Valtra Team

Valtra Customer Magazine • 2/2010

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fuel consumption

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Editorial

The UK and Irish tractor markets have been hit by the recession, of that there is no doubt. However, thankfully, Valtra is holding its own; our year on year sales figures are up and as a result our share of the market has also increased.
Why?
Some sales are undoubtedly due to the introduction of our Versu 5-speed powershift and Direct CVT transmissions for N and T series as both meet customers' requirements for sophisticated yet simple to operate transmissions. The reintroduction of S Series machines has also met the market's demand for economical high power. In my opinion however, it is a combination of these and, very importantly, the many other virtues of a now extensive Valtra range.

Today the Valtra range has features that can match, indeed better, those offered by our competitors and, of course, with our build-to-order system you only need to select those that are of use to you in your business. On top of this Valtra also offer features not readily available elsewhere: TwinTrac reverse drive and HiTrol fluid clutches are just a couple. However, one of Valtra's biggest and best attributes is undoubtedly reliability. Increasingly we are hearing farmers and contractors report they have tractors with exceptionally high hours; 'and we haven't put a spanner on them.' One farming family, featured elsewhere in this magazine, has taken to operating used machines as a highly cost effective alternative to purchasing new – a tractor with 10,000 hours on the clock is still acceptable. This is a move that underlines the fact that it's not the price of the tractor that's important. It's the total cost of ownership that matters. That's the purchase price, fuel, maintenance and residual value. Looked at this way, new or used, we and our customers believe Valtra are exceptional value.

Mark Broom

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Publisher Valtra Inc., Finland, *www.valtra.com*

Translations by Crockford Communications
Coordination Medita Communication Oy
Layout Juha Puikkonen
Printed by Forssa Print 2010

Photos Valtra archive if not otherwise mentioned

Robbie and Kris cut and bale and cart away grass on Ronaldsway Airport to prevent ground nesting birds from taking up residence, reduce fire risk and problems that could be caused by grass being sucked into jet engines.

Island contractor chooses **Valtra**

At 32 miles long and 14 miles at its widest point the Isle of Man is around 221 square miles. The island's origin, if you believe folk law, is the result of Irish giant Finn McCool (he of the Causeway) falling out with his Scottish counterpart. McCool scooped up a portion of land, in doing so created Lough Neagh, and hurled it at his rival. His aim was a bit off and the chunk of land finished up in the Irish Sea, thus creating the island.

More correctly the island, like mainland Britian, was connected to the Europe and as the ice caps retreated and sea levels rose leaving it an isolated island. As a broad generalisation the north is flat, consisting mostly of glacial deposits where farm enterprises include arable crops. The central and southern areas tend to be more mountainous, supporting mixed farming and forestry. Of the 114,000 acres of available land around 12,500 are arable, 65,000 grass supporting 8,000 dairy cows, 7,000 beef cows and 80,000 ewes. The remaining is rough moorland.

Like most islands round our coast, rainfall is high ranging from 1,900 mm (over 6 ft!) in some parts to a more reasonable 800 mm – 31 in. Temperatures are cool with a recorded record maximum of 28.9ºC (84.0ºF). The Isle of Man is self governing with the Queen Head of State but it is not part of the UK. Neither is it a part of the EU and as such farmers do not receive EU support payments. However, the Island's Government does make available schemes providing similar levels of support to those available in the UK and EU. However, there are no sheep or suckler quotas, no set aside and no Less Favoured Areas. Meat and milk have to be sold through their respective co-operatives unless the producer is also the retailer. Farm sales are pretty rare events and though 800 holdings are registered, the Manx Government considers only 350 commercial farms.

Phil Corkish fuels up for another day – Once out of warranty he, Jamie and driver Kris Devereau handle general servicing and oil and filter changes in their own workshop.

It is against this background that **Phil Corkish** of East Baldwin, at the centre of the island, has built a thriving contracting business. Originally Phil worked for a contractor but 23 years ago decided he could run a successful business and struck out on his own. From one man with a tractor hard work has produced a successful partnership with son **Jamie** that today runs four tractors and associated equipment plus a tenanted 175 acre farm carrying mostly sheep.

– My initial tractors were good but as time progressed, the quality of replacements deteriorated. It seemed that I had to have one more machine than I needed to allow for one to be permanently in the workshop.

Obviously a situation Phil could not allow – or afford – to continue. Asking around he received excellent reports about Valtra but, worryingly, Valtra had no dealer representation on the Island; just a freelance service engineer. Phil was advised not to worry – 'Valtra are reliable' – he was repeatedly told. He also noticed Valtra numbers were increasing around him. In 2001 Phil took the plunge and purchased a four cylinder Valtra 6550;

– I was delighted – It was as reliable as other operators had suggested.

And while Phil's other machines continued along their unreliable course the 6550 did not miss a beat.

– We never put a spanner on it except for regular maintenance.

Valtra's mainland dealer supplying island farmers and contractors today is John Bownes Ltd of Winsford in Cheshire – their salesman, Mike Richmond visits the Island regularly as does John Bownes and they are supported by an independent service agent, Paul Crawley who handles the few service problems;

– He's excellent, comments Phil.

– Not that we need his services very often.

From that single 6550 Phil has built a fleet of four Valtra tractors, all four cylinder N Series.

– We find Valtra's N tractors have excellent power to weight ratios, they are manoeuvrable which is important – lanes and gateways are narrow and many farmyards are cramped.

Phil's current fleet is a mix of an N121 advanced 130 hp, an N121 HiTech also 130 hp, an N111 HiTech 120 hp and finally an N101 HiTech at 110 hp two with loaders.

– We have an Advance machine to handle the more sophisticated equipment – HiTech is perfectly adequate for other jobs, trailers don't require sophisticated controls.

Equipment ranges from standard cultivation kit through muck, slurry and fertiliser spreaders to the more advanced including an air seed planter. Clients range from whole farm contracts to larger farms where the team can be called in at busy periods and include the retirement home for horses used to pull Douglas's trams.

– We offer a complete silage service – cutting, tedding, baling and wrapping. We produce over 7,000 wrapped bales each year, usually from just two cuts.

Being centrally place on the island Phil and his team travel island wide but acknowledge 60 % of their work comes from the central area. With many farms running their own kit and competition from other contractors how has Phil and son Jamie managed to build up such a business?

– Reliability is one answer, comments Jamie.

– That's why reliable kit is important.

Phil admits he's hardly done any advertising.

– Work comes in thanks to word of mouth references – we must be doing the job right!

That said, for an agricultural contractor with the sea only a short tractor drive from where ever he happens to be working, business possibilities are limited.

– To expand we had to find other types of work.

Plenty of hydraulic power to handle heavy silage bales and manoeuvrable for small yards and buildings.

Robbie Corkish – N Series are comfortable and manoeuvrable for the narrow lanes and smaller fields on the Isle of Man.

Kris Devereau – The Valtra Advance cab has all the services he requires to control implements and equipment.

Today, alongside agricultural contracting and their own farming activities Phil and Jamie Corkish also specialise in sports field and other amenity maintenance.

– We've invested in a rotor spike and other drainage equipment including a 360° excavator and find football and rugby field work in particular fills the gap when crops are busy growing and there is a lull in farm operations.

One interesting contract Phil and Jamie have in hand spans both amenity and farming operations. Like most airports Ronaldsway has a lot of grass between tarmac runways and roads all of which requires cutting to prevent birds from nesting. Cut grass is removed to help prevent fires and to avoid it being sucked into jet engines. Jamie and driver Kris Devereau cut, bale and wrap the grass for silage for near-by farmers.

– The grass can be a bit wet when its baled and wrapped, Jamie agrees, but it's a useful addition to home grown fodder.

Will Phil and Jamie expand further?

– Probably not, says Phil. We can handle all the work we are currently asked to do. Expanding further could well be counter productive.

And the tractors?

– We'll definitely stay with Valtra, I'm investigating changing one at the moment.

■ **Roger Thomas**

New engines
easy on your wallet and the environment

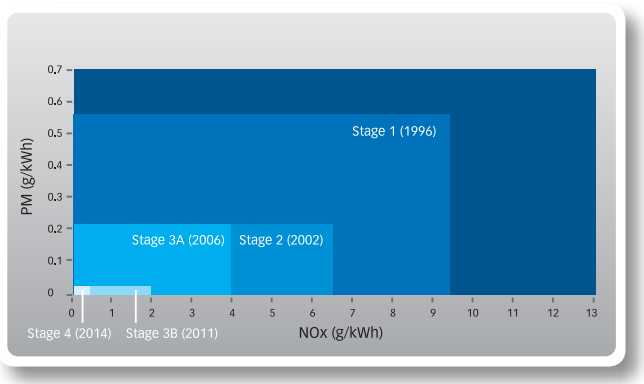
Valtra's big T Series tractors will get SCR engines next year. The new emissions regulations include a transition period that offers engine and tractor manufacturers flexibility to introduce the new technology.

