

Vibratory Roller CV123U



XCMG FOR YOUR SUCCESS

Machine dimension(standard): 242x91x124in

Machine weight(standard): 27337lb

XCMG NORTH AMERICA CORPORATION
Add: 5145 Schirlls St. Las Vegas, Nevada 89118
Tel: +1 725 605 2777
Fax: +1 725 605 2888
E-Mail: bin@xcmg.com

XUZHOU CONSTRUCTION MACHINERY GROUP IMP. & EXP. CO., LTD
Add: NO.1, Tuolanshan Road, Xuzhou Economic Developing Zone,
Jiangsu, China 221004
Tel: +(86) 516 8773 9285
E-Mail: bin@xcmg.com



www.xcmg.com



INTRODUCTION OF XCMG

Founded in 1943, XCMG is the largest enterprise in the Chinese construction machinery industry. We offer the most diverse product line and the highest technological standards. We provide a comprehensive set of construction solutions, and we are the most internationally competitive firm in the industry. On KHL Yellow Table, we rank No. 1 in China and No.3 globally.

Across our offices in China, the US, Germany, India, and Brazil, XCMG has established a global collaborative research platform including national-level R&D facilities focused on advanced smart manufacturing technology. Our R&D team consists of top talents from around the globe. They are researching cutting-edge technologies such as new energy, unmanned driving and high-end parts. Our work has earned us numerous international patents and awards.

XCMG has the most comprehensive product line, meaning we can offer fully comprehensive solutions in 9 areas: hoisting, earthwork, road building & maintenance, mining, concrete & paving, tunnel-building & underground construction, high-altitude firefighting equipment & special-purpose vehicles, railway & bridge construction, sanitation engineering. All these solutions can be customized to suit our customers' needs.

At XCMG, our five-continent sales network gives our products worldwide visibility. We have 300 overseas distributors, over 10 overseas manufacturing bases and KD (Knockdown) factories, and products in more than 180 countries and regions. We supply our global customers with pre-sales, mid-sales and after-sales service, and a convenient, efficient one-stop financing and leasing service. XCMG's total annual exports and overseas income consistently come top of the industry in China.

We care deeply for the welfare of the people. We support numerous charitable causes, and are quick to the scene during disaster relief efforts.

XCMG is all set to become an eternal brand with our feet on the ground and eyes on the horizon. XCMG's ambition leads us forever forwards. XCMG is scaling its Everest, and is determined to reach the top.

Highlights of CV123U

Superior power performance

- 1 > CUMMINS QSF3.8 engine, 97Kw (130 HP) @ 130 RPM
> SCR after treatment device, fulfilling the requirements of EPA Tier 4F emission standards
> Variable speed cooling fan, reducing fuel consumption, low noise
> High power radiator, applied to the high temperature region construction
> Air pre-filter and air filter constitute two-stage filtration system
> Fuel filter, oil filter and oil replacement cycle is up to 500 h

Strong driving ability

- 2 > Variable plunger pump and piston motor constitute the closed hydrostatic system
> Heavy load wet drive axle
> Anti-slip system ensures driving ability under toughest conditions
> Two gear infinite variable speed

Excellent compaction performance

- 3 > DANFOSS plunger pump and piston motor constitute the hydrostatic vibration system
> Double frequency, double amplitude, suitable for various construction conditions
> Inner cylindrical vibrating chamber structure, high rigidity and strength
> Dedicated vibration bearing, high reliability, long service life

Safe and comfortable control platform

- 4 > ROPS/FOPS cab. The interior space is large, wide vision, good sealing performance, low noise
> Configuration of air conditioning further improves the driver's comfort
> Air suspension seat. Good damping effect, fore and back, up and down adjustable;
> Electronic control joystick. Integrated vibration button, comfortable manipulation
> LCD Display. Real-time display the whole machine working state. Sound and light warning indicators on the instrument panel provide instant information on service and maintenance, preventing the machine from damages

Convenient maintenance

- 5 > Engine hood is electronically controlled hydraulic open mode, easy to operate
> Large opening angle of the engine hood, the maintenance area is within easy reach

Options meet different needs

- 6 > Customer may, according to the requirements of the construction, choose smooth drum, padfoot drum and padfoot shell
> Optional Blade.



