

CROWN

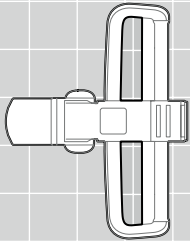
PC 4500 SERIES

Specifications

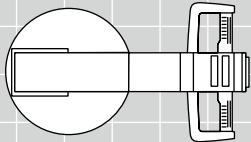
Center Control Pallet Truck



Manual Steering Option

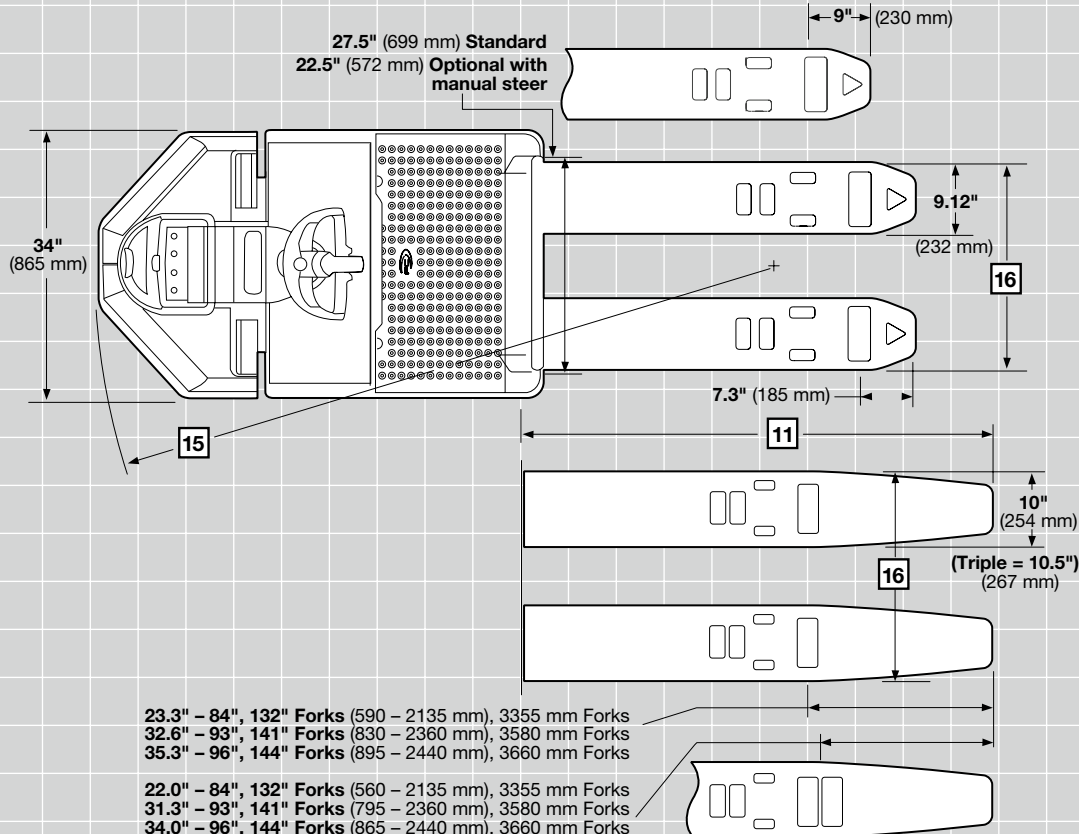


T-handle

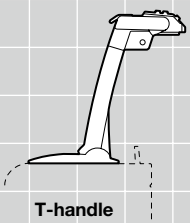


Tiller-style handle

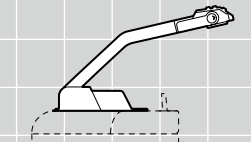
Electronic Power Steering Standard



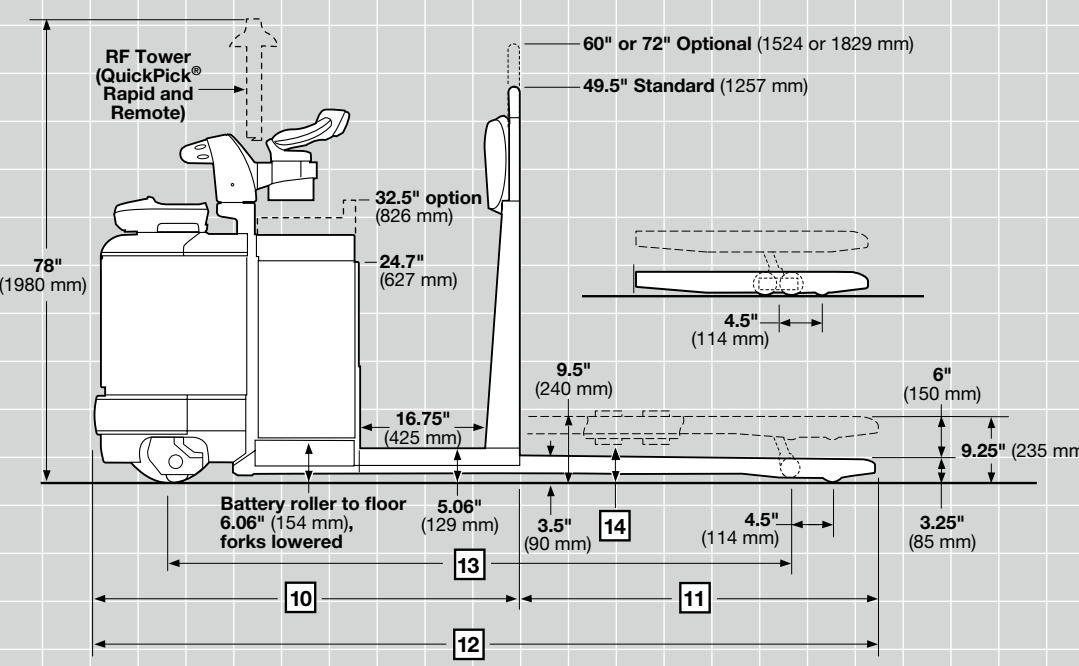
Manual Steering Option



T-handle



Tiller-style handle



PC 4500 Series

Specifications

			<i>Imperial</i>	<i>Metric</i>		
General Info	1	Manufacturer	Crown Equipment Corporation			
	2	Model	PC 4500			
	3	Load Capacity	lb kg	6,000 / 8,000	2720 / 3625	
	4	Power	Electric	24 Volts		
	5	Operator Type	Stand-up	Rider		
Dimensions	8	Lift Height	in mm	9.25	235	
	9	Lift	in mm	6	150	
	10	Head Length	in mm	57.31	1455	
	16	Outside Fork Spread	Standard Tip	in mm	22 / 27	560 / 685
