

# INDUSTRIAL TRACTOR APPLICATIONS



# Offering you a broad range of applications

The range of applications to which Fastrac is suited is wide and varied. So welcome to a machine that will perfectly meet the ever changing demands and offers a real step forward in versatility and productivity, without compromising performance or safety.

This universal vehicle is specifically designed to work effectively with an extensive range of attachments and deliver performance characteristics that will compare or surpass that of many dedicated machines while offering year-long flexibility.

Key to its performance is the full suspension system, with excellent on and off road capabilities Fastrac suspension offers the ability to travel at speed with control and also perfect weight distribution. This combination of vibration-free ride and one of the most comfortable two man cabs available ensures operator fatigue is reduced to a new low.

A combination of truck-style ABS air brakes, with unique suspension system and powerful Cummins engines means that the key benefits of high road speeds coupled with low fuel consumption is achieved especially on the 3000 Series models. Additionally the compact 2000 Series provides the option of full four-wheel steering, ideal where high manoeuvrability is essential to the operation.

Whatever the job, you won't find a more productive and versatile option for the industrial sector.





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# Tree and Woodland Management

Excellent all-round visibility for operating in confined areas

Full suspension ensures safe operation in challenging conditions

Full power PTO's ideal for operating in the most arduous conditions

Powerful auxiliary hydraulics offer speed and control when operating attachments





## Winter Maintenance

Front linkage or DIN plate for operating snowploughs and sweepers

Full ABS system for safe braking in icy conditions

Rear deck capacity up to 3250kg suitable for carrying mounted equipment

Self levelling rear suspension ensures accurate application of de-icing agents

Optional cab winter pack ideal for operating in cold conditions

4WD & diff-locks provide excellent traction



# Waste and Recycling

Capable of hauling up to 80kph reduces travel times between sites

Full power PTO for arduous applications

Transmission offers a wide range of forward speeds to suit all applications

Auxiliary hydraulics compatible with a wide range of equipment

Trailer braking facility available as standard





## Service Industries

Stretched chassis options available to suit large deck mounted equipment

High gross vehicle weight kit for increased load carrying capacity

3 way rear tipping body offers more versatility

Industrial specification tyre options for difficult operating conditions

Rear deck area suitable for crane and access platform mounting



# Highway Maintenance

Front mounted mowers ideal for verge trimming applications

Up to three fully integrated positions for mounting attachments

Mid mounted cab for excellent all-round visibility

High road speeds for quick travel and response times

High power auxiliary hydraulics for the most challenging applications







## Airport Maintenance

5th wheel coupling compatibility for operating with large trailed equipment

ABS, 4WD & diff-locks for safe control when operating in difficult conditions

DIN 3 plate and front linkage suitable for operating snowploughs and snow pushers

Full power PTO suitable for snow blowers and de-icing rigs

Versatility for all year round operation



## ENGINE

At the heart of every Fastrac is a Tier 3-compliant turbocharged Cummins engine utilising the latest technology to meet the ever-increasing demands of emission legislation, as well as offering improved fuel consumption.

The 8.3-litre unit on the 8250 features 4 valve per cylinder technology and air-to-air intercooling. This produces 248 DIN hp at 2,200rpm, with a maximum torque output of 1,179Nm right down at 1,200rpm, whilst producing over 1,100Nm of torque for over 65% of the engine's speed range.

The 2000, 3000 and 7000 Series feature a 6.7-litre engine, again utilising the 4 valve per cylinder technology and air-to-air intercooling. It also features over 95% of maximum torque at just 1,000rpm and a rear-driven gear train which dramatically reduces external engine noise.

Both the 8.3-litre and 6.7-litre engines use a common rail fuel injection system that can operate at pressures of up to 1,600 bar and uses electronics to time the exact injection of the fuel. This very precise control not only improves the engines' performance but also their efficiency.

When it comes to servicing, Fastrac cooling systems are designed with cleaning access in mind. So cooling elements are laid out to allow access to each individual section, enabling removal of dirt and debris quickly and effectively.

