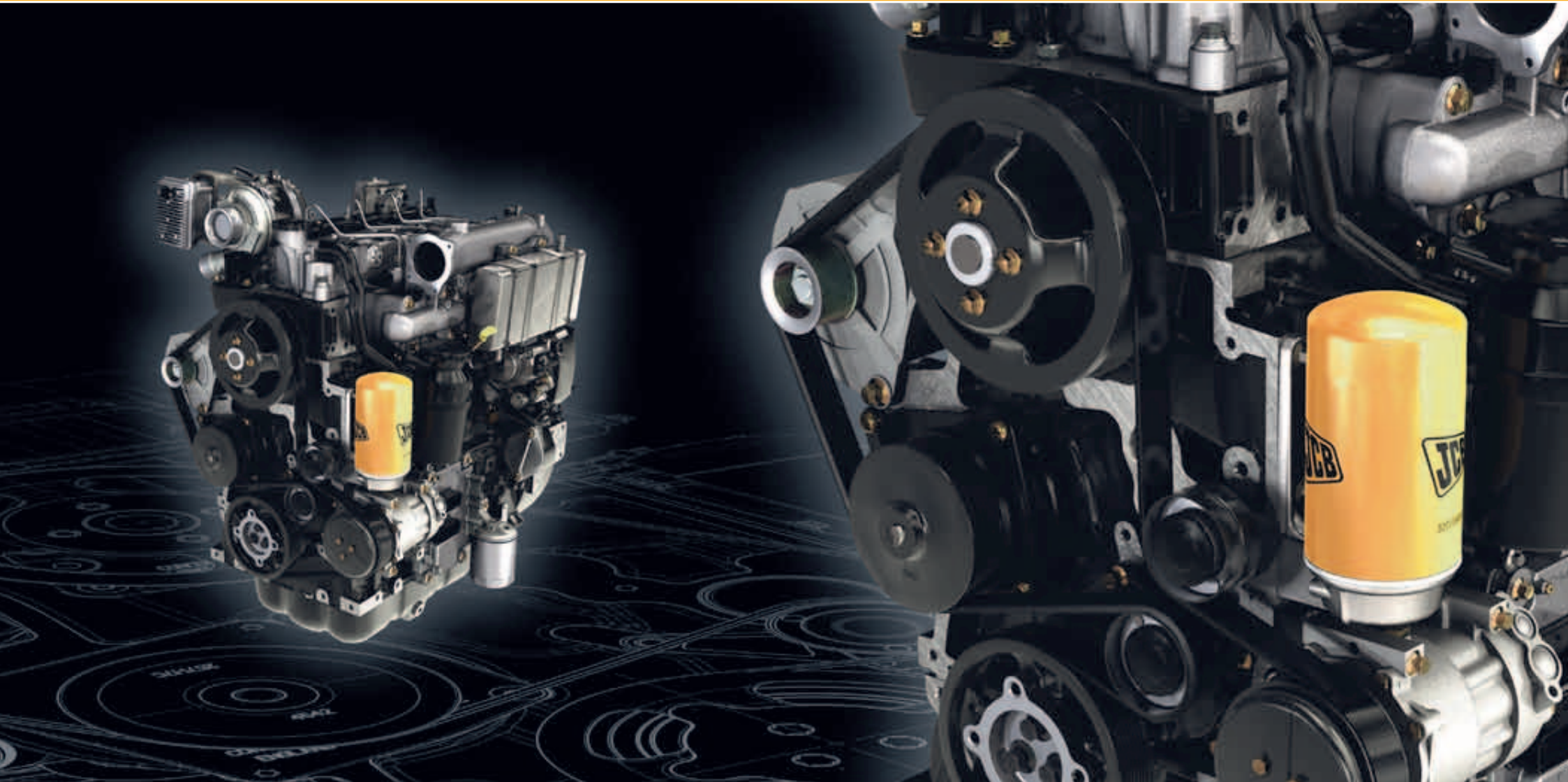




JCB DIESELMAX ECOMAX TIER 4 ENGINE



A Product of Hard Work



Welcome to JCB

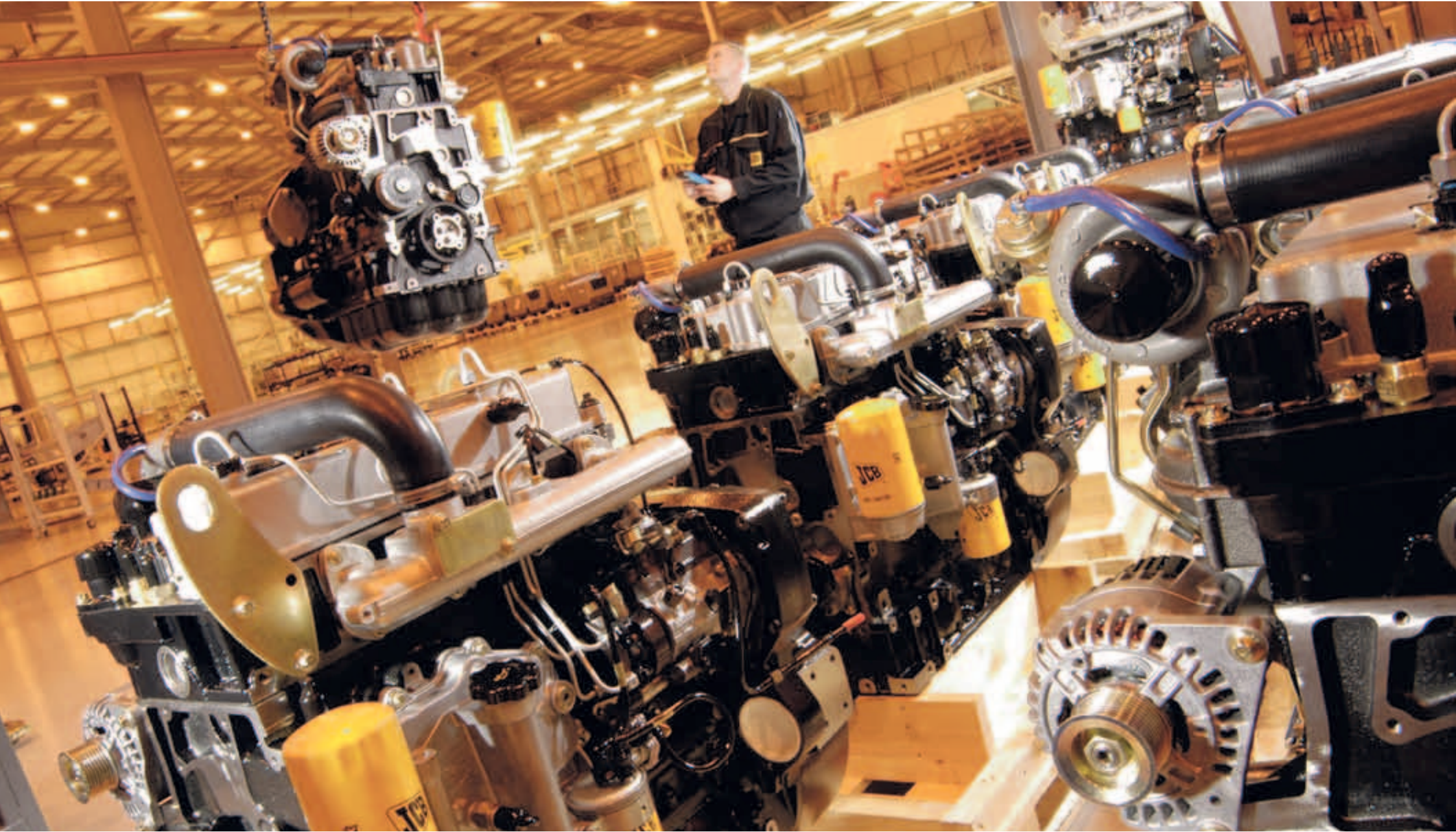
In 1945, Joseph Cyril Bamford started the company that bears his initials from a garage measuring 12 by 15 feet.

Today, JCB is still a family-run business but now employs over 7,500 people and sells machines in over 150 countries. We also boast some of the finest engineering facilities in the world, located on four different continents in the UK, Brazil, China, Germany, India and North America.

At JCB, part of our huge success is down to the fact that we're always looking for that next innovative idea: constantly searching for new materials, techniques and systems that can help us to build better products and offer our customers even higher levels of service.

