

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-13-25  
Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

DEUTZ AG

Pursuant to the authority vested in the Air Resources Board at Sections 43000.5, 43013, and 43018 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned at Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following diesel engines and exhaust emission control systems produced by the manufacturer are certified as described below for use in heavy-duty off-road equipment:

Model Year: 2000

Typical Equipment Usage: Pump, Generator Set

Engine Power Ratings Range: 175 – 750 horsepower, inclusive

Fuel Type: Diesel

<u>Engine Family</u>	<u>Displacement</u>		<u>Exhaust Emission Control Systems and Special Features</u>
	<u>Liters</u>	<u>Cubic Inches</u>	
YDZXL15.9003	11.9	727	Turbocharger
(BF6/8M 1015)	15.9	968	Smoke Puff Limiter

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

	<u>Exhaust Emissions (g/hp-h)</u>				<u>Smoke Opacity (%)</u>		
	<u>THC</u>	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
Standard	1.0	8.5	6.9	0.4	20	15	50
Certification	0.3	1.1	6.7	0.1	6	2	17

BE IT FURTHER RESOLVED: That the listed engine models comply with "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 "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, Sections 2425 *et seq.*).

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

Executed at El Monte, California this 7<sup>th</sup> day of February 2000.

A handwritten signature in black ink, appearing to read "R. B. Summerfield". The signature is fluid and cursive, with a large initial "R" and "B".

R. B. Summerfield, Chief  
Mobile Source Operations Division

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YDZXL15.9003

List of emission related components

Engine type	Displacement	Engine code	Nominal power ±5%	HP	Nominal power ±5%	Nominal speed ±50rpm	Mean effective pressure at nominal power	Injection rate at nominal power ±6mm <sup>3</sup>	Peak torque ±5%	Speed at peak torque ± 100rpm	Mean effective pressure at peak torque	Injection rate at peak torque ±6mm <sup>3</sup>
	cm <sup>3</sup>		kW	rpm	bar	mm <sup>3</sup> /stroke	Nim	rpm	bar	mm <sup>3</sup> /stroke		
BF6M1015	11906	C240/3	322	240	11.52	176	1475	1300	15.57	218		
BF6M1015	11906	C231/3	310	231	11.09	169	1420	1300	14.99	209		
BF6M1015	11906	C223/3	299	223	10.70	163	1370	1300	14.46	201		
BF6M1015	11906	C214/3	287	214	10.27	156	1316	1300	13.89	192		
BF6M1015	11906	C223/5	299	223	11.24	166	1387	1300	14.64	204		
BF6M1015	11906	C240/4	322	240	12.73	185	1511	1300	15.95	224		
BF6M1015	11906	C231/4	310	231	12.25	178	1454	1300	15.35	214		
BF6M1015	11906	C223/4	299	223	11.83	172	1404	1300	14.82	206		
BF6M1015	11906	C214/4	287	214	11.35	165	1347	1300	14.22	197		
BF6M1015	11906	C228/1	306	228	12.77	182	1477	1300	15.59	217		
BF6M1015	11906	C220/1	295	220	12.32	176	1426	1300	15.06	209		
BF6M1015	11906	C211/1	283	211	11.81	169	1368	1300	14.44	200		
BF6M1015	11906	C209	280	209	11.70	168	1354	1300	14.30	198		
BF6M1015	11906	C203/1	272	203	11.37	163	1316	1300	13.89	190		
BF6M1015	11906	D240/1	322	240	11.52	176	n.a.	n.a.	n.a.	n.a.		
BF6M1015	11906	D250/1	335	250	14.00	200	n.a.	n.a.	n.a.	n.a.		
BF6M1015	11906	D228/1	306	228	12.77	182	n.a.	n.a.	n.a.	n.a.		
BF6M1015	11906	D211/1	283	211	11.81	169	n.a.	n.a.	n.a.	n.a.		
BF8M1015	15874	C280	389	290	10.44	172	1850	1300	14.65	215		
BF8M1015	15874	C280	375	280	10.08	166	1787	1300	14.15	204		
BF8M1015	15874	C270	362	270	9.72	160	1722	1300	13.64	196		
BF8M1015	15874	C260	348	260	9.36	154	1659	1300	13.14	188		
BF8M1015	15874	C290/1	389	290	11.54	179	1870	1300	14.81	218		
BF8M1015	15874	C280/1	375	280	11.14	173	1805	1300	14.29	208		
BF8M1015	15874	C270/1	362	270	10.74	166	1740	1300	13.78	199		
BF8M1015	15874	C260/1	348	260	10.34	159	1676	1300	13.27	190		
BF8M1015	15874	C276	370	276	11.59	178	1791	1300	14.18	205		
BF8M1015	15874	C265	355	265	11.13	170	1746	1300	13.83	200		
BF8M1015	15874	C255	342	255	10.71	162	1655	1300	13.11	187		
BF8M1015	15874	C246	330	246	10.33	154	1597	1300	12.65	179		
BF8M1015	15874	D255	342	255	10.71	162	n.a.	n.a.	n.a.	n.a.		
BF8M1015	15874	D290	389	290	10.44	172	n.a.	n.a.	n.a.	n.a.		
BF8M1015	15874	D	389	290	12.18	290	n.a.	n.a.	n.a.	n.a.		