



PORTABLE DAVIT CRANE

# COMMANDER® 2000



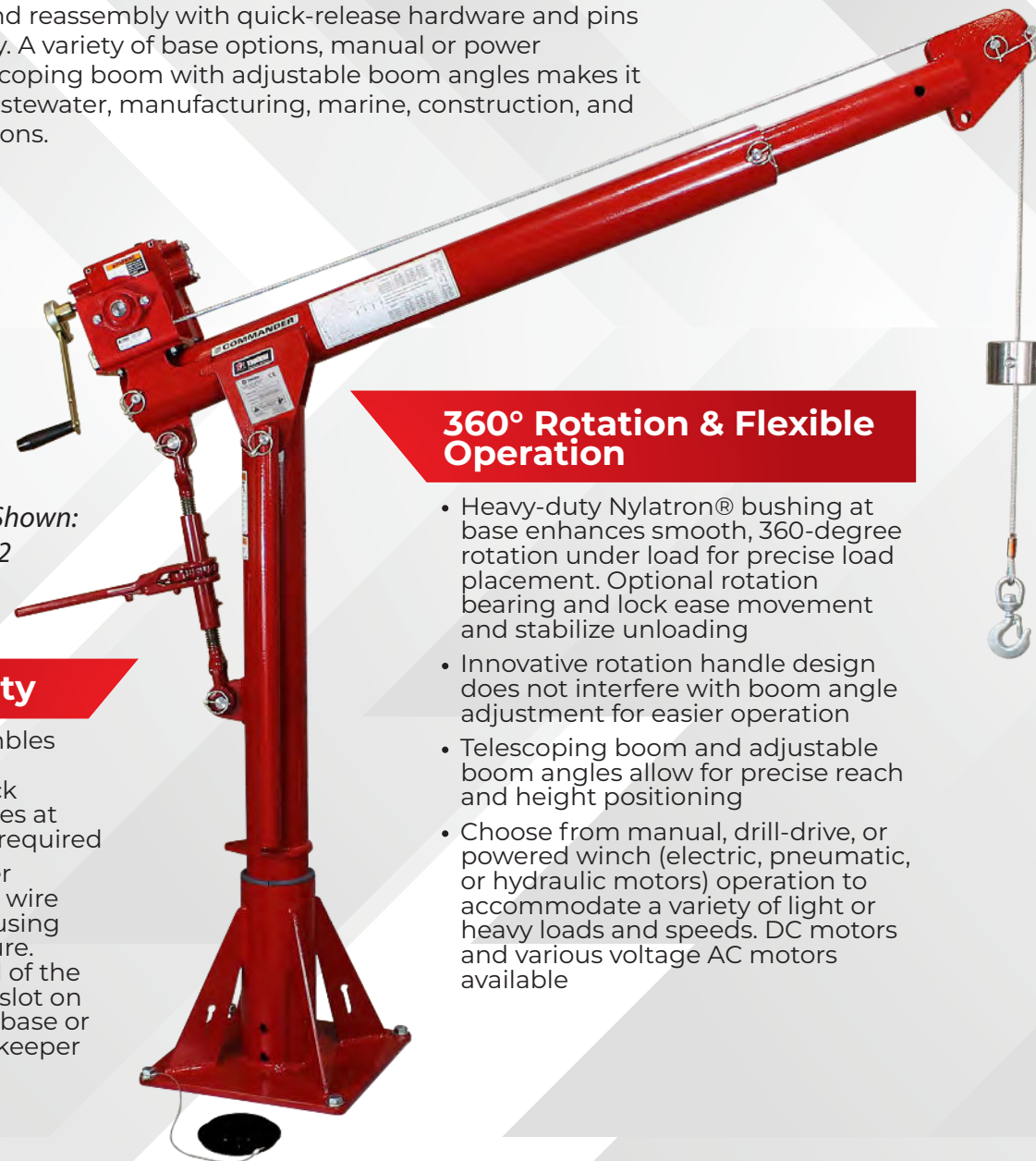
# COMMANDER® 5PT20

## PORTABLE DAVIT CRANE



### HEAVY LIFTING POWER with Enhanced Flexibility and Portability

The 5PT20 Commander 2000 portable davit crane (up to 2,000 pounds) is one of Thern's largest capacity, portable davit cranes. A maximum hook height (with pedestal base) of 97 inches allows it to hoist large loads and reach over walls, rails, and obstacles. It is designed to lift, lower, and rotate loads 360 degrees, easily and smoothly. Add an optional rotation bearing and 12-position lock system to ease movement and stabilize unloading. Easy disassembly and reassembly with quick-release hardware and pins maximize portability. A variety of base options, manual or power operation, and telescoping boom with adjustable boom angles makes it perfect for water/wastewater, manufacturing, marine, construction, and oil and gas applications.