	Extended Tip*		in mm	23 / 28	585 / 710	
Performance	17	Speed Travel	Power Unit First / Forks First			
			Empty	mph km/h	9.0 / 6.0	14.4 / 9.6
			4,000 lb (1815 kg)	mph km/h	7.0 / 5.7	11.2 / 9.1
			6,000 lb (2720 kg)	mph km/h	6.3 / 5.1	10.1 / 8.2
			8,000 lb (3625 kg)	mph km/h	6.0 / 5.0	9.6 / 8.0

*Add .5" (15 mm) for triple length forks.

			<i>Imperial</i>	<i>Metric</i>	
Wheels and Tires	Model		PC 4500 - 60/80		
	Drive Tire	in mm	13 x 4.5 x 8 Poly	330 x 114 x 203 Poly	
	Casters	in mm	2 - 4 x 2.5 Poly	2 - 102 x 64 Poly	
		in mm	2 - 3.25 x 6.5 (-302)	2 - 83 x 165 (-302)	
	Load Wheels	-301	Moderate cut/tear resistance, high capacity. High capacity transport. Not for dock use.		
-302		Highest cut/tear resistance offered. Extremely high capacity, low rolling resistance. Docks, rough floors and floor debris.			
-401		Combines good cut/tear resistance and very high capacity. Use where nothing else works.			

