

409 WHEELED LOADING SHOVEL





No limits

Civil and engineering contracts, road construction, fertiliser co-operatives, local authorities, landscaping and forestry companies, plant and tool hire, house builders, building yards... no matter what the industry sector, the brand new 409 from JCB excels, providing the compact, versatile and productive performance modern companies are looking for.

SMALL MACHINE. HUGE VERSATILITY.



Based on the design of the highly successful 406, the new 409 totally revises JCB's compact wheeled loading shovel line.

Its compact dimensions and low height over cab, together with a pivot-steer design and articulated chassis, provide incredible manoeuvrability and the tightest of turning circles, making the 409 indispensable when it comes to accessing restricted spaces

and buildings. Plus, a huge range of attachments, and compatibility with your own existing attachments, lets you tailor the machine to your specific needs. Whatever the application, the flexible, all-new 409 wheeled loader is more than capable of handling the task. In fact, as a highly manoeuvrable tool carrier, you may find this machine all the loader you will ever need.

Power and strength

Powerful, efficient, turbocharged Tier 3 Deutz engine provides 75hp

All-wheel drive and limited slip differentials give total traction in difficult conditions

40kph option provides faster time between jobs and increased productivity

Compact dimensions and low height over cab allow access to tight spaces and within buildings

Parallel lift gives easy load handling with pallet forks or shovel



The all-new 409 shares many components with its smaller brother, the extremely successful 406 compact loading shovel.

So now, you'll find the 409 is powered by a Tier 3 compliant, 4-cylinder, turbocharged Deutz engine offering a powerful 75hp. This drives through a hydrostatic transmission to both axles, providing all-wheel drive for total traction in poor ground conditions, keeping the machine moving and reducing tyre wear and cost. Meanwhile the option of 40kph road speed provides faster time between jobs and increased productivity.

Featuring a completely revised chassis design that utilises an oscillating central pivot to maintain ground contact with all four wheels, the 409 has an operating weight of 5.8 tonnes. We have also increased the cab volume but despite this, the low cab roof height has been maintained to ensure maximum accessibility to low buildings. In fact, all-round compact dimensions mean the 409 can be used in a variety of applications, from tight sheds to house building developments.

As one of the major uses for the 409 is handling palletised loads, the new 409 now also boasts sturdy, parallel-lift loader-arm geometry with improved visibility to the front of the machine, as seen on the 406. With a standard 1 cubic metre bucket, the machine offers a straight tipping load of 4,917kg and a full turn tipping load of 3,914kg. Fit the optional pallet forks and you can easily handle a 2.5-tonne load.





Controllable, manoeuvrable, versatile

A huge range of attachments plus compatibility with other ranges increases versatility

Quickhitch hydraulically controlled locking pins can be activated from within the cab

Pivot steer and articulated chassis give incredible manoeuvrability

Dual-speed hydrostatic transmission accurately matches speed to application and allows 'inching' using the brake pedal

Responsive, accurate hydraulic controls are simple and intuitive to use



From harsh waste environments to the farm and field, the potential industries and applications for the 409 are endless. For instance, the machine's lift height allows it to load into road trucks, but the 409 is still compact enough to fit into tight barns and under small bridges.

Add to this in-built versatility a large number of diverse attachments and you begin to realise the true potential of this machine. The operator doesn't even have to leave the cab to quickly change over attachment; the quickhitch hydraulically controlled locking pins – allowing change between shovel and pallet forks – can be activated without leaving the seat.

A variety of tyre options allows you to tailor the 409 to specific applications in civil engineering, building, agriculture and heavy-duty stocking operations in builders merchant's yards. In addition the 409 is equipped with an industry-standard quickhitch, allowing rapid fleet integration with your existing range of buckets and attachments.

With such versatility at your fingertips, you want to make the most of it. So it's good to know just how easy this machine is to control. First, the pivot-steer design makes the 409 so simple to manoeuvre, while allowing easy and accurate placing of the load; something that is more difficult in rigid machines. Plus, the articulated chassis enhances manoeuvrability and allows you to use the steering to place loads. Dual-speed hydrostatic transmission provides accurate matching of speed to application and the ability to 'inch' using the brake pedal. And responsive, accurate hydraulic controls give fast cycle times and are simple and intuitive for even inexperienced operators to use.

Add the lowest height over cab in class, compact dimensions and a tight turning circle, and you get a machine that can work in applications other machines can't.



