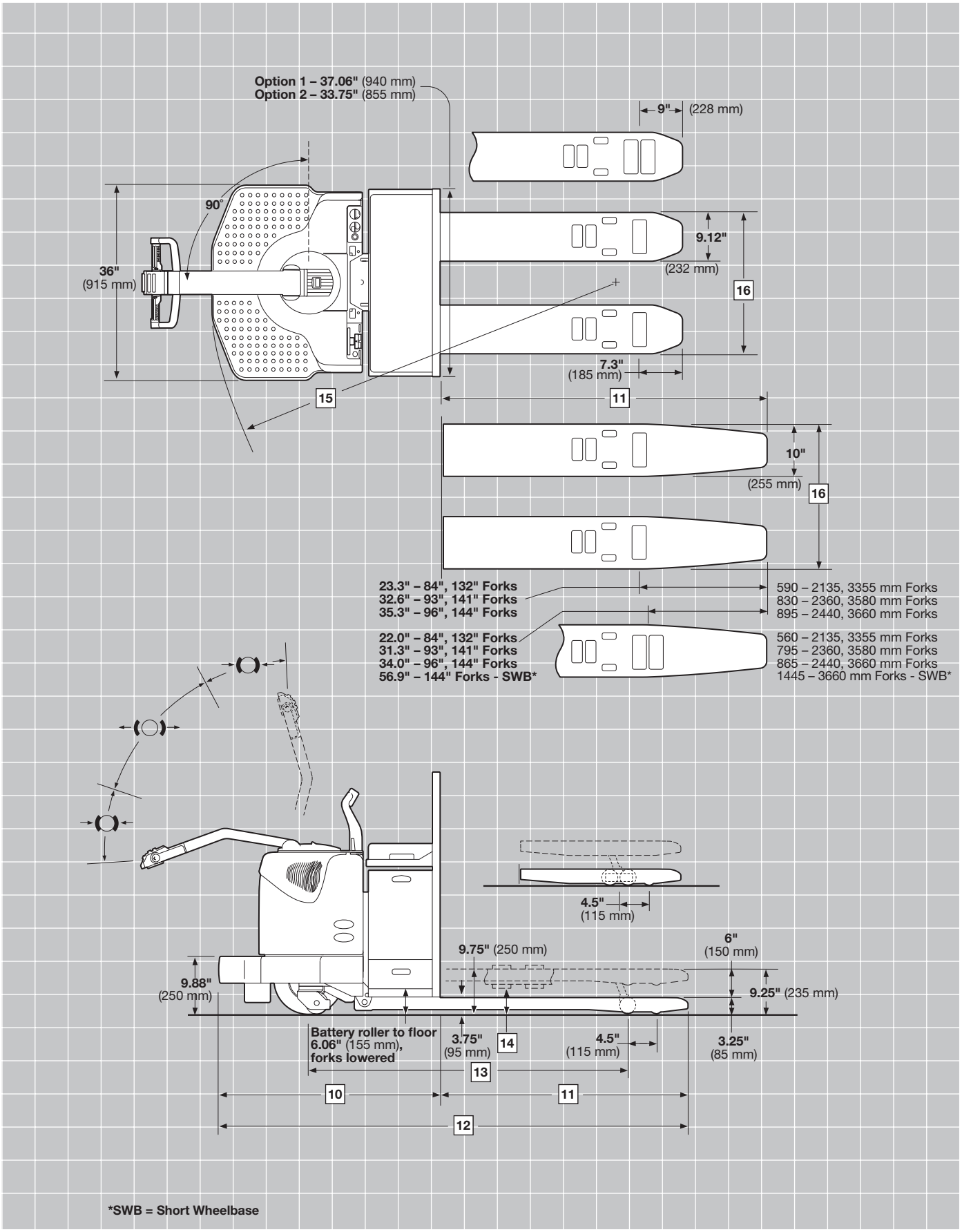
PE 4500 SERIES

Specifications

End Control Pallet Truck



*SWB = Short Wheelbase

					Imperial	*Metric*
General Info	1	**Manufacturer**			**Crown Equipment Corporation**	
	2	**Model**			**PE 4500**	
	3	**Load Capacity**		lb kg	6000 / 8000	2730 / 3640
	4	**Power**	Electric		24 Volts	
	5	**Operator Type**	Stand-up		Walk / Ride	
Dimensions	8	**Lift Height**		in mm	9.25	235
	9	**Lift**		in mm	6	150
	10	**Head Length**	Option 1 / Option 2	in mm	36.7 / 43.2	930 / 1095
	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 / 6.5	14.5 / 10.5
			4000 lb (1820 kg)	mph km/h	7.0 / 5.7	11.3 / 9.2
			6000 lb (2730 kg)	mph km/h	6.3 / 5.1	10.1 / 8.2
			8000 lb (3640 kg)	mph km/h	6.0 / 5.0	9.7 / 8.0

*Add .5" (15 mm) for forks above 102" (2590 mm)

			Imperial	*Metric*
Wheels and Tires	**Model**		**PE 4500**	
	Drive Tire	in mm	13 x 4.5 x 8 Poly	330 x 115 x 205 Poly
	Casters	in mm	2 - 4 x 2.5 Poly	2 - 100 x 65 Poly
	Load Wheels	in mm	2 - 3.25 x 6.5 (-302)	2 - 85 x 165 (-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.	

