SINGLE DRUM SOIL COMPACTOR

Single Drum Soil Compactor

JCB

When it comes to high-performance precision compaction, it has to be JCB Compaction

SMOOTHLY DOES IT

In recent years, JCB has proudly taken Compaction to new levels, thanks to our world-class manufacturing, engineering excellence and reputation for providing the best back-up in the business.

Our latest generation of outstanding single-drum soil compactors has been carefully developed with intensive market research and leads its class in terms of quality, reliability, comfort and – most importantly – productivity. Discover how this outstanding range will make smooth work of even the toughest challenges.

Powerful, productive and incredibly reliable

The smart money's on JCB Compaction

Affordable

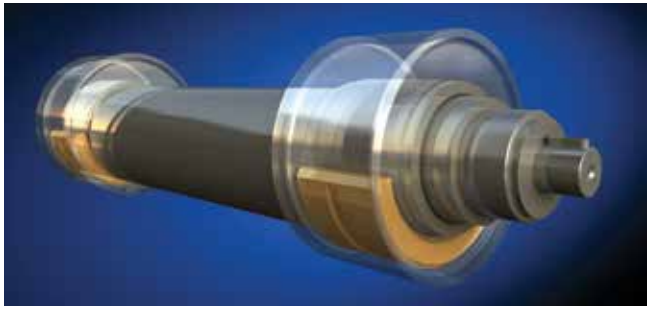
We want everyone to benefit from JCB's superior machine quality, which is why we've made each one more affordable than ever. So, as well as ensuring stringently lean manufacturing processes that keep our costs down, we are able to offer affordable finance to businesses large and small. With flexible payment options, competitive interest rates, value-for-money insurance and impressive warranty and service packages, you'll be hard pressed to find better deals with anyone else.

Productive

JCB Compaction rollers roll quickly, powerfully and accurately, giving you complete control and maintaining unbeatable productivity levels. And because they're built to last, you'll find them more reliable, which means lower maintenance costs and reduced downtime.

Economical

Each sophisticated component within your single-drum roller is built to perform and ultimately cost you less. Take the single-piece excentric shaft. It's cleverly designed to produce optimum performance while reducing maintenance to a minimum. This keeps the lifetime costs of your machine incredibly low while guaranteeing maximum durability.

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Best-in-class performance

For more compacted material in less time

JCB Compaction rollers are sophisticated and versatile, ready for any challenge that lies ahead. With best-in-class compaction, all models feature two frequencies and amplitudes to match a wide range of soil conditions and meeting natural soil freqencies.

Whether you're working on a motorway, runway or other construction project, the single-drum compactor provides a superior compaction output. A key component here is the unique single-piece excentric shaft with overturning weights. It's coupled with our Automatic Vibration Control system, which avoids stationary vibration to eliminate over-compaction when changing direction.

Where other machines fail, the single-drum roller keeps going. All models produce superb gradability thanks to precise weight distribution between front and rear, a built-in switchable anti-slip system (SASS), heavy-duty no-spin axles and our renowned DIESELMAX engines with high-torque hydraulic components.


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VM115
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Thoughtful design, quality components

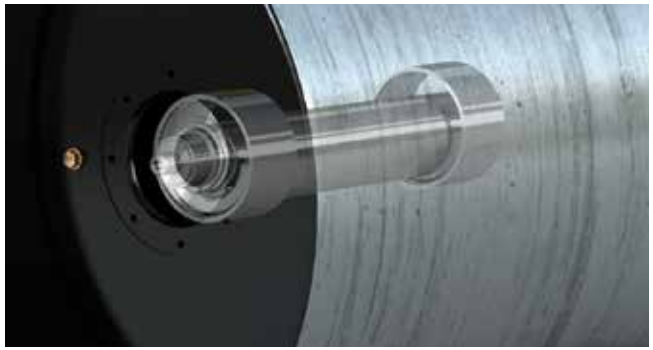
Where engineering expertise meets impressive reliability

