

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-18-33  
Relating to Certification of New Motor Vehicles

VOLVO CAR CORPORATION

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1984 model-year Volvo Car Corporation exhaust emission control systems are certified as described below for gasoline-powered passenger cars:

<u>Engine Family</u>	<u>Displacement Cubic Inches (Liters)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
EVV2.3V5FFTX	141 (2.3)	Three-Way Catalyst with Closed Loop (Electronic Fuel Injection) (Turbocharged and Intercooled)

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The following are the certification emission standards for this engine family to be listed on the window decal required by "California Assembly-Line Test Procedures for 1983 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles":

<u>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per Mile</u>	<u>Nitrogen Oxides Grams per Mile</u>
0.41	7.0	0.7

The following are the certification emission values for the above engine family:

<u>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per Mile</u>	<u>Nitrogen Oxides Grams per Mile</u>
0.27	2.5	0.5

BE IT FURTHER RESOLVED: That the listed models were certified to the optional NOx emission standard thereby making the vehicle manufacturer subject to Section 1960.15 of Title 13, California Administrative Code which includes repair or replacement of emission control components up to 7 years or 75,000 miles if found defective by the Executive Officer.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered Motor Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" (Title 13, California Administrative Code, Section 2290) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high altitude requirements and highway emission standards as stipulated in "California Exhaust Emission Standards and Test Procedures for 1981 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2036).

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

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 6<sup>th</sup> day of February, 1984.



K. D. Drachand, Chief  
Mobile Source Division

Manufacturer Volvo Car CorporationExecutive Order No. A-18-33Engine Family EVV2.3V5FFTXEvaporative Family E2Engine CID (Liters) 141 (2.3)

## ABBREVIATIONS

Ignition System

CA-Centrifugal Advance  
 EEC-Electronic Engine Control  
 EI-Electronic Ignition  
 ESAC-Electronic Spark Advance  
 Control  
 VA-Vacuum Advance  
 VR-Vacuum Retard

Fuel System

CFI, CL, DID, DIP, EFI, MFI  
 nV-nVenturi Carburetor  
 VV-Variable Venturi

Exhaust Emissions Control System

AIP-Air Injection-Pump  
 AIV-Air Injection-Valve  
 CL-Closed Loop  
 EGR-Exhaust Gas Recirculation  
 EM-Engine Modification  
 OC-Oxidation Catalyst System  
 TR-Thermal Reactor  
 TWC-Three-Way Catalyst System

Special Features

CCV-Combustion  
 Chamber Valve  
 CFI-Central Fuel  
 Injection  
 DID-Diesel  
 Injection-  
 Direct  
 DIP-Diesel  
 Injection-  
 Prechamber  
 EFI-Electronic  
 Fuel  
 Injection  
 MFI-Mechanical  
 Fuel  
 Injection  
 TC-Turbocharged

VEHICLE MODELS:

- 4 DR 760 Turbo 4 speed manual transmission plus overdrive
- 4 DR 760 Turbo 4 speed automatic transmission with overdrive

DRIVE SYSTEM: Front Engine/ Rear -Wheel Drive

198 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET E.O. #A-18-33

Passenger Cars  Light-Duty Trucks  Medium-Duty Vehicles  Gas  Diesel

Manufacturer Volvo Car Corporation Page \_\_\_\_\_

Engine Family EVV2.3V5FFTX Engine Code FFTX:1  
FFTX:2

ECS (Special Features) ESAC (EFI), CL, TWC (TC+IC) CID (Liter)-Type 141(2.3) L-4

Engine Code	Vehicle Models (If Coded see attachment)	Trans.	Equiv. Test Weight	Ign. System Part No.	Fuel System Part No.	EGR Valve Part No.	Label Ident. Part No.
	See Section 20 Pages 16-17			<u>EI, ESAC</u>	<u>EFI</u>		

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

\*Add 10% to dyno test HP for air conditioning usage.

Date of Issue - December 13, 1983

**Section : 20.09.00.00****PART LIST****Engine Family : EVV2 3V5FFTX Engine Code : FFTX:1, FFTX:2****Fuel system :**

Fuel Pump:	Volvo Part No : 13 36 679	Bosch Part No : 0 580 464 025
Fuel Filter :	Volvo Part No : 1 306 530	Bosch Part No : 0 450 905 601
Fuel Injection Control Unit:	Volvo Part No : 1 332 184	Bosch Part No : 0 280 000 507
Air Mass Meter :	Volvo Part No : 1 326 065	Bosch Part No : 0 280 212 002
Injectors :	Volvo Part No : 1 332 337	Bosch Part No : 0 280 150 357
Fuel Pressure Regulator :	Volvo Part No : 1 306 965	Bosch Part No : 0 280 160 213
Coolant Temperature Sensor :	Volvo Part No : 1 322 396	Bosch Part No : 0 280 130 026
Throttle Position Switch :	Volvo Part No : 1 306 938	Bosch Part No : 0 280 120 301

**Ignition system :**

Spark Plugs :	Volvo Part No : 1 276 728	Bosch Part No : 0 242 235 011 WR 7 DS
Alternative Spark Plug:	Not Applicable	
Distributor Ass :	Volvo Part No : 1 332 587	Bosch Part No : 0 237 506 001
Knocking Sensor :	Volvo Part No : 1 326 658	Bosch Part No : 0 261 231 001
Electronic Control Unit :	Volvo Part No : 1 332 580	Bosch Part No : 0 261 201 004

**Crankcase Emission Control System :**

PCV Connector with Calibrated orifice	Volvo Part No : 1 332 660	(in the oiltraps)
	Volvo Part No : 1 332 659	(in the intake manifold)

Section : 20.09.00,00      Cont Part List

Engine Family : EVV2.3V5FFTX      Engine Code : FFTX:1 and FFTX:2

Evaporative Emission Control System :

Carbon Canister  
incl Purge Valve :      Volvo Part No : 1 276 694

Fuel Filler Cap :      Volvo Part No : 1325002

Automatic Idle Speed Control System :

Idle Speed  
Air Valve :      Volvo Part No : 1 317 957      Bosch Part No : 0 280 140 501

Electronic  
Control Unit :      Included in the Fuel Injection Control Unit.

Auxiliary Emission Control Devices :

Oxygen Sensor      Volvo Part No : 1 326 578      Bosch Part No : 0 258 003 004

Catalyst Assembly :      Volvo Part No : 1 326 481

Gasgets and Sealing Devices :

Intake Manifold      Volvo Part No : 463 224

Exhaust Manifold Engine      Volvo Part No : 463 846

**Section 08.13**

**VEHICLE ROAD LOAD**

<u>Model</u>	<u>Test Weight</u> <u>lbs</u>	<u>Tires</u>	<u>A/C</u>	<u>Coast Down</u> <u>time</u>	<u>Dyno Hp</u>
760 Turbo	3,375	P195/60 R15	Yes	12.7	10.3