This approach has meant that, from the early days as a family business to the international company we are today, we've always been one step ahead. And that's never been truer than today, with the JCB Dieselmex engine the world's fastest diesel.





A Heritage in Engineering

From the 1920s to the 60s, Bamfords of Uttoxeter produced industrial engines, largely for use in agriculture. In the 70s we worked on engine prototypes, developing 4-cylinder and 6-cylinder models. Then, over the last 20 years, JCB instigated a project to develop the perfect engine.

For decades, the global construction industry has waited for us to produce the JCB diesel engine. After all, we make some of the world's leading construction equipment. So we have used our expertise and experience to build the only engine designed specifically for off-highway use.

The name to trust

The JCB name is renowned throughout the world for world-class quality. Our products are designed and built for hard work and reliability, using only the most advanced technology and techniques that we know keep us consistently ahead of the competition.

We wouldn't put these engines in our own machines if they didn't exceed our expectations at every turn. So we have no hesitation in recommending them for a whole host of other machines and applications, including:

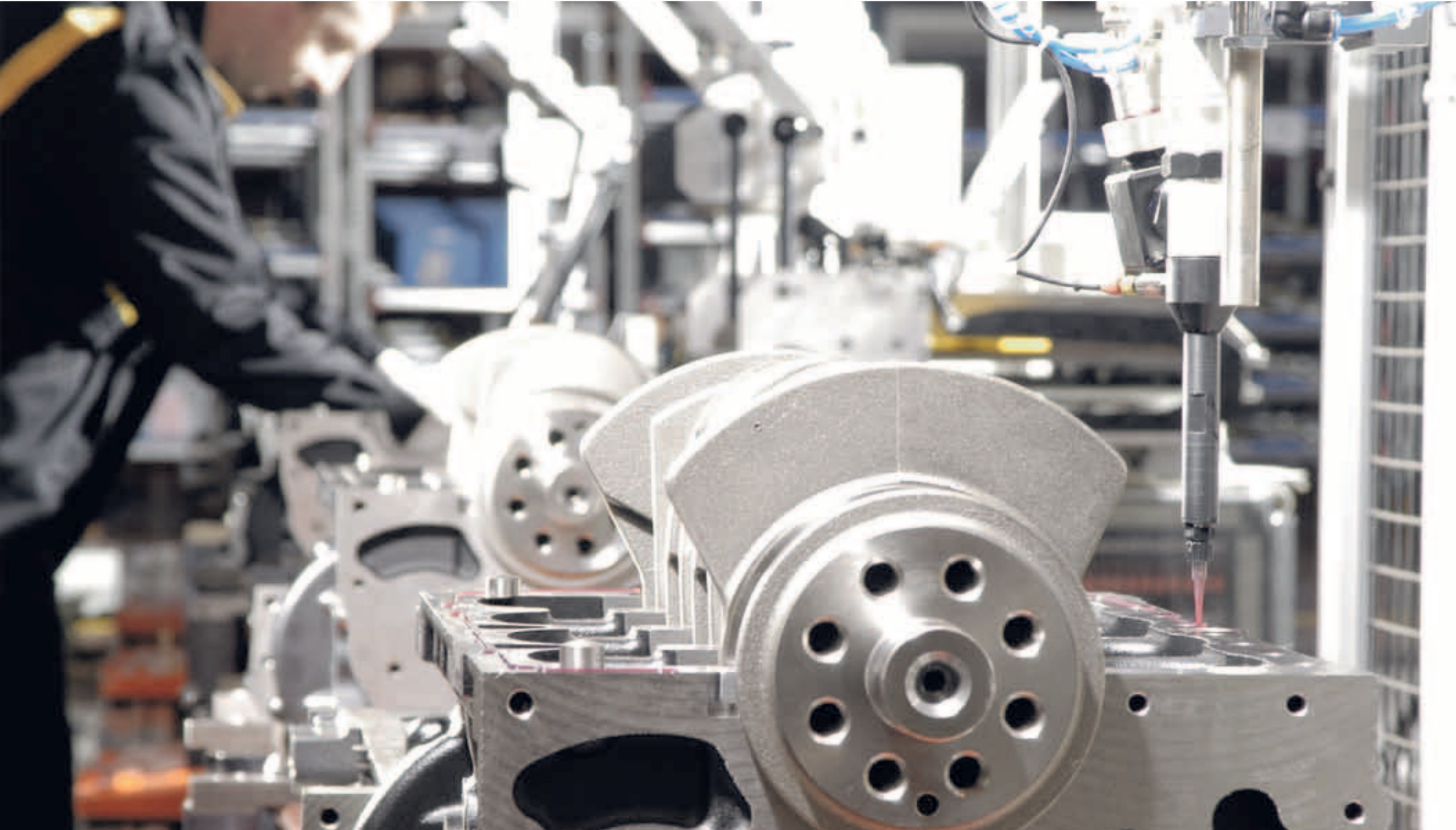
Off-highway mobile: earth moving, materials handling and agricultural equipment

