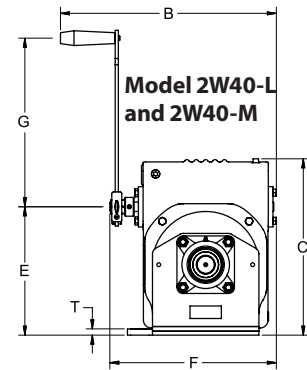
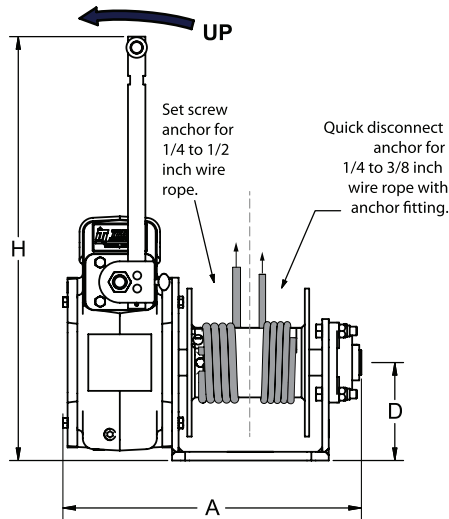
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THERN WORM GEAR



Install wire rope correctly as shown, or brake will not operate properly. Underwound - 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)			Maximum
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 Thern 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.



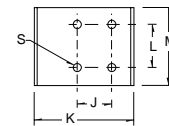
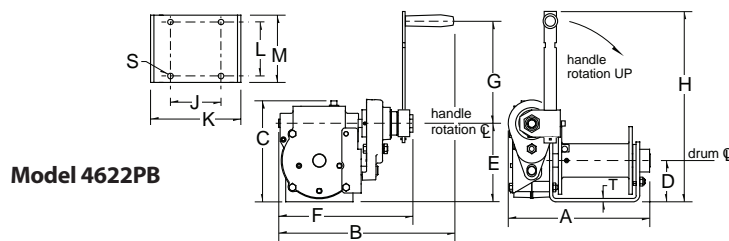
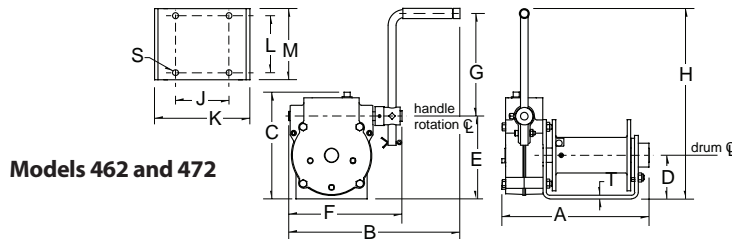
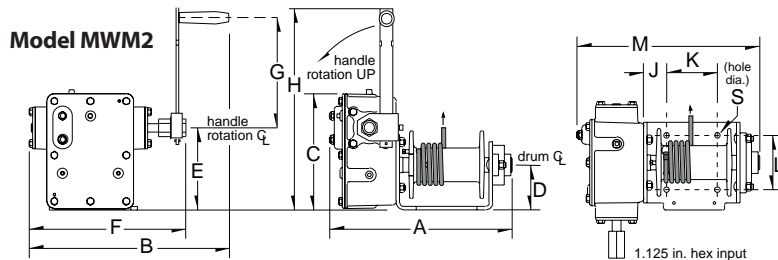
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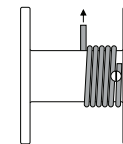
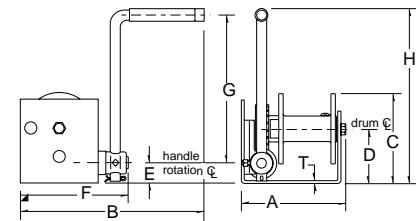
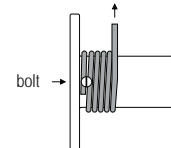
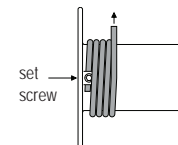
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THERN WORM GEAR



Model 465

Wire Rope Installation
Model 465Wire Rope Installation
Model 462 and 4633PBWire Rope Installation
Model 472

