

EXHAUST EMISSION DATA SHEET

MQ POWER GENERATOR SET

Model: DLW-500ESA4



The engine used in this generator set is certified to comply with
United States EPA Tier 4 and CARB Mobile Off-Highway emission regulations.

ENGINE DATA

Manufacturer:	ISUZU	Bore:	3.35 in. (85 mm)
Model:	4LE2T	Stroke:	3.78 in. (96 mm)
Type:	4-Cycle, In-Line, 4-Cylinder, Diesel	Displacement:	133 cid (2.2 liters)
Aspiration:	Turbocharger, ECM, EGR, DOC, Electronic Direct Injection	Compression Ratio:	17.6:1

PERFORMANCE DATA

SAE Gross HP @ 2400 RPM (60 Hz) Rated	48.3
Load Fuel Consumption (gal/Hr) Rated	1.62
Load Exhaust Gas Flow (cfm) Rated Load	148
Exhaust Gas Temperature (°F)	847

United States EPA - Mobile Off-Highway Tier 4

Limits -

19 ≤ ~ ≤ 37 BHP

Criteria Pollutant	Emission Requirements		NTE Engine Emissions	
NOx (Oxides of Nitrogen as NO ₂)	N/A	gr/bhp-hr	N/A	gr/bhp-hr
HC (Total Unburned Hydrocarbons)	N/A	gr/bhp-hr	N/A	gr/bhp-hr
NOx + HC (Combined)	N/A	gr/bhp-hr	N/A	gr/bhp-hr
CO (Carbon Monoxide)	4.10	gr/bhp-hr	5.14	gr/bhp-hr
PM (Particulate Matter)	0.022	gr/bhp-hr	0.029	gr/bhp-hr
NMHC (Non-Methane Hydrocarbons)	N/A	gr/bhp-hr	N/A	gr/bhp-hr
NMHC + NOx	3.50	gr/bhp-hr	4.39	gr/bhp-hr

EPA Engine Family:	SSZXL02.2ZTA
EPA Certificate of Conformance:	SSZXL02.2ZTA-001
ARB Executive Order:	U-R-006-0553
Effective Date:	Model Year 2025

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.

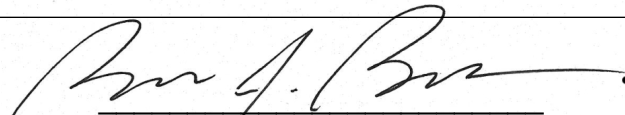


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
2025 MODEL YEAR
CERTIFICATE OF CONFORMITY
WITH THE CLEAN AIR ACT

OFFICE OF TRANSPORTATION
AND AIR QUALITY
ANN ARBOR, MICHIGAN 48105

Certificate Issued To: Isuzu Motors Limited
(U.S. Manufacturer or Importer)
Certificate Number: SSZXL02.2ZTA-001

Effective Date:
04/12/2024
Expiration Date:
12/31/2025


Byron J. Bunker, Division Director
Compliance Division

Issue Date:
04/12/2024
Revision Date:
N/A

Model Year: 2025
Manufacturer Type: Original Engine Manufacturer
Engine Family: SSZXL02.2ZTA

Mobile/Stationary Indicator: Mobile
Emissions Power Category: 19<=kW<37
Fuel Type: Diesel
After Treatment Devices: Diesel Oxidation Catalyst
Non-after Treatment Devices: Electronic Control, Electronic/Electric EGR - Cooled

Pursuant to Section 213 of the Clean Air Act (42 U.S.C. section 7547) and 40 CFR Part 1039, 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 engines, by engine family, more fully described in the documentation required by 40 CFR Part 1039 and produced in the stated model year.

This certificate of conformity covers only those new 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 1039 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 1039.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 1068 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 1039. 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 1039.

This certificate does not cover 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.

Pursuant to the authority vested in the California Air Resources Board by Health and Safety Code Division 26, Part 5, Chapters 1 and 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED: The engines and emission control systems produced by the manufacturer as described below are certified 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	Combustion Cycle	Fuel Operation	Fuel Type(s)	Engine Operation
2025	SSZXL02.2ZTA	Diesel	Dedicated	Diesel	Variable and Constant Speed

Emission Control Systems	Special Features
[1]: Electronic Direct Injection (DDI), Exhaust Gas Recirculation (EGR), Electronic Control Module (ECM), Turbocharger (TC), Diesel Oxidation Catalyst (DOC)	None

The certified engine models are attached.

The listed engine models comply with the following: 1) emission standard limits (STD) and Not-To-Exceed (NTE) limits, as applicable, for criteria pollutants non-methane hydrocarbon plus oxides of nitrogen (NMHC+NO_x), carbon monoxide (CO), and particulate matter (PM), and for smoke opacity as demonstrated during the Acceleration (ACL) and Lugging (LUG) modes, and the peak value (PEAK) in either mode of the Smoke Opacity cycle, as set forth in 13 CCR 2423 and the applicable California test procedures for off-road compression-ignition engines, and 2) family emission limits (FEL) declared by the manufacturer as allowed by the applicable California test procedures, stated in units of gram per kilowatt-hour (g/kWh-hr) and percent opacity (%opacity), respectively, except as noted, or designated as not applicable (*).

Applicable Standard		Criteria			Smoke Opacity		
		NMHC+NO _x	CO	PM	ACL	LUG	PEAK
Tier 4 Final 19 ≤ kW < 37	STD	4.7	5.5	0.03	*	*	*
	FEL	*	*	*	*	*	*
	NTE	5.9	6.9	0.04	*	*	*

BE IT FURTHER RESOLVED: Any declared FEL is the emission limit to which all engines must comply in lieu of the standard limit for certification purposes, subject to the restrictions of averaging, banking, or trading (ABT) programs allowed by the applicable California test procedures.

BE IT FURTHER RESOLVED: For the listed engine models, the manufacturer has submitted materials to demonstrate certification compliance with 13 CCR 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control warranty).

BE IT FURTHER RESOLVED: The listed engine models may only be installed in or on equipment such that engine operation is consistent with off-road compression-ignition engines as defined in 13 CCR 2421(a)(39).

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

Executed on this 3rd day of May 2024.



Robin U. Lang, Chief
 Emissions Certification and Compliance Division

ATTACHMENT: ENGINE MODELS

Family: SSZXL02.2ZTA EO Number: U-R-006-0553 Date Applicable: 4/30/2024

Model	Code	Trim	Config	Displacement	Peak Power			Peak Torque			ECS Num	GHG	Notes
					Power	Speed	Fueling	Torque	Speed	Fueling			
-	-	-	-	L	hp	rpm	mm3/stroke	lb-ft	rpm	mm3/stroke	-	-	-
AZ-4LE2T	4LE2TDZAA-01	N/A	I4	2.179	48.3	2400	36.5	117	1800	38.2	1	N/A	
AZ-4LE2T	4LE2TDZAB-01	N/A	I4	2.179	48.3	2400	36.5	117	1800	38.2	1	N/A	