

# 5122

## **FIRST MATE** SERIES

Like a favorite tool in your toolbox, Thern's First Mate series portable davit cranes can be used for a large variety of smaller lifting jobs. Their simple set-up makes them easy to use and easy to transport, making them ideal for multiple station service. With multiple bases in place, the Thern First Mate goes anywhere you need it.



### 500 lb Capacity Portable Davit Crane

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

ISO  
9001:2008  
REGISTERED



Model 5122M1  
Base 522

 **THERN**

**LEAVE THE HEAVY LIFTING TO US**

HAND / POWER / HYDRAULIC / AIR WINCHES • DAVIT CRANES  
Winona, MN USA | [www.thern.com](http://www.thern.com)

# FIRST MATE SERIES

## **FIRST MATE**



Swaged ball fitting allows for easy installation of wire rope assemblies. Four drum wraps required for proper operation.

boom  
27 lbs  
12.3 kg

hand winch  
17 lbs  
7.7 kg



### **QUICK DISCONNECT ANCHOR**

On end of wire rope. For quickly attaching or removing wire rope equipped with a swaged ball fitting.

### **MANUAL or POWER OPERATION**

An economical solution to your lifting needs, Thern davit cranes can be configured with a spur gear hand winch equipped with automatic disc brake for load control on short, infrequent lifts; or a power winch for longer lifts and heavier loads. Winch is located behind the crane at the right height for ergonomic operation.

### **NYLATRON FLANGE BEARING**

Supports the mast at the top of the base and assists with the crane's smooth rotation.



mast  
25 lbs  
11.3 kg

### **ROLLER ASSEMBLY**

Crane mast and boom rotate on a bolt and roller assembly located in the bottom of the base.

flange bearing

### **CRANE STANDARDS**

- CE cranes available
- PE stamp available upon request
- ISO 9001:2008 Registered

pedestal base  
18 lbs  
8.2 kg

Model  
5122M1



Model  
5122M3SS

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

# FEATURES AND BENEFITS



## WELDED STEEL CONSTRUCTION

Crane boom, mast and base fabricated from heavy duty structural steel that limits deflection and meets ASTM standards. Features a built-in 3:1 design factor that stands up to abuse.



powder coat



stainless steel



galvanized

## CORROSION RESISTANT FINISH

Electrostatic powder coating on crane, zinc plating on winches, and stainless steel fasteners combine to resist corrosion in harsh environment. Other options available including galvanized and stainless steel.



Clevis style pins for quick release, boom adjustments, and fold down for storage.

## ADJUSTABLE BOOM ANGLE

With 2 different positions for operation, and folds down for storage or transport.

## CRANE ROTATES

360° in a sleeve bearing on the base for ease of positioning load.

## STAINLESS STEEL PINS

Clevis style pins for quick release, boom adjustments, and fold down for storage.

## WIRE ROPE ASSEMBLY

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

## HEADACHE BALL

Clamped to wire rope to keep cable taut when no load is attached. Sold separately.

## EASY ASSEMBLY & DISASSEMBLY (FOLD-DOWN)

Quick-release pins allow for easy assembly and quick disassembly for transport or storage. No tools required.

## VARIETY OF BASES

Pedestal, flush and wall mount bases allow for removal of the mast. Wheel base also available. Bases sold separately.



headache ball

load hook



1



2



3



4



## 2-YEAR WARRANTY

Industry-leading two-year limited warranty.



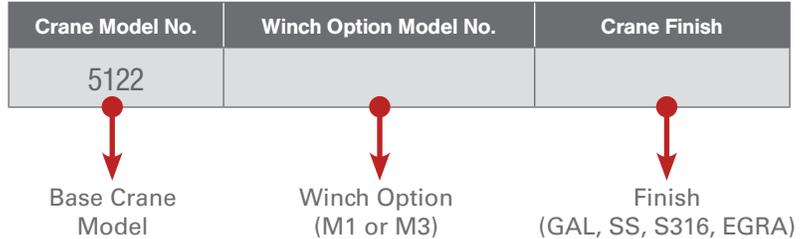
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# FINISH AND WINCHES

## **FIRST MATE** SERIES

### **CONFIGURING YOUR CRANE IS AS EASY as 1-2-3**

Begin with your base crane model, then select a winch option and crane finish.