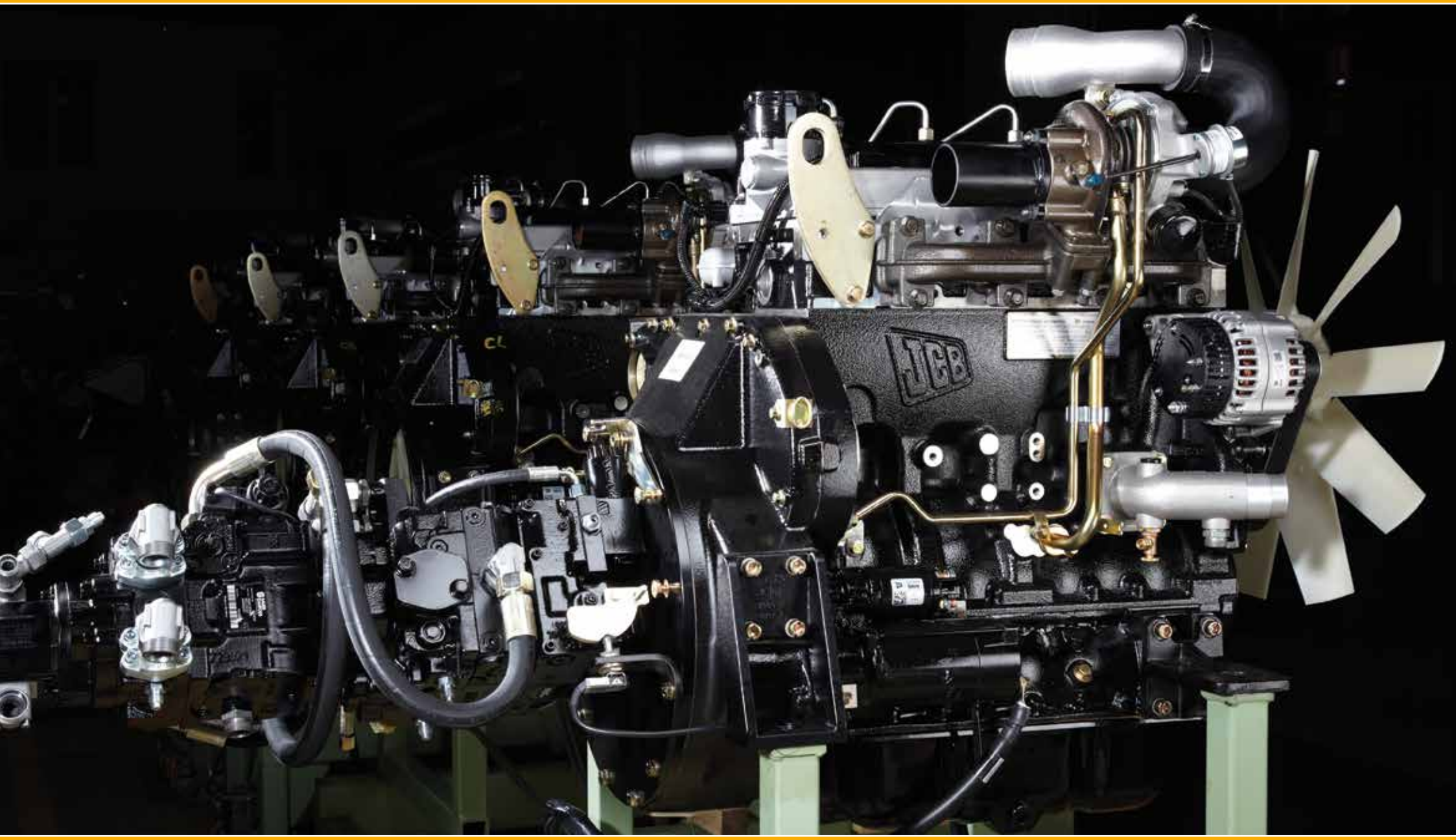
Manufactured with extensive customer input, everything about our single-drum soil compactors has been designed for quality, durability and reliability, with each world-class part rigorously tested.

