

# Valtra Team

Valtra Customer Magazine • 2/2005

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Unparalleled versatility!

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are custom built  
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## Dear Readers,

Thinking of buying a new piece of machinery? Sooner, rather than later, price will enter into the equation and, specification for specification, prices will vary quite considerably. However, is the purchase price the most important point? Shouldn't we be putting more emphasis on total cost of ownership?

The cost of owning a tractor includes every expense from the day you sign the order to the day it leaves the farm in one, three, five or however many years time. So, let's for a moment consider the factors effecting cost of ownership. Initially there is the purchase price and the cost of a finance package. Many uncertainties surround UK agriculture and to make life more palatable Valtra have finance packages tailored to match seasonal cash flows – or we can tailor a plan to meet your specific needs.

Next, operating costs – Fuel costs are now a big consideration. At Valtra we've been doing our best to reduce the fuel consumption of our tractors and over the years Sisu engines, designed and manufactured in Finland, have developed a deserved reputation for fuel economy. We have also gone one stage further by introducing Eco Power models; tractors with slower running engines than the norm. The four cylinder M120 and C120 EP models produce 120hp at rated speeds of just 1 800 rpm and a maximum torque of 580Nm at just 1 200rpm. The six cylinder T140 EP produces 145hp at 1 800rpm and a maximum torque of 660Nm at 1 100rpm. Remember also, that with slower rated speeds Valtra's EcoPower engines take longer to 'clock-up' the hours between routine services, reducing ownership costs still further.

When it comes to maintenance Valtra have earned a reputation for ruggedness and reliability. Many tractors turn in well over 1 000 hours annually and after several years their owners still report that; 'apart from planned maintenance, we haven't put a spanner on it'. The Valtra tractor, engine particularly, has been

designed to be accessible so when it comes to regular servicing much can be done by the operator.

Valtra also supply service kits; filters and other items that need regular replacement. Simply tell the dealer which service is required and by using the correct kit they, and you, can be sure that all points have been covered; much easier for the dealer than trying to keep tabs on all the individual regular service items. Alternatively the work could be done on the farm – when it's convenient – plus, with no breakdowns there's no down time and lost production – further lowering cost of ownership.

Then come less financially quantifiable factors; The Valtra tractor is a comfortable machine, enjoyable to drive. Fatigue is minimised and so, when necessary, it's not difficult to work long hours. Unlike many of our competitors, Valtra tractors are light in weight yet balanced for four-wheel drive, compaction is minimal and no fuel is wasted simply moving around. And it's a simple matter to add ballast for heavier draft operations.

Valtra also pioneered the 'build-to-order' system for agricultural tractors and will assemble your machine to your specification. No unnecessary frills. No modification of stock tractors. No unnecessary expense.

Finally, thanks to all of the above points, when it comes to replacement time Valtra tractors maintain a high residual value.

So, next time you need to invest in a new machine remember, it's the whole life cost that is important, not just purchase price. Remember that while Valtra tractors may not have the lowest retail prices they do have very low total ownership costs.

## Mark Broom

MD

Valtra Tractors (UK) Ltd

## Valtra Team

### Valtra Customer Magazine

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# Back to basics for a simpler life



*Saddlebacks make good mothers and the progeny finish well*

*Farming 800 acres around Tandragee in Northern Ireland Kenny and Jennifer Gracey became disillusioned with the grind of producing commercial beef to supermarket specifications; with well over 200 commercial suckler cows it was a lot of hard work for little profit. In an effort to lift morale Kenny purchased a few Belted Galloway cows and a bull in Scotland. "The first time I saw the beasts*

*was when they were delivered", Kenny remembers. That was nine years ago and the Forthill Galloway herd now numbers 30 pedigree, single suckler cows plus calves and stock bulls. Kenny found the Galloways easy to manage; "They stay out all year, usually calve without help and do well off grass and silage and, while flighty outside, they quieten down nicely when yarded". There was however one draw-*

*back; the meat does not match supermarket specifications. "We overcame that problem quite simply by selling direct to consumers and cutting out the middle man added profit". There was also a call for pedigree breeding stock which also added nicely to the farm's income. What had started out as a hobby was proving a profitable enterprise as demand for the tasty rare breed meat grew.*

The experience gained with the 'Belties' over the first few years had Kenny thinking. "I saw definite possibilities if I put a Galloway bull onto an Aberdeen Angus or Shorthorn heifer to produce the old style Blue-grey cow, a hardy beast that does well off grass and when crossed back to a Shorthorn bull produces beef calves with excellent conformation that mature well". True to Kenny's instincts the Angus and Shorthorn heifers calved easily and the progeny exhibited excellent conformation. Management of the Forthill commercial herd was becoming easier by the day.

There was however one problem; the finished product was again not to supermarket requirements. "Supermarket customers do not want marbled meat seeing it as unhealthily fat", comments Kenny. "But as we all know it is from the fat that meat gets its flavour. Properly cooked Forthill Farm beef has great flavour". Undaunted Kenny set about selling his meat to private butchers and it proved very popular. Gradually output was switched from supermarket style animals to the traditional crossbred calves from Blue-grey cows and today some 300 finished beasts find their way onto dinner plates via Northern Ireland's private butchers.

Returning to traditional breeds has made management of the commercial suckler herd easier; little assistance at calving is required, they do well off grass and the cows last longer, successfully producing many more calves than continental breeds. That means less replacement heifers are needed – more for the butcher, more profit. "We've also found that both the pedigree and cross bred cows require lower levels of maintenance – they eat less for the same output – which gives the potential for more animals per acre".

With the beef enterprise now well established Kenny has time to assist wife Jennifer



**Galloway cattle can be a little flighty but calm down with regular handling.**



**Galloways do well off grass.**

with her enterprise; pork and bacon from rare breeds. Jennifer has 5 breeding Gloucester Old Spot sows and six Saddleback sows plus a few prize winning boars. The sows farrow inside; simple pens with a creep and light in one corner. "They don't need anything more sophisticated, they're naturally good mothers and we've had no trouble with the sows smothering piglets", Jennifer contends. After a short time the sow and litter is moved to pens outside. "We're not organic and adlib feed a commercial meal. The freedom of outside runs helps the fatteners develop good muscles and weight gains are similar to a modern cross-breed – about 75kg dead weight at six months. Again there is the potential for a problem with fat content but again, by selling privately this has been overcome. "We sell boxes containing half or whole pigs", explains Jennifer. "The customer can have the carcass butchered to their requirements – big joints for larger families or smaller joints as required". Customers have been quick to acknowledge the quality of the meat. Hams are dry cured using traditional methods; "no added gunge" Kenny adds. "Customers appreciate the superior flavour of the meat and know they can remove the fat if they don't want to eat it". With the 11 sows averaging 10 to 14 piglets per litter that's close on 300 carcasses annually, almost all of which are sold as the result of referrals from satisfied customers. "We don't need to do farmers markets or

that sort of thing" says Jennifer. "We're both too busy here on the farm".