409 WHEELED LOADING SHOVEL | CONTROLLABLE, MANOEUVRABLE, VERSATILE



Cab comfort, safety and serviceability

Ergonomic layout places all controls easily within arms reach

Unobstructed 360° visibility allows accurate machine placing

Daily checks accessible from ground level means no hazardous climbing onto the machine for routine maintenance

Oil-immersed disc brakes give greater life and are virtually maintenance free

1000-hour service intervals (500-hour engine) reduce machine downtime increasing productivity

The new 409 features a class-leading, low-noise operator environment that helps to keep the operator fatigue free, comfortable and productive. For example, the wide door aperture and well-positioned steps make cab access easy and safer, while the ergonomically laid out controls are simple and intuitive for the inexperienced operator to understand, and placed easily within arms reach.

Health and safety has also been of paramount importance in the design of the new 409. So you'll find the larger cab with unobstructed visibility through 360° allows the operator to place the machine accurately and with confidence. Parallel loader-arm geometry gives excellent visibility to the attachment. And the grouped daily checks are accessible from ground level meaning the operator does not have to climb onto the machine to perform routine maintenance.

Also on the subject of serviceability: a wide opening bonnet gives good access to the engine bay; 1000-hour service intervals (500 engine) reduce machine downtime; oil-immersed disc brakes give greater life and are virtually maintenance free; hydraulics and electrical components are easily accessed from the side panel; all engine service points are located on one side for convenience; and a powerful, turbocharged engine with integrated cooling system means fewer parts and less to service.

When it comes to cost of ownership, a low purchase price and high rental rates make the 409 an appealing acquisition, especially when you consider versatility and performance. With the added benefits of long service intervals which are easy and safe to carry out, reduced tyre wear through limited slip differential axles and low fuel consumption... the result is a fantastic investment for any business.





Cab

Spacious cab gives class-leading operator environment

Unobstructed 360° visibility

Wide, fully folding side door and low cab floor for easy entry/exit

High and low specification cab options

ROPS/FOPS certified for operator safety

All controls ergonomically laid out for ease-of-use

Engine

4-cylinder, Deutz 75hp turbocharged oil-cooled engine

Outstanding power-to-weight ratio

Low noise emission

Service Access

Single-piece bonnet for access to all daily checks and fills

1000-hour service intervals (500 engine)