PC 4500 Series				Standard-Tip Forks						
				<i>Imperial</i>	<i>Metric</i>	<i>Imperial</i>	<i>Metric</i>	<i>Imperial</i>	<i>Metric</i>	
Forks		Nominal Fork Length	in mm	36	915	42	1065	48	1220	
	11	Actual Fork Length	in mm	35.75	910	41.75	1060	47.75	1215	
	12	Overall Length	in mm	93.06	2365	99.06	2515	105.06	2670	
	13	Wheelbase	Forks Raised	in mm	71.25	1810	77.25	1960	83.25	2115
	14	Grade Clearance		%	25	25	23	23	21	21
	15	Turning Radius	Forks Raised	in mm	81.4	2070	87.4	2220	93.4	2375
	7	Truck Weight without Battery**	6000 lb (2720 kg)	lb kg	1,975	895	1,991	905	2,007	910
	8000 lb (3625 kg)		lb kg	1,994	905	2,018	915	2,042	925	

PC 4500 Series				Standard-Tip Forks						
				<i>Imperial</i>	<i>Metric</i>	<i>Imperial</i>	<i>Metric</i>	<i>Imperial</i>	<i>Metric</i>	
Forks		Nominal Fork Length	in mm	54	1370	60	1525	96	2440	
	11	Actual Fork Length	in mm	53.75	1365	59.75	1520	95.75	2430	
	12	Overall Length	in mm	111.06	2820	117.06	2975	153.06	3890	
	13	Wheelbase	Forks Raised	in mm	89.25	2265	95.25	2420	133.25	3385
	14	Grade Clearance		%	20	20	19	19	13	13
	15	Turning Radius	Forks Raised	in mm	99.4	2525	105.4	2680	143.3	3640
	7	Truck Weight without Battery**	6000 lb (2720 kg)	lb kg	2,023	920	2,039	925	2,189	995
	8000 lb (3625 kg)		lb kg	2,066	935	2,090	950	2,254	1020	

** Subtract 80 lb (35 kg) from trucks weights above when ordering manual steering option.

PC 4500 Series				Extended-Tip Forks					
				Imperial		Metric		Imperial	
Forks		Nominal Fork Length	in mm	84	2135	93	2360	96	2440
	11	Actual Fork Length	in mm	83.75	2125	93	2360	95.75	2430
	12	Overall Length	in mm	141.06	3585	150.31	3820	153.06	3890
	13	Wheelbase	Forks Raised in mm	103.25	2625	103.25	2625	103.25	2625
	14	Grade Clearance	%	17	17	17	17	17	17
	15	Turning Radius	Forks Raised in mm	113.4	2885	113.4	2885	113.4	2885
	7	Truck Weight without Battery**	6,000 lb (2720 kg)	lb kg	2,172	985	2,253	1020	2,268
	8,000 lb (3625 kg)		lb kg	2,232	1010	2,313	1050	2,328	1055

PC 4500 Series				Extended-Tip Forks					
				Imperial		Metric		Imperial	
Forks		Nominal Fork Length	in mm	132	3355	141	3580	144***	3660***
	11	Actual Fork Length	in mm	131.75	3345	141	3580	143.75	3650
	12	Overall Length	in mm	189.06	4800	198.31	5035	201.06	5105
	13	Wheelbase	Forks Raised in mm	151.25	3840	151.25	3840	151.25	3840
	14	Grade Clearance	%	12	12	12	12	12	12
	15	Turning Radius	Forks Raised in mm	161.4	4100	161.4	4100	161.4	4100
	7	Truck Weight without Battery**	6,000 lb (2720 kg)	lb kg	2,725	1235	2,806	1275	2,821
	8,000 lb (3625 kg)		lb kg						

** Subtract 80 lb (35 kg) from trucks weights above when ordering manual steering option.

*** Configuration available with shorter wheelbase and turning radius.

PC 4500 Series

Technical Information

Maximum Battery Size

13.19" wide x 31.12" long x 31.62" high (335 wide x 790 long x 803 mm high)

Batteries

24-volt, 750 amp hour, 15.2 kWh
Min/Max weight 975/1500 lb (445/680 kg)