All Fastracs also feature effective dust filtration of the engine's intake air. This is supplemented by a Donaldson Powercore system that uses centrifugal force to remove large dust particles before they enter the filter element, helping to reduce routine maintenance.

Finally, all Cummins electronic engines feature a management system that continuously monitors engine performance to help increase service life. Following an initial 100-hour service the engine oil and filters only need renewing every 500 hours, whilst top-end engine maintenance is only required every 5,000 hours.



## TRANSMISSION

Fastracs are capable of speeds up to 80kph so their transmissions need to be efficient and flexible. That's why the 8250 boasts the V-TRONIC continuously variable transmission, the 3000 Series Xtra and 7000 Series feature the P-TRONIC powershift transmission, and the 2000 features the Smoothshift transmission with Autoshift.

The V-TRONIC transmits mechanical power just like a normal transmission. But instead of lots of gears providing different speeds, the transmission uses a variable displacement hydraulic pump, two variable displacement hydraulic motors and epicyclic gear assembly to vary the speed infinitely. So you get the flexibility of a hydrostatic system with the power efficiency of a mechanical transmission.

Both the V-TRONIC and P-TRONIC transmissions are controlled electronically, making it easy to operate from the driver's seat. Plus, by allowing the transmission electronics to communicate with the engine electronics, the tractor can control both automatically if required. This helps achieve maximum performance or economy automatically. The P-TRONIC transmission features 6 gears in 4 ranges all of which can be selected using the armrest mounted joystick without the need for a clutch.

The Smoothshift transmission features a multi-plate oil-immersed wet clutch, guaranteed against wear for 6,000 hours. It requires exceptionally low driver effort, either with the clutch pedal or the Autosuttle button. Plus, the Selectronic system allows pre-selection of the required gear range and direction.

With the three-speed powershift transmission, quick up or down shifts can be made without using the clutch. The electronic control system helps ensure smooth changes under load. And with Autoshift it is possible for these changes to be made automatically in response to engine load.



## FRONT AND REAR PTO

A full power heavy-duty PTO drive train is incorporated in to transmission. Rear PTO comes as standard, with the option of front PTO factory fit or as an after market dealer fit option.

Selectable 540 and 1000rpm shaft speeds are standard with soft engage hydraulic clutch pack engagement, the system also includes a shaft brake facility for improved operator safety. At the rear as standard we specify a single direction output with a reversible 6 or 21 spline shaft. Removal of a simple circlip is all that is required to reverse the shaft. On 8250 and 7000 Series a convenient bolt-on shaft converts between rear PTO spline options.

The front PTO is available as an option to suit your requirements, a single output in an anti-clockwise direction (when viewed from the front). 540 and 1000rpm shaft speeds are available driven at the same speed as the rear. 8250 offers a single front PTO at 1000rpm with 20 or 21 spline shaft options.

## AXLES

Heavy-duty differential gears in the rear axle drive head ensure durability and increase service life. 3000 Series front axles feature a crown wheel and pinion of the same size as the heavy-duty rear axle, with soft engage differential lock providing true, 100% four wheel drive traction at the flick of a switch without compromising the effortless steering.

Shot peening and superfinishing processes are used which strengthen the gears providing excellent reliability, and a transmission which is able to cope with supplying higher horsepower in the most demanding conditions.

For winter or difficult operating conditions selectable differential locking and four-wheel drive is available to ensure optimum traction.

## CHASSIS AND SUSPENSION

There's never been a smoother ride. The Fastrac's unique, vibration-free suspension system actively increases the efficiency of both operator and implements.

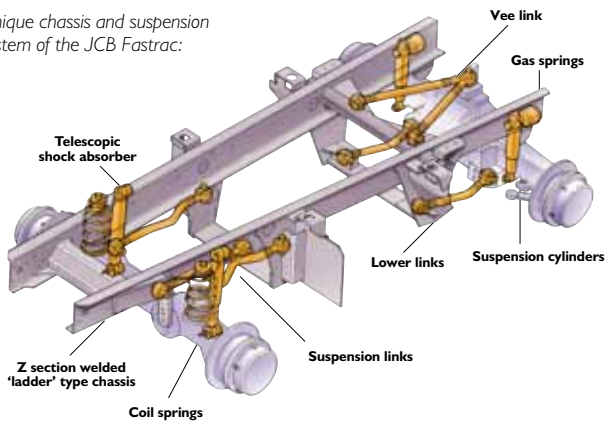
The dynamic axle mounting system ensures implements remain stable, isolating them and the operator from bounces and jolts which can limit their effectiveness.

