

Rail King Mobile Railcar Mover



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Stewart & Stevenson, headquartered in Houston, Texas since 1902, serves global markets with equipment and service. Utilizing superior engineering, design and manufacturing capabilities, Stewart & Stevenson customizes specialty equipment for specific markets and customers.

Rail King[®] MOBILE RAILCAR MOVER

Rail King™, the trademarked mobile railcar mover designed and manufactured by Stewart & Stevenson since 1990, supports railcar switching operations throughout the United States, Canada, Mexico, Chile and Australia. Warehousing companies, chemical and refining plants, cement facilities, the grain and feed industry and Class I railroad companies utilize the power of Rail King railcar movers to increase productivity in their railcar switching operations.

Engineered to maximize safety, efficiency and operator comfort, Rail King offers exceptional performance and reliability, a smooth, comfortable ride on street and rail, easy to use controls, uncomplicated service and maintenance, and substantially reduced operation and maintenance costs.

Now in its sixth generation, Rail King offers up to 50,000 pounds of tractive effort. With each Rail King unit put into operation, Stewart & Stevenson and its Rail King dealers offer a broad array of support services to keep railcar switching operations on track.

The Rail King Portfolio

- G6 Rail King with Tier 4 Final Engine
 - RK 330: Provides up to 50,000 lbs of tractive effort
 - RK 320: Provides up to 48,600 lbs of tractive effort



- G5 Rail King with Tier 4i Engine
 - RK 300: Provides up to 46,550 lbs of tractive effort
 - RK 290: Provides up to 45,350 lbs of tractive effort
 - RK 285: Provides up to 44,500 lbs of tractive effort
- G4 Rail King with Tier 3 Engine
 - RK 300: Provides up to 46,550 lbs of tractive effort
 - RK 290: Provides up to 45,350 lbs of tractive effort
 - RK 285: Provides up to 44,500 lbs of tractive effort

As the Tier 3 and Tier 4i engines are phased out, due to EPA regulations in the coming years, the RK 300, RK 290 and RK 285 will be produced as G6 models with the Tier 4 Final engine.

G6 Rail King – Innovation Continues



Designed for Versatility – Engineered for Performance

Each succeeding generation of Rail King has introduced new technology and added improved design features.

G6 Rail King, introduced in 2015, new features:

- **Cummins QSB6.7 Tier 4 final engine**, with a fully integrated EcoFit™ Ultra-Low Emission System, Selective Catalytic Reduction (SCR), Diesel Oxidation Catalyst (DOC) and an Electronic Management System that controls air intake and exhaust after treatment. It achieves:
 - Near zero emissions
 - Increased power output
 - Lower fuel consumption
 - Reduced noise and engine vibration
 - **New Standard Equipment**
 - An improved cab design with locomotive suspension seats
 - Better service access panels
 - Easy to use pushbutton controls with a large full color LCD display
 - Complete LED light package including strobe light
 - Windshield washers
 - Step extensions
 - Integrated rear view camera system
 - **Other Standard Features**
 - **Frame:** Heavy-duty, one-piece, welded from 2” steel; full-width bumpers incorporate powertrain protection
 - **Transmission:** John Deere/Funk DF150 Powershift with torque converter
 - **Rail- and Road-Drive:** John Deere 1400 Series; no spin differentials and inboard planetary axles.
 - **Friction road wheel drive;** rail shock absorption
 - **Brakes:** Rail wheel - spark-free, inboard multiple wet-disk; Road wheel - disc and caliper hydraulic; Train Air - push button operated
 - **Wheels:** Rail: 28” diameter cast steel; Road 12 x 20 rock lug industrial tires
- 50 cfm air compressor pneumatic system
 - Hydrostatic power steering
 - Two weight-transfer fabricated steel couplers; slide on nylon bearings; operate on a center pivot housed in rubber cushion
 - Sanders: steel sand boxes; eight air-operated sanding tubes
 - Full-width cab with dual independent control stations, front/rear wipers, cab heater, ventilation fans, side windows, tempered safety glass, foot and hand throttle and brake actuators, Royalglide operator comfort system



The G6 Rail King is available in RK 330 and RK 320 models.

G5 Rail King



G5 Rail King, introduced in 2011, integrated G4 features and added these:

- Cummins QSB Tier 4i Low Emission Engine
 - Better fuel economy – utilizes ultra low sulfur diesel
 - Lower operating cost
 - Better performance
 - Complete engineered system package – air filter to exhaust
 - Electronic engine management system

- Newly designed SAE J1939 CANBUS Electrical System
 - Reliable in the harshest off-road industrial environment
 - Simplified wiring and component installation
 - High speed data communication between power train components
 - Enhanced error detection and fault confinement, improved diagnostics
 - “Plug & play” features can be conveniently added

- PLC Based Mobile Controller
 - Programmable centralized system for enhanced operator safety and comfort
 - IP 67 Protection Rating – one of the industry’s highest
 - Tested and approved for railway applications
 - Emergency Stop feature standard

- Full-color LCD Display in Cab
 - Bright – crisp, easy view programmable display
 - Multi function / Multi page
 - IP 67 Protection Rating
 - Real time view of engine, transmission and Rail King operating parameters, active and stored trouble/ diagnostic codes
 - Integrated alert buzzer
 - Function keys with tactile feedback

- Multicolor LED Rocker Switch Panels
 - Programmable to provide immediate feedback to operator
 - Changes color to acknowledge command or alert of a problem
 - Vibration/shock/moisture resistant for harsh environments
 - Easy to see and use
 - Optical interrupters – no contacts to wear



The G5 Rail King is available in RK285, RK290 and RK300 models.

