California Environmental Protection Agency Air Resources Board	IHI SHIBAURA MACHINERY CORPORATION	EXECUTIVE ORDER U-R-026-0380 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)
2014	EH3XL.761F1C	0.507 & 0.761	Diesel	3000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Indirect Diesel Injection, Engine Control Module[Engine Code E37-18C only]	Generator

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), 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):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
KW< 8	Tier 4 Final	STD	N/A	N/A	7.5	8.0	0.40	NA	NA	NA
		CERT	--	--	4.5	1.6	0.27	--	--	--

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 19th day of November 2013.

Erik White, Chief
Mobile Source Operations Division

ATTACHMENT 1 OF 1

Engine Model Summary Template

UR-026-0380
R/C 6/9/2014

Engine Family	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 Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
EH3XL.761F1C	EG5/1800C	402F-05	5.0@1800	11.8	2.3	N/A	N/A	N/A	IFI
EH3XL.761F1C	EG6/2000C	402F-05	5.8@2000	12.0	2.6	N/A	N/A	N/A	IFI
EH3XL.761F1C	EG8P/2700C	402F-05	8.3@2700	11.0	3.3	N/A	N/A	N/A	IFI
EH3XL.761F1C	EG9P/2800C	402F-05	9.0@2800	13.7	4.2	N/A	N/A	N/A	IFI
EH3XL.761F1C	EH8P/1800C	403F-07	7.9@1800	12.3	3.6	N/A	N/A	N/A	IFI
EH3XL.761F1C	EG5/1800C	C0.5	5.0@1800	11.8	2.3	N/A	N/A	N/A	IFI
EH3XL.761F1C	EG6/2000C	C0.5	5.8@2000	12.0	2.6	N/A	N/A	N/A	IFI
EH3XL.761F1C	EG8P/2700C	C0.5	8.3@2700	11.0	3.3	N/A	N/A	N/A	IFI
EH3XL.761F1C	EG9P/2800C	C0.5	9.0@2800	13.7	4.2	N/A	N/A	N/A	IFI
EH3XL.761F1C	EH8P/1800C	C0.7	7.9@1800	12.3	3.6	N/A	N/A	N/A	IFI
EH3XL.761F1C	E37-18C	E673L-F	9.9@1800	15.4	4.6	N/A	N/A	N/A	IFI, ECM
EH3XL.761F1C	E36-18C	E673L-F	7.9@1800	12.3	3.6	N/A	N/A	N/A	IFI
EH3XL.761F1C	EG5/2000C	402F-05	5.4@2000	12.0	2.6	N/A	N/A	N/A	IFI
EH3XL.761F1C	EG5/2000C	C0.5	5.4@2000	12.0	2.6	N/A	N/A	N/A	IFI
EH3XL.761F1C	EG8/2700C	402F-05	8.0@2700	11.0	3.3	N/A	N/A	N/A	IFI
EH3XL.761F1C	EG8/2700C	C0.5	8.0@2700	11.0	3.3	N/A	N/A	N/A	IFI
EH3XL.761F1C	EG9/2800C	402F-05	8.6@2800	13.7	4.2	N/A	N/A	N/A	IFI
EH3XL.761F1C	EG9/2800C	C0.5	8.6@2800	13.7	4.2	N/A	N/A	N/A	IFI
EH3XL.761F1C	EH8/1800C	403F-07	7.5@1800	12.3	3.6	N/A	N/A	N/A	IFI
EH3XL.761F1C	EH8/1800C	C0.7	7.5@1800	12.3	3.6	N/A	N/A	N/A	IFI
* EH3XL.761F1C	RMP02	E672L-F	8.6@2800	13.7	4.2	N/A	N/A	N/A	IFI

* new model