# LORAM

# **CONTROLLED EXCAVATION WITH UNMATCHED VACUUM POWER.**

## LTV SERIES specialty excavator

**Loram's LTV** is a powerful, rail-mounted specialty excavating machine that removes up to 38 cubic meters of material per hour using mechanical agitation and airflow. The most productive, vacuum-based railway maintenance excavation machine on the market, the LTV combines a diesel engine-powered manipulator arm and powerful, fixed displacement vacuum pumps, making it capable of excavating a host of material challenges including compacted or ice-crusted ballast, mud, water, sand and soil.

The LTV is rail mounted and designed to travel at track speeds while towing up to two fully-loaded ballast cars. It offers both a cab forward and in cab operation for a safe work environment and offers precision control, unmatched power and a compact footprint, applying an industry-leading 2,268 kg of force to break up tough material in a way that a rotating nozzle alone cannot. With unmatched flexibility, the nozzle can tilt 45° from vertical in any direction to reach ballast under hard to reach track structures, such as third rail. The nozzle can also work at distances up to 4.6 meters from track centreline and 1.7 meters below top of rail, maximising the work area.

Compact power and control make the versatile LTV ideal for excavating specialty trackwork, trackside equipment and yard applications, with the ability to traverse and operate within restricted clearances, including tunnels, passenger platforms and bridges.

#### FEATURES AT A GLANCE

- Twin 223 kW (300 hp) vacuum pumps deliver 2,268 kg (5,000 lb) of force to excavate the most challenging materials
- 8 m<sup>3</sup> (10 yd<sup>3</sup>) of material storage capacity
- Removes up to 38 m<sup>3</sup> per hour (50 yd<sup>3</sup>/hr) combining powerful mechanical agitation and airflow
- Powered manipulator arm with nozzle can tilt 45° from vertical and reach 4.6 m (15 ft) from centerline
- Compact, targeted and versatile for dozens of discrete excavation applications

For more information on this machine, or on developing a tailored maintenance program for your railroad, contact Loram at +61 1800 059 955 or visit LORAM.COM.AU



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### SPECIFICATIONS LORAM LTV SPECIALTY EXCAVATOR

	LTV SPECIALTY EXCAVATOR
Length <sup>1</sup>	19.8 m (65 ft)
Width <sup>1</sup>	2.7 m (8.9 ft)
Height <sup>1</sup>	3.8 m (12.5 ft)
Weight <sup>1</sup>	80,000 kg (176,000 lb)
Production Rate <sup>2</sup>	<ul> <li>Loose, granular material— 38 m<sup>3</sup>/hr (50 yd<sup>3</sup>/hr)</li> <li>Compacted, moderately fouled—22 m<sup>3</sup>/hr (28 yd<sup>3</sup>/hr)</li> <li>Heavily cemented or clay filled—10 m<sup>3</sup>/hr (13 yd<sup>3</sup>/hr)</li> </ul>
Min. Excavating Depth	1.7 m (5.5 ft) from top of rail
Excavating Width	5.0 m (16.5 ft) from track centre
Material Storage Capacity	8 m <sup>3</sup> (10 yd <sup>3</sup> )
Air Flow, Open Flow	334 m <sup>3</sup> (11,800 ft <sup>3</sup> ) per minute
Vacuum	0.95 bar (14 psi)
Material Discharge	Up to 6 m (20 ft) from either side of track centre or into a material handling car
Travel Speed	– Self-powered: Up to 88 km/h (55 mph) – In train consist: Up to 88 km/h (55 mph)
Gradeability	Up to 4%
Minimum Work Radius	80 m (22° curve)
Minimum Travel Radius	80 m (22° curve)







<sup>1</sup> Excluding Auxiliary Cars

<sup>2</sup> Typical; subject to application and material conditions

Specifications subject to change

#### LTV Additional Features & Benefits:

- Built to work in tough Class I railroad conditions and on commuter or transit railroad environments
- Advanced, self-cleaning dust filtration system
- Cab forward and in cab operation
- Designed to travel at track speeds while towing two fully-loaded material handling cars

#### LTV Excavation Applications Include:

- Cribbing and undercutting mainline mud spots
- Removing fouled ballast and debris from tunnels
- Cleaning and installing drain tiles and culverts
- Cross trenching for cables and pipes
- Removing ballast from bridge decks and grade crossings without removing sleepers or rail
- Undercutting switches and diamonds
- Excavating contaminated materials from yards and stations
- Yard cleaning and reconstruction
- Locating and excavating near cables without damage



With a 60-year plus legacy of serving the railroad industry with the most advanced technologies, the most reliable and productive maintenance of way equipment and world-class contract service work, Loram brings its partnership approach to every customer relationship. This includes an extensive training and technical support program with every machine. Whether for a heavy haul, high-speed, underground or metro-rail system, Loram has the equipment and services you need.

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