

Valtra Team

Valtra Customer Magazine • 1/2003

VALTRA

Design

always begins with
the customer's needs

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T180 and T190

The top of the T Series

Page 10

"Look after
your Tractors
and they will
look after you"

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The Future? It's looking good with Valtra

The 2002 Smithfield show was, for many customers, the first time they were able to closely examine our latest models; the all new T Series and the updated A Series tractors both of which have been the subject of very positive reports in the agricultural press. For many it was also their first chance to see the larger S Series in its final production form. All at Valtra were delighted with the upbeat impressions our machines created. Today levels of interest remain high and our order book is filling steadily. Once again it looks like Valtra (UK) Ltd will confound the pundits who pessimistically predict an overall fall in farm machinery sales.

For those wishing to see a T Series tractor perform in anger before committing themselves all our regional managers and many of our dealers now have demonstration machines available. Just contact your Valtra dealer. If you're not sure who that might be visit our web site www.valtra.co.uk or give us a call here at Runcorn.

A Series machines continue to remain popular with stock farmers, their recently introduced shuttle transmissions taking the hard work out of many operations requiring constant changes in direction.

One benefit of Valtra development is the introduction of extended service intervals and the ease with which this can be done. To make life easier still and to help reduce running costs we have introduced a range of branded premium oils suitable not only for Valtra tractors but just about every other piece of machinery on the farm. We have also launched DIY service kits – everything you need in one box. Less expensive than the individual items, the kit of Valtra approved parts is covered by our 12 month parts warranty for your peace of mind.

Valtra is an expanding company in what is essentially a contracting market. Many readers of the last edition of Valtra Team expressed surprise at the extent of our world wide operation. We hope you find this, the second edition equally informative.

Mark Broom

Managing Director
Valtra Tractors (UK) Ltd.

Valtra Team

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At Barnstable Bob uses a specialist machine for turning compost windrows. At Tiverton a muck spreader has been found to be an effective tool.



“Look after your Tractors and they will look after you”

At around 70ha Cleave Farm located in a traditional agriculture area near South Molton, North Devon is a family farm run by Bob Snell, his wife Lynn and family. Prior to the slaughter of his stock in a contiguous cull during the FMD epidemic of 2001 the farm carried a flock of sheep and a commercial beef herd.

The sheep have not been replaced and today the farm carries a herd of 40 pedigree Canadian Aberdeen Angus and cross bred cows with followers. There is also a commercial beef

- All machines are serviced strictly in line with manufacturer's requirements

herd raised from bought-in calves. The Snell family also run a successful, expanding, contracting business.

It was back in the 1980s it

became obvious to Bob and his wife Lynn they needed to expand their business to bring in extra income, income necessary for survival. Bob decided that the simplest way of expanding his business would be to start contract slurry spreading. A venture that needed little capital outlay as the farm already had a tractor and spreader. The business expanded and by the early 90s Bob decided on the purchase of a new tractor.

– That new tractor was a heap of trouble, he recalls ruefully.

Thankfully the dealer concerned had added the Valmet franchise to his business

and was willing to replace the troublesome machine with a six cylinder 100hp Valmet 8000 at an advantageous price. Now 10 years old the 8000 has completed 10 000 trouble free hours of hard graft.

– All machines are serviced strictly in line with manufacturer's requirements – and it pays, is Bob's comment but his actions underline his faith in the Valmet product and a fleet of seven Valmets or Valtra tractors now form the backbone of this growing contracting business.

The second Valmet tractor to arrive at Cleave Farm in 1996 was a four cylinder 95hp 6400. This arrived with a few hours on the clock but has now completed 8 500hrs and its

still on the original clutch despite spending its working life on the steep Devon hills.

As well as an expanding agricultural contracting service specialising in muck and slurry Bob Snell has also negotiated a contract with South West Water to compost and spread sewage sludge cake from bases at Tiverton and Barnstable. Working closely with South West Water Bob hauls the sludge cake and then mixes it with recycled straw. After turning at weekly intervals to ensure the correct temperatures are reached to destroy any pathogens the resulting compost is spread on farm land. For this operation Bob has to liaise closely with South West Water. Soil samples have to be taken and analysed and careful account taken of water courses. Spreading is



Each time the compost is turned it moves up one bay before finally going out into the field.

Sludge cake is delivered to the composting site by 6 cylinder HiTechs with Aires front suspension.



at its busiest between February and May and August and October, or later if ground conditions permit.

With the expansion of the sewage contracts have come additional Valtra tractors. A four cylinder 120hp 6850, a couple of 160hp 8550s with Aires front suspension and 50kph transmissions plus a 110hp 8050 and most recently a 135hp 8350 with the slower running Eco Engine.

– The lower fuel consumption of that tractor is particularly noticeable, remarks Bob.

Fuel consumption is something that has to be taken into careful consideration. Hauling sewage sludge cake and spoil from earth moving contracts are not agricultural activities and red, rebated diesel, may not be used so careful attention has to be paid to the fuel used. The cost of road fund licences of some tractors are also higher to take into account the industrial nature of the operations.

- The lower fuel consumption of that tractor is particularly noticeable

Along with the high capacity trailers used to transport the sludge cake Bob also operates two 9 tonne and two 8 tonne spreaders, mostly for spreading composted material. A couple of rotor spreaders are used for agricultural muck and slurry.

Loading is undertaken by a couple of telehandlers however, there are also an industrial loader backhoe and a 360° excavator on Bob's fleet. These are used on the growing number of earth moving contracts. Bob can also use certain of his tractors on these civil engineering contracts safe in the knowledge that they are correctly licenced and running on the correct fuel. Many houses in the area being sold out of agriculture and it appears that with the new owners come horses. A speciality operation being developed by Bob and his men is the preparation of equestrian facilities. The straw rich muck from these facilities is also useful in the composting process.

The secret of Bob's success – apart from hard work? Reliable staff and equipment. Take care of these issues and they will take care of you. And don't forget a good office manager to take care of the invoices and bills, in Bob's case it's his wife Lin.

■ Roger Thomas

Conscientious staff and reliable machinery are an important part of Bob's success right with Graham North and Garry Slee.





Valtra in hands of owner with strength and expertise

In the elevator and escalator business, KONE is globally renowned for its innovative, efficient, and environmentally friendly solutions. Service and maintenance work comprises approximately 60 per cent of the Group's turnover.



Mr. Antti Herlin, CEO and Deputy Chairman of KONE Corporation, and also a farmer, is standing in front of the new T series tractor which was launched for the international press in Hungary last September.

Since July 2002, Valtra Inc. has been a part of KONE Corporation and therefore part of the largest service and engineering group in the Nordic countries.

Valtra's current owner, KONE, has long been known as a global expert in the elevator and escalator business. Through the Partek deal, KONE acquired several brands that are among the world leaders in their respective fields. Kalmar container handling equipment and Hiab load handling equipment are market leaders. KONE also acquired the Valmet forestry machines that hold the number two spot in worldwide sales statistics. Valtra holds the top spot in sales in the Nordic countries and third place in South America. The turnover of the new major corporation is EUR 5.5 billion, and it has nearly 36 000 employees. Tractors comprise a good ten per cent of the company's total turnover.

Focus on Service and Maintenance

KONE is a service company, first and foremost. Service and maintenance has always been a significant part of KONE's lift and escalator business; approximately 60 per cent of turnover comes from servicing work. The service base contains almost 500 000 elevators and escalators, and over 18 000 automatic doors. KONE employs some 13 000 persons in field service around the world. KONE services and modernises not only machinery it has manufactured itself but also the lifts and escalators manufactured by its competitors.



The world-leading brands that KONE acquired through the Partek deal further strengthen the Group's leading position as a global engineering and service-company.

The new owner expects that the service-related proportion of turnover for the acquired companies will continue to increase. Although there are many variations and unique factors in the maintenance of different machines and equipment, several common features exist. Fully utilising these common features will surely improve customer service.

