

CROWN

Specifications

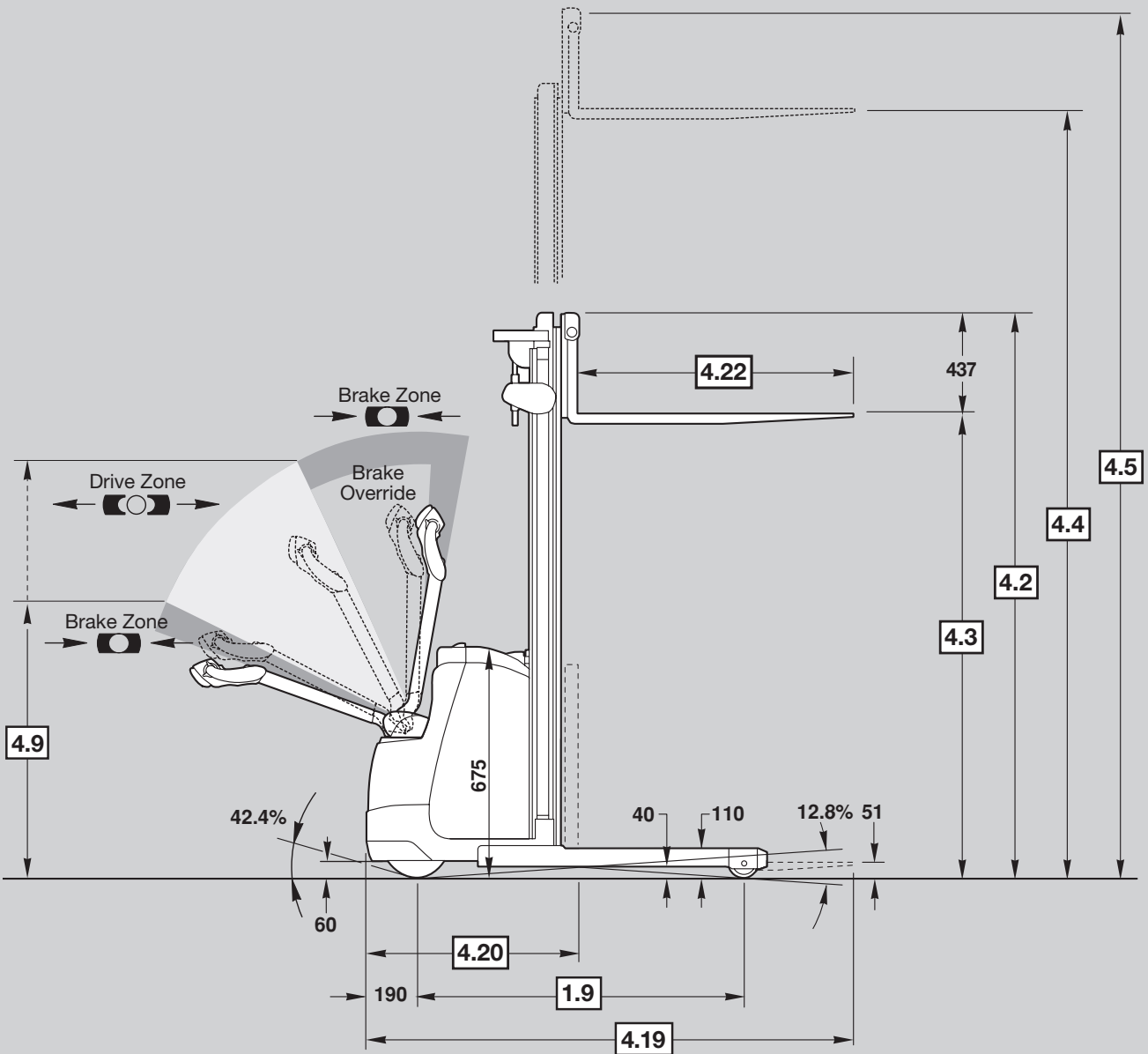
