

**CROWN**

# SP 3500 SERIES

## Specifications

Four-Point Stockpicker  
SP 3570F Model





**SP 3570F Model**

**Specifications**

			Imperial				Metric						
<b>General Information</b>	1	<b>Manufacturer</b>	<b>Crown Equipment Corporation</b>										
	2	<b>Model</b>	<b>SP 3570F</b>										
	3	<b>Load Capacity*</b>	24" (600 mm) Load Center to 276" (7010 mm)	lb	kg	3000				1360			
	4	<b>Load Center</b>	Platform face to load CG	in	mm	24				600			
	5	<b>Power</b>	Electric	24 Volts									
	6	<b>Operator Type</b>	Stand-up Rider	Stockpicker									
	7	<b>Tire Type</b>	Load / Drive / Caster	Poly / Poly / Poly									
	8	<b>Wheels</b>	Load / Drive / Caster	2 / 1 / 1									
<b>Dimensions</b>	10	<b>Lift Height</b>	(LH)	in	mm	210	5335	240	6095	276	7010	294	7470
						312	7925	330	8380	348	8840	366	9295
		<b>Free Lift</b>	With LBR	in	mm	8	205	20	510	32	815	38	965
						44	1120	56	1425	62	1575	68	1730
	11	<b>Collapsed Height</b>		in	mm	95	2415	107	2720	119	3025	125	3175
						131	3330	143	3630	149	3785	155	3935
	12	<b>Extended Height</b>	(EH)	in	mm	298	7570	328	8330	364	9250	382	9705
						400	10160	418	10620	436	11075	454	11535
		<b>Truck Weight</b>	Without Battery	lb	kg	6295	2855	6490	2944	6887	3124	7008	3179
						7101	3221	7231	3280	7324	3322	7417	3364
	13	<b>Head Length</b>		in	mm	75.6				1920			
	14	<b>Forks</b>	Standard L x W x T	in	mm	36 x 4 x 2				914 x 100 x 50			
			Optional Lengths	in	mm	30, 39, 42, 45, 48, 54, 60, 72, 84				762, 990, 1067, 1143, 1219, 1372, 1524, 1829, 2134			
	15	<b>Wheelbase</b>		in	mm	87.5				2222			
	16	<b>Turning Radius</b>		in	mm	98.5				2502			
	17	<b>Aisle Guide Wheel Range</b>		in	mm	49.5 to 77.5 (11.5 to 15.5 Greater than inside straddle in .25" increments)				1260 to 1970 (292 to 394 Greater than inside straddle in 6 mm increments)			
	18	<b>Straddle Width</b>	Inside Straddle	in	mm	38 to 63 in 1" increments				970 to 1600 in 25 mm increments			
		Outside Straddle	in	mm	Add 11				Add 279				
19	<b>Operator Compartment Width</b>		in	mm	48 Standard; 42, 54, 60 and 64 Optional				1220 Standard; 1070, 1370, 1525 and 1625 Optional				
<b>Performance</b>	20	<b>Speed Travel</b>	Empty / Loaded	mph	km/h	See Chart				See Chart			
	21	<b>Speed Lift</b>	Empty / Loaded	fpm	m/s	40/26 Low, 71/43 High				.203/.132 Low, .360/.218 High			
	22	<b>Speed Lower</b>	Empty / Loaded	fpm	m/s	40/38 Low, 80/75 High				.203/.193 Low, .406/.381 High			
	23	<b>Battery</b>	Type	Lead Acid				Lead Acid					
			Min Weight	lb	kg	1520				690			
			Max Amp	1085				1085					
			Max Size L X W X H	in	mm	36.25 x 14.25 x 31				920 x 360 x 790			
			Connector Location/ Length (J)	in	mm	A/20				A/500			
24	<b>Traction Motor</b>	60 Min Rating	hp	kw	5.2				3.9				

\* Contact factory. Capacity depends on maximum lift height, straddle width, load center and fork length.

