

Motorcycle Sidecar For The Disabled

"I was injured in a car accident back in 1963, which paralyzed me from the waist down. But it didn't stop me from searching for ways to enjoy life," says Russell Headley, Fort Scott, Kansas, who recently sent FARM SHOW photos of motorcycle sidecars that he builds for wheelchair-bound people.

The idea is to drive the motorcycle while sitting in a wheelchair on the sidecar. The motorcycle's clutch, throttle, brakes, and transmission are all operated from the sidecar. If desired, a passenger can ride on the motorcycle.

"I built my first sidecar after helping convince my parents to allow my brother to buy a motorcycle. After I saw how much fun he was having, I just had to find a way to go along, too," says Headley.

Over the years he has built 20 different sidecar bikes, six of them for himself. "I put about 17,000 miles on a Kawasaki sidecar one summer," he notes.

Each sidecar is built entirely from scratch. The wheelchair rests on a carpeted platform and is secured by a seat belt around the back of the wheelchair. The wheelchair's footrest is braced against an angled "stop" on front of the platform.

The motorcycle's handlebars, with its clutch, throttle, brakes and wiring, are moved over to the sidecar. A gear shifter mounts on

the left side of the sidecar and is connected by cables to the motorcycle. There are mirrors on the handlebars, and a plexiglass windshield provides wind protection for the driver. An air shock mounts next to an 18-in. wheel that supports the sidecar.

The sidecar is attached to the motorcycle with a custom-built mounting system built from 2-in. sq. tubing, with attachment points at the motor mounts and foot pegs. The passenger on the motorcycle holds onto a bar mounted in place of the handlebars.

"As far as I know I'm the only one who builds sidecars like this," says Headley. "There used to be some other manufacturers but they all went out of business because of problems with liability and insurance. I've never charged anyone anything but what it cost me in materials and welding supplies. The only gauges still on the motorcycle are the tachometer and speedometer. To start the motorcycle, I simply reach over to turn the motorcycle's ignition key. I use my left hand to squeeze the clutch on the handlebars and bump the gear shift lever with my left elbow. It takes very little pressure to shift it, so I can go right through the gears. I use my right hand to control the brake and throttle.

"With the last sidecar I built, I had more than \$3,000 in it not counting the motorcycle,



"The idea is to drive the motorcycle while sitting in a wheelchair on the sidecar," says inventor Russell Headley. "If desired, a passenger can ride on the motorcycle."

which cost another \$3,000."

any more," he notes.

His latest project is to build a sidecar on a bigger bike, a Honda 1,200 Aspen Cade. "I'm 60 years old now and not as strong as I used to be, so I'm not building sidecars for sale

Contact: FARM SHOW Followup, Russell L. Headley, 1567 Kansas Road, Fort Scott, Kansas 66701 (ph 620 223-3234).



Jim Michealis put a Chevy 454 V-8 engine into this 1950 Farmall M, adding a pair of chrome-plated mufflers. "It makes a nice, smooth-running combination," he says.

Farmall M Repowered With Chevy V-8 Engine

Put a Chevy 454 V-8 engine into a 1950 Farmall M and you have a nice, smooth-running combination, says Jim Michealis of Glencoe, Minn., who did just that.

The tractor comes complete with a pair of chrome-plated mufflers.

"Years ago I used a tractor just like this one to haul silage wagons and to operate a silage blower. I spent a lot of hours on it. I always thought it would be great to repower one with a Chevy engine," says Michealis. "I tried to keep the tractor looking as original as possible."

The engine came out of a 1974 Chevy and had about 250 hp. He had to lengthen the tractor frame by 6 in. in order to make room for the new engine. The water pump on the Chevy engine sat lower than the one on the original IH engine, so he had to mount it facing downward. He had a small adapter plate made to fit between the crankshaft and the tractor's original flywheel. The tractor still

has its original flywheel and clutch.

At first he used the tractor's original belt-driven fan but later he replaced it with an electric fan. Otherwise all parts, including the alternator, came off the car.

He used steel pipes to make the mufflers and had them chrome plated.

"It took about three years to get everything made and adapted. The only modification I made to the engine was to trim away a little cast iron on the back corners of the engine block to get it to fit inside the frame. The hardest part was getting all the pulleys and brackets made for the alternator and power steering. It makes a nice, mellow sound. I have the governor set to keep the engine running at 2,000 to 2,500 rpm's," notes Michealis.

Contact: FARM SHOW Followup, Jim and Dustin Michealis, 16201 41st Ave., Glencoe, Minn. 55336 (ph 320 864-3420).



"The results were beyond my greatest hopes," says Clark Carpenter, who repowered his 1955 Allis Chalmers WD 45 with a 283 cu. in. gas engine out of a 1959 Chevy.

Chevy Engine Beefs Up Allis Chalmers WD

"My 1955 Allis Chalmers WD 45 tractor didn't have enough speed or power and also didn't have enough hydraulic capacity. So I repowered it with a 283 cu. in. gas engine out of a 1959 Chevy, and I added a hydraulic pump on one side of the tractor. The results have been beyond my greatest hopes," says Clark Carpenter, Hamilton, Montana.

The tractor was originally equipped with a 4-cyl., 226 cu. in. engine. The new engine was larger so he had to cut away part of the frame rails on both sides to make room for it. He used 3/4-in. and 3/8-in. thick steel plate to make a pair of adapters that connect the engine to the transmission. Then he rebuilt the frame rails by welding in the frame rails from an Allis Chalmers WC tractor. He also added a new pair of exhaust mufflers.

There was a big 12-in. dia. belt pulley on one side of the tractor, which he removed. Then he made an adapter so he could attach the hydraulic pump to the end of the pulley

shaft. The pump bolts onto a steel plate, which bolts onto a homemade metal sleeve that protects the shaft between the pump and the tractor's frame. Hydraulic hoses lead from the pump to a double hydraulic valve that he mounted on the fender.

An intake pipe goes crosswise down under the tractor to a hydraulic reservoir that he mounted on the other side of the tractor. The reservoir wouldn't feed the pump properly with oil because the oil level was lower than the pump, so he added a 1 1/2-gal. tank above it.

He also added a pair of remote outlets on back of the tractor.

"The tractor was already quite agile and could turn on a dime. Now it's also powerful and speedy," says Carpenter.

Contact: FARM SHOW Followup, Clark Carpenter, 605 Alvista Loop, Hamilton, Montana 59840 (ph 406 363-3827).