

CROWN

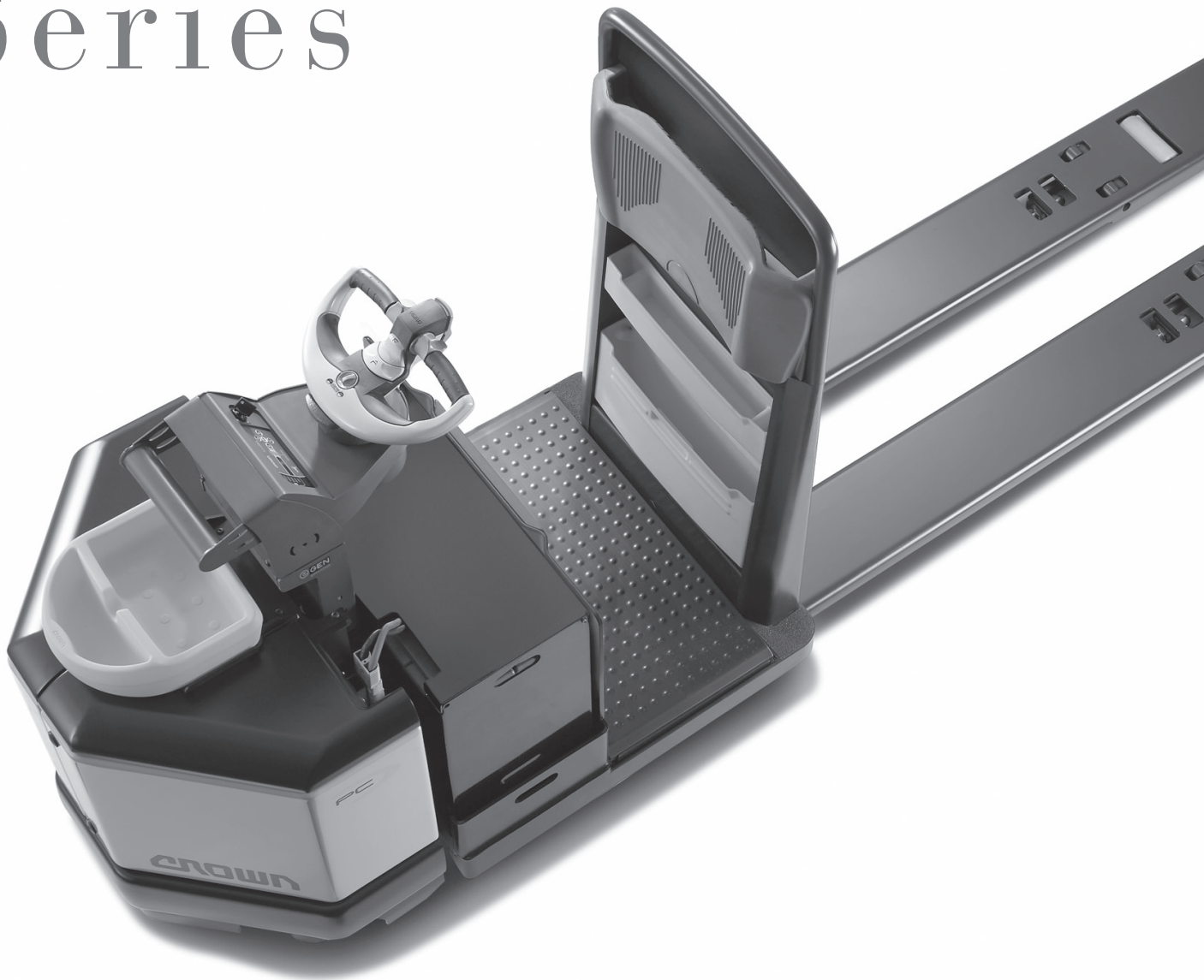
Specifications

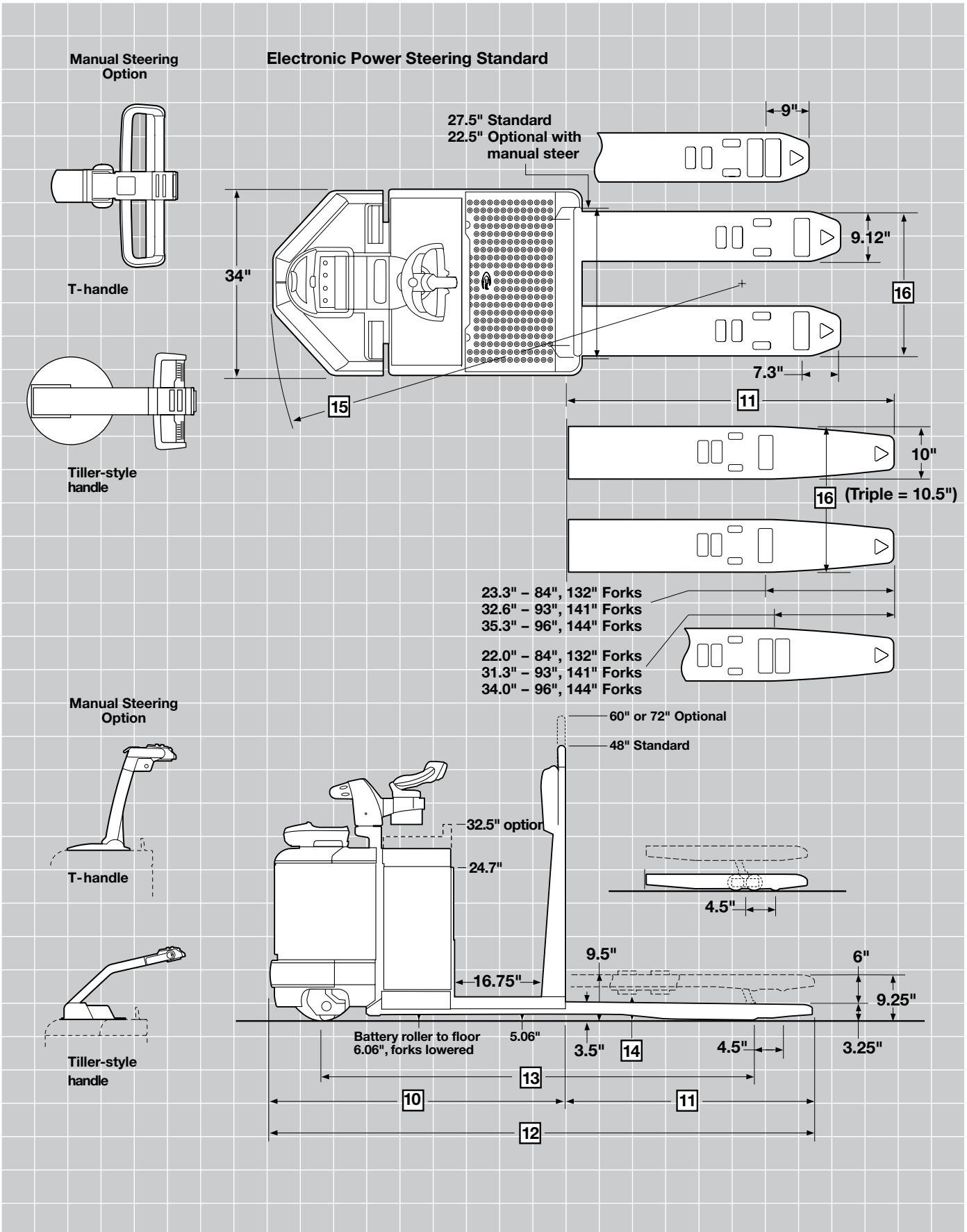
PC 4500 Series

Center Control
Pallet Truck

PC 4500

Series





PC 4500 Series

Specifications

General Info	1	Manufacturer		Crown Equipment Corporation			
	2	Model		PC 4500			
	3	Load Capacity		6000/8000			
	4	Power	Electric	24 Volts			
	5	Operator Type	Stand-up	Ride			
Dimensions	8	Lift Height		in	9.25		
	9	Lift		in	6		
	10	Head Length		in	57.31		
	16	Outside Fork Spread	Standard Tip	in	22/27		
	Extended Tip*		in	23/28			
Performance	17	Speed Travel			Power Unit First		Forks First
			Empty	mph	9.0		6.0
			4000 lb	mph	7.0		5.7
			6000 lb	mph	6.3		5.1
			8000 lb	mph	6.0		5.0

* Add .5" for triple length forks

Forks	PC 4500 Series			Standard-Tip Forks						
		Nominal Fork Length	in	36	42	48	54	60	96	
11		Actual Fork Length	in	35.75	41.75	47.75	53.75	59.75	95.75	
12		Overall Length	in	93.06	99.06	105.06	111.06	117.06	153.06	
13		Wheelbase	Forks Raised in	71.25	77.25	83.25	89.25	95.25	133.25	
14		Grade Clearance	%	25	23	21	20	19	13	