<b>Lift Height</b>		<b>Steered Wheel &lt; 10° (1)</b>	
		<b>Guided (2)</b>	
		<b>Power Unit First (PUF) (3)</b>	
		<b>Travel Speed Empty / Loaded</b>	
		<b>Linear SP 3570F</b>	
<i>inches</i>	<i>mm</i>	<i>mph</i>	<i>km/h</i>
0 - 24	0 - 610	7.0 (4)	11.2
25 - 152	635 - 3860	7.0 - 4.0 (4)	11.2 - 6.5
153 - 200	3886 - 5080	4.0 - 3.0	6.5 - 4.8
201 - 304	5105 - 7722	3.0 - 1.5	4.8 - 2.4
305 - 366	7747 - 9295	1.5	2.4

(1) Top travel speed is reduced to 80% at a 10° steering angle, beyond 10° travel speeds gradually reduce down to 50% of top travel speed. Steering angle is automatically limited to within 10° straight travel when lift is above 200" (5080 mm).

(2) Non-guided travel speeds between 24" (610 mm) and 304" (7722 mm) are reduced.

(3) Guided travel speeds in the Forks First (FF) direction are less than Power Unit First (PUF) up to 152" (3860 mm).

(4) Wire guided travel speeds are reduced.

**Standard Equipment**

1. Crown's Access 1 2 3® Comprehensive System Control
2. Crown's AC traction control system
3. 24-volt electrical system
4. Electronic steering
5. Linear Height Speed Control
6. Two-speed raise/lower with soft start and stop
7. Programmable lift/lower cut outs
8. Intelligent Braking System with low-profile brake pedal
9. Lift motor brush wear and overtemp indicator
10. Crown Display
  - Battery discharge indicator with lift interrupt
  - Hour meters/travel distance/stop watch
  - PIN code access capable
  - Access 1 2 3 diagnostics
  - P1, P2, P3 Performance
  - Standard steer tire direction indicator (non wire-guided trucks)
  - Enhanced steer tire direction indicator (wire-guided trucks)
11. Soft urethane twist grip with "cam grip"
12. 10° angled steer wheel with soft feel spinner
13. Storage compartment
14. Premium platform cushion
15. Clear visibility platform window
16. Wire mesh screen
17. Clear visibility mast design
18. Key switch
19. Horn
20. LED flashing light
21. Hinged side gates with power disconnect
22. 14.25" (362 mm) battery compartment
23. 350 amp battery connector
24. 2" (51 mm) diameter battery compartment rollers
25. Top battery access for service
26. Removable steel battery side covers

27. Corrosion conditioning
28. Adjustable battery retainer
29. Hinged, lift off steel power unit doors
30. Emergency power cut-out
31. Retractable tether and body harness
32. Pallet clamp
33. InfoPoint® Quick Reference Guide and Maps
34. Color-coded wiring
35. 6" (152 mm) diameter load wheels

**Optional Equipment**

1. Crown wire guidance (broadband technology) operates on all frequencies ranging from 5.2 through 10 kHz without changing components
2. End of Aisle Control System (wire or rail guidance required)
3. Aisle guide wheels for rail guidance
4. Battery retainer interlock switch
5. V-Force® Lithium-Ion Ready
6. LED work lights, LED dome light and two-speed fan
7. Additional operator fan
8. Spotlights - LED or Halogen
9. Floor Spotlight - Blue
10. Programmable lift/lower cutouts with over-rides
11. Zone select key switch
12. 48", 54", 60" and 64" (1220 mm, 1370 mm, 1525 mm, and 1625 mm) wide operator platforms
13. Freezer conditioning (Includes corrosion conditioning, ribbed floor mat, and wire mesh windshield)
14. Glass windshield
15. Load wheel and drive tire compounds
16. 30" (762 mm) lanyard boom
17. InfoLink® Ready
18. Positive / negative accessory cable
19. Special paint
20. Work Assist® Accessories
  - Storage Bin
  - Clip pad and hook
  - Plate
  - Pocket
21. Fire extinguisher

**Operator Platform**

The operator area is designed for maximum visibility and stability for increased operator confidence and comfort.