Product Shown:  
5PT20-M2

### 360° Rotation & Flexible Operation

- Heavy-duty Nylatron® bushing at base enhances smooth, 360-degree rotation under load for precise load placement. Optional rotation bearing and lock ease movement and stabilize unloading
- Innovative rotation handle design does not interfere with boom angle adjustment for easier operation
- Telescoping boom and adjustable boom angles allow for precise reach and height positioning
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of light or heavy loads and speeds. DC motors and various voltage AC motors available

### Enhanced Portability

- Disassembles and reassembles easily, using quick-release hardware and pins for quick transport to storage or bases at other work sites—no tools required
- Move your crane to another location while keeping the wire rope attached to the load using the quick-disconnect feature. Insert the swaged-ball end of the wire rope into the keyhole slot on the gusset of the pedestal base or into an optional wire rope keeper or cable spool

### STANDARD CONFIGURATIONS

Series	IMPERIAL/METRIC	
	Description	Up To Capacity
5PT20-M1	Powder-coat crane with M4312PB-K spur gear hand winch	2,000 lbs / 907 kg
5PT20G-M1	Galvanized crane with M4312PB-K spur gear hand winch	2,000 lbs / 907 kg
5PT20-M2	Powder-coat crane with 4WM2-K worm gear hand winch	2,000 lbs / 907 kg
5PT20G-M2	Galvanized crane with 4WM2-K worm gear hand winch	2,000 lbs / 907 kg
5PT20S-M3	Stainless-steel crane with M4312PBSS-K spur gear hand winch	2,000 lbs / 907 kg
5PT20-E2	Powder-coat crane with 4WP2-K electric winch	2,000 lbs / 907 kg
5PT20S-E2X	Stainless-steel crane with gray-epoxy 4WP2EGRA-K electric winch	2,000 lbs / 907 kg

### Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet/exceed ASTM standards
- Corrosion-resistant, powder-coated frame, mast cap, and stainless-steel fasteners resist the elements for long service life.
- Galvanized, epoxy, and 304 or 316 stainless-steel finishes are available for corrosive environments

### Flexible Configurations

- A variety of base mounting options, including pedestal, flush, and wall-mount, as well as wheel-base, help meet unique lifting needs
- A quick-mount winch bracket is standard (no tools required) and accommodates several Thern winches
- Optional base extension provides additional height without affecting the crane's load rating. Ideal for wall- or flush-mount installations to increase crane height for obstacle clearance or other needs. Creates 15 inches (381 mm) of additional height

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

Refer to technical pages for detailed performance information.

# TECHNICAL DRAWINGS & SPECIFICATIONS

# COMMANDER® 2000

## PORTABLE DAVIT CRANE

### CONFIGURATIONS

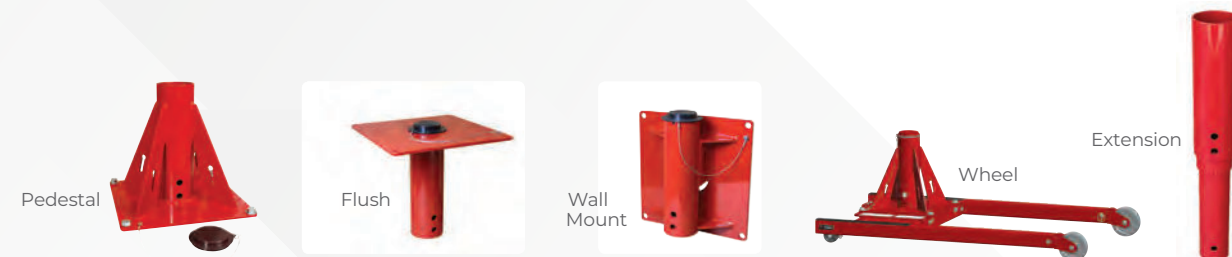
Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
<b>Popular Configurations</b>			
5PT20-M1	up to 2,000 lb capacity with M4312PB-K spur gear hand winch—powder-coat crane	241	109
5PT20G-M1	up to 2,000 lb capacity with M4312PB-K spur gear hand winch—galvanized crane	241	109
5PT20-M2	up to 2,000 lb capacity with 4WM2-K worm gear hand winch—powder-coat crane	255	116
5PT20G-M2	up to 2,000 lb capacity with 4WM2-K worm gear hand winch—galvanized crane	255	116
5PT20S-M3	up to 2,000 lb capacity with M4312PBSS-K spur gear hand winch—stainless-steel crane	241	109
5PT20-E2	up to 2,000 lb capacity with 4WP2-K electric winch—powder-coat crane	298	135
<b>Crane Only</b>			
5PT20	up to 2,000 lb capacity—base model—powder-coat finish	213	97
5PT20G	up to 2,000 lb capacity—base model—galvanized finish	213	97
5PT20S	up to 2,000 lb capacity—base model—304 stainless-steel finish	213	97
5PT20S316	up to 2,000 lb capacity—base model—316 stainless-steel finish	213	97
5PT20X	up to 2,000 lb capacity—base model—gray-epoxy finish	213	97
<b>Winch Only</b>			
M1	M4312PB-K—spur gear hand winch only—zinc plated	28	13
M2	4WM2-K—worm gear hand winch only—powder coat	42	19
M2X	4WM2EGRA-K—worm gear hand winch only—gray epoxy	42	19
M3	M4312PBSS-K—spur gear hand winch only—stainless steel	28	13
E2	4WP2-K electric winch—230/1/50 VAC with 6 ft pendant control—enamel	85	39
E2X	4WP2EGRA-K electric winch—230/1/50 VAC with 6 ft pendant control—gray epoxy	85	39
E3X	3WG4B-KX electric winch - 230/1/50 VAC with 6 ft pendant control - gray-epoxy	85	39
E4	4777-K electric winch—230/1/50 VAC with 6 ft pendant control—enamel	110	50
E4X	4777EGRA-K electric winch—230/1/50 VAC with 6 ft pendant control—gray epoxy	110	50
E4DC	4777DC-K electric winch—12 volt DC with 10 ft pendant control—enamel	105	48
E4DCX	4777DC-K electric winch—12 volt DC with 10 ft pendant control—gray epoxy	105	48