### **1 CRANE BASE MODEL**

Base model crane for First Mate 500 is 5122. See performance characteristics.

Series	Base Model	Capacity
First Mate 500	5122	500 lbs 227 kg

### **2 WINCH OPTIONS FOR FIRST MATE**

**HAND WINCHES** Mounted to the mast, includes disc brake for load control, and steel gear covers to protect gears and help prevent injuries.



Winch	Model No.	Description	Finish	Approx. Ship Weight	Advantage
M1	M4022PB-K	• 1000-lb spur gear hand winch with brake • auto disc brake for load control	Zinc Plated	17 lbs 7.7 kg	<ul style="list-style-type: none"> <li>corrosion-resistant trivalent zinc plated</li> <li>disc brake for load control</li> <li>steel gear covers</li> </ul>
M3	M4042PBSS-K	• 1000-lb stainless steel spur gear hand winch with auto disc brake for load control	Stainless Steel	24 lbs 11 kg	<ul style="list-style-type: none"> <li>larger capacity drum holds more rope for longer lifts •</li> <li>electro-polished for added protection</li> <li>D:d capacity</li> </ul>

### **3 FINISH OPTIONS FOR FIRST MATE**

All cranes come standard with corrosion-resistant electrostatic powder coat red finish and are available in four optional corrosion-resistant finishes: galvanized, 304 stainless steel, 316 stainless steel, and epoxy. Custom colors are available upon request.

Finish	Code	Description
Powder Coat (Red)	(standard)	• the standard red electrostatic powder coating applied to all cranes
Galvanized	GAL	• the economical choice that provides extra corrosion protection
304 Stainless Steel	SS	• electro-polished for added protection
316 Stainless Steel	S316	• a higher level of corrosion protection
Epoxy (Gray)	EGRA	• 3-part epoxy that dries very hard and is impact, fire, water, and slip-resistant

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# BASES AND WIRE ROPE



## Select your base(s)

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

## BASE OPTIONS FOR FIRST MATE

Independent bases for Thern portable davit cranes are sold separately and are available in a variety of styles and finishes to suit the needs of your application.

Finish	Pedestal / Flush	Wall	Wheel
Powder Coat (Red)	522	522W	—
Galvanized	522GAL	522WGAL	—
304 Stainless Steel	522SS	522SSW	—
316 Stainless Steel	522S316	522S316W	—
Epoxy (Gray)	522EGRA	522WEGRA	—
Enamel Paint	—	—	514
Approx. Ship Weight	18 lbs 8.2 kg	21 lbs 9.5 kg	80 lbs 36 kg



## WIRE ROPE ASSEMBLIES FOR FIRST MATE

Thern 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.



