

CROWN

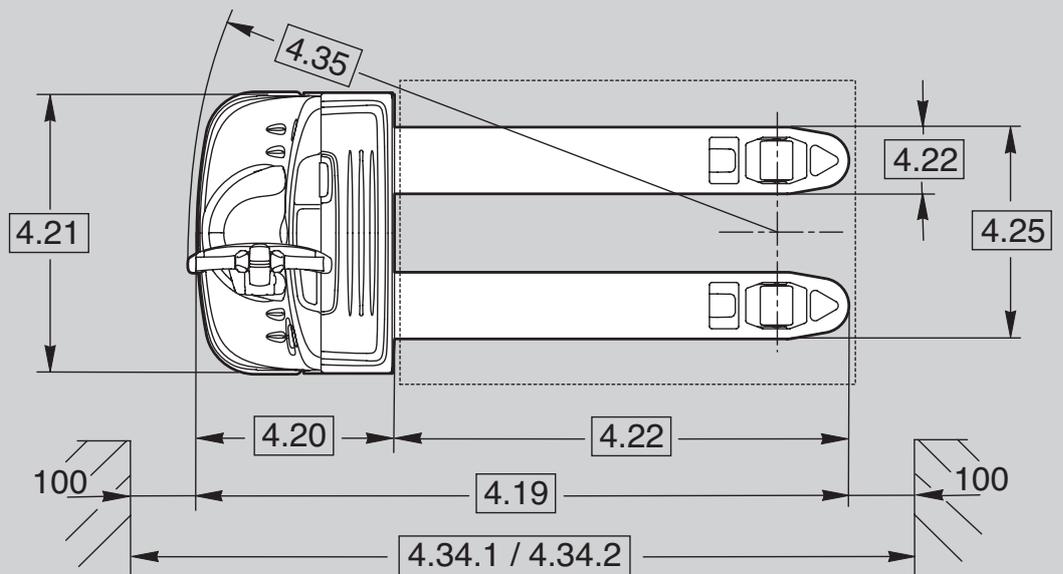
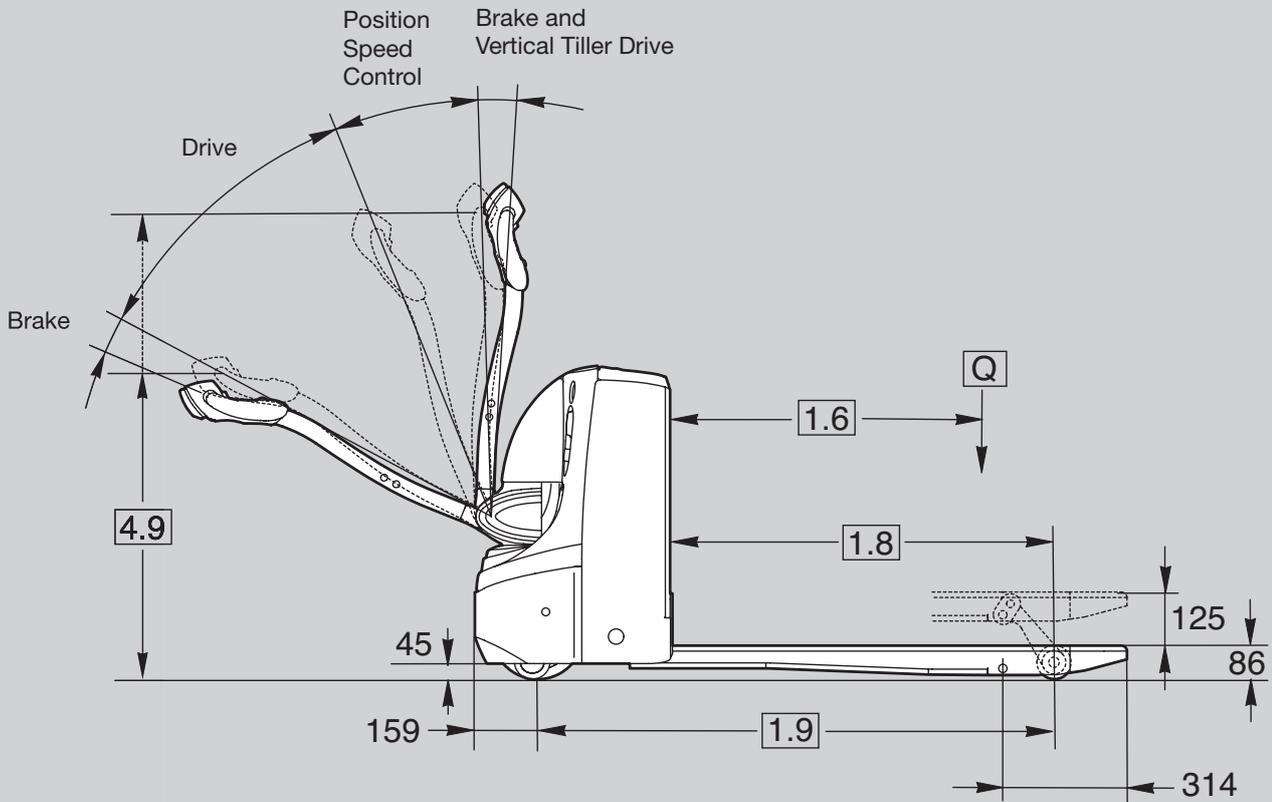
WP 3200 SERIES