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	—	—

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

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



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

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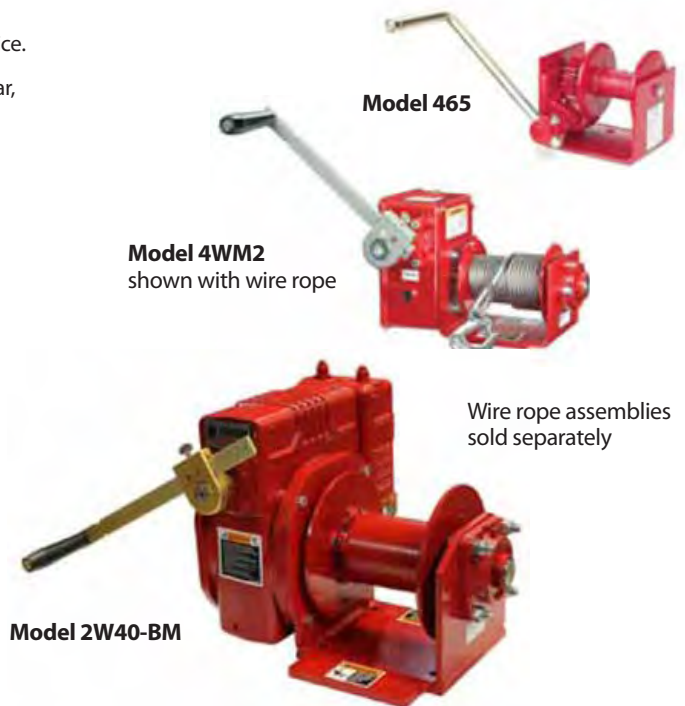
It is the owner or operator's responsibility to determine the suitability of the equipment to its intended use. Study all applicable codes, manuals and regulations. Be sure to read the Owner's Manual supplied with the equipment before operating it.

THERN WORM GEAR

Worm Gear Hand Winches

- 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 Thern.
- 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				1st Layer		Mid Drum		Full Drum											
		(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(in)	(mm)	(ft)	(m)	(ft)	(m)	(ft)	(m)		(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					
								3/16	4.8	4	1	28	8	61	18										
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					
								3/16 (not recommended for this winch)																	
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	140	64					
								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				135	62					
								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	150	69					
								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				145	66					
								3/8	9.5	14	4	65	19	140	42										

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

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

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



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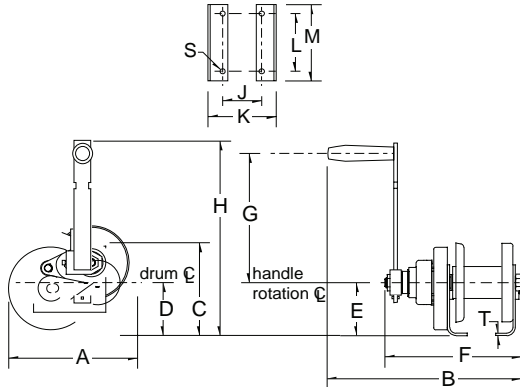
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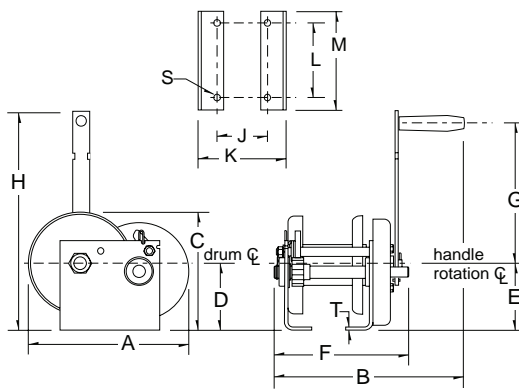
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THERN SPUR GEAR

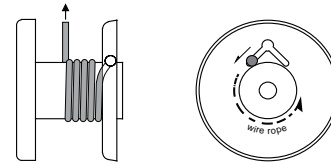
Model M4312PB, M4412PB AND M4312PBSS



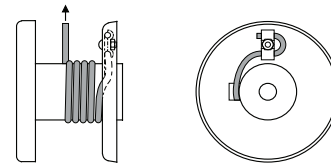
Models M4312 and M4412



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



Quick Disconnect Anchor



Flange Clip Anchor

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.



