Technical specification

Remixer 4500

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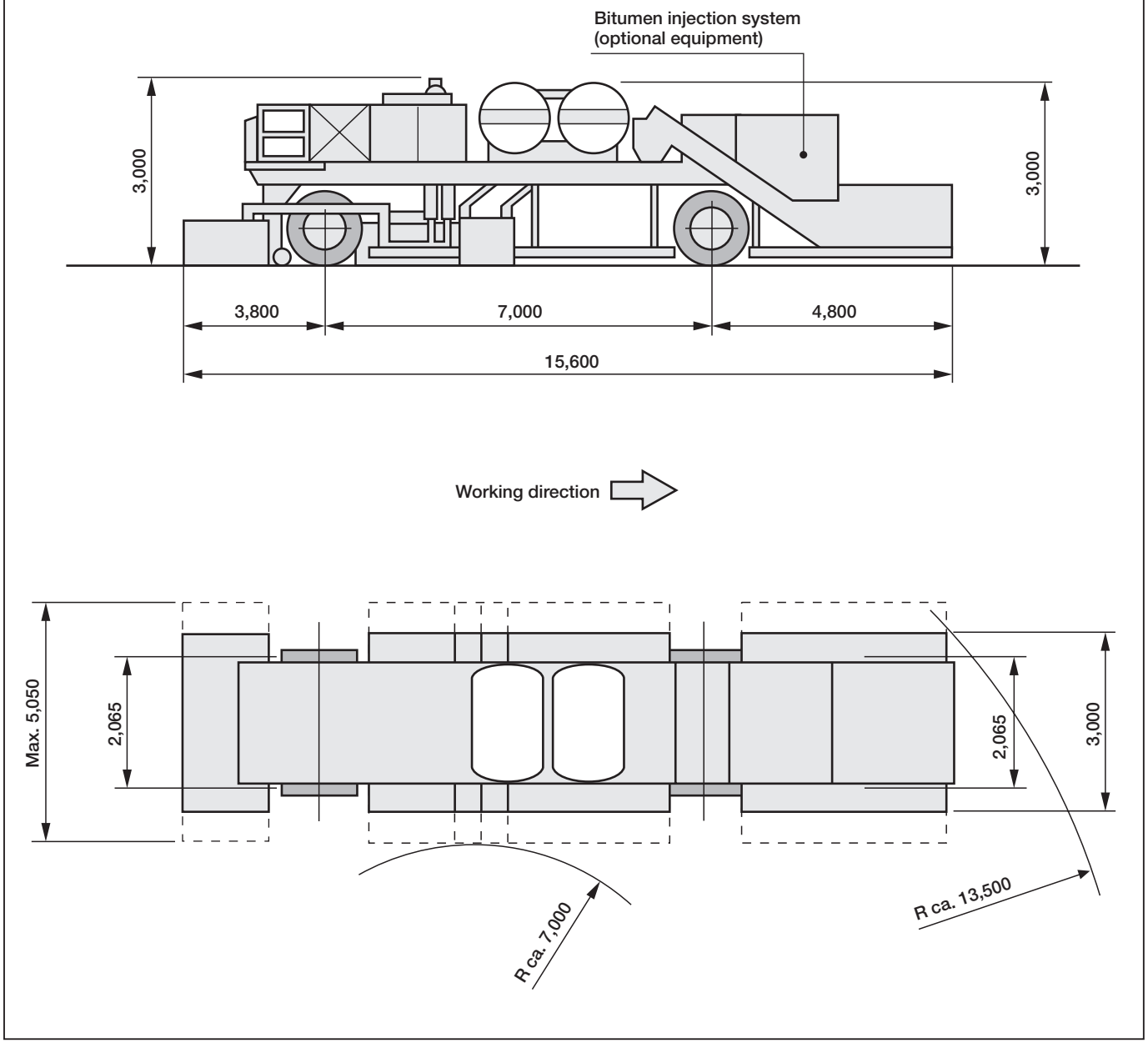
Working width	3,000–4,500 mm	
Working depth*1	0–60 mm	
Scarifying unit		
Tool spacing	22 mm	
Number of scarifying tools	202	
Drum diameter with tools	370 mm	
Tamping and vibrating screed		
Tamping drive	hydraulic	
Vibratory drive	hydraulic	
Working width	3,000–5,000 mm	
Camber	2.5 %	
Heating system		
Heating capacity	1,445 kW	
Heating elements	Infrared radiators	
Engine		
Manufacturer	Deutz	
Type	TCD 2015 V06 4V	
Cooling	Water	
Number of cylinders	6	
Output	240 kW/322 HP/326 PS	
Engine speed	2,100 min^{-1}	
Displacement	11,906 cm^3	
Fuel consumption, full load	55 l/h	
Fuel consumption, $^2/_3$ load	37 l/h	
Speeds/Gradeability		
Operating gear	0–5 m/min	
Travel gear	0–4 km/h	
Theoretical gradeability	90%	
Ground clearance	350 mm	
Weights*2		
Front axle load, full tanks	23,200 daN (kg)	
Rear axle load, full tanks	26,700 daN (kg)	
Own weight	45,700 daN (kg)	
Operating weight, CE*3	47,900 daN (kg)	
Operating weight, full tanks	49,900 daN (kg)	
Tyres		
Type of tyres	Solid rubber	
Tyre size, front	Ø 1,180 mm	
Tyre size, rear	Ø 1,180 mm	
Filling capacities		
Fuel tank	1,000 l	
Hydraulic fluid tank	1,000 l	
Bitumen tank	1,600 l	
Gas tank	5,300 l	
Receiving hopper	3 m^3/6 t	
Electrical system	24 V	
Shipping dimensions		
Dimensions of machine (L x W x H)	15,600 x 3,000 x 3,000 mm	

