State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-194-7
Relating to Certification of New Heavy-Duty Motor Vehicle Engines

IVECO B.V.

Pursuant to the authority vested in the Air Resources Board by Sections 43100,43102, and 43103 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 Orders G-45-3;

IT IS ORDERED AND RESOLVED: That the following IVECO B.V. 1988 model-year diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds.

Engine Family	Displacement Liters (Cubic Inches)		Exhaust Emission Control Systems (Special Features)
JVE0238FAAX	3.9	(238)	Smoke Puff Limiter (Diesel Injection - Direct) (Intercooler) (Turbocharger)
JVE0358EAA1	5.9	(358)	Smoke Puff Limiter (Diesel Injection - Direct) (Turbocharger)

Engine models and codes are listed on attachments.

The following are the emission standards for these engine families:

Hydrocarbons gm/bhp-hr	Carbon Monoxide gm/bhp-hr	Nitrogen Oxides gm/bhp-hr	Particulates gm/bhp-hr
1.3	15.5	6.0	0.60

The following are the certification emission values for these engine families:

Engine Family	Hydrocarbons gm/bhp-hr	Carbon Monoxide gm/bhp-hr	Nitrogen Oxides gm/bhp-hr	Particulates gm/bhp-hr
JVE0238FAAX	0.7	2.8	4.6	0.46
JVE0358EAA1	0.7	2.3	5.0	0.46

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2036).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 14th day of July, 1988.

K. D. Drachand, Chief
Mobile Source Division

E.O. # A-194-7

1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer IVECO B.V.

Engine Family JVE0238FAAX

Evaporative Family NA

Engine Type I4

Liters (CID) 3.9 (238)

ABBREVIATIONS

Ignition System

CA-Centrifugal Advance
ECU-Electronic Control Unit
EI-Electronic Ignition
ESAC-Electronic Spark Advance Control
VA-Vacuum Advance
VR-Vacuum Retard

Fuel System

CFI, CL, DID, DIP, EFI, MFI
nV-nVenturi Carburetor

Exhaust Emissions Control System

AIP-Air Injection-Pump
AIV-Air Injection-Valve
DBC-Dual Bed Catalyst
EGR-Exhaust Gas Recirculation
EIC-Electronic Injection Control
EM-Engine Modification
OC-Oxidation Catalyst
OS-Oxygen Sensor
HOS-Heated Oxygen Sensor
SPL-Smoke Puff Limiter or Throttle Delay
TOC-Trap Oxidizer, Continual
TOP-Trap Oxidizer, Periodical
TWC-Three-Way Catalyst
WUOC-Warm-Up Oxidation Catalyst
WUTWC-Warm-Up Three-Way Catalyt

Special Features

CCV-Combustion Chamber Valve
CFI-Central Fuel Injection or Throttle Body Injection
DID-Diesel Injection-Direct
DIP-Diesel Injection-Prechamber
EFI-Electronic Fuel Injection
IC-Intercooler or Aftercooler
MFI-Mechanical Fuel Injection
OBD-On-Board Diagnostics
TC-Turbocharger

VEHICLE MODELS:

EURO 12-11

Engine: Front x Mid. ____ Rear ____

Drive: FWD ____ RWD x 4WD Full Time ____ 4WD Part Time ____

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E.O. # A-194-7

1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer IVECO B.V.

Engine Family JVEO358EAA1

Evaporative Family NA

Engine Type I6

Liters (CID) 5.9 (358)

ABBREVIATIONS

Ignition System

CA-Centrifugal Advance
ECU-Electronic Control Unit
EI-Electronic Ignition
ESAC-Electronic Spark Advance Control
VA-Vacuum Advance
VR-Vacuum Retard

Fuel System

CFI, CL, DID, DIP, EFI, MFI
nV-nVenturi Carburetor

Exhaust Emissions Control System

AIP-Air Injection-Pump
AIV-Air Injection-Valve
DBC-Dual Bed Catalyst
EGR-Exhaust Gas Recirculation
EIC-Electronic Injection Control
EM-Engine Modification
OC-Oxidation Catalyst
OS-Oxygen Sensor
HOS-Heated Oxygen Sensor
SPL-Smoke Puff Limiter or Throttle Delay
TOC-Trap Oxidizer, Continual
TOP-Trap Oxidizer, Periodical
TWC-Three-Way Catalyst
WUOC-Warm-Up Oxidation Catalyst
WUTWC-Warm-Up Three-Way Catalyt

Special Features

CCV-Combustion Chamber Valve
CFI-Central Fuel Injection or Throttle Body Injection
DID-Diesel Injection-Direct
DIP-Diesel Injection-Prechamber
EFI-Electronic Fuel Injection
IC-Intercooler or Aftercooler
MFI-Mechanical Fuel Injection
OBD-On-Board Diagnostics
TC-Turbocharger

VEHICLE MODELS:

EURO 10-14AS, 12-14, 15-14, 18-14, 23-16, 23-16T

Engine: Front X Mid. ____ Rear ____

Drive: FWD ____ RWD X 4WD Full Time ____ 4WD Part Time ____

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1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINES

Manufacturer IVECO B.V. Engine Family JVEO238FAAX

Liter (CID) 3.9 (238) Eng. Type I4

Emission Control Sys. and (Special Features) EM, SPL (TC, DID, IC)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP at RPM	Fuel Rate mm^3/stroke (lbs/Hr)	Maximum Rated Torque at RPM	Fuel Rate mm^3/stroke (lbs/Hr)
8040.45.261 .263 .264 .267 .271 .273 .274 .277	Robt. Bosch 482-4342	Robt. Bosch 482-2812	105@ 2700	68.7 (41.22)	232@ 1600	76.9 (27.3)

Date of Issue _____ Revisions:

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HEAVY-DUTY DIESEL ENGINES

Manufacturer IVECO B.V. Engine Family JVE0358EAA1

Liter (CID) 5.9 (358) Eng. Type I6

Emission Control Sys. and (Special Features) EM, SPL (TC, DID)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP at RPM	Fuel Rate mm^3/stroke (lbs/Hr)	Maximum Rated Torque at RPM	Fuel Rate mm^3/stroke (lbs/Hr)
8060.25.221	Robt.Bosch 482-4346	Robt. Bosch 482-2812	155 @ 2700	68.9 (61.7)	354 @1600	77.3 (41.2)
8060.25.241 .243 .244 .246 .247	Robt.Bosch 482-4345	Robt. Bosch 481-2812	135 @ 2700	62.0 (56.2)	347 @1600	71.1 (37.9)

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