

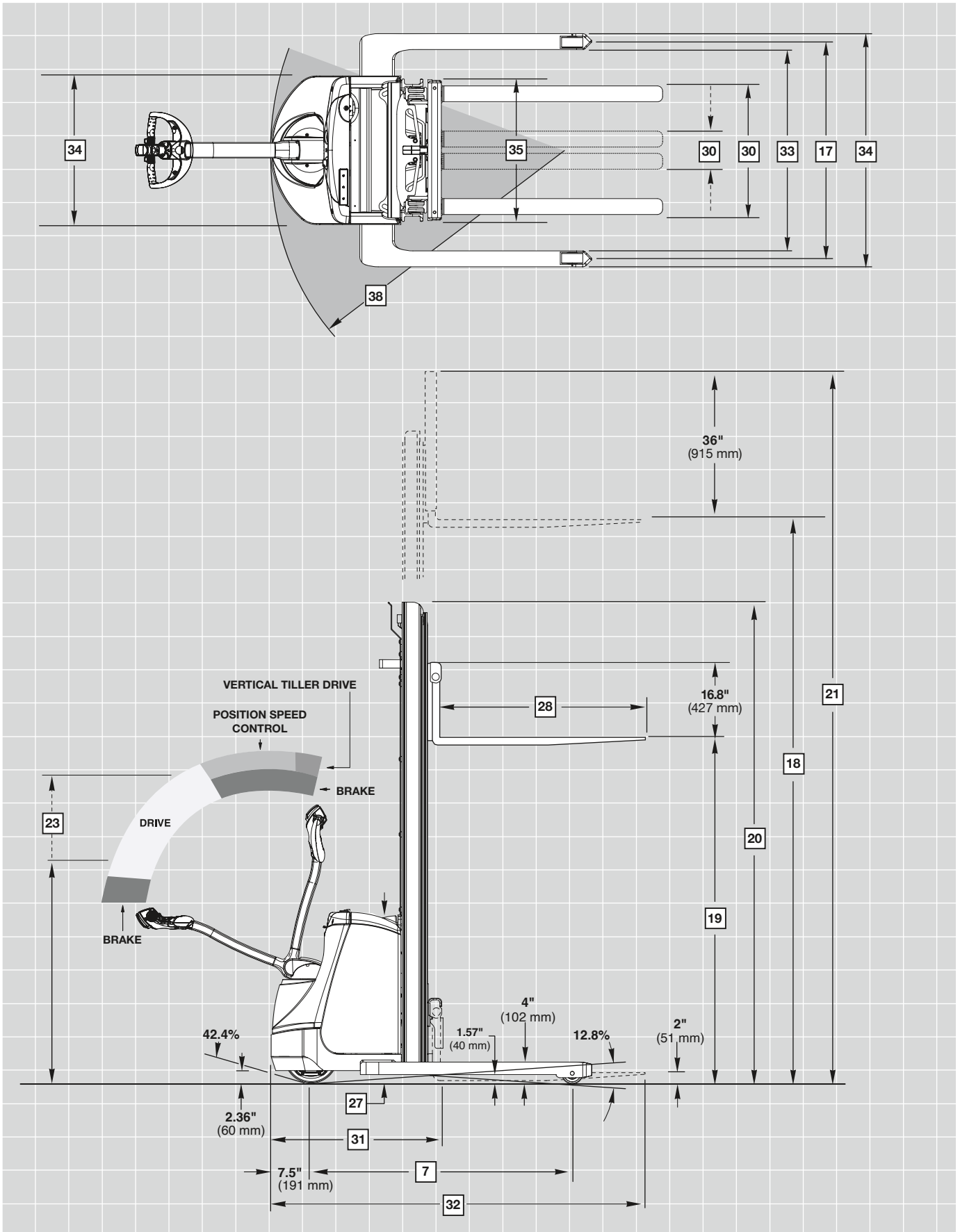
CROWN

M 3200 SERIES

Specifications

Walkie Straddle Stacker





M 3200 Series

Specifications

			Imperial				Metric					
General Information	1	Manufacturer	Crown Equipment Corporation									
	2	Model	M 3200-20									
		Mast Type	in mm	TL-90	TL-110	TL-130	TL-144	TL-2305	TL-2805	TL-3305	TL-3655	
	3	Power		Electric								
	4	Operator Type		Walkie								
	5	Load Capacity	lb kg	2,000				900				
	6	Load Center	in mm	24				600				
	7	Wheelbase	in mm	49				1255				
Tires	8	Weight Less Battery	lb kg	1,663	1,704	1,746	1,775	754	773	792	805	
	13	Wheel Size Front (d x w)	Poly	in mm	10 x 3.35				254 x 85			
			Rubber	in mm	10 x 4				254 x 100			
	14	Wheel Size Rear (d x w)	Poly	in mm	4 x 2				102 x 50			
			Steel	in mm	4 x 2				102 x 50			
	15	Optional Wheels Caster Wheel (d x w)	Poly	in mm	3.54 x 2				90 x 50			
16	Wheels Number (x = driven)	Front / Rear		1x / 2								
Dimensions	17	Track Width	Rear	in mm	Inside Straddle + 3				Inside Straddle + 76			
	18	Lift Height		in mm	90	110	130	144	2305	2805	3305	3655
	18a	Capacity at Lift Height	24" (600 mm) LC	lb kg	2,000	2,000	2,000	2,000	900	900	900	900
	19	Free Lift		in mm	6				152			
	20	Collapsed Height		in mm	65	75	85	91	1640	1890	2140	2315
	21	Extended Height	w/o Load Backrest	in mm	108	128	148	161	2745	3245	3745	4095
			w/ Load Backrest	in mm	127	147	167	180	3225	3725	4225	4575
	22	Load Backrest Width	Load Backrest Height 36" (915 mm) High	in mm	30 / 36 / 42				762 / 914 / 1067			