Stationary: generators, water pumps, screening equipment, air compressors, recycling equipment, hydraulic power packs, commercial vehicle auxiliary engines and irrigation equipment.

Marine: workboats and auxiliary power plants

Whatever you use it for, the JCB engine is designed to give you the performance power your business relies on day in, day out.





The fastest diesel in the world



"A triumph for British engineering excellence and teamwork." That was JCB Chairman Sir Anthony Bamford's conclusion after JCB Dieselmax achieved a stunning 350.092mph (563.418kph) land speed record for diesel-powered cars.

The record attempt was initiated by Sir Anthony to showcase the extreme performance capability of the JCB engine which normally powers off-highway equipment for construction, agricultural, industrial and power generation applications.

The record-breaking JCB444-LSR engine displaces 5-litres, weighs 382kg (dry), and produces 750bhp at 3,800rpm and in excess of 1,500Nm of torque at 2,500 rpm. Two engines were used to set the new record at Bonneville Salt Flats USA in August 2006, with a total power output of 1,500bhp. Yet despite having twice the power and more than four times the weight of an F1 car, DIESELMAX had only half the fuel consumption.

The development of the engine has resulted in considerable engineering learning that will influence JCB's future product strategy and ensure that JCB engines remain at the forefront of technology and performance.





Proven in the field

Since we launched the JCB Dieselmix engine in 2005, it has been an unqualified success. With tens of thousands in service throughout the world – in numerous applications – they have already built a formidable reputation for performance and reliability, with both operators and OEMs alike.

- Construction, agricultural and materials handling machinery
- Generators
- Fruit harvesting machinery
- Commercial vehicles – auxiliary engines
- Water pumps
- Zone II flame protected applications
- Rubber-tyred lifting gantries
- Compressors
- Irrigation pumps
- Hydraulic power packs
- Marine applications
- Forestry
- Mining and drilling equipment
- Screeners and crushers
- Ground support equipment

