

5PF5

FIRST MATE SERIES

Simple Perfection

Thern's First Mate series portable davit cranes quite simply, are perfect for a large variety of lifting jobs. Simple set-up, easy to use and easy to transport, makes the First Mate ideal for multiple station service. With multiple bases in place, the Thern First Mate goes anywhere you need an affordable, portable davit crane.



850 lb Capacity Portable Davit Crane

- Rugged and affordable
- Manual or Power Winch Operation
- 360° Rotation
- Five Corrosion-Resistant Finishes
- Easy, No-Tools Assembly/Disassembly
- Variety of Bases
- 2-Year Warranty

ISO
9001:2015
CERTIFIED



Model 5PF5M1
Base 5BP5

 **THERN**
WINCHES AND CRANES

HAND / POWER / HYDRAULIC / AIR WINCHES • DAVIT CRANES

Winona, MN USA | www.thern.com

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FIRST MATE 5PF5 SERIES

Easily lift up to 850 lbs (385 kg)

Thern winches and cranes work harder to make your work easier!

Set up a Thern Davit Crane and take it *EASY!*

EASY ON YOUR BACK

Easily lift and position loads up to 850 lbs (385 kg) and up to 76 ft (23.1 m) below base. Longer lifts available.

Thern First Mate can be configured with a Thern spur gear or worm gear hand winch for short lifts or a Thern power winch for long lifts.

EASY ON YOUR BUDGET

Powerful and affordable - Lift heavy loads more economically than alternative methods. Install multiple bases - Quickly fold down crane and move from station to station or mount on wheel base and take the crane to your task.

EASY SET-UP AND TAKE DOWN

Pedestal, flush or wall mount bases are simply anchored to existing pump stations, floor slabs or other solid surfaces with four anchor bolts. Crane installs in minutes with no tools necessary.

Simple installation allows mounting on roof tops, trucks, boats, docks, silos, towers and more!



2-YEAR WARRANTY
Industry-leading two-year limited warranty.



Swaged ball fitting allows you to quickly attach or remove the wire rope from the winch - Wire rope remains attached to submerged pumps, etc., while the crane is stored or moved to a new location.

hand winch
15 lbs
6.8 kg

boom
29 lbs
13.2 kg



ROTATION HANDLE

Provides operator safer crane rotation away from load.



Quick mount winch bracket. Attach winch to bracket and then easily mount bracket on crane without tools - via quick connect pins.



Quick-release clevis style pins for easy crane assembly without tools.

mast
23 lbs
10.4 kg

BASE EXTENSION

Optional extension adds 15" more height to wall, flush or pedestal bases.

pedestal base
18 lbs
8.2 kg

flange bearing

REPLACEABLE NYLATRON BUSHING

provides smooth and easy crane rotation while under load.

