SINGLE DRUM SOIL COMPACTOR

JCB

THE JCB 116D IS DESIGNED TO GIVE YOU ULTIMATE PRODUCTIVITY. EQUIPPED WITH AN INNOVATIVE DIESELMAX ENGINE, IT PROVIDES REDUCED LIFE CYCLE COSTS AND FUEL CONSUMPTION.

Go anywhere.

1 The drum shell thickness is 28mm plus 10mm (38mm total) at the laterals, providing the highest robustness and vibration mass in the industry.

Endless productivity.

2 Maximum compaction performance is achieved through the combination of high front weight ratio and heavy duty dynamic vibration system. Static linear load of over 30kg/cm plus class-leading 256kN of dynamic centrifugal force and a high amplitude of 1.8mm ombine to create class-leading compaction performance.

Performance guaranteed.

3 With or without vibration the 116D can manoeuvre on gradients up to 55% as standard.

Ease of servicing.

4 The JCB 116D is designed for ease of servicing via the wide opening bonnet. All the daily checks can be done from ground level on one side of the machine. The maintenance-free lifetime lubricated centre joint also reduces service requirements.

Comfortably superior.

5 Operators can get to work quickly on a JCB 116D because of the intuitive, easy-to-use controls, all laid out ergonomically and using industry standard identification.

Endless efficiency.

6 The high-torque, high-efficiency JCB 444 DIESELMAX engine requires only 2000rpm to power the JCB 116D with outstanding fuel efficiency and a very low noise level of only 104dB.

This TIER 3 certified engine has a mechanical fuel injection system for maximum robustness and reliability, wherever you are.

7 The flat bonnet profile delivers best-in-class rear visibility.

8 Optional Pad Foot (PD) shell kit for added versatility.

The Automatic Vibration Control (AVC) avoids over-compaction at layer ends.

The 116D is also available with ROPS/FOPS cabin including air conditioning and heating, as well as ROPS/FOPS canopy or canopy only.

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VM75/VMI32/VMI66/VM200

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.

Ease of use.

1 Same intuitive operating system on all models for easy operation.

Visible benefits.

2 1 x 1m visibility guaranteed from both front and rear of the machine.

Productivity guaranteed.

3 Two stage powerful vibratory system and Automatic Vibration Control as standard.

More material in less time.

4 All soil rollers from JCB are available with a dedicated padfoot drum variation to compact cohesive soil for added versatility.

Designed for reliability.

5 2 hours hot test prior to delivery and electrics according to IP69 group standard for trouble-free working from day one.

Saving time and money.

6 Fuse box is well protected underneath the seat console. Centralised hydraulic service station as standard as well as a maintenance-free centre joint.

7 Unique single piece excentric shaft with overturning weights.

8 All models produce superb gradeability thanks to precise weight distribution.

All machines are powered by robust and fuel efficient engines with mechanical fuel injection.

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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.

The COMPATRONIC 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.

LIVELINK, WORK SMARTER.

JCB LIVELINK IS AN INNOVATIVE SOFTWARE SYSTEM THAT LETS YOU MONITOR AND MANAGE YOUR MACHINES REMOTELY – ONLINE, BY EMAIL OR BY MOBILE PHONE.

Productivity and cost benefits – Machine location information can improve fleet efficiency and you may even enjoy reduced insurance costs courtesy of the added security that LiveLink brings.

Maintenance benefits – Accurate hours monitoring, maintenance history records, critical machine alerts and service alerts improve maintenance planning.

Security benefits – Real-time geofencing lets you set operating zones and curfew alerts that tell you when your machinery outside of pre-determined times. Location information helps you store machines safely.

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.

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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.

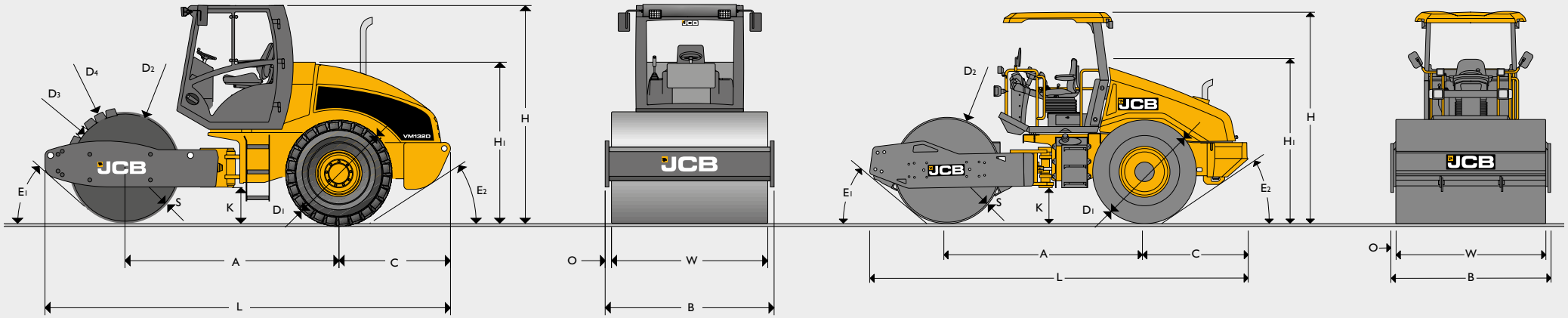
JCB offers comprehensive extended warranties as well as service-only or repair and maintenance contracts. Irrespective of what you opt for, our Maintenance teams around the world charge competitive labour rates, and offer non-obligation quotations as well as fast, efficient insurance repair work.