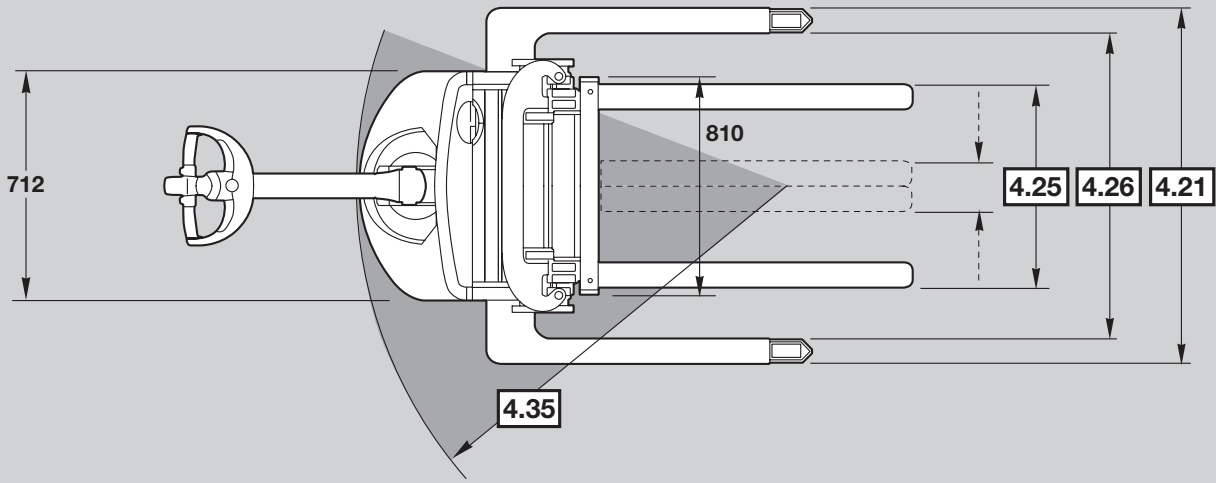
ST/SX 3000 Series

