

CROWN

TC 3000 SERIES

Specifications

Tow Tractor



Engineered for performance.

When your material flow depends on a tow truck, there is no better choice than the reliable and durable TC 3000 Series – designed from the ground up to deliver consistent performance.

The TC 3000 Series features Crown's exclusive Access 1 2 3[®] Comprehensive System Control and e-GEN[®] Braking System, which enhance safe performance, productivity and long-term value.

The TC 3000 Series also features a robust, reliable design, driven by real-world application needs. Like all Crown products, it is proven through extensive and rigorous testing on individual components and entire truck systems, both in the lab and in the warehouse.



Access123[®]
Comprehensive System Control



Crown's exclusive Access 1 2 3[®] Comprehensive System Control provides smooth, safe operational control and industry-leading diagnostics. The system continuously analyses factors that can influence performance and safety, such as operator position, travel speed and steering angle, responding

with optimised performance as conditions change. The ramp control feature automatically holds the truck on an incline until the operator initiates forward or reverse travel. The information display includes system indicators, operational warnings, programmable performance settings and system diagnostics.

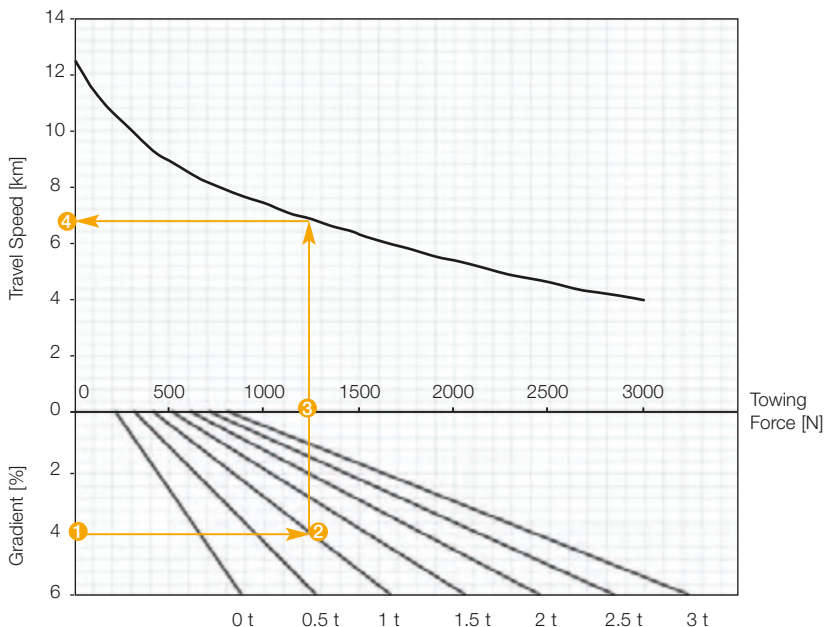
The TC 3000 incorporates electronic steering for effortless, predictable control. The award-winning X10® control handle places all truck functions at your fingertips in a design that minimises upper body fatigue. The suspended low-step floorboard reduces vibration and shock from floor joints and rough surfaces.



The intelligent e-GEN Braking System uses the powerful torque of the AC motor to provide consistent, reliable, long-term performance. This virtually maintenance-free, frictionless braking system eliminates adjustments, while reducing numerous parts, linkages and other wear points. An automatic parking brake is applied when the truck is stationary.



Gradeability diagram TC 3000



- The example shows that at a gradient of 4% **1** with a load of 1 ton **2** the TC 3000 has to apply 1250 N **3** towing force and will achieve a travel speed of 6.8 km/h. **4**
- Maximum continuous towing force is 800 N.
- Trailers with a braking system are recommended for gradients more than 4 %.

A wide selection of Work Assist™ accessories adds to the exceptional performance and productivity advantages of the TC 3000 Series.

Crown engineers analysed the complete range of transport and picking tasks and then designed Work Assist accessories which can be application-tailored to enhance convenience, comfort, safety and productivity.



Front Work Assist accessory tube with cable management, load tray and universal magnetic storage compartment

Studies prove that productivity and accuracy dramatically increase when tools and materials are organised for the task.