Superior power performance

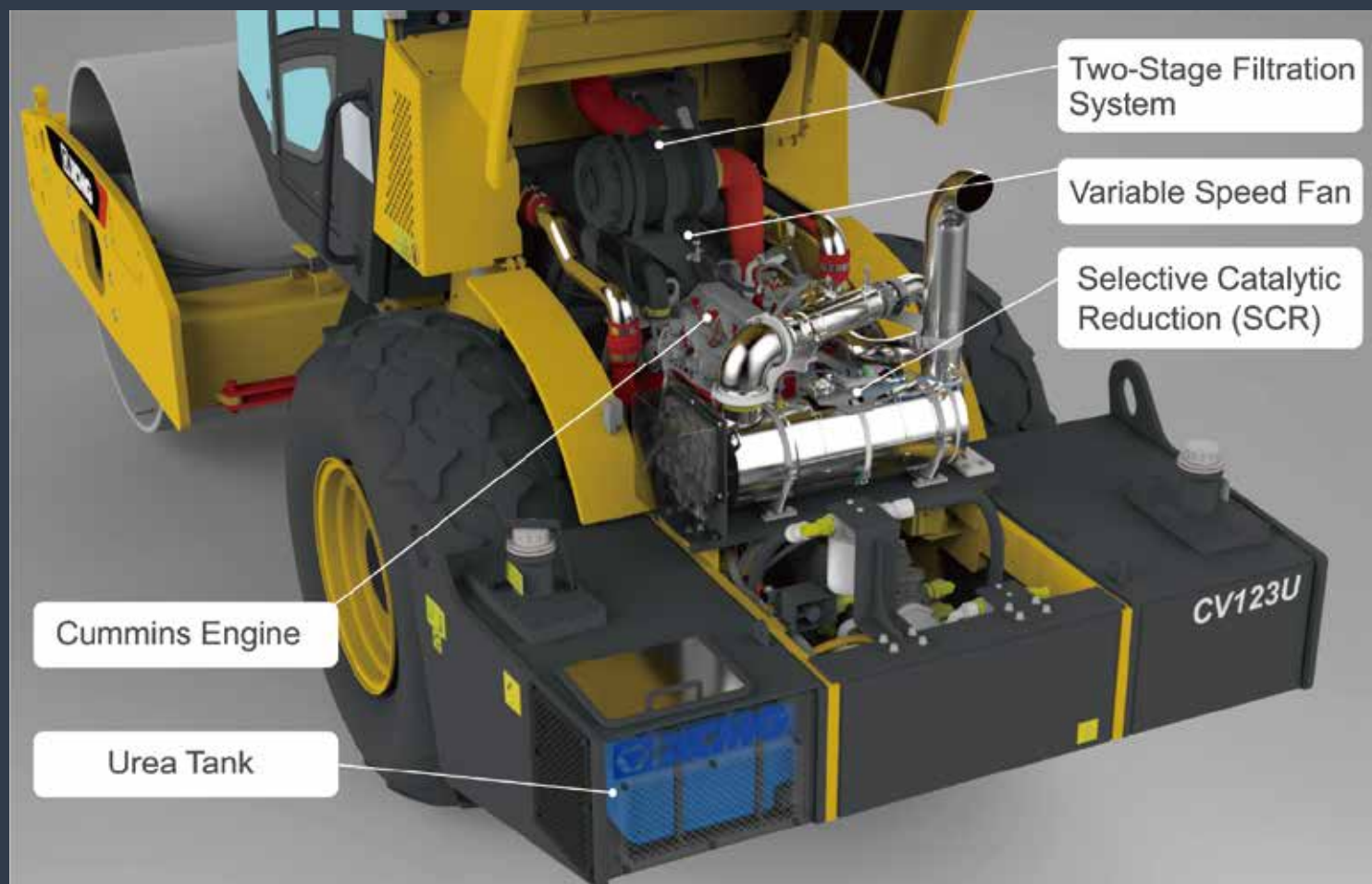
> This machine utilizes Cummins electrical control engine, water-cooled, turbocharged with big power reservation, low fuel consumption and noise. Using SCR after treatment device, fulfilling the requirements of the United States Tier 4F emission standards. Equipped with Danfoss temperature control adaptive independent cooling system, automatic control fan speed according to the engine water temperature and hydraulic oil temperature, energy saving and noise reduction.



