WIRTGEN GROUP

Wirtgen

Technical specification

Stabilizer WR 2000 XL

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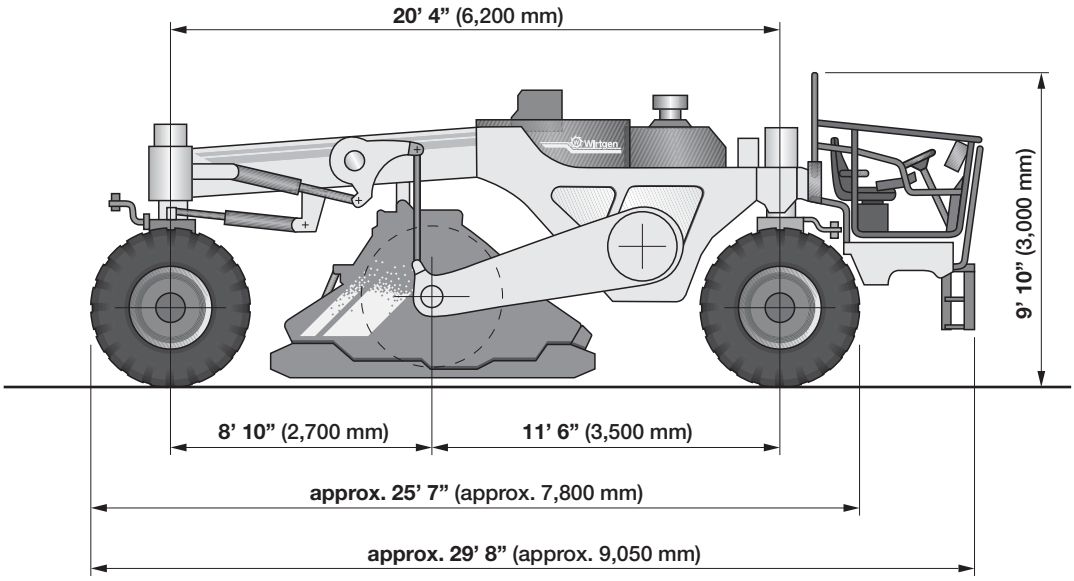
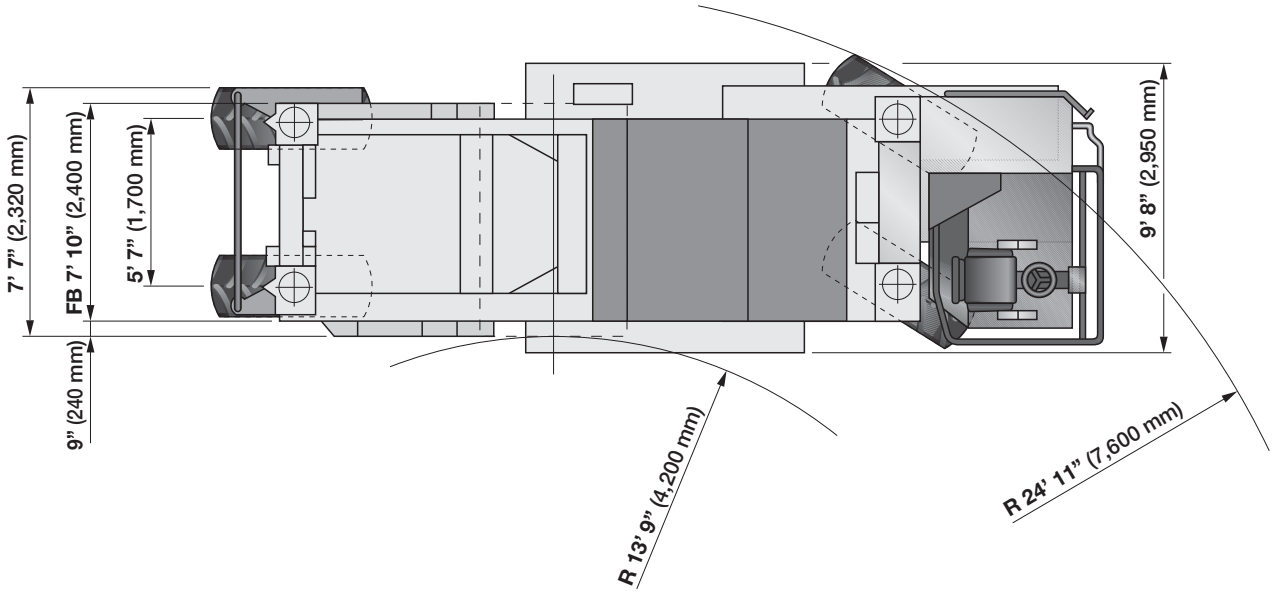
	Stabilizer WR 2000 XL
Working width max.	**7’ 10”** (2,400 mm)
Working depth *1	**0 – 20”** (0 – 500 mm)
Milling and mixing rotor	
Tool spacing	**13/16”** (20 mm)
Number of tools	**162**
Drum diameter with tools	**4’ 10”** (1,480 mm)
Engine	
Manufacturer	**Mercedes-Benz**
Type	**OM 460 LA**
Cooling	**Water**
Number of cylinders	**6, straight**
Rated power	**315 kW/422 HP/428 PS**
Engine speed	**2,000 min-1**
Displacement	**730.8 in³** (12,800 cm³)
Fuel consumption, full load	**19.8 gal/h** (75 l/h)
Fuel consumption, 2/3 load	**13.2 gal/h** (50 l/h)
Driving characteristics	
1st advance speed	**0 – 66 ft/min** (0 – 20 m/min)
2nd advance speed	**0 – 131 ft/min** (0 – 40 m/min)
3rd advance speed	**0 – 295 ft/min** (0 – 90 m/min)
