RR 5200 Series

narrow aisle reach truck

specifications

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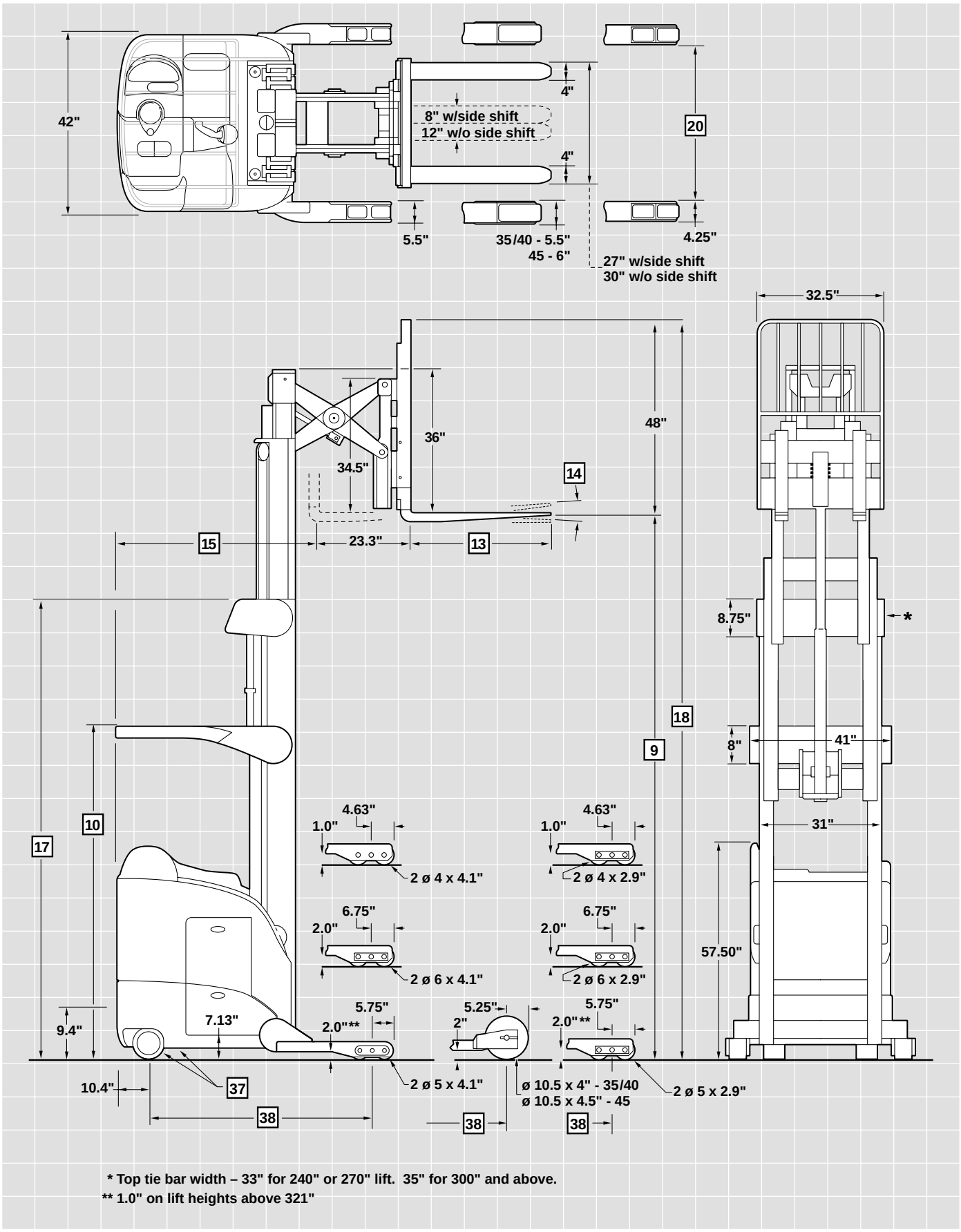

* Top tie bar width – 33" for 240" or 270" lift. 35" for 300" and above.

