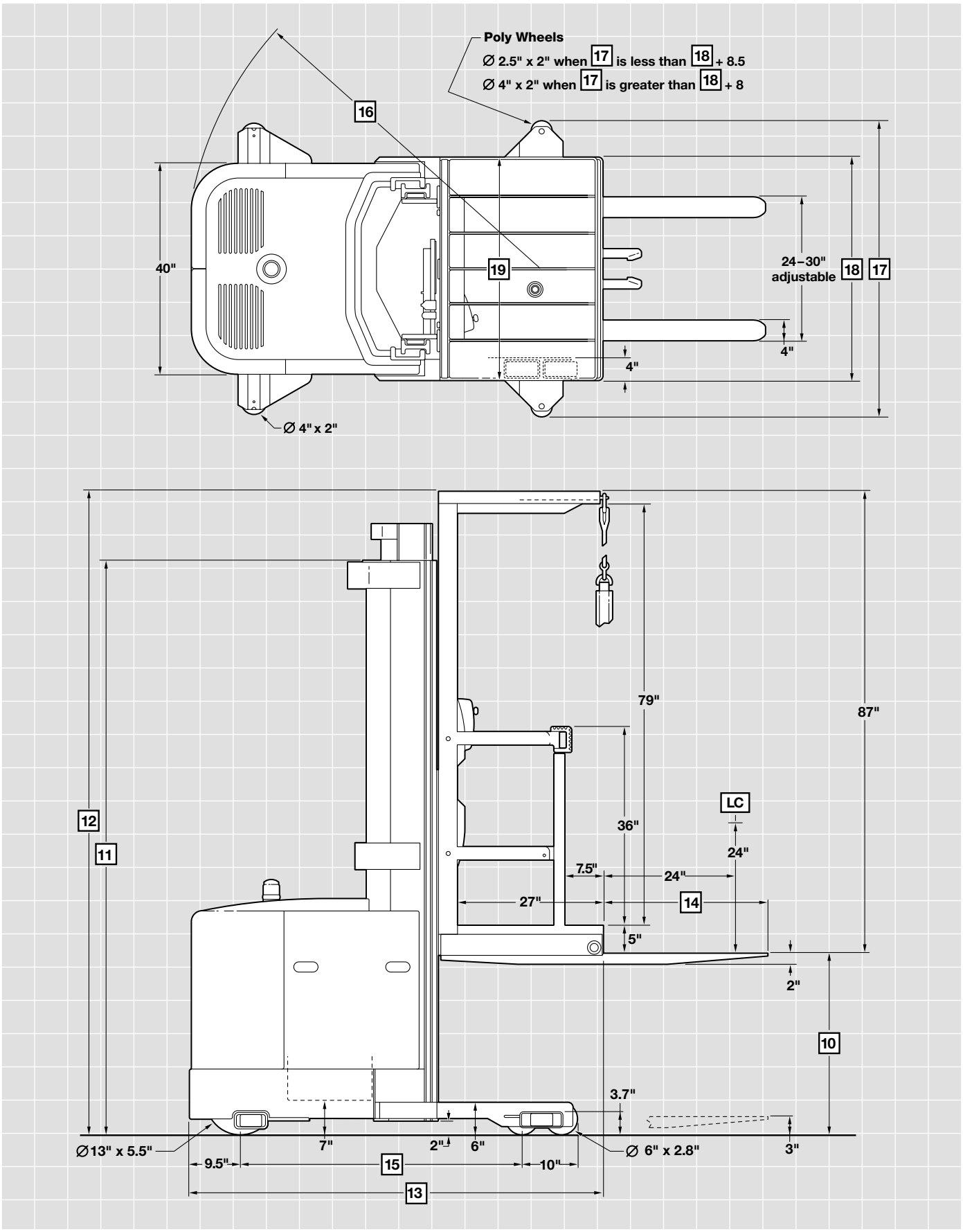
CROWN

SP 3000 Series
stockpicker

specifications


Poly Wheels
Ø 2.5" x 2" when 17 is less than 18 + 8.5
Ø 4" x 2" when 17 is greater than 18 + 8
16
40"
19
24–30"
adjustable
18
17
4"
4"
Ø 4" x 2"
79"
87"
12
11
36"
LC
24"
7.5"
24"
27"
14
5"
2"
10
3.7"
Ø13" x 5.5"
7"
2"
6"
Ø 6" x 2.8"
3"
9.5"
15
10"
13