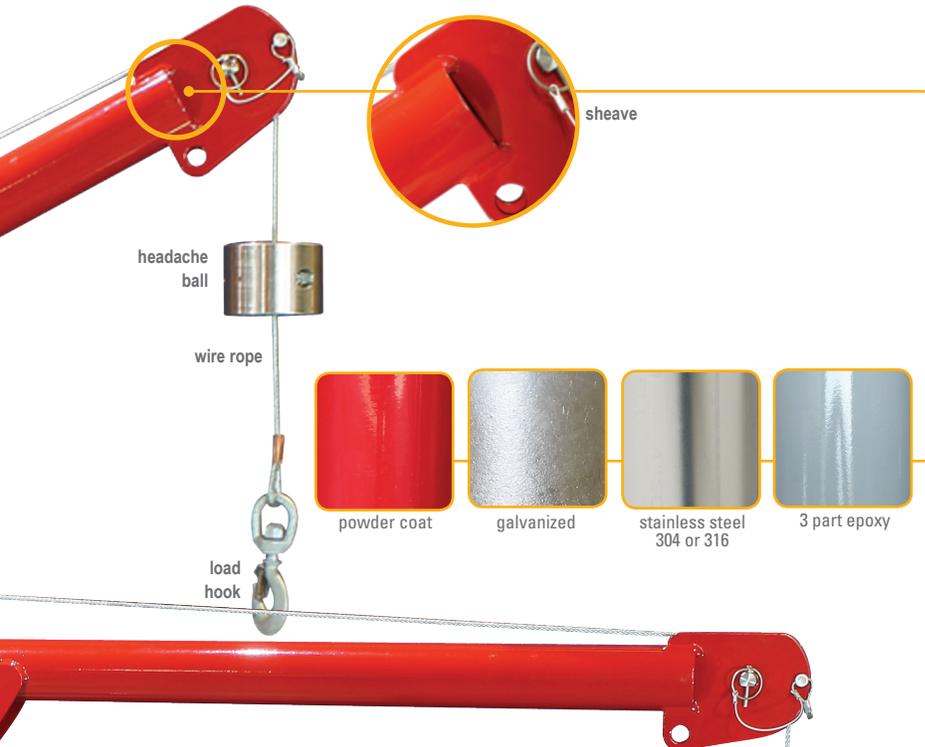
Model Shown
5PF5-M1
Base 5BP5

KEY HOLE SLOT

If crane is moved to new location - Anchor swaged ball end of wire rope into key hole slot - Wire rope remains attached to load.



FEATURES AND BENEFITS



WELDED STEEL CONSTRUCTION

Crane and base fabricated from heavy duty structural steel that meets ASTM standards.

CORROSION RESISTANT FINISHES

Powder coating is standard on crane. Four optional finishes available.

ADJUSTABLE BOOM ANGLE

3 convenient positions for operation.

PORTABLE

Crane quickly folds down and locks for storage or transport.

360° ROTATION

Bearing on bottom of mast allows smooth and easy rotation while under load.

HEADACHE BALL (Optional)

Keeps cable taut when no load is attached. Sold separately.

WIRE ROPE ASSEMBLY

Available in a variety of lengths in galvanized and stainless steel. Sold separately.

QUICK MOUNT WINCH (fig. 4)

Once attached to bracket, the winch can be quickly mounted or removed from crane.

EASY ASSEMBLY & DISASSEMBLY

Clevis style stainless steel pins allow for easy assembly, quick boom adjustments and disassembly - No tools necessary.

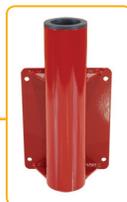
CRANE STANDARDS

Meets CE and relative ASTM standards.



VARIETY OF BASES

Provide a variety of mounting solutions. Sold separately.



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

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FINISH AND WINCHES



FINISHES

Crane Finishes for First Mate Series

All cranes come standard with Electrostatic Powder Coat red finish. Four optional finishes also offered are Galvanized, 304 or 316 Stainless Steel, and corrosion-resistant Epoxy. Custom colors are available per customer request - Please contact factory.



Finish	Code	Model Number	Options	Description
Powder Coat (Red)	RED	5PF5	Standard N/C	Red electrostatic powder coating applied to all cranes - Good
Galvanized	GAL	5PF5G	Optional/Extra	An economical choice that provides extra protection - Better
304 Stainless Steel	304SS	5PF5S	Optional/Extra	Electro-polished for added protection - Best
316 Stainless Steel	316SS	5PF5S316	Optional/Extra	A higher level of corrosion protection - Premium
Epoxy (Gray)	EPX	5PF5X	Optional/Extra	3-part epoxy is impact, fire, water, and slip-resistant - Premium

WINCHES

For First Mate Series



Hand Winches

Winch	Winch Model No.	Description	Finish	Approx. Ship Weight
M1	M4022PB-K	Spur gear hand winch with brake	Zinc Plated	17 lbs 7.7 kg
M2	4WM2V-K	Worm gear hand winch with brake	Red Enamel	42 lbs 19.1 kg
M2X	4WM2VEGRA-K	Worm gear hand winch with brake	Epoxy Paint (Gray)	42 lbs 19.1 kg
M3	M4042PBSS-K	Stainless steel spur gear hand winch with brake	Stainless Steel	24 lbs 10.9 kg

All hand winches include disc brake for load control and steel gear covers to protect gears and help prevent injuries.

