

CROWN

TR 4500 SERIES



Proven Pulling Power.

As a dedicated mover, the TR 4500 Series provides the pulling power and strength needed to significantly improve throughput while transporting heavy loads on carts. Towing is tough on tuggers and operators. The TR 4500 gives operators industry-leading power to confidently control and stop 10,000-pound rolling loads. No other brand is built as rugged. **Experience superior reliability and the most powerful advantage in towing with Crown's TR 4500 Series.**



Powerful Performance

Crown's proven **Access 1 2 3[®]** technology, **AC traction system** and **e-GEN[®]** braking system deliver precise control and unmatched endurance. The TR 4500 keeps operators comfortable and confident thanks to the **X10[®]** Handle, **power steering** and a spacious compartment. Combine all this with a **heavy-duty drive unit** and **durable steel frame**, and your operation will experience more uptime all the time.

Built Crown Tough for the Long Haul.

Observe tuggers in any application and you'll see constant jerks, jolts and impacts they must endure everyday. Crown's TR 4500 Series combines robust components and a heavy-gauge steel design to withstand the rigors of the toughest applications.

Towing a rolling load with a capacity of 10,000 pounds over and over demands a heavy-duty drive unit with a powerful motor.



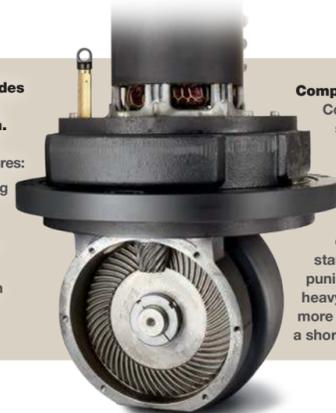
Open the doors of the TR 4500 and you'll see that our Crown-built drive unit and AC motor is the industry's largest—offering you unmatched durability and power.

The drive unit is secured at the top and bottom for increased life. Large tapered roller bearings at the top absorb vertical and horizontal forces. Four shock-mounted rollers at the bottom turn in a hardened steel roller race to further support the drive unit and absorb shock. Time-tested and proven, the TR 4500's massive in-line spur gears provide years of trouble-free operation.

Crown's AC drive motor is mounted horizontally and sized right to provide high torque, greater draw bar pull and long life. The e-GEN[®] braking system uses the powerful torque of the AC motor to deliver consistently reliable frictionless braking for the life of the truck. A park brake on the end of the motor applies automatically after the truck comes to a stop.

Crown's drive unit provides a level of durability that competitors can't match. It's the result of a carefully integrated design that features:

- Top and bottom mounting
- Crown-manufactured AC drive motor
- Large, in-line spur gears
- Splined axle shaft
- A drive tire supported on both sides



Competitor Approach
Competitors' under-sized drive units rely on a bottom-mounted design and use smaller ring and pinion gear sets. Drive units of this design can't withstand the repeated punishment of towing heavy loads and are more prone to wear over a short period of time.

Crown's frame uses a combination of heavy-gauge steel and structural enhancements at the greatest points of stress to ensure long-lasting performance.



Steel power unit doors provide superior protection to internal components versus competitor's polymer covers. Doors swing wide for easy access and can be removed as needed.

The X10[®] Handle remains within the confines of the truck to virtually eliminate the risk of impact during turns. In the event of an impact, the X10 Handle is built rugged—making it less susceptible to expensive repairs when compared to competitor's plastic handles.



Crown's X10 Handle features a cast aluminum design with reinforced webbing.



A 13-inch drive tire provides extended run time over competitor's 10-inch tires and is supported on both sides for maximum strength on rough surfaces.



Robust, quick-adjust casters enable fast, easy adjustment to maintain optimum traction. Operator confidence is increased with these casters (optional with manual steering) by enhancing truck stability while turning.



Powerful Performance

Crown's proven Access 1 2 3[®] technology, AC traction system and e-GEN[®] braking system deliver precise control and unmatched endurance. The TR 4500 keeps operators comfortable and confident thanks to the X10[®] Handle, power steering and a spacious compartment. Combine all this with a heavy-duty drive unit and durable steel frame, and your operation will experience more uptime all the time.

Operator Optimized.

With some tuggers, operators endure constant strains to their shoulders, arms, backs and legs while maneuvering and driving over expansion joints and rough floors. With power steering to simplify handling and additional padding and ergonomic features to enhance comfort, the TR 4500 Series is the preferred choice of operators.

