

Farm Contractor & Large Scale Farmer

SEPTEMBER 2018
Issue No 513
£3.00

Intelligent Innovation



**FIVE NEW TUCANO
MONTANA MODELS**



**FEATURING CEBIS
TOUCHSCREEN**



**FEATURING
ERGONOMIC ARMREST**

Introducing a new generation of combine, the TUCANO MONTANA, with NEW CEBIS and hillside levelling.

For more information on the extended TUCANO range, contact your CLAAS dealer or call the hotline: 01284 777666

claas.co.uk
facebook.com/claas

CLAAS

**THE Business
to Business
publication for
the professional
ag machinery
user**

2018 Combine News



A Trip Down Memory Lane



Reader Profiles



Dribble Bars Product Update

**2018/2019
Operator's Costing
Book Enclosed**

Keeping up with the Flow

Tanlake Flowmetering works both with OEM slurry application kit suppliers and direct with farmers and contractors wishing to fit a slurry flow rate measuring system to existing equipment.



When the water well supplying his family's farm in Somerset was condemned following over enthusiastic slurry application by John Burnham's neighbour, he would not have guessed that his efforts in future years would help prevent such mishaps recurring today.

You wouldn't expect a former police officer to have a background that would now benefit contractors and large farms managing slurry and biogas digestate. But with his forensic skills and determination, John Burnham, the man behind Tanlake Flowmetering, has grown what was a small 'cottage' industry into a concern where his flow measurement equipment and software is now fitted to a large number of slurry application machines, not just in the UK, but around the world.

"When I left the force in 1996, I joined my brother Chris for a few years in his agricultural engineering business," says John. "As I developed an interest in slurry application and handling, I realised that there was a need to both extract the best from this valuable nutrient resource and to also ensure the material was applied in a responsible way."

In order to provide the time and resource to follow this project he left the family business in 2008 and set up Tanlake Flowmetering as a business in its own right. John was ahead of the game at the time. His desire was to prevent over application and help contractors and farmers circumvent complications to include avoiding water course pollution. This needed to be 'sold' to the end user. As to the value of slurry, most saw it as something to be disposed of, with little appreciation of its value as a 'fertiliser'.

"Slurry and its application to the land has of course changed from being a simple disposal chore to one that involves careful management," says John. "Legislation has driven changes in how slurry and other materials are applied to the land, but I saw a need to develop flow measurement and recording systems before this became a necessity. Early adopters of flow metering equipment needed convincing of its value. Contractors could possibly see the value of recording how much material they had handled, but the



Sandra and John Burnham (pictured) work with their Accounts Manager Andrea, Technical Advisor John and other close associates to service customers at home and abroad.



Developed specifically for slurry application, the latest Tanlake Flowmetering in-cab controls come in two forms; entry level and advanced. The former (left) has a single display menu and lists core details to include slurry flow rate and the total applied. This unit is ideal for the farm user where the size of fields are known. For greater data recording and more advanced monitoring, the second monitor system has two core menus, the first details raw data to include customer and field details, where the material is applied and the name of the operator. The second menu displays forward speed, flow rate and application data in cubic metres per hectare. All information can be downloaded via a USB port onto purpose built office software.

value of what had been applied was not yet appreciated.”

Core elements in the evolution of Tanlake Flowmetering are perhaps more involved than most will imagine. What many may not appreciate is that when John started looking into slurry management, there were no off the peg flow meters available that would be tough enough to stand up to agricultural use. Of equal importance, there was little in the way of relating slurry flow to actual application rates.

“I was developing a complete system that would allow users to see slurry application rates from the tractor cab,” he adds. “But I had to fund this myself as I had no customers asking for such a system. Not only did I need to get the message across that slurry was a resource that could be used as a valuable nutrient, I also needed to convince people of the environmental benefits that would be derived from doing the job properly.”

In 2018, it is all too easy to overlook the steps that have been made in the management of slurry and other materials. Although it was legislation, such as EN2007 and the introduction of Nitrogen Vulnerable Zones in 2009, that took slurry management into the headlines, proper

management solutions did not appear overnight.

“I initially worked with companies producing metering equipment for the water industry. I wanted an accurate flow meter that would be able to deal with slurries of different densities and not impede material flow. Core suppliers include two that I work with today, Siemens, now mainly for industrial applications, and Krohne on the agricultural side. As a company we are UK representatives for Krohne slurry meters, which have been produced pretty much to our specifications.

Flow measurement is one aspect of the operation, with the related control and monitoring software making up an equally important part of how the

systems operate. Here John was keen, right from the outset, to make working with a flowmeter as straightforward as possible and to reliably monitor application rates and provide easily accessible recorded data at a reasonable cost. This data is not only useful for contractors when it comes to billing, the retention of accurate data also provides records for the Environment Agency in the event of an accident or leakage.

Back in 2009 John worked closely with the Danish company LH Agro and adapted its LH5000 controller to operate with the flowmeters. The system worked well and proved reliable, but LH alerted him that they were stopping development and production of the 5000 back in 2014. This meant John

Continued over the page



Siemens flow meters and related software and controllers have been developed by John to monitor static sites such as biogas plants. The 6- and 10-inch meters pictured on the left both patch into accurate recording software. Battery powered systems are available to service remote locations.

