

SERIOUS *Challenger* MACHINERY

The magazine for professional farming from Challenger and Ag-Chem

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Phoenix rises to challenge

“Membership of the EU opens up significant opportunities for agriculture in Czech Republic and Slovakia and there is major potential for products from the well-known Challenger brand,” says Frantisek Poulicek, General Manager, Phoenix-Zeppelin.

After an absence of eight years, PZ is now firmly back in the agricultural machinery sector with the full line of Challenger tracked and wheeled tractors, combines and hay equipment available to its customers.

“We have just celebrated our 35th anniversary as a Caterpillar dealer and are delighted to be selling into the agricultural market again,” comments Frantisek.

The company sold Challenger tracked machines when the brand was owned by Caterpillar and so is already experienced with key equipment. “Now of course, we have the new-design MT 700 and MT 800 to offer customers plus a much extended range of agricultural products that will meet many needs of farmers in our region,” adds Frantisek.

Distribution focus

As exclusive distributor for Challenger products in Czech Republic and Slovakia, Phoenix-Zeppelin is one of the latest dealers to join the Challenger network.

With HQ in Moldtice, near the Czech capital Prague, PZ has three branches, two rental points and four other sales and service outlets. Employing 230 people, more than 90 are mechanics - reflecting the company's focus on top level service. The main parts warehouse in Moldtice is directly connected to the AGCO customer support facilities with parts available for delivery within 24 hours.

“We are now waiting for the EU support programmes to kick-in which are forecast to provide a boost to the agricultural outlook,” comments Karel Kuchta, Marketing Manager at PZ.

“It is estimated that there are currently nearly 120 000 agricultural tractors in use in Czech Republic and Slovakia with new sales

Phoenix-Zeppelin, spol. s r.o.
Lipova 72
Moldtice
251 70 Czech Republic
Contact: Karel Kuchta, Marketing Manager
karel.kuchta@p-z.cz
Web address: www.p-z.cz

▲ A Challenger MT 845 was the winner in the Czech Tillage Championship. Left to right: David Fiala (PZ), Dusan Hejkriik (driver), Karel Kuchta (PZ) and Richard Kaucky (PZ).

of western imports of around 2000 units annually. That makes the tractor population here very old and so we believe there is a big opportunity for new suppliers,” he explains.

“Not only do we already have a significant number of farmers working 800 ha and more, but the expectation is that many small farmers will start to connect to bigger units to create larger acreages and drive forward the demand for bigger machines sporting the latest technologies,” he adds. “The areas around South Moravia and the Labe basin are particularly suited to the Challenger tracked machines. And while the upfront fixed costs of Challenger MT 700 and MT 800 models may seem high at first to customers in our region, these are balanced by lower variable costs with a break point of between two and three years. Our job is to ensure that farmers are made fully aware of these advantages to their business.”

● Ag-Chem RoGator and Spra-Coupe equipment is sold and serviced in Czech Republic and Slovakia through distributor AGRIO Moderni zemidilske sluzby s r.o. The Ag-Chem Terra Gator is sold by Ag-Chem Europe BV and serviced in Czech Republic and Slovakia through Agroservis Morava s r.o.

Senior Instructor, Keith Stewart is just back from a tour of duty in Ukraine, Russia, Kazakhstan and Poland conducting a series of advanced training courses for Challenger dealer technicians. In the last 12 months, more than 100 dealer workshop staff in 11 countries have undergone Challenger training programmes.

“Top flight training for dealer personnel is a key element in the full Challenger back-up package provided by AGCO's Customer Support Operation,” explains Dave Truelove, Challenger Technical Service Manager for Europe, Africa and Middle East region. “Serious machines like Challenger tracked tractors call for serious after-sales service. Our aim is to offer the very best standard and one that will make a real difference to the way our customers operate. We are acutely aware that in many cases, a Challenger MT 700 or 800 is the prime mover in a business - there's no alternative to the big yellow machine! Uptime and productivity are everything, and these are the key drivers behind all our service activities.”

Dave is one of a team of people who support the Challenger distribution network, ensuring standards are met, and developing new systems and practices to maintain this front-running position.

Tools of the trade

The use of AGCO Net - the company's private and secure Extranet facility - for online delivery of information and data to dealers has revolutionised communication in the service and parts area. “Efficient internal communication ultimately brings big benefits to end users creating a more responsive and effective service for their after-sales needs,” explains Dave. “AGCO Net enables us to take maximum advantage of the speed, convenience and timeliness of the Internet. Service information on a potential fault for example can be circulated instantly, acting as our own early warning system. In addition, AGCO Net allows dealers to directly download software updates for the operation of Challenger electronics systems such as the Auto-Guide automated steering system and the main machine operating software.”

Electronic diagnostic

The Challenger Service Tool is another necessary addition to the dealer's advanced range of equipment. This electronic diagnostic tool enables the technician to interrogate the machines' electronics as well as install the software upgrades downloaded from AGCO Net.

“Of course, there's still a place for more conventional equipment, and Challenger dealers are required to have a complete set of special tools available in their workshops,” continues Dave. Among these are the electrical repair kits that enable technicians to repair electrical harnesses rather than replace them - hence saving on costs as well as time

Serious machines demand serious back-up

ordering a spare part. There are also dedicated seal installers for fitting the high-precision Duo-Cone seals on the Mobil-trac system.