**Galvanized Aircraft Cable:**  
Enamel swivel hook with swaged ball fitting.

**304 Stainless Steel Wire Rope:**  
SS swivel hook and swaged ball fitting.

**316 Stainless Steel Wire Rope:**  
SS swivel hook and swaged ball fitting.

Wire Rope Length	Galvanized Air Craft Cable				304 Stainless Steel Wire Rope				316 Stainless Steel Wire Rope			
	3/16" Diameter		1/8" Diameter		3/16" Diameter		1/8" Diameter		3/16" Diameter		1/8" Diameter	
	Model	Ship Wt.	Model	Ship Wt.	Model	Ship Wt.	Model	Ship Wt.	Model	Ship Wt.	Model	Ship Wt.
20 ft 6 m	WA19-20NS	3 lbs 1.4 kg	—	—	WS19-20NS	3 lbs 1.4 kg	—	—	WSS19-20NS	3 lbs 1.4 kg	—	—
28 ft 8.5 m	WA19-28NS	4 lbs 1.8 kg	—	—	WS19-28NS	3 lbs 1.4 kg	—	—	WSS19-28NS	3 lbs 1.4 kg	—	—
36 ft 10.9 m	WA19-36NS	4 lbs 1.8 kg	—	—	WS19-36NS	3 lbs 1.4 kg	—	—	WSS19-36NS	3 lbs 1.4 kg	—	—
45 ft 13.7 m	WA19-45NS	5 lbs 2.3 kg	—	—	WS19-45NS	4 lbs 1.8 kg	—	—	WSS19-45NS	4 lbs 1.8 kg	—	—
60 ft 18.2 m	WA19-60NS	10 lbs 4.5 kg	WA12-60NS	4 lbs 1.8 kg	WS19-60NS	9 lbs 4.1 kg	WS12-60NS	4 lbs 1.8 kg	WSS19-60NS	9 lbs 4.1 kg	WSS12-60NS	4 lbs 1.8 kg
75 ft 22.8 m	WA19-75NS	12 lbs 5.4 kg	WA12-75NS	4 lbs 1.8 kg	WS19-75NS	11 lbs 5.0 kg	WS12-75NS	4 lbs 1.8 kg	WSS19-75NS	11 lbs 5.0 kg	WSS12-75NS	4 lbs 1.8 kg
90 ft 27.4 m	WA19-90NS	7 lbs 3.2 kg	WA12-90NS	5 lbs 2.3 kg	WS19-90NS	7 lbs 3.2 kg	WS12-90NS	5 lbs 2.3 kg	WSS19-90NS	7 lbs 3.2 kg	WSS12-90NS	5 lbs 2.3 kg
120 ft 36.5 m	—	—	WA12-120NS	6 lbs 2.7 kg	—	—	WS12-120NS	6 lbs 2.7 kg	—	—	WSS12-120NS	6 lbs 2.7 kg
150 ft 45.7 m	—	—	WA12-150NS	7 lbs 3.2 kg	—	—	WS12-150NS	7 lbs 3.2 kg	—	—	WSS12-150NS	7 lbs 3.2 kg

NOTE: 1/8" 316 wire rope is available with a derate. Please contact the factory.

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# ACCESSORIES

## ACCESSORIES FOR FIRST MATE

Them 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).



