State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-41 Relating to Certification of New Motor Vehicle Engines

CATERPILLAR TRACTOR CO.

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 Caterpillar Tractor Co. 1985 model-year heavy-duty diesel engines have shown compliance with the optional transient standards and are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating greater than 8500 pounds:

Engine Family	Displacement Cubic Inches (Liters)		Exhaust Emission Control Systems (Special Features)		
FCT0636EPA7	636	(10.4)	Engine Modifications (Air Fuel Ratio Controller) (Diesel Injection - Direct) (Turbocharger)		
FCT0638FPA7	638	(10.5)	Engine Modifications (Air Fuel Ratio Controller) (Diesel Injection - Prechamber) (Intercooler) (Turbocharger)		
FCT0893FPA7	893	(14.6)	Engine Modifications (Air Fuel Ratio Controller) (Diesel Injection - Direct) (Intercooler) (Turbocharger)		

Engine models and codes are listed on attachments.

The following are the certification emission values for this engine family:

Engine Family	Hydrocarbons gm/bhp-hr	Carbon Monoxide gm/bhp-hr	Nitrogen Oxides gm/bhp-hr
FCT0636EPA7	1.2	2.3	4.5
FCT0638FPA7	0.5	1.7	4.6
FCT0893FPA7	0.4	2.4	5.1

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2036).

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.

Executed at El Monte, California this $\underline{\mathcal{L}}$ day of December, 1984

K. D. Drachand, Chief Mobile Source Division

1985 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Caterpillar Tractor Co.	Executive Order No. A-13-44
	Evaporative Family N/A
-	Engine CID (Liters) 636 (10.4) 638 (10.5)
	893 (14.6)

ABBREVIATIONS

Ignition System

CA -Centrifugal Advance EEC -Electronic Engine Control EI -Electronic Ignition ESAC-Electronic Spark Advance Control VA -Vacuum Advance VR -Vacuum Retard

Exhaust Emissions Control System

AIP -Air Injection-Pump AIV -Air Injection-Valve CL -Closed Loop EGR -Exhaust Gas Recirculation EM -Engine Modification OC -Oxidation Catalyst System TR -Thermal Reactor

TWC -Three Way Catalyst System

Special Features

CCV-Combustion Chamber Valve CFI-Central Fuel Injection DID-Diesel Injection-Direct DIP-Diesel Injection-Prechamber MFI-Mechanical Fuel Injection TC -Turbocharged

IC -Intercooler AFRC-Air Fuel Ratio Controller

Fuel System CFI, CL, DID, DIP, EFI, MFI nV -nVenturi Carburetor VV -Variable Venturi

Engine Family	Engine Model
FCT0636EPA7	3208 -Code B
FCT0638FPA7	3306
FCT0893FPA7	3406 - Code H 3406 - Code J

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C Sundayana 6	ATERRILIAN TRACTOR (20.		Page	2A
Manufacturer CATERPILLAR TRACTOR CO. Engine Family FCT0636EPA7			CID(Liter)-Type 636(10.4) V8		
ECS and (Specia	1 Features) <u>EM (TC</u>	DID. AFRC)			
Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM (TORQUE)	Fuel Rate at Maximum HP mm ³ /stroke	Label Ident.
3208	CATERPILLAR	CATERPILLAR	(590 @ 1400) 225 @ 2600	(92) 79	LABEL INFORMATIO
CODE B	4W5868	4W7016	(550 @ 1400) 210 @ 2600	(83) 72 (84)	WILL BE PROVIDED WHEN THEY ARE DESIGNED.
			(560 @ 1400) 200 @ 2200	76 (75)	- DESIGNED.
			(500 @ 1400) 175 @ 2200	67	_
	TURBOCHARGER 7W2874 7W2876				

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198_ AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL ENGINES

	ONTERRILL AR TRACTO	חם כט		Page	2B
Manufacturer Engine Family	CATERPILLAR TRACTO	JK CO.	_CID(Liter)-Typ	e <u>638(10</u> .	5) 16
	1 Features) EM (TC	, IC, DIP, AFRO	2)		
Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM (TORQUE)	Fuel Rate at Maximum HP mm ³ /stroke	Label Ident.
3306	CATERPILLAR	CATERPILLAR	(775 @ 1400) 270 @ 2200	(174) 151	LABEL INFORMATION WILL BE PROVIDED WHEN THEY ARE
	7W0279	9N2845	(775 @ 1400) 270 @ 2100	(174) 157	DESIGNED.
			(810 @ 1400 245 @ 2200	(181) 137	-
			(810 @ 1400 245 @ 2100	(181) 138	_
	TURBOCHARGER 9N1287 9N1289				

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1985 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL ENGINES

	ONTERRILLAR TRACT	TOP CO		Page	2C
Manufacturer Engine Family	CATERPILLAR TRAC	TON GOV	CID(Liter)-Type	e <u>893(14.6)</u>	16
	Features) EM(DID,	TC, IC, AFRC)			
Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM (TORQUE)	Fuel Rate at Maximum HP mm ³ /stroke	Label Ident.
	1 4 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
3406		CATERPILLAR	(145@ 1200)	(232)	
CODE H	CATERPILLAR		300 @ 2100 (1145 @ 1200	165	-
	4W2551	4W7018	300 @ 1800 (1145 @ 1200 280 @ 1600	(232)	
	TURBOCHARGER 4W4537 4W4538				LABEL INFORMATION WILL BE PROVIDED WHEN THEY ARE DESIGNED.
CODE J	CATERPILLAR	CATERPILLAR	(1325 @ 1260 400 @ 2100	205	
	7L0007	4W7018	(1395 @ 1260 400 @ 2100	238	
			(1325 @ 1260 380 @ 1800	221	
			(1325 @ 1260 360 @ 1800	210	
			(1325 @ 1260 340 @ 1700		
	TURBOCHARGER 4W5188 4W5189				

Date of Issue -