NOTE: Worm gear requires more turns with less effort than a spur gear winch.

Electric Winches

Electric Winch	Model No.	Line Speed		Finish	Power	Control (Pendant)	Approx. Ship Weight	
		1st Layer	Full Drum					
E2	4WP2V-K	8 fpm	13 fpm	Enamel Paint	115 Volt, AC, Single Phase	6 ft	85 lbs	39 kg
E2X	4WP2VEGRA-K	8 fpm	13 fpm	Epoxy Paint	115 Volt, AC, Single Phase	6 ft	85 lbs	39 kg
E4	4777-K	13 fpm	22 fpm	Enamel Paint	115 Volt, AC Single Phase	6 ft	110 lbs	50 kg
E4X	4777EGRA-K	13 fpm	22 fpm	Epoxy Paint	115 Volt, AC Single Phase	6 ft	110 lbs	50 kg
E4DC	4777DC-K	13 fpm	22 fpm	Enamel Paint	12 Volt, DC	10 ft	105 lbs	48 kg
E4XDC	4777DCEGRA-K	13 fpm	22 fpm	Epoxy Paint	12 Volt, DC	10 ft	105 lbs	48 kg



All electric winches mount on boom via quick mount bracket and are equipped with internal break for load control.



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BASES AND WIRE ROPE

FIRST MATE SERIES

BASES (sold separately) For First Mate Series

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

Finish	Pedestal	Flush	Wall	Wheel	Extension
Powder Coat Paint	5BP5	5BF5	5BW5	5BR5	5BE5-15
Galvanized	5BP5G	5BF5G	5BW5G	-	5BE5-15G
304 Stainless Steel	5BP5S	5BF5S	5BW5S	-	5BE5-15S
316 Stainless Steel	5BP5S316	5BF5S316	5BW5S316	-	5BE5-15S316
Epoxy Paint	5BP5X	5BF5X	5BW5X	-	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 Assembly (sold separately) For First Mate Series



Wire Rope Length	Galvanized Aircraft Cable		304 Stainless Steel Rope		316 Stainless Steel Rope	
	3/16" Dia.	1/4" Dia.	3/16" Dia.	1/4" Dia.	3/16" Dia.	1/4" Dia.
Wire Rope Ratings*	1200 lbs (544 kg)	2000 lbs (907 kg)	1000 lbs (454 kg)	1800 lbs (816 kg)	800 lbs (363 kg)	1400 lbs (635 kg)
20 ft - 6 m	WA19-20NS	WA25-20NS	WS19-20NS	WS25-20NS	WSS19-20NS	WSS25-20NS
28 ft - 8.5 m	WA19-28NS	WA25-28NS	WS19-28NS	WS25-28NS	WSS19-28NS	WSS25-28NS
36 ft - 10.9 m	WA19-36NS	WA25-36NS	WS19-36NS	WS25-36NS	WSS19-36NS	WSS25-36NS
45 ft - 13.7 m	WA19-45NS	WA25-45NS	WS19-45NS	WS25-45NS	WSS19-45NS	WSS25-45NS
60 ft - 18.2 m	WA19-60NS	WA25-60NS	WS19-60NS	WS25-60NS	WSS19-60NS	WSS25-60NS
75 ft - 22.8 m	WA19-75NS	WA25-75NS	WS19-75NS	WS25-75NS	WSS19-75NS	WSS25-75NS
90 ft - 27.4 m	WA19-90NS	-	WS19-90NS	-	WSS19-90NS	-

Them winches and cranes are sold without wire rope. However, we carry top quality wire rope assemblies optimally designed for use with our winches and cranes. The assemblies above are equipped with a swaged ball fitting and swivel hook (Enamel w/Galvanized rope or Stainless Steel with SS rope)