4th advance speed	**0 – 656 ft/min** (0 – 200 m/min)
Theoretical gradeability max.	**57%**
Cross slope max.	**8°**
Ground clearance	**approx. 16”** (approx. 400 mm)
Weights	
Front axle load, full tanks, max.	**35,242 lbs** (16,000 daN (kg))
Rear axle load, full tanks, max.	**24,361 lbs** (11,050 daN (kg))
Own weight *2	**53,131 lbs** (24,100 daN (kg))
Operating weight, CE *3 *2	**54,564 lbs** (24,750 daN (kg))
Operating weight, max.	**59,635 lbs** (27,050 daN (kg))
Tyres	
Type of tyres	**Radial**
Tyre size front / rear	**620/75 R26**
Filling capacities	
Fuel tank	**237.75 gal** (900 l)
Hydraulic fluid tank	**92.46 gal** (350 l)
Water tank	**105.67 gal** (400 l)
Electrical system	**24 V**
Transport dimensions	
Dimensions for truck transport (L x W x H)	**29’ 8” x 9’ 10” x 9’ 10”** (9,050 x 3,000 x 3,000 mm)
Shipping dimensions (L x W x H)	**30’ 2” x 10’ 6” x 10’ 6”** (9,200 x 3,200 x 3,200 mm)

