State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-7-15

Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

DETROIT DIESEL CORPORATION

Pursuant to the authority vested in the Air Resources Board by Sections 43000.5, 43013 and 43018 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-45-9;

IT IS ORDERED AND RESOLVED: That the following Detroit Diesel Corporation 1997 model-year engine, with rated power between 175 and 750 horsepower, and exhaust emission control systems are certified as described below for use in heavy-duty off-road equipment:

Typical Equipment Usage: Industrial/Construction Equipment

Fuel Type: Diesel

Engine Family	Liters	(Cubic Inches)	Exhaust Emission Control Systems and Special Features
VDD18.TJ4ARE (12V-92TA)	18.0	(1104)	Turbocharger Charge Air Cooler Engine Control Module

ıne models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The total hydrocarbons (THC), carbon monoxide (CO), nitrogen oxides (NOx), and particulate matter (PM) certification exhaust emission standards, in grams per brake horsepower-hour (g/bhp-hr), and the opacity of smoke emission standards, in percent (%), during acceleration (Accel), lugging (Lug), and peak (Peak) modes, for this engine family are (Title 13, California Code of Regulations, Section 2423):

Exhaust Emissions (g/bhp-hr)				Smoke Opacity (%)		
THC	CO	NOx	PM	Accel	Lug	Peak
1.0	8.5	6.9	0.4	20	15	50

The THC, CO, NOx and PM exhaust emission certification values, in g/bhp-hr, and the opacity of smoke emission certification values, in percent (%), for this engine family are:

	Exhaust Emission (g/bhp-h)				Smoke Opacity (%)		
Engine Family	THC	CO	NOx	PM	Accel	Lug	Peak
VDD18.TJ4ARE (12V-92TA)	0.3	2.3	5.7	0.2	15	14	30

-- IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission ndards and Test Procedures--Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed engine models also comply with the "Emission Control Labels--1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model year.

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 2425 et seq.).

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

Executed at El Monte, California this 9th day of January 1997.

Raphael Summerfield

R. B. Summerfield, Chief
Mobile Source Operations Division

17-VDD18.TJ4ARE-13.1

E.O. No. U-R-7-15

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL-STANDARD ENGINES

Manufacturer: Detroit Diesel Corporation Engine Family: VDD18.TJ4ARE
Displacement: ___/ 18.0 Liters ___/ 1104 Cubic Inches
All Engine Codes in Family: CA__49S__50S X; Strokes/Cycle: 2; Valves/Cylinder: 4
Ignition: Compression X; Compression with Glow Plug __; Spark__.
Fuel Type(s): Dedicated X; Flex Fuel___; Dual-Fuel___; Diesel X; M100___; M85___
CNG/LNG__; LPG__; Other (Specify)_____
Diesel Cert Fuel: 13CCR 2282___; 40 CFR 86.1313-90___; 40 CFR 86.1313-94 X
Maximum Rated Power: 760 HP @ 2100 RPM Engine Configuration: V-12
Exhaust ECS: ECM, CAC, (TC)

EQUIP. TYPE: INDUSTRIAL / CONSTRUCTION EQUIPMENT

Engine Model (Eng Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm3/Stroke (Lbs/Hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX/ Catalytic Converter Part No.
12V-92TA DDEC						
(1A)	760 @ 2100	103.0 (287.3)	5234775	23518743 23518645		
(1B)	720 @ 2100	99.0 (276.5)	5234775	↓		
(1C)	675 @ 2100	92.0 (257.1)	5236387	↓		
(1D)	625 @ 2100	84.8 (236.3)	5236387	↓		
(2D)	600 @ 2100	91.2 (217.8)	5236387	↓		
(1E)	540 @ 2100	73.7 (206.3)	5236387	↓		
(1F)	520 @ 2100	79.8 (222.7)	5236387	↓		

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17-VDD18.TJ4ARE-13.2

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1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL-STANDARD ENGINES

Manufacturer: Detroit Diesel Corporation Engine Family: VDD18.TJ4ARE
Displacement: ___/ 18.0 Liters ___/ 1104 Cubic Inches
All Engine Codes in Family: CA__49S__50S X; Strokes/Cycle: 2; Valves/Cylinder: 4
Ignition: Compression X; Compression with Glow Plug __; Spark__.
Fuel Type(s): Dedicated X; Flex Fuel___; Dual-Fuel___; Diesel X; M100___; M85___
CNG/LNG__; LPG__; Other (Specify)_____
Diesel Cert Fuel: 13CCR 2282___; 40 CFR 86.1313-90___; 40 CFR 86.1313-94 X
Maximum Rated Power: 760 HP @ 2100 RPM Engine Configuration: V-12
Exhaust ECS: ECM, CAC, (TC)

EQUIP. TYPE: INDUSTRIAL / CONSTRUCTION EQUIPMENT

Engine Model (Eng Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm3/Stroke (Lbs/Hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX/ Catalytic Converter Part No.
12V-92TA DDEC - Continued						
(1H)	620 @ 1900	90.8 (229.5)	5236387	23518743 23518645		
(2H)	700 @ 1800	109.0 (261.5)	5236387	↓		
(3H)	675 @ 1700	110.0 (249.0)	5236387			
(1J)	440 @ 1800	73.4 (177.8)	5236387			

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