### Independent Bases—sold separately

Pedestal, socket, or wall-mount style.

Wheel base for floor crane operation. Base legs adjust in length and width.

**IMPORTANT:** Base installation is the customer's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.



Finish	Pedestal	Flush	Wall	Wheel	Extension
Powder Coat Paint	5BP20	5BF20	5BW20	5BR20	5BE20-15
Galvanized	5BP20G	5BF20G	5BW20G	—	5BE20-15G
304 Stainless Steel	5BP20S	5BF20S	5BW20S	—	5BE20-15S
316 Stainless Steel	5BP20S316	5BF20S316	5BW20S316	—	5BE20-15S316
Epoxy Paint	5BP20X	5BF20X	5BW20X	5BR20X	5BE20-15X
Approximate Ship Weight	66 lbs (30 kg)	57 lbs (26 kg)	64 lbs (30 kg)	375 lbs (171 kg)	53 lbs (25 kg)

### Wire Rope Assemblies—sold separately

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

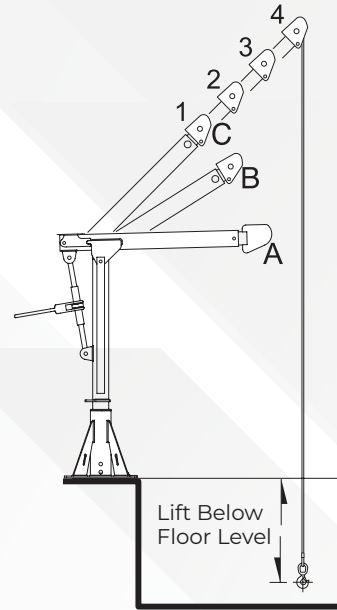
Wire Rope Length	Galvanized Aircraft Cable		304 Stainless Steel Wire Rope	
	1/4" Dia. (6.4 mm)	5/16" Dia. (7.9 mm)	1/4" Dia. (6.4 mm)	5/16" Dia. (7.9 mm)
(ft) (m)	Model No.	Model No.	Model No.	Model No.
20 6.0	WA25-20NS	WA31-20DS	WS25-20NS	WS31-20DS
28 8.5	WA25-28NS	WA31-28DS	WS25-28NS	WS31-28DS
36 10.9	WA25-36NS	WA31-36DS	WS25-36NS	WS31-36DS
45 13.7	WA25-45NS	WA31-45DS	WS25-45NS	WS31-45DS
60 18.2	WA25-60NS	WA31-60DS	WS25-60NS	WS31-60DS
75 22.8	WA25-75NS	—	WS25-75NS	—