Already years ago regulators in both Europe and North America set a schedule for tractor and other machinery manufacturers to reduce their nitrogen dioxide and particle emissions. The reason for this is easy to understand. Particle emissions are a direct health hazard, while nitrogen dioxide emissions cause smog and acid rain.

Valtra has adopted Selective Catalytic Reduction (SCR) engine technology in order to comply with the emissions regulations. The S Series is the first tractor in the world to feature this technology. As well as providing Valtra with a lot of experience with this technology, the S Series has also become a frontrunner in the industry in terms of protecting the environment.

– SCR technology allows fuel to be used in the engine more optimally while taking care of emissions by means of a catalytic convertor. This offers superior efficiency compared with previous and competing technologies, explains Juha Tervala, Marketing Director of AGCO SISU POWER.

In SCR tractors the diesel fuel combusts in the cylinders as efficiently as possible. AdBlue, a urea-water solution, is sprayed into the exhaust gases before the catalytic convertor, which is located in the exhaust pipe. The AdBlue reacts with the nitrogen oxide in the catalytic convertor, producing harmless com-



As of the beginning of 2011 tractors with over 174 horsepower will have to produce no more than 2 grams of nitrogen dioxide and 0.025 grams of particles per kilowatt hour. In 2014 the limit for nitrogen dioxide will be reduced further to just 0.4 grams. The nitrogen dioxide and particle emissions of machinery will then be reduced to just 3 percent of the emissions from the previous period in 1996. This enormous reduction will require investments by both machinery manufacturers and users.

pounds in the process. What comes out of the exhaust pipe is primarily nitrogen gas and water. Hydrocarbon and carbon monoxide emissions have already been minimised by previous engine improvements. Carbon dioxide is unavoidable with any combustion, but in SCR engines less of it is formed due to the lower fuel consumption.

SCR technology has been employed already for decades in power plants and for several years in trucks, and the system has been proven to be effective. Machinery manufacturers that do not yet use the technology must introduce it by 2014, when stricter emissions regulations will come into force.

For tractor owners SCR technology is easy to live with it. The onboard electronics operate the system, and all the driver has to do is fill the AdBlue tank in the same way as the fuel tank or windscreen wiper fluid tank. The most important factor for most users is that the SCR technology reduces fuel consumption by around 10 percent compared to the previous generation of engines. Depending on the tractor model and how it is used, the savings can be higher or lower.

■ **Tommi Pitenius**

SCR-technology
(Selective Catalytic Reduction)

- Reduces nitrogen dioxide and particle emissions
- Reduces fuel consumption by around 10 percent
- Prevents lubrication oil from getting dirty
- Reduces engine's heat load
- Eliminates need for separate particle filter
- Eliminates need to feed exhaust gases back into the engine

AdBlue consumption approximately 3–5 percent of fuel consumption

The SCR system requires the use of the additive AdBlue, which is sprayed into the catalytic converter in the exhaust pipe. In North America the additive is also marketed under the name DEF (Diesel Exhaust Fluid). AdBlue complies with DIN70070 and ISO22241 standards.

AdBlue contains 67.5 percent water and 32.5 percent urea. The light or light blue solution is not inflammable or hazardous to the environment. There are no special restrictions for transporting or storing it either. AdBlue begins to congeal at minus 11 degrees Celsius, but it will not freeze unless it is exposed to minus 25 degrees for more than 24 hours. The freezing does not affect the composition of the solution, so it can be used normally after thawing. The solution can also be rinsed off with water if it comes into contact with skin, the tractor or the ground.

AdBlue is available from Valtra dealers and fuel suppliers in 10-, 20-, 200- and 1000-litre containers. For example, a 200- or 1000-litre AdBlue container with its own pump and hose can be installed alongside a fuel pump, making it convenient to fill up with both at the same time. As with fuel, care should be taken to keep the AdBlue clean, as impurities can clog up the system and damage the catalytic convertor.

Valtra runs also on biogas

This summer Valtra presented at the Borgeby Fältdagar event in Sweden a concept tractor that runs on biogas. The tractor features a dual-fuel engine that can run on diesel alone or a mixture of diesel and biogas. When running on biogas, 70 to 80 percent of power is generated by the biogas, but a small amount of diesel is injected into the cylinders for combustion.

The concept tractor is based on an N101 model and is equipped with a 170-litre tank with the biogas stored under 200 bar pressure. This corresponds to approximately 30 litres of diesel fuel. Testing and development of the biogas tractor will continue in co-operation with numerous partners.

Valtra reduces its carbon footprint

Valtra has reduced its carbon footprint together with the logistics company DHL. Between August and the end of last year Valtra succeeded in reducing the carbon dioxide emissions created by express deliveries by a total of 270.16 tonnes. The campaign is being continued and includes all express delivery services that DHL provides to Valtra, primarily spare parts deliveries.

Valtra was the first major industrial client in Finland to participate in DHL's GoGreen service, which reduces carbon dioxide emissions by planning routes and logistics more efficiently. As part of the programme, DHL and Valtra planted trees to bind carbon dioxide on state-owned land in Padasjoki, Finland.

Part of the Wrangworthy herd wait patiently to enter the milking robot.

Reliable machinery equals excellent life style

Michael Shadwick's farm at Wrangworthy, North Devon is 160 acres and was, until a few years ago, run by his parents while Michael built up dairy farming experience with other herds. In 2007 Michael and partner Sarah returned to the family farm, then a beef suckler unit. "We'd seen what could be done with high yielding cows and decided it was time to get involved on our own account," recalls Michael. "It's working with high yielding cows that make me get up in the mornings – I knew what I wanted." Their return gave Michael and Sarah a rare opportunity; "With no cows or parlour we started with a clean sheet; sold just about everything, flattened unsuitable buildings." Michael and Sarah knew that with a young family quality of life is important and decided on a robot to do the milking. "I'm about to see the children, not stuck in a parlour morning and night. We can do things together without worrying about the milking." Cubical housing, a loafing and milking area were built plus feed bins, a tank room and office and all before the first 40 cows arrived; from a farm also using a robot so no training was necessary.

The 80 Holsteins are housed while milking, dry cows are put out to pasture during better weather. "Roads, footpaths, the farm's geography make organising grazing regimes difficult, without the robot I would spend most of the day moving cows between grazing and milking," comments Michael. "And the land is heavy Devon clay, we would suffer from wet weather poaching." Michael also feels the DIY robot system is good for the cows. "They seem more comfortable at the peak of their lactation." The herd lactation averages 13,000 litres with a calving interval of 422 days.

With cows taking care of their own milking and family commitments apart Michael has time for field work. Lays are organised on a four year rotation; "silage starts towards the end of April or early May and extends through to mid September, we get four good cuts without much difficulty." Michael does all the mowing, tedding, wrapping and hauling himself with Sarah's father, a contractor, undertaking round baling. "Everything is baled and I usually have 400 or 500 spare for sale." With bales cleared Michael applies slurry, about 2,000 gallons per acre topped up with 30 units of nitrogen. After two years fields are rejuvenated by slot re-seeding; and this, like initial cultivation and sowing is also Michael's domain.

Shredded silage bales are fed to milking cows along a feed barrier. Nutritionally this is topped up via a feeding bucket; "we're not big enough to warrant a feed wagon." The home mix incorporating molasses provides maintenance plus 25 litres. Additional concentrates are fed in the robot according to yield and position in lactation. "When I feed the cows naturally come to the barrier and I take this opportunity to scrape up round the cubical and loafing areas. Once fed, cows mostly return to their cubicles and lie down. Its then I scrape alongside the barrier leaving the herd pretty much undisturbed – ideal really." Cubicles are bedded with sea sand which, while thickening the slurry – "It needs a good stir before the lagoon's emptied" – does have a positive effect on grass yields.

Dry cows are out on grass during summer months and housed in straw yards during inclement weather. "We have a few acres of permanent pasture which is ideal; the farm is in the Countryside Stewardship Scheme started during the beef herd's days."

