

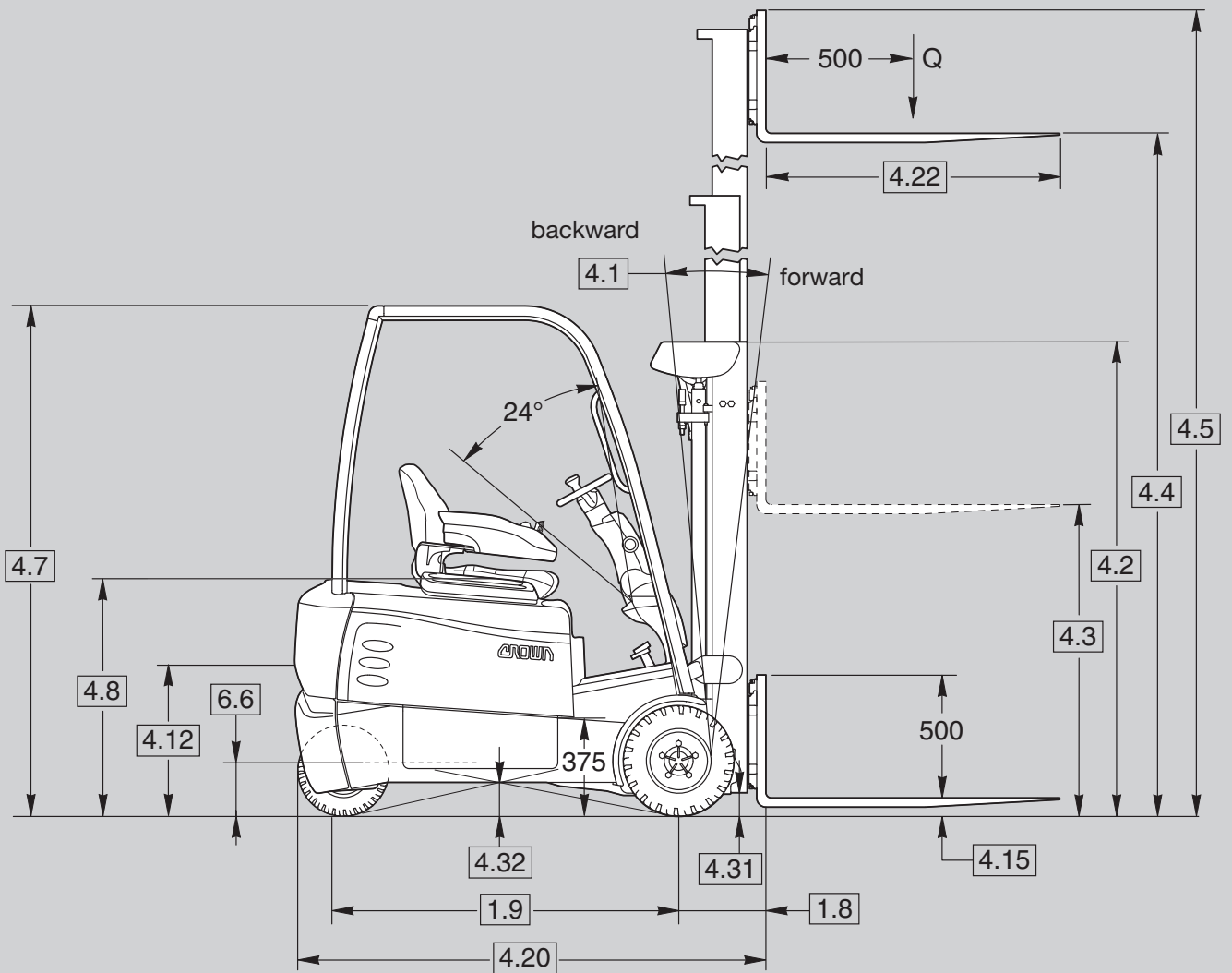
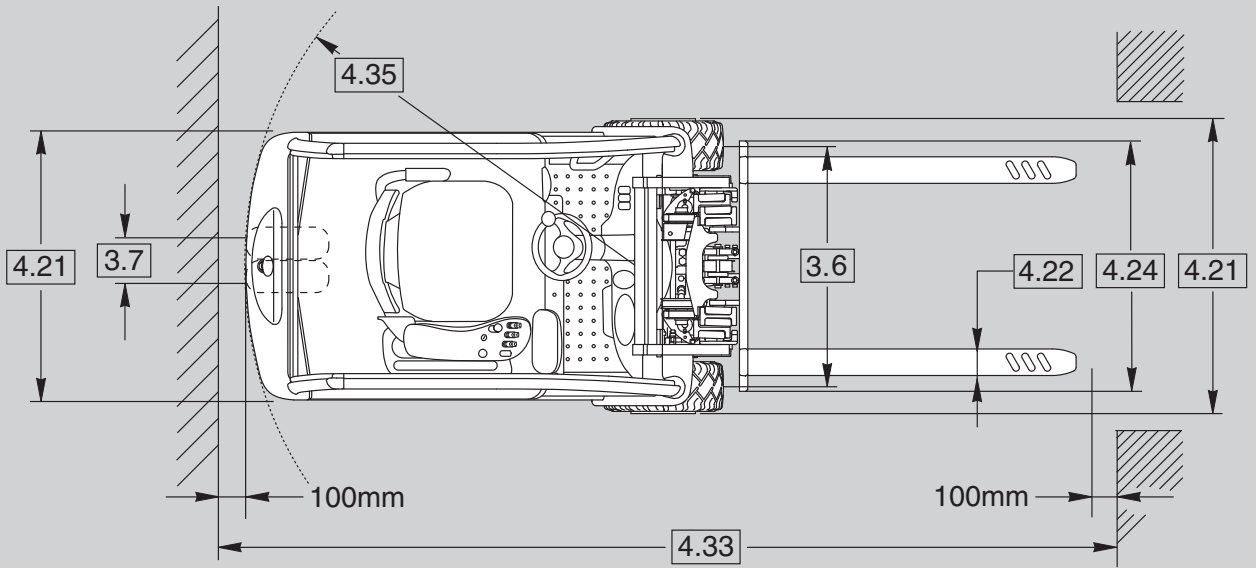
CROWN