Oil-immersed disc brakes require no servicing

Grease nipples easily accessible from ground level

Fusebox and control valve accessible through cab side panel





Loader End

Market-compatible hydraulic quickhitch for rapid attachment changeover

Parallel linkage for easy and safe pallet fork operation

Excellent visibility from narrow loader-end design

2.5-tonne lift capacity on pallet forks

Driveline

Dual-speed hydrostatic drive provided by Rexroth

Heavy-duty Dana Spicer axles

Limited slip front and rear differential option

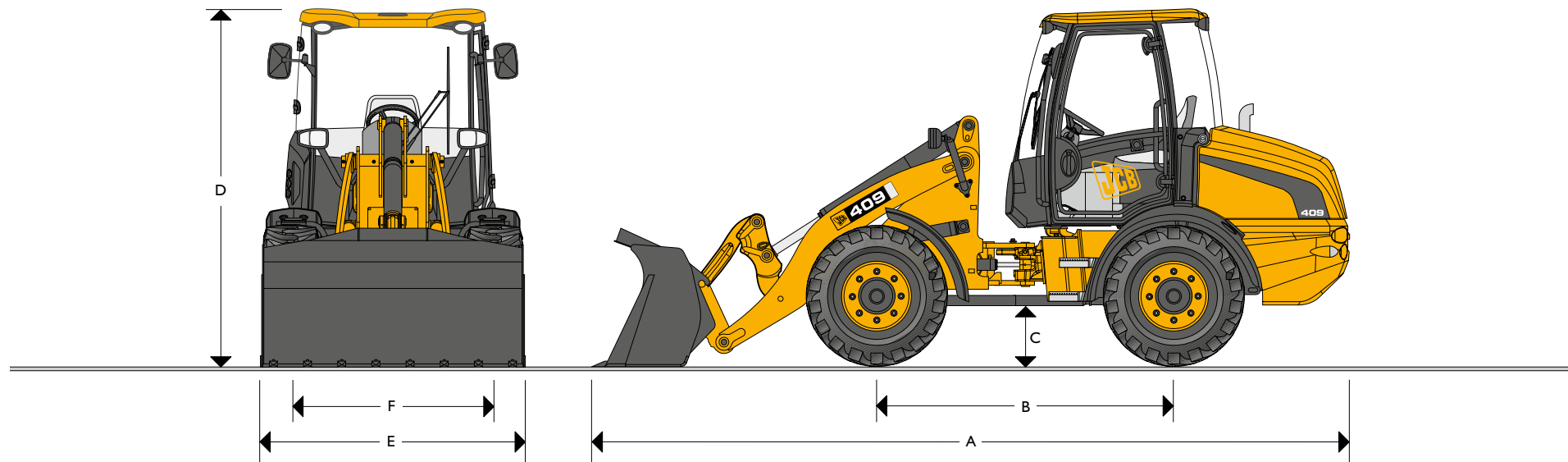
Inboard braking system

Central pivot oscillation

High tractive effort for excellent bucket fill



MAX. ENGINE POWER: 56kW (75hp) MAX. OPERATING WEIGHT: 5820kg (12831lb) MAX. LOADER CAPACITY: 1.6m³ (2.03yd³)



STATIC DIMENSIONS

	mm (ft-in)	Front axle weight*	kg (lb)	1970 (4343)
A Overall length with standard shovel	5465 (17-11)	Rear axle weight*	kg (lb)	3850 (8487)
B Wheel base	2205 (7-2)	Operating weight (includes standard shovel)	kg (lb)	5820 (12831)
C Min. ground clearance	472 (1-6)	Inside radius	mm (ft-in)	2079 (6-9)
D Height over cab	2643 (8-8)	Maximum radius over standard shovel	mm (ft-in)	4432 (14-6)
E Max. shovel width	1950 (6-4)	Maximum radius over tyres	mm (ft-in)	3979 (13-0)
F Wheel track	1490 (4-10)	Articulation angle	degrees	± 40°
		Max. width across tyres	mm (ft-in)	1900 (6-2)

Note: Dimensions assume fitment of standard Goodyear I 6.0/70-20 SGL wheel and tyres. *Axle weights based on unloaded bucket in carry position.



ENGINE

Type	4 cylinder diesel	
Make	Deutz	
Model	TD2011 L04i	
Capacity	ltr (in ³)	3.62 (220.9)
Bore	mm (in)	96 (3.8)
Stroke	mm (in)	125 (5.0)
Aspiration	Turbocharged	
Cylinders	4	
Power rating		
Gross power to SAE J1995/ISO 14396	kW (HP) @ 2500rpm	56 (75)
Nett power to J1349/EEC 80/1269	kW (HP) @ 2500rpm	53 (72)
Torque rating		
Gross torque	Nm (lbf ft) @ 1700rpm	250 (184)

TRANSMISSION

Type	Hydrostatic	
Make	Rexroth	
Model	A6VM	
Low range	kph (mph)	6 (3.8)
High range	kph (mph)	20 (12.4)
High speed (optional)	kph (mph)	40 (24.9)

AXLES

Type	Straight beam	
Make	JCB	
Model	111	
Overall axle ratio / Drop box ratio	19.30 / 2.10	
Chassis angle oscillation	degrees	± 10°

LOADER HYDRAULICS

Pump type	Gear	
Pump max. flow	l/min (UK gal/min)	78 (17.2)
Pump max. pressure	bar (lb/in ²)	250 (3625)
Hydraulic cycle times at full engine revs:		
Arms raise (full bucket)	4.9	
Bucket dump (full bucket)	4.1	
Arms lower (empty bucket)	3.0	
Total cycle	12.0	

SERVICE FILL CAPACITIES

	litres (UK gal)	
Hydraulic and transmission system	70 (15.4)	
Fuel tank	80 (17.6)	
Engine oil sump	12 (2.6)	
Axle oil (front) including hubs	4.4 (0.96)	
Axle oil (rear) including hubs and drop box	6.05 (1.33)	

ELECTRICAL SYSTEM

System voltage	Volt	12
Alternator output	Amp hour	80
Battery capacity	Amp hour	110

STANDARD EQUIPMENT

Loader: Single lever servo joystick control; parallel lift geometry; quickhitch (hydraulic pin locking).

