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

Paver model	Unit	P2820D ABG	P2870D ABG	P4820D ABG
Engine		Volvo D3.8H	Volvo D3.8H	Volvo D4J
Engine power acc. to ISO 9249 SAE J1349 net	kW	55.4	55.4	98
Metric	hp	75	75	133
Imperial	hp	74	74	131
Emissions compliance EU		EU Stage V	EU Stage V	EU Stage V
Transmission		Hydrostatic	Hydrostatic	Hydrostatic
Paver model	Unit	P6820D ABG	P6870D ABG	P7820D ABG
Engine		Volvo D6J	Volvo D6	Volvo D8J
Engine power acc. to ISO 9249 SAE J1349 net	kW	140	129	175
Metric	hp	190	175	238
Imperial	hp	188	173	235
Emissions compliance EU		EU Stage V	EU Stage V	EU Stage V
Transmission		Hydrostatic	Hydrostatic	Hydrostatic
Paver model	Unit	P8820D ABG	ABG9820	
Engine		Volvo D8J	Deutz TCD 2015 V06 4V	
Engine power acc. to ISO 9249 SAE J1349 net	kW	200	273	
Metric	hp	272	371	
Imperial	hp	268	366	
Emissions compliance EU		EU Stage V	EU Stage IIIA	
Transmission		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

Hameln machines - P2820D ABG, P2870D ABG, P4820D ABG, P6820D ABG, P6870D ABG, P7820D ABG, P8820D ABG, 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

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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	нс	со
	(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 (incl.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

Model	P2820D ABG	P2870D ABG	P4820D ABG	P6820D ABG
	Volvo D3.8J	Volvo D3.8H	Volvo D4J	Volvo D6J
Engine Make and Model	55 kW / 75 HP	55.4 kW / 75 HP	98kW / 133 HP	140kW / 190 HP
	EU Stage V	EU Stage V	EU Stage V	EU Stage V
External sound power level, dB(A)	105	105	104	105
Model	P6870D ABG	P7820D ABG	P8820D ABG	ABG9820
	Volvo D6	1// 57/		
	VOIVO D6	Volvo D7J	Volvo D8J	Deutz TCD 2015 V06 4V
Engine Make and Model	129 kW / 175 HP	Volvo D/J 175kW / 238 HP	Volvo D8J 200 kW / 272 HP	Deutz TCD 2015 V06 4V 273kW / 371 HP
Engine Make and Model	10110 2 0	10110 210	13.13.2.33	

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.

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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

These material fractions can be recycled (material and energy recycling) where such recycling possibilities are available.

The materials included in machines are divided into the following approximate weights:

Paver model	Units (rounded)	P2820D ABG	P4820D ABG	P2870D ABG	P6820D ABG
Steel / iron	kg	7 210	11 246	6 424	13 093
Copper	kg	89	20	89	20
Aluminum	kg	84	130	84	130
Lead batteries	kg	42	50	42	50
Polymer materials and rubber	kg	364	Not applicable	222	Not applicable
Tires	kg	Not applicable	Not applicable	208	Not applicable
Fluids, oils and chemicals	kg	121	Not applicable	121	Not applicable
Composite materials	kg	Not applicable	125	Not applicable	125
Other	kg	40	100	40	100
Total*	kg	7 950	12 305	7 230	14 155
Paver model	Units (rounded)	P6870D ABG	P7820D ABG	P8820D ABG	ABG9820
Steel / iron	kg	12 960	13 643	16 628	20 515
Copper	kg	20	20	20	20
Aluminum	kg	130	130	130	75
Lead batteries	kg	50	50	50	50
Polymer materials and rubber	kg	Not applicable	Not applicable	350	Not applicable
Tires	kg	450	Not applicable	Not applicable	Not applicable
Fluids, oils and chemicals	kg	Not applicable	Not applicable	297	Not applicable
Composite materials	kg	125	125	125	160
Other	kg	100	100	100	Not applicable
Total*	ka	14312	14 705	17 700	21 525

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

Paver model	Units (rounded)	P2820D ABG	P4820D ABG	P2870D ABG	P6820D ABG
Steel / iron	lb	15 898	24 797	14 165	28 870
Copper	lb	196	44	196	44
Aluminum	lb	185	287	185	287
Lead batteries	lb	93	110	93	110
Polymer materials and rubber	lb	803	Not applicable	490	Not applicable
Tires	lb	Not applicable	Not applicable	459	Not applicable
Fluids, oils and chemicals	lb	267	Not applicable	267	Not applicable
Composite materials	lb	Not applicable	276	Not applicable	276
Other	lb	88	221	88	221
Total*	lb	17 530	27 133	15 942	31 212
Paver model	Units (rounded)	P6870D ABG	P7820D ABG	P8820D ABG	ABG9820
Steel / iron	lb	28577	30 083	36 665	45 236
Copper	lb	44	44	44	44
Aluminum	lb	287	287	287	165
Lead batteries	lb	110	110	110	110
Polymer materials and rubber	lb	Not applicable	Not applicable	772	Not applicable
Tires	lb	992	Not applicable	Not applicable	Not applicable
Fluids, oils and chemicals	lb	Not applicable	Not applicable	655	Not applicable
Composite materials	lb	276	276	276	353
Other	lb	221	221	221	Not applicable
Total*	lb	31558	32 425	39 029	47 463

^{*} 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.

Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

Machine model	
	Place for stamp
Delivery date	
Machine's serial number	
Engine Type	

Engine's manufacturing number