Specifications

Pedestrian Pallet Truck



WP 3210



Distinguishing Mark	1.1	Manufacturer	Crown Equipment Corporation			
	1.2	Model	WP 3210-1.6			
	1.3	Power Source	electric			
	1.4	Operator Type	pedestrian			
	1.5	Rated Capacity	Q	t	1.6	
	1.6	Load Centre	c	mm	see table 1	
	1.8	Load Distance ¹	raised	x	mm	see table 1
	1.9	Wheelbase ¹	raised	y	mm	see table 1
	Weight	2.1	Service Weight	less battery		kg
2.2		Axle Load	with Load front / rear		kg	see table 1
2.3			without Load front / rear		kg	see table 1
Tyres/Wheels/Chassis	3.1	Tyres	Vulkollan + PU			
	3.2	Tyre Size	front		mm	Ø 230 x 70
			rear		mm	Ø 82 x 100
	3.4	Additional Wheels	castor wheels		mm	2x Ø 90 x 50
	3.5	Wheels	number (x=driven) front/rear			1x + 2/2
	3.6	Tread	front	b ₁₀	mm	484
			rear	b ₁₁	mm	350 / 370 / 500
Dimensions	4.4	Lift Height		h ₃	mm	125
	4.9	Height Control Handle	in driving position min./max.	h ₁₄	mm	780 / 1156 (1188)
	4.15	Fork Height	lowered	h ₁₃	mm	86
	4.19	Overall Length		l ₁	mm	see table 1
	4.20	Head Length		l ₂	mm	500
	4.21	Overall Width ²		b ₁	mm	720
	4.22	Fork Dimension	DIN ISO 2331	s/e/l	mm	74 x 170 x 1150
	4.25	Fork Spread		b ₅	mm	520 / 540 / 670
	4.32	Ground Clearance	Centre Wheelbase	m ₂	mm	28
	4.34.1	Aisle Width *	for Pallets 1000x1200 crossways 4	A _{st}	mm	1948
	4.34.2	Aisle Width **	for Pallets 800x1200 lengthways 4	A _{st}	mm	1926
4.35	Turning Radius ¹	raised	W _a	mm	see table 1	
Performance Data	5.1	Travel Speed ⁵	with / without Load		km/h	6.0 / 6.0
	5.1.1	Travel Speed Backwards ⁵	with / without Load		km/h	6.0 / 6.0
	5.2	Lift Speed	with / without Load		m/s	0.04 / 0.05
	5.3	Lowering Speed	with / without Load		m/s	0.05 / 0.05
	5.8	Max. Gradeability	with / without Load, 5 min. rating		%	10 / 25
	5.10	Service Brake				electric
Electric Motor	6.1	Traction Motor	rating at S2 60 min.		kW	1.2
	6.2	Pump Motor	rating at S3 10%		kW	1.0
	6.3	Battery	according to DIN 43531/35/36 A, B, C, no	lxwxh	mm	146 x 660 x 604 ³
	6.4	Battery Voltage	Nominal Capacity K ₅		V/Ah	24 / 150
	6.5	Battery Weight			kg	125 - 160
8.1	Drive Unit				transistor	