		PE 4500 Series			Standard-Tip Forks							
					Imperial	*Metric*	*Imperial*	*Metric*	*Imperial*	*Metric*	*Imperial*	*Metric*
Forks		**Nominal Fork Length**		in mm	36	915	42	1065	48	1220	54	1370
	11	**Actual Fork Length**		in mm	35.75	910	41.75	1060	47.75	1215	53.75	1365
	12	**Overall Length**	Option 1	in mm	72.44	1840	78.44	1990	84.44	2145	90.44	2295
			Option 2	in mm	78.94	2005	84.94	2155	90.94	2310	96.94	2460
	13	**Wheelbase – Forks Raised**	Option 1	in mm	43.12	1095	49.12	1250	55.12	1400	61.12	1550
			Option 2	in mm	49.62	1260	55.62	1415	61.62	1565	67.62	1720
	14	**Grade Clearance – Forks Raised**	Option 1	%	44	44	38	38	34	34	30	30
			Option 2	%	38	38	33	33	30	30	27	27
	15	**Turning Radius – Forks Raised**	Option 1	in mm	60.95	1550	66.93	1700	72.90	1850	78.88	2005
			Option 2	in mm	67.43	1715	73.40	1865	79.38	2015	85.38	2170
	7	**Truck Weight without Battery**	6000 lb (2730 kg)	lb kg	1496	680	1512	690	1528	700	1544	700
			8000 lb (3640 kg)	lb kg	1515	690	1539	700	1563	710	1587	720

		PE 4500 Series			Standard-Tip Forks				Extended-Tip Forks			
					Imperial	*Metric*	*Imperial*	*Metric*	*Imperial*	*Metric*	*Imperial*	*Metric*
Forks		**Nominal Fork Length**		in mm	60	1525	96	2440	84	2135	93	2360
	11	**Actual Fork Length**		in mm	59.75	1520	95.75	2430	83.75	2125	93	2360
	12	**Overall Length**	Option 1	in mm	96.44	2450	132.44	3365	120.44	3060	129.69	3295
			Option 2	in mm	102.94	2615	138.94	3530	126.94	3225	136.19	3460
	13	**Wheelbase – Forks Raised**	Option 1	in mm	67.12	1705	103.12	2620	75.12	1910	75.12	1910
			Option 2	in mm	73.62	1870	109.62	2785	81.62	2075	81.62	2075
	14	**Grade Clearance – Forks Raised**	Option 1	%	27	27	18	18	24	24	24	24
			Option 2	%	25	25	17	17	22	22	22	22
	15	**Turning Radius – Forks Raised**	Option 1	in mm	84.88	2155	120.8	3070	92.90	2360	92.90	2360
			Option 2	in mm	91.38	2320	127.3	3235	99.30	2520	99.30	2520
	7	**Truck Weight without Battery**	6000 lb (2730 kg)	lb kg	1560	710	1710	780	1643	750	1724	780
			8000 lb (3640 kg)	lb kg	1611	730	1775	805	1703	775	1784	810

		PE 4500 Series			Extended-Tip Forks									
					Imperial	*Metric*	*Imperial*	*Metric*	*Imperial*	*Metric*	*Imperial*	*Metric*	*Imperial*	*Metric*
Forks		**Nominal Fork Length**		in mm	96	2440	132	3355	141	3580	144	3660	144**	3660**
	11	**Actual Fork Length**		in mm	95.75	2430	131.75	3345	140.75	3575	143.75	3650	144	3660
	12	**Overall Length**	Option 1	in mm	132.44	3365	na	na	na	na	na	na	na	na
			Option 2	in mm	138.94	3530	174.94	4445	183.94	4670	186.94	4750	187.19	4755
	13	**Wheelbase – Forks Raised**	Option 1	in mm	75.12	1910	na	na	na	na	na	na	na	na
			Option 2	in mm	81.62	2075	129.62	3290	129.62	3290	129.62	3290	107.8	2740
	14	**Grade Clearance – Forks Raised**	Option 1	%	24	24	na	na	na	na	na	na	na	na
			Option 2	%	22	22	17	17	17	17	17	17	7.6	7.6
	15	**Turning Radius – Forks Raised**	Option 1	in mm	92.90	2360	na	na	na	na	na	na	na	na
			Option 2	in mm	99.30	2520	147.30	3740	147.30	3740	147.30	3740	125.7	3195
	7	**Truck Weight without Battery**	6000 lb (2730 kg)	lb kg	1739	790	2156	980	2237	1015	2252	1025	2401	1090
			8000 lb (3640 kg)	lb kg	1799	820								

