

## TECHUPDATE - Harvester/Processor Heads

By Tony Kryzanowski

### **Waratah**

Waratah has introduced a new four-roller processing head—the HTH622C 4x4.

This new multi-stemming model is approximately 800 lbs heavier than the company's popular 622B three roller model and has many new innovative and productive features punctuated by Waratah's proven 4x4 drive system.

The HTH622C 4x4 is designed for both single and multi-stem applications, including Waratah's new on-demand hydraulically synchronized drive for positive traction. The 622C 4x4 is capable of automatically and independently shuffling multiple logs for fast find end alignment, minimizing waste, and reducing operator processing time.

Other features include a higher flow hydraulic valve design providing improved fuel efficiency, faster feeding, and faster saw cuts. It is extra efficient when coupled with Waratah's new larger 3/4 pitch auto chain tensioning saw unit.

A new proportional soft clamp control provides superior log traction either single stem or multi-stemming, and Waratah's standard 360 degree continuous rotation boosts operator productivity while reducing operating costs. The Waratah TimberRite system boosts operator accuracy in multi-stem applications with new innovations in diameter and length measuring as well as a new find end design.

[www.waratah.net](http://www.waratah.net)

### **Hakmet**

Hakmet distributes AFM harvester/processors in North-America.

AFM has 12 harvester/processor heads, two combi heads, an energy wood head and a felling head. With the combi head, operators can harvest, process, sort and load logs with just one head and base machine.

AFM heads are designed for demanding operations, with a low maintenance cost due to reliability and universally used components. They work with all harvester bases and most measuring systems with solutions for softwood and hardwood species for harvesting or processing. Feed speeds up to 20 ft/s and force mean high production. They are equipped with high-strength steel delimiting knives.

The three-roller, non-sliding feeding system with proportional pressure on roller arms and knives reduces fibre damage and timber-friendly steel rollers conserve the quality and structure of the timber. They achieve accurate measuring by constantly centering the stem and the diameter, with measurement from rollers or knives. Simple and long-lasting block-type hydraulics are well-protected and centrally located. The heads are said to be easy to install and service due to simple, service-friendly construction.

[www.hakmet.com](http://www.hakmet.com)



## **Ponsse**

Ponsse recently introduced its new harvester head models, Ponsse 10 and Ponsse H8 with a top saw. The harvester heads are designed for the demanding harvesting conditions of North America.

The H10 is a heavy-duty processing and harvesting head for track-based machines weighing over 25 tonnes. With the new size class of harvester heads, Ponsse is responding to the harvesting needs of local harvesting operations.

The Ponsse H10 processing head has also been tested in North America. Its durable body structure, good grip and powerful feeding ensure good productivity and a long service life, the company says.

Thanks to the Opti control system, the H10 is dimensionally very accurate. The product development work performed in co-operation with customers has focused on the easy controllability and maintenance of the harvester head.

The Ponsse H8 with a top saw is designed for harvesting and processing difficult deciduous and coniferous trees in North America.

The product family of Ponsse harvester heads has been totally revised over the last few years. All harvester heads in the different size categories are well suited for thinning, regeneration felling and multi-stemming. Multi-stemming with Ponsse harvester heads is possible without any additional equipment.

[www.ponsse.com](http://www.ponsse.com)

## **Southstar**

Southstar Equipment is a Canadian-owned and operated company based in Kamloops, B.C.

Southstar offers a full line of four-roller processors: the QS450, QS500, QS600 and the QS630.

The QS series with their multi-stemming capabilities is changing the game in the processing world, says Southstar. These processors give the contractor the best of both worlds. When processing in small diameter tree stands, contractors can see up to a 70 per cent increase in production without effecting lengths and quality, and when put into large diameter wood, the head's robust low friction four wheel design, with high feed speeds, makes Southstar processors one of the most productive processors on the market, says the company.

With their partnership with DASA control systems, Southstar gives operators one of the most advanced control and measuring systems in the market, while being very operator friendly.