### 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

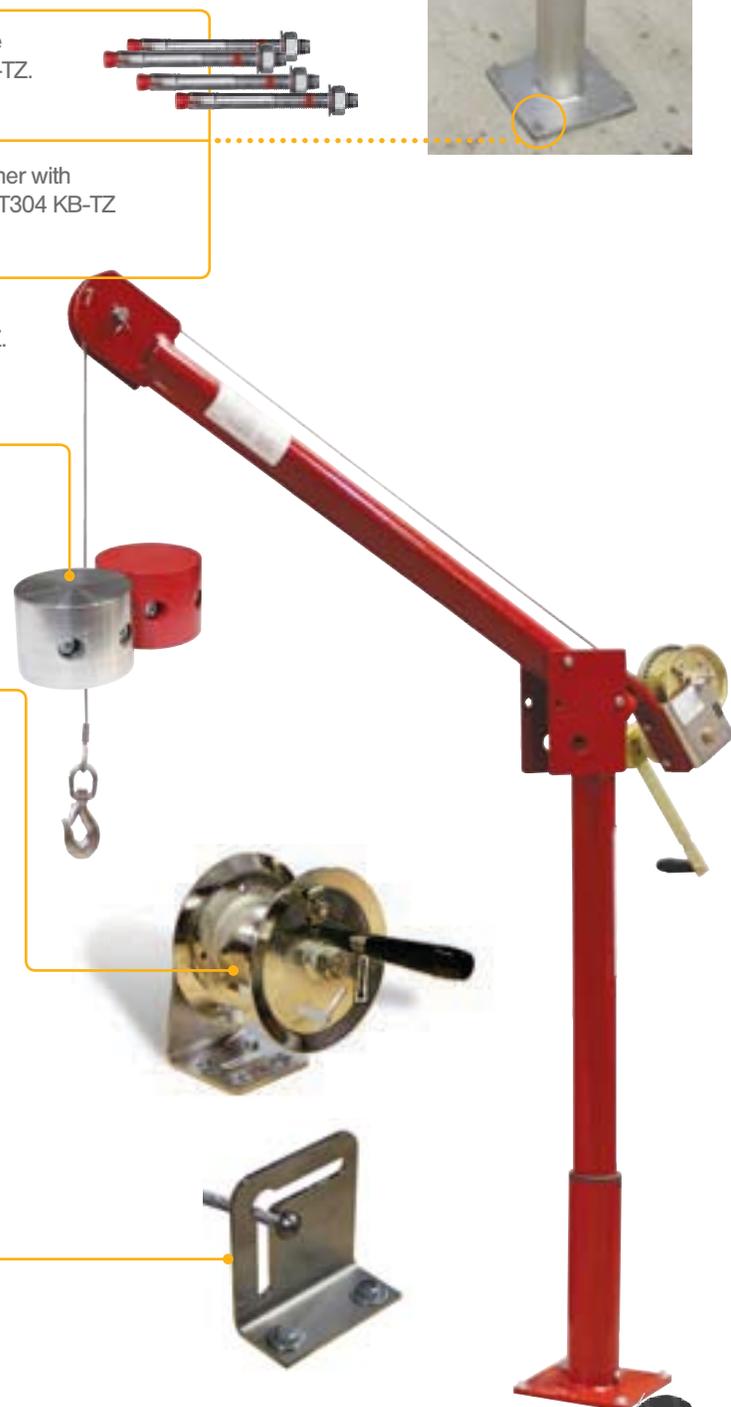
• **RW50** - Keeps wire rope neat and safe when not in use. 316 stainless steel reel winds up wire rope when detached from crane. Suitable for wire ropes up to 5/16 diameter, capacity will vary. Not designed to hold a load. Rated capacity: 50 lbs. Approx. ship weight: 14.0 lb (6.35 kg).

#### 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).



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# 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.

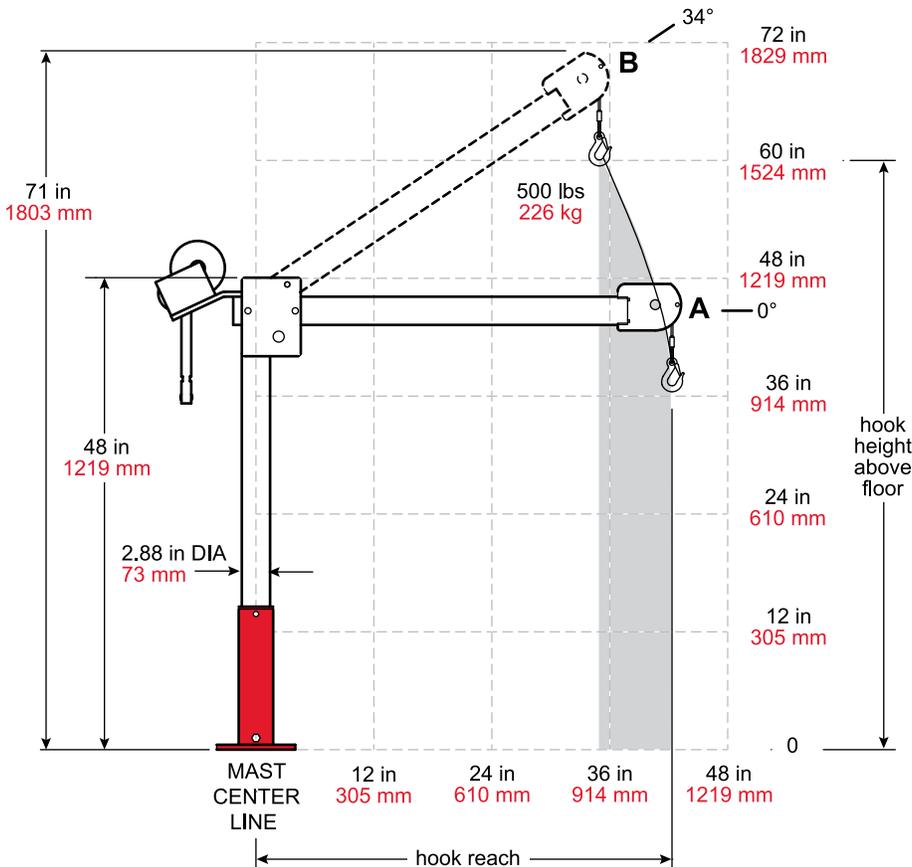
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# PERFORMANCE