Company Profile

had to come up with a suitable and improved alternative.

After much research and customer feedback, during 2015, John developed his own in-house control and monitoring units. Admitting to a few teething problems along the way, he adds that he also worked with close contacts and friends within the 'slurry application' sector to come up with a solution. This included the writing of software compatible with GPS systems such as Trimble and the ability to integrate with modern tractor electronics thereby utilising existing technology.

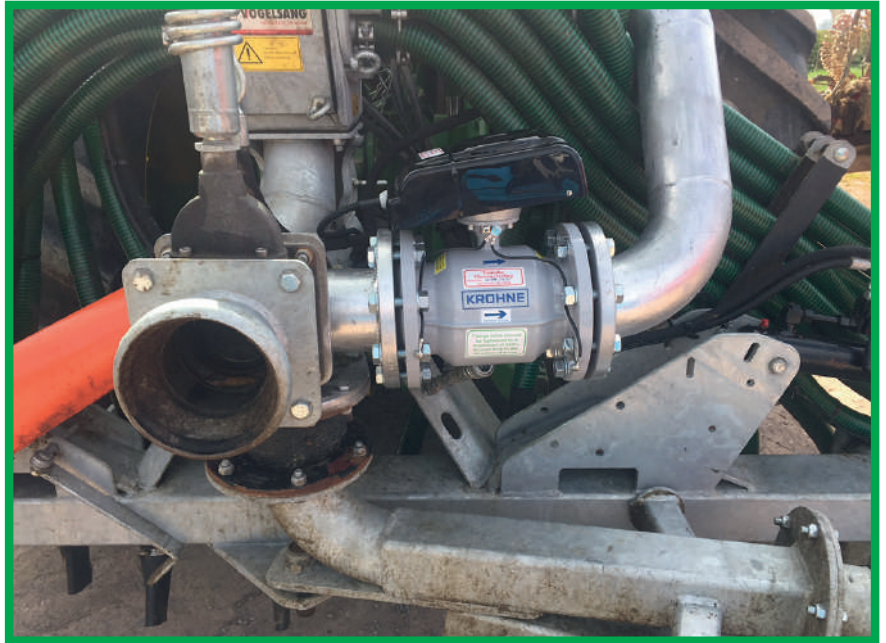
John says "My aim has been to produce an affordable system that is easy to install and operate. Customers now have a choice of entry level systems with a basic display to more advanced units that will show the relationship between forward speeds and application rates, field names, who did the job and dates. Our unit will record all the data needed for both accurate record keeping and, for contractors, 100% reliable information for billing."

Among those who have helped John develop his system is Garth Cairns of SlurryKat, the latter now offering Tanlake Flowmetering products as a factory fit option across all its core slurry application equipment. But John points out his system is compatible with the bulk of kit offered by other suppliers, both direct from them as well as a retrofit. The system can also be patched into existing hardware, a key plus for those running other kit with recording and GPS hardware.

In recent months, Tanlake Flowmetering has moved to new premises on an industrial estate near Keynsham, Bristol. They now have good office, storage and workshop facilities. This is an ideal location as it is only a short distance from the M4 and M5 motorways and 20 minutes drive from Bristol Airport.

"Our equipment is prepared and packaged on an individual basis for each customer so that it is easy to install" says John. "Everything has been designed to be modular and interchangeable making it ideal for the end user to self-fit. We carry extensive stock of all main new items and spare parts enabling us to repair and refurbish existing equipment in-house."

He adds "This allows us to offer a part exchange service, enabling existing customers to upgrade to our latest systems more economically. This also means we can sell pre-owned metering units as we check them ourselves and know they will do the job. As a show of confidence in our products, all new equipment has an extended Warranty - from one year to two years - at no



Designed to allow an easy retrofit onto existing equipment, flow meters can be fitted by customers with a specially designed wiring harness making it easier to link the system to an in-cab monitor. Pictured installation has a protective cover mounted over the Flow Convertor unit. This is another in-house designed accessory which helps to keep slurry and electronics separate. These are available for retrofit.

extra cost."

Although it has taken time for John, and Sandra, to build up Tanlake Flowmetering into a viable business, John says it is working with customers that is key. If there is a problem, he wants to ensure it is resolved. If something cannot be worked out with a telephone call then John can either call upon one of his contacts to go out to fix something or, more recently, take a newly acquired and equipped service van out to fix something on site - wherever it is in the country.

"The equipment we supply is tried and tested but that is not the same as suggesting we can just sit back and let the orders roll in. After-sales support is the key to everything. When most people get a call at two in the morning they no doubt think there is an emergency. We just wonder which customer it is in Western Australia wanting a bit of help." ■



John Burnham with his most popular flow kit package, including the sealed stainless-steel Krohne Flow Convertor unit he is holding that is his most recent development. This sealed unit will cope with the harshest conditions and most enthusiastic pressure washer operator.