

VIBROMAX | VMT860



A Product of Hard Work





**An unbeatable combination of productivity, comfort and quality
The VMT860 sets new standards in compaction performance**

ROCK SOLID



The JCB Vibromax range of vibratory tandem rollers is renowned for its excellent combination of static weight, centrifugal force and amplitude. The new VMT860 is no exception. Quite simply, the VMT860 sets the bar, and sets it very high, for heavy asphalt and soil compaction.

The key element during the design of this new model was the voice of the customer. This, together with an intensive market research programme and the experience of over 80 years in the compaction industry, has resulted in an exceptionally productive, comfortable, high performance machine.

Extremely high compaction performance

For the smoothest results,
right up to the edge



Optimal static weight, high centrifugal force and amplitude. Together, these three essential elements make for extremely high compaction performance on asphalt base, binder and wearing courses. The excentric system creating the centrifugal force is unique as a result of its simplistic single piece eccentric shaft with over turning weights, which guarantees market-leading values for t/h (asphalt) and m³/h (soil), minimising the cost of operation.

Two frequencies and amplitudes, and the independent choice of double-, front- or rear-only vibration, makes the machine extremely versatile on any kind of heavy asphalt application like highways, airports and national roads, as well as soil compaction.

On top of this, the machine features JCB Vibromax AVC (Automatic Vibration Control) which activates the vibration only when the driving lever is not in neutral position. This, together with an extremely smooth drive system, guarantees a perfectly even asphalt surface from edge to edge.

Performance is optimised in asphalt even further by the optional Compatronic A®. It does this by enabling the driver to constantly control the compaction of the asphalt layer as well as indicating the temperature of the material. The operator can easily adjust the output of the machine to the required level.

Finally, the optional edge-cutting and pressing device allows compaction right up to the kerb, cutting the edge of the asphalt layer to achieve a perfect finish.





Robust power and productivity

This machine is built to keep on producing the goods



At the heart of the VMT860 – a powerful JCB Dieselmix engine, combined with high-torque hydraulic drive motors. These enable the machine to climb slopes up to 40% giving flexibility and performance on all terrains.

The intelligent chassis design featuring two drum frames lowers the centre of gravity and makes the unit extremely stable on uneven surfaces. Plus, the dual pressurised water sprinkler system with interval switch optimises and reduces water consumption to the required minimum, ensuring that both drums obtain efficient water coverage to prevent material sticking on the drum - under all circumstances.

Two 535-litre water tanks and a 240-litre fuel tank, which are the largest in the industry, mean downtime is minimised. This ensures class leading machine uptime and productivity.

All of this productivity is protected by a robust build that ensures ultimate reliability and machine uptime. For example, flush frame sides on both drums not only make the machine manoeuvrable in confined areas; they also prevent damage to the fundamental drive and vibration components, such as drive motors, hoses and pipings.

Meanwhile, the centre joint is robustly designed with over-dimensioned components like pins and a thicker chassis material to ensure durability. The single-piece eccentric shaft with overturning weights reduces required parts to a minimum - the fewer parts the less there is to fail. And spring-loaded vulcan scrapers perfectly clean sticking material from the drum and are built for long life.





To get the most out of high-performance equipment...

Comfort is the key



Features and performance optimise productivity however operator comfort is a crucial element in maintaining productivity. Significant effort has been put into the ergonomics of the operator environment to ensure ease of operation and maximum comfort.

The VMT 860 offers a very spacious ROPS/FOPS-certified cab with integrated working lights and heating as standard, and the optional air-conditioning ensures effective ventilation with cool air in hot climates.

Two comfortable, weight-adjustable driver seats enable the optimum operating position, with ultimate clarity of vision to the left or right. The centrally mounted driving lever can be tilted to the right or left and the steering wheel swivels to ensure the driver can operate comfortably from both driver seats. The design also means the machine can be operated by two people or simply accommodate a passenger, both being completely isolated against vibration through a new system of hydraulically based rubber mountings.

The modern and ergonomic dashboard is easy to get to grips with and offers a clear overview of all the machine functions. For non-cabin machines the dashboard is completely sealed against water ingress and can (optionally) be protected by an anti-vandalism cover.





Low cost of operation is the key to profitability

So low maintenance and easy service access are a given



All JCB Vibromax rollers combine low maintenance requirement of key components with easy access when servicing is required. The aim is to maximise machine uptime and customer profitability.