Our record-breaking, water-cooled DIESELMAX engine sits at the heart of most models machine (not on VM166 and VM200), offering tremendous power with minimum emissions. Meanwhile, the superior chassis balances weight and, along with the super strong axels, is specially built for heavy-duty construction projects. In fact, the entire frame is intelligently designed with front-to-back oscillation for extra stability, a flush finish for confined environments and over-dimensioned components for extra durability and reduced repair costs.

From the maintenance-free, lifetime-lubricated articulation joint to the sophisticated traction control system with its excellent gradability, you'll find expert engineering and superb attention to detail throughout our entire range of single-drum soil compactors.

Finally, each model that rolls off our production lines is really put through its paces, with uncompromising two-hour hot test runs. This ensures whichever model you buy, it's in top working order and ready to roll.

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Keeping you up and running

Maximum reliability means minimum maintenance

Thanks to the way our single-drum soil compactors are intelligently designed and manufactured by world-class engineers, each model has low maintenance demands and is incredibly easy to service.

The most important part of any roller, of course, is the drum. More sophisticated than you might initially think, the drum features pre-loaded rubber buffers which ensure it always has the correct load. In turn, this significantly lengthens the rubber buffer's life and protects the hydraulic motors against axial pressures. All models also feature heavy-duty, maintenance-free centre joints – again designed to reduce downtime and servicing costs.

When the time does come for a service, you'll find all the components accessible and the whole process quick and easy, so your machine can be back to business quickly. The compactors feature an easy-to-get-at centralised service station for their hydraulic systems, towing pumps and hydraulically lifted engine bonnets (VM132 to VM200 models). All machines feature high volume tanks to reduce refilling time and cost, having both, fuel and hydraulic tanks – well protected – under the engine bonnet.


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Comfort is key

Safe, ergonomic and so easy to operate

For your operators to stay sharp and productive, they need to work in an environment where they feel completely comfortable and at ease.

That's why JCB has taken considerable care to get the cab and operating systems just right. Driver stands and cabins are easily accessible from both sides of the machine and once you step inside, the first thing you notice is the spacious and intuitively designed interior.

There's plenty of storage space for tools, while large windows give you 360° vision for an excellent drum-edge view and outstanding on-site safety. The controls are precise and easy to use, with an ergonomic driving lever for exact speeds and accurate changes of direction. It all adds up to a totally comfortable space that's brilliantly simple and allows an operator to feel at one with his machine.


JCB

Introducing COMPATRONIC

For an unbeatable, smooth finish, time after time

One of the biggest problems with standard compaction equipment is over compaction, which leads to inconsistent compaction and uneven grounds. In the worst case scenario, the previously achieved compaction is destroyed resulting in cracks in buildings or pot holes in roads. Additionally, over compaction means more passes, a more time-consuming job, damage on the machine and more fuel wasted, costing you more money. JCB Compaction technology eliminates these issues by offering Compatronic, an advanced compaction measurement system, for all its single-drum rollers. There are four options to choose from:

This is how it works:

The accelerating sensor, mounted on the drum, is the heart of all COMPATRONIC Systems. It measures the movements of the drum while compacting and transmits these data to a microprocessor which processes the data. The loss free data transfer from sensor to the processor is key to show exact data. Therefore JCB put together sensor and processor in one compact, solid housing. The calculated compaction can now easily (loss-free as well) be transmitted to the display on the operator stand of the cabin.

COMPATRONIC

Our entry-level system indicates precise vibrator frequency, jump operation and relative compaction values. The system measures the density of the material and once the highest possible density for that particular material is reached, it indicates clearly that the job is done by warning the operator by visual LEDs.

COMPATRONIC TP

This advanced version of Compatronic gives you more detailed compaction reporting and more indications such as relative compaction value, vibrator frequency, jump operation, amplitude, requested compaction value, machine speed, the current position of the roller and how each compaction compares to the previous pass. The system also gives you the option to print your records.

