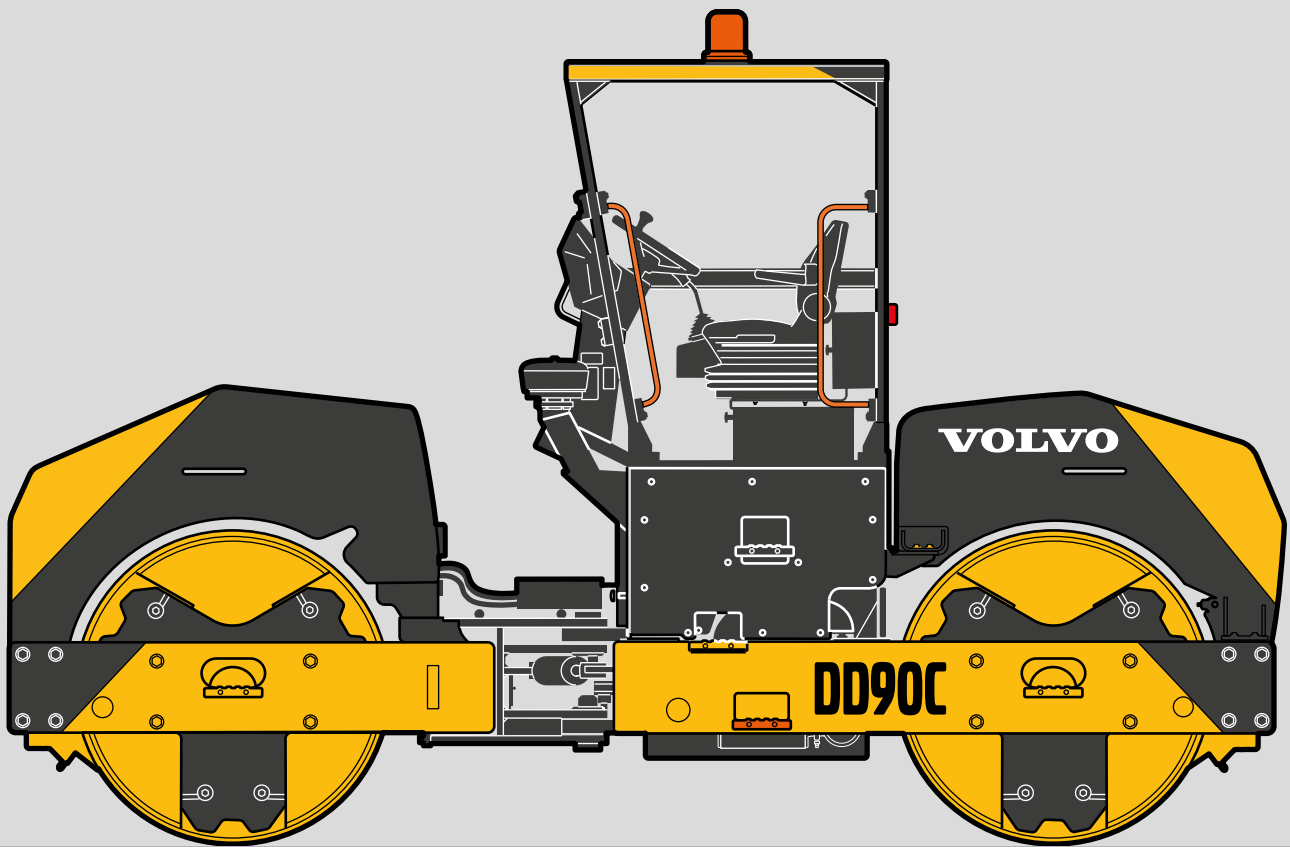


V O L V O

ENVIRONMENTAL DECLARATION

VOLVO COMPACTION EQUIPMENT



Environmental Declaration

COMPACTION EQUIPMENT

The following information is specified by the manufacturer and applies to machines when they leave the factory. For other technical information, see product specifications as well as the Operator's Manual.