Pedestrian Powered
Stacker

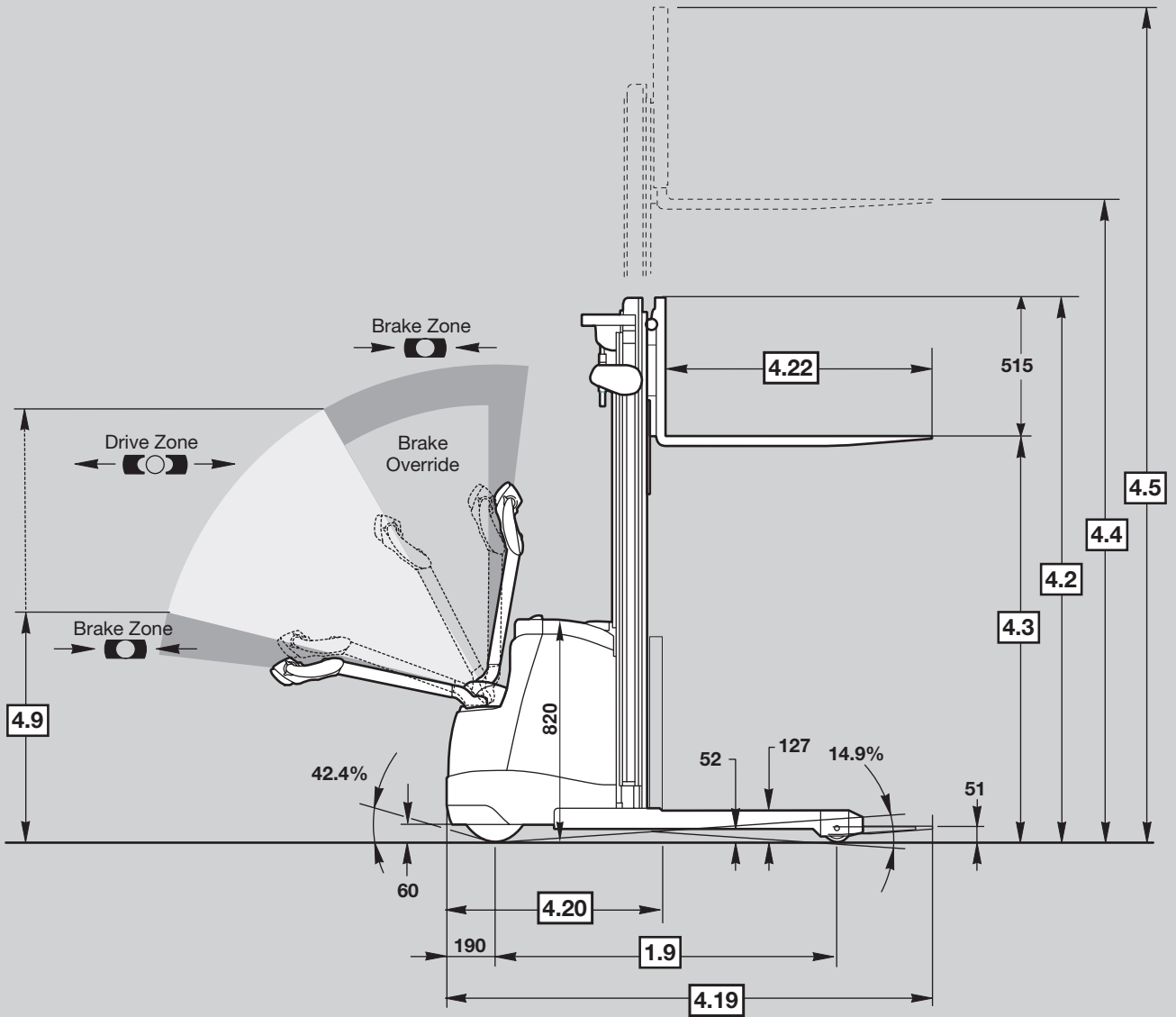
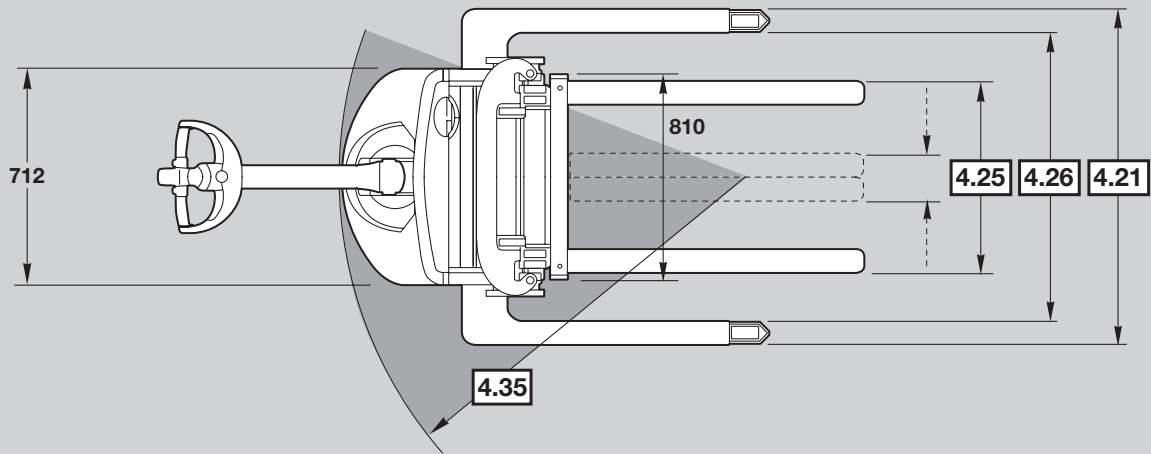
ST 3000 **SX 3000** Series



