California Environmental Protection Agency AIR RESOURCES BOARD	SCANIA CV AB	EXECUTIVE ORDER U-R-024-0006 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)
2009	9Y9XL11.7BBB	8.9, 11.7, 15.6	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control Module	Crane, Loader, Tractor, Dozer and Pump

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
225 ≤ kW < 450	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		CERT	--	--	3.9	1.0	0.17	18	3	34

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 30 day of January 2009.

Annette Hebert, Chief
Mobile Source Operations Division

ATTACHMENT #3 1 of 1

Engine Model Summary Template

U-R-024-0006

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM. (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
9YSXL11.7GDS	DC12 55A	1746460	444@2200	223.9	164.2	1369@1600	260.9	139.2	DOI, TC, CAC, EGM
9YSXL11.7HDS	DC12 55A	1746459	424@2100	218.9	153.3	1369@1600	260.9	139.2	
9YSXL11.7GSD	DC12 55A	1769432	394@2100	203.7	142.6	1368@1400	254.4	118.7	
9YSXL11.7GSR	DC12 55A	1795924	394@2200	198.9	145.8	1255@1600	240.3	128.2	
9YSXL11.7BSB	DC12 58A	1746458	365@2100	192.7	134.9	1197@1600	231.6	123.5	
9YSXL11.7BSB	DC12 58A	1746457	345@2100	183.7	128.6	1139@1400	210.7	98.3	
9YSXL11.7BRS	DC9 61A	1746486	326@2200	206	125.9	1021@1600	242.8	107.9	
9YSXL11.7BBB	DC9 61A	1746485	306@2200	191.6	117.1	970@1600	232.2	103.2	
9YSXL11.7BNS	DC9 64A	1746484	267@2200	174.4	106.6	845@1600	205.5	91.4	
9YSXL11.7BSB	DC9 64A	1746483	237@2200	159.6	97.6	751@1600	187	83.1	
9YSXL11.7BHS	DC9 61A	1857642	342@2200	220.2	134.6	1077@1650	257.1	117.9	
9YSXL11.7BHB	DC16 47A	1848055	512@2100	207.1	193.3	1708@1575	250	175	
9YSXL11.7BBB	DC16 47A	1848054	473@2100	194.0	181.1	1576@1575	229.8	160.8	