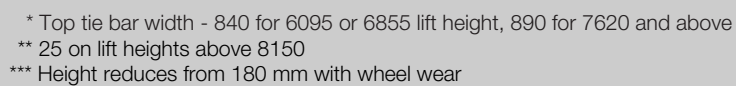


RD 5200

Series





RD 5200 Series

Specifications

General Information	1.1	Manufacturer	Crown Equipment Corporation		
	1.2	Model			RD 5220 - 1.35
	1.3	Prime Mover			electric
	1.4	Operator Type			stand
	1.5	Load Capacity *	Q	t	1.35
	1.6	Load Centre	c	mm	600
	1.8	Load Distance	x	mm	see table
	1.9	Wheel Base	y	mm	see table
	2.1	Weight	less battery	kg	see table
Tyres	3.1	Tyre Type	load, castor, drive		poly / poly / poly
	3.2	Tyres	power unit side, drive	mm	Ø 330 x 140
	3.3	Tyres	load side, standard wheel	mm	Ø 127 x 74
	3.4	Castor Wheel	size	mm	Ø 205 x 102
	3.5	Wheels, (x = driven)	number power unit side/load side		1x, 2 / 4
	3.6	Track Width	power unit side	b10 mm	808
Dimensions	4.1	Tilt: Forkcarriage	forwards/backwards	angle °	3 / 4
	4.2	Mast	collapsed height	h1 mm	see table
	4.3	Free Lift		h2 mm	see table
	4.4	Lift Height		h3 mm	see table
	4.5	Mast		h4 mm	see table
	4.7	Overhead Guard Height	overhead guard (cabin)	h6 mm	see table
	4.10	Outrigger Height	std. wheel / Ø 102 / 127 / 152	h8 mm	102 / 127 / 152
	4.20	Headlength		l2 mm	see table
	4.21	Width Overall	power unit side	b1 mm	1065
	4.22	Fork Dimensions	standard / optional lengths	thxwxl mm	45 x 100 x 915 / 762, 990, 1065, 1145, 1220
	4.23	Fork Carriage	DIN 15173 class/form A, B		2A
	4.24	Fork Carriage Width	incl. load backrest	b3 mm	825
	4.25	Width Across Forks	with sideshifter / w.o. sideshifter	b5 mm	200-685 / 305-760
	4.26	Inside Straddle	in 25 mm increments	b4 mm	865 - 1270
	4.28	Reach	with sideshifter / w.o. sideshifter	l4 mm	1030 / 1080
	4.32	Ground Clearance	centre wheelbase	m2 mm	25 / 50
Performance	4.33	Working Aisle Width	1000 x 1200 traverse	Ast mm	see table
	4.34	Working Aisle Width	800 x 1200 length	Ast mm	see table
	4.35	Turning Radius		Wa mm	see table
	4.37	Length over Outriggers		l7 mm	see table
	5.1	Travel speed - standard	w./w.o. load power unit first	km/h	11.52 / 11.52
			forks first	km/h	9.12 / 9.12
Performance		- with productivity package	w./w.o. load power unit first	km/h	11.52 / 12.50
			forks first	km/h	9.12 / 10.40
	5.2	Lift Speed	w./w.o. load	m/s	0.39 / 0.59
	5.3	Lower Speed - standard	w./w.o. load	m/s	0.46 / 0.43
		- with productivity package	w./w.o. load	m/s	0.46 / 0.56
	5.4	Reach Speed	w./w.o. load	m/s	0.13 / 0.13
Motors	5.8	Max. Gradeability	w. load	%	-
	5.10	Brakes	service - applied / released		mechanical / electrical
			parking		mechanical / electrical
	6.1	Traction Motor	(60 min. rating)	kW	4.8
	6.2	Lift Motors	(15% on time)	kW	7.9
	6.3	Max. Battery Size	DIN 43531/35/36 A, B, C, no	lxwxh mm	see table
Motors	6.4	Battery Voltage	nominal capacity 5h	V/Ah	see table
	6.5	Battery Weight	minimum	kg	see table
	8.1	Type of Controller			transistor

* Contact factory. Capacity may be subject to derating at height.

