

	<p style="text-align: center;">DEUTZ AG</p>	<p style="text-align: right;">EXECUTIVE ORDER U-R-013-0296 New Off-Road Compression-Ignition Engines</p>
---	---	--

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)
2009	9DZXL07.1056	7.145	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Smoke Puff Limiter, Exhaust Gas Recirculation			Loaders, Tractor, Dozer, 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
130 ≤ kW < 225	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
225 ≤ kW < 450	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		CERT	--	--	3.5	0.7	0.11	14	4	31

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 2009.


 Annette Hebert, Chief
 Mobile Source Operations Division

Deutz Ag

Nonroad CI

Engine Model Summary Template

Attachment P1 of 1

U-K-013-0296

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate:		5.Fuel Rate:		6.Torque @ RPM (SEA Gross)	7.Fuel Rate:		8.Fuel Rate:		9.Emission Control Device Per SAE J1930
				mm/stroke @ peak HP (for diesel only)	mm/stroke @ peak HP (for diesels only)	(lbs/hr) @ peak (for diesels only)	k torque		mm/stroke @ peak (for diesels only)	k torque	(lbs/hr)@peak torque	torque	
9DZAL07.1056	C3CT172	TCD2013L06	230.6@2200	115	84.3	748.6@1450	150	72	DDI, TC, CAC, ECM, SPL, EGR				
9DZAL07.1056	C3CT194	TCD2013L06	260.1@2200	132	96.7	821.6@1450	168	81.1	DDI, TC, CAC, ECM, SPL, EGR				
9DZAL07.1056	C3CT217	TCD2013L06	290.9@2200	147.5	108.1	907.2@1450	184.5	89.1	DDI, TC, CAC, ECM, SPL, EGR				
9DZAL07.1056	C3CT238	TCD2013L06	319.1@2200	159.5	116.9	976.5@1450	198	95.6	DDI, TC, CAC, ECM, SPL, EGR				
9DZAL07.1056	C3CT261	TCD2013L06	350.0@2200	176	129.0	1105.6@145	234	113.0	DDI, TC, CAC, ECM, SPL, EGR				
9DZAL07.1056	C3C1238	TCD2013L06	319.1@2200	159.5	116.9	966.9@1450	197	95.2	DDI, TC, CAC, ECM, SPL, EGR				
9DZAL07.1056	C3C1227	TCD2013L06	304.4@2200	154	112.9	921.2@1450	189	91.3	DDI, TC, CAC, ECM, SPL, EGR				
9DZAL07.1056	C3C1216	TCD2013L06	289.6@2200	147	107.7	876.9@1450	178	86.0	DDI, TC, CAC, ECM, SPL, EGR				
9DZAL07.1056	C3CT158	TCD2013L06 ¹⁵⁸	211.8@2200	109	79.9	685.9@1450	141.5	68.3	DDI, TC, CAC, ECM, SPL, EGR				
9DZAL07.1056	C3C1253	TCD2013L06	339.2@2200	172	126.1	1104.8@145	234	113.0	DDI, TC, CAC, ECM, SPL, EGR				
9DZAL07.1056	C3CT178	TCD2013L06	239.6@2300	115	88.1	708.7@1600	139	74.1	DDI, TC, CAC, ECM, SPL, EGR				
9DZAL07.1056	C3CT198	TCD2013L06	265.5@2350	125	97.9	775.7@1500	149	74.4	DDI, TC, CAC, ECM, SPL, EGR				
9DZAL07.1056	C3CT179	TCD2013L06	239.6@2100	139	88.5	709.2@1600	142.5	75.9	DDI, TC, CAC, ECM, SPL, EGR				
9DZAL07.1056	C3CT191	TCD2013L06	256.1@2100	151	94.4	793.6@1600	155	82.6	DDI, TC, CAC, ECM, SPL, EGR				
9DZAL07.1056	C3C1261	TCD2013L06 ²⁶¹	350.1@2200	176	129.0	1104.8@150	226	112.9	DDI, TC, CAC, ECM, SPL, EGR				
9DZAL07.1056	C3C1221	TCD2013L06	296.4@2200	152	111.4	921.2@1500	189	94.4	DDI, TC, CAC, ECM, SPL, EGR				