

7000 SERIES FASTRAC





**Serious in the field. Serious on the road
No compromises**

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When we developed the new 7000 Series, we adopted a no compromises approach – to be the most productive in the field, and the safest and fastest on the road. The result is four models, the 7170, 7200, 7230 and 7270, each with a brand new transmission, all-round self-levelling suspension, up to 270hp, 4-wheel ABS, large rear tyres and the best cab in the industry.

In the field, these tractors give you traction without compaction, precision implement handling, plus the manoeuvrability at the headland you need to get the job done, fast. On the road, you get up to 70kph travel, stable and controlled stopping and responsive steering. Add this to consummate operator comfort and you have one of the most productive farming solutions available today.



**Comfort and control. It's tough out there
But inside it's a different story**



01 Cab positioned forward away from rear wheels

avoids jolting the driver, better forward visibility

02 Self-levelling rear suspension

maintains constant ride height

03 All-round suspension with integrated chassis

irons out bumps, smoother ride

04 Anti-roll bars

improved handling, safety and stability

05 Exhaust stack mounted on the tractor chassis alone

reduces noise and vibration

06 The industry's finest cab

spacious with lots of storage

07 Air suspension seat and full-sized passenger seat

ultimate comfort

08 Intelligent climate control

cool and comfortable

09 Nearly 6m² of glass and an advanced Xenon lighting package

incredible visibility

10 Ergonomic, intuitive control layout

easy to use

11 Seat-mounted control panel and full-colour touchscreen

conveniently close to hand

12 Headland Turn Assist

simple to set up, effortless control of tractor functions

When the hours are as long and hard as they are in agriculture, comfort is a necessity, not a luxury. Behind the wheel, you need to feel fresh and relaxed if you are to stay productive and efficient during the busiest seasons. And this means investing

in comfortable environments, a smoother ride that minimises stressful jolts, a healthy atmosphere with reduced noise and vibration, and an intuitive layout that makes controlling the immense potential of the 7000 Series second nature.

The ultimate smooth ride

Because a comfortable operator
is a productive operator



Revolutionary cab positioning

Cabs positioned over rear wheels are susceptible to jolting so the driver feels every bump.

7000 Series cab is positioned further forward to give a smoother ride.

The JCB Fastrac was the world's first draught tractor with full front and rear suspension. Today, JCB's unique, ride-smoothing suspension continues to offer the ultimate in operator comfort.

In the field, the triple link suspension with integrated chassis irons out bumps and jolts, as well as reducing compaction and increasing traction, giving the operator the smoothest possible ride. On the road, the driver has more control and comfort for enhanced safety at high speeds.

Ride comfort is enhanced further by the positioning of the cab. You can see we've moved it forward, away from the rear wheels. This provides less bounce for an even smoother ride.

It is no wonder that 7000 Series operators remain relaxed and productive throughout even the longest working days.



Load-compensating, hydro-pneumatic, self-levelling rear suspension maintains constant ride height for a very smooth performance. Quad-link suspension ensures unrivalled driver comfort and automatic load levelling. Side-to-side levelling and anti-roll bars improve handling, safety and stability. Mounting the exhaust stack on the tractor chassis alone, with no brackets or other support on the cab, helps to reduce noise and vibration within the cab to exceptionally low levels.

7000 Series machines save you money

All-round suspension results in a reduction in tyre wear and more efficient application of power, giving you lower ownership costs... and that's got to be good for business.

All-round suspension also offers serious performance benefits

For more information please see pages 24-25.

The 7000 Series advantage

- Unsurpassed operator ride comfort
- Smoother ride with fewer bumps and jolts
- Reduced fatigue, more productive operators
- Less compaction, more traction in field
- Safer, more controlled performance on the road
- Ideal working temperature and conditions



Better by design

No one pays more attention to operator comfort and safety

Good design is about more than good looks. It's about ensuring every single component performs to the very best of its ability. The 7000 Series full suspension system, integrated chassis and cab positioning are prime examples of how JCB pays attention to the finer detail to give that extra level of comfort. Another excellent example is the industry's finest cab.

It is the largest and most comfortable cab available, bar none. It has an incredibly comfortable air-suspension seat, with lots of legroom and space for storing equipment and other essentials. Additional luxuries include MP3 player connection, and mobile phone charge point.

The cab is also designed to provide astonishing visibility from nearly 6m² of glass. And with an advanced new Xenon lighting package that replicates daylight, the clear, unhindered view continues well into the night allowing you to prolong the working day with little risk of driver fatigue.



Access

Single large forward opening door gives easy access and helps prevent dust getting into the cab.



Seating

Air-suspension seat is incredibly comfortable

Full-size passenger seat ensures colleague comfort, unique to JCB



Luxuries

MP3 player connection

Mobile phone charge point

Additional options include: heated driver's seat



Audio

4-speaker system

Additional options include:

– auxiliary audio input



Mirrors

Right-hand electric mirror

Additional options include:

– twin electric mirrors
– twin electric heated mirrors
– interior mirror

The 7000 Series advantage

- Ultimate operator comfort
- Plenty of room to store tools and equipment
- Storage for personal items
- Additional luxuries to make life easier
- Envious visibility for safety and control
- Potential to extend working into the night





Space



The largest cab on the market. 4-post (instead of 6-post) full-width cab design eliminates side pillars for a wide panoramic view. Airy, spacious interior makes the operator feel at ease. Unsurpassed visibility from nearly 6m² of glass. Repositioned exhaust stack alongside the right-hand cab pillar improves view further. Exceptional

legroom and storage space. Full-length doors and windows contribute to clear all-round view of implements, terrain and potential obstructions. Additional options include: Heated front and rear windscreens and Xenon worklights for clarity into the night.

Ergonomic, easy-to-use controls

You're in instant charge of your machine and environment

Building upon the productivity-enhancing benefits of operator comfort is an ergonomic cab layout. This also helps to ensure the driver experience is as relaxed as possible whilst giving complete command of the 7000 Series' huge performance potential.

Physically, the cab has been designed to reduce repetitive reaching, twisting and stretching which can take their toll and notch up fatigue levels during long working hours. So all the controls are grouped conveniently, close to hand.

Mental stress is reduced by the intuitive layout, with controls that are extremely easy to get to grips with and much of the machine setup and status controlled from the full-colour, seat-mounted touchscreen. Plus, key operations such as gearshifts and headland turns are automated. All of this means operation soon becomes like second nature, leaving the operator free to concentrate on the external environment and the job in hand.



Simple touchscreen puts you in control, with no need to read a 1000-page manual.

