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State of California AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-1-17

Relating to Certification of New Heavy-Duty Off-Road Equipment Engines CATERPILLAR, INC.

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 Caterpillar, Inc. 1996 modelyear engine, with rated power between 175 and 750 horsepower, and exhaust emission control systems are certified as described below for use in heavyduty off-road equipment:

Typical Equipment Usage: Industrial Equipment

Fuel Type: Diesel

Engine Family	Liters (Cubic Inches)	Exhaust Emission Control Systems and Special Features
TCP7.2RZDBRK	7.2	(442)	Turbocharger Smoke Puff Limiter Charge Air Cooler Engine Control Module

Engine 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 matters (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):

<u>Exha</u>	ust Emissi	ons (g/bhp	Smoke	Opacity	(%)	
THC	<u>co</u> _	<u>NOx</u>	<u>PM</u> _	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
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:

	<u>Exhau</u>	ust Emiss	ion (q/bh	<u>Smoke</u>	<u>Opacity</u>	(%)	
Engine Family	<u>THC</u>	<u>co</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Luq</u>	<u>Peak</u>
TCP7.2RZDBRK	0.1	0.4	5.8	0.1	1	1	2

BE IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission Standards 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 10 th

R. B. Summerfield

Assistant Division Chief Mobile Source Division

day of January 1996.

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

Manufacturer	turer Caterpillar Inc.				Engine Family			TCP7.2RZDBRK				
Displacement 7.2 / 442				Liters/Cubic Inches			Engine Configuration:				I6	
All Codes in Eng.	Family:	CA	49S		50S	XX	Cert Test	Proced	ures:	ARB	EPA	XX
Valves/Ports per C		2	valves/cyl		Str	okes	per Combu	stion C	ycle:	4		
Maximum Rated F	-	300	HP	(224	KW)	@		2200		RPM
Ignition: Compression XX				Compi	ompression with Glow Plug				S	EPA XX 200 RPM Spark		
Fuel Type (s):	Dedicated	<u>i ×</u>	Flex-Fuel		Dual-l	Fuel		Diesel	XX	M100		M85
71	CNO	3	LNG	LPG		Oth	er (specify	')				
Diesel Cert Fuel:	40 CFR 8	36.1313-94	XX	•		Oth	er (specify	<i>'</i>)				
Primary Service E	quipment:	Indu	strial				<u> </u>					
Exhaust ECS (e.g	., MFI, TO	C, CAC):	ЕМ, Т	C, SPL	., DI, C	AC,	ECI	۸				
		•		(Use a	bbrevi	ations	s per SAE	J1930 J	UN93	3)		
				(Use a	ibbrevia	ations	s per SAE	J1930 J	UN93	3)		

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.
3126 ATAAC	300 @ 2200	MAX 145 (107.1)	1167150/1157150	1307831	N/A	N/A
3.20						
						<u>.</u>
					:	

ISSUE DATE	 	<u>:</u>	15 DI	EC 95		
REVISION NUMBER						
REVISION DATE					<u> </u>	