** 1.0" on lift heights above 321"

General Information	1	**Manufacturer**			**Crown Equipment Corporation**			
	2	**Model**			RR 5210-35	RR 5210-40	RR 5220-35	RR 5220-45
	3	**Load Capacity***	Max	lb	3500	4000	3500	4500
	4	**Load Center**	Fork Face to Load CG	in	24	24	24	24
	5	**Power**			24 Volts	24 Volts	36 Volts	36 Volts
	6	**Operator Type**	Reach		Stand	Stand	Stand	Stand
	7	**Tire Type**	Load/Caster/Drive		Poly/Poly/Poly			
	8	**Wheels (x = driven)**	Load/Power Unit		4/2 (1x)			
		Mast Type	Hi-Visibility		TT			
Dimensions	9	**Lift Height**		in	See Mast Chart			
	10	**Guard Height**		in	See Mast Chart			
	13	**Forks**	Standard L x W x T	in	36 x 4 x 1.75			
			Optional Lengths	in	30, 39, 42, 45, 48			
	14	**Carriage**	Tilt F°/B°	degree	3/4			
	15	**Headlength****	Comp't "A"	in	47.16	na	47.16	na
			Comp't "B"	in	49.28	49.28	49.28	na
			Comp't "C"	in	51.28	51.28	51.28	52.91
			Comp't "D"	in	na	na	na	54.66
			Comp't "E"	in	na	na	na	57.28
	17	**Overall Collapsed Height**		in	See Mast Chart			
	18	**Overall Extended Height**		in	See Mast Chart			
	20	**Inside Straddle Width**	In 1" increments	in	34 - 50			
Performance	24	**Speed Travel**	Power Unit First (E/L)	mph	6.3/6.3	6.3/6.3	7.2/7.2	7.2/7.2
			Forks First (E/L)	mph	5.7/5.7	5.7/5.7	5.7/5.7	5.7/5.7
	24a	**Speed Travel with Productivity Package**	Power Unit First (E/L)	mph	na	na	7.8/7.2	7.8/7.2
			Forks First (E/L)	mph	na	na	6.5/5.7	6.5/5.7
	25	**Speed Lift**	Empty/Loaded	fpm	52/37	52/33	122/75	118/65
	26	**Speed Lower**	Empty/Loaded	fpm	85/90	85/90	85/90	85/90
	26a	**Speed Lower with Productivity Package**	Empty/Loaded	fpm	na	na	110/90	110/90
Chassis	37	**Tires**	Size - Drive/Caster	in	13 x 5.5/8 x 4			
	38	**Wheelbase (Standard Wheel)**	Comp't "A"	in	52.12	na	52.12	na
			Comp't "B"	in	54.24	54.24	54.24	na
			Comp't "C"	in	56.24	56.24	56.24	59.57
			Comp't "D"	in	na	na	na	61.32
			Comp't "E"	in	na	na	na	63.95
	39	**Suspension**	Drive		Articulated			
			Caster		Articulated, Swivel			
	42	**Brakes**	Drive		Elec Release/Mech Applied			
			Caster		None			
			Parking		Elec Release/Mech Applied			
Battery		**Battery Removal**			Both Sides			
	45	**Type**			Lead Acid			
	46	**Min Weight/Max Amp**	Comp't "A"	lb/amp	1300/1085	na	1300/620	na
			Comp't "B"	lb/amp	1600/1085	1600/1085	1600/775	na
			Comp't "C"	lb/amp	1880/1020	1880/1020	1880/930	2000/930
			Comp't "D"	lb/amp	na	na	na	2280/1085
			Comp't "E"	lb/amp	na	na	na	2600/1240
		Max Battery Size	Comp't "A"	in	12.19x38.38x31	na	12.19x38.38x31	na
			Comp't "B"	in	14.25x38.38x31	14.25x38.38x31	14.25x38.38x31	na
			Comp't "C"	in	16.25x38.38x31	16.25x38.38x31	16.25x38.38x31	16.25x38.38x31
			Comp't "D"	in	na	na	na	18.00x38.69x31
			Comp't "E"	in	na	na	na	20.75x38.69x31

* Contact factory. Capacity may be subject to derating at height.
**Add 2" with optional sideshift.