The operator platform features a large window (1088 sq in) (701934 mm<sup>2</sup>) for excellent visibility. A Crown-designed clear-visibility mast affords the platform window one forward and two peripheral windows for maximum visibility, even when the platform is lowered.

The clear-visibility mast, with full free lift, extends the platform window above the mast channels for unobstructed visibility when raised.

A low-profile power unit, low placement of the lower cross brace and an outer C-channel rail assembly also contribute to excellent visibility.

A soft urethane twist grip is solidly mounted to the truck console to provide excellent stability for the operator during travel, plugging and braking. Controls for lift/lower, horn and emergency disconnect are conveniently located for efficient operation and minimal operator fatigue. The steering wheel is angled at 10° and recessed to maximize the work area and reduce steer effort. The steering wheel and spinner knob are covered with soft urethane to reduce grip force and insulate against vibration. Control location keeps the operator's posture neutral at all times.

The platform cushion, made of a microcellular composition, absorbs shock and vibration. The brake pedal has a low-profile design and when engaged is flush with the platform cushion for maximum comfort. Heavy-duty side gates, with two horizontal and one vertical support rails, communicate security to the operator. For additional safety, cut-out switches disengage truck operation when side gates are raised.

Two work lights, two dome lights and a two-speed fan are optional. "Power-on" key prevents unauthorized operation of the truck. The Access 1 2 3 Display Panel provides concise, clear feedback for the operator during truck operation.

**Crown's Access 1 2 3...**

The Comprehensive Access 1 2 3 System Control is a modular based communications and control system. It monitors all on-board sensors, makes decisions based on the sensor readings, and subsequently, controls all system movements safely and smoothly. All five modules are in constant communications with each other via a CAN (Control Area Network) bus so that real information is accessible to the system at all times.

- Interactive Display Module
- Traction Control Module
- Vehicle Control Module
- Steering Control Module
- Guidance Control Module

**Crown Drive System**

Crown has applied the latest generation AC drive system, enhanced with Access 1 2 3 technology. A Crown-manufactured drive unit uses spiral bevel and helical gears from motor to drive wheel axle.

Fixed, mounted drive motor does not rotate minimizing wear on electrical cables. Drive tire changing is simplified with this drive unit.

Crown's AC Drive system dramatically improves travel speeds, acceleration and deceleration, thus increasing productivity.

The standard linear speed control provides smooth travel speed transition as lift heights change and increases productivity.

### Travel System

Truck performance specifications (maximum travel speed, coast, plugging, acceleration, travel speed at height, and low speed lowering) are adjustable using Access 1 2 3. This enables customizing truck performance to meet specific application or operator requirements.

Crown's InfoPoint® system offers evolutionary refinement for service simplicity. The InfoPoint Quick Reference Guide, on-truck component maps and information nuggets located throughout the truck allow technicians to troubleshoot without schematics, wiring diagrams, or service manuals for more than 95 percent of repairs.

The InfoPoint Quick Reference Guide provides code definition and overall component ID so the technician knows what it is, where it is, and what it does (Three W's). InfoPoint ensures faster, simpler, and higher quality service.

### Intelligent Steering

Standard on the SP 3500 Series is electronic steering that is microprocessor based.

Crown's intelligent steering feature slows the truck automatically when the steer wheel is turned beyond 10°. Access 1 2 3 monitors the height of the operator platform, truck speed and steer wheel position.

Steering wheel rotation provides smooth, operator feedback. Steer effort is minimal, lock to lock revolutions is 4.5 turns. Drive wheel rotates a full 180° for maximum maneuverability. Auto centering drive tire for trucks equipped with rail guidance. Steering is connected to the Control System for full diagnostics and operator interface.