Engine: 4 cylinder turbocharged oil cooled diesel engine; dual stage cyclonic engine air filter; single bowl fuel filter; fan guards.

Transmission: Two position electric switch; neutral start; disconnect on footbrake (inching capability); forward/reverse switch on joystick control lever.

Axles: Straight beam axles.

Brakes: In board oil immersed brakes with combined handbrake; spring actuated hydraulic released park brake.

Electrical: Road lights front and rear; reverse lights; 80 Amp alternator; battery isolator switch.

Hydraulics: Gear pump with priority steer; emergency steer back up; 3 spool loader circuit.

Cab: ROPS/FOPS safety structure; fully adjustable seat; interior light; adjustable steering column; safety glass; electronic monitoring with warning panel; front and rear screen wash/wipe; 3 speed heater fan with replaceable filters; optional analogue gauges; LH opening door; radio aperture (high spec cab only); single lever joystick control; laminated screen; loader control isolator; door lock back system; storage tray; sun visor.

Bodywork: Front and rear fenders; side and rear access panels; fixed bottom steps; full width rear counterweight; recovery hitch; lifting lugs; engine sump kit.

OPTIONAL EQUIPMENT

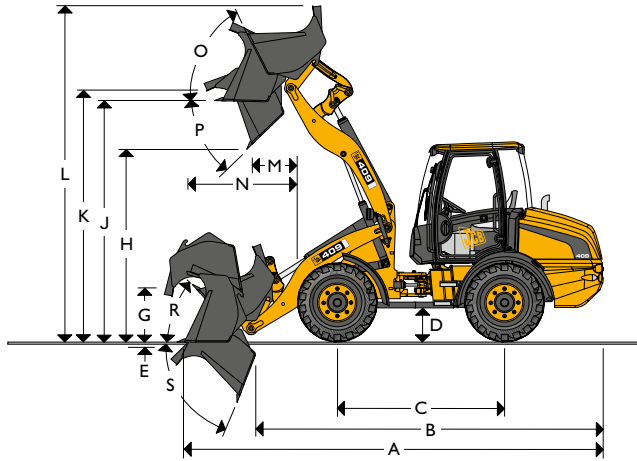
Limited slip differential axles front/rear; HBCV; smooth ride system; air suspension seat; creep speed; 4th spool auxiliary circuit; high spec cab; includes full floor mat covering foot space and seat deck; provision for radio fitment; full instrumentation including central speed readout; warning lights; fuel and temperature gauge; front and rear working lights; fire extinguisher; face level fan; radio installation kit; reverse alarm; rotating beacon; adjustable steering column; reversing lights and rear fog lights; biodegradable oil; sliding window; electrical quickhitch isolation; auxiliary ARV kit; captive strut; document box; battery isolator; fuel filter; quickhitch protection plate; hydraulic fill cap locking; cab guards; 40kph "shift on the fly" high speed option; grease gun; LiveLink telematics.

TYRES

335/80 R20 Dunlop SPT9; 365/80 R20 Dunlop SPT9; 405/70 R20 Dunlop SPT9, 405/70 R18 Dunlop SPT9; 400/70 R20 Goodyear IT520; 420/75 R20 Goodyear IT520; 12.5 20 Goodyear MPT; 16.0/70-20 Goodyear SGL; 12.00R20 Michelin XMINE; 375/75 R20 Michelin XMCL; 400/70 R20 Michelin XMCL; 375/75 R20 Michelin X2SL; 405/70 R20 Michelin X2SL