Table 1					WP 3210-1.6					
1.6	Load Centre		c	mm	400	500	600	600	600	700
1.8	Load Distance ¹	raised		mm	556	756	906	956	1056	1156
1.9	Wheelbase ¹	raised		mm	897	1097	1247	1297	1397	1497
2.1	Service Weight	less battery		kg	279	283	288	290	293	295
2.2	Axle Load	with Load	front	kg	579	695	728	779	869	840
			rear	kg	1456	1344	1316	1267	1180	1211
2.3	Axle Load	without Load	front	kg	301	322	335	339	347	353
			rear	kg	134	117	109	106	103	99
4.19	Overall Length		l ₁	mm	1300	1500	1650	1700	1800	1900
4.22	Fork Dimension		l	mm	800	1000	1150	1200	1300	1400
4.35	Turning Radius ¹	raised	W _a	mm	1080	1280	1430	1480	1580	1680

* A_{st} calculation based on 1000 mm forks

** A_{st} calculation based on 1150 mm forks

¹ Forks lowered +61 mm

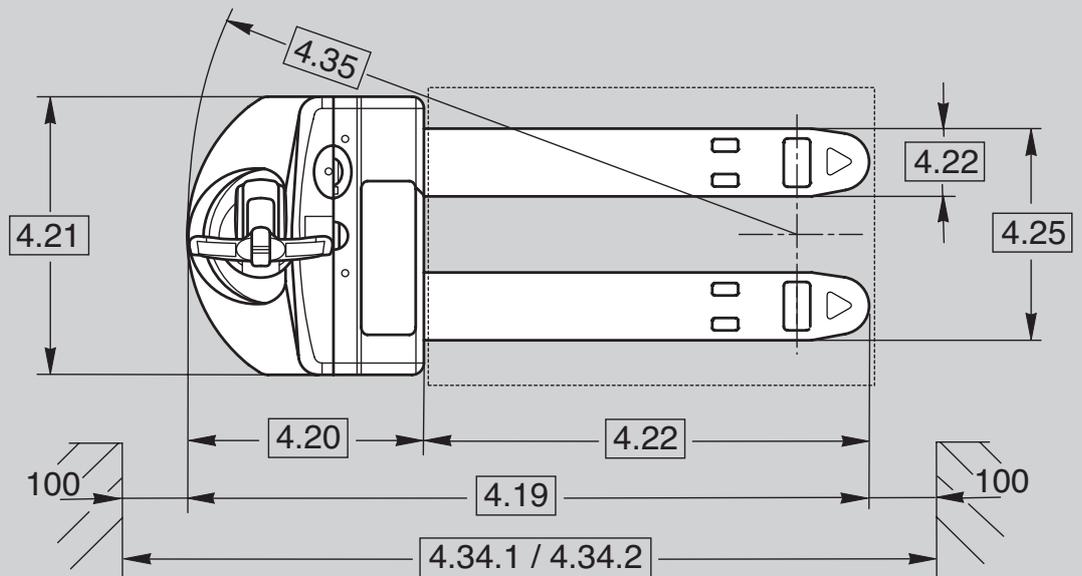
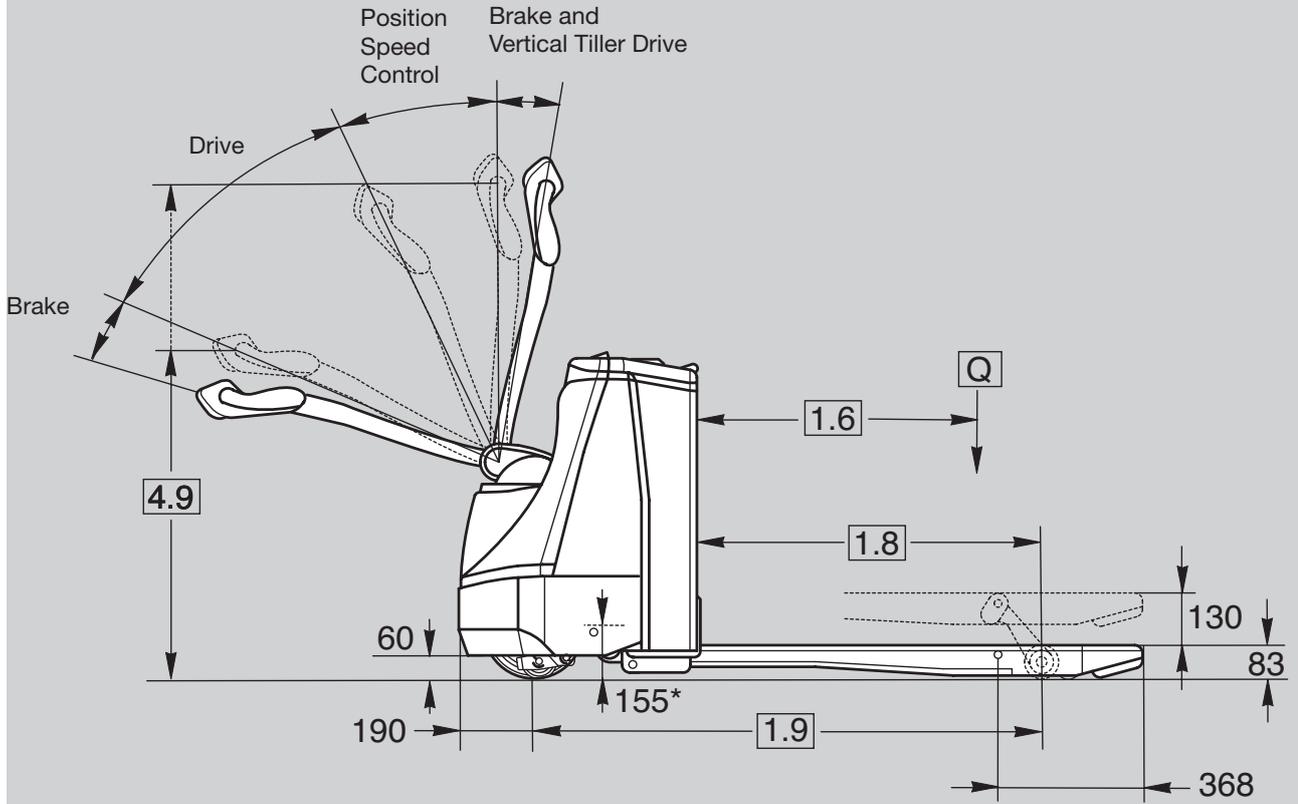
² with load backrest +12 mm