The excellent excentric system reduces required parts to a minimum, resulting in reduced potential for damage and, of course, fewer moving parts means less need for lubrication. The centre joint requires no maintenance, while all major components, such as the engine and hydraulic pumps, and filters are easily accessible.

The two large water tanks have large fill-ins to enable easy cleaning. And of course, the largest water tank volume and the largest fuel tank in the industry also reduce the cost of refilling.

As an additional security measure against theft, the machine features a battery isolator switch.





Driver Platform

2 weight adjustable driver seats for optimized operation on both sides & swivelling steering wheel possibility to carry a passenger comfortably and safely

ROPS/FOPS cabin with integrated working lights and heating or ROPS bar

Air conditioning available as option

Egress and degress from both sides of the machine

Vibration isolation through new style hydraulic rubbers

Modern and ergonomic dashboard indicating all machine functions

Chassis

Intelligent frame design with low center of gravity for stability

Maintenance free center joint with articulation and oscillation

Largest fuel tank in the industry (240 l)

Drive & Brakes

Hydrostatic drive of both drums with smooth starting and braking

Hydrostatic service brake

Hydraulically released parking brake on both drum (SAHR)

Components

JCB DIESELMAX Tier 3 engine

Rexroth hydraulic pumps

Rexroth hydraulic motors for vibration and propulsion

Water Sprinkler System

Dual pressurised

3-stage filterisation

Interval switch to safe water

Changeable nozzles

Easy access to solid metal spray bar and nozzles (looking upwards)

Largest water tank volume in the industry

(2 x 535 litres = 1070 litres)

Vibration

2 frequencies and amplitude for versatility

Double, single-front or single-rear vibration

Automatic Vibration Control (AVC) as standard

Single piece eccentric shaft with overturning weights for durability

Exciter shaft bearings oil splash lubricated

High compaction output on asphalt and soil

Serviceability

Free access to all components

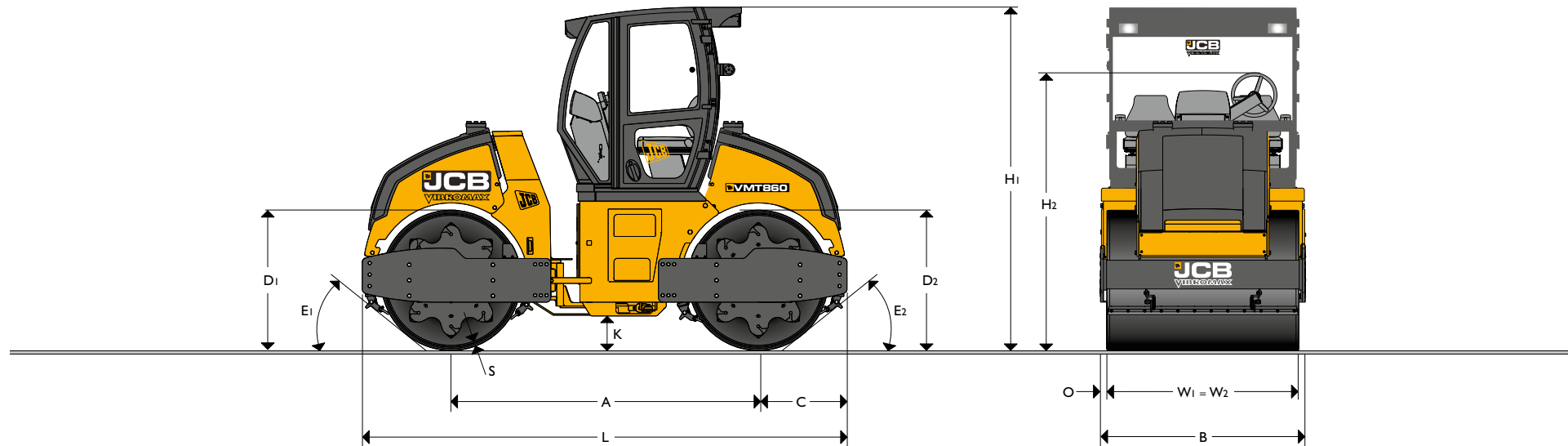
Center joint free of maintenance

Vibrator system requires low maintenance

Battery isolator switch as standard



DRUM WIDTH: 1675mm (66in) OPERATING WEIGHT: 8750kg (19290lb) with ROPS, 9250kg (20392lb) with ROPS/FOPS cab



