



Floats between duals on Finnish-built tractor let it float on water.

Floating Tractor Hits The Market

What may be the world's first commercially available amphibious tractor recently came on the market thanks to a Finnish company, Pekeija Ltd.

The company modified a Valtra C150 tractor and a 12-ton trailer made by Junkkari Ltd., also from Finland.

Pekeija Ltd. proved in extensive testing that



A hydraulically driven, 12-in. dia. propeller helps propel and steer tractor.

the tractor-trailer prototype is balanced and safe in water. The tractor is fitted with dual wheels. The add-on floats are positioned between the duals. They did not increase the overall width of the unit.

A hydraulically driven, 12-in. dia. propeller mounts between the tractor's front wheels. It helps propel the tractor, along with the tires, and is used to steer.

The trailer is also fitted with floats, and, while in water, its capacity is limited to 6 tons.

Pekeija Ltd. says, however, that the unit will be most popular in low water, like that found in the following operations: rice or cranberry production, peat moss harvesting, cleaning operations such as collection of waste oil, and cutting the overgrowth of grass on the bottom of lakes and rivers. Also, farmers who have fields on the other side of a river or any body of water, no longer need to use a bridge, but can just drive through the water.

"Finland has thousands of lakes and, in the wintertime, we make roads on the ice by



Company also offers a floating trailer for use with tractor.

cleaning the snow to replace ferry connections," says one of the company's designers. "Our innovation will increase safety because if the ice breaks, the tractor will float."

The actual floats are made from steel and rubber. Pekeija Ltd. has also designed floating trucks, cars, snowmobiles, and many other vehicles. Military applications are also an option, since the company's patent includes all vehicles.

Top speed in water is about 9 mph.

The Valtra C150 tractor and trailer combination sell for \$135,000.

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Ron Kile cut this tractor in half to convert it to articulated steering. He built a front-end loader to fit the big tractor.

4-WD Converted To Articulated Steering

Ron Kile wanted to put a loader on his 4-WD Case 2470 tractor. But the big tractor had duals all the way around and crab steering, which would have bumped into any kind of loader he tried to put on it.

Kile decided the best way to turn the 200-hp tractor into a loader tractor would be to convert it to articulated steering with an oscillating hinge.

By using another articulated tractor as a guide, he accomplished the task in about a month's time. He built the loader, too, and that took an equal amount of time.

With cutting torch in hand, the Rosalia, Wash., man split the 1970's era rig in half, cutting it right behind the cab. He had to do some calculations on a drawing board to figure out exactly where to put the pivot point.

He reworked the two halves of the tractor so that the front and rear wheels are locked in a straight forward position. And he had to

install a universal joint in the drive line and cylinders on each side of the pivot point.

"To accommodate the articulation point, I had to lengthen the frame of the tractor 24 in. This actually allows a tighter turn radius. You can go to a 40° angle on both the left and right side. The tractor originally had crab steer capability but all it did was dig trenches," Kile says. "Articulated steering works much better."

His "made it myself" quick detach loader has a self-leveling bucket. The bucket is 10 ft. wide, 30 in. tall and 34 in. deep. The lift height is 15 ft.

The project cost about \$8,000, including his labor.

"It works good and I use it a lot," he says.

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Home-built articulation joint lengthened tractor's wheel base by 24 in.

Bale Spear "Hole Maker"

"Last summer we couldn't drive steel posts into our dry, hard, rocky ground. The posts would just bend. So we used a broken bale spear and a steel pipe to open up holes where we could drive the posts," says Jimmie Blades of Billings, Mo.

He welded a 2-ft. length of bale spear inside a 5-ft. length of 3/8-in. thick steel pipe. A 2-ft. length of chain attaches to a hook that's welded to the top of the pipe.

The spear is placed under his 3-pt. post driver's hammer and driven into the ground. Once a hole is made, the chain is hooked to the top of the post driver to pull the spear back out of the ground. Blades then sticks a post in the hole and uses a hammer to tap it in by hand.

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Bale spear welded to pipe punches holes in hard ground for fence posts.

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