The full-colour touchscreen features a simple, extremely easy to use layout.

The touchscreen also puts you in control of transmission modes (see page 22-23). For more information on Headland Turn Assist, please see overleaf.

Touchscreen control for machine status.

- PTOs when running and PTO RPM
- PTO gear selected
- Active spool valves
- Headland Turn Assist sequence and next function to be activated
- Difflocks and 4WD (flashes if inactive)
- Linkage control and draught control movement
- Selected direction



Touchscreen control for machine setup.

- PTO cut outs front/rear
- Difflock cut-outs
- Display setup
- Area cut-outs
- Programmable joystick buttons setup
- Spool valve time and flow setup
- Headland Turn Assist set up menu
- Worklight setup menu
- Service access



Stay comfortable, no matter what the conditions outside.

Simply set your required temperature and the system will automatically maintain it by varying airflow, keeping you comfortable and reducing stress and fatigue.

Ergonomic and intuitive control layout.

- 01 Seat-mounted control panel and touchscreen monitor keep all operations conveniently close to hand
- 02 Controls are grouped logically for ease of access, not spread out around the cab
- 03 Joystick transmission control features buttons programmable via touchscreen
- 04 Slimline dashboard gives better visibility and shows vital machine functions:
 - wheelslip
 - area meter
 - fuel
 - speed
 - engine rpm
- 05 Optional auxiliary audio connection
- 06 Fully automatic climate control



Headland turn assist

Makes even the most complicated operations simple

JCB Headland Turn Assist has been developed to save valuable time by making it easier for the operator to control tractor and implement along the edge of the field. At the press of one button, headland manoeuvres are efficiently handled leaving the driver free to focus on the in-field task.



The Headland Turn Assist is accessible via the touchscreen and is easily programmable while stationary, so even less skilled operators can use it. The system offers the following:

- Ability to program a sequence of up to 15 tractor operations to perform at the touch of a single button
- Ability to store up to 5 of the above sequences for different operations
- Single-button activation with a button on the joystick within easy reach
- Simple selection of functions: just press the function required on the touchscreen menu; no confusion with trying to record a number of tasks
- The ability to insert, modify or delete functions, even during operation, for maximum flexibility
- Ability to link functions together with a timing feature or to step through the process with a single button press
- Option to pause, restart and skip through sequence if necessary



GPS autosteer

Reduce waste and get more out of every square inch of land

Fastrac 7000 Series productivity is set to become legendary. Add the option of GPS Autosteer and you have even greater productivity - every inch of the field is used - along with reduced operating costs and easier in-field operation requiring less concentration for reduced fatigue.



Productivity and work quality

- By consistently using the full working width of the machine and implement, greater area coverage is achieved
- The system allows the field to be worked in the most efficient pattern possible, maximising productivity
- True precision means there are no overlaps and no misses
- The operator can maintain accuracy even when visibility is poor
- Rear antenna mounting position allows the machine to find way lines more quickly and accurately
- Full suspension system reduces antenna movement for greater accuracy

Ease of use and precise control

- Automatic steering is integrated into the easy-to-use touchscreen and can be activated as part of the Headland Turn Assist sequence
- Proportional steering valve with feedback to the driver as the steering wheel turns gives fast, precise and sensitive steering corrections
- The system is easily overridden when necessary by moving the steering wheel to regain manual control

Reduced operating costs

- Greater accuracy and precision results in less wastage and therefore lower costs for seed, fertiliser, pesticide, fuel and working time
- Research shows that without GPS, working widths and overlaps are bigger resulting in an increase in diesel, machine, fertiliser and protection product costs
- The system means less concentration is required from the driver, reducing fatigue and extending the working day
- The system allows even novice operators, who will find GPS Autosteer extremely easy to use, to achieve high productivity levels





Performance and productivity
Get to the job faster, get the job done faster



01 Cummins Tier 3 compliant, 6.7-litre engine

fuel efficiency, reliability, low service intervals

02 Common rail fuel injection

power when you need it, fuel efficiency

03 7000 Series P-TRONIC transmission

optimum performance on road and in field

04 Class-leading hydraulic flows

faster cycle times

05 Rear-driven geartrain

reduced engine noise

06 Perfect weight distribution

better traction, better application of power,
reduced tyre wear

07 ABS

safe, controlled stopping, road legal

08 New JCB front and rear axles

handle more power and torque

09 Dynamic axle mounting system

isolates implements from jolts, prolongs implement life

10 Mechanical steering system with power assistance

responsive, continued steering if engine fails

11 Large external disc brakes

excellent cooling, fade-free braking, simple service access

12 All-round self-levelling suspension

more traction, better power transmission
to the ground, no power hop

13 Category 2 electronic front linkage

precise fingertip control, external buttons make
hitching up implements easier

14 High capacity Bosch Hitchtronic rear linkage

lifts the largest implements with ease

15 Sculpted chassis design

tight turning circles

The 7000 Series is a serious performer in the field. Perfect weight distribution, full suspension and high performance tyre options provide the optimum traction that's hard to get in a conventional tractor. Plus, these tractors are highly manoeuvrable, reliable, durable, powerful and fuel efficient.

But productivity is as much about road travel as it is about in-field performance. And with 70kph travel and the ease of handling of an automatic car, you can get where you need to be faster, saving valuable time.

More power, more torque

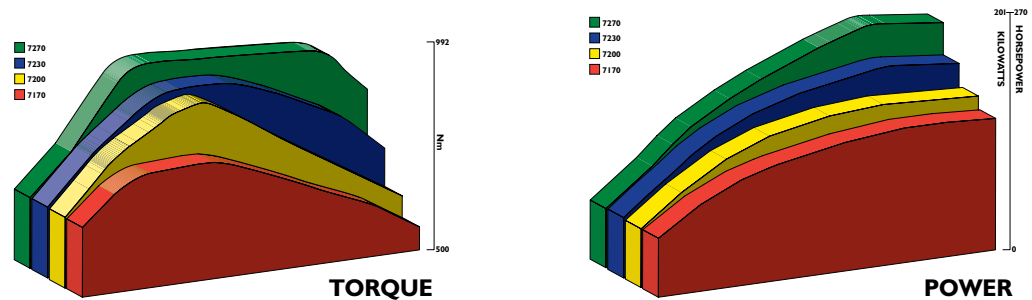
These tractors give you the extra punch when you need it



The genuine driving force behind an engine isn't its horsepower. It's torque. This is what turns engine power into lugging ability, and on the 7000 Series torque rise levels are high - up to 35% - enabling you to overcome arduous conditions without stopping.

