State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-339 Relating to Certification of New Heavy-Duty Motor Vehicle Engines

FORD MOTOR COMPANY

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102, and 43103 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-45-3;

IT IS ORDERED AND RESOLVED: That the following Ford Motor Company 1988 model-year diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds:

Engine Family	Displacem Cubic Inches		Exhaust Emission Control Systems (Special Features)
JFM07.8FPD2	474	(7.8)	<pre>for both engine families: (Diesel Injection - Direct) (Turbocharger) (Intercooler)</pre>
JFM07.8FPE3	474	(7.8)	

Engine models and codes are listed on attachments.

The following are the certification emission values for these engine families:

Engine Family	Hydrocarbons gm/bhp-hr	Carbon Monoxide gm/bhp-hr	Nitrogen Oxides gm/bhp-hr	Particulates gm/bhp-hr
JFM07.8FPD2	0.6	1.7	5.9	0.4
JFM07.8FPE3	0.7	2.2	5.4	0.4

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).

Engines 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.

Executed at El Monte, California this $2e^{\sigma}$ day of April, 1987.

K. D. Drachand, Chief Mobile Source Division

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	JFMO7.8FPD2
M facturer FORD	Engine Family/ES FPE3
Evaporative Family NA	Engine Type $\underline{I6}$
	Liters (CID) 7.8 (474)

ABBREVIATIONS

Ignition System

CA-Centrifugal Advance
ECU-Electronic Control Unit
EI-Electronic Ignition
ESAC-Electronic Spark Advance
Control
VA-Vacuum Advance
VR-Vacuum Retard

F System

CFI, CL, DID, DIP, EFI, MFI nV-nVenturi Carburetor

Exhaust Emissions Control System

AIP-Air Injection-Pump AIV-Air Injection-Valve DBC-Dual Bed Catalyst EGR-Exhaust Gas Recirculation EIC-Electronic Injection Control EM-Engine Modification OC-Oxidation Catalyst OS-Oxygen Sensor HOS-Heated Oxygen Sensor SPL-Smoke Puff Limiter or Throttle Delay TOC-Trap Oxidizer, Continual TOP-Trap Oxidizer, Periodical TWC-Three-Way Catalyst WUOC-Warm-Up Oxidation Catalyst WUTWC-Warm-Up Three-Way Catalyt

Special Features

CCV-Combustion Chamber Valve CFI-Central Fuel Injection or Throttle Body Injection DID-Diesel Injection-Direct DIP-Diesel Injection-Prechamber EFI-Electronic Fue1 Injection /IC-Intercooler or Aftercooler MFI-Mechanical Fuel Injection OBD-On-Board

Diagnostics

TC-Turbocharger

CENGINE VEHICLE MODELS: SEE PG. 2\$3

Engine: Front Mid. Rear

Drive: FWD RWD RWD Full Time 4WD Part Time ____

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19 88 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL ENGINES

Manufacturer Ford Motor Liter (CID) $\frac{7.8L}{4}$ Emission Control Sys. and		Eng. Type 16				
Engine Model	Fuel Injection Pump Mfr. Part Number Bosch	Injector Mfr. Part Number Bosch	Maximum Rated HP at RPM	Fuel Rate mm ³ /stroke (lbs/Hr)	Maximum Rated Torque at RPM	Fuel Rate mm ³ /stroke (lbs/Hr)
210 35DR03)		E5HN-9F593-AA	210 @ 2400	107.3 (83.1)	575 @ 1500	(59.1)
Date of 1	Engine Family	J7.8PD2	Revis	itons:		
Issue Date: Revised:	MAR 2 6 1987		16.17-2			

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19_88 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL ENGINES

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Engine Model	Fuel Injection Pump Mfr. Part Number Bosch	Injector Mfr. Part Number Bosch	Maximum Rated HP at RPM	Fuel Rate mm ³ /stroke (lbs/Hr)	Maximum Rated Torque at RPM	Fuel Rate mm ³ /stroke (lbs/Hr)
15C 885NR00	E6HN-9A543-FA	E5HN-9F 593-BA	215 @ 2400	107,3 (83.1)	588 @ 1500	(58.0)
240 885FR01	EGHN-9A543-CB	E5HN-9F593-BA	240 @ 2400 <i>3</i>	120.0 (93.0)	657 @ 1500	134.5 (65.1)
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