

Common solutions from competitors

Exhaust Gas After-treatment

Diesel Particulate Filtration (DPF)

- > The DPF uses filters, where exhaust gas is forced to flow through porous walls, which capture over 90% of remaining particulate matter (PM).
- > To keep the DPF clean and working efficiently, high exhaust temperature is used to burn PM off of the DPF. This cleaning process is called regeneration.
- > The DPF requires servicing after several thousand hours.

Selective Catalytic Reduction (SCR)

- > SCR is designed to reduce emissions of nitrogen oxides – NOx.
- > The SCR system integrates a dosing system that sprays a fluid called Diesel Exhaust Fluid (DEF) or AdBlue into the exhaust gases as they leave the engine.
- > DEF/AdBlue is a non-hazardous fluid containing urea and water, which is stored in a dedicated tank on the machine.
- > Within the catalytic converter the exhaust heat transforms the urea into ammonia, which then reacts with the NOx and converts them into nitrogen and water vapor.
- > DEF/AdBlue consumption is typically 2 to 6% of diesel use.




ecoMAX

No exhaust aftertreatment - Removing exhaust aftertreatment means EcoMAX is extremely compact; there's no compromise to visibility or maneuverability, and only one fuel type is needed.

Oil savings - Because EcoMAX doesn't need exhaust aftertreatment, it doesn't require costly heat-resistant lube oils.

Simplified servicing - Most Tier 4i engines use a Diesel Particulate Filter (DPF), or SCR requiring additional AdBlue fluid level maintenance – EcoMAX doesn't.

Versatile fuel mapping - Our innovative recalibration option allows EcoMAX to run on lower grade fuels. This means our latest backhoe loaders can be resold across different territories, which improves residuals.

High torque at low speed - EcoMAX produces high levels of torque at engine speeds as low as 1200rpm for fuel-efficient matching of the transmission and hydraulics.

Proven reliability - JCB engines are tried and tested. We've built 200,000 DIESELMAX engines since 2004, and we've tested our latest units for 110,000 hours in 70 different machines across the toughest applications and environments.



JCB EcoMAX Tier 4i / Stage IIIB Engine

A guide to emissions compliance

The JCB EcoMAX offers an innovative clean-burn solution that does **not** require a DPF or SCR to meet the legislation.

Don't confuse having a DPF with Tier 4i/Stage IIIB compliance. A DPF is only one way to meet legislation.

Exhaust after-treatment solutions such as Diesel Particulate Filtration (DPF) and Selective Catalytic Reduction (SCR), are used by most competitors to reduce emission levels.

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THE JCB ECOMAX: INNOVATION IN ACTION



NO DPF OR SCR

HIGH TORQUE AT LOW SPEED

VERSITILE FUEL MAPPING

SIMPLIFIED SERVICING

PROVEN RELIABILITY

IMPROVED FUEL ECONOMY

OIL SAVINGS

REDUCED OPERATING COST

Innovative clean-burn technology means the EcoMAX does not produce high levels of emissions in the first place so does not require after treatment.

The JCB EcoMAX engine powers many machines in the JCB Range including:

- > Skid Steer Loaders & Compact Track Loaders
- > 3CX / 4CX Backhoe Loaders
- > Lift and Place/ Ground Engaging/ Tool Carrier Telescopic Handler
- > TM 320
- > Various models within the JS Excavator Range , Vibromax Soil Compaction Range and mid size Wheel Loaders