Last Updated: January 19, 2026

Additional information and instructions by Bharat Stage V

The information and instructions to be provided to end-users were added by Regulation AIS-137 (Part 7), A2, Bharat Stage(BS) V(CEV/TREM).

Engine operation and maintenance

You must comply with the following things when you operate an engine.

- The engine, including the emissions control system, shall be operated, used and maintained in accordance with the instructions provided to the end-users in order to maintain the emissions performance of the engine within the requirements applicable to the engine's category.

- No deliberate tampering with or misuse of the engine emissions control system should take place; in particular with regard to deactivating or not maintaining an exhaust gas recirculation (EGR) or a reagent dosing system.

- When a warning lamp lights up, a trouble is happening to the engine and it may cause trouble to the emission control system. It is essential to take prompt action to rectify any incorrect operation, use or maintenance of the emissions control system in accordance with the rectification measures indicated in the 'TROUBLESHOOTING', or where applicable, 'OPERATOR WARNING AND INDUCEMENT' in the OPERATOR'S MANUAL.

- The operator will be informed by the operator warning system when the emission control system does not function correctly.

- For agricultural tractor or construction equipment vehicle or combine harvester with an operator inducement system, ignoring the operator warning signals will lead to the activation of the operator inducement system, resulting in an effective disablement of agricultural tractor or construction equipment vehicle or combine harvester.

- Explanations of how the operator warning including the consequences, in terms of performance and fault logging, of ignoring the warning system signals and of not replenishing, where used, the reagent or rectifying the problem identified is mentioned in the OPERATOR'S MANUAL.

- Where the engine is to be operated on diesel or non-road gas-oil, a statement indicating that a fuel with sulphur content not greater than 10 mg/kg (20 mg/kg at point of final distribution) cetane number not less than 51 and an FAME content not greater than 7.0 per cent v/v shall be used.

・Where the emission control system requires a reagent, normal operational temperature conditions of it should be kept between -11 deg. C (minimum) and 60 deg. C (maximum).

・Where applicable, it is essential to use and refill reagent in accordance with the specifications as we instruct in the OPERATOR'S MANUAL.

Carbon dioxide (CO_2) emissions

The measurement results of CO_2 emissions in g/kWh are shown in the attached list. Please check the BS engine family name mentioned in the emission label affixed on the engine valve cover to find its CO_2 emission results which belongs to the engine family.

FAME: Fatty acid methyl ester

v/v : Volume per volume

The list of BS V CO_2 emission value results of each engine family

Please note that this CO2 emission value results from testing over a fixed test cycle under laboratory conditions of an (a parent) engine representative of the engine type (engine family) and shall not imply or express any guarantee of the performance of a particular engine once installed in a agricultural tractor or construction equipment vehicle or combine harvester.

Ignition	Power category	BS V engine family name	Test cycle	CO_2 emissions [g/kWh]
CI	0-19kW	RKBXL02.2ECB	NRSC	842.47
		RKBXL01.5BCB	NRSC	896.3
	37-56kW	RKBXL02.4E1D	NRTC	818.3
			NRSC	785.9
		RKBXL03.8C1D	NRTC	787.5
			NRSC	751.0
		RKBXL02.6E1D	NRTC	810.7
			NRSC	765.8
		RKBXL03.3E1D	NRTC	800.5
			NRSC	743.8
		SKBXL03.3E2D	NRTC	830.8
			NRSC	747.7
		SKBXL03.8A2D	NRTC	770.2
			NRSC	730.3

NRTC : Non-Road Transient test Cycles
NRSC : Non-Road Steady-state test Cycles