

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-290-5
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 1990 model-year diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

<u>Engine Family</u>	<u>Displacement</u> <u>Liters (Cubic Inches)</u>		<u>Exhaust Emission Control Systems</u> <u>(Special Features)</u>
LDD11.1FZA3	11.1	(677)	Powertrain Control Module (Turbocharger) (Charge Air Cooler)
LDD0552FZL2	9.0	(552)	Powertrain Control Module (Turbocharger) (Charge Air Cooler)

Engine models and codes are listed on attachments.

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

<u>Hydrocarbons</u> <u>gm/bhp-hr</u>	<u>Carbon</u> <u>Monoxide</u> <u>gm/bhp-hr</u>	<u>Nitrogen Oxides</u> <u>gm/bhp-hr</u>	<u>Particulates</u> <u>gm/bhp-hr</u>
1.3	15.5	6.0	0.6

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

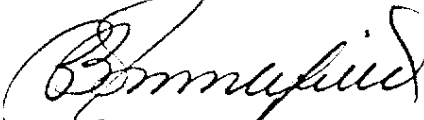
<u>Engine</u> <u>Family</u>	<u>Hydrocarbons</u> <u>gm/bhp-hr</u>	<u>Carbon</u> <u>Monoxide</u> <u>gm/bhp-hr</u>	<u>Nitrogen Oxides</u> <u>gm/bhp-hr</u>	<u>Particulates</u> <u>gm/bhp-hr</u>
LDD11.1FZA3	0.2	2.4	5.8	0.3
LDD0552FZL2	0.8	1.9	5.9	0.3

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 (Health and Safety Code Section 43205.5).

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 7th day of December, 1989.


K. D. Drachand, Chief
Mobile Source Division

(For CARB Use Only)

(1990)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINES

Manufacturer: Detroit Diesel Corporation

Executive Order No.: A-290-5

Engine Family: ^L11.1FZA3

Liter (CID): 11.1 (677)

Emission Control System and (Special Features): (GAC), (TC), PCME

ENGINE MODEL	FUEL INJECTION PUMP MFR PART NO.	ENGINE CODE INJECTOR MFR PART NO.	MAXIMUM RATED HP AT RPM	FUEL RATE mm3/STROKE (LBS/HR)	MAXIMUM RATED TORQUE AT RPM	FUEL RATE mm3/STROKE (LBS/HR)
11.1L	NA	1C (1) 6000066	350@1800	183.6 (109.9)	1250@1200	234.3 (93.5)
		2C (1) 6000066	340@1650	190.3 (106.8)	1250@1200	234.3 (93.5)
		3C (1) 6000066	320@2100	148.9 (104.0)	1200@1200	221.1 (88.2)
		4C (1) 6000066	320@1800	166.7 (99.8)	1200@1200	221.1 (88.2)
		5C (1) 6000066	320@1800	166.7 (99.8)	1150@1200	212.3 (84.7)
		6C (1) 6000066	300@1800	156.9 (93.9)	1250@1200	234.3 (93.5)
		7C (1) 6000066	285@2100	133.9 (93.5)	1100@1200	201.3 (80.3)
		8C (1) 6000066	285@1800	149.0 (89.2)	1100@1200	201.3 (80.3)

Engine Family Continued on Page 7B

(1) Diesel Technology Corporation

ISSUED: 11-01-89

REV. NO.:

17-LDD11.1FZA3-7B

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(1990)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINES

Manufacturer: Detroit Diesel Corporation

Executive Order No.: A-290-5

Engine Family: ^LLDD11.1FZA3

Liter (CID): 11.1 (677)

Emission Control System and (Special Features):

(TC), (CAC), PCME

ENGINE MODEL	FUEL INJECTION PUMP MFR PART NO.	ENGINE CODE INJECTOR MFR PART NO.	MAXIMUM RATED HP AT RPM	FUEL RATE mm ³ /STROKE (LBS/HR)	MAXIMUM RATED TORQUE AT RPM	FUEL RATE mm ³ /STROKE (LBS/HR)
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ENGINE FAMILY LDD11.1FZA3 - CONTINUED

11.1L	NA	9C (1) 6000066	275@1800	144.2 (86.3)	1250@1200	234.3 (93.5)
		10C (1) 6000066	250@2100	119.3 (83.3)	970@1200	
		11C (1) 6000066	250@1800	132.5 (79.3)	1100@1200	
		12C (1) 6000066	320@2100	148.9 (104.0)	1250@1200	234.3 (93.5)
		13C (1) 6000066	320@1950	156.5 (101.5)	1200@1200	221.1 (88.2)

(1) Diesel Technology Corporation

ISSUED: 11-01-89

REV. NO.:

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(1990)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

HEAVY-DUTY DIESEL ENGINES

Manufacturer: Detroit Diesel Corporation

Executive Order No.: A-290-5

Engine Family: LDD0552FZL2

Liter (CID): 9 (552)

Emission Control System and (Special Features):

(TC), (CAC), PCME

ENGINE MODEL	FUEL INJECTION PUMP MFR PART NO.	ENGINE CODE INJECTOR MFR PART NO.	MAXIMUM RATED HP AT RPM	FUEL RATE mm ³ /STROKE (LBS/HR)	MAXIMUM RATED TORQUE AT RPM	FUEL RATE mm ³ /STROKE (LBS/HR)
6V-92TA DDEC COACH	NA	1C (1) 5234850	277@2100	78.3 (104.7)	880@1200	89.2 (68.1)
6V-92TA DDEC COACH	NA	2C (1) 5234850	253@2100	71.9 (96.1)	880@1200	89.4 (68.3)
6V-92TA DDEC COACH	NA	3C (1) 5234850	253@2100	71.9 (96.1)	775@1200	78.8 (60.2)
6V-92TA DDEC COACH	NA	4C (1) 5234850	220@2100	65.3 (87.3)	675@1200	70.4 (53.8)

(1) Diesel Technology Corporation