California Environmental Protection Agency AIR RESOURCES BOARD

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 engines and emission control systems 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			
2010	ADZXL02.3048	2.290	Diesel				
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS							
Mechanica	al Direct Injection, Turbo Limiter, Exhaust Gas Re	ocharger, Smoke Puff ecirculation	Crane, Loaders, Tractor, Dozer, Pump, Compressor, Other Industrial Equipment				

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):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)				OPACITY (%)			
			нс	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
37 <u><</u> kW < 56	Tier 4 Interim	STD	N/A	N/A	4.7	5.0	0.30	20	15	50
		CERT			4.3	1.5	0.16	11	4	21

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

_ day of January 2010.

Annette Hebert, Chief Mobile Source Operations Division

SPL ≽ Device Per SAE J1930 9.Emission Control DDI, TC, EGR (ibs/hr)@peak 8.Fuel Rate: torque 17.9 17.9 17.9 17.9 18.8 18.8 19.6 19.6 19.6 23.4 19.6 3.BHP@RPM mm/stroke @ peak HP (lbs/hr) @ peak HP 6.Torque @ RPM mm/stroke@peak (SAE Gross) (for diesel only) (for diesels only) (SEA Gross) torque 7.Fuel Rate: 44.8 44.8 44.8 44.8 50.3 49.2 49.2 49.2 47.1 47.1 49.2 80@1800 180@1800 180@1800 80@1800 94@2100 90@1800 90@1800 200@1800 200@1800 200@1800 200@1800 5.Fuel Rate: 26.8 25.3 24.4 23.6 23.0 26.2 22.2 29.4 27.3 25.1 23.1 4.Fuel Rate: 43.8 44.0 44.4 45.5 47.3 43.2 37.1 47.2 47.3 47.2 47.3 60.3@2800 59.8@2600 58.3@2500 57.3@2400 50.2@2800 56.3@2200 67.0@2800 64.9@2600 62.0@2400 58.8@2200 63.2@2500 2.Engine Model TD2009L04 TD2009L04 TD2009L04 TD2009L04 TD2009L04 TD2009L04 **FD2009L04** rD2009L04 FD2009L04 TD2009L04 TD2009L04 Nonroad CI 1.Engine Code C3U144,6 C3UI43,5 C3UI42,8 C3U148,4 C3UI46,3 C3UI43,9 C3UI47,2 C3UI45 C3UI37 C3U142 C3UI50 ADZXL02.3048 ADZXL02.3048 ADZXL02.3048 ADZXL02.3048 ADZXL02.3048 ADZXL02.3048 ADZXL02.3048 ADZXL02.3048 ADZXL02.3048 **Engine Family** ADZXL02.3048 ADZXL02.3048

Engine Model Summary Template

Deute HU

Attachment

E0 # U-R-013-0331 9005/ Ac/21

page 1 of