



## **TECHUPDATE - Millyard Equipment**

*By Tony Kryzanowski*

### **LeTourneau Technologies**

Since the 1950s, LeTourneau Forestry Products has been meeting the material handling needs of the forest industry with new, rebuilt and used log stackers. In addition to equipment, the company provides parts and service for the existing fleet of log stackers in the Pacific Northwest and British Columbia. These machines offer advanced designs, high reliability and solid performance even in the most demanding conditions, says the company.

All LeTourneau Forestry Products machines are built from the ground up at the Troutdale, Oregon facility, where high levels of craftsmanship and quality assurance contribute to long equipment life.

LeTourneau is continuing its efforts to improve the production and functionality of its log stackers in any log yard. The maximum travel speed for its 3594 log stacker has been increased by 17 per cent to 14 mph, and it is now able to attain that speed 50 per cent faster. The hoisting speed is 100 per cent faster at 60' per minute, compared to the previous 30' per minute. Cycle time has improved 80 per cent through increased hoist and grapple speed, says LeTourneau. In addition, the optional 101 or 124 cubic foot grapple system allows single pass unloading on highway or off, even for crowned loads.

[www.letourneau-inc.com](http://www.letourneau-inc.com)

### **Caterpillar**

Caterpillar builds machines for handling everything from logs, chips and scrap to finished products in a range of sizes to fit any millyard.

Forest industry operations can unload trucks in a single pass or sort wood with Cat wheel loaders. Caterpillar offers over a dozen models that feature log handling packages with larger lift and tilt cylinders, heavier counterweights, heavy-duty transmissions and joystick steering with single axis lever controls for precise log handling.

Cat FM equipment incorporates Caterpillar's excavator technology into a machine designed for many material handling tasks. With the lift capacity and strong swing torque, cycle times are fast and trucks can be moved in and out of the yard quickly.

For large millyards, Cat wheeled material handlers cover ground quickly. Logs can be high decked to shrink a woodyard footprint and reduce transport distances. Long reach booms allow operators to pile higher and cab hydraulic risers give them a bird's eye view of the yard.

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



## **Liebherr**

The Liebherr L 580 wheel loader in Log Handler format has been developed especially for operations in the timber handling sector.

The newly designed lifting gear means that the logs can be taken up from above at a great height, which makes the Log Handler particularly well-suited for work such as the loading and unloading of trucks or feeding bark removal and sorting installations. The grab can be rotated through 360 degrees as well as pivoting forward and backward. Depending on the requirement, a very wide range of shapes and sizes of grab and grapple tools are available.

The driver's cab has a roof window, fitted as standard with a protective grille, to provide the best possible view upwards. The protective grille for the front windshield is integrated directly into the lifting gear.

Like all Liebherr wheel loaders, the new Log Handler has a stepless hydrostatic drive system, which achieves impressive fuel savings. Other advantages are the practically wear-free service brake and the extremely low tire wear.

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

## **Mussell Crane**

Mussell Crane Manufacturing is among the industry leaders in custom built material handling equipment.

Located in Chilliwack, B.C., they have supplied quality cranes and equipment to the forest industry for over 23 years. A trailer reload was installed at the Weyerhaeuser sawmill in Princeton, B.C. last year. The custom 12-tonne capacity trailer reload is equipped with a Stahl true vertical lift hoist and a protective housing that shields the hoist and electrics from harsh elements.

All stages of a new project, from the initial design, fabrication and machining, to the final on-site installation, are performed in-house, allowing Mussell Crane to provide the most comprehensive and cost effective service.

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

## **Komatsu**

Komatsu offers two versatile loaders equipped with high and wide undercarriages, long reach, powerful swing torque, and optimized hydraulic systems. The new forestry cab is spacious, quiet and comfortable.

Komatsu's PC240LL-10 weighs 83,985 lbs and has flywheel horsepower of 177 horsepower, coming from a Komatsu SAA6D107E-2 engine that is EPA Tier 4 Interim emissions certified. It offers five per cent more horsepower while decreasing fuel consumption up to 10 per cent compared to the PC220LL-8.



The PC390LL-10 weighs 106,920 lbs. It has flywheel horsepower of 257 horsepower, which comes from a Komatsu SAA6D114E-5 engine, EPA Tier 4 Interim emissions certified. The engine has five per cent more horsepower, seven per cent greater displacement and up to 10 per cent lower fuel consumption than the PC350LL-8.

Major options include 48” and 7” cab risers, live heel forestry booms, and multiple excavator booms and arms.

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

## **Tanguay**

The reliable Tanguay electric loaders are known for their low operating cost and long life.

The large 72” X 60” ergonomic cab with plenty of room for extra screens and mill controls creates the opportunity for a single operator to look after additional mill processes. They have up to 19,500 lbs of lift capacity at 30’ with the standard 44’ reach booms.

Tanguay offers custom booms and a wide choice of attachments to handle all types of wood and general material.

