

# Valtra Team

Valtra Customer Magazine • 1/2004

## New C Series

The ideal tractor for livestock farms, Page 12



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So, the speculation is ended and Valtra is now part of the Agco Corporation which we firmly believe is excellent news for the company as a whole. We have an owner that has roots in world wide agriculture and an intimate understanding of our business. A situation that bodes well for us all.

It is ten years since, as Valmet, we started our Irish operation. Valmet was at that time unknown as a brand, and dealers and customers alike were uncertain quite what to expect. Now ten years on and with considerable help from our dealers, Valtra is a respected marque throughout the island of Ireland as well as in the UK. Our sales volume in Ireland has grown steadily, not only in the arable areas but beyond, in the traditional dairy farming regions. In future months and years it is our intention and that of our dealers in Ireland to build on this solid base, increase sales, market volume and market share. The same can be said of our intentions in the UK.

Some years ago Valtra purchased agricultural dealers Gibson Ltd with branches near Chester and Skipton. I am sorry to report that Dealer Principal, **Cive Fowkes**, passed away earlier this year. Our thoughts are with his wife **Dorothy** and son **Mark. Andy Miller** will move from the South and West area to take up the position of Dealer Principal at Gibsons. Other staff changes include the appointment of **Alan Sanderson** as Andy's replacement in the South and West. Already well known in farm machinery circles in the area, Alan has a lifetime of experience in agricultural equipment, having served with a variety of dealers and manufacturers. Also joining us, this time in the East of England is **Tim Smith** who will be responsible for sales in the areas of Yorkshire, Lincolnshire, Nottinghamshire and Derbyshire covered by Valtra dealers Swards and RW Marsh.

In April **Gordon Williamson** moves into semi-retirement. Gordon is one of the longest serving members of staff having joined the UK operation when the franchise was in the hands of a distributor, prior to the formation of Valmet, now Valtra Tractors (UK) Ltd. Gordon's ability will not be lost to us as he will continue to help us with technical advise on a part-time basis.

These developments and others still in the planning stage underline Valtra Tractors (UK) Ltd's intention to continue growing as an independent operation throughout the UK and Ireland.

## Mark Broom

MD Valtra Tractors (UK) Ltd.

PS. Following the Budget increase in tax on Red Diesel the frugal fuel consumption of our EcoPower models particularly and the Valtra range in general becomes even more important – Why not check out the details at your local Valtra dealer for your self.

## Valtra Team

### Valtra Customer Magazine

#### Editor in chief

Jari Pentinmäki, Valtra Oy Ab  
[jari.pentinmaki@valtra.com](mailto:jari.pentinmaki@valtra.com)

#### Edition

Hannele Kinnunen, Valtra Inc.  
[hannele.kinnunen@valtra.com](mailto:hannele.kinnunen@valtra.com)

#### Editorial

Christian Børresen, Valtra Norge AS  
[christian.borresen@valtra.com](mailto:christian.borresen@valtra.com)  
Eric Andersson, Valtra Traktor AB  
[eric.andersson@valtra.com](mailto:eric.andersson@valtra.com)  
Michael Husfeldt, Valtra Danmark A/S  
[michael.husfeldt@valtra.com](mailto:michael.husfeldt@valtra.com)  
John Nicholls, Valtra Tractors (UK) Ltd.  
[john.nicholls@valtra.com](mailto:john.nicholls@valtra.com)  
Tommi Pitienius, Valtra Inc.  
[tommi.pitienius@valtra.com](mailto:tommi.pitienius@valtra.com)  
Bettina Kuppert, Valtra Vertriebs GmbH  
[bettina.kuppert@valtra.com](mailto:bettina.kuppert@valtra.com)

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Valtra Inc., Finland, [www.valtra.com](http://www.valtra.com)

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Juha Puikkonen

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*Holford Contracts S Series make short work of loading second cut silage.*

# Agricultural or Industrial -

***Hauling sand and gravel, chopping grass into a forage wagons or backing up a repair gang working on Severn Trent sewers; Stewart Holford's Valtra tractors are expected to do it all.***

Coming from a farming family Stewart Holford now runs a family contracting business; Holford Contracts Ltd., based near Rugeley in Staffordshire.

– My father could see that agriculture was descending into the doldrums some years ago so we switched our attention to non agricultural activities, Stuart relates; a move which through hard work and attention to detail appears to have paid off handsomely. He adds wryly; – The land is still there, mostly used for DIY livery by horse

owners from surrounding towns, and should agriculture return to reasonable levels of profitability I would like to return to farming it.

On the industrial side the company specialises in supporting Severn Trent Water. Emergency repairs or planned maintenance, from North Wales and North Shropshire down to Gloucester and from Mid Wales across to Leicestershire and Coventry and he has gangs standing by to go out at a moments notice. Stuart's extensive plant fleet, includes three S260s, an 8950, a T190, a couple of X120s with industrial loaders and a 4 600 with agricultural loader, all of which can be used to support the various gangs undertaking repairs to sewers across a wide area. Valtra tractors coupled to Joskin



16 000 litre tankers – Holford Contracts has five – are used to drain sumps and wells during sewer maintenance. Many sewers cross farmland and a tractor is ideal for the purpose. The same rationale underlies the purchase of four 22 tonne capacity trailers used to supply building materials or remove excavated spoil while another tractor may be coupled to the low loading trailer to move tracked excavators or bulldozers from site to site.

– Handling such heavy loads all our larger tractors are fitted with air braking systems, comments Stewart.

– Public safety and that of our 45 strong work-force is very important to us.

As far as Severn Trent is concerned Holford Contracts is a 'full service' company. One 'phone call sees the job done as Holford's have the plant, equipment, men and skills to complete just about every job. A situation that makes life much easier for the water company as it cuts out delays resulting from organising a range of sub-contractors and getting them to site at exactly the right time. This arrangement is also easier on the community as the work is completed speedily, creating a minimum of dis-

turbance to public life.

Holford Contracts do still undertake agricultural work; the fleet of tractors are used for silage making – over 2 000 acres of first cut grass plus additional cuts. From mowing through rowing-up with one of the X120s to collection by two of the S Series coupled to Pottinger self loading chopper forage wagons then on to clamping by the second X Series, Stuart and his team offer a complete service. There is also a little ploughing and heavy cultivating which leads him nicely into land reclamation for quarrying companies including Lafarge Redland or land owners like Monkton Estates One contract worth £ 350 000 was to move 180 000 tonnes of stored soil to fill old marl holes and other pits throughout an estate. This was achieved using the S Series tractors and the 22 tonne capacity trailers.

– We find the S Series an excellent all round tractor, Stuart reports; Its second-to-none for operator comfort.

A view supported by Dave Buckle and his fellow drivers. Dave, while coming from an agricultural background, normally drives one of the company's Volvo concrete batch-



***"Moving heavy plant and materials we have to have equipment that is up to the job and safe – for the public and our operators".  
Is one of Stewart Holford's prime objectives***

# - Valtra tractors do it all



ing trucks but with his background finds the transmission and ancillary controls of the S Series simple to operate after just a little tuition.

– On the road with heavy trailers they perform well, in the field they are economical to operate, Stuart reports. We did take delivery of one of the early models, the first in the UK, and that had a few electrical problems but if we need a further machine of that size I would not hesitate.

And are there plans for the future? Holford Contracts Ltd is still very much a family company, albeit on that turns over some £3

million annually. As is the case in many well run family businesses, Stuart has that feeling that he has a responsibility for his staff and with this in mind the next move will be to consolidate their current operations before moving on to new ventures. Should he need further tractors will they be Valtras? To this the answer is yes.

– Valtra and their dealer, F Sutton & Son, have looked after us excellently and our next tractor will be either a T190 or S Series depending on our requirements.

■ Roger Thomas

***Stewart's tractors are expected to undertake a broad spectrum of work from heavy industrial operations to regular farm duties.***



*In these pictures you can see T Classic -model accessories.*

# T150, M120 and T Classic expand the Even more choice



***Valtra is expanding its product range this spring with the introduction of the T150 model, the T Classic series and the M120 model. The new models are being introduced as a direct response to customer feedback that has been systematically collected by Valtra. They are also designed to meet the future needs and challenges that customers will face in the coming years.***

– When the T Series was introduced to the market, one of the most visible innovations was its flexible and programmable hydraulics,

especially the possibilities the new hydraulics allowed for controlling advanced implements. Already then we recognised the need to offer a solution for those kinds of uses where the advantages of electronic hydraulics cannot be fully utilised, says **Ari Jaakonmäki**, Product Manager for the T Series.

Customers have also expressed a desire for a simple and strong basic transmission for jobs that require a lot of pure pulling power.

– In order to meet these needs we are introducing the T Classic series, combining solid engineering with strong Valtra engines

and fresh design, says Jaakonmäki.

The model line-up for the Classic series includes the T120c, T130c, T140c, T160c and T170c. The transmission options are the standard 12+12 transmission and a 36+36 transmission with Delta Power Shift. In the future, the HiTech's forward/reverse shuttle transmission with double wet multi-disc clutches will also become available. The HiShift button-operated clutch control is available on all models.

The T Classic range also introduces new rear mudguards for the entire T Series. The new mudguards are similar to those introduced on the M Series. They have been



# Valtra range of tractors for customers

*The cabin of the T Classic is as spacious and roomy as in other Valtra models. Simpler controls for the hydraulics makes them easy and straightforward to use.*



*The 120-horsepower model in the Valtra M Series is available with either EcoPower or standard engine.*

designed to improve visibility and provide the steps with better protection from dirt. They are also easy to adjust for different tyre sizes and transportation needs.

## **T150 competes in popular size class**

The popularity of 150-horsepower tractors has grown rapidly, especially in Central Europe. The average output of new tractors appears to increase from year to year towards 150 horsepower, as the average size of farms also grows. Valtra has indeed found many new customers in Central Europe in recent years. The new T150 has been designed to meet their needs.

