

 <b>AIR RESOURCES BOARD</b>	<b>DEUTZ AG</b>	<b>EXECUTIVE ORDER U-R-013-0233</b> 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)
2008	8DZXL03.6098	3.619	Diesel	8000
<b>SPECIAL FEATURES &amp; EMISSION CONTROL SYSTEMS</b>			<b>TYPICAL EQUIPMENT APPLICATION</b>	
Direct Diesel Injection, Turbocharger, Exhaust Gas Recirculation			Loader, Tractor, 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 (NO<sub>x</sub>), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NO<sub>x</sub>), 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):

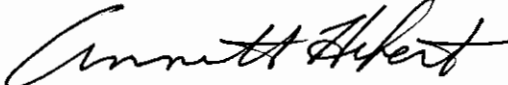
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NO <sub>x</sub>	NMHC+NO <sub>x</sub>	CO	PM	ACCEL	LUG	PEAK
37 ≤ kW < 56	Tier 4 interim	STD	N/A	N/A	4.7	5.0	0.30	20	15	50
56 ≤ kW < 75	Tier 3	STD	N/A	N/A	4.7	5.0	0.40	20	15	50
		CERT	--	--	4.2	1.1	0.23	6	2	15

**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 25 day of February 2008.

  
 Annette Hebert, Chief  
 Mobile Source Operations Division

Manufacturer: **DEUTZ AG**  
 Engine category: **Nonroad CI**  
 PA Engine Family: **8DZXL03.6098**  
 Vfr Family Name: **TD2011L04 W 37-75KW TIER3**  
 Process Code: **Running Change**

*V-8-013-0233*

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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
C3U168	TD2011L04W	91.1	69	39.8	270@1600	68	24.1	DDI, TC, EGR
C3U163	TD2011L04W	84.4	65	36.1	270@1600	65	23.1	DDI, TC, EGR
C3U161	TD2011L04W	81.8	64	34.1	270@1600	65	23.1	DDI, TC, EGR
C3U158	TD2011L04W	77.7	63	32.1	270@1600	65	23.1	DDI, TC, EGR
C3U164.6	TD2011L04W	86.6	65	37.5	266@1600	64	22.7	DDI, TC, EGR
C3U159.9	TD2011L04W	80.3	60	33.3	257@1600	61	21.6	DDI, TC, EGR
C3U158A	TD2011L04W	77.7	59	31.4	257@1600	61	21.6	DDI, TC, EGR
C3U155.1	TD2011L04W	73.8	59	30.1	257@1600	61	21.6	DDI, TC, EGR
C3U168H	TD2011L04W	91.1	69	39.8	270@1600	68	24.1	DDI, TC, EGR
C3U168J	TD2011L04W	91.1	69	39.8	270@1600	68	24.1	DDI, TC, EGR
C3U168L	TD2011L04W	91.1	69	39.8	270@1600	68	24.1	DDI, TC, EGR
C3U168P	TD2011L04W	91.1	69	39.8	270@1600	68	24.1	DDI, TC, EGR
C3U168R	TD2011L04W	91.1	69	39.8	270@1600	68	24.1	DDI, TC, EGR
C3U168S	TD2011L04W	91.1	69	39.8	270@1600	68	24.1	DDI, TC, EGR
C3U168T	TD2011L04W	91.1	69	39.8	270@1600	68	24.1	DDI, TC, EGR
C3U168Q	TD2011L04W	91.1	69	39.8	270@1600	68	24.1	DDI, TC, EGR
C3U163H	TD2011L04W	84.4	65	36.1	270@1600	65	23.1	DDI, TC, EGR
C3U163J	TD2011L04W	84.4	65	36.1	270@1600	65	23.1	DDI, TC, EGR
C3U163L	TD2011L04W	84.4	65	36.1	270@1600	65	23.1	DDI, TC, EGR
C3U163P	TD2011L04W	84.4	65	36.1	270@1600	65	23.1	DDI, TC, EGR
C3U163R	TD2011L04W	84.4	65	36.1	270@1600	65	23.1	DDI, TC, EGR
C3U163S	TD2011L04W	84.4	65	36.1	270@1600	65	23.1	DDI, TC, EGR
C3U163T	TD2011L04W	84.4	65	36.1	270@1600	65	23.1	DDI, TC, EGR
C3U163Q	TD2011L04W	84.4	65	36.1	270@1600	65	23.1	DDI, TC, EGR
C3U161H	TD2011L04W	81.8	64	34.1	270@1600	65	23.1	DDI, TC, EGR
C3U161J	TD2011L04W	81.8	64	34.1	270@1600	65	23.1	DDI, TC, EGR