COMPATRONIC Pro

Offering you complete dynamic control, Compatronic Pro has all the features of Compatronic TP, but with added in-depth reporting. Not only does it give you details for each pass, it also gives you an overview of the compaction process for the total area you need to cover. Compatronic Pro allows you to store detailed information for 99 areas, 18 tracks per area and eight passes per track. The system comes with a printer and the latest software for your office PC.

COMPATRONIC GPS

The newest addition to our popular range of compaction measurement systems gives you all the benefits of our Pro version but with the added advantage of a refined, scratch-proof, anti-glare display system and GPS technology. The system provides georeferenced compaction data (in easy-to-understand red-yellow-green) that can be displayed simultaneously on the in-cab display and on the site manager's PC for instantaneous live reporting.

Operator environment

- Spacious, ergonomic and comfortable
- Easy access from both sides
- Excellent 360° views right to the drum edges

Engine compartment

- Best-in-class service access
- Centralised service station for the hydraulic system
- Towing pump as standard

General

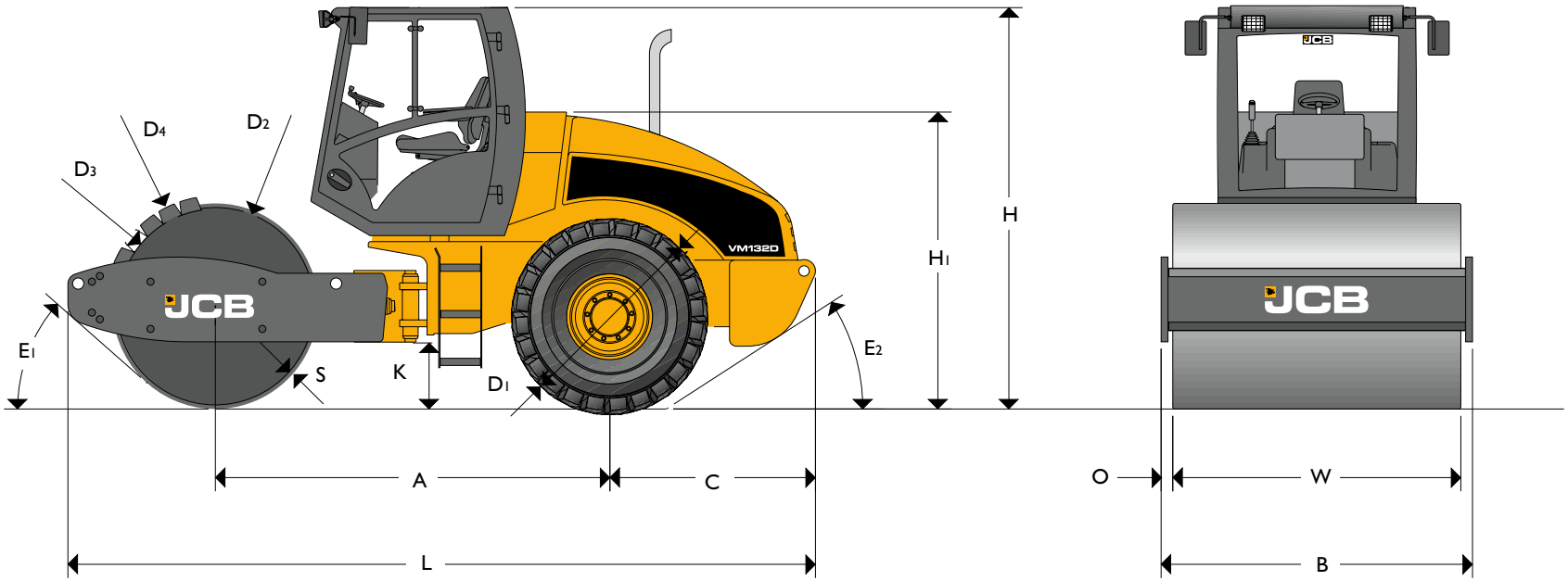
- Machined drum surfaces
- High grade steel for long-lasting life
- Heavy-duty NoSpin axles