# SC 6000 SERIES

## Specifications

Three and Four Wheel  
Counterbalance Truck





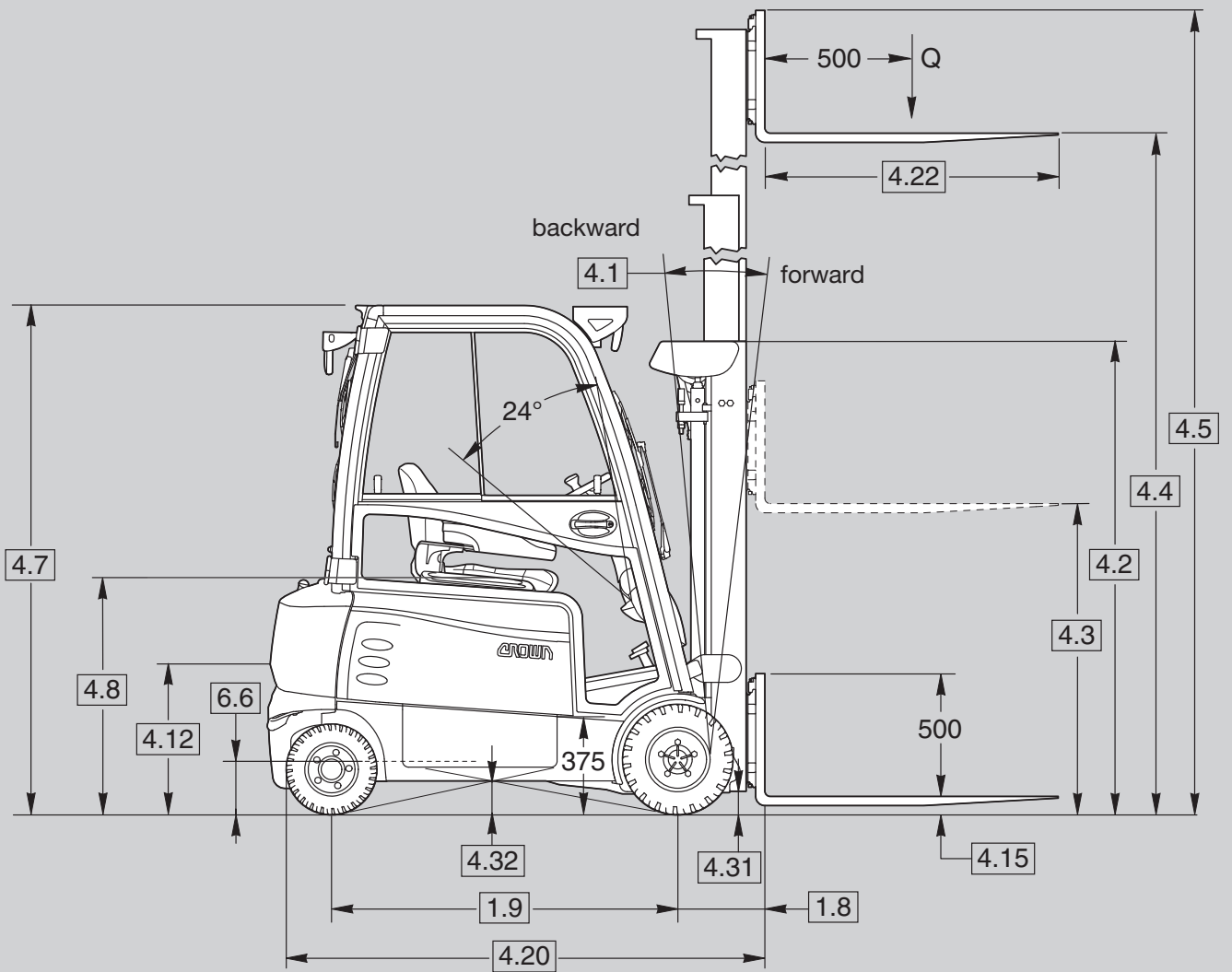
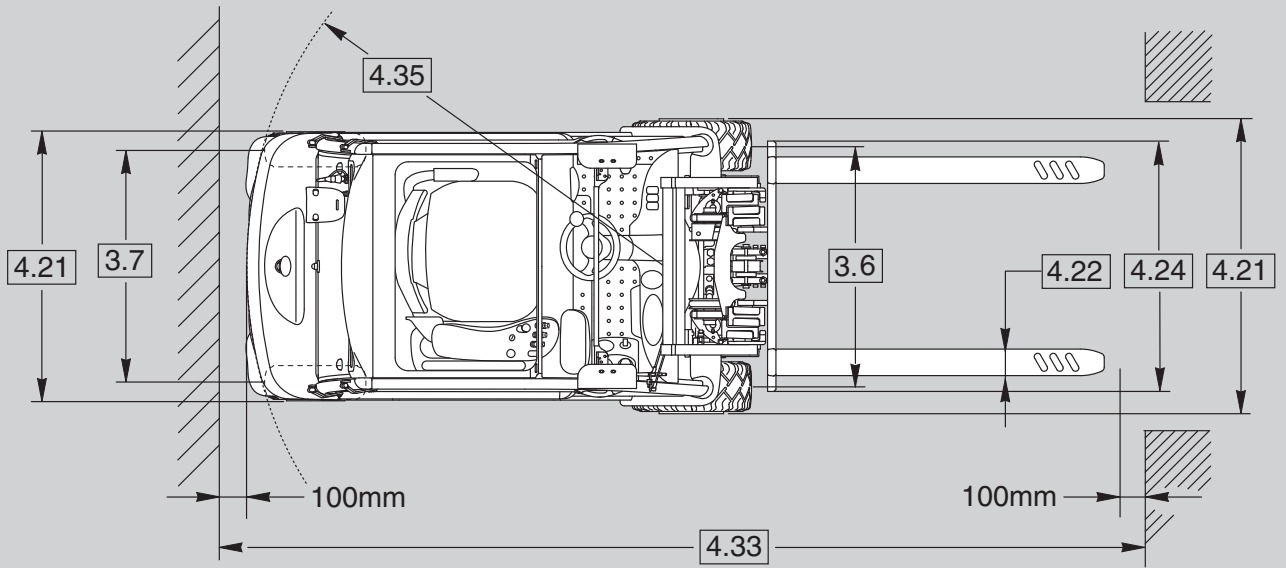
SC 6000 Series