*Based on 3.5:1 design factor

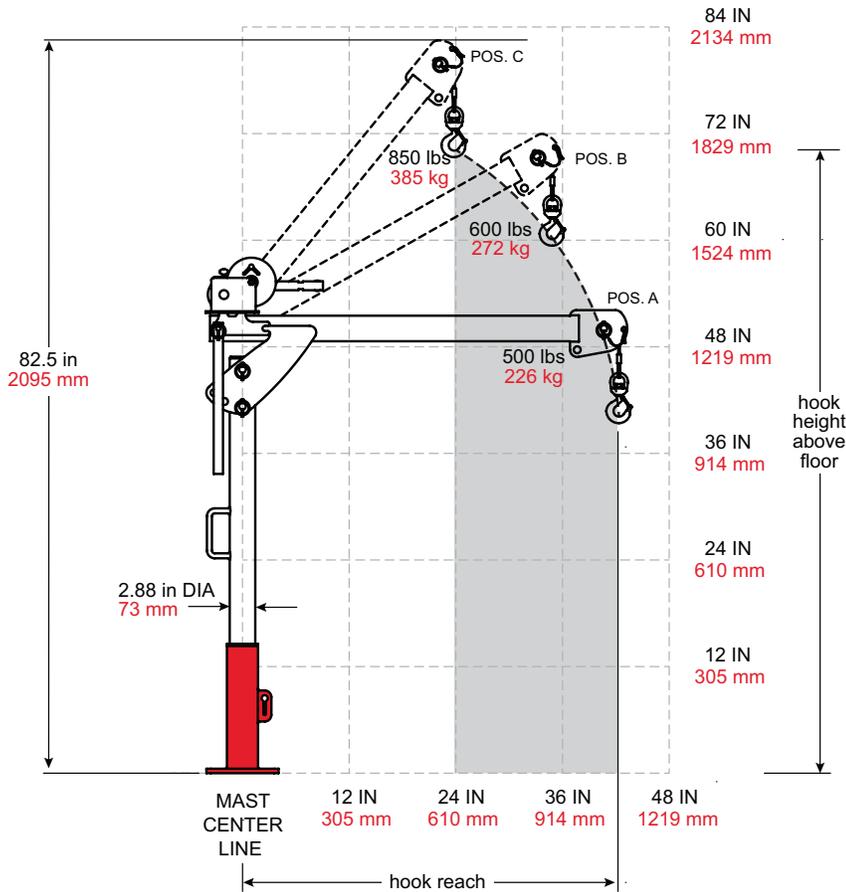
NOTE: 1/8" wire rope is available with a reduced load rating. Please contact the factory.



DIMENSIONS

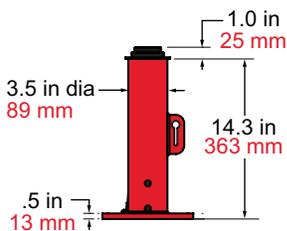
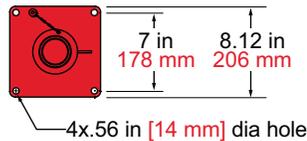
FIRST MATE SERIES

First Mate 5PF5 Series on Pedestal Base



Pedestal Base

**First Mate 500
Pedestal Base 5BP5**
5BP5
5BP5G
5BP5S
5BP5S316
5BP5X



First Mate 500 Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A	42	1066	40	1016
B	35	889	60	1524
C	24	609	70	1778