– There has been a bit of a gap in the T Series range between 130 and 160 horsepower, as the T140 is an EcoPower model that

is not available, for example, in a version that can travel at 50 km/h. The T150 fills this gap, allowing the customer to choose even more precisely the right tractor to meet his needs, says Jaakonmäki.

The six-cylinder T150 model offers 155 horsepower at 2 200 rpm and 625 Newton metres of torque at 1 400 rpm.

## **M120 also available without EcoPower**

The four-cylinder M Series range of tractors is also being expanded. The smallest in the range, the M120 has previously only been available as an EcoPower model. The new 120-horsepower M is now being made available as a normal

output model.

The M Series now includes 120, 130 and 150 horsepower tractors, of which the 120-horsepower model is available both with EcoPower and standard engines.

EcoPower is an engine option offered by Valtra that allows maximum output to be produced from as low as 1800 rpm instead of the usual 2200 rpm. This reduces fuel consumption by approximately 10 percent, creates less pollution, increases service intervals and extends the life of the engine by several years.

■ **Tommi Pitienius**





# New products for UK farmers at Valtra Road Show

*Outside working demonstrations allowed customers to get to grips with the controls.*

**What better way is there to introduce new products to potential customers than to let them see, touch and try them?**

Over the past year Valtra has introduced a number of important new models, the most recent being the C Series, and prior to that, the M Series, while the S Series has also seen a change in specification. To introduce these new products, Valtra Tractors UK has undertaken a programme of nationwide road shows ranging from practical demonstrations to indoor evening presentations, or a combination of the two. Overall, attendances have

**Indoor presentations proved popular drawing audiences of over 100.**



been high under lining the increasing importance farmers and contractors are placing on the Valtra marque.

It is now generally accepted, even by our competitors that the Valtra product is of high specification and high quality. Our ordering system allows customers to specify exactly what they require for their particular farming conditions, a situation enhanced by the introduction of the M and T Series, which offer tractors of similar specification in both four or six cylinder form.

**Inside or outside there was plenty of expert advice on hand.**



**An S Series? perhaps one day!**

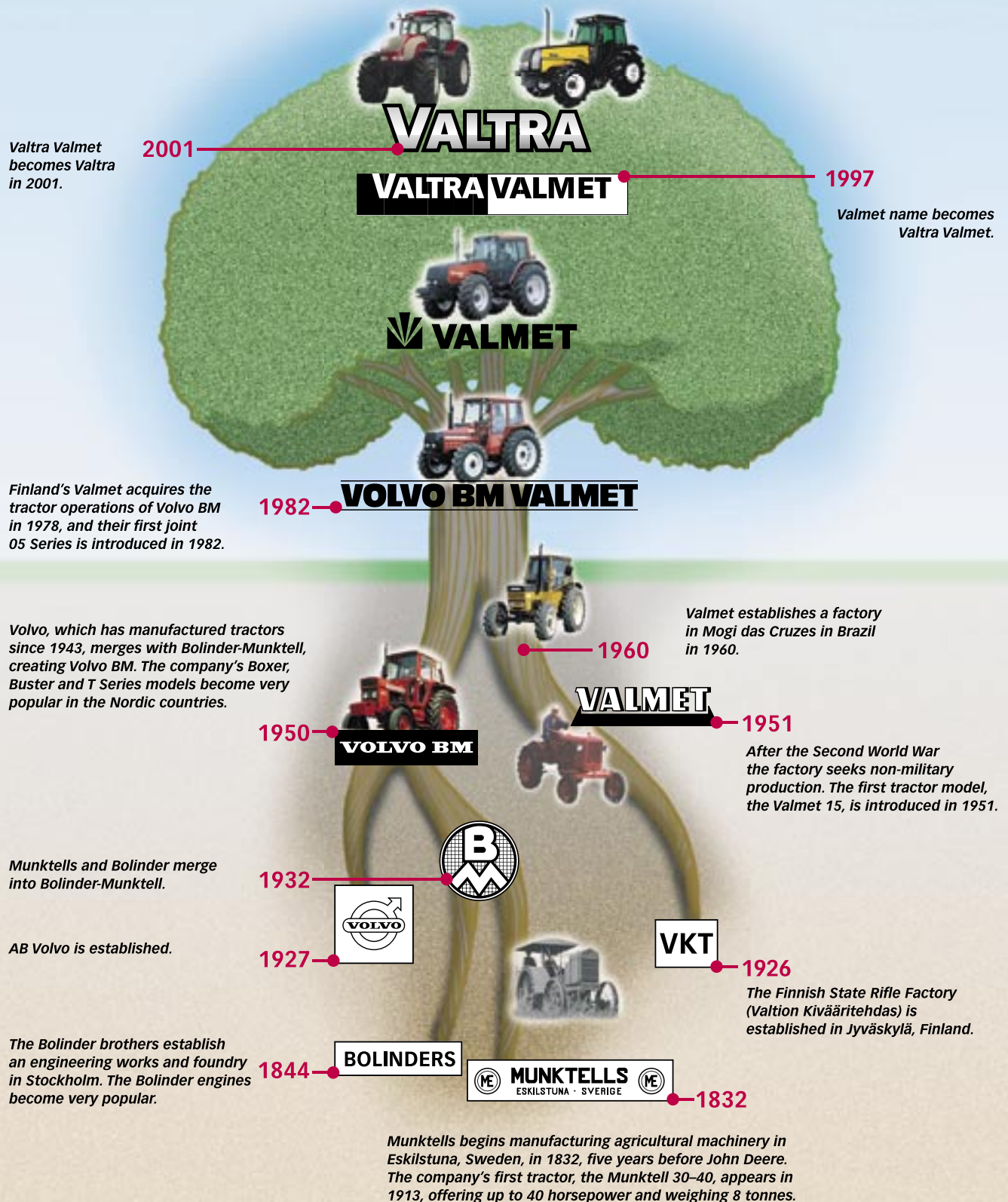
One increasingly important feature of Valtra tractors is their low overall ownership costs. Not only is the purchase price of a Valtra tractor excellent value, particularly with low or interest-free finance, but running costs are also low, as many of our customers are keen to point out to us! Fuel consumption is less than many similarly powered competitive machines and reports tell us that down-time is negligible. Finally and importantly, there is the residual value which remains high.

Next time the road show comes to your area be sure to take a look. There is certain to be something to meet your requirements.

■ Roger Thomas



# Valtra's family tree





Here "Uffe" poses with two real gems, two old Swedish legends, the BM 36 and the famous BM 350 Boxer. Note the fine order in the glass-front cabinets, each make in its own space, and ranged according to size.

# Tractors for both work and leisure

**Lars-Olof Levin is a tractor mechanic by profession, but in his spare time he works on his collection of model tractors. Lars-Olof, nicknamed "Uffe", is one of Sweden's biggest collectors, and has models of pretty much all makes, though there is a certain focus on models of the Scandinavian manufactured vehicles of Bolinder-Munktell, later Volvo BM and Valmet, later Valtra.**

We meet Uffe in his own environment. He is out on a routine job. A Valtra 800, belonging to Fritid Trelleborg, one of the local authority services in Sweden's southernmost district, needs some attention to its front loader control. He has a service van with him at home out of hours, which means he is always ready to go at short notice. Uffe works for JEB Lantbruksmaskiner, the firm that provides the service for Valtra tractors in Sweden's southernmost county of Skåne. JEB has eight service vans strategically located throughout the county. In addition JEB has a centrally located permanent service

workshop. Uffe has worked for JEB for the last ten years, and there is nothing Uffe can't do when it comes to servicing a Valtra tractor.

## Quantities of model tractors

When we visit Uffe and his partner **Jenny** at home, we are hardly through the door when we spot the first glass-fronted cabinet full of models. In the room beyond there are three more huge glass-fronted cabinets full to bursting with models of all kinds. And as if that's not enough, we are invited upstairs to find seven more cabinets, admittedly slightly smaller, but equally full of models. The models upstairs were mostly models of construction machinery and a large number of Volvo BMs. We also hear that almost an entire wardrobe is full of models, and in addition to that a number of boxes containing items for repair.

In total Uffe has collected 529 models plus a few hundred tools, some of which are construction and forestry machinery.

The entire collection is insured and we dare not hazard a guess as to its value, but feel

it must be worth tens of thousands of Euro.

## Valmet models in five colours

The Dutch importer of Britains' products ordered 500 complete series of Valmet models after Valmet launched the option of choosing the colour of your tractor. Red, green, blue, yellow and white were the colours that were initially offered. Uffe says that of these 500 there are three complete series in Sweden.

– Those are probably my favourite tractors, says Uffe.

To gain an idea of the value of the models we asked whether he would take Euro 1 000 if he were offered it for all five? Uffe shakes his head, saying:

– It's impossible to get hold of them, so I'd never sell them. Not even for that sum. I paid Euro 400 for them myself when I bought them, and that was a few years ago.

Uffe also has several Valmet models with cranes, forestry cranes permanently mounted on the tractor.

– Some of them came from toyshops



**The complete range of Valmet models in five different colours, a special edition produced in Holland.**



**On this shelf "Uffe" has collected a number of Valmet models with forestry equipment, with built-on cranes and attached forestry trailers. A few forestry machines have also sneaked their way in.**



**Big Bud is the world's biggest tractor. It is manufactured in the USA, as is this model, which is not available for purchase in Europe. Here is Big Bud together with Valtra's biggest tractor, the S280. Both are in the same scale, 1:32.**

– I got the first one in Holland – and I found some others on the Internet," says Uffe.

He says that he found and bought many of the models in his collection via the Internet.

#### Several manufacturers

Britains, Joal and Siku are the usual European manufacturers of model vehicles. Frank Minth, an American manufacturer, is another. Uffe has a Frank Minth Oliver 99. What's unique about this model is that it was created in 1:12 scale. The usual European scale is 1:32.

In the USA the scales commonly used are 1:16 or 1:64

A small Volvo BM 650 model that came out in the mid 1970s was in 1:50 scale, as this was an established scale for construction machinery. It was manufactured by the Japanese firm Diapet.