ST 3000 SERIES STACKER



SX 3000 SERIES STACKER



ST/SX 3000 SERIES SPECIFICATIONS

						Crown Equipment				
						ST 3000N 1.0	ST 3000 1.0	SX 3000N 1.5	SX 3000 1.5	
GENERAL INFORMATION	1.1	Manufacturer								
	1.2	Model								
		Mast Type			mm	see Table				
	1.3	Power				Electric				
	1.4	Operator Type				Walkie				
	1.5	Load Capacity	Max	Q	kg	1000		1500		
	1.6	Load Centre		c	mm	600				
	1.9	Wheelbase		y	mm	1255		1362		
2.1	Weight Less Battery			mm	see Table					
TYRES	3.2	Wheel Size	Front STD Front OPT	Vulkollan Rubber		Ø254 x 85		Ø254 x 85		
	3.3	Wheel Size	Rear (load)	Vulkollan		Ø254 x 100		Ø254 x 100		
	3.4	Additional Wheels	Castor Wheels	Poly		Ø90 x 50†				
	3.5	Wheels	Number (x=driven)			1x, 2†/2				
	4.2	Mast	Collapsed Height	h ₁	mm	see Table				
4.3	Free Lift	w/o Load Backrest	h ₂	mm	see Table					
4.4	Lift Height		h ₃	mm	see Table					
4.5	Mast	Extended height w.o.lbr.	h ₄	mm	see Table					
4.9	Tiller Arm Height	In drive position min/max	h ₁₄	mm	785/1197					
4.10	Outrigger Height		h ₈	mm	102		127			
4.15	Lowered Fork Height		h ₁₃	mm	51					
4.19	Overall Length		l ₁	mm	Head Length + Fork Length					
4.20	Head Length		l ₂	mm	see Table					
4.21	Overall Width	Front Rear	b ₁	mm	712					
4.22	Fork Dimensions		th.w.	mm	38 x 76		38 x 102			
	Fork Length		l		914 / 1067 / 1219					
4.24	Fork Carriage Width		b ₃	mm	675		810			
4.25	Width Across Forks		b ₃	mm	170 - 627		250 / 785			
4.26	Inside Straddle	Infinite adjustment	b ₄	mm	865 - 1165	965 - 1270	865 - 1165	965 - 1270††		
4.31	Ground Clearance	w/Load below Mast	m ₁	mm	40					
4.32		Centre Wheelbase	m ₂	mm	40		52			
4.33	Working Aisle Width	Intersect at aisle w. std	Ast	mm	see aisle planning guide					
4.34	Working Aisle Width	Staking w. std pallet	Ast	mm	see aisle planning guide					
4.35	Turning Radius		Wa	mm	1446		1553			
5.1	Travel Speed	w/wo Load		km/h	5.0/5.5		5.5/6.0			
5.2	Lift Speed	w/wo Load		m/s	0.13/0.20		0.16/0.25			
5.3	Lowering Speed	w/wo Load		m/s	0.25/0.25		0.26/0.21			
5.7	Gradeability	w/wo Load, 60min Rating		%	2.4/4.5		2.6/5.2			
		w/wo Load, 30min Rating		%	4.9/9.1		4.4/8.7			
5.8	Max Gradeability	w/wo Load, 5min Rating		%	8.4/15.7		9.5/19.4			
5.10	Service Brake				Electric					
6.1	Traction Motor	60min Rating		kW	0.7		1.4			
6.2	Lift Motor			kW	2.2		3.0			
BATTERY	6.3	Maximum Battery Box	DIN 43535 / A	lxwxh	mm	185 x 649 x 613 (w/No clearance)		230 x 670 x 600 (w/No clearance)		
	6.4	Battery Voltage (nominal capacity 5 hour rating)	4 x 6v MB Sealed		V/Ah	24/190		-----		
			Industrial Battery		V/Ah	-----		24/290		
6.5	Battery Weight	4 x 6v MB Sealed		kg	121		-----			
		Industrial Battery		kg	-----		163 - 322			
8.1	Type of Controller	Drive			Transistor					

† Castor wheel option on ST3000

†† Fixed outrigger (1220mm) on SX3000TT4860 and SX3000TT5500.

TABLE

				ST 3000			SX 3000				
				TL	TT		TL	TT			
4.4	Lift Height		mm	3220	3900	4250	3220	3900	4250	4860	5500
4.4a	Capacity at Lift Height**		kg	1000	1000	600	1500**	1350**	900**	1000	650
4.2	Mast	Collapsed height	mm	2108	1858	1858	2110	1858	1858	2070	2280
4.3	Free Lift		mm	150	1422	1422	150	1348	1348	1330	1740
4.5	Etended Height	w/o L/Backrest	mm	3655	4335	4685	3730	4410	4760	5370	6010
4.20	Head Length		mm	819	837	837	869*	887*	887*	887	887
2.1	Weight	Less Battery	kg	824	911	911	986	1076	1110	1138	1163

*Add 57mm for sideshift option.