2 The global network of JCB Parts Centres is another model of efficiency; with 18 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.

Note: JCB LIVELINK and JCB extended warranty packages may not be available in your region, so please check with your local dealer. LiveLink hardware is fitted on the 116D as standard and can be retrofitted on the VM75/VM132/VM166/VM200.

STATIC DIMENSIONS

VM75, JCB 116D, VM132, VM166, VM200



STATIC DIMENSIONS			VM75	JCB 116D	VM132	VM166	VM200
A	Wheelbase	mm	2514	2846	2996	2996	3076
B	Overall width	mm	1870	2240	2270	2270	2270
C	Axle to rear face	mm	1470	1517	1651	1651	1660
D1	Wheel diameter	mm	1298	1560	1520	1520	1520
D2	Drum diameter (smooth drum)	mm	1220	1500	1500	1500	1600
D3	Inner diameter padfoot drum	mm	1140	N/A	1400	1400	1400
D4	Outer diameter padfoot drum	mm	1300	N/A	1600	1600	1600
H	Total travel clearance with ROPS/FOPS cabin	mm	2845	3020	2935	2935	2985
H1	Height to top of seat	mm	2070	2280	2160	2160	2245
K	Ground clearance	mm	389	443	447	447	497
L	Total travel length	mm	4887	5473	5722	5847	5996
O	Overhang	mm	60	70	85	85	85
S	Drum thickness	mm	25	28 + 10	25	25	40
W	Drum width	mm	1750	2100	2100	2100	2100
E1	Front departure angle	degrees	40	39	41	36	35
E2	Rear departure angle	degrees	28	34	29	29	29

OPERATING DATA		VM75D		VM75PD		JCB 116D		VMI32D		VMI32D		VMI66D		VMI66PD		VM200D		VM200PD	
Operating weight with ROPS/FOPS cabin	kg	7660		7320		11920		11850		12710		15520		16060		18530		18370	
Maximum operating weight with ROPS/FOPS cabin	kg	8420		7320		13420		13260		12710		16930		16060		19940		18370	
Operating weight with ROPS/FOPS canopy	kg	7400		7060		11680		11590		12450		15260		15800		18270		18110	
Operating axle load front/rear with ROPS/FOPS cabin	kg	3590/4070		3650/3670		7170/4980		6460/5390		7380/5330		9630/5890		10130/5930		11400/7130		11030/7340	
Operating linear load front with ROPS/FOPS cabin	kg/cm	20.5				34.2		30.8				45.9				54.3			
Vibration stage		1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Exciter frequency	Hz	29	36	29	36	32	36	29	36	29	36	29	36	29	36	29	35	29	35
Nominal amplitude	mm	2	0.8	2	0.8	1.8	0.8	2	0.8	2	0.8	1.8	0.8	1.8	0.8	2	0.75	2	0.75
Centrifugal force	kN	138	84	156	96	256	147	282	174	305	188	301	195	321	208	370	205	370	205
Centrifugal force/drum width	N/cm	789	480	891	549			1343	829	1452	895	1433	929	1529	990	1762	976	1762	976
Compaction depth up to	cm	62	50	75	60	100	80	100	80	110	90	130	100	140	110	145	100	155	110
Working speed (forward/reverse) max	km/h	6.9		6.9		5		7.7		7.7		7.3		7.3		7.6		7.6	
Travel speed (forward/reverse) max	km/h	11		11		10.5		12.7		12.7		11.4		11.4		11.8		11.8	
Steering lock angle	degrees	±28		±28		±35		±35		±35		±35		±35		±35		±35	
Vertical oscillation	degrees	±15		±15		±15		±15		±15		±15		±15		±15		±15	
Inner turning radius	m	2.97		2.97		3.4		3.6		3.6		3.6		3.6		3.6		3.6	
Tyres		14.9 – 24/6 PR AWT		14.9 – 24 Dyna Torque II		23.1 – 26		23.1 – 26/8 PR AWT		23. – 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				100		132				132				132				132	
Height of padfoot	mm			80		90				100				100				100	
Gradeability up to	degrees (%)	31 (60)		33 (65)		28.5 (55)		31 (60)		33 (65)		32 (62)		33 (65)		24 (45)		24 (45)	

