

 AIR RESOURCES BOARD	SCANIA CV AB	EXECUTIVE ORDER U-R-024-0013
		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)
2012	CY9XL12.7CAA	12.7, 9.3	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Engine Control Module, Smoke Puff Limiter, Selective Catalytic Reduction-Urea, Ammonia Oxidation Catalyst			Crane, Loader, Tractor, Dozer, 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):

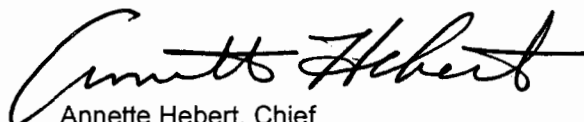
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ KW ≤ 560	Interim Tier 4/ ALT NOx	STD	0.19	2.0	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.02	1.9	--	0.7	0.02	--	--	--

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 13 day of February 2012.


 Annette Hebert, Chief
 Mobile Source Operations Division

1/10/2012

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
CY9XL12.7CAA	DC13 070A	1920593	394	162	135	1591	240	114.3	DPF, SCR, Amox, CBC and ECM
CY9XL12.7CAA	DC13 070A	1920594	444	181	150.8	1663	246	126.9	SCR
CY9XL12.7CAA	DC13 070A	1920595	493	204	170	1750	259	133.6	SCR
CY9XL12.7CAA	DC13 070A	1941160	543	224	185.8	1887	284	157.8	SCR
CY9XL12.7CAA	DC09 070A	1948968	311	165.2	114.5	1235	232	147	SCR
CY9XL12.7CAA	DC09 070A	1948969	326	171.6	118.9	1291	237.35	94.35	SCR
CY9XL12.7CAA	DC09 070A	1920590	345	179.7	124.54	1328	247.28	98.3	SCR
CY9XL12.7CAA	DC09 070A	1948970	370	191.2	132.25	1381	257.92	102.53	SCR
CY9XL12.7CAA	DC09 070A	1920591	394	201.9	140	1451	261.6	104	SCR
CY9XL12.7CAA	DC09 080A	2096408	271	146.2	101.3	1145	217.3	86.1	SCR
CY9XL12.7CAA	DC09 080A	2096411	271	151.7	101.3	1145	217.3	86.1	SCR
CY9XL12.7CAA	DC09 080A	2096412	271	151.7	101.3	1145	217.30	86.1	SCR
CY9XL12.7CAA	DC13 080A	2096417	354	161.2	115.7	1122	164.4	72.4	SCR
CY9XL12.7CAA	DC13 080A	2096418	354	161.2	115.7	1122	164.4	72.4	SCR
CY9XL12.7CAA	DC13 082A	2096419	345	138.0	115.0	1438	203.7	96.9	SCR
CY9XL12.7CAA	DC13 082A	2096420	380	166.5	118.9	1288	182.2	101.2	SCR
CY9XL12.7CAA	DC13 083A	2112298	394	162	135	1591	240	114.3	SCR
CY9XL12.7CAA	DC13 083A	2112299	444	181	150.8	1663	246	126.9	SCR
CY9XL12.7CAA	DC13 083A	2112300	493	204	170	1750	259	133.6	SCR
CY9XL12.7CAA	DC13 083A	2112301	543	224	185.8	1887	284	157.8	SCR
CY9XL12.7CAA	DC09 083A	2112293	311	165.2	114.5	1235	232	147	SCR
CY9XL12.7CAA	DC09 083A	2112294	326	171.6	118.9	1291	237.35	94.35	SCR
CY9XL12.7CAA	DC09 083A	2112295	345	179.7	124.54	1328	247.28	98.3	SCR
CY9XL12.7CAA	DC09 083A	2112296	370	191.2	132.25	1381	257.92	102.53	SCR
CY9XL12.7CAA	DC09 083A	2112297	394	201.9	140	1451	261.6	104	SCR