State of California AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-13-14
Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

DEUTZ CORPORATION GmbH

Pursuant to the authority vested in the Air Resources Board by Sections 43000.5, 43013 and 43018 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-45-9;

IT IS ORDERED AND RESOLVED: That the following Deutz Corporation GmbH 1998 model-year engines, with rated power between 175 and 750 horsepower, and exhaust emission control systems are certified as described below for use in heavy-duty off-road equipment:

Typical Equipment Usage:

Pump, Generator Set

Fuel Type: Diesel

Engine Family		lacement (Cubic Inches)	Exhaust Emission Control Systems and Special Features
WDZXL06.1007	6.1	(374)	Turbocharger Charge Air Cooler Smoke Puff Limiter

Engine models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The total hydrocarbons (THC), carbon monoxide (CO), nitrogen oxides (NOx), and particulate matter (PM) certification exhaust emission standards, in grams per brake horsepower-hour (g/bhp-hr), and the opacity of smoke emission standards, in percent (%), during acceleration (Accel), lugging (Lug), and peak (Peak) modes, for this engine family are (Title 13, California Code of Regulations, Section 2423):

Exha	<u>aust Emiss</u>	ions (g/L	ohp-hr)	Smoke	<u>Opacity</u>	/ (%)
<u>THC</u>	<u>co</u>	NOx	<u>PM</u>	<u>Accel</u>	<u>Luq</u>	<u>Peak</u>
1.0	8.5	6.9	0.4	20	15	50

The THC, CO, NOx and PM exhaust emission certification values, in g/bhp-hr, and the opacity of smoke emission certification values, in percent (%), for this engine family are:

Exh	aust Emiss	ions (g/l	ohp-hr)_	<u>Smoke</u>	Smoke Opacity (%)						
<u>THC</u>	<u>co</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Luq</u>	<u>Peak</u>					
0.4	1.0	6.7	0.3	11	10	17					

BE IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission Standards and Test Procedures--Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed engine models also comply with the "Emission Control Labels--1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2425 et seq.).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Executed at El Monte, California this 19 da

R. B. Summerfield, Chief

Mobile Source Operations Division

High idle (+300 rpm, dep. on engine applic.)			2600	2600	2400	·	ш	2240	2240	2240	2080	2080	n. a.	- - -	6	9.	P, B,
Low idle (+ 800rpm, dep. on engine applic.)	μď	650	650	650	650	650	9	920	650	650	650	850	n. a.	ia)	- I. I	8	9
Speed at peak torque ± 100 rpm	E.	1500	1500	1500	1500	200	3	9	1500	500	1500	1500	ei -		ا ج	8	4
injection rate at peak torque ±دستنت	mm7stroke	101	97	94	98	98	3	5	8	88	10		- a	es	0	8	8
Peak torque ± 5%			646	622	649	639	9	602	598	585	602	587	e -		e i	4	d
injection rate at nom. speed, ±4mm²	mm³/stroke	92	98	96	91	98	98	86	85	82		84	126	무	87	8	8
Mean effective presuure	- bar	11.04	10.65	10.26	11.41	11.24	00.0	7	7	胃	11.45	11 16	16.43	1.90	47.76	5	10,77
mqn 0∂ ± bəəq≥ lsnimoV	rpm	2500	2500	2500	2300	2300	8	2150	2150	2150	2000	2000	1800	900	908	1800	1800
Vominal Power ± 5%	RW	141	136	131	134	132	2	133	121		117	114	151	137	8	105	68
эрсэ эціби		C141	C138	C131	C134	C132		C122	C121	CHB	6117	C114	0151	D137	80	D105	980
Displacement	Ü	6128	6128	6128	6128	6128	6128	6128	6128	6128	6128	6128	6128	6128	6128	6128	8128
		13C	13C	313C	913C	BF6L913C	BF6L013C	BFBL813C	BF6L013C		BF8L913G	BF6L913C	BF6L913C	BF6L913C		_	BEBLO13C
Engine type		BF6L913C	BF6L913C	BF6L913C	BF6L913C	BF6t	9 9 9		9 BF61	10 BF61	1-1-BF61	12 BF61	13 BF61	14 BF6L			47 BE6

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