“All of this specialist equipment is geared towards our overall objective of achieving servicing and repairs in the fastest time possible and getting the 'prime mover' straight back into the field,” explains Dave.

Oil sampling

A highly useful preventative service offered by Challenger dealers is the SOS oil sampling programme which helps keep a health check on the engine and transmission. “Oil analysis is the cheapest insurance,” Dave comments.

First class service is all part of the Challenger experience. ▼



“Laboratory analysis of oil in the crankcase for contaminants such as copper, iron or silicone can flag up potential problems. While it is possible to detect severe wear by looking for metal in recently drained oil, any metal that you can see and feel is the result of progressive damage that is probably well advanced and could prove costly. On the other hand, oil analysis can usually detect wear problems before you can see or feel the metal in the oil.”

The first oil analysis test establishes a benchmark. Additional tests indicate departures from this original and succeeding tests. A high silicone reading for example means dirt is getting into the engine and is a tip-off to immediately check air filters and air intake hoses for leaks and correct seating.

Uptime

“Fully-equipped workshops and mobile service trucks, highly-trained technicians using all the most advanced service and repair techniques plus outstanding parts supply equal maximum productivity and uptime for machine owners and operators,” remarks Dave. “It's all part of the first class service that adds up to the Challenger experience.”

Adjusting the Mobil-trac system - special tools are a key element in the Challenger dealers' battery of equipment. ▼



The Editor, Serious Machinery

AGCO Limited, PO Box 62, Banner Lane, Coventry CV4 9GF, England

E-mail: Challenger: andrewrabbett@uk.agcocorp.com - Ag-Chem: ralfkroonen@agchem.nl

Web sites: www.agchemeurope.com · www.challenger-ag.com

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Plan for spreading success

For the past decade French contractor Sylvain Horton has run a flourishing business with a fleet of Ag-Chem Terra Gators at the heart of the operation. Key to the success of the company, however, was in the initial planning and market research providing a sound basis on which to build.

Today Sylvain has a fleet of five Terra Gators, carrying out a range of work applying a variety of liquid and solid materials. He now employs four full-time workers and up to 10 people in the main season. The majority of his work is contract application for a large corporation, with personal farmer customers accounting for just 5% of turnover. Alongside the spreading operation he also lifts and loads about 300ha of sugar beet.

Grown

This business has grown from the initial purchase of one Terra Gator back in 1995. Like many family farms throughout Europe, the Hortons' holding is not big enough to support each member of the family. While wanting to stay in farming and in the business, Sylvain Horton needed to find off-farm income.

It is usually at this time and in these circumstances many aspiring contractors make their first, and most fundamental mistake. Instead of finding out what is required they try and find work for either existing equipment or, even worse, buy a machine and then look for customers.

Sylvain did not, however, fall into this trap. Instead he thoroughly researched the market in the surrounding area to discover an unfulfilled demand, that was also preferably an expanding market.

"The broad approach was not to select a machine to work on and then find it work, but

to pick a sector of the industry that was ripe for development and invest in knowledge and tools to fulfil the need. It is also important to find an area where there is not already a high level of competition among other contractors," he explains.

Intensive

The Hortons' business at Route d'Auxerre, Escamp near Auxerre in north Burgundy, is located just south of a large plain where the enterprises are intensive arable. There is also a large sugar beet factory in the region. So it was not surprising that Sylvain turned here when looking for possibilities.

One opening came from a large company, Ets Deleplanque, which was already established in the beet area providing seeds, processing and also selling and applying soil conditioners made from beet by-products. Here Sylvain found an opportunity to apply this company's products, particularly Vinasse, on a contract basis. This contract also meets another of his aims for the business, that is to work on an industrial scale, rather than in the traditional agricultural sector.

Service

This became 'phase 1' of the Horton contracting operation and he purchased his first Terra Gator. "We work closely with Bernard Gibrais from Ag-Chem who helps assess our needs. We do not just buy a machine, or invest in a piece of equipment, but look first at the service we want to provide. We do this by researching the market and making a feasibility study into the need for the service.

"When investing in equipment such as the Terra Gators, it is not a question of simply looking at the machine and its competition.

While cost/ha is, of course, a big influence, the decision is based more on the vehicle's ability to carry out a range of work so that it can justify its purchase price and running costs. Here we look at the whole package including the equipment as well as the service and back-up. The people at Ag-Chem have a great deal of experience and competence and have provided constant support before, during and after the purchase. They help in all areas: technical, commercial and even in matters of advice, management and our own company organisation," adds Sylvain.

In the first phase of the Horton company's development the contractor started by spreading Deleplanque's liquid fertiliser (Vinasse). This is a natural organic fertiliser made from beet molasses from which the fermentable sugars have been removed. It is fully water-soluble, is suitable for all soil types and pH levels and is quickly absorbed by the growing plant. It is also used as a livestock feed.

Quality

Deleplanque, the fertiliser's maker and distributor, highlights four points to quality of service (see box). Interestingly the largest parts of these quality commitments are based around the spreading service and, more specifically, application machinery features, which incidentally are all Ag-Chem Terra Gators.

All the Horton Terra Gators are equipped with not only large flotation tyres but also remote tyre pressure adjustment. This allows operators to vary the pressure on the road and in the field to suit conditions, helping to alleviate compaction.

