

CROWN

Specifications

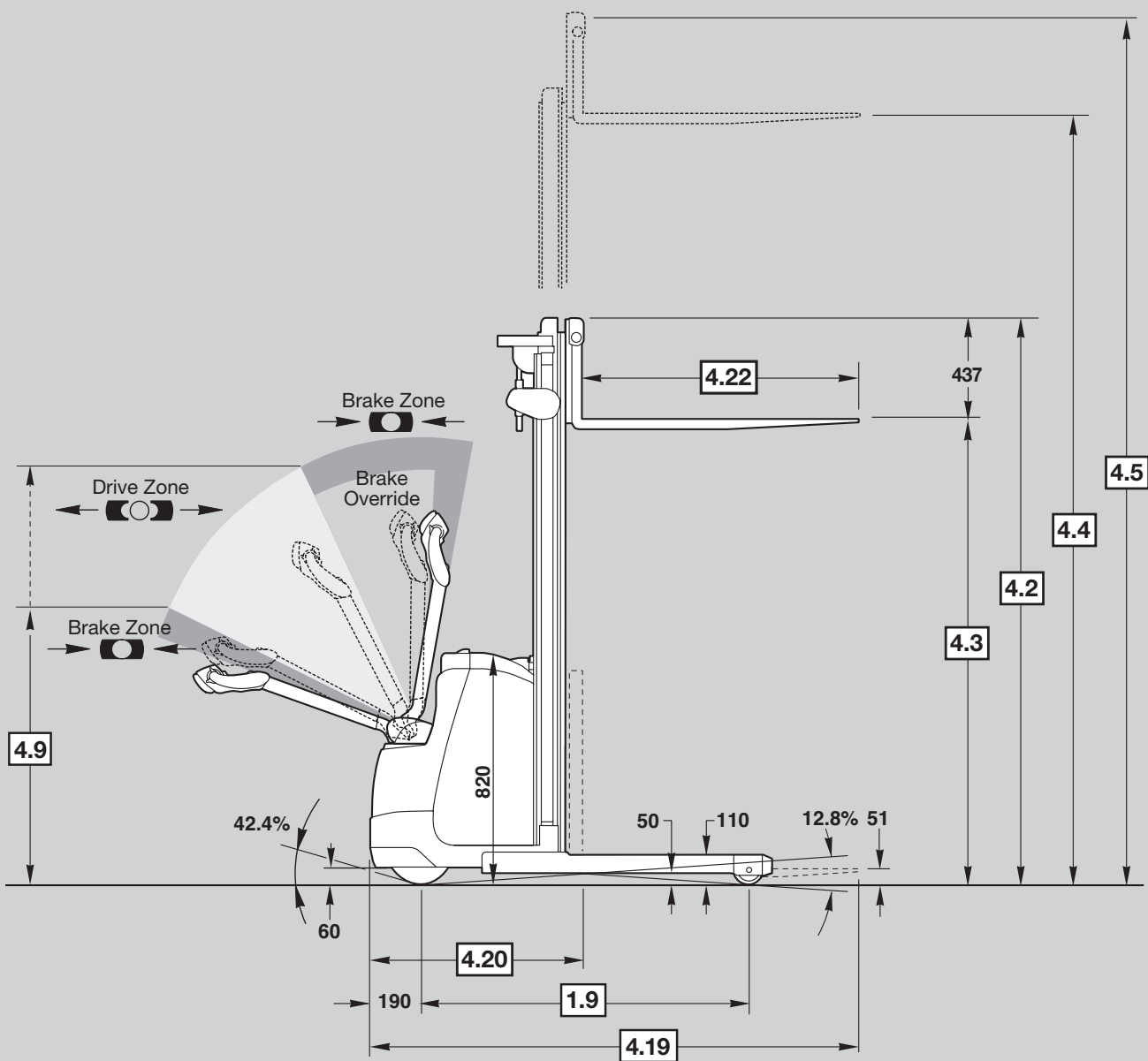