Only the TC 3000 Series offers the innovative and easily tailored Work Assist accessories to solve all of these workplace challenges. Work Assist accessories such as storage pockets, clip pads, trash bag holder or beverage holder are easy to attach and combine. The accessory can be attached due to the universal mounting system on the Work Assist accessory tube, which is available with and without cable management. You can also add front and rear load trays, stretch foil holder, scan gun holders and data monitors.

With Crown's Work Assist™ accessories you can create the perfect mobile work station for your application.



Front Work Assist accessory tube with cable management, large transparent clip pad and scan gun holder

Rear Work Assist accessory tube with small clip pad, scan gun holder and universal holder featuring an adjustable swivel arm for WMS monitors



Additional rear storage compartment



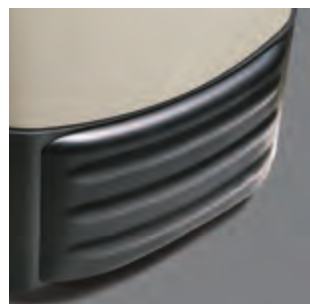
Adjustable lean seat



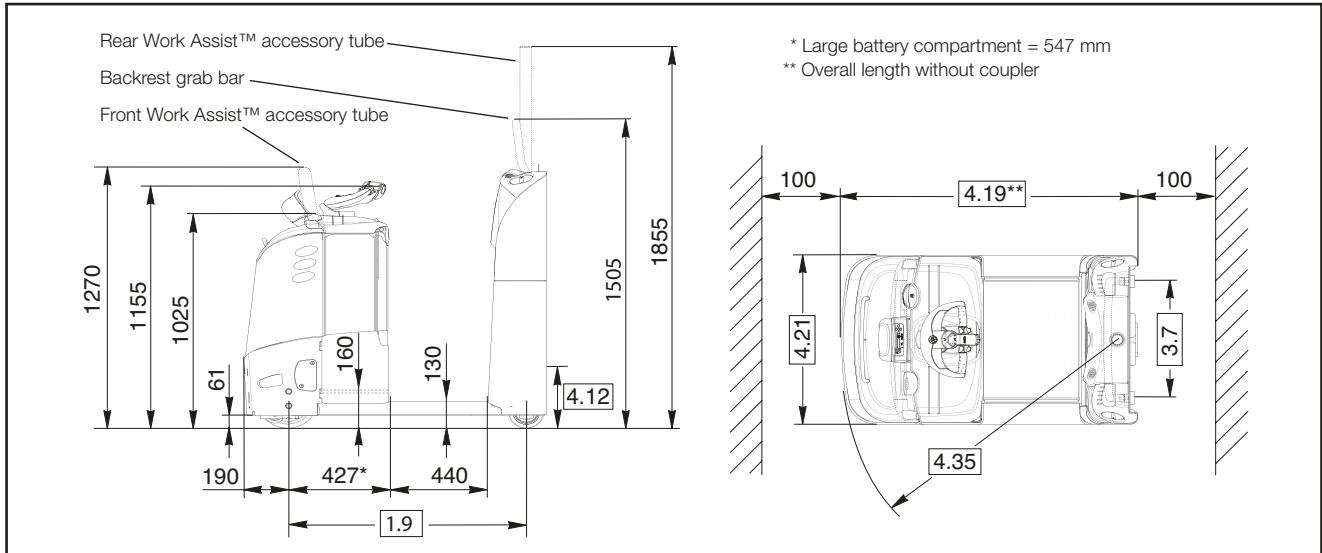
Front Work Assist accessory tube with cable management