Mounting base options include single pedestal, dual pedestal and the flexible rail trolley to increase working range and wood storage area.

Tanguay offers a choice of 150 to 200 horsepower electric motors with electrical wiring packages to suit world-wide electric services. Experienced Tanguay people work with customers to optimize loader location and boom geometry to maximize production.

[www.tanguay.cc](http://www.tanguay.cc)

## **Terex Fuchs**

The Terex Fuchs MHL350 E HD log handler boasts a purpose-built undercarriage design and reach configuration to increase log handling efficiencies at the mill yard.

The rugged undercarriage includes a broad outrigger base of 17.4’, 10 per cent wider than a standard MHL350 E, for excellent stability when loading and unloading trailers or charging the infeed deck. Independently controllable four-point stabilizers deliver exceptional machine support on uneven terrain, while broad 16.9” X 23” stabilizer plates spread machine load over a large area.

The MHL350 E HD’s boom/dipperstick combination offers a 45.9’ reach configured specifically for high volume log handling. It is capable of lifting up to a 15,600 lbs load at a 30’ reach, and a variety of pulpwood and combination grapples are available to tailor the machine to meet specific log handling requirements. Attachment live-heel operation is conveniently controlled via a foot pedal inside the operator’s cabin.

[www.terex.com/construction](http://www.terex.com/construction)



## **Tigercat**

The Tigercat 880 logger is a multi-purpose, no compromise carrier purpose-built to eliminate the design compromises found in excavator conversions. The upper frame assembly and undercarriage are designed for full forest duty or mill yard use.

The cab forward design combined with the main boom curvature provide excellent visibility throughout the operator's working sightline. The expansive, comfortable, ergonomic cab interior is designed to minimize operator strain and fatigue during long shifts.

One of the innovative design features of the new 880 is the closed loop swing drive system. This system eliminates energy loss from swing relief valves during swing acceleration and recovers energy stored in the swinging boom and upper frame assembly during braking.

Georgia-based Battle Lumber Company has purchased two 880 loggers, custom-designed with a slasher saw hydraulic system and a Rotobec live heel grapple, for cross-cutting, sorting and stacking logs in the mill yard. According to Tigercat, Thomas Battle, operations manager of Battle Lumber Company, has been very pleased with its performance so far, commenting: "This machine is very good for millyard applications. I plan to buy many more for the same purpose in the near future."

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

## **Sennebogen**

With a starting lineup of 10 basic models, Sennebogen offers among the widest choice of purpose-built log handlers.

This range, from 44,000 to 89,000 lbs, is expanded even further when taking into account the choice of mobility platforms and optional boom and stick configurations. Sennebogen's modular engineering and manufacturing concept make it easy for customers to have their log loaders built to suit any application or log yard without the additional cost of custom building.

While every Sennebogen material handler is designed to serve multiple jobs, the 830 M-T is uniquely engineered for heavy-duty trailer pulling. The undercarriage of the 830 M-T provides the extra strength and rim pull to pull trailer loads up to 100,000 lbs. Its front and back axles are each equipped with their own transmission to share the load stresses. The dual transmissions ensure longer service life and provide true all-wheel drive to pull trailers through heavy mud and steep grades.

Built to lift maximum loads through 360 degrees of swing, every Sennebogen machine allows operators to pick faster, carry more and stack higher with minimal maneuvering between or around stockpiles, says the company.

[www.sennebogen-na.com](http://www.sennebogen-na.com)





## **Volvo**

The Volvo L110H wheel loader features a Tier 4 Final/Stage IV-certified engine and improves fuel efficiency by up to 18 per cent with the OptiShift transmission.

The inherent fuel efficiency of the Volvo D8J engine is enhanced by the well-matched Volvo powertrain and intelligent hydraulics, which only supply power on demand. The load-sensing hydraulics also ensure fast response for outstanding control over the load, and shorter cycle times. Another intelligent feature, the Reverse-By-Braking (RBB) function, automatically reduces the engine rpm and applies the service brakes when the operator changes the direction of the machine. This not only conserves fuel but also reduces stress on the drivetrain, thereby extending component life.

Volvo OptiShift technology combines the RBB function with a lock-up torque converter to create a direct drive between the engine and transmission, eliminating power losses in the torque converter and reducing fuel consumption by up to 18 per cent.

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

## **Konecranes**

Konecranes acquired the Morris material handling line of P&H brand log handling cranes in 2006 and is a leader in log handling crane technology and product support.

Products include conventional straight track portal cranes with spans from 100' to 250', rotating portal cranes and log boom type cranes, all available in one-bite and two-bite design.

Konecranes log handling cranes feature the latest technology for safe operations, ergonomics, control efficiency, diagnostics, and inventory management. Konecranes service branches are located across the U.S. and Canada, so technicians are only hours, if not minutes, away when needed, says the company. Konecranes offers operator, maintenance, and inspection training classes, and provides a complete log handling system from start to finish.

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