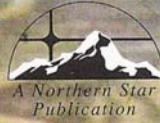


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# Land Tamer:

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Heavy-Duty, Amphibious  
Remote Access  
Vehicle Available

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# Land Tamer

Most Versatile, Most Extreme, Heavy-Duty, Amphibious Remote Access Vehicle Available

From the Arctic to South Africa, Europe to China and throughout North America, the Land Tamer® ATV and RAV (Remote Access Vehicle) has capabilities way beyond typical all-terrain vehicles.

Over the past decade, the Land Tamer, from PFM Manufacturing, Inc. of Townsend, Montana, has evolved to what is now the state of the art in amphibious off-road vehicle design. The Land Tamer can be found around the world in heavy-duty working applications such as oil and gas exploration, seismic, search and rescue, disaster relief as well as military and homeland security.

As everyone in the oilpatch knows, access to oil and gas resources can be extremely challenging. The Land Tamer OG is designed specifically for the swampiest or deep snow conditions with the comfort of an air-conditioned or heated cab. Low maintenance gives you peace of mind when working deep in the bush.

Key features of the Land Tamer OG are:

- Hydraulic/gear drive system. No chains! More reliable than chain-drive vehicles that require frequent and ongoing maintenance.
- Powered by either a 80-horsepower turbo diesel or 91-horsepower gasoline engine, providing ample power that recreational ATVs and UTVs can't match.
- Quick-disconnect attachment fittings make it easy to interchange attachments (i.e., 3-point hitch, blade, winch, etc.).
- Cargo capacity: 1,600 pounds for the 6x6 and 2,000 pounds for the 8x8.
- Drive: Hydrostatic with sealed gear drive system and hydraulic power take-off with quick disconnect couplers.

- Steering & Electrical:
  - \* Single T-handle controlling all driving functions or electronic-controlled pumps for robotic applications;
  - \* 33" tall x 12.5" wide -15" rim Ag Tractor 8-ply tires;
  - \* Control panel with oil pressure, temp, amp, tach and hour meter;
  - \* 12 volt bilge pump, 2 seats with driver on either side.
- Body:
  - \* Marine grade 6061 aluminum construction;
  - \* Full belly skid plate of 3/16" aluminum;
  - \* Dual headlights and taillights;
  - \* Front and rear carrying rack and hitch receiver.

## Storied History

PFM Manufacturing, which was founded by **Patrick F. Miller Sr.** in 1998, was successful in developing, patenting and introducing the new Land Tamer 6x6 ATV to fill a niche in the marketplace for a heavy-duty, low-impact, commercial grade amphibious all-terrain vehicle.

As the company's commercial market grew for the Land Tamer ATV, it became apparent that a larger Land Tamer ATV was needed. In 2000 the Land Tamer 8x8 model was introduced to fill the need for a heavier hauling amphibious vehicle. In conjunction with introducing the Land Tamer 8x8 ATV, commercial customers demanded a diesel model. Consequently, in 2001 PFM introduced the first diesel engine powered Land Tamer 8x8 ATV.

"The Land Tamer has vastly superior capabilities over typical ATVs on the market, and it was found that referencing this superior vehicle as an 'ATV' simply did not do justice to the Land Tamer capabilities," he explains. "Therefore, a new name reference was needed to differentiate the Land Tamer from the typical ATV."

In 2005 the name "Remote Access Vehicle" (RAV) was chosen to differentiate the Land Tamer from other less capable ATVs. Coinciding with the new name reference were new design improvements and upgrades to the vehicle that made it even more capable and more versatile than ever before.

"The new 2005 Land Tamer II RAV featured taller, more durable truck or Ag tires, higher ground clearance, larger cargo capacities and a sealed hydraulic gear drive system," he says. "Other upgrades included a simple to use T-handle or electric joystick control, and a more powerful, external-mounted water propulsion system."

## No Drive Chain

Mr. Miller Sr. was the chief designer and builder of the original 6x6 amphibious vehicle that eventually evolved into what is today called Land Tamer Remote Access Vehicle. He is joined by **Kirk Flynn**, also a mechanical engineer, who is charge of constant improvement and excellence, and **Patrick Miller Jr.**, Director of Marketing and responsible

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for growing the niche market of the high-end amphibious vehicles.

The Land Tamer utilizes a hydraulic/gear drive system, which requires virtually no regular maintenance or adjustment.

All wheels, which are connected in a high-quality sealed gearbox located inside the hull of the vehicle, are coupled to a drive shaft connecting all wheel axles of each side and driven by one heavy-duty hydraulic drive motor for each set of wheels.

This is a much more efficient means of delivering power to the wheels when compared to hydraulic vehicles that have a hydraulic motor for each wheel. The Land Tamer's drive system components are much better protected from the elements such as water, mud, dust, rocks, etc., which can damage exposed hydraulic motor seals on other machines.

The Land Tamer maintenance requirements are a fraction of the maintenance needed for other recreational type amphibious vehicles that have drive chains. There are absolutely no drive chains to adjust as with some other recreational type light-duty amphibious vehicles, which require many hours of maintenance and have a short vehicle life.