ENGINE		VM75	JCB 116D	VMI32	VMI66	VM200
		Tier 3	Tier 3	Tier 2	Tier 2	Tier 2
Make		JCB	JCB	Cummins	Cummins	Cummins
Model		444	DIESELMAX TCA-85	B5.9 – 150C	B5.9 – 173C	B5.9 – 150C
Piston displacement	cm^3	4399	4399	5880	5880	5880
Performance - DIN 6271	kW (hp)	63 (84)	85 (114)	112 (150)	129 (173)	129 (173)
Operating speed	rpm	2200	2000	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
Fuel injection type		Mechanical	Mechanical	Mechanical/Electronic	Mechanical/Electronic	Mechanical/Electronic

SERVICE CAPACITIES		VM75	JCB 116D	VMI32	VMI66	VM200
Fuel	litres	230	300	400	400	320
Engine oil (engine)	litres	8	14.5	14.2	14.5	14.5
Gear oil (exciter)	litres	3	3.3	12	12	12
Hydraulic oil	litres	80	80	80	80	80
Coolant	litres	14	22	19	19	19

PROPULSION

Infinitely variable hydrostatic direct drive by fixed displacement motor on rear axle and drum, multidisc self-locking differential (no-spin). JCB 116D: JCB axle with limited slip differential (LSD).

EXCITER DRIVE

Electrically controlled hydrostatic direct drive on both drums for double vibration and front only drum vibration.

EXCITER

Single-shaft circular exciter with overturning weights. 116D: Dual-amplitude circular exciter with overturning weights.

STEERING SYSTEM

Servo assisted centre articulation with vertical oscillation. 116D: Servo assisted centre articulation with automatic oscillation – all free of maintenance.

BRAKING SYSTEM

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

ELECTRICAL SYSTEM		VM75/VMI32/VMI66/VM200	116
Voltage	V	12	12
Battery capacity	Ah	143	120
Alternator	A	max. 95	90

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 (not available for JCB 116D), several homologation kits, padfoot shell kits (3 segments) with scraper, polyurethane scrapers, tractor and diamond pattern tread spare wheels, tool bags, COMPATRONIC, anti-vandalism cover for dashboard, heating, air condition, FOPS roof for ROPS frame, canopy, air precleaner, additional fuel filters, fuel lubrication filters.

COMPACTED LAYER THICKNESS UP TO... (M)					
Machine	Weight (kg)	Rock	Sand/Gravel	Mixed Soil	Clay/Loam
VM75D	7660*	N/A	0.5	0.4	0.15
VM75PD	7320*	N/A	0.5	0.4	0.2
JCB 116D	11920	1	0.7	0.6	0.25
VM132D	11850*	1	0.7	0.6	0.25
VM132PD	12710*	1	0.7	0.6	0.3
VM166D	15520*	1.3	1	0.7	0.35
VM166PD	16060*	1.3	1	0.7	0.4
VM200D	18530	1.45	1.2	0.8	0.4
VM200PD	18370*	1.45	1.2	0.8	0.45

COMPACTED OUTPUT... (M^3/H)					
Machine	Weight (kg)	Rock	Sand/Gravel	Mixed Soil	Clay/Loam
VM75D	7660*	N/A	210 – 420	160 – 330	60 – 120
VM75PD	7320*	N/A	210 – 420	160 – 330	80 – 160
JCB 116D	11920	510 – 1020	350 – 700	300 – 600	130 – 260
VM132D	11850*	510 – 1020	350 – 700	300 – 600	130 – 260
VM132PD	12710*	510 – 1020	350 – 700	300 – 600	150 – 300
VM166D	15520*	660 – 1320	510 – 1020	360 – 720	180 – 360
VM166PD	16060*	660 – 1320	510 – 1020	360 – 720	200 – 410
VM200D	18530*	740 – 1480	610 – 1220	410 – 820	205 – 410
VM200PD	18370*	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.
Laboratory soil test should always be carried out to assess the soil structure & strength for compaction.
Weights – CECE with ROPS or Cab*.
Working width: 2.1m with 0.2m 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.

ONE COMPANY, OVER 300 MACHINES.

Your nearest JCB dealer

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Single Drum Soil Compactor

JCB Sales Limited, Rocester, Staffordshire, United Kingdom ST14 5JP.
Tel: +44 (0)1889 590312 Email: salesinfo@jcb.com
Download the very latest information on this product range at: www.jcb.com

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