Vibration

- Complete compaction control through AVC (Automiatic Vibration Control)
- Low-maintenance, single-piece excentric shaft for ultimate robustness and performance
- Long-life, pre-loaded rubber mountings
- 2 frequencies and 2 amplitudes with superior compaction output and meeting natural soil frequencies

Chassis

- Hydraulic components protected by rock-solid drum frames
- Heavy-duty, maintenance-free centre joint
- High-volume fuel tank integrated in the counterweight



STATIC DIMENSIONS

Dimensions in millimetres		VM75	VM115	VM132	VM166	VM200
A	Wheelbase	2514	2846	2996	2996	3076
B	Overall width	1870	2250	2270	2270	2270
C	Axle to rear face	1470	1523	1651	1651	1660
D1	Wheel diameter	1298	1520	1520	1520	1520
D2	Drum diameter (smooth drum)	1220	1500	1500	1500	1600
D3	Inner diameter padfoot drum	1140	1400	1400	1400	1400
D4	Outer diameter padfoot drum	1300	1600	1600	1600	1600
H	Total travel clearance	2845	2935	2935	2935	2985
H1	Height to top of seat	2070	2185	2160	2160	2245
K	Ground clearance	389	447	447	447	497
L	Total travel length	4887	5444	5722	5722	5996
O	Overhang	60	75	85	85	85
S	Drum thickness	25	25	25	25	40
W	Drum width	1750	2100	2100	2100	2100
E1	Front departure angle	40°	41°	41°	36°	35°
E2	Rear departure angle	28°	32°	29°	29°	29°

OPERATING DATA

		VM75D		VM75PD		VM115D		VM115PD		VM115HD		VM115HPD	
Operating weight	kg	7660		7320		11090		11380		11720		11770	
Operating axle load front / rear	kg	3590 / 4070		3650 / 3670		5580 / 5510		6215 / 5165		6285 / 5435			
Operating linear load front	kg/cm	20.5				26.6				29.9			
Vibration stage		1	2	1	2	1	2	1	2	1	2	1	2
Exciter frequency	Hz	29	36	29	36	31	36	31	36	31	36	31	36
Nominal amplitude	mm	2	0.8	2	0.8	1.95	0.9	1.95	0.9	1.95	0.9	1.95	0.9
Centrifugal force	kN	138	84	156	96	261	163	282	176	261	163	282	176
Centrifugal force / drum width	N/cm	789	480	891	549	1243	776	1343	838	1243	776	1343	838
Compaction depth up to	cm	62	50	75	60	90	70	100	80	90	70	100	80
Working speed (forward/reverse) max.	km/h	6.9		6.9		4.5		4.5		4.5		4.5	
Travel speed (forward/reverse) max.	km/h	11		11		10.5		10.5		10.5 / 12.5		10.5 / 12.5	
Steering lock angle	degrees	±28		±28		±35		±35		±35		±35	
Vertical oscillation	degrees	±15		±15		±15		±15		±15		±15	
Inner turning radius	m	2.97		2.97		3.4		3.4		3.4		3.4	
Tyres		14.9 - 24 / 6PR AWT		14.9 - 24 Dyna Torque II		23.1 - 26 / 8 PR AWT		23.1 - 26 / 12 Tractor Tyre Tread		23.1 - 26 / 8 PR AWT		23.1 - 26 / 8 PR Dyna Torque II	
Number of padfeet				100				132				132	
Height of padfoot	mm			80				100				100	
Gradeability up to	degrees (%)	31 (60)		33 (65)		31 (60)		33 (65)		31 (60)		33 (65)	