# PERFORMANCE

## Commander 2000 Lift Below Floor<sup>2</sup> Level

Lift Below Floor <sup>1</sup>		Wire Rope Diameter		Wire Rope Length <sup>3</sup>		Winch Configurations Maximum Winch Rating									
Minimum (C4) Maximum (C1)						M1		M2		M3		E2		E4	
(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
0	0.0	5	1.5	1/4"	6	20	6.0	2,000	907	2,000	907	2,000	907	2,000	907
8	2.4	13	3.9	1/4"	6	28	8.5	1,800	816	1,700	771	1,800	816	1,700	771
16	4.8	21	6.4	1/4"	6	36	10.9	1,800	816	1,700	771	1,800	816	1,700	771
25	7.6	30	9.1	1/4"	6	45	13.7	1,600	725	1,500	680	1,600	725	1,500	680
40	12.1	45	13.7	1/4"	6	60	18.2	1,400	635	1,300	589	1,400	635	1,300	589
55	16.7	60	18.2	1/4"	6	75	22.8	-	-	1,300	589	-	-	1,300	589
70	21.3	75	22.8	1/4"	6	90	27.4	-	-	-	-	-	-	1,300	589
100	30.4	105	32.0	1/4"	6	120	36.5	-	-	-	-	-	-	-	-
0	0.0	5	1.5	5/16"	8	20	6.0	1,900	861	1,900	861	1,900	861	1,900	861
8	2.4	13	3.9	5/16"	8	28	8.5	1,600	725	1,600	725	1,600	725	1,600	725
16	4.8	21	6.4	5/16"	8	36	10.9	1,400	635	1,400	635	1,400	635	1,400	635
25	7.6	30	9.1	5/16"	8	45	13.7	1,300	589	1,400	635	1,300	589	1,400	635
40	12.1	45	13.7	5/16"	8	60	18.2	-	-	-	-	-	-	1,300	589
55	16.7	60	18.2	5/16"	8	75	22.8	-	-	-	-	-	-	-	-
70	21.3	75	22.8	5/16"	8	90	27.4	-	-	-	-	-	-	-	-
100	30.4	105	32.0	5/16"	8	120	36.5	-	-	-	-	-	-	-	-



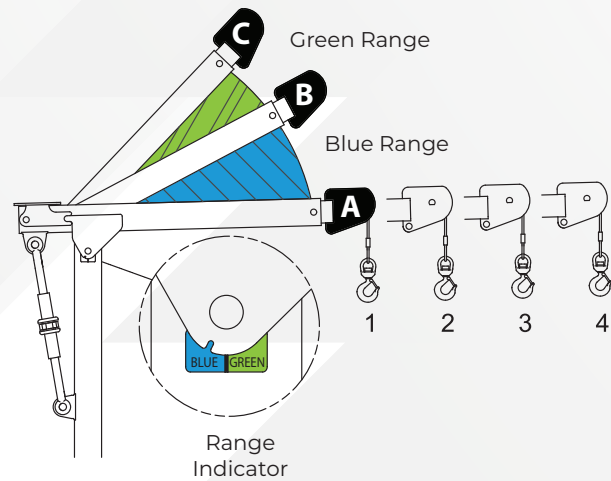
<sup>1</sup>Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.  
<sup>2</sup>Performance characteristics are for standard products referred to in this manual. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.  
<sup>3</sup>Wire rope assemblies include a hook and a swaged-ball fitting to work with quick-disconnect anchor on winches, and 316SS wire rope is also available. Please contact the factory.

Winch Configurations



## Commander 2000 Performance Ratings<sup>2</sup>

	Boom Position	Load Rating	
		(lb)	(kg)
BLUE RANGE	A-1	2,000	907
	A-2	1,600	725
	A-3	1,300	589
	A-4	1,100	498
GREEN RANGE	B-1	2,000	907
	B-2	1,900	861
	B-3	1,500	680
	B-4	1,300	589
GREEN RANGE	C-1	2,000	907
	C-2	1,900	861
	C-3	1,500	680
	C-4	1,300	589

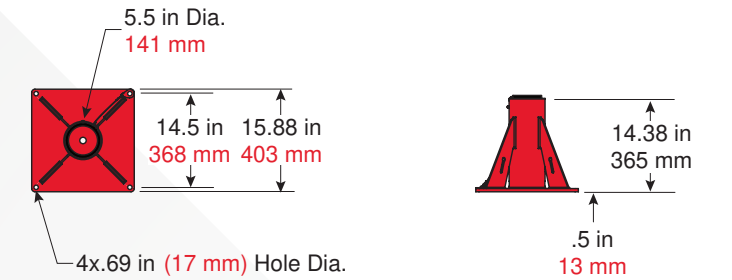


## Commander 2000 with Pedestal Base Reach & Height Above Floor<sup>1</sup>

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	46	1,168	43	1,092
A-2	58	1,473	43	1,092
A-3	70	1,778	43	1,092
A-4	82	2,082	43	1,092
B-1	37	939	61	1,549
B-2	48	1,219	67	1,701
B-3	58	1,473	72	1,828
B-4	69	1,752	78	1,981
C-1	28	711	71	1,803
C-2	36	914	80	2,032
C-3	45	1,143	88	2,235
C-4	53	1,346	97	2,463