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Specifications

Dimensions		Type		RD 5220 - 1.35 TT					
	4.2	Mast	collapsed height	mm	2260	2415	2720	3025	3330
	4.3	Free Lift*		mm	1345	1495	1800	2105	2410
	4.4	Lift Height		mm	5025	5330	6095	6855	7620
	4.5	Mast*		mm	5945	6250	7010	7775	8535
	4.7	Height	overhead guard	mm	2260	2415	2415	2415	2415
		Minimum Straddle OD		mm	1070	1070	1070	1070	1070

	2.1	Truck Weight	less battery	battery compartment						
		RD 5220 - 1.35		B	kg	2700	2750	2895	n/a	n/a
				C	kg	2720	2770	2915	3045	3275
				D	kg	2740	2790	2935	3065	3295
				E	kg	2765	2815	2960	3090	3320

Dimensions	Type		RD 5220 - 1.35 TT					
	4.2	Mast	collapsed height	mm	3560	3785	4065	4370
	4.3	Free Lift*		mm	2640	2870	3150	3450
	4.4	Lift Height		mm	8150**	8660	9295	10160
	4.5	Mast*		mm	9070	9575	10210	11075
	4.7	Height	overhead guard	mm	2415	2415	2415	2415
		Minimum Straddle OD		mm	1070	1245	1270	1345

	2.1	Truck Weight	less battery	battery compartment					
		RR 5220 - 1.35		C	kg	3355	n/a	n/a	n/a
				D	kg	3375	3490	n/a	n/a
				E	kg	3400	3515	3610	3720

* Subtract 305 mm from free lift, and add 305 mm to extended height for all models if standard load backrest 1220 mm is required.

** Above h3 = 8150 Load Wheel Ø 152 mm standard.

			RD 5220 - 1.35 TT			
Compartment			B	C	D	E
1.8	•• w.o. Sideshift	x	305	350	350	350
1.9		y	1465	1560	1605	1670
4.20	•	l2	1425	1475	1520	1585
4.33	1000 x 1200 trav.	Ast	2850	2910	2955	3020
4.34	800 x 1200 length	Ast	2910	2965	3010	3075
4.35		Wa	1730	1825	1870	1935
4.37	standard wheel	L7	1930	2025	2070	2135
6.3		lxwxh	360x975x785	412x975x785	457x982x785	525x982x785
6.4	max.	V/Ah	36 / 600	36 / 750	36 / 800	36 / 900
6.5	min.	kg	725	908	1035	1180

• Add 50 mm with optional sideshift

•• Subtract 50 mm with optional sideshift

Capacity

At a 600 mm load centre
Model RR 5220 1.35
– 1350 kg, 36 V

Batteries

Battery removal from left side of truck. Standard battery compartment rollers for extraction with mechanized equipment.

Standard Equipment

1. Crown Integrated Control System with Access 1-2-3® diagnostics.
2. 36 volt system.
3. CAN bus technology.
4. Work Relief Center
 - Variable side stance
 - Flexible five-point positioning
 - Back support with integral hip support
 - Arm/elbow support padding
 - Padded compartment interior walls
 - Operator console with work surface and storage
 - Lower storage compartment
 - Suspended floor
 - 1740 cm² floor area
 - Non-skid rubber floor mat
 - Console light
5. "Multi-task" controller, urethane covered.
6. Urethane covered steer tiller.
7. Hydrostatic power steering.
8. Standard display
 - 4 character message mode, 3 button access
 - Access 1-2-3® service tool with real time trouble shooting diagnostics
 - Four hour meters
 - Battery discharge indicator with lift interrupt
 - PIN security
9. High visibility power unit.
10. High visibility mast.
11. Overhead guard.
12. 914 mm high load backrest.
13. Tilting fork carriage.
14. Tandem articulating load wheel.
15. Silent mast staging system.
16. Quiet lift pumps.
17. High speed lift cut out 305 mm from maximum lift.
18. Crown manufactured drive and lift motors.
19. Offset articulated drive axle with 190° steer arc.
20. Key switch.
21. Horn.
22. Emergency power disconnect.
23. SBE 320 amp grey battery connector.
24. Large diameter battery rollers.
25. Colour coded wiring.

