



UP TO 2,000 LB (905 KG)

SPUR GEAR HAND WINCH



thern.com
(507) 454-2996

SPUR GEAR

HAND WINCHES—UP TO 2,000 LBS



LIGHT-DUTY PERFORMANCE with Robust Construction & Features

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

Adjustable Handle

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

Solid Steel Machine-Cut Gears

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

Composite Gear Guards

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

Welded Steel Drum

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

Quick-Disconnect Anchor

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

Product Shown:
M4312PB

Automatic Weston-Style Brake

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



PERFORMANCE

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

Available Non-Brake Units

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

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



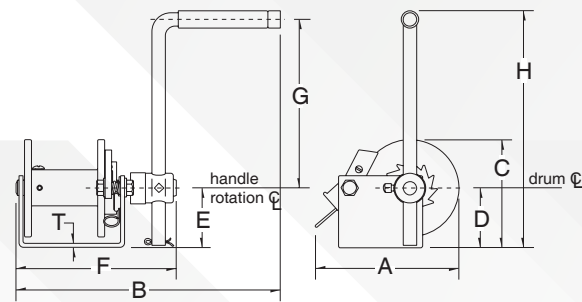
NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

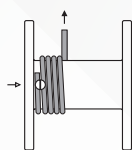
DIMENSIONAL DRAWINGS



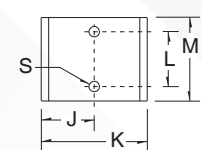
Model M401



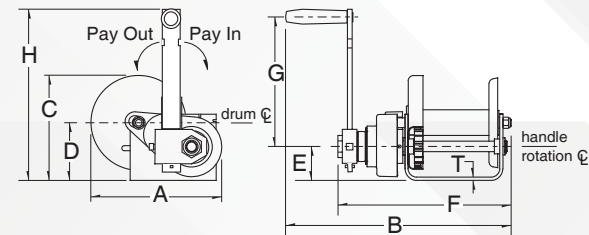
Wire Rope Installation:
Model M401



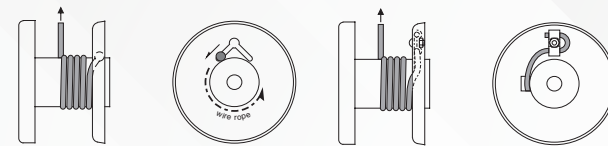
Model M401 Base



Models M4022PB and M4032PB



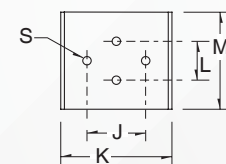
Wire Rope Installation: Models M4022,
M4022PB, M4032, and M4032PB