Whatever the load on the rear deck, hydro-pneumatic rear suspension keeps the chassis level. Side-to-side self-levelling and anti-roll bars improve handling, safety and stability, particularly when cornering or working on hillsides.

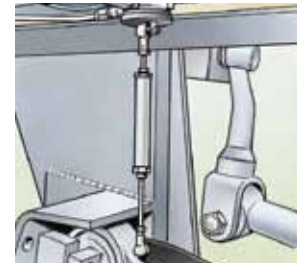
The four link front suspension including panard rod features a large single centre control arm and carefully designed upper arms to allow for an improved turning circle. This mechanical progressive rate system allows a generous amount of axle movement when lightly loaded, but stiffens up as the front load increases.

Rear Hydro-pneumatic suspension. When additional load is put on to the rear deck, the chassis lowers in relation to the rear axle. The ride height corrector valves allow oil flow into the system, this pressurises the hydraulic cylinders and steadily restores the original ride height. At this point the valves close, trapping oil within the system. The extra pressure also 'loads' the gas springs to increase suspension stiffness, to accommodate the extra weight on the deck.

Unique chassis and suspension system of the JCB Fastrac:



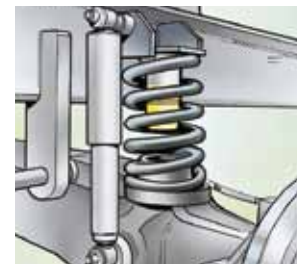
Rear bump stop



Adjustable rear self-levelling suspension



Rear hydro-pneumatic self-levelling suspension



Front suspension system

As load is taken off the deck, ride height corrector valves are displaced, but in the opposite direction, opening an escape path to the tank for the hydraulic oil.

The reducing pressure allows the vehicle to fall until the corrector valves close, retaining the 'new' volume of oil in the system and again restoring ride height to the pre-set level.

Designed to cope with stress without resorting to an excessive increase in weight, the Fastrac's fully welded chassis is ideally suited to carrying linkage or deck mounted implements. This chassis has also been designed to integrate with various extended chassis options, increasing the already substantial rear deck by an extra 750mm or 1450mm in length.

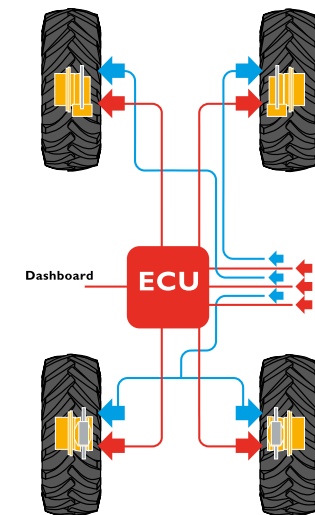
## BRAKES AND STEERING

The braking system is designed to EC truck standards.

Safe and controlled stopping comes from full ABS (Anti-lock Braking System) air-over-hydraulic actuation, with heavy-duty external discs and callipers on all four wheels. Large external discs with excellent cooling ensure safe fade-free braking. Air and hydraulic systems are split for improved safety.



The ABS system implemented by JCB on the Fastrac utilises a 4 sensor, three-modulator system, which provides 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 and independent modulation gives confidence and control during braking.



