CNH UK Limited

EXECUTIVE ORDER U-R-008-0032

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 engine and emission control system 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)				
2003	3NHXL06.7DCR	3.9, 4.5, 5.9, 6.7	Diesel	8000				
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION					
Direct Dies	el Injection, Turbocharge and Engine Control I	er , Charge Air Cooler Module	Loader, Tractor Dozer and 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	EMISSION STANDARD	<u>-</u>			XHAUST (g/kw-ł		OPACITY (%)			
CLASS	CATEGORY		HC	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
75 ≤ KW < 130	Tier 2	STD	N/A	N/A	6.6	5.0	0.30	20	15	50
130 <u><</u> KW < 225	Tier 2	STD	N/A	N/A	6.6	3.5	0.20	20	15	50
		CERT			5.0	1.2	0.11	12	3	27

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 ______ day of January 2003.

Allen Lyons, Chief

Mobile Source Operations Division

Engine Model Summary Form

U-R-008-0032

Manufacturer: CNH UK LTD

Engine category: Nonroad CI
EPA Engine Family: 3NHXL06.7DCR

Mfr Family Name: F4AE0684

Process Code: **New Submission**

F4AE0684B*D	F4			- 1			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.Engine Code
Ü	F4HE0684J*D	F4AE0684K*D	F4AE0684L*D	F4DE0484A*D	F4AE0484C*D	F4AE0684R*D	F4DE0684B*D	F4DE0684A*D	F4DE0684P*D	F4AE0684N*D	F4AE0684J*D	F4AE0484B*D	F4AE0684H*D	F4AE0684E*D	F4AE0684C*D	F4AE0684F*D	F4AE0684A*D	2.Engine Model
236 @ 2200	194 @ 2000	198 @ 2100	137 @ 2100	135 @ 2200	148 @ 2700	221 @ 2175	145 @ 2200	160 @ 2200	236 @ 2700	180 @ 2300	180 @ 2000	143 @ 2300	194 @ 2000	215 @ 2000	227 @ 2300	208 @ 2175	274 @ 2500	3.BHP@RPM (SAE Gross)
116	109	102	92	97	92	116	69	76	99	85	86	97	99	111	109	105	128	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)
679 @ 1400	627 @ 1400	627 @ 1400	590 @ 1400	411 @ 1600	361 @ 1200	671 @ 1500	447 @ 1600	482 @ 1600	597 @ 1250	516 @ 1400	590 @ 1400	361 @ 1200	627 @ 1400	671 @ 1400	597 @ 1250	634 @ 1500	693 @ 1250	6.Torque @ RPM (SEA Gross)
133	126	118	105	116	105	130	84	90	110	103	114	105	116	124	111	125	139	7.Fuel Rate: mm/stroke@peak torque
N/A	N/A	N/A	NIA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8.Fuel Rate: (lbs/hr)@peak torque
EM. EC.	EM. EC.	EM. EC.	EM. EC.	EM. EC.	EM. EC.	EM. EC.	EM. EC.	EM. EC.	EM. EC.	EM. EC.	EM. EC.	EM. EC.	EM. EC.	EM. EC.	EM. EC.	, EM. EC.	DOI, EM. EC. TC, C.	8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930
