



Gene Dittmer added a subframe to an old flatbed trailer, allowing it to hold his wide wheel track sprayer. Subframe can be easily removed to haul his backhoe.

## Subframe Turns Flatbed Into Highboy Hauler

Moving his high-clearance sprayer between fields is fast and easy for Gene Dittmer, who added a subframe to an old flatbed that lets him drive on and go. Best of all, he can convert the trailer from one use to the other in minutes.

"I can haul an 800-gal. nurse tank in the bed of my dump truck, pull the trailer with the sprayer on it and pull a Ford Ranger behind in case I have problems in the field," says Dittmer.

To convert the flatbed to hold the wide wheel track sprayer, Dittmer simply backs the flatbed trailer with dovetail under the subframe. It slides up and over the trailer deck until it hits the front stop. "Two 4-in. wide by 6-in. high steel tabs on the rear of the subframe drop into place on the channel iron at the bottom of the dovetail," explains Dittmer. "To remove the frame, I just lift the rear end 6 in. so the tabs clear and drive away."

Two 10-in. wide, 1/2-in. thick I-beams form the wheel ways of the subframe. An 8-in. I-beam cross member at the front of the subframe rests at the front of the deck, while a second rests just behind the rear of the deck. The final cross member with tabs rests on the lower end of the dovetail. When not in use, the rear end of the subframe rests on blocks



To convert the flatbed Dittmer simply backs the trailer with dovetail under the subframe, which slides up and over the trailer deck.

for easy remounting.

"With the subframe in place, I can load my high clearance sprayer and drive away," says Dittmer.

Even with the extra width, the sprayer tires sit on and extend about 4 in. over the outside flanges of the subframe. To relieve pressure on the tires, Dittmer installed wood slats from an old hog building between the flanges for a level bed.

"The subframe saves time transporting the sprayer between fields," says Dittmer. "Yet, it's easy to switch back to hauling the backhoe when needed."

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Remote-controlled trailer is equipped with an electric/hydraulic power system and a hinging system that folds in the sides and ramps.

## Remote-Controlled Expandable Trailer

Martin Silz is a lifelong custom harvester. He got tired of the labor and time required to manually fold the sides and ramps on his expandable combine trailer, so the Fort Morgan, Colo. man recently built his own remote-controlled model and is now manufacturing it.

The fifth-wheel trailer is equipped with a self-contained 12-volt, electric/hydraulic power system and a patented hinging system that controls the sides and ramps.

"Other expandable trailers fold and unfold manually," says Silz. "To be road legal you have to remove the side sections and store them by hand somewhere on the trailer, a job that takes 15 to 20 minutes and requires 2 people. Folding and unfolding our trailer is a one-man job and takes only about 30 seconds. Everything locks solid so there's no rattling and banging when you go down the road."

The trailer works great for hauling self-



"Folding and unfolding the trailer is a one-man job and takes only about 30 seconds," says inventor Martin Silz.

propelled sprayers too, says Silz, who notes the trailer can be viewed by typing in "silzhydra" on youtube.

Prices for the trailer start at about \$32,000.

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Air-Weigh on-board weigh sensors for straight trucks and tractor/trailers make it easy to weigh loads on-the-go.

## System Turns Air Suspension Into On-Board Weigh Scale

Any straight truck or tractor/trailer with air suspension can be fitted with new on-board weigh sensors that make it easy to weigh loads on-the-go.

Air-Weigh sensors measure air pressure in suspension systems to 1/27 of a psi. That equates to increments of 20 to 40 lbs. of on-the-ground weight. Some Air-Weigh components work with mechanical suspension systems as well.

"When producers are out loading grain or livestock, they don't know what they've got until they get to the scales," says Martin Ambrose, Air-Weigh. "With the high cost of fuel, you want to carry as big a load as you can without overloading. One over-weight ticket will cover the cost of our system in most states."

Experienced drivers of air suspension systems have long been able to estimate weights based on psi gauge readings. Air-Weigh offers two systems that deliver actual weight readings. Once calibrated under no load, the systems monitor pressure increases and translate them into on-the-ground weight loads. Air-Weigh scales can also measure deflection in vehicle axles for accurate weights on mechanical suspension trucks.

System selection depends on how it will be used and whether multiple trailers are used with the same tractor. "QuickLoad is our entry level scale system. It has a dashboard indicator that gives