Road Maintenance Vehicle - 2.5M3RMVC800



Introduction

The Road Maintenance Vehicle is designed for fast, efficient, and durable repair of bituminous roads, including preventive and emergency maintenance. It performs pothole repair, sealing of depressions, alligator cracks, crazing, patching, shoulder repair, and surface dressing enhancements.

The system ensures long-lasting repairs through high-velocity air cleaning, emulsion sealing, aggregate coating, and on-site compaction.

Repair Process



Step 1: Surface Preparation

- High-velocity air removes dust, debris, moisture, and loose materials.
- Ensures a clean, stable base for repair.





Step 2: Protection

- Cold bitumen emulsion fills cracks and surface voids.
- Prevents water ingress and strengthens the repair foundation.





Step 3: Material Application & Finishing

- Aggregate mix is sprayed at high velocity.
- Each granule coated uniformly with bitumen emulsion.
- Dry aggregate sprinkled as required.
- Plate compactor ensures proper compaction and strength.

Main Vehicle Specifications

Item	Specification
Engine Brand	Ashok Leyland
Engine Code	H-Series
Origin	India
Туре	Multi-cylinder, 4-stroke, water-cooled, direct injection, Turbo diesel engine
Main Engine Power	89.5 kW (120 hp) @ 2400 rpm
Electrical System	12 V with alternator
Steering	Power assisted, adjustable, RHS drive
Suspension	Semi-elliptical multi-leaf springs (Shackle type)
(Front/Rear)	
Tyres	8.25 × 20, 16 PR
Number of Wheels:	6
Braking System	Hydraulic oil brake
(Front & Rear)	
Parking Brake	Spring actuated at rear only
Fuel Tank Capacity	212 liters

Dimensions

Parameter	Value
Overall Length	7563 mm
Overall Width	2220 mm
Overall Height	2700 mm
Wheelbase	4200 mm
Ground Clearance	242 mm

Weight

Component	Value
Pay Load	7500 kg
Gross Vehicle Weight	Min 12,900 kg

MAINTENANCE EQUIPMENT CAPACITIES

Item	Specification
Emulsion Tank	800 liters
Aggregate Hopper	2.5 m ³
Hydraulic Pump	Gear pump
Cleaning Solution Vessel	20 liters

HOSE SYSTEM

Hose Type	Specification
Aggregate Hose	Ø 89 mm, seamless CR wear-resistant
Emulsion Hose	Ø 12 mm
Cleaning Hose	Ø 12 mm

SPRAY NOZZLES

Туре	Specification	
Emulsion Nozzle	Ø 16×2 mm	
Aggregate Nozzle	Ø 89 mm perforated pipe	

EJECTOR ARM & CONTROLS

- Working Radius: 4 mm
- Control Handle Functions:
 - Emulsion flow
 - Aggregate feed
 - o Engine speed
 - Vibrator
 - o Horn

BLOWER SYSTEM

- Twin / Tri-Lobe positive displacement
- Capable of delivering aggregate + emulsion to repair area.
- Maximum Operating Backpressure: 15 PSI
- Equipped with:
 - Two-stage filtration
 - Blockage indicator
 - Bypass valve for unloading
 - Overpressure & over-temperature switches
- Speed controlled by operator.
- Blower brand: TMVT & Model: 3MTL-100

COMPRESSOR SYSTEM

- Reciprocating compressor driven by auxiliary engine.
- Compressor brand: ELGI & Model: TS 07
- Used for:
 - Pressurizing water, emulsion, & cleaning vessels
 - Operating pneumatic aggregate gate
- Compressor Capacity: 16 CFM @ 140 PSI
- Two-stage cleaning system:
 - 1. High-pressure air
 - 2. Cleaning solution flush
- Water flush feature included for cleaning blockages.

PLATE COMPACTOR

Item	Specification
Engine	4-cycle gasoline, 3.6 kW
Frequency	90 Hz
Centrifugal Force	8.5 kN
Plate Size	Length = 500 mm, Width = 340 mm
Operating Weight	50 kg

ACCESSORIES

- Fuel level gauge
- Engine oil level gauge
- Engine temperature indicator
- Hydraulic oil level gauge
- Standard tool kit with toolbox
- High-capacity headlights & backlights for night operations
- Front & rear indicator lights with alarm system
- Heavy-duty horn



***Note: The machine can be customized as per client's requirement.



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