"Protecting the soil was one of the main reasons we chose the Terra Gator in the first instance. Customers will, preferably, buy a service from a contractor who pays the most consideration to his soil - his main asset. This is a card we have played since the very beginning of the business. Although remote tyre pressure adjustment is a significant



investment, it is one we can justify as part of our speciality and professionalism," he adds.

Expanded

The company has since expanded into its 'phase 2' of the plan and now runs five Terra Gators. The spreading service now includes not only the liquid by-product fertilisers, but also lime and liquid soil improvers as well as liquid effluent.

Now in 'phase 3', the company is further increasing its spreading activity in a market which is new to the firm. "This new project involves equipment for a market with which we are not too familiar. But once again we are working closely with Ag-Chem and using its experience to ensure we select the right machinery."

In the future Sylvain will continue to work closely with his customers, and find new ways for them to improve their efficiency. By staying at the forefront of agriculture the company aims to provide access to the latest technology and techniques. At the same time this will help the contractor to further develop his own business.

Regulations

"There are also new, increasingly draconian regulations and changes to the support system in Europe that will, in some cases, determine the very survival of some farmers. We are here to answer our anxious customers' questions as best we can and provide services that will help them survive after the changes to the CAP," comments Sylvain.

Ag-Chem will also work closely with the contractor to ensure it has the right equipment and technology to meet these needs. "Ag-Chem has always met our expectations," adds Sylvain. "It provides the level of service to help us to achieve our ambitions. This is not only in the selection and management of our machines, but right down to the parts back-up and service we receive from its technicians."

Horton Terra Gator fleet

Model	Application
2 x 1603	Various implements including tanks for Vinasses, liquid manure and filling docking equipment
8103	Vinasse application liquid fertilisers
2104	Combi-lime tank with ramps and slurry tank
2104	Tebbe tank



Deleplanque four points for a quality service

Tracking information

- Tracking of the product, analyses and guides to optimum use of Vinasse

Commitment

- Complying with application dates, fast application, easy to use

Enhanced application quality

- GPS vehicle guidance
- GPS markers
- Remote control for tyre pressure to avoid compaction
- Anti-drip nozzles
- Precision spraying application
- Care for soil structure in all conditions

Active security

- Digital maps
- Unique tool for preparing application plans
- Optimise the use of Terra Gators and delivery trucks
- Full traceability of products applied and where

COSTS DRASTICALLY REDUCED FOR FARM PARTNERS

"The big Challenger has probably replaced 10 tractors."

When three UK farmers got talking about the future, they all found that they were struggling to renew machinery, couldn't expand and needed to cut costs.

As a result they held a collective farm sale, selling 150 lots of machinery and replacing them with a total of only seven or eight items in order to work in partnership.

Over four years on and the partnership, AWT Farm Services, has expanded from three members to five, the area farmed has gone up from 688 ha to 1740 ha and the field work is spearheaded by a new 500hp Challenger MT865 tracked tractor with GPS Auto-Guide self steering.

Arable

"The five partners are all purely arable farming and some have outside interests," explained Anthony Wiseman, who farms at The Roos, Saffron Walden in Essex. "Two of us manage the partnership's farming and do the day-to-day work, with my father helping out, and we employ two students at harvest."

When the partnership was formed in 2000, the major items of machinery purchased were a Caterpillar Challenger 85E tractor, a Simba Solo 4.5m cultivator, a 5.5m Simba Double Press and an 8m Horsch drill.

The partnership was doing all the cultivations, drilling and combining, and two years on, when another partner joined with an additional 263 ha, they agreed to do everything together, including spraying and fertiliser spreading, cropping the land in blocks. The purchase of additional land by one partner and the introduction of a fifth partner brought the total to 1740 ha.

To handle the expanded acreage, the 85E was replaced in 2003 with the 500hp

Challenger MT865 bought from dealer AT Oliver and Son, Luton, with a full service contract. The cultivations equipment was upgraded to a 6m Solo and a 6.6m Double Press.

"The big Challenger has probably replaced 10 tractors," says Anthony. "Before we formed the partnership, we all operated 120hp-150hp tractors, with everything ploughed and conventionally farmed. It was labour intensive and costly. Now we use minimum cultivations to get over the ground as quickly as possible."

"Last season, the Challenger 865 carried out mole draining, all the cultivations on over 1214 ha and drilled 1620 ha. We need the tractor to pull, so it's weighted up to the maximum of 26 tonnes, and a three-point linkage isn't necessary."

"The GPS Auto-Guide steering is an expensive extra, but it's well worth it. I used the automatic steering for all the cultivations, working the ground in lands. Because it always steers a parallel course, you are not left with awkward triangles in the middle, on which you waste time. It improved productivity by 15 per cent."

Drilling

"Doing the cultivations at 10-11kph, I covered 40 ha a day. Drilling was done at 16-18kph, doing up to 100 ha a day. I used Auto-Guide for 400 ha of drilling, with no markers on the drill. The system is dependable and accurate. While doing the cultivations with the automatic steering, the cab became my mobile office. It allowed me to spend a lot of time on the phone, ordering seed and chemicals, while the tractor got on with the job."