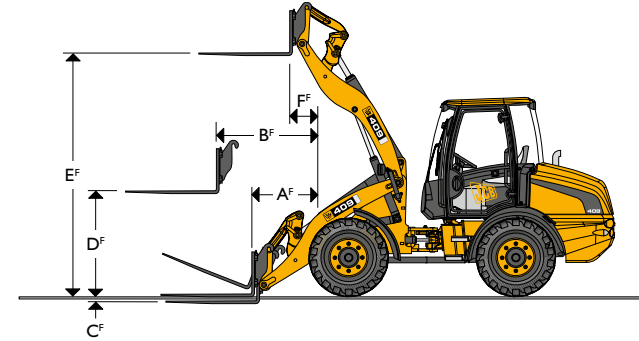
LOADER DIMENSIONS



LOADER DIMENSIONS

Shovel		General Purpose	General Purpose	Light Duty	Light Duty	6 in 1 Clam Shovel
Capacity heaped	m ³ (yd ³)	1.0 (1.3)	1.2 (1.6)	1.4 (1.8)	1.6 (2.03)	0.9 (1.2)
Material density	kg/m ³ (lb/yd ³)	1957 (3287)	1602 (2691)	1346 (2261)	1157 (1943)	2090 (3511)
Empty shovel weight	kg (lb)	332 (732)	358 (789)	399 (880)	434 (957)	436 (961)
Bucket equipment		Teeth or Toeplate	Teeth or Toeplate	Toeplate	Toeplate	Teeth or Toeplate
Static tipping load, straight (EN)	kg (lb)	4917 (10840)	4831 (10650)	4736 (10441)	4653 (10258)	4109 (9058)
Static tipping load, full turn 40° (ISO)	kg (lb)	3914 (8628)	3845 (8476)	3769 (8309)	3703 (8163)	3762 (8293)
Payload 50%	kg (lb)	1957 (4314)	1922 (4237)	1884 (4153)	1851 (4080)	1881 (4146)
Max. tearout force	kN	53.8	46.6	43.1	41.6	50.8
Bucket width	mm (ft-in)	1950 (6-4)	1950 (6-4)	2100 (6-10)	2200 (7-2)	1950 (6-4)
Outside turning circle radius	mm (ft-in)	4432 (14-6)	4460 (14-7)	4545 (14-10)	4610 (15-1)	4440 (14-6)
A Total length (shovel flat on ground)	mm (ft-in)	5575 (18-3)	5628 (18-5)	5651 (18-6)	5726 (18-9)	5597 (18-4)
L Lift height max.	mm (ft-in)	4427 (14-6)	4526 (14-10)	4576 (15-0)	4628 (15-2)	4315 (14-1)
E Digging depth	mm (ft-in)	60 (0-2)	60 (0-2)	60 (0-2)	60 (0-2)	60 (0-2)
H Dump height	mm (ft-in)	2619 (8-7)	2552 (8-4)	2500 (8-2)	2446 (8-1)	2609 (14-1)
M Reach at max height @ 45° dump	mm (ft-in)	523 (1-8)	599 (1-11)	652 (2-1)	705 (2-3)	523 (1-8)
N Max. reach @ 45° dump	mm (ft-in)	1502 (4-11)	1569 (5-1)	1622 (5-3)	1675 (5-5)	1538 (5-0)
Operating weight	kg (lb)	5820 (12830)	5846 (12888)	5887 (12978)	5922 (13055)	5924 (13060)

PALLET FORK DIMENSIONS



PALLET FORK DIMENSIONS

Loader dimensions: assumes fitment of 16.0/7-20 tyres.

		mm (ft-in)
Fork carriage width		1345 (4-5)
Length of tines		1200 (3-11)
A ^F Reach at ground level		724 (2-4)
B ^F Max. reach arms horizontal		1187 (3-10)
C ^F Below ground level		17 (0-07/10)
D ^F Height arms horizontal		1396 (4-7)
E ^F Max. height		3231 (10-7)
F ^F Reach at max. height		231 (0-8)
Full turn tipping load (500mm load centres)	kg (lb)	3119 (6876)
Operating load (60%)	kg (lb)	1871 (4124)
Operating load (80%)	kg (lb)	2495 (5500)

LOADER DIMENSIONS

		mm (ft-in)
B	Length to loader pin	4602 (15-1)
C	Wheelbase	2205 (7-2)
D	Minimum ground clearance	472 (1-6)
F	Height over cab	2643 (8-8)
G	Dump height at maximum reach	783 (2-6)
J	Load over height	3189 (10-5)
K	Hinge pin height	3371 (11-0)
O	Roll back at full height	63.6°
P	Dump at full height	45°
R	Rollback at carry	53.1°
S	Dump at minimum height	68.3°



1 SWEEPER COLLECTOR

Full-width sweeping with optional gutter brush and water sprinkler

Suitable for light and general-duty sweeping applications

2 FORKS & FRAMES

Enable the machine to be utilised for loading and stacking

Various fork length options available to reduce possible damage when stacking

3 6-IN-1 SHOVEL

Suitable for dozing, loading, digging, grabbing, spreading and grading

Maximises loader productivity giving the operator a wider range of options

4 GP (GENERAL-PURPOSE) SHOVEL

Ideally suited to job sites which require the movement of large amounts of fine material such as sand and gravel

Available in 1.0, 1.2, 1.4, 1.6m³ sizes with optional teeth and cutting edge

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, we have grown into the world's biggest privately owned construction company by volume. 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 are one of the top three manufacturers of construction equipment with 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.