**Deduct 136kg for sideshift option.

Note: Sideshift not available for 4860 & 5500mm masts.

TECHNICAL INFORMATION

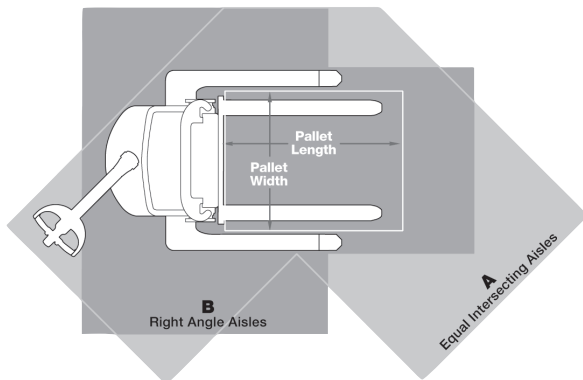
Standard Equipment

- 24 volt fused electrical system
- MOSFET transistorised traction control system
- Separately excited drive motor (SEM)
- Maintenance-free battery pack, four 6-volt batteries with 190 amp hour capacity (ST)
- Industrial battery 24 volt 290 amp hour capacity (SX)
- A built-in 30-amp charger is standard with the ST truck. This premium fan cooled, solid-state charger is durable and efficient. It has an advanced memory feature to allow for opportunity charging. The charger can be set for maintenance free, wet cell or industrial batteries. An extension cord is included with any truck equipped with the built-in battery charger
- Electric brake
- Brake override
- Anti-roll down
- Regenerative motor braking
- Heavy-duty drive unit
- Drive unit enclosed in high ductile strength steel frame
- Stamped steel power unit cover
- Safety reversing button

- 175 amp connector with disconnect handle
- Colour-coded wiring
- High speed cut-out at high lift heights
- Two pre-programmed performance levels
- 254mm x 85mm wide Vulkollan drive tyre
- Spring loaded poly casters (SX)
- Vulkollan load wheels
102mm x 50mm wide (ST)
127mm x 50mm wide (SX)
- Adjustable outriggers. Not available on 4860mm and 5500mm lift heights.
- Battery compartment storage tray
- Plexiglas mast guard
- One-speed lift, two speed lower – soft start hydraulics (SX only)
- Horn
- Key switch
- Discharge indicator with hour meter and lift lockout
- Hydraulic thermal protection switch (SX only)

Optional Equipment

- Rubber Drive tyre
- Non-marking rubber drive tyre
- Diamond sipped rubber drive tyre
- Spring loaded poly casters (ST)
- Handset analyser for calibration or fault analysing
- 915mm high load backrest (ST)
1220mm high load backrest (SX)
- Freezer/corrosion conditioning (SX only)
- Steel load wheels (ST only)
- Wire mesh mast guard
- Side shift (SX only)
- Soft start hydraulic control (ST only)
- Work Assist Accessories:
 - Clip pad and hook
 - Operator fan
 - Storage pocket



AISLE PLANNING GUIDE

ST 3000 - Right Angle and Intersecting Aisle

Pallet Width	Pallet Length									
	914		1016		1067		1165		1219	
	A	B	A	B	A	B	A	B	A	B
914 mm	1463	1599	1463	1599	1463	1599	1463	1599	1463	1738
1016 mm	1546	1625	1546	1625	1546	1625	1546	1625	1546	1625
1067 mm	1588	1638	1588	1638	1588	1638	1588	1638	1588	1746
1165 mm	1707	1751	1707	1751	1707	1751	1707	1751	1707	1751
1219 mm	1715	1725	1715	1752	1715	1752	1715	1752	1715	1829

Add 152 to all aisle dimensions for maximum maneuverability.

SX 3000 - Right Angle and Intersecting Aisle

Pallet Width	Pallet Length									
	914		1016		1067		1165		1219	
	A	B	A	B	A	B	A	B	A	B
914 mm	1554	1704	1554	1704	1554	1704	1554	1704	1554	1722
1016 mm	1638	1730	1638	1730	1638	1730	1638	1730	1638	1730
1067 mm	1680	1743	1680	1743	1680	1743	1680	1743	1680	1743
1165 mm	1767	1811	1767	1811	1767	1811	1767	1811	1767	1811
1219 mm	1807	1851	1807	1851	1807	1851	1807	1851	1807	1851

Add 152 to all aisle dimensions for maximum maneuverability.