Standard Equipment

- 24-volt fused electrical system
- Access 1 2 3 Comprehensive System Control
- Access 1 2 3 Display - includes BDI with lift lockout (2 re-keys), hour meters, event codes, PIN-code access and three selectable performance levels
- Electronic power steering with X10 Handle
- e-GEN braking system with automatic parking brake
- Crown manufactured AC traction motor
- Ramp hold
- Operator-sensing floor board with premium urethane platform cushion (Anti-slip recommended with freezer)
- Cushioned wrap around back pad
- Storage module - magnetic mount (optional with manual steer)

- Preset step height (adjustable)
- 27.5" (699 mm) wide load backrest
- 49.5" (1257 mm) tall load backrest
- Storage bin in load backrest
- InfoPoint System with Quick Reference Guide
- Color-coded wiring
- Steel power unit doors
- Lift-off left and right battery retainers
- Polyurethane load wheels
- Polyurethane drive tire
- Torsion bar (optional on manual steer) with quick adjustment casters
- Short battery wall (use with 23.38" [594 mm] tall battery)
- 175 amp battery connector
- Key switch
- Horn

Optional Equipment

- QuickPick Semi-Automation systems (Rapid and Remote) (Requires Electronic Power Steering with X10 Handle)
- QuickPick Position Control in load backrest
- Manual steering with choice of T-handle or tiller-style handle. Both handles include urethane covered twist grips, full width raise, lower and horn buttons. T-handle includes brake levers.

- Molded urethane leg cushion
- Raise, lower and horn control module on load backrest
- Storage tray in load backrest
- Storage module on battery (23.38" [594 mm] high battery only)
- Storage module - magnetic mount (23.38" [594 mm] high battery, available on 31" [787 mm] tall battery with power steering)
- Torsion bar package for quick adjust casters (manual steering)
- Tall battery wall (use with 31.62" [803 mm] tall battery)
- 22.5" wide x 43.5", 60" or 72" tall (572 mm wide x 1105, 1524 or 1829 mm tall) load backrest (not available with power steering)
- 27.5" wide x 60" or 72" tall (699 mm wide x 1524 or 1829 mm tall) load backrest
- Battery compartment rollers
- Battery retainer interlock switches
- Quick battery disconnect handle (right side only)
- Left side battery connector (facing power unit door)
- Drive tire and load wheel options

- Toggle switch in lieu of key
- Positive / Negative Accessory Cable
- InfoLink Ready System (InfoLink module sold separately)
- Travel alarm (requires right side battery connector)
- Freezer conditioning (Anti-slip floormat recommended)
- Corrosion conditioning
- Shrink Wrap holder
- Work Assist Accessories (Available on trucks with electronic power steering)
 - Pad clip
 - Cup holder
 - Accessory clamp
- Second level order picking steps (requires 31.62" battery wall and 27.5" wide x 60" or 72" tall [803 mm battery wall and 699 wide x 1524 or 1829 mm tall] load backrest)
- EE Rating
- LED flashing light
- Skid adapter*
- Second level order picking platform*, (not available with power steering)
- Pallet Stop*
*Extended lead time

Operator Area and Controls

The PC 4500 Series features Crown's innovative electronic power steering and performance enhancing operator compartment design.

Electronic power steering provides effortless handling and gives operators the flexibility to work in a side stance or forward facing position.

Utilizing the intelligence of Access 1 2 3 technology and a tactile feedback device (TFD), operator stability and control are maximized at higher speeds and steer effort is minimized at lower speeds. In addition, as the steer angle increases during a turn the speed is automatically reduced, enhancing operator and load stability.

Steering simplicity is further enhanced by the X10 Handle. It features ergonomically designed controls that enable simultaneous activation of travel, raise and horn functions during maneuvers. The hand grips feature a comfortable urethane covering and integrated horn buttons. Dual thumb wheels provide infinite speed control in both forward and reverse direction. The raise and lower controls provide tactile feedback and are ideally positioned for blending of lift/lower and traction functions.

The X10 Handle features a travel speed switch to choose between two operating modes. Placing the switch in the rabbit mode allows high speed travel and a steer angle of 60 degrees each way of center to meet typical application requirements. For extremely congested areas, placing the switch in the turtle/rabbit mode reduces travel speed and increases the steer angle to 90 degrees each way of center for safe, optimized performance.