Advantage must be maintained

KONE elevators save energy and building space, and their operation is optimised using intelligent control devices. The profitability of KONE's elevator and escalator business has continuously improved because of such factors as more efficient installation procedures. Throughout its history, KONE has focused extensively on research and development and the patenting of new, innovative inventions. The company thus possesses several thousand patents, of which perhaps the best known is the world's first machine-room-less elevator – the KONE MonoSpace® elevator – and the energy-saving KONE ECO3000™ escalator.

Strong backers

KONE was founded in Finland in 1910, and it has since grown into a major global enter-

prise due to a globalisation strategy based on company acquisitions, implemented first in the 1960s, as well as strong organic growth. In recent years, KONE has significantly improved its results thanks to advanced elevator and escalator solutions and innovative service offerings. The company's share value increased by 5 per cent on the Helsinki Exchange during 2002, although the HEX general index fell by 34 per cent.

In 2002, KONE got two new major stockholders. Toshiba Elevator and Building Systems Corporation (TELC) acquired almost a five-per cent share of the company. At the same time, KONE took part in TELC's directed issue and owns now almost 20 per cent of TELC's stock. As a part of the Partek deal, the Finnish government received a share of almost 5 per cent. The largest KONE shareholder is the Herlin family, with approximately a 37 per cent share in the company and 73 per cent of votes.

■ Tommi Pitienius

Running costs down with Valtra



Paul Cable, while not a farmer's son grew up in what was rural Hertfordshire. On leaving school he rejected a city job and started on a career that was to lead to a successful contracting business. Today the base for Paul's highly successful contracting business is at Goffs Oak just north of the M25 and about half way between the M1 and M11.

While most operations revolve around conventional agricultural operations, the continual northward creep of suburbia has produced a number of other business opportunities: The M25 has banks that need maintaining and Paul has invested in a specialist machine for this purpose. Nature reserves and other green areas within the high density housing need managing and maintaining. Paul has contracts for cutting; baling, hauling and disposal of the

Valtra cabs provide the first class working environment deserved by loyal staff.



baled grass that has little feed value as silage or hay thanks to the rubbish content.

Operating machinery and equipment in this area, so close to the urban sprawl of London, has its own special problems. Problems that knock-on to contractors who have to carefully plan not only their field operations but also machinery security. Whenever practicable tractors return to Paul's yard at night, certainly they are parked up in secure buildings other wise batteries, wheels or even the whole machine can go missing.

It is this requirement to return to base that has highlighted the advantages of his five Valtra 8350s.

Just a few years ago Paul was dissatisfied with the serviceability of several of his tractors. A problem exacerbated, he reports, by a singular lack of interest from their manufacturer. But, it was during negotiations over a new combine the chance of a trip to the Valtra factory came into the conversation although, at that time, Valtra did not figure among candidates to replace the troublesome machines.

Deciding the trip might be interesting Paul agreed to join the other farmers and contractors on their journey to Finland and Valtra's factory and it did not take him long to realise that he was the only person in the group not running a Valtra tractor. Neither did it take long for him to realise that every one of the group rated their tractors very highly; inexpensive to operate and, importantly, reliable. Paul also admits he was impressed by the high standards of Valtra's manufacturing operations.

On his return to the UK some serious negotiations with AT Oliver at their Kings Langly branch took place and, after a certain

A job well done by good staff with first class equipment at a reasonable price has helped Paul build a first class reputation.

amount of wrangling Paul placed an order for five 8350s with 135hp slower running eco-engines. Now with many hundreds of hours on the clock how does Paul feel about his Valtra Tractors? Are they the good buy he first anticipated? Certainly.

Serviceability has been exemplary and fuel consumption is felt to be considerably lower than previously.

– Its difficult to get an accurate picture of fuel consumption because of the British weather. Tractors can go out in the morning on one job, but if it rains – or dries out, they can finish up the day on another task on a different farm altogether, Paul explains. However, even allowing for fluctuations in business, the annual fuel bill has dropped. Additionally, Paul's drivers also reported having to fill up less frequently, a fact particularly noticeable when several drivers with different makes are working together on the same task. This is highlighted when certain machines cannot return to base without a refill while the Valtra tractors are able to make it home with fuel to spare – even after allowing for differences in tank sizes.

So, what of the future, will Paul increase the number of Valtra's in his fleet?

– If the business requires new tractors then Valtra will be at the top of the list, is Paul's emphatic reply.

■ Roger Thomas

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Valtra Collection

Just for you.

Valtra presents a selection of high-quality clothing and accessories: practical work outfits, stylish and comfortable after work clothes and fun gift ideas. For children too. The Valtra Collection has been designed together with our customers. Valtra knows how to take care of tractor owners.

View the entire collection
at your local Valtra dealer or visit
www.valtra.co.uk



Enhanced power and productivity

The top of the T Series: the



Each hydraulic unit can be individually programmed for quantity and flow. Front loaders can be operated using a joystick mounted in the cabin's armrest, allowing an ergonomically correct working position and avoiding the complications of a separate control unit.

The most powerful models in the Valtra T Series, the T180 and T190 feature a number of smart solutions that help the driver utilise his tractor to its fullest potential. As a result, the Valtra T Series offers new levels of versatility, productivity and efficiency.

The design of the T Series has been enthusiastically received around the world. Valtra have proved that even big tractors can look sleek. The T Series has also been improved with the driver in mind. Visibility in all directions is excellent, and the new cabin is extremely quiet. Feedback and ideas from customers and service engineers have played a big roll in the development of this new line of tractors.

New engine options, a long wheelbase and a new transmission make the T Series extremely agreeable to use. The powerful Valtra is well suited to transfer journeys, as the long 2748 mm wheelbase allows it to travel at

top speed smoothly and without bobbing. The Valtra T Series can be equipped with 42-inch tyres, and top-rate brakes ensure strong stopping power even with heavy loads.

One of the highlights of the T Series is its new multi-adjustable, load-sensing hydraulics. The new hydraulics allow work implements to be utilised easily and efficiently under all conditions. Owing to the increased efficiency and good ergonomics of the T Series, the user's total productivity is also improved. Although the T Series offers many new features, Valtra's traditional strengths have been maintained: strong engines, good weight distribution and pulling power, and reliability in all circumstances.

Bringing the new line of tractors to market required more than just product development and technology. It meant creating an entire organisation focussed on supporting the customer. Training programmes and teaching material were renewed. For example, the

T180 and T190



computer simulation model for managing the hydraulics has already proven to be very useful. In addition, technical documentation has been drawn up for user and service manuals, and a global spare parts network has been created.

All the power you need

The Valtra T180 and T190 are the most powerful tractors in the range. In addition to the highest output, they also boast special features and higher levels of standard equipment than other models in the T Series. The power source for both the T180 and T190 is Valtra's own six-cylinder 74 ETA diesel engine.

Valtra's engines conform to the European emissions targets (Tier 2), and their fuel consumption has been reduced by utilising electronic engine management, intercooling and Bosch solenoid high-pressure distributor pumps. Fuel efficiency has also been improved by lowering the nominal rpms to 2100. One of the most important properties is the intelligent power management system using a CAN bus; this allows the interaction between the engine

and transmission to be optimised in various ways.

The standard output of both tractor models is 174 horsepower, which is transferred to the pulling wheels. The Plus Power level increases output by 15 horsepower when the 2nd and 3rd Power Shift gears are engaged throughout the range. The benefits of this additional power can be felt especially in heavy work where speed must be maintained in all conditions. The top T190 model also offers Valtra's patented Sigma Power option, which generates 209 horsepower when extra power is needed for PTO use only. The Sigma Power system, which was awarded Germany's DLG Gold Medal in 1997, has for several years been

Engine denotations:

74 = 7.4 litre capacity

E = EEM – Electronic Engine Management

T = turbo

A = air-to-air intercooling

The intelligent power control system on the top models offers additional power. The benefits can be felt especially when large work implements or higher work speeds is needed.



The T Series allows changes in direction using a single power shuttle lever, fast and fluently. The same lever also operates the parking brake.

the key to power and efficiency in heavy PTO use, for example in fields, grinding and peat bogs. Quite simply, intelligent power management allows larger work implements or higher work speeds with the same size tractor.

