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State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-3-23  
Relating to Certification of New Off-Road Compression-Ignition Engines

VOLVO CONSTRUCTION EQUIPMENT COMPONENTS AB

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment:

Model Year: 2001

Typical Equipment Usage: Other OEM equipment

Fuel Type: Diesel

<u>Engine Family</u>	<u>Engine Displacement (liters)</u>	<u>Useful Life (hours)</u>	<u>Emission Control Systems and Special Features</u>
1V5XL05.5CE1	5.5	8000	Direct Diesel Injection Turbocharger Charge Air Cooler Smoke Puff Limiter

Engine models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The exhaust emission certification standards and certification values for hydrocarbons (HC), oxides of nitrogen (NOx), or non-methane hydrocarbons plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) (units are expressed in grams per kilowatt-hour (g/kw-hr)), and the opacity-of-smoke certification standards and certification values in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family are as follows (Title 13, California Code of Regulations, Section 2423):

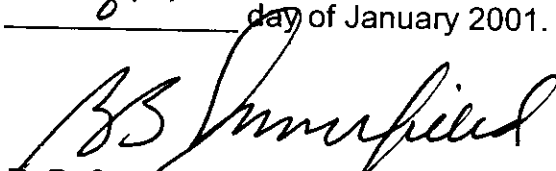
<u>Engine Power Rating (kw)</u>	<u>Emission Standard Category</u>		<u>Exhaust Emissions (g/kw-hr)</u>					<u>Smoke Opacity (%)</u>		
			<u>HC</u>	<u>NOx</u>	<u>NMHC+NOx</u>	<u>CO</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
75≤KW<130	Tier 1	Standard	N/A	9.2	N/A	N/A	N/A	20	15	50
		Certification	--	8.0	--	--	--	8	5	13

BE IT FURTHER RESOLVED: That the listed engine models also comply with "Emission Control Labels— 1996 and Later Off-Road Compression-Ignition Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Sections 2425 and 2426).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Executed at El Monte, California this 8th day of January 2001.

  
R. B. Summerfield, Chief  
Mobile Source Operations Division

# Engine Model Summary Form

ED#

U-R-3-c

Attachment

Manufacturer: **Volvo Construction Equipment Components**  
 Engine category: **Nonroad CI**  
 EPA Engine Family: **1VSXL05.5CE1**  
 Mfr Family Name: **TD63**  
 Process Code: **New Submission**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)		5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)		6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
			<i>kw</i>							
I	TD63KFE	161 @ 1800	120	101	59	527 @ 1200	112	44	TC, CAC	EM, SPL, DDI
II	TD63KBE	157 @ 2200	117	85	61	513 @ 1100	110	39	TC, CAC	EM, SPL, DDI
III	TD63KDE	125 @ 2200	93	68	49	443 @ 1100	101	36	TC, CAC	EM, SPL, DDI
IV	TD63KGE	126 @ 2200	94	68	49	439 @ 1000	95	36	TC, CAC	EM, SPL, DDI
V	TD63KHE	152 @ 2000	113	84	54	630 @ 1300	95	40	TC, CAC	EM, SPL, DDI
VI	TD63KIE	173 @ 2100	129	91	62	685 @ 1400	104	47	TC, CAC	EM, SPL, DDI
VII	TD63KBE	157 @ 2200	117	84	60	513 @ 1100	109	39	TC, CAC	EM, SPL, DDI

EPA cert NO: V9X-NR5-01-03