State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-290-47

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-45-9;

IT IS ORDERED AND RESOLVED: That the following Detroit Diesel Corporation 1996 model 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	Liters	(Cubic Inches)	Systems and Special Features
TDD12.EJDARA (SERIES-60)	12.7	(775)	Powertrain Control Module Turbocharger Charge Air Cooler

Engine models and codes are listed on attachments.

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

Total	Carbon	Nitrogen	<u>Particulates</u>
<u>Hydrocarbons</u>	<u>Monoxide</u>	Oxides	
1.3	15.5	5.0	0.10

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

Engine	Total	Carbon	Nitrogen	<u>Particulates</u>
<u>Family</u>	<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	
TDD12.EJDARA (SERIES-60)	0.1	1.7	4.9	0.09

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

day of November 1995.

R. B. Summerfield

Assistant Division Chief Mobile Source Division

17-TDD12.EJDARA-3A

E.O. No. A-290-47

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL-STANDARD ENGINES

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Manufacturer:	Detroit Diese	l Corporation		Engine Fa	mily: TDD	12.EJDARA
		775 Cubic Inc	ches	_		
		HP @ 2100 RP		Er	ngine Config	guration: 1-6
		Compression			park	
Fuel Type(s):	Dedicated X	_ Flex-Fuel	Dual-Fuel	Diesel X	•	M85
ruer Type(s).	CNG LN	NG LPG	Other (speci	 ify)		
Diesel Cert Fu	el: 13 CCR 20	282 40 C	FR 86.1313-90	40 CF	R 86.1313-9	94 X
Primary Intend	led Service Cla	ass: LHD	MHD H	IHD X Url	ban Bus	
Exhaust FCS (include MFI	TC, CAC): EC	M/PCM, CAC.	(TC)		•
Exitudist Bes ((111014447 1:21 1)		,,			
		Fuel Rate	Fuel Pump		EGR	PTOX/
Engine Model	Rated HP	@Rated HP	& Injector	ECM/PCM	Valve	Catalytic
(Eng Code)	@ RPM	mm3/Stroke	Part No.	Part No.	Part No.	Converter
		(lbs/hr)				Part No.
12.7L						
1 <u>12.7L</u> 1A	470@2100	220.1	5235575	23513553		
17.6	1,0@	(153.7)				
2A	470@1800	245.8	5235575	23513553		
	<u> </u>	(147.1)				
3A ·	430@2100	200.7	5235575	23513553		
	•	(140.2)				
4 A	430@1800	224.2	5235575	23513553		
		(134.2)				
5A	450@1800	235.4	5235575	23513553		
- ,	27501000	(140.9)	5005575	22512552		
6A	375@1800	195.5	5235575	23513553		
7.4	400@1800	(117.0) 208.5	5235575	23513553		
7A	400@1800	(124.8)	3233373	23313333		
8A	360@1800	187.6	5235575	23513553		
0A	200001000	(112.3)	3233313	23313333		
9A	370@1800	192.8	5235575	23513553		
···		(115.4)				

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Rev.:

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL-STANDARD ENGINES

Ignition: Com Fuel Type(s): Diesel Cert Fu Primary Intend	12.7 Liters ed Power: 500 pression _X_ Dedicated _X CNG LN el: 13 CCR 22 led Service Cla		M on with Glow Pl Dual-Fuel Other (speci FR 86.1313-90 MHD H	Er lug S Diesel X fy) 40 CF	ngine Config park M100 R 86.1313-9	04 _ X_
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.
12.7L-CONTIN						
1B	470@2100	220.1	5235575	23513553		
2B	430@2100	(153.7) 200.7 (140.2)	5235575	23513553		
3B ·	430@1800	224.2 (134.2)	5235575	23513553		
4B	400@2100	186.7 (130.4)	5235575	23513553		
5B	400@1800	208.5 (124.8)	5235575	23513553		
6B	370@2100	172.7 (120.6)	5235575	23513553		
7B	370@1800	192.8 (115.4)	5235575	23513553		
8B	360@1800	187.6 (112.3)	5235575	23513553		
9B	400@1950	196.2 (127.2)	5235575	23513553		
10B	450@1800	235.4 (140.9)	5235575	23513553		
11B	3.75@1800	195.5 (117.0)	52355.75	23513553		

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1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL-STANDARD ENGINES

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Manufacturer:	Detroit Diese	l Corporation		Engine Fa	mily: TDD	12.EJDARA
Displacement:	12.7 Liters	775 Cubic Inc	ches		-	
•		HP @ 2100 RP		Eı	ngine Config	guration: I-6
		Compression				_
		_ Flex-Fuel				M85
) [-(-).		NG LPG				
Diesel Cert Fu		282 40 C				
		ass: LHD				
•		TC, CAC): EC				-
Eminusi Des (11101440. 1111 1,	10, 0110). 20	, 0.10,	(10)		
		Fuel Rate	Fuel Pump		EGR	PTOX/
Engine Model	Rated HP	@Rated HP	•	ECM/PCM		
•	@ RPM	-	Part No.			_
		(lbs/hr)				Part No.
12.7L-CONTIN	ILIED					
IC	500@2100	234.8	5235915	23513553		
. 0	200@2100	(164.0)	02007.0			
2C	500@1800	258.1	5235915	23513553		
	,	(154.5)				
3C ·	500@2100	234.8	5235915	23513553		
	-	(164.0)				

Date Issued: 05-15-95