Having improved lifestyles thanks to stock that is easier to manage Kenny, has also upgraded his tractors. "I used to drive something that was distinctly cheap. True, it was reliable but it did lack in comfort". In his quest for greater comfort Kenny turned to Valtra dealer Cecil Troughton who supplied a 120hp 6800 just over two years ago. Today the tractor which is used every day has clocked 3,700 hours. "It does all the feeding and quite a bit of the field work". Forthill Farm, has 175 acres of feed wheat and around 25 acres of lupins for protein, all fed on the farm. "While, at the time, I thought the Valtra was an expensive purchase now I see it as excellent value for money", is Kenny's verdict. Indeed he was so pleased that he's recently taken delivery of a T160. The two tractors handle most of the farm's work; silage, both baled and clamp, normal pasture maintenance, muck spreading, re-seeding and drilling, including around 600 acres for neighbours. The only tractor work that Kenny does not do is ploughing but that is not to say he does not plough. This he usually does on foot away from the comforts of a tractor cab behind a pair of shire-cross horses. "It's a way of relaxing!"

If you like the idea of fuller flavour meat from rare breeds and you're in Ireland why not give Kenny and Jennifer a call – 028 3884 0818 – or contact them on [forthillfarm@yahoo.co.uk](mailto:forthillfarm@yahoo.co.uk), you'll be welcome and they should have something to suit your palate.



**Jennifer and Kenny Gracey now enjoy an improved, more interesting lifestyle.**

■ Roger Thomas

# Valtra tractors are custom built according to customer Come and watch your new

*Little Santeri is one-and-a-half years old and clearly enjoys sitting in the driver's seat of his family's brand new tractor, making engine noises with his lips. His hands have a tight grip on the steering wheel, and his face wears a broad smile.*

Valtra's tractor plant is the only one of its kind in the world where tractors are custom manufactured after the customer's order has been made. Each and every tractor on the production line has a customer waiting, even if in some cases the purchaser is a retailer and not the end-user.

Valtra's unique customer-order system makes it possible for customers to visit the factory to watch their own tractor being built. In general in the vehicle manufacturing industry, products are made in series and options fitted afterwards. At the Valtra tractor plant, all major components, such as the cab, engine and powertrain, have the customer's name on them even before assembly.

– We need this tractor to help feed 54 dairy cows and for other work around the farm. The tractor was customised together with the salesperson especially for this purpose, explains Riikka Peltola and Mika Peltonen from Mäntsälä in Southern Finland.

**Over 10 000 visitors and 3 000 "deliverers"**

Each year Valtra's Suolahti factory hosts over 10 000 visitors. Of these, around 3 000 come to watch their own tractor being built. These special customers are referred to internally as deliverers because they are with in the giving birth process of their own tractor. Most deliverers come from Finland, yet an increasing number are arriving from other Nordic countries and further afield.

Once they have been built, tractors can also be collected directly from the factory. Finnish customers often drive their tractors home, while customers who arrive from further away can

*Factory guide Eeva Tannermäki shows the Peltola family a tractor that has just come off the production line. Antti Peltola, Marjaana Peltola, Mika Peltonen, Riikka Peltola, Arja Peltola and Veijo Peltola listen intently, while young Snateri Peltola is just waking up from his nap.*



# r wishes tractor being built

load their tractors onto their own trucks. This hasn't stopped some foreign customers from driving their tractors home all the way to Germany and Italy. Tractors can usually be picked up a few days or one week after assembly is completed, depending on inspections that may need to be made or the fitting of front-loaders, for example.

Factory visits are themselves an experience. Few customers have previously visited a tractor plant, although some visit each year to deliver new tractors and have visited other agricultural factories in the past.

– We visited in 2001 Valtra's factory in Brazil. What Valtra's factories have in common are tidiness, efficiency and order. We have also visited a few other tractor and implement factories, explain Veijo and Arja Peltola.

**At the age of one-and-a-half, Santeri Peltola is the first (and youngest) to test the family's new tractor.**



## **A fresh new tractor, just as it was ordered**

Custom building tractors has other advantages than allowing customers to come and watch their own tractors being built. Custom built tractors always arrive to their customers fresh and are not made to stand months or even years in the yard of the factory, importer or dealer. In addition, Valtra tractors are built precisely according to wishes and needs for their intended use. This way, customers do not have to pay for unnecessary options or equipment. Customising also covers much more than options and additional equipment.

Customers can choose the exact engine, transmission and hydraulic combinations they want for their tractor. In fact, there can be millions of variations, depending on the tractor model.

For the manufacturer, custom-building tractors is by far the most efficient form of production. Stocks are kept low, materials are processed fast, and little post-production work is needed. All this can ultimately be seen in the competitive pricing of Valtra tractors.

■ **Tommi Pitenius**



◀ **During their visit to the factory, customers can also watch their tractor being tested. Every single tractor that comes off the line is carefully inspected in Valtra's new and modern testing room.**

▼ **Watching their own tractor being built is always a memorable experience for customers.**



# Excellent Service Excellent Value

*Keeping nurse tanks on farm tracks makes less mess on the road and less damage to the sward.*

When **Barry Read** left university with a BSc under his arm he was pretty certain he wanted to return to County Fermanagh and run the contracting business built up by his father **Norman** as an adjunct to the family farm. Norman Read started farming at the age of 12 when he purchased a pair of Herefords, driving them home to a relative's 20 acre holding on his bicycle. However, having built up the farm and contracting businesses Norman was not about to give them away. "If Barry wanted to run the contracting business then he could buy it", said Norman. Not that there is any animosity between the two; indeed nothing could be further from the truth. Norman's attitude was simply one of values; "If it costs nothing, the problem is it will be valued at nothing". That was just seven years ago and today the contracting business continues to expand successfully.

Along with the contracting business came six Valmet and Valtra tractors. Norman had been one of the first in Ireland to own a Valmet. "I was told by an engineer that the Valmet tractor was well designed and well built and it was partly on his advice that I seriously considered and then bought the machine". That was eleven years ago and Barry has just swapped that 8100 in for a new T130.

Any regrets?

Both Norman and Barry acknowledge it had been a good buy and had led to the purchase of other Valtra machines; "not that it has stopped us looking at alternative makes", comments Norman with a wry grin. At eleven years old and

with 12 500 on the clock the 8100 was far from finished. "Let's put it like this, drivers were quite prepared to take it out if it was at the front of the shed, they wouldn't move it to get at a new tractor", said Barry. "Nothing has ever seriously wrong with it; scheduled maintenance was the only reason we put a spanner on it". In fact over the 11 years depreciation worked out at just £2.00 per hour. Interestingly it was this machine that helped Gerard Clarke of Clarke Machinery Ltd decide to take on the Valtra Franchise. "Valmet sent over a tractor for him to evaluate. He then found out about ours and came up here and talked to us – we or rather the tractor must have impressed him", remembers Norman smiling.

Fermanagh is a high rainfall area; 43" (1 095mm) annually is usual. As a result grass grows well as do cattle and sheep. Most of Barry's work revolves around these enterprises. He runs a Redrock 1 250 gallon spreader on Terra Tires fed by two nurse tankers. This way we don't drag much mud onto the road and with flotation tyres on the spreading tractor, usually an 8750, we can keep going under almost any conditions; "there's nothing to beat that tractor for grip without ballast". Barry also runs an umbilical system and charges the same hourly rate for both methods; £65/hr. With new regulations regarding slurry and manure spreading coming into force Barry sees spreading moving from a winter occupation; "there shouldn't be a problem with volume of slurry as there will be a certain amount of de-stocking".

The other major activity is silage making. This season Read Contracting has invested in a self propelled forager, a move that has required extra trailers and with a full time staff of just three, additional drivers. With slurry and silage work taking up a large slice of the company's work; around 75 % of the work is haulage and interestingly Barry has recruited girls for the task.



