## ISEKI MATSUYAMA MFG. CO., LTD.

EXECUTIVE ORDER U-R-038-0048 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 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-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours) 8000			
2006	6ICLL2.96D4E	2.955	Diesel				
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION				
Indirect Diesel Injection			Tractor				

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

Γ	RATED EMISSION			EXHAUST (g/kw-hr)				OPACITY (%)			
POWER		STANDARD CATEGORY		нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
	37 <u>&lt;</u> KW<75	Tier 2	STD	N/A	N/A	7.5	5.0	0.40	20	15	50
			CERT			6.7	0.6	0.36	6	5	8

**BE IT FURTHER RESOLVED:** That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

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

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this  $2/2^{2}$  day of December 2005.

Allen Lyons, Chief

Mobile Source Operations Division

## ATTACHMENT 1 OF I

## **Engine Model Summary Form**

Manufacturer: ISEKI MATSUYAMA MFG. CO., LTD.

Engine category: Nonroad CI

EPA Engine Family: 6ICLL2.96D4E

U-R-038-0048

Mfr Family Name: NONE

Process Code: New Sub - continued

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on Cor	n w n
9.Emission Control levice Per SAE J193	E E E
9.E 9 Devi	
te: torque	2 8 8 2 24 27
8.Fuel Rate: hr)@peak tor	17.2@194 15.1@184 14.9@182
8.Fuel Rate: 9.Emission Control lbs/hr)@peak torque Device Per SAE J1930	<b>5 6 4</b>
	# # O
7.Fuel Rate: nm/stroke@peak torque	48.8@194 45.8@184 45.1@182
7.Fuel n/strok torc	48.8 45.8 45.1
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RPM is)	888
6.Torque @ RPM (SEA Gross)	94@1600 184@1500 182@1500
6.Tom (SE	9 9 9
유 _	
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	27.1@63.4 24.8@59.1 21.8@52.8
5.Fuel Rate: s/hr) @ peak or diesels on	27.16 24.86 21.86
sq) o <sub>y</sub>	
e: eak HF nly)	7. 6. 8.
4.Fuel Rate: stroke @ pea for diesel only	47.2@63.4 43.4@59.1 39.8@52.8
4.Fuel Rate: mm/stroke @ peak HI (for diesel only)	47.2@63.4 43.4@59.1 39.8@52.8
3.BHP@RPM (SAE Gross)	63.4@2600 59.1@2600 52.8@2500
BHP@ SAE G	3.4@ 2.4@ 2.8@
<sub>6</sub> 0	(A) (A) (B)
odel	
ne M	E4DE E4DE
:Engi	E4DE E4DE E4DE
1.Engine Code 2.Engine Model	
Cod	N'A N'A
ngine	N'A N'A
<del>1</del>	