**Lars-Olof Levin in his workday environment. On that particular day his workplace was one of Sweden's southernmost beaches. On the bus it says: Personal Service – Our Strength – Your Safety.**



Do you have any contact with the firms that make these models?

– Yes, I am in contact, for example, with a firm in Palm Beach in Florida that represents Franklin Minth models. They are not for sale in Sweden, so you have to get them from the US. Recently I bought a special edition Farmal H. It cost 135 dollars, plus 45 dollars for freight. The delivery took just three days and it came by taxi for the last leg of its journey.

#### Annual tractor model market

Every year there is a model tractor market in Zwolle in Holland. Last year it attracted around 7 000 visitors, and there were a total of around 250 sellers there.

Did you buy anything, then?

– I bought some models for about Euro 1 100, says Uffe.

When Uffe says that we look over at Jenny and wonder how they manage with money for housekeeping. Is there anything left over for buying food?

– Well, it's true it's an expensive hobby. I do spend a lot of money on models, acknowledges Uffe.

But Jenny doesn't appear to mind, and in fact she is also keen on the model collection.

#### Model tractor club

There is a Swedish model tractor club, which meets twice a year. The summer meeting is held at the home of one of the members, but the winter meeting is always held at the Munktel Museum in Eskilstuna.

Most of the members are also members of its Dutch counterpart. According to Uffe, there are also model tractor clubs in Germany and Switzerland, but Holland is where it all started. There is also a "model bible", Model Farm Tractors, an American catalogue covering all conceivable models.

– I started collecting seriously about eight years ago, says Uffe, but I've always done it to some extent. I held on to the model tractors I was given as a child, and I've still got them now. I started work as a tractor mechanic in 1988, and after that my interest in models has just gradually grown. The one model I haven't got that I really want is the model of Munktel's first 30/40 tractor, built in Sweden back in 1913. It is handmade and only available in very limited editions.

Uffe won't give up. His collection won't be complete until he has that model.

■ Eric Andersson

# C Valtra C series



The model in the picture has a special painting.

# Valtra's new C Series

## The ideal tractor for livestock farms

*The agricultural sector continues to undergo rapid changes. Valtra has replied to the challenges of modern farming by introducing the new C Series. This tractor has been designed from the outset with the specific needs of livestock farms in mind, where materials must be handled every day of the week throughout the year.*

The flexible C Series is also an ideal tractor for other uses, such as on fields, in forests and for municipal service. The C Series includes seven models, ensuring the perfect specification for all needs.

In designing the new C Series, the entire tractor concept has been rethought. This has created an ideal weight distribution, high level of agility and really good reachability for front-loader work. The nose on the C Series is short, with the front axle situated all the way at the front. Accordingly, the front tyres are the first

part of the tractor to come into contact with an obstacle, thus protecting the nose and chassis of the tractor. This is an extremely valuable design property, especially when using increasingly popular front-lifting implements.

In order to create a compact and agile tractor, the main chassis has been designed to be as short as possible. This helps give the C Series an excellent weight distribution of 40–60, the benefits of which can be seen especially in front-loader work. The C Series maintains a firm grip on the ground in even the toughest loading conditions. For front-loader work the C Series is available with a heavy-duty and powerful Valtra 970 loader.

The cabin of the C Series has also been especially designed for front-loader work. Visibility upwards is improved by the curved face bar, while downwards visibility is excellent due to the short, narrow and curved nose of the



*The light and spacious cabin of the C Series offers the latest technology and ergonomics. Visibility forward and aft is excellent for front-loader work.*



**The weight distribution of the new C Series is ideal for front-loader work. Just 39 percent of the tractor's weight is on the front axle, which allows for perfect balance when working with the front loader.**

tractor. All the essential controls are ergonomically situated in the operator's armrest.

**Controlling implements made easy**

The cabin has been designed around the needs of the operator. It is compact yet roomy enough for even the biggest drivers. The main controls have all been ergonomically designed to help the driver work comfortably throughout the longest workdays.

The hydraulics can be adjusted and controlled entirely electronically. Valtra's load-sensing automated hydraulic system is powerful enough to utilise the newest and most complex implements.

Valtra's popular and trustworthy 36+36 transmission is supplied on the C120-C150 models, while the C90-C110 models utilise a 24+24 transmission. All models come equipped with Valtra's smooth and convenient forward-reverse power shuttle.

The front-loader capabilities of the C Series are further enhanced with the optional turbine clutch. This useful option maintains all the pulling power while protecting the surface of the ground from wheel spin. It also helps increase precision when manoeuvring in tight

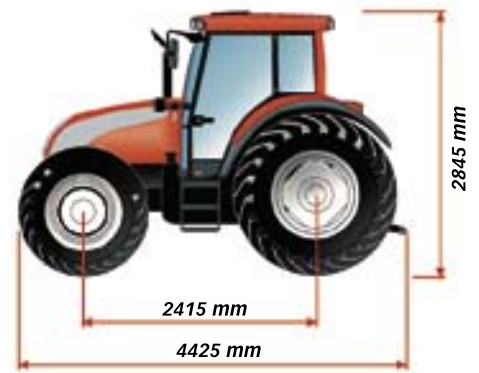
spaces. The turbine clutch is available on the C90, C100, C110, C120 and C130 models.

Automatic air-conditioning ensures the comfort of the driver on even the hottest days. The driver simply chooses the desired cabin temperature and the air-conditioning takes care of the rest. Electronically adjustable side mirrors are a valuable safety feature, especially in traffic and municipal contracting. Visibility in all directions is excellent.

**Powered by reliable SisuDiesel engines**

All C Series models are powered by the Sisu-Diesel 4.4-litre four-cylinder turbocharged engine. This engine is also used by other tractor manufacturers, including MF, Case and Steyr. In addition it is used in a variety of demanding off-road applications, powering forest machines, boats, generators, excavators, harbour cranes, harvesters and other machines.

The three smallest C90-C110 models are equipped with a mechanical fuel injection, while the C120-C150 models have electronic engine management systems. All models meet Tier 2 emissions criteria for the EU and the USA. Customers who are looking for a particu-



larly economical tractor can choose the environmentally friendly C120 EcoPower model. This tractor offers fuel consumption that is approximately ten percent lower than normal models, and longer engine life due to the lower rev range of the engine.

The new SisuDiesel engines are quieter, more powerful and longer lasting than ever, and they also use less fuel. In fact, with its output of 147 horsepower, the C150 model is the most powerful four-cylinder tractor model in the world.

■ Matti Kallio

**C series tractor is suitable for all jobs on the farm.**





*Fishing at the Baxter Land Company is done using nets that are pulled by tractors but also manpower is needed as seen in the picture. The target is to farm 4 500 kilos annually per hectare.*

## How to catch catfish with a tractor!

***- We have quite a lot of low-lying land, some of which even has salty groundwater. For this reason we did not have much success with normal farming, so instead we turned these troublesome fields into fishponds for carp and catfish. We now have 120 of these fish-farming pools covering a total area of around 600 hectares, says Andrew Wargo III, describing his company's more exotic operations.***

In addition to fish farming, the Baxter Land Company cultivates cotton, soy, rice and wheat on 12 000 acres – or just less than 5 000 hectares – in Arkansas, USA. The farm also has forests of pine, oak and even silk-cotton 'kapok' trees covering around 500 hectares.

### **Fishing with tractors**

The ideal size of catfish pools is 550x880 feet, or just under 200x300 metres, and the ideal depth is around one metre. Pools of this size are not big enough for heavy winds to create waves, which could erode the banks, yet big enough to employ heavy machinery, including tractors.

Catfish grow at a relatively fast pace, and according to Wargo they have an ideal food conversion ratio. A kilo of feed can produce up to around half-a-kilo of fish in good conditions.

Catfish weigh around one kilo when they are ready to be caught and filleted. The actual fishing process involves pulling a wide mesh net across the pond. This allows smaller fish to pass through the net while gathering the bigger fish. At the end of the pond, the big fish are lifted out and into the tank truck using smaller nets. The crane used to load the fish has a built-in digital scale and printer, so the weight of the catch can be calculated immediately.

### **Low-maintenance treats**

According to Wargo, farming catfish is easy. The only regular activity that has to be looked after on a daily basis is feeding the fish. The salinity of the water is measured occasionally to ensure that it remains around 1 000 ppm. Oxygen levels are also checked on a regular basis. When the weather is particularly unfavourable for the oxygen levels in the ponds, inspections are made once an hour. In emergency situations oxygenators are used that are powered either by the tractor's PTO or by their own generator.

### **Good business**

The fish farming operations of the Baxter Land Company represent the company's most important area of production in terms of turnover. In terms of the capital and labour fish farm-

ing employs, it compares favourably with traditional agricultural farming.

The company's target is to farm 4 500 kilos of fish annually per hectare. Although this is quite an ambitious target, Wargo believes it is nevertheless realistic.

Andrew Wargo believes that his farming company is now about the right size. In the future he aims to focus on improving productivity. This involves employing more machinery, refining activities and close analysis of each stage of production.

■ Visa Vilkkuna

***Despite of his age Andrew Wargo is still enthusiastic about cat fish farming. He has been very satisfied with the Valtra tractors that he purchased a few years ago.***



# The best off-road diesel in the world

## Why are SisuDiesel's Fortius

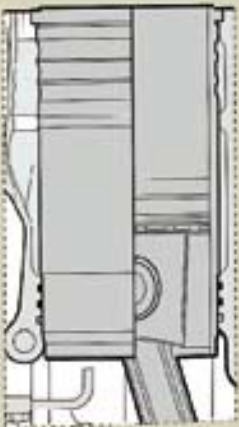
### Electric inlet air heater

By electrically preheating the engine's inlet air, cold start, ignition and running are improved. By continuing post heating cold running will be even and without white smoke. The engine also lasts longer and uses less fuel. Pre and post heating times are automatically adjusted by the EEM according to the dominant ambient temperature.