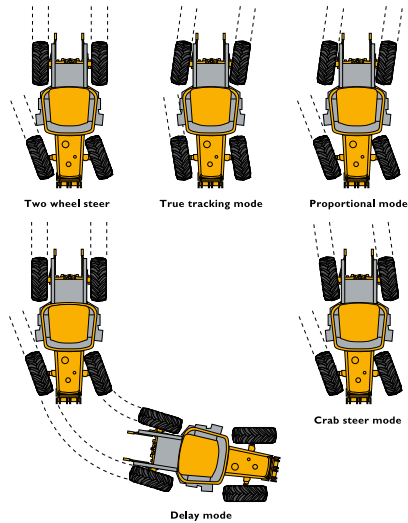
ABS braking system

## BRAKES AND STEERING (CONTINUED)

The 2000 Series Fastracs have hydrostatic twin-ram steering, requiring low driver effort to achieve high steer torque at the wheels. As for 3000 Series and 8250 machines, they employ a mechanical steering system with power assistance for good driver feedback at higher speed.

Only one system offers significantly greater manoeuvrability; that of JCB Quadtronic. Available on the 2000 Series, it offers you the extra flexibility that could only come from a four-wheel steer fully suspended vehicle.

With four steering modes in addition to two-wheel steer, overall manoeuvrability can be increased by at least 30% ideal for operating in urban areas with narrow street conditions. Four-wheel steer modes include tracking, proportional, delay and crab steering.



FIVE INSTANTLY SELECTABLE STEERING MODES

## CAB

Every Fastrac cab comes with two full size seats and air conditioning fitted as standard, excellent ventilation and a powerful heater add to operator comfort, also for dry operating environments, a full dust filter provides clean fresh air.

Thanks to ergonomic design, all major controls are conveniently located to the operator's right-hand side while direction and range gears are positioned on the left-hand steer column. The controls are sophisticated and informative yet simple to use.

The operating environment features high quality trim, including a Grammer seat and fully adjustable steering column. An optional high spec deluxe seat is also available.

3000 Series Xtra, 7000 & 8000 Series models, all feature armrest mounted controls with full colour touch screen control of vital tractor functions. This armrest gives access to hydraulics, linkages and transmission control. 2000 Series Plus machines feature similar electronic spool valves, deluxe mirrors, performance pack, deluxe heated air seat and upgraded worklight package.

State-of-the-art sound insulation techniques keep noise to class leading low levels (as low as 72 decibels).

The JCB Electronic Monitoring System (EMS) provides an easy to understand performance assessment of numerous machine functions to keep the operator up-to-date with machine productivity. It also warns of service due dates to help minimise downtime.



3000 Series Xtra Cab



7000 / 8000 Series Cab

## HYDRAULICS

The Fastrac hydraulic system delivers power-on-demand together with precise control to make optimum use of even the biggest attachments. The large capacity hydraulic pump generates higher flow rates for faster response to demand from the external auxiliary services.

With a minimum of three spool valves all with a float position, the right option is always available to the operator whatever the application.

High hydraulic oil flow rates are available for services up to 180 litres/min at 210 bar.

Available as an option on 2000 Series, the hydraulic flow divider gives an uninterrupted accurate hydraulic feed to an attachment or hydraulic motor of up to 90 litres/min.

This independent hydraulic system also allows the use of bio-oil in certain applications. The couplings at the front or rear of the machine are all colour coded with the corresponding control lever. The rear utility cross member incorporates up to 4 pairs.



## LINKAGES

Rear linkage features heavy-duty link arms with a maximum of 100mm lift cylinders, providing a lift capacity at the link ends of up to 10,000kg.

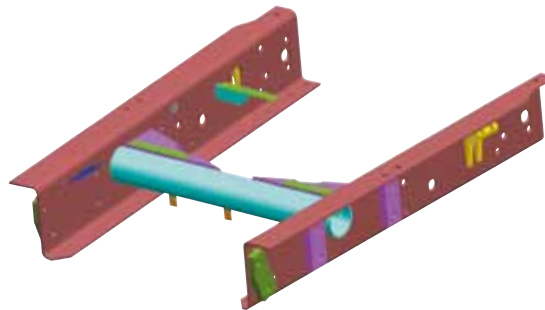
Optional front linkage incorporates Category 2 lift arms, which fold neatly away in the vertical position for storage. Lift capacity of 2,500kg on 2000 Series and 3,500kg on 3000, 7000 and 8250 Series are available.

