

CROWN

Specifications

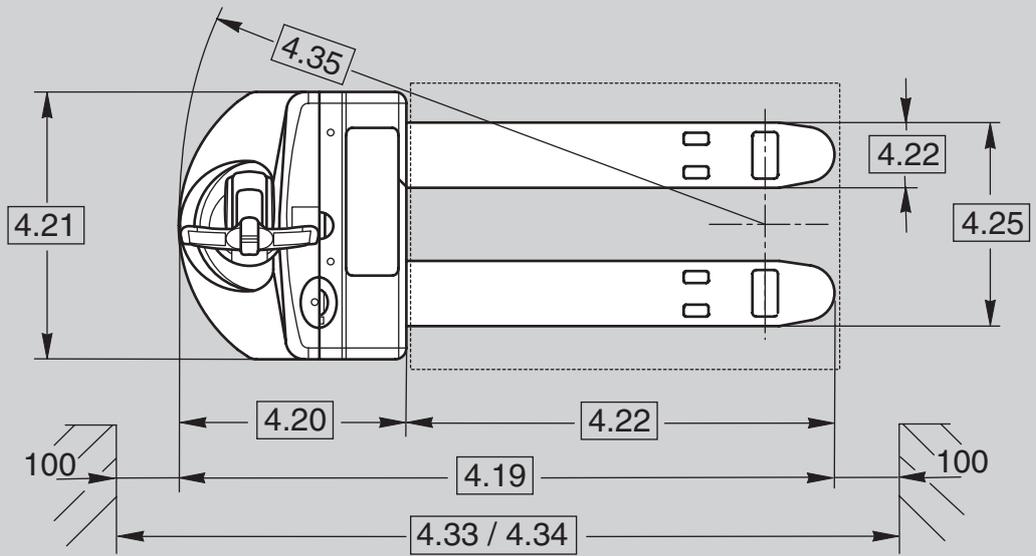
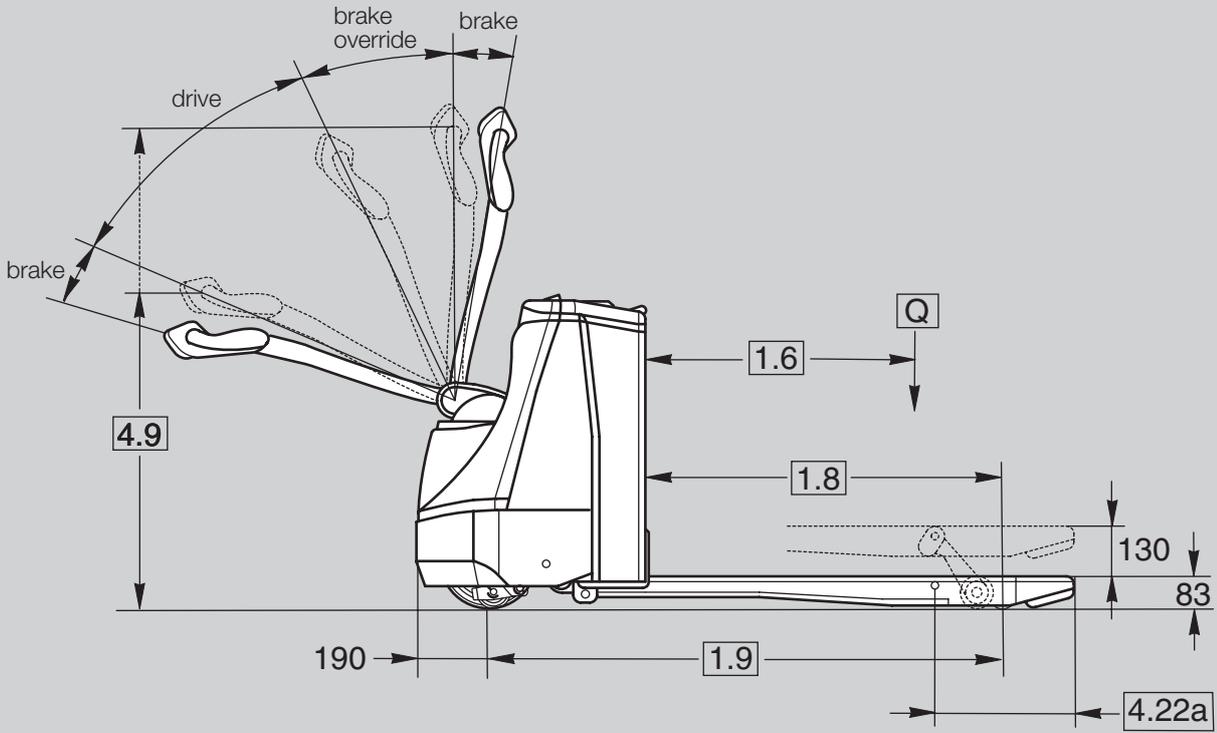
WP 2300 Series

