



TECH UPDATE- GRAPPLES

Amulet

Amulet Manufacturing Company is no stranger to the logging industry. In its 28-year history of attachment design and building, many Amulet products have found their way into the forest.

The recent ups and downs in the forest industry have provided a new challenge to minimize costs while maximizing efficiency and equipment versatility. With this in mind, Amulet developed the G2 PowerClamp thumb. Of the thumb attachments the company has produced, the Amulet G2 PowerClamp progressive-link hydraulic thumb has had the greatest impact.

Designed for excavators from 30,000 to 100,000 pounds, the custom-configured G2 PowerClamp is ideal for use with a quick coupler and, on average, realizes a full 180 degrees of thumb rotation. With this impressive rotation, the G2 PowerClamp thumb can easily reach up a steep hill slope or down into a ravine to maneuver and remove, or place, even the most unwieldy boulders, logs, or stumps.

With its standard Amulet 24-month warranty and heavy-duty rating, the G2 PowerClamp progressive-link hydraulic thumb is said to be just the ticket to maximize excavator efficiency, project after project. www.amulet.com

Caterpillar Forest Products

The Cat GLL B-series grapples are built of high-strength steel and designed to perform in high-volume logging applications. They feature 360-degree continuous rotation and high torque hydraulic motors to deliver the power and control needed to keep the wood moving. Three models give the logger the choice of 52-, 55-, and 60-inch maximum openings. Interlocking legs close down to a minimum of five inches on all three models, allowing operators the ability to easily handle single, small stems.

The GLL B-series grapples feature cylinders with heavy-duty wall construction and built-in check valves for durability and maximum closing power. Heavy-duty slewing bearing and cross port relief protect the hydraulic system even under heavy loads. High strength steel and induction-hardened pins are used throughout the head frame and tongs with reinforcement in high stress areas. Replaceable Hardox strips are used on the tips of the tongs. All pin joints are sealed to keep dirt and debris out of the bearing area, significantly lengthening pin and bearing life. Bolt-on access panels protect hose connections and supply lines, but allow easy servicing. All grease points, the motor, and other serviceable components are easily accessible. Service can be performed quickly from one position, minimizing downtime. www.cat.com/forestry

CWS

Powerclam, butt 'n top and hybrid grapples from CWS are industry leading attachments whether they are being used in Australia, Siberia, or even here in North America.

Rugged, powerful, and sized to machines and applications, they get the job done, safely and efficiently, and make money for loggers, says the company.



The MCD (Modular Component Drive) system delivers optimum rotation torque with time proven reliability. High alloy steel used throughout the grapple gives years of trouble free operation. Attention to design details, such as hydraulic fittings, access and hose routing, reduces the risk of damage and downtime, and makes servicing easy. www.cwsindustries.com

Danzco

Danzco's grapples with pitch bar saws are ideal for hoe chucking duty and are also capable of bucking slash, as well as topping, bucking long butts, and trimming large limbs, says the company.

Danzco offers a standard log loading grapple and a directional falling shovel logging version.

Its slash cutting grapple with disk saws is for production processing at the logging site and for clearing waste used for biofuel production. By cutting logging waste into approximately 5' lengths, the volume that can be loaded into a trailer is almost doubled.

All grapples are built to order and can be customized to fit a contractor's needs. www.danzcoinc.com

Gater Grapples

The Gater Saw Grapple enables compact excavators, skid steer loaders, or rubber tired backhoes to not only clear woody debris but also fall and delimb trees. Its synchronized dual clamp action and 360-degree continuous rotation allow operators to pick up and saw as they go. The Gater Saw Grapple attachment comes in two sizes: 650 lbs (net weight) for 3.5 to 7.5 ton excavators; and 750 lbs (net weight) for 8.0 to 14.0 ton.

The Gater Saw is available on either of the Gater Grapple's current models: 560 lbs (net weight) for 3.5 to 7.5 ton excavators; and 720 lbs (net weight) for 8.0 to 14.0 ton. All Gater Grapple models are made of T-100 steel. The Gater Saw comes attached to the Grapple of choice, ready for use. The grapple also attaches to existing bucket linkage, maintaining full articulation. Each grapple with saw comes as a complete kit, ready to install.

Adding the Gater Saw to a Gater Grapple makes machines a perfect fit for tight access logging applications, landscaping, and debris management projects, the company says. www.gatergrapples.com

Hultdins

The new asymmetrical A-Grapple from Hultdins makes it easier to pick single logs and to organize the pile. It also simplifies work in hilly terrain and the picking of leaning logs. The company says that initial studies done by the Swedish research institute Skogforsk indicate that forwarder loading was 4 to 5 per cent faster and unloading 7 to 8 per cent faster with the A-Grapple compared with a standard grapple.

The arms of the A-Grapple improve the rolling-in of logs into the grapple. With conventional knives, there is always a risk that a piece of wood is clamped between the knives and obstructs the closing motion of the grapple. In contrast, the angled



knives of the A-Grapple feed everything that the tips can grab into the grapple, and the rest is fed out. Therefore, nothing can get stuck between the grapple arms, and the closing motion of the grapple is uninterrupted.

