State of California AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-10-14

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

KOMATSU DRESSER 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 Komatsu Dresser Corp. 1999 model-year engines with rated power between 175 and 750 horsepower and exhaust emission control systems are certified as described below in heavy-duty off-road equipment:

<u>Typical Equipment Usage:</u>

Crane, Loader, Tractor, Dozer, Pump, Compressor, and Generator Set

Fuel Type: Diesel

Engine Family		lacement Cubic Inches	Exhaust Emission Control Systems and Special Features
XKDXL0505ABB (B413)	8.3	505	Charge Air Cooler Turbocharger

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 matter (PM) certification exhaust emission standards in grams per brake horsepower-hour (g/hp-h), and the opacity-of-smoke emission standards in percent (%) during acceleration (Accel), lugging (Lug), and peak (Peak) modes for this engine family are as follows (Title 13, California Code of Regulations, Section 2423):

<u>Exhaus</u>	<u>st Emiss</u>	ions_(g/l	<u>np-h)</u>	Smoke	<u>Opacit</u>	y <u>(%)</u>
<u>THC</u>	<u>co</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Luq</u>	<u>Peak</u>
1.0	8.5	6.9	0.4	20	15	50

The THC, CO, NOx, and PM exhaust emissions certification values in grams per brake horsepower-hour, and the opacity-of-smoke emissions certification values in percent for this engine family are:

Exhaust Emissions (g/hp-h)			Smoke Opacity (%)			
THC	<u>co</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Luq</u>	<u>Peak</u>
0.3	0.5	5.4	0.2	7	2	16

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, Sections 2425 et seq.).

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

Executed at El Monte, California this _30 day

R. B. Summerfield, Chief Mobile Source Operations Division

day of November 1998.

LARGE ENGINE MODEL SUMMARY

Manufacturer: Komatsu

11/21/97

EPA Engine Family: XKDXL0505ABB			Manufacturer Family Name:			B413	ı	
1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel flate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
CPL 2055 FR 90050	SA6D114E-1	230@2000	125	84.4	720@1500	138	70.0	TC CHC
CPL 2057 FR 90109	SA6D114E-1	230@2200	118	87.3	670@1500	123	.128 64	TC _{ረ ሱ} ር
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Process Code: New Submission

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