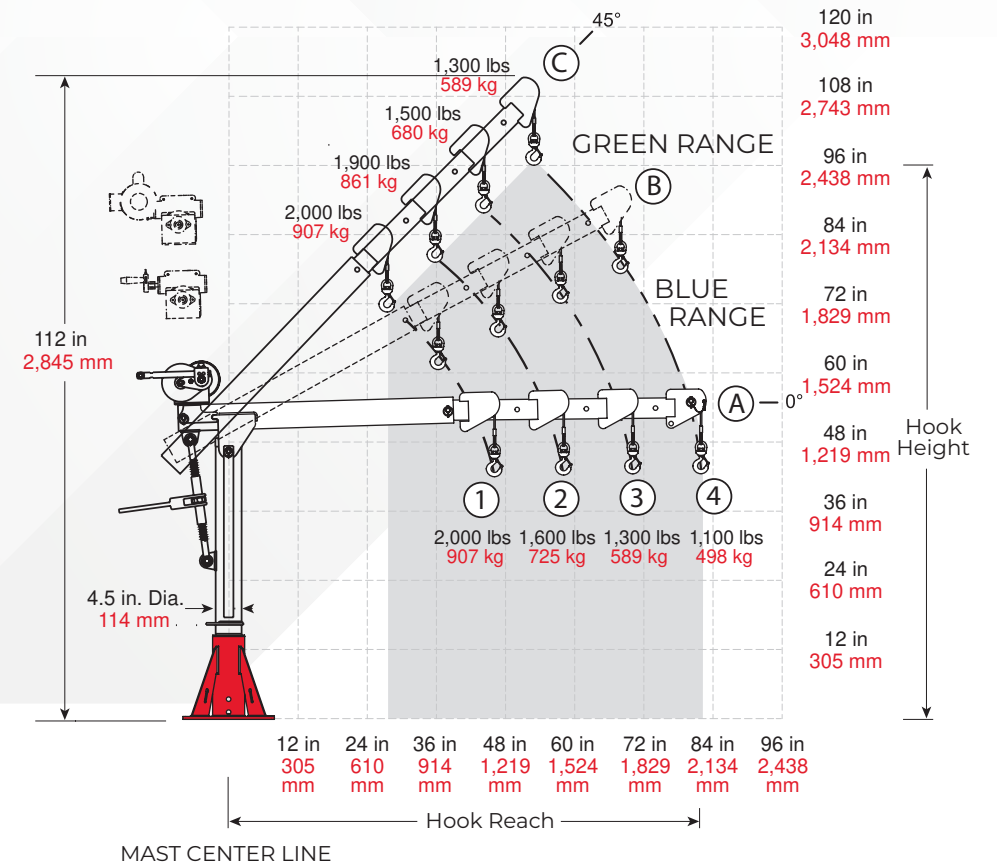
<sup>1</sup>Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

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



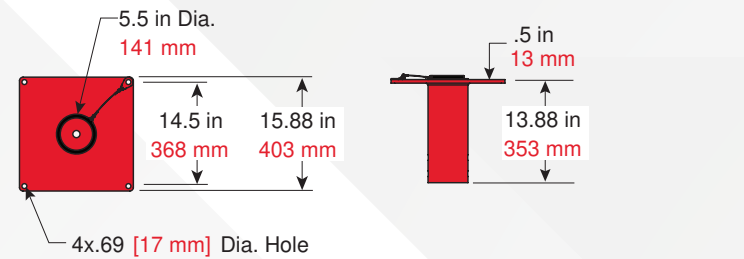
## Commander 2000 Pedestal Base

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



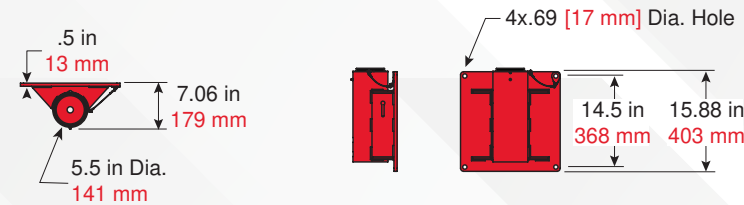
### Commander 2000 with Flush- or Wall-Mount Base Reach & Height Above Floor<sup>1</sup>

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	46	1,168	29	736
A-2	58	1,473	29	736
A-3	70	1,778	29	736
A-4	82	2,082	29	736
B-1	37	939	47	1,193
B-2	48	1,219	53	1,346
B-3	58	1,473	58	1,473
B-4	69	1,752	64	1,625
C-1	28	711	57	1,447
C-2	36	914	66	1,676
C-3	45	1,143	74	1,879
C-4	53	1,346	83	2,108



### Commander 2000 Flush-Mount Base

5BF20 5BF20G 5BF20S  
5BF20S316 5BF20X



### Commander 2000 Wall-Mount Base

5BW20 5BW20G 5BW20S  
5BW20S316 5BW20X

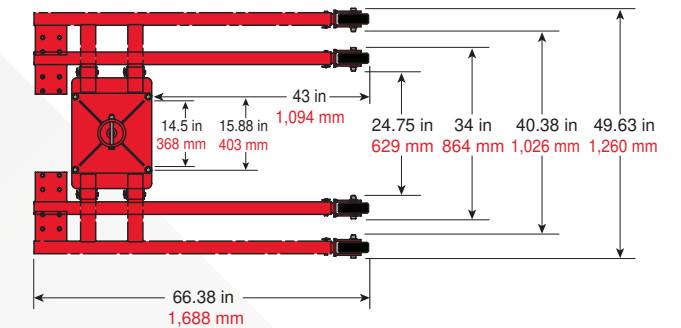
<sup>1</sup>Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