	23	Tiller Arm Height in Drive Position	Min / Max	in mm	31.1 / 47.5				790 / 1206			
	24	Outrigger Height		in mm	4				100			
	25	Lowered Fork Height		in mm	2				51			
	27	Power Unit Height		in mm	32.28				820			
	28	Fork Lengths		in mm	36 / 42 / 48				914 / 1067 / 1219			
	29	Fork Dimensions	Thickness x Width	in mm	1.5 x 3				38 x 76			
	30	Width Across Forks	Adjustable Min / Max without fork locks	in mm	6.57 - 24.8				167 - 630			
			Adjustable Min / Max with fork locks	in mm	7.2 - 24.3				183 - 616			
	31	Headlength	without fork locks	in mm	32.24				819			
			with fork locks	in mm	32.6				826			
	32	Overall Length			Headlength + Fork Length							
	33	Inside Straddle		in mm	38 - 50				965 - 1270			
34	Overall Width	Front	in mm	28.03				712				
		Rear	in mm	Inside Straddle + 6				Inside Straddle + 153				
35	Fork Carriage Width		in mm	26.57				675				
36	Ground Clearance	w/ Load below Mast	in mm	1.57				40				
37		Center Wheelbase	in mm	1.57				40				
38	Turning Radius		in mm	56.73				1446				
39	Length w/ Outriggers		in mm	60.28				1536				
Performance	40	Travel Speed	w/ wo Load	mph km/h	3.11 / 3.42				5.0 / 5.5			
	41	Lift Speed	w/ wo Load	fpm / m/s	27.56 / 43.31				0.14 / 0.22			
	42	Lowering Speed	w/ wo Load	fpm / m/s	51.18 / 43.31				0.26 / 0.22			
	43	Gradeability	w/ wo Load, 60 min Rating	%	2.4 / 4.5							
			w/ wo Load, 30 min Rating	%	4.9 / 9.1							
	44	Max Gradeability	w/ wo Load, 5 min Rating	%	8.4 / 15.7							
45	Service Brake			Electric								

