HITCH UP AND GO — RIGHT FROM THE TRACTOR SEAT

Hitch Automatically Couples Hydraulic Hoses

You've never seen anything like it. An automatic hitch that not only hitches the implement to the tractor drawbar but also automatically couples the hydraulic hoses. The operator makes the complete hookup — hoses and all — right from the tractor seat.

This "breakthrough" in automatic hitching began two years ago when Australian farmer Colin Wiese decided there had to be an easier way.

"Every farmer wastes many hours each week climbing back and forth from the tractor cab to adjust implements into position for hitching," says Wiese. "The problem is that most tractor cabs restrict your vision of the hitching area, making the job a big time waster and back breaker."

Wiese's new invention lets you hitch up both the drawbar and hydraulics from the comfort of your tractor seat in seconds. The unit is connected to the existing drawbar of the tractor. It has a scooped piece of metal located at the end farthest away from the tractor. When backing up, the tractor is lined up with the implement tongue, which is held off the ground by a fold-away jackstand. The tongue strikes the scooped plate and is guided along a hollow shaft to the locking device. There are 5 to 6 in. of leeway.

"The hydraulic connectors on the tractor are mounted side by side, as are the fittings on the implement," says Wiese. "As the implement probe is guided into position, so are the hydraulic fittings, which lock on contact."

To disconnect the implement and the hydraulic hoses, the driver releases the hoses and the implement probe by flicking a hydraulic lever.

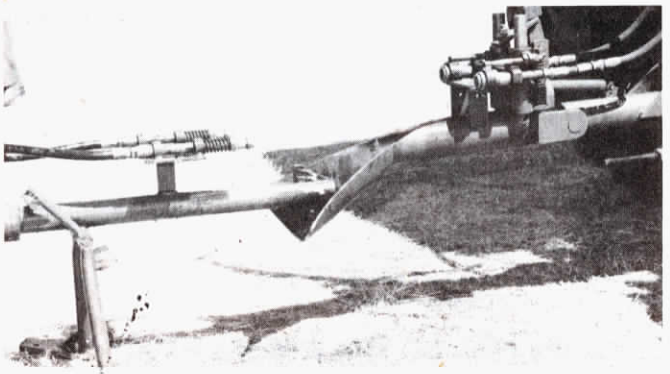
Interest by manufacturers has been strong, according to Wiese. He says the hitch could be made separate and fitted to present equipment, or designed as original equipment on tractors and implements.

For more information, contact: FARM SHOW Followup, Colin Wiese, Milbrulong, N.S.W., Australia, 2656.

"Handy Hooker"

Another version of the automatic hydraulic hitch was put together recently by a group of ag engineering students at Kansas State University in Manhattan, Kan., and entered in the national Allis Chalmers student design competition.

Here's how G. E. Fairbanks, professor of agricultural engineering and faculty adviser on the project, describes the new hitch:



Metal slide or scoop on Wiese's hitch guides hydraulic couplings together for automatic connection.

"A 12-in. ring is mounted on the implement tongue and also a hydraulically-activated hook on the tractor, giving the operator 6-in. of leeway in either direction. You back up with the hook open, snap it onto the ring, and lift the hitch to operating height. A rack and pinion type gear pulls the male and female parts of the hydraulic coupler together, again hydraulically, and they connect. The couplers are of the type that do not have to have the rings drawn back to fasten together.

"To unhook, you simply lower the unit's hydraulic jackstand, hydraulically disconnect the hydraulics, unhook from the ring, and drive off."

The device, dubbed the "Handy Hooker", was designed by four students. Fairbanks says the design is public information and copies of the report and hitch diagrams are available.

For more information, contact: FARM SHOW Followup, G. E. Fairbanks, Agricultural Engineering, Kansas State University, Manhattan, Kan. 66506.

PROPELLED BY A FAN

Experimental Air Car Gets 100 Miles/Gal.

Ohio inventor James R. Bede, of Cleveland, has designed and constructed a prototype car that he says gets 100-120 miles per gallon of gasoline, and could easily exceed 100 miles per hour. Bede, known for his unusual airplane designs, has incorporated unique airflow styling into his new lightweight car.

The 980 lb. vehicle is powered by a modified Kawasaki motorcycle engine which drives a large fan built into the rear of the car chassis. The engine is mounted in the rear and is connected to the fan by a short driveshaft.

Says Bede, "You can start right off with the fan drive if you want to, or you can use the electric motor drive which operates off four storage batteries. But the fan really works best from about 30 miles per hour and up." The electric drive is used for reversing the car and for slower, in-town driving.

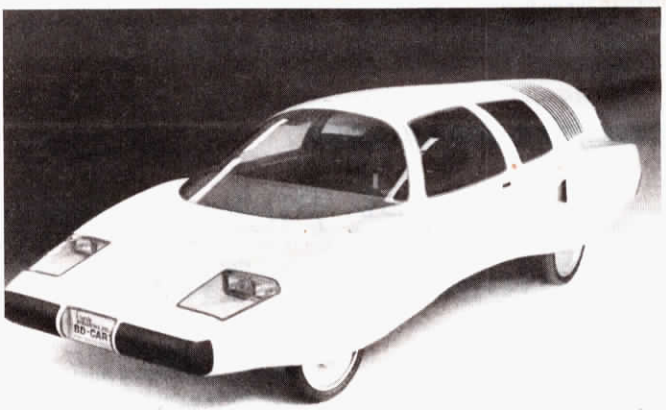
Although other gas-electric cars have been built, Bede says his car is not a true hybrid because the electric system is not expected to power the car for extended periods. "It will probably go six or seven miles on electrical power," he says. "But you really wouldn't use it very long that way."

The car is 17½ ft. long, 54 in. high, 69 in. wide, and has room for four people. It's powered by a four cylinder, 1000 cc engine, but Bede believes a smaller engine would be adequate, or there may be a choice of engine sizes. They may also offer a model with direct drive to the wheels instead of the fan drive.

Bede notes that, "There's a lot more work to do before the car is ready for production, and it will probably be at least 18 months or longer before any will be available." Company literature suggests that the first models may be sold in kit form, with regular production to come some months later.

At any rate, the key to excellent mileage, says Bede, is not the fan drive, which is very convenient and simple to operate, but in the car's light weight and aerodynamic design with very low air drag.

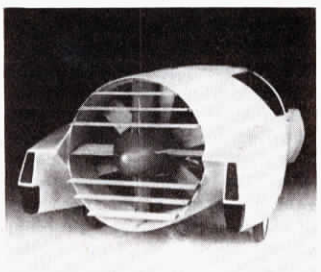
For instance, the prototype model uses modified motorcycle wheels and brakes. But Bede has since found a source of lightweight wheel/brake assemblies which will be able to use conventional 13 or 14 in. radial tires.



A 4 cyl. 1,000 cc. engine powers the Bede car at speeds up to 100 mph.

"There's nothing particularly complicated or expensive about this car. In fact, we designed and built it to be as simple as possible, and this will help keep the price down," says Bede. "With continuing inflation, it's hard to predict what the price will be by the time we're ready to sell production models. But, we believe it should be competitive with present compact car prices."

For more information when and if the car goes into production, contact: FARM SHOW Followup, James R. Bede, Bede Industries, 8327 Clinton Road, Cleveland, Ohio 44144 (ph 216 631-1441).



Fan drive is most efficient at highway speeds. Backup electric drive is used for reverse and slow speed driving.