"The new Challenger is so different from the old one, it's unbelievable," adds Anthony. "The

old one was solid and reliable - an engine on tracks. The 865 is the next generation. It's still a 16-litre engine on tracks but it has got the sophistication. For example, the One-Touch controller does everything at the flick of a switch. When I'm drilling, I use it to bring in the marker, lift the drill, reduce engine speed, and switch off Auto-Guide. I just turn the tractor and touch the switch again to start work. The sophistication is there to use when you want it."

Yield

"Our aim has been higher output from the equipment without affecting the quality of the work," says Anthony. "Maintaining yield is essential. Costs have been slashed for all the partners involved and there is great scope for future expansion. We could expand the acreage without any significant expenditure, as we haven't even explored the idea of working through the night on another shift. With the lights on the Challenger, it's almost like working in the day."

"Auto-Guide improved productivity by 15%"

▶
Anthony Wiseman



Cultivators make the most of Challenger potential

To fully exploit the enormous output potential of Challenger tractors they need to work with specialist cultivators that can not only handle the tractor power, but also cultivate quality seedbeds at high workrates.

French maker, Gregoire-Besson, has a wide range of equipment to work behind Challengers. Robin Immink, the firm's UK eastern area sales manager, says it offers both ploughs for those in 'traditional' establishment regimes and cultivators for use in non-inversion and min-till systems, and works closely with the AGCO team to ensure Challenger users get the most from their investments.

Work

The company's HRPB9 range of mounted models are suitable for work with the MT 700s and come in five or six furrow versions with manual or hydraulic variable width. For the larger outputs of bigger MT 700s and MT 800s there is the SPEL B9 range of semi-mounted models from 7-17 furrows. These feature fully automatic, one-touch, turnover mechanisms which means all the operator needs to do is lift the linkage and hit one button to run the headland sequence. But this can also be programmed into the tractor's One-Touch headland management system.

"The limiting factor with the ploughs is not the tractor, but the ability to manoeuvre the implements in various field sizes. This means the 10-12 furrow models are the most commonly used with Challengers in the UK," says Mr Immink.

Powered by an MT 855 or MT 865 a 10-12f plough will produce workrates of about 28-40ha/day, depending on conditions and soil types. A smaller 8-9 furrow model on an MT 700 will do about 20-28ha/day.

The firm's most popular non-inversion tillage tool is the Discordon. This comes in a range of working widths from 3.2m to 6.7m in the UK. The cultivator first works the ground with a set of 710mm diameter discs set at 270mm apart. These are followed by a row of sub-surface tines that are set to work below the disc depth. Then comes another set of discs (same as the front set) and a rear Emopak, press steel rings with shoulders to consolidate the seedbed and create a finer top tilth. The Discordon has a power requirement of about 50-60hp/m and performs best when working between 8-12km/hr.



"The first set of discs cut up the ground and surface and start cultivating, while the following tines work deeper and carry out sub-surface loosening and aid drainage. The second set of discs then break-up, chop and level the surface tilth ahead of the packer," explains Mr Immink. "Incidentally, after using a Discordon for a few seasons users find the soil is in better condition and the discs can be set to just about 75mm deep and the sub surface loosening tines raised to about 125mm to 150mm."

Discordon workrates

Working width	No. of tines	Average workrate
4.2m	7	2.4-3.2 ha/hr
4.7m	9	2.8-3.6 ha/hr
5.7m	11	3.6-4.4 ha/hr
6.2m	13	4.8-6.0 ha/hr

The right combination

During the past five years many UK farming businesses have expanded rapidly while rationalising their machinery fleets down to one of two mainline tractors, with associated high capacity implements. At the same time there has been a correspondingly big shift to min-till and non-inversion tillage.

William Wardman Co Ltd, based at Redcar on Teeside is one such farm that now relies on just two Challengers to carry-out the majority of its autumn establishment work for about 2200 ha. The farm's 500hp MT 865 and 306hp MT 765 Challengers operate 24hrs/day,

seven days a week in the season, cultivating and drilling all the crops. The farm's arable side grows all combinable crops including wheat, oilseed rape, barley and field beans.

About three years ago Mr Wardman joined forces with two neighbours each with about 200 ha. He carries out all their combining and cultivation work, while they hire in their labour (about 800hr/yr) and other equipment - such as a self propelled sprayer - into the business.

Expansion

Mr Wardman owns 1000ha, with the rest of the area either rented or farmed on contract and share farming agreements. "This system works well. I am not competing with my neighbours for work, their farms benefit from the economies of scale and the whole business knows it has good skilled labour and extra machinery for further expansion if required," he explains.

Machinery-wise, Mr Wardman believes he has also got the system right for the farms' medium to heavy loam soils, that can be quite 'sticky' when wet. "We looked around for what we wanted and have tried a number of different cultivators, but now with the Discordon and Challengers I think we have it about perfect. We are able to not only work all the ground as economically as possible, but also to the best quality. We did struggle with a previous machine, but the Discordon has solved many previous difficulties.

"The Challengers are also very good. There is a huge difference between these new MT models and the previous generation. As well as being great in the field, and particularly good at being able to transmit their power to the ground, they are also easy to handle on the road - important because some land is more than 50 miles (80 km) away."

Both the Challengers are fitted with the (optional) Auto-Guide system. Even with the standard GPS, these are said to steer the tractors very accurately and are particularly useful when working at night on previously cultivated land.

