

## Application Notes...



# Root crop harvester

As agricultural machines have developed in complexity and sophistication, customers have demanded more operator control.

### Brief given

The latest version of a potato harvester from Standen featured 55 individual switching signals, with which the operator can control 30 individual functions. In development, it was realised that the practical limits of hard-wiring had been reached.

### The solution

Standen's main hydraulic valve supplier proposed a CANbus system using the robust and proven ESX control modules from Sensor-Technik, with software written by the supplier's electronic division.

### Implementation

The driver interface control unit has a membrane fascia, interfaced to the bus with a 56-channel input and 32 LED indicator output module. To allow the operator to view and set defaults for flow rates, delay and response times and to monitor pressures in circuits, a Wachendorff OPUS Light four-line operator display panel is inset in the fascia.

The system drives between 18 and 24 valves, depending on the customer specification for the machine.

Functions which previously could only have been manually preset on the harvester can now be set in-cab by the operator as required, allowing far greater control on the quality of the crop sample produced by the harvester. Optional automatic sensors for machine levelling, discharge elevator height, depth control and axle steering position can be plugged into the main ESX processor.

### Conclusion

Standen has saved significant costs, mainly due to reductions in commissioning times. The simplicity of the wiring loom allowed Standen to bring the wiring in-house, delivering additional cost savings.

# Sensor-Technik

## The UK's CANbus specialist

Making the move to a bus-based control system is a big step, but it needn't be a difficult one. Whether you require fully-approved components with a track record, or complete system design, Sensor-Technik has the answer. And we'll be with you every step of the way.

CANbus provides the ideal system for integrating electronic controls into vehicles and machinery, particularly because it's a system which is to ISO standard and which is supported by so many different manufacturers.

## ESX Controllers

The ESX family of freely programmable controllers from STW is specially designed for mobile applications such as agricultural machinery, construction equipment, man and material lifts and many other demanding tasks. Robust cast-aluminum housings with an IP65 rating (optionally IP67) offer a high degree of safety in terms of EMC and the extremes of outdoor environments.

## Wachendorff HMIs

The Opus family from Wachendorff provides an extremely high quality range of displays, HMIs and operator panels, developed with commercial vehicle applications in mind. Attractively designed and expertly finished, these control interfaces for CANbus systems are sealed to IP65 and feature backlighting that adjusts automatically to ambient light.

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