Specifications

General Information	1.1	<b>Manufacturer</b>	Crown Equipment Corporation									
	1.2	<b>Model</b>				SCT 6010	SCT 6020	SCT 6020	SCT 6040	SCT 6040	SCT 6060	SCT 6060
						1.3	1.3	1.6	1.6	1.8	1.8	2.0
	1.3	<b>Power</b>	electric			battery						
	1.4	<b>Operator Type</b>				sit down						
	1.5	<b>Load Capacity</b>		Q	t	1.3	1.3	1.6	1.6	1.8	1.8	2.0
	1.6	<b>Load Centre</b>		c	mm	500						
	1.8	<b>Load Distance</b>		x	mm	360*				366*		
	1.9	<b>Wheel Base</b>		y	mm	1174	1282		1390		1498	
Weights	2.1	<b>Weight</b>	less battery		kg	2529	2637	2637	2611	2621	2699	2699
	2.2	<b>Axle Load</b>	w. load front/rear		kg	3703/658	3728/882	4229/681	4205/819	4549/685	4576/884	4891/769
	2.3	<b>Axle Load</b>	w.o. load front/rear		kg	1451/1609	1556/1755	1556/1755	1615/1809	1628/1805	1735/1926	1735/1926
Tyres	3.1	<b>Tyre Type</b>				Super Elastic / SE						
	3.2	<b>Tyres</b>	front			18x7-8			200/50-10			
	3.3		rear			140 / 55 - 9						
	3.5	<b>Wheels</b>	no. (x=driven) front/rear			2x / 2						
	3.6	<b>Track Width</b>	load side	b10	mm	919			922			
	3.7		power unit side	b11	mm	176						
	Dimensions	4.1	<b>Mast Tilt</b>	forward/backward		°	see table 1					
4.2		<b>Mast</b>	collapsed height	h1	mm	see table 1						
4.3		<b>Free Lift</b>	w. / w.o. lbr	h2	mm	see table 1						
4.4		<b>Lift Height</b>		h3	mm	see table 1						
4.5		<b>Mast</b>	extended height	h4	mm	see table 1						
4.7		<b>Overhead Guard Height</b>	standard/opt. low	h6	mm	2105 / 1990						
4.8		<b>Seat Height</b>		h7	mm	1078						
4.12		<b>Tow Hitch Height</b>		h10	mm	520						
4.15		<b>Lowered Fork Height</b>		h13	mm	45						
4.20		<b>Headlength *</b>		l2	mm	1740	1848		1956	1963	2071	
4.21		<b>Overall Width</b>		b1/b2	mm	1070			1129			
4.22		<b>Fork Dimension</b>		thxw	mm	38x100			45x100			
			standard/option	l	mm	990 / 760, 915, 1065, 1145, 1220, 1370, 1525						
4.23		<b>Fork Carriage</b>	ISO/FEM	b5	mm	2 A						
4.24		<b>Fork Carriage Width</b>	w. lbr / w.o. lbr	b3	mm	990 / 965						
4.31	<b>Ground Clearance</b>	with load below mast	m1	mm	76							
4.32		centre wheel base	m2	mm	108							
4.33	<b>Working Aisle Width</b>	minimum		mm	see table 2							
4.35	<b>Turning Radius</b>		Wa	mm	1390	1493		1597		1704		
Performance	5.1	<b>Travel Speed</b>	w./w.o. load		km/h	16 / 16 **						
	5.2	<b>Lift Speed</b>	w./w.o. load		m/s	0.55/0.56			0.52/0.56		0.49/0.56	
	5.3	<b>Lower Speed</b>	w./w.o. load		m/s	0.50/0.50						
	5.5	<b>Drawbar Pull</b>	w./w.o. load (60 min. rtg.)	N		2314/2569	2263/2518	2204/2518	2178/2492	2137/2490	2090/2443	2050/2443
	5.6	<b>Max. Drawbar Pull</b>	with load	N		12614	12562	12504	12478	12437	12389	12350
			without load	N		12869	12818	12818	12792	12790	12742	12742
	5.7	<b>Gradeability</b>	w./w.o. load (60 min. rtg.)	%		11.2/16.7	10.5/15.2	9.7/15.2	9.4/14.6	9.0/14.5	8.5/13.5	8.1/13.5
	5.8	<b>Max. Gradeability</b>	w./w.o. load (intermit)	%		29.8/44.8	27.9/40.6	26.0/40.6	25.2/38.9	24.1/38.7	22.9/35.8	22.0/35.8
	5.9	<b>Acceleration Time</b>	w./w.o. load	s		4.4 / 3.8	4.5 / 3.9	4.5 / 3.9	4.5 / 3.9	4.6 / 4.0	4.7 / 4.1	4.7 / 4.1
	5.10	<b>Brake</b>	service			Regenerative electric motor brake						
park					Spring applied and electrically released							
Motors	6.1	<b>Traction Motor</b>	60 min. rating		kW	2 x 5.5						
	6.2	<b>Lift Motor</b>	15% on time		kW	11.2						
	6.3	<b>Max. Battery Box Size</b>	DIN 43531	l	mm	414	522		630		738	
			Layout A	wxh	mm	830 x 627						
	6.4	<b>Battery Voltage</b>	Voltage		V	48						
			min./max.		Ah	330-360	440-480		550-625		660-750	
6.5	<b>Battery Weight</b>	min./max.		kg	532/588	673/743		814/898		963/1063		
6.6	<b>Battery Floor Height</b>	with/without rollers		mm	210 / 204							
Misc.	8.1	<b>Type of Control</b>	drive/lift			Transistor						
	8.2	<b>Available Working Pressure for Attachments</b>			bar	235						

\* add 36 mm for Crown integrated sideshift, add 59 mm for hook on sideshift

\*\* travel speed reduction applicable to trucks with lift height above 2260 mm collapsed height