G4 Rail King



G4 Rail King, introduced in 2010, new features:

- **Royalglide** — the Three-Point Platform Mounting System designed to control vibration, noise level and improve operator comfort. This no-maintenance suspension system virtually eliminates rail shock and vibration to the cab, resulting in exceptional ride quality and performance.
- **Simplified Power Train** — links a Cummins QSB engine, Funk DF 150 4-speed transmission and John Deere axles with no spin, inner planetary gear sets and wet disc brakes. Free-floating mounts allow axles to move up and down in the frame, enhancing traction. Four large rubber isolators protect from rail shock and provide a smooth ride.
- **Simplified Hydraulic System** — featuring a single pressure-compensated hydraulic pump, simple push button controls and a central manifold for ease of service.
- **The Stewart & Stevenson patented Cushion Coupler System** — couplers made of fabricated steel (not a casting) and huge shock absorbing isolators pressed into the frame. The advanced design of the weight transfer system automatically enhances tractive effort for better pulling power.

G4 Standard Features

- 360° Visibility — Includes direct line of sight to both couplers
- New Sand Box Design
- Engine Air Precleaner
- Drop Down Pneumatic Valve Tray — Easy access to pneumatic components
- Bumpers — Full width to protect the undercarriage and drive train
- Complete Lighting Package
- Operator Controls — Dual operating stations with simple, easy and safe push button controls
- Frame — Heavy-duty, welded from 2" steel plate for added strength and durability
- Rail and Road Drive — Designed for easy transition between road and rail, vastly improved turning radius
- Rail wheels — 28" diameter heat-treated cast steel



- Brakes
 - Rail axle: inboard multiple wet-disk brakes protected from contaminants and spark-free for regulatory compliance in hazardous environments
 - Road wheel: heavy-duty disk and caliper
 - Train Air: high capacity train air supply system
- Side-mount cab configuration has dual direction controls, front and rear facing.

The G4 Rail King is available in RK285, RK290 and RK300 models.

Best value in the industry

Engineering & Design

Stewart & Stevenson's engineering design teams provide the foundation for the state-of-the-art customized equipment the company manufactures. Using modern 3-D technology, prototype designs for innovative equipment are built in the computer before being put into production on lean manufacturing flow lines. Comprehensive testing ensures the delivered product is certifiably of the highest quality and fulfills all customer expectations.

New changes to the Rail King product line are fully documented on Inventor 3D CAD Modeling system. Engineering uses this technology to build the Rail King in the computer prior to releasing drawings to the manufacturing floor. The 3D CAD modeling system allows Stewart & Stevenson to detail components, view and control documents and create a full 3D parts manual for each model.

Quality Systems & Processes

Dependable, reliable and durable equipment does not just happen. It takes teamwork and dedication by true craftsmen and strict adherence to a comprehensive set of standards to build the best equipment. Stewart & Stevenson is serious about manufacturing the Rail King product to exceed our customers' expectations. Our comprehensive Quality Management System has been certified to meet the requirements of ISO 9001:2000. We utilize the 5S methodology that focuses on effective work place organization, visual communication and standardized work procedures.

Produced on Stewart & Stevenson's Houston manufacturing flow line, Rail King is engineered to provide the Best Value in the industry.



Optional Equipment

Several options are available to tailor the Rail King for every unique application. Popular options include:

- Cab Air Conditioning
- Centralized Lubrication Systems
- Remote Control
- Arctic and Corrosion Protection Packages
- Fire Extinguisher
- Extra Lighting Packages

Discuss your particular needs with your Rail King specialist for additional information.

Added value

Dedicated Rail King Sales Specialist

Each authorized dealer is required to have specially trained sales specialists dedicated to the railcar mover business. These specialists understand the various railcars and how grades and curves affect tractive effort requirements. Acting as advisors in each customer's particular railcar switching operation, they perform at no charge the specific application surveys needed to insure the proper model Rail King is recommended.

Rental

Stewart & Stevenson Rail King and its dealer network operate a large mobile railcar mover rental program. Technicians utilizing dedicated service/PM trucks assure our rental fleet is operational and available at all times.

Reconditioned Equipment

Stewart & Stevenson Rail King and its dealer network perform a comprehensive inspection on used mobile railcar movers, recondition them with replacement OEM parts and then offer the quality, dependable, reconditioned equipment for sale at substantial savings.

Financing

Stewart & Stevenson and its dealer network have established long-term relationships with financial institutions that provide financing structured to address clients' unique operational and budgetary requirements.

Service & Maintenance

Stewart & Stevenson Rail King and its dealer network can service all makes and models of railcar movers. Whether for a full fleet or just one railcar mover, our custom-tailored planned maintenance (PM) programs meet each client's specific needs.

Parts Management

Stewart & Stevenson and its Rail King dealer network provide



factory-warranted new and remanufactured replacement parts from our in-house parts department.

Training

Operator and technical training programs on Rail King functions and controls, safe operation and daily operations check points are available on-site and through Stewart & Stevenson's Training Center in Houston, Texas.

TrackGlass

TrackGlass, the non-toxic, odorless, non-flammable, and non-sparking traction enhancing media for railcar movers, is available through Stewart & Stevenson and its dealer network parts departments.



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