

MINE LINING VEHICLE

FAST AND SAFE PREFABRICATED LINING INSTALLATION



Herrenknecht Mine Lining Vehicle

- › Mechanized lining innovation
- › Versatile range of applications and compatible with various types of prefabricated lining elements
- › Improved working conditions and low risk exposure through remote operation and various safety features
- › Compact, reliable, and efficient electro-hydraulic drive without pollutant emissions
- › Remote controlled unloading operations and installation of lining segments

**PIONEERING
UNDERGROUND
TECHNOLOGIES**



Herrenknecht Mine Lining Vehicle

Technical specifications

The **Mine Lining Vehicle (MLV)** developed by Herrenknecht is designed for the fast and safe construction of lining arches in underground galleries. The MLV enables the mechanized installation of prefabricated elements and improves work safety conditions. Its compact dimensions enhance the maneuverability in confined spaces of underground mines. The crawler chassis and the robust drive are specially designed for underground use and enable emission-free work. The modular design of the MLV allows it to be easily adapted and configured to fit to particular needs about lining installation operation and specific lining types.



Operation realized via remote control.



Fully mechanised installation of the lining elements.



Diesel-hydraulically driven crawler vehicle for autonomous transfer.

MLV3500

- › Max. lifting capacity at max range: 3,500 kg (7,716 lb)

Dimensions

- › Vehicle (l/w/h): 3.9m/2.5m/2.7m* (12.8ft/8.2ft/8.86ft*)
- * height in transport mode

Weight

- › Vehicle: 6,000 kg (13,227.74 lb)
- › Max. downward/upward gradient: 20%
- › Max. speed at 20% gradient: 1.5 km/h (0.93 mph)
- › Max. speed on flat ground: 3 km/h (1.86 mph)
- › Working lights: 4 units

CRAWLER

- › Number of carriages: 2 units
- › Track shoe width: 400 mm (1.31 ft)
- › Drive type: diesel-hydraulic

BRAKE SYSTEM

- › Brake type: hydraulic used for parking and dynamic brake

JACK CYLINDER

- › Number of jacks: 4 units
- › Stroke: 250 mm (0.82 ft)

LINING HANDLING DEVICE

- › Max. lining weight: 3,500 kg (7,716 lb)
- › Boom stroke: 1.0m (3.28ft)
- › Max. operation reach: 3.5m (11.48ft)
- › Max. operation height: 4.5m (14.76ft)
- › Connection interface to lining: gripper with screw connection*
- * Other connection types on request

TEMPORARY LINING SUPPORT DEVICE

- › Number of support devices: 2 units
- › Stroke: 2,400 mm (7.87ft)

INSTALLATION PLATFORM

- › Working area designed for: 2 people
- › Working lights (magnetic): 2 units
- › Power supply for hand tools: electric/pneumatic

CONTROL SYSTEM

- › Control type: smart radio remote control

All function are controlled via remote control.

DRILL ANCHOR UNIT (OPTIONAL)

- › Number of drill anchor: 1 unit
- › Drive type: hydraulic
- › Operation: radio remote control
- › Max. rod length: 2.5m (8.2ft)
- › Angular working area: 240° (+120°/-120° from vertical axis)

POWER PACK

For lining operation

- › Drive type: electro-hydraulic
- › Motor power: 55 kW
- › Motor voltage: 400V–1,000V
- › Motor frequency: 50Hz/60Hz
- › Power cable length on reel: 60 m (196.85 ft)

For emission free lining operation, electrical connection to the mine network is required.

For transfer*

- › Drive type: diesel-hydraulic
- › Motor power: 55kW
- › Diesel engine: Tier4 Final
- * Diesel-hydraulic drive for lining operation possible by unreliable electrical power supply.

All work functions are operated via the hydraulic unit.

Compact and optimized integration of all components ensuring easy access for service. Increased noise protection thanks to the fully enclosed design of the unit.

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