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			<i>Imperial</i>		<i>Metric</i>		
Battery	46	Maximum Battery Box	L x W x H	in	mm	7.28 x 25.55 24.13	185 x 649 x 613
	47	Battery Voltage (Nominal Capacity 6 Hour Rating)	4x 6V Automotive Starter	V / Ah		24 / 87	
			2x 12V Maintenance Free	V / Ah		24 / 95	
			4x 6V Semi-Industrial	V / Ah		24 / 156	
			4x 6V Maintenance Free	V / Ah		24 / 195	
	48	Type of Controller	Drive			Transistor	
	49	Battery Weight	4x 6V Automotive Starter	lb	kg	128	58
			2x 12V Maintenance Free	lb	kg	132	60
			4x 6V Semi-Industrial	lb	kg	220	100
			4x 6V Maintenance Free	lb	kg	267	121

Note: For Right Angle Stack information, please refer to the Right Angle Stack Calculator.

Standard Equipment

1. 24-volt fused electrical system
2. MOSFET transistorized traction control, closed loop system
3. CAN Communication link
4. AC drive motor
5. e-GEN braking system
6. Electric parking brake
7. X10 Handle
8. Position Speed Control
9. Vertical Tiller Drive
10. Display includes hour meter, discharge indicator with lift lockout and fault code readout
11. Ramp hold
12. Drive unit enclosed in high ductile strength steel frame
13. Stamped steel power unit cover
14. Safety reversing button
15. 175-amp connector with disconnect handle
16. Color-coded wiring
17. High speed cut-out at lift height
18. Two pre-programmed performance levels
19. 10" x 3.35" wide (254 x 85 mm) poly drive tire
20. Poly load wheels 4" x 2" wide (102 x 51 mm)
21. Adjustable outriggers (965 mm - 1270 mm)
22. Battery compartment storage tray
23. Plexiglass mast guard
24. Horn
25. Key Switch Anti-static strap
26. Discharge indicator with hour meter and lift lockout

Optional Equipment

1. Rubber drive tire
2. Non-marking rubber drive tire
3. Diamond siped rubber drive tire
4. Spring loaded poly casters
5. 36" (915 mm) high load backrest
6. Maintenance-free, semi-industrial or starter battery package
7. Freezer/corrosion conditioning
8. Amber strobe light
9. Travel alarm
10. 30 amp fully automatic charger

11. V-Force Lithium-Ion Ready
12. Steel load wheels
13. Wire mesh mast guard
14. Drive/tow switch
15. Work Assist Accessories:
 - Clip pad and hook
 - Operator fan
 - Storage pocket
16. InfoLink Ready

Battery and Charger

Battery package options are as follows:

- Maintenance-free battery pack, two 12-volt batteries at 95 amp hour four 6-volt batteries at 195 amp hour
- Semi-industrial deep cycle battery pack, four 6-volt batteries at 156 amp hour
- Wet-cell starter battery pack, four 6-volt batteries at 87 amp hour
- V-Force Lithium-Ion Ready

Flooded battery packs have a slide-out feature to check water level of bottom batteries.

A built-in 30-amp charger is required with all lead acid battery packs (not available with V-Force Lithium-Ion Ready). This premium fan-cooled, solid-state charger is durable and efficient. It has an advanced memory feature to allow for opportunity charging. The charger can be set for either maintenance free, wet cell or industrial batteries. An extension cord is included with any truck equipped with the on-board battery charger.

Operator Controls

Crown's robust X10 Handle places all controls in the optimum position for ease of operation with either hand and to minimize hand and wrist movements. An ergonomic forward/reverse thumb wheel allows for precise maneuvering.

The control hand grips are urethane covered for insulation from cold and vibration. Horn buttons are integrated into the control handle for easy activation. The handle contains a safety button which reverses the direction of the truck should the button touch the operator.

The physical efforts to hold the handle at a comfortable height was minimized to reduce fatigue, a distinct advantage. The operator is positioned to maximize the steer effort and maintain excellent visibility.