Automation assists the driver

Electronic management systems offer other properties to assist your work, such as cruise control. This is standard equipment on all T180 and T190 models and allows the driver to set either engine revs or speed at the desired level. Modern work implements demand a lot of power and precise control of revs and speed, so cruise control can in this way greatly benefit efficiency and productivity.

The T180 and T190 models also feature as standard equipment fully automatic four-wheel-drive with locking differentials.

The features of the rear linkage on the T180 and T190 are also more comprehensive than on other models in the T Series. The ACD digital rear linkage management system employs an electronic radar and axle sensor to measure speed and speed variations as well as slide control. Once again Valtra has utilised the potential of electronics to manage individual aspects so that the driver can focus on managing the primary operations.

The T180 and T190 are Valtra's flagships and true trendsetters in the tractor world. Electronics have been harnessed to serve the driver in a uniquely logical and easy-to-use way. A perfect combination of high-technology and traditional Valtra reliability allow productivity to be increased while decreasing the load of the driver.

■ Ari Jaakonmäki



A jury of fourteen editors awarded the Valtra S260 tractor the Golden Tractor prize for design.

The Golden Tractor prize for design

Valtra's S260 has been awarded the Golden Tractor prize for design. The award was granted in connection with the Eima show in Bologna, Italy on 16 November. The selection was made by a jury consisting of editors of fourteen European tractor, agriculture, and farming equipment magazines. In the Valtra S260, the impressive design is combined with functionality and user comfort. A long wheel-base; front axle suspension; air suspension in the cab; automatic climate control; all-round, all-distance work lights; a turbine clutch; four-step powershift; cruise control; and a bonnet designed to improve visibility are all examples of design that is in touch with the user. The jury for the Tractor of the Year contest is: Blick ins Land in Austria, Loonwerker & Landbouwtechniek in Belgium, Maskinstation og Landbrugslederen in Denmark, Koneviesti in Finland, Ajma Amicale des Journalistes du Machinisme Agricole in France, Lohnunternehmen in Germany, Agrotorama in Greece, Trekker & Werktuig in Holland, Trattori in Italy, A Bolsa Mia in Portugal, Agro Technica in Spain, ATL Magazine in Sweden, Die Grüne in Switzerland, and Farm Contractor in the United Kingdom.



Model-maker Jouko Ranta sanding down a full-size model of the rear mudguard. The Ed-Design agency has two model workshops, in which five people build prototypes and models out of, for example, wood, metal, plastic, and fibreglass.

– The starting point of tractor design is always to create a machine that is productive and easy to use well. Everything else flows from this, including safety, ergonomics, ease of maintenance, durability, suitability for serial production, and compliance with the road traffic legislation of different countries, explains industrial designer Matti Makkonen.

Makkonen and his team have designed all Valtras and Valmets since the Mezzo model, whose lines flowed mainly from Makkonen's pen. Today, the design team consists of half a dozen industrial designers and engineers, with Makkonen as the team leader.

– In practice, I'm the contact person for the team, as the design work is done in close co-operation between our team and Valtra. If the design is praised or berated, it is not targeted at any single individual but the entire team, says Makkonen.

Ed-Design in Turku, Finland, employs 37 people, 19 of whom are industrial designers. In addition to tractors, the company also designs mobile phones and sea-liners.

Country boy

Makkonen was himself born on a farm and, as a youth, drove a tractor both on the home fields and at work in a quarry. When the Mezzo design project began in the mid-1980s,

The Valtra Design is a result of teamwork

Design always begins with the customer's needs

Makkonen had a clear view of what an easy-to-use tractor should be like.

– It was great to get to design the Mezzo. The famous ergonomics of the Valmet 502 provided a challenging backdrop and provided pointers for the design work. Valmet was already a pioneer in the field with the 361D model, designed by Pellinen. Amid the changes brought by the 1950–1960s, using an industrial designer was a novelty, showing that Valmet was ahead of its time.

The current Valtra design team is a combination of experience and youthful enthusiasm. Its members are specialised, although they work in close co-operation. Once the main lines have been worked out, one member will design the mudguards, another the cabin, and a third the engine bonnet.

– The design work for even a new tractor does not start from an empty drawing board. Work implements, road traffic legislation, usage habits, and, among other things, assembly technology provide plenty of constraints on what we can do before a single line has been drawn. On the other hand, if we have a well-justified reason, we may make very radical choices, but they should not be made frivolously. For the most part, design work is not merely sticking on decals – good design means improving the usability of the tractor, states Makkonen.

Rounded shapes made possible by technology

The round forms of the S and T models were not born merely of a designer's inspiration but were largely due to the advances in production technology that allowed the economical manufacturing of forms that are curved in several directions. Complex surfaces had already been used in cars for some time, as the pro-



duction runs are larger and a single sheet of metal is economical to shape, even in several consecutive work phases. The bonnets of the T Series are made of a pressure-moulded plastic that is extremely durable, flexible, and light.

– It may seem to the users that there are certain fashions in the design of tractors and cars. I'm sure this is the case, but a more essential factor is that new production technologies are adopted everywhere at roughly the same time, and tractors are used for practically the same purposes all around the world, says Makkonen.

Designing a new model is a time-consuming process that can easily take a couple of years. At the beginning of the process, Valtra decides on the goals of the project and what kind of engine, gearbox, and power transmission the new model will have, with the industrial designers joining the fray after this. A general design is drafted, followed by more and more detailed designs of, for example,

Design Director Matti Makkonen and Mechanical Designer Tatu Aarnio placing the finishing touches on the tractor's bonnet. Design does not end with the tractor moving to serial production. Instead, its details are constantly being improved.



Customer



The duties of Graphic Designer Anna Rudkiewicz include designing the Valtra instrument panels.

instrumentation graphics or the head of the gearstick. Sometimes a scale model is built of a part or the entire tractor, and almost always a full size model is constructed from various plastics, fibreglass, wood, and metal.

– Such matters as ergonomics are better tested with a life-size model than with any computer. Many outsiders might think that the 1:1 model is already an almost finished product, although it is still just one big illusion.

The work of the designers does not end with the first tractor rolling off the production line. Changes are made to the range of models, and details are continuously improved over the years. According to Makkonen, the best part about the job is to finally hear comments from the users, be they negative or positive. Feedback is taken to heart, allowing the next model to be even better.

■ Tommi Pitenius



At the Himmanen Farm, a tractor with articulated steering finds plenty of use

Harri Himmanen's farm is located in Vantaa, Finland, just outside the capital city, Helsinki. In fact, some of its 160 hectares of wheat fields are on the Helsinki side of the border. A farm on the outskirts of a big city is just the place for the Valtra City X with articulated steering.

– In wintertime, I plough snow from streets, roads, and yards within a radius of approximately ten kilometres along the Kehä III ring road. During the summer, the tractor is used for normal field work, ploughing, and harrowing. The X is much more agile at headlands

work than a tractor with normal steering, says Himmanen.

Himmanen used to plough the same area with the Valtra 6600. With the X and its articulated steering, this work is faster, easier, and more accurate. The HiTech power shuttle also aids in the work. Using the front loader is more efficient because it has more power than is typical and the straight loader arms provide good visibility.

– The largest benefit from the articulated steering is in ploughing snow from industrial areas and cramped yards. With the help of the power shuttle lever, most of the work can be

Versatile City X well suited for ploughing both soil and snow



During summer, the X is used in all kinds of regular field work, from ploughing to harrowing and spraying. Articulated steering has the benefit of leaving clearly smaller headlands than can be achieved with a fixed-frame tractor.

Harri Himmanen's son Henri helps him with farm work during both summer and winter. The X model Valtra dances to Henri's tune just as it does to his father's.



done without using the clutch pedal, although the most delicate places – such as the yard of a car dealership – still require the use of the regular clutch. The X has sufficient weight to stop the tyres from slipping on snow, explains Himmanen.

Himmanen familiarised himself with using the HiTech system on a course at the Suolahti factory. These days, he is well versed in programming the HiTech as necessary for different kinds of work.

Experience of Valtras

In addition to the 2001-model City X, Himmanen has a 1999-model Valtra 8400 on his farm for heavy-duty field work, a 1992-model Valmet 6600 for forestry and field work in the autumn, and a 1975-model Valmet 702 for spraying and towing a trailer.

