

Tech Review

HARVESTING & PROCESSING HEADS

Acme

In the short time Woodsman Pro series processing heads have been on the market, they have rapidly gained a reputation for productivity, reliability, low operating cost, and great backup service.

Felling and processing at the stump, on a landing, or under a yarder, the Woodsman Pro offers superior output and reduced reject rates associated with out of spec lengths, diameters, and fibre damage, as well as the obvious advantages of operator safety and comfort over traditional crosscutting and log making.

The five delimiting knife design ensures best-in-class felling, clean single pass delimiting, and precise log making (measuring and topping saw supplied as standard). All hydraulic and electric lines to the head are fed through a unique central rotating joint enabling the head to be rotated continuously in either direction. This simplifies operation of the head and eliminates expensive, vulnerable, failure-prone hosing common to other harvesting heads. www.acmecarriages.com

Caterpillar Forest Products

Caterpillar Forest Products is introducing a full line of processing heads designed and manufactured by SATCO, a New Zealand company. Caterpillar, the exclusive distributor in North America, offers the line and provides parts and support through select Cat® dealers. The line includes seven processing heads that range from a weight of 2,618 lb. with a maximum cutting diameter of 25 in. to 8,500 lb. with a cutting diameter of 32 in. The heads are designed to be matched with Cat Forestry Machines (FMs), track feller bunchers, and the Cat 501HD harvester.

SATCO heads were built to handle the rugged logging conditions in New Zealand and have the durability needed by loggers in the Northwest. The beefy heads are constructed using high-grade materials. Hoses from the carrier to the head are routed through the linkage and are not exposed. This protects the hoses from damage and prevents them from over-bending causing premature failure. Main valves are rated at 6100 PSI (420 bar) and can easily handle carrier pressures.

The two-roller SAT223 and SAT325 and three-roller 3 Series head are especially well suited for processing big wood in the Northwest. They feature 3+ in. roller arm pins and heavy duty 3/4 in. main saw systems with 45 cc saw motors and large diameter bearings for smooth cross cutting and felling of large diameter trees. Stem capacity is 2.5-26 in. for the SAT223, 3-28 in. for the SAT325, and 3-22 in. for the SATCO 3 Series head. www.cat.com

Hahn Machinery

Hahn Machinery Inc. continues to offer the HSG140 and HSG160 single-grip harvester heads. These simple and compact heads are intended to fell, delimb, and buck small timber and have been used extensively in thinning operations. Since 2006, Hahn has offered a high-performance version of its HSG series harvester heads. The successful "B" models feature digitally controlled, proportional, hydraulic valves with high pressure/high flow capability. The new hydraulic system enables the HSG "B" series to take full advantage of most modern excavator hydraulic systems and dramatically improves felling, delimiting, and bucking performance. www.hahnmachinery.com



Hakmet

Arbro harvesting heads are particularly designed for thinning and reforestation projects allowing the use of lighter and less expensive carriers such as small excavators. They are reasonably priced and provide a good return for a logger of small to medium size timber.

Arbro harvesting heads' capability to fell, delimb, and cut-to-length makes them time and cost-effective tools for small timber operations. The Arbro 400 handles trees up to 14" and the Arbro 1000 up to 18". The harvesters have an automatic stroke with a length of 29.5" instead of 26". A tree can be delimbed by pressing a single button. Eight different preselected lengths may be programmed in. Any length can be chosen at any time. The delimiting and grip knives will open separately. A free DVD is available upon request. www.hakmetusa.com

Komatsu

Komatsu's newest processing head, the 398, is designed to handle a wide range of applications with timber diameters in excess of 23". Weighing in at 6,140 lbs., the 398 is a great match for track harvesters like the Komatsu XT machines and excavators in the 190-300 HP range.

The 398's "carry style" feed system with 8,990 lbf rated feed force has three driven rollers and four motors. Two cylinders and an equalizer bar control the feed rollers. The main feed rollers cradle stems while pulling them into the head for a firm grip while the powered center roller reduces friction. The result is a secure grip with constant measuring wheel contact for accurate measuring. Four delimiting knives with an additional bottom mounted delimiting knife option assure high quality logs. Cutting is handled by a 31-inch capacity $\frac{3}{4}$ inch pitch bottom saw and an 18-inch integral topping saw.

Installations of the 398 on Komatsu PC290 and 300 excavators have been performing beyond expectation and have been well accepted in the inter mountain region.

