

VIBRATORY ROLLER

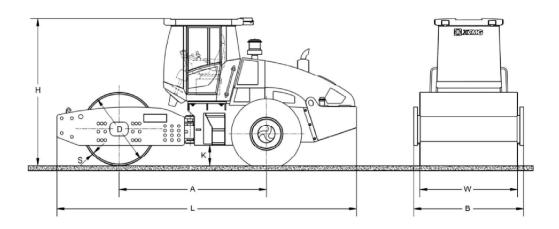
XS123/XS123PD is a medium-sized, self-propelled, single drum, hydraulic vibratory roller special designed for overseas markets. This product fulfills the requirements of the European Tier 3 emission standards. Featuring large exciting force, high compaction efficiency and good compaction quality, it is widely used in compaction work on base layer, sub-base layer and rock fill for roads, railways, airports, harbors, dams and industrial construction sites.

Performance Characteristics

- Cummins QSF3.8 water cooled turbocharged engine with high power reserve, low fuel consumption and low noise emission
- Proportional ASC closed loop hydraulic drive system is composed of variable displacement pump and constant 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.
- 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.
- 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.
- 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.
- Taking ergonomics into full consideration, the front steering, the right control structure, control box integrated colorful display, combination keypad, CAN bus joystick, function keys and fault indicator light, engine start switch, etc., are all comfortable to operate. Air suspension seat, multi direction and rigidity adjustments, suitable for drivers of different body shapes.
- 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.
- Engine hood tilts forward largely and easily for better access to the maintenance parts.

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Main Dimensions



Dimensions (mm)	A	В	D	Н	K	L	S	W
XS123	3010	2300	1523	3150	393	5940	30	2130
XS123PD	3010	2300	1523	3250	443	5940	30	2130