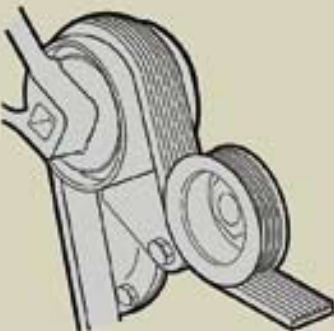
### Wet cylinder liners and mid-cylinder line support construction

Fortius engines feature so-called wet cylinder liners that are centrally supported and replaceable. By efficiently cooling the top end of each cylinder liner, engine heat is reduced, thus allowing greater power. The central support meanwhile reduces vibration by 75 percent, which reduces wear on the cylinders and cylinder liners. Blow by, oil consumption and particle emissions are also significantly reduced.

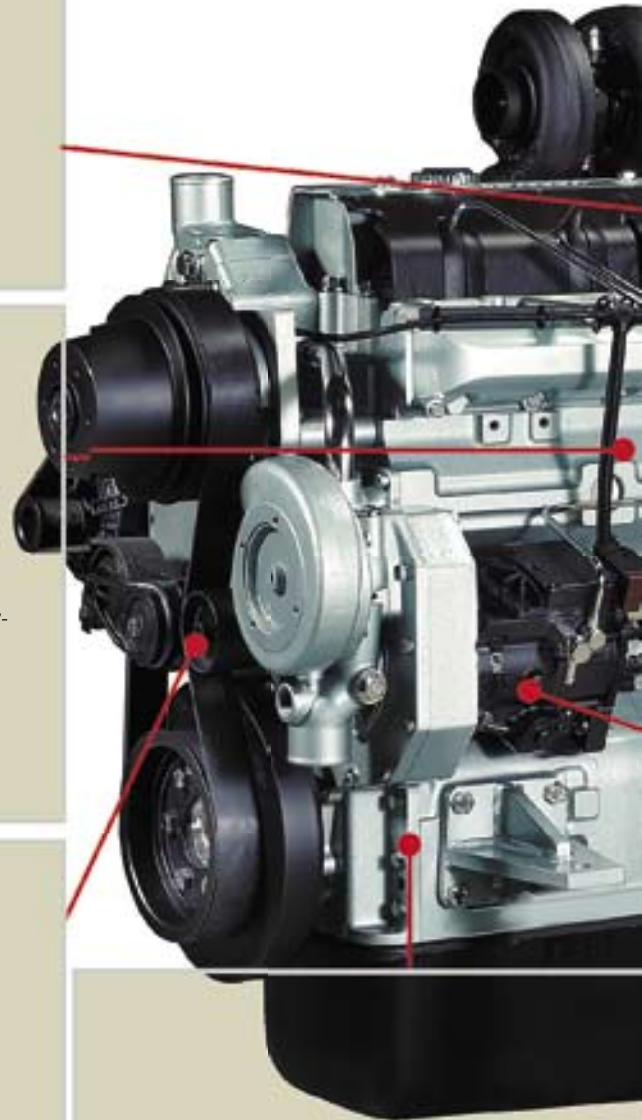


### Poly V-fan generator belt

The eight-grooved generator belt allows for the generator belt pulley to be half the size of standard belt when in use. With the smaller belt pulley the generator produces more electricity, also when idling and on EcoPower models. The poly V-fan belt also stays in place better and is longer lasting than a traditional belt. The belt does not need service, because it is spring loaded.



*Engines produced by Valtra's subsidiary Sisu giving a lot of torque and power. This has several of whom also use Sisu Diesel engines. The For example, fuel consumption has been reduced there is 10-20 percent more torque, and the service i which reduces the customer's maintenance cost*



### Fracture-split connecting

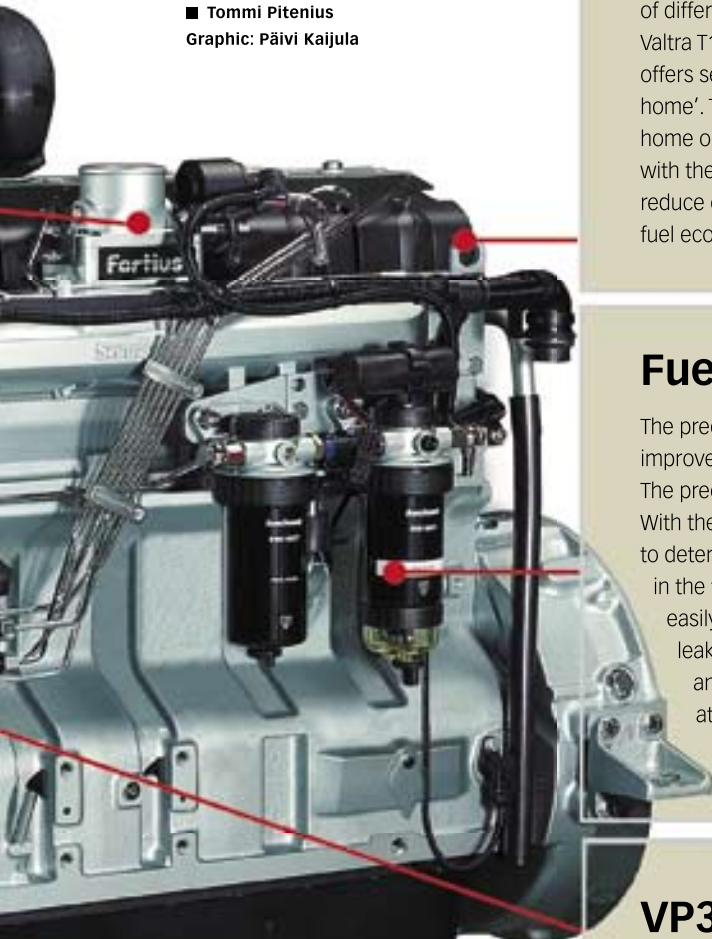
The big end of the connecting rod is fracture-split, making big end hold better. The connecting rod can thus be made which reduces vibration and increases the durability of connecting rod is nevertheless stronger than previously.



# engines so good

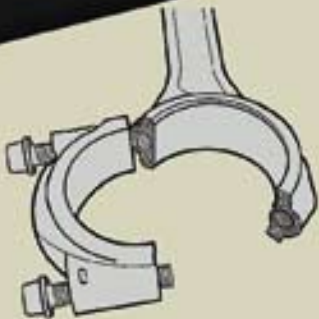
*Diesel are known for being long-lasting and also been recognised by our competitors, latest series of Fortius engines offers even more. by 5-7 percent, noise levels have been reduced, intervals have been increased from 250 to 500 hours, ts by around one-third. How is all this possible?*

■ Tommi Pitenius  
Graphic: Päivi Kaijula



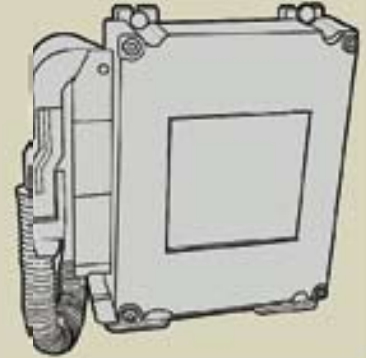
**rod**

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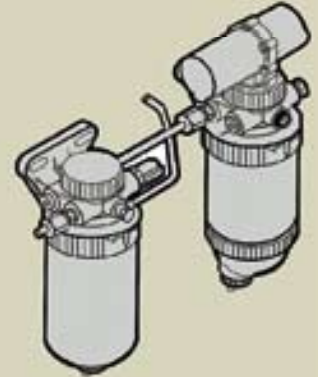
## EEM2

Sisu Diesel has itself developed second generation electronic engine management. EEM2 offers lot of versatile functions for the engine. For example, EEM2 offers a number of different power curves, such as in the Valtra T180 and T190 models. EEM2 also offers several new functions, such as 'limp home'. This allows the tractor to be driven home on half power if there is a problem with the engine. EEM2 is also a key tool to reduce exhaust emissions and to improve fuel economy.



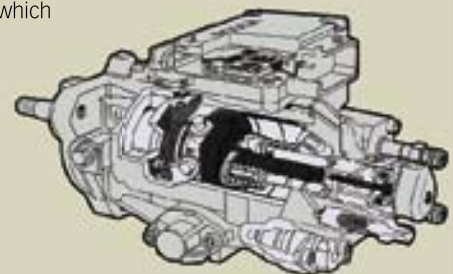
## Fuel filters

The precision of the fuel filters has been improved from 10 microns to 5 microns. The precision of the pre-filters is 30 microns. With the see-through filter cup it is possible to determine immediately if there is water in the fuel mix. The filters can be changed easily by hand without tools. Fuel will not leak onto the ground or into your hands, and the electronic fuel lift pump deaerates the fuel system automatically when the ignition is turned on.



## VP30 electric fuel pump

Six-cylinder Sisu Diesel engines use Bosch VP30 solenoid controlled fuel pumps, which respond very quickly and precisely to throttle movements together with EEM2 engine management. Injection pressure capacity is high and injection timing is controlled dynamically.





*Seven guys who like to hunt wild boar. From left: Peter, Tommy, Stefan, Jimmy, Urban, Kalle and hunt leader Jörgen.*

# Wild boar return to Sweden

***Wild boar are the latest addition to the Swedish range of cloven-hoofed animals, although the species was previously found roaming wild in the country. It was at the end of the 1700s that the last beast was definitively exterminated due to the significant damage they caused. During the first half of the 1900s, wild boar came to be kept again. This resulted in fairly large numbers again in the 50s and 60s; some people believe that a number of pigs were deliberately set free at one point, and that these are the origin of a wild strain living in Sweden today.***

Wild boar eat roots, fungi, root vegetables, potatoes, grain, peas, acorns, fruit and other vegetables. They also eat insects, eggs, worms and the young of both mammals and birds.

A large boar can weigh up to 150 kg and grow to 1 metre high and 1.5 m long. Wild boar has considerably longer legs and bigger heads than domestic pigs.

The first piglets are born as early as February. A sow in good condition may have two

litters a year. Six to eight piglets per litter is normal, but it can be more. Piglets have three stripes until they reach 4 months old, after which they are reddish in colour for about six months.