## FIRST MATE SERIES

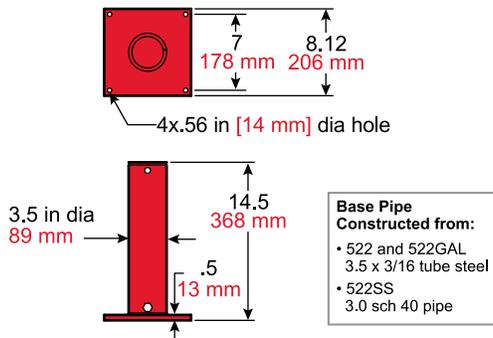
### CRANE DIMENSIONS WITH PEDESTAL BASE

First Mate 500 Series Model 5122



### BASE DIMENSIONS OF PEDESTAL

First Mate 500  
Pedestal Base 522  
522  
522GAL  
522SS  
522S316  
522EGRA



### First Mate 500 Upright Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A	42	1066	37	939
B	35	889	60	1524

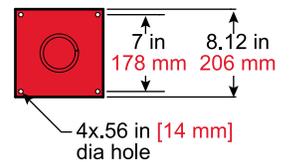
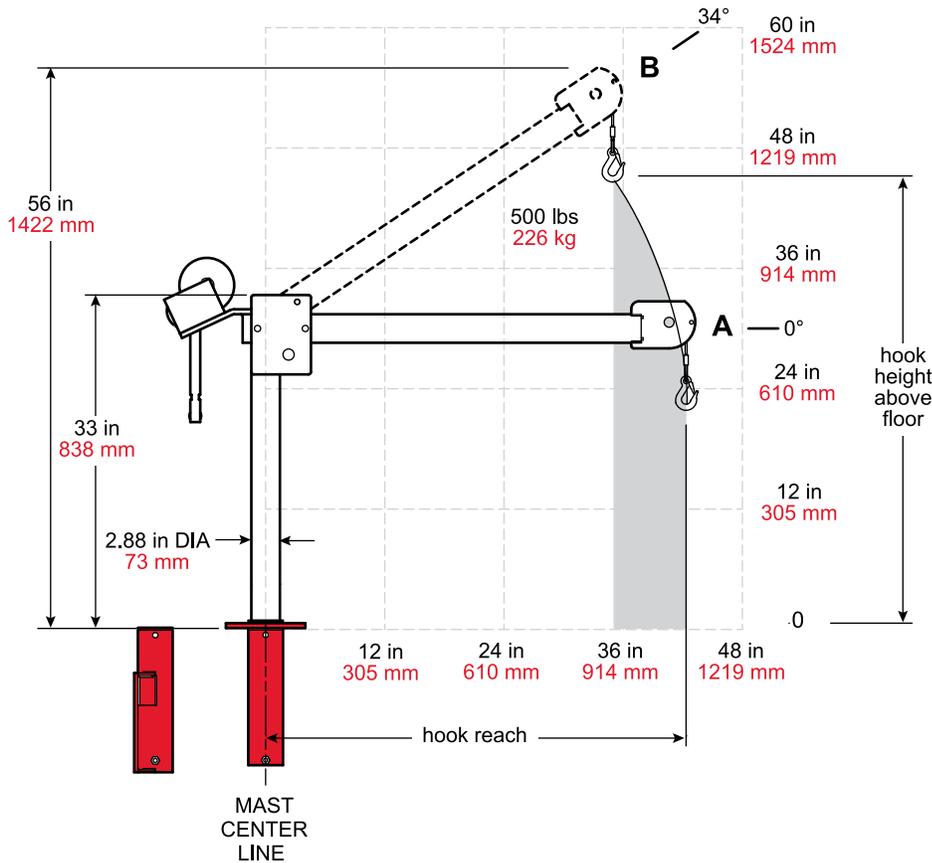
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# PERFORMANCE