	236 @ 2200 116 N/A 679 @ 1400 133 N/A	194 @ 2000 109 N/A 627 @ 1400 126 N/A 236 @ 2200 116 N/A 679 @ 1400 133 N/A	198 @ 2100 102 N/A 627 @ 1400 118 N/A 194 @ 2000 109 N/A 627 @ 1400 126 N/A 236 @ 2200 116 N/A 679 @ 1400 133 N/A	137 @ 2100 92 N/A 590 @ 1400 105 N/A 1 198 @ 2100 102 N/A 627 @ 1400 118 N/A N/A 194 @ 2000 109 N/A 627 @ 1400 126 N/A N/A 236 @ 2200 116 N/A 679 @ 1400 133 N/A N/A	135 @ 2200 97 N/A 411 @ 1600 116 N/A 137 @ 2100 92 N/A 590 @ 1400 105 N/A 105 198 @ 2100 102 N/A 627 @ 1400 118 N/A 194 @ 2000 109 N/A 627 @ 1400 126 N/A 236 @ 2200 116 N/A 679 @ 1400 133 N/A	148 @ 2700 92 N/A 361 @ 1200 105 N/A N/A 135 @ 2200 97 N/A 411 @ 1600 116 N/A 1 137 @ 2700 92 N/A 590 @ 1400 105 N/A 1 198 @ 2700 102 N/A 627 @ 1400 118 N/A N/A 194 @ 2000 109 N/A 627 @ 1400 126 N/A 236 @ 2200 116 N/A 679 @ 1400 133 N/A	221 @ 2175 116 N/A 671 @ 1500 130 N/A 148 @ 2700 120 N/A 361 @ 1200 105 N/A N/A 135 @ 2200 105 N/A 137 @ 2100 176 N/A 116 N/A 118 <	145 @ 2200 69 N/A 447 @ 1600 84 N/A 221 @ 2175 116 N/A 671 @ 1500 130 N/A 148 @ 2700 92 N/A 361 @ 1200 105 N/A 135 @ 2200 97 N/A 411 @ 1600 116 N/A 137 @ 2100 92 N/A 411 @ 1600 105 N/A 198 @ 2100 105 N/A 627 @ 1400 105 N/A 118 N/A 119 N/A 627 @ 1400 126 N/A N/A 118 N/A 118	160 @ 2200 76 N/A 482 @ 1600 90 N/A 145 @ 2200 69 N/A 447 @ 1600 84 N/A 145 @ 2200 84 N/A 147 @ 1600 84 N/A N/A 1500 130 N/A N/A 130 N/A N/A 130 N/A N/A 130 N/A N/A 130 N/A 130 N/A 130 N/A 130 N/A 130 N/A 130 N/A 140 100 105 N/A 140 100 116 N/A 141 100 105 N/A 140 105 N/A 140 105 N/A 140 105 N/A 140 100 118 N/A 140 140 140 140 140 140 140 140 140 140 140 140 140 140 140 140 140 140 140 140 14	736 @ 2700 99 N/A 597 @ 1250 110 N/A 160 @ 2200 76 N/A 482 @ 1600 90 N/A 145 @ 2200 69 N/A 447 @ 1600 84 N/A 221 @ 2175 116 N/A 671 @ 1500 130 N/A 148 @ 2700 92 N/A 361 @ 1200 105 N/A 137 @ 2100 97 N/A 411 @ 1600 116 N/A 198 @ 2100 92 N/A 590 @ 1400 105 N/A 1 194 @ 2000 102 N/A 627 @ 1400 126 N/A 1 236 @ 2200 116 N/A 627 @ 1400 126 N/A N/A	180 @ 2300 85 N/A 516 @ 1400 103 N/A 236 @ 2700 99 N/A 597 @ 1250 110 N/A 160 @ 2200 76 N/A 482 @ 1600 90 N/A 145 @ 2200 69 N/A 447 @ 1600 84 N/A 221 @ 2175 116 N/A 671 @ 1500 130 N/A 148 @ 2700 92 N/A 361 @ 1200 105 N/A 137 @ 2100 92 N/A 411 @ 1600 116 N/A 198 @ 2100 92 N/A 590 @ 1400 105 N/A 1 194 @ 2000 109 N/A 627 @ 1400 126 N/A 1 236 @ 2200 116 N/A 679 @ 1400 133 N/A N/A	180 @ 2000 86 N/A 590 @ 1400 114 N/A 180 @ 2300 85 N/A 516 @ 1400 103 N/A 236 @ 2700 85 N/A 597 @ 1250 110 N/A 160 @ 2200 76 N/A 482 @ 1600 90 N/A 145 @ 2200 69 N/A 447 @ 1600 84 N/A 221 @ 2775 116 N/A 671 @ 1500 130 N/A 148 @ 2700 92 N/A 411 @ 1600 116 N/A 137 @ 2700 92 N/A 411 @ 1600 105 N/A 