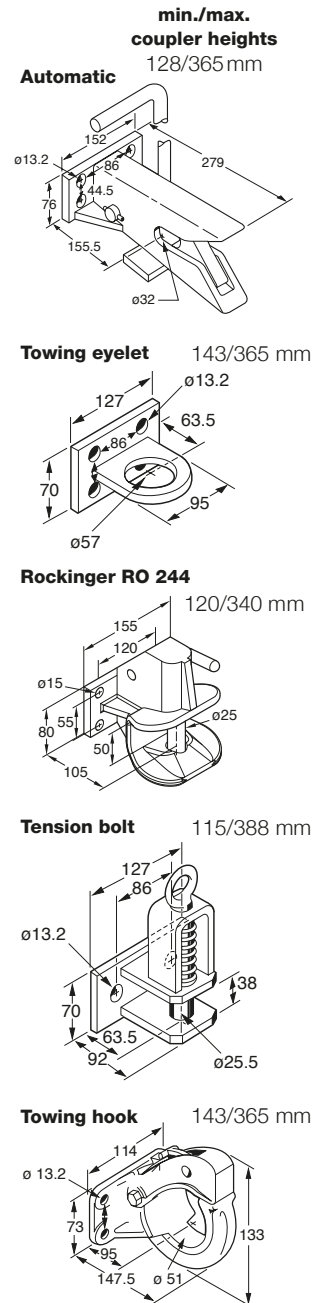
Hitch Position Control



Front bumper



Features	1.1	Manufacturer	Crown Equipment Corporation				
	1.2	Model	TC 3000-3.0				
	1.3	Power	electric				
	1.4	Operator Type	stand-on				
	1.5	Load Capacity	Q	kg	3000		
	1.7	Rated Drawbar Pull	F	N	800		
	1.9	Wheel Base	y	mm	1030	1150	
Weight	2.1	Weight	less battery		kg	590	630
	2.2	Axle Load	with load, front/rear		kg	595 / 380	690 / 440
Wheels	3.1	Tyre Type	Vulkollan				
	3.2	Wheel Size	front	mm	Ø 250 x 75		
	3.3		rear	mm	Ø 150 x 100		
	3.4	Additional Wheels	optional	mm	Ø 60 x 82		
	3.5	Wheels	number (x = driven) front/rear	mm	1x / 2		
	3.6	Track Width	front	b10	mm	central position	
	3.7		rear	b11	mm	563	
Basic dimensions	4.8	Operator Stand Height	h7	mm	130		
	4.9	Tiller Arm Height	h14	mm	1155		
	4.12	Coupler Height	h10	mm	see couplers		
	4.19	Overall Length	without coupler	l1	mm	1310	1430
	4.21	Overall Width		b1	mm	810	
	4.32	Ground Clearance	centre wheelbase	m2	mm	61	
	4.35	Turning Radius		Wa	mm	1220	1340
Capacity	5.1	Travel Speed	with/without load	km/h	8.5 / 12.5	8.0 / 12.5	
	5.6	Max. Drawbar Pull		N	3250		
	5.7	Gradeability		%	see chart		
	5.10	Service Brake			electric		
Motors	6.1	Traction Motor	rating at S2 60 min.	kW	4.0		
	6.3	Max. Battery Box Size		lxwxh	mm	210x790x784	330x790x784
	6.4	Battery Voltage	nominal capacity K5	V/Ah	24/420-465	24/560-620	
	6.5	Battery Weight		kg	367-383	489-509	
	8.1	Drive Controller	drive			Transistor	



Mounting plate allows all types of couplers to be adjusted in 45 mm increments (Rockinger RO 244 in 55 mm increments)

Electric System / Batteries

24-volt electrical system with nominal battery capacities from 420 Ah up to 620 Ah. The battery can be removed vertically or horizontally with optional battery rollers for left/right or both sides removal.

Standard Equipment

1. Crown maintenance-free 3-phase (AC) traction motor. Maintenance-free 3-phase (AC) steering motor.
2. e-Gen® Braking System offers regenerative and frictionless electric braking (Mechanical braking applies only as parking brake)
3. Electronic steering with the centre-mounted X10® Handle for precise and effortless control
4. The self-centering X10® Control Handle places all truck functions at the operator's fingertips
5. Crown Access 1 2 3® Comprehensive System Control
6. Intelligent Steering System slows the travel speed in curves
7. Crown's Information Display
 - 1 line LC-Display with 8 characters
 - Battery discharge indicator
 - Keyless start up with PIN code
 - Start up and run time diagnostics
 - 3 selectable traction performance profiles
 - Hour meters including traction motor and run time
 - Access 1 2 3® onboard diagnostic with real time troubleshooting capabilities
8. CAN-Bus technology
9. Ramp hold
10. Low step height of 130 mm with a 440 mm wide walk-through area
11. Comfort plus suspended floorboard with a non-slip anti-fatigue floor mat with integrated presence sensors
12. Electric power disconnect plug
13. Multiple storage compartments
 - Large front storage tray
 - Large storage compartments in the backrest
 - 2 large storage bins in the backrest
 - 3 storage pockets in battery area
14. Two cords on each side of desktop surface to fix paper documents
15. Vulkollan drive tyre and load wheels with additional rounded skid bars
16. Soft contoured backrest with cushioned soft kneepad