## FIRST MATE SERIES

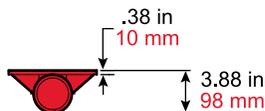
### CRANE DIMENSIONS WITH FLUSH OR WALL MOUNT BASE

#### First Mate 500 Series Model 5122

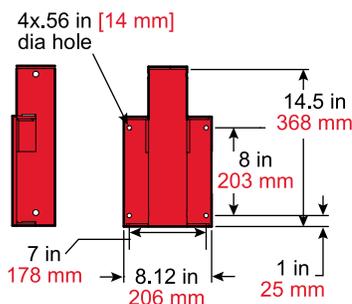
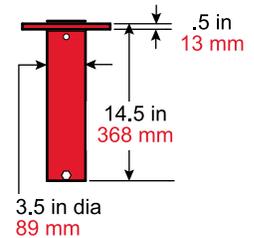


### BASE DIMENSIONS OF FLUSH OR WALL-MOUNT

**First Mate 500  
Wall-Mount Base 522W**  
522W  
522WGAL  
522WSS  
522WS316  
522WEGRA



**First Mate 500  
Flush Base 522**  
522  
522GAL  
522SS  
522S316  
522EGRA



**Base Pipe  
Constructed from:**

- 522 and 522GAL  
3.5 x 3/16 tube steel
- 522SS  
3.0 sch 40 pipe

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

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A	42	1066	22	558
B	35	889	45	1143

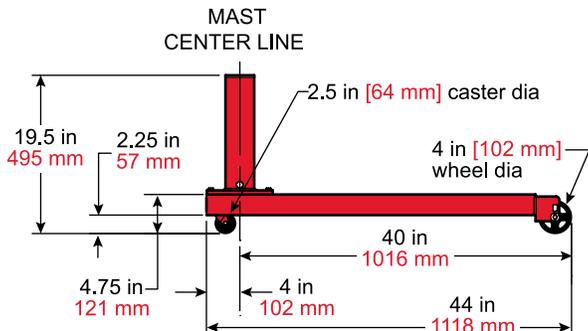
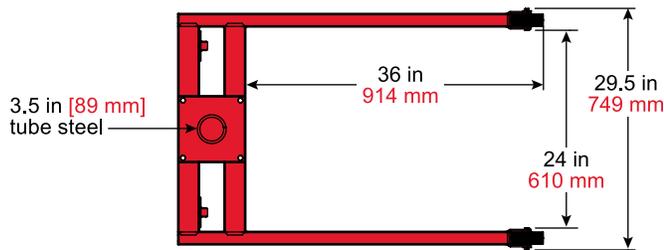
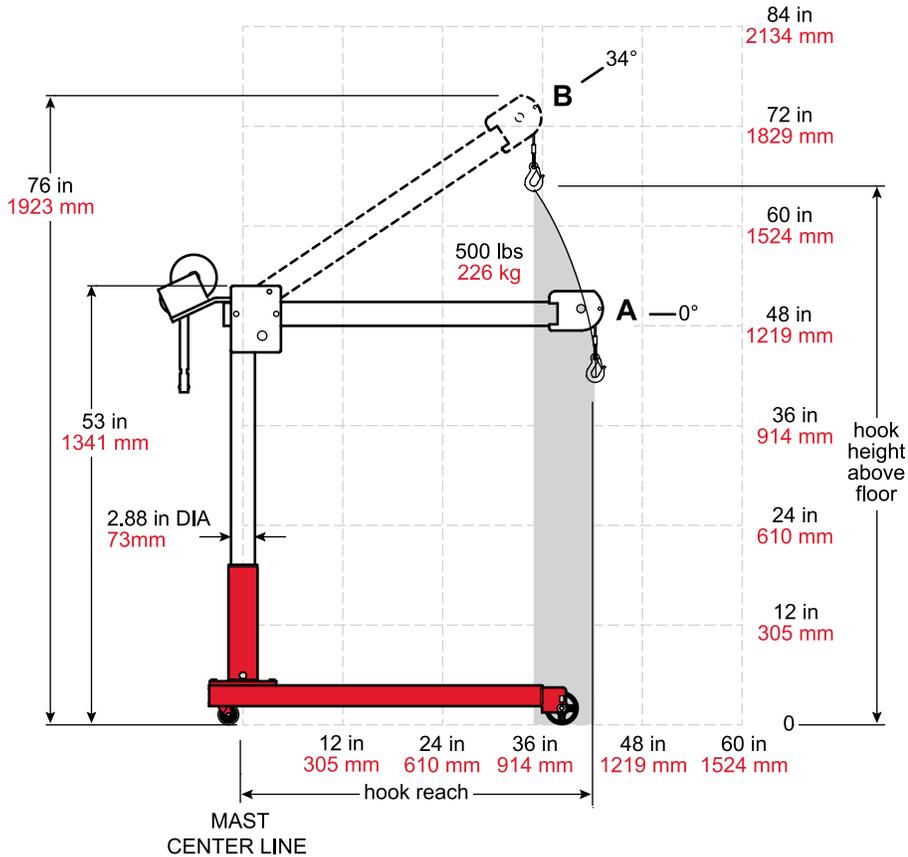
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# PERFORMANCE

