## State of California AIR RESOURCES BOARD

## EXECUTIVE ORDER U-R-15-6

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

## IVECO N.V.

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 Iveco N.V. 1997 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:

<u>Typical Equipment Usage</u>: Havester, Crawler Dozer

Fuel Type: Diesel

Engine Family	<u>Liters</u>	(Cubic Inches)	Exhaust Emission Control Systems and Special Features
VVE9.5R6DARA	9.5	(580)	Turbocharger Smoke Puff Limiter 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 matter (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-hp)				Smoke Opaciity (%)			
<u>THC</u>	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	Lug	<u>Peak</u>	
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 Emissions (q/bhp-hr)						Smoke	e Opacity (%)	
<b>Engine Family</b>	<u>THC</u>	<u>co</u>	<u>NOx</u>	<u>PM</u>	<u>A</u>	<u>ccel</u>	Lug	<u>Peak</u>
VVE9.5R6DARA	0.4	0.5	6.2	0.1		3	2	10

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.

fu R. B. Summerfield, Chief

Raphael Suonowith

Mobile Source Operations Division

## 1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY OFF-ROAD DIESEL ENGINES

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Manufacturer: <u>IVECO N.V.</u> Engine Family: <u>VVE9.5R6DARA</u>						
Displacement: 9.5/580 Liters/Cubic Inches Eng. Config: 1-6						
All Codes in Eng Fam: CA 49S 50SX_ Cert Test Procedures: ARB EPA_X						
Valves/Ports per Cylinder: 2 valves/cyl. Strokes per Combustion Cycle: 4-stroke						
Maximum Rated Power: <u>296</u> HP ( <u>221</u> KW) @ <u>2100</u> RPM						
Ignition: Compression Compression with Glow Plug X Spark						
Fuel Type(s): Dedicated X Flex-Fuel Dual-Fuel Diesel X M100 M85						
CNG LNG LPG Other (specify)						
Diesel Cert Fuel: 40 CFR 86.1313-94 X Other (specify)						
Primary Service Equipment: Combine Harvester, Crawler Dozer						
Exhaust ECS (e.g., MFI, TC, CAC): SPL, TC, CAC						
(use abbreviations per SAE J1930 JUN93)						
Engine Model (Eng Code)  Rated HP @ RPM  @ Relate @ Rated HP mm³ / stroke (lbs/hr)  Fuel Pump & ECM/PCM Part no.  Engine Model (Brund Part no.)  EGR PTOX/ Catalytic Converter Part no.						
8465.41.985 296@2100 155 (108) PES6P120A 720RS7224-2 0402746949 / KBEL 96 P116 646 P116 646						
8465.41.016 253@2100 129.5 (89.5) PES6P120 RQV450 1050PA1277 N/A N/A N/A KBEL 97 P97 680						
Date Issued:  Revisions:						