The rabbit/turtle switch incorporates two levels of programmable travel performance to match operator experience and application environment.

The position speed control enables operators to move the handle to a near vertical position while engaging traction at creep speed when maneuvering loads. The vertical tiller drive function is enabled with the handle completely vertical and allows for fine-tuned positioning in tight spaces.

Performance

The M 3200 Series benefits from Crown's design and engineering excellence.

The transistor control module works in conjunction with a new separately excited (SEM) drive motor to provide excellent acceleration and top travel speed loaded or empty. Transistor control is programmable for specific tasks or operator skill levels.

Smooth travel and lift combine with excellent controls to reduce product damage and increase productivity.

Electrical System

A heavy-duty 24-volt fused electrical system provides good travel and lift speeds.

Separately excited motor control eliminates directional contractors reducing maintenance and downtime.

The transistor control is sealed from dirt, dust and moisture for trouble-free operation. Transistor control features include over-temperature protection, polarity protection, self-test and visible diagnostics.

Regenerative motor braking is activated under a downhill condition, during plugging or when the directional control is returned to neutral. "Regen" reduces heat build-up and extends motor brush life.

An anti-roll down feature will apply the brakes if the truck rolls without a travel command.

175-amp battery connector with standard disconnect handle.

Hydraulic System

The standard hydraulic lift package features a hydraulic lift motor (2.2 kw) with integral pump and reservoir. Proportional lift and lowering is available to the operator.

Cylinder rods are hard-plated chrome with polyurethane seals.

Relief valve tuned to capacity protects all components in the hydraulic system.

Drive Unit and Brakes

Heavy-duty gearbox with helical and spiral bevel gears for quiet operation.

Drive unit is equipped with an electromagnetic disc brake that is spring applied and electrically released. Brake is activated by the control handle position. Brake rotor and disc are easily accessed for inspection and replacement. Regenerative motor braking assists brake effort and improves component life.

Drive unit mounts in truck frame with a permanently lubricated, twin-conical roller bearing that disperses load forces evenly, reducing maintenance and downtime.

Mast

High visibility two-stage mast design features nested I-beams and canted rollers. A single lift cylinder is positioned in the center of the mast for a clear view onto fork tips during load handling. A bumper on the cylinder rod provides a smooth landing when lowering forks. Heavy-duty mast and chain rollers are sealed and lubricated for life. Mast design allows for easy access to carriage rollers.

Fork Carriage

M 3200 Series feature 25" (635 mm) wide pin-type fork carriage. Forks are adjustable from 7.2" to 24.3" (183 to 616 mm) with fork locks. Standard fork lengths are 36", 42" and 48" (914, 1067 and 1219 mm).

Serviceability

One-piece steel power unit cover is removed easily for access to all major components.

Brake rotor and disc inspection and replacement are easy.

Drive motor brush access is excellent.

Color-coded wiring speeds troubleshooting and the transistor control module uses visible LED flashes for fault communication. Optional plug-in hand set analyzer for servicing and programming capability.

Control handle switch cap is easily removed to expose components.

Wheels and Tires

- Drive tire – Poly
10" dia x 3.35" wide
(254 x 85 mm)
- Load wheels – Poly
4" dia x 2" wide (ST)
(102 x 51 mm)

Warning Device Options

Audible or Visual Alerts

Safety considerations and dangers associated with audible travel alarms and lights include:

- Multiple alarms and/or lights can cause confusion.
- Workers ignore the alarms and/or lights after day-in and day-out exposure.
- Operator may transfer the responsibility for "looking out" to the pedestrians.
- Annoys operators and pedestrians.

Other Options Available

Contact factory for additional options.

Dimensions and performance data given may vary due to manufacturing tolerances. Performance is based on an average size vehicle and is affected by weight, condition of truck, how it is equipped and the conditions of the operating area. Crown products and specifications are subject to change without notice.



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Because Crown is continually improving its products, specifications are subject to change without notice.

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