With Crown's innovative electronic power steering system, operators experience superior handling both on and off the truck.

Crown's system provides advantages over tuggers using manual steering by offering precise control and eliminating body movements that contribute to increased fatigue and stress.

Utilizing the intelligence of **Crown's Access 1 2 3® technology and a tactile feedback device**, operator stability and control are maximized at higher speeds and steer effort is minimized at lower speeds.

Steering simplicity is further enhanced by Crown's exclusive X10® Handle.

Featuring ergonomically designed hand grips and dual thumb wheels that eliminate awkward wrist positions, the X10 Handle is designed and engineered with the operator in mind.

The hand grips include a comfortable urethane covering and integrated horn buttons. Dual thumb wheels are designed and positioned for optimum use during steering maneuvers.

A choice of two programmable steering modes allow operators to match truck performance with the application. Changing steering modes is easy with a switch conveniently located in the center of the X10 Handle. For typical applications, a

high-speed travel mode and steer angle of 60 degrees each way offers optimum productivity. For congested areas, a slower speed mode reduces travel speed and increases the steer angle to 90 degrees each way for safe, optimized maneuverability.

Thanks to electronic power steering, operators can work comfortably in the side-stance position while backing up to hook up carts or reposition loads.

Access123®
Comprehensive System Control

The integration of **Access 1 2 3® technology and an AC drive motor delivers superior performance.** Access 1 2 3 technology automatically reduces the truck's speed as the steer angle increases, enhancing operator stability. Operators also benefit from the AC traction system's

responsive acceleration, smooth plugging and precise control. Unlike other forklift suppliers who offer a third-party control system, Access 1 2 3 offers a high level of programmability to achieve the right balance of performance and desired productivity goals.

The **operator compartment** enhances comfort and stability. A padded wrap-around backrest contours to the operator for added confidence at every turn and exceptional comfort and support with every move.

An operator-sensing floorboard eliminates a high-speed pedal. This provides greater flexibility for body positioning and the use of side-stance, as well as improving walk through. The high-speed pedal can still be found on some competitor's models.



With a **low-step height, spacious platform and a backrest with contoured edges**, operators immediately notice how easy it is to enter and exit the compartment.



The floorboard's **shock-absorbing design** and premium urethane cushion enhances postural relief and delivers superior comfort. Crown's wide platform encourages operators to walk through the compartment instead of around it, cutting the number of steps in half.



Application Solutions.

When it comes to towing, every application has unique requirements. Customers appreciate our ability to customize trucks and supply a wide array of industrial products backed by the highest level of support—before and after the sale.

With a choice of steering systems, hitch styles, high-quality towable carts and exclusive fleet management tools, Crown offers solutions to meet your operational goals.

InfoLink

With InfoLink®, the wireless fleet and operator management system from Crown, users save time and money by turning real-time and historic data into organized, prioritized and actionable information. The system flags problems and opportunities as they occur.

InfoLink is one of the proven data management tools within the Crown Insite™ Productivity Suite, which delivers Productivity Beyond the Truck.



Tiller



T-Handle



A manual steering option with a choice of two control handle styles is available for lower-duty cycle applications. The **tiller handle** design gives operators additional leverage to power through tight turns. Braking is accomplished by lifting up or pushing down on the spring loaded handle. The wider **T-handle** gives operators more flexibility in hand placement and includes dual-brake levers.

Selecting a quality cart is just as important as choosing the right tugger. Carts are available with a variety of steering systems to match the application—improving throughput and reducing damage. Crown can help you select the right cart for your operation.



Automatic



Automatic with Quick Release



Eye



Pintle



Spring-Loaded Pin and Clevis

Hitches are available in five styles to accommodate the variety of couplers used on towable carts. All hitches are built from premium grade steel for

added durability and longer life, when compared to other hitch suppliers. The hitch plate allows for adjustment of the hitch height in 1.75" increments.

TR 4500 SERIES

Choose the one tugger proven to outlast and outperform all other brands.

Proven Pulling Power



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You can count on Crown to build lift trucks designed for safe operation, but that's only part of the safety equation. Crown encourages safe operating practices through ongoing operator training, safety-focused supervision, maintenance and a safe working environment. Go to crown.com and view our safety section to learn more.

Because Crown is continually improving its products, specifications are subject to change without notice.

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