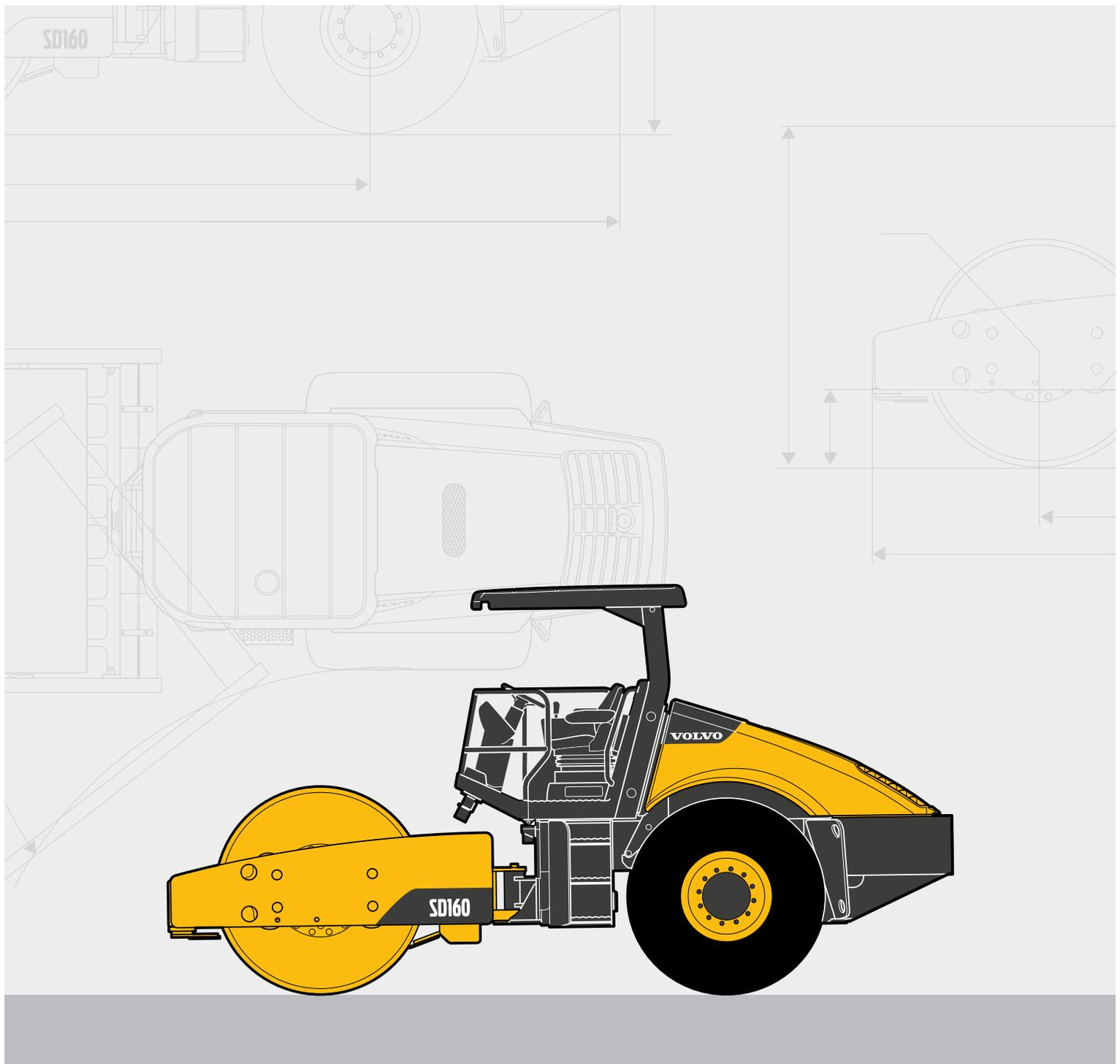




## ENVIRONMENTAL DECLARATION

# 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

		SD45B	SD75B	SD105	SD115B	SD135B	SD160B	SD110	SD110B	SD110BA
Engine		Volvo D3.3H	Volvo D3.8	Cummins QSB 4.5	Volvo D4	Volvo D4	Cummins	Volvo D5 DA3	Volvo D5 DA3	Volvo D5
Engine power acc. To ISO 9249 SAE J1349 net	kW	55	55.4	97	110	110	110	99	99	77
	Metric hp	75.0	76.1	131.8	149.6	149.6	149.6	134.6	134.6	104.6
	Imperial hp	74	75	130	147.5	147.5	147.5	132.7	132.7	103.2
Emission level according to US EPA & CARB		T4F	T4F	T3	NA-T4F. G-T3	NA-T4F. G-T3	NA-T4F. G-T3	T3	T3	T3
Emission level within EU Directive 97/68/EC		Stage V	Stage V		Stage V	Stage V	Stage V			
Transmission		Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic

