HIGHLY MOBILE SOLUTIONS
FOR RAIL CONSTRUCTION
AND MAINTENANCE WORK
Gradall railway maintenance machines can respond quickly to handle on-rail emergencies or routine repairs. Available with a highway speed undercarriage, capable of speeds up to 60 mph, machines can get to crossing locations quickly, moving easily over rails to work sites and then back to the equipment yard at the end of the day.

Our rubber tire on-off pavement carriers travel at about 18-20 mph (depending on model), and are exceptionally stable, able to handle most tasks and work in any direction without the need for optional outriggers. Rubber tires avoid damage to pavement when working at crossings off-rail.

Gradall railway maintenance machines represent a unique combination of mobility and versatility, able to get to the job – either on rails or pavement – and then efficiently handle a wide range of maintenance and construction jobs. Armed with Gradall’s world-famous full-tilting, telescoping boom, these machines handle rail replacement and repair, trackside maintenance jobs and right-of-way and crossing work.

Versatility and mobility, on both rails and roads, pays off for municipal transit systems and railways.
Optional High Speed Travel for XL 4130V and XL 5130V Models

- Up to 25 mph on rail
- Both directions

Standard Rail Gear Features

- Carbon steel frame assemblies pinned on for easy installation and removal
- 16-inch guide wheels machined from hardened steel castings, fitted to high-strength alloy steel axles with heavy duty tapered roller bearings
- Wheel brakes work in conjunction with the excavator braking system for maximum braking effort
- Hi-rail gear controlled from cab

Optional Hi-Rail equipment includes:

- Maintenance free, switchable stub axle shunts
- Different width axles for working on non-standard rail gauge
- Rail sweeps front and rear
- Front and rear axles have 3-inch of slotted suspension, eliminating de-railing over crossings, switch frogs and guide timbers
- Lift cylinders include counter-balance valves to hold rail gear in the stowed or deployed position
- Tow bar plates front and rear
- Steering lock

- Custom profile rail wheels
- Stub axle installation
Gradall’s full-tilting, telescoping, triangular boom is a legend in railway maintenance and repair, precisely positioning rails and ties, removing vegetation, demolishing concrete, spreading ballast or repairing crossings with unmatched efficiency.

Triangular in shape for extra strength, the entire boom tilts 220° to precisely position material or remove brush and trees quickly and easily. Because the entire boom tilts, there’s no loss of power typical with boom-end tilt devices.

**THE GRADALL BOOM**

How one machine can handle more jobs

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**LOW PROFILE FOR WORK IN TUNNELS**

Maintenance and repair work in tunnels, on rail trestle bridges, under catenary systems or in other low-overhead locations is impossible with most machines. But Gradall’s telescoping boom movement creates an exceptionally low working profile, enabling the machine to handle more work with greater speed and efficiency.
**GRADALL BOOM MOVEMENT ADVANTAGES**

- Full boom tilts 220°, with no loss of bucket force
- Efficient bucket angles for grading, rail tie placement and spreading material
- Two overlapping triangular sections telescope rather than articulate into position
- Low profile enables full productivity in tunnels and under catenary systems
- During the complete dig cycle, the entire boom is visible from operator cab
Details Make the Difference for Extra Railway Maintenance Productivity

Quick attach bolt system handles full range of attachments including buckets, mowers, and grapples

Optional Kinshofer Nox-Tiltrotator and rail maintenance attachments available

Auxiliary hydraulics for attachments and tools

Low profile for work in tunnels, under catenary systems, and on trestle bridges

Triangular telescoping boom tilts 220° (optional 360°)

FRA compliant lighting

Choose guide or hydrostatic rail gear for efficient mobility on tracks; raise them for travel on pavement or dirt

Optional Kinshofer Nox-Tiltrotator and rail maintenance attachments available

Oscillation lock cylinders and strong box plate frame construction provide stable work platform that does not require outriggers

Applications

- Rail and tie repair and replacement
- Crossing construction and repair
- Mass excavation, demolition
- Sand and snow removal
- Emergency response
- Bridge and tunnel repair
- New rail line construction
- Asphalt and concrete repair
- Ballast spreading
- Drainage ditch cleaning
- Landslide cleanup
- Tree and brush cutting
- Material handling
- Ballast tamping
- Land clearing
- Ditch cleaning
- Erosion control
- Mowing
FOR EXTRA RAILWAY MAINTENANCE PRODUCTIVITY

Volvo Penta meets highest global standards including stage IV (EU) and Tier-4 Final emissions requirements

Short tail swing combines with low working profile to make work in tunnels and tight spaces possible

All models have LED travel lights, forward and backward.

Large internal tooth swing bearing assures smooth, stable upperstructure movement

Three tire options: super single, dual industrial radial, super lug bias ply

Carrier designs enable work with third rail systems

Choose Gradall, Deere or SAE joystick pattern using an in-cab switch

Excellent visibility of the boom through the entire dig cycle

Standard air conditioning

With foot pedals, reposition carrier at speeds up to 20 mph

High visibility LED lights

Removable, stowable front window brings fresh air into the cab

Emergency backup hydraulic system

Automatic digging brakes for tires and rail wheels provides time-saving productivity

Change of direction alarm is standard

All new, modern high-pressure hydraulic system is electronically controlled with pressure-compensated, load-sensing valves, providing additional fuel-saving advantages

Three tire options:
- super single, dual industrial radial
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OPERA TOR CAB

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**TYPICAL RAIL MAINTENANCE MARKETS**
- Major railroads
- City transit systems
- Short line railways
- Airport transit systems
- Industrial yard management
- Rail car leasing companies
- Rail service contractors
- Steel and aluminum mills
- Mines and quarries

**ATTACHMENTS TO EXPAND YOUR VERSATILITY**
- Excavating buckets
- Dredging bucket
- Grading blade
- Hydraulic hammer
- Sleeper changer
- Track undercutters
- Ballast broom
- Grapple
- Tree limb shear
- Ditching buckets
- Sleeper layer
- Ballast blade
- Ballast tamper
- Ballast bucket
- Hydraulic coupler

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