Roller-Chopper Makes Land Clearing Fast

By Janis Schole, Contributing Editor

With the right equipment, land clearing is simple and economical, according to Steven Reeves of Delta Junction, Alaska.

He uses specialized machines to make fast work of tree removal.

"Land clearing is my specialty. I've been doing it for 35 years. As far as I know, I'm the only person in Alaska who has a roller chopper like this one. It's for chopping up downed timber. I bought this one, but have seen people make them themselves," Reeves explains.

The roller chopper works in conjunction with a tree pusher that uproots trees. It's pulled behind a Cat with a winch and a special block.

Reeves' tree pushing mechanism, manufactured at West Plains, Mo., mounts on the front of his dozer blade and "makes a D8 out of a D6."

It's a lever that sticks out above and beyond the dozer blade and reaches up about 12 ft. on the tree. According to Reeves, it pushes the tree over with the entire root wad intact. The tree pusher is designed to be up out of the way so as not to interfere with use of the blade to move dirt. He says it can also be used like a small crane.

"The tree pusher keeps the brush from coming over the top of the blade" he says.

Reeves brought his roller chopper up from south Arkansas, to Fairbanks in February of 2004.

"We use them all the time down in Arkansas. They're kind of strange to people in Alaska, though. Mine is a gigantic 12-ft. wide roller with a drum diameter of 72 inches," he explains. "The drum is made from 1-in. thick steel. It has 12-in. tall blades on it that are 1 in. thick and made from a special alloy steel."

When the 2,000-gal. drum is filled up with water, it weighs 44,000 lbs.

With the tree pusher on the front of the Cat, and the roller chopper pulled along behind, trees are leveled and chopped up into smaller pieces to dry, all in one pass.

"Fire is the best control of timber, and the roller chopper prepares the downed timber for burning," Reeves explains.

The unit works best on trees of a 5-in. dia. or less, but Reeves has pulled it over trees that are 24 in. across.

"If your bulldozer will go over it, it will follow. It turns them into 22-in. sticks of firewood. It looks just like a tornado or hurricane has hit," he admits. "But it's the cheapest way to clear land known to me, and when you're done burning the debris, you can usually drive your pickup over the land."

Before burning, he lets the chopped timber dry for three to six months.

"If you start your burn at a certain time of the day, when the weather conditions are right, you'll have a completely cleared piece of property," he says. "The beauty of it is the economy of it. With this unit, I can clear land for $200 per acre, compared to $2,000 per acre to push it up into piles," he explains.

Steven Reeves uses a heavy-duty roller chopper to break up downed timber. It works together with a tree pusher on his Caterpillar.

Reeves says he charges according to the size and type of job. For an average job that's 40 to 80 acres, he'll charge between $200 and $250 per acre.

Reeves says this creates a totally different type of fire than there would be with brush piles. It's a fast-burning fire that's done in one to two days.

"It's all in knowing how to chop the timber and how to burn it. There's a certain art to it that you have to follow precisely or else it will turn into a mess," he says.

"A fire makes its own wind, and in this case, it does this from all four sides, so when it gets to the center, there's a tremendous amount of heat and wind - it just goes straight up like a chimney, and after an explosion of sorts, it's over and out. On the last half of a 40-acre square parcel things are happening really fast. Ash, embers, burning leaves and twigs get caught in this updraft, and it throws them way up high in the atmosphere. By the time it can get back to earth, it's burned up and cooled off."

Reeves says that it's hard to convince people that this system works unless he gets them to witness it.

He can easily clear 20 acres a day this way, pointing out that the burn pile method is considerably slower, at only about three acres a day.

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"Haul It All" Plastic Cargo Sleds

Need to move something across snow? These Alaska-made sleds fashioned from UHMW plastic are being used for everything from family snowmobile trips to towing 25-ton tractors across ice and snow.

David Doudna of Northern Sled Works says, "I wanted a sled for winter camping with my family. One thing just led to another."

The cargo sleds have a flexible tow bar system and a reversible spring-loaded hitch. Doudna began marketing them part time, gradually adding new models with optional hardwood ash trim, wooden floorboards, and full or half-length UHMW runners.

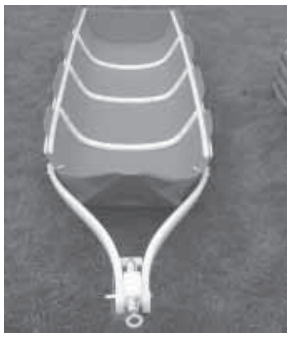
"Most molded sleds are either low density or high density polyethylene, but they can't withstand the cold," says Doudna. "They hit a rock or stump, and it tears the bottom out. The UMHW can withstand temperatures down to 60 degrees below and is durable."

Doudna's sleds range from a 4-ft. long model designed to be pulled by hand to a 10-ft. long, 42-in. wide model designed to be towed by machine.

The 1/8-in. UHMW material used in the smaller models can be bent to fit the load or even rolled up for shipping. Sleds made from 1/4-in. UHMW poly come with triangular tongues for pulling behind snowmobiles. A single 30-in. piece of galvanized steel angle iron in the middle of the rear keeps the Siglin sleds tracking straight down ice and across steep side hills.

Alpine Toboggans are also made from 1/4-in. UHMW but are reinforced with higher sides and a semi-prow front. The high sides keep the load secure while preventing snow from flowing into the sled. They're available in 7 and 9-ft. models with widths of 30 and 36 in.

The most exotic yet simple models made from UHMW poly are the Rescue Sleds. Each set is custom made. The first set was made at the request of a research team in Antarctica.



Made from UHMW plastic, cargo sleds have a flexible tow bar system and a reversible spring-loaded hitch.

Already customers of Doudna sleds, they knew the benefits of UHMW on snow and ice. They were planning a three-year expedition to the South Pole with heavy track tractors pulling research labs. Knowing they couldn't leave a tractor behind if trouble developed, the project manager approached Doudna.

Together they developed 1/2-in. thick UHMW sleds that are wide enough to wrap under the tractor tracks and part way up their sides so they could be tied in place. At one point, a Case Quad Track tractor developed fuel injection problems. It was loaded on the sleds and towed until parts could be delivered by air. "The 51,000-lb. tractor on the sleds didn't sink in like the tractor pulling it," says Doudna. "The sleds just float across the snow."

Prices range from $165 for a 4-ft. sled to $1,095 for a 9-ft. by 36-in. Alpine Toboggan.

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Sleds made from 1/4-in. UHMW poly come with triangular tongues for pulling behind snowmobiles, ATV's and other machines.

UHMW poly stays flexible at temperatures down to 60 degrees below zero.

A set of "Rescue Sleds" was custom-made for a research team in Antarctica as a way to tow tractors over snow and ice.