Maintenance of Way Revenue Service <u>Emerg</u>ency Response Tie Crane Model OTM Tracker Model Railcar Mover

Brandt R4 Power Unit





Powerful Value. Delivered.

PERFORMANCE & VERSATILITY ON THE RAIL AND ON THE ROAD

The Brandt R4 Power Unit is the most powerful and versatile railcar mover on the market and the only highway-capable switching unit in the world. There's a reason why every major railway has Brandt Power Units in their fleet.



Power

The all new R4 supplies you with the power you need to get your job done quickly and efficiently. With up to 600 hp and 50,000 lbs of tractive effort (without additional weight added to the deck) the R4 can pull heavier loads up steeper grades, at higher speeds without losing traction.

The R4's tractive effort is derived from three main areas:

- **1. Transmission** The robust off-road transmission transfers engine power smoothly into raw torque, ensuring the load can be pulled safely with precise control.
- **2. Tridem Drive Axle** provides increased weight capacity and traction. With its optimum axle ratio, the unit can generate 50,000 lbs of tractive effort, obtain 65 mph on the highway and 25 mph in reverse on rail.
- **3. Adjustable Shelf-Coupler** transfers weight from the trailing railcar boosting tractive effort by up to 50% with the touch of a button.

Mobility

Able to use both rail and road infrastructure, the Power Unit gets you to the jobsite quickly, minimizing track time and reducing the overall cost to do the work. Easily converted between road and rail in less than three minutes, the R4 is ready to go when and where needed.

- High Rail in 3 Minutes A camera monitor and simple instruction procedure next to the controls assist the operator for rapid conversion from road to rail or back.
- **Reduced Size** The R4 meets DOT dimension regulations (under 8'6" wide and 40' long). The new retractable front coupler reduces the length of the R4 by up to 12" from previous models. We also reduced the weight on the steer axle up to 1,500 lbs and in some jurisdictions, the requirement for an overweight permit may not be required.
- High-Speed Capability The R4 is capable of highway speeds up to 65 mph. On rail it boasts forward speeds of 40 mph and 25 mph in reverse.
- Sharp Turning Radius allows operators to maneuver easily in tight yards and high-rail the R4 quickly.

Versatility

Designed with many productive options, the R4 excels at a wide variety of jobs, filling needs in the Maintenance of Way field, Revenue Service and Emergency Response.

- Add On Features like the OTM Tracker or Tie Crane let you handle rail, tie and plate distribution, as well as dumping and pulling cars.
- **Remote Control** Move material or switch cars faster by operating the Power Unit from the ground or from the OTM Tracker with the optional remote control.
- Attachments The OTM Tracker and Tie Crane model can be fitted with a variety of attachments including grapples, magnets, and buckets to handle a variety of materials.
- **Custom Solutions** When a unique feature is required, Brandt's engineering and design team is here to work with you to custom design a solution to fit your needs.

Safety

When it comes to rail equipment, safety is the most important quality. With that in mind, we designed the R4 with multiple features to ensure the operator is working in a safe and secure environment.

- The Brandt High Rail System is the most robust, reliable and safest system on the market today. The use of a pivoting bolster box with swing arms and air ride shock absorbed suspension ensures maximum stability and comfort on the rails. The use of standard 28"- 70 tonne railcar axles and 6x11 bearings ensure reliability and long life.
- **Brake System** Maximum train stopping power is achieved with a 26C brake system ensuring positive control of the trailing railcars, in addition to its own independent brake that controls the rubber drive tires and steel rail wheels.
- **Optional Event Recorder** Record a snapshot of the rail control system's pressures, voltages, and switch locations for a minimum of 60 hours of operation.
- Programmable Interlock Systems Select controls allow the programming of safety paramaters, minimizing the risk of operator error.
- Visibility Aids The Power Unit employs a locomotive 3 note horn along with beacons and lights, mounted throughout for maximum visibility.

YOU SPOKE. WE LISTENED.



Our success at Brandt comes from focusing on the needs of our customers. For over 20 years, railways have relied on the Brandt Power Unit to provide the mobility and versatility they need, and we are now proud to introduce the newest and most advanced Power Unit yet, the R4.

We interviewed current Brandt Power Unit operators, service managers and mechanics, to learn how we could make the Brandt R4 Power Unit more valuable to your operations. You asked for improved reliability, better operator comfort, and easier serviceability. The R4 delivers all of that, and more.