17. Battery connector DIN 160 A
18. Heavy duty power unit
 - 10 mm thick steel skirt
 - Easily removable reinforced steel covers
 - Top battery access

Optional Equipment

1. Additional wheels Ø 60 x 82 mm instead of skid bars
2. Backrest grab bar
3. Adjustable fold-down lean seat
4. Hitch Position Control in backrest
5. Battery roll out for left / right or both sides
6. SBE 160 red battery connector
7. 12/24 V power supply for electronic tools
8. Cold storage conditioning
9. Front Work Assist™ accessory tube with or without cable management
10. Rear Work Assist™ accessory tube
11. Work Assist™ Accessories
 - Load tray
 - Foil roll holders
 - Storage pockets
 - Beverage holder
 - Trash bag holder
 - Scan gun holder
 - Small, medium and large clip boards
 - Mounting brackets for WMS terminals
12. Rear storage compartment
13. Audible travel alarm
14. Flashing beacon
15. Warning light
16. Rubber bumper
17. Key switch
18. Key pad
19. Special paint
20. InfoLink® ready
21. Supertrac drive tyre Ø 250 x 75 mm
22. Lithium-Ion ready capable
23. Crown V Force® Lithium-Ion ready
24. Soft writing mat
25. Universal magnetic storage tray
26. Central storage tray
27. Folding-step
28. Picking guard for 2nd level picking
29. QuickPick® Remote ready

Electrical

24 Volt electrical system managed by Crown's Access 1 2 3® Comprehensive System Control. Virtually maintenance-free AC traction motor provides strong acceleration and control at any

speed. Sensors monitor functional parameters including steering, speed and operator position and adjusts operational settings automatically to suit conditions.

Power Unit

The rugged power unit is designed for tough real-world applications. A 10 mm thick skirt protects drive unit and caster components while reinforced steel covers and doors cover all electronics. The uncluttered layout of components provides quick and easy access for servicing.

Operator Area and Controls

The comfort plus suspension features a fully suspended floorboard with a soft mat that reduces operator fatigue. Wide walk-through compartment with rounded surfaces provides a convenient shortcut even while carrying boxes. Contoured lean pad helps the operator stay centred in the truck while providing a soft contact surface to lean against. Multiple storage pockets provide locations for tools and personal effects.

All truck functions are controlled by the award-winning X10® control handle that allows simultaneous operation of all functions with one hand. Electronic steering is standard, providing precise, predictable control.

A large information display provides battery discharge level, operational status and service messages to the operator.

Access 1 2 3® Comprehensive System Control

Crown's Access 1 2 3® technology provides optimum performance and control by offering a communications interface for the operator and service engineer, intelligent coordination of truck systems and simplified service with advanced diagnostics.

The display includes a full featured on-board service tool so service engineers can actively view inputs and outputs during truck operation. No laptop or service terminal is required. Performance tuning can be accessed at the display to customise truck performance for specific applications or operator requirements.

e-GEN® Braking System

The power of the high-torque AC traction motor is used to stop the truck and keep it static until a travel input is requested, even when operating on a gradient. This system eliminates adjustments and wear points for a lifetime of maintenance free use. An automatic parking brake activates if the truck is stopped and the operator leaves the platform or power is disconnected.

Work Assist™ Accessories

A comprehensive range of Work Assist™ accessories is available to support every kind of picking and administrative task. These rugged tools can be easily combined and positioned in the location best suited to the application and the user. Customer accessories can also be added using the universal clamp and adapter plate. Two front Work Assist™ accessory tubes are available for mounting the accessories, one with and one without cable management.

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.

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