State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-5-8

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

KOMATSU AMERICA INTERNATIONAL COMAPANY

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 Komatsu America International Company 1996 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: Construction Equipment

Fuel Type: Diesel

Engine Family	Liters	(Cubic Inches)	Exhaust Emission Control Systems and Special Features
TKL15.RZDARC (140)	15.2	(927)	Turbocharger Charge Air Cooler

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):

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-hr)				Smoke Opacity (%)		
Engine Family	THC	CO	NOx	PM	Accel	Lug	Peak
TKL15.RZDARC (140)	0.2	0.6	6.1	0.2	16	6	24

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 8th day of February 1996.

R. B. Summerfield
Assistant Division Chief
Mobile Source Division

E.O.# U-R-5-8

199 6 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY OFF-ROAD DIESEL ENGINES

Manufacturer KOMATSU AMERICA INTERNATIONAL COMPANY Engine Family TKL15.RZDARC

Displacement: 15.2 / 927 Liters/Cubic Inches Eng Config: I-6

All Codes in Eng Fam: CA____ 49S____ 50S XX Cert Test Procedures: ARB____ EPA XX

Valves/Ports per Cylinder 2 Strokes per Combustion Cycle 4-STROKE

Maximum Rated Power: 526 HP (392 KW) @ 2100 RPM

Ignition: Compression XX Compression with Glow Plug____ Spark____

Fuel Type(s): Dedicated X Flex-Fuel___ Dual-Fuel___ Diesel XX M100___ M85____

CNG___ LNG___ LPG___ Other (specify)____

Diesel Cert Fuel: 40 CFR 86.1313-94 XX Other (specify)____

Primary Service Equipment: CONSTRUCTION EQUIPMENT

Exhaust ECS (e.g., MFI, TC, CAC): TC, CAC

(use abbreviations per **SAE J1930 JUN93**)

Engine Model (Eng Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm^3 / stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
S6D140E-2 (K6)	526 @ 2100	257 (308.3)	6212-72-9010 6212-12-3100			
D140E-2 (K7)	473 @ 1800	269 (322.7)	6212-72-1420 6212-12-3200			
S6D140E-2 (K8)	508 @ 2000	259 (310.7)	6212-72-1250 6212-12-3100			

Date Issued:
Revisions: