

# TRACK RENEWAL SYSTEM

Model TRT-909



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## Special Features

Harsco Rail's TRT-909 track renewal system provides a more efficient method to handling major track renewal programs. The TRT-909 works with concrete, pre-plated wood, or steel ties. It delivers simplicity in operation for customers and leaves behind high quality track with precise tie spacing and a smooth ballast bed.

### Features & Benefits

- Works with concrete, pre-plated wood, or steel ties
- Removes and replaces crossties
- Pulls and reclaims spikes
- Removes and collects rail anchors
- Removes the old rail and installs the new rail
- Induction Rail Heaters
- Automatically applies McKay rail fasteners (other types of fasteners can be applied)
- Vacuum System



### Spike Pullers

Spike pullers remove the field side spikes and leave the gauge side spike to hold the tie plate in a fixed position. There is one spike puller located over each rail. A magnetic spike pick-up wheel reclaims the spikes after they have been pulled.

### Old Tie Equipment

The old crossties are lifted from the roadbed and placed on the conveyor by the Old Tie Pick-Up Mechanism. The old ties are then transported by conveyors to a staging area where a gantry collects them for transport to storage areas on the flatcars.

### Roadbed Preparation

Immediately behind the Old Tie Pick-Up Mechanism, a ballast spreader/plow destroys the old tie molds and undercuts the ballast section to prepare the roadbed for the new ties.

### New Tie Laying

The new ties are then positioned on the prepared roadbed by the New Tie Laying Mechanism. A tie spacer bar squares up the crossties after they are laid on the track bed. A distance counter wheel controls the spacing of the ties and is adjustable to meet various tie spacing requirements.

### Rail Laying/Threading

Using a series of rollers, the old rail is removed and threaded out along side of the track, and the new rail is picked up from the shoulder and laid in gauged position. Thus, the machine simultaneously removes the old rail while laying the new rail.

### Gantries

Each self-propelled gantry has one operator. The rear gantries transport ties to and from the front gantry which in turn moves the ties to and from the old and new tie conveyors.

### Flat Cars

Standard flat cars are equipped with auxiliary rails which form a continuous running rail for the gantries. The flat cars are stocked with new ties in four or five layers. As new ties are used, old ties are stored on the flat cars.

### Induction Rail Heater

The Induction Rail Heater provides accurate and efficient rail distressing capability. The heaters raise the rail temperature to the required neutral temperature.



### Contract Services

*The first track renewal system was built in 1978 and has since installed approximately 15,000,000 ties (equal to 5,700 miles or 8,500 km). Harsco Rail's Contract Services provide customers with a high quality service by crews that know the machine's maintenance and operation best.*

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## Specifications

Length	Without Locomotive: 90.2 m (296 ft.)
Width	On Bogie: 3.24 m (10 ft., 8 in.)
Height	4.72 m (15 ft., 6 in.)
Drive Train	525 hp diesel driving variable-flow hydraulic pumps for hydrostatic advance of the machine during work. Three (3) variable-flow hydraulic pumps supplying the Old Tie Pick-up System and the Rail Guide System.
Traction during Operation	6 powered bogies
Min Curve Radius	(Working) 144 m (12 degrees) (478 ft.) (Traveling) 97.5 m (18 degrees) (320 ft.)
Ballast Regulation	Over a width of about 2.79 m (110 ft.)
Plow Height Adjustment	152.4 mm (6 ft.)
Plow Traverse Inclination	(Change in cross level) 38 mm (1 ft., 6 in.)
Max Length of Ties Handled	2.81 m (9 ft., 3 in.)
Traveling Speed	Towed: Up to 80 km/h (50 mph)
Operator's Stations	Five (5)
Fuel Capacity	2,082 liters (550 gal.)
Hydraulic Oil Capacity	1,741 liters (460 gal.)
Distance between Axles/Bogies	13.80 m (45 ft., 3 in.) / 17.53 m (57 ft., 6 in.)
Brakes	Compressed air shoe brakes, hand brake with wheel control
Guide Rail Correction	±75mm (±2.95 ft.)

### Gantries

Length	8.58 m (28 ft., 2 in.)
Width	3.10 m (10 ft., 2 in.)
Height	3.10 m (10 ft., 2 in.)
Gauge of Auxiliary Rail	2.92 m (115 5/16 in.)
Capacity	18-22 sleepers
Fuel Capacity	379 liters (100 gal.)

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