Optional Equipment

1. Mast lift heights to 10160 mm.
2. Enhanced Display Panel with 16 character alphanumeric message center, six button direct access.
3. Maximum Performance System (MPS) includes:
 - Enhanced Display
 - Rack Height Select
 - Productivity Package
 - Capacity Monitor
4. Tilt Position Assist.
5. Motor brush wear and overtemp indicator (requires enhanced display)
6. Forward steering.
7. Lift limit with or without override (requires height encoder).
8. Battery retainer with interlock.
9. 1065 and 1220 mm high load backrest.
10. Work lights.
11. Fan.
12. Productivity package.
13. Corrosion/freezer conditioning
14. Load wheel sizes and compounds.
15. Removable outrigger tips.
16. Mesh screen mast guard.
17. Overhead guard mesh.
18. Crown manufactured sideshifter. 50 mm each way.
19. Polished and tapered forks.
20. Fork lengths.
21. Keyless on/off switch.

Work Relief Center

Soft, rounded surfaces make compartment interior more comfortable. Streamlined exterior smooths entry/exit for the operator. A lower floor height (240 mm), first greets the operator. A new 1740 cm² floor and new patented, suspended floorboard provide comfortable footing. A new brake pedal design allows variable side stance positions for the operator. During travel and load handling, the operator can change positions to increase comfort and productivity.

Five-point positioning provides better control and stability, starting with the right hand on the multi-task controller and the left hand on the steer tiller. Left foot on the brake pedal and the right foot on the power on pedal. The operator's back is naturally fitted against the wrap around support cushion. The new multi-task controller naturally bridges Crown's current and past designs. Intuitive operation is increased, reducing the learning curve. Blending of hydraulic control functions and traction can improve productivity. Control handle activation forces are reduced. Soft grip steer tiller with hydrostatic steering reduced operator fatigue. Operator visibility is improved with:

- Low profile power unit
- High visibility mast
- Angled mast cross bracing
- Angled overhead guard cross bars
- Variable side stance

Superior Thermal Management is the result of several unique design features: reduced heat generating components, positioning of heat generating components away from the compartment, padding to insulate the compartment from heat, and improved air paths through the truck. Clipboard surface and console storage pockets are standard. A large storage area is located below the operator backrest.

Crown Integrated Control System with Access 1-2-3®

Crown's Integrated Control System provides unmatched truck control for all primary truck systems:

- Traction control
- Hydraulic pump control
- Hydrostatic steering
- Braking
- Display

The closed loop traction system provides high available torque utilizing a separately excited Crown manufactured motor.

Acceleration is dramatically improved, increasing productivity. On ramps or when interfacing with push back racking, "Truck hold" feature electronically brakes the truck when the handle is in neutral. Operator does not have to release the brake pedal, improving comfort and control in these applications. Selected travel speed remains constant regardless of surfaces, load weight or grades. Less throttling of control handle means better truck control and less fatigue to the operator.

Separately excited motor technology eliminates forward and reverse contactors. Regenerative motor braking helps save energy, increases motor brush life and decreases motor temperature. Cooling fins on the brake rotor force cool air down through the drive motor.

Crown's **Access 1-2-3®** consists of 3 modules. Each module is extensively tested, enclosed for protection and designed to work in a variety of applications.

Access 1-2-3® is the most comprehensive fault detection system in the industry. The Service Technician can actively view inputs and outputs during truck operation.

Access 1 Module

This is the display panel, (Standard or Enhanced), and the first point of trouble-shooting.