The MT 865 fitted with a 6.2m wide Gregoire-Besson Discordon works all the land, right behind the combine. This has solved a previous difficulty, with a different machine, which failed to leave the land level and could not cope physically with the huge demands of covering the 2200ha/season.

"The Discordon is really well engineered. I mean it's not just heavy and well built, but it is also a good design. It does a good job of cultivating, leaving a good finish, with plenty of adjustment and has the benefit of having a lower power requirement, but higher workrate than the other machine," says Mr Wardman. Immediately following the Discordon, or after a short break if the land needs to drain, is the MT 765 with a 6.6m wide Cultipress and a set of Cambridge rolls if it is dry enough.

The aim is to establish as much land in stale seedbeds as possible, with equipment working around the clock. This establishment procedure continues until about mid-August when the MT 765 switches over to drilling with a 6m wide Väderstad Rapid drill during the day and swaps back to the Cultipress at night. The big MT 865 continues with the Discordon, but if it gets more than about 80ha ahead, it swaps over to another Cultipress to help catch up making the stale seedbeds. This system continues, 24/7 from August until November, until all the land is drilled up.

Test

The biggest test the system faced came this past, very wet 2004 autumn. If a system was going to break down under the pressure, this would be when it happened. So how did the fleet cope?

"Well, we drilled 90% of all the ground. At one stage in September it looked like we would not be able to do anything. But the secret is to have patience and wait until the ground is ready. When it is, the equipment will go well. This is another advantage of this type of non-inversion system, it is able to operate at such high workrates you can wait until conditions are right, and not force a seedbed," explains Mr Wardman.

High output with economy

Meticulous record-keeping by William Wardman's MT 865 operator, Trevor Brown, reveals some fascinating facts about running the tractor. In the past two years the machine has covered 6800ha with a Gregoire-Besson Discordon cultivator, clocking up engine 2100hr in the process. Average output is 3.8ha/engine hr at a fuel consumption of 22 litres/ha. In the dry '03 season, the machine was set with its front discs at 100mm deep and the 13 legs about 250mm deep. In the wet 04 season the legs were raised to about 175mm to 200mm.

The Challenger works in 'Max Power' mode with the Discordon and works in about 9th gear at 9km/hr for the best finish. It can easily pull the machine faster and in a higher gear, but Trevor says the best quality result is achieved at this speed with the best fuel economy.

Working with the 6.6m wide Cultipress the MT 865 produces an average workrate of 5.5ha/hr at a fuel consumption of 10 litres/ha. This is achieved by throttling back to 1,700rpm in 13th gear.

William Wardman ▼



Challenger advances with much expanded machine line-up in selected markets



In a major strategic move, new ranges of wheeled tractors, combines, hay equipment and sprayers are being launched under the Challenger brand for selected markets.

The new machines will satisfy a growing demand from large-scale professional customers for a broader range of products from the Challenger stable.

New equipment includes wheeled tractors from 83-290 hp, conventional and rotary combines, a large rectangular baler and self-propelled sprayers.

"These new Challenger products will be available in parts of Central and Eastern Europe, the Middle East and Africa through the agricultural divisions of Caterpillar distributors, ensuring that these quality machines have industry-leading support," explains Mark Casement, Challenger General Marketing Manager who is spearheading the launch. "In Western Europe, Challenger will continue to focus its distribution on the tracked tractor range."

MT 400B

Great all-rounders

The versatile 83-115 hp MT 400B Series is ideally suited to a wide range of multi-purpose duties whether the job is upfront or behind the tractor.

Key features include easy-to-use 16 forward/16 reverse Powershuttle transmission, a wide range of PTO options to suit

all applications, powerful (up to) 6000 kg lift capacity and deluxe cab.

MT 500B

Power just where it's needed

Rugged, reliable and with enough raw power to handle the toughest jobs, the 120-185 hp MT 500B Series models are multi-tasking with the output and performance to meet the most exacting demands of modern arable and mixed farming operations.

MT 400B - multi-purpose machines for work all around the farm. ▼



For smooth, clutchless on-the-move gear changing, MT 500B models are fitted with industry-leading Autopower VI 24-speed (MT 525B-MT 545B) or Autopower IV 32-speed (MT 555-575) powershift transmissions. Electronic linkage control is standard. The outstanding operator's environment features an impressively quiet 71 dB(A) cab, air conditioning and air seat while there are options of Dual Stage suspended cab and suspended front axle for a super comfort ride on the road and in the field. Other options include Touchmaster spool valve control for increased automation of repetitive tasks and an Integrated Tractor Control System which enables the operator to activate and adjust several additional functions such as wheelslip control, spool valves and hydraulic flow.

MT 500B Techstar

Hard work the easy way

The 120-185 hp MT 500B Techstar Series tractors give the ultimate in operator control. Combining the proven performance of continuously variable transmission with simplicity of operation, there's never been a better time to get to work.

All models come with Techstar Constantly Variable Transmission (CVT) as standard which enables precise selection of engine speed and ground speed for maximum performance, productivity and reduced operating costs.

The superlative operator's environment incorporates ergonomically-designed controls, exceptionally low noise levels (below 71 dB(A)), outstanding heating and ventilation plus a deluxe seat. Other standard top flight features include Dual Stage suspended cab, suspended front axle, Closed Centre Load Sensing hydraulic systems and electronic headland and field management systems.