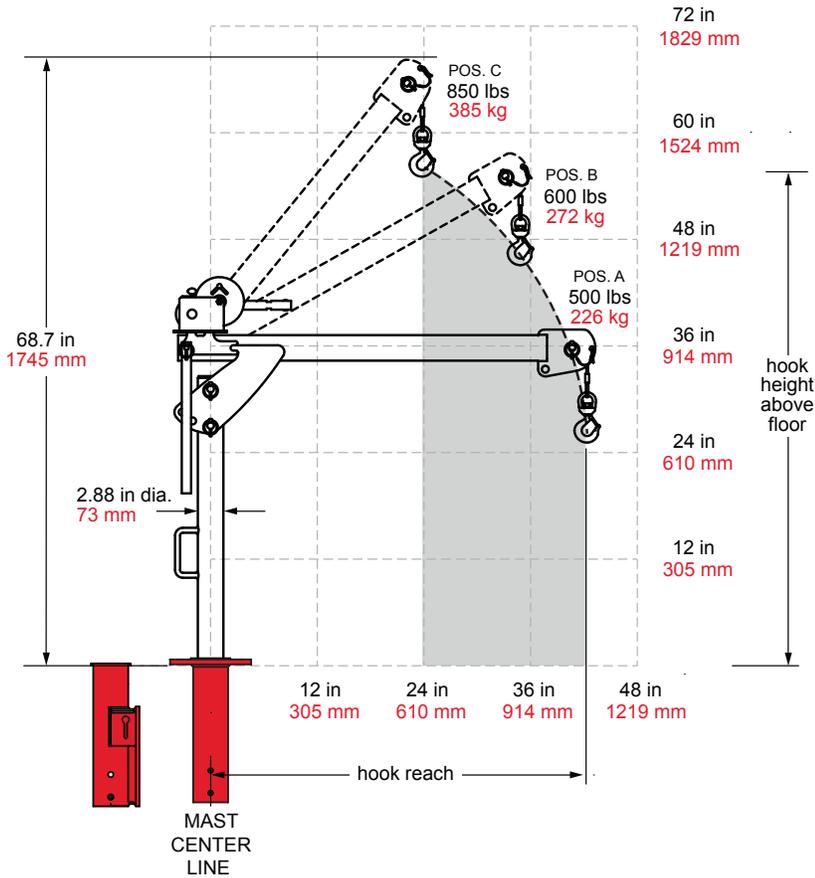
Dimensions are for reference only and subject to change without notice.



DIMENSIONS

FIRST MATE SERIES

First Mate 5PF5 Series on Flush or Wall Mount Base



First Mate 500 Flush or Wall Mount Reach & Height Above Floor

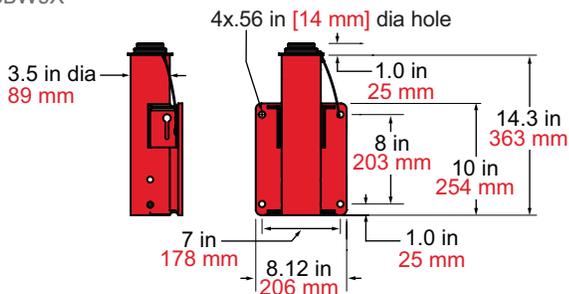
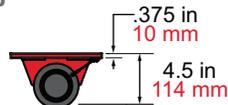
Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A	42	1066	26	660
B	35	889	46	1168
C	24	609	56	1422

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

Flush or Wall Mount Base

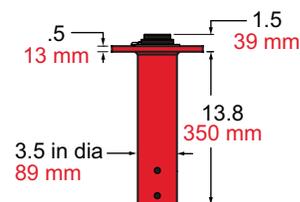
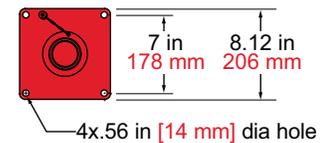
First Mate 500 Wall-Mount Base 5BW5