– My father bought the 702 in 1975. Since then we have also had two 805s and one 905, says Himmanen.

– The Valtra is a machine that just fits my hand. It's a simple tractor to use, and no needless features have been added to it. In forestry, Valtra is without equal, and even the service facility is near, just six kilometres away. Naturally, for a Finn it's also important that the tractor is made in Finland, says Himmanen.

The X has already amassed 2 000 running hours. During the summer, the X is usually driven by Harri's wife, **Maria**, or his son, **Henri**. It was easy for Harri himself to learn how to drive with articulated steering, as he also owns an excavator/loader with articulated steering, and it only took a couple of hours until his wife and son could plough in straight lines, after they got a feel for how sensitive articulated steering is. The X is handy for spraying, as it leaves only one set of tracks on headlands – thanks to the articulated steering.

The City X sees a variety of use at the Himmanen farm. During winter, a tractor with articulated steering is handy for clearing snow in confined yards.

Firewood and Underdrains

At the Himmanen farm, the X sees more use than just ploughing snow and soil. The machine's front hydraulics have increased the range of possible uses from the older models.

– Trench-digging for underdrains is easy with the X, with the trench cutter attached to the rear linkage and two rolls of drain pipe to the front loader. The trench cutter depth is easy to adjust with Autocontrol. The slow crawling speed of the Valtra is suited for the trench cutter.

The separate front hydraulics have proved to be useful in a variety of work, including chopping firewood.

– When I'm chopping firewood, I have a big splitting machine attached to the load sensing front hydraulics, and a woodchopper at the rear. They can be used at the same time. I hadn't thought of this use when I was buying the tractor; I came up with the idea later. It's basically up to the owner's imagination what you can do with the two hydraulic systems, says Himmanen.

Attaching work implements and lining up with a trailer is much easier than with a fixed-frame tractor because the machine can be turned in place. It is also easier to back up with a trailer, as you can line up the trailer by turning the tractor in place.

■ Tommi Pitenius



50 years of the Ploughing World



At the end of the summer, between 15th and 25th August, this year's World Ploughing Championships will take place in Canada. It will then be exactly 50 years since the first World Championships were held. On that occasion too Canada was host nation. Much has happened in the last fifty years: agriculture has developed enormously, and today's competition ploughs have little in common with the ploughs used back then.

The situation is the same if we compare the tractors. For participants in the first Championship, hydraulic ploughs had not fully caught on, as many tractors still had no hydraulic lift. Many ploughs were still towed behind.

Documentary evidence exists in Sweden showing that ploughing contests were being arranged as early as the 1830s. We read that in 1925 a ploughing contest was arranged in which the contestants' pulling power came from horses, tractors and oxen.

WPO, World Ploughing Organization

It was following the end of the Second World War that international competition ploughing took off. An international contest in England in 1950 formed the start of what eventually became the WPO, the World Ploughing Organi-

zation, which then became responsible for the event all over the world. Now it's time for it to be held in Canada again, when the event celebrates its 50th anniversary. The contests will take place in Guelph, just west of Toronto.

Sweden has hosted the Championships three times, and there have been four Swedish world champions in the past fifty years. As recently as last year we had a Swedish world champion, **Anders Göransson-Frick**, our first winner on a reversible plough, at the contest held in Switzerland.

Swedish World Champion 2002

The World Ploughing Championships were held over two days, with the first day devoted to stubble ploughing and the second to grassland ploughing.

– I won the first day's ploughing, relates Anders, I've got a lot of experience behind me on stubble. But on the other hand, we've got no livestock at home on the farm, so there's no pastureland, which meant I didn't get much opportunity to train in grassland ploughing. But when both days' points were added up, I was the winner.

The best from all over the world were there, from 28 countries, and many well-known, established names in ploughing took part. Yet it was Anders, young and unranked,



Father Nils with his son Anders the World Champion, in front of the team. Anders holds the magnificent challenge trophy in his right hand.

Championships

A typical picture from a ploughing contest using horses. The picture was taken in 1947. Despite the fact that horses were always used in pairs for ploughing, it was a heavy and laborious job to be a draught horse for ploughing.



Foto: JUF:s arkiv

who took home the trophy.

– It was neck and neck at the top, says Anders. The Scot who took second place had much better opportunities to practice grassland ploughing, with Scotland being dominated by grass and pasture.

But at home with the Göransson family, it's not just Anders who does the ploughing. Father Nils is one of the best in Sweden and has competed in the Swedish Championships at least 35 times, and in the World Championships 7 times. But there is a clear difference between father and son: Dad goes for conventional ploughing, while his son prefers reversible ploughing.

Both father and son drive a Valtra

It was somewhat unusual for both father and son to take part in the same World Championships. Both used 2-furrow ploughs, a conventional and reversible plough respectively. And both prepared for it very carefully. Father Nils came in at a very creditable 15th place out of 45 participants from all corners of the world.

It was also slightly unusual that both chose the Valtra as pulling power. For a two-furrow plough what is needed is not so much horsepower, but a manoeuvrable tractor that is also easy to get in and out of.

– The small Valtra models are perfect

for competitive ploughing, say both Nils and Anders with one voice, they're really nice to drive.

We wish them both the best of luck in ploughing contests in the future!

Horses back in competitive ploughing

Anyone who witnesses a Swedish ploughing championship will see contests in both conventional and reversible ploughing, for juniors and seniors. And presumably it's the same in all countries that take part in the world championship. But in addition to that, in Sweden you can also see horse ploughing contests.

There is also vintage tractor ploughing on the programme, but only for showing what it was like in days gone by and to attract a larger crowd. History repeats itself!

■ Eric Andersson

In the contest arena. Note that it is the small details that determine who will win a ploughing contest. The contestants constantly turn, adjust and measure in order to achieve the best possible result.



Foto: Anders Niléhn



One of the last phases of assembling a tractor is installing the tyres. After the tyres have been installed, the tractor is started for the first time and driven to be tested. In the picture, tractor mechanic Pasi Hynninen is installing a tyre on a HiTech model.

The right tyres for each customer

Tyres are a part of Valtra's unique customer order system, meaning that a customer who buys a tractor can also choose tyres suited to his or her needs. Tyres aren't kept waiting in the factory warehouse for long periods; they are acquired from the manufacturer as they are needed.

– At the moment, Michelins are in the highest demand, accounting for over half of those delivered. Demand for Kleber and Continental is increasing, with Continental tyres especially on the rise in the Nordic countries. Forestry and industrial tyres are particularly in demand from Nokian Tyres. In addition to these, our catalogue also includes Taurus tyres and some models from Firestone, says **Marko Ojalehto**, the tyre buyer at Valtra.

Customers almost always find tyres to their liking in Valtra's standard catalogue. If, however, they have special needs or wishes,

ordering tyres from other manufacturers is always negotiable, although special tyres will often cost more than the catalogue tyres.

– The share of standard tyres has been falling slightly over the years, being currently around 60 per cent of the tyres. Low and wide series 65 and 70 tyres are fitted in over 20 per cent of the machines in total. Cross ply tyres are only used now in the Nordic countries for forestry, and their share is under 2 per cent. The share of actual forestry tyres is 4.5 per cent, while industrial tyres with a nobby tread pattern are 2.4 per cent. The share of freely rotating tyres for rear-mounted work implements and narrow tyres for drill seeding machines are some tenths of a per cent, says Ojalehto.

Tyres account for almost 10 per cent of the price of a tractor

It pays to be careful when selecting tyres, as their usual share is 6 to 9 per cent of the trac-

tor's purchase price. The selection is always a compromise between traction, durability, driving comfort, speed and soil compaction.

– The trend seems to be towards wider and faster tyres. We are selling a lot of 50 kph tyres to countries with road traffic legislation allowing them. Soil compaction for its part is a problem everywhere, and wide tyres are sold to all countries. We have moved almost entirely from cross ply tyres to radial tyres, which usually have approximately 10 to 15 per cent larger contact area than radial tyres, meaning smaller surface load, better grip and longer service life. The lugs of new belted tyres also clean up more easily than those of old radial tyres. Hard and durable tyres are in demand for countries with hard and dry soil, while softer tyres with good traction on snow are in demand for the Nordic countries and Canada, says Ojalehto.