Pedestrian Pallet Truck

WP 2300

Series





General Information	1.1	Manufacturer	Crown Equipment Corporation																	
	1.2	Model	WP 2315-1.6							WP 2320-2.0										
	1.3	Power	electric																	
	1.4	Operator Type	pedestrian																	
	1.5	Load Capacity	Q	t	1.6							2.0								
	1.6	Load Centre		c	mm	see table 1														
	1.8	Load Distance	raised	x	mm	see table 1														
	1.9	Wheel Base	raised	y	mm	see table 1														
	Weights	2.1	Weight	less battery		kg	see table 1													
2.2		Axle Load	w. load front/rear		kg	see table 1														
2.3			w.o. load front/rear		kg	see table 1														
Tyres	3.1	Tyre Type	Vulkollan																	
	3.2	Wheel Size	front		mm	Ø 250 x 85														
	3.3		rear		mm	Ø 82 x 110														
	3.4	Additional Wheels	castor wheel			Ø 90 x 50														
	3.5	Wheels	no. (x=driven) front/rear		mm	1x + 2/2														
	3.6	Track Width	front		b10	mm	476													
	3.7		rear		b11	mm	350 / 370 / 500													
Dimensions	4.4	Lift Height		h3	mm	130														
	4.9	Tiller Arm Height	in drive position min./max.		h14	mm	780 / 1197													
	4.15	Fork Height	lowered		h13	mm	83													
	4.19	Overall Length		l1	mm	see table 1														
	4.20	Headlength		l2	mm	546							611							
	4.21	Overall Width		b1	mm	712														
	4.22	Fork Dimension		thxw	mm	77 x 170 x 1150														
	4.22a	Fork Tip Length			mm	see table 1														
	4.25	Width Across Forks		b5	mm	see table 1														
	4.32	Ground Clearance	centre wheelbase		m2	mm	35													
	4.33	Working Aisle Width *	pallet 1000x1200 traverse, raised		Ast	mm	1744							1809						
4.34	Working Aisle Width **	pallet 800x1200 length, raised		Ast	mm	1944							2009							
4.35	Turning Radius	raised		Wa	mm	see table 1														
Performance	5.1	Travel Speed	w./w.o. load		km/h	5.5 / 6.0														
	5.2	Lift Speed	w./w.o. load		m/s	0.04 / 0.06														
	5.3	Lowering Speed	w./w.o. load		m/s	0.06 / 0.06														
	5.8	Max. Gradeability	w./w.o. load 5 min. rating		%	10 / 25														
	5.10	Service Brake	electric																	
Motors	6.1	Traction Motor	rating at S2 60 min.		kW	1.4														
	6.2	Lift Motor	rating at S3 15 %		kW	1.0														
	6.3	Battery	acc. to DIN 43535																	
	6.3	Max. Battery Box Size		lxwxh	mm	146 x 660 x 604							212 x 624 x 627							
	6.4	Battery Voltage	nominal capacity K5		V/Ah	24 / 150							24 / 240							
6.5	Battery Weight			kg	153							212								
8.1	Type of Controller	drive			transistor															

Table 1				WP 2315-1.6				WP 2320-2.0											
1.6	Load Centre	c	mm	400	500	600	600	400	500	600	600	700	800	800	900	1000	1200		
1.8	Load Distance ¹	raised	x	mm	544	739	894	944	544	739	894	944	1144	1244	1344	1544	1744	2144	
1.9	Wheel Base ¹	raised	y	mm	900	1095	1250	1300	965	1160	1315	1365	1565	1665	1344	1544	1744	2144	
2.1	Weight	less battery		kg	326	331	334	336	326	331	334	336	345	360	365	377	394	418	
2.2	Axle Load	w. load	front	kg	571	615	679	679	734	797	838	890	964	968	1029	1078	1039	949	
			rear	kg	1508	1469	1408	1410	1804	1746	1708	1658	1593	1599	1548	1511	1397	1211	
2.3	Axle Load	w.o. load	front	kg	340	353	365	367	403	418	426	430	445	453	463	476	492	513	
			rear	kg	129	121	112	112	135	125	120	118	112	114	114	114	113	114	117
4.19	Overall Length	l1	mm	1346	1541	1696	1746	1411	1606	1761	1811	2011	2111	2211	2411	2611	3011		
4.20	Head Length	l2	mm	546				611											
4.22	Fork Dimension	th x w	mm	77 x 170				77 x 170											
	Fork Length	l	mm	800	995	1150	1200	800	995	1150	1200	1400	1500	1600	1800	2000 ²	2400 ³		
4.22a	Fork Tip Length		mm	368				368											
4.25	Width Across Forks	b5	mm	520 / 540 / 670				520 / 540 / 670											
4.35	Turning Radius ¹	raised	Wa	mm	1088	1283	1438	1488	1153	1348	1503	1553	1753	1853	1953	2153	2353	2753	

