WHY CHOOSE JCB?

JCB Power Systems has a history of providing a proven approach to emissions control solutions that not only meet legislation requirements but deliver customer value through lower operating costs. Our heavy-duty innovative powertrain solutions are specifically tailored to off highway machines. The technology not only makes our products clean and efficient but also ensure that end users of equipment with JCB engines increase return on investment.

No compromise installation solutions



- Efficient combustion = Compact exhaust aftertreatment
- Identical engine footprint across emissions ranges
- Engine mounted and bespoke aftertreatment configurations
- Industrial Power Unit Package for static equipment

Reduced operating costs



- from EU Stage IIIA Service intervals extended to 1000 hours*
- "Fit for life" exhaust aftertreatment systems
- Optimised fuel economy for real world duty cycles

Efficient operation



- High torque at low engine speed efficient equipment design and increased output
- No forced high temperature regeneration Operators not required to deviate from normal task
- Engine auto stop compatible*
- Reduced frictional losses by 30%*

Serviceability



- Automatic valve clearance adjustment*
- Zero maintenance crankcase ventilation systems*
- Single side servicing
- Automatic auxiliary drive belt tensioning

Durability



- Technology specifically developed in and for heavy-duty off-highway applications
- Robust cylinder block and bedplate engine design
- Gasket free component sealing arrangements
- Simplified turbocharging and EGR systems

THE JCB PEDIGREE

In 2006, the JCB Dieselmax Streamliner powered by two JCB 444 engines producing an incredible 1500HP broke the world land speed record for a diesel-powered car averaging a speed of 510.196kph (317.021MPH). The record still stands today. The project proved to the world just how powerful and robust a JCB diesel engine could be. JCB changed the name of the engine from 444 to DIESELMAX in honour of the record and the rest is history.

Efficient by design

Award winning products that have become renowned for fuel economy and productivity.

Heavy duty

Powertrain solutions specifically tailored for off highway machine environments.

Innovation

An approach to diesel engine design that not only meets legislation but delivers customer value through increased uptime and lower operating costs.

Global engine solutions with common footprint and component commonality across engine ranges and emissions stages.

Proven

Fitted into more than half a million machines worldwide. Core engine architecture shared with the record breaking Dieselmax.

Industry experience

Active in all industries from construction and industrial through to agricultural and marine. We understand your business.

Global customer support

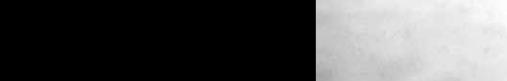
Unrivalled support from a network of over 2,000 dealer outlets and 16 parts warehouses worldwide. Providing 24/7 technical support.

The new DIESELMAX SIAGE V engine.

Proven by history. Efficient by design.



POWER SYSTEMS



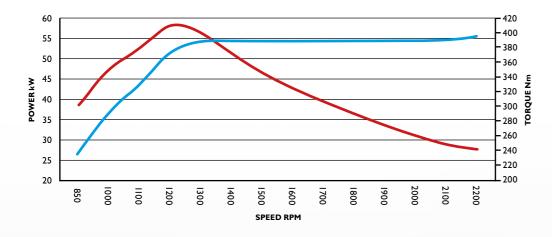


POWER SYSTEMS

TECHNICAL SPECIFICATIONS

3.0L Engine





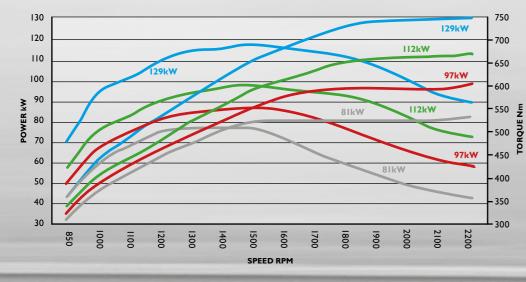
| | 55kW |
|------------------------|-----------|
| Displacement (cm³) | 2978 |
| Peak Torque (Nm) | 410 |
| Peak Rated Speed (rpm) | 1200-1250 |
| Rated Speed (rpm) | 2200 |

Key Points

- 30% lighter than 4.4L EcoMAX
- 8% improvement in fuel efficiency
- Single canister DOC+DPF
- 24% smaller than 4.4L EcoMAX