It is worthwhile to be careful about how you use your valuable tyres. An underinflated

Valtra to Extend Suolahti Factory

By August, a large extension will have been added to the Valtra Suolahti factory, enabling an increase in production by as many as 5 000 tractors. This is a result of the continuous increase in worldwide demand for Valtra tractors, combined with growing tractor sizes and their enhanced versatility.

The addition of approximately 5 000 square metres to the factory will increase its total area by over four hectares, lengthening the current 183-metre production line by 57 metres.

In future, this will enable the manufacture of 15 000 tractors per year or, instead of the current 50 tractors, the line will produce 70 tractors per day. This year's goal is to raise production from 10 000 tractors per year to 12 000.

The extension of the factory and resulting increase in capacity will also entail additional investments in power transmission production, to satisfy the needs of the assembly line.

Valtra has already invested in the production of the flagship S Series by building a separate production line for this product.

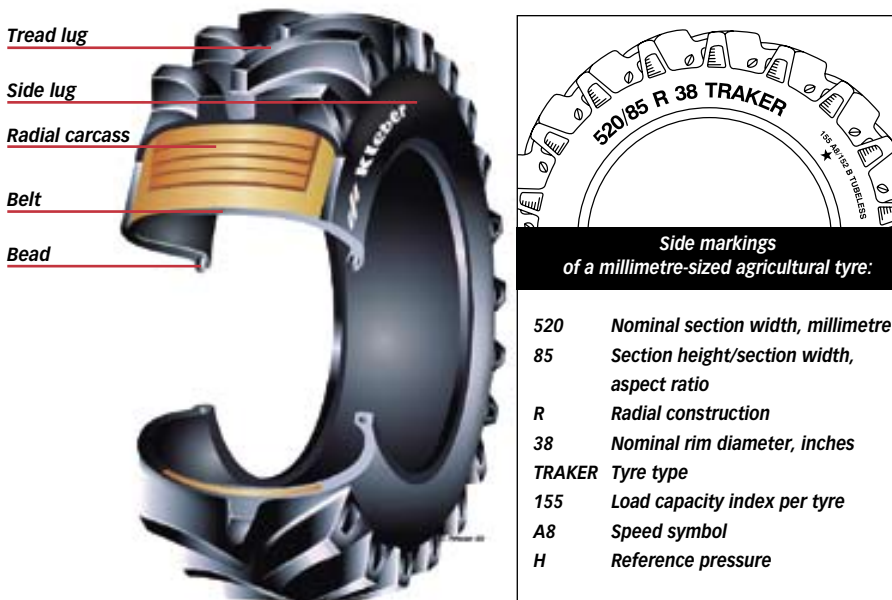
tyre heats up and wears down quickly, while an overinflated tyre has poor traction in slippery conditions and is sensitive to impact. Damage caused by the wrong pressure usually becomes evident only after some time. When driving under heavy loads, on public roads and in the forest, you should increase the tyre pressure. We recommend storing tyres in a dark, cool place protected from chemicals and off the ground.

At the Valtra factory, only approved tyres are installed. When changing tyres later, we recommend checking that the new tyre model is listed in the Operator's Manual. If the tyres

are, for example, too large, they may cause the tractor to run at speeds exceeding the legal maximum or cause problems with the power transmission. Problems caused by tyres that are too large or too wide may also void the warranty.

Nearly 90 per cent of rims are adjustable. GKN in England delivers the adjustable rims to the Suolahti factory. Fixed rims are manufactured by a Finnish subcontractor, and special rims are made in Denmark.

■ Tommi Pitenius



SPEED SYMBOL TABLE		LOAD INDEX TABLE							
speed symbol	speed in km/h	Load index	kg	Load index	kg	Load index	kg	Load index	kg
A1	5	130	1900	141	2575	152	3550	163	4875
A2	10	131	1950	142	2650	153	3650	164	5000
A3	15	132	2000	143	2725	154	3750	165	5150
A4	20	133	2060	144	2800	155	3875	166	5300
A5	25	134	2120	145	2900	156	4000	167	5450
A6	30	135	2180	146	3000	157	4125	168	5600
A7	35	136	2240	147	3075	158	4250	169	5800
A8	40	137	2300	148	3150	159	4375	170	6000
B	50	138	2360	149	3250	160	4500	171	6150
D	65	139	2430	150	3350	161	4625	172	6300
		140	2500	151	3450	162	4750	173	6500

11:00 A.M.



Danish farmer Peter Siig's Valtra 8750 has suffered a broken headlamp and front mask during heavy work. The tractor should be put into working order as fast as possible.

11:30



Spare parts salesperson Martin Jern in Kolding receives Peter Siig's order. The right part and part number are found from the spare parts catalogue.

How spare parts get from the warehouse to the customer Most spare parts arrive the next day



11:00



Torben Pedersen fits the new headlamp and front mask to the tractor. Peter Siig can return to work at 12.00 midday.

10:50 A.M.



Spare parts ordered on workdays before 3.45 p.m. arrive in Europe the next morning. Mechanic Torben Pedersen is ready to fit the parts.

21:30



Parcels delivery comparison from Suolahti at 5 p.m. Helsinki-Vantaa international 757 departs at 9.30 p.m.

00 MIDDAY



Usually 80 percent of customers receive the spare part they need immediately from the local dealer's supplies. This time in Kolding, however, the right parts cannot be found, so Jörn Hansen orders the mask and headlamp from Valtra's central warehouse in Suolahti, Finland, using the internet-based Webparts programme.

12:02



Spare parts supplier Jussi Puttonen receives the order in Suolahti a couple of minutes after it is made in Denmark by Jörn Hansen. The order describes on which shelf the parts can be found and who has made the order.

12:30 P.M.



Jussi Puttonen finds the ordered parts on the shelves listed on the order.



The central warehouse in Suolahti carries around 52 000 types of spare parts and has over 15 kilometres of shelf space. Importers usually carry around 16 000 types of spare parts and local sales agents around 1 000-2 000 types of spare parts.

13:50



Overseas shipping manager Jari Iso-Aho checks the address of the customer on the computer and confirms that the ordered parts are in place.

14:00



Jari Iso-Aho packs the spare parts that have been collected by Jussi Puttonen.



any UPS collects the package and drives them to the national airport. The UPS Boeing

With around 900 head of cattle to feed daily reliability is essential. The Valtra 6300, already a couple of years old proved that point and now a T Series has been added to Grange's tractor fleet.



Daily reliability is essential

Experience and Loyalty

Located just a few miles east of Castle Douglas in South West Scotland Donald Biggar's Grange farm extends to 600 ha, mostly grass with 60 ha of stock feed oats and barley.

The farm supports three suckler herds of cattle; pedigree Beef Shorthorn and pedigree Aberdeen Angus and a commercial cross bred herd, in all 400 cows which means at times

Driver Collin Dodds has had no trouble familiarising himself with T Series Controls and finds the cab comfortable and vision excellent.



there can be over 900 head of cattle on the farm. There is also a flock of 700 Blackface ewes.

Tractor work on the farm includes grass mowing for silage and hay, hauling grass to the silage clamp, the actual forage harvesting is handled by a contractor, winter feeding with a diet feeder, fertilizing, ploughing, muck spreading and the host of other operations familiar to us all. For this work the farm runs a fleet four front line tractors ranging between 90 and 130hp, one of which is changed every other year.

A few years ago the local farm machinery dealer, James Gordon (Engineers) Ltd of Castle Douglas changed tractor franchise to Valtra. The Biggar family have been trading with James Gordon for over 100 years and after some enquiries Donald Biggar purchased his first Valtra, a 90hp 6300 with loader. This machine has proved reliable, performed well and met with drivers' approval. It was also easy to maintain, farm staff undertake intermediate services which revolve mainly around oil changes. James Gordon staff handle the more intricate major services. The performance of the 6300 was such that when the time

came to replace another tractor Donald was happy to consider another, larger, Valtra. James Gordon arranged the demonstration of a 125hp 8150 HiTech. Like the 6300 this machine performed well, met with staff approval and was within budget constraints. However, the announcement of the 'T' Series provoked second thoughts.