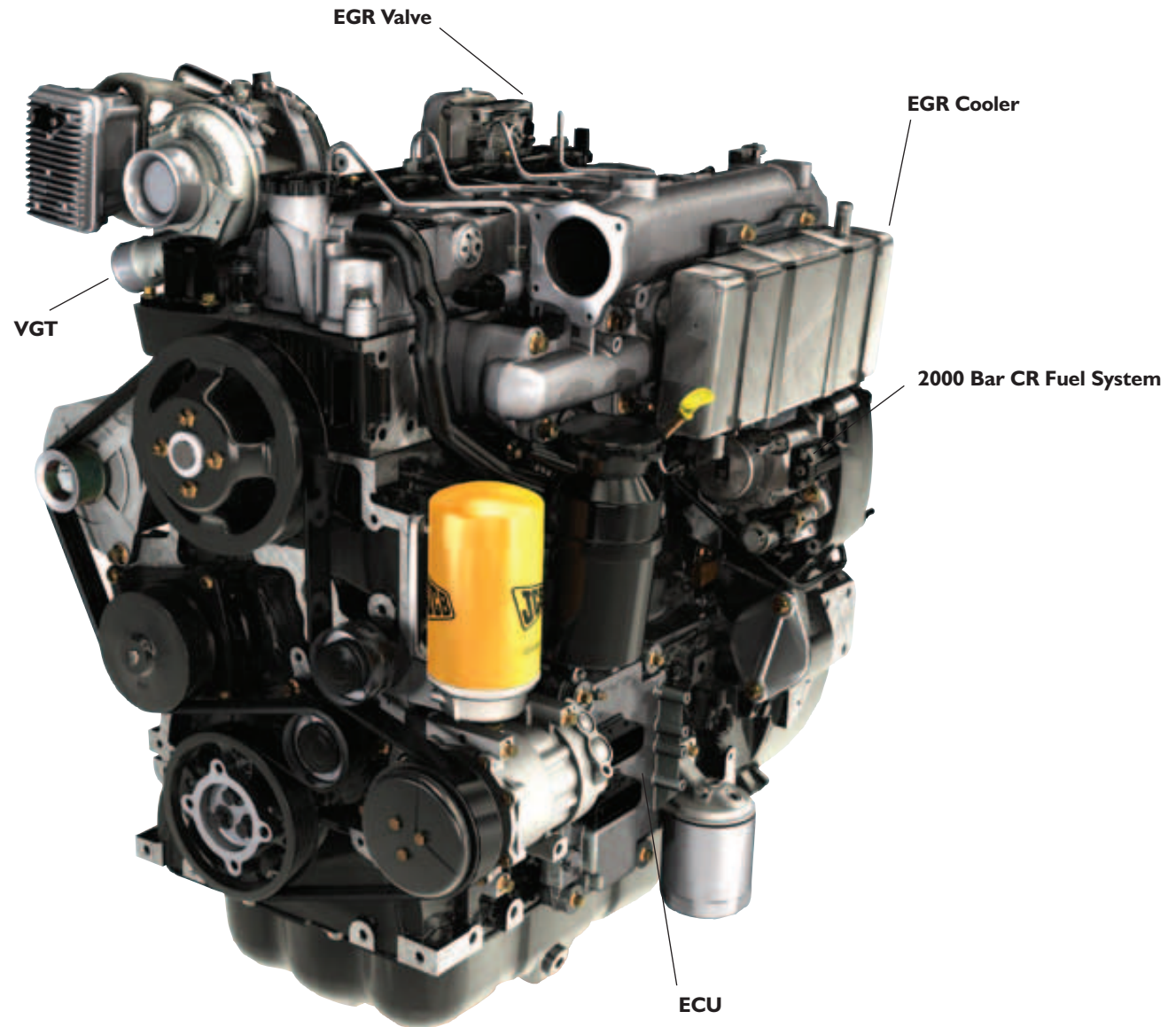




Tier 4 Engines

The JCB Ecomax T4 Engines feature an advanced combustion system that gives very low emissions and fuel consumption. With the use of cooled EGR, a common rail system operating at up to 2,000 bar and a variable geometry turbocharger the JCB Ecomax T4 does not require a Diesel Particulate Filter. This gives real advantage for our customers:

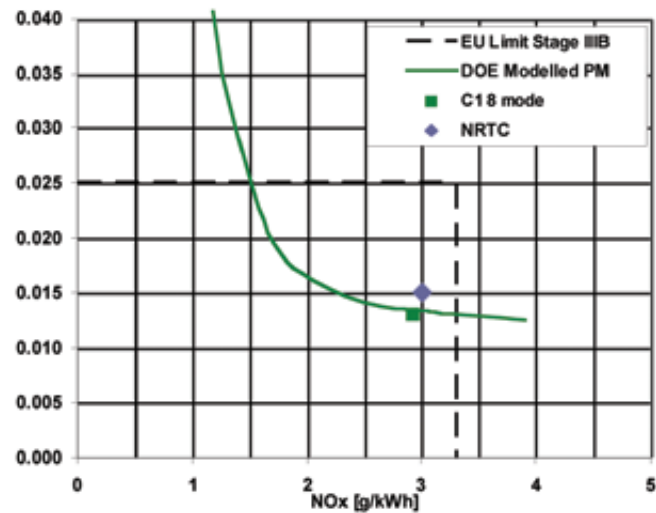
- Low cost of ownership
- No additional servicing for aftertreatment
- Improved response compared to Tier 3
- Packaging benefits
- Fuel consumption 5 – 10% improvement over Tier 3
- New extended range
- Full depth and knowledge of mobile machinery integration and application knowledge to OEM customers
- Protected for Tier 4 Final
- 55kW constant power for Tier 4 Final
- 68kW – 93kW 4.4L Tier 4 Interim
- 108kW – 129kW 4.8L Tier 4 Interim