OPERATING DATA

		VM132D		VM132PD		VM166D		VM166PD		VM200D		VM200PD	
Operating weight	kg	11850		12710		15520		16060		18530		18370	
Operating axle load front / rear	kg	6460 / 5390		7380 / 5330		9630/ 5890		10130 / 5930		11400 / 7130		11030 / 7340	
Operating linear load front	kg/cm	30.8				45.9				54.3			
Vibration stage		1	2	1	2	1	2	1	2	1	2	1	2
Exciter frequency	Hz	29	36	29	36	29	35	29	35	29	35	29	35
Nominal amplitude	mm	2	0.8	2	0.8	1.8	0.8	1.8	0.8	2	0.75	2	0.75
Centrifugal force	kN	282	174	305	188	301	195	321	208	370	205	370	205
Centrifugal force / drum width	N/cm	1343	829	1452	895	1433	929	1529	990	1762	976	1762	976
Compaction depth up to	cm	100	80	110	90	130	100	140	110	145	100	155	110
Working speed (forward/reverse) max.	km/h	7.7		7.7		7.3		7.3		7.6		7.6	
Travel speed (forward/reverse) max.	km/h	12.7		12.7		11.4		11.4		11.8		11.8	
Steering lock angle	degrees	±35		±35		±35		±35		±35		±35	
Vertical oscillation	degrees	±15		±15		±15		±15		±15		±15	
Inner turning radius	m	3.6		3.6		3.6		3.6		3.6		3.6	
Tyres		23.1 - 26 / 8 PR AWT		23.1 - 26 / 12 Tractor Tread		23.1 - 26 / 8 PR AWT		23.1 - 26 / 8 PR Dyna Torque II		23.1 - 26 / 8 PR AWT		23.1 - 26 / 8 PR Dyna Torque II	
Number of padfeet				132				132				132	
Height of padfoot	mm			100				100				100	
Gradeability up to	degrees (%)	31 (60)		33 (65)		32 (62)		33 (65)		24 (45)		24 (45)	

ENGINE

Four/six-cylinder, water-cooled, turbo-charged diesel engine.

Model		VM75	VM115		VM132		VM166		VM200	
		Tier 3	Tier 2	Tier 3	Tier 2	Tier 3	Tier 2	Tier 3	Tier 2	Tier 3
Make		JCB	JCB	JCB	Cummins	JCB	Cummins	Cummins	Cummins	Cummins
Model		444	444	444TCA	B 5.9 - 150C	444TCA	B 5.9 - 173C	QSB6.7	B 5.9 - 150C	QSB6.7
Piston displacement	cm^3	4399	4399	4399	5880	4399	5880	6699	5880	6699
Performance – DIN 6271	kW (hp)	63 (84)	93 (125)	97 (130)	112 (150)	108 (145)	129 (173)		129 (173)	
Operating speed	min^{-1} (rpm)	2200 (2200)	2200 (2200)		2200 (2200)		2200 (2200)		2200 (2200)	
Starting device		Electric motor	Electric motor		Electric motor		Electric motor		Electric motor	
Air cleaner		Dry cartridge with safety cartridge	Dry cartridge with safety cartridge		Dry cartridge with safety cartridge		Dry cartridge with safety cartridge		Dry cartridge with safety cartridge	
Fuel filter		Cartridge	Cartridge		Cartridge		Cartridge		Cartridge	

SERVICE CAPACITIES

Model		VM75	VM115/VM115H	VM132	VM166	VM200
Fuel	litres	230	300	400	400	320
Engine oil (engine)	litres	8	14	14.2	14.5	14.5
Gear oil (exciter)	litres	3	3.5	12	12	12
Hydraulic oil	litres	80	80	80	80	80
Coolant	litres	14	14	19	19	19

PROPULSION

Infinitely variable hydrostatic direct drive by variable displacement motor on rear axle and drum,
Multidisc self-locking differential (NoSPIN).

EXCITER DRIVE

Electrically controlled hydrostatic direct drive on drum.

EXCITER

Single-shaft circular exciter with overturning weights.