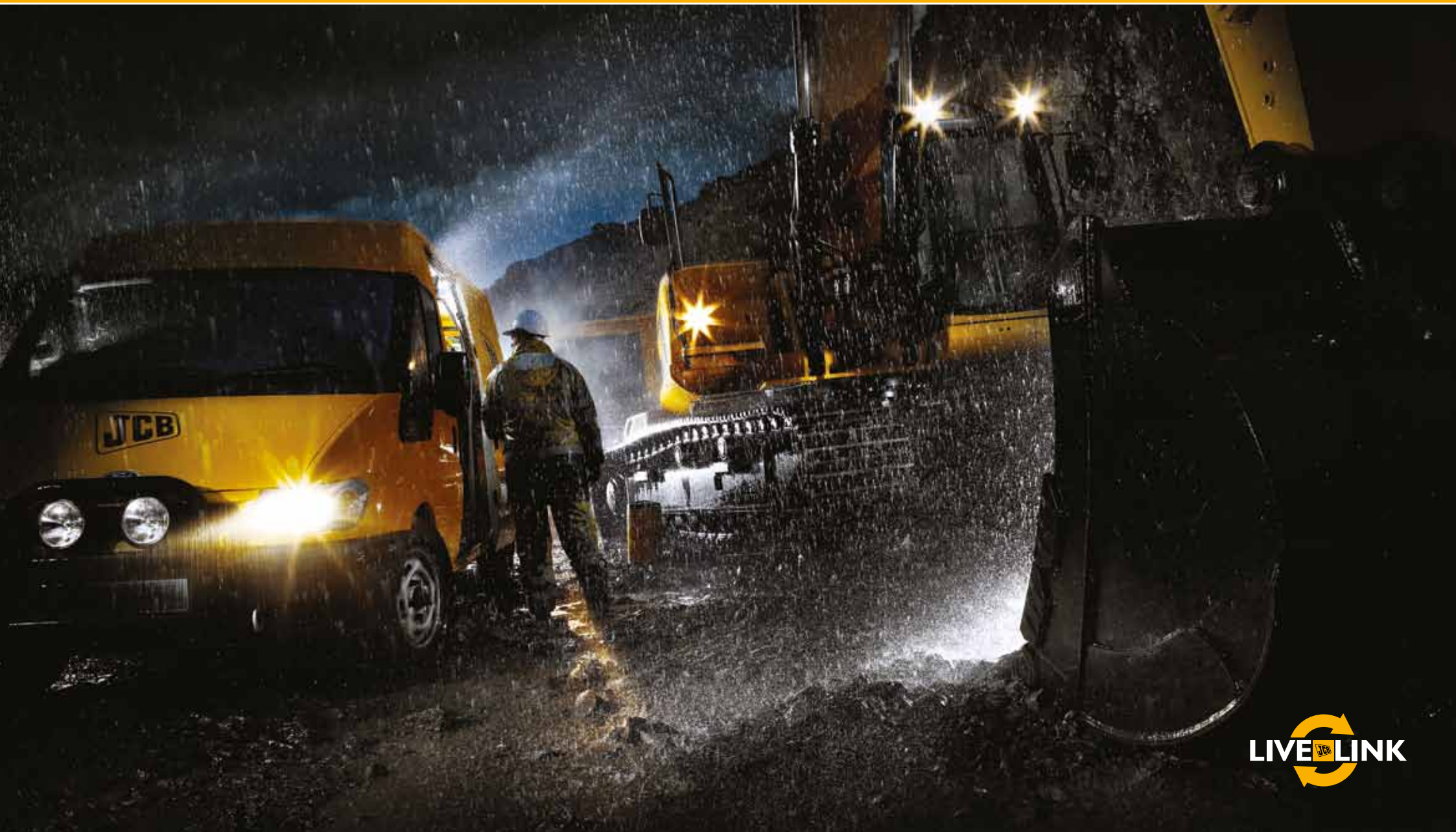


Maximising earning potential. We grow as our customers grow. That's why, at JCB, we are committed to offering expert financial advice and support to help customers maximise their earning potential.

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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