With the Land Tamer you only have to check your oil, filters and grease your bearings, and you are off and running saving countless hours of maintenance time. This means money saved over the life of the vehicle and should be factored into the total investment in the Land Tamer. ▣

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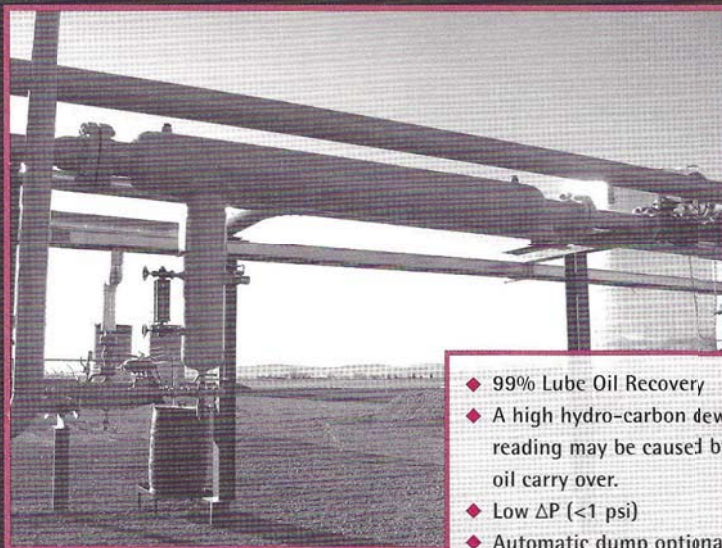


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# QA

## You ask the questions and the team at PFM Manufacturing provides the answers

**Q:** How does the Land Tamer's hydraulic gear drive system work?

**A:** The Land Tamer's hydraulic gear drive system utilizes the proven benefits of a closed loop hydraulic drive system that is found in mobile and construction equipment applications, such as skid steer loaders, etc.

**Q:** What is a closed loop hydraulic drive system?

**A:** Closed loop system means that hydraulic oil flows from a pump to drive a motor and back to the pump completing the loop. Most closed loop drive systems utilize a variable flow displacement pump that flows to the drive motor. Nearly all the hydraulic oil flow from the pump drives the hydraulic motor in a closed loop system, but a small percentage of the hydraulic oil is redirected through a cooler and back to the tank.

The Land Tamer utilizes commercial grade, made-in-America Eaton hydraulic tandem pumps and motors, in which one pump drives the left motor and the other pump drives the right motor. The left drive motor delivers torque to the left side wheels and the right motor drives the right wheels. The benefits are proven reliability and availability.

**Q:** How is the torque delivered from the hydraulic drive motors to the wheels?

**A:** A pair of powerful Eaton 6000 Series hydraulic motors is connected to parallel reduction gearboxes that are coupled to a set of right-angle gearboxes at each axle on each side of the vehicle. This parallel gearbox is coupled to a common drive shaft that supplies equal torque to all axles on each side of the vehicle.

Benefits – this system allows maximum torque to all wheels no matter which tires have the most traction with the ground. Maximum torque from the engine and pumps can be delivered no matter how many wheels are off the ground as when crossing ditches or large obstacles. Virtually no maintenance or adjustments are required.

**Q:** How does the operator drive the Land Tamer?

**A:** All driving functions, forward, reverse, right or left turns, are achieved with our unique proprietary single T-handle controller. Pushing the T-handle forward moves the vehicle forward. The farther you move the T-handle forward the faster the vehicle goes. To travel in reverse, you pull the T-handle back and to turn left or right one simply twists the T-handle right or left to whatever degree of turn you desire.

This system allows for zero turns in which one set of wheels rotates forward at the same time the other set of wheels rotate backward, allowing for 360 degrees on the spot turns.

Benefits – the Land Tamer is very simple to drive. One hand is all that is needed to operate the vehicle and it frees up the other hand for work applications, like holding a weed spraying nozzle or a fire spray nozzle, etc.

**Q:** Why is the Land Tamer's Hydraulic/Gear Drive System better than any other amphibious vehicles which use drive chains or hydraulic gear motors on each axle?

**A:** The main disadvantage of chain drive vehicles is that they require much adjustment and maintenance. They may be okay for a weekend recreational vehicle, but they simply do not





hold up for the working outdoorsman who needs a seriously reliable vehicle with low maintenance.

The Land Tamer's proven hydraulic/gear drive system is the only way to go. It is very efficient, easy to drive, built for heavy-duty commercial work, very low maintenance and built to last. The Land Tamer is hands down the best in amphibious vehicle design and in a league of its own. But don't take our word for it, ask our customers!

**Q:** What are my options for an engine and the advantage of each one?

**A:** You have your choice of the 60-HP Kubota Turbo Diesel, 80-HP Deutz, and 91-HP Zenith fuel injected gas/LP engine for our full size models. The RS (reduced size) model comes with a Kohler 40-HP V-twin gas engine standard or optional diesel engine.

In most cases the 60-HP Kubota will provide enough power for most slower moving applications. However, if the primary application is traveling faster on swamps or snow covered ground with tracks installed, then we would recommend the 80-HP Deutz or the 91-HP Zenith engine. These bigger displacement engines will provide the raw power needed to power through the toughest conditions.

**Q:** What is the 3-Point Hitch system and what can I use it for?

**A:** Our optional 3-Point Hitch turns the Land Tamer into a full-fledged tractor and adds a whole new dimension of work applications never available before for an amphibious vehicle. To our knowledge, the Land Tamer is the only amphibious tractor manufactured in the world.

The 3-Point Hitch allows the owner to attach to the front or rear of the Land Tamer any Category 1- 3-point hitch farm attachment. These include a snow blade or snow blower for winter use, or a rotary mower, post hole auger, lifting device, generator or just about any after-market farm equipment available by any farm equipment manufacturer rated as Category 1. This adds to the Land Tamer's four-vehicles-in-one-concept – serving as boat, ATV, snowmobile and tractor. No other vehicle has this much versatility.

To find out more or to see a video of the Land Tamer in action, visit [www.landtamer.com](http://www.landtamer.com) or call 406-266-5148. And for Canadian distributor information, call 406-266-5148. ▣