Like all JCB Fastracs, the 7000 Series is fitted with a Cummins Tier 3 compliant engine featuring common rail fuel injection with centred injections in symmetrical piston bowls. This has the ability to give you power when you need it for incredible productivity, and to save fuel when you don't for added efficiency and economy.

Designed expressly for reliability and durability, the non-stressed engine is also perfectly matched to the 7000 Series P-TRONIC transmission, ensuring no loss of power through the driveline. It's a system designed and built to give you every last ounce of available power.



A wide range of horsepower models is available allowing you to choose the right machine for your application.

Common rail fuel injection

This system can operate at pressures of up to 1,600 bar and uses electronics to time the exact injection of the fuel. The result of this very precise control? Improved engine performance, improved fuel efficiency.

Electronic management system

Continuously monitors engine performance to help increase the service life; optimises the engine's performance; integrates seamlessly with transmission control; and removes the need for cables, reducing dust and noise ingress into the cab.

Cyclonic pre-cleaner

Uses centrifugal force to remove large dust particles before they enter the filter element, helping to reduce routine maintenance and improve efficiency.

Rear-driven geartrain

Dramatically reduces engine noise.

Cummins 6.7-litre engine

- Tier 3 compliant
- 4 valve per cylinder technology
- Air-to-air cooling
- 500-hour engine oil and filter renewal
- 5,000-hour top-end engine maintenance
- Built-in fuel efficiency, reliability and durability



P-TRONIC transmission

More gear choices for in-field flexibility,
with effortless roading

Designed with 'no compromise' in mind, the superb P-TRONIC transmission gives you the best of both worlds.

In the field, the broad range of working gears means you always have the right gear for the job, enabling you to achieve the most efficient, productive performance. While on the road, the machine drives like an automatic car with road speeds of up to 70kph to get you to your next job more quickly and economically.

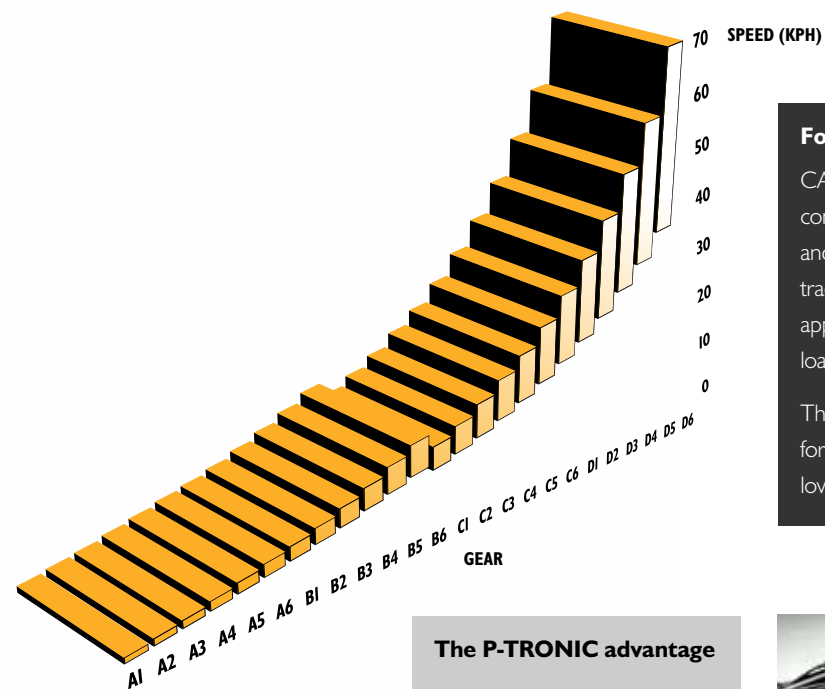
Optimum performance for each job is accomplished effortlessly through selection, via the full-colour, easy-to-use touchscreen, of three transmission modes: Drive, Autoshift and Powershift.

Integral to the 7000 Series transmission are the brand new JCB front and rear axles. Specifically developed for the task, they are engineered to handle increased power and torque with more efficiency and strength.

New JCB front and rear axles, designed specifically for the job

- Super-finished crown wheel and pinion increases efficiency and strength
- Inboard planetary reduction in the rear axle handles more power and torque
- Integral cast design linkage gives immense strength





Focus on technology

CAN-BUS technology communicates between engine and transmission to allow the tractor to select the most appropriate gear for the engine load and application.

The result? Maximum efficiency for improved economy, with low operator effort.

The P-TRONIC advantage

- 24-speed semi-powershift transmission achieves road speeds of up to 70kph
- Wide range of working gears ensures you always have the right one for the job
- Proven multi-plate, oil-immersed wet clutch gives smooth, clutchless gear changes
- 6-speed powershift gears offer a wide spread of shifts in each of 4 ranges for rapid up or down shifts under load
- Changes through the 4 ranges can be made at the touch of a button, or automatically on the road
- Short, compact gearbox design reduces weight and saves space
- Super-finished gears minimise friction and maximise efficiency



3 transmission modes for optimum performance. And they're so easy to access

Simply use the full-colour, seat-mounted touchscreen to select between:

Powershift – Full manual control of transmission operation.

Use the seat-mounted joystick to shift up and down gears and ranges.

Autoshift – Automatic shifting between the gears without changing range.

The operator sets the required gears and the tractor shifts up or down depending on the conditions and engine load, maximising fuel economy and productivity.

Drive – Automatic gear and range shifting in C & D range.

The intelligent transmission constantly assesses engine load and speed, transmission status and position of the foot pedal, and selects the highest gear for optimum fuel economy, unless it senses the driver requires more power by the position of the throttle.

Full front and rear suspension

The ultimate ride comfort, traction and implement efficiency

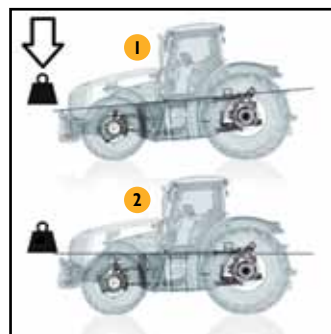
All-round suspension offers some serious performance benefits in the field and on the road.

1. Reduced compaction and increased traction, with no need to add dead weight, in tough field or yard conditions.
2. Smoother ride improves operator and implement efficiency.
3. Increased safety and control at higher speeds on highways.

