State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-290-82

Relating to Certification of New Heavy-Duty Engines and Vehicles

DETROIT DIESEL CORPORATION

Pursuant to the authority vested in the Air Resources Board at Sections 43100, 43101, and 43102 of the Health and Safety Code; and

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

Pursuant to the December 15, 1998 Settlement Agreement between the Air Resources Board and Detroit Diesel Corporation and any modifications to the Settlement Agreement;

IT IS ORDERED AND RESOLVED: That the following 2000 model-year Detroit Diesel Corporation diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle-weight-rating (GVWR) over 14,000 pounds:

Fuel Type: Diesel

Engine Family	Displacement Liters	Displacement Cubic Inches	Exhaust Emission Control Systems and Special Features
YDDXH12.7EGL (Series 60 12.7L)	12.7	775	Turbocharger Charge Air Cooler Electronic Control Module

The engine models and codes are listed on attachments.

BE IT ORDERED AND RESOLVED: That the following are the certification exhaust emission standards for this engine family in grams per brake horsepower-hour under the Federal Test Procedure ("FTP") for Heavy-Duty Diesel Engines (Title 13, California Code of Regulations, Section 1956.8):

	Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulate Matter
"FTP"	1.3	15.5	4.0	0.10

BE IT FURTHER RESOLVED: That pursuant to the Settlement Agreement and any modifications thereof, the aforementioned engine family is also subject to the following emission standards, in grams per brake horsepower-hour, under the EURO III tests in the Settlement Agreement, and a "Not-to-Exceed" nitrogen oxides emission standard of 7.0 grams per brake horsepower-hour:

	Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulate Matter
"EURO III"	1.3	15.5	6.0	0.10

BE IT FURTHER RESOLVED: That the following are the certification exhaust emission values for this engine family in grams per brake horsepower-hour:

	Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulate Matter
"FTP"	0.3	1.2	3.9	0.10
"EURO III"	0.04	0.3	5.8	0.03

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 2035 et seq.).

BE IT FURTHER RESOLVED: That the aforementioned engine family has been conditionally certified subject to the following conditions:

1. The Settlement Agreement is in effect.
2. Detroit Diesel Corp. is in compliance with all applicable certification requirements of the Settlement Agreement.

Engines certified under this Executive Order must conform to all applicable California emission regulations and to all applicable terms and conditions of the Settlement Agreement.

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

Executed at El Monte, California this 19th day of December 1999.

Raphael Susnowitz

for R. B. Summerfield, Chief
Mobile Source Operations Division

LARGE ENGINE MODEL SUMMARY

11/18/99

EO: A-290-82

Manufacturer: **Detroit Diesel Corp.**

Process Code: **New Submission**

EPA Engine Family: **YDDXH12.7EGL**

Manufacturer Family Name: **Series 60, 12.7L**

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
1132	(low power)	330@2100	180.8	126.3	1250@1200	235.6	94.0	TC, ECM, CAC
1133	|	350@2100	184.2	128.6	1250@1200	236.0	94.2	
1135	|	330@2100	175.3	122.4	1350@1200	251.0	100.2	
1136	V	350@2100	192.3	134.3	1350@1200	255.2	101.9	
1164	(standard power)	430@1800	226.0	135.3	1450@1200	259.1	103.4	
1165	|	400@1800	209.7	125.5	1450@1200	259.1	103.4	
1166	|	370@1800	193.3	115.7	1450@1200	259.1	103.4	
1167	|	430@2100	209.4	146.2	1450@1200	259.1	103.4	
1168	|	400@2100	194.0	135.5	1450@1200	259.1	103.4	
1169	|	370@2100	179.1	125.1	1450@1200	259.1	103.4	
1170	|	360@1800	187.9	112.5	1450@1200	259.1	103.4	
1171	|	400@1800	209.7	125.5	1550@1200	277.6	110.8	
1172	|	360@1800	187.9	112.5	1550@1200	277.6	110.8	
1173	|	430@1800	226.0	135.3	1550@1200	277.6	110.8	
1174	|	370@1800	193.3	115.7	1550@1200	277.6	110.8	
1175	|	430@2100	210.6	147.1	1550@1200	277.6	110.8	
1176	|	400@2100	194.0	135.5	1550@1200	277.6	110.8	
1177	|	370@2100	179.1	125.1	1550@1200	277.6	110.8	
1178	|	470@2100	229.6	160.3	1550@1200	277.6	110.8	
1179	|	470@1800	248.2	148.6	1550@1200	277.6	110.8	
1190	|	360@2100	179.1	125.1	1450@1200	259.1	103.4	
1191	V	360@2100	179.1	125.1	1550@1200	277.6	110.8	

LARGE ENGINE MODEL SUMMARY

11/2/99

EO: A-290-82

Manufacturer: **Detroit Diesel Corporation**

Process Code: **New Sub - continued**

EPA Engine Family: **YDDXH12.7EGL**

Manufacturer Family Name: **Series 60, 12.7L**

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
1157	(premium)	500@2100	250.6	175.0	1650@1200	302.2	120.6	TC, ECM, CAC
1158		470@2100	232.2	162.2	1650@1200	302.2	120.6	
1159		430@2100	211.8	147.9	1650@1200	302.2	120.6	
1161		500@2100	250.6	175.0	1550@1200	283.9	113.3	
1160		470@2100	232.2	162.2	1550@1200	283.9	113.3	
1152		500@2100	250.6	175.0	1450@1200	261.6	104.4	
1163		470/500-2100			1550@1200			
1162		430/500-2100			1650@1200			

LARGE ENGINE MODEL SUMMARY

11/18/99

EO: A-290-82

Manufacturer: **Detroit Diesel Corporation**

Process Code: **New Submission**

EPA Engine Family: **YDDXH12.7EGL**

Manufacturer Family Name: **Series 60, 12.7L**

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
1134	cruise power	330/350-2100			1250@1200			TC, ECM, CAC
1137	(low & standard)	330/350-2100			1350@1200			
1180		370/430-1800			1450@1200			
1181		370/430-2100			1450@1200			
1182		360/400-1800			1450@1200			
1183		360/430-1800			1450@1200			
1184		360/400-1800			1550@1200			
1185		360/430-1800			1550@1200			
1186		370/430-1800			1550@1200			
1187		370/430-2100			1550@1200			
1188		430/470-2100			1550@1200			
1189		430/470-1800			1550@1200			
1192		360/400-2100			1450@1200			
1193		360/430-2100			1450@1200			
1194		360/400-2100			1550@1200			
1195		360/430-2100			1550@1200			