Models RR 5210-35, 5210-40, 5220-35 and 5220-45					TT				
Mast	**9**	Lift Height (RR 5210-35 and -40, 270" Max)			198"	210"	240"	270"	300"
		Free Lift*			41	47	59	71	83
	10	Guard Height			89	95	95	95	95
	17	Overall Collapsed Height			89	95	107	119	131
	18	Overall Extended Height*			246	258	288	318	348
		Minimum Straddle OD			42	42	42	42	42
Weight		Truck Weight w/o Battery	Battery Compartment						
		RR 5210-35 **RR 5210-40****	A	lb	5284	5370	na	na	na
			B	lb	5330	5416	5675	na	na
			C	lb	5374	5460	5719	5962	na
		RR 5220-35	A	lb	5362	5448	na	na	na
			B	lb	5408	5494	5753	na	na
			C	lb	5452	5538	5797	6040	6212
		RR 5220-45	C	lb	5836	5945	6258	6548	7055
			D	lb	5878	5987	6300	6590	7097
			E	lb	5933	6042	6355	6645	7152

Model RR 5220-45					TT			
Mast	**9**	Lift Height			321"	341"	366"	400"
		Free Lift*			92	101	112	124
	10	Guard Height			95	95	95	95
	17	Overall Collapsed Height			140	149	160	172
	18	Overall Extended Height*			369	389	414	448
		Minimum Straddle OD			42	49	50	53
Weight		Truck Weight w/o Battery	Battery Compartment					
		RR 5220-45	C	lb	7231	na	na	na
			D	lb	7273	7524	na	na
			E	lb	7328	7579	7795	8029

* With load backrest.
** RR 5210-40 Not available with “A” battery compartment.
Above 321" 6" high load wheel standard.

Capacity

Model RR 5210-35: 3500 lb at 24" load center, 24 volt.

Model RR 5210-40: 4000 lb at 24" load center, 24 volt.

Model RR 5220-35: 3500 lb at 24" load center, 36 volt.

Model RR 5220-45: 4500 lb at 24" load center, 36 volt.

Batteries

Battery removal from left or right 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. 24 or 36 volt system
3. 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
   - 270 square inch floor area
   - Non-skid rubber floor mat
   - Console light
4. "Multi-task" controller, urethane covered
5. Urethane covered steer tiller
6. Hydrostatic power steering
7. Standard display
   - 4 character message mode, 3 button access
   - Access 1 2 3® diagnostics with real time troubleshooting diagnostics
   - Four hour meters
   - Fuel gauge with lift interrupt
   - PIN security
8. High visibility power unit
9. High visibility mast
10. Overhead guard
11. 48" high load backrest
12. Tilting fork carriage
13. Tandem articulating load wheels
14. Silent mast staging system
15. Quiet lift pumps
16. High speed lift cut out 12" from maximum lift
17. Crown manufactured drive and lift motors
18. Offset articulated drive axle with 190º steer arc
19. Key switch
20. Horn
21. Emergency power disconnect
22. 350 amp battery connector
23. Large diameter battery rollers
24. Color coded wiring

Optional Equipment

1. Mast lift heights to 400"
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. 36" and 42" high load backrests
10. Work lights
11. Fan
12. Productivity package (RR 5220 only)
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. 2" or 4" 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, (9.4"), first greets the operator. A new, 270 square inch floor and new patented, suspended floorboard provide comfortable footing.

A new brake pedal design allows variable side stance positions for the operator. 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 reduces 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® Diagnostics

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.

Crown's Access 1 2 3® Diagnostics 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 troubleshooting. 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® diagnostics 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 manuverability. 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 maintenace 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 at 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. Heavier mast cross bracing design increases stiffness. Above 270" lift, vertical mast reinforcement maintains maximum capacity.

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
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 ITA 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 your Crown dealer.

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.

SF12895 1/01
Printed in U.S.A.

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