General Information	1	**Manufacturer**		**Crown Equipment Corporation**	**Crown Equipment Corporation**	**Crown Equipment Corporation**	**Crown Equipment Corporation**	1
	2	**Model**		SP 3010-30	SP 3015-30	SP 3020-30	SP 3040-30	2
	3	**Load Capacity***	lb	See Chart	See Chart	See Chart	See Chart	3
	4	**Load Center**	Platform face to load CG in	24	24	24	24	4
	5	**Power**	Electric Volts	24	24	24	24	5
	6	**Operator Type**	Stand-up Rider	Stockpicker	Stockpicker	Stockpicker	Stockpicker	6
	7	**Tire Type**	Load/Drive	Poly/Poly	Poly/Poly	Poly/Poly	Poly/Poly	7
	8	**Wheels (x = driven)**	Load/Drive	4/1x	4/1x	4/1x	4/1x	8
Dimensions	10	**Lift Height**	in	See Chart**	See Chart**	See Chart	See Chart	10
	13	**Head Length**	TL/TT in	74.6/75.6	74.6/75.6	74.6/75.6	74.6/75.6	13
	14	**Forks**	Standard L x W x T in	36 x 4 x 2	36 x 4 x 2	36 x 4 x 2	36 x 4 x 2	14
			Optional Lengths in	30, 39, 42, 45, 48, 54, 60, 72, 84	30, 39, 42, 45, 48, 54, 60, 72, 84	30, 39, 42, 45, 48, 54, 60, 72, 84	30, 39, 42, 45, 48, 54, 60, 72, 84	
	15	**Wheelbase**	TL/TT in	52/51	52/51	52/51	52/51	15
	16	**Turning Radius**	TL/TT in	69/68	69/68	69/68	69/68	16
Performance	20	**Speed Travel**	Empty/Loaded mph	See Chart	See Chart	See Chart	See Chart	20
	21	**Speed Lift**	TL Empty/Loaded fpm	45/28	45/28	45/28 Low, 80/46 High	45/28 Low, 80/46 High	21
			TT Empty/Loaded fpm	40/26	40/26	40/26 Low, 71/43 High	40/26 Low, 71/43 High	
	22	**Speed Lower**	TL Empty/Loaded fpm	40/38	40/38	40/38 Low, 80/75 High	40/38 Low, 80/75 High	22
			TT Empty/Loaded fpm	40/38	40/38	40/38 Low, 80/75 High	40/38 Low, 80/75 High	
Battery	23	**Battery**	Type	Lead Acid	Lead Acid	Lead Acid	Lead Acid	23
			Min Weight/Max Amp	1520/1085	1520/1085	1520/1085	1520/1085	
			Max Battery Size	14.25 x 36.25 x 31 high	14.25 x 36.25 x 31 high	14.25 x 36.25 x 31 high	14.25 x 36.25 x 31 high	
	24	**Traction Motor**	60 Min Rating hp	3.5	4.0	3.5	4.0	24

* Contact factory. Capacity may be subject to derating,depending upon lifting height, load center and fork length.
**Not available above 240" lifting heights.

