

CAT Forest Products Announces Updates To Fixed Processing Head Favored In Lake States

Caterpillar’s fixed, four-roller processing head, the PF-48, has recently been upgraded and the latest round of updates just went into production. The PF-48 was first introduced as a Fabtek product and has been a staple in Lake States cut-to-length logging for 14 years. This 18-in. head is now manufactured by Cat Forest Products in its Prentice, Wisc., facility.

New PF-48 heads are available through Wisconsin and Upper Michigan’s Caterpillar® Dealer, FABCO Equipment Inc. FABCO is a major supplier to the forestry industry with forestry-focused locations in Marquette, Green Bay, Wausau and Superior. In addition to logging system solutions, FABCO rents, sells and services the full line of Caterpillar machines, engines and generators throughout the region.

Justin Schmidt, a product specialist for Cat Forest Products, talks about the updated PF-48:

What is the PF-48 designed to do?

The head is ideal for select hardwood cutting. It gives loggers a lot of control, so they can harvest the trees that need to be removed and not damage younger hardwoods.

Why do Lake States loggers like this head?

The PF-48 is popular in this area because it’s a very robust head that has a long service life and is simple to operate. The hydraulics and valve body are mounted on the carrier — not out on the head getting slammed into the ground and taking the abuse. Not having the electronics or valves out on the head makes the head more reliable and increases the uptime. The computer system is straightforward, without a lot of bells and whistles that would make it complicated to operate. No

other major head manufacturer makes a fixed head quite like this.

Why were changes made to the head?

Customers asked for these changes and FABCO listened. Since taking on the cut-to-length products, FABCO has been very good about communicating their customers’ needs and desires to Cat engineers and product specialists. This helps us make valuable changes to the product.

In general, what changed?

Most changes are directly related to increasing uptime on the head. We took a good product and made it better.

Let’s get into the specific updates.

First, we made a number of changes to beef up the structure and increase the head’s service life. For example, we lengthened the knife cylinder pin by 3 inches so that it anchors into the frame. This dissipates the stress that could cause cracking in the knife cylinder mounting. The new pin can be retrofitted on existing units, too.

Also to reduce the chance of stress cracking, we added a kicker plate to feather the angle where the saw box joins the center portion of the frame.

We made several improvements to the saw cover: Increased the thickness to reduce damage from impacts such as falling limbs, modified the overall design to prevent wood chips and debris from funneling inside, and increased the size of the access hole on top to allow operators to easily reach inside to adjust the saw flow.

Were any changes made to the measuring system?

We removed the IMD [Independent Measuring Device] cylinder, which was a redundant system for



Justin Schmidt is the processing heads product specialist for Cat Forest Products.



The updated PF-48 fixed processing head, shown here on the Cat® 501HD track harvester, now features a 4-1/2 gallon bar oil tank and other changes designed to increase uptime.



The PF-48, a fixed processing head popular with Lake States loggers, has recently been updated to increase service life and productivity. The robust, simple-to-operate head is shown here mounted on the Cat® 550 rubber tire harvester.

holding the measuring wheel in contact with the tree. The spring does the job, provides good accuracy and is reliable, while the cylinder added complexity and components.

We also replaced the IMD ball bearings with sealed bearings. So even if the cover on the measuring wheel gets loose or is punctured, the IMD will not lose oil. This improvement increases the service life of the bearings and the measuring wheel.

How about the rollers?

Thumbnail rollers are now standard, rather than spiked. Specially designed thumbnail rollers provide substantial grip of the tree without puncturing it like spiked rollers, so the logger can deliver a higher quality product to the mill. We will still offer spiked rollers as an option for those loggers who prefer them.

We also modified the design of the walking beam — the plate that the rollers are mounted to — to prevent the upper rollers from coming in contact with each other.

What other significant changes were made?

We increased the capacity of the bar oil tank by 2 gallons, so the head now holds 4-1/2 gallons total. That means the operator does not have to carry as much oil with him in the cab, and he doesn't have to stop midday and refill the bar oil. We also have a new sealed oil cap with an attached chain so you won't lose the cap out in the woods. A new remote breather tube that improves the flow of oil to the oiler was added, too.

Another change was made to the O ring behind the brass pucks in the auto tensioner. In cold weather, we found that it could allow oil to seep out, so we created a new double O-ring design. The second ring catches any oil that might get past the first ring.

What other changes to the PF-48 are on the drawing board?

One patent pending design that is in field testing now is a unique feed roller length measuring setup for the PF-48 that will replace the current setup and can be retrofitted to existing units. The new design will provide increased encoder reliability and serviceability by embedding the encoder in the motor housing and eliminating the need for the aluminum manifold off the back of the motor. The new design also requires "zero" contact with any components thus improving the reliability of the measuring system even further.

What other processing heads does Cat Forest Products offer — especially for the Lake States logger?

The company offers a complete line. The PD-46, for example, has gained quite a following in the Lake States. It is a versatile dangle head for harvesting and processing mixed hardwood and softwood. A scaled-up version of this, the PD-57, has many of the same features of the PD-46 and works great for harvesting larger wood. This head is also undergoing a facelift now that includes a rotation stop, improved structures for the frame and upper knives, heavy duty valve mounting brackets and improvements to the saw system to increase uptime. These and a few more will be implemented in early 2009.