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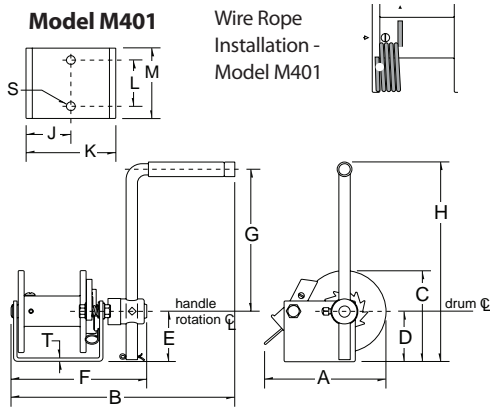
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THERN SPUR GEAR

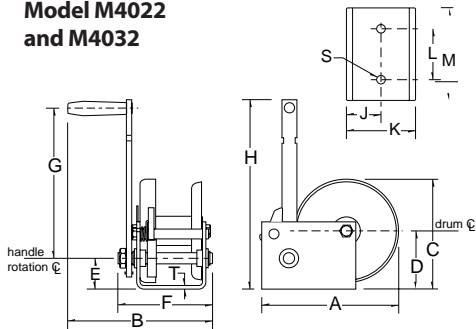
Model M401

Wire Rope
Installation -
Model M401



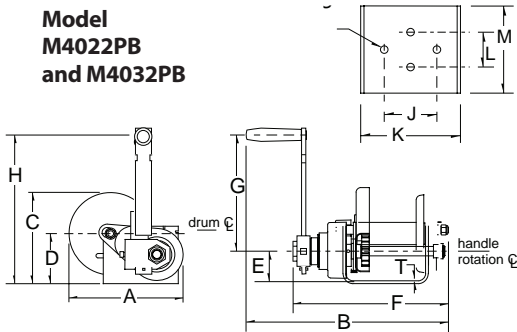
Model M4022 and M4022 PB Base

Model M4022 and M4032

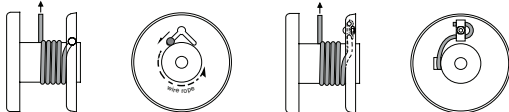


Model M4032 and M4032 PB Base

Model M4022PB and M4032PB



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



Quick Disconnect Anchor

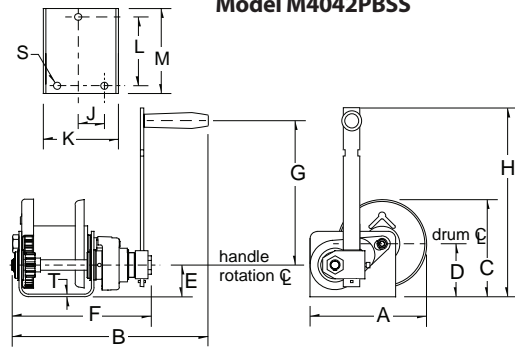
Flange Clip Anchor



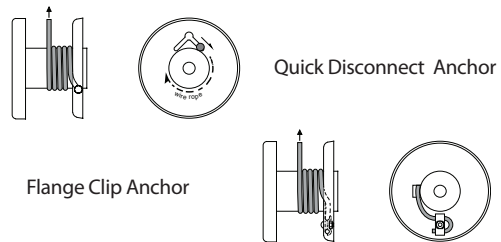
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Model M4042PBSS



Wire Rope Installation - Model M4042PBSS



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	53.68	5.68	5.26
L	2.50	2.82	2.82	2.00	2.00	5.00
M	3.50	5.00	5.00	5.00	5.00	6.00
S (hole dia.)	.40	.43	.43	.43	.43	.41
T	.18	.18	.18	.18	.18	.18

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

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

Dimension shown is for maximum handle length.

IMPORTANT:

It is the owner 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.

THERN SPUR GEAR

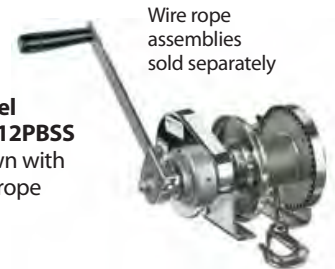
Spur Gear Hand Winches (Up to 2000 lb Capacity)

- 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

**Model
M4022PB**



**Model
M4312PBSS**
Shown with
wire rope



Wire rope
assemblies
sold separately

Worm Gear Hand Winches

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.