## CHASSIS EXTENSIONS

Factory fitted chassis extensions of 750mm and 1450mm are available for all 3000 Series Fastracs. These extensions can be attached to the rear chassis providing extra rear deck capacity and an increase in wheelbase. This is ideal for the mounting of larger auxiliary equipment, for example, access platforms capable of reaching a height of over 12 metres, cranes with up to 7 metre/ tonne capacity and also three-way tipping bodies.

The chassis provides a strong, durable base which is easy to mount equipment to.

The increased wheelbase provides excellent stability, particularly when working with equipment at height on uneven surfaces.



## FASTRAC OPTIONS

Tailored to your needs. The Fastrac is specifically designed to meet the needs of a wide range of industries. But, of course, everyone has individual requirements so we provide a range of options that let you tailor the specification to suit you.

High GVW Kit (Gross Vehicle Weight) up to 14000kg, suitable for operating with heavy deck and linkage mounted equipment (on 3000, 7000 Series and 8250).

A front mounted Din 3 Plate lets you fit industrial equipment, such as snowploughs and sweepers.

Category 2 Front Linkage is available.

An Auxiliary Flow Divider offers a metered, adjustable service to the rear of the Fastrac for equipment requiring accurate flow metering (on 2000 Series).

Front Auxiliary Hydraulics add auxiliary services and a free-flow return to the front of the Fastrac.

Heavy-duty suspension cylinders raise the rear deck carrying capacity from 2.5 to 3.25 tonnes, a useful increase to payload when using mounted equipment (on 2000, 3000 and 7000 Series).

The 'Winter Pack' combines a heated front and rear screen with heated and electrically adjustable door mirrors, providing excellent driver visibility even in the coldest of climates (on 3000, 7000 Series and 8250).

Front PTO with single shaft supplies 540 or 1000 rpm output options on 2000 and 3000 and 7000 Series (single direction is in anti-clockwise direction when viewed from the front). The 8250 has the option of a 1000 rpm single direction front PTO.

Rockinger ladder hitch allows the use of a number of different trailer couplings adjustable in 10 different vertical positions.

## 2155



## 2170



## 3200 XTRA



## 3230 XTRA



	2155	2170	3200 XTRA	3230 XTRA
Engine type	Cummins QSB6.7	Cummins QSB6.7	Cummins QSB6.7	Cummins QSB6.7
Gross power @ rated speed (SAE J1995) hp (kW)	160 (119) @ 2200rpm	170 (127) @ 2200rpm	190 (141) @ 2200rpm 220hp** (for transport)	220 (164.2) @ 2200rpm 260hp** (for transport)
PTO hp (kW)	137 (102)	147 (110)	168 (125.3)	190 (141.7)
Weight kg (lb)	6,845 (15,091)	6,845 (15,091)	7,590 (16,733)	7,590 (16,733)
Max torque @ engine rpm Nm	641 @ 1500rpm	675 @ 1500rpm	931 @ 1500rpm	949 @ 1500rpm
Maximum rear lift capacity kg (lb)	6,000 (13,230)	6,000 (13,230)	8,000 (17,640)	8,000 (17,640)
Auxiliary hydraulics @ rated speed l/min	99	99	132	132
*Road speed kph (mph)	60 (37)	60 (37)	65/80 (40/50)	65/80 (40/50)
Brakes (territory dependant)	ABS	ABS	ABS	ABS
Fuel tank capacity litres	330	330	350	350
Hydraulic tank litres	120	120	120	120
Transmission	Smoothshift Selectronic	Smoothshift Selectronic	P-TRONIC	P-TRONIC