shown with cabin option

**SC 6000 Series**

**Specifications**

General Information	1.1	<b>Manufacturer</b>			Crown Equipment Corporation				
	1.2	<b>Model</b>			SCF 6040	SCF 6040	SCF 6060	SCF 6060	
					1.6	1.8	1.8	2.0	
	1.3	<b>Power</b>	electric		battery				
	1.4	<b>Operator Type</b>			sit down				
	1.5	<b>Load Capacity</b>		Q	t	1.6	1.8	1.8	2.0
	1.6	<b>Load Centre</b>		c	mm	500			
	1.8	<b>Load Distance</b>		x	mm	360*	366*		
	1.9	<b>Wheel Base</b>		y	mm	1439		1547	
Weights	2.1	<b>Weight</b>	less battery		kg	2734	2743	2767	2767
	2.2	<b>Axle Load</b>	w. load front / rear		kg	4206/940	4546/810	4571/958	4883/846
	2.3	<b>Axle Load</b>	w.o. load front / rear		kg	1650/1896	1663/1893	1763/1966	1763/1966
Tyres	3.1	<b>Tyre Type</b>			Super Elastic / SE				
	3.2	<b>Tyres</b>	front		18x7-8	200/50-10			
	3.3		rear		140 / 55 - 9				
	3.5	<b>Wheels</b>	no. (x=driven) front/rear		2x / 2				
	3.6	<b>Track Width</b>	load side	b10	mm	919	922		
	3.7		power unit side	b11	mm	888			
	Dimensions	4.1	<b>Mast Tilt</b>	forward / backward		°	see table 1		
4.2		<b>Mast</b>	collapsed height	h1	mm	see table 1			
4.3		<b>Free Lift</b>	w. / w.o. lbr	h2	mm	see table 1			
4.4		<b>Lift Height</b>		h3	mm	see table 1			
4.5		<b>Mast</b>	extended height	h4	mm	see table 1			
4.7		<b>Overhead Guard Height</b>	standard/optional low	h6	mm	2105 / 1990			
4.8		<b>Seat Height</b>		h7	mm	1078			
4.12		<b>Tow Hitch Height</b>		h10	mm	520			
4.15		<b>Lowered Fork Height</b>		h13	mm	45			
4.20		<b>Headlength *</b>		l2	mm	2055	2062	2170	
4.21		<b>Overall Width</b>		b1/b2	mm	1070	1129		
4.22		<b>Fork Dimension</b>		thxw	mm	38x100	45x100		
			standard / option	l	mm	990 / 760, 915, 1065, 1145, 1220, 1370, 1525			
4.23		<b>Fork Carriage</b>	ISO / FEM	b5	mm	2 A			
4.24		<b>Fork Carriage Width</b>	w. lbr / w.o. lbr	b3	mm	990 / 965			
4.31	<b>Ground Clearance</b>	with load below mast	m1	mm	76				
4.32		centre wheel base	m2	mm	108				
4.33	<b>Working Aisle Width</b>	minimum		mm	see table 2				
4.35	<b>Turning Radius</b>		Wa	mm	1709		1816		
Performance	5.1	<b>Travel Speed</b>	w./w.o. load		km/h	16 / 16 **			
	5.2	<b>Lift Speed</b>	w./w.o. load		m/s	0.55/0.56	0.52/0.56		0.49/0.56
	5.3	<b>Lower Speed</b>	w./w.o. load		m/s	0.50/0.50			
	5.5	<b>Drawbar Pull</b>	w./w.o. load (60 min. rtg.)		N	2154 / 2468	2113 / 2466	2109 / 2462	2037 / 2429
	5.6	<b>Max. Drawbar Pull</b>	with load		N	12454	12413	12408	12337
			without load		N	12768	12766	12761	12729
	5.7	<b>Gradeability</b>	w./w.o. load (60 min. rtg.)		%	9.2 / 14.0	8.7 / 14.0	8.7 / 13.9	8.0 / 13.2
	5.8	<b>Max. Gradeability</b>	w./w.o. load (intermit)		%	24.6 / 37.3	23.5 / 37.2	23.4 / 36.9	21.7 / 35.1
	5.9	<b>Acceleration Time</b>	w./w.o. load		s	4.5 / 3.9	4.6 / 4.0	4.7 / 4.1	4.7 / 4.1
	5.10	<b>Brake</b>	service			Regenerative electric motor brake			
park					Spring applied and electrically released				
Motors	6.1	<b>Traction Motor</b>	60 min. rating		kW	2 x 5.5			
	6.2	<b>Lift Motor</b>	15% on time		kW	11.2			
	6.3	<b>Max. Battery Box Size</b>	DIN 43531	l	mm	630		738	
			Layout A	wxh	mm	830 x 627			
	6.4	<b>Battery Voltage</b>	Voltage		V	48			
			min./max.		Ah	550-625		660-750	
6.5	<b>Battery Weight</b>	min./max.		kg	814/898		963/1063		
6.6	<b>Battery Floor Height</b>	with / without rollers		mm	210 / 204				
Misc.	8.1	<b>Type of Control</b>	drive / lift			Transistor			
	8.2	<b>Available Working Pressure for Attachments</b>			bar	235			

\* add 36 mm for Crown integrated sideshift, add 59 mm for hook on sideshift

\*\* travel speed reduction applicable to trucks with lift height above 2260 mm collapsed height

Table 1 – Mast Chart

				TL Mast							
				SC 6010 SC 6020 SC 6040 SC 6060						SC 6020 SC 6040 SC 6060	
4.1	<b>Tilt</b>	forward/backward	°	5/5	5/5	5/5	5/3	5/3	5/3	5/3	5/3
4.2	<b>Collapsed Height</b>		h1 mm	1955	2105	2260	2410	2540	2665	2840*	3035**
4.3	<b>Free Lift</b>		h2 mm	150	150	150	150	150	150	150	150
4.4	<b>Lift Height</b>		h3 mm	2895	3200	3505	3810	4060	4190	4545	4925
4.5	<b>Extended Height</b>	w.o. load backrest	h4 mm	3480	3785	4090	4395	4650	4780	5135	5515
	<b>Extended Height</b>	with load backrest	h4 mm	4115	4420	4725	5030	5285	5415	5770	6150