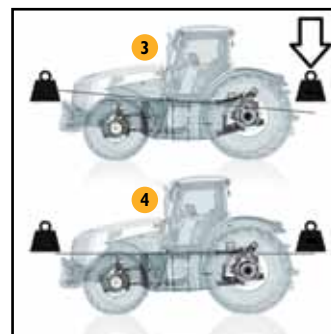
Added all together you have a tractor that doesn't compromise. It's faster to get to the job and it's faster to get the job done. The result? Greater productivity.

Technology in action

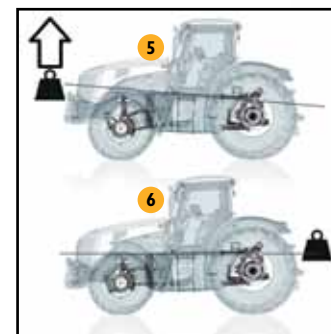
When lifting heavy implements the suspension adjusts to the height of the implement, maintaining optimum ride height. Giving better wheel compliance for maximum traction and minimum compaction.



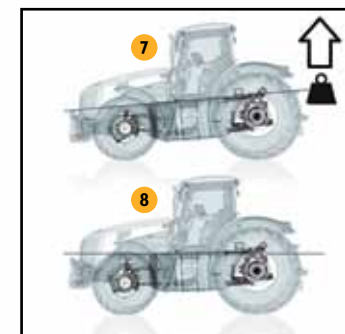
Weight applied to front



Weight applied to rear



Weight removed from front



Weight removed from rear

How it works... self-levelling front and rear suspension

Maintaining constant ride height

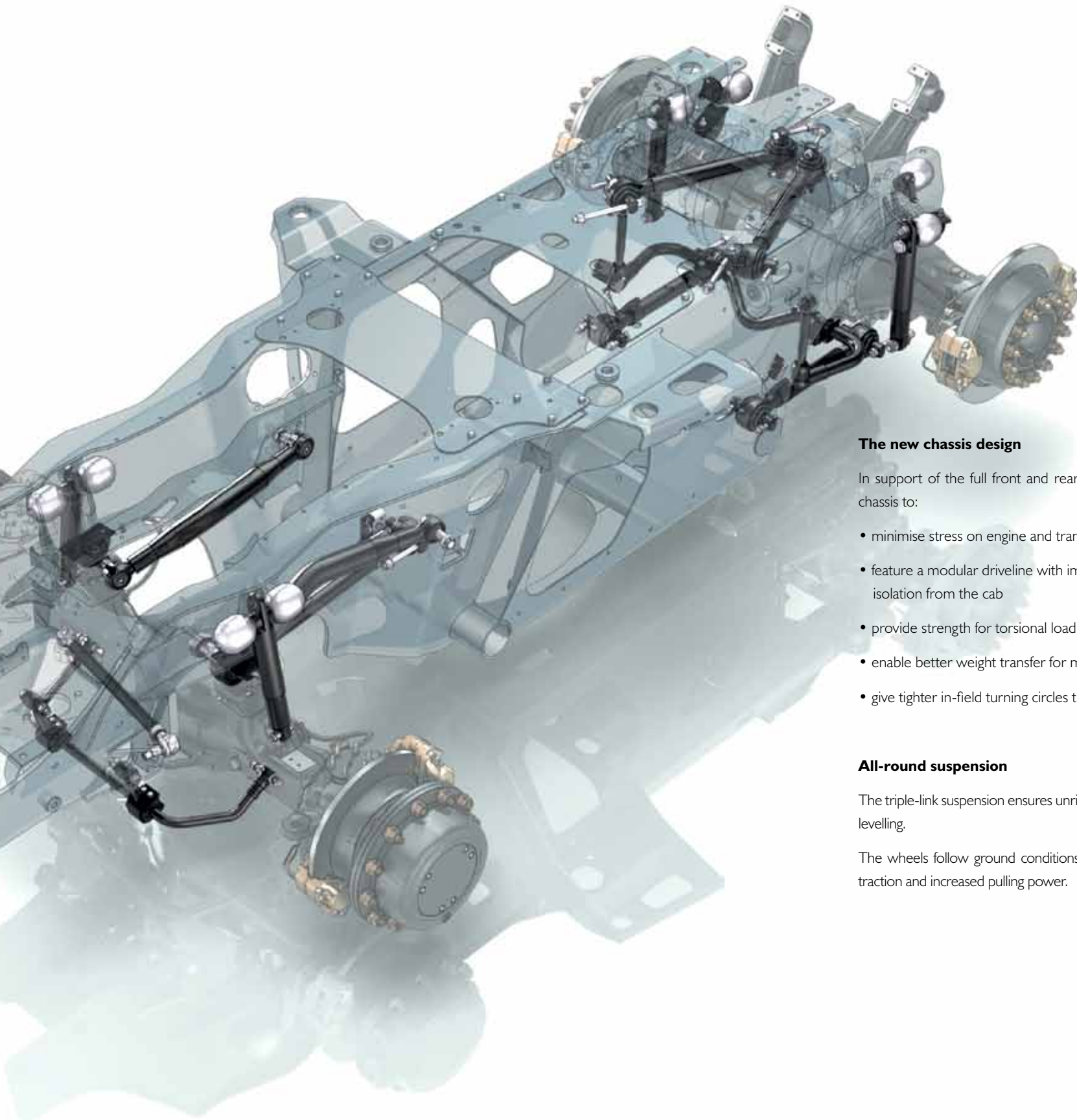
As weight is applied to the front or rear:

- the chassis is lowered in relation to the rear or front axle (figs 1 & 3)
- the ride height corrector valves allow oil to flow in
- this pressurises the hydraulic cylinders which:
 - a) steadily restores original ride height (figs 2 & 4)
 - b) increases suspension stiffness to accommodate the extra weight

As weight is removed:

- sensors detect the change in height (figs 5 & 7)
- ride height corrector valves are displaced in the opposite direction
- this restores ride height to the pre-set level (figs 6 & 8)





The new chassis design

In support of the full front and rear suspension, we have redesigned the chassis to:

- minimise stress on engine and transmission components
- feature a modular driveline with improved engine and transmission noise isolation from the cab
- provide strength for torsional loadings without adding excess weight
- enable better weight transfer for maximum traction
- give tighter in-field turning circles thanks to a sculpted front profile

All-round suspension

The triple-link suspension ensures unrivalled driver comfort and automatic load levelling.

The wheels follow ground conditions and eliminate power hop, maintaining traction and increased pulling power.

