

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-290-33

Relating to Certification of New Heavy-Duty Motor Vehicle Engines

DETROIT DIESEL CORPORATION

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 Detroit Diesel Corporation 1993 model diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds:

Fuel Type: Diesel

<u>Engine Family</u>	<u>Liters (Cubic Inches)</u>		<u>Exhaust Emission Control Systems and Special Features</u>
PDD11.1FZD2	11.1	677	Powertrain Control Module Charge Air Cooler Turbocharger

Engine models and codes are listed on attachments.

The following are the certification emission standards for this engine family in grams per brake-horsepower-hour:

<u>Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
1.3	15.5	5.0	0.25

The following are the certification emission values for this engine family in grams per brake-horsepower-hour:


<u>Engine Family</u>	<u>Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
PDD11.1FZD2	0.1	1.8	4.6	0.18

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, Section 2035 et seq.).

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 and attachments.

Executed at El Monte, California this 8<sup>th</sup> day of September, 1993.

  
R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

Executive Order No.: A-290-33

1993 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL ENGINES

Manufacturer: Detroit Diesel Corporation

Engine Family: PDD11.1FZD2

Liter (CID): 11.1 (677)

Fuel Type: Diesel No. 2

Engine Type: I-6

Emission Control System and (Special Features): ECM/PCM, CAC, (TC)

ENGINE MODEL (ENG. CODE)	RATED HP AT RPM	FUEL RATE @ RATED HP mm <sup>3</sup> /STROKE (LBS/HR)	FUEL PUMP & INJECTOR P/N	ECM/PCM P/N	PART. TRAP/ CATALYST P/N
<u>11.1L</u>					
1C	365@1800	192.1 (115.0)	5235580	23513553	
2C	350@1800	184.3 (110.3)	5235580	23513553	
3C	325@1800	170.6 (102.1)			
1D	350@1800	184.3 (110.3)	5235580	23513553	
2D	325@2100	151.2 (105.6)	5235580	23513553	
3D	325@1800	170.6 (102.1)	5235580	23513553	
1E	325@1800	170.6 (102.1)	5235580	23513553	
2E	325@1700	178.8 (101.1)	5235580	23513553	
3E	300@1800	156.9 (93.9)	5235580	23513553	

ISSUED: 08-06-93

REV. NO.:

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Liter (CID): 11.1 (677)

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Emission Control System and (Special Features): ECM/PCM, CAC, (TC)

ENGINE MODEL (ENG. CODE)	RATED HP AT RPM	FUEL RATE @ RATED HP mm <sup>3</sup> /STROKE (LBS/HR)	FUEL PUMP & INJECTOR P/N	ECM/PCM P/N	PART. TRAP/ CATALYST P/N
<u>11.1L</u>					
1C	365@1800	192.1 (115.0)	5235580	23513553	
2C	350@1800	184.3 (110.3)	5235580	23513553	
3C	325@1800	170.6 (102.1)	5235580	23513553	
4C	330@2100	161.5 (110.9)	5235580	23513553	
5C	330@1800	179.6 (105.9)	5235580	23513553	
1D	350@1800	184.3 (110.3)	5235580	23513553	
2D	325@2100	151.2 (105.6)	5235580	23513553	
3D	325@1800	170.6 (102.1)	5235580	23513553	
7D	325@2100	151.2 (105.6)	5235580	23513553	
1E	325@1800	170.6 (102.1)	5235580	23513553	
2E	325@1700	178.8 (101.1)	5235580	23513553	
3E	300@1800	156.9 (93.9)	5235580	23513553	