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

FLCL-0916

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THERN AIR WINCHES

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 **	2041 kg **	11,000 lb	4,989 kg	33,000 lb	14,968 kg	38,000 lb	17,236 kg
Pressure	90 psi	6.3 kgf/cm ²	90 psi	6.3 kgf/cm ²	90 psi	6.3 kgf/cm ²	90 psi	6.3 kgf/cm ²	90 psi	6.3 kgf/cm ²
Flow	250 scfm	7.0 m ³ /min	250 scfm	7.0 m ³ /min	600 scfm	17.0 m ³ /min	550 scfm	15.6 m ³ /min	550 scfm	15.6 m ³ /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

*

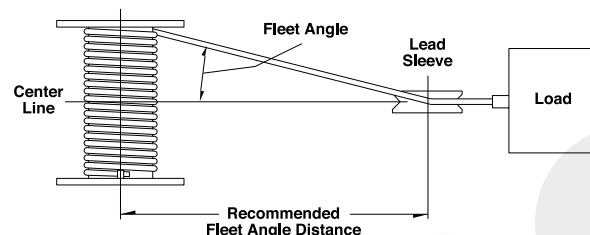
Model	Wire Rope		Drum Width											
			16 in (407 mm)				24 in (610 mm)				30 in (762 mm)			
	Diameter	Breaking Strength**	1st Layer	Mid Drum	Full Drum	1st Layer	Mid Drum	Full Drum	1st Layer	Mid Drum	Full Drum	1st Layer	Mid Drum	Full Drum
	(in) (mm)	(lb) (kg)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)	(ft) (m)
TA2	0.5 12.7	26,600 12,065	83 25	380 115	850 259	130 39	570 173	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 57	780 237	1730 527

* Drum capacity is based on 0.5 inch flange clearance at top layer per ASME B30.7.

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

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

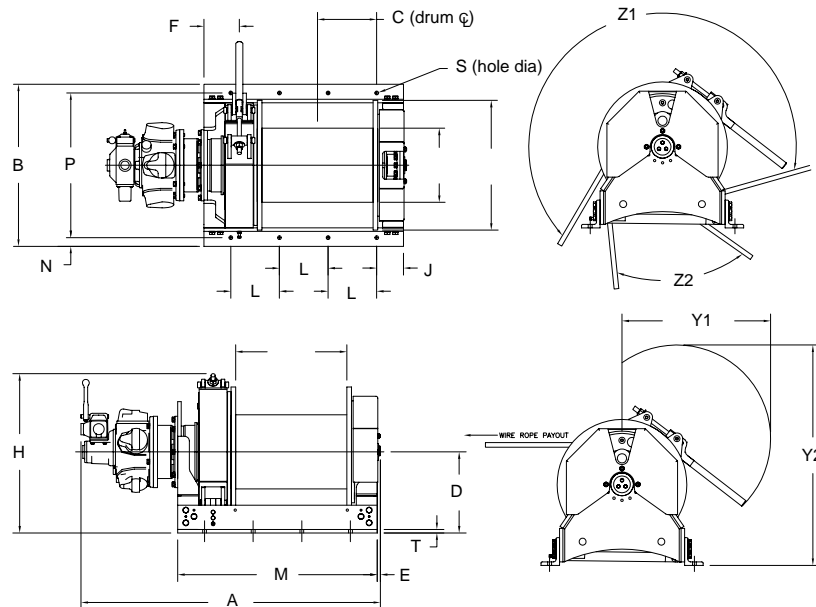
BIG RED TA10 Series UTILITY RATED Air Winch Fleet Angle Requirements



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THERN AIR WINCHES



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 (hole diameter)		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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TERN AIR WINCHES

BIG RED TA10 Series Performance Characteristics

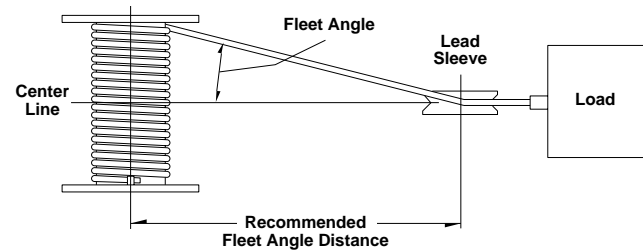
TA10 Series		
Load Rating 1st Layer	37,000 lb	16,783 kg
Load Rating Mid-Drum	27,400 lb	12,428 kg
Load Rating Full Drum	21,800 lb	9,888 kg
Line Speed 1st Layer *	20 fpm	6.1 m/min
Line Speed Mid-Drum *	27 fpm	8.2 m/min
Line Speed Full Drum *	34 fpm	10.4 m/min
Input HP	27 hp	27 hp
Max Stall Pull 1st Layer	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

