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State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-4-1

Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

DEERE POWER SYSTEMS GROUP

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 Deere Power Systems Group 1996 model-year engine, 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: Combine, Agricultural Tractors

Fuel Type: Diesel

Engine Family	Liters	(Cubic Inches)	Exhaust Emission Control Systems and Special Features
TJD7.6R6DBRA	7.6	(462)	Turbocharger Charge Air Cooler

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 matters (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):

Exhaust Emissions (g/bhp-hr)				Smoke Opacity (%)		
THC	CO	NOx	PM	Accel	Lug	Peak
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:

	Exhaust Emission (g/bhp-hr)				Smoke Opacity (%)		
Engine Family	THC	CO	NOx	PM	Accel	Lug	Peak
TJD7.6R6DBRA	0.3	1.2	5.9	0.2	16	10	21

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 28th day of December 1995.

R. B. Summerfield
Assistant Division Chief
Mobile Source Division

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY OFF-ROAD DIESEL ENGINES

Mfgr: Deere Power Sytems Group of Deere & Company Engine Family: TJD7.6R6DBRA

Displacement: 7.6 liters Eng Config: I-6

All Codes in Eng Fam: CA __ 49S __ 50S X Cert Test Procedures: ARB ____ EPA X

Valves/Ports per Cylinder 2 Strokes per Combustion Cycle 4

Maximum Rated Power: 287 HP (215 kW) @ 2200 RPM

Ignition: Compression X Compression with Glow Plug ___ Spark ___

Fuel Type(s): Dedicated X Flex-Fuel ___ Dual Fuel __ Diesel X M100 __ M85 ____

CNG ___ LNG ___ LPG ___ Other (specify) _____

Diesel Cert Fuel: 40 CFR 89.330-96(b)(2) Table 5 X

Primary Service Equipment: Agricultural Tractor, Combine

Exhaust ECS (e.g., MFI, TC, CAC): EM, TC, CAC

(Use abbreviations per SAE J1930 JUN93)

Engine Model (Eng Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm^3 / stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/ PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
6076HF030A	287 @ 2200	133 (98.8)	RE67592 RE52113			
6076HF030B	275 @ 2200	128 (94.8)	RE65736, RE64815 RE52113	*		
6076HF030C	275 @ 2200	128 (94.8)	RE63514 RE52113	RE28320 SW240,41		
6076HH034	264 @ 2200	121 (90.2)	RE63514 RE52113	RE28320 SW230,31		
6076HH035	219 @ 2200	102 (75.8)	RE63514 RE52113	RE28320 SW232,33		
6076HH036	239 @ 2200	110 (82.0)	RE62514 RE52113	RE28320 SW234,35		
6076HH033	239 @ 2200	110 (82.0)	RE63514 RE52113	RE28320 SW189,90		
6076HRW32	256 @ 2100	124 (88.0)	RE47396 RE52113	RE28320 SW228,29		
6076HRW33	193 @ 2200	91 (67.2)	RE63514 RE52111	RE28320 SW162,63		
6076HRW34	217 @ 2200	101 (75.0)	RE63514 RE52109	RE28320 SW164,65	* ELECTRONIC GOVERNOR Control.	
6076HRW35	241 @ 2200	110 (81.8)	RE62514 RE52113	RE28320 SW166,67)		

Date Issued:

Revisions: | | | | |

Submitted: 15 Nov. 1995 16.03.03 - 400HA