> Power system utilizes Cummins engine and its after-treatment system, including the following subsystems:

Suspension system: vibration cushion reduces the vibration of the engine.

Power output: elastic element flange coupling transfers the flywheel output power to drive pump and vibration pump. Front gear train drive interface connects to the steering pump.



> Air intake system: utilizing the two-stage filtration; the pre-filter filters larger size dust, preventing rainwater flowing into pipe, then the air filter further purifies the air, to ensure clean air for engine. Compared with natural air intake engine, turbocharged engine has larger air inflow, also higher power. The air inlet pipeline must be sealed due to high speed rotation of turbocharger and high dust sensitivity.

> Fuel system: diesel oil tank stores diesel for whole working day.

> Cooling system: water radiator is used for cooling the engine body, hydraulic oil cooler for cooling cycled hydraulic oil. Fan is suction type, utilizing independent cooling system composed of gear pump and gear motor.

> After-treatment system: SCR after-treatment with DRT, urea pump, urea tank, fulfilling the Tier 4 final emission standards.

> Starting and electrical system: starter voltage is 24V, generator voltage is about 28V.



Strong driving ability

> Adopt imported closed hydraulic drive system composed of variable displacement pump and motor to ensure better drive performance and gradeability. Two gears infinitely variable speeds ensure optimized working speeds under different working conditions.

> The medium wet type drive axle with anti-slip differential, which realizes automatic torque allocation according to road condition. It allows the roller to reach max tractions under any working condition. Using the 12-ply tubeless tire which is widely used in North American roller market, featuring in wear-resistance and long service life.

> Braking system is made up with drive axle, wet type brakes at front drum speed reducer, and brake of closed hydraulic system. It owns traveling, parking, and emergency braking functions to ensure driving safety.