Michael runs a tight ship to achieve high quality silage demanded by high yielding cows. Machinery is up-to-date and in good condition. "We initially purchased what we thought was a good used tractor but replaced it this spring for something better – more reliable!" The criteria was reliability, reasonably high power, 50 kph with good brakes; "I deliver round bales to customers" – good performance with a loader and it had to be economical; a demanding wish list. Michael was surprised when several dealers were not prepared to organise an on farm demonstration. "Short and Abbot were as good as gold and brought pretty well what I wanted; a Valtra N142 Direct with loader. It handled my 10 ft mower conditioner and in a heavy grass crop produced a fuel consumption rate of just 80 p per acre – I'd heard excellent reports of Sisu engines but that was pretty good to my way of thinking!" Michael also loads and hauls all his own bales and the loader, operated from the seat armrest joy-stick is simple to use – "there is no clutch, gear levers or brakes to worry about. The Valtra systems work well and road speeds at low engine revs are good."

However, the N142 Direct is not Wrangworthy's only Valtra tractor. "At busy times unhitching equipment to feed was a nuisance." As a result Michael purchased a second four cylinder Valtra – this one a K reg 6400 with 6,000 hours on the clock. "Just the job for feeding and it will do a turn on the slurry stirrer which will make life simpler," comments Michael from the seat of his N142. Michael is obviously keen on his machinery, keeping it in good condition, but it has to be said that it is the family and cows that matter most – so his machinery has to be really reliable!

■ **Roger Thomas**

The Valtra cab provides a comfortable working environment.

2841 km

Italian drives his tractor home from Finland

Italian dairy farmer Vladi Peresson had heard that the Valtra factory in Suolahti, Finland builds tractors according to individual customer orders and that customers are welcome to visit the factory. When Vlad Peresson decided to purchase a Valtra N142 Versu, it was clear that he wanted also to drive it home from the factory.

– Driving a tractor across Europe is a fun adventure, and at the same time I get to see the world, explains **Vladi Peresson**.

Vladi's father **Claudio** ran the dairy farm in Arta Terme, Northern Italy, while Vladi went to collect his new tractor from Finland. Vladi was joined on his journey by his sister **Daniela**, his local Valtra dealer **Guido Ortis**, friends of the Peresson family **Paolo Stroili**, **Peter Stefanutti**, **Mirco Gigliani** and **Elena Bressani**, as well as AGCO Italia's Valtra product manager **Franco Scorsi**. All of them took turns driving with the exception of Daniela and Elena. The team travelled by camper van, allowing the tractor drivers to sleep in between shifts.

The journey began in Suolahti on 2 August at 11:30 am. The new Valtra N142 Versu was specified with a 40 km/h transmission. The route crossed Southern Finland, Estonia, Latvia, Lithuania, Poland, the Czech Republic, Slovakia, Hungary and Austria before reaching Italy. Along the way they visited Valtra importers and dealers, as well as the head office of the Polish Agricultural Producers' Union. Dozens of interviews were given to newspapers, television and radio, and the team received lots of support and encouragement from both farmers and motorists. The Peresson's also raised money several thousands of euros for the "Kopa ar mums" orphanage in Latvia.

The last 140-kilometre leg from the Austrian border home was undertaken ceremoniously in a convoy of tractors driven by neighbours and colleagues. Altogether the journey covered 2841 kilometres in seven days. The Valtra N142 Versu consumed 1,090 litres of fuel, which equates to average fuel consumption of 14.5 litres per hour. The total driving time was 75 hours. The tractor performed faultlessly throughout, and the driving comfort was widely praised by all the drivers.

– We saw a lot of places and met friendly people during our journey across Europe. Now the holidays are over for all of us, so we can begin working with our new tractor, commented Daniela Peresson back home in Arta Terme.

■ **Tommi Pitenius**

Driving the Valtra N142 Versu across Europe was pleasant thanks to the suspended and sound-insulated cab.

The journey was undertaken by eight team members: Franco Scorsi, Vladi Peresson, Daniela Peresson, Elena Bressani, Mirco Cigliani, Peter Stefanutti, Paolo Stroili and Guido Ortis.

EcoPower

A switch to save fuel

Farmers and contractors are constantly looking for ways to reduce costs. In 1998, Valtra was the first tractor manufacturer to launch a tractor with a fuel-saving switch on the market. This was the six-cylinder ValtraValmet 8350 Eco-Power (135 hp/1800 rpm, 650 Nm/1100 rpm). 3 500 models of this type were sold worldwide. In 2001, the four-cylinder EcoPower Valtra 6750 was introduced (105 hp/1800 rpm, 530 Nm/ 1150 rpm), selling 4 500 models. These tractors have since been replaced by fourcylinder tractors from the N Series (124 hp) and six-cylinder machines from the T Series (173 hp).

A simple switch can make fuel savings of 10–15 percent.

AGCO Sisu Power engine

The reason for developing low-speed engines was the robust and reliable AGCO Sisu Power engines fitted in Valtra's tractors. Sisu engines are extremely hard-wearing and very reliable. The idea was to take the engine model with the highest output with intercooler and to lower the rpm from 2 200 to 1 800. As the low-speed engines have a high torque at a relatively low speed, wear and tear is reduced. Consequently, a constant torque is available over a large range, which, in turn, provides many benefits for the driver.

Two tractors in one

In fact, these are two tractors in one. One feature of EcoPower is the option to switch between the economical Eco mode and the normal Power mode. Worldwide, Valtra has sold more than 5 000 EcoPower models in the last seven years. An EcoPower model with Eco mode activated can make fuel savings of 10–15 per cent by lowering the engine speed. The average piston speed is 20 per cent lower than with normal engines. Wet cylinder liners and intercooling extend the service life of Sisu engines even further.

Gerrit van de Werff is an economical driver. He drives a Valtra N111 EcoPower and always has the Eco mode switched on.

Albert de Kleine from Heteren, Holland

has been driving a Valtra T151 EcoPower since November 2007.

– We are pleased with the tractor. We use it intensively both in the summer and in the winter, and we drive an average of 70 to 80 hours a week. As we make such heavy use of the tractor, we think it is a significant advantage that it includes a button we can activate to save fuel. The EcoPower mode is almost always switched on. It enables us to make fuel savings of 10 to 15 percent. We use the tractor for forestry. With its 163 hp, it is an extremely strong tractor. We have now accumulated 3 900 operating hours and we chip wood (including strong poplar wood) and carry out stump grinding for our customers located throughout the Netherlands. When we need to carry out flailing, we switch Eco mode off.

Gerrit van de Werf from Creil, Holland

has been driving a Valtra N111 EcoPower for two and a half years.

– I am extremely pleased with this tractor. My dealer Offringa always says I am the most economical driver in the area. I use the Valtra N111 to transport tulips and gladioli, ploughs and much, much more. On average, I use 7 to 9 litres of fuel per hour at 1300/1400 rpm. Before I bought the Valtra N111 EcoPower, I was driving a Valtra EcoPower 6750. I used this tractor to my satisfaction for five years. The major advantage of Valtra tractors is the spacious cab, which, in terms of comfort and operation, has not faltered in recent years. Economical driving is a game for me. When you play around a bit with the accelerator,

brake in time and then accelerate gently again you can save a lot of fuel and therefore money. The tractor also lasts longer.

Bernd and Florian Hillen from Essen, Germany

have been driving T140e in their dairy farm. They keep 100 milking cows, 120 young stock and has two large barns with pigs. On the dealer Helmut Backhaus' recommendation, father and son decided to buy a Valtra T140e. Before the purchase was made, Florian tested the tractor comprehensively.

On the positive side, he noticed the tractor can deliver a high level of performance, it has a strong engine, a spacious cabin that provides a excellent visibility around the tractor and the tractor's solid construction. Florian goes on to say:

– The Valtra T140e completes its tasks easily with only a few revs, often no more than 1,200 revolutions. You simply don't need to rev the motor any more than that. We always tell our students how to get the same capacity and tractive force with few revs. We tested sowing corn in combination with a front packer at the front. It went very well, partially due to the sandy soil. The tractor used 9.8 litres of fuel at 1,400 revolutions and 540 rotations.

Florian uses math to explain why he is an Ecopower tractor advocate and says:

Albert de Kleine makes very intensive use of the tractor. He is able to make significant cost savings each year simply by pressing the Eco switch.