MT 600B Techstar

Plenty of muscle, top spec

Featuring TechStar constantly variable transmission and equipped to the highest specification, the 215-290 hp MT 600B Series are exceptionally powerful tractors capable of huge work rates. When timely cultivation is critical, these machines will deliver.

Powerful and economical Challenger diesel engines with electronic engine management supply superb torque and power characteristics with exceptional torque back-up and high levels of 'extra power'. Once married to the industry-leading TechStar transmission, the MT600B delivers the controlled power to satisfy any application. The tractors offer deluxe cab comfort with noise levels of just 71dB(A), Dual Stage cab suspension, full climate control and the new in-cab GTA colour Console which provides extremely high levels of control and automation including automatic headland control, fingertip spool valve management and work displays.

WT 500

Superb value from rugged workhorses

Challenger's 146-194 hp WT 500 Series are ruggedly engineered to withstand the toughest treatment no matter where you operate. Powerful and economical, their practical specification will suit multiple duties from secondary and primary cultivation to on-farm hauling.

Features include heavy-duty 12 forward/four reverse transmissions, independent 540/1000 rpm PTO, lift capacity of 7700 kg, 52 l/min hydraulic flow and up to 3 spool valves. The WT 500 Series is part of a family of tractors which also includes the WT 300 (65-95 hp) and the WT 400 (108-135 hp).

• Details on the new Challenger combines and hay equipment overpage.

MT 500B - raw power and a wide range of options. ▼



The new model range

MT 400B

Model	ISO hp	Engine
MT 425B	83	Caterpillar 4-cyl
MT 445B	90	Caterpillar 4-cyl
MT 455B	100	Caterpillar 4-cyl
MT 465B	115	Caterpillar 4-cyl

MT 500B

Model	ISO hp	Engine
MT 525B	120	Caterpillar 6-cyl
MT 535B	135	Caterpillar 6-cyl
MT 545B	145	Caterpillar 6-cyl
MT 555B	155	Challenger 6-cyl
MT 565B	170	Challenger 6-cyl
MT 575B	185	Challenger 6-cyl

MT 500 Techstar

Model	ISO hp	Engine
MT 525B Techstar	120	Caterpillar 6-cyl
MT 535B Techstar	135	Caterpillar 6-cyl
MT 545B Techstar	145	Caterpillar 6-cyl
MT 555B Techstar	155	Challenger 6-cyl
MT 565B Techstar	170	Challenger 6-cyl
MT 575B Techstar	185	Challenger 6-cyl

MT 600B Techstar

Model	ISO hp	Engine
MT 635B Techstar	215	Challenger 6-cyl
MT 645B Techstar	235	Challenger 6-cyl
MT 655B Techstar	260	Challenger 6-cyl
MT 665B Techstar	290	Challenger 6-cyl

WT 500

Model	ISO hp	Engine
WT 540	146	Sisu 6-cyl
WT 560	167	Sisu 6-cyl
WT 590	194	Sisu 6-cyl

* Available in four-wheel-drive only.

Combines for all conditions



Challenger's new combines cover the full harvesting spectrum from robust, no-nonsense machines to top specification models for large-scale operations.

Offering rotary threshing technology are the 285 SAE hp CH 660 and 340 SAE hp CH 670. This well-proven rotary combine offers outstanding performance even in the most unfavourable conditions, providing a gentle threshing action over an extremely large area to preserve grain quality. The models boast 10 570 litres grain tanks and come with a wide choice of tables with cutting widths extending from 3.66 to 10.97 m.

At the top of the conventional range of machines are the 340 hp CH 654 and 387 hp CH 658 featuring up to 10 500 litres grain tanks and capable of delivering consistent, high

output under wide-ranging crop and harvesting conditions. Key features include 8-straw walker design, luxurious cab, Powerflow table, automatic levelling facilities and Datatouch fully-integrated information and control system.

For medium to large scale operators, the 275 hp CH 648 and 305 hp CH 652 are equipped with five/six straw walkers and grain tank capacity up to 9000 litres. These machines are equally at home in cereals, beans, sunflower, oil seed rape, maize and rice and come with a choice of standard or automatic levelling facilities.

The versatile 220 hp CH 644, 255 hp CH 645 and CH 646 models are aimed at owner/operators with smaller to medium-sized arable areas. Successfully blending high

▲ CH 654 - top of the range conventional combine for top productivity and performance.

performance with simplicity of operation, they feature five/six straw walkers and up to 7500 litres grain tank capacity with cutting table widths from 4.20m - 6.60 m.

Completing the combine line-up is the ruggedly-built 175 hp CH 640. Simplicity of design and light construction make these machines very easy to operate in crops as diverse as cereals, beans and rice. The CH 640 is equipped with five straw walkers and 5000 litres grain tank capacity. Tracks or dual wheels are available for higher floatation in softer soil conditions.

* For a wide range of baling operations, the Challenger LB 34 high-capacity large rectangular baler is ideal for family farms, dairy and livestock farmers as well as contractors and large straw and silage producers. Fitted with a proven double knotter system for more secure tying, the LB 34 produces bales up to 250 cm in length and 120 x 88 cm in cross section.

