Tire Barrier Saves Fences

"Cattle are tough on the lower boards and wires of a feedlot fence," says North Dakota rancher Gene Sickler. "After fixing and replacing boards and wires way too many times, I put together a tire barrier that solved the problem."

Sickler stands old worn out truck tires side-by-side between fence posts and secures them with one piece of 2 or 3-in. used water pipe. He attaches the pipe to the posts about 20 in. off the ground with U-shaped straps on each end. The pipe holds the tires in a straight line about an inch or two under a 2 by 8-in. board. He says guard rail would also work above the tires.

Sickler says the key to building good tire barriers is using the same size tires across one full barrier length, and making sure tires fit tight between the posts. He sometimes uses narrower tires squeezed in the middle or at the ends to make sure cattle can't push them around and rip the pipe loose. Another tip he says is to have a small trench under the fence that the tires rest in, which also helps hold them in place.

"Cattle rub on the tires, but they don't try to stick their nose or head between the top of the tires and the fence," Sickler says. He thought when he first made a barrier that cattle might stand on the tires and break through the fence, but they didn't do that either. "Every once in awhile one might stand on the tires with their front feet, but they don't try to use them as a step to get through the fence," Sickler says.

"Once the animals know the tires provide a barrier that isn't going anywhere, they pretty much leave them alone," says Sickler.

He has tire barriers on several fences and says they work well for outside fences as well as fences dividing pens. On some fences he's installed metal sheeting over the wood planks just above the tires to provide a windbreak. That works well, too. On fences dividing pens, the tires keep cattle almost 2 ft. away from the fence on both sides, a bonus feature that keeps the dirt and manure pack away from posts and makes feedlot cleaning easier.

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Sickler stands old worn out truck tires side-by-side between fence posts and secures them with a 2-in. dia. used water pipe, which holds the tires in a straight line.

He attaches the pipe to the posts 20 in. off the ground with U-shaped straps on each end.

VW Diesel Powers Ferguson TE20

Al Rutkoski bought a Ferguson TE20 with good tires at auction for only $500 because it needed an engine. He repowered it with a 1.6-liter VW diesel from a rusted-out Rabbit. He planned to use the Ferguson for cutting and raking hay, and the new engine had plenty of power.

"It's a very fuel-efficient engine," says Rutkoski. "It puts out about 48 hp at 4,000 rpm's."

The big challenge, as with most repowers, was matching the diesel crankshaft to the Ferguson transmission. He also had to replace the flywheel, as the VW flywheel would not accommodate a starter.

Rutkoski used a flywheel from a Ford 8N instead of the Ferguson. Its smaller diameter fit the Ferguson flywheel housing and accommodated the starter on the opposite side of the bell housing. He drilled holes in it to match the VW crankshaft and ordered special 1.0 by 12-mm bolts to mount the 8N flywheel to the VW crankshaft.

The engine positioning wouldn't accommodate a standard tractor starter. Instead Rutkoski used a gear reduction starter from a forklift to engage the 8N flywheel.

A spacer plate was needed to attach the VW flywheel housing to the Ferguson bell housing. Rutkoski turned a 1/2-in. round plate to fit inside the Ferguson bell housing. He also bored a hole in the center to fit the crankshaft and drilled holes in it to fit the engine block. He then made a similar plate to match the tractor bell housing bolt pattern and welded the 2 plates together.

"I had to turn a new pilot bushing to fit the crankshaft and extend out to support the transmission shaft," explains Rutkoski. Without the original cast block engine, he needed a frame to support the engine and the tractor's front end.

"I used angle iron from the spacer plate forward to a point just ahead of the engine and attached them to ends of a steel plate," says Rutkoski. "The front axle bracket was bolted to the front side of the plate."

A short length of angle iron bolted to the plate serves as a support mount for the front of the VW diesel. Rutkoski used bolts so it could be removed to access the timing belt behind it.

The compact little diesel left plenty of room for the Ferguson radiator. Rutkoski installed an electric fan, as there was no fan drive on the diesel.

Needing live hydraulics for a haybine and other implements, he mounted a General Motors power steering pump on the side of the engine. He powered it with a belt off the alternator pulley. A repurposed lawn mower gas tank mounted above the engine serves as a hydraulic oil reservoir.

A new fuel tank was fabricated from channel iron. He mounted it between the steering box and the back of the engine.

"The Ferguson had an 8N hood, but I had to modify it to clear the air intake on the engine," explains Rutkoski. "The intake curves up over one side to the air cleaner on top. I cut off the inside supports along the bottom of each side and bolted the front supports to the front-end frame. It tips forward when I need to do maintenance."

Rutkoski says the VW/Ferguson works great for cutting and raking hay, including running a haybine.

"I even use it with my pto cart to pull a New Holland round baler," says Rutkoski.

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Al Rutkoski repowered a Ferguson TE20 tractor with a 1.6-liter VW diesel engine from a VW Rabbit. "It's fuel-efficient and puts out about 48 hp at 4,000 rpm's," he says.

Lift Kit For Polaris Rangers

"Our new lift kit for Polaris Ranger utility vehicles provides 2 1/2 in. of extra lift. It's built with quality and is easy to install," says Chris Marshall Burke, Marshall Motoart, West Haven, Utah.

The bolt-on lift kit is designed for all makes and models of Polaris Rangers. It includes strut spacer brackets that raise the struts and springs on the front and rear suspension.

"The kit is a practical way to raise the vehicle's suspension, boosting ground clearance and providing room for bigger tires," says Burke. "Many of the lift kits on the market are bolt-together, but we weld our kit for maximum strength and performance. No wheel spacers or extra parts are needed. The kit doesn't change your ride quality and is designed to work well within the factory suspension articulation. Some other lift kits on the market give you too much lift which can destroy CV's and make the Ranger ride stiff.

"Our lift kit works within the angle limits of the stock CV's and doesn't change the ride quality at all. You don't need wheel spacers or aftermarket wheels with our kit, but you can add them if you want to."

The lift kit sells for $188.95 plus $16.95 S&H

"We build the kit here in our shop, so everything is always in stock and we can ship out the same day ordered," notes Burke.

You can view the Marshall Motoart lift kit on YouTube or their website, which includes installation instructions.

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Bolt-on lift kit provides 2 1/2 in. of extra lift. It includes strut spacer brackets that raise the struts and springs on Ranger's front and rear suspension.