15		Turning Radius	Forks Raised in	81.4	87.4	93.4	99.4	105.4	143.3	
7		Truck Weight** w/o battery	6000 lb	lb	1975	1991	2007	2023	2039	2189
			8000 lb	lb	1994	2018	2042	2066	2090	2254

Forks	PC 4500 Series			Extended-Tip Forks						
		Nominal Fork Length	in	84	93	96	132***	141***	144***	
11		Actual Fork Length	in	83.75	93	95.75	131.75	141.00	143.75	
12		Overall Length	in	141.06	150.31	153.06	189.06	198.31	201.06	
13		Wheelbase	Forks Raised in	103.25	103.25	103.25	151.25	151.25	151.25	
14		Grade Clearance	%	17	17	17	12	12	12	
15		Turning Radius	Forks Raised in	113.4	113.4	113.4	161.4	161.4	161.4	
7		Truck Weight** w/o battery	6000 lb	lb	2172	2253	2268	2659	2740	2755
			8000 lb	lb	2232	2313	2328			

** Subtract 80 lb from trucks weights above when ordering manual steering option

*** Triple length forks (132", 141" and 144") are a custom option

Wheels and Tires	PC 4500-60 and PC 4500-80		
	Model		
Drive Tire	in		13 x 4.5 x 8 Poly
Casters	in		2 - 4 x 2.5 Poly
Load Wheels	in		2 - 3.25 x 6.5 (-302)
			-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.