*Nothing beats Barry's 8750 for grip in difficult conditions*

"Good temporary labour is difficult to find and the girls do a good job – often better than the men – which in turn makes them take more care!"

Barry and his team usually work within a 15 mile radius of their Maguiresbridge base, though sometimes this extends to 25 miles. "We do charge for travelling if the job is a long way out of our way". Along with realistic charges Barry is also adamant about service; "If I have said we will be on a certain farm at a certain time we do our best to keep to that commitment. I won't slip in the odd, last minute job and upset a long standing arrangement. If we have a brake-down or other problem I let clients know rather than bluff it out – honesty is the best policy". This policy obviously pays off; Barry knows he is a little more expensive than some of his competition but his client base continues to grow.

Other work carried out by Barry and his team includes muck spreading, re-seeding and a fair mileage of hedge cutting. When asked if he worries about his slightly higher charges and competition he just mentions a few failed competitors and the following quotation: 'The bitterness of poor quality remains long after the sweetness of low prices is forgotten'.

■ Roger Thomas



*Regular maintenance is easily handled by drivers.*



More comfort, economy and environmental friendliness

# EcoPower



**Valtra has manufactured EcoPower models of its tractors now for five years. Originally the idea was to offer an economical and environmentally friendly engine option without negatively impacting the working power of the tractor. The development of fuel prices and environmental requirements has shown this to be the right decision.**

The concept behind EcoPower tractors is simple: install an EcoPower engine made by Sisu Diesel in a normal Valtra agricultural tractor. The engine offers maximum output at just 1800 rpm instead of the usual 2 200 rpm. At the same time, torque at low revs has been increased; for example, the T140e offers 660 Nm of torque at just 1 100 rpm.

Using an EcoPower tractor is just like using a Valtra tractor equipped with an ordinary engine. The difference can be felt in the easygoing manner of the low-rev engine. Measured in terms of the work done, however,

the EcoPower will accomplish the same tasks quietly and easily while using less fuel.

## 10 percent lower fuel costs

The biggest advantage of EcoPower tractors is their economy. Official fuel consumption is 203 grams per kilowatt-hour, which is ten percent less than ordinary engines. In actual use, fuel savings can be as high as 30 percent. This can mean savings of thousands of euros per year, depending on how the tractor is used.

The efficiency of EcoPower engines does not mean just fuel economy, however. The service interval of EcoPower engines is 500 hours, which reduces costs and work. EcoPower engines are also longer-lasting than ordinary engines, as all the moving parts in the engine move approximately one-quarter slower. This in turn puts less wear on parts and keeps the engine cooler and lubricating oil in better condition.

In addition to efficiency, EcoPower tractors offer the added benefit of comfort.

Thanks to their lower engine speeds, EcoPower tractors are noticeably quieter than ordinary tractors. In practice, noise levels are 4–5 decibels quieter, depending on tractor model. Comfort also means enormous torque at low revs, which makes driving easy.

EcoPower also means environmentally friendly. EcoPower engines consume less fuel and lubricating oil, which helps your wallet as much as the environment. Lower noise levels are another important factor, especially in built-up areas. The long lifespan of these tractors is itself a clear environmental benefit.

■ Tommi Pitenius

## Valtran EcoPower models:

**Valtra C120e**  
**Valtra M120e**  
**Valtra T140e**  
**Valtra N111e**



## Henning and Felix Jacobs:

# “The T140e is our best tractor”

**Henning and Felix Jacobs**, who farm 190 hectares in Germany, claim that their Valtra T140e is the best tractor on their farm.

– We were given a Valtra to drive from the dealer, and we talked with several Valtra customers. We were immediately impressed. Now that the first full season is behind us, 430 hours, we can confirm that our choice of EcoPower was a brilliant decision, say the Jacobs.

The T140e is used daily on the Jacobs' farm.  
– We are positively surprised at the amazing fuel savings. The tractor consumes just 8 litres an hour while pulling a three-meter scarifier.

– The tractor is also astonishingly powerful, and the savings in fuel consumption do not impact performance. The lower engine speeds make working extremely quiet and even, the Jacobs add.



# VALTRA Shell **PULLING TEAM**

## Six months on the road

*In tractor pulling circles, they say that **Pekka Herlevi** has diesel in his veins. His son **Matti** and daughter **Johanna**, meanwhile, are said to have been breast-fed diesel as babies. All three compete in tractor pulling's Pro Stock 3500 class. Their mother **Anne** keeps the team together, and there is already a third generation on the way, as **Matti's** boy **Lenny** likes to hang out in the pits.*

Pekka began tractor pulling in 1987 in the Farm Stock class, moving up to Super Stock in 1989.

– Some time at the end of the 1980s Pekka called me to ask about tuning engines. He was talking about spraying water into the engine and other tricks. I told him to avoid spraying water into the engine at all costs. At the time we knew all but nothing about tractor pulling and engine tuning, remembers **Mauno Ylivakeri**, Chief Engineer of the Valtra Shell Pulling Team.

Over the course of nearly 20 years the team has learnt a lot. The Herlevi family are favourites in the European Championships

and Euro Cup events, which by no means guarantees success. Usually two out of the team's three tractors make the podium, while it's not altogether uncommon for them to take all top three places. The competition is extremely tough, however, and even the slightest driving error can cost them the victory, with only centimeters usually separating the winners.

– Success does not usually come by chance but is the result of hard work. Competing also benefits Valtra customers, as the tractor pulling events are the most demanding testing laboratory, especially for engines and transmissions, explains Pekka Herlevi.

### 15 competitions a summer throughout Europe

The Herlevi family spends nearly six months out of every year on the road, competing in around 15 events a season. In practice there are competitions every weekend of the summer throughout Europe.

– Usually Pekka and Anne drive the truck, while Matti and I make our own way to the events. We often spend weeks in a row on the road. Sometimes we park the truck somewhere in Central Europe and the team flies back to Finland, describes Johanna Herlevi.

In addition to four drivers and Anne, the team includes five mechanics: **Antti Hyypä**, **Tapio Määttä**, **Matti Kangas**, **Pekka Mailas** and **Kari Aaltonen**. In practice a couple of mechanics accompany the team to each event, while sometimes the Herlevi family takes care of the tractors themselves.

■ Tommi Pitenius





*Before each competition, Matti Herlevi and Pekka Mailas clean and polish their tractors carefully.*

*Mechanic Antti Hyypää starts the engine before the competition.*



# Who can pull the furthest?

Tractor pulling is in its essence a very simple sport. It's all about who can pull a heavy trailer the furthest. Of course, the rules are slightly more complicated than that, but they are still easy to understand. Although there are many pages dealing with technical and safety issues, the number of pages regulating the actual competition is much fewer. This makes it is easy to follow the sport.

Tractors compete in a number of different classes, divided primarily between Modified and Stock tractors. Modified tractors can be customised almost freely; for example they are even allowed to use jet turbine engines. Modified chassis can also differ enormously from normal tractors.

Stock tractors, such as those competing in Pro Stock and Super Stock, look like ordinary agricultural tractors. For example, in Pro Stock, in which the Herlevi family competes, the tractor's engine cover, engine block and transmission casing must be the same as in standard tractors.