Add 50 if sideshift option is used.

Operator controls

The control hand grips are urethane covered for insulation from cold and vibration. Full function control handle includes travel direction, raise, lower and reversing switch.

The physical efforts to hold the handle at a comfortable height is minimised to reduce fatigue. The operator is positioned to maximise the steer effort and maintain excellent visibility.

The rabbit/turtle switch incorporates two levels of programmable travel performance to match operator experience and application environment.

Exclusive brake override allows slow speed travel with the handle near vertical. The feature improves manoeuvrability in tight areas.

Performance

The ST/SX 3000 Series benefits from Crown's design and engineering excellence.

The transistor control module works in conjunction with a new separately excited (SEM) drive motor to provide excellent acceleration and top travel speed loaded or empty. Transistor control is programmable for specific tasks or operator skill levels.

Smooth travel and lift combine with excellent controls to reduce product damage and increase productivity.

Electrical Systems

A heavy-duty 24-volt fused electrical system provides fast, safe travel and lift speeds.

Separately excited motor control eliminates directional contactors reducing maintenance and downtime.

The transistor control is sealed from dirt, dust and moisture for trouble-free operation. Transistor control features include over temperature protection, polarity protection, self-test and visible diagnostics.

Regenerative motor braking is activated under a downhill condition, during plugging or when the directional control is returned to neutral. "Regen" reduces heat build-up and extends motor brush life.

Hydraulic System

Heavy-duty hydraulic motor (ST-2.2 kw, SX-3.0 kw) with integral pump and a reservoir for maximum efficiency and durability.

Single-speed lift and two-speed lowering is available to the operator.

Cylinder rods are hard-plated chrome with polyurethane seals.

Relief valve tuned to capacity protects all components in the hydraulic system.

Drive Unit and Brakes

Heavy-duty gearbox with spur gears for low noise emission.

Drive unit is equipped with an electromagnetic disc brake that is spring applied and electrically released. Brake is activated by the control handle position. Brake rotor and disc are easily accessed for inspection and replacement. Regenerative motor braking assists brake effort and improves component life.

Drive unit mounts in truck frame with a permanently lubricated, twin-conical roller bearing that disperses load forces evenly, reducing maintenance and downtime.

Mast

High visibility two and three stage mast design features nested I-beams and canted rollers. Lift cylinders are positioned in outer I-beam profile for best visibility through the mast and clear view onto fork tips during load handling. Mast cushioning between stages ensures smooth operation. Heavy-duty mast and chain rollers are sealed and lubricated for life. Mast design allows for easy access to carriage rollers.

Fork Carriage

ST 3000 Series feature a 675mm wide pin-type fork carriage. SX 3000 Series features a 810mm wide Class II fork carriage. Forks are adjustable on both models. Standard fork lengths are 915mm, 1067mm and 1220mm.

Serviceability

One-piece steel power unit cover is removed easily for access to all major components.

Drive motor brush access is excellent.

Colour-coded wiring speeds troubleshooting and the transistor control module uses visible LED flashes for fault communication.

Optional plug-in hand set analyser for servicing and programming capability.

Control handle switch cap is easily removed to expose components.

Wheels and Tyres

- Drive Tyre – Vulkollan 254mm x 85mm wide
- Load wheels – Vulkollan 102mm x 50mm wide (ST) 127mm x 50mm wide (SX)
- Optional poly casters for ST are 90mm dia x 50mm wide

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 operator and pedestrians.

Other Options Available

Contact your local Crown branch. 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.

Crown Equipment Pty Ltd

Australia Head Office

15 Cooper Street,
Smithfield NSW 2164 Australia
Tel: 131 604

Singapore Head Office

15 Taus Avenue 8
Singapore 639230
Tel: +65 6861 3669

New Zealand Head Office

18 Andromeda Crescent
East Tamaki Auckland 1701 New Zealand
Tel: +64 9 250 700

crown.com/au

ASF0155 1510.1174

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