– When used normally, a tractor will last 10,000 hours. I believe that when you drive a tractor that unnecessarily uses a lot of fuel, you lose money. If, for example you purchase a tractor that uses four more litres than a Valtra tractor, then – over the course of an average life, you use 40,000 litres more fuel. Assuming a price per litre of € 1.13, you've needlessly lost € 40,000. That's a shame, of course. I don't want to drive a tractor just to ride in a tractor, I want to earn money with it. That's why I drive a Valtra.

■ **Annelies Bakker**
Photos: Annelies Bakker

Advantages of driving with Eco mode	Power mode offering
• Nominal speed 1,800 rpm • Fuel savings up to 10 % • Lower noise level • Lower piston speed, longer engine life • Very high torque at wide range	• Approximately the same power but including transport boost • Nominal speed 2,200 rpm • Transport boost 11 hp (8 kW) • Top speed 50 km/h or 40 km/h • EcoSpeed depending on specifications • High PTO power 1,000 rpm
Eco mode is recommended • For soil preparation • For general work • For variable work • For PTO work at 540 rpm	**Power mode is recommended** • For heavy PTO work • For high speeds • For high hydraulic output

New passenger seat for N and T Series tractors

N and T Series tractors are now available with a new passenger seat. The comfortable seat features a backrest and seatbelt and complies with all official regulations. The seat is made from the same kind of easy-maintenance and durable material as the previous bench.

The new seat is attached in the same way as the previous bench, so it can be easily post-fitted to older tractors. Similarly, new tractors can still be specified with the traditional bench, which takes up less space in the cab than the new passenger seat.

Steel fuel tank now available for N Series

The excellent forest characteristics of the N Series can now be further enhanced by specifying a steel fuel tank. The capacity of the factory-fitted tank is 150 litres, and it offers protection against sharp branches, stumps and rocks. The fuel tank is installed on the left side of the tractor, and it includes a toolbox. The fuel tank does not diminish the tractor's ground clearance.

The new steel tank is available on N Series Versu and Direct models. On HiTech models the fuel tank is protected by the steel centre frame, as before. Equipped with the steel tank, the Direct model is the first stepless tractor to be designed for forest use. It is also available with ground speed PTO for self-propelled trailers, a forest cab, the TwinTrac reverse-drive system, a turbine clutch, forest tyres, 160 l/min hydraulics, narrow rear mudguards, protected forest rims and many other forest specifications.

Jürgen Bongard has made woodchips with his S352 for almost 1,000 hours

Jürgen Bongard has used his S352 for almost a thousand hours and is already impressed with the low fuel consumption and power of the SCR engine. The AdBlue consumption is lower than expected, and tanking is easy.

SCR technology really saves fuel

Sauerland, a region in northwest Germany south of the Ruhr valley, is famous for its forests, mountains and wilderness areas. Tourists come here in wintertime for the downhill and cross-country skiing and in summertime for hiking in the woods. The region's agricultural economy is also heavily based on the forest industry.

– I have used my Valtra S352 already for 1,000 hours for chipping, and the fuel savings compared to my previous tractors has been really noticeable. Even though my new tractor has much more power than my old machines, I have never used so little fuel, says local contractor Jürgen Bongard.

Bongard produces woodchips for customers within a hundred kilometre radius of his home village in Neuenrade-Blintrop. His tractors usually accumulate over 2,000 hours a year, but the large amount of snowfall last winter reduced the number of working hours. Bongard's customers are typically forest owners, and the average contract is for 100–3,000 cubic metres of woodchips.

– I have done this for 15 years, 10 years as my main job. I have never advertised my services, unless you count a high level of quality and efficiency as advertising, Bongard says.

Originally, Bongard did not have a lot of competition in wood chipping, but recently more contractors have entered the business. One of Bongard's advantages is that he has focused his business entirely on chipping. Many others also have a farm to run or plough snow, for example. Bongard is able to offer his customers the advantage of flexibility, and such distractions as calving or snowy roads do not disrupt his chipping schedule.

– I started chipping as a part-time job. My first machine was a small hand-fed chipper. I have since used various tractors and a truck. The Valtra S352 is the best tractor that I have ever used for this work, proclaims Bongard.

The S352 and Jenz chipper together weigh 26 tonnes. The capacity of this combination is such that Bongard is happy to leave transportation considerations up to the customer or to employ another contractor for this task. When up to 100 cubic metres of woodchips are produced an hour, it is important that the logistics chain also works.

Strong engine

Bongard has a lot of praise for the S352's engine in particular. The engine has a lot of power and torque, of course, but it is also extremely strong and does not strain even under the biggest loads. Around 400 litres of fuel are consumed during a typical 10-hour day, which Bongard says is an excellent achievement.

– The AdBlue consumption is surprisingly low, around one percent of fuel consumption. I even had my dealer Hubertus Krengel inspect the tractor just to make sure everything was ok, and he confirmed that the AdBlue consumption was normal for these conditions, Bongard explains.

Bongard has a 1,000-litre AdBlue IBC tank next to the diesel tank at his tractor garage. The AdBlue tank has an electric pump that makes it easy to top up the tractor every time he refuels.

– The 1,000-litre tank is big enough that I only have to refill it a few times a year. I order the AdBlue from the same place that supplies my diesel fuel. Both are delivered the following day with a single phone call: the old AdBlue tank is removed and a new one installed. It could not be simpler, Bongard admits.

■ **Tommi Pitenius**

Jürgen Bongard has specialised in chipping for the past 10 years. His machinery produces woodchips 2,000 hours a year.

S Series most fuel efficient tractor in its class

with consumption up to 17 percent less fuel than competing models

The fuel efficiency of the Valtra S Series and corresponding AGCO tractors has been measured recently by several independent bodies. According to these tests, the fuel efficiency of the S Series was proven to be best in class.

In a test carried out by the University of Nebraska, an AGCO DT – the equivalent of the S Series – was compared to five competing tractors in different power classes. The other tractors included models with powershift and stepless transmissions.

The fuel consumption of the Valtra S Series was always lowest regardless of the power class or competitors. The advantage in favour of Valtra ranged from 3.8 to 17.2 percent. The order in the power classes was also always the same, Valtra consuming the least amount of fuel, and general the positions of the competing tractors were the same regardless of the power class.

The tests measured fuel consumption in grams per kilowatt hour through the PTO. The tests did not take into consideration the consumption of AdBlue, which is required in the SCR engines that power the Valtra S Series. The AdBlue consumption is 0.1 to 4 percent of total fuel consumption, and the price of AdBlue is similar to that of diesel. Accordingly, even if AdBlue consumption is added to fuel consumption, the overall picture does not change.

SCR technology saves money

The Valtra S Series was the first tractor in the world to adopt SCR (Selective Catalytic Reduction) technology, which significantly reduces exhaust emissions. The technology has already been used for years in trucks. The system sprays a urea-water solution into the exhaust gases before the catalytic convertor. The excess nitrogen oxide that results from the highly optimised combustion is then converted into harmless water and nitrogen.

Fuel savings of around ten percent add up to considerable savings in terms of money. Depending on the amount of hours driven and type of work, annual fuel costs with the S Series are typically thousands of euros lower than if a competing brand were used.

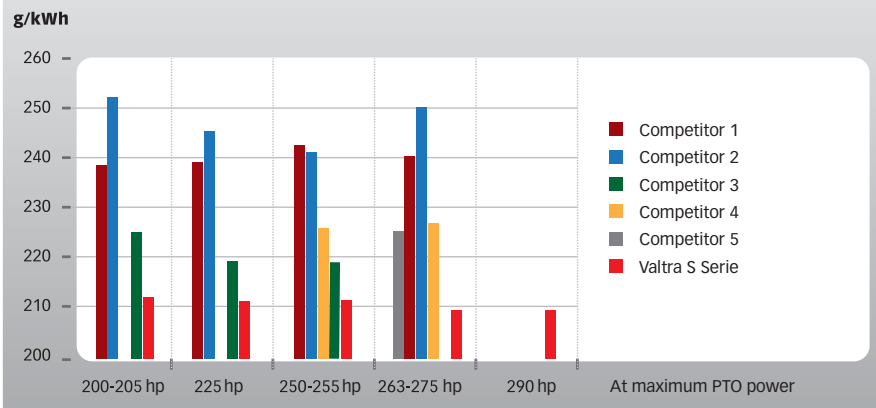
German test records 16.6 percent lower fuel consumption

DLG, a respected German organisation that promotes technical and scientific progress, carried out a test in which a Massey Ferguson 8600 Series tractor that corresponds to the Valtra S Series achieved record low fuel consumption figures. Depending on the task, fuel consumption was 10 to 20 percent lower than those for recorded by competing tractor brands. On average, the fuel consumption of the S Series was 16.6 percent lower than similar competing models.