In addition to these regular classes, some events feature a variety of other pulling machines, including rear-wheel-drive cars, trucks, mini-pullers and even regular tractors in the Farmi Class.

## From a full pull to the pull off

In tractor pulling competitions, a weighted trailer, or sled, is attached to the rear of a tractor. The sled usually weighs between 20 and 25 tonnes. When the green flag is waved, the tractor begins to pull the sled. A judge sits in the sled itself

with his hand on an emergency switch that disengages the engine if the ride becomes too dangerous.

The goal is to pull the sled a full hundred meters. This is called a full pull. Usually competitors are given two attempts to achieve a full pull. In last season's Euro Cup, however, competitors were given just one attempt, with a second attempt allowed for those who pulled over 90 meters in the first round.

Everyone who achieves a full pull in the first round make it to the pull off, which is the final and deciding round. Additional weight is added to the sled, or the movement of the ballast on the sled is speeded up. The results of the first round no longer count in the final results.

Final positions are decided by the pull off, in which it is possible to pull up to 110 meters. If more than one competitor pulls over 110 meters, a second pull off is run with even more weight.



## European gold and silver

The Valtra Shell Pulling Team took gold and silver in this season's European Championships. Pekka took the overall victory and his son Matti was second, while daughter Johanna came in sixth. Altogether 21 tractors representing seven countries participated in the Pro Stock 3500 class. The championships were held this year in Great Ecclestone, England. In addition to the Valtra Shell Pulling Team, two other Valtra/Valmet tractors participated. **Johannes Örn's** Valmet 8750 came in eighth and **Mike Simmons's** Ice Bear Valtra came in last after its engine cover flew open in the middle of his final pull.

– Gold and silver among such strong competition is an excellent achievement. The competition is now so tough that we will have to find some extra pace for next season, says Team Manager **Markku Lappalainen**.



*Gold and silver at the European Championships was a fine way for the Herlevi family to end the season. Pekka took first place, with son Matti right behind him in second.*

# New N Series

## Unparalleled versatility!

**Valtra's new N Series is the most versatile four-cylinder tractor on the market. The N Series is ideally suited for a wide variety of tasks. This in-built versatility is enhanced by Valtra's unique custom-built system, which allows each tractor to be tailor-made to meet the specific needs of the end user.**

Three model alternatives are available for the N Series: Classic, HiTech and Advance. The cost-effective Synchro transmission in Classic models has three Powershift speeds and synchronised shuttle. The number of speeds is 24+24R, with optional 36+36R creeping gears. The programmable HiTech transmission is equipped with Valtra's traditional smooth shifting shuttle. Top-of-the-line Advance models feature robot-activated range gears, allowing them to be controlled from the cab with just the one gear lever.

Engines with 90 to 150 horsepower are available. The largest N121 and N141 engines feature third-generation electronic engine management (EEM3) and Common Rail fuel injection. Both engines feature transport boost, providing extra power when the main gear is in H2 or higher. The N121 engine thus

offers maximum output of 144 horsepower and 560 Nm of torque, while the N141 engine offers maximum output of 160 horsepower and 620 Nm of torque. A new Valtra innovation on Common Rail engines is a low idle speed. When the engine is parked and the parking brake applied the engine switches to a low idle at just 650 rpm. Another advantage with the new engines is advanced electronic diagnostics. As with other models, Valtra also offers an EcoPower version, the N111e.

### More comfort, more productivity

Special attention was given to the development of driver comfort in the N Series cab to help reduce driver fatigue and improve productivity making the N Series a powerful tool for farmers and contractors alike.

The wheelbase of the N Series is relatively long, 2 565 mm, making the tractor extremely stable. The front tyres extend beyond the bonnet, making front-loader work easier. As a four-cylinder tractor, the N Series are agile yet powerful enough to handle heavy field work. All major components, such as the engine, chassis, transmission, rear axle, hydraulics and cab, are manufac-

tured by Valtra or exclusively for Valtra by subcontracting specialists.

Hydro-pneumatic front axle suspension is optional on all N Series models. A new feature allows the suspension to be locked in the lowest position, for example for front-loader work.

The cab is as spacious as on Valtra's six-cylinder T Series models. However, the low external height of the tractor is just 2.8 metres, varying slightly depending on tyre choice. The spacious cab increases driver comfort and





allows the TwinTrac rear-drive system to be employed.

Comfort and productivity are further enhanced by load-sensing hydraulics, available on Advance models. Up to six electronically controlled load-sensing valves are available, offering a maximum capacity of 115 litres per minute and maximum pressure of 210 bar. The N Series has a completely new armrest ACHT (AutoControl Hydraulics Terminal) with a large screen and ergonomic controls.



## N Series Models

	Classic	HiTech	Advance
101 hp	N91	N91	
110 hp	N101	N101	
122 hp	N111	N111	
116 hp		N111e	
122 hp		N121	
144 hp	(transport boost)		N121
150 hp		N141	
160 hp	(transport boost)		N141