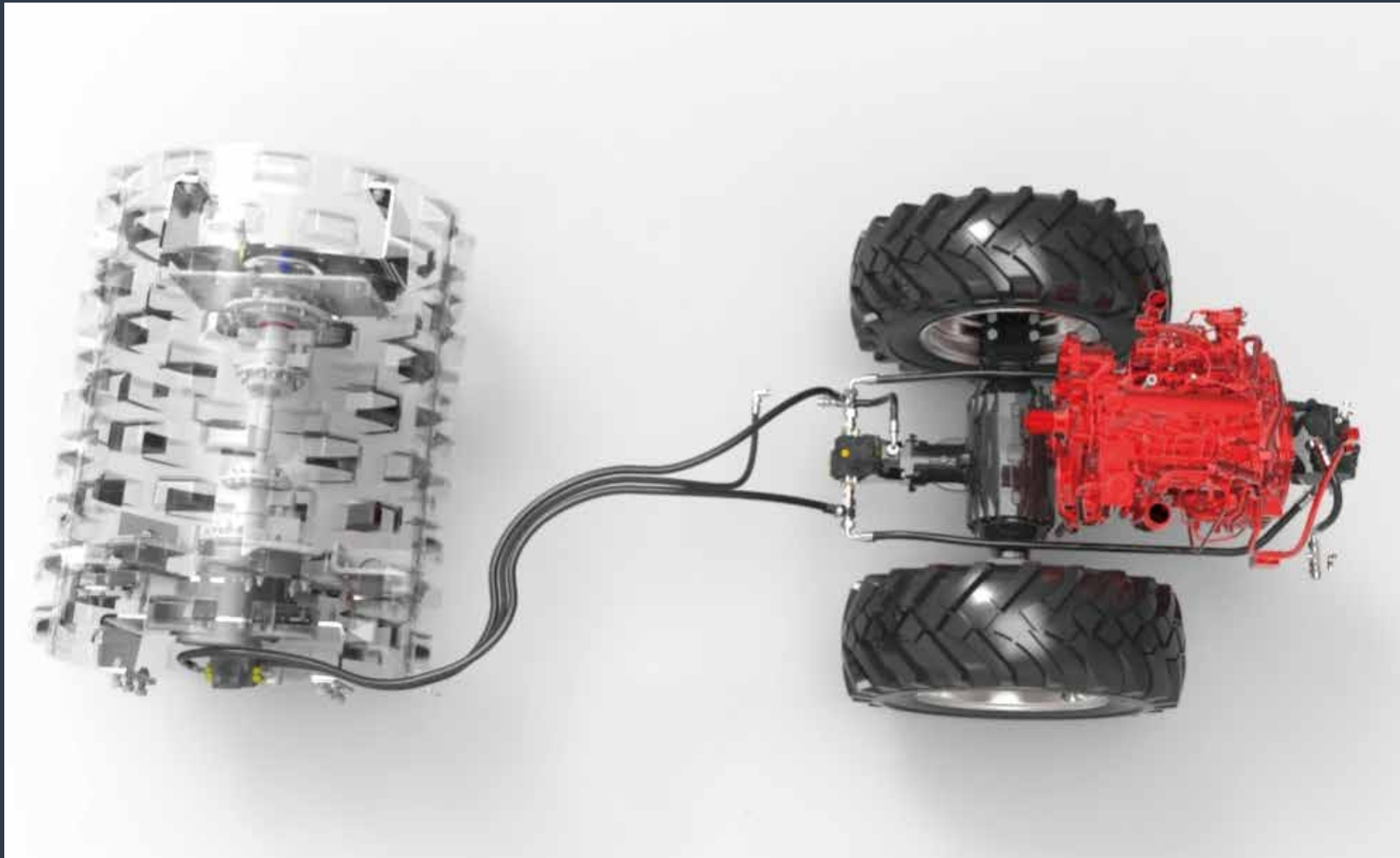


> Rear drum is driven by tires, mainly composed of tire, rim and driving axle.



> Smooth drum roller is equipped with "ananas shape" low-pressure wide base tires, inflation pressure is 150 ~ 170 kPa, rhombus block light patterns are distributed on the surface, achieving good damping performance. Convex block type roller is equipped with "chevron" agricultural tires. Drive rim utilizes DW20 standard rim. Rim and drive axle is connected by bolts and nuts. Bolt and drive axle are fixed together, cannot be disassembled, nut is special ball nut for axle. Drive axle adopts heavy type, anti-slip axle.

> Front and rear drum double drive, anti-slip drive axle, low-pressure wide tires ensure that the roller has good driving performance and high gradeability, theoretical gradeability can reach up to 45%.