**Shorter wheelbase and turning radius.

Maximum Battery Size
Option 1 - 6.69" wide x 34.44" long x 31.62" high (170 wide x 875 long x 805 mm high)

Option 2 - 13.19" wide x 31.12" long x 31.62" high (335 wide x 790 long x 805 mm high)

Batteries
Option 1 - 24-volt, 330 amp hour, 7.7 kWh
Min/Max weight 360/900 lb (160/410 kg)

Option 2 - 24-volt, 930 amp hour, 21.5 kWh
Min/Max weight 975/1500 lb (440/680 kg)

Standard Equipment
1. 24-volt fused electrical system
2. Access 1 2 3® Comprehensive System Control with AC Traction (Includes BDI with lift lockout, hour meters, PIN codes and event codes)
3. Polyurethane load wheels
4. Heavy-duty articulating shim free casters
5. Full width, raise, lower, horn, and end mounted reversing button in control handle
6. Raise, lower, horn and high speed button on operator grab bar
7. 175 amp battery connector
8. Key switch
9. Horn
10. Lift-off left and right battery retainers
11. Anti-tie down
12. Platform cushion (non-freezer conditioned trucks)
13. Rubber knee pad
14. One-touch high speed
15. Steel doors
16. Color-coded wiring
17. InfoPoint® - Quick reference guide and maps support diagnostics

Optional Equipment
1. Electronic power steering
2. Coast control
3. Quick Coast™
4. QuickPick® control handle
5. Quick adjustment caster
6. Quick adjustment caster with torsion bar package
7. Battery retainer interlock switch
8. Quick battery disconnect handle (right side only)
9. Left side battery connector
10. Battery compartment rollers
11. V-Force® Lithium-Ion Ready
12. Thin Plate Pure Lead (TPPL) Ready
13. Lift-off load backrest
14. Hinged load backrest with quick release (48", 60" or 72" high) (1220,1525 or 1830 mm high)
15. Bolt-on load backrest
16. Work Assist® Accessories:
    - LED flashing light
    - Work lights
    - Fan
    - Storage pouch
    - Pad clip and hook
    - Shrink wrap tray (Option 2 battery only)
    - Shrink wrap holder (mounted on backrest)
17. Storage module (Option 2 battery only)
18. 7" (180 mm) wide fork (6000 lb [2730 kg] only)
19. Drive tire and load wheel options
20. Toggle switch in lieu of key
21. Tandem axle load wheels
22. Dual or triple load wheels
23. Freezer and corrosion conditioning
24. Special color paint
25. Skid adapter
26. Rubber skirt extension
27. EE Rating
28. InfoLink® Ready
29. Pallet stop
30. Static strap
31. SB 350, SBX 350 battery connector

Operator Area and Controls
The PE 4500 Series has an operator platform which increases operator comfort and productivity. Rounded edges and careful placement of operator contact points make the PE 4500 Series user friendly. Contoured steel doors allow for maximum operator and foot room.

The Crown PE 4500 Series has a microcellular composition floor mat and a rubber knee pad for improved operator comfort.

The Crown PE 4500 Series has dual, soft urethane twist grips with automatic return to neutral when released. Two textures and a unique “cam” design aid in plugging, steering and long distance travel. On the control pod are full width raise, lower, and horn buttons for easy actuation. Reversing button in control handle reverses direction of travel if button should come in contact with operator. Soft urethane operator grab bar provides operator security and comfort. Grab bar has raise, lower, horn and high speed controls for improved productivity.

One touch high speed allows operators to activate the high speed button once and not have to hold the button down to travel in high speed. High speed is deactivated when the twist grip returns to neutral or when the brake is applied.

Crown’s electronic power steering option is ideal for dock work or any application that requires frequent turning and maneuvering in tight spaces. Operators experience greater comfort and reduced fatigue compared to manual steering, making them more productive.

The Quick Coast option allows the truck to coast as the operator walks down the aisle performing low-level order picking. The Quick Coast switch is conveniently placed on the grab bar for easy activation. The Quick Coast option includes infinitely variable handle positioning within the coast range, and the audible and visual feedback features remind operators the Quick Coast option is activated. The Quick Coast option meets current ANSI/ASME requirements.