5BW5
5BW5G
5BW5S
5BW5S316
5BW5X



First Mate 500 Flush Base 5BF5

5BF5
5BF5G
5BF5S
5BF5S316
5BF5X

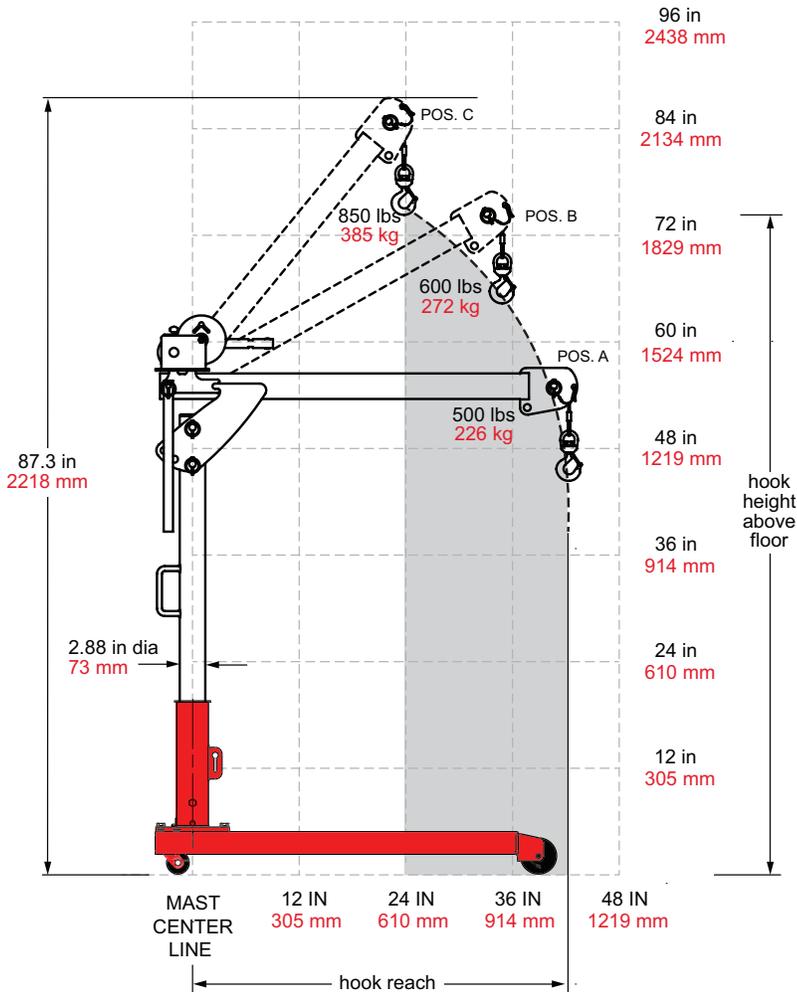


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DIMENSIONS

FIRST MATE SERIES

First Mate 5PF5 Series on Roll Base



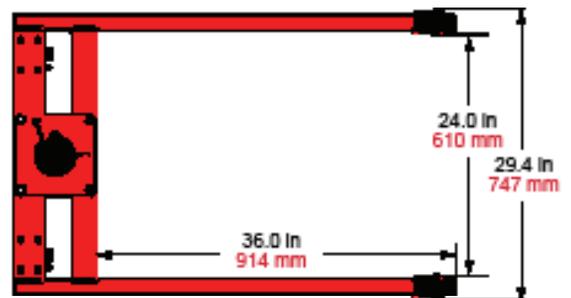
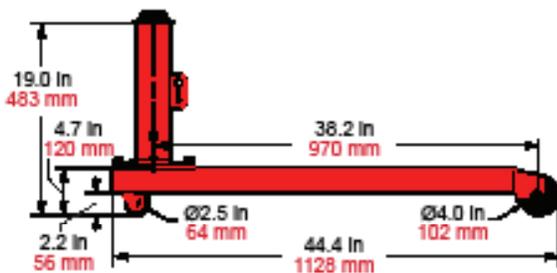
IMPORTANT: Crane DOES NOT rotate in base when assembled in 5BR5 wheel base.