*1 = The maximum milling depth may deviate from the value indicated, due to tolerances and wear.
*2 = All weights refer to basic machine without any additional equipment.
*3 = Weight of machine with half-full water tank, half-full fuel tank, driver (75 kg) and tools.

Dimensions in mm



Basic design

The Remixer 4500 is a self-propelled compact machine for recycling and relaying bituminous road pavements (wearing courses and binder courses).

The pavement material is rehabilitated either by shaping the existing pavement and overlaying it with a new layer (Repaving), or by mixing in admix material and relaying the mix (Remixing).

Chassis

Robust, rigid welded construction with mounts for the individual units and attachments. All components are easily accessible for maintenance and servicing.

Power unit

The machine is driven by a powerful diesel engine. All units are driven hydrostatically.

Setting functions are also effected hydraulically, and are actuated electrically. An integrated cooling system and a high-performance fan ensure trouble-free operation even at high ambient temperatures.
Noise levels are reduced by the standard soundproofing which protects both the operating personnel and the environment against any nuisance due to noise.
The engine complies with the stringent requirements stipulated by the US Environmental Protection Agency (EPA, Tier III) and the EU (Stage III a).

Suspension
The front axle is designed as a full floating axle. The rear axle is rigidly attached to the chassis.

Steering
The machine is equipped with a finger-light, hydraulic all-wheel steering system.
Both axles can be steered independently of each other.

Travel drive
The Remixer 4500 is equipped with two hydrostatically driven axles. The travel speed can be infinitely varied from zero to maximum speed in both operating gear and travel gear. Switching from travel gear to operating gear is effected hydraulically.

Brake system
Braking is achieved by drag from the self-locking hydrostatic transmission. The machine is additionally equipped with an automatic parking brake.

Heating the surface course
The existing pavement is softened by infrared radiators.
The subbase is also heated prior to placing the mixture (hot-in-hot application). The energy source used is propane gas, which is vaporized and burnt in gaseous form.
Hydraulically driven fans are additionally mounted on the large heating elements.
The additional air supply enables a more efficient combustion of the gas, thus improving the heating performance. The development of smoke or fumes is reduced at the same time.

Gas tanks: Twin-tank system for liquid gas with filling level indicator.

Vaporizer: Gas-operated vaporizer with thermostatic control.

Heating elements: Infrared radiators, partially equipped with fans, can be folded down individually in accordance with the working width.

Heating capacity: Control valves for setting the heating power.

The central heating panel can be adjusted in height by means of a parallelogram linkage.

Feeding the admixture
Trucks deliver the admixture specified by the laboratory to the Remixer in batches. The admixture is then continuously mixed with the existing pavement material in the appropriate quantities.

Receiving hopper: Capacity approx. 3 m^3 with hydraulically tilting side walls.
Pushing rollers for pushing the truck during the unloading operation.

Inclined conveyor: Robust scraper conveyor with highly wear-resistant drag slats and roller chains, hydrostatically driven. The conveyor tunnel is heated to prevent cooling of the mix.

Proportioning hopper: Supply container for admixture with metering gate.
Metering is continuously adjustable.

Chassis conveyor: Robust scraper conveyor with highly wear-resistant drag slats and roller chains, hydrostatically driven and continuously adjustable.
The admixture is either fed into the mixer (via a hydraulically opening flap) or delivered in front of the screed.