\* Not available on SCT 601X

\*\* Not available on SCT 601X, SCT 602X, SCT 606X

				TF Mast		Quad
				SC 6010 SC 6020 SC 6040 SC 6060		SC 6010 SC 6020 SC 6040 SC 6060
4.1	<b>Tilt</b>	forward / backward	°	5/5*	5/5*	5/3**
4.2	<b>Collapsed Height</b>		h1 mm	1955	2105	2105
4.3	<b>Free Lift</b>	without load backrest	h2 mm	1345	1495	1545
		with load backrest	h2 mm	735	885	835
4.4	<b>Lift Height</b>		h3 mm	2895	3200	6095
4.5	<b>Extended Height</b>	w.o. load backrest	h4 mm	3510	3810	6605
	<b>Extended Height</b>	with load backrest	h4 mm	4115	4420	7320

\* 5/3 with front panel (Windshield)

\*\* Not available on SCT 606X-2.0, SCF 606X-2.0

				TT Mast							
				SC 6010 SC 6020 SC 6040 SC 6060						SC 6020 SC 6040 SC 6060	
4.1	<b>Tilt</b>	forward / backward	°	5/5	5/5	5/5	5/3	5/3	5/3	5/3	5/3
4.2	<b>Collapsed Height</b>		h1 mm	1955	2105	2260	2410	2540	2665	2840*	3035**
4.3	<b>Free Lift</b>	without load backrest	h2 mm	1445	1600	1750	1905	2030	2155	2335	2540
		with load backrest	h2 mm	735	885	1040	1190	1320	1445	1625	1825
4.4	<b>Lift Height</b>		h3 mm	4365	4825	5280	5740	6120	6400	6930	7490
4.5	<b>Extended Height</b>	w.o. load backrest	h4 mm	4880	5335	5795	6250	6630	6910	7445	8005
	<b>Extended Height</b>	with load backrest	h4 mm	5590	6050	6505	6960	7345	7620	8155	8715

\* Not available on SCT 601X

\*\* Not available on SCT 601X, SCT 602X, SCT 606X

Table 2 – Working Aisle Width

	1.8	1.9	4.35	Pallets length x width	4.33		
	Load Distance*	Wheelbase	Turning Radius		Aisle Width according to VDI 2198		
	X	Y	Wa		w.o. sideshift	integrated sideshift	with hook-on sideshift
<b>SCT 6010 1.3</b>	360	1174	1390	800 x 1200	2896	2928	2949
				1200 x 800	3200	3236	3258
				1000 x 1200	3076	3110	3131
				1200 x 1000	3228	3263	3284
<b>SCT 6020 1.3 SCT 6020 1.6</b>	360	1282	1493	800 x 1200	2999	3031	3052
				1200 x 800	3303	3339	3361
				1000 x 1200	3179	3213	3234
				1200 x 1000	3331	3366	3387
<b>SCT 6040 1.6</b>	360	1390	1597	800 x 1200	3103	3135	3156
				1200 x 800	3407	3443	3465
				1000 x 1200	3283	3317	3338
				1200 x 1000	3435	3470	3491
<b>SCT 6040 1.8</b>	366	1390	1597	800 x 1200	3108	3141	3161
				1200 x 800	3413	3448	3471
				1000 x 1200	3289	3322	3343
				1200 x 1000	3441	3475	3497
<b>SCT 6060 1.8 SCT 6060 2.0</b>	366	1498	1704	800 x 1200	3215	3248	3268
				1200 x 800	3520	3555	3578
				1000 x 1200	3396	3429	3450
				1200 x 1000	3548	3582	3604

<b>SCF 6040 1.6</b>	360	1439	1709	800 x 1200	3215	3247	3268
				1200 x 800	3519	3555	3577
				1000 x 1200	3395	3429	3450
				1200 x 1000	3547	3582	3603
<b>SCF 6040 1.8</b>	366	1439	1709	800 x 1200	3220	3253	3273
				1200 x 800	3525	3560	3583
				1000 x 1200	3401	3434	3455
				1200 x 1000	3553	3587	3609
<b>SCF 6060 1.8 SCF 6060 2.0</b>	366	1547	1816	800 x 1200	3327	3360	3380
				1200 x 800	3632	3667	3690
				1000 x 1200	3508	3541	3562
				1200 x 1000	3660	3694	3716

\* Load Distance: Add 36 mm for Crown integrated sideshift, add 59 mm for hook on sideshift

**Standard Equipment**

1. Crown's Access 1 2 3® Comprehensive System Control
2. InfoPoint™ System
3. Crown-manufactured AC drive and AC lift motors
4. e-GEN® Braking System with automatic parking brake
5. Adjustable armrest, forward/backwards with
  - Fingertip control levers
  - Thumb operated travel direction switch
6. Intrinsic Stability System
  - Travel speed reduction and appropriate electronic brake control when forks are above free lift
  - Forward tilt interlock reduces forward tilt above freelif to maximise stability
  - Controlled tilt speeds
  - Counterweight exceeds required standards
  - Cornering speed control
  - Ramp hold
  - Ramp speed control
7. Driveability standard features
  - 375 mm step height
  - Large, unobstructed floorboard
  - Non-slip rubber floor mat
  - Automotive type rubber covered accelerator and brake pedals
  - Automatic parking brake (seat activated)
  - Large, entry/exit "window"
  - Entry/exit to both sides
  - Rounded edges on battery cover for easy entry/exit
  - Comfort suspension safety seat MSG 65 vinyl with hip restraint
  - High visibility orange anti-cinch safety belt
  - Storage tray on seatdeck
  - Compact steering column and small steering wheel
  - Spinner knob with grips
  - Infinitely adjustable tilt steering column
  - Operator-forward design for enhanced visibility
  - Low dashboard for fork and floor visibility
8. Crown display
  - Battery discharge indicator with lift interrupt and re-key feature
  - Hour meters / travel distance / stop watch
  - Pin code access capable
  - Event code display with five (5) key navigation
  - Access 1 2 3 diagnostics
  - P1, P2, P3 Performance tuning