First Mate Upright Reach & Height Above Floor on Roll Base

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A	42	1066	44.5	1130
B	35	889	64.5	1638
C	24	609	74.5	1892

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

Roll Base 5BR5



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

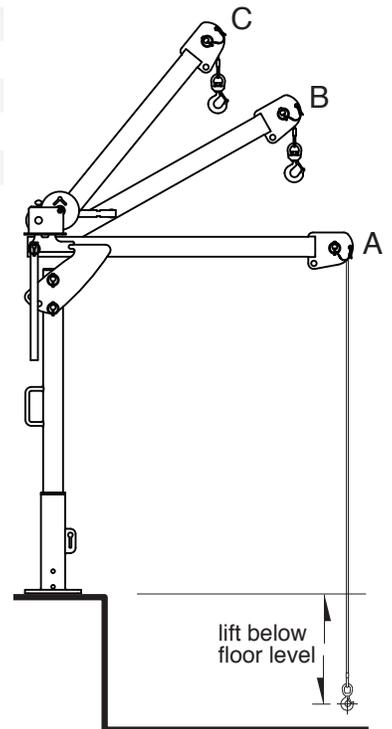


PERFORMANCE

FIRST MATE SERIES

First Mate 5PF5 Series Lift Below Floor² Level with Pedestal Base

Lift Below ¹ Floor				Wire Rope Diameter		Wire Rope Length ³		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	1/8	3	20	6.0	x	-	-	-	-
14	4.2	17	5.1	1/8	3	28	8.5	x	-	-	-	-
22	6.7	25	7.6	1/8	3	36	10.9	x	-	-	-	-
31	9.4	34	10.3	1/8	3	45	13.7	x	-	-	-	-
46	14.0	49	14.9	1/8	3	60	18.2	x	-	-	-	-
61	18.5	64	19.5	1/8	3	75	22.8	x	-	-	-	-
76	23.1	79	24.0	1/8	3	90	27.4	x	-	-	-	-
For long lifts (Up to 289') please contact factory												
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



5PF5 Performance Ratings²

Boom Position	Load Rating ³ 1/8" Dia. wire rope		Load Rating ³ 3/16" and 1/4" Dia. wire rope		Hook Reach		Hook Height	
	(lb)	(kg)	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A	500	226	500	226	42	1066	40	1016
B	570	258	600	272	35	889	60	1524
C	570	258	850	385	24	609	70	1778

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

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

³ Load Rating with 7x19 Galvanized Aircraft Cable. Load Rating may be reduced with other rope types.

ACCESSORIES

ACCESSORIES FOR FIRST MATE

Thern offers a variety of accessories designed to protect your equipment and make operating your portable davit crane as efficient and trouble-free as possible.

BASE INSTALLATION HARDWARE

A torque controlled expansion anchor especially suited to seismic and cracked concrete applications.

• ZINC PLATED STEEL ANCHOR KIT

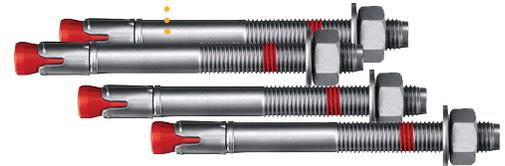
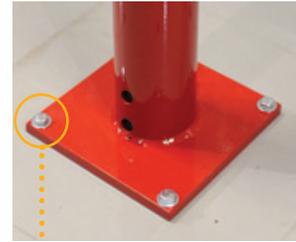
AN50A-5 - 4 Hilti® Zinc plated Steel fasteners, nut and washer with type 316 stainless steel expansion sleeve. Size: 1/2 inch x 5.50 inch STL KB-TZ. Approx. ship weight: 1.40 lb (0.64 kg).

• 304 STAINLESS STEEL ANCHOR KIT

AN50A-5S - 4 Hilti® Type 304 stainless steel anchor body, nut and washer with type 316 stainless steel expansion sleeve. Size: 1/2 inch x 5.50 inch SST304 KB-TZ. Approx. ship weight: 1.40 lb (0.64 kg).

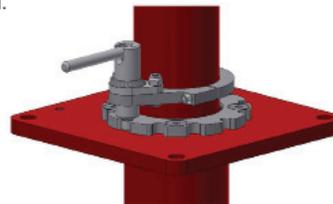
• 316 STAINLESS STEEL ANCHOR KIT

AN50A-5S316 - 4 Hilti® Type 316 stainless steel anchor body, nut, washer and expansion sleeve. Size: 1/2 inch x 5.50 inch SST316 KB-TZ. Approx. ship weight: 1.40 lb (0.64 kg).