4.8L Engine





| | 81kW | 97kW | II2kW | I29kW |
|------------------------|------|------|-------|-------|
| Displacement (cm³) | 4765 | 4765 | 4765 | 4765 |
| Peak Torque (Nm) | 516 | 550 | 600 | 690 |
| Peak Rated Speed (rpm) | 1450 | 1500 | 1500 | 1500 |
| Rated Speed (rpm) | 2200 | 2200 | 2200 | 2200 |

Key Points

- Common footprint EU Stage II through to EU Stage V
- Dual SCR+Particulate control
- No exhaust gas recirculation
- Engine mounted and bespoke aftertreatment solutions

EU STAGE V

Clean air is a social responsibility we must all embrace. Our clean diesel technology has already helped deliver a 43% reduction in CO2 emissions, 35 times less NOx and 52 times less particulate matter (PM) from JCB machines in the last seven years.

We have achieved a lot but we are doing more. European Stage V regulation is the next step in non-road exhaust emissions legislation. The JCB engine solution will overall have reduced NOx emissions by 96% and PM by 98% when compared with legislation introduction in 1999.

Building on our award winning low-particulate combustion system which works to reduce in-cylinder emissions before they enter the exhaust the EU Stage V engines are fitted with a compact, highly efficient, combined selective catalytic reduction system and exhaust filter for engines above 56kW and a single canister; oxidation catalyst and exhaust filter for 55kW models.

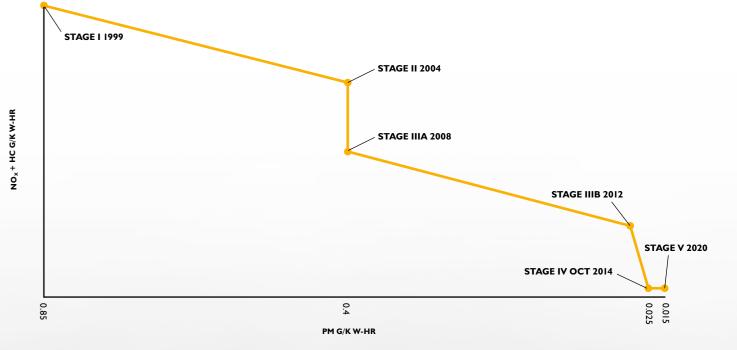
These innovative products provide off highway machine OEMs a truly efficient solution without many of the downsides that have traditionally been associated with diesel particulate filters (DPFs) in the off highway market.



3.0L DIESELMAX engine



EU STAGE V LEGISLATION



TRANSITION SCHEME

EU Stage V differs from previous pre-buy or flexibility schemes which did not limit quantities or time before use of prior stage engines. The new transitional scheme requires engines and machines to be built and sold by OEM's within a definitive time period.

| Engine Power Categories: | | 2017 | | | 2018 | | | 2019 | | | 2020 | | | | 2021 | | | | 2022 | | | | | | |
|--------------------------|-----------------------------|------|----|----|------|----|----|------|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|----|
| <56kW & 2 | 56kW & ≥130kW | | Q2 | Q3 | Q4 | QI | Q2 | Q3 | Q4 | QI | Q2 | Q3 | Q4 | QI | Q2 | Q3 | Q4 | QI | Q2 | Q3 | Q4 | QI | Q2 | Q3 | Q4 |
| Transitional Engine | Manufacture date | | | | | | | | | | | | | | | | | | | | | | | | |
| | Placing on the market date | | | | | | | | | | | | | | | | | | | | | | | | |
| Transitional Machine | Manufacture and market date | | | | | | | | | | | | | | | | | | | | | | | | |
| | Placing on the market date | | | | | | | | | | | | | | | | | | | | | | | | |
| Engine Power Categories: | | 2017 | | | 2018 | | | 2019 | | | 2020 | | | | 2021 | | | | 2022 | | | | | | |
| 56 – 129kW | _ | | Q2 | Q3 | Q4 | QI | Q2 | Q3 | Q4 | QI | Q2 | Q3 | Q4 | QI | Q2 | Q3 | Q4 | QI | Q2 | Q3 | Q4 | QI | Q2 | Q3 | Q4 |
| Transitional Engine | Manufacture date | | | | | | | | | | | | | | | | | | | | | | | | |
| | Placing on the market date | | | | | | | | | | | | | | | | | | | | | | | | |
| Transitional Machine | Manufacture and market date | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| | Placing on the market date | | | | | | | | | | | | | | | | | | | | | | | | |