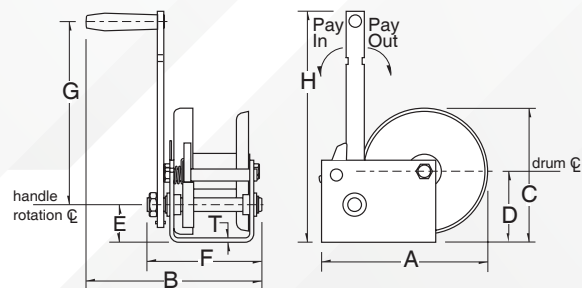
Quick-Disconnect Anchor

Flange-Clip Anchor

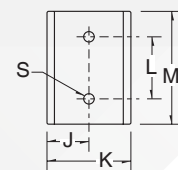
Model M4032 and M4032PB Base



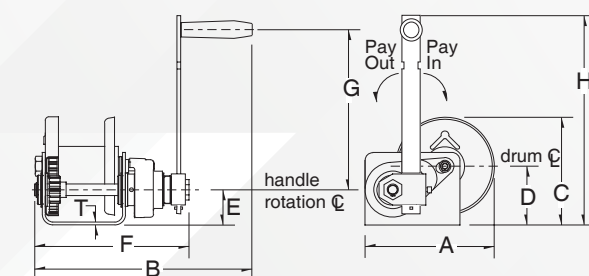
Models M4022 and M4032



Model M4022 and M4022PB Base



Model M4042PBSS



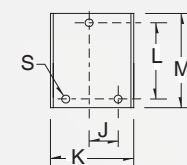
Wire Rope Installation: Model M4042PBSS



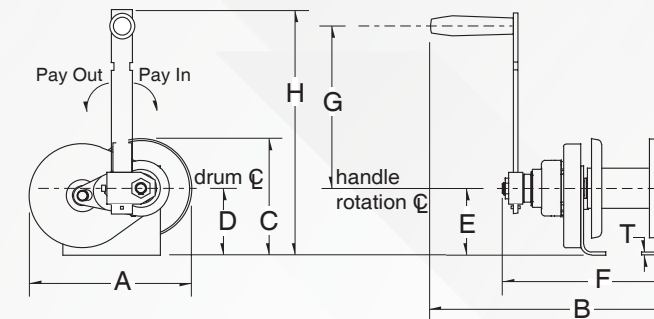
Quick-Disconnect Anchor

Flange-Clip Anchor

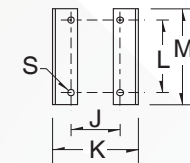
M4042PBSS Base



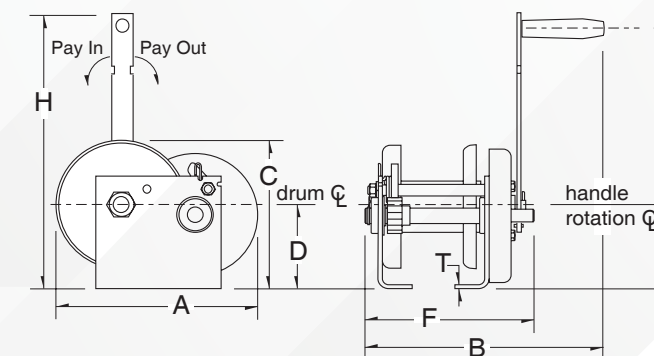
Models M4312PB, M4412PB, and M4312PBSS



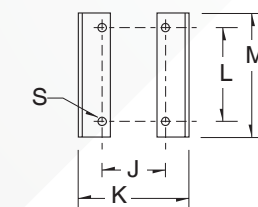
M4312PB, M4412PB, and M4312PBSS Base



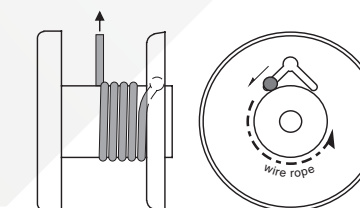
Models M4312 and M4412



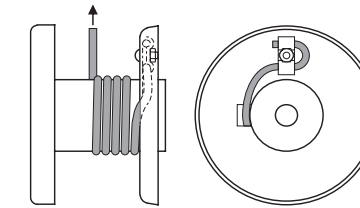
M4042PBSS and M4412 Base



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



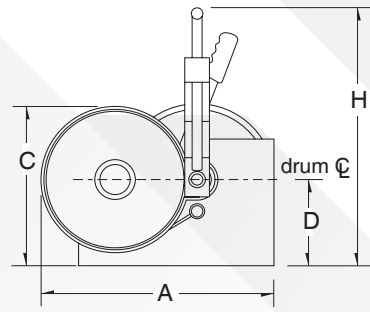
Quick-Disconnect Anchor



Flange-Clip Anchor

PERFORMANCE CHARACTERISTICS

All Models

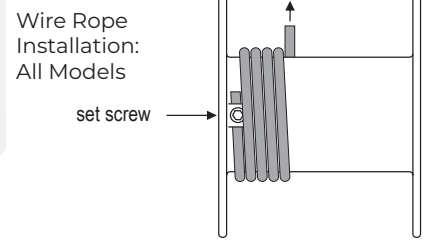
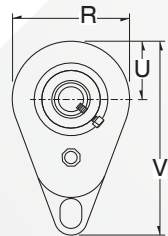
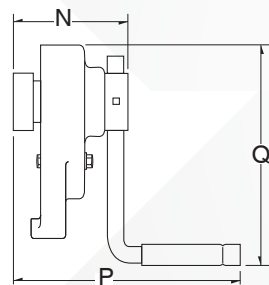