³ Layout A, cell type acc. to BS

⁴ Forks raised

⁵ 5.1 = Power unit first / 5.1.1 = Forks first

WP 3215 & WP 3220



* battery rollout height

Distinguishing Mark	1.1	Manufacturer	Crown Equipment Corporation									
	1.2	Model						WP 3215-1.6	WP 3220-2.0			
	1.3	Power Source	electric									
	1.4	Operator Type	pedestrian									
	1.5	Rated 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	Wheelbase	raised	y	mm	see table 1						
	Weight	2.1	Service Weight	less battery		kg	see table 1					
2.2		Axle Load	with Load front / rear		kg	see table 1						
2.3			without Load front / rear		kg	see table 1						
Tyres/Wheels/Chassis	3.1	Tyres	Vulkollan + PU									
	3.2	Tyre Size	front		mm	Ø 250 x 85						
	3.3		rear		mm	Ø 82 x 110						
	3.4	Additional Wheels	castor wheels		mm	Ø 90 x 50						
	3.5	Wheels	number (x=driven) front/rear			1x + 2/2						
	3.6	Tread	front		b ₁₀	mm	476					
	3.7		rear		b ₁₁	mm	350/370/500					
Dimensions	4.4	Lift Height		h ₃	mm	130						
	4.9	Height Control Handle	in driving position min./max.		h ₁₄	mm	780 / 1197 (1268)					
	4.15	Fork Height	lowered		h ₁₃	mm	83					
	4.19	Overall Length			l ₁	mm	see table 1					
	4.20	Head Length ^{3 4 5 6}	lowered		l ₂	mm	546 (611)	611 (686)				
	4.21	Overall Width			b ₁	mm	712					
	4.22	Fork Dimension	DIN ISO 2331		s/e/l	mm	77 x 170 x 1150					
	4.25	Fork Spread			b ₅	mm	520 / 540 / 670					
	4.32	Ground Clearance	Centre Wheelbase		m ₂	mm	28					
	4.34.1	Aisle Width ^{* 4 5 6}	for Pallets 1000x1200 crossways ¹³		A _{st}	mm	1964	2029				
4.34.2	Aisle Width ^{** 4 5 6}	for Pallets 800x1200 lengthways ¹³		A _{st}	mm	1941	2006					
4.35	Turning Radius	raised		W _a	mm	see table 1						
Performance Data	5.1	Travel Speed ¹²	with / without Load		km/h	5.5 / 6.0						
	5.1.1	Travel Speed Backwards ¹²	with / without Load		m/s	5.5 / 6.0						
	5.2	Lift Speed	with / without Load		m/s	0.04 / 0.06						
	5.3	Lowering Speed	with / without Load		m/s	0.06 / 0.06						
	5.8	Max. Gradeability	with / without Load, 5 min. rating		%	10 / 25						
	5.10	Service Brake				electric						
Electric Motor	6.1	Traction Motor	rating at S2 60 min. / H-class		kW	1.5						
	6.2	Pump Motor	rating at S3 15 %		kW	1.3						
	6.3	Battery	according to DIN 43531/35/36 A, B, C, no	lxwxh	mm	146 x 660 x 604 ¹⁰ (212 x 624 x 627) ¹¹	212 x 624 x 627 ¹¹ (284 x 624 x 627) ¹¹					
	6.4	Battery Voltage	Nominal Capacity K _s		V/Ah	24 / 150 (250)	24 / 250 (375)					
	6.5	Battery Weight			kg	153 (212)	212 (309)					
8.1	Drive Unit				transistor							

Tabelle 1				WP 3215-1.6				WP 3220-2.0										
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	744	894	944	544	744	894	944	1144	1244	1344	1544	1744	2144
1.9	Wheelbase ^{2 4 5 6}	raised	y	mm	900	1100	1250	1300	965	1165	1315	1365	1565	1665	1765	1965	2165	2565
2.1	Service Weight ⁹	less battery	kg	315	320	323	325	315	320	323	325	334	349	354	366	383	407	
2.2	Axle Load ⁹	with Load	front	kg	562	606	670	670	725	788	829	881	955	959	1020	1069	1030	940
		rear	kg	1506	1467	1406	1408	1802	1744	1706	1656	1591	1597	1546	1509	1395	1209	
2.3	Axle Load ⁹	w.o. Load	front	kg	331	344	356	358	394	409	417	421	436	444	454	467	483	504
		rear	kg	127	119	110	110	133	123	118	116	110	112	112	111	112	115	
4.19	Overall Length ^{3 4 5 6}	gesenkt	l ₁	mm	1346	1546	1696	1746	1411	1611	1761	1811	2011	2111	2211	2411	2611	3011
4.22	Fork Dimension		l	mm	800	1000	1150	1200	800	1000	1150	1200	1400	1500	1600	1800	2000 ⁷	2400 ⁸
4.35	Turning Radius ^{2 4 5 6}	raised	W _a	mm	1088	1288	1438	1488	1153	1353	1503	1553	1753	1853	1953	2153	2353	2753

¹ Forks lowered +56 mm

² Forks lowered +72 mm

³ Forks raised +16 mm

⁴ with optional battery rollout +32 mm

⁵ with optional load backrest +50 mm

⁶ add 65 mm for 250 Ah compartment at WP 3215, add 75 mm for 375 Ah compartment at WP 3220