STEERING SYSTEM

Servo assisted center articulation with vertical oscillation.

BRAKING SYSTEM

Service brake: Hydrostatic propulsion system.
Parking brake: Hydraulically released multi-disk brake on rear axle and drum drive.
Emergency brake: Electrically controlled, disk brake on rear axle and drum drive.

ELECTRICAL SYSTEM

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

INDICATORS AND SWITCHES

Hour meter, fuel, engine temperature, engine oil pressure, battery charging current, hydraulic oil and air filter condition, parking brake, neutral position control lever, speed range selection, frequency, AVC (Automatic Vibration Control), acoustic back-up alarm. Optional lighting, turn signal, hazard-warning lights.

OPTIONS

High comfort ROPS/FOPS certified cabin, ROPS frame, working lights, road traffic lights, yellow rotating beacon, adapter for turning seat, several homologation kits, padfoot shell kits (3 segments) with scraper, plyurethane scrapers, levelling blades, tachograph, tractor and diamond pattern tread spare wheels, tool bags, COMPATRONIC, COMPATRONIC TP, COMPATRONIC PRO, COMPATRONIC PRO, COMPATRONIC GPS, anti-vandalism cover for dashboard, heating, aircondition, FOPS roof for ROPS frame, canopy, air precleaner.

COMPACTED LAYER THICKNESS UP TO... (m)

Machine	Weight (kg)	Rock	Sand / Gravel	Mixed soil	Clay / Loam
VM75D	7,660*	–	0.50	0.40	0.15
VM115D	11,090*	0.90	0.60	0.50	0.20
VM132D	11,850*	1.00	0.70	0.60	0.25
VM166D	15,520*	1.30	1.00	0.70	0.35
VM200D	18,530	1.45	1.20	0.80	0.40

COMPACTED OUTPUT... (m^3/h)

Machine	Weight (kg)	Rock	Sand / Gravel	Mixed soil	Clay / Loam
VM75D	7,660*	–	210 – 420	160 – 330	60 – 120
VM115D	11,090*	460 – 920	300 – 600	250 – 500	100 – 200
VM132D	11,850*	510 – 1020	350 – 700	300 – 600	130 – 260
VM166D	15,520*	660 – 1320	510 – 1020	360 – 720	180 – 360
VM200D	18,530*	740 – 1480	610 – 1220	410 – 820	205 – 410

Rock

Sand / Gravel

Mixed Soil

Clay / Loam

Assumption and Notes:
The achieved compaction and productivity values will vary with exact material composition and moisture content.
In critical applications these values should always be verified by physical measurement.
Laboratory soil test should always be carried out to assess the soil structure & strength for compaction.

Weights- CECE with ROPS† or Cab*
Working Width: 2.1 m with 0.2 m overlap of paths
Working speed: 60 m/min (= 3 km/h)
Compaction Output speed: 75 % of working speed = 2.25 km/h
Compaction Output: assumes 80% of maximum layer thickness stated in upper table
Compaction Output: Number of passes are 4....8

COMPACTED LAYER THICKNESS UP TO... (m)

Machine	Weight (kg)	Rock	Sand / Gravel	Mixed soil	Clay / Loam
VM75PD	7,320*	–	0.50	0.40	0.20
VM115PD	11,380*	0.90	0.60	0.50	0.25
VM132PD	12,710*	1.00	0.70	0.60	0.30
VM166PD	16,060*	1.30	1.00	0.70	0.40
VM200PD	18,370*	1.45	1.20	0.80	0.45

COMPACTED OUTPUT... (m^3/h)

Machine	Weight (kg)	Rock	Sand / Gravel	Mixed soil	Clay / Loam
VM75PD	7,320*	–	210 – 420	160 – 330	80 – 160
VM115PD	11,380*	460 – 920	300 – 600	250 – 500	130 – 260
VM132PD	12,710*	510 – 1020	350 – 700	300 – 600	150 – 300
VM166PD	16,060*	660 – 1320	510 – 1020	360 – 720	200 – 410
VM200PD	18,370*	740 – 1480	610 – 1220	410 – 820	230 – 460

Rock

Sand / Gravel

Mixed Soil

Clay / Loam

Assumption and Notes:
The achieved compaction and productivity values will vary with exact material composition and moisture content.
In critical applications these values should always be verified by physical measurement.
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Compaction Output: assumes 80% of maximum layer thickness stated in upper table
Compaction Output: Number of passes are 4....8

ROPS plus FOPS roof.

