

 AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0357 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 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)
2010	ADZXL03.6082	3.619	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Mechanical Direct Injection, Electronic Control Module, Turbocharger, Smoke Puff Limiter, Exhaust Gas Recirculation			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):

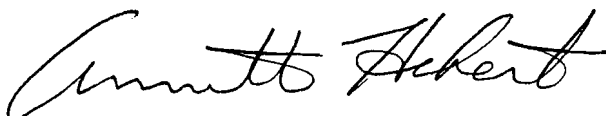
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ kW < 56	Tier 4 Interim	STD	N/A	N/A	4.7	5.0	0.30	20	15	50
		CERT	--	--	4.6	1.6	0.17	3	2	5

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 29 day of January 2010.


 Annette Hebert, Chief
 Mobile Source Operations Division

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Nonroad CI

Engine Model Summary Template

Attachment page 1 of 4

EO# U-R-013-0357

1/20/2010

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
ADZXL03.6082	C3UI54	TD2011L04i	72.4@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC SPL
ADZXL03.6082	C3UI52	TD2011L04i	69.7@2300	59	30.7	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51A	TD2011L04i	69.1@2200	59	28.8	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54,7	TD2011L04i	73.4@2600	59	34.1	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI53,7	TD2011L04i	72.0@2500	59	33.3	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51,3	TD2011L04i	68.8@2400	58	31.5	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI49,4	TD2011L04i	66.2@2300	57	30.2	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI52A	D3,6DCCE3	69.7@2300	59	30.2	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI55	TD2011L04i	73.8@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI52	TD2011L04	69.7@2400	59	30.9	250@1600	65	23.1	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54H	TD2011L04i	72.4@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54J	TD2011L04i	72.4@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54L	TD2011L04i	72.4@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54N	TD2011L04i	72.4@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54P	TD2011L04i	72.4@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54R	TD2011L04i	72.4@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54S	TD2011L04i	72.4@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54T	TD2011L04i	72.4@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54U	TD2011L04i	72.4@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54Q	TD2011L04i	72.4@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI52H	TD2011L04i	69.7@2300	59	30.7	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI52J	TD2011L04i	69.7@2300	59	30.7	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI52L	TD2011L04i	69.7@2300	59	30.7	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI52N	TD2011L04i	69.7@2300	59	30.7	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI52P	TD2011L04i	69.7@2300	59	30.7	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI52R	TD2011L04i	69.7@2300	59	30.7	240@1600	64	22.8	DDI, TC, EGR, EC

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Engine Model Summary Template

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1/20/2010

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
ADZXL03.6082	C3UI52S	TD2011L04i	69.7@2300	59	30.7	240@1600	64	22.8	DDI, TC, EGR, EC SPL
ADZXL03.6082	C3UI52T	TD2011L04i	69.7@2300	59	30.7	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI52U	TD2011L04i	69.7@2300	59	30.7	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI52Q	TD2011L04i	69.7@2300	59	30.7	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51H	TD2011L04i	69.1@2200	59	28.8	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51J	TD2011L04i	69.1@2200	59	28.8	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51L	TD2011L04i	69.1@2200	59	28.8	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51N	TD2011L04i	69.1@2200	59	28.8	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51P	TD2011L04i	69.1@2200	59	28.8	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51R	TD2011L04i	69.1@2200	59	28.8	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51S	TD2011L04i	69.1@2200	59	28.8	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51T	TD2011L04i	69.1@2200	59	28.8	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51U	TD2011L04i	69.1@2200	59	28.8	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51Q	TD2011L04i	69.1@2200	59	28.8	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54HA	TD2011L04i	73.4@2600	59	34.1	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54JA	TD2011L04i	73.4@2600	59	34.1	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54LA	TD2011L04i	73.4@2600	59	34.1	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54NA	TD2011L04i	73.4@2600	59	34.1	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54PA	TD2011L04i	73.4@2600	59	34.1	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54RA	TD2011L04i	73.4@2600	59	34.1	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54SA	TD2011L04i	73.4@2600	59	34.1	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54TA	TD2011L04i	73.4@2600	59	34.1	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54UA	TD2011L04i	73.4@2600	59	34.1	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI54QA	TD2011L04i	73.4@2600	59	34.1	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI53H	TD2011L04i	72.0@2500	59	33.3	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI53J	TD2011L04i	72.0@2500	59	33.3	230@1600	62	22.0	DDI, TC, EGR, EC

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ADZXL03.6082	C3UI53L	TD2011L04i	72.0@2500	59	33.3	230@1600	62	22.0	DDI, TC, EGR, EC SPL
ADZXL03.6082	C3UI53N	TD2011L04i	72.0@2500	59	33.3	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI53P	TD2011L04i	72.0@2500	59	33.3	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI53R	TD2011L04i	72.0@2500	59	33.3	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI53S	TD2011L04i	72.0@2500	59	33.3	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI53T	TD2011L04i	72.0@2500	59	33.3	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI53U	TD2011L04i	72.0@2500	59	33.3	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI53Q	TD2011L04i	72.0@2500	59	33.3	230@1600	62	22.0	DDI, TC, EGR, EC
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ADZXL03.6082	C3UI51JA	TD2011L04i	68.8@2400	58	31.5	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51LA	TD2011L04i	68.8@2400	58	31.5	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51NA	TD2011L04i	68.8@2400	58	31.5	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51PA	TD2011L04i	68.8@2400	58	31.5	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51RA	TD2011L04i	68.8@2400	58	31.5	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51SA	TD2011L04i	68.8@2400	58	31.5	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51TA	TD2011L04i	68.8@2400	58	31.5	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51UA	TD2011L04i	68.8@2400	58	31.5	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI51QA	TD2011L04i	68.8@2400	58	31.5	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI49H	TD2011L04i	66.2@2300	57	30.2	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI49J	TD2011L04i	66.2@2300	57	30.2	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI49L	TD2011L04i	66.2@2300	57	30.2	230@1600	62	22.0	DDI, TC, EGR, EC
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ADZXL03.6082	C3UI49P	TD2011L04i	66.2@2300	57	30.2	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI49R	TD2011L04i	66.2@2300	57	30.2	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI49S	TD2011L04i	66.2@2300	57	30.2	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI49T	TD2011L04i	66.2@2300	57	30.2	230@1600	62	22.0	DDI, TC, EGR, EC

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ADZXL03.6082	C3UI49Q	TD2011L04i	66.2@2300	57	30.2	230@1600	62	22.0	DDI, TC, EGR, EC
ADZXL03.6082	C3UI55H	TD2011L04I	73.8@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI55J	TD2011L04I	73.8@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI55L	TD2011L04I	73.8@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI55N	TD2011L04I	73.8@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI55P	TD2011L04I	73.8@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI55R	TD2011L04I	73.8@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI55S	TD2011L04I	73.8@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI55T	TD2011L04I	73.8@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI55U	TD2011L04I	73.8@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI55Q	TD2011L04I	73.8@2400	60	32.0	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI52V	D3,6DCCE3	69.7@2300	59	30.2	240@1600	64	22.8	DDI, TC, EGR, EC
ADZXL03.6082	C3UI52P	TD2011L04	69.7@2300	59	30.9	250@1600	65	23.1	DDI, TC, EGR, EC
ADZXL03.6082	C3UI55H	TD2011L04	75.0@2600	58	31.5	250@1600	65	23.1	DDI, TC, EGR, EC