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

### Commander 2000 on Wheel Base Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	46	1,168	50	1,270
A-2	58	1,473	50	1,270
A-3	70	1,778	50	1,270
A-4	82	2,082	50	1,270
B-1	37	939	68	1,727
B-2	48	1,219	74	1,879
B-3	58	1,473	79	2,006
B-4	69	1,752	85	2,159
C-1	28	711	78	1,981
C-2	36	914	87	2,209
C-3	45	1,143	95	2,413
C-4	53	1,346	104	2,641

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



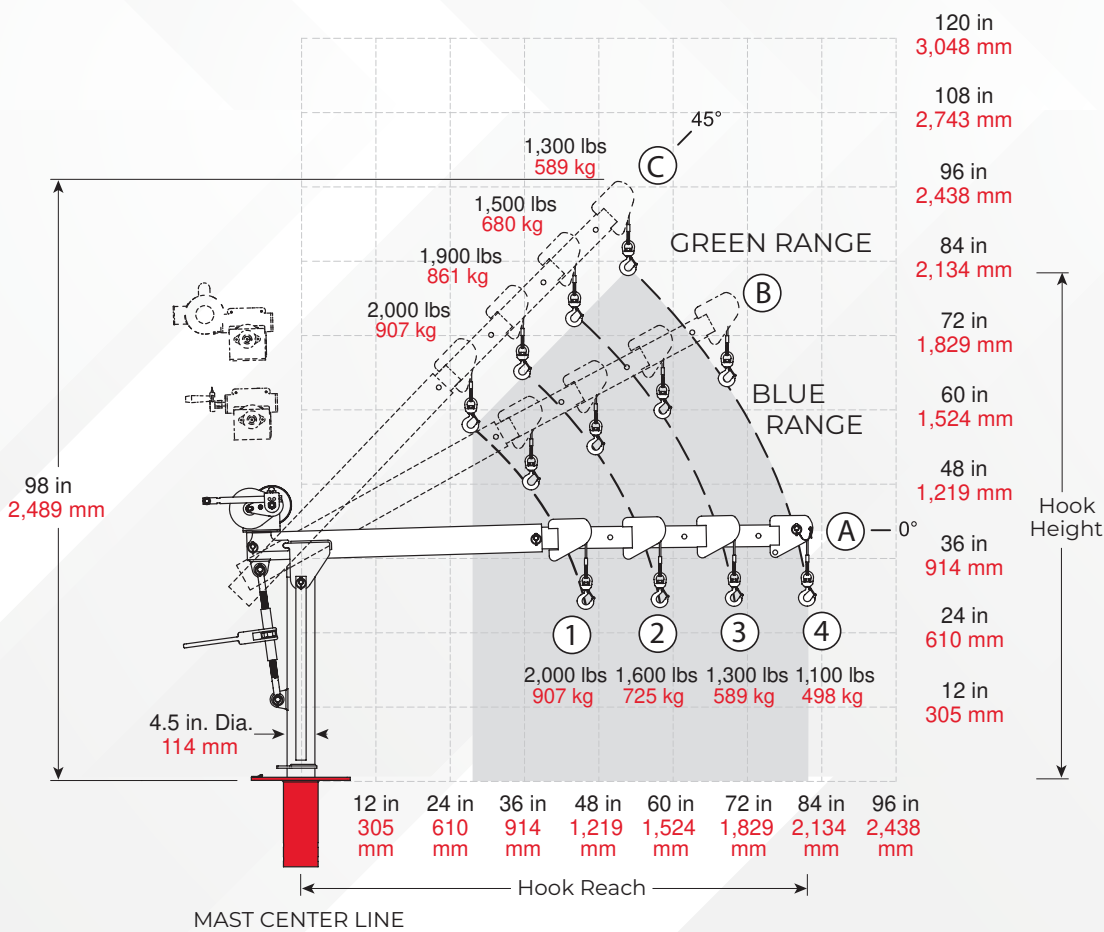
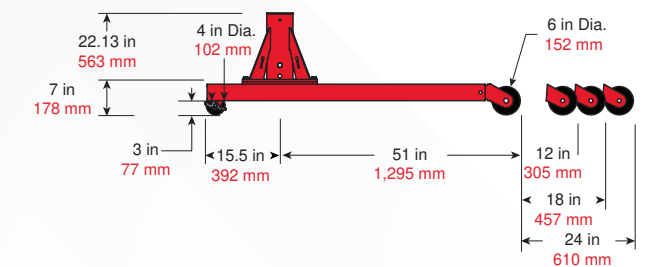
### Commander 2000 Wheel Base