# VALTRA

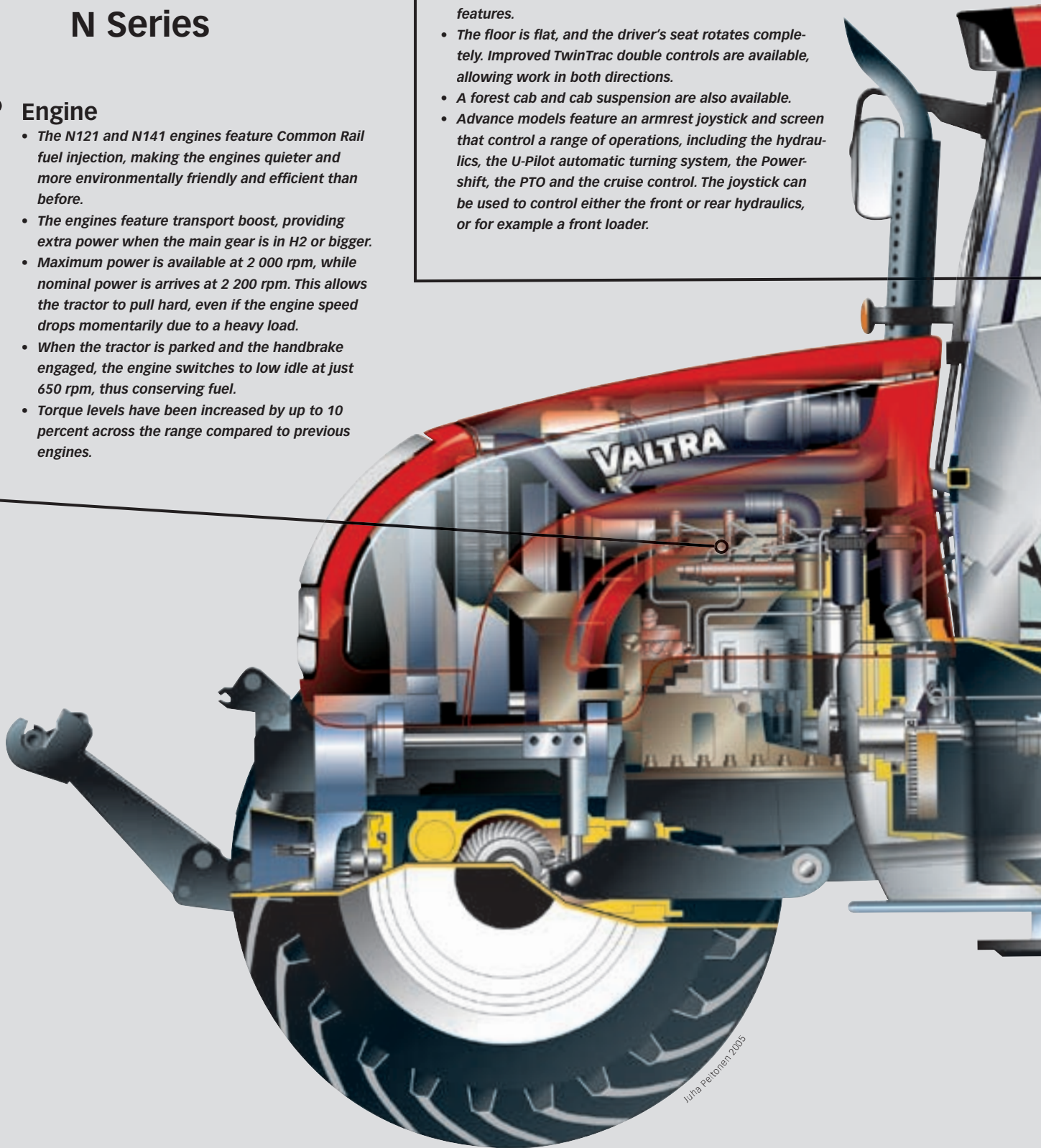
## N Series

### Engine

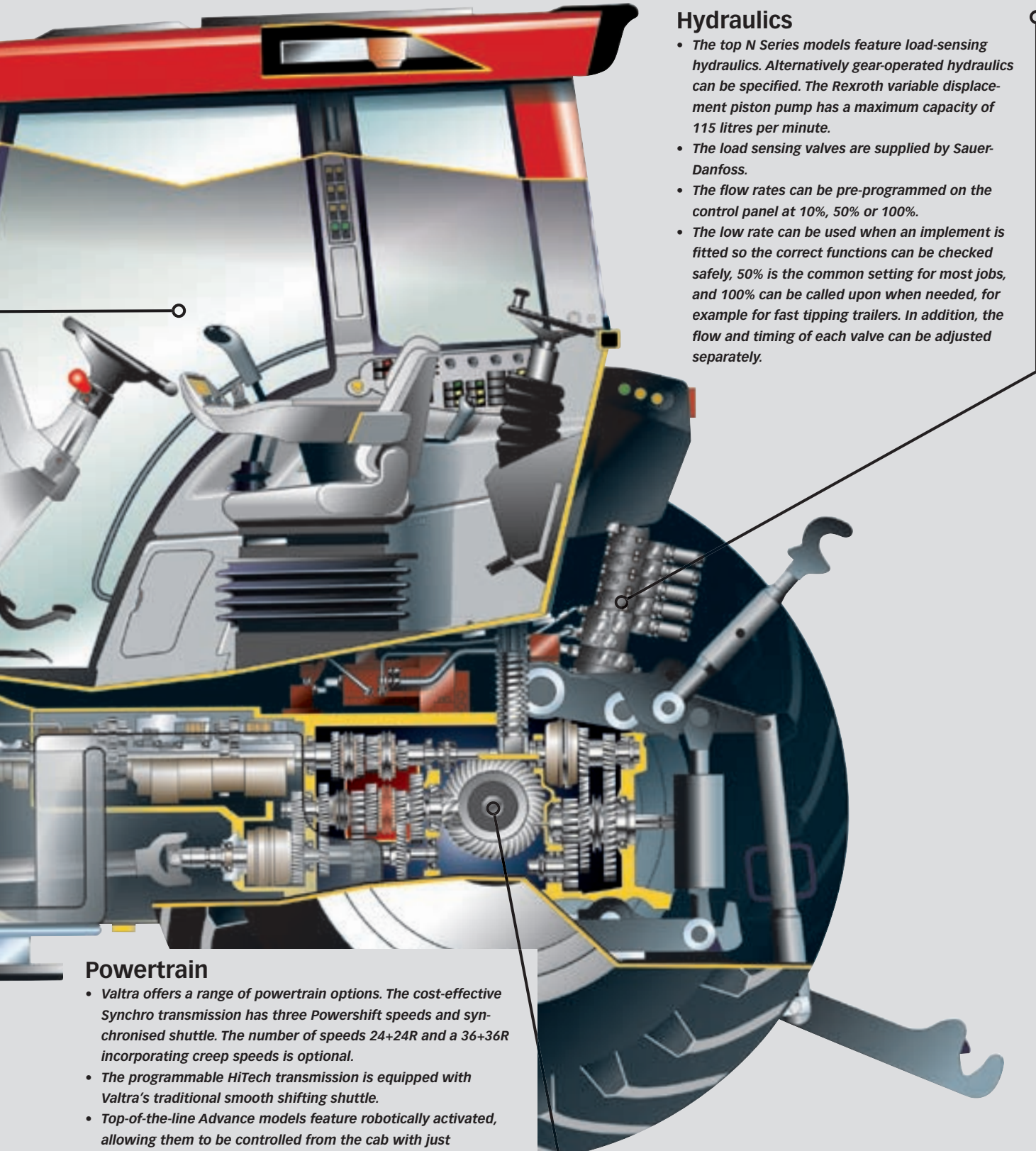
- The N121 and N141 engines feature Common Rail fuel injection, making the engines quieter and more environmentally friendly and efficient than before.
- The engines feature transport boost, providing extra power when the main gear is in H2 or bigger.
- Maximum power is available at 2 000 rpm, while nominal power is arrives at 2 200 rpm. This allows the tractor to pull hard, even if the engine speed drops momentarily due to a heavy load.
- When the tractor is parked and the handbrake engaged, the engine switches to low idle at just 650 rpm, thus conserving fuel.
- Torque levels have been increased by up to 10 percent across the range compared to previous engines.

### Cab

- The cab on the N Series is familiar from the T and M Series, offering lots of room and excellent ergonomic features.
- The floor is flat, and the driver's seat rotates completely. Improved TwinTrac double controls are available, allowing work in both directions.
- A forest cab and cab suspension are also available.
- Advance models feature an armrest joystick and screen that control a range of operations, including the hydraulics, the U-Pilot automatic turning system, the Power-shift, the PTO and the cruise control. The joystick can be used to control either the front or rear hydraulics, or for example a front loader.



Juha Pietonen 2005



## Hydraulics

- The top N Series models feature load-sensing hydraulics. Alternatively gear-operated hydraulics can be specified. The Rexroth variable displacement piston pump has a maximum capacity of 115 litres per minute.
- The load sensing valves are supplied by Sauer-Danfoss.
- The flow rates can be pre-programmed on the control panel at 10%, 50% or 100%.
- The low rate can be used when an implement is fitted so the correct functions can be checked safely, 50% is the common setting for most jobs, and 100% can be called upon when needed, for example for fast tipping trailers. In addition, the flow and timing of each valve can be adjusted separately.

## Powertrain

- Valtra offers a range of powertrain options. The cost-effective Synchro transmission has three Powershift speeds and synchronised shuttle. The number of speeds 24+24R and a 36+36R incorporating creep speeds is optional.
- The programmable HiTech transmission is equipped with Valtra's traditional smooth shifting shuttle.
- Top-of-the-line Advance models feature robotically activated, allowing them to be controlled from the cab with just the one gear lever.
- HiTech transmissions can be specified with Valtra's unique HiTrol turbine clutch. Valtra's heavy-duty rear axles are durable, and all N Series tractors are equipped with six brake discs.