				TL					**TT**								
	10	**Lift Height**	in	136	148	172	194	214	195	210	240	276	294	312	330	348	366
Capacity	3	**Load Capacity SP 3010**	lb	3000	3000	3000	3000	3000	3000	3000	3000	na	na	na	na	na	na
		SP 3015	lb	3000	3000	3000	3000	3000	3000	3000	3000	na	na	na	na	na	na
		SP 3020	lb	3000	3000	3000	3000	3000	3000	3000	3000	2000	na	1500	na	na	na
		SP 3040	lb	3000	3000	3000	3000	3000	3000	3000	3000	2500	2350	2200	2000	1900	1750
Mast		**Free Lift**	in	3	6	6	6	6	3	8	20	32	38	44	56	62	68
	11	**Collapsed Height**	in	89.5	95	107	119	131	89.5	95	107	119	125	131	143	149	155
	12	**Extended Height**	in	223	235	259	281	301	283	298	328	364	382	400	418	436	454
	18	**Straddle Width**	in	42	42	42	42	42	42	42	42	48	54	54	56	60	60
	19	**Operator Compartment Width**	in	42	42	42	42	42	42	42	42	48	54	54	54	60	60
	17	**Aisle Guide Wheel Range†**	in	47.75 to 65.25	47.75 to 65.25	47.75 to 65.25	47.75 to 65.25	47.75 to 65.25	47.75 to 65.25	47.75 to 65.25	47.75 to 65.25	53.75 to 65.25	59.75 to 65.25	59.75 to 65.25	61.75 to 71.25	65.75 to 71.25	65.75 to 71.25
		Truck Weight without Battery	lb	5183	5248	5377	5666	5795	5753	5846	6072	6293††	6619	6623†††	6907	7053	7483

† In .5" increments.
†† SP 3020 as shown, SP 3040 is 6381 lb.
††† SP 3020 as shown, SP 3040 is 6711 lb.

Travel Speeds - Models 3010, 3015, 3020, 3040				
Lift Height (inches)	**Steered Wheel < 10°**		**Steered Wheel ≥ 10°**	
	Travel Speed (mph) Empty/Loaded	**Brake Force**	**Travel Speed (mph) Empty/Loaded**	**Brake Force**
0-24	6.0/5.3	3/3	6.0/5.3	3/3
25-60	6.0/5.3	3/3	3.8/3.2	3/3
61-120	3.8/3.2	2/3	2.7/2.2	2/3
121-150	2.7/2.2	2/3	1.9/1.5	1/3
151-180	1.9/1.5	1/3	1.5/1.2	1/3
181-366	1.5/1.2	1/3	See Note	

Note: Steering is automatically limited to within 10° straight travel above 180".

Standard Equipment

1. 24-volt electrical system
2 GE EVT-100 FL transistor control
3. Start up and run time diagnostics
4 Programmable performance features
5. Information Display Panel in operator platform
6. Elapsed time counter
7. Battery discharge indicator with lift interrupt
8. Drive tire direction indicator
9. Hour meters for key on, traction, lift and steer motors
10. 14.25" battery compartment
11. 350 amp battery connector
12. 2.75" diameter battery compartment rollers
13. Top battery access for service
14. Color-coded wiring
15. Key switch
16. Horn
17. Strobe light
18. Electronic on-demand power steering
19. Emergency power cut-out
20. Hinged side gate with power disconnect
21. Upper elevation travel
22. Elevated Braking System (EBS) with low profile brake pedal
23. 6" diameter tandem load wheels
24. Lift off left and right side steel battery covers
25. Adjustable battery retainer
26. Hinged, lift off steel power unit doors
27. Cushioned floorboard
28. Soft urethane twist grip with "cam grip"
29. 10 degree angled steer wheel with soft feel spinner
30. Clear visibility platform window
31. Clear visibility mast design
32. Storage compartment
33. Operator belt and lanyard
34. Pallet clamp

Optional Equipment

1. Wire guidance
2. Aisle guide wheels for rail guidance
3. Motor brush wear indicators and motor temperature indicators (Only available on SP 3015 and SP 3040)
4. Battery retainer interlock switch
5. Work lights, dome light and two-speed fan
6. Spotlights
7. Flashing amber light
8. Fork raise and/or lower cut-out with or without override
9. Zone select key switch
10. 48", 54" and 60" wide operator platforms
11. Corrosion conditioning
12. Freezer conditioning
13. Wire mesh screen. (Standard with freezer conditioning)
14. Retractable tether
15. Load wheel and drive tire compounds
16. 30" lanyard boom
17. Special paint
18. Fire extinguisher

Human Factor

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), 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 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. Cut-out switches disengage truck operation when side gates are raised for maximum safety. Two work lights, two dome lights and a two-speed fan are optional. "Power-on" key prevents unauthorized operation of the truck; start position initializes truck "self-test". The new Information Display Panel provides concise, clear feedback for the operator during truck operation.