9. 48 volt system
10. SBE 320 blue battery connector
11. DIN 43531 battery compartment sizes
  - Side extraction battery access
  - Battery retainer switch inhibits travel when battery is not securely locked
12. Two 15" Super Elastic steer tyres
13. Large 18" Super Elastic drive tyres
14. SIT Tyres, one piece rim without taper, rim flange or locking ring
15. On-demand power steering
16. Cab-ready overhead guard design
17. 2105 mm overhead guard height
18. No tool lift out floorboards for service access
19. High visibility mast with in-line hose routing
20. Smooth lift and lower transition through mast staging
21. O-ring face seal hydraulic fittings
22. Tilting mast
23. Tow pin
24. Entry/exit grap handle
25. Storage bin

**Optional Equipment**

1. TL, TF, TT and Quad mast styles
2. Choice of hydraulic control levers
  - Dual-Axis hydraulic control levers
  - Manual levers, urethane covered offset positioned control handles with tactile feedback forward reverse switch integrated in
    - Steer column, left or right side
    - 1st hydraulic lever
3. Battery rollers for side extraction
4. Hinged and lockable battery door
5. Battery transfer system BTS for fast and safe battery exchange
6. DIN A 160 Battery Connector
7. Tilt Position Assist TPA
  - Mast tilt stops in vertical position
8. Auxiliary mast hydraulics
  - single function
  - double function, with 4 spool valve and accessory plumbing

9. Single or double quick disconnect hydraulic connectors
10. Hook-on or integrated sideshifter
11. Hook-on fork positioner
12. Various load backrest heights
13. Various fork lengths
14. Choice of tyres
  - Non-marking Super Elastic tyres
  - Lugged cushion tyres (SCT 6000 only)
15. Rear mud flaps for SCF 6000
16. Suspension seat fabric
17. Freezer conditioning
18. Low overhead guard, 1990 mm high
19. Drive-In racking OHG
20. Plexiglass roof panel
21. Light packages
  - Interior dome light
  - Work lights
  - Flashing lights
  - Integrated brake, tail and back-up light
  - LED Travel light package
    - o Headlights
    - o Dipped / low beam
    - o Turn / indicator lights
    - o Hazard flashing lights
    - o Tail lights at lower rear
22. InfoLink Ready
23. 48 Volt accessory cable
24. Audible travel alarm
25. Sunshade
26. Rear view mirror
27. Work Assist™ Accessories
  - Clip pad and hook
  - Clamp
  - Clamp and mounting plate
  - Storage pocket
  - Storage bin (magnetic mount)

**Cabin Features**

1. Partial Cab
  - Front screen with tempered glass, wiper and washer
  - Top screen with laminated safety glass
  - Cabin height as on standard overhead guard height
  - Rear screen with tempered glass, defrost with 15 minute auto off timer, wiper and washer, gas spring assist 2-stage tilting window
2. Soft Cab
  - Full cabin with soft doors
  - PVC zipper type roll-up doors with large windows.

3. Full Cab
  - Cabin with hard doors with automotive-class comfort.
  - Removable hard doors with gas spring and door locks, two-way sliding windows on both sides, side windows with tempered glass.
4. Heater for full cabins.
  - Lower right side mounted cabin heater with temperature control and 2-speed fan.
  - Five adjustable outlets: foot, operator, defrost.

**Driveability**

The SC 6000 Series incorporates numerous design features to improve operator comfort and productivity. On-demand power steering is served by the main hydraulic pump when steering is requested. Steering system with equal area and double-acting cylinder provides an equally responsive steering rate both ways.

A large step positioned at a low height of only 375 mm aids entry/exit on both sides of the truck. The narrow, offset tilt steer column and steer wheel further facilitate entry/exit. Floorboards are large, unobstructed and rubber covered to insulate the operator from vibration. Brake and accelerator pedals are rubber covered to provide good grip and comfort.

Several designs contribute to better visibility everywhere you look. A low dashboard for fork visibility, a slim overhead guard with upper unobstructed window for load handling at height, a high visibility mast and a compact steer column all improve operator visibility around the truck.

Hydraulic controls allow easy blending of up to 4 hydraulic functions. Fingertip controls are integrated into the adjustable armrest. Dual-Axis controls are recommended when operators wear gloves. The manual levers are urethane covered with tactile feedback for comfort and easy selection. Control actuation forces are minimal and responsive.