Manoeuvrable in the field

Responsive steering and safe stopping on the road

The 7000 Series advantage

- Tight turning circle
- High-speed precision, minimum driver effort
- Fail-safe steering system
- Responsive headland turning
- Powerful, controlled braking
- Additional ABS safety, control and directional stability

Mechanical steering system with power assistance

Safe – Mechanical link steering continues to provide steering in the event of engine failure.

Responsive – System gives better feedback to the driver when travelling on the road at high speed. Power assistance allows steering to be controlled with a light touch.



The best tractor offers responsive turning on the road as well as effortless control at the headland. The 7000 Series is the best.

With a front suspension configuration and chassis designed to allow the tightest possible steer angle, you can whip these machines around in the roughest conditions for quicker cycle times and added productivity. On the road, power-assisted steering comes into play with precise control from a light touch. But the system is also designed for safety, with the back-up of a mechanical link steering system to maintain control in case of engine failure.

Also with an eye on road safety - critical when you reach the high speeds of the 7000 Series - is the JCB controlled, fade-free braking system featuring ABS. This system gives you additional directional stability in the field, when working on grass or stubble, as well as loose surfaces such as dirt and gravel.



Anti-lock braking system (ABS). Proven truck technology that has been adapted for tractors

With typical JCB innovative thinking, we applied ourselves to the problems of fitting ABS to an agricultural tractor by adapting proven truck technology:

- 1.) **A slower-reacting system** – Compensates for larger diameter wheels.
- 2.) **A 4-sensor, 3 modulator system** – Provide constant monitoring of all wheels and independent control of the rear wheels. A high level of control is paramount as directional instability during braking is at its greatest on the rear wheels, but independent modulation gives confidence and control during braking.
- 3.) **12-volt trailer ABS supply socket** – Provides a power supply to a trailer ABS system that works independently of the tractor's system.

Please note: without a dedicated supply some agricultural trailers take the ABS power supply direct from the standard 7-pin trailer lighting socket. Very often this can overload the wiring system.

Stay safe, controlled and stable

- Large external disc brakes on each wheel offer excellent cooling and fade-free braking
- Air-over hydraulic systems are split between front and rear axles for added safety
- Greater braking power on the front axle (like on a car) gives full control even in an emergency
- Twin calliper system provides phenomenal stopping power
- Independent parking brake and full trailer braking equipment as standard
- System meets EU truck standards



Perfect weight distribution

Better traction, reduced wear, improved efficiency and implement handling



A balanced machine makes good all-round sense. The 7000 Series achieves perfect weight distribution, spreading the load for better traction and effective transmission of power, reduced tyre wear and even more efficient performance for greater productivity. It also results in better weight transfer with mounted implements for excellent stability and control

The 7000 Series features high-speed tyres which can carry more load at lower pressures. So, during top work the weight of the 7000 models provides the traction you need in field whilst lowering the tyre pressures means there's no compaction.

All of the weight on 7000 models is integral to the machine so there is no need for ballasting, which changes machine characteristics and makes achieving optimum balance extremely difficult. Of course, we have also ensured there is still the capability for additional performance ballasting to support even the largest of implements.

Improved implement handling

The perfect weight distribution also results in a smoother action, improving implement handling. This is enhanced even further by the Fastrac's all-round suspension which, thanks to rubber bushes within the suspension links, allows the rear axle to rotate forwards and backwards giving implement cushioning; minimising jolts for the operator and implement. Cushioning also prolongs the life of the implement, gives greater stability when travelling at speed and results in better wheel compliance for the front axle for greater stability and control.

As the rear trailer hitch is fitted to the rear axle, it provides trailer hitch damping in a similar way. The rear 3-point hitch also features hitch dampening, working in harmony with the suspension system and further cushioning the ride for the implement.

The 7000 Series advantage

Perfect weight distribution gives:

- Better traction
- Reduced tyre wear
- More efficient use of power

High-speed tyres results in:

- Lower ground bearing pressure
- Higher load capacity



Consummate versatility

The perfect hydraulic flow and connection for every implement



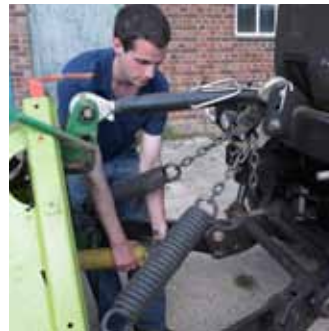
Power and precise control when you need them

- Load-sensing variable displacement auxiliary hydraulic pump features maximum flow of 187 litres/min
- Big capacity, flow-on-demand hydraulics give 100-litre/min (or optional industry-leading 140-litre/min) maximum outputs per valve
- Optional load-sensing power beyond connection saves fuel and wear, and prevents excessive heat generation in the hydraulic system
- Electronically controlled spool valves let you adjust time and flow for automatic control of implements
- Further hydraulic pumps provide oil for transmission, steering, PTOs and difflocks to avoid damage or contamination

Everything about the 7000 Series is designed to help you get the in-field job done faster and more efficiently.

So, via the easy-to-use touchscreen, we put you in instant control of class-leading hydraulic flows for high speed and quicker cycle times. And whatever implement you need to use, we ensure quick and easy connection, using the fender-mounted buttons. Operating implements is also extremely accurate thanks to digital sensing on the rear linkage along with optional wheel slip control, and electronic front linkage controls.

To protect the hydraulics, the system is segregated, avoiding contamination from the driveline, while auxiliary hydraulic oil is filtered in and out of the tank, keeping the system clean and preventing damage to hydraulic components.



Front linkage

- Category 2 electronic front linkage gives both single and double actuation at the flick of a switch, as well as height, depth and linkage operating speed controls



Rear linkage

- Proven Bosch Hitchtronic system helps maintain precise control of implement height, depth, lowering speed and general response
- Wheel slip control is available with the optional performance monitor to help achieve maximum progress in tough conditions
- High capacity (7,000 - 9,000kg)
- Optional automatic stabilisers to allow increased linkage movement



- Large capacity rear axle with 9,100kg rear and optional 3,500kg front implement, chassis-mounted linkage systems
- Dynamic axle mounting system ensures implements are isolated from jolts that can limit effectiveness

The 7000 Series advantage

- Class-leading flows for faster cycle times
- Quick implement connect
- Fine control of implements
- Load-sensing system saves fuel and wear





**The 7000 Series advantage
No compromises**

**Productivity**

Lots of power and, more importantly, lots of torque
Optimum performance in any application, automatically
Relaxed, comfortable operators get more done in a day
Faster cycle times
More responsive and manoeuvrable in the field
Much quicker travel on road between fields
More accurate implement handling

Safer, more comfortable

Fade-free braking
Continued steering in the event of engine failure
Improved handling and stability
Controlled, more powerful braking for higher speeds
Superb all-round visibility, day and night
Smooth ride and superb in-cab comfort
Exceptionally low engine noise and vibration

More efficient

Excellent fuel efficiency for optimum economy
Maximum traction, minimum compaction
Power supplied when needed, fuel saved when you don't
Reduced tyre wear
Implement is cushioned to prolong life
Simple, low-effort manoeuvres with Headland Turn Assist
No power hop
Optimum ride height maintained

Easier to use

Ergonomic and intuitive
Easy to get to grips with via touchscreen
Complicated manoeuvres are simplified
Reduced operator reaching, twisting and stretching

Testing and reliability

A commitment to excellence for dependable performance

We have spent over five years developing the JCB 7000 Series. During this time, development has gone hand-in-hand with the most demanding tests imaginable, putting the machines through every thinkable exercise in all climates, including arctic conditions.