Quick and easy fitting of padfoot shell segments (3 segments). Kit comes with scrapers.

Anti-vandalism cover for dashboard.

Levelling blade.

COMPATRONIC, COMPATRONIC TP, COMPATRONIC PRO,

VALUE ADDED

JCB'S WORLDWIDE CUSTOMER SUPPORT IS FIRST CLASS. WHATEVER YOU NEED AND WHEREVER YOU ARE, WE'LL BE AVAILABLE QUICKLY AND EFFICIENTLY TO HELP MAKE SURE YOUR MACHINERY IS PERFORMING TO ITS FULL POTENTIAL.

1

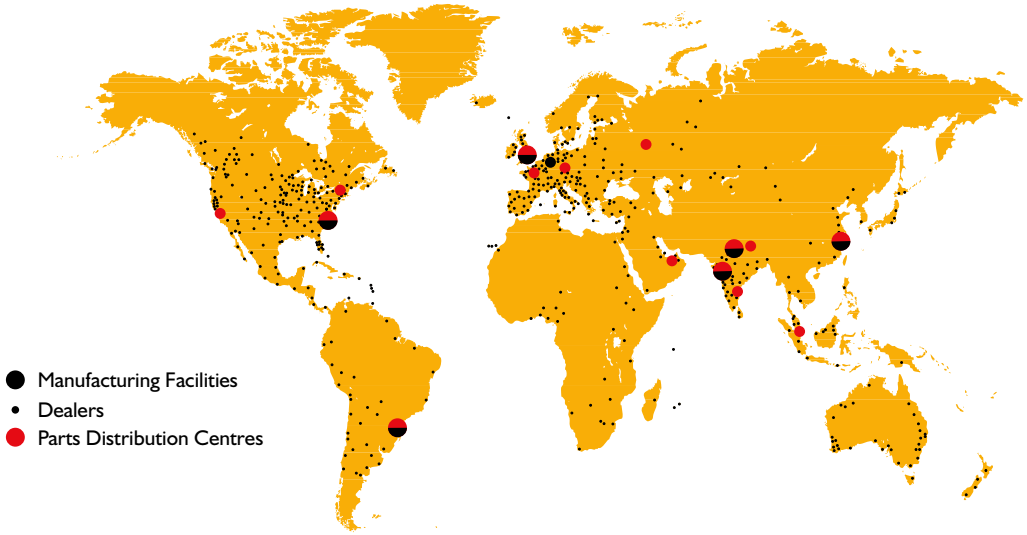

2


3

1 Our Technical Support Service provides instant access to factory expertise, day or night, while our Finance and Insurance teams are always on hand to provide fast, flexible, competitive quotes.

2 The global network of JCB Parts Centres is another model of efficiency; with 15 regional bases, we can deliver around 95% of all parts anywhere in the world within 24 hours. Our genuine JCB parts are designed to work in perfect harmony with your machine for optimum performance and productivity.

3 JCB Assetcare offers comprehensive extended warranties and service agreements, as well as service-only or repair and maintenance contracts. Irrespective of what you opt for, our maintenance teams around the world charge competitive labour rates, and offer non-obligation quotations as well as fast, efficient insurance repair work.



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Your nearest JCB dealer

JCB Sales Limited,
Rocester, Staffordshire,
United Kingdom ST14 5JP.
Tel: +44 (0)1889 590312
Email: salesinfo@jcb.com