



Volvo Construction Equipment

## ENVIRONMENTAL DECLARATION

# ASPHALT PAVING EQUIPMENT



# Environmental declaration

## ASPHALT PAVING 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 USA 17257

Volvo Construction Equipment  
ABG Allgemeine Baumaschinen-Gesellschaft mbH  
Kuhbrueckenstrasse 18  
D-31785 Hameln / Germany

<b>Paver model</b>	<b>Unit</b>	<b>PF4410, PF2181</b>	<b>P7110, P7170</b>	<b>ABG2820</b>	<b>P5770C</b>
Engine		Deutz 2CD 2013 L04 2V	Volvo D8	Deutz TD2011 L04	Volvo D6
Engine power acc. to ISO 9249 SAE J1349 net	kW	118	175	63	129
Metric	hp	160	238	85	175
Imperial	hp	158	235	84	173
Emissions compliance		Tier 2	Tier 4i	COM 3A / EPA Tier 3	COM 3B / EPA Tier 4i
Transmission		Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic
<b>Paver model</b>	<b>Unit</b>	<b>P5870C</b>	<b>P6870C</b>	<b>ABG5820</b>	<b>ABG6820</b>
Engine		Volvo D6	Volvo D6	Deutz TCD 2013 L04 2V	Deutz TCD 2013 L04 2V
Engine power acc. to ISO 9249 SAE J1349 net	kW	129	129	112	125
Metric	hp	175	175	152	170
Imperial	hp	173	173	150	168
Emissions compliance		COM 3B / EPA Tier 4i	COM 3B / EPA Tier 4i	COM 3A / EPA Tier 3	COM 3A / EPA Tier 3
Transmission		Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic
<b>Paver model</b>	<b>Unit</b>	<b>P6820C</b>	<b>P7820C</b>	<b>P8820C</b>	<b>ABG9820</b>
Engine		Volvo D6H	D8H GEE4	D8H GDE4	Deutz TCD 2015 V06 4V
Engine power acc. to ISO 9249 SAE J1349 net	kW	140	175	200	273
Metric	hp	190	238	272	371.1766968
Imperial	hp	188	235	268	366
Emissions compliance		COM 3B / EPA Tier 4i	COM 3B / EPA Tier 4i	COM 3B / EPA Tier 4i	COM 3A / EPA Tier 3
Transmission		Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic
<b>Paver model</b>	<b>Unit</b>	<b>ABG7820B</b>	<b>ABG8820B</b>	<b>P5320B</b>	<b>P4370B</b>
Engine		Volvo D7E	Volvo D7E	Volvo D5	Volvo D5
Engine power acc. to ISO 9249 SAE J1349 net	kW	170	182	88	88
Metric	hp	231	247	120	120
Imperial	hp	228	244	118	118
Emissions compliance		COM 3A / EPA Tier 3	COM 3A / EPA Tier 4	EPA Tier 3 / BS - III	Tier 3 / BS - III
Transmission		Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic

## CORE VALUES

Along with quality and safety, caring for the environment is one of the Volvo core values. This means that Volvo Construction Equipment works with an overall perspective of the products that extends throughout their entire life cycle. This includes engineering and design, material selection, manufacturing processes, use, and recycling.

## MANUFACTURING

Manufacturing of the main components as well as the assembly of the complete paver/milling machine takes place at Volvo Construction Equipment's production facilities. All of these are certified according to ISO 14001. A lot of our components and parts are purchased from suppliers. We work in close cooperation with our suppliers to ensure that purchased components and parts meet our environmental requirements.

## DECLARATIONS

Upholstery or other operator station materials do not contain mercury.

Plastics and other operator station materials are fire-classed according to Volvo standard 104-0001.

Tires do not contain highly aromatic oils (HA-oils) in the tread.

The entire machine contains no cadmium or asbestos.

## PAINT AND SURFACE TREATMENT

Shippensburg machines - PF4410, PF2181, P7110, P7170:

In order to reduce emissions, machines in Shippensburg are painted using a vegetable oil-based high solids coating. Metal preparation is done by blasting, eliminating the use of water and chemicals.

Hameln machines - P5770C, P5870C, P6870C, ABG2820, ABG5820, ABG6820, P6820C, P7820C, P8820C, ABG9820:

To save our environment the products in Hameln are treated by washing with phosphate-free add-ons in a water recirculation system and painted with a marginal percentage of solvent (e.g. waterborne primer and topcoat).