Komatsu has also announced an update to the 25.6" cut, 2,646-pound 365 head with new cast measuring wheel arm and delimiting knives.

All Komatsu heads use the MaxiXplorer Head 3.0 platform, which combines the power of a PC, a 12-inch color monitor, Microsoft Windows®, and Komatsu's MaxiXplorer for easy-to-use, intuitive control of all head functions. Komatsu's unique EcoOiler provides programmable control of the amount of saw bar lubrication for the bottom and top saws. www.komatsuforest.us

Log Max

For over 30 years, Log Max has engineered reliable and productive harvesting and processing heads giving their customers a competitive advantage in the marketplace. Log Max products can be installed on smaller equipment allowing for decreased total package price and overall fuel savings without compromising performance or uptime. There are many applications in the forestry market from first commercial thinning to final harvesting and processing.

Log Max offers a wide range of products that fit these needs from the small 928A all the way up to the 12000XT. The Log Max 928A is a small and light head specifically designed for thinning. The compact format makes it the obvious choice



for small-sized wheel and track-based harvesters in the 7 to 15 ton range. It features a hydraulically driven saw with pressure controlled sawing force and flow controlled chain speed. The high performance saw hydraulics provide full flow to the bottom saw resulting in fast cutting. This saw unit is able to fell trees up to 420 mm (16.5 inches).

The Log Max 12000XT is the company's most rugged head and is available in harvester or processor configurations. With over 5 tons of delimiting force, this head is able to handle the most severe wood with ease. Large rear cover with hydraulic assist opens for full service access. High production $\frac{3}{4}$ " pitch bottom saw cuts up to 40" with ease. Special Log Max designed knives with compound curves and replaceable cutting edges produce clean delimited wood at a low operating cost. www.logmax.com

Pierce Pacific

The Pierce Grapple Processor is a revolutionary work tool that offers loading utility and processing productivity in one tough machine. It's the only one of its kind that shovels, sorts, and loads like a grapple—and delimits, measures, and cuts like a processor.

"The Pierce GP is gaining traction among many of our logging customers," says Greg Hildebrandt, Pierce general sales manager. "They're pleased by their savings in time, fuel, labor, and maintenance costs, as well as its productivity levels."

The unique grapple arms offer unprecedented versatility. Built to handle big timber up to 52" in diameter, they're ideal for picking up individual stems as well as handling multiple logs without crisscrossing. Other ground-breaking features 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 merchandise logs with precision accuracy.

The GP's innovative design makes it possible to reposition long logs, handle bundles of short wood, and distribute brush. It can be used with both new and preexisting log loaders, making it economical as well as efficient. The Pierce GP is also economically priced.

"The Pierce GP represents the best of our company's pioneering spirit, innovative engineering, and state-of-the-art technology," says Hildebrandt. "The interest we're receiving confirms our belief that this machine represents a significant industry advance to both large and small logging customers." www.piercepacific.com

QUADCO

QUADCO is the exclusive distributor of KETO harvester/processor heads in North America. KETO is a dangle-mounted processor/harvester with a unique track system giving you ultimate traction on the tree and the best measuring in the industry today. Many improvements have been made over the last few years making KETO products now better than ever. The 660B is capable of handling hard and softwoods while the 870B is designed for the big stuff and is at home in hardwoods as well. The latest features of the 660B and 870B include easy access covers for the top saw, track motor and main valve, a new cutting back edge on the moving knives allowing the head to de-limb in both directions, easy to handle tops, new geometry to aid in reversing, and power-tilt for smooth up and down loading, even during feeding.

The new Technion xLogger computer system for KETO also brings numerous enhanced features including a computerized



sawing function that cuts according to tree diameter and prevents log end splitting, an open concept joystick function for any operator setup, automatic priority preset selections, different display options, very accurate length and diameter control, and many more!

KETO is built in Finland and has produced over 4,000 units making them a proven competitor in the harvesting and processing market. www.quadco.com

Ponsse

The PONSSE H7 harvester head provides enough feed power to handle larger trees. The maximum feed roller opening is 26 inches, and its unique grip geometry makes the handling of large stems easy. The firm grip on trunks and the highly powerful feeding work hand in hand with the feedrollers and blade grip pressure, which can be freely adjusted during operation. Other innovative features include reliable radial piston motors, adjustable grip pressure for initial feed stages, lock connection of feed motors, control functions for front and rear delimiting blades and feed rollers, and controlled feed acceleration and deceleration.