MANUFACTURER

Volvo Construction Equipment,
312 Volvo Way, Shippensburg, PA

Volvo Construction Equipment
Volvo India Private Limited
Peenya Industrial Area
Bangalore - 560 058, India

Volvo Construction Equipment,
Kuhbrueckenstrasse 18
31785 Hameln / Germany

Soil Compactor Model			
Model		SD110C	SD110CD
Engine type		E494 TCIC	E494 TCIC
Engine power, ISO 9249, SAE J1349 net		kW	74
		Metric hp	101
		Imperial hp	99
Emission level according to INDIA BS (CEV)		Bharat Stage IV (CEV)	Bharat Stage IV (CEV)
Transmission		Hydrostatic	Hydrostatic

Asphalt Compactor Model				
Model		DD90C	DD100C	PT220C
Engine type		E483 TCIC	E494 TCIC	E494 TCIC
Engine power, ISO 9249, SAE J1349 net		kW	55	74
		Metric hp	75	101
		Imperial hp	74	99
Emission level according to INDIA BS (CEV)		Bharat Stage IV (CEV)	Bharat Stage IV (CEV)	Bharat Stage IV (CEV)
Transmission		Hydrostatic	Hydrostatic	Hydrostatic

CORE VALUES

Quality, safety and environmental care are Volvo's core values. They are designed from the beginning into the product's entire service life. This includes design and engineering, material selection, manufacturing processes, use and recycling.

MANUFACTURING

The assembly of the complete machines takes place at one of Volvo Construction Equipment's production plants. Our production facilities are all certified according to ISO 14001.

DECLARATIONS

Upholstery and other interiors in the cab do not contain mercury.

Plastics and other interior materials are fire-classed according to Volvo standard 104-0001 or MVSS 302. Brake pads do not contain mercury, cadmium, or asbestos. Tires do not contain highly aromatic oils (HA-oils) in the tread. The whole machine does not contain any cadmium or asbestos. Refrigerant of the type R134A (1,8-2,1 kg/4.0 - 4.6 lbs) is used if the machine is equipped with air conditioning (option).

Many of our components and parts are purchased from external suppliers. Volvo Construction Equipment works closely with these suppliers in order to safeguard the environmental requirements for purchased components and parts.

SPECIFICATION OF PAINT

In order to reduce solvent emissions, the machines are painted using powder paints and water-based paints. To reduce consumption of water and chemicals, cleaning and recirculation takes place during the pretreatment processes in the factories.

Specification of paint				
Main components	Paint type	Paint Description	Chlorine	Pre-treatment
Frames, Drums, and Structural Steel	Solvent	High Performance, Ultra High Solids, Polyaspartic Urethane	No	Blasting
ROPS, Steel Tank, and Sheet Metal	Powder	Superdurable Polyester Non-TGIC	No	Iron-Phosphatizing

Environmental Declaration

EMISSIONS

The engine emission value is meeting with the limit value according to India's regulation Bharat (CEV) Stage V .

Exhaust emissions are measured as specific emissions in g/ kWh according to ISO 8178-1 and ISO 8178-4, cycle C1.

A family engine (parent engine) is certified within an engine family.

The parent engine is the engine with the highest fuel injection volume at maximum torque. Engines with the same design or similar technology will then belong to this family.

Therefore, the values required by law are only given for the parent engine.

*Emission standards are applied to each machine in accordance with the emission requirements.

Emission levels	Power range (kW)	NOx (g/kWh)	PM (g/kWh)	PN (g/kWh)	HC (g/kWh)	CO (g/kWh)
India Regulation, CEV Stage IV	37 - 56	4.7 (incl.HC)	0.025	-	-	5.0
India Regulation, CEV Stage IV	56 - 130	0.4	0.025	-	0.19	5.0

SOUND LEVELS

In accordance with the requirements of Machinery Directive 2006/42/EC, the following values were measured: These measurements were recorded in accordance with the requirements of ISO 6394, ISO 6395 and ISO 6396 with the engine running at manufacturer's rated speed.

Soil Compactor Model						
	Engine emission	Sound Level with Open ROPS		Sound Level with Cab		Sound Power
		Operator Ear LP		Operator Ear LP		Level Lwa
		Engine Only	Vibration On	Engine Only	Vibration On	
		dB (A)	dB (A)	dB (A)	dB (A)	dB (A)
SD110C	Bharat Stage V (CEV)	90	92	-	-	105
SD110CD	Bharat Stage V (CEV)	90	92	-	-	105

Asphalt Compactor Model				
	Engine emission	Sound Level		Sound Power
		Operator Ear LeqA		(Lw) (Vibration On)
		Engine Only	Vibration On	Equivalent continuous A-weighted sound power level of the machine
		dB (A)	dB (A)	dB (A)
DD90C	Bharat Stage V (CEV)	92	97	110
DD100C	Bharat Stage V (CEV)	94	98	110
PT220C	Bharat Stage V (CEV)	92	-	109

OPERATOR'S ENVIRONMENT (ENCLOSED CAB)

Incoming air for the cab first passes through a pre-filter which separates coarser particles, and then through the main filter in to the cab. Up to 90% of all air can be recirculated through the main filter.