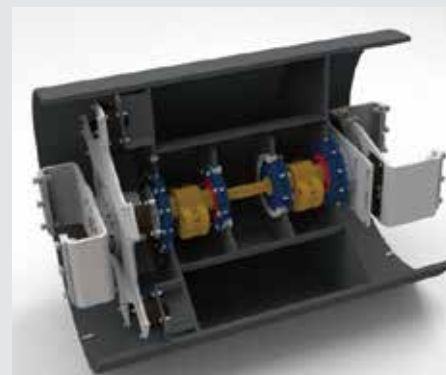
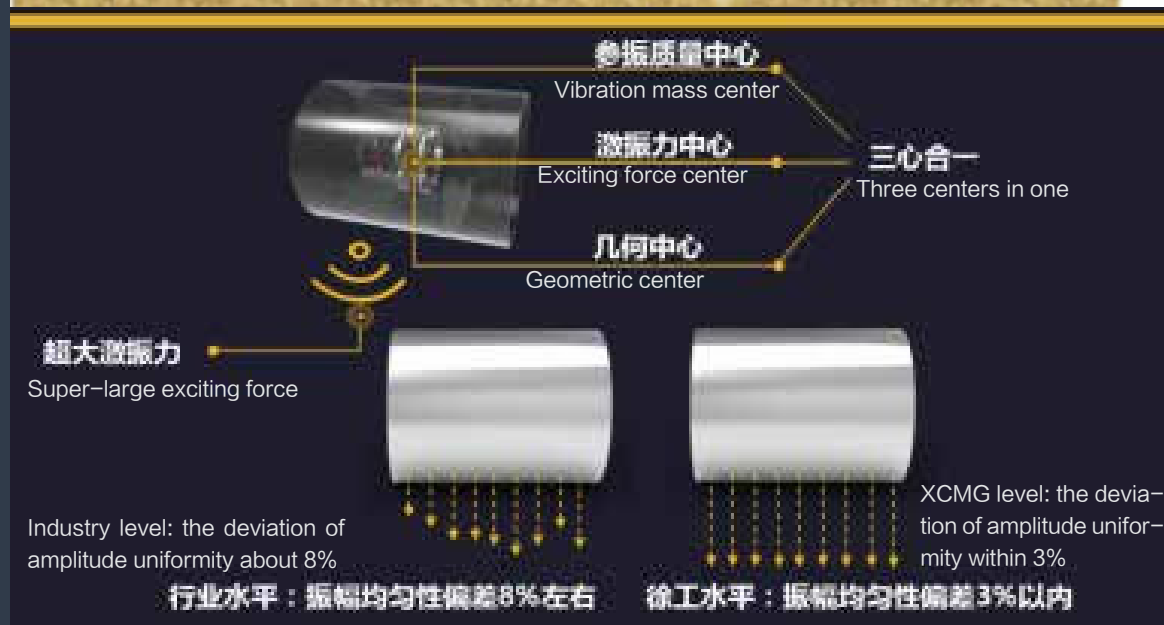




Excellent compaction performance

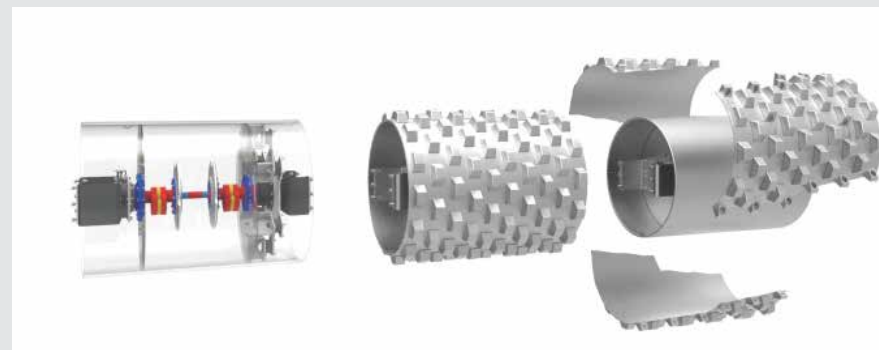
> With variable displacement piston pump and constant displacement hydraulic motor. Dual vibrating frequency and amplitude, coupled with optimized match of static linear load and centrifugal force enable the machine to deliver excellent compaction performance over materials of varied layer thickness.

> The inner-cylinder chamber structural drum is simple and robust; dual frequency and dual vibration function, big static pressure and exciting force enables high working efficiency; special vibration bearing has long lifetime and high reliability.



> Vibration drum is not only the drive wheel, but also the main working device of road roller. Left, right mounting bracket and front frame are connected. The other end of left mounting bracket is connected to front wheel reducer, drive the front drum rolling through the drive plate and left rubber damping block. Vibration drum drive side and vibration side rubber damping block are not interchangeable due to different rigidity.