Responsibly Innovative Electronics
Environmentally hardened heavy duty 24-volt electrical system. An intelligent, networked Control System is used to provide real time truck control, display, diagnostics and calibration. A distribution panel provides a central location for troubleshooting, reduces wiring requirements, and enables future options to be added easily. The Control System can be accessed by the Service Terminal to provide calibration of truck parameters and optional features set-up. The Control System is also used to extract service diagnostic and management data. The link-up port is conveniently located on the platform and is easily accessible without removal of covers for connection.

The Crown Program Analysis Cartridge (PAC) works in conjunction with the Service Terminal and ensures users simple, fast program upgrade of systems.

Information Display Panel
The Information Display Panel travels with the operator at all times. Features include audible and visual prompts for the operator, steer wheel direction indicator, battery fuel gauge with lift interrupt, wire guidance status lights, hour meters for all motors, elapsed time counter, optional battery retainer interlock light, optional brush wear indicators and motor temperature indicators and optional fork height “zone select” control.

The Service Terminal also provides extensive service history information as well as “real time” electrical system diagnostics and fault isolation information for servicing.

Enhanced and Interchangeable Drive Unit
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 new drive unit. Crown Turret Trucks and Reach Trucks also use this drive unit.

Travel System
Traction control uses the GE EVT-100 FL micro-processor based transistor control. Smooth, quiet operation, extended battery shift life and component protection/ truck reliability are all features of this GE system. System features include a 450 amp rating, a by-pass contactor, truck performance adjustability, SRO, ramp start, diagnostics with 16 fault memory in conjunction with the service light. Traction is connected to the Control System for full diagnostics and set-ups via the Crown Service Terminal.

Responsive Steering
Standard on the SP 3000 Series is electronic on-demand power steering that is microprocessor-based. 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. Crown PAC also interfaces with steering system for fast upgrade.

Elevated Braking System (EBS)
Exclusive three force levels of braking, determined by platform height, provides smooth braking at all elevations. Electric disc brake, spring applied and electrically released, is controlled by pedal in platform. Pedal cuts traction power and activates brake when released. Brake system eliminates hydraulic lines running in mast to control braking. 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. Optional high speed lift version is available. Crown-manufactured solenoid type manifolds with built-in checks and relief valves. 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 pre-set 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.

The Crown Mast Assembly
High visibility two- and three-stage masts feature nested rail design with lift cylinders positioned behind mast rails. Three stage mast has a low center position cylinder for free lift. Improved mast cable life due to larger, 5" diameter pulleys. Routing of hosing and cables optimizes visibility through 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 .75" steel that runs 9" 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 re-installation 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" diameter x 5.5" wide x 8" hub diameter. Tandem load wheels 2.8" wide, 6" diameter polyurethane. Optional aisle guide wheels 2" wide x 4" diameter polyurethane, 2" wide x 2.5" diameter polyurethane.

Forks
2" thick x 4" wide forged steel. Fork spread (adjustable) 24" to 30". Standard length is 36". Optional lengths available.

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

Safety Shield
Safety glass to protect operator from chains and moving parts while in his normal operating position.

Other Options
1. Audible Travel Alarm.
2. Contact factory for additional options.

Safety considerations and dangers associated with audible travel alarms include:

- Multiple alarms can cause confusion.
- Workers ignore the alarms after day-in and day-out exposure.
- Operator may transfer the responsibility for “looking out” to the pedestrians.
- Annoys operators and pedestrians.

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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