Improved Comfort

The backbone of the R4 is a Freightliner chassis. With a roomy cab, ergonomically placed controls, and plenty of headroom and storage, the new Power Unit offers the comfort needed to perform well on the job. Freightliner has a strong reputation for reliability and customer service, with an extensive dealer network for additional support. For added convenience we gave the R4 more cabinet space than ever, allowing for ample storage of luggage, materials, tools and any other equipment you may need.

Brandt Control System

The new Brandt Control System makes operating and maintaining your R4 Power Unit simple and easy. The user-friendly screen keeps you informed with data on pressure, temperature, operation suggestion, fault codes, auxiliary equipment hours, and maintenance interval information – right at your fingertips.

Logic Programming

We introduced Logic Programming to adjust speed or to shut down systems such as cooling fans, air compressors, etc. to reduce the overall hours on auxiliary equipment and decrease fuel usage.

Improved Serviceability and Support

The R4 is easier to service and maintain than ever before. Access to grease points has been improved and the total number of points has been decreased. In several locations we utilized nitrite coated pins and lube bushings reducing overall maintenance time. Test ports have been installed in strategic locations to collect oil samples and for testing system pressures. As well, each Power Unit comes with a complete set of operator's, parts, and troubleshooting manuals to ensure the R4 is as user friendly as possible.

Keep Your Cool

The new cooling system on the R4 has a hinged and tilting access frame for improved convenience when cleaning the transmission and hydraulic systems. In addition to improved access to regular service items, the R4 also features a CAN Bus electrical system, ensuring reliable communication between the hydraulic, pneumatic and electrical components, resulting in increased uptime.

Freightliner Network

The Freightliner platform brings with it a strong domestic and international dealer network to provide support wherever your work takes you.





Improved Cooling System



Ample Storage Space



Retractable Front Coupler









Available 600hp Cummins ISX15



TIE CRANE MODEL

The Brandt Power Unit Crane Model can be used for many different applications including MOW (Maintenance of Way). The heavy duty lifting capacity of the crane (3700 lbs at 25') will enable you to tackle many material handling jobs efficiently. Extra storage capacity is available both on the deck surface for ties as well as in the cabinets for any required track tools.

Equipped with a grapple or magnet, the Tie Crane is a versatile tool able to handle many types of material. The long reach

(28 feet) and heavy lifting capacity (up to 11,000 lbs at 10 feet) with the ¼ cord continuous swing bypass type grapple enables high productivity while handling ties or plates. The 30 inch 5KW magnet/generator system is available to handle other materials. The sturdy A frame style outriggers and pedestal frame attached to the R4 Power Unit frame rails ensures a stable operation even with the heaviest loads.

OTM TRACKER MODEL

The OTM Tracker Model is the motive power for the OTM Tracker System, the most productive and safest on track material handling system on the market today. On the highway the OTM Tracker is pulled by the Power Unit on the OTM Trailer. The OTM Tracker loads itself onto the railcars at a crossing with the R4's parallel lift deck. The Power Unit then pulls the cars on rail to the loading or unloading jobsite. The system can be used for many high production MOW (Maintenance of Way) material handling jobs, including handling ties and crossing planks with the continuous swing bypass type grapple. With the 48 inch magnet and 10KW generator the OTM Tracker can handle tie plates, rail and other types of OTM material.

The OTM Tracker Aggregate Handler option comes with an excavator style boom enabling a standard bucket or thumb to be used to handle material.

REVENUE SERVICE RAILCAR MOVER

The Power Unit is an ideal railcar mover for contract industrial switching and short line railways. It also excels as primary motive power for operations with multiple locations, congestion or bottlenecks. The R4 utilizes both rail and road infrastructure to move to work locations enabling quicker response time and lower operating costs. Due to its ability to use road and rail, the Power Unit can replace two or more railcar movers in many operations, also reducing track usage. The ease of operation and proven track record of safety make the Power Unit an obvious choice for your revenue service application.

We are Brandt.

Grown from the seeds of an entrepreneurial spirit over 80 years ago, Brandt has a long history of providing powerful value to our customers through a solid commitment to our core values: Quality, Innovation, Commitment and Customer Focus. Today, Brandt is a growing, dynamic and diverse group of companies headquartered in Regina, Saskatchewan. Brandt employs more than 1800 people across Canada, the US and Europe, servicing markets in over 20 countries and six continents. While engineering and manufacturing equipment for the agricultural, rail, mining, construction, and tube and pipe industries, Brandt also operates the world's largest privately held John Deere construction and forestry dealer.

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