In a normal year, with good access to food, wild boar numbers can increase by 150 to 200 %. A winter herd of ten animals can increase to between 25 and 30 by the following season. No other animal in Sweden is under such pressure from hunting as the wild boar. To ensure the conflict does not become too great, with hunters on the one side and farmers, horticulturalists and homeowners on the other, wild boar numbers must be kept to a reasonable level. Unfortunately, road accidents involving wild boar have also begun to increase.

## **Certain advantages in the woods**

Wild boar do a lot of damage to growing crops. Therefore it is important to challenge them and to do this in the woods, in order to keep them there. Some people assert that there is nothing better than wild boar for breaking up the topsoil. They grub around for worms and



***A true wild boar with its lethal tusks, particularly dangerous to the dogs. Every year several hunting dogs are gored so badly that they subsequently have to be put down.***



roots, help cultivate the land, and also spread seeds around. The worst damage pigs do to agriculture is in ripe grain, usually wheat. But pasture that is to be made into silage can also suffer a lot of damage. The pigs basically break up the surface of the grass to get at the roots, which means that there is a big risk the silage will be destroyed due to earth being mixed in.

### Today we're off to hunt wild boar

We meet up one day at the end of January on an estate in central Sweden where there is an established wild boar population.

– The best dogs are beating dogs that flush and scare the beasts out into the open, but don't hang about on longer battues, preferably crossbreeds, which are tough and sturdy. You need tough dogs but not foolhardy ones, because wild boar are dangerous beasts, particularly for dogs, says **Stefan**.

– I've got dogs that corner the quarry. My two Finnish Spitzes are really quite ideal if you are in a small group of hunters and when the dog handler often gets a chance to shoot too, tells **Urban**.

Most other wild boar hunting is of the so-called ambush hunting type, or as Stefan puts it:

– You use bait in this kind of hunting. It's often carried out at night.

All types of pigs can be shot, almost all year round, all day long – but sows with piglets are protected at all times.

### "Red" pigs or yearlings

– We're only shooting "red pigs", yearlings and foxes today, says **Jörgen Croona**, professional hunter and our hunt leader, as he instructs the dog handler and allocates the stands. Everyone, stand shooters and dog handlers, is equipped with a radio. The dog handler also puts a collar with a radio transmitter on his dog, and he himself has the detector that receives the signals from the collar.

– It's hard work for the dog today; the snow is deep and loose. He is a bit hesitant at first, partly because of the depth of the snow. He wants to see how near the pig he dare go to be sure of getting away if the pig goes for him, says Urban.

We are in an ideal wood for wild boar. It is a spruce plantation, with dense, dry spruce about twenty years old.



**Urban with his Finnish Spitzes, Rajo and Tuva. The Finnish Spitz is a flushing, cornering and also very lively dog, and is therefore extremely suitable for wild boar hunting.**



**Urban can locate the dog's exact direction. Within a range of five hundred metres he can also judge, to within one hundred metres, how far away the dog is. In addition, he can see from the detector when the dog is barking.**

– Here the pigs can lie in hiding under the spruce trees, and you almost have to step on them to get them to jump up, says Urban, and keeps a constant check on the position of our dog by means of the detector, which indicates the dog's exact direction and also how far away it is. Suddenly we hear the dog begin to bark.

– He's got a pig, says Urban.

The dog is quite nearby and we start off towards the dog straight away, hoping to get a glimpse of the pig. But suddenly it goes quiet again. Urban's presentiment that the dog

>>> Continue on page 21

# Authentic Tequila from the Sierra Madre valley

*The small community of Tequila sits in the valley between the Sierra Madre and the extinct Tequila volcano in western Mexico. Just about every cultivatable patch of land here is used to grow blue agave, the main ingredient for the famous Mexican drink. Often mistakenly referred to as 'cactus wine', Tequila is in fact made from a succulent plant that, while resembling a pineapple, is actually related to the lily and amaryllis.*



**Sausa Tequila has around 100 rear-wheel-drive tractors producing from 50-80 horsepower. These agile, reliable and relatively powerful machines are at home between the rows of agave. The Valtra 700 has been particularly popular, and there are already 40 of them on the Sausa farm.**

The cultivation of agave begins with the planting of shoots that are about one hand in size. Up to 2 000 of these are planted per acre in orchards at the start of the rainy season.

#### **Plenty of work for tractors**

Between the plant rows, a thin maintenance path is left for tractors. During the eight years it takes for the agave to grow, the plants are regularly fertilised and protected from insects, pests and disease. Where needed the paths between the plant rows are ploughed to prevent weeds from taking over and to loosen up the soil for better water retention.

Once the heart of the agave plant has grown into a pineapple-like ball measuring around half a metre in diameter, it is ready for harvesting. The razor-sharp leaves measure around one metre in length and are cut down with machetes. After this the plant is cut from the roots, and the remaining 30-kilo heart is ready for transportation to the distillery.

At the distillery the agave is first crushed and then boiled to release the sugar. The natural juices are then cooled to around 40-degrees, after which water and yeast is added. After the second distillation the tequila is ready to be bottled or stored in wooden barrels.

#### **Aged in barrels, or bottled immediately**

The tequila that is bottled right after distillation is sent to market immediately, while the rest is aged in barrels for some years. The colour of wood used for the barrels determines the final colour of the tequila.

The production of premium aged tequila can take up to ten years or more. There are



**Once the leaves of the agave plant are hacked off, the sugar-rich 'heart' is ready for processing.**





many small tequila distilleries in the Mexican state of Jalisco, many of whom do not export as such. Authentic tequila that has been distilled from 100-percent pure agave is a relatively expensive drink that is not widely sold in Mexico. Cheaper brands of tequila are offered that can contain up to 49 percent of non-agave sugar, although even this drink is considered to be expensive by local standards.

#### Protected name

The tequila name can only be used by products made from distilling agave in the state of Jalisco. In addition, the agave content must be over 50 percent. The tight regulation of tequila helps explain the drink's mystique as well as the popularity of other 'cactus wines', as there are many other distilleries in other Mexican states.

Sausa Tequila cultivates around 11 000 hectares of agave. The company aims to reduce the size of its agave orchards in the future while at the same time increasing its exports of tequila to world markets. Through controlled plant breeding it is possible to produce agave plants that are more productive, grow faster and are more resistant to diseases. These plants can also be cultivated using modern methods of fertilisation and soil control to produce bigger crops. Sausa Tequila has its own test orchards that have proven the benefits of these modern techniques. These orchards produce much more robust agave hearts that can be seen on the trucks driving to the distillery.

Most agave harvesting is still done by hand using traditional methods. This is very labour intensive, and new harvesting implements are being devised – although Sausa Tequila is not keen to discuss details. Tests have nevertheless been promising, as they have been also for semi-automated planting of shoots. It is possible to view the prototype of the new planting machine, but taking photographs was strictly prohibited.

■ Visa Viikuna



*Sausa Tequila has an impressive heritage.*

>>> from page 19



***The day's haul, two "red" pigs. We estimated that the larger one weighed around 30 kg and the smaller around 20 kg living weight. Cleaned and skinned, the weight is approximately halved.***

is a bit hesitant was completely justified. The dog should be able to quickly run round the pig in order to basically ring it in and keep it where it wants.

We continue on. It's a bit hard in the deep snow; how hard it must be for the dog, who has to struggle through the loose snow.

– The dog's barking again, says Urban.

We hear nothing, but Urban shows us a green light flashing without pause on his detector.

Quickly we move in the direction indicated by the detector and soon we hear the barking of the dog.

– Once we get near we'll just move when the dog is barking. In between we have to stay quiet and still, says Urban.

So that's what we do, and after a while we get near enough to see Rajo. He's moving constantly, back and forth, round and round. We are not yet near enough to discern any pigs, but Urban gets ready to shoot anyway. We get even closer, with extreme caution. Rajo is barking unceasingly, and then we see the pig, a big one, probably a sow. Urban puts his gun back on his shoulder and says it's the pig's lucky day – it will survive today's hunt, and will perhaps soon give birth to a litter of piglets that can be hunted next season. Urban goes a bit closer and tries to get Rajo to lose interest in the sow. The huge pig dashes away and Rajo decides to follow us instead; he might find another pig, one that can be shot. Sometimes it must be a thankless task being a hunting dog!

■ Eric Andersson

# Dairy farmers adapt to succeed in a changing environment



*The agricultural sector continues to experience rapid changes. One of the biggest forces of change in the industry is the European Union and its agricultural policies. The development of producer prices has also been unfavourable. Valtra Team interviewed dairy farmers in Sweden, Denmark, Holland and Italy in order to find how they are surviving amidst the ongoing changes.*

## Questions

**1. Background information about your farm: Family, number of tractors, number and breed of cattle, average milk production kg/year/cow, contracting work expenses (% share of total machinery expenses), size of farm**

**2. What are your main plans and goals at the moment for developing your farm?**

**3. What is your opinion about current agricultural policy trends?**

**4. How have the latest changes in agricultural policies affected operations on your farm?**

**5. In your opinion, what are the main ways in which a farmer like yourself can survive amidst these changes?**

**6. What are your intentions regarding your tractors in the future?**

## Sweden

1. **Sven-Olof and Marie Karlsson**, two children
  - Valtra 8350 and 705-4
  - 70 cattle, currently being increased to 80
  - SRP, Svensk Röd and Vitbrokig Boskap (traditional Swedish breeds)
  - Milk production 10 500 kg /year/cow utilising 2x4 tandem milking stations
  - Share of work off the farm represents 3 % of total machinery expenses
  - 300 hectares, including leased land
  - 80 hectares of hay, of which 15 hectares grazing land, 50 hectares of grain and 10 hectares of forest
2. We will continue family farming with milk as our main produce. We hope to be able to increase the wellbeing of our animals and thus reduce veterinary costs.

3. We have to accept the fact that agriculture in Sweden is part of an international environment and that we can no longer think only about the wishes and needs of our domestic market.

