



"Sidewinder" has crab steering, a body supported by a computer-controlled air bag suspension system, a wheel base that extends on-the-go, and a homemade cab with a pair of air-cushioned seats in front.

"Made-It-Myself" 4-Wheeler Uses Off-The-Shelf Components

"It's built tough but rides like a Cadillac and is very maneuverable. I made it from off-the-shelf components so it didn't cost much," says Alec Yeager, Hendley, Neb., about his home-built 4-WD all-terrain vehicle.

The "Sidewinder," as he calls it, has a number of unique features that make it extremely maneuverable. Those features include:

- Crab steering, which allows both the front and rear axles to steer separately. As a result, the machine can move down the road almost sideways.

- A body supported by a computer-controlled, air bag suspension system. By pressing a button, the driver can adjust the air bags to tilt the vehicle's body up, down, left, right. Or, he can raise or lower the entire vehicle up to 1 ft.

- A wheelbase that can be extended on-the-go. The rig's frame is "sleeved" and can be moved back and forth by operating a pair of hydraulic cylinders, allowing wheelbase length to be adjusted anywhere from 112 to 130 in. without the driver ever having to get out of the cab.

- A homemade cab that sports a pair of Bostrom air seats in front with a bench seat in back built over toolboxes.

"It's cool to watch and even cooler to drive," says Yeager. "It was one of those rare projects where the result exceeded my expectations."

The vehicle is built mostly out of standard round, square and rectangular steel tubing and sheet metal. It's powered by an LS1 Chevy Vortec engine that's connected to a 700 R4 transmission. An air conditioner compressor is used to supply the air bags.

He started with a pair of frame rails and the front steering axles off two Chevrolet 1-ton, 4-WD pickups. He rebuilt both axles and mounted one several inches ahead of its original position on one frame to serve as the front axle. He mounted the other axle the same way in the front section of the other frame to serve as the rear axle. Then he cut off about 3/4 of the rear portion of each frame rail. Rectangular tubing was welded to each axle, resulting in a "Y" design. A driveshaft equipped with 25 in. of splines supplies power to the rear axle.

He used rubber conveyor belting to make the fenders. A friend painted the body with sprayable truck bed liner to protect against scratches.

"It works great for off-road driving and also rides beautifully on the highway," says Yeager. "It does take some time to get used to driving it. With the basic 'Y' frame sus-



Home built "ATV" is powered by a Chevy Vortec engine connected to a 700 R4 transmission.

sension system I thought it might drive like an old tractor, but it drives great. The air bags give it a cushy ride, which I love and wouldn't give up for anything. I used it last fall to pull a 4-wheeled trailer during harvest. The rear steering axle made it easy to back the trailer into my shop, without having to use a skid loader

"By extending the frame to its full 130-in. length, I can safely go up steep hills. The adjustable air bag system works especially well for maneuvering through timber where the roads are curved and narrow. When making a tight turn, I can tilt the cab to either side in order to avoid hitting trees. To clear big bumps in the road I just raise the entire body straight up."

The air suspension system also works great to keep the rig from getting stuck in muddy conditions. "I can tilt the front end up and the back end down to move the center of gravity back over the rear wheels. If both axles do get stuck in holes or deep ruts, I can adjust the wheelbase length to get the wheels out of the ruts," says Yeager. "I had no idea how many electrical cables, brake hoses, air lines, fuel lines, and hydraulic lines I had until it was time to bundle them so they could flex with the frame."

Yeager has made two videos about the rig. The first is called "A Look At Sidewinder" and is a walk-around tour that also shows the machine in action. It sells for \$15 plus \$5 S&H. The second video is called "How I Built Sidewinder" and sells for \$35 plus \$5 S&H.

"The cost to build this machine depends entirely on how good you are at scavenging parts, and on what parts you already have. Using salvage yard parts, you can expect to spend somewhere between \$2,000 and \$10,000," notes Yeager.

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Conversion Kits Run Cars, Trucks On Veggie Oil

It seems like you can't pick up a magazine these days without reading about someone running a vehicle on vegetable oil. So it's probably not surprising that there are now at least two companies offering conversion kits to switch diesel engines over to "cooking oil".

