# **EXHAUST EMISSION DATA SHEET**

## **MQ POWER GENERATOR SET**

Model: DCA10SPXU4C



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

Manufacturer:	KUBOTA			Bore:	3.26	in.	(83 mm)
Manufacturer. Model:	D1503			Stroke:	3.63	in.	, ,
	4-Cycle, In-Line, 3-Cylinder, Diesel						(92.4 mm)
••				Displacement		cid	(1.499 liters)
Aspiration:	Naturally Aspirated, Indire	ct Injectio	on	Compression	Ratio		21.6:1
PERFORMA	NCE DATA						
SAE Gross HP	@ 1800 RPM (60 Hz) Ra	ted 24	4.8				
Load Fuel Con	sumption (gal/Hr) Rated	0.	97				
Load Exhaust	Gas Flow (cfm) Rated Lo	<b>bad</b> 10	09				
Exhaust Gas T	emperature (°F)	1(	005				
Uni	ted States EPA - M	obile C	)ff-Highway Tier 4	Limits -			11 ≤ ~ < 25 BHF
Crite	ria Pollutant	Emis	ssion Requirements	Certifie	d Engi	ine E	missions
NOx (Oxides o	f Nitrogen as NO2)	N/A	gr/bhp-hr	N/A	gr/b	hp-hr	
		N1/A	ar/bbp.br	N1/A	/1	I I	
HC (Total Unbu	rned Hydrocarbons)	N/A	gr/bhp-hr	N/A	gr/b	hp-hr	
HC (Total Unbu NOx + HC (Cor	• •	N/A N/A	gr/bhp-hr	N/A N/A	•	np-nr hp-hr	
•	nbined)	-	•	,	gr/b	•	
NOx + HC (Cor	nbined) onoxide)	N/A	gr/bhp-hr	N/A	gr/bl gr/bl	hp-hr	
NOx + HC (Cor CO (Carbon M PM (Particulate	nbined) onoxide)	N/A 4.92	gr/bhp-hr gr/bhp-hr	N/A 0.82	gr/bl gr/bl gr/bl	hp-hr hp-hr	
NOx + HC (Cor CO (Carbon M PM (Particulate	nbined) onoxide) e Matter)	N/A 4.92 0.29	gr/bhp-hr gr/bhp-hr gr/bhp-hr	N/A 0.82 0.08	gr/bl gr/bl gr/bl gr/bl	hp-hr hp-hr hp-hr	
NOx + HC (Cor CO (Carbon M PM (Particulate NMHC (Non-Me	nbined) onoxide) Matter) ethane Hydrocarbons)	N/A 4.92 0.29 N/A	gr/bhp-hr gr/bhp-hr gr/bhp-hr gr/bhp-hr gr/bhp-hr	N/A 0.82 0.08 N/A	gr/bl gr/bl gr/bl gr/bl	hp-hr hp-hr hp-hr hp-hr	
NOx + HC (Cor CO (Carbon M PM (Particulate NMHC (Non-Me NMHC + NOx EPA Engine Fa	mbined) onoxide) Matter) othane Hydrocarbons) mily: MK	N/A 4.92 0.29 N/A 5.59 BXL01.5	gr/bhp-hr gr/bhp-hr gr/bhp-hr gr/bhp-hr gr/bhp-hr	N/A 0.82 0.08 N/A	gr/bl gr/bl gr/bl gr/bl	hp-hr hp-hr hp-hr hp-hr	
NOx + HC (Cor CO (Carbon M PM (Particulate NMHC (Non-Me NMHC + NOx EPA Engine Fa	mbined) onoxide) Matter) whane Hydrocarbons) mily: MK of Conformance: MK	N/A 4.92 0.29 N/A 5.59 BXL01.5	gr/bhp-hr gr/bhp-hr gr/bhp-hr gr/bhp-hr gr/bhp-hr FCC FCC-056	N/A 0.82 0.08 N/A	gr/bl gr/bl gr/bl gr/bl	hp-hr hp-hr hp-hr hp-hr	

NUMPER STATES - LOUBLAND	2021 MC CERTIFICATE	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 2021 MODEL YEAR CERTIFICATE OF CONFORMITY WITH THE CLEAN AIR ACT			
Certificate Issued To: Kub (U.S. 1 Certificate Number: MKBM	Manufacturer or Importer)	Effective Date: 12/03/2020 Expiration Date: 12/31/2021		r, Division Director Ince Division	Issue Date: 12/03/2020 Revision Date: N/A
Model Year: 2021 Manufacturer Type: Origina Engine Family: MKBXL01.	5	Emi Fuel Afte	ile/Stationary Indicator: Mobile ssions Power Category: 8<=kW< Type: Diesel r Treatment Devices: No After T after Treatment Devices: Engine	19 Treatment Devices Installed	
issued with respect to the test of required by 40 CFR Part 1039 This certificate of conformity of documentation required by 40 It is a term of this certificate th warrant or court order may lea rendered void <i>ab initio</i> for othe	Clean Air Act (42 U.S.C. section 7547) and 40 CFR P engines which have been found to conform to applicab and produced in the stated model year. covers only those new compression-ignition engines w CFR Part 1039 and which are produced during the mo- nat the manufacturer shall consent to all inspections des d to revocation or suspension of this certificate for reas er reasons specified in 40 CFR Part 1039.	ble requirements and which thich conform in all materio odel year stated on this cer scribed in 40 CFR 1068 ar sons specified in 40 CFR 1	al respects to the design specificat tificate of the said manufacturer, a ad authorized in a warrant or court Part 1039. It is also a term of this	by engine family, more fully describe tions that applied to those engines des as defined in 40 CFR Part 1039. order. Failure to comply with the rec certificate that this certificate may be	ed in the documentation scribed in the quirements of such a
This certificate does not cover	engines sold, offered for sale, or introduced, or deliver	red for introduction, into e	ommerce in the U.S. prior to the e	ffective date of the certificate.	

Pursuant to the authority vested in California 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-19-095;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems 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			FUEL TYPE	USEFUL LIFE (hours)		
2021	2021 MKBXL01.5FCC 1.500		Diesel	3000		
SPECIAL	FEATURES & EMISSION C	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION			
Indirect Diesel Injection			Generator Set, Light Tower, Welder,	Wood Chipper		

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), 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 EMISSION			EXHAUST (g/kw-hr)					OPACITY (%)			
	POWER CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	со	РМ	ACCEL	LUG	PEAK
	8 <u>&lt;</u> kW < 19	Tier 4 Final	STD	N/A	N/A	7.5	6.6	0.40	N/A	N/A	N/A
Γ			CERT			6.0	1.1	0.11			

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 on this 15th day of October 2020.

Allen/Lyons, Chief **Emissions Certification and Compliance Division** 

### Engine Model Summary Form

#### EO# U-R-025-0935 Date: 10/5/2020

Manufacturer:	KUBOTA Corporation
Engine category:	Nonroad CI
EPA Engine Family:	MKBXL01.5FCC
Mfr Family Name:	N/A
Process Code:	New Submission

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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
D1503-M-BG-EF01	D1503-M-BG-EF	24.4@1800	33.8	10.2	71.2@1800	33.8	10.2	EM, IFI
D1503-M-BG-EF01e	D1503-M-BG-EF	24.4@1800	33.8	10.2	71.2@1800	33.8	10.2	EM, IFI
D1503-M-BG-EF02e	D1503-M-BG-EF	24.1@1800	33.7	10.2	70.4@1800	33.7	10.2	EM, IFI