4. Individual farmers have very little chance to influence policymaking. Since we have a relatively new cowshed, we shall continue milk production. We aim to produce the highest quality of milk with as low expenses as possible.

5. Swedish farmers are fighting for the same things as farmers in other countries. The tax burden should be reduced along with other costs, such as the tax on diesel and various environmental charges.

6. We already share machinery when it comes to harvesting the hay. We are also prepared to do more contracting work for others. At the moment we do round bailing and liquid manure spreading.



**Marie, Sven-Olof and their youngest son Henrik.**



**Benedetto and his son Robert.**

## Italy

1. The Robilat farm is owned by the Tortoni family: father **Benedetto** (55), his wife, two sons and a daughter. In addition to both sons, two local men work on the farm.

- Valtra 6400 and 8050
- 240 Friesian cows
- Milk production 12 000 kg/cow/year utilising a 10+10 herringbone milking parlour.
- Share of work off the farm represents 25 % of total machinery expenses
- 85 hectares, of which 30 hectares of hay and 55 hectares of feed corn

2. Plans for the farm are to increase production by raising the milk quota. This is difficult, however, as increasing the quota would require increasing the area of fields, and there is simply no more available land on the Robilat farm.

3–4. According to Mr. Tortone, the family has continually increased milk quotas ever since the new cowshed was built in 1985. Each member of the family has his own area of responsibility on the farm. One of the sons takes care of feeding, while the other takes care of milking and artificial insemination. This is the main key to increasing milk production while at the same time improving quality.

5. Mr. Tortone believes that the most important factor is the quality of the milk. Only after this comes quantity, which is used to pay for the fixed costs of production.

6. The Robilat farm has recently invested over 100 000 euros in a milking station and computer system of detecting fertility.

## Denmark

1. **Søren Wollesen** (35), his wife and five children. Søren was born on the farm and has owned it for the past ten years

- Valtra T180
- 80 cattle
- Milk production 10 400 kg/year/cow utilising milking robots
- 60 % of expenses go to contractors, who take care of planting the corn, harvesting the hay and spreading the manure.
- Total field area 160 hectares, of which 50 hectares of corn, 45 hectares of grains, 45 hectares of feed hay, 10 hectares of dry hay and 10 hectares of fallow land.
- The family has just completed construction of a new cowshed for 150 cows (Holsteins). The new cowshed will have two milking robots. The



**Søren Wollesen and his new Valtra T180.**

old cowshed was built in 1976 and has 75 milking stations and one milking robot.

2. Søren plans to increase his investments in order to add to the number of milking cows over the next few years. This way he can also increase the use of his field implements. After upgrading from a 115 horsepower tractor to his new Valtra T180, he can now take care of spreading the manure himself.

3. Søren feels that the new agricultural policies are going in the right direction. For example, decisions about cultivation will no longer be based on the level of subsidies but instead on market conditions. However, he does not like the fact that milk producers who stop producing will still get the same level of subsidies, even if they continue cultivating produce. Abolishing agricultural subsidies altogether would be good also for these farmers, although it would mean a rise in the level of consumer prices and greater price fluctuations.

4. Søren is concerned about the systematic lowering of the price of milk products at the same time that subsidy levels are being lowered. He believes that the investments he is currently making will improve the profitability of his farm in the long run. A much worse alternative would have been to use the old cowshed until it could no longer be used and then cease production in a few years. By increasing the number of animals, it is possible to achieve lower costs per head.

5. Production must be increased in order to compensate for reduced producer prices and increased costs.

6. Søren plans to do more of the fieldwork himself, for example liquid manure spreading.



**Ruurd and Marja Sieperd and the family's sons.**

## Holland

1. **Ruurd Sieperd**, partner **Marja**, two sons and a daughter. The family takes care of the farm together with Ruurd's father and uncle.

The farm was established in 1952. Ruurd Sieperd is currently a part-time farmer but plans to take over the farm full-time in 5 years time.

- Valtra 6750 EcoPower
- 57–60 Holstein Friesian cows
- Milk production 10 800 kg/year/cow utilising 2x6 herringbone milking parlour.
- 90 % of work on the farm is done by themselves, while the remaining 10 % is specialised work that is contracted out.
- Total field area 40 hectares, of which 25 hectares hay, 4 hectares grains and 11 hectares leased out.

2. Ruurd plans to become a full-time farmer. He wants to improve the efficiency of operations on the farm. Plans are to increase the herd to 80 cows and total milk production from 555 000 to 800 000 kilos. Increasing production requires a new cowshed and higher milk quotas. Ruurd feels that the price for milk quotas in Holland is unreasonably high. He plans to wait until quotas are freed up and the price falls.

3. The outlook for agricultural policies concerns Ruurd somewhat. He believes that it will be a challenge to make the agricultural policies of the new and old Member States compatible. Too often the decision-makers do not have a sufficient background in agriculture. Ruurd is nevertheless quite confident in the decision-making abilities of the Dutch minister of agriculture Veerman.

4. Operations on the farm have not changed much. The amount of bureaucracy has increased with new regulations. The level of corn subsidies has encouraged Ruurd to cultivate corn on the farm. According to Ruurd, the problem with agricultural policies at the moment is artificially low producer prices that do not correlate with production prices.

5. The need for outside help will increase as Ruurd begins to develop his farm. He feels that it would be hard to make machinery investments pay for themselves when their use is so seasonal.



*An example of how to use your tractor in the most efficient manner by using a packer during planting work.*



## Drive right – reduce fuel consumption

***Fuel consumption is rapidly becoming one of the most important cost factors being monitored within the agricultural sector. As the price of crude oil rises, so too does the price of light fuel oil and motor fuel oil. How to reduce fuel consumption is a question to which every farmer and contractor would like to know the answer.***

### **The right driving techniques and machinery**

Even though the diesel engines in today's tractors are more fuel efficient than ever, it is still possible to create big savings by making subtle changes in driving techniques. Drivers who have used tractors for many years have naturally developed their own styles of driving at a time when fuel was generally cheaper than it is today. Research shows that by making small changes in driving styles, fuel costs can be reduced by up to 5 %. Bad driving techniques,

such as driving in the wrong gear or using too large implements, can in turn increase fuel costs by 25 %.

The first step towards reducing costs is making sure you use your tractor in the most efficient way. This means organising your work around the farm in such a way that enables savings in both time and fuel. Modern tractors are designed to allow implements to be attached to both the front and rear. For example, during the spring planting season it is unusual to see an implement attached to the front linkage of a tractor. To fully utilise your tractor, you could begin in the autumn harvesting season by using a packer and leveller during ploughing. Another way of saving time is by ploughing shallower every second year or using another appropriate method for taking care of the farm's fields in the autumn. When spring comes around, a lot of time can be saved if it is not necessary to harrow the fields any more, or to reduce the amount of harrow-

ing depending on the planting machinery used and soil type.

Although each individual work process will not necessarily have a big effect on fuel consumption, the overall improvement to efficiency can be considerable. The same applies also to transports. Simply by using a bigger trailer it is possible to reduce the number of transports. When increasing the capacity of loads it is important, however, to make sure that you do not exceed the legal amount based on the size of the trailer and the braking capacity.

■ Max Schulman

### **How to drive in order to save**

- Use the most efficient size of implement for your tractor and farm.
- Use a higher gear and reduce engine speeds by 70–80 percent of the maximum.
- Change fuel filters regularly and keep the fuel system clean and well tuned.
- Use only the type and quantity of motor oils that are approved and recommended by the engine manufacturer.
- Maintain your tractor as specified in the servicing manual.
- Avoid idling.
- Reduce the amount of unnecessary driving during fieldwork.
- Specify the right tyres for the job.
- Maintain the correct tyre pressures.
- Plan your work to avoid unnecessary driving, for example between fields and farmhouse.
- Use only fuel recommended by the tractor manufacturer.



***Today's tractors allow powerful implements to be attached to both the front and rear, thus increasing efficiency.***



***Planning your work efficiently can also save fuel. Here a big trailer is brought to the field, where it is loaded and carried away using the same tractor.***



# T Series

## Ideal for specialist operations

*For several years Devonshire contractor and farmer Steve Lee has undertaken a variety of agricultural operations for landowners, mostly in North Devon. His most recent venture is the field work for a swede growing specialist who in turn supplies the retail market.*

– We undertake everything from primary cultivations through planting, spraying and fertilizing to lifting, Steve explains. While most of the work is similar to that which we undertake for other crops some is very specialised.

And nothing is more specialised than the harvesting operation which has to be carried out on demand to a schedule from the retailers. In a wet autumn the going can be slow, difficult and costly. Steve thought very hard about the lifting operation, looking at machines used by other contractors. He also discussed the problem with **Hubert Elworthy** of Chulmleigh, a farmer turned engineer with the construction of a number of successful, specialised harvesters under his belt.

Steve had several important items on his 'wish list'. These included the ability to harvest a full bed – four rows – in one pass; two is more usual. As every root grower knows mud caused by wet weather can be a problem during harvest; Steve wanted as few of those weather associated problems as possible. He also wanted something that would be quick and easy to pack up and move to another field, along Devon's notoriously narrow lanes.

The result of much discussion, careful thought and 'off-the-wall' thinking was a fully mounted machine built around a reverse drive tractor. Although not a dedicated Valtra operator,



Steve Lee

Steve felt the Valtra T120 fitted the bill. At 120 hp it has the power to run the harvesting equipment. It has reverse drive – TwinTrac – and all the hydraulic services required to run a sophisticated piece of machinery. And, importantly, it has the backing of Valtra dealer G A Vowles Ltd., a company Steve knows and trusts.

– It would have been no good buying a machine from a dealer in which I did not have any faith, is Steve's strongly held contention. We have to harvest to a strict schedule and I need to know there is skilled back-up should we need it.

Hubert Elworthy committed some ideas to paper and from the early drawings the idea became a reality; a self propelled swede harvester that could lift four rows in a single pass. Fully mounted and well balanced to reduce traction problems in wet conditions and with the ability fold up under hydraulic power to 2.8 meters wide, well within the legal limit and compact enough for Devon's lanes.