> Left and right exciters are located on the bearing seat supported by vibration bearing. Vibration chamber is filled with a certain capacity of gear oil, when the front drum is moving, gear oil is dripping along the inwall from top to bottom, thus to lubricate the bearing.



> CV123U vibration drum is of high reliability and high compaction ability. The coincidence of the three centers ensures high amplitude uniformity, avoiding polarization, achieving best possible compaction effect; Four-point supporting structure makes equal exciting force for four bearings, greatly improving the service life of the bearing! Double framework oil seal structure avoids oil leakage, ensuring the reliability of vibratory drum.



Safe and comfortable control platform

> The well sealed cab installed with ROPS, radio-tape recorder, air conditioner, large glasses and suspended seat delivers a spacious, safe and comfort operation environment with all-around visibility.



> The cabin provides the safety protection of the operator, It provides all-around visibility due to large area glass. Comfortable feeling due to big operation space. The insulating pad between the cab and frame and suspension seat reduces vibration impact on operators, promoting driving comfort. Sound insulation function reduces noise hazards.

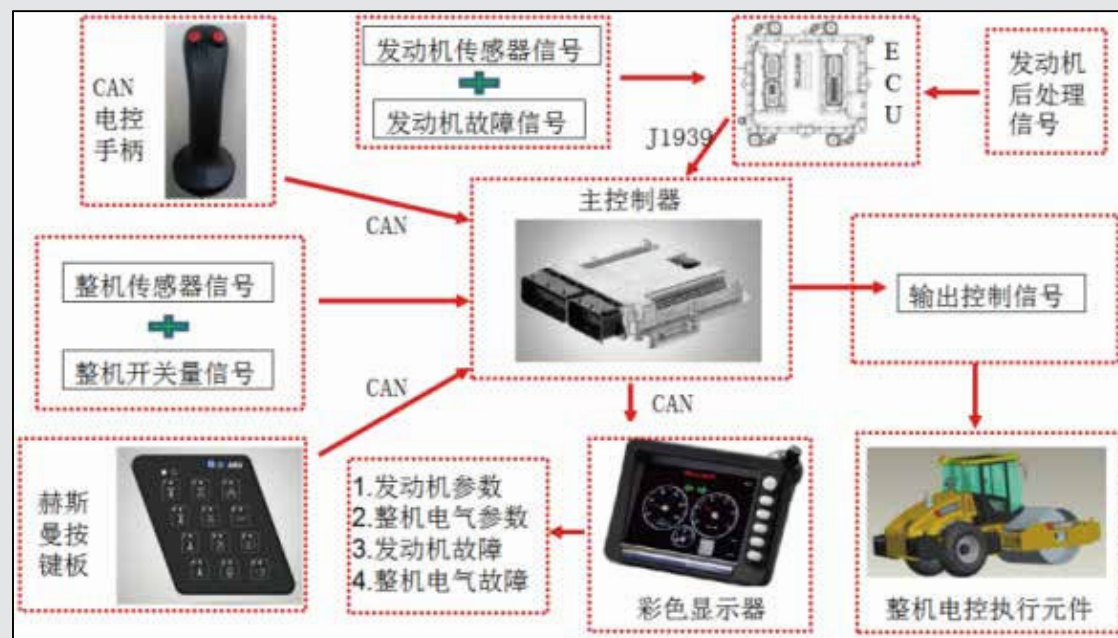
> Split-type cabin meets the requirements of container transportation. Equipped with ROPS/-FOPS.



> Adopt horizontal air conditioner (cold and warm); the warm wind is generated through the cycling water of engine. The evaporator is installed under the seat while the condenser on the top rear of the cab. The compressor is driven by multi-wedge belt of the engine and automatically tension.



> The international advanced CAN BUS control system is adopted, with the function of fault self-diagnosis, the vehicle starts and stops softly, ensuring more comfortable control system. Fault self-diagnosis, including engine fault self-diagnosis, real-time diagnosis of machine and control system state. The engine fault self-diagnosis detects engine faults, post-processing system faults; The machine fault diagnosis detects high hydraulic oil temperature, low fuel oil level, air filter clogging; the control condition real-time diagnosis system detects CAN communication node status, port state of controller, input/output status query.



