

The iCON in iconic?



JCB launches

JCB, by its own admission, is synonymous with precision engineered machines and with a raft of new releases has it outdone itself? *CPM* checks out its latest launches to get the low-down on its innovations.

By Melanie Jenkins

Anyone who's seen JCB's global headquarters, just outside Uttoxeter in Staffordshire, will know the company doesn't do things by half, and its latest set of launches are no exception.

The international launch of not one, but three new machines at the end of April, boasted bespoke operator experience, more power, greater torque, refined finesse, enhanced performance and accessible precision put right into the hands of the operator.

Fastrac iCON

JCB fans rejoice, for after several years of its interior and precision controls unit lagging behind its competitors, the Fastrac has had a serious make-over.

The company has spent the past four years revamping the Fastrac with the aim of improving cab trim, mechanical structures and software development, according to the company's Greg Fitton. "Our primary focus was on the user interface — the interaction between operator and machine."

JCB's aim was to create a bespoke

operator experience with easily configurable controls that integrated modern precision agritech, namely GPS guidance and ISOBUS implement control.

"But the increasing sophistication of the machine shouldn't compromise the simplicity of the operation," he adds.

The new models incorporate three core aspects. Firstly, iConfigure, the ability to configure controls across the armrest and joysticks to create customised control profiles. Secondly, iConnect, the introduction of level two ISOBUS technology and JCB GPS guidance to help optimise precision operations. And thirdly, iControl — brand new drive control software, smart transmission control and the ability to seamlessly switch between driving style.

Inside the cab is where the big differences have been made. The iCON features a new armrest, and the old basic side-mounted display has been replaced with a new high definition 30cm touch screen mounted on the armrest.

The armrest houses a new main joystick with assignable RGB LED colour-coded levers giving proportional control of electrically operated spool valves; PTO and hitch controls; an auxiliary joystick; and hard keys plus an encoder dial as an alternative to using the touch screen.

Operators can use the touch screen to set up bespoke control configurations, allocating controls to preference or to the job at hand. Hydraulic functions can be assigned freely to the five main joystick buttons and also to a four-way auxiliary joystick with its four buttons and rocker switch, with LED colour backlights identifying which spool valve is allocated to which control.

Swiping right on the screen brings up a more detailed running screen, which includes settings for up to six front/rear

“The handler has become the most important machine on the farm.”

electric spool valves. Another two screens retain essential vehicle status information while providing a remote camera view and an ISOBUS 2 Universal Terminal screen, and a fifth screen is dedicated to JCB's new satellite guidance and precision farming options. And JCB Headland Turn Assist now has as many as 50 individual sequences with up to 50 steps each.

The iCON now has integrated ISOBUS control of rear and front mounted implements using the touch screen, with the auxiliary joystick providing further bespoke control allocations.

A fully integrated GPS guidance system is also available, comprising a Novatel Smart-7 receiver, a steering controller and JCB user interface, with section control and variable rate control available as options.

The new machines also feature JCB Rapid Steer, which reduces the number of steering wheel turns needed for headlands and other manoeuvres, and JCB's Twin Steer is available for the four-wheel steer Fastrac 4000 Series tractors, which provides individual axle guidance.

A new drive control has been developed for the iCON, called Smart Transmission Control (STC). It allows the operator to set the required forward speed and the software then manages the engine speed and gear ratio automatically.

Switching between pedals and joystick driving modes now happens automatically when either is used. Operators also have the choice between JCB Classic settings — changing ground speed by moving ▶



JCB's new Fastrac iCon features three core principles; iConfigure, iConnect and iControl.

▶ the joystick left and right and selecting direction by moving it forwards and backwards — or JCB Pro, where forward and backwards alters speed, left operates forward/reverse and right engages the roller

switch to allow for fine speed adjustments.

For comfort, the seat has been updated and is both heated and ventilated. It uses an electric heating element as well as a built-in fan to circulate air through the mesh fabric of the seat.

A new fully automatic climate control air conditioning system has been introduced, complete with solar load sensor and ambient cab temperature monitoring to react quickly to changing conditions.

The steering column has been retained from the previous generation of Fastrac but the dash has been replaced with a new 18cm LCD display.