198 @ 2700 92 N/A 590 @ 1400 105 N/A 1 194 @ 2000 102 N/A 627 @ 1400 126 N/A N/A 236 @ 2200 116 N/A 679 @ 1400 133 N/A N/A	143 @ 2300 97 N/A 361 @ 1200 105 N/A 180 @ 22000 86 N/A 590 @ 1400 114 N/A 180 @ 2300 85 N/A 516 @ 1400 103 N/A 236 @ 2700 99 N/A 597 @ 1250 110 N/A 145 @ 2200 76 N/A 482 @ 1600 90 N/A 145 @ 2200 69 N/A 447 @ 1600 84 N/A 148 @ 2700 92 N/A 671 @ 1500 130 N/A 137 @ 2100 97 N/A 411 @ 1600 105 N/A 138 @ 2100 92 N/A 411 @ 1600 105 N/A 198 @ 2100 92 N/A 590 @ 1400 105 N/A 1 198 @ 2100 102 N/A 627 @ 1400 105 N/A 1 194 @ 2500 109 N/A 627 @ 1400 126 N/A N/A 236 @ 2200 116 N/A 679 @ 1400 133 N/A N/A	194 @ 2000 99 N/A 627 @ 1400 116 N/A 143 @ 2300 97 N/A 361 @ 1200 105 N/A 180 @ 2000 86 N/A 590 @ 1400 114 N/A 180 @ 2300 85 N/A 516 @ 1400 103 N/A 180 @ 2300 85 N/A 597 @ 1250 110 N/A 160 @ 2200 76 N/A 482 @ 1600 90 N/A 145 @ 2200 69 N/A 447 @ 1600 84 N/A 148 @ 2700 92 N/A 671 @ 1500 130 N/A 137 @ 2100 97 N/A 411 @ 1600 116 N/A 198 @ 2100 102 N/A 411 @ 1600 105 N/A 116 194 @ 2000 102 N/A 627 @ 1400 105 N/A 1 198 @ 2100 103 N/A 627 @ 1400 126 N/A 1 236 @ 2200 116 N/A <	215 @ 2000 111 N/A 671 @ 1400 124 N/A 194 @ 2000 99 N/A 627 @ 1400 116 N/A 143 @ 2300 97 N/A 361 @ 1200 105 N/A 180 @ 2300 86 N/A 590 @ 1400 114 N/A 180 @ 2300 85 N/A 516 @ 1400 103 N/A 180 @ 2300 85 N/A 597 @ 1250 110 N/A 160 @ 2200 76 N/A 482 @ 1600 90 N/A 145 @ 2200 76 N/A 447 @ 1600 90 N/A 148 @ 2700 92 N/A 671 @ 1500 130 N/A 137 @ 2700 92 N/A 671 @ 1600 105 N/A 137 @ 2700 92 N/A 411 @ 1600 116 N/A 116 194 @ 2000 102 N/A 627 @ 1400 105 N/A 118 194 @ 2000 109 N/A 627 @ 1400	227 @ 2300 109 N/A 597 @ 1250 111 N/A 1215 @ 2000 111 N/A 677 @ 1400 124 N/A 125 N/A 125 N/A 125 N/A 125 N/A 124 N/A 125 N/A 124 <th< td=""><td>208 @ 2175 105 N/A 634 @ 1500 125 N/A 227 @ 2300 109 N/A 597 @ 1250 111 N/A 114 N/A 116 N/A 114 N/A 114 N/A 116 N/A 110 N/A 116 N/A 110 N/A 11</td><td>274 @ 2500 128 N/A 693 @ 1250 139 N/A DXI 208 @ 2775 105 N/A 634 @ 1500 125 N/A 257 227 @ 2300 109 N/A 597 @ 1250 111 N/A 125 N/A 124 N/A 124 N/A 124 N/A 124 N/A 125 N/A 124 N/A 125 N/A 125 N/A 124 N/A 125 N/A 125 N/A 125 N/A 125 N/A 125 N/A 125</td></th<>	208 @ 2175 105 N/A 634 @ 1500 125 N/A 227 @ 2300 109 N/A 597 @ 1250 111 N/A 114 N/A 116 N/A 114 N/A 114 N/A 116 N/A 110 N/A 116 N/A 110 N/A 11	274 @ 2500 128 N/A 693 @ 1250 139 N/A DXI 208 @ 2775 105 N/A 634 @ 1500 125 N/A 257 227 @ 2300 109 N/A 597 @ 1250 111 N/A 125 N/A 124 N/A 124 N/A 124 N/A 124 N/A 125 N/A 124 N/A 125 N/A 125 N/A 124 N/A 125 N/A 125 N/A 125 N/A 125 N/A 125 N/A 125