Highly mobile solutions for rail construction and maintenance work
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.

**MOBILE ON BOTH RAILS AND PAVEMENT**

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 80 mph, machines can get to one or more 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.

**VERSATILITY AND MOBILITY, ON BOTH RAILS AND ROADS, PAYS OFF FOR MUNICIPAL TRANSIT SYSTEMS AND RAILWAYS**

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**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 excavators 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

**SELECT FROM MULTIPLE RAIL GEAR SYSTEMS ON R/T MACHINES**
- Our standard guide rail system uses the carrier’s wheels for mobility and extra stability during digging, rail and tie placement and material movement. Travel speed is 18-20 mph with this system.
- Our optional hydrostatic drive rail gear system, with wheels raised, speeds the machine to job sites at about 14 mph. When working, wheels can be lowered for enhanced stability.
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 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

Volvo engine 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
- Quick attach bolt system handles full range of attachments including buckets, mowers and grapples
- Optional Kinshofer Nex-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
- Removable, stowable front window brings fresh air into the cab
- High visibility LED lights
- Change of direction alarm is standard
- Low profile for work in tunnels, under catenary systems and on trestle bridges
- Oscillation lock cylinders and strong box plate frame construction provide stable work platform that does not require outriggers
- Carrier designs enable work with third rail systems
- Large internal tooth swing bearing assures smooth, stable upperstructure movement
- 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

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
- 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
- Choose guide or hydrostatic rail gear for efficient mobility on tracks; raise them for travel on pavement or dirt
- High visibility LED lights
- All models have LED travel lights, forward and backward.
- Volvo engine 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
- Emergency backup hydraulic system
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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

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

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It is Gradall policy to continually improve its products. Therefore, designs, materials and specifications are subject to change without notice and without incurring any liability on units sold. Units pictured are equipped without optional equipment. See applicable specifications and price lists for optional equipment.