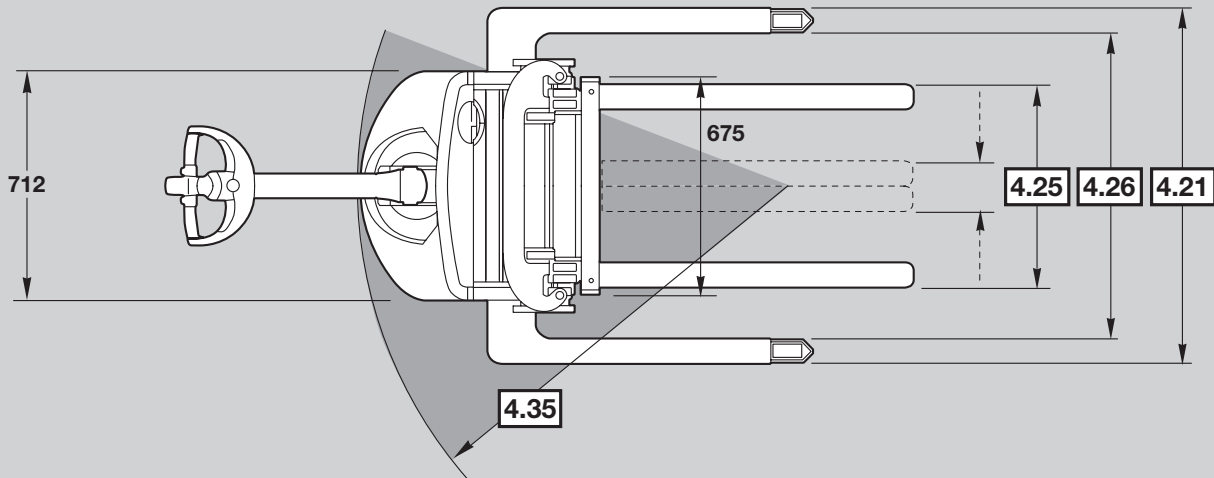
ST/SX 3000 Series