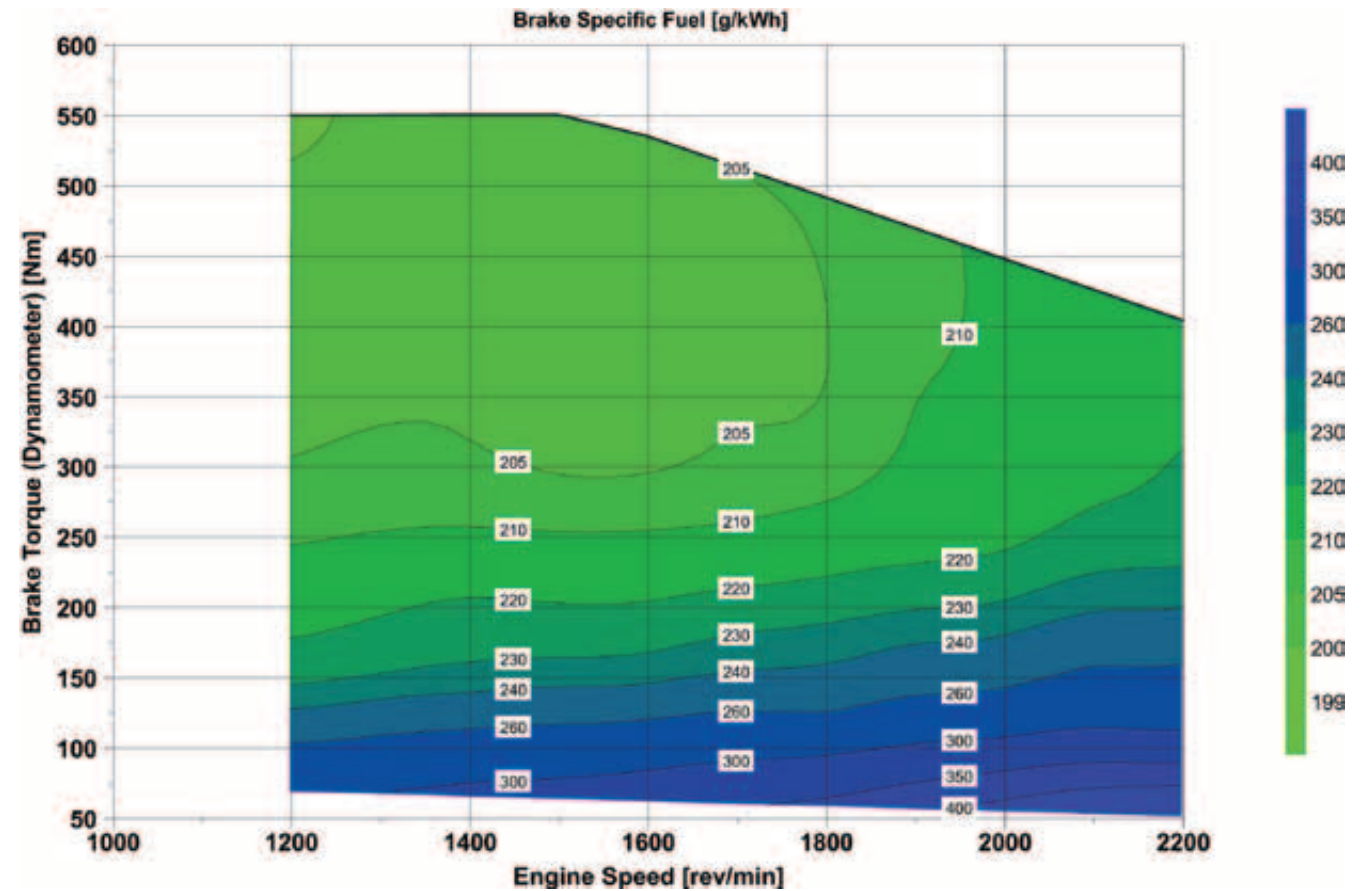
Tier 4 Engines

- 55kW 4.4L FG Turbo Max. Torque 400Nm at 1200 - 1300rpm
- 68kW 4.4L VG Turbo Max. Torque 433Nm at 1500rpm
- 81kW 4.4L VG Turbo Max. Torque 516Nm at 1500rpm
- 93kW 4.4L VG Turbo Max. torque 550Nm @ 1500rpm
- 108kW 4.8L VG Turbo Max. Torque 560Nm @ 1500rpm
- 129kW 4.8L VG Turbo Max. Torque 690Nm @ 1500 rpm

Test Results: Transient NOx – Pm Trade Off



Test Results: Fuel Consumption Map



5% to 10% improvement over Tier 3

Investing in the best

JCB's state of the art manufacturing plant in Derbyshire is benefiting from substantial investment to adapt and extend the engine assembly and test for the JCB Ecomax T4 family.