*1 = The maximum working depth may deviate from the value indicated, due to tolerances and wear.
*2 = All weights refer to basic machine with cabin, without any additional equipment.
*3 = Weight of machine with half-full water tank, half-full fuel tank, driver (1,645.4 lbs / 75 kg) and tools.

Machine Dimensions





Technical description

Basic design
Stabilizer with mechanically driven milling and mixing rotor and two working directions.

Machine frame
Rigid welded construction with mounts for the individual units and attachments, as well as an integrated water tank. All components are easily accessible for maintenance and servicing.

Soundproofing
Noise levels are reduced by the standard soundproofing package, which protects both the operating personnel and the environment from noise pollution.

Operator's platform
The operator's platform with seat and control panel is located at the front of the machine. The steering wheel is adjustable in height and tilt. The ergonomic seating position of the driver, low machine design and good visibility enable ease of operation. The modern control and operating elements are located within easy reach and within the operator's field of vision. The entire operator's platform can be moved to either side. In addition, the seat console (driver's seat and control panels) can be continuously rotated about 90° to ensure an optimum view of the construction site at all times.

Machine control CGC (Cockpit Graphic Center)
All machine functions are controlled via microcontrollers. All control modules are arranged in an easily accessible electrical cabinet.
The CGC display in the operator's platform keeps the operator informed of machine parameters, such as operating hours, oil pressure, engine temperature, engine speed, hydraulic fluid temperature, filling level of the diesel tank, wheel position or travel speed.
The integrated Wirtgen information and diagnostic system generates visual and audible alarms as and when required. All parameters and messages, for example, contamination of the hydraulic oil filters or air filters, are indicated on the CGC display in the operator's platform.
All parameters for the operation of the recycler are entered via the CGC.

Power unit
The machine is driven by a state-of-the-art, powerful 6-cylinder engine which complies with the stringent requirements stipulated by the US Environmental Protection Agency (EPA, Tier III) and the EC (Stage III).
The engine is equipped with a fully electronic engine management system, which offers maximum torque stability even at extremely high engine loads. This prevents breaks in operation.
An extremely large cooling surface effectively cools the engine and other machine components, thus permitting safe operation of the machine even at high outside temperatures. The cooling system is additionally equipped with a fan controller.
The fan speed is reduced at low ambient temperatures or low loads, which results in reduced noise emission levels and fuel consumption. Servicing of the engine can be carried out entirely from the ground.

Power control
The machine is equipped with an automatic power control system which governs the advance speed in accordance with the load of the diesel engine. The power control can be deactivated to allow manual adjustment of the machine's advance speed.

Milling and mixing rotor drive
The milling and mixing rotor is driven mechanically from the diesel engine via a clutch and multiple V-belts to the planetary gearbox. The multiple V-belts are tensioned automatically via a hydraulic cylinder. Four adjustable milling and mixing rotor speeds can be selected to ensure optimum work results.

Milling and mixing rotor
Depending on the machine's working direction, the milling and mixing rotor rotates either against or in the direction of travel.
The milling and mixing rotor is equipped with the HT13 toolholder system as a standard feature.
The toolholders are welded onto the rotor body, accommodating the point-attack cutting tools.
Special, individually replaceable edge segments are additionally mounted in the rotor's outer zones.

Hydraulically adjustable scraper blades in front of and behind the milling and mixing rotor ensure good mixing results.
The adjusted angles of the crusher bar and/or the scraper blade respectively are indicated on the CGC display.

Cutting tool replacement
The scraper blade swings open hydraulically, permitting easy access to the milling and mixing rotor for the replacement of cutting tools.
The quick-change toolholder system reduces the time required for the completion of rehabilitation projects to a minimum (option).
A hydraulically operated drum turning device (option) considerably facilitates turning of the milling and mixing rotor during the replacement of cutting tools.

Milling depth control
The machine is moved into transport or working position via the four lifting columns.
The working depth is set by lowering the milling and mixing rotor.
The current working depth is indicated on the CGC display in the operator's platform.

Chassis
The wheels of the WR 2000 XL recycler are connected to the machine frame via four hydraulically height-adjustable cylindrical columns.
The machine's current height position is indicated on the display and can be saved for subsequent operations.
A special feature ensures that all four wheel brackets are fully balanced in height, allowing convenient off-road driving, as well as precise working during recycling and stabilizing operations.

Travel drive
Each wheel is driven by an independent hydraulic motor. The hydraulic motors are fed by a hydraulic variable displacement pump. The four travel speeds can be infinitely varied from zero to maximum working speed in both milling and travel gear. An engageable differential lock ensures uniform traction. The machine's advance speed is set from the operator's platform.