**Crown Drive System**

Crown has applied the latest generation AC drive system, enhanced with Access 1 2 3 technology. The demand for high efficiency systems that closely match customer torque requirements is met with this latest generation control system. Crown-manufactured, independently controlled, AC drive motors are specifically designed to optimise system integration between the traction and braking controls.

Crown's Access 1 2 3 technology provides optimum performance and control by offering a communication interface for operators and technicians, intelligent coordination of lift truck system and simplified service with advanced diagnostics.

The Crown display is used for easy troubleshooting, access service history and set performance features. Three modes of performance can be selected to accommodate operator experience or application requirements.

**e-GEN® Braking System**

Variable regenerative motor braking is optimised and assisted with electric friction brakes, eliminating maintenance associated with typical wet, disk or drum style brakes. The appropriate amount of stopping force is applied to match operator brake input and the current operating conditions of the truck.

The closed loop Access 1 2 3 traction control will auto-matically keep the truck on hold until a travel input is requested, even when operating on a ramp.

Automatic electric parking brakes activate when the operator leaves the seat, a travel input has not been requested or battery power has been disconnected.

**Three wheel truck with Proportional Rack and Pinion Steering System**

The hydrostatic power steering uses a large, totally enclosed rack and pinion gear assembly. Debris guard prevent stretchfoils and other materials from being picked up and wrapped around the axle.

**Four wheel truck**

The rugged axle frame, forged spindle and connecting links eliminate the need for adjustment. A two-piece spindle and kingpin with tapered roller bearings improves life and serviceability. Spherical bearings with straight pins in the connecting links eliminate any play in the linkage. All bearing locations are sealed to exclude contaminants and are equipped with lubrication fittings for ease of service.

The steering geometry is matched to the controller to deliver smooth steering at all angles. The advantage is less tyre scrubbing which extends tyre life. Both motors receive power, even in the tightest turns. This helps the truck to accelerate, turn and manoeuvre even from a full turn start position. Cornering speed control regulates the drive motor's output by the turning degree of the truck. The advantage is smooth, stable steering which may increase operator confidence and productivity.

**Hydraulics**

Low noise hydraulic pump serves both lift and steer systems. The hydraulic system provides continuous filtration through suction filter and easy to service return filter.

Hydraulic actuation is precise and oil is controlled using metered spool valves. 3 spool valve for lift/lower, tilt and an auxiliary function is standard and features an integrated pressure relief valve for system protection. A pressure compensation lowering valve ensures safe controlled lowering speeds.

Ram displacement type lift cylinders and two double acting tilt cylinders are Crown-manufactured and designed for long life. All rams and piston rods are hard chrome plated to reduce pitting corrosion and extend cylinder packing life. O-ring face seal fittings are used to eliminate leaks.

**Mast Assembly**

Crown-manufactured three-stage mast assembly utilises a "flush-face" interlocked I-beam design to improve visibility and reduce truck length. Roller bearing studs are welded on both sides of the rails for maximum strength and roller bearings are canted to run in the thick cross section of the rail. High strength steel mast sections with sealed-for-life rollers are constructed for low mast deflection and high rigidity. Tie bars wrap around the rails for added strength and to resist off-centre load forces.

"In-line" hose routing opens up visibility. Cylinders are placed behind the rails to create a high visibility design. The mast has four points of attachment to the truck for good load force distribution. Two mounting points are at the frame, where tilt cylinders attach. Tilt cylinders use spherical bushings to resist off-centre load distortions. Two large diameter axles secure the mast to the drive units.

The Crown manufactured mast offers quiet lift transition through staging while lifting and lowering. Ante rattle devices reduce mast noise when traveling on uneven surfaces.

A range of mast types are available:

- TL offers maximum visibility through the mast by eliminating the inner free lift cylinder.
- TF offers widest visibility window with full free lift capability.
- TT offers maximum flexibility with full free lift capability.
- The Quad mast offers maximum lift height at lowest collapsed height.

**Drive Units**

Two independent drive units are manufactured by Crown. The heavy duty drive unit gears are constantly lubricated in an oil bath. This time proven design is quiet and reliable, providing years of trouble-free service.

**Carriage**

An FEM / ISO / ITA Class II carriage is standard. Fork spread is adjustable between 314 – 914 mm. There is a choice of a Crown manufactured integrated sideshifter or hook-on ISO type sideshifter. Other attachments such as a fork positioner are easy to add. Crown manufactured forged high strength steel forks with fork tip indicators are available in various lengths.

**Battery Access**

Seat deck with latch can be easily lifted for excellent battery access. Seat deck is supported by gas struts and stays vertically. A lift out battery door is standard. A battery retainer switch prevents unintentional operation, when battery door is not properly fitted. A hinged battery door is an option.

**Battery Transfer System BTS**

The patent pending BTS system is optionally available. This unique manually powered system allows fastest and safest battery exchange within minutes for extended operating hours or continuous truck operation by exchanging spare batteries.

**Safety Regulations**

Conforms to European safety standards. 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.