JCB has invested in a new Research and Development Centre, which includes ten state of the art test cells for development of low emission engines.

These are capable of running engines up to 300kW and all have transient capability and the latest cycle and emissions measurement systems.

The new Research and Development Centre also includes workshops, specialist test rigs and offices for the engineering staff.

It all goes to show our commitment to making the very best engine there is.





A few words about JCB

A groundbreaking, world class family business with a commitment to supporting our customers and protecting the environment



A family company on a global scale. JCB is no ordinary company. From the dreams of one man, Joseph Cyril Bamford, we have grown into the world's largest privately owned construction equipment company. Since 1945, the same attention to detail, passion for progress and family spirit has taken us from strength to strength.

Nowadays JCB operates across six continents, manufacturing at 18 factories in the UK, Brazil, Germany, China, North America and India. With 2,000 dealer depots selling and supporting our products in over 150 countries, we are the global market leader for backhoe loaders and telescopic handlers.

A history of world-class innovation. Our business has always been driven by innovation, using only the most advanced technology, meticulous design, precision engineering and rigorous testing. Evidence of this commitment to innovation is illustrated in our revolutionary JCB DIESELMAX engine. Having grabbed the headlines when it smashed the world diesel land speed record at 350.092mph, it is now providing our customers with tomorrow's performance today.



Doing things more efficiently, more sustainably. Since 2007 we have reduced our carbon emissions by 20%. We are continually working to further reduce the carbon footprint of our operations and, in partnership with our suppliers, our whole supply chain. We are also committed to designing our products to be sustainable during manufacturing, over the life of the machine and through end-of-life recycling. Our new ECO machines, for example, offer significant fuel and carbon savings; an average of 16% on the ECOs, ECO skid steers and ECO compact track loaders, and 22% on the 8085 ECO.



The best back-up in the business

Whether we're providing you with support, parts or finance, we aim for 100% satisfaction. It's all part of our promise to put you, the customer, first



Wherever you are, we are. Our mission to provide world-class support and deliver 100% satisfaction reaches into more than 2,000 dealer depots, spanning 150 countries across six continents. The aim? To bring you global expertise at a local level. We truly believe no other manufacturer does more to understand the subtle differences between one region of the world and another. It's a degree of attention that we maintain at every level of the company and an assurance to our customers that wherever they are in the world, JCB will fulfil their needs.

Trust the genuine article. At the heart of the support network is our impressive World Parts Centre, a state-of-the-art facility operating 24/7 to dispatch more than a million genuine parts and attachments every week to our dealers and international distribution centres. Because we understand the need to minimise downtime, we utilise the latest logistics and warehouse management systems and have committed to an 'Anywhere in 24 hours' strategy.

Keeping you up and running. Just as important as genuine JCB parts are the people who fit and maintain them. Our JCB-trained technicians in all of those 2,000-plus dealer depots provide excellent, expert customer care, whether it's routine servicing or something more urgent. If there is an emergency breakdown situation, we need to act fast. This is why all our dealers operate their own fleets of support vehicles, enabling parts to be delivered quickly and fitted expertly, and fulfilling our promise to keep our customers working.

Maximising earning potential. We grow as our customers grow. That's why, at JCB, we are committed to offering expert financial advice and support to help customers maximise their earning potential.

Finance options* are available for new and used machinery, all part of our dedication to helping customers preserve their working capital while spreading costs in the most effective and tax-efficient way.

And as well as financial help, we are also happy to offer JCB Insurance.* We specialise in construction and industrial insurance and in offering Insurance Premium Finance facilities.

** Please check individual countries for available services.*





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Download the very latest information on this product range at: www.jcb.com

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