\* Territory and tyre equipment dependant

7170	7200	7230	7270	8250
				
Cummins QSB6.7	Cummins QSB6.7	Cummins QSB6.7	Cummins QSB6.7	Cummins QSC8.3
173 (129) @ 2200rpm	193 (144) @ 2200rpm	220 (164) @ 2200rpm	260 (194) @ 2200rpm	260 (194) @ 2200rpm
150 (112)	177 (132)	203 (151)	238 (177)	225 (168)
9,150 (20,172)	9,150 (20,172)	9,150 (20,172)	9,150 (20,172)	10,135 (22,345)
799 @ 1500rpm	931 @ 1300rpm	949 @ 1300rpm	990 @ 1500rpm	1179 @ 1200rpm
9,100 (20,062)	9,100 (20,062)	9,100 (20,062)	9,100 (20,062)	10,000 (22,045)
132 or 187	132 or 187	132 or 187	132 or 187	132 or 187
70 (44)	70 (44)	70 (44)	70 (44)	65/69 (40/43)
ABS	ABS	ABS	ABS	ABS
430	430	430	430	600
130	130	130	130	180
P-TRONIC	P-TRONIC	P-TRONIC	P-TRONIC	V-TRONIC

## A few words about JCB

A groundbreaking, class-leading 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, 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 family spirit has taken us from strength to strength.

Nowadays JCB operates across all five continents, manufacturing at 17 factories in the UK, Brazil, Germany, China, North America and India. With 1,500 dealerships and depots selling and supporting our products in over 150 countries, we produce some of the most innovative and popular farm machinery, including the Fastrac and Loadall, at some of the finest engineering facilities in the world.

**A history of world-class innovation.** Our business has always been driven by innovation, using only the most advanced technology, components and processes, meticulous design and rigorous testing. Evidence of this doesn't come much more powerful than our revolutionary JCB Dieselmex engine. Having grabbed the headlines when it smashed the world land-speed record at 350.092mph, it is now providing our customers with tomorrow's performance today.



**Sustainability in all we do.** As a manufacturer of working machinery, operating in both established and emerging markets, we accept the challenge of helping to deliver economic and environmental sustainability.

Product innovations that provide the right solutions to our customers have been a vital part of our history and will be key to our sustainable future. But in addition to developing cleaner and more efficient machines, we have a commitment to ensuring our manufacturing facilities meet the highest environmental standards.

**A commitment to our customers that goes on and on.** That's a fact we remind ourselves of constantly, and it's the reason our customers are at the heart of everything we do. Whatever a customer needs, we make it our mission to provide world-class support and 100% satisfaction.

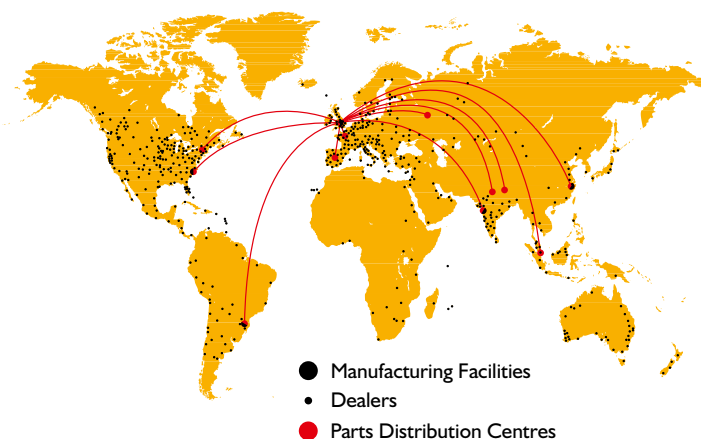
But legendary service is about more than just responsiveness. It's about anticipating new needs, offering solutions and exceeding expectations. With that in mind, we are always seeking out improvements that guarantee quality in everything from our products to our working practices.





## 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 1,500 dealer depots, spanning 150 countries across five 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 1,500-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.

**Advanced technology.** At JCB, we are constantly looking at new, innovative ways to help you get the most out of your machine. Our latest development is JCB LiveLink, an advanced telematics system using satellite and cellular technology that enables you to better protect your machine and accurately monitor and improve its performance. Using JCB LiveLink

can benefit your business in many ways, from increasing the security of your machines to improving fleet utilisation. It can also enable your JCB dealer to view your machine and guarantee timely servicing of your fleet, improving uptime.



**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](http://www.jcb.com)

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