Automatic flow rate control: An automatic control system continuously monitors the pre-selected quantity to be

added (per m^2) by actuating the chassis conveyor in accordance with the working width, working depth and forward advance speed of the machine.

Scarifying the pavement layer
The softened pavement is scarified by the rotating shafts, which are equipped with cutting tools, and is then augered into the machine by the associated scraper blades.
The working width can be continuously adjusted hydraulically.

Scarifying unit: The scarifying unit consists of two scarifying shafts and scraper blades, augering the material inwards, and two shafts with scraper blade augering the material to the mixer.

Suspension: The scarifying unit is guided by a dual parallel linkage and is positioned via two hydraulic cylinders in accordance with the desired scarifying depth.

Scarifying depth: Height adjustment of the scarifying unit is effected via an automatic levelling system using sensors to scan a reference plane.
The reference plane is scanned either by means of sliding shoes or via contact sensors.

Mixing in the admixture
A compulsory pugmill mixer thoroughly mixes the existing pavement material with the admixture, thus producing a homogeneous mass.

Mixing unit: Horizontally arranged twin-shaft compulsory pugmill mixer with high-strength lining, hydrostatically driven. The mixer is heated.

Placing the recycled mixture
The recycled pavement material is discharged from the mixer in a windrow and spread by a height-adjustable spreading auger prior to being placed true to grade and slope and pre-compacted by the paving screed.

Spreading auger: The centrally divided spreading auger is driven hydrostatically and has continuous hydraulic height adjustment.
The auger helixes are equipped with highly wear-resistant, replaceable segments.
The auger speed can be adjusted continuously and independently left and right.
The spreading auger is equipped with an automatic function which ensures that the mixture is spread uniformly in front of the paving screed.

Variable screed: Hydraulically adjustable to working widths from 3 m to 5 m. A hydraulically operated tamping and vibrating unit ensures high pre-compaction. Camber adjustment with electric heating.

Operator's platform and control elements
The walk-through operator's platform is located at the rear of the machine. Driver's seat and swivelling control panel can be switched from left to right and vice versa.
The monitoring and control elements are located within easy reach and within the operator's field of vision.
The control panel for regulating the metering functions is located above the paving screed. It can be swivelled and telescoped to fully meet each operator's personal needs.
Individual control panels for the scarifying unit, receiving hopper and paving screed are located on both sides of the machine for use by ground staff. Pressure gauges are installed for monitoring the hydraulic systems.
The control elements are equipped with lockable covers to protect the machine against vandalism.

Electrical system
24 V electrical system with starter, 3-phase alternator and 24 V battery, hydraulically driven AC generator 400/230 V and comprehensive working lights including flashing beacon.

Safety during transport
The machine can be securely lashed onto a low-bed trailer or loaded by crane with the aid of sturdy lashing lugs.

Optional equipment for the addition of binding agents
This optional feature expands the range of recycling applications by adding bitumen or any other liquid binding agents to increase the content and quality of the binding agent.

Binder tank: Capacity approx. 1,600 litres. The binder tank can be fed with liquid bitumen, bitumen blocks or any other liquid binding agents.
It is equipped with a thermostatically controlled heating system.

Binder pump: The quantity to be added can be adjusted continuously via the pump speed.

Metering control: An automatic microprocessor control system continuously monitors the pre-selected quantity to be added (per m^2) in accordance with the forward advance speed of the machine.

Injection system: Injection system with electrically heated feed lines.
The binding agent is injected into the variable scarifying units and is homogeneously mixed into the existing material in the pugmill mixer.

Optional automatic levelling system for paving screed
The automatic levelling system for the paving screed consists of two sensors attached to swivelling arms, including the associated controller units.
The reference planes are scanned either by means of sliding shoes or via stringlines.

Optional sweeping equipment
Hydrostatically driven sweeping equipment for cleaning the joint to the pavement in front of the paving screed.

Optional levelling screed
This screed, which is equipped with electrically heated screed plates, hydraulic vibration and camber adjustment, can be continuously adjusted hydraulically and paves the surface course treated with binding agent prior to overlaying with a new, thin surface layer. A spreading auger with automatic function arranged in front of the levelling screed ensures a uniform distribution of the recycled material.

Equipment	Remixer 4500
Automatic levelling system for scarifying unit	○
Working light	○
Warning light	○
Comprehensive tool kit	○
Loading and lashing lugs	○
Special painting	●
Bitumen injection system	●
Automatic levelling system for paving screed	●
Sweeping equipment	●
Levelling screed	●

○ Standard ● Option

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