Main Specifications

Weights Parameters Operating weight Front axile weight in Rear a	Item	Content	Unit	XS123 (smooth drum)	XS123PD (Padfoot drum)	
Parameters Rear axle weight kg 5300 5300 Static linear load kg/cm 31.5 - Operating speed km/h 0-5.5; 0-11.2; 0-5.5; 0-11.2; Theoretical gradeability % 45 45 Minimum turning radius(intern/extern) mm 4500/6800 4500/6800 Propel Ground clearance mm 393 443 Wheel base mm 3010 3010 Steering angle ° ±30 ±30 Oscillation angle ° ±10 ±10 Braking distance m 3.9 3.9 Vibration frequency Hz 30/35 30/35 Compaction Nominal amplitude mm 1.8/0.9 1.6/0.8 Exciting force (High/low frequency) kN 280/190 280/190 Drum diameter mm 1523 1523 Drum width mm 2130 24 Hydraulic Relief pressure of drive system MPa 35 35 <td rowspan="4"></td> <td>Operating weight</td> <td>kg</td> <td>12000</td> <td>12850</td>		Operating weight	kg	12000	12850	
Parameters Rear axle weight speed kg/cm 33.5 - Operating speed km/h 0-5.5; 0-11.2; 0-5.5; 0-11.2; Theoretical gradeability % 45 45 Minimum turning radius(intern/extern) mm 4500/6800 4500/6800 Propel Ground clearance mm 393 443 Propel Wheel base mm 3010 3010 Steering angle ° ±30 ±30 Oscillation angle ° ±10 ±10 Braking distance m 3.9 3.9 Vibration frequency Hz 30/35 30/35 Nominal amplitude mm 1.8/0.9 1.6/0.8 Exciting force (High/low frequency) kN 280/190 280/190 Performance Exciting force (High/low frequency) kN 280/190 280/190 Porum diameter mm 1523 1523 Drum width mm 2130 2.4 Hydraulic Relief pressure of drive system		Front axle weight	kg	6700	7550	
Propel Operating speed km/h 0-5.5; 0~11.2; 0~5.5; 0~11.2; Propel Propel Theoretical gradeability % 45 45 Propel Ground clearance mm 4500/6800 4500/6800 Performance Ground clearance mm 393 443 Wheel base mm 3010 3010 Steering angle ° ±30 ±30 Oscillation angle ° ±10 ±10 Braking distance m 3.9 3.9 Vibration frequency Hz 30/35 30/35 Nominal amplitude mm 1.8/0.9 1.6/0.8 Exciting force (High/low frequency) kN 280/190 280/190 Drum diameter mm 1.523 1523 Drum diameter mm 2130 2.4 Hydraulic Relief pressure of drive system MPa 3.0 3.5 System Relief pressure of drive system MPa 3.0 3.0 Relief pressure of steering system <t< td=""><td>Rear axle weight</td><td>kg</td><td>5300</td><td>5300</td></t<>		Rear axle weight	kg	5300	5300	
Propel Theoretical gradeability % 45 45 Propel Ground clearance mm 4500/6800 4500/6800 Performance Ground clearance mm 393 443 Wheel base mm 3010 3010 Steering angle ° ± 30 ± 30 Oscillation angle ° ± 10 ± 10 Braking distance m 3.9 3.9 Vibration frequency Hz 30/35 30/35 Nominal amplitude mm 1.8/0.9 1.6/0.8 Exiting force (High/low frequency) kN 280/190 280/190 Performance Exiting force (High/low frequency) kN 280/190 280/190 Prom diameter mm 1523 1523 1523 Drum diameter mm 2130 2130 Pulyariulic MPa 3.5 35 System Relief pressure of drive system MPa 3.0 30 Relief pressure of vibration system MPa		Static linear load	kg/cm	31.5	-	
Propel Minimum turning radius(intern/extern) mm 4500/6800 4500/6800 Performance Ground clearance mm 393 443 Performance Wheel base mm 3010 3010 Steering angle ° ±30 ±30 Oscillation angle ° ±10 ±10 Braking distance m 3.9 3.9 Vibration frequency Hz 30/35 30/35 Nominal amplitude mm 1.8/0.9 1.6/0.8 Exciting force (High/low frequency) kN 280/190 280/190 Drum diameter mm 1523 1523 Drum width mm 2130 2130 Hydraulic Relief pressure of drive system MPa 3.5 35 System Relief pressure of drive system MPa 3.5 35 System Relief pressure of vibration system MPa 16 16 Model - QSF3.8 QSF3.8 Type -		Operating speed	km/h	0~5.5; 0~11.2;	0~5.5; 0~11.2;	
Propel Ground clearance mm 393 443 Performance Wheel base mm 3010 3010 Steering angle ° ±30 ±30 Oscillation angle ° ±10 ±10 Braking distance m 3.9 3.9 Vibration frequency Hz 30/35 30/35 Compaction Nominal amplitude mm 1.8/0.9 1.6/0.8 Exciting force (High/low frequency) kN 280/190 280/190 Performance Exciting force (High/low frequency) kN 280/190 280/190 Drum diameter mm 1523 1523 1523 Drum width mm 2130 2130 2130 Charge pressure of drive system MPa 35 35 35 System Relief pressure of drive system MPa 30 30 30 Relief pressure of steering system MPa 36 QSF3.8 QSF3.8 Engine Model - <t< td=""><td>Theoretical gradeability</td><td>%</td><td>45</td><td>45</td></t<>		Theoretical gradeability	%	45	45	
Performance Wheel base mm 3010 3010 Steering angle ° ±30 ±30 Oscillation angle ° ±10 ±10 Braking distance m 3.9 3.9 Vibration frequency Hz 30/35 30/35 Nominal amplitude mm 1.8/0.9 1.6/0.8 Exciting force (High/low frequency) kN 280/190 280/190 Drum diameter mm 1523 2130 Drum width mm 2130 2130 Charge pressure of drive system MPa 2.4 2.4 Hydraulic Relief pressure of drive system MPa 35 35 System Relief pressure of vibration system MPa 30 30 30 Relief pressure of vibration system MPa 16 16 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		Minimum turning radius(intern/extern)	mm	4500/6800	4500/6800	