STATIC DIMENSIONS

Dimensions in millimetres (in)		
A	Wheelbase	2690 (106)
B	Overall width	1850 (72.9)
C	Axle to rear face	770 (30.3)
D1=D2	Drum diameter	1220 (48)
H1	Total travel clearance with ROPS/FOPS cabin	3000 (118.1)
H1	Total travel clearance with ROPS	3100 (122.2)
H2	Height to top of steering wheel	2430 (96)
K	Ground clearance	300 (11.8)
L	Total travel length	4230 (166.5)
O	Overhang	85 (3.35)
S	Drum thickness	17 (0.67)
W1=W2	Drum width	1675 (66)
E1	Front departure angle	42°
E2	Rear departure angle	42°

OPERATING DATA

		with ROPS	with cab
Operating weight (CECE)	kg (lb)	8750 (19290)	9250 (20392)
Operating axle load front/rear	kg (lb)	4080 (8995)/4670 (10295)	4330 (9546)/4920 (10846)
Operating linear load front/rear	kg/cm (lb/in)	24.4 (136)/27.9 (156)	25.9 (145)/29.4 (164)
		Vibration stage 1	Vibration stage 2
Exciter frequency	Hz (vpm)	33 (2000)	50 (3000)
Nominal amplitude	mm (in)	1.1 (0.043)	0.23 (0.009)
Centrifugal force per drum	kN (lbf)	71 (15961)	37 (8318)
Compaction depth up to	cm (in)	70 (28)	
Working width	mm (in)	1675	
Working speed (forward/reverse) max.	km/h (mph)	5.5 (3.42)	
Travel speed (forward/reverse) max.	km/h (mph)	11.5 (7.15)	
Steering lock angle	degrees	±25	
Oscillation angle	degrees	±10	
Inner turning radius	m (in)	5.2 (204.7)	
Outer turning radius	m (in)	7.1 (279.5)	
Gradeability up to	degrees (%)	22 (40)	

**ENGINE**

Four-cylinder, liquid-cooled, four-stroke diesel engine, turbocharged

Make	JCB	
Model	Dieselmax (Tier 3)	
Piston displacement	cm ³ (in ³)	4399 (268)
Performance – DIN 6271	kW (hp)	63 (85)
Operating speed	min ⁻¹ (rpm)	2200 (2200)
Starting device	Electric motor	
Air cleaner	Dry cartridge plus safety cartridge	
Fuel filter	Cartridge	

PROPULSION

Hydrostatic with variable displacement pump and fixed displacement motors with direct drive to both drums = double drum drive.

EXCITER DRIVE

Electrically controlled hydrostatic direct drive on both drums for double vibration or single vibration front or rear.

EXCITER

Single-shaft circular exciter with overturning weights.

STEERING SYSTEM

Servo assisted, maintenance free center articulation with oscillation facility.

SERVICE CAPACITIES

Fuel	litres (US gal)	240 (63.4)
Hydraulic oil	litres (US gal)	85
Sprinkler water, front / rear	litres (US gal)	535/535 (141.3)

BRAKING SYSTEM

Service brake: Hydrostatic propulsion system.

Parking brake: Hydraulically released brake on both drums (SAHR)

ELECTRICAL SYSTEM

Voltage	V	12
Battery capacity	Ah	143
Alternator	A	max. 95

INDICATORS AND GAUGES

Fuel, battery charging current, sprinkler system, parking brake, hour meter, engine oil pressure, water in fuel, air filter condition, hydraulic oil level and temperature, hydraulic oil filter condition, water level indicator, engine temperature, drive lever neutral position.

STANDARD EQUIPMENT

Vibration isolated, spacious, ergonomic and comfortable driver stand with two seats, one central drive lever and swivelling steering wheel.

OPTIONAL EQUIPMENT

ROPS (standard at CE), sunroof, road lights, work lights, rotating beacon, battery isolation switch, backup alarm, cab with ROPS/FOPS, heating, aircon, edge cutter, vandalism kit.

ASPHALT COMPACTION OUTPUT (t/h)*

Structure	Wearing course	Binder course	Base course
Layer thickness (cm)	2...5	5...10	10...15
(t/h)	60-150	90-180	125-190

**SOIL COMPACTION OUTPUT (m³/h)***

Structure	Sand/gravel	Mixed soil	Clay/loam
Layer thickness (cm)	0.35	0.30	0.20
(t/h)	175-350	150-300	100-200

***Assumptions and notes**

1675mm working width with 0.2m overlapping of paths. Working speed: 60 m/min (= 3 km/h). Compaction output speed = 75 % of working speed. Number of passes are 4...8 (soil) and 3...7 (asphalt)



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