During the test the tractors were used for a wide range of field work at both 60 percent power and full power. Fuel consumption was measured in both litres per hectare and grams per kilowatt hour.

■ **Tommi Pitenius**

S Series fuel consumption compared to competitors



Individual tractors by individual makers

Meet our tractor makers

Katja Laitinen is ready when the tractor comes out of the surface finishing area at the centre of the assembly line. In just under 20 minutes Katja will do many things to the tractor. She will remove the protective painting tape, grease all the nipples and fit the handbrake cylinder. Under the cab she will attach the mounts and sound insulation.

The final assembly line where Katja works has been fully reorganised this summer. The exact parts required for each individual tractor are delivered by automated transfer wagons from the storage area. This eliminates the need for Katja to collect the parts herself, which reduces the risk of human error and enhances efficiency.

Katja lives around 20 kilometres from the factory. During her free time Katja enjoys picking wild berries in the forest.

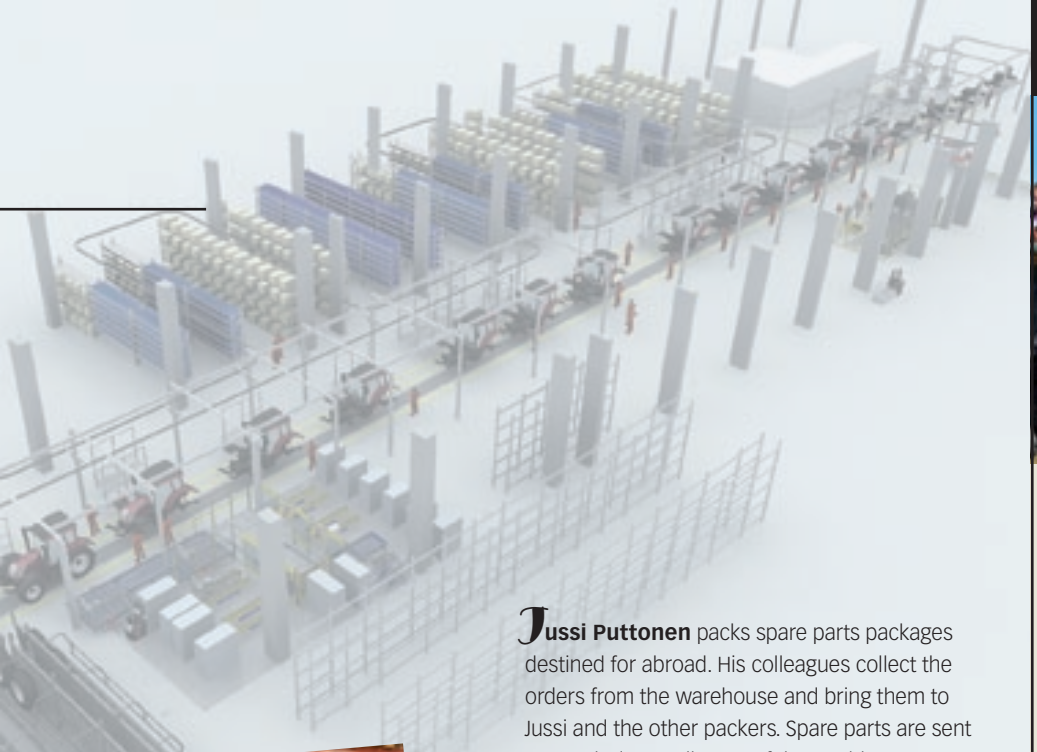
Ville Suihkonen works in R&D developing brakes, front axles and steering systems. His job involves a lot of discussions with suppliers and defining the requirements for components and systems.

During his free time Ville often visits his family farm 80 kilometres from Suolahti. His cousin runs a dairy farm with two milking robots and 120 cows. Occasionally Ville will bring with him a tractor from R&D to test in real life conditions. The farm's own tractor fleet includes a T170, M150, 6800, 2105 and 705.

In addition to farming, Ville plays volleyball in the second division.

Martti Peura machines casings for the forward-reverse shuttle, front gear, PTO, powershift and rear axle. This work is carried out in three shifts, mornings, afternoons and nights. The casing blocks are placed in the machining jig and fed into an automated FMS (flexible manufacturing system) machining unit.
The FMS unit machines the castings in four different stages and can also wash the finished product. Martti has worked in the transmission plant for 36 years.

During his free time Matti enjoys hunting and breeding dogs. He also serves as a judge at dog trials.



Jussi Puttonen packs spare parts packages destined for abroad. His colleagues collect the orders from the warehouse and bring them to Jussi and the other packers. Spare parts are sent out each day to all parts of the world.

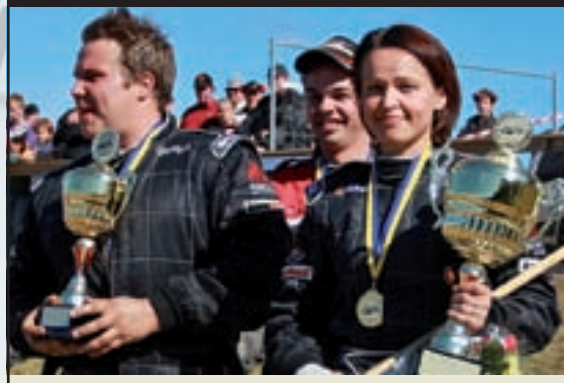
Alongside his main job, Jussi cultivates 32 hectares of grains and hay in Laukaa. Jussi sells the hay to local livestock farms. On holidays and weekends Jussi takes care of his fields and crops, accumulating several hundred hours on his Valmet 565 four-wheel-drive tractor. His farm also has 37 hectares of forest. Jussi's background as a farmer helps him understand customer needs also in spare parts service:

– I know what it means when an express delivery is needed desperately somewhere in the world.

Jussi's family includes his wife **Elina** and 2-year-old daughter **Iida**.

Kim Kytöpuro is part of the team that fits the optional equipment ordered by customers at the start of the assembly line. Most of his work involves installing compressed air equipment. Although sub-assembly is carried out alongside the main assembly line, the actual installation work is performed along the line in different stages. For example, the pneumatic brakes and pneumatic Aires front axle suspension on the T Series have to be installed at different parts of the line. Kim is also responsible for installing front PTO units.

Kim lives in the countryside approximately 10 kilometres from the factory. At home Kim has three sons aged 4, 5 and 8. His wife also works at Valtra in the spare parts department. Ever since he was a boy Kim has been a fan of classic American cars. He currently drives a restored 1960 Chevrolet Impala, he is working on a 1975 Impala, and he has a couple of projects waiting in line.



Johanna Herlevi wins European championship

Valtra Shell Pulling Team driver **Johanna Herlevi** took victory in the Pro Stock 3500 category at the European Tractor Pulling Championship in Hörby, Sweden in September. The team's success was crowned by her brother **Matti Herlevi**, who claimed the bronze medal. Second place went to another Valtra, that of the Dutch team Next Sensation. Overall victory in the Euro Cup also went to Next Sensation, which claimed the Dutch championship along the way. The strong performance of the Valtra Shell Pulling Team towards the end of the season was cut short when the final event was cancelled due to rain. The team's Sigma Power tractor ended up fourth, Caesar sixth and Doris eighth in the overall point standings.

New forum for Valtra fans

Valtra has opened a new community internet service for all Valtra owners and fans. The aim of the service is to unite Valtra fans around the world. My Valtra is a place where people can share stories, photos and videos from the different environments, situations and countries in which they use their Valtra tractors.

The service lets visitors tell about themselves, their work, their machinery and situations involving their Valtra tractors and to share their experiences with other users. Visitors can also read stories and experiences involving people related to Valtra, as well as view images, comment and rate these stories. The user interface is a map of the world where visitors can see where other Valtra fans are located.

Everyone who registers on the service before the end of the year will participate automatically in a prize drawing. So register now, tell your story and help expand the world of Valtra!
www.myvaltra.com

"I was here first!" Reindeer can often be encountered on the road leading to the village of Lokka. Drivers have to give way.