The iCON isn't a complete redesign, however. It carries over the existing engine, transmission, chassis, suspension and axles from the latest Stage V model and externally the new Fastrac looks almost exactly the

same as its predecessor, with the exception of its grab handles which are now painted in JCB yellow.

By definition, icons are 'worthy of veneration' and once the Fastrac iCON roles out on farm — hopefully later this year — owners and operators alike will be able to make up their own minds if JCB's latest launch deserves the accolade.

AGRI Pro Loadall handler

According to JCB's John Smith, the agricultural materials handling market is growing. "Many more farmers and contractors have switched to dedicated machines and the handler has become the most important machine on the farm."

It was only in 2021 that JCB launched its Stage V engine range of Loadalls and now it's adding to its well established stable of handlers, with the new 542-70 AGRI Pro Loadall. The new model boasts a 173hp engine and a new top speed of 50kph – 10kph above anything else in the range. It's both the most powerful and the fastest Loadall JCB has built.

As well as more horsepower than the previous AGRI, AGRI Super and AGRI Xtra models, the 4.8-litre JCB DieselMax engine in the Pro also delivers 690Nm of torque at 1500rpm.

To achieve its top speed, the AGRI Pro has a JCB DualTech VT half hydrostatic, half direct mechanical drive transmission.

To handle the added power and speed, a new hydraulic braking system has individual circuits for the heavier duty 10-stud front and rear axles. In addition to running in rear-wheel drive on the road for maximum towing traction and stability, the AGRI Pro automatically engages 4WD when the brakes are applied to ensure the maximum tyre/surface contact patch for shortest stopping distances.

For undertaking handling and loading work, the Loadall has a higher capacity hydraulics package, which comprises a 72cc variable output piston pump



The engine of JCB's new wheeled loader produces 282hp with 1200Nm of torque, providing a power to weight ratio of 14hp/t.

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The JCB Agri Pro has a 4.8-litre JCB DieselMax engine in the Pro also delivers 690Nm of torque at 1500rpm.

delivering up to 160-litre/min.

Other elements of JCB Smart Hydraulics technology featured on the new model include regenerative cylinders that allow the boom to be lowered and retracted faster for speedier loading cycles; cylinder end-stroke damping on the boom lift and retract rams; and automated bucket or fork 'rattle' to shift sticky material or dispense products such as wood shavings and sawdust in a controlled manner.

There is also a new auto-engage JCB Smooth Ride System boom suspension with optimised accumulators and hydraulic counterbalance valves for increased boom oscillation, isolation from vehicle movements, reduced risk of loads being spilled or dislodged, and a more comfortable ride for the operator.

The new Loadall also has climate-control air conditioning and a half leather heated and ventilated air suspension seat with electric lumbar support adjustment.

Wheeled loader

In 1983 JCB introduced its first agricultural wheeled loader, the 410 Farm Master. And 39 years later, the company has launched its largest flagship model within its agriculture range — the 457S.

The model has been purpose built for agricultural use and the 'S' version has a new rear chassis and counterweight, and

new transmission, axles, wheels and tyres. "It's a machine targeted at end-users in biogas, sugar beet, grass and maize silage as well as manure handling," says Joe Eddleston of JCB. "It's not just a bulk handler, it can perform on the silage clamp too."

The engine produces 282hp with 1200Nm of torque, providing a power to weight ratio of 14hp/t, from a 6.7-litre six-cylinder Cummins B6.7 engine.

With an operating weight of 20t, the machine can carry payloads in excess of 6t on either 710mm or 800mm radial traction or hard surface tyres.

There's a choice of a standard loader arm with a lift height of 4.3m or a high lift option which offers 4.8m lift height.

At the heart of the loader is a new powershift transmission with six forward and three reverse ratios, with torque converter lock-up giving direct mechanical drive available in all six forward gears as the standard configuration.

The loader has a top speed of either 40kph or 48kph for when it's on the move and a 20-tonne capacity Rockinger tow hitch to which a drawbar location camera can be added, together with either twin-line hydraulic or air-ready trailer braking.

Those wishing to use the loader on the clamp can add a new 4.88m wide, 7.10m³ capacity folding grass fork, developed specifically for the new machine. ■

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