



Agritechnica 2013 – News

## **Seven awards in one go – One gold medal and six silver medals for CLAAS**

Harsewinkel / Hanover, November 2013. CLAAS has been more than abundantly awarded with DLG (Deutsche Landwirtschafts-Gesellschaft – German Agricultural Society) medals for the innovations we will be presenting at Agritechnica 2013. Of the four gold and 33 silver medals that have been awarded, CLAAS was delighted to hear that it has received one gold and six silvers. You can read more about CLAAS' seven award-winning innovations below.

### **Gold for the CLAAS online simulator**

#### **Modern online driver training improves practical machine use**

CLAAS was awarded with a gold medal for the new online simulator for operating harvesting machinery and tractors. It was mainly developed for training purposes and for driver training. It means users can be trained on how to operate a machine online on a PC, at any time and from anywhere. Users can conveniently be provided with online, low-cost training on how to operate CLAAS harvesting machines and tractors, and thus increase their productivity in practice.

The simulator works with a virtual model of the various machine components and a process model that is based on data gathered over several years under varying conditions. Operating the CEBIS terminal, terminal keyboard and ground speed control lever is accurately reflected on the PC screen and simulated by clicking and dragging the PC mouse.

CLAAS will initially at Agritechnica 2013 be presenting a version used for operating a combine harvester.

### **6 silver medals**

#### **GRAIN QUALITY CAMERA on the LEXION 770 and 780**

Using the new GRAIN QUALITY CAMERA, the combine-harvester driver can now continuously assess the quality of the threshed product in real time, and immediately draw conclusions about changing the settings of the combine harvester. Previously, the threshed product was assessed merely visually by looking through the grain tank window but that is now possible via the CEBIS terminal.

The technology associated with the GRAIN QUALITY CAMERA is a high-definition colour photo camera which is mounted on the head of the combine harvester's grain elevator, from where it takes high-precision pictures of the crop in the elevator every second. These pictures are passed to internal picture evaluation software which uses them to calculate the non-grain components, such as straw, chaff and spikes as well as the proportion of broken grains. These values are sent to the CEBIS display where they are either shown as bar diagrams or as real images, with areas of low grain quality marked in colour. The driver receives an active visual alert if limit values have been exceeded, so that they can correct the settings on the combine harvester. Thanks to the GRAIN QUALITY CAMERA, significantly better information is available to optimally set the combine harvester with regard to grain quality as it is always

automatically controlled. CLAAS will initially introduce the GRAIN QUALITY CAMERA for the LEXION 770 and 780 model series.

#### **Automatic throw direction adjustment of chopped material when combining**

Both wind and incline can result in straw and chaff from being unevenly spread when combining. CLAAS' new automatic throw direction adjustment now automatically adjusts the throw direction on the radial spreader to the side wind and incline so that chopped crops are distributed evenly and precisely across the whole working width of the cutterbar. To do this, two electromechanical sensors mounted on the lighting arms at the rear of the combine harvester continuously measure the side wind and incline. After calculation, the measurement values are passed to the system that controls the side adjustment of the paddles on the radial spreader. This innovation significantly eases the burden on the driver, and the quality of work when combining and subsequent cultivation activities are substantially improved. The new automatic throw direction adjustment is available for all LEXION models with a radial spreader.

#### **ICT (implement controls tractor) – process and performance optimisation of tractor/machine combinations**

ICT is new software that uses the application parameters of an attached machine to control the tractor which is pulling it via the ISOBUS interface. CLAAS will first use ICT in a square baler/tractor combination. The baler has a CRUISE PILOT that automatically controls the driving speed of the tractor and always optimises the baler's performance via ICT. Depending on usage requirements, the driver can use the infinite controller to choose between the "throughput capacity" and "bale quality" objectives. Should the unit be overloaded, the baler's AUTO STOP function automatically switches off the power take-off shaft via ITC. This, therefore, permanently makes full use of the machine's performance potential, without there being any problems or downtime.

#### **Automated obstruction removal from the crop flow for loader and dual-purpose wagons**

Until now, when there have been blockages in the crop flow on loader and dual-purpose wagons, the driver had to intervene manually and clear the blockage in several steps using the operator terminal. Thanks to this new system, all these steps are carried out automatically – the driver only needs to switch the power take-off shaft on and off. Alongside significantly higher operating comfort for the driver, this new system also results in blockages being cleared more quickly and efficiently, and a lower load on the units.

#### **Optimisation of a forced electronic/hydraulic steering system for trailer axles**

This innovative optimisation encompasses two functions: The first function automatically adjusts the rear-axle steering behaviour to different driving speeds. In doing so, the rear-axle steering characteristics of a forced electronic/hydraulic steering system are improved with regard to manoeuvrability at low speeds, as well as roll stability and vehicle safety at high transport speeds.

The second function automatically recognises angles: An electronic angle sensor on the trailer drawbar continuously measures the current lock angle between the tractor and the trailer. As the lock angle becomes progressively smaller, the driver is warned by an acoustic signal that increases in frequency, so that a collision between the tractor and the trailer drawbar can be avoided.

### **CLAAS AQUA NON STOP COMFORT fully automatic knife sharpener**

The AQUA NON STOP COMFORT is the first fully automatic wet grinding unit for blades on loader-wagon and baler cutterbars. The unit no longer grinds blades – up to 45 blades in a single operation – according to fixed radii but exactly along their individual contours. Thanks to interchangeable templates, blade types from a total of 22 different loader-wagon and baler manufacturers can be ground. It is not necessary to manually intervene in the sharpening process. Numerous sensors and a safety switch ensure the sharpening process does not pose any risk. As a result of the ideal grinding and cutting angle, the blades have longer service lives and provide high-quality harvested crops and silage.