Braking even under adverse conditions
Braking is achieved by drag from the self-locking hydrostatic transmission. In addition, the wheels can be locked by means of a multiple-disk parking brake which is actuated from the operator's platform.

Steering
The WR 2000 XL is equipped with a smooth, hydraulic all-wheel steering system. Via a selector switch, the machine operator can choose between three different steering modes ("standard", "crab mode" or "coordinated mode"). The front wheels are steered via the steering wheel, while sensors automatically keep the rear wheels in straight-ahead position.
They can, however, also be operated independently of the front wheels via a joystick.

Hydraulic system
Independent hydraulic systems for travel drive, setting functions and cooler.
The hydraulic pumps are driven by the diesel engine via a transfer case.

Electrical system
24 V system with starter, 3-phase alternator and two 12 V batteries, as well as complete lighting system including two lights with magnetic base that can be mounted anywhere on the machine.

Cold recycling system:
Injection system for water or binding agents with one injection bar (211.34 gal/min (800 l/min))
The recycler's injection system comprises a microprocessor-controlled metering unit, an eccentric pump, an injection bar with 16 nozzles, and a pushing device. The pump delivers the fluid agent (e.g. water or bitumen emulsion) from a tanker truck to the injection bar.
The eccentric worm pump has a maximum delivery rate of 211.34 gal/min (800 l/min).
A flow meter monitors the delivered quantities and forwards the measurement readings to the control system, which in turn regulates the addition of binding agent or water in accordance with the pre-selected parameters. An automatic shut-off device allows the individual nozzles to be opened or

closed separately by means of hydraulic cylinders, enabling the addition of binding agents to be adapted to the working width. These nozzles are also automatically cleaned.

Injection system for water with one injection bar
The injection system comprises a microprocessor-controlled metering unit, a pump, a manual injection bar with 16 nozzles and a pushing device for tanker trucks.
The pump delivers the water from a tanker truck to the injection bar.
It has a maximum delivery rate of 475.5 gal/min (1,800 l/min). A flow meter monitors the delivered quantities and forwards the measurement readings to the control system, which in turn regulates the addition of water in accordance with the pre-selected parameters.
The addition of binding agents can be adapted to the working width manually.

Filling
Water and diesel are filled via large filling ports.

Safety during transport
The machine can be securely lashed down on a low-bed trailer or loaded by crane by means of sturdy lashing lugs.

Equipment	Stabilizer WR 2000 XL
Frame / Operator's platform	
Driver's seat with control panels, can be continuously rotated about 90°	○
Special painting	●
Machine control / Levelling	
Control by means of microcontroller	○
CGC (Cockpit Graphic Center)	○
Slope sensor for cross slope control	●
Milling drum assembly	
HT13 toolholder system with 25 mm shaft diameter	○
HT11 quick-change toolholder system with 22 mm shaft diameter	●
Crusher bar	●
Pneumatic cutting tool extractor	●
Hydraulic drum turning device (for cutting tool replacement)	●
Cold recycling system	
Injection system with one pump and one automatic injection bar (211.34 gal/min (800 Lt/min))	●
Injection system with one pump and injection bar (475.51 gal/min (1,800 l/min))	●
Miscellaneous	
Soundproofing	○
Cyclonic air filter	○
Working lights (detachable)	○
Warning lights	○
Horn, reversing horn and rear view mirror	○
Towing device	○
4-wheel steering	○
Loading and lashing lugs	○
Comprehensive tool kit	○
CE mark	○
Safety certificate by the Employer's Liability Insurance Association	○
Comprehensive safety package with emergency stop buttons	○
Compressed air system	○
High-pressure water wash down	●
Operation of the stabilizer with biodegradable hydraulic fluid	●

○ Standard ● Option

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