*Rosendahl's fine old manor house, with its courtyard and tower, will shortly celebrate its 400th anniversary.*

# The Woman behind it all!



***We are visiting the Rosendahl estate on the flat land in Skåne, the southernmost county of Sweden. Here we meet machine operator Ingrid Sjöstrand. Not only a machine operator, she is also responsible for looking after all the machinery on the farm. And not just the machines; she ensures that everything rotates, rolls and functions correctly. This means everything, from the large field machines and the fixed mechanical equipment in the barn to the washbasins in the manor house.***



***Valtra 8550 with mower conditioner, serviced and ready for work.***

Ingrid services, repairs and maintains. She spends most of her time in the farm workshop. When we meet her, she is busy welding and repairing parts for the large grain drier. It must be a challenging and responsible job to be responsible for all the machines?

– Yes, replies Ingrid, everything needs to work because we have so many animals on the farm.

Are you ever called out outside normal working hours because something has broken or stopped?

– Of course, it happens. It is usually the concentrate feeder for the dairy cows that fails, and then the farm workers call me, says Ingrid with a smile.

## **An estate with a long history**

Approximately 700 ha of the Rosendahl estate are arable land. The entire estate is run as a limited company with the principal shareholder Gerhard Bennet as MD. There are 7 employees on the farm, of whom 3 work in the cowsheds. The total herd numbers around 450 head, of





▲ *The radiators may need to be blown clean after driving in dusty conditions. It is a good thing that they are so accessible.*

► *Ingrid at her workbench. Here she is threading a pipe that belongs in the cowshed.*



*Welding is just one of the many jobs to be mastered by a machine operator. In this case, the Mig welder is in use.*



– *I know this monitor with my eyes closed, says Ingrid, meaning the electronic operation of the sprayer.*

which 250 are dairy cows.

The estate has been in the ownership of the Bennet family since the middle of the eighteenth century. The manor house was completed in 1615, and in ten years it will celebrate its 400th anniversary. The manor house was built in the time of the Danish king, Kristian IV. He was very interested in art and architecture. The estate was owned at the time by the County Governor of Helsingborg, who borrowed the king's architect to build the manor house. The result was a very beautiful manor house, with a courtyard and a very fine tower.

### Large estate – large machines

When we look in the machinery hangar, it is obvious that we are on a large farm. The combine harvester and the forage harvester are the largest machines. How much of the farm's tractor driving are you responsible for?

– Well, I sow all the crops on the farm, for example, says Ingrid.

Are you involved with servicing and maintenance for the rest of the year?

– No, says Ingrid with a laugh, I spread all the artificial fertilizer, and I do all the spraying, so I do a lot of tractor-driving during the growing season.

Speaking of tractors, Ingrid is familiar with many makes. There have been various makes during her time on the farm, so she really should know what she is talking about.

– We have lots of positive experiences with Valtra tractors," says Ingrid. They are sufficiently advanced, with just the right level of electronics, and they are easy to service. Valtra are good tractors, in fact very good tractors.

It becomes clear to us that Ingrid does all the advanced machine driving jobs, which she confirms when she adds:

– I also do all the combining on the farm.

### From the sledgehammer to the computer

As a machine operator today, you must know how to use a sledgehammer and a welding set, but you must also understand electronics and computers. Computers will soon be fitted more

or less to all advanced machines.

– I know the monitors for the sprayer and the fertilizer spreader with my eyes closed, says Ingrid.

Do you carry out the thousand-hour/annual service yourselves?

– Yes, we do all the servicing ourselves, but no engine repairs. If they ever become necessary, adds Ingrid.

Ingrid has worked on the farm for 19 years. She has always been interested in technology, and she learned a great deal at home on her parents' farm.

Do you like your job?

– Yes, says Ingrid without hesitation, it is very stimulating. If you are interested in machines and technology, it is a very enjoyable job.

Can you recommend other girls to do a similar job?

– Yes, definitely, concludes Ingrid.

Her contribution is by no means small.

■ Eric Andersson

*Leafy roads like this are a delight to live in but can be a tree surgeons nightmare.*

# Maintaining the Suburban Forest



**Nick Rose** started his forestry career in the Grampian region of Scotland. However, as obvious employment prospects were not the greatest so, armed with a wide range of experience in matters arboricultural, he moved south – about as far south as he could go to Bisley in Surrey. Today, as proprietor of Redwood Tree Services Ltd in partnership with Tina James, Nick has established an interesting clientele of land owners ranging from farmers, through to the residents of large houses and gardens that dominate this popular part of the Surrey stockbroker belt. His company is also an approved Local Authority Contractor.

Nick undertakes any arboricultural work; planting, maintaining existing specimens and finally, when necessary, felling them. “Most trees in this area are subject to a conservation

***Manoeuvrability and visibility is important in when working next to valuable houses and in established gardens.***



order of some description and there has to be a good reason for pruning a tree let alone felling it". The result is a beautiful leafy environment but like all living things, trees mature then slide towards death. As a result there are many large trees in amongst houses that cannot simply be felled; when the time comes for them to come down they require the skills of a well practiced tree surgeon. It is at this that Nick Rose and Redwood Tree services excel; eighty foot high trees with branches that overhang a million pound house do not faze Nick. A piece at a time it comes down – safely. Everything is taken away and, apart from a fine tilth where the stump has been ground away, there is nothing to hint at the size of tree removed.

Working in such a refined area Nick has to be conscious of two things; leaving a job well done; "most of my work comes through referrals", and presenting the right image. Smart and businesslike is what is required. Kit that is knocked about and rusty gives the wrong impression, not only of the contractors' ability; it also raises questions about their honesty. Properties in the Surrey stockbroker belt are not only valuable in themselves; they can be veritable treasure troves. "We don't want to leave any one in any doubt over our ability and integrity.

So why a Valtra tractor?

"I first came in contact with Valmet tractors in Scotland", Nick Recalls. "They were – are –

the perfect forestry tractor. A clean under belly that does not require guarding, and very solidly built. The build quality is superb".

The first Valmet Nick purchased for Redwood was a used 6400 with a forestry trailer and crane. "It was a superb tractor but a little small and the crane on the trailer was not the best combination for my type of work". With more experience under his belt Nick changed the 90hp 6400 for a 110hp 8050 with a roof mounted Farmi crane.

But why the demand for so much power?

While some timber is left on site for firewood most is removed to Nick's yard at Chertsey. Here it is chipped before sending as fuel to a power station. "We send around 40 tonnes monthly. Chipping large round timber takes a lot of power at the PTO".

In the spring of 2005 Nick changed his tractor yet again, this time to a 125hp T120 complete with high speed transmission and front suspension. Traffic is heavy in this part of the country and many of the roads are subject to speed restrictions. "With the T120 I can keep up with the flow of traffic". The T 120 is also manoeuvrable, important on drives designed more for family cars than forestry trailers. Nick is also impressed by the help given him by Valtra dealer, L J & C A Cannings of East Challow and staff at Valtra. "They helped me decide on the specification and arranged for the crane brackets to be fitted on the factory production



**Nick Rose first came into contact with Valmet while working on a Scottish estate. Now in the south of England he finds Valtra machines ideal for his unusual operation.**

line a saving of well over two thousand pound as I have not had to pay Cannings to remove and replace the cab to fit the brackets. It was then a relatively simple matter to swap the crane from my old tractor onto the new one". Nick also likes the serviceability of his new machine. "Regular servicing and maintenance are simple". A task helped by the packs for the 500hr and 1 000hr services containing all Nick needs: filters, ring seals, gaskets, instructions, plastic bag for disposal of used filters. "I feel I can handle these services myself which is another cost cutter".