### Intelligent Braking System

Crown's patented Intelligent Braking System combines motor braking with optimum amounts of friction braking (three varying levels of force). The appropriate level of braking is applied dependent upon platform height, direction of travel, and truck weight. Braking force is automatically reduced as height increases and speed decreases. Optimum braking for the right elevation gives operators more confidence and better control, while eliminating abrupt stops and reducing platform sway. Brake lining life can be expected to last up to twice as long before replacement is necessary.

Braking can also be accomplished by proportional plugging, which permits the operator to control the rate of deceleration when extended stopping distance is preferred.

### Simplified Hydraulics

Heavy-duty series wound pump motors and gear pumps are assembled into an integral unit. Two-speed lift (high/low) is standard. Crown-manufactured solenoid type manifolds with built-in checks and relief valves.

Two-speed lowering (high/low) with soft start is standard on all models. Low speed lowering is adjustable with the use of the Access 1 2 3 Display. Soft-start lowering feature reduces the harshness at the beginning and end of the lowering cycle. The softer start is accomplished by controlling how quickly the proportional valve is opened or closed. Valve actuation is controlled by a driver in the steering control module.

Maximum lowering speed is regulated by a pressure compensating flow control valve. Velocity fuses are used in all cylinders to stop lowering should lowering speed exceed a preset value due to a line rupture. A hydraulic accumulator is used to cushion raise and lower functions. Manual lowering control on manifold block allows lowering of platform from ground level. Oil reservoir is designed with a 100 mesh screen at the fill location, a suction strainer, spin-on type 10 micron return line filter and a magnetic drain plug.

### Four-wheel Configuration

A drive tire, caster wheel, and two load wheels provide a four-point foot print. Caster is adjustable to compensate for tire wear.

### The Crown Mast Assembly

High visibility three-stage masts feature nested rail design with lift cylinders positioned behind mast rails. A low center position cylinder for free lift along with proper routing of hoses and cables optimizes visibility through the mast. Built-in sensors detect chain slack and shut down primary lower function. Exclusive spring-loaded staging bumpers virtually eliminate platform impact as platform stages. Negative rail drop allows shimming of mast rollers without major disassembly.

### Stronger Low Profile Power Unit

Power unit is fabricated from heavy-gauge steel. Lower skirt is 0.75" (19 mm) steel that runs 9" (228 mm) high for component protection. Rugged steel doors suspended on heavy-duty pin hinges cover power unit componentry. Doors swing wide for open access. Doors can also be lifted off for unrestricted service access. Door bolts have exclusive convex design that mates with concave door holes for fast reinstallation of door bolts. Battery side covers are all steel. An optional battery retainer interlock switch is available. Top battery access is available by lifting cover. Cover has integral support post.

### Wheels and Tires

Polyurethane drive tire, 13" (330 mm) diameter x 5.5" (140 mm) wide x 9.5" (241 mm) hub diameter. Load wheels are 6" (152 mm) diameter polyurethane x 4.25" (108 mm) wide. Optional polyurethane aisle guide wheels are 2" (51 mm) wide with a 4" (102 mm) or 2.5" (63.5 mm) diameter. Casters have dual 3" (76 mm) wide x 10" (254 mm) diameter polyurethane load wheels.

### Forks

Standard fork is 2" (51 mm) thick x 4" (102 mm) wide x 36" (914 mm) long forged steel, with optional lengths available. Fork spread (adjustable) 24" (610 mm) to 30" (762 mm). A 3" (76 mm) thick x 6" (152 mm) wide x 84" (2134 mm) long box section fork is optional. Fork spread (adjustable) 28" (711 mm) to 30" (762 mm).

### Pallet Clamp

Standard equipment includes a foot-applied, hand-released pallet clamp designed for use with pallets having center stringers.

### 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](http://crown.com) and view our safety section to learn more.**

Because Crown is continually improving its products, specifications are subject to change without notice.

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