Features of Southstar processors include: four roller drive system; maintenance-free find end system; hydraulic traction control for feeding large diameter trees; side stepping feature, allowing operators to independently feed one tree while holding the other when multi-stemming; hose through design; wide frame design for multi-stemming capabilities while giving added strength to the head; Southstar extreme duty 3/4 main saw with saw limiting; and valve and hose layout with almost no exposed hoses.

[www.southstarequipment.com](http://www.southstarequipment.com)



### **Rottne**

The Rottne SP 761 LF is a new compact and heavy duty harvester head designed to handle a variety of different demanding applications. It reaches top productivity in tree sizes ranging from 10"-20". With a weight of 1600 kg, it's said to be a perfect choice for large wheel based carriers, 20-25 ton excavator carriers and mid-size to large purpose-built tracked harvesters. It is designed according to the LF principle of minimum friction during feeding, resulting in maximum productivity as well as lowest possible energy consumption on the carrier. Topping saw and specially designed processor knives are available options for increased performance and productivity when processing decked wood out of a pile. Other important features are special expander pins for the longest possible life and low maintenance, and computer controlled proportional pressures on knives and feed rollers with different settings available per species.

[www.rottnecanada.com](http://www.rottnecanada.com)

### **Tigercat**

The Tigercat TH575 harvesting head is specifically designed to match the high performance capabilities of Tigercat track carriers in harvesting, processing and debarking applications.

Most recently, Tigercat engineers have developed the Tigercat D5 control system, which is now available on all new TH575 orders, and can be retrofitted on to existing heads for customers wishing to upgrade. The Tigercat D5 control system combines robust, industry-leading Dasa-5 hardware and bucking control with a Tigercat-developed simple and intuitive operator interface. The Tigercat D5 control system is available in multiple levels of bucking control, from simple diameter and length priority to full value optimization. The measuring screen provides a very clear indication of critical measurement, species and production data. The control handle button functions can be made operator specific, allowing customized operator controls that are automatically adjusted upon login.

[www.tigercat.com](http://www.tigercat.com)

### **Komatsu Forest**

Komatsu has introduced a range of new harvesting and processing heads including the C93, C144, S92 and S132.

The model C144, a robust and powerful "carry-style" head features four hydraulic motors and feed rollers. Weighing 3086 lbs, it is equipped with five delimiting knives to handle large logs and difficult limbs. This head's ideal DBH range is an 8"-20" diameter with a maximum cut of 28". The head is matched to the big Komatsu 931.1 and 941 harvesters and sold as a loose head for non-Komatsu harvesters.

The C144 also features a 40 degree rear tilt angle for effective harvesting downhill. The high performance feed system provides firm contact without damage. It has feeding force of 6654 lb/f and feed speeds of 16.4 ft/sec. The new 'Constant Cut' saw control maintains chain at 130 ft/sec through the cutting cycle. It also has the new MaxiXplorer 3.1 head control and monitoring system.

[www.KomatsuForest.ca](http://www.KomatsuForest.ca)

### **Pierce Pacific**

The state-of-the-art Pierce GP combines grappling and processing features into one innovative work tool.



The Pierce grapple processor is a revolutionary work tool that offers loading utility and processing productivity in one tough machine, says Pierce Pacific. It is a one-of-a-kind piece of equipment that shovels, sorts and loads like a grapple—and delimits, measures and cuts like a processor.

The unique grapple arms offer unprecedented versatility, the company says. Built to handle big timber up to 53” in diameter, the GP is ideal for picking up individual stems as well as handling multiple logs without criss-crossing. Other groundbreaking features on the Pierce GP include integral feed wheels that allow users to increase the distance of each shovel turn and thus reduce the number of turns to the landing. Plus, the full scale measuring system calculates log length and diameter, making it easy to process and merchandize logs with precision.