### Asphalt Compactor Model

		CR30	CR30B	CR35B	DD15	DD25B	DD100	DD90B	DD38HF	DD30B	DD35B
Engine		Kubota V2203M	Kubota D1803-CR-TE4B	Kubota D1803-CR-TE4B	Kubota D722-B	Volvo D1.7A	Cummins QSB 4.5	Cummins B3.9-C	Kubota V2203M	Kubota D1803-CR-TE4B	Kubota D1803-CR-TE4B
Engine power acc. To ISO 9249 SAE J1349 net	kW	31.4	37	37	12.4	18.2	96.9	110	31.4	37	37
	Metric hp	42.7	50.3	50.3	16.9	24.7	131.7	149.6	42.7	50.3	50.3
	Imperial hp	42.1	49.6	49.6	16.6	24.4	129.9	147.5	42.1	49.6	49.6
Emission level according to US EPA & CARB		T4i	T4F	T4F	T4F	T4F	T3	T3	T4i	T4F	T4F
Emission level within EU Directive 97/68/EC		Stage IIIA			Stage V	Stage V			Stage IIIA		
Transmission		Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic

### Asphalt Compactor Model

		DD105	DD105 OSC	DD110C	DD120C	DD140C	PT125	PT125C	PT220	PTR240
Engine		Volvo D3.8	Volvo D3.9	Volvo D4, EPA	Volvo D4, EPA	Volvo D4, EPA	Kubota V3600-T-E3B	Volvo D3.3H	Volvo D5DA3	Deutz TCD 3.6
Engine power acc. To ISO 9249 SAE J1349 net	kW	85	85	110	110	110	63	55.4	99	74.4
	Metric hp	115.6	115.6	149.6	149.6	149.6	85.7	75.3	134.6	101.2
	Imperial hp	114.0	114.0	147.5	147.5	147.5	84.5	74.3	132.8	99.8
Emission level according to US EPA & CARB		T4F. G-T3	T4F. G-T3	T4F	T4F	T4F	Tier 3	T4F	Tier 3	T4F
Emission level within EU Directive 97/68/EC		Stage IV	Stage IV							
Transmission		Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	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.

Machine Parts	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 EU regulation 2016/1628, Stage V.

The engine emission value is meeting with the limit value according to EU Directive 97/68/EC 2010/26/EU, Stage IIIA, Stage IIIB.

The engine emission value is meeting with the limit value according to US requirements: US EPA Tier 3, Tier4f and CARB US EPA.

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	NOX	PM	PN	HC	CO
	(kW)	(g/kWh)	(g/kWh)	(1/kWh)	(g/kWh)	(g/kWh)
EU regulation 2016/1628, Stage V	>560*	3.5	0.045	-	0.19	3.5
EU regulation 2016/1628, Stage V	130-560	0.4	0.015	1 012	0.19	3.5
EU regulation 2016/1628, Stage V	56-130	0.4	0.015	1 012	0.19	5
EU regulation 2016/1628, Stage V	37-56	4.7 (inkl.HC)	0.015	1 012	-	5
EU regulation 2016/1628, Stage V	19-37	4.7 (inkl.HC)	0.015	1 012	-	5.5
EU regulation 2016/1628, Stage V	8-19*	7.5 (inkl.HC)	0.4	-	-	6.6
EU regulation 2016/1628, Stage V	75 - 130	4			0.3	5
US EPA Tier 4 Final	>560*	3.5	0.04	-	0.19	3.5
US EPA Tier 4 Final	130-560	0.4	0.02	-	0.19	3.5
US EPA Tier 4 Final	56-130	0.4	0.02	-	0.19	5
US EPA Tier 4 Final	37-56	4.7 (inkl.HC)	0.03	-	-	5
US EPA Tier 4 Final	19-37	4.7 (inkl.HC)	0.03	-	-	5.5
US EPA Tier 4 Final	43696	7.5 (inkl.HC)	0.4	-	-	6.6
US EPA Tier 4 Final	<8	7.5 (inkl.HC)	0.4	-	-	8

## 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.

### Sound Levels

	Engine Tier		Sound Level with Open ROPS		Sound Level with Cab		Sound Power
	US / Global	EU	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)
SD45B	Tier 4 final	Stage V	84	86	-	-	105
SD75B	Tier 4 final	Stage V	87	85	81	93	101
SD105	Tier 3						105
SD115B	Tier 4 final / Tier 3	Stage V	83	87	73	75	102
SD135B	Tier 4 final / Tier 3	Stage V	83	87	73	75	101
SD160B	Tier 4 final / Tier 3	Stage V	-	-	80	79	102
SD110	Tier 3						
SD110B	Tier 3		83	85	81	82	106
SD110BA	Tier 3		94	90	-	-	109