The kits allow mechanically injected diesel vehicles to run on straight, filtered vegetable oil. They come with everything you need to convert your diesel vehicle. They say there are two big benefits: You save money by burning less diesel fuel. And vegetable oil is supposedly less polluting than diesel.

The kits allow you to fuel your vehicle with filtered frying oil that's collected from local restaurants. But the vehicle's existing diesel circuit is left in place, so if you want you can still use diesel fuel. (With both kits, the engine is started and shut down with diesel fuel and can operate on diesel at any time.)

The auxiliary fuel modification systems can be used with virtually any diesel vehicle, tractor, or other machines.

Greasecar Vegetable Fuel Systems

Their kit includes a hand-crafted aluminum heated fuel cell, a quick-flush switch, and a 10-micron fuel filter. Tig welded aluminum tanks are available in three sizes. The Greasecar system is said to be the only product of its kind to offer quick flushing - in under one minute - and a unique fuel filter recirculation system for quick and efficient fuel heating.

The Greasecar system is a two-tank fuel system. After start up radiator fluid will transfer heat from the engine to the heat exchangers in the Greasecar fuel system. These heat exchangers heat the vegetable oil in the fuel tank and fuel lines. The heat reduces the viscosity of vegetable oil so that it's similar to diesel and can be injected into the engine properly. When the vehicle is being shut down for a period long enough for the fuel to cool, the vegetable oil must be purged from the fuel system and replaced with diesel for the next start-up.

Sells for \$795 plus \$50 S&H.

Contact: FARM SHOW Followup, Greasecar Vegetable Fuel Systems, P.O. Box 60508, Florence, Mass. 01062 (ph 413 586-2432; email: info@greasecar.com; website: www.greasecar.com/kits.cfm).



Greasecar kit comes with everything needed, including a hand crafted aluminum heated fuel cell, quick-flush switching and a 10 micron filter.



Copper heating coils heat oil to reduce its viscosity.

Greasel.com Vehicle Kit

Kits for economy vehicles start at \$494.50 plus S&H. Larger vehicle kits start at \$604.50.

A "tankless" conversion kit that uses an existing fuel tank includes everything you need to convert an engine to burn vegetable oil, and everything you need to convert your existing tank to heat it. Sells for \$330 plus S&H.

The company also offers another tankless conversion kit equipped with a small 3-gal. diesel tank. Its tiny size helps minimize loss of trunk space.

The company's Nomad kit is designed for long hauls. A 3/4-ton, 4-WD Dodge Cummins sporting the company's 140-gal. Nomad system can drive for 2,800 miles empty.

Base pricing for the Nomad starts at \$1,100.

Contact: FARM SHOW Followup, Greasel Conversions, Inc., HC 73, Box 157D, Drury, Mo. 65638 (ph 866 473-2735; email: charlie@greasel.com or pillard@greasel.com; website: www.greasel.com).

"Bird Flusher" Alerts Wildlife

Michigan farmer LeRoy Lampen of Jones, Mich., built a "bird flusher" on front of his tractor to scare birds and animals away in hay fields when mowing.

The device consists of a 10-ft. long, 1 1/2-in. dia. pipe that hangs by a pair of chains from an angle iron frame that bolts onto both sides of the tractor. The pipe is the width of the tractor and Lampen's 10-ft. offset mower. The chains hang from a pair of hooks on the frame, making it easy to adjust the pipe's height.

"The idea is that the pipe will scare away any nesting birds or animals before the mower runs into them," says Lampen. "I got the idea after I ran over a couple of baby deer with my mower. We have a lot of CRP ground with a lot of deer, and they'll lay tight if you don't have something ahead of you to scare them away. However, I haven't run over anything since I put the bird flusher on. I gener-



"The idea is that the pipe will scare away any nesting birds or animals before the mower runs into them," says LeRoy Lampen.

ally run it about 1 ft. off the ground, depending on how thick the vegetation is. I didn't hang chains from the pipe because they tend to get tangled up."

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