The tips of the A-Grapple have minimal contact surface to the ground, so it brings much less dirt and sand with it than a normal grapple.

The A-grapple is also a very good slash grapple. Since the arms feed the slash either in to or out of the grapple, the branches are well aligned with every grab. Thus the density of the load is increased, and the slash piles become more organized.

www.hultdins.com

Jewell Attachments

Jewell Attachments offers a full line of standard and hoe chucking grapples, designed and manufactured for the harshest forestry applications.

Standard logging grapple sizes offered are 36", 42", 48", 52", and 58"; shovel logging sizes are offered in 52", 55", 63", 66", and 72" arm openings. Grapple arms are designed with mounting lugs for optional bolt-on, quick-change brush rake arms. They are standard on 51", 52", 55", 58", and 63", but others are available upon request.

All Jewell grapples are manufactured from durable high strength T-1 steel, with large diameter induction hardened alloy pins and bushings, heavy duty high pressure bolted head hydraulic cylinders with counter balance style load locks, purpose-built high pressure swivel coupling, Parker rotation motor, Rotek brand slewing ring, and removable guarding for easy maintenance access.

www.jewellattachments.com

Pierce Pacific

For more than 30 years, Pierce has been manufacturing hydraulic forestry grapples utilizing input from loggers. The Pierce twin cylinder forestry grapples feature powerful 360 degree continuous rotation and are multi-purpose for excellent versatility. They feature an optimum leg shape for big wood, tight grapple closure for superior small log control, load check valves to eliminate the risk of dropping the payload, and heavy duty legs that possess the optimum shape for shovel logging, loading, unloading, and sorting.

Recent design improvements include tighter manufacturing tolerances, twice the number of hydraulic swivel retaining bolts, and stronger access cover plates.

Pierce also offers power attachments. They feature powerful 360 degree continuous rotation and are multi-purpose for excellent versatility for machine sizes up to a 400-class machine.



Various tine/arm configurations include: clamshell buckets that allow for efficient road building and excavation; brush rake/grapples that make quick work of brush piling and feeding the chipper; and contractors' 3x3 grapple for precision handling of a multitude of materials.

The standard hydraulic core with a single rotation motor, heavy duty 4" cylinders, an oversized main bearing, and strong abrasive-resistant steel used throughout the structure complete the standard package.

www.piercepacific.com

Rotobec Forestry Attachments

Rotobec offers a wide range of products to the forest industry, from standard log grapples to power attachments and butt 'n tops.

Rotobec log grapples are designed for high performance in intense and even extreme conditions while providing excellent productivity in handling logs and entire trees. They have also proven themselves to be a tough grapple, able to handle the rigors of hoe chucking, with new oversized pins, sealed bushings, and RT series rotations.

The versatile line of power attachments is widely utilized in land clearing, site prep, and grinding applications. Rotobec's power attachment grapples are available in different jaw configurations including rake and bucket versions. They are built with high tensile strength steel with precision machining, and they have a long life with excellent durability, says the company.

Both styles of attachments will also accept the new Rotobec RCH750 saw. The RCH750 saw has a ¾" pitch chain and features a hydraulic saw bar return that is maintenance-free. Other features include automatic chain tensioning, a larger oil tank for chain lubrication, and a built-in feed cylinder. Rotobec uses Hultdins' drive components for proven reliability.

www.rotobec.com

Towtem

The Towtem Articulated Grapple System for excavators and backhoes offers logging contractors the versatility to perform multiple tasks with one attachment. The unique design combines the 360 degree rotation of a clamshell bucket with the articulation (wrist action) of the excavator bucket curl function. The system's capacity ranges from ¼ to 3 yards and features T1/Hardox 400 cutter blades.

The Towtem grapple has been ahead of the trend in terms of being green and sustainable, the company says. When mounted on an excavator or backhoe, the amount of impact on the environment is minimized. The grapple can tuck, turn, and position materials with full control anywhere within the reach of the excavator. This feature is very effective in close quarter work, where accuracy is vital and space is limited.

www.towtem.com



Weldco-Beales

Weldco-Beales Manufacturing (WBM) log grapples are recognized throughout the forest industry as a staple in unloading and loading tree length wood. By using heavy-duty welded box construction in the shoe weldments and overarm, the grapple is capable of maximizing payload while still providing excellent load stabilization in rough and uneven terrain. The grapple effectively handles large loads while retaining the finesse necessary to sort individual logs.

The WBM grapple features a proven profile, enclosed dual cylinders, and open centre section with guarding.

WBM designs and manufactures specialized heavy equipment attachments for OEM dealers dedicated to servicing not only the forest industry, but also construction, resource, mining, and road maintenance industries. With over 65 years of industry experience, WBM has designed and manufactured quality attachment solutions for all makes and models of heavy equipment.

www.weldco-companies.com