Raimo Mattila breeds reindeer, rents holiday cottages

Valtra versatility ideal

Reindeer breeder and tourism entrepreneur Raimo Mattila selected a new Valtra N92 HiTech to help him with his work in and around the town of Sodankylä in Finnish Lapland. Mattila is a fine example of a multitasking rural entrepreneur, so it was important that his tractor could be used for a wide range of tasks. In addition to his reindeer husbandry work, Mattila needs his tractor for farming and forestry, contracting and even tourism activities.

From the side of the fell a spectacular view opens up over an opal blue lake. Without the peaks of the fells that loom on the horizon it would be impossible to say where the land ends and the sky begins.

Beside the lake hums a 2009 model year Valtra N92 HiTech tractor. By the water a stocky man with his shirt sleeves rolled up lowers a small fishing boat into the lake. Without his 101-horsepower companion, the workday of reindeer farmer and tourism entrepreneur Raimo Mattila would be quite different.

– I offer guided boat tours for tourists and anglers, and this tractor makes it easy to move the boat from one lake to another, explains Mattila, who lives in the tiny village of Lokka near Sodankylä.

Business on the terms of the wilderness

Lokka is a popular hiking destination for nature tourists from around Europe, as the village is situated beside the spectacular Urho Kekkonen National Park. From spring to autumn many tourists arrive to enjoy the silence of the wilderness around Lokka, and the Mattila family is happy to offer these visitors accommodation, meals and local guide services.

– We get many visitors from Central Europe and Great Britain in particular, Mattila says.

The Mattila family currently rents and brokers holiday cottages for tourists interested in hiking, fishing, hunting, and picking berries and mushrooms in the pristine nature of Lapland. In addition to accommodation services, catering, transportation and local guide services are also offered. For example, Raimo Mattila takes visitors interested in salmon fishing on guided outings on the Luiro river that flows through his village.

The new Valtra comes in very handy during the tourism season. Firewood to heat the saunas has to be transported to the holiday cottages, and the boat has to be transported from one lake or river to another depending on the special wishes of the visitor.

Despite his wide range of business activities, Raimo Mattila is first and foremost a reindeer farmer. Accordingly, he lives in rhythm with the seasons, as his tasks rotate according to the time of year.

4WD and turbine clutch used a lot

Mattila has almost as many uses for his tractor than Lapland has white nights in summertime. In wintertime, when his reindeer roam their winter pastures in the wilderness along the border between Finland and Russia, Mattila does forestry work and maintenance contracting.

– I have an agreement with forest companies and various cottage owners to plough their roads in wintertime, Mattila explains.

Naturally, snow ploughing north of the Arctic Circle is no mean task. The roads are often narrow, the amount of snow enormous, and height variations considerable.

– Four-wheel-drive is essential for getting up the steep climbs. I like the way that four-

The distances in Lapland are long, and the elevation of the terrain varies considerably. Four-wheel-drive makes driving easy, even on the steepest slopes.

The working hours of herders are set by the annual reindeer herding schedule. Marking the ears of reindeer calves takes place in the middle of summer and involves two weeks of intensive work.

and guides tourists in the wilderness of Finnish Lapland

beneath the fells of Lapland

Tractors can be used for numerous purposes in the forest wildernesses of Lapland. Raimo Mattila depends on his Valtra N92 HiTech for his tourism business and uses it to transport his fishing boat, for example.

Autumn is a busy time for reindeer herders, as the fences must be repaired before the reindeer roundup begins in October. Fencing supplies can be transported easily by tractor. The turbine clutch is a great help for front-loader work and driving in the forest.

wheel-drive can be activated on the move with my new Valtra, he adds.

With the arrival of spring comes field work and firewood production. In summertime the hay has to be harvested to feed the reindeer in wintertime. When autumn begins, the reindeer fences have to be repaired. For this job the agile N Series is particularly well suited, as it can be driven precisely between the low pine trees. Fence posts can be transported conveniently on the forks of the front loader. For pulling the wire fencing, however, an ATV is still more practical.

– I could not do this work without a front loader. It is essential for lifting and carrying bales and sacks, for example, not to mention snow work. The turbine clutch makes front loader work and forest driving easy, allowing exceptionally smooth starts – even if it does sap some of the engine's power, Mattila comments as he drives another fence post into the ground.

Excellent service when needed

The reindeer farmer's tractor has to cope with a wide range of conditions and work situations. In 2009–2010 Finland experienced an exceptionally cold and snowy winter. Temperatures in Lokka fell to minus 40 degrees Celsius at times, and as late as March over a metre of snow covered the ground.

The harsh winter proved that even Valtra tractors require special features to survive Arctic conditions.

– The fuel preheater should have been specified when I purchased the tractor, Mattila admits.

The extreme cold also had a big impact on more southern parts of Finland.

– I'm sure the service network has a better understanding now of the kinds of problems we have to deal with up here every winter, he smiles.

Before purchasing his Valtra N92 HiTech, Mattila owned two other Valtra tractors that convinced him of the brand's suitability for the Arctic conditions.

– The most important feature of any machine up here is reliability, as the distances are so long. Luckily for me, the nearest service technician is not very far off, as I found one just 100 kilometres away, Mattila notes, pointing in the direction of the road to Sodankylä.

The village of Lokka is situated 86 kilometres from the centre of Sodankylä. Despite the overall reliability of Valtra tractors, Mattila has not been entirely without problems.

"When I have needed repairs, Valtra has demonstrated the efficiency of its service network. Once they came to collect my tractor within two hours of my phone call!" Mattila recalls with a laugh.

Standing in the remote village, surrounded by wilderness, two hours can certainly be considered a respectable response time.

■ **Riina Mäentausta**
Photos: Tuula Lampela

A Valtra's life
not just a walk in the park

The Parks and Countryside Service of Leeds City Council is responsible for just about all the plants, trees and grass growing in public areas within the city limits; a significant undertaking as Roundhay Park alone is close on 800 well maintained acres. Alongside parks, flower beds, hanging baskets on public buildings and colourful roundabouts dotting the city's streets, the Service is also responsible for a couple of farms, home to rare and exotic breeds and open to the public. Trees abound both in significant wooded areas; the Council owns and maintains 1,300 ha of amenity woodland, unusual in a cityscape, and large numbers of non-woodland trees as individual specimens in parks and along streets. It is obvious that Leeds takes the maintenance of its public areas very seriously and it seems the people of Leeds appreciate their surroundings; incidences of vandalism are thankfully low.

The Parks and Countryside Service also takes it's obligations to the residents seriously, working as efficiently and as cost consciously as possible. When compulsory, competitive tendering was introduced the Service tendered for and retained all its own work. Since then the Service has expanded, today regular staff number around 700 plus seasonal contract workers, and it supplies plants for projects undertaken by other councils and organisations the length of the country. For several years Leeds City Council has entered gardens into the Royal Horticultural Society's Chelsea Flower Show, arguably the most famous and demanding horticultural show in the world. Until 2009 a Silver Gilt award was their best achievement but this year, supported by HESCO Bastion Ltd., Leeds hit the jackpot, becoming the first council to be awarded a Gold Medal in the large outdoor garden category, with a garden based on a Leeds and Liverpool Canal lock. Some may see a Council's participation in such an event as a bit of an ego trip but, working on the project during the planning stage and subsequent building at Leeds and later in London is entirely voluntary and over subscribed. Importantly, the high standards required for success at Chelsea have produced a knock-on effect; a pride in all the Service does. The prize winning lock and 'canal', now dismantled, will eventually join the other award winning gardens in one of the City's parks to be enjoyed by the City's population. Winning at Chelsea and the standard of the department's displays generally, generates a pride that shows up right across the entire Service including its machinery and equipment; much of it bespoke and maintained mostly in in-house workshops.

Driver Steve Whiteside finds that with the seat swivelled room to operate the crane in safety and comfort.

◄ ***In 2010, supported by HESCO Bastion Ltd., the Parks and Countryside Service of Leeds City Council hit the jackpot, becoming the first council to be awarded a Gold Medal in the large outdoor garden category, with a garden based on a Leeds and Liverpool Canal lock. The garden will be rebuilt in one of the City's public parks.***

Nine years ago the Service re-appraised its tree maintenance and forestry operations and purchased a couple of Valtra tractors to replace well used machines of another brand.

– Glen Gorner the Forestry Operations Manager and I chose Valtra because of their pedigree – there are a lot forests in Finland, explains Chris Simpson, the Parks and Countryside Operations Services Manager.

– Initially there was some resistance from operators – they liked what they knew – but it was only a very short time before they were won over by the abilities of a six cylinder 8150 and a much smaller A85.