We've assessed many prototypes, pre-builds and pre-production models, all of which have had to confirm their metal in rigorous bench testing, vehicle lab and track testing, and field testing. We also carried out extensive EMC testing and testing to standards far higher than conventional tractors - in fact many parts of the tractor are tested to truck standards.

The culture of testing to maintain excellence continues through to the production line, with every new tractor being put through around 600 performance checks before we're satisfied. And if it meets JCB standards, you know it's a machine to rely on.



ABS testing with a trailer



EMC testing on a rolling road



In-field endurance testing



Hot cell testing



Cold climate testing

Hot climate testing

To ensure maximum productivity in the hottest conditions, the cooling system was extensively tested in extreme temperatures to ensure the optimum operating temperatures are maintained in the engine, transmission and hydraulic systems.

Meticulous quality control of every machine

Thorough checks, conducted throughout the entire build process, are complemented by:

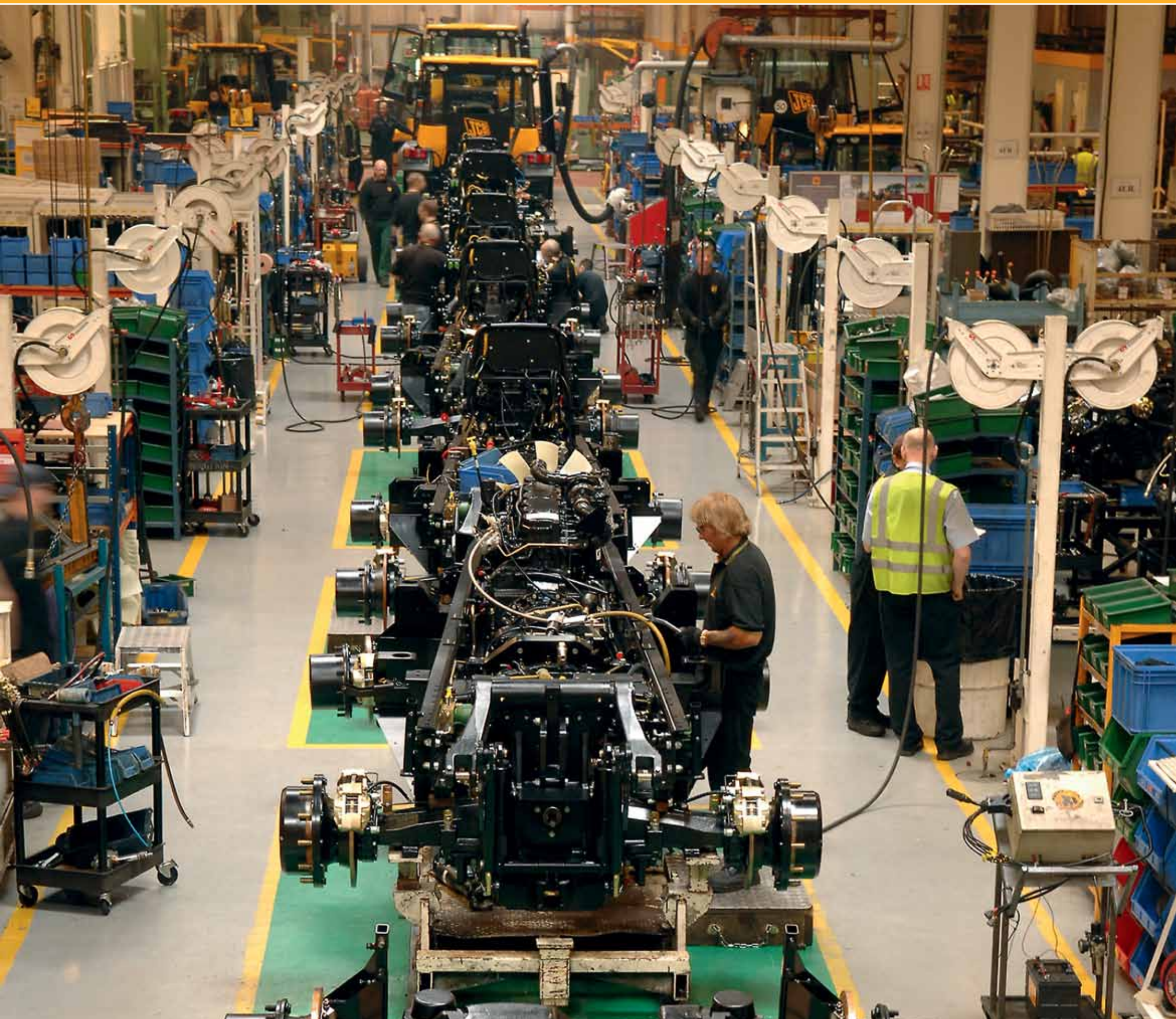
- Dynamometer testing of every machine to verify engine performance
- Gruelling hot test analysing the whole vehicle including engine, transmission, hydraulics and brakes
- Intensive PDI process ensures an impeccable quality control

Proving its worth

- Rig testing of components to accurately simulate working situations
- Testing beyond the expected lifetime of a tractor
 - 8,000,000 cycles of drawbar/linkage loads
 - 900,000 cycles of steering cycles at full pressure
 - 530,000 gearchange cycles
- Extensive bump track testing, validates structural integrity of the machine
- 1000s of hours of in-field and endurance testing
- Tested across the globe in every conceivable application
- ABS brake testing on a frozen lake in Sweden

Cold climate testing

Thorough testing in Arctic conditions, both in the cold cell and in the Arctic Circle, included everything from engine starting, transmission and hydraulic performance to door seals, locks and de-icing.