* Ast calculation are based on 995 mm forks

** Ast calculation are based on 1150 mm forks

¹ Forks lowered +72 mm

^{2,3} Capacity derated to 1830 / 1500 kg

Standard Equipment

1. X10® control handle
2. 24-Volt electrical system
3. MOSFET transistorised traction control
4. Separately excited drive motor (SEM)
5. Infinitely variable control of traction speed
6. Rabbit/turtle switch incorporates two levels of programmable travel performance
7. Emergency disconnect
8. Key switch
9. Horn button in each handgrip
10. Electrical service braking system (regenerative and wear-resistant)
11. Battery connector SBE 160 red
12. Brake override zone, travel possible in upper brake zone at creep speed
13. Vulkollan drive tyre and single load wheels
14. Polyurethane castor wheels
15. Auto reverse safety switch
16. Battery discharge indicator with lift lock out and integrated hourmeter
17. Brake, spring applied, electro-magnetically released
18. Ramp hold
19. Steel battery top cover

Optional Equipment

1. Battery connector DIN 160 A
2. Freezer conditioning -30°C operating temperature
3. Fork length and spread options
4. Hand held diagnostic set for
 - performance adjustment
 - truck diagnostic
5. Battery roll out function (increased headlength by 32 mm, WP 2320)
6. Drive wheel rubber Ø 250 x 100 mm
7. Supertrac Ø 250 x 85 mm
8. Tandem load wheels

- Ø 82 x 82 mm, Vulkollan
9. High frequency on board charger
10. Keypad
11. InfoLink Ready

Frame & Chassis

Designed using “State of the Art” CAD and Finite element analysis resulting in a optimised steel structure. A rugged design which has minimum deflection and low stresses. A steel skirt and the round contour gives the truck maximum protection for the operator and avoids damaging goods. The forks are manufactured from a high tensile strength steel and feature an integrated exit and entry ramp for safe and easy pallet handling.

Wheels and Tyres

The 250 mm diameter drive tyre is available either in standard Vulkollan or as an option in rubber, sipped rubber or Supertrac. The adjustable polymer dampers of the castors give the drive wheel excellent grip and provide the truck with optimum stability. The Vulkollan load wheels incorporate a debris cover to protect the bearing. They are available as a single or tandem version and guarantee a long service life.

Electrical System

The 24-volt DC system features a separately excited traction motor (SEM) and is designed for optimum performance and system efficiency.

The MOSFET traction controller features ramp hold, which minimises the possibility of unintended motion when the brake is released on an incline. Obstacles can be easily overcome through the power boost feature which can generate up to 15% more power than normally available for a full 3 seconds.

An on-board diagnostic system reduces troubleshooting times to a minimum. An optional hand-set allows various performance levels to be tailored to the requirements of the customer and application. Regenerative and frictionless braking is applied when the forward/reverse thumb wheel is returned to neutral. Changing the travel direction increases the motor braking effect. Braking level is programmable.

Gearbox, Traction Motor and Brake

The heavy duty gearbox is designed for minimum noise. The parking brake mounted directly on the traction motor is spring applied and electro-magnetically released. The brake torque is transmitted to the drive wheel through the gear reduction.

Batteries

The battery is safely located in the all around closed battery compartment and can be lifted out. The battery as well as the connector is easily accessible. The battery lid can be easily opened or if necessary removed by simply undoing a latch. The trucks offer an optional on-board high frequency charger.

Hydraulic Lift System

A robust 1.0 kW series wound pump motor with integrated oil tank and control valve feeds 2 lift cylinders with chrome plated piston rods. The flow control valve allows for smooth lowering even when the truck is fully loaded. A relief valve protects the components and chassis from overloading. The lift limit switch avoids unnecessary energy consumption, reduces noise emissions and prevents the lift linkage from undue stress. Thick wall bushings and grease fittings for all pivot points in the lift system make the truck ideal

for heavy-duty industrial applications.

Load wheel risers are made from high quality steel for maximum load capability. All bolts are plated to provide protection against rust and corrosion.

Tiller and Controls

The WP’s robust X10® control handle is designed to allow for an optimum turning radius with low steer effort. All control buttons can be operated with either hand and can be accessed with minimum hand and wrist movement. The horn switches are integrated in the hand grips. An ergonomic forward/reverse thumb wheel allows for precise manoeuvring. Depending on the conditions, maximum travel speed can be reduced via the Rabbit/Turtle switch. The parking brake is activated at the lower and upper end of the tiller position. For easy operation in tight areas a brake override function is incorporate which allows the WP 2300 Series to be driven safely and precisely at creep speed with the handle in a near vertical position. The control handle remains within the profile of the power unit at all times, even when performing 90° turn. When the forward/reverse parking brake is immediately activated thus preventing unexpected movement.

Safety Regulations

Conforms to European safety standards. 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.