• See next edition of **Serious Machinery** for full details on the new Challenger sprayers.



◀ CH 600 rotary - a gentle giant.



▲ Knoxville micro fleece. Vest style, lightweight zipped fleece with two main pockets.

◀ Chronograph watch - displays date and features a stop-watch facility.

Stylish practical clothing and a range of high quality gifts are among the latest new kit to bear the Challenger label. All the items are available to buy direct through Challenger's new online shop at www.ChallengerStore.com

Reflecting Challenger's reputation for top performance, the clothing range features everything you'll need for the tough outdoors from a thermal winter coat and three-in-one jacket to bodywarmers, fleeces, windbreakers, polo shirts and overalls. There are six sizes from XS (extra small) to XXL (extra extra large).

Gift items include a multi-tool, key ring, lunch bag, lap-top satchel, umbrella, leather wallet and mug. Or how about a Challenger LCD mini weather station showing the temperature, time, date and weather forecast or perhaps the 1:32 die-cast scale model of an MT 700 - complete with moveable tracks?

"The items have all been carefully selected to appeal to Challenger customers and users," says Andrew Rabett, General Marketing Manager. "Our aim was to combine functionality with contemporary style - all in the famous black and yellow Challenger colours and, above all, as practical and hardworking as the machines themselves."

See the complete line-up at:

www.ChallengerStore.com

Also available through Challenger dealers.

SHOP ONLINE FOR CHALLENGER GIFTS



Model MT 700 - 1:32 scale die-cast model with moveable tracks and hood action. ▼



▲ Lap top satchel. Three zipped compartments, extendable handle plus wheels at base.

Buffalo 3 in 1 jacket. Water resistant and lightweight with additional inner fleece, detachable hood and multiple pockets. Trucker's cap in heavy brushed cotton. ▼



▶ Golf umbrella.



Work overalls. Zip-front with breast pocket and elasticated waist at the back. ▼



▶ Uppsala winter coat. Stylish and hard-wearing thermal coat, reflective and water-proof, multiple pockets and hood in collar.





GET TO KNOW THE TEAM

Machinery for the new generation

This issue we spotlight Mike Cully, Director Sales and Marketing, Challenger - Europe, Africa and Middle East, based at Coventry in the UK.

SM: Can you tell us something about your background and career?

MC: I was born and educated in the United States and have a Masters degree in International Relations and International Economics from John Hopkins University. Prior to joining AGCO Corporation, I worked for two other companies including the management consultants, Andersen Consulting in New York City where I was part

of the Telecommunications Industry Group. I also spent time with the International Finance Corporation (part of the World Bank Group) where I managed a group of 200 people conducting privatisation projects in Belarus and Ukraine. During this period, I lived on territory for two years in Minsk, Belarus and Kiev in Ukraine. It was a marvellous experience. From a work standpoint it also showed how important it is for an organisation to build a strong local team in order to be truly effective in the local environment.

SM: What about your time with AGCO?

MC: I joined the company in January 1998 working out of the worldwide headquarters in

Duluth near Atlanta, Georgia. My first role was in the Corporate Development Department and I then went on to be General Marketing Manager looking after White and Landini tractors. I transferred to the UK in 2002 where I ran the Licensee and Developing Markets Division. I've been in my current post with Challenger for nearly 18 months.

SM: AGCO purchased Challenger from Caterpillar in 2002. What has been the impact of the acquisition?

MC: With the takeover, AGCO acquired a completely new generation of tracked tractors - the MT 700 and MT 800 Series - and a very

famous brand to add to its expanding portfolio. The tractors gave AGCO the biggest and most powerful models in the industry (up to 500 hp) and the technology opened the door for AGCO to become the preferred machinery supplier for the new generation of large corporate farmers. The acquisition also gave us the opportunity to partner the Caterpillar distribution network - probably the best in the world in terms of financial strength, sales capabilities and after-sales support. Our objective is to boost sales in the high productivity farming sector - the key growth area in the agricultural arena.

SM: How are you planning to achieve this?

MC: We are focusing strongly on distribution with a two-pronged approach. In Western Europe, our partners are key dealers from AGCO's existing Massey Ferguson and Fendt distribution networks who will supply MT 700 and MT 800 machines. These businesses meet the strict criteria we have established for Challenger globally by providing the highest levels of after-sales support in the industry. In the regions outside Western Europe - including Central and Eastern Europe, South Africa and Saudi Arabia - our partners are Caterpillar dealers who will offer the full line of agricultural products under the Challenger brand name. Given the size and profile of farms in these regions, there is major potential for the Challenger brand to grow. Early this year will see the launch of the full line of products including wheeled tractors, combines, hay equipment and self-propelled sprayers. (See pages 10-12 for more details).

SM: How have sales of Challenger tractors been going and what are the prospects?

MC: Sales of tracked tractors have been progressing extremely well, averaging around 30% growth annually. In just two and a half years, sales have jumped from 38 units in 2002 to a total of 192 units last year. We have a fantastic product and offer top class service to our customers. Prospects are very good and we fully expect this level of growth to continue over the next few years.