Built for the real world

These machines won't let you down



Conditions do not come much more rougher and tougher than in agriculture, so you need a machine that can cope; a machine that will continue giving you superb service, season after season.

The 7000 Series is not just constructed for a smooth operator ride. Ironing out those bumps and jolts also means there's less stress on the machine and implements for a longer life. And on the subject of durability, with JCB's reputation for leading build quality you know these machines are going to last and last.

We have also ensured that maintenance on the 7000 Series can be carried out as quickly, safely and efficiently as possible, with simple access to every component and area for daily checks, and long service intervals. Throw JCB's industry leading customer support into the mix and you have four machines that just keep on giving.

- Separate hydraulic system for auxiliary, eliminates risk of oil contamination.
- Cooling elements are laid out to allow access to each section, enabling quick and efficient removal of dirt and debris.
- Effective dust filtration supplemented by Donaldson Powercore system which uses centrifugal force to remove large dust particles before they enter the filter element, helping to reduce routine maintenance.
- EMS continuously monitors engine performance to increase service life.
- After 100 & 500 hr service, engine oil and filters are renewed every 1000 hrs.
- Top-end engine maintenance is only required every 5,000 hours.
- Full chassis construction means that unlike conventional tractors, the engine and transmission are not stressed, load-bearing components
- Heavy-duty front suspension is extremely robust.
- Integral cast design rear linkage is stronger.
- Outboard disc brakes are easier to service.
- Daily service requirements are all quickly and easily accessible:
 - 430-litre diesel tank with integrated steps
 - right-hand pannier gives excellent service access
 - lightweight bonnet gives easy access to engine and components







JCB expertise

The best back-up in the business

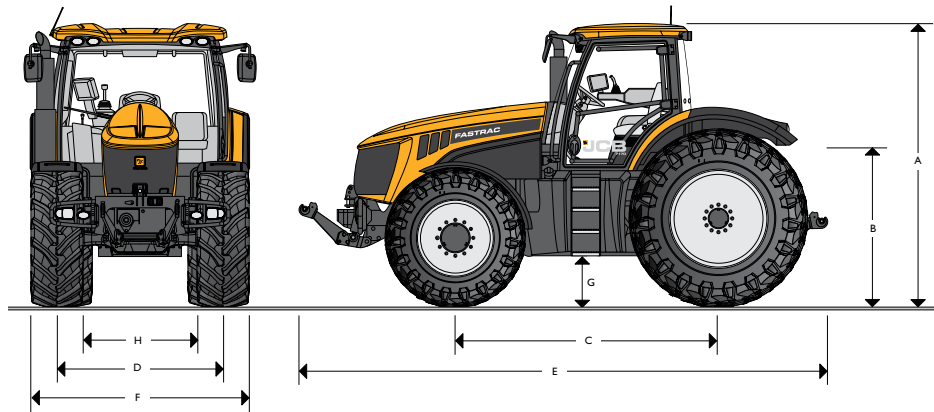
JCB is renowned for providing legendary customer support. Our dealers are all specialists in agriculture so they know exactly what they're talking about. And of course, they're committed to ensuring that your 7000 Series completely fulfills its potential, ensuring you maximum uptime for optimum productivity.

At the heart of our support network is the JCB 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 distribution centres: we are there when you need us.

Just as important as genuine JCB parts are the people who fit and maintain them. Our JCB-trained technicians in all of our dealerships provide excellent, expert customer care, whether it's routine servicing or something more urgent.

It's all part of our commitment to putting the customer at the heart of our business.

FULLY SUSPENDED WITH 4 WHEEL DISC BRAKING. JCB P-TRONIC TRANSMISSION.



ELECTRICAL SYSTEM

System voltage	Volt	12
Alternator output	Amp	160
Battery capacity	Amp hour	2 x 105

Electrical wiring – to IP67 standard.

CAPACITIES

	litres (UK gal)
Fuel tank	430 (132)
Hydraulic tank	130 (29)

STATIC DIMENSIONS

Tyres	600/70 R30 Front and 710/70 R42 Rear
	m (ft-in)
A Height to exhaust	3.23 (10-7)
B Height to deck	1.78 (5-9)
C Wheelbase	3.05 (10.0)
D Track width (front/rear)	1.93 (6-4) / 1.83 (5-10)

Tyres	600/70 R30 Front and 710/70 R42 Rear
	m (ft-in)
E Overall length	5.72 (18-9)
F Overall width	2.55 (8-4)
G Ground clearance	0.50 (1-8)
H Width between tyres	1.13 (3-8)

WHEELS AND TYRES

4 welded wheels. Front dynamic and rear cab mounted enclosed fenders.

Factory fit	Front	Track mm (in)	Rear	Track mm (in)	Max Speed (kph)**
Trelleborg – TM800	540/65 R34	1990 (78)	710/70 R38	1830 (72)	69
Trelleborg – TM900	600/70 R30	1930 (76)	710/70 R42	1830 (72)	69
Trelleborg – TM800/900	540/65 R34	1990 (78)	710/70 R42	1830 (72)	69
Michelin – Xeobib	600/60 R30	1930 (76)	710/60 R42*	1830 (72)	65
Michelin – Axiobib	600/70 R30	1930 (76)	650/85 R38	1852 (73)	65
Goodyear – Optitrac R+	540/75 R28	1990 (78)	650/75 R38†	1886 (74)	69
Goodyear – Optitrac R+	600/70 R30	1930 (76)	650/85 R38	1852 (73)	69

* not available on 7230 or 7270 ** Territory dependant † not available on 7270 Vehicle width is retained within 2550mm.

BRAKES

Type: Outboard discs with twin callipers and ABS* on all four wheels.

Operation: Air over hydraulic.

Park brake: Independent disc on transmission output.

Park brake actuation: Sprung on, air pressure off.

Trailer brakes: Twin line air brakes.
Single line hydraulic brakes for speeds up to 20mph.
Air trailer brake automatically applied by tractor park brake.
*ABS 12v trailer supply socket as standard.

*Territory dependant

CAB

High specification, single door, full width, low noise.

Standard equipment includes:

Fully automatic climate control.
Air suspension seat with armrest mounted transmission and auxiliary controls.
Colour touch screen display, providing transmission information and setup capability.
Electronic spool valves.
Full dust filtration.
Tinted glass.
Front and rear wash wipe.
Electrically adjustable right hand rear view mirror.