– Once a new model comes out the value of superseded machines drops, comments Donald Biggar. Over all I decided it would be a better deal to purchase the new model and ordered a T130.

Delivered at the turn of the year the new tractor has thus far spent most of its time feeding cattle. Driver Collin Dodds has had little problem getting to grips with the automated control systems and is pleased with the high level of comfort offered by the cab. William Scott, driver of the 6300 has also given his nod of approval and despite a comment about advancing years not being compatible with modern computerised machinery he also admits that the T130 is easy to drive and comfortable.

■ Roger Thomas

Comfort and efficiency

Per Hansson's machine pool in Rydsgård, Sweden is a lucky owner of brand new T190. Per has a lot of experience of Finnish tractors and always has something to say about technical solutions and what he expects from them.

Let's pay a visit to Rydsgård to find out how the tractor has been received. On approaching Rydsgård we can make out a blue tractor with a beet harvester in the distance. A treeless vista opens before us across the southern hills of Skåne. As we draw near, we see that the tractor is indeed the Valtra T190 we have come to see, sporting its blue metallic paintwork, and pulling a brand-new four-row beet harvester. We meet Per Hansson and the tractor driver, Edvard Olsson.

summer. Is there anything else in particular he has noticed, we wonder?

– The view, says Edvard, visibility from the cab is much improved on that of the Valtra 8950, which I used to drive. I now get a much better view of how the harvester is working. The large new harvester has its own hydraulic system, so up until now Edvard has not had first-hand experience of the tractor's splendid hydraulic system and high manoeuvrability. However, the tractor's hydraulic system is used to propel the beet harvester forward.

– It is good that the tractor has a load-sensing hydraulic system, says Edvard. The linkage for the beet harvester's wheels is now directly connected to the tractor's pump by means of what is known as a Power Beyond -system. This means that the oil is fed directly to the wheels from the hydraulic pump without passing through any valves. The linkage is connected to the beet harvester's wheels in order to keep them moving in a straight line.

many other aspects which make me very happy with this model, says Per.

Per is always keen to bring finances into the equation when we discuss tractors. He keenly emphasises Valtra's low running costs, and has had positive experiences with Valtra's low revolution technology, all of which means that the new T model should suit Per just fine, as it also works with reduced rpm.

Before we take our leave of Per and Edvard there is time for just one more amusing aside from Per:

– It's so good looking – even the ladies like it.

What greater complement could possibly be paid to a tractor?

■ Eric Andersson

Quality lead to T Series

Great comfort and excellent visibility

The first thing we are impressed with is how quietly and effortlessly the tractor is moving. And, despite having the large harvester in tow, it is also moving quickly. We are also impressed by how quickly the tank fills up and the large dumper transporting the beets has to be emptied.

During a break we begin by asking Edvard what he thinks of "his" new equipment?

– The new tractor runs incredibly well, its cab is unbelievably quiet and the air conditioning works like a dream, replies Edvard. During the interview, at the end of September, Sweden was still basking in the heat of the

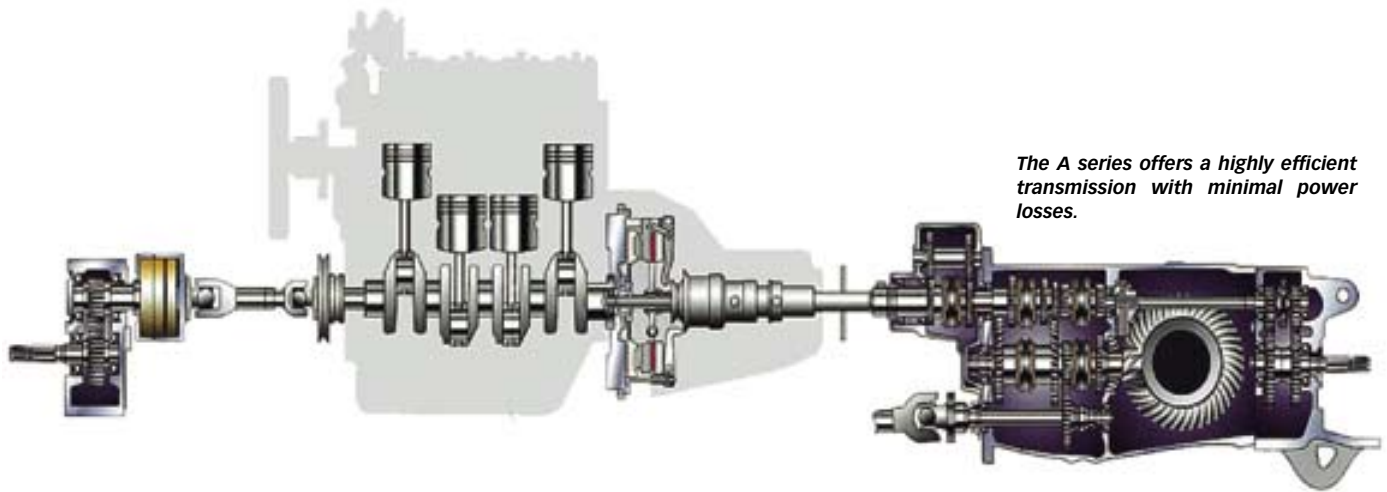
A definite improvement, things are constantly moving forward

Yes, that's exactly what Per Hansson said when we asked him what he thought of the new tractor.

– I wanted a tractor that would provide me with the greater hydraulic flow I needed for the new beet harvester, and that's precisely what I got. But there are also

Edvard Olsson (left) and Per Hansson alongside the machine pool's new T190. Despite the pressing beet harvest, these gentlemen managed to find time for a chat with us in the glorious September sunshine.





The A series offers a highly efficient transmission with minimal power losses.

Valtra A Series offers the driver both comfort and efficiency

New Synchronised **Forward/Reverse** shuttle

Sales of the new Valtra A Series have got off to a good start. The A Series has introduced a number of desirable features in Valtra's smaller models, such as telescopically adjustable side mirrors, hydraulic brakes, two new colour options, and – the biggest innovation of all – a new 12+12 forward/reverse shuttle transmission.

Valtra's Type 272 transmission is equipped with a mechanical, synchronised forward/reverse shuttle. The number of gears is 12 forward and 12 reverse. The transmission is operated using three adjacent gear levers in the cab. The first lever controls intermediate ratios for road, field and crawling speeds, the central lever controls the four main gears, and the forward/reverse lever – featuring forward, neutral and reverse positions – is designed for rapid changes in direction. According to the Valtra philosophy, the forward/reverse lever can be located either to the right or left of the driver, according to his preference.

HiShift button-operated clutch control

The Type 272 transmission, which is manufactured by Valtra, is extremely precise and easy to use. Gears are engaged directly without unnecessary searching, and the ease-of-use of the forward/reverse shuttle is particularly convenient for front loader work and in headland operations.



Gear levers from right-to-left: forward/reverse shuttle, four-speed main gear selector, and selector for intermediate ratios.

The transmission can even be equipped with the optional HiShift button-operated clutch control. This allows for gears to be selected without engaging the clutch pedal. In this way, all shifts can be made without tiring the driver's clutch leg, at the right time and using the right engine revs for the situation. Under 4 km/h, the clutch is activated slower than at higher speeds. Nevertheless, it is recommended that the clutch pedal be used when precision is needed, for example when attaching an implement to the tractor. The HiShift clutch control is positioned on all gear levers.

The ratios of the new transmission cover the most important speeds for field work as well as higher speeds for transport work. Reversing speeds are approximately 1 % faster than forward speeds, which is especially helpful for loading work.

Certified Valtra quality

The A Series' new transmission is easy to use, reliable and logically thought-out. Its ease-of-use is particularly noticeable in work that demands numerous changes of direction. The forward/reverse shuttle speeds up your work and makes it that much easier to find the right speed for each task. The transmission is built to Valtra's certified quality specifications that have been tested in the heat of the tropics as well as the arctic chill of the north.

