

# EXHAUST EMISSION DATA SHEET

## MQ POWER GENERATOR SET

Model: MQP60IV



The engine used in this generator set is certified to comply with United States EPA Tier 2 and CARB Mobile Off-Highway emission regulations.

### ENGINE DATA

Manufacturer:	IVECO	Bore:	4.09 in	104 mm
Model:	F4GE0455B	Stroke:	5.19 in	132 mm
Type:	4-Cycle Diesel, Direct Injection, I-4	Displacement:	274 in <sup>3</sup>	4.5 liters
Aspiration:	Turbocharger	Compression Ratio:	17.5:1	

### PERFORMANCE DATA

SAE Gross HP @ 1800 RPM (60 Hz)	99
Rated Load Fuel Consumption (gal/Hr)	5.1
Rated Load Exhaust Gas Flow (cfm)	583
Rated Load Exhaust Gas Temperature (°F)	750

### United States EPA - Mobile Off-Highway Tier 2 Limits - ≥75 BHP - ≤99 BHP

Criteria Pollutant	Emission Requirements	Certified Engine Emissions
NOx (Oxides of Nitrogen as NO <sub>2</sub> )	5.60 gr/bhp-hr	5.07 gr/bhp-hr
HC (Total Unburned Hydrocarbons)	(NOx + HC)* Combined	(NOx + HC)* Combined
CO (Carbon Monoxide)	3.73 gr/bhp-hr	0.67 gr/bhp-hr
PM (Particulate Matter)	0.30 gr/bhp-hr	0.17 gr/bhp-hr


EPA Engine Family:	7VEXL04.5DGT
EPA Certificate of Conformance:	VEX-NRC1-07-08
ARB Executive Order:	U-R-015-0102
Effective Date:	Model Year 2007

*Note: Engine operation with excessive air intake or exhaust restriction beyond factory published maximum limits, or with improper service maintenance, may result in higher emission levels.*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

2007 Model Year Certificate of Conformity

Manufacturer: **IVECO S.P.A.**  
Engine Family: **7VEXL04.5DGT**  
Certificate Number: **VEX-NRCI-07-08**  
Intended Service Class: **NR 4 (37-75)**  
Fuel Type: **DIESEL**  
FELs: **NMHC+NOx: N/A      NOx: N/A      PM: N/A**  
Effective Date: **12/4/2006**  
Date Issued: **DEC 4 2006**



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Karl J. Simon, Acting Director  
Compliance and Innovative Strategies Division  
Office of Transportation and Air Quality

Pursuant to Section 213 of the Clean Air Act (42 U.S.C. section 7547) and 40 CFR Part 89, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following nonroad engines, by engine family, more fully described in the documentation required by 40 CFR Part 89 and produced in the stated model year.

This certificate of conformity covers only those new nonroad compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 89 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 89.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 89.129-96 and 89.506-96 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Part 89. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void ab initio for other reasons specified in 40 CFR Part 89.

This certificate does not cover nonroad engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

 <b>AIR RESOURCES BOARD</b>	IVECO N.V.	<b>EXECUTIVE ORDER U-R-015-0102</b>
		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)
2007	7VEXL04.5DGT	4.5	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger			Generator Set	

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):

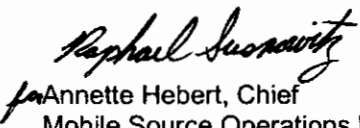
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
56 ≤ kW < 75	Tier 2	STD	N/A	N/A	7.5	5.0	0.40	N/A	N/A	N/A
		CERT	--	--	6.8	0.9	0.23	--	--	--

**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 22<sup>nd</sup> day of December 2006.

  
 for Annette Hebert, Chief  
 Mobile Source Operations Division

# Engine Model Summary Form

ATTACHMENT Pg 1 of 1

U-R-015-0102

Manufacturer: **IVECO S.p.A.**  
 Engine category: **Nonroad CI**  
 EPA Engine Family: **7VEXL04.5DGT**  
 Mfr Family Name: **F4GE0455**  
 Process Code: **New Submission**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lb/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lb/hr)@peak torque	9.Emission Control Device Per SAE J1930
N/A	F4GE0455A*F	99.2 @ 1500	107.2	N/A	347 @ 1500	N/A	N/A	DDI, EM. TC.
N/A	F4GE0455B*F	99.2 @ 1800	91	N/A	290 @ 1800	N/A	N/A	↓ EM. TC.
N/A	F4GE0455C*F	80.5 @ 1500	82.6	N/A	282 @ 1500	N/A	N/A	↓ EM. TC.
N/A	F4GE0455D*F	89.8 @ 1800	81	N/A	263 @ 1800	N/A	N/A	↓ EM. TC.