This creates an overpressure in the cab, which results in a cleaner work environment.

SERVICE

There are dedicated hoses supplied with many machines for easier draining and also to reduce the risk of spilling engine or hydraulic oil. For venting air from engine, transmission, fuel tank and hydraulic oil tank, there is a breather filter to reduce any occurrence of oil mist. The fuel tank cap seals tightly to prevent fuel leaks in case of machine turn-over / rollover.

The transmission, hydraulic oil tank, and fuel tank breathers have a check valve to minimize leaks in case of machine turn-over / rollover. For service intervals and other maintenance, see applicable maintenance label or operator's manuals for each respective machine model.

OILS AND FLUIDS

Ethylene glycol coolant is filled at the factory.

Biologically degradable oil for the hydraulic system is available as an option. We recommend the following oils; these are also available as options. Besides we refer to the respective operator's manual.

TIRES

Tires without high-aromatic oil (HA-oils) are available from our suppliers by special order. HA-oils that result from tire wear is a contaminant to aquatic organisms.

Environmental Declaration

RECYCLING

Volvo Compactors are designed from the beginning for recycling at the end of their useful life cycle. Materials can be reused in new Volvo Construction Equipment or other products.

Most of our plastic parts are marked for recycling according to Volvo Standards 5052,41, 5042,411 as well as 5052,412.

Materials included in the machine are distributed according to the tables below. Weights are approximate. These material fractions can be recycled (material and energy recycling) where such recycling possibilities are available.

Recycling					
Soil Compactor Model					
Model		SD110C	SD110C	SD110CD	SD110CD
			Padfoot		Padfoot
Units (rounded)					
Steel / iron	kg	9 126	9 761	9 218	10 750
Copper	kg	45	45	45	45
Aluminum	kg	120	120	120	120
Lead batteries	kg	40	40	40	40
Polymer materials and rubber	kg	150	150	155	155
Tires	kg	200	200	200	200
Fluids, oils and chemicals	kg	319	319	322	322
Other	kg	1 100	1 100	1 100	1 100
Total recyclable material*	kg	11 100	11 100	11 200	12 732
Steel / iron	lb	20,119	21,519	20,322	23,700
Copper	lb	99	99	99	99
Aluminum	lb	265	265	265	265
Lead batteries	lb	88	88	88	88
Polymer materials and rubber	lb	331	331	342	342
Tires	lb	441	441	441	441
Fluids, oils and chemicals	lb	703	703	710	710
Other	lb	2,425	2,425	2,425	2,425
Total recyclable material*	lb	24,471	24,471	24,692	28,069

* Varies depending on equipment, e.g., options and field kits

Recycling				
Asphalt Compactor Model				
Model		DD90C	DD100C	PT220C
		Units (rounded)		
Steel / iron	kg	7 350	9 100	8 255
Copper	kg	55	10	3
Aluminum	kg	40	10	8
Lead batteries	kg	40	36	36
Polymer materials and rubber	kg	265	220	345
Tires	kg	0	0	985
Fluids, oils and chemicals	kg	250	630	227
Other	kg	700	-	641
Total recyclable material*	kg	8 700	10 000	10 500
Steel / iron	lb	16,204	20,062	18,199
Copper	lb	121	22	7
Aluminum	lb	88	22	18
Lead batteries	lb	88	79	79
Polymer materials and rubber	lb	584	485	761
Tires	lb	0	0	2,172
Fluids, oils and chemicals	lb	551	1,389	500
Other	lb	1,543	0	1 413
Total recyclable material*	lb	19,180	22,046	23,149

* Varies depending on equipment, e.g., options and field kits

PRODUCER RESPONSIBILITY

In many countries there is a producer responsibility that concerns our products, applicable to components such as batteries, tires, etc. There are special regulations for these components.

For further information, contact your dealer.

Machine model

Delivery date

Machine's serial number

Engine's manufacturing number

Place for stamp

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