A manual steering option remains available with a choice of T-handle or Tiller-style handle.

The operator's compartment features a wide platform, preset step height, operator-sensing floorboard and a load backrest with contoured edges to allow for quick entry/exit. The X10 Handle, wrap around back pad, premium floormat and electronic power steering work together to improve comfort and stability.

The platform on the PC 4500 Series stops at a preset height (adjustable) every time the forks are raised to provide a consistent step height for operators. The operator-sensing floorboard eliminates the need for a high speed pedal.

When you add up all the benefits of Crown's electronic power steering, X10 Handle and operator compartment along with industry leading performance, you have the most productive center control pallet truck available.

Task Automation

Crown's QuickPick Remote and Rapid systems revolutionize workflow by enabling the operator to work from behind the truck while remotely advancing it to the next pick location. The system helps increase productivity, promote safety, reduce damage to product, racking and trucks plus lessens operator fatigue.

Electrical System

Heavy-duty 24-volt electrical system for demanding warehouse, dock and transport applications. Crown-manufactured AC drive motor delivers powerful performance and proven reliability for long lasting productivity in any environment.

A lift limit switch shuts the pump motor off at full fork elevation. Color-coded wiring is used for ease of service.

Access 1 2 3 Comprehensive System Control with AC Traction

This system provides unmatched truck control and system performance in:

- Traction control
- Operator interface
- Diagnostics

Crown technology provides a closed-loop traction control system which maintains speed throughout the battery charge and provides optimum acceleration and speed as the load on the forks increases.

Access 3 controller has full-time management control of traction and other system inputs and outputs. Access 1 2 3 technology simplifies the system by reducing componentry including contactors relays and other hard-wired components. **The Access 1 2 3 system is covered by a 3 year/6000 hour supplemental warranty.**

The trucks hour meters and odometer readout can be accessed through the display. The operator message mode can be programmed to display model number (default), BDI, truck hours, odometer, trip odometer or timer. Built-in PIN-code (up to 25) capability.

The Access 1 2 3 display also includes a full featured on-board service tool. Proven Access 1 2 3 diagnostics has been extensively developed to provide superior troubleshooting and service ease. The service technician can actively view inputs and outputs during truck operation. Event code history includes the most recent event code plus the previous 15 codes. No service key, laptop or handset required.

Performance tuning is accessed through the display to customize truck performance for specific applications or operator requirements.

The large Crown-manufactured AC drive motor specifically designed for lift truck applications, provides improved acceleration and plug reversal contributing to greater productivity.

Hydraulics

Heavy-duty pump, motor, reservoir and control are assembled into one unit. A centrally located lift cylinder, mounted vertically, is equipped with long-life polyurethane packings. A pressure compensating flow control valve is an integral part of the valve block and regulates lowering speed. Overload valve protects hydraulic components.

Steering

Electronic power steering is standard on the PC 4500 Series. An AC steer motor and steering control module are integrated with the Access 1 2 3 system to provide fast, reliable steering response. The drive tire is automatically centered when the operator releases the X10 handle during travel. When the operator leaves the operator-sensing platform and walks along side the power unit, steer angle is limited to plus or minus 15 degrees to enhance safe operation. A manual steering option is available.

Drive Unit

All gear drive from drive motor to drive wheel axle. Crown-manufactured gears are hard finished and dual machined for high quality. Drive tire axle is mounted in the drive unit on both sides for maximum strength in rough floor

or docking applications. Drive unit is top and bottom mounted. Top mount is a large, tapered roller bearing for vertical or horizontal forces. Bottom mount has four shock mounted rollers on drive unit running in a hardened steel roller race. Gear train runs in oil-filled, sealed housing.

Caster System

Standard on the PC 4500 Series is a stabilizing torsion bar (option on manual steering) with quick adjustment casters. The torsion bar reduces truck and load sway associated with tall and heavy loads to improve productivity. The casters adjust quickly to enable braking, traction, and stability to be "balanced" based on your specific application. Quick adjustment casters can also increase drive tire life by as much as 60% by permitting more tire wear.