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)		
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

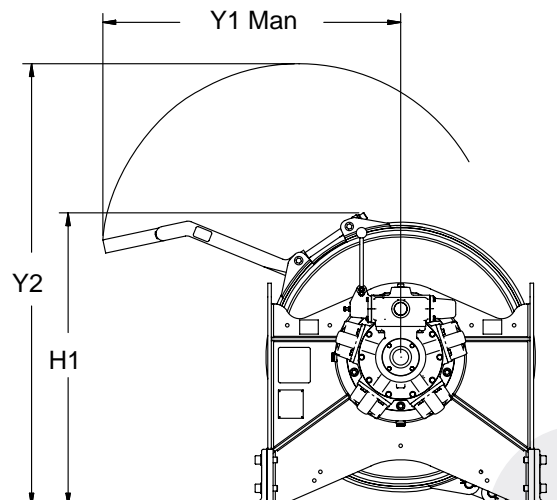
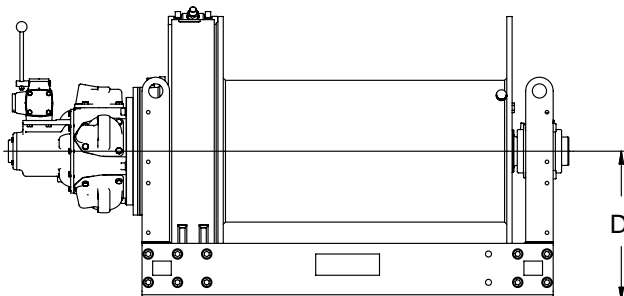
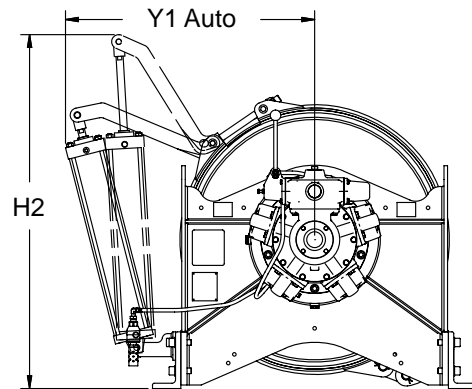
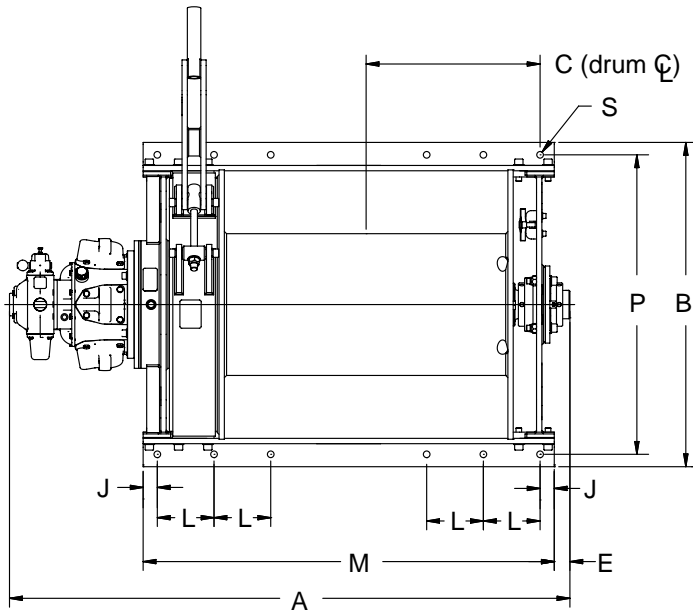
	M		P		S (hole diameter)		Y1 (man)		Y1 (auto)		Y2		# Bolts	Bolt Size	Weight *	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)		(in)	(lb)	(kg)
TA10-30	48	1219	42.25	1073	.94	24	42	1067	35.25	895	62.5	1588	12	7/8 - G8	3220	1461
TA10-40	58	1473	42.25	1073	.94	24	42	1067	35.25	895	62.5	1588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

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 FAX: (306) 249-4374 **Ph: (306) 242-7073** Toll Free: 1-800-242-7073
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THERN AIR WINCHES