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YOUR AGCO CHALLENGER AND APPLICATIONS DIVISION CONTACTS

The Challenger team:

Michael Cully - Director Sales and Marketing -	michaelcully@uk.agcocorp.com
Bo Gade - Regional Director - Developing Markets -	bg@dronningborg.dk
Peter Thomson - General Sales Manager - Russia & Ukraine -	peterthomson@agcocorp.com.ua
Gordon Graham - General Sales Manager - Central Asia -	gordongraham@uk.agcocorp.com
Andrew Rabett - General Marketing Manager -	andrewrabett@uk.agcocorp.com
Mark Casement - General Marketing Manager -	markcasement@uk.agcocorp.com
Charles W Smith - General Sales Manager -	charleswsmith@uk.agcocorp.com
Richard Miller - Marketing Services Manager -	richardmiller@uk.agcocorp.com
Philippe Fournier - Marketing Support Specialist -	philippefournier@uk.agcocorp.com
Michelle Palfreyman - Challenger Administrator -	michellepalfreyman@uk.agcocorp.com
Zuheir Alderwish - Market Support Manager -	Zuheiralderswish@uk.agcocorp.com
Walter Remondini - Sales Manager Italy -	walterremondini@par.agcocorp.com
Richard Shelton - Sales Manger UK/Eire -	richardshelton@uk.agcocorp.com
Andy Sturrock - Sales Manager Central Europe -	andysturrock@uk.agcocorp.com
Rasso Schatz - Sales Manager Germany -	schatz.challenger@xfendt.de
Pascal Le Couedic - Sales Manager France/Benelux -	pascalcouedic@fr.agcocorp.com
Ruben Abajo - Sales Manager Spain -	rubenabajo@Mad.agcocorp.com

The Ag-Chem team:

Adrie Kunst - Managing Director & Technical Director -	adriekunst@agchem.nl
Dorus van Esch - Sales Director -	dorusvanesch@agchem.nl
Ralf Kroonen - Marketing -	RalfKroonen@agchem.nl
Chris Nendick - Distribution and Dealer Development Manager -	chrisnendick@agchem.nl
David Bowman - Sales UK industrial -	DavidBowman@agchem.nl
Nigel Watson - Sales UK -	NigelWatson@agchem.nl
Torben Galsgaard - Sales Scandinavia -	galsgaard@email.dk
Bernard Gibrais - Sales France -	BGibrais@agchem.nl
Jean Paul Herin - Sales France -	JeanPaulHerin@agchem.nl
Uwe Hartfiel - Sales Germany -	UHartfiel@agchem.nl
Eric Driessens - Sales Germany, Austria, Switzerland, Benelux -	EDriessens@agchem.nl
Johan Kooiker - Sales Germany, Netherlands -	JohanKooiker@agchem.nl
Giovanni Ugolini - Sales Italy -	GiovanniUgolini@agchem.nl
Miroslav Krist - Sales Hungary Czech Republic, Slovenia, Poland -	miroslavkrist@agchem.nl



More deals than hot dinners

“Big business at the kitchen table” is how Eric Driessens describes his job as sales manager for Ag-Chem and Spra-Coupe equipment in Benelux and southern Germany.

Travelling more than 70 000 km a year and selling direct to contractors and farmers, it's not surprising to learn that Eric has hammered out a fair number of kitchen table contracts in his 11 years selling the RoGator, Terra Gator, Tri-Axer system carrier and Spra-Coupe sprayer. He is, in fact, the brand's top salesman operating in a niche market consisting chiefly of farmers with over 1000 ha and large contractors.

“In my territory that's probably up to 1000 potential customers so, after a few years, you can virtually get to know them all,” he explains. “And that's a very important part of the way we operate since we do not have a dealer network in the traditional sense. It's crucial for customers to know they have a reliable contact who can be called at any time. We focus heavily on the direct experience in all our dealings with customers.”

As well as sales, Ag-Chem/Spra-Coupe equipment service and repair are handled directly through the mobile service team which is permanently on-the-road. Machines can also be brought into the company's headquarters at Grubbenvorst in the Netherlands - eg: for winter servicing programmes.

Eric was born on his grandfather's farm in south-east Holland and spent much of his childhood there. “It was an arable farm and



▲ *Kitchen negotiations*

the place where I got my taste for agriculture,” he comments. He then went on to attend agricultural college and here met Dorus van Esch, now Sales Director at Ag-Chem. After a spell in the army, Eric joined Grimme, a company specialising in potatoes harvesters and crop storage systems before linking up with Dorus again in 1993 and taking the job at Ag-Chem. Even in his spare time, Eric can't let go of agricultural machinery and he has a small collection of vintage tractors that he tinkers with at the weekend. “Agriculture is what I know and enjoy,” he remarks.

“In the last decade since I've worked for Ag-Chem, the big change has been the shift to deeper analysis of costs. Today, there are bigger but fewer customers. Everyone is making detailed calculations and buying our machinery on the basis of solid financial expectations. In these days of reduced EU subsidies, quite rightly, cost of ownership and output is calculated down to the last cent.”

On average, Eric spends around two hours

with each customer seeing perhaps three or four a day. He also attends big national agricultural shows as well as regional events to extend his contacts. “I enjoy the job very much. I'm not tied to a desk and I get to travel around the countryside. Unlike many other sectors, I am able to talk to the decision maker directly - the contractors and farmers themselves. That means we can get the deal done right there at the kitchen table - there's no need for suits or boardrooms in this business.”



▲ *Eric Driessens*

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