No tools are required. Access 1 has three levels of interface:

- Operator feedback
- Full functionality of the truck while monitoring analog and digital inputs and outputs.
- Components can be "driven" with full currents and voltage eliminating inconclusive continuity guesswork.

Access 2 Module

This is the power supply for the hydraulic system including lift, all accessory functions, and load sense hydrostatic steering.

Access 3 Module

Full time management control of traction, braking and other system inputs and outputs. Access 3 simplifies the system by reducing componentry including directional and pump contactors, relays and other hard wired components. Information On Time consists of clearly labeling each component and providing an area map showing the component location. A Quick Reference Troubleshooting Guide is supplied with each truck showing display operation, code definitions, and an overall component I.D. of the entire truck.

Performance Profiling

Performance Profiling can be accessed at the display to customize truck performance for specific applications or operator requirements.

Crown's Integrated Control System provides a responsive, energy efficient and reliable machine.

Access 1-2-3® has been extensively developed to address the real world of troubleshooting and repair.

Travel

Increased travel speeds improve transport productivity especially when long distances are involved. Acceleration is increased to get the operator to the task quickly. An optional Productivity Package is available to increase empty travel and lower speeds.

Steering

Load sense hydrostatic steering is a low idle stand-by system which reduces energy consumption. Smooth, quiet steering control with minimal operator effort required at the steer tiller. Drive tire rotates 190° for maximum maneuverability.

Crown's hydrostatic steering system is simplified with significantly fewer parts, thus reducing maintenance requirements.

Braking

A disc brake on the motor armature shaft combined with motor regenerative braking provides sure braking with fewer parts and maintenance requirements. The offset, articulated drive unit design improves drive tire brake force and eliminates the caster brake, simplifying the system.

Suspension

The offset, articulated drive unit design provides positive floor contact.

Load Handling

The optional Maximum Performance System (MPS) incorporates the enhanced Display, the Productivity Package, the Capacity Monitor, and the Rack Select feature.

The Capacity Monitor shows the approximate weight on the forks and the fork height. It will alert the operator when the truck capacity is exceeded for the fork height. It will also show how high or to which lift zone you can raise the load.

The Rack Select feature allows the truck to be programmed to stop a preselected heights.

As the name implies, MPS offers the maximum productivity in those high-throughput applications.

Another useful option is the Tilt Position Assist. This allows the fork tilt to stop at a preprogrammed position. If set to a fork level condition, this will allow maximum fork clearance when entering pallets and improve productivity.

Lift and lower speeds were increased for productive pallet put away and retrieval. Blending of hydraulic and traction functions, (travel, lift, and reach), is attainable. Lift, reach and sideshift are proportional for load handling accuracy.

Mast

High visibility mast design with angled cross bracing and angled overhead guard braces improve visibility for high or low stacking. Crown's patented staging cushions coupled with lowering dampers and speed reductions at maximum lift improve overall load handling control.

Rolled steel outer channel masts and inner "I" beams roll on canted, steel, anti-friction roller bearings for minimal current draw and long life. Telescoping mast sections nest to reduce truck length. Mast wrap around design increases stiffness. Above 6855 mm lift, mast reinforcement maintains maximum capacity. Load capacities benefit from this design with lift heights available to 10160mm.

Display

Two display options are available, (Standard and Enhanced), for information management on board. The Crown 5000 display has greatly simplified servicing, maintenance and fault rectification.

Reach Mechanism

Reach mechanism design using CAD (computer aided design) and FEM (finite element modeling) technology allows for accurate modeling of stress conditions present in key components of the assembly. The result is no high stress areas.

Inner arm has a one piece plate with continuous welding. Torque plate is also used to give the mechanism stiffness to resist twisting for long lasting-durability. Outer arms are designed with large heel to provide more material for stresses to be distributed evenly. Robotically welded for maximum strength.

Carriage

A hook type carriage conforming to ISO class 2A specifications is used. Load backrest is standard.

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.

Other Options Available

Contact Crown.

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.