5BR20 5BR20X

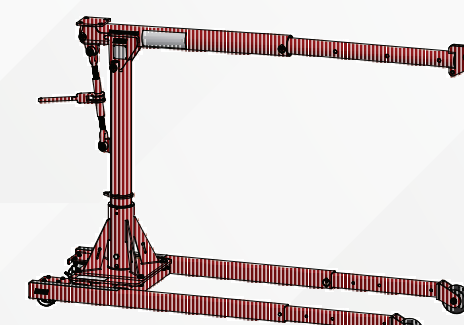
### Commander 2000 Wheel Base Load Ratings

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

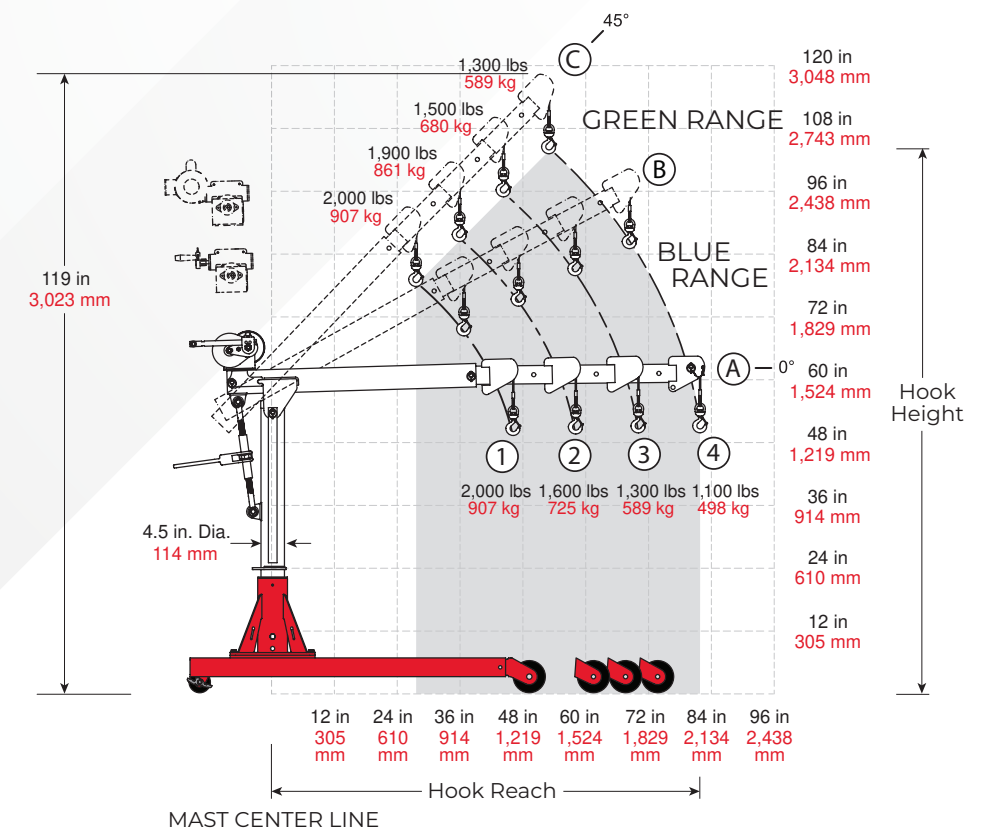
Dimensions are for reference only and subject to change without notice.



### Commander 2000 on Wheel Base



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



# CRANE

## OPTIONS & ACCESSORIES

### Base Anchor Kit

Model	Description
AN50A-5	(4) Hilti® zinc-plated steel fasteners 1/2" X 5.50" STL (5PA5, 5PF5, and 5PT5 cranes)
AN50A-5S	(4) Hilti® 304 stainless-steel fasteners 1/2" X 5.50" SST304 (5PA5, 5PF5, and 5PT5 cranes)
AN50A-5S316	(4) Hilti® 316 stainless-steel fasteners 1/2" X 5.50" SST316 (5PA5, 5PF5, and 5PT5 cranes)
AN62A-6	(4) Hilti® zinc-plated steel fasteners 5/8" X 6.00" STL (5PA10, 5PT10, 5PT20, and 5FT20 cranes)
AN62A-6S	(4) Hilti® 304 stainless-steel fasteners 5/8" X 6.00" SST304 (5PA10, 5PT10, 5PT20, and 5FT20 cranes)
AN62A-6S316	(4) Hilti® 316 stainless-steel fasteners 5/8" X 6.00" SST316 (5PA10, 5PT10, 5PT20, and 5FT20 cranes)

### Rotational Lock

Model	Description
5P5LCK	For pedestal, wall, and flush-mount bases, 316 stainless steel—available for use 5PA5, 5PF5, and 5PT5

### Cable Spooler

Model	Description
RW50	316 stainless-steel reel winds up wire rope when detached from crane