Specification of paint				
Machine parts	Paint type	Paint description	Chlorine	Pre-treatment
Frames and structural steel	Solvent	HAPS-free (hazardous air pollutants) vegetable-based polyester epoxy	No	Blasting
Steel tanks and sheet metal	Powder	Superdurable polyester TGIC (triglycidyl isocyanurate)	No	Iron-phosphatizing

# Environmental declaration

## ENGINE/EMISSIONS

For EU Stage IIIA and EPA Tier 3 engines:

- In Europe, engines are certified through official testing according to Directive 97 / 98 / EC, Stage III A.
- In the US, engines are certified according to EPA Tier 3 and California Tier 3 requirements.
- In India, engines are certified according to Bharat Stage III (CEV) requirements.

No aftertreatment of exhausts (catalytic converter, particle filter, etc.), is needed to fulfill legal requirements. Exhaust emissions are measured as specific emissions in g / kWh according to ISO 8178-1 and ISO 8178-4, run cycle C1.

All emission certified EU stage 3A and US EPA Tier 3 engines fulfill the legal requirements as outlined below.

Emission levels	NO x + HC (g/kWh)	PM (g/kWh)	CO (g/kWh)	Power range ( kW)
EU Directive 97/ 68 / EC, Stage 3A	7.5	0.6	5.5	19 – 37
EU Directive 97/ 68 / EC, Stage 3A	4.7	0.4	5.0	37 – 75
EU Directive 97/ 68 / EC, Stage 3A	4.0	0.3	5.0	75 – 130
EU Directive 97/ 68 / EC, Stage 3A	4.0	0.2	3.5	130 – 560
US EPA Tier 3 US EPA	7.5	0.6	5.5	19 – 37
US EPA Tier 3 US EPA	4.7	0.4	5.0	37 – 75
US EPA Tier 3 US EPA	4.0	0.3	5.0	75 – 130
US EPA Tier 3 US EPA	4.0	0.2	3.5	130 – 560
Bharat Stage III (CEV)	7.5	0.6	5.5	19 – 37
Bharat Stage III (CEV)	4.7	0.4	5.0	37 – 75
Bharat Stage III (CEV)	4.0	0.3	5.0	75 – 130
Bharat Stage III (CEV)	4.0	0.2	3.5	130 – 560

## ENGINE/EMISSIONS

For EU Stage IIIB and EPA Tier 4i engines:

- In Europe, engines are certified through official testing according to EU directive 97/68/EC, stage III B.
- In US engines are certified according to US requirements US EPA and CARB Tier 4i.

To comply with the regulated PM-levels, a DPF (Diesel Particulate Filter) is used as exhaust after treatment system. Exhaust emissions are measured as specific emissions in g/kWh according to NRSC and NRTC for EU as well as RMC (C1) and RRTC for US.

All engines fulfill the legal requirements as outlined below.

Emission levels	NMHC (g/kWh)	NO x + HC (g/kWh)	PM (g/kWh)	CO (g/kWh)	Power range (kW)
EU directive 97/68/EC, Stage 3B	0.19	3.3	0.025	5.0	56 - 130
EU directive 97/68/EC, Stage 3B	0.19	2.0	0.025	3.5	130 - 560
US EPA and CARB Tier 4i	0.19	3.4	0.02	5.0	56 - 130
US EPA and CARB Tier 4i	0.19	2.0	0.02	3.5	130 - 560

## SOUND LEVELS

Machine model	PF4410	PF2181	P7110	P7170	P4370B	P5320B
Engine Make and Model	Deutz Diesel	Deutz Diesel	Volvo D8	Volvo D8	Volvo D5	Volvo D5
	118 kW / 158 hp	118 kW / 158 hp	175 kW / 235 hp	175 kW / 235 hp	88kW / 120 hp	88kW / 120 hp
	TCD2013 LO4 2V	TCD2013 LO4 2V	Tier4i	Tier4i	COM 3A / EPA Tier 3 / BS III	COM 3A / EPA Tier 3 / BS III
External sound power level, dB(A)	N/A	N/A	N/A	N/A	N/A	N/A
Machine model	P5770C	P5870C	P6870C	ABG2820	ABG5820	ABG6820
Engine Make and Model	Volvo D6	Volvo D6	Volvo D6	Deutz Diesel	Deutz Diesel	Deutz Diesel
	129kW / 175 hp	129kW / 175 hp	129kW / 175 hp	63 kW / 85 hp	112 kW / 152 hp	129 kW / 175 hp
	COM 3B / EPA Tier 4i	COM 3B / EPA Tier 4i	COM 3B / EPA Tier 4i	TD2011 LO4	TCD2013 LO4 2V	TCD2013 LO4 2V
External sound power level, dB(A)	104	104	104	105	105	106
Machine model	P6820C	P7820C	P8820C	ABG9820	ABG7820B	ABG8820B
Engine Make and Model	Volvo D6H	Volvo D8H	Volvo D8H	Deutz Diesel	Volvo D7E	Volvo D7E
	140kW / 190 hp	175 kW / 238 hp	200 kW / 272 hp	273 kW / 371 hp	170 kW / 231 hp	182 kW / 247 hp
	COM 3B / EPA Tier 4i	COM 3B / EPA Tier 4i	COM 3B / EPA Tier 4i	TCD 2015V06 4V	COM 3A / EPA Tier 3	COM 3A / EPA Tier 3
External sound power level, dB(A)	105	105	106	109	105	106