## FIRST MATE SERIES

### CRANE DIMENSIONS WITH WHEEL BASE

First Mate 500 Series Model 5122



### First Mate 500 Wheel Base Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A	42	1066	42	1066
B	35	889	65	1651

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**IMPORTANT:** Crane DOES NOT rotate in base when assembled in 514 wheel base.

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# PERFORMANCE

## **FIRST MATE** SERIES

### PERFORMANCE CHARACTERISTICS

#### First Mate 500 Series Model 5122

#### AT A GLANCE...

- Lift Below Floor Level up to 65 feet
- 500 lb Load Rating with M1 and M3 winches



Lift Below Floor Level*				Wire Rope Diameter		Wire Rope Length		Load Rating First Mate 500 Series with M1				Load Rating First Mate 500 Series with M3			
Max Pos A		Max Pos B						Position A		Position B		Position A		Position B	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)
9	3	10	2.7	3/16	4.9	20	6.1	500	226	500	226	500	226	500	226
17	5.5	18	5.2	3/16	4.9	28	8.6	500	226	500	226	500	226	500	226
25	7.9	26	7.6	3/16	4.9	36	11	500	226	500	226	500	226	500	226
34	10.7	35	10.4	3/16	4.9	45	13.8	500	226	500	226	500	226	500	226
49	15.2	50	14.9	3/16	4.9	60	18.3	–	–	–	–	500	226	500	226
64	19.8	65	19.5	3/16	4.9	75	22.9	–	–	–	–	500	226	500	226

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

Lift Below Floor Level*				Wire Rope Diameter		Wire Rope Length		Load Rating First Mate 500 Series with M1				Load Rating First Mate 500 Series with M3			
Max Pos A		Max Pos B						Position A		Position B		Position A		Position B	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)
49	15.2	50	14.9	1/8	3.4	60	18.3	500	226	500	226	–	–	–	–
64	19.8	65	19.5	1/8	3.4	75	22.9	500	226	500	226	**	–	**	–
79	24.3	80	24	1/8	3.4	90	27.5	500	226	500	226	**	–	**	–
109	33.5	110	33.2	1/8	3.4	120	36.6	–	–	–	–	**	–	**	–
139	42.6	140	42.3	1/8	3.4	150	45.8	–	–	–	–	**	–	**	–

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

\*\* 1/8" rope assembly can be supplied. Contact factory.

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

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 **TERN**  
*LEAVE THE HEAVY LIFTING TO US*

*MADE IN USA* 

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