Pedestrian Powered
Stacker

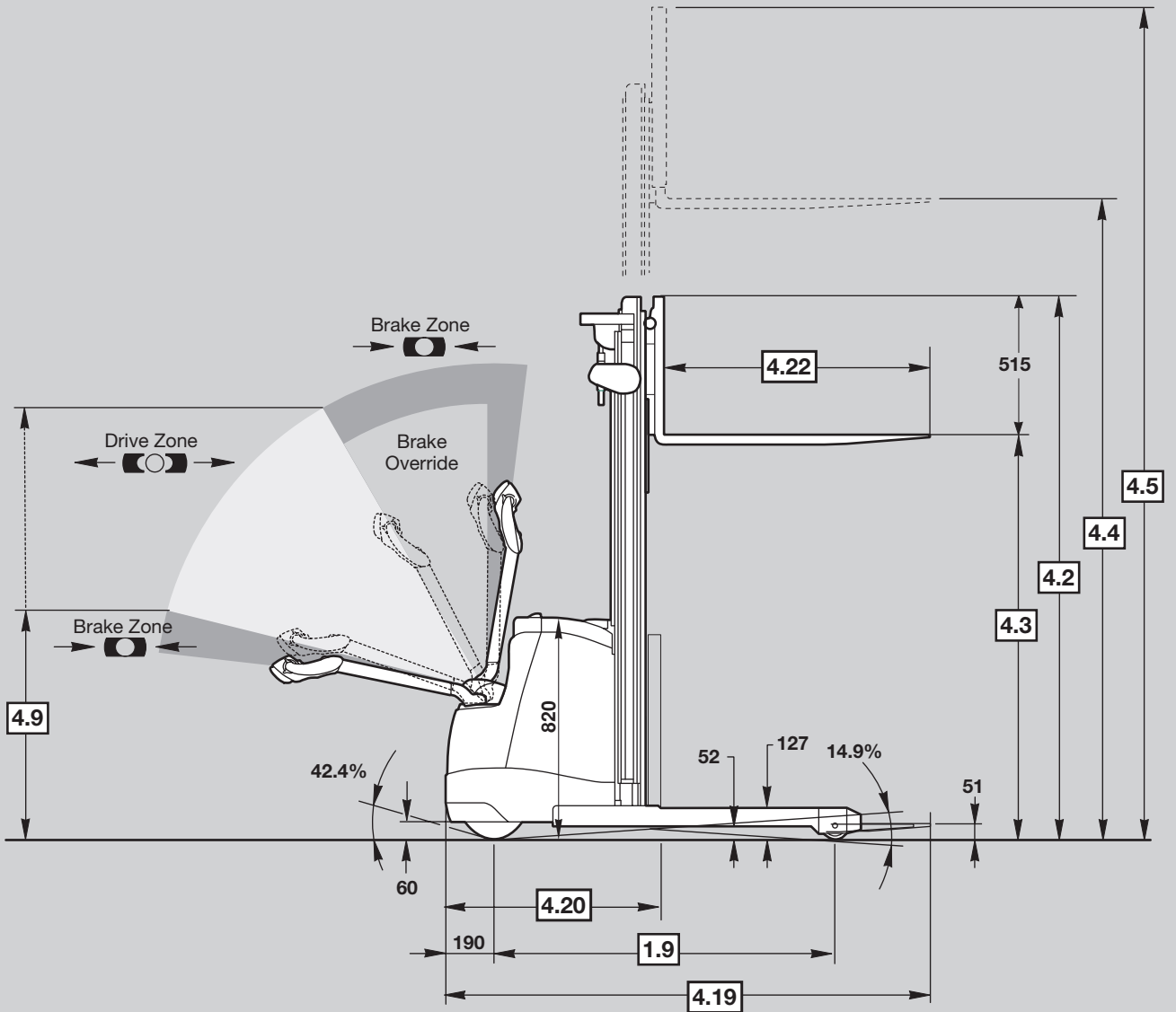
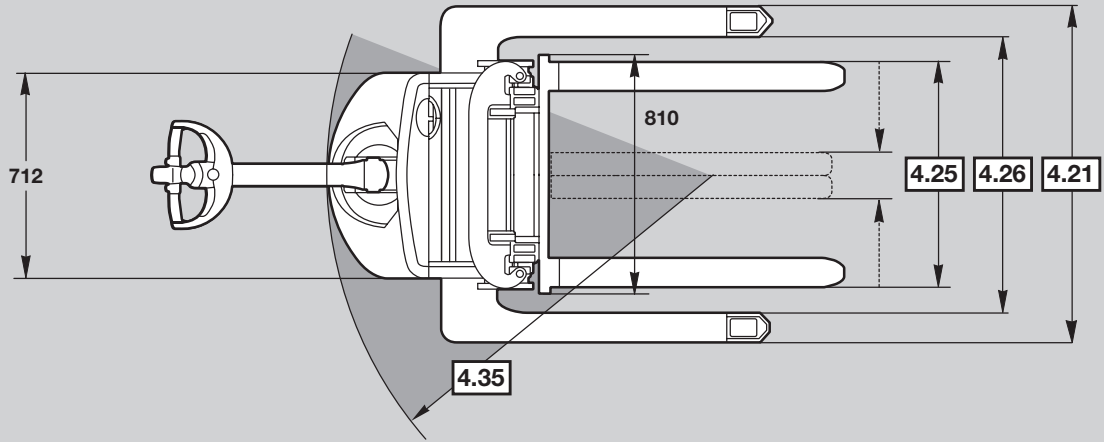
ST 3000 **SX 3000** Series