DEUTZ AG  
Nonroad CI

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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
C3U161L	TD2011L04W	81.8	64	34.1	270@1600	65	23.1	DDI, TC, EGR
C3U161P	TD2011L04W	81.8	64	34.1	270@1600	65	23.1	DDI, TC, EGR
C3U161R	TD2011L04W	81.8	64	34.1	270@1600	65	23.1	DDI, TC, EGR
C3U161S	TD2011L04W	81.8	64	34.1	270@1600	65	23.1	DDI, TC, EGR
C3U161T	TD2011L04W	81.8	64	34.1	270@1600	65	23.1	DDI, TC, EGR
C3U161Q	TD2011L04W	81.8	64	34.1	270@1600	65	23.1	DDI, TC, EGR
C3U158H	TD2011L04W	77.7	63	32.1	270@1600	65	23.1	DDI, TC, EGR
C3U158J	TD2011L04W	77.7	63	32.1	270@1600	65	23.1	DDI, TC, EGR
C3U158L	TD2011L04W	77.7	63	32.1	270@1600	65	23.1	DDI, TC, EGR
C3U158P	TD2011L04W	77.7	63	32.1	270@1600	65	23.1	DDI, TC, EGR
C3U158R	TD2011L04W	77.7	63	32.1	270@1600	65	23.1	DDI, TC, EGR
C3U158S	TD2011L04W	77.7	63	32.1	270@1600	65	23.1	DDI, TC, EGR
C3U158T	TD2011L04W	77.7	63	32.1	270@1600	65	23.1	DDI, TC, EGR
C3U158Q	TD2011L04W	77.7	63	32.1	270@1600	65	23.1	DDI, TC, EGR
C3U164H	TD2011L04W	86.6	65	37.5	266@1600	64	22.7	DDI, TC, EGR
C3U164J	TD2011L04W	86.6	65	37.5	266@1600	64	22.7	DDI, TC, EGR
C3U164L	TD2011L04W	86.6	65	37.5	266@1600	64	22.7	DDI, TC, EGR
C3U164P	TD2011L04W	86.6	65	37.5	266@1600	64	22.7	DDI, TC, EGR
C3U164R	TD2011L04W	86.6	65	37.5	266@1600	64	22.7	DDI, TC, EGR
C3U164S	TD2011L04W	86.6	65	37.5	266@1600	64	22.7	DDI, TC, EGR
C3U164T	TD2011L04W	86.6	65	37.5	266@1600	64	22.7	DDI, TC, EGR
C3U164Q	TD2011L04W	86.6	65	37.5	266@1600	64	22.7	DDI, TC, EGR
C3U159H	TD2011L04W	80.3	60	33.3	257@1600	61	21.6	DDI, TC, EGR
C3U159J	TD2011L04W	80.3	60	33.3	257@1600	61	21.6	DDI, TC, EGR
C3U159L	TD2011L04W	80.3	60	33.3	257@1600	61	21.6	DDI, TC, EGR
C3U159P	TD2011L04W	80.3	60	33.3	257@1600	61	21.6	DDI, TC, EGR
C3U159R	TD2011L04W	80.3	60	33.3	257@1600	61	21.6	DDI, TC, EGR
C3U159S	TD2011L04W	80.3	60	33.3	257@1600	61	21.6	DDI, TC, EGR
C3U159T	TD2011L04W	80.3	60	33.3	257@1600	61	21.6	DDI, TC, EGR
C3U159Q	TD2011L04W	80.3	60	33.3	257@1600	61	21.6	DDI, TC, EGR
C3U158HA	TD2011L04W	77.7	59	31.4	257@1600	61	21.6	DDI, TC, EGR
C3U158JA	TD2011L04W	77.7	59	31.4	257@1600	61	21.6	DDI, TC, EGR
C3U158LA	TD2011L04W	77.7	59	31.4	257@1600	61	21.6	DDI, TC, EGR
C3U158PA	TD2011L04W	77.7	59	31.4	257@1600	61	21.6	DDI, TC, EGR
C3U158RA	TD2011L04W	77.7	59	31.4	257@1600	61	21.6	DDI, TC, EGR

DEUTZ AG

A Engine Family

Normaal CI

8DZX103.6098

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U R 013-0233

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
C3UI58TA	TD2011L04W	77.7	59	31.4	257@1600	61	21.6	DDI, TC, EGR
C3UI58QA	TD2011L04W	77.7	59	31.4	257@1600	61	21.6	DDI, TC, EGR
C3UI55H	TD2011L04W	73.8	59	30.1	257@1600	61	21.6	DDI, TC, EGR
C3UI55J	TD2011L04W	73.8	59	30.1	257@1600	61	21.6	DDI, TC, EGR
C3UI55L	TD2011L04W	73.8	59	30.1	257@1600	61	21.6	DDI, TC, EGR
C3UI55P	TD2011L04W	73.8	59	30.1	257@1600	61	21.6	DDI, TC, EGR
C3UI55R	TD2011L04W	73.8	59	30.1	257@1600	61	21.6	DDI, TC, EGR
C3UI55S	TD2011L04W	73.8	59	30.1	257@1600	61	21.6	DDI, TC, EGR
C3UI55T	TD2011L04W	73.8	59	30.1	257@1600	61	21.6	DDI, TC, EGR
C3UI55Q	TD2011L04W	73.8	59	30.1	257@1600	61	21.6	DDI, TC, EGR
C3UI54	TD2011L04W	72.4	58	28.4	257@1600	61	21.6	DDI, TC, EGR
C3UI54H	TD2011L04W	72.4	58	28.4	257@1600	61	21.6	DDI, TC, EGR
C3UI54J	TD2011L04W	72.4	58	28.4	257@1600	61	21.6	DDI, TC, EGR
C3UI54L	TD2011L04W	72.4	58	28.4	257@1600	61	21.6	DDI, TC, EGR
C3UI54P	TD2011L04W	72.4	58	28.4	257@1600	61	21.6	DDI, TC, EGR
C3UI54R	TD2011L04W	72.4	58	28.4	257@1600	61	21.6	DDI, TC, EGR
C3UI54S	TD2011L04W	72.4	58	28.4	257@1600	61	21.6	DDI, TC, EGR
C3UI54T	TD2011L04W	72.4	58	28.4	257@1600	61	21.6	DDI, TC, EGR
C3UI54Q	TD2011L04W	5A 72.4	58	28.4	257@1600	61	21.6	DDI, TC, EGR