Like most machines on the fleet the Valtra forestry machines have regular drivers who work alongside other forestry staff.

– Apart from thinning the woodland as part of general management we have to ensure the trees are safe – we can't have limbs dropping unexpectedly, or a tree that will not withstand high winds – nearly all our areas are open to the public and safety is paramount.

Keeping abreast with developments the department continually examines its operating procedures.

– Initially we stacked cut timber near road access, loading it on a specialised 40 ft articulated trailer for transport to the depot. Our woodland and arboriculture management result in the creation of a variety of wood products; sawing timber and logs – firewood are sold to create revenue, other material may be chipped for mulch or compost.

to the rear, vision is excellent and there is plenty of

The team often work in public spaces and in close proximity to buildings.

– With the tractors due for replacement, last year we looked again at our operations and decided this was not the best use of resources or cash, explains Chris Simpson.

– The Valtras had given excellent service and after local dealer Brian Robinson produced operating figures for the latest four cylinder N Series, in particular the N111 Eco HiTech model we decided to stay with the brand – and a good job too as far as the drivers were concerned – opting for two identical machines.

Chris, in conjunction with colleagues also decided to remove the large timber truck from the equation and marry one tractor up to a new forwarding trailer with crane for self loading and the other to a double drum winch removed from the six cylinder 8150. Both new Valtra N111 tractors are fitted with Valtra 65 loaders and operators have a number of attachments including log grabs at their disposal.

With many Valtra tractors sold into forestry throughout Europe, particularly the Nordic countries, there are a number of factory options available on new tractors. These range from swivel seats enabling easy operation of rear mounted winches and cranes down to details like tyre valve guards; cheap enough on a new machine but capable of preventing a considerable amount of expensive downtime. Just one valve removed by a branch or stump resulting in a flat tyre and the additional cost of the guards becomes worthwhile. Additional forestry guarding has also been added by specialist Jas P Wilson including well guarded rotating beacons. Now, instead of skidding logs to a roadside collection point they are loaded

The Valtra loader and log grab is a quick efficient way of handling large and small timber.

directly onto the trailer for transport. The winch is still used for the extraction of awkwardly placed timber and to steady branches and trees being pruned or felled; woodland apart, forestry staff can find themselves working in close proximity to buildings or amongst formal flower beds.

Apart from negotiation awkward paths and yards the compact nature of both new tractors means they can operate within naturally regenerated woodland easily yet have the power to handle large jobs undertaken by the forestry teams sometimes supporting emergency teams that may be called out to deal with any type of tree problem – Council or private – following a storm or accident. The power and torque of the N111 means they can also cope with the City's streets, travelling with significant loads without causing hold-ups, so often the cause of driver frustration resulting in accidents.

With the tractors both projected to clock up in the region of 1,000 hours annually how long will it be before they are replaced? Frankly that depends very much on both central and local government fiscal policies but the general consensus is not for a few years yet, a factor which will undoubtedly please the drivers.

■ **Roger Thomas**

The French overseas departments of Martinique and Guadeloupe are home to approximately 400,000 and 400,500 inhabitants respectively and form part of the Antilles archipelago in the Caribbean Sea. The location of these islands between the Tropic of Cancer and the equator gives them a favourable climate for fruit and sugar cane cultivation.

Each year Martinique and Guadeloupe export more than 300,000 tonnes of bananas to the European Union. This agricultural output has now garnered worldwide recognition as a model for modernisation and innovation in the face of competition.

Valtras are top banana **in the Caribbean!**

Valtra tractors knuckle down to work in every latitude, from the frozen landscapes of the polar north to the sweltering heat of the tropics.

Based in Martinique, FIBandCo breathes new life into the pseudostems of banana plants. This innovative company harnesses a technique that is found nowhere else in the world, using an environmentally-friendly process to tap into a fibre-rich natural resource. On its plantations, FIBandCo transforms the hearts of banana plant stems into a remarkable, high-quality material that is branded under the name Green Blade. This Green Blade coating is used for several applications like furniture, floorboards and thermal insulation and it is made of 100 % natural fibre from responsible farming.

Valtras on a banana plantation in Martinique

The factory where the banana plant stem hearts are processed is located in the town of Ducos and forms part of the Exploitation Agricole Rivière la Manche complex, which produces bananas and sugar cane. The banana plant is a herb that is cut down after the bunches of bananas have been harvested. Until now this natural resource has been going to waste. However, the technique now used by FIBandCo benefits the environment by avoiding the use of chemicals during processing and by actively producing irrigation water as an extract from the banana plant stems.

The Ducos processing plant was designed with the environment in mind, incorporating solar panels, solar water heaters and a rainwater harvesting system.

FIBandCo uses Valtra tractors daily to transport the pseudostems from the fields to the factory. The Valtras have to cope with the difficult working conditions engendered by bumpy and uneven dirt roads. In the rainy season, it can become dangerous to transport loads along these roads. However, the Valtras are robust enough to meet the challenge with aplomb.

The fleet includes both rollover and cab versions of the A Series alongside N Series and T Series models. All the tractors are fitted with an automatic hitching system so that the operators can quickly prepare their equipment without needing another pair of hands. Each trailer can carry around a hundred stems, with a total weight of approximately 6 tonnes.

Nicolas Cheminon of FIBandCo relies on Valtras:

– They have a reputation for being solid, robust and reliable, with a practical hitching system. What's more, the farm where we are based was already using Valtra tractors and so we have been able to streamline our maintenance and parts purchases.

Nicolas Cheminon at the wheel of the A82.

FIBandCo works with the SDVI Martinique dealership, which sells Valtra tractors and provides an after-sales service. Cédric Deboudt, Sales Manager for SDVI, agrees that Valtras are perfect for working in Martinique:

– We sell 16 Valtras a year in Martinique and our clients, like FIBandCo, are extremely satisfied with the quality of their tractors. They have a great reputation for reliability. Clients can also choose from a wide range of equipment options.

The à la carte tractor order system also means that FIBandCo has been free to choose the colour of the company tractors: its red and green vehicles can be spotted trundling along Martinique's roads. As for its next Valtras, the colours may or may not stay the same, but Nicolas Cheminon confirms that – two new Valtras should be added to our tractor fleet during 2011.

■ **Cédric Deboudt**

Spotlight on the SDVI dealership

SDVI has a presence in Martinique, Guadeloupe and French Guiana, selling agricultural vehicles, earth moving equipment and large goods vehicles. The company has belonged to the Loret Group since it was founded in 1998 and has 60 employees, including 15 in the after-sales department. On average, the company sells around 40 Valtras a year and its turnover for 2009 reached EUR 20 million.

Cédric Deboudt SDVI Sales Manager.

The tractor plus fire vehicle combination is unbeatable in areas that cannot be reached in the fire engine.

A fire extinguisher for tough terrain

The members of the farmers and smallholders association in the Norwegian municipality of Finnøy are prepared. For those areas that the fire engine cannot reach, a farmer's tractor is the solution.

– We chose equipment that can withstand a real beating, says chief fire officer Stig Forbregd in Finnøy, north of Stavanger.

He is eager to show off the innovation. Behind the municipality's Valtra N101 HiTech is something that at first glance seems to be a slurry trailer. However, it's sporting the yellow colour of the local fire brigade.

– These vehicles are equipped in exactly the same way as a fire engine – apart from the fact there is no engine, explains Forbregd, demonstrating the ability to extinguish fires via the stream of water from the slurry canon that is mounted on top of the vehicle. It's an effective weapon against forest and heath fires.

Super economical

Over the years, many fires have been extinguished thanks to a farmer's imaginative use of a slurry trailer. This inspired the chief fire officer in Finnøy and the creative minds at Moi AS to adapt the machine manufacturer's 4 CC vacuum tanker into a fire vehicle.

A new fire engine costs between NOK 2.5–4 million, but the municipality managed to get 4–6 fire vehicles for this price.

– We also save a lot on maintenance costs as a fire engine or fire pump has to be started up once a week to keep it working, he explains.

Four fire vehicles

The Finnøy municipality is home to 2,900 inhabitants who are scattered across its 15 large and small islands. Two of the islands are connected by a tunnel, while the others rely on ferry connections. It is easy to see why catastrophic fires in many areas will be a reality long before a fire engine would be able to provide assistance.

– This is why we want to put fire vehicles on four of the island groups, preferably on the premises of farmers who have a basic knowledge of how to extinguish fires, says Forbregd.

Using the fire vehicles spread across the islands in Finnøy, the famers can operate the vehicles to rapidly start the external extinguishing process before the professionals from the fire brigade take over.