After a few early teething problems the machine is working well, even in an exceptionally dry autumn. Driver Tom Burnison – all six foot of him – finds the reversed seating position comfortable and convenient. The all important lifting shares and first stage web are there, right under his nose, where he can see exactly what is going on. The whole rig is manoeuvrable in small fields, a feature of Devon farming, and it is a simple matter to fold elevators up into their transport position ready to move off to another site. Importantly the damage to harvested swedes is so small as to be non-existent.

Is Steve happy with his new machine? "So far so good" is his reply. The very dry weather has not been particularly testing but the concept is ideal. The Valtra TwinTrac system is working well and liked by the operator. The last testing bit – bad weather – is out of Steve's hands but the signs are that the unit will work well what ever the weather.

■ Roger Thomas



*Folded up and ready for the road Steve's harvester is highly manoeuvrable and fits down the narrow lanes of North Devon easily.*



*Unusually this machine lifts all four rows in the bed at one pass unlike most other harvesters.*



*Multi-Agrar Claussnitz needs powerful tools in their huge farming business, and Valtra S Series tractors have proved to be excellent working tools in tough jobs.*

Photo: Gerd Menzel



*The three Valtra 8950 and S series tractors are in heavy use on the farm. The company is very impressed with the flexibility and all-round benefits as well as their reliability and low operating costs.*

# Valtra Power in Germany

## Multi-Agrar Claussnitz adds three new S Series

**German agricultural company Multi-Agrar Claussnitz GmbH became acquainted with Valtra tractors as recently as 2001 through its dealer LTZ Chemnitz. Multi-Agrar Claussnitz was interested in Valtra's high-performance, robust and low-consumption tractors and subsequently made a long-term leasing contract for three Valtra 8950 tractors. The company was so happy with its choice that it has since added three S Series tractors to its fleet.**

Multi-Agrar Claussnitz GmbH was established in Germany in 1991 and incorporates 12 companies with 86 employees. In 2002 the company posted a turnover of six million euros. Multi-Agrar Claussnitz farms a total of 3 066 hectares, comprising 457 hectares of grass-land and 2 609 hectares of arable land. This is

used to cultivate winter wheat, winter barley and winter rape-seed, peas, beans, silo maize, mustard and wild radishes, as well as Italian ryegrass, meadow fescue, timothy grass and field grass.

The company also carries out livestock farming, concentrating on milk production and calf rearing. Multi-Agrar Claussnitz has a total of 3 640 animals, comprising 1 500 milk cows, 1 740 female offspring (all Holstein Friesians) and 400 calves for fattening. The business produces 36 000 kilos of milk per day with each cow producing an average of approximately 8 500 kilos of milk per year.

### Reliable dealer

Multi-Agrar Claussnitz was turned on to the benefits of Valtra tractors by its long-standing dealer LTZ Chemnitz. The three Valtra 8950 tractors that the company leased in 2001 are used

for transporting, fertilizer spreading, making hay bales, and maize planting on around 600 hectares of land.

Multi-Agrar Claussnitz was particularly impressed with the flexibility and all-round benefits of the Valtra 8950 tractors, as well as their reliability and low operating costs at an average operating time of 800 business hours per year. It soon became clear that the tractors would not be returned after the leasing contracts expired; instead they continue to operate successfully for Multi-Agrar Claussnitz.

### Advanced technology for tough jobs

After its initial positive experiences with Valtra tractors, Multi-Agrar Claussnitz became more acquainted Valtra's new technologies and products. The company first encountered the new S Series in the autumn of 2002 and were immediately interested. It subsequently made available





**Multi-Agrar Claussnitz GmbH is a company that farms over 3 000 hectares of farm land and has a total of 3 504 animals. The business produces 36 000 kilos of milk per day.**

## tractors to its fleet

a large area of land to allow for extensive tests to be performed with the new tractor. The new S Series tractors were certainly put through their paces on these endless plains in Eastern Germany!

The results were so convincing for all concerned that Multi-Agrar Claussnitz decided to add three S Series tractors to its fleet. Two S230 tractors and one S260 tractor were officially handed over in 2003. The first two tractors are mainly used for transportation, a great deal of which is required to look after over 3 000 cows including offspring! The third tractor was fitted with reverse-drive equipment and an additional mowing attachment, the Disco 8500. Each season, approximately 1 000 hectares of land needs mowing, and Multi-Agrar Claussnitz certainly found powerful and reliable support in the Valtra S 260.

During their first year the S Series tractors saw from 600 to 900 operating hours. The excellent location and design of the operating controls in the cabin ensures that all drivers can easily find their way round, allowing them to work quickly and effectively with the tractor. Just like everywhere else, time is money! The ease of use and high operating comfort are major plus points for the S Series.

With its fleet of six Valtra tractors, Multi-Agrar Claussnitz GmbH is very grateful for the support of its local Valtra dealer, LTZ Chemnitz, who has demonstrated the right way of operating and supporting the customer in his work.

■ Bettina Kuppert

Photos: Multi-Agrar Claussnitz GmbH

## Valtra awarded Health and Safety certification

Valtra's operations have been certified as complying with the Occupational Health and Safety Management System. This is the third certificate that Valtra has received in recognition of the systematic development of its operations. In 1993 Valtra became the first tractor manufacturer in the world to obtain ISO 9001 quality certification. This was followed in 2000 with the ISO 14001 Environmental Management System. Valtra is currently the only European tractor manufacturer to have all three certificates.

The internationally recognised certificates are awarded to companies for systematically developing and improving their operations. The Occupational Health and Safety Management System ensures that health and safety issues continue to be developed throughout the entire company. This involves assessing health and safety risks and eliminating or minimising them as much as possible.

An important aspect is increasing safety awareness among workers through training and education. Developing health and safety aspects in the workplace naturally improves the wellbeing and motivation of all personnel. These in turn increase our ability to offer customers better and safer products and services.



# Flexibility is key to suc

***Growing up on a small family farm with a handful of cows and a small flock of sheep provided a reasonable income for the family, but Tony Dallyn had to leave home to start work.; There was insufficient income to provide his father Dick and Tony with a wage.***

Today, Collacott Farm, between Barnstaple and Ilfracombe, extends to 800 acres, half owned and half tenanted, and Tony's Fortuna herd has grown to 420 cows plus followers. Despite the increase in farm size and stock number, Collacott remains a family farm run by Tony. The only full time employee is

**Martin Barrow**, and additional help with the younger calves comes from Tony's wife, **Jo**, while father Dick helps out with odd jobs.

However, not that long ago the herd numbered under 200 and cereals were amongst farm outputs. What happened to precipitate this increase in stock numbers?

"The farm needed a new parlour so we looked at figures and options and decided a 40 point rotary, plus an increase in herd size to 300, was the best overall option for the farm," Tony explains. "A year or two later, with quota prices on the floor, I made the decision to spread the investment in the parlour over a larger number of cows, purchased more quota,

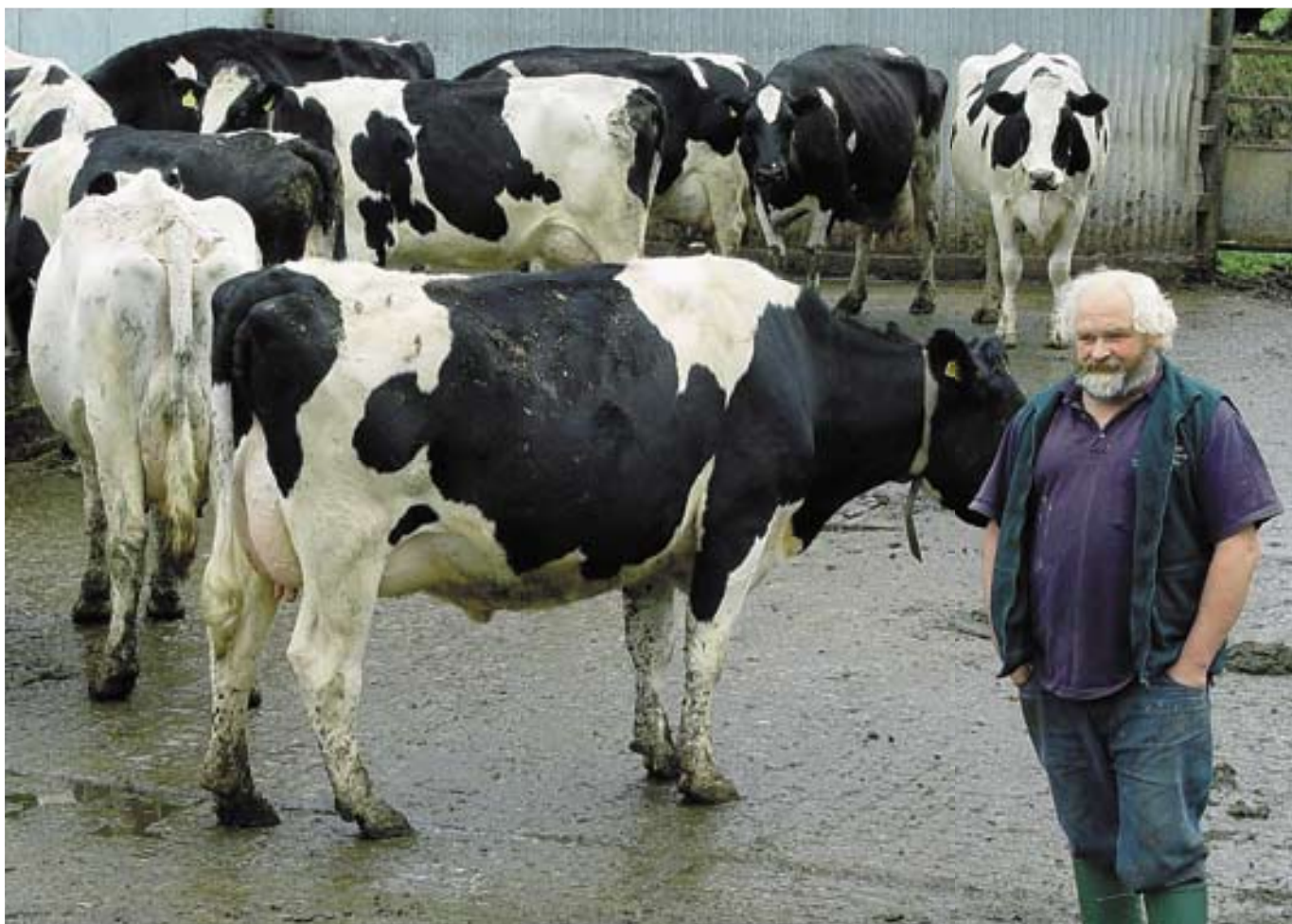
increased cow numbers and milk output, while decreasing cereal production."