As Nick says; "I'm completely satisfied with my investment. It's reliable, smart and economical to operate".

■ Roger Thomas

**With the truck as a screen to prevent flying chips and stones from braking windows Nick Rose removes the final traces of a large Cedar tree, just yards from the house.**



# ISOBUS couplings offered on T, M and S Series tractors

Valtra is offering ISOBUS couplings as an option on T, M and S Series tractors. The optional ISOBUS package consists of couplings and connections for a Virtual Terminal, ISOBUS couplings with the rear linkage, and an ISOBUS Control Unit for transmitting data from the tractor's sensors to the ISOBUS implement bus. ISOBUS couplings can also be optionally

fitted to the front linkage. Inside the cab the ISOBUS controls are situated on the right-hand B-pillar, where the Implement Signal Interface is also located on tractors specified with the ISOBUS option. The optional ISOBUS package does not include the Virtual Terminal.

ISOBUS is a standardised system for communicating and sharing data between the



tractor and implement. The ISOBUS system can transmit data from the tractor's sensors for use by the implement or other ISOBUS equipment, and it can control the implements functions. All these operations are controlled from the screen of a Virtual Terminal situated inside the cab. ISOBUS increases efficiency, facilitates working, and improves the overall quality of work.



## Powerful new hydraulics offer output of 160 litres/minute

Valtra is now offering an additional hydraulic feature as an option on T, M and XM Series tractors. The new powerful hydraulic technology increases theoretical output to 190 litres/minute. In practice this allows for output of around 160 litres/minute, which is still the highest output for this size and class of tractor.

The new hydraulic technology consists of the tractor's standard hydraulics plus a load-sensing variable-capacity pump that can be switched on separately. The pump is safely positioned in the tractor's nose so, unfortunately, this feature may not be specified with front linkage or PTO.

The capacity of the load-sensing hydraulics pump container is 70 litres. The amount of fluid available temporarily is the same as on

standard tractors. The new hydraulic technology features a standard 3/4-inch Power Beyond coupling that allows the high output to be directed to the implements own valve blocks; a similar 3/4-inch coupling is used for return flow of the fluid.

The new technology allows for a steady hydraulic output regardless of engine speed. It is an advantage for all kinds of work that demand a high level of hydraulic output, such as for potato harvesting implements and pneumatic manure spreaders. In addition, the new hydraulics allow for several hydraulic implements to be used simultaneously at low engine speeds, which saves fuel and reduces noise. This also makes the system ideal for municipal operations.



## Valtra offers eight colour options

Valtra has introduced a new range of colour options. The new colour range consists of red, green, blue, metallic red, metallic green, metallic blue, silver and yellow.

Valtra is the only tractor manufacturer in the world that allows customers to choose the colour they want for their tractor. This policy has been in effect already for 15 years.



## Exhaust brake option for T Series

Valtra is introducing a new exhaust brake option for T Series tractors specified with electronic hydraulics. Exhaust brakes are a familiar option on heavy trucks, helping to reduce speeds without having to use the regular service brakes. On tractors, exhaust brakes are especially beneficial when carrying heavy loads, on hilly terrain and when using the tractor in traffic. Exhaust brakes slow down the tractor gently, increasing driver comfort and safety.

The exhaust brake works by closing the exhaust pipe by a flap valve between the turbo and silencer. The exhaust brake can be used at speeds above 10 km/h. When

applying the brake the best retardation can be achieved when the Powershift control is in Auto 1 mode. This changes gears for slower speeds and increases braking power as the gear ratio is increased.

The exhaust brake is operated by using either the main brake pedals together or by a separate brake pedal on the cab floor. The driver can choose the operating mode by a switch located on the instrument panel next to the driver. If the driver selects to use the main brake pedals, the pedals must be connected to each other. The exhaust brake is activated by the same electronic impulse that activates the brake lights.



## New range of front loaders

Valtra is offering an updated line of front loaders. At the same time the older 700, 900 and 1000 Series will be discontinued as factory-fitted options.

The new front loaders are manufactured by Swedish company Ålö, which markets them under the Quicke brand. When fitted at the factory, however, they will carry the Valtra name. The new front loaders feature new

beams, while the range of fittings and accessories remains mostly the same.

The new beams are formed by two U-profiles that overlap and are welded together on the inside. This construction is extremely durable and clean. All piping is neatly protected within the beams. All new models feature improved power and reach compared to the previous range of front loaders.

# Team News

## Valtra becomes the fourth largest tractor brand in the western world

In terms of tractors with over 60 horsepower, Valtra is now the world's fourth largest tractor brand. The top five manufacturers in order of production numbers are New Holland, John Deere, Massey Ferguson, Valtra and Case IH.

Valtra manufactured 19 500 tractors last year. Since 1999, Valtra production has grown by 4 500 units. Valtra is the most popular tractor brand in Northern Europe and the second most popular in Latin America. Valtra had net sales in 2004 of 870 million euros and 2 550 employees, including SisuDiesel.

...

## New product development center at the Suolahti factory

A new product development center is being built in connection with Valtra's Suolahti factory. Previously, the product development center has been located around 40 kilometers from the plant.

The new product development center will cover close to 4 000 square meters. At the same time, additional office space will be built for the marketing, finance and IT departments. The investment amounts to approximately 7 million euros.

The new location will further improve co-operation between the product development team and other departments. The new facilities will be opened in autumn 2006.

Meanwhile, the SisuDiesel engine plant plans to double production to around 55 000 units in three years. A total of around 30 million euros is being invested in Sisu Diesel factory in Finnish and assembly in Brazil.

...

## 189 tractors to China

Valtra delivered 189 tractors to China this summer. Of the total amount, 140 are 8150 models and the rest T170c, T180 and T190 models. The tractors were delivered to three separate customers in northeast and northwest China.

The customers were the Heilongjiang State Farm in northeast China and Xinjiang State Farms 7 and 8 in northwest China. The order also included a considerable amount of implements and spare parts.

Valtra is the market leader in China in over-120-horsepower tractors. Valtra also operates a servicing network throughout northeast, northwest and southern China.

# Hard work brings rewards for Irish dealer

*Probably one of Ireland's oldest best known castles is Blarney in the county of Cork. An ancient stronghold built by the Lords of Muskerry it is best known for The Stone of Eloquence which, tradition say, confers a gift on all those that kiss it. Just a few miles away is the village of Vicarstown, home of Valtra dealer Paudy Buckley & Company Ltd. Opened in 1979 by Paudy and his wife, Christine, as a used tractor dealership it is obvious that business has expanded as a result of a lot of hard work rather than any gift bestowed by the Blarney Stone.*

Following school Paudy completed a workshop apprenticeship before setting up on his own servicing and repairing a range of tractor makes. The business expanded as he started buying and selling used tractors and over the years Paudy built a reputation for doing a good job and striking a fair bargain. "I have had a fair bit of help from Shamus", points out Paudy: Shamus Buckley, while not related has been working with Paudy in the workshop since he started the business at Vicarstown. "Shamus is a great help – he knows what has to be done and just gets on with it" is Paudy's simple way of explaining their relationship.