	Engine Tier		Sound Level		Sound Level		Sound Power
	US / Global	EU	Operator Ear LeqA (Engine Only)		Operator Ear LeqA (Vibration On)		(Lw) (Vibration On)
			*105 only* Open ROPS	*105 only* Cab	*105 only* Open ROPS	*105 only* Cab	Equivalent continuous A-weighted sound power level of the machine
			dB (A)		dB (A)		dB (A)
DD105	Tier 4 final / Tier 3	Stage IV	86	91			106
DD105 OSC	Tier 4 final / Tier 4	Stage IV					106
CR30	Tier 4 interim	Stage IIIA	86		88		105
CR30B	Tier 4 final		81		89		106
CR35B	Tier 4 final		81		89		106
DD15	Tier 4 final	Stage V	81		87		104
DD25B	Tier 4 final	Stage V	86		88		104
DD100	Tier 3						
DD90	Tier 3		88		91		107
DD38HF	Tier 4 interim	Stage IIIA	83		87		104
DD30B	Tier 4 final		81		90		103
DD35B	Tier 4 final		81		90		103
DD110C	Tier 4 final		81		99		111
DD120C	Tier 4 final		82		95		110
DD140C	Tier 4 final		82		95		113
PT125	Tier 3		86		-		105
PT125C	Tier 4 final		83		-		99
PT220	Tier 3						106
PTR240	Tier 4 final						

### 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.

Soil Compactor Model		SD45B	SD45B	SD75B	SD75B	SD105	SD105	SD115B	SD115B	SD135B
			Padfoot		Padfoot		Padfoot		Padfoot	
<b>Units (rounded)</b>										
Steel / iron	kg	4 226	4 566	6 551	7 140	9 770	10 405	10 074	10 709	11 053
Copper	kg	6	6	9	9	16	16	18	18	18
Aluminum	kg	9	9	14	14	19	19	21	21	21
Lead batteries	kg	12	12	18	18	36	36	36	36	36
Polymer materials and rubber	kg	99	97	152	152	202	202	202	202	202
Tires	kg	85	83	130	130	317	317	317	317	317
Fluids, oils and chemicals	kg	80	79	123	123	172	117	189	189	189
Other	kg	238	254	365	365	495	534	634	634	634
<b>Total*</b>	<b>kg</b>	<b>4 755</b>	<b>5 106</b>	<b>7 362</b>	<b>7 951</b>	<b>11 027</b>	<b>11 646</b>	<b>11 491</b>	<b>12 126</b>	<b>12 470</b>
Steel / iron	lb	9,297	10,045	14,412	15,708	21,494	22,891	22,163	23,560	24,317
Copper	lb	13	13	20	20	35	35	40	40	40
Aluminum	lb	20	20	31	31	42	42	46	46	46
Lead batteries	lb	26	26	40	40	79	79	79	79	79
Polymer materials and rubber	lb	218	213	334	334	444	444	444	444	444
Tires	lb	187	183	286	286	697	697	697	697	697
Fluids, oils and chemicals	lb	176	174	271	271	378	257	416	416	416
Other	lb	524	559	803	803	1,089	1,175	1,395	1,395	1,395
<b>Total*</b>	<b>lb</b>	<b>10,461</b>	<b>11,233</b>	<b>16,196</b>	<b>17,492</b>	<b>24,259</b>	<b>25,621</b>	<b>25,280</b>	<b>26,677</b>	<b>27,434</b>

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

Soil Compactor Model		SD135B	SD160B	SD160B	SD110	SD110	SD110B	SD110B	SD110BA	SD110BA
		Padfoot		Padfoot		Padfoot		Padfoot		Padfoot
<b>Units (rounded)</b>										
Steel / iron	kg	11 753	15 132	15 832	9 835	10 470	9 258	9 893	9 490	10 125
Copper	kg	18	18	18	9	9	13	13	11	11
Aluminum	kg	21	21	21	14	14	21	21	21	21
Lead batteries	kg	36	36	36	18	18	35	35	35	35
Polymer materials and rubber	kg	202	202	202	152	152	198	198	198	198
Tires	kg	317	317	317	130	130	311	311	311	311
Fluids, oils and chemicals	kg	189	189	189	277	277	251	251	265	265
Other	kg	634	764	764	441	441	502	502	486	486
<b>Total*</b>	<b>kg</b>	<b>13 170</b>	<b>16 679</b>	<b>17 379</b>	<b>10 876</b>	<b>11 511</b>	<b>10 589</b>	<b>11 224</b>	<b>10 817</b>	<b>11 452</b>
Steel / iron	lb	25,857	33,290	34,830	21,637	23,034	20,368	21,765	20,879	22,276
Copper	lb	40	40	40	20	20	29	29	24	24
Aluminum	lb	46	46	46	31	31	45	45	45	45
Lead batteries	lb	79	79	79	40	40	78	78	78	78
Polymer materials and rubber	lb	444	444	444	334	334	436	436	436	436
Tires	lb	697	697	697	286	286	684	684	684	684
Fluids, oils and chemicals	lb	416	416	416	609	609	552	552	583	583
Other	lb	1,395	1,681	1,681	970	970	1,104	1,104	1,068	1,068
<b>Total*</b>	<b>lb</b>	<b>28,974</b>	<b>36,694</b>	<b>38,234</b>	<b>23,927</b>	<b>25,324</b>	<b>23,296</b>	<b>24,693</b>	<b>23,797</b>	<b>25,194</b>