Fork Assembly

Fork width - 9.12" (232 mm) on standard-tip fork models, 10" (254 mm) on extended-tip fork models. Fork spread - 22" and 27" (560 and 685 mm) standard on standard-tip models. 23" - 26" (585 - 710 mm) spread available in one-inch (25.4 mm) increments. 23" and 28" (585 and 710 mm) standard on models with extended-tip models. Fork spreads from 24" - 27" (610 - 685 mm) available in one-inch (25.4 mm) increments. Fork lengths - 36, 42, 48, 54, 60 and 96" (915, 1065, 1220, 1370, 1525 and 2440 mm) with standard tip; 84, 93, and 96" (2135, 2360 and 2440 mm) forks available with extended-tip design for shorter wheelbase.

To facilitate pallet entry/exit Crown has engineered several features into the fork assembly. Standard-tip forks have pallet entry rollers to lift fork over bottom board of pallet. Rollers are made of high molecular weight polyethylene with .75" (19 mm) axle and roll pin.

Extended-tip fork design has totally enclosed tip, with full length convex bottom surface creating an entry ramp. Ramp design helps fork glide over bottom boards of pallet and keeps welded edges from touching bottom boards of pallet.

Abrasion resistant steel entry/exit slides on both sides of each fork have convex bottom surfaces to prevent snagging as forks move over bottom boards of pallet. One-piece design with rounded edges are welded away from contact point of slide.

Exit roller design prevents load wheel from dropping after crossing bottom board. The 4" (100 mm) wide, steel exit roller is positioned directly behind the load wheel to keep the fork rolling. The entry/exit slide design also assists in trouble-free pallet entry/exit.

Fork adjustment is done at the toe with no need to remove a cover plate. Fork heel height adjustment is done quickly without removing battery. Quick and easy fork adjustment promotes servicing of fork assembly to keep pallet entry/exit productive.

Pull rod design incorporates a replaceable "tenon" design for fast servicing of pull rod while still in the truck.

Power Unit Structure

Heavy gage steel is used in the power unit structure and skirt. Rugged steel power unit doors protects electronic components and swing open providing excellent access. Doors also can be lifted off if desired. Door bolts have exclusive convex design that mate with concave door holes for fast reinstallation of bolts.

e-GEN Braking System

Variable regenerative motor braking is optimized and virtually eliminates brake maintenance.

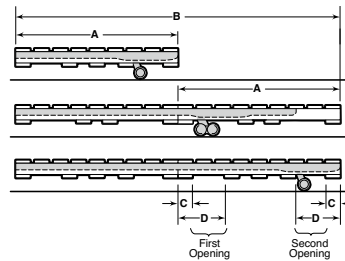
While moving, e-GEN braking is applied if the operator activates the brake button on the X10 Handle, moves the tiller handle into the brake zone, activates brake levers on "T" handle, removes travel input request or reverses direction.

The closed loop Access 1 2 3 traction control will keep the truck static until a travel input is requested, even when operating on a grade.

Automatic electric parking brake activates when the truck has been stationary for seven seconds, the truck is keyed off or the battery has been disconnected.

Pallet Planning Guide

On standard-tip fork models, the load wheel will drop in the second opening of the pallet when "A" or "B" dimension equals the nominal fork length. On extended-tip fork models, the load wheel will drop in the first opening of the second pallet. On models with a single load wheel, the "C" dimension should be 6" (152 mm) maximum and the "D" dimension should be 14" (356 mm) minimum. On models with tandem load wheels, the "C" dimension should be 6" (152 mm) maximum and the "D" dimension should be 17" (432 mm) minimum. Customers that need tandem load wheel trucks, but use pallets with smaller openings, may be accommodated if the maximum lift height of the truck is reduced. Contact your Crown dealer for details.



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.



crown.com

You can count on Crown to build lift trucks designed for safe operation, but that's only part of the safety equation. Crown encourages safe operating practices through ongoing operator training, safety-focused supervision, maintenance and a safe working environment. Go to crown.com and view our safety section to learn more.

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