This co-operation with local famers is exactly what makes this project possible – they contribute the tractors and manpower, and they already have a good knowledge of how to operate their slurry trailers from Moi AS.

Chief fire officer Stig Forbregd (left) and deputy fire officer Jakob Bjørklund have some super effective fire extinguishing equipment that boosts the ability to deal with fires in the various districts.

All terrain

The tractor keeps going in those areas where the fire engine has to give up.

– A tractor fitted with a fire vehicle is ideal for the terrain – the fire vehicle follows wherever the tractor goes, even through marshland, Forbregd claims.

These vehicles can be crucial if a forest catches fire – an event that is occurring increasingly often.

The Valtra 101 takes on the challenge and has no problem drawing the fire vehicles. The Valtra is also used by the municipality for other jobs and it is the right size to drive down steep slopes with a load. It is definitely suited to pulling a fire vehicle.

– At more than 74 hp, a tractor is capable of drawing a fire vehicle that is fully loaded with 4,000 litres of water weighing up to seven tonnes. At 90 hp, a tractor will have no problem drawing and operating the fire vehicle, says Forbregd.

Excellent economy

One of the reasons the Finnøy municipality uses a Valtra is its ease of use, meaning it can be operated by any of the drivers available.

– Another reason for choosing Valtra is the excellent level of economy, says the chief fire officer, referring in particular to the five-year service and guarantee agreement offered by Valtra.

– We have two Valtra tractors at the moment. When they have been going for five years we will replace them with new ones, says Forbregd.

■ **Kalle Seip**

The T140 has shown that EcoPower really does work – reducing fuel costs.

The 8150 now has over 10,000 trouble free hours on the clock and lives more or less permanently on narrow wheels attached to a sprayer or fertiliser spreader.

Mostly driven by Garry Jones the T150 has a 50 kph transmission, front suspension and air brakes. Duties include heavy cultivations and road work, often with a heavy slurry tanker.

Valtra **PROVE** their **WORTH**

At 600 acres, Great Porthamel Farm on the edge of the Brecon Bacons National Park is farmed by the Jones family. Crops include 400 acres of wheat and oats, 60 acres of fodder beat for sale to local farmers and 140 acres of grass, both short leys and permanent pasture utilised by the 80 Hereford cows and their offspring which are single suckled and sold on as stores. Back in the mid 1990s the farm majored on livestock production; cattle and sheep. However, with returns sadly diminishing the decision was made to move the emphasis to arable crops. The rather elderly two-wheel drive tractors then on the farm certainly were not suitable for the new regime.

Brothers **Garry** and **Paul Jones** and their father looked at just about every make of four-wheel drive tractor available and attempted to arrange several demonstrations on their farm.

– It was an interesting time, the number of dealers not prepared to arrange demonstrations here at Porthamel surprised us – especially as we were in the market for two machines, recalls Garry.

– They were discounted right away!

After much consideration we settled on a couple of Valtra 8150s.

– Dad liked the balance – engine over the front axle is ideal for four wheel drive operation and although powerful, they are light enough for top work. When we wanted to get on with heavy cultivations we simply put the weights on.

So, in 1996 the Jones family purchased a pair of Valtra 8150s and one, with over 10,000 hours on the clock, remains on the farm today.

– Both tractors were highly reliable, we hardly had to put a spanner on them – one was fitted with a loader and we sold that a few years ago when it reached 10,000 hours, not because it looked like giving trouble but because we wanted something providing a little more driver comfort, explains Garry.

Along with the change in farming policy the family also exploited gaps in the contracting market.

– We haul waste from an abattoir using an artic truck but there are occasions when we need to empty the slurry tanks. We do this with a vacuum tanker and its useful – and safer – to have a 50 kph transmission, air brakes and suspension.

The 8150s did not offer these levels of specification but the two T series the farm now runs do. Interestingly it was the brothers experience with the 8150s that persuaded them new tractors were not necessary.

– We believed used Valtra machines could be just as reliable and much less expensive. explains Garry.

– The T140 EcoPower machine was built in 2003, we purchased it five years later and it now has 5,500 hours on the clock and has been trouble free – and cheap to run.

A similar situation exists with the T150 built in 2005 and also purchased in 2008 which today has clocked up 7,500 hours – also trouble free.

Garry drives the T150, used for heavier cultivations, mowing with a pair of 10ft mowers (one on the front linkage one at the rear) and road work. Brother Paul has the T140 which handles the drilling with a combination unit, forage harvesting and much of the muck spreading. The old 8150 now lives more or less permanently on narrow wheels and when not coupled up to the sprayer is connected to the fertiliser spreader.

– At busy times this extra third tractor saves a lot of time, comments Paul. The 8150 also does a term of duty during winter months on the farm's diet feeder servicing the cattle yards.

Does the Jones family feel they have made the correct decisions? Put simply the answer is yes – a point of view supported by a lack of repair invoices and time in workshop.

■ **Roger Thomas**

Garry Jones (seated) and brother Paul agree that Valtra reliability means that they get excellent, reliable service from tractors that have clocked up high hours.

▲ *Valmet do Brasil's "Alcool" series featured three models: the four-cylinder Valmet 88 and the six-cylinder Valmet 118 and 118-4.*

◄ *The Valmet 702 wood gas tractor being test driven in 1980. It was calculated that consumption of dry logs would amount to 1.4 kilos per kilowatt hour.*

Valtra is a veteran

when it comes to researching alternative fuels

Valtra's prototype biogas tractor has attracted a lot of attention this past summer. In fact, Valtra has carried out a lot of research and testing with alternative fuels in both Europe and Brazil for several decades already.

In 1980 a Valmet 702 tractor running on wood gas was developed together with Vakola, the Finnish State Research Institute of Engineering in Agriculture and Forestry. This prototype was used to develop wood gas technology, which was soon thereafter introduced in Brazil in the early 1980s when the country was experimenting new types of renewable energy. Alcohol fuel eventually became the preferred choice, and Brazil became the world's leading producer of ethanol.

Between 1983 and 1986 Valmet do Brasil manufactured a total of 1700 alcohol fuelled tractors, primarily for the country's sugar cane plantations that could supply their own fuel. The engine operated on the diesel principle: there were two injection pumps, a line pump fed in the ethanol, but combustion occurred by spraying a small amount of diesel fuel with a distributor pump. This project eventually dried up when oil was discovered off the coast of Brazil.

Back in Finland, research was carried out into the use of alcohol in diesel engines in the late 1980s. The technique was to add an ignition improver to the ethanol to help it combust under compression. Otherwise the alcohol engines operated on the Otto principle with spark plugs. The findings were positive, but Finland lacked the necessary infrastructure.

Testing began with the first generation of biodiesel in the beginning of the 1990s. Valmet's managing director at the time **Matti Sundberg** tried to promote the use of fuel by personally lobbying the Ministry of Agriculture and Forestry. Although little came of these efforts, the company's biodiesel readiness was rewarded in several export markets, especially Austria and Germany.

One episode around this time involved the Elsbett engine, which ran on pressed plant oil. This "raw oil engine" was fitted to a Valmet 605, which was then test driven at the Statens Maskinprovnigar research institute in Uppsala, Sweden. Today this engine is on display in the engine plant's museum.

Today Valtra is active in two fields of research. Valtra do Brasil is developing the next generation of alcohol engines that operate on the diesel principle. This still involves the use of diesel fuel to combust the fuel mixture, but new cost-effective solutions for feeding in the alcohol are being sought by using the latest components from the automotive industry.

Valtra's Suolahti factory in turn is studying the use of biogas in diesel engines using the dual-fuel technique, in which combustion occurs with a small amount of regular diesel fuel or biodiesel. The biggest impediment to the use of renewable fuels in tractors is the lack of relevant legislation within the EU. Advances made by individual countries do not seem probable. Another problem is the lack of infrastructure. Biogas is available from the existing natural gas network, but in most countries such a network is not very widespread. The future of farm- or village-based biogas reactors is uncertain. Swedish society is very supportive of renewable energy forms, and southwestern Sweden already has a comprehensive natural gas distribution network.

Biogas tractors have been developed together with the best co-operation partners in the industry. AGCO Sisu Power's generator plant Genpowex has developed a biogas power plant that operates on the same dual fuel principle and that would be very suitable for use by farms.

Whatever energy solutions are adopted in the future, Valtra is ready to apply them.

■ **Hannu Niskanen**

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