Full road lighting equipment.
Auxiliary electrical and speed sensor sockets.
Full size passenger seat.
Lap belt for driver and passenger.
Side console illumination.
Slimline blue backlit dashboard.
Storage compartment.
Radio preparation with single DIN slot and four speakers.
Sun blind.
Cable access through rear window.
Rear fender mounted raise/lower and PTO cut out switches.
6 front and 4 rear worklights.
Headland management system.

OPTIONAL EQUIPMENT

Front linkage (Category 2) with electronic control and external raise/lower.
Front PTO single output.
Four electronic spool valves.
Hi-flow hydraulics.
Load sensing hydraulic connection.
Front weight.
Rear deck weight.
1 or 2 front hydraulic services.
Front free flow return.
20 spline 1 3/4" PTO shaft.
6 spline 1 3/4" PTO shaft.
Radar and performance monitor.
Deluxe heated drivers seat.

Heated front and rear screens with heated and electric mirrors.
Left hand electrically adjustable mirror.
8 front and 6 rear worklights.
Xenon worklight package (2 front, 2 rear Xenon with 6 front, 4 rear standard).
In cab cooler/freezer.
Auxiliary audio input.
Deluxe double DIN radio preparation.
Interior rear view mirror.
Rear deck mounted toolbox.
Automatic rear linkage stabilisers.
750/1000 rpm PTO option.
Hook end top link.
GPS autosteer preparation.

AXLES

Type:	Beam with inboard (rear), outboard (front), epicyclic reduction.
Wheel mountings:	10 stud front axle 14 stud rear axle
Four wheel drive selection:	On the move engage/disengage using rocker switch.
Differentials:	Front and rear locking with electro-hydraulic soft engagement.

VEHICLE WEIGHTS

Shipping weight with no fuel on 540/65 R34 front and 710/70 R38 rear tyres with no driver and no ballast.

	Front axle	Rear axle	Total
	kg	kg	kg
Machine with front weight tray	4320	4865	9185

SUSPENSION

All round hydro-pneumatic self levelling, with independent rear and combined front electronic ride height sensing.

ENGINE

Machine model	7170	7200	7230	7270	
Gross hp at rated speed	173	190	220	260	
Gross kW at rated speed	129	142	164	194	
Max gross	hp	178	195	230	270
Max gross	kW	133	145	172	201
Max torque	Nm	799	931	949	990
Max torque	rpm	1400	1400	1500	1500
Make	Cummins				
Model	QSB				
Rated engine speed	rpm	2200			
Injection	CM 850 Common Rail				
No of cylinders	6				
Capacity	cc	6702			
Bore	mm	107			
Stroke	mm	124			
Cooling	Water				
Air cleaner	Powercore dry element				
Aspiration	Turbocharged and intercooled				

POWER TAKE OFF

Type: Fully independent to front and rear (front optional), driven from main gearbox.

Actuation: Electro-hydraulic.

Rear PTO speeds Option 1: 540rpm @ 1929 engine rpm 1000rpm @ 1997 engine rpm

Rear PTO speeds Option 2: 540rpm @ 1570 engine rpm 1000rpm @ 1997 engine rpm

Rear PTO output spline: 6 or 21 spline 1 $\frac{3}{8}$ " diameter 6 or 20 spline 1 $\frac{3}{4}$ " diameter (options)

Front PTO speed: Front and rear always rotate at the same speed

Front PTO output spline: 6 1 $\frac{3}{8}$ " diameter

Speed change: By lever, 540: neutral. 1000rpm

PTO power:	7170	7200	7230	7270
hp	156	171	198	238
kW	116	128	148	177

STEERING

Type: Direct link re-circulating ball with power assistance and assisto ram.

Column: Tilt and telescope adjustable.

Turning circle: Kerb to kerb 13.8m on 540/75 R28 Front tyres

HYDRAULICS

3 point linkage: Electronic draft/position intermix, rate of drop, adjustable lift height plus external lift and lower.

Front hitch (optional): Lift capacity at link ends – 3500kgs, Category 2; Quick attach hook ends, folding arms.

Rear hitch: Category 3; Quick attach hook ends, eye end top link.

Machine model	7170	7200	7230	7270	
Rear hitch capacity	kg	7000+*	8000+*	9000+	9000+

*9000kg optional

AUXILIARY HYDRAULICS

		Standard	Optional
Max oil flow	l/min	148	210
Flow at rated engine speed	l/min	132	187
Flow per slice	l/min	100	140

Operating pressure: 210 bar

Spool valves: Electronic 4 position double acting with flow and time control, float position and zero leak.

Standard: 3 spool valves to the rear

Optional: 4 spool valves to the rear.
Load sensing hydraulic connection.
1 or 2 front supplies.
Front free flow return.

Couplers: Deluxe Quick release/spill-off piped to reservoir (front and rear).

Pipework/hose: BSP standard.

TRANSMISSION

Semi-powershift with 24 forward, 9 reverse gears. Clutchless gear range changing with 3 transmission modes.

	Gear	Speed km/hr
Forwards	D6	69.0
	D5	57.6
	D4	48.3
	D3	40.1
	D2	33.3
	D1	27.6
	C6	22.9
	C5	19.0
	C4	15.9
	C3	13.2
	C2	11.0
	C1	9.1
	B6	12.2
	B5	10.1
	B4	8.5
	B3	7.1
	B2	5.9
	B1	4.9
A6	4.4	
A5	3.6	
A4	3.1	
A3	2.5	
A2	2.1	
Reverse	A1	1.7
	A1	1.7
	A3	2.4
	A5	3.5
	B1	4.6
	B3	6.7
	B5	9.7
C1	8.7	
C3	12.6	
C5	18.1	

600/70 R30 and 710/70 R42 tyres at rated engine speed (2200rpm).

Agricultural heritage

From our first agricultural tipping trailer
to a global brand

JCB is no run-of-the-mill company. From the dreams of one man, Joseph Cyril Bamford, and our beginnings in agricultural machinery, we have grown into a major world brand. Since 1945, the same attention to detail, passion for progress and intrepid family spirit has taken us from strength to strength.



JCB operates across all five continents, manufacturing at 17 factories in the UK, Brazil, Germany, China, North America and India. We have over 1,500 dealerships and depots selling and supporting our products in excess of 150 countries, we boast some of the finest engineering facilities in the world.

We're also renowned for producing some of the most innovative and popular farm machinery in the world, which includes the Fastrac and the world-beating Loadall, along with wheeled loading shovels that are designed specifically for farming, not adapted from construction.

Our dedication to innovation in agriculture is unceasing; we will never forget our roots.





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

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