Due to the logical design of the transmission, it is extremely efficient and thus offers better fuel consumption and more usable power.

The synchronised transmission equipped with forward/reverse shuttle offers new levels of comfort for tractors. Combined with improved ergonomics and ease-of-use, the driver will stay fresh even after long hours behind the wheel.

■ Marko Muhonen



Trimming with TwinTrac

*The ideal working situation
– A comfortable cab with
the trimming head in full
view – at all levels.*

For some years hedge and verge maintenance contractor David Newman has been sitting in his cab trying to keep his tractor on course on roads along the Wiltshire and Oxfordshire borders while watching the flail head somewhere over his left shoulder. Not the most comfortable of positions in which to spend a long working day, even in a comfortable cab with air conditioning and a radio. For some time he had been thinking there must be an easier way.

When McConnell announced their front mounted trimmer he felt this was somewhere



near the answer to his prayers. Everything was more or less in the right place with the trimmer out in front and he could see the road ahead at the same time. Unfortunately, David felt the flail head was a little too far away and the trimmer's folded booms restricted vision when travelling between jobs. – Then a thought hit me, David recalls. Why not a Valtra TwinTrac with the mower mounted on the rear? Approaches were made to McConnell and Valtra and a demonstration and evaluation unit was assembled. All agreed it was the right concept but still needed a few tweaks here and there. David felt he was in a position to order a tractor and teamed up with McConnell to test a reverse drive PA52 hedge trimmer. He chose a Valtra 6650 with TwinTrac, Aires front suspension and a forestry cab.

Faced with high speed traffic on major roads David also decided to fit high intensity amber flashing lights on the front for

With co-operation from Valtra and McConnell David Newman now has a comfortable and safe hedge and verge cutting unit – and he's thinking of purchasing a second.

safety – these would shine to the rear when operating the trimmer and would have to be designed to fold away when not in use to avoid confusing other road users. Valtra's after sales team sourced the various components and arranged for the fabrication of the flashing light panels.

Having operated the unit for several months David Newman is a happy man. – The driver can easily see where he's going and observe the flail at the same time. The weight of the trimmer is over the strongest, most stable part of the tractor and with roof windows the operator can also see up to the tallest of hedges without getting a crick in the neck, enthuses David. I'm convinced the concept is correct. The Valtra cab is comfortable facing either ways – it only take a moment to swivel the seat and with the steering wheel on one side and the trimmer controls on the other its like driving in an arm chair. With suspension moving from job to job is quick and comfortable.

There are still a few points to iron out but such is David's conviction in the system that he is considering ordering a second tractor.

■ Roger Thomas

Canada's cold winters offer some unique challenges, but also help farmers produce high-quality products for domestic and export markets.

Canada – cold country farming

A typical barn on an Ontario dairy farm. Canadian dairy producers have a stable and profitable income from a supply-managed system with a cost of production formula, but attempts to expand the industry to the export market are being challenged by the United States and New Zealand at the World Trade Organization.



Wheat is still "king" of the crops in Canada, but quest for diversification and higher value has encouraged diversification into a wide range of crops including pulses, sunflowers, edible beans and potatoes.

If you had to choose one word to describe farming in a country of almost 10 million square kilometres, that word might be "disciplined." As I write this in early February in Winnipeg, a city near the geographic centre of North America, has rarely been above minus 22° C for three weeks.

Such weather imposes a certain "discipline" on our ability to stay outdoors, but it also helps us to grow high-quality grains and oilseeds. Cold weather also almost eliminates insect problems with stored grain.

Our summers have long days of sunshine and warm weather, but relatively cool nights. These conditions are ideal for growing other crops such as forages and even vegetables, but are particularly good for growing the high-quality, high-protein wheat and durum wheat for which Canada is so well known.

The short season – 90 to 110 days – means that most of Western Canada's crops except rye are planted in spring, though some winter wheat varieties are showing promise. Harvest season can be tense; good weather can mean it can start in late August when daytime temperatures are still warm enough to dry the crop for harvest, but cool weather or late-season rains can delay that into October. Though direct combining is becoming more common, most of our crops are swathed first to speed drying.

With the exception of flaxseed (linseed) and canola (rapeseed), most of crops don't stand up well to poor harvest weather. Wheat

is marketed under a tight, government-regulated grading system, which is important for export customers (about 80 per cent of Canadian wheat is exported). There are substantial premiums for quality – last year, the top grade wheat returned almost Cdn\$80 per tonne (US\$52) more than the lowest milling grade. There are also substantial premiums for milling (brewing) barley, milling quality oats and for a growing array of specialty crops such as peas and beans.

Diversity important

Many Canadian farmers grow that list of crops or more each year. Again, that's partly due to the "discipline" imposed on them, not just by climate and the need for good crop rotations, but by the marketplace. Unlike their U.S. neighbours, Canadian farmers receive minimal subsidies, which encourages them to grow crops that will produce the greatest returns.

This became even more important in 1995, when the Canadian government eliminated the "Crow Rate" – a transportation subsidy worth about Cdn\$700 million per year in Western Canada. It now costs Cdn\$54 per tonne to move wheat from the Prairies to seaports in British Columbia or Quebec.

Those costs encourage production of high-value crops, and discourage export of lower-value feed grains. Feed barley is now kept at home and fed to livestock. Beef cattle have always been important on Canadian Prairie farms – many are mixed, producing grain and beef calves, which are shipped to large feedlots in the warmer areas of the



Prairies in Alberta or south to the U.S. Midwest.

More recently, hog production is booming as the industry looks to add value to feed grains.

Eastern provinces look closer to home

While the Prairie provinces export much of their grain and livestock, other provinces sell closer to home. Much of Canada's population is concentrated in the area around the Great Lakes and St. Lawrence River. Like their neighbours in the nearby U.S. "Corn Belt," Ontario farmers are large producers of corn and soybeans, and Ontario has the most farms and highest farm income of any Canadian province. Much of this goes to livestock - Quebec and Ontario lead the country in hog production.

About 80 per cent of Canada's dairy farms are in Quebec and Ontario. Dairy is the third-largest sector in Canadian agriculture, and is stable and profitable due to Canada's supply management system, which also applies to poultry for meat and eggs. These farmers grow mainly for the domestic market and cannot sell without quota. Supply management farmers are paid under a cost of production formula, and are allowed to restrict imports from other countries.

Though much smaller than in other areas, the Maritime provinces have a healthy and diverse farm economy. Prince Edward Island leads Canada in potato production, and there are large processing plants there and in New Brunswick. Nova Scotia and New Brunswick produce crops and livestock for local markets, as well as large amounts of apples which are shipped throughout North America.

Agriculture in central Canada is even more diverse than in the west. Canada is still a nation of immigrants, and even Canadians who have been here for generations take pride in maintaining their original heritage. Canadian tastes go far beyond those of its two "founding peoples" - French and English. Farmers and food processors produce a wide range of products for the large European and Asian populations, especially in central Canada but also in the western province of British Columbia.

Canada is a wealthy country, which has allowed Canadians to indulge in more - and



One of the new concrete elevators (silos) that are replacing the traditional wooden structures. In Western Canada, wheat and barley for export and domestic food use are marketed by the Canadian Wheat Board, a farmer-financed marketing agency with a government-granted monopoly. But elevators (silos) and other facilities are operated by private companies, which also market other crops for export and domestic sales.

more sophisticated - foods and beverages. Southern Ontario, and the area around Lake Okanagan in southern British Columbia, have become world-famous for the quality of wines.

Indeed, that may be the best example where cold weather produces high value - but requires discipline. Ontario and British Columbia ice wines are now world-famous, and snapped up despite prices of up to \$90 per bottle. Those who must pick the grapes when the temperature reaches minus 10° C say it's worth every penny.

■ **John Morris**
Publisher and editor
The Farmer's Independent Weekly

Farm ownership in Canada

Most farms in Canada are still owned and operated by families, but as in other countries, farms are becoming larger. From 1996 to 2001, the number of Canadian farms declined by 10.7 per cent to 247 000. Like the rest of Canada, many farmers are part of the aging "baby boom" post-war generation, and over 70 per cent of Canadian farms are expected to change hands over the next 15 years due to deaths and retirements.