The QuickPick control handle option, normally used in conjunction with coast control or Quick Coast, assists an operator to perform low-level order picking. The QuickPick control handle has two switches on each side of the handle. The QuickPick control handle activation allows the truck to travel, power unit first, at walking speed.

Many optional features for the operator area and controls are available to suit a wide range of applications.

Electrical System
Heavy-duty, 24-volt electrical system for demanding warehouse, dock and transport applications. The Access 3™ traction control system and Crown-manufactured AC drive motor provide unmatched reliability in the toughest applications.

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’s technology provides a closed-loop traction control system which maintains top speed throughout the battery charge. The large Crown-manufactured AC traction motor specifically designed for lift truck applications, provides improved acceleration and plug reversal which may be an advantage in some applications. The Access™ display offers six hour meter readouts and odometer. The operator message mode includes BDI, truck hours, odometer, trip odometer, or timer.

The Access display also includes a full featured on-board service tool. The service technician can actively view inputs and outputs during truck operation. Event code history including the last 16 event codes are accessible. No service key, laptop, or handset required.

Access 3 controller has full-time management control of traction and other system inputs and outputs. Access 3 simplifies the system by reducing componentry including contactors, relays, and other hard-wired components.

Performance Tuning
Performance Tuning can be accessed at the display to customize truck performance for specific applications or operator requirements. Crown’s Integrated System Control provides a responsive, energy efficient and reliable machine.

The proven Access 1 2 3 diagnostics has been extensively developed to address the real world of troubleshooting and repair.

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

Information on time consists of clearly labeling each component and providing an area map showing the component location. A Quick Reference Troubleshoot Guide is supplied with each truck showing display operation, code definitions, and an 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.

Power Steering System
The optional electronic power steering system includes the Access 5 steer control module and an AC steer motor integrated with the Access 1 2 3® system.

The system provides superior handling and stability through traction control software that increases steer assist at lower speeds and automatically reduces truck speed in turns.

Drive Unit
All gear drive from drive motor to drive wheel axle. 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 PE 4500 Series are shim free, spring-loaded, articulating, stabilizing casters designed and manufactured by Crown for increased truck performance and service life.

Crown has designed two optional caster systems for the PE 4500 Series to meet high-volume warehouse requirements:

Option 1: Quick adjustment casters enable braking, traction, steer effort and stability to be "balanced" based on your specific applications. This system can also increase drive tire life by as much as 60 percent by permitting more tire wear.

Option 2: All of the advantages of quick adjustment casters are yours, in addition to a torsion bar suspension that maximizes stability on tall, unwieldy and less stable loads.

Fork Assembly
Fork width - 9.12" (230 mm) on standard-tip fork models, 10" (255 mm) on extended-tip fork models. Fork spread - 22" and 27" (560 and 685 mm) standard on standard-tip models. 23" - 26" (585 - 660 mm) spread available in one-inch (25 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 mm) increments. Fork lengths - 36, 42, 48, 54, 60, 96" (915, 1065, 1220, 1370, 1525, 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" (20 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 radiused 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. 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.

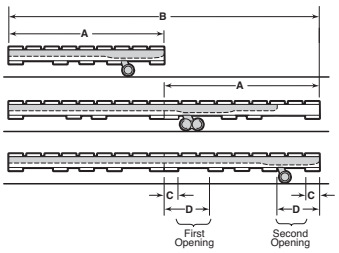
Pull rod design incorporates a replaceable "tenon" design for fast servicing of pull rod while still in the truck.

Power Unit Structure
Rugged steel doors are suspended on heavy-duty pin hinges. Doors swing wide for good access. Doors also can be lifted off for unrestricted service access. Door bolts have exclusive convex design that mates with concave door holes for fast reinstallation of bolts. Heavy steel skirt surrounds entire area.

Brake
Manual Steering: Internal expanding mechanical brake with fin-cooled 6" (150 mm) drum. Braking on PE is actuated by control handle position.

Electronic Power Steering Option: e-GEN® braking system replaces the mechanical brake. e-GEN braking uses the powerful torque of the Crown AC drive motor to perform braking and virtually eliminates brake maintenance. While moving, e-GEN braking is applied if the operator moves the tiller handle into the brake zone, removes travel input request or reverses direction. A two-stage electric brake serves as a park brake.

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" (150 mm) maximum and the "D" dimension should be 14" (355 mm) minimum. On models with tandem load wheels, the "C" dimension should be 6" (150 mm) maximum and the "D" dimension should be 17" (430 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 local 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.

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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.

SF14717 Rev. 02-21
Printed in U.S.A.