## 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

Volvo Extended Life Coolant (Volvo VCS) does not use supplemental coolant additives (SCA's). Biologically degradable oil for the hydraulic system is available upon request. For other oil and fluids, see the 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

Thoroughly planned recycling of the machine is the foundation for ending the life cycle and for being able to recycle materials for use in new Volvo products.

According to our calculations, Volvo pavers are 95 percent recyclable by weight.

The majority of our plastic parts are marked for recycling according to Volvo standard 103 0002; 5052, 41; 5052, 411, and 5052, 412. The materials included in machines are divided into the following approximate weights. These material fractions can be recycled (material and energy recycling) where such recycling possibilities are available.

Paver model	Steel / iron	Copper	Aluminum	Lead batteries	Polymer materials and rubber	Tires	Fluids, oils and chemicals	Other	Total*
Units (rounded)	kg	kg	kg	kg	kg	kg	kg	kg	kg
PF4410	8 198	5	8	32	40	390	112	465	9 250
PF2181	9 823	9	13	45	20	426	200	555	11 091
P7110	15 817	12	16	36	225	890	269	909	18 174
P7170	14 555	12	16	36	225	453	269	819	16 385
P5770C	11 260	9	11	40	20	430	200	630	12 600
P5870C	12 040	11	14	40	30	450	200	815	13 500
P6870C	12 040	11	14	40	30	450	200	815	13 500
ABG2820	7 020	8	10	50	75	203	120	394	7 880
ABG5820	10 726	10	14	50	160	430	200	610	12 200
P7820C	12 888	11	16	50	180	475	250	730	14 600
P8820C	15 544	12	19	50	200	525	275	875	17 500
ABG9820	19490	13	22	50	235	600	300	1 090	21 800
P4370B	13 778	8	98	27	151	375	188	575	15 200
ABG7820B	16 180	11	18	36	199	507	253	905	18 100
ABG8820B	18 500	12	21	46	228	580	290	1 035	20 700
P5320B ( 7.0m)	15 040	8	108	27	350	110	182	575	16 400

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

<b>Paver model</b>	<b>Steel / iron</b>	<b>Copper</b>	<b>Aluminum</b>	<b>Lead batteries</b>	<b>Polymer materials and rubber</b>	<b>Tires</b>	<b>Fluids, oils and chemicals</b>	<b>Other</b>	<b>Total*</b>
<b>Units (rounded)</b>	<b>lb</b>	<b>lb</b>	<b>lb</b>	<b>lb</b>	<b>lb</b>	<b>lb</b>	<b>lb</b>	<b>lb</b>	<b>lb</b>
PF4410	18,073	11	18	71	88	860	247	1,025	20,393
PF2181	21,656	20	29	99	44	939	441	1,224	24,451
P7110	34,870	27	35	79	496	1,962	593	2,004	40,067
P7170	32,088	26	35	79	496	999	593	1,806	36,123
P5770C	24,824	20	24	88	44	948	441	1,389	27,778
P5870C	26,544	25	31	88	66	992	441	1,797	29,762
P6870C	26,544	25	31	88	66	992	441	1,797	29,762
ABG2820	15,476	18	22	110	165	448	265	869	17,372
ABG5820	23,647	22	31	110	353	948	441	1,345	26,896
P7820C	28,413	25	35	110	397	1,047	551	1,609	32,187
P8820C	34,268	26	42	110	441	1,157	606	1,929	38,581
ABG9820	42,968	29	49	110	518	1,322	661	2,403	48,060
P4370B	30,375	18	216	60	333	827	414	1,268	33,510
ABG7820B	35,680	24	40	80	440	1,118	560	1,995	39,910
ABG8820B	40,790	26	46	101	503	1,279	639	2,282	45,644
P5320B ( 7.0m)	30,157	18	238	60	772	243	401	1,268	36,156

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

## PRODUCER RESPONSIBILITY

In most countries today, there is a producer responsibility for 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 Construction Equipment**

[www.volvoce.com](http://www.volvoce.com)