Transferring these farms to the next generation represents a major policy and financial challenge, but it is also opening up opportunities. Canada's relatively low land prices compared to Europe's have encouraged many farmers, especially from the Netherlands and the UK, to sell their farms and move to Canada.

Key Canadian farming statistics

(source 2001 census)

Number of farms	247 000
Hectares farmed	36.4 million
Average farm size	274 hectares
Cattle on farms	15.6 million
Hogs on farms	13.9 million
Biggest crop by area wheat	10.7 million hectares

Cost Cutting

With Home Servicing ...

Advances in tractor and lubricant design has lead to extended servicing intervals and at Valtra we have developed ways to make them easier for you to carry out – careful location of filters and oil fillers, hinged radiators and oil coolers are just a couple of examples.

We have now gone one stage further and introduced a service pack – There are several very good reasons for purchasing complete servicing kits from Valtra dealers: The kit provides all you need, so nothing can be forgotten, it is cheaper than the total for the individual parts so you will save cash. Importantly, you can be sure the parts are Valtra approved and therefore are of the highest quality and, should there be a problem parts carry a warranty of 12 months providing piece of mind along with excellent service-ability.

The kits are available for the **100hr, 500hr and 1000hr** services. As the 100hr service is within the sales and warranty obligation this is best left to the dealer. The 500hr service is well within the grasp of technically minded drivers with a reasonable mechanical knowledge and tools while the 1000hr service is best left to trained mechanics – dealer, farm or contractor staff with the correct level of expertise. Simply ask your dealer's parts department staff for the relevant service kit for your model of tractor. It comes packed in a single box with handy handle – filters, ring seals, gaskets, even a plastic bag for clean disposal of the used filters. We also include clear instructions. All you then need are the replacement lubricants and fluids.

Valtra handy service packs contain everything required with the exception of oil.



... And Valtra Lubricants

Valtra dealers can supply a range of Valtra oils to specifically formulated to keep your Valtra tractor – and just about every other piece of machinery – in top condition. Our STOU's – that's Super Tractor Oils Universal – are the top specification available. **Delta Farm Excel** is a SAE 10W-30 suitable for engines, gearboxes and transmissions, hydraulics and oil immersed wet brake systems. **Delta Farm Premium** is a SAE 15W-30 suitable for engines, transmissions and hydraulics of older tractors, combines and other agricultural equipment. Both are available in 25 and 205 litre drums and in bulk. Our Delta Farm Excel is also available in 5 litre cans.

Specialist engine oils include **Valmax Ultra Plus** the first SAE 15W-40 Euro III emissions control compliant available for the UK agricultural market. This is a super high performance diesel specific engine oil for both naturally aspirated and turbocharged engines including Valtra Eco-Power series. Available in 5, 25, 205 litre cans and in bulk.





Valtra oils and greases are suitable for use in a wide range of farm machinery and equipment.

protection. Valplex EP2 is ideal for a wide range of anti-friction bearing and chassis lubrication tasks and is especially recommended where components are subjected to heavy and shock loads. Available in 400 & 500 gm packs and 3, 12.5 & 50kg packs. **Valplex Semi-Fluid Grease** is a soft pumpable grease developed for centralised lubrication systems. Provides excellent lubrication and anti corrosion properties while conforming to the requirements of most leading bearing manufacturers. Ideal for use in power harrows, mower and rotorator top boxes where a semi-fluid grease is also specified. Supplied in 3 and 12.5 kg packs.

Valmax Premium is a high performance multigrade 15w-40 oil designed for diesel and petrol engines – ideal for mixed fleet operations. Available in 25, 205 litre cans and bulk. For older horticultural petrol and diesel engines where a monograde oil is recommended we have Horticultural SAE 30 oil while the multigrade Horticultural SAE 10w-40 is available for machines requiring a multigrade oil and is ideal for engines being used intermittently.

Hydraulic oils include **Valtec Premium** 32 & 46, with good anti-wear and anti corrosion properties. Valtec Premium incorporates a highly effective anti-foam additive for rapid release of air to ensure fast, smooth hydraulic response. Both are packed in 25 and 205 litre drums with the 32 also available in 5 litre cans. **Valtec Powerlift** is a High VI Multigrade hydraulic oil ideal for systems which may be subjected to extremes of temperature. Like Valtec Premium oils Powerlift has outstanding anti wear and corrosion properties and has excellent air release for rapid response. Available in 5, 25 and 205 litre drums.

Valplex EP2 Grease is a multi purpose lithium grease with exceptional mechanical stability. It is also resistant to water washout providing and provides excellent corrosion

The above are just a few important examples from our extensive range that extends over 60 oil and oil related products. Briefly these include milking machine and chain saw oils, chain and belt dressing sprays, anti-corrosion coatings, automotive oils, brake and clutch fluids, antifreeze, screen wash, valet sprays and glass cleaners. We also have floor dressings, degreasing products, barrier creams, hand cleaners and much more. Ask your dealer, they will be able to give you full details of the range. They will also be able to provide a more detailed description of the different oils and their suitability for various jobs – the descriptions here are necessarily brief and for guidance only.

Because of the specifications of many Valtra oil products they are also suitable for use in a wide range of other farm machinery and equipment. It is probable that Valtra oil products are the only lubricants you will need on your farm. Our comprehensive **Advanced Agricultural Lubricants Applications Handbook** will help you check the suitability of our products and is available through your local dealer.

■ Roger Thomas



The Valtra Advanced Agricultural Lubricants handbook shows the compatibility of Valtra oils with other farm machinery.



15 words are hidden here... Can you find them?

Q A Y X D E W S C V B N G F R I K P
 L P O I U Z F A R M I G H E E K U A
 W X E R J R E T E U L H C S A L S D
 E X S I U P L K R U W Q N V L C D K
 H I S E C O P O W E R N W I I X P U
 T M U A R D P Z O T P O N T R E U Z
 T A S S R I E A V Z H G D S A L K M
 S K I C I J E Q A L N M B R T S E I
 E P S H F A A S L S Y P O X G S H E
 R I U E S T O P T H E I K C A E T G
 I C D K P O W E R P A R T N E R A X
 E S I D N N A L A T H E I G R I E S
 S S E V U K S A M O H T S E T E Q V
 Y T S E A E H I T E C H Q V S S T A
 M L E R I U T E R E T I H F U R E S
 U L L U F K E L A R I U S T M W U L
 N P V A L E C P C O W E R M E G O T
 C M E G A H I T T E X S E R Z O R R
 H D Q T R A D A O L E H U V Z W R A
 A E I T W I N T R A C A Y M O V P E
 F R X U E Y S I I D A L E G A N E Z

- 1 ASERIES
- 2 ECOPOWER
- 3 FARM
- 4 HITECH
- 5 MEGA
- 6 MEZZO
- 7 POWERPARTNER
- 8 PULLING
- 9 SISUDIESEL
- 10 SSERIES
- 11 TRACTOR
- 12 TSERIES
- 13 TWINTRAC
- 14 VALTRA
- 15 XSERIES

There are 9 differences in the following images.





Charbroiled Salmon

A delicious yet simple fish dish that you can enjoy outdoors

Charbroiled salmon can be prepared in a fireplace, on an open fire or on a simple grill. A small piece of plywood or thin plank of wood can be used for a fish board.

Ingredients:

1 fresh salmon
Salt
White pepper
Lemon pepper

Directions:

Clean the fish and dry using household paper. Cut two fillets and sprinkle abundantly with salt. Add white and lemon pepper to taste. Allow the fillets to stand for a couple of hours. Soak the fish board and fasten the fillets with the skin side against the board. Place the fish board approximately 30 centimetres from the fire. Rotate the fish board from time to time to ensure even cooking. If you wish, you may also baste the fish while cooking with melted butter, salt-sugar water or diluted syrup. Cook the fish for approximately one hour or according to weight until the surface is a beautiful brown colour and the meat begins to flake. Serve the fish directly from the fish board and accompany with potatoes, salad and a cream sauce.

Valtra Services

Care and Security for your Valtra



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