ST 3000 SERIES STACKER



SX 3000 SERIES STACKER



ST/SX 3000 SERIES SPECIFICATIONS

GENERAL INFORMATION						Crown Equipment			
						ST 3000 1.0	ST 3000 1.2	SX 3000 1.5	
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	1200	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	Vulkollan		mm	∅ 254 x 85	
			Front	OPT	Rubber		mm	∅ 254 x 100	
3.3	Wheel Size	Rear (load)		Vulkollan		mm	∅ 102 x 50	∅ 127 x 50	
3.4	Additional Wheels	Castor Wheels		Poly		mm	∅ 90 x 50†		
3.5	Wheels	Number (x=driven)					1x, 2†/2		
DIMENSIONS	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	112		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		b ₁	mm	712		
			Rear		b ₁	mm	Inside Straddle + 150	Inside Straddle + 160	Inside Straddle + 150
	4.22	Fork Dimensions		th.w.	mm	38 x 76		38 x 102	
		Fork Length		l		915 / 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	965 - 1270		965 - 1270††
4.31	Ground Clearance	w/Load below Mast		m ₁	mm	40			
4.32		Centre Wheelbase		m ₂	mm	50		52	
4.33	Working Aisle Width	Intersect at aisle w. std	Ast	mm	see aisle planning guide				
4.34	Working Aisle Width	Stacking w. std pallet	Ast	mm	see aisle planning guide				
4.35	Turning Radius		Wa	mm	1446		1553		
PERFORMANCE	5.1	Travel Speed	w/wo Load		km/h	5.3 / 5.5		5.5 / 6.0	
	5.2	Lift Speed	w/wo Load		m/s	0.13 / 0.20	0.11 / 0.17	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	1.4			
6.2	Lift Motor			kW	2.2	3.0	3.0		
BATTERY	6.3	Maximum Battery Box		lxwxh	mm	185 x 649 x 613 (w / No clearance)		230 x 670 x 600 (w / No clearance)	
	6.4	Battery Voltage	2 x 12v MF Sealed	6h	V/Ah	24 / 95	-----	-----	
			4 x 6v MF Sealed	6h	V/Ah	24 / 200	-----	24 / 200	
			Industrial Battery	5h	V/Ah	-----	24 / 150	24 / 300	
6.5	Battery Weight	2 x 12v MF Sealed		kg	58	-----	-----		
		4 x 6v MF Sealed		kg	136	-----	136		
		Industrial Battery		kg	-----	143-158	163 - 322		
8.1	Type of Controller	Drive			Transistor				

† Castor wheel option on ST3000

†† Min. outrigger width 1220mm on SX3000TT4860 and SX3000TT5500

TABLE

MAST TYPE				ST 3000 1.0 (1.2)			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 (1200)			1500	1350 / 1200**	1000 / 800**	1000	650
4.2	Mast	Collapsed height	mm	2110	1858	1858	2110	1858	1858	2070	2280
4.3	Free Lift		mm	150	1422	1422	150	1348	1348	1530	1740
4.5	Extended Height		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.

**With sideshift option.

Note: Sideshift not available for 4860 & 5500mm masts.
All dimensions without load backrest.

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 1.0)
- Industrial battery
24 volt 150 amp hour capacity (ST 1.2)
24 volt 290 amp hour capacity (SX)
- A built-in 30-amp charger is standard with the ST 1.0 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)
- Min. outrigger width 1220mm 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
- 914mm high load backrest (ST)
1219mm 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
- Built-in 30-amp charger (ST 1.2)

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	1752	1715	1752	1715	1752	1715	1752	1715	1829

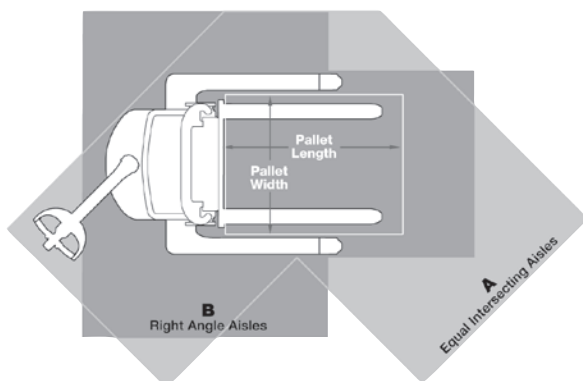
Add 152 to all aisle dimensions for maximum maneuverability.

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 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 1219mm.

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.

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 you 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.

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