

Case updating

CASE CONSTRUCTION

Equipment has launched a complete update of its loader/backhoe product line, introducing four new N Series loader/backhoe models.

The company describes the N Series as "stronger everywhere", unveiling increases in backhoe breakout force and lift, along with increased loader breakout force, lift and reach. The new machines are also said to provide improved visibility and operator comfort.

The new Case 580N, 580 Super N, 580 Super N Wide Track and 590 Super N loader/backhoes replace the company's M Series 3 product line. The new machines all feature 4.5-litre, turbocharged engines, ranging from 79 hp in the 580N to 108 hp in the 590SN.

"The N Series was engineered from the ground up," said Rob Marringa, marketing manager, Case Construction Equipment. "One new feature that is a real game-changer on the N Series is Case-exclusive

Power Lift. Power Lift channels the hydraulic power directly to the boom with the touch of a button. As a result, our backhoe lifting capabilities outperform competitive models by as much as 39% – while running at low engine RPMs."

OVER-CENTRE DESIGN

The increased backhoe strength takes new N Series performance beyond the previous M Series models. A new fabricated boom design increases strength while maintaining the over-centre design. Backhoe bucket pins are larger and stronger to accommodate the improved lift capacities. Meanwhile, the N Series claims to continue its best-in-class maintainability with triple bushings and floating pins.

The Case N Series machines also deliver more power to the loader, for increased breakout and lift capabilities. The new loader arms are stronger and longer, providing greater loader reach. This lets

operators dump material into the centre of a truck for faster loading and increased payloads.

A new auxiliary hydraulic system for powering attachments includes Flow Control as a standard feature, automatically matching hydraulic flow to the needs of the attachments.

Additionally, hoses are routed inside of the boom structure to provide greater protection for applications such as demolition. These improvements in hydraulics also help achieve greater fuel efficiency, according to Case.

Mr Marringa added that Case loader/backhoes had always given contractors a solution for excavating, digging, carrying and loading.

"A loader/backhoe's versatility includes the ability to drive to a jobsite. The Case machines can travel at up to 24 miles per hour –



Case machines can travel at 24 mph.

and the over-centre backhoe design makes travel smoother."

Case also offers a range of attachments for the N Series loader/backhoes, including hydraulic hammers, brooms, forks, augers and rakes. **ce**

Smart sensor weighs in

A SMART LOAD SENSOR DEVELOPED BY SENSOR TECHNOLOGY IS SAID to provide all the information needed to optimise efficiency and increase profitability of a wide range of industrial operations.

The new development allows weighing processes to be fully integrated with handling operations.

All live data is captured in real time and can be transferred to a database, stored, totalised and analysed.

Examples of use include if there is a need to know the amount of material transported, if two or more materials are being handled simultaneously which need to be accounted for individually, or when working for multiple customers at the same time each can be billed appropriately.

The development, called LoadSense, is an intelligent load sensor that can be integrated with a crane hook, fork lift or other handling device. It has an on-board single-chip computer for recording, analysing and archiving readings, and wireless communications capability which can transfer data in real time to a host computer.

Designed and manufactured by UK-based Sensor Technology, internal batteries make LoadSense's operation completely autonomous. This means it can be deployed with minimal disruption to operations, and will automatically begin transmitting data, according to Sensor Technology. It added that no special training was required to install or operate the unit.

LoadSense is built around an intelligent load sensor, a hand-held display and a receiver. The load sensor is based on proven strain gauge technology, and is calibrated as standard in the range 1 to 5 tonnes, with other ranges available on request.

The transmitter, which operates on an unrestricted 2.4 GHz waveband, enables accurate load data to be sent to the display – a full-colour, TFT touchscreen computer, running Windows XP and LabVIEW. The display provides real time measure of the load, while the computer records and processes real-time values.

Sensor Technology's Tony Ingham said: "Our main markets are materials handling and warehouse operations, where the intelligence will convert raw data into instant stock counts. We have already had enquiries about raising nuclear fuels rods, monitoring window cleaners' cradles on high rise buildings, and winching and weighing building materials."

LoadSense could be wirelessly integrated into a SCADA or Manufacturing Enterprise Systems control system, producing instant operating reports and e-mailable customer bills. Sensor Technology said it also improved operating safety because operators were free to remove themselves in the case of dangerous locations.



New friction

The UK's first fully-approved friction welded coupler has been launched by steel reinforcement specialist Hy-Ten.

Using friction-welding technology widely used in aerospace and automotive industries, the HT Welded Coupler claims to offer better productivity, enhanced structural performance and cost savings.

Hy-Ten director Richard Webster said, "With our system there is no threading involved – we friction weld the couplers to the re-bar in the factory so they are simply screwed together on site, you don't even have to use a torque wrench".

Couplers are rotated at high speed before the re-bar is offered up to the coupler and the friction between the surfaces scours and heats the metal surfaces to fusing point.

The joint made by the HT Friction Welded Coupler has been trialled by the Certification Authority for Reinforcing Steel, which tested multiple samples to destruction. Forces as high as 630 Newtons were required to break the bar.

Hy-Ten has already tested and obtained approval for bar diameters from 16 to 40 mm with tests on 50 mm bar pending.