> The front steering, the right control structure is applied, control box integrated Hirschmann colorful display, combination keypad, CAN bus joystick, function keys and fault indicator light, engine start switch, etc., easy and comfortable to operate, good visibility.

> Air suspension seat is adopted for good vibration reduction and comfortable operation.

Convenient maintenance



>Engine hood tilts forward largely and easily for better access to the maintenance parts.

>Including engine hood, intermediate frame and so on. The engine hood is thin sheet part, less weight, is supported by lifting cylinder, large opening, easy to maintain.

>Use the open type hydraulic system consisting of gear pump, full hydraulic steering unit and steering cylinder. The steering operation is convenient and flexible.



Options meet different needs

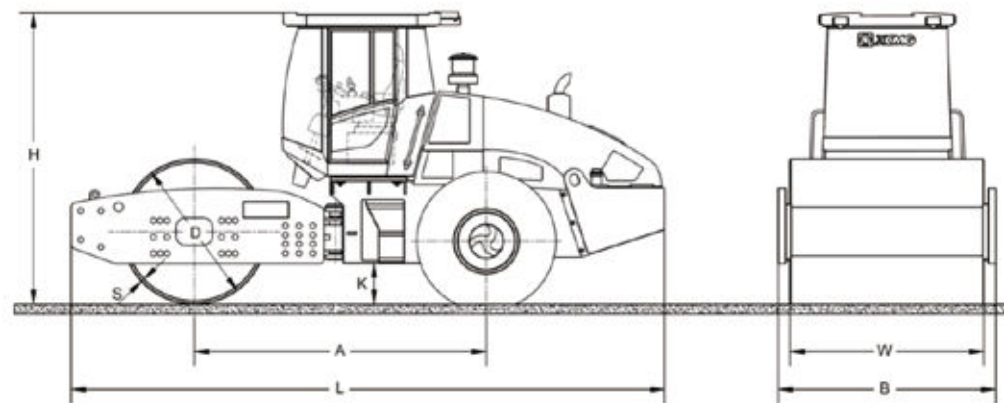


> Optional configuration of CV123U:
(1) welded padfoot drum;
(2) removable padfoot.

Parameter

Item	Content	CV123U (smooth drum)	CV123PDU (Padfoot drum)
Weights scale Parameters Quantity	Operating weight	12400kg / 27337lb	13250kg / 29211lb
	Front axle weight	6700kg / 14771lb	7550kg / 16645lb
	Rear axle weight	5700kg / 12566lb	5700kg / 12566lb
	Static linear load	308N/cm	—
	Operating speed	0~5.5; 0~11.2; km/h / 0~3.4; 0~7.0; mile/h	0~5.5; 0~11.2; km/h / 0~3.4; 0~7.0; mile/h
or Brake Performance Parameters Quantity	Theoretical gradeability	45%	45%
	Minimum turning radius(intern/extern)	4500/6800mm / 177/268in	4500/6800mm / 177/268in
	Ground clearance	393mm / 15in	443mm / 17in
	Wheel base	3010mm / 119in	3010mm / 119in
	Steering angle	± 30°	± 30°
	Oscillation angle	± 10°	± 10°
Compaction Performance Parameters Quantity	Braking distance	3.9m / 154in	3.9m / 154in
	Vibration frequency	30/35Hz	30/35Hz
	Nominal amplitude	1.8/0.9mm / 0.07/0.04in	1.6/0.8mm / 0.06/0.03in
	Exciting force (High/low frequency)	280/190kN / 63/43kip	280/190kN / 63/43kip
	Drum diameter	1523mm / 60in	1523mm / 60in
Liquid Compaction System	Drum width	2130mm / 84in	2130mm / 84in
	Charge pressure of drive system	2.4MPa / 24bar	2.4MPa / 24bar
	Relief pressure of drive system	35MPa / 350bar	35MPa / 350bar
	Relief pressure of vibration system	30MPa / 300bar	30MPa / 300bar
	Relief pressure of steering system	16MPa / 160bar	16MPa / 160bar
Engine Brake or	Model	QSF3.8	QSF3.8
	Type	Electronic control water-cooled	Electronic control water-cooled
	Rated power	97kW / 130HP	97kW / 130HP
	Rated speed	2200r/min	2200r/min
Drum Tire	Spec.	23.1-26-12G23TL	23.1-26-12R1TL
	Ply rating	12	12
	Air pressure	200kPa / 2bar	170kPa / 1.7bar
Miscellaneous	Drive system	Hydrostatic closed-loop	Hydrostatic closed-loop
	Vibration system	Hydrostatic closed-loop	Hydrostatic closed-loop
	Service brake	Hydraulic	Hydraulic
	Park brake	Mechanic/hydraulic	Mechanic/hydraulic
	Secondary brake	Mechanic/hydraulic	Mechanic/hydraulic
	Steering system	Articulated	Articulated
	Steering control	Hydraulic	Hydraulic