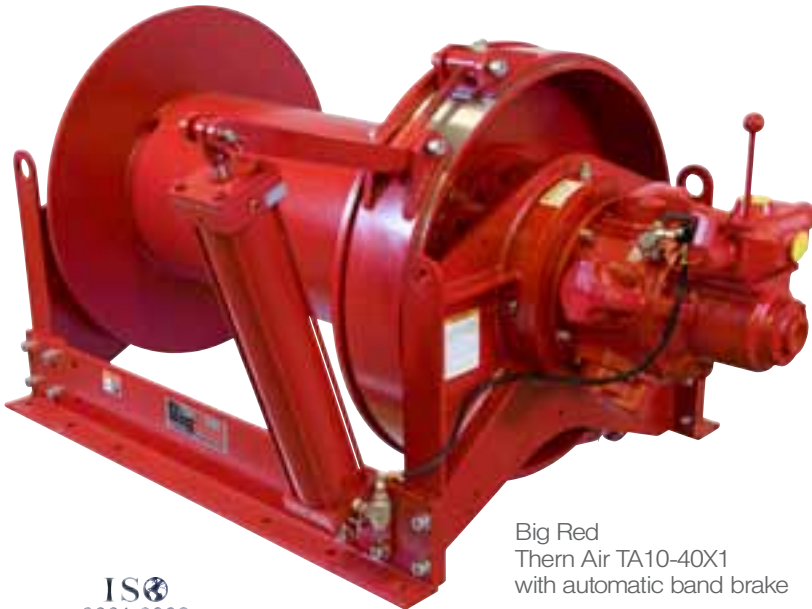
TERN AIR WINCHES

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

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.

- 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
Winch
TA Series



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

ISO
9001:2008
REGISTERED



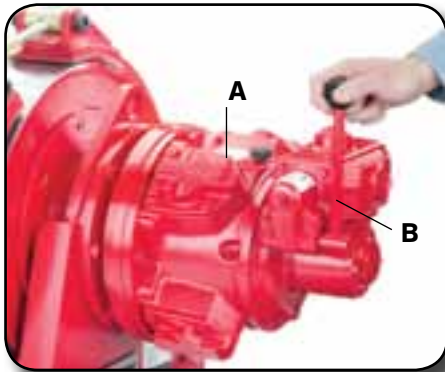
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THERN AIR WINCHES

BigRed Legacy Series

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



FEATURES AND BENEFITS

- **Radial Piston Motor (A)**
Internally lubricated for reliable power and an exceptionally long service life.
- **Precise Control Valve (B)**
Count on smooth control with variable speed, making it ideal for both precision spotting and long lifts.
- **Manual Band Brake (C)**
The heavy duty, long handled steel band brake requires less force to engage and provides up to 150% holding capacity.
- **Welded Steel Frame**
Captures both drum ends for optimal strength and security.
- **Planetary Gears**
Compact design and high efficiency gearing reduce power loss and heat generation while increasing service life. Gears operate in oil bath. Double lip oil seals keep oil in and contaminants out.
- **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.



THERN AIR WINCHES

BigRed Legacy Series



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.



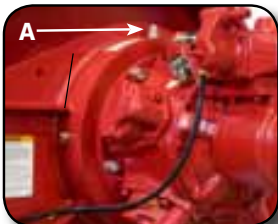
THERN AIR WINCHES

Big Red 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.



Drain and fill plug location makes
maintenance easy.



Rotary cable anchor for easy
installation from either direction.

FEATURES AND BENEFITS

- **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.

THERN AIR WINCHES

Big Red TA10 Series



TA10-40AX1 shown with automatic band brake.

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

OPTIONS AND ACCESSORIES

- **Automatic Disc Brake**
Spring engaged, air pressure released and oil cooled for extended duty cycles and long life.
- **Automatic Band Brake**
Spring engaged, air pressure released, with heavy-duty construction that provides up to 150% holding capacity (replaces manual band brake).
- **Mufflers (C)**
Attached to exhaust ports to reduce noise.



Mufflers help reduce noise during operation.



Convenience of pendant controls for remote operation.



Protect motor from contaminants with Filter-Regulator-Lubricator.

- **Control Options (D)**
Winch mounted, full flow remote pendant control valve.
- **Marine Grade Epoxy**
Applied with a zinc primer for ultimate protection in harsh environments.
- **Drum Guard**
Heavy-duty steel mesh helps to protect operators. Adjusts for different rope payout angles.
- **Filter, Regulator and Lubricator (E)**
Maintains air quality to the winch. Required for warranty compliance.
- **Multiple Drum Compartments**
Allow for multiple line connections and operation.