## **Was that the right decision?**

– At the time, yes, is the reply. Hindsight is a wonderful thing, but I don't think we've been too far adrift in our thinking.

– We supply the liquid market and get a volume bonus, and with year-round calving we also get a second bonus for constant year-round production, Tony explains.

To help achieve this output milking, which takes a couple of hours, commences at 5.30 morning and evening. Cows are fed a TMR to 28 litres and concentrate in the parlour accord-



***Good husbandry and flexibility are the key to success.***

# cess

ing to yield. During February the milk price averaged 20 pence per litre from an average herd output of 7 500 litres at 3.2 % protein and 3.83 % fat. Production this year is down from 8 100 litres last year, by choice.

– We've cut costly straights and compounds and increased our margins substantially – more profit. Also, the year before last, the TMR was fed throughout the summer; last year the feed value of grass alone was high enough to maintain milk production and quality.

Silage is made from grass; about 200 acres of first cut plus a further 90 acres of whole crop and 50 acres of maize. This is balanced by straights and molasses.

On the field mechanisation side Tony utilises a mixture of owned equipment, contractors and co-operation with a neighbour. The farm runs three main tractors: a Valtra T140, a 6850 and a 6300 Valmet, plus a couple of old machines for slurry scraping. Martin does most of the ploughing and seeding. Grass for silage is also cut and turned by Martin, but picked up by a contractor with a large self-propelled forager



**With over 400 cows and just one man and himself reliable equipment is essential.**

loading the farm's own trailers. The buck raking is done by a neighbour under a reciprocal agreement whereby Tony, his staff and equipment help out at the other farm.

### **Why did Tony choose Valmet, and later Valtra?**

– I wanted a machine that was reliable and required little maintenance, is the answer. Various people told me that Valmets were reliable so I bought the first one ten years ago. It clocked up a lot of hours but never needed a spanner on it apart from regular maintenance. I've been buying them ever since.

Unusually for a farm and herd of its size, Tony does not operate a telehandler.

– We had one once. It was maintained under contract but still cost an arm and a leg to keep going – so it went. Since then we've been using an MX loader on the 6850. The shuttle transmission is excellent and it does all we require. Depreciation is less than that of a telehandler and with one less machine on the farm, insurance is reduced, are Tony's thoughts on the subject. – Also, the loader only takes seconds to remove and we have another very useful tractor.

Ask how Tony gets on with his Valtra dealer, R J Dallyn of Barnstaple, he will simply tell you – OK.

This is not because he's part of the family.

– Well, maybe way back in the mists of time, but not these days – as far as we know. Tony reflects. Nor is it disinterest,

rather a reflection on how often he is in contact. – The tractors are reliable, we do the basic services so we don't need to have that much contact.

So what of the future? Will Tony continue to fill the 24 000 litre tank that sits at the back of his parlour?

Having just been cleared from TB restrictions, Tony has some very forceful feelings about DEFRA's ability to control the disease and the way it panders to the non-farming lobby over agricultural problems. He is also very critical of NFU representation of dairy farmers. Unfortunately, he sees some serious reduction in income due to changes in the CAP. However, he does feel that good business management should help him maintain a reasonable level of income compared with his investment.

– Flexibility is the answer to a lot of problems. I am in the fortunate position of owning some three million litres of quota. We can adjust herd size to match fluctuations in the milk price. When prices drop I am able to dry cows off early and lease out quota to produce income that way if necessary.

Tony's philosophy is simple.

– Farming may be a way of life – in the blood, but a farm needs to be profitable or everyone will suffer – farmers, farm workers, country dwellers, the environment, everything. I don't keep cows – cows keep me and my family.

■ Roger Thomas



**Year round calving provides a constant milk output which keeps this 24 000 litre tank topped up with milk for liquid consumption.**



# More reliable engines and transmissions

## Tractor pulling important for product development

**Together with the Valtra tractor pulling team, the Herlevi family has won the European Championships in the Pro Stock class for the past four years in a row. Valtra has chosen to compete in Pro Stock class, as it allows for the maximum use of standard tractor components.**

One of the biggest challenges for effective product development is getting sufficiently fast feedback about reliability and durability, as in normal use tractors would not accumulate enough driving hours to provide this kind of information. Competing in tractor pulling events is thus an ideal way to test engines and tractors, as it offers fast and valuable data for product development. For example, based on information accumulated from tractor pulling competi-

**Today's valve rockers are much stronger than before thanks to tractor pulling experience. This ensures that fuel enters the cylinders at the correct rate, even at the highest engine speeds.**



tions, Valtra has been able to make substantial improvements to its diesel engines and electronically managed HiTech transmissions.

Competition tractors and engines are subjected to loads that are around ten times greater than ordinary loads. In addition, engine speeds are approximately three times higher than ordinary use, creating around 2 000 horsepower at 6 000 rpm. The rear wheels can spin up to 100 km/h in competition pulls lasting from 10–14 seconds. Such considerable loads quickly point out the weak points in engines and tractors. Over the years these areas are strengthened and improved, which in turn allows for higher speeds and output.

The following are just some examples of improvements that have been made and tested in tractor pulling competitions:

### Transmissions

Tractor pulling competitions have been especially beneficial for the development and testing of Valtra's Powershift technology. Competition tractors use a similar Powershift module to that used in normal Valtra tractors (DPS).

In developing pulling tractors, Valtra has sought to minimise power losses at high engine speeds. This has been done by minimising drag between the clutch brakes and eliminating the adverse effects of centrifugal force on the clutch cylinders.

Massive power outputs also highlight the efficiency of lubrication systems. Accordingly, the lubrication of the planetary gear was improved by redesigning the oil channels.

Pulling tractors are indeed subject to much



**The slide bearing used in Valtra tractors now has a flat surface. Tractor pulling experience showed that the oil flows more smoothly if there is no separate oil channel along the surface of the bearing.**

higher power outputs than normal tractors. By increasing the pressure level of the low-pressure circuit, the lifespan of the piston rings has also been tested and extended. The results of improvements in these areas can already be seen in today's HiTech transmissions as well as in Valtra's ongoing transmission development projects.

### Engines

The lifespan of main bearings used to be very short. Apparently, the lubrication channel at the centre of the bearing split the supporting oil film into two parts. A new bearing whose lower lubrication channel had been removed was tested during tractor pulling competitions. As a result, the lifespan of the bearing was doubled. Moreover, the new technology did not increase the price of the bearing; in fact, it even lowered



# Loader beam supports

## provide ease of mind for front-loader work

the price somewhat. These days the new bearing technology is used in normal Valtra tractors, and the feedback has been positive.

High engine speeds often used to damage the valve mechanism. The rocker arm shaft and bearings in pulling tractors were thus strengthened by 15 percent, which reduced the damage and increased the lifespan considerably. A similar change was later made to production engines, which increased their lifespan and improved reliability.

Torque vibration caused by high engine speeds and output used to cause the front-end of crankshafts to crack. The joint between the front-end of the crankshaft and its hub was thus changed from a spline to a conical design and its surface was hardened. With this change, it is now possible to safely offer full power for the front-ends of all 6-cylinder engines.

■ Johanna Herlevi

*Check out the Valtra Pulling Team and this year's competitions on <http://tractorpulling.valtra.com>*

*Tractor pulling champions Pekka and Matti Herlevi tune their machinery in their own garage.*



**Loader beam supports are an important piece of equipment for front-loader work. Correctly adjusted they can prevent the front-loader mechanism from being damaged in situations where the front plough suddenly hits a hidden object or where it is subject to large sideways movements.**

For many years Valtra has been the only tractor manufacturer to offer special loader beam supports for all its front-loader tractor models. These loader beam supports were originally designed especially for snow work conditions in Finland, where it is common to use special snowploughs attached to the front-loader mechanism of tractors. This method saves expensive investments in purpose-built snowploughing machinery, as the tractor can still be used for regular farm work.

Valtra's loader beam supports are particularly important when using the tractor to push snowploughs and for other similar uses where the front-loader has to push heavy masses. The support is attached to the chassis of the tractor with bolts and includes an adjustable vertical grapple. The primary purpose of the loader beam support is to protect the front-loader mechanism from sudden sideways movements, which can bend the structure and lead to expensive repairs.

It is very important that the loader beam support is correctly adjusted, however. Due to the large number of extra equipment manu-

facturers, the height of the attachment mechanisms varies a lot. Valtra has thus designed its loader beam supports to be adjustable for most types of front-loader mechanisms. The supports are most effective when the arms of the front-loader rest on top of the support grapples. It is recommended that the support legs at the front of the front-loader mechanism be removed when using loader beam supports. This prevents the support legs from being damaged under heavy ploughing conditions.

A typical occurrence when using snowploughs attached to the front-loader mechanism is that the snowplough hits an obstruction that is hidden under the snow. A correctly adjusted loader beam support usually prevents any major damage occurring to the front-loader and the tractor itself. The use of supports is not restricted to use with snowploughs only. They can in fact be used for all jobs that involve pushing heavy loads.

■ Marko Muhonen

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Valtra Tractors (UK) Ltd.  
5 Seymor Court, Manor Park  
Runcorn, Cheshire, WA7 1UZ  
Tel. 01928 594400  
Fax 01928 594410  
[www.valtra.co.uk](http://www.valtra.co.uk)