### Wire Rope Keeper

Model	Description
RK19-25S	304 Stainless-steel bracket holds free end of the wire rope when detached from the crane
RK19-25S316	316 Stainless-steel bracket holds free end of the wire rope when detached from the crane

### Roller Ball Bearing for 5PT10 Series Crane

Model	Description
5PT10BRG	Red electrostatic, powder-coat paint finish
5PT10BRG-S	304 stainless-steel, electro-polished finish for added protection against corrosion
5PT10BRG-S316	Stainless-steel, electro-polished finish for maximum protection against corrosion
5PT10BRG-SS	304 stainless steel, for use with stainless-steel base only
5PT10BRG-SS316	316 stainless steel, for use with stainless-steel base only

### Roller Ball Bearing for 5PT20 Series Crane

Model	Description
5PT20BRG	Red electrostatic, powder-coat paint finish
5PT20BRG-S	304 stainless-steel, electro-polished finish for added protection against corrosion
5PT20BRG-S316	Stainless-steel, electro-polished finish for maximum protection against corrosion
5PT20BRG-SS	304 stainless steel, for use with stainless-steel base only
5PT20BRG-SS316	316 stainless steel, for use with stainless-steel base only

### Limit Switch Ready Winch Options

Model	Description
<b>NOTE: Limit switch winch option requires purchase of Limit Switch and Headache Ball (sold separately)</b>	
<b>For 5PF5, 5PA5, 5PA10, 5PT5, 5PT10, 5PT20 Series Cranes (sold separately)</b>	
E2L (5PA5, 5PA10)	4WP2V-KL electric winch - 230/1/50 VAC with 6 ft pendant control - enamel
E2LX (5PA5, 5PA10)	4WP2VEGRA-KL electric winch - 230/1/50 VAC with 6 ft pendant control - epoxy gray
E4L	4777-KL electric winch - 230/1/50 VAC with 6 ft pendant control - enamel
E4LX	4777EGRA-KL electric winch - 230/1/50 VAC with 6 ft pendant control - epoxy gray
E4DCL	4777DC-KL electric winch - 12 volt DC with 10 ft pendant control - enamel
E4DCLX	4777DCEGRA-KL electric winch - 12 volt DC with 10 ft pendant control - epoxy gray
<b>For 5FT20 Series Crane Only (sold separately)</b>	
E2L	4WP2-KL electric winch - 230/1/50 VAC with 6 ft pendant control - enamel
E2LX	4WP2EGRA-KL electric winch - 230/1/50 VAC with 6 ft pendant control - epoxy gray
E4L	4771-KL electric winch - 230/1/50 VAC with 6 ft pendant control - enamel finish
E4LX	4771EGRA-KL electric winch - 230/1/50 VAC with 6 ft pendant control - gray-epoxy finish
E4DCL	E4DCL 4771DC-KL electric winch - 12 volt DC with 10 ft pendant control - enamel finish
E4DCLX	4771DCEGRA-KL electric winch - 12 volt DC with 10 ft pendant control - gray-epoxy finish
<b>For 5PT30, 5FT25, 5FT40 Series Crane Only (sold separately)</b>	
E2L	3WG4B-KL electric winch - 230/1/50 VAC with 6 ft pendant control - enamel finish
E2LX	3WG4BEGRA-KL electric winch - 230/1/50 VAC with 6 ft pendant control - epoxy gray finish
E2TL	3WG4BMT-K electric winch - 230/1/50 VAC with 6 ft pendant control - enamel finish (Unavailable for use with 5FT40)
E2TLX	3WG4MTX-KL electric winch - 230/1/50 VAC with 6 ft pendant control - epoxy gray finish

### Drill Drive Kit

Model	Description
ED330-DW11	120 VAC, 11-amp, 330 rpm 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
ED300-DW06	Cordless drill kit, 60 V brushless motor, 300 rpm drill motor to power drive the M2 hand winch option. Includes 1-1/8" hex drive socket
ED400-DW09	Heavy-duty cordless drill kit, 60 V brushless motor, 400 rpm drill motor to power drive the M2 hand winch option. Includes 1-1/8" hex drive socket

### Headache Ball

Model	Description
HB10-12-25	Red enamel painted 10 lb fits 1/8" to 1/4" rope
HB10-25-38	Red enamel painted 10 lb fits 1/4" to 3/8" rope
HB10S-12-25	Stainless-steel 10 lb fits 1/8" to 1/4" rope
HB10S-25-38	Stainless-steel 10 lb fits 1/4" to 3/8" rope
HB10S-44-50	Stainless-steel 10 lb fits 7/16" to 1/2" rope

### Base Extension

Model	Description
5BE5-15	Available on 5PF5, 5PT5, 5PT10, and 5PT20 with powder-coat, galvanized,
5BE10-15	304 & 316 stainless-steel, and epoxy finishes
5BE20-15	



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