Disc Brakes—Dimensions

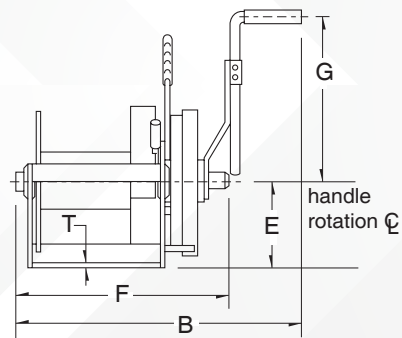
Model	N		P		Q ¹		R		U		V	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
MB451	4.97	126.2	10.44	265.1	21.25	539.7	4.87	123.6	2.44	61.9	8.62	218.9
MB491	5.15	130.8	10.62	269.7	21.38	543.0	4.87	123.6	2.44	61.9	10.56	268.2

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

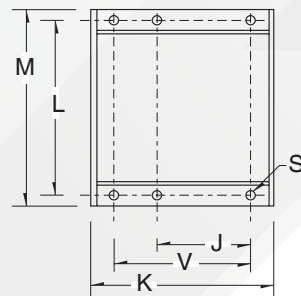
Models MB451 and MB491



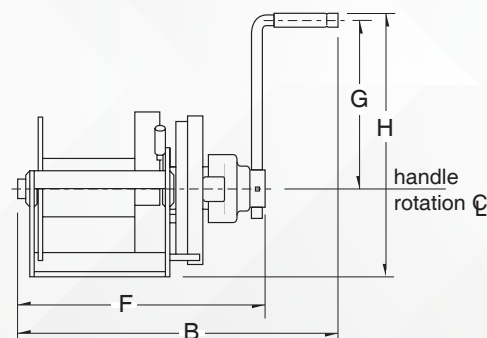
Models M452, M492, and M492-12



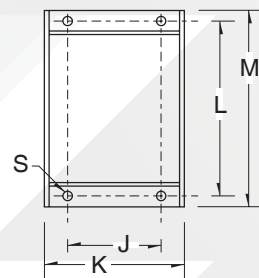
Base for M492-12 and M492B-12



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



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



Configurations and Performance Characteristics—Up to 2,000 lbs

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

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

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

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

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

Configurations and Performance Characteristics—Up to 10,000 lbs

Model	Description	LOAD RATING						Wire Rope Dia.	DRUM CAPACITY ¹						Single Gear Ratio	Double Gear Ratio	Force ² to lift 1,000 lb		Approx. Ship Weight			
		1st Layer		Mid Drum		Full Drum			1st Layer		Mid Drum		Full Drum				(lb)	(kg)	(lb)	(kg)		
		(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(in)	(mm)	(ft)	(m)	(ft)	(m)	(ft)	(m)							
M452	4,000 lb—marine duty (for pulling only)	4,000	1,814	3,300	1,496	2,500	1,133	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			(dbl gear)				
M452B	4,000 lb—marine duty with brake (for lifting)	4,000	1,814	3,300	1,496	2,500	1,133	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			(dbl gear)				
M452B-A	4,000 lb—marine duty with brake (for lifting) 4-inch drum width	4,000	1,814	3,300	1,496	2,500	1,133	1/4	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			(dbl gear)				
M492	10,000 lb—marine duty (for pulling only)	10,000	4,535	7,400	3,356	5,400	2,449	1/2	12.7	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			(dbl gear)				
M492B	10,000 lb—marine duty with brake (for lifting)	10,000	4,535	7,400	3,356	5,400	2,449	1/2	12.7	15	4	100	30	230	70	—	25.00:1	8	3.6	173	79	
								3/8	9.5	21	6	170	51	390	118			(dbl gear)				
M492-12	10,000 lb—marine duty (for pulling only) 12-inch drum width	10,000	4,535	7,400	3,356	5,400	2,449	1/2	12.7	27	8	240	73	540	164	5.00:1	25.00:1	8	3.6	175	80	
								3/8	9.5	37	11	270	82	610	185			(dbl gear)				
M492B-12	10,000 lb—marine duty with brake (for lifting) 12-inch drum width	10,000	4,535	7,400	3,356	5,400	2,449	1/2	12.7	27	8	160	48	360	109	—	25.00:1	8	3.6	190	87	
								3/8	9.5	37	11	270	82	610	185			(dbl gear)				
MB451	Disc brake only for M452 (for lifting)																				13	6
MB491	Disc brake only for M492 and M492-12 (for lifting)																				15	7

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

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

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



MADE IN USA 

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