Appearance and di- mensions



Dimensions (mm)	A	B	D	H	K	L	S	W
CV123U	3010	2300	1523	3150	393	6150	30	2130
CV123PDU	3010	2300	1523	3150	443	6150	30	2130

Dimensions (in)	A	B	D	H	K	L	S	W
CV123U	119	91	60	124	15	242	1.2	84
CV123PDU	119	91	60	124	17	242	1.2	84

Optimum Services , XCMG Guaranteed



XCMG approved attachments



Genuine parts



Extension of warranty



Financial solutions



Maintenance contract



Telematics



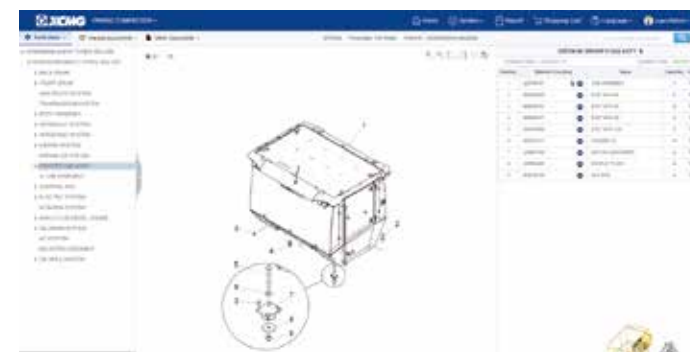
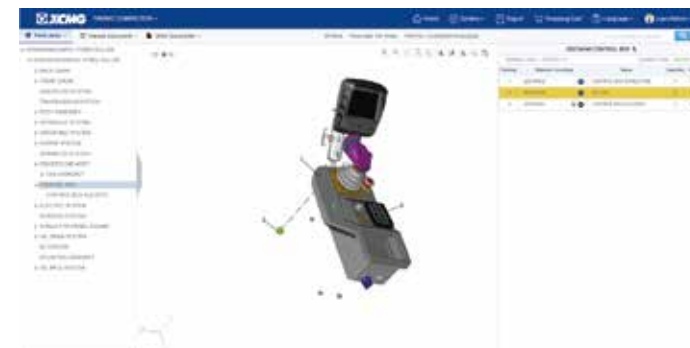
Professional Integrated Complete Solutions

XCMG group has built a strong reputation based on the quality, reliability and durability of its construction machinery. What's more, XCMG has gradually established a service network to constantly provide its local integrated and highly efficient complete solutions for all customers.

Full Range of Services Ready for you

In order to respond to your needs as fast as possible, XCMG experts are on their way to your job site from one of our facilities near you. Full range of services are available in order to reduce your total cost of ownership and increase your revenue.

XCMG Global Spare parts System



Mobile cranes



Excavators



Aerial work platforms



Wheel loaders



Road machinery



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