Firmly established as a successful business by the mid 1990s, Paudy's operation came to



**Philip Connell with Paudy Buckley – Its hard, personal commitment and work that have made this Valtra dealership a success.**

**The first tractor sold by Paudy now has 15 000 on the clock and is still going strong.**



**(L to R) Philip Connell Valtra Area Manager with Shamus Buckley, Dan Christine and Paudy.**



the attention of Valtra Area Manager Philip Connell when Valmet Tractors, as Valtra were then known, were recruiting dealers in Ireland. "Ray West, the Valmet MD and Philip Connell came to persuade me to take on the Valmet franchise", Paudy remembers. "At first I was quite uncertain; the Valmet tractor was an unknown quantity. We had a good business and I did not want to do anything to upset that". Ray and Philip persuaded Paudy to take a demonstration tractor for a while, let some prospective customers try it, gauge reactions and then decide.

"It was certainly the right way to go about solving the problem. The first farm I put the tractor on the farmer told me that, if I took the franchise he would buy one! The second person to try the demonstration tractor insisted I sold it to him – he still has it today with 15 000 hours on the clock", Paudy Recalls. These and the reactions of other potential customers convinced Paudy and Christine that they should take the big step into selling new Valmet tractors and in the early summer of 1996 Paudy Buckley & Co Ltd joined the Valtra team. During the remaining six months of '96 they sold 17 new tractors.

To date Paudy and his family have supplied over 200 new machines and a respectable number of used Valmet and Valtra tractors, mostly in the county of Cork. Paudy Buckley & Co is an established part of the Valtra Tractors network.

"Most of the farms round here are smallish; between a hundred and three hundred acres. Farmers work their machines hard and many will clock up well over a thousand hours each year", Paudy explains. "They need a reliable tractor and the Valtra stands this type of use well". There are however some larger farms and a number of contractors on the Buckley's books with some customers running six or more Valtra tractors.

As a customer described him, Paudy is a 'quiet man' and does not say too much about the personal service he extends to all his customers. "There's always someone at the end of the phone – Sundays, evenings whenever".

Today son Dan plays an important part in the business and the workshop staff has expanded to three with the addition of John and Patrick so what is the future for the company? Will they extend the business into farm machinery? Paudy explains his views: "We do what we know – selling and servicing tractors – and we do it well. We have always dealt a little in loaders and telehandlers and TLBs but I don't think we will be expanding into machinery which we know nothing about. We have a well balanced business that runs nicely, our customers know us and like the way we do things – I like to think that our future lies in selling more Valtra tractors – new and used and supporting them properly".

Forget the Blarney Stone and the gift-of-the-gab. Its hard work, an eye for detail and after sales support that has allowed Paudy Buckley to build a successful dealership, specialising in tractors – Valtra tractors.

■ Roger Thomas



## New lives start in style

When **Richard Woodward** married **Rebecca Sharp** in Low Row, Swaledale last April his boss, contractor **David Adamson**, and Valtra dealer **Brian Robinson** made sure they left the church in S Series style – Best Man, **Mathew Barker** holds the door for newly-weds Richard and Rebecca Woodward.



*Markku Lyhty, Product Developer at Valtra, invites work mates to admire the Kullervo tractor that he has restored from parts found buried in the ground in North Karelia.*

## Kullervo – the first Finnish tractor

*There is an interesting connection between Kullervo, the first ever Finnish tractor, and Valmet/Valtra via a certain Baron Gustaf Woldemar Wrede. This technically gifted young man earned a degree in engineering from the Darmstadt Technical College in 1911, after which he became Chief Engineer for the Jackson Automobile Company in Michigan, USA.*

Meanwhile back in Finland, Gustaf's father Baron Carolus Wrede was Director of Turun Rautateollisuus Oy /Åbo Jernmanufaktur Ab, an ironworks in the city of Turku. He invited his son back to Finland to become Technical Director in 1914. The ironworks was thriving due to an influx of orders from the Russian Army.

The company made the decision to begin manufacturing tractors in 1916. These tractors were also aimed at the Russian market. No doubt this would have been a brilliant business idea, were it not for the revolution the following

year. Economic ties between the newly independent Finland and Bolshevik Russia were severed.

Work continued, however. A prototype of the tractor was test-driven in 1918. The chassis consisted of cast metal compartments that housed the powertrain mechanisms, keeping them well protected and lubricated. Ball bearings manufactured by S.K.F. were used.

The brand name Kullervo was taken from the Finnish national epic, the Kalevala, in which Kullervo is a powerful but tragic figure. The Kullervo tractor was powered by a four-cylinder carburettor engine with a displacement of 7.4 litres. Maximum output was 30 horsepower at 850 rpm. The transmission featured two forward gears and one reverse gear. Kullervo weighed 2 200 kg, giving it a healthy power to weight ratio for the time.

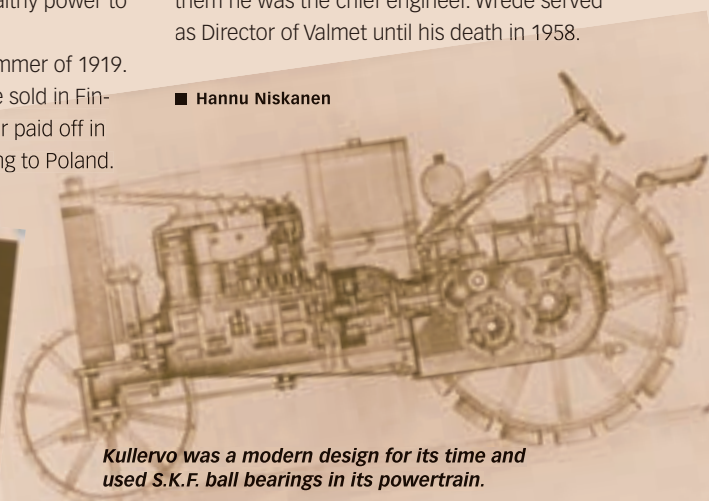
Production began in the summer of 1919. In the first year, 40 tractors were sold in Finland. Efforts to export the tractor paid off in 1920, with 40 more tractors going to Poland.

Other export channels were opened to Sweden and Estonia, but with less success. Production was maintained until 1924, when the factory discontinued making agricultural machinery altogether. The total number of Kullervo tractors that were built is estimated at 200. The primary reason for ending production was the limited size of the domestic market in Finland, while the export markets were dominated by bigger brands, especially Fordson.

The connection between Kullervo and Valmet is that Baron Gustaf Wrede was named Managing Director of the Valmet Group in 1954. He was still very interested in tractor production and helped to develop the first diesel model. Valmet's tractor engineers would say that to everyone else Wrede was just the chief, while to them he was the chief engineer. Wrede served as Director of Valmet until his death in 1958.



*As Managing Director of Valmet, Gustaf Wrede presented the Valmet 33 diesel tractor to Finnish President Urho Kekkonen on 14 November 1956.*



■ Hannu Niskanen

*Kullervo was a modern design for its time and used S.K.F. ball bearings in its powertrain.*

# Valtra Collection – a touch of luxury

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Quality and fun gift ideas for your family this Christmas.

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