Maximum Battery Size

13.19" wide x 31.12" long x 31.62" high

Batteries

24-volt, 750 amp hour, 15.2 Kwh
Min/Max weight 975/1500 lb

Standard Equipment

1. 24-volt fused electrical system
2. Access 1 2 3® Comprehensive System Control
3. 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
4. Electronic power steering with X10® Handle
5. e-Gen™ braking system with automatic parking brake
6. Crown manufactured AC traction motor
7. Ramp hold
8. Operator-sensing floor board with premium urethane platform cushion (Anti-slip recommended with freezer)
9. Cushioned wrap around back pad
10. Storage module - magnetic mount (optional with manual steer)
11. Preset step height (adjustable)
12. 27.5" wide load backrest
13. 48" tall load backrest
14. Storage bin in load backrest
15. InfoPoint® System with Quick Reference Guide
16. Color-coded wiring
17. Steel power unit doors
18. Lift-off left and right battery retainers
19. Polyurethane load wheels
20. Polyurethane drive tire
21. Torsion bar (optional on manual steer) with quick adjustment casters
22. Short battery wall (use with 23.38" tall battery)
23. 175 amp battery connector
24. Key switch
25. Horn

Optional Equipment

1. 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.
2. Molded urethane leg cushion
3. Raise, lower and horn control module on load backrest
4. Storage tray in load backrest
5. Storage module on battery (23.28" high battery only)

6. Storage module - magnetic mount (23.28" high battery, available on 31" tall battery with power steering)
7. Torsion bar package for quick adjust casters (manual steering)
8. Tall battery wall (use with 31.62" tall battery)
9. 22.5" wide x 43.5", 60" or 72" tall load backrest (not available with power steering)
10. 27.5" wide x 60" or 72" tall load backrest
11. Battery compartment rollers
12. Battery retainer interlock switches
13. Quick battery disconnect handle (right side only)
14. Left side battery connector (facing power unit door)
15. Drive tire and load wheel options
16. Toggle switch in lieu of key
17. Positive / Negative Accessory Cable
18. InfoLink® Ready System (InfoLink module sold separately)
19. Travel alarm (requires right side battery connector)
20. Freezer conditioning (Anti-slip floormat recommended)
21. Corrosion conditioning
22. Shrink Wrap holder
23. Work Assist® Accessories (Available on trucks with electronic power steering)
 - Pad Clip
 - Cup Holder
 - Accessory Clamp
24. Second level order picking steps (requires 31.62" battery wall and 27.5 wide x 60" or 72" tall load backrest)
25. Skid adapter*
26. Strobe Light*
27. Second level order picking platform*, (not available with power steering)
28. 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.

Optional width and height load backrests are available to match specific application and load requirements. An optional control module is available to provide raise, lower and horn buttons in the load backrest. Refer to the optional equipment list for additional options to meet special requirements.

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.

InfoPoint® System

InfoPoint System allows technicians to troubleshoot without complicated schematics, wiring diagrams or cumbersome service manuals for over 95% of repairs. Simplicity is complete with InfoPoint Quick Reference Guide, color-coded components maps and “information nuggets” located on the truck.

Clearly labeling each component and providing an area map showing component locations helps to minimize downtime. A Quick Reference Trouble-shooting Guide is supplied with each truck showing display operation, code definitions, and overall component ID of the entire truck.

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” on standard-tip fork models, 10” on extended-tip fork models. Fork spread - 22” and 27” standard on standard-tip models. 23” - 26” spread available in one-inch increments. 23” and 28” standard on models with extended-tip models. Fork spreads from 24” - 27” available in one-inch increments. Fork lengths - 36, 42, 48, 54, 60 and 96” with standard tip; 84, 93, and 96” 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” 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” 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. **Crown provides an exclusive 5 year Supplemental Guarantee on the Power Unit and Fork Weldment structures.**

e-GEN™ Braking System

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

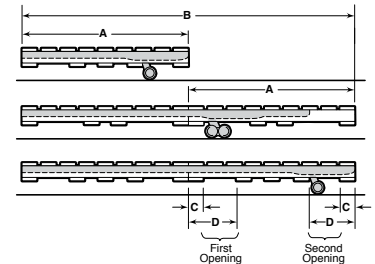
While moving, e-GEN braking is applied if the operator activates the brake button on the X10 Handle, moves the tiller handle into the brake zone, activates brake levers on “T” handle, removes travel input request or reverses direction.

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 four 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” maximum and the “D” dimension should be 14” minimum. On models with tandem load wheels, the “C” dimension should be 6” maximum and the “D” dimension should be 17” 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.



Other Options

1. Audible travel alarm
2. Flashing lights

Safety considerations and dangers associated with audible travel alarms and flashing 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.

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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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.

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

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