The PONSSE H7's short frame handles curved trees skillfully. It provides a self-adjusting and adaptive feed to the sawing window, which speeds up harvesting and ensures excellent sawing efficiency. The easy-to-use automatic features control the saw motion according to the tree diameter and blade position, guarantee fast cutting, and also increase the service life of the blade and the chain. Saw control calibration is achieved simply by the press of a button. The tilt force and speed are based on its superb geometry. The tilt also allows you to use the floating function. www.ponsse.com

Risley Equipment Inc.

For over 30 years Risley has been providing next generation solutions to the forestry resource sector with its complete line of Cutline® forestry attachments. Attachments are tailored to environmental sustainability, dependability and high productivity with a quality innovative solution, purpose built to your environment.

Risley has many new Cutline® innovations to adapt to authorized OEM Equipment as well as Risley's New integrated man/machine solution; the multipurpose Risley E-clips®. Each of the Cutline® attachments and Risley E-clips Multipurpose machines are available from a 10-ton to 30-ton capacity.

Cutline® Attachments Brands include:

- Harvesting: Rotosaw-Highspeed/Intermittant, wheeled/track
- Processing: Limmit-Treelength/CTL. New, 20 to 30-ton, high production
- Processing: Cobra-Sidewinder, quick attach controlled head, 20 to 30-ton, production
- Harvesting/Processing: Rolly-Barsaw/Rotosaw, controlled head, 15 to 20-ton, high production
- Harvesting/Processing: Rolly Chipper, controlled head, 15 to 25-ton, high production

www.RisleyEquipment.com



Southstar

Southstar Equipment, a Canadian-owned and operated company based in Kamloops B.C., offers a full line of 4-roller processors with the QS series — QS500 22”, QS585 23”, and QS610 24”.

The QS series, with their industry leading multi-stemming capabilities, is changing the game in the processing world. This head gives the contractor the best of both worlds. First, when processing in small diameter tree stands, contractors can see up to a 70 percent increase in production without affecting length quality, and second, when put into the large diameter tree stands, the robust design with its high feed speeds can handle the toughest processing environments.

Southstar, by partnering with DASA Control systems, provides one of the most advanced control and measuring systems around while still being very operator friendly, with detailed production reports to GPS tagging of wood that can be emailed directly to your home computer from the machine.

Features unique to Southstar include hydraulic traction control for feeding large diameter trees, side stepping (allowing operator to independently feed one tree while holding the other when multi-stemming), hose through design (no exposed or hanging hoses from stick to head, extending the life of expensive hoses and less chance of snagging), and a wide frame design for multi-stemming capabilities while giving added strength to the head.

Southstar also features an extreme duty $\frac{3}{4}$ main saw with saw limiting option and a two-year structural warranty. www.southstarequipment.com

Tigercat

The Tigercat TH575 harvesting head is specifically designed for the Tigercat track carriers in harvesting, processing, and debarking applications. The TH575 is best suited to dedicated forestry carriers from 200-300 HP for harvesting softwood and hardwood in the 5-580 cm diameter range. Several TH575 heads are also performing well on 200 to 290 sized forestry-type excavators.

The TH575 has a stronger boxed-design, high-tensile steel structure for high duty cycles. Taper-lock pins, isolation mounted high-flow valve assemblies, clean hose routings, larger feed roll motors, and auto-tension for all main and top saw options provide high uptime and long service life. The patented three-wheel drive system automatically switches between three-wheel and two-wheel drive to optimize traction, feeding power and speed.

A larger diameter-measuring wheel with dedicated hydraulic circuit for fast response contributes to superior length accuracy. The TH575 uses a Motomit IT-E control system with eight species and up to 100 preset selections per species. Full optimization is optional with Motomit IT-J. An optional Dasa 5 control system is in development.

The TH575 has a cutting capacity of 700 mm with an 800 mm cut option. Several options are available, allowing TH575 to perform well in a variety of in-woods and road-size applications. For fast cutting performance, the TH575 is standard equipped with a 0.404” pitch Hultdins Supercut™ 100 main saw with optional 0.75” pitch Supercut™ 300. An optional Hultdins Supercut™ 100 topping saw is also available. Depending on options, the TH575 weighs between 2300 and 2700 kg. www.tigercat.com

Waratah