DRILL DRIVE KIT

ED300-DW11 - 120 VAC, 11.5 AMP, 300rpm drill-motor to power drive the hand winch. Only available for cranes configured with the M2 winch option. Includes 1-1/8" hex drive socket.



5Px5 SERIES ROTATIONAL LOCK

Optional rotation lock holds crane position at 30° increments. Available in stainless steel.

HEADACHE BALL

Keeps cable taut when no load is attached. Attach to cable.

- **HB10-12-25** - Painted Steel, 1/8 to 1/4 inch wire rope. Approx. ship weight: 9.96 lb (4.52 kg).
- **HB10S-12-25** - Polished 304 Stainless Steel, 1/8 to 1/4 inch wire rope. Approx. ship weight: 10.19 lb (4.62 kg).



CABLE SPOOL

- **RW50** - Keeps wire rope neat and safe when not in use. 316 stainless steel reel winds up wire rope when detached from crane. Suitable for wire ropes up to 5/16 diameter, capacity will vary. Not designed to hold a load. Rated capacity: 50 lbs. Approx. ship weight: 14.0 lb (6.35 kg).



WIRE ROPE CAPACITIES

3/16 in wire rope	140 ft
1/4 in wire rope	75 ft
5/16 in wire rope	50 ft

WIRE ROPE KEEPER

- **RK19-25S** - 304 Stainless steel metal bracket attaches to base or other structure to hold free end of the wire rope when detached from crane. Not designed to hold a load. Approx. ship weight: 1.00 lb (0.45 kg).



OPTIONS

ADDITIONAL OPTIONS FOR FIRST MATE SERIES

Thern offers a variety of additional options you can choose to enhance your davit crane.

- **FACTORY LOAD TEST**

Upon request, Thern can test your crane prior to shipping, up to 125% of rated load.

- **EXTENDED 5-YEAR WARRANTY**

Extend our standard 2-year warranty to 5 years .

- **PE STAMP - PROFESSIONAL ENGINEER STAMP**

Available upon request at time of order.

- **CE MARK**

Available upon request at time of order, CE mark for products sold into the European union.

- **ATEX CLASSIFICATION**

Specially rated for use in explosive settings. Available upon request at time of order.

- **WINCH COVER**

Canvas cover that fits all hand winches. Protects your winch from the elements when not in use.



ADDITIONAL OPTIONS FOR POWER

- **POWER WINCH OPERATION**

AC electric in any voltage. DC electric, hydraulic and pneumatic power winches available.

- **CUSTOM ELECTRIC CONTROLS**

Thern can build the high quality controls you need to operate your equipment.

- **DRILL-DRIVEABLE WINCH**

A worm gear hand winch is also available for operation with a 400 rpm max drill motor option.

- **LIMIT SWITCH**

Add an emergency safety shut-off to ensure safe operation.

CUSTOMIZATION AVAILABLE FOR FIRST MATE SERIES

Customization is available for almost all Thern products and should always be performed by our engineers to assure the changes meet our stringent quality standards. Below are some of our more common customization requests. Only factory modifications are covered under warranty.

- **LONGER LIFT DISTANCES**

Customized winch and crane configurations to accommodate longer lifts.

- **CUSTOM COLORS & FINISHES**

Custom colors and finishes are available to match your unique application

- **EXTENDED BOOM AND MASTS**

Thern can extend mast heights and boom lengths to fit your needs

- **RELOCATE THE WINCH**

The winch can be relocated to fit confined spaces or height restrictions

- **SPECIAL BASES**

Custom bases or mounting requirements can be manufactured to meet your unique situation



Special davit crane built to lift UV panels.



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



 **THERN**
WINCHES AND CRANES

MADE IN USA 

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