⁷ Capacity derated to 1830 kg

⁸ Capacity derated to 1500 kg

⁹ all weights apply to small battery compartments

¹⁰ Layout A, cell type acc. to BS

¹¹ Layout B, cell type acc. to DIN 43535

¹² 5.1 = Power unit first / 5.1.1 = Forks first

¹³ Forks raised

* A_{st} calculation based on 1000 mm forks

** A_{st} calculation based on 1150 mm forks

with optional larger battery compartments use values in brackets

Standard Equipment

1. X10® control handle places all truck functions at the operator's fingertips
2. 24-Volt fused electrical system
3. e-GEN® Braking System offers regenerative and frictionless electric braking
4. Electric parking brake
5. Maintenance free 3-phase (AC) traction motor
6. 50 Ah battery compartment (WP 3210, WP 3215); 250 Ah battery compartment (WP 3220)
7. Rabbit/turtle switch incorporates two levels of programmable travel performance
8. Position Speed Control
9. Vertical Tiller Drive
10. Key switch
11. Horn button in each handgrip
12. Battery connector SBE 160 red
13. Emergency disconnect
14. Vulkollan drive tyre and single load wheels
15. Spring-loaded polyurethane castor wheels
16. Safety reverse switch
17. Battery discharge indicator with lift lockout and integrated hourmeter and fault code readout
18. Ramp load
19. Steel covers
20. Fork tip indicators

Optional Equipment

1. 250 Ah battery compartment (WP 3215); 375 Ah battery compartment (WP 3220)
2. Battery connector DIN 160 A
3. Freezer conditioning -30°C operating temperature (WP 3215, WP 3220)
4. Fork length and spread options
5. Battery rollout function to both sides (250 Ah and 375 Ah compartment only, increases headlength by 32 mm; not with load backrest)

6. Drive wheel rubber Ø 250 x 100 mm
7. Drive wheel sipped rubber Ø 250 x 100 mm (WP 3215, WP 3220)
8. Drive wheel Supertrac® Ø 250 x 85 mm
9. Tandem load wheels Ø 82 x 82 mm, Vulkollan®
10. On-board charger 35 Amp (WP 3210)
11. Sealed on-board charger 30 Amp (WP 3215, WP 3220, 150 Ah and 250 Ah compartments only)
12. Keypad
13. InfoLink® Ready (WP 3210 requires load backrest)
14. Load backrest (WP 3215, WP 3220, lift out only, increases headlength by 50 mm) (WP 3210 increases overall width by 12 mm)
15. Load stabiliser strap
16. Welded fork marks
17. Pallet entry rollers (only with single load wheels)
18. Work Assist™ Accessories
19. Lithium-Ion Battery Ready
20. Special paint

Frame & Chassis

The optimised steel structure for the chassis and fork assembly features a 5 year warranty. Removable steel covers ensure internal components are protected against impacts yet easily accessible for service.

Wheels and Tyres

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.

Electrical System and e-GEN® Braking

A heavy-duty 24-volt fused electrical system provides optimum travel and lift speeds. The transistor control is sealed from dirt, dust and moisture for trouble-free operation.

An on-board diagnostic system reduces troubleshooting times to a minimum. An optional handset allows various performance levels to be tailored to the requirements of the customer and application. The e-GEN® braking system utilises the power of the high-torque AC traction motor to stop the truck and keep it static until a travel input is requested, even when operating on a gradient.

Drive unit

The heavy duty gearbox is designed for minimum noise. A rugged helical gear set delivers trouble free operation and long life. The transistor control module works in conjunction with the AC drive motor to provide responsive acceleration and precise control.

Battery and Charger

The battery is safely located in a fully enclosed battery compartment. The battery and connector are easily accessible. The battery lid can be easily hinged open or removed. Optional on-board chargers are available.

Hydraulic Lift System

The heavy-duty hydraulic motor with integral pump and reservoir provide efficiency and durability. 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.

Operator 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 buttons are integrated in the hand grips.

An ergonomic forward/reverse thumb wheel allows for precise speed control. A rabbit/turtle switch allows operators to select a travel speed range to match operating conditions.

Position Speed Control

When operating in tight spaces such as retail stores with narrow aisles or inside lorries and elevators, the operator can move the tiller from the Travel zone to the Position Speed Control zone. The travel speed in fork direction will then be automatically reduced to 1.5 km/h without the need to come to a halt and a further command from the operator. This ensures a smooth and productive workflow while avoiding unintentional interruptions.

Vertical Tiller Drive

The Vertical Tiller Drive function goes one step beyond. When activated, the truck can be moved at up to 1.5 km/h even when the tiller is in vertical position by simply keeping the travel switch pressed in the desired direction. Reducing the turning radius of the truck, the system enables operators to easily move pallets. This also helps to avoid costly goods damage.

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.