Performance Formance For		Ground clearance	mm	393	443	
Steeling angle 150		Wheel base	mm	3010	3010	
Braking distance		Steering angle	0	± 30	± 30	
Compaction Performance Vibration frequency Hz 30/35 30/35 Performance Performance Nominal amplitude mm 1.8/0.9 1.6/0.8 Exciting force (High/low frequency) kN 280/190 280/190 Drum diameter mm 1523 1523 Drum width mm 2130 2130 Charge pressure of drive system MPa 2.4 2.4 Relief pressure of drive system MPa 35 35 Relief pressure of vibration system MPa 30 30 Relief pressure of steering system MPa 16 16 Model - QSF3.8 QSF3.8 Type - Electronic control water-cooled Electronic control water-cooled Rated power kW 104 104 Rated speed r/min 2200 2200 Spec. - 23.1-26-12G3TL 23.1-26-12R1TL Tire Ply rating - 12 12		Oscillation angle	•	± 10	± 10	
Compaction Performance Nominal amplitude mm 1.8/0.9 1.6/0.8 Exciting force (High/low frequency) kN 280/190 280/190 Drum diameter mm 1523 1523 Drum width mm 2130 2130 Mydraulic Relief pressure of drive system MPa 2.4 2.4 Relief pressure of drive system MPa 35 35 Relief pressure of vibration system MPa 30 30 Relief pressure of steering system MPa 16 16 Model - QSF3.8 QSF3.8 Type - Electronic control water-cooled Electronic control water-cooled Rated power kW 104 104 Rated speed r/min 2200 2200 Spec. - 23.1-26-12G23TL 23.1-26-12R1TL Tire Ply rating - 12 12		Braking distance	m	3.9	3.9	
Exciting force (High/low frequency) KN 280/190 280/190	200 0000000 00000000000000000000000000	Vibration frequency	Hz	30/35	30/35	
Performance Exciting force (High/low frequency) kN 280/190 280/190 Drum diameter mm 1523 1523 Drum width mm 2130 2130 Hydraulic Charge pressure of drive system MPa 2.4 2.4 Relief pressure of drive system MPa 35 35 Relief pressure of vibration system MPa 30 30 Relief pressure of steering system MPa 16 16 Model - QSF3.8 QSF3.8 Type - Electronic control water-cooled Electronic control water-cooled Rated power kW 104 104 Rated speed r/min 2200 2200 Spec. - 23.1-26-12G23TL 23.1-26-12R1TL Tire Ply rating - 12 12		Nominal amplitude	mm	1.8/0.9	1.6/0.8	
Drum diameter mm 1523 1523 Drum width mm 2130 2130 Hydraulic System Charge pressure of drive system MPa 2.4 2.4 Relief pressure of drive system MPa 35 35 System Relief pressure of vibration system MPa 30 30 Relief pressure of steering system MPa 16 16 Model - QSF3.8 QSF3.8 Type - Electronic control water-cooled Electronic control water-cooled Rated power kW 104 104 Rated speed r/min 2200 2200 Spec. - 23.1-26-12G23TL 23.1-26-12R1TL Tire Ply rating - 12 12		Exciting force (High/low frequency)	kN	280/190	280/190	
Charge pressure of drive system MPa 2.4 2.4		Drum diameter	mm	1523	1523	
Hydraulic System Relief pressure of drive system MPa 35 35 Relief pressure of vibration system MPa 30 30 Relief pressure of steering system MPa 16 16 Model - QSF3.8 QSF3.8 Type - Electronic control water-cooled Electronic control water-cooled Rated power kW 104 104 Rated speed r/min 2200 2200 Spec. - 23.1-26-12G23TL 23.1-26-12R1TL Tire Ply rating - 12 12		Drum width	mm	2130	2130	
System Relief pressure of vibration system MPa 30 30 Relief pressure of steering system MPa 16 16 Model - QSF3.8 QSF3.8 Type - Electronic control water-cooled Electronic control water-cooled Rated power kW 104 104 Rated speed r/min 2200 2200 Spec. - 23.1-26-12G23TL 23.1-26-12R1TL Tire Ply rating - 12 12	_	Charge pressure of drive system	MPa	2.4	2.4	
Relief pressure of steering system		Relief pressure of drive system	MPa	35	35	
Engine Model - QSF3.8 QSF3.8 Type - Electronic control water-cooled Electronic control water-cooled Rated power kW 104 104 Rated speed r/min 2200 2200 Spec. - 23.1-26-12G23TL 23.1-26-12R1TL Tire Ply rating - 12 12		Relief pressure of vibration system	MPa	30	30	
Engine Type - Electronic control water-cooled Electronic control water-cooled Electronic control water-cooled Rated power kW 104 104 Rated speed r/min 2200 2200 Spec. - 23.1-26-12G23TL 23.1-26-12R1TL Tire Ply rating - 12 12		Relief pressure of steering system	MPa	16	16	
Engine Rated power kW 104 104 Rated speed r/min 2200 2200 Spec. - 23.1-26-12G23TL 23.1-26-12R1TL Tire Ply rating - 12 12	Engine	Model		QSF3.8	QSF3.8	
Rated power kW 104 104 Rated speed r/min 2200 2200 Spec. - 23.1-26-12G23TL 23.1-26-12R1TL Tire Ply rating - 12 12		Type	-	Electronic control water-cooled	Electronic control water-cooled	
Spec. - 23.1-26-12G23TL 23.1-26-12R1TL Tire Ply rating - 12 12		Rated power	kW	104		
Tire Ply rating - 12 12		Rated speed	r/min	2200	2200	
Try rating 12	Tire	Spec.	-	23.1-26-12G23TL	23.1-26-12R1TL	
Air pressure kPa 200 170		Ply rating	_	12	12	
		Air pressure	kPa	200	170	