The GP’s innovative design makes it possible to also reposition long logs, handle bundles of short wood and distribute brush. It can be used with both new and pre-existing log loaders, making it economical as well as efficient.

[www.piercepacific.com](http://www.piercepacific.com)

### **Quadco**

Quadco offers two types of harvester heads, the fixed mount 5660 and the dangle mount Keto.

The 5660 features the intermittent swing-out disk saw with a maximum cutting capacity of 24”. This head is best-suited for hardwoods and controlled-fall applications.

Quadco is the North-American distributor for Keto harvesters and processors. Keto comes in several model sizes; the 51, 100, 150, 660B and 870B. All are equipped with a bar saw with from 16”-32” cutting capacity.

The key feature is a very powerful dual-track feed with a very accurate dual-track length measuring system, says Quadco. The latest update from Keto is the constant torque tilt system offering optimized log handling and sawing in position.

Both the 5660 and Keto use the state-of-the-art Technion xLogger computer system offering modern options including: freely selectable, operator-based handle programming; manual or fully automated operating modes; ample number of species and pre-sets with preferred choices; back-ups; and, data transfers.

[www.quadco.com](http://www.quadco.com)

### **Caterpillar Forest Products**

Caterpillar Forest Products is the exclusive distributor for SATCO brand processing and felling heads designed to be matched with Cat track machines.

The versatile 3 Series medium capacity processors handle wood up to 23”. SATCO’s “DEAD-LOCK” pin retention system on the knife arms (2.36” diameter) and the roller arms (3.15”) prevent them from moving, improving bushing life and extending service intervals. The large diameter pins locked in place through both sections of the head also add strength to the chassis.

The SAT323T features the “TRI-KNIFE” system, a double and single knife combination that centers the log in the head every time when grappling trees out of a pile. Together with the Poclain MS11 drive motors, the system has been proven



to withstand rigorous processing applications. All SATCO heads are built with the same reliable control valve and easily handled carrier pressures, eliminating the heat caused by reducing system pressure.

[www.cat.com/forestry](http://www.cat.com/forestry)

## **FORTEC**

B.C. equipment manufacturer NWFORTEC Technical says that the proven performance of its FORTEC timber processors, historically operating at more than 25,000 hours in the field across Canada, results in lower operating costs in timber harvesting.

The FORTEC processor lineup includes the F930, F920-2, and F920-4wd fixed head models, all capable of processing hardwood or softwood in up to 30" diameter stems, meeting short or long log production requirements.

The F920-4wd multi-stem model encapsulates the load to be processed on top, bottom, and both sides for maximum positive grip and measurement accuracy.

All FORTEC processor models meet the extreme demands of heavily limbed hardwood processing with unparalleled service life, says the company.

FORTEC timber processors maximize productivity in either a manual butt plate short log cut or a full computer controlled long log measuring application, providing a large range of stem processing options.

Log loading capability is an additional benefit of FORTEC processors in space constrained applications.

[www.nwfortectechnical.com](http://www.nwfortectechnical.com)

## **Log Max**

The new rugged and compact Log Mate 500 control system from Log Max is built from high quality components. The state-of-the-art control system on the Log Mate 500 is ready to meet the future of logging, according to the company. It's said to be the perfect match for getting the most out of all Log Max products and accessories. Running features such as Active Friction Control and Four Point Measuring, or having the ability to test and control all I/O, are just some of a long list of features the Log Mate 500 has to offer.

Operators can have multiple settings per species and diameter. This gives operators the best control in all species of trees, improves log quality and increases production, says the company.

The overall goal with the Log Max positioning system is to reduce friction so all the feed power is used for delimiting, instead of holding the tree. The Log Max head doesn't care what size of tree an operator may be holding; it manages each stem the same way. As the computer is Windows-based, it allows the operator to install programs, such as GPS and an Internet connection. Also thanks to the system being Windows-based, it makes it easier to manage and update/upgrade the Log Mate 500 system.

[www.logmax.com](http://www.logmax.com)