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

Asphalt Compactor Model		CR30	CR30B	CR35B	DD15	DD25B	DD100	DD90B	DD38HF	DD30B	DD35B
		<b>Units (rounded)</b>									
Steel / iron	kg	2 270	2 144	2 557	1 172	2 330			3 057	2 622	3 193
Copper	kg	3	3	3	3	5			3	3	3
Aluminum	kg	20	20	20	20	25			20	20	20
Lead batteries	kg	19	19	19	18	18			19	19	19
Polymer materials and rubber	kg	145	145	145	94	102			145	145	145
Tires	kg	100	100	100	0	0			0	0	0
Fluids, oils and chemicals	kg	153	153	153	63	91			153	153	153
Other	kg	140	140	180	72	249			180	140	180
<b>Total*</b>	kg	<b>2 850</b>	<b>2 724</b>	<b>3 177</b>	<b>1 442</b>	<b>2 820</b>	<b>0</b>	<b>0</b>	<b>3 577</b>	<b>3 102</b>	<b>3 713</b>
Steel / iron	lb	4,994	4,717	5,625	2,578	5,126	0	0	6,725	5,768	7,025
Copper	lb	7	7	7	7	11	0	0	7	7	7
Aluminum	lb	44	44	44	44	55	0	0	44	44	44
Lead batteries	lb	42	42	42	40	40	0	0	42	42	42
Polymer materials and rubber	lb	319	319	319	207	224	0	0	319	319	319
Tires	lb	220	220	220	0	0	0	0	0	0	0
Fluids, oils and chemicals	lb	337	337	337	139	200	0	0	337	337	337
Other	lb	308	308	396	158	548	0	0	396	308	396
<b>Total*</b>	lb	<b>6,270</b>	<b>5,993</b>	<b>6,989</b>	<b>3,172</b>	<b>6,204</b>	<b>0</b>	<b>0</b>	<b>7,869</b>	<b>6,824</b>	<b>8,169</b>

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

Asphalt Compactor Model		DD105	DD105 OSC	DD110C	DD120C	DD140C	PT125	PT125C	PT220	PTR240	
		<b>Units (rounded)</b>									
Steel / iron	kg	9 565	9 416	10 099	11 201	12 404	3 303	3 303			
Copper	kg	50	50	12	11	11	6	6			
Aluminum	kg	40	40	10	68	68	5	5			
Lead batteries	kg	25	25	36	36	36	21	21			
Polymer materials and rubber	kg	190	190	239	396	396	450	450			
Tires	kg	0	0	0	0	0					
Fluids, oils and chemicals	kg	105	105	194	263	263	240	240			
Other	kg	100	100	455	590	650	100	100			
<b>Total*</b>	kg	<b>10 075</b>	<b>9 926</b>	<b>11 045</b>	<b>12 565</b>	<b>13 828</b>	<b>4 125</b>	<b>4 125</b>	<b>0</b>	<b>0</b>	
Steel / iron	lb	21,043	20,715	22,218	24,642	27,289	7,267	7,267	0	0	
Copper	lb	110	110	26	24	24	13	13	0	0	
Aluminum	lb	88	88	22	150	150	11	11	0	0	
Lead batteries	lb	55	55	79	79	79	46	46	0	0	
Polymer materials and rubber	lb	418	418	526	871	871	990	990	0	0	
Tires	lb	0	0	0	0	0	0	0	0	0	
Fluids, oils and chemicals	lb	231	231	427	579	579	528	528	0	0	
Other	lb	220	220	1,001	1,298	1,430	220	220	0	0	
<b>Total*</b>	lb	<b>22,165</b>	<b>21,837</b>	<b>24,299</b>	<b>27,643</b>	<b>30,422</b>	<b>9,075</b>	<b>9,075</b>	<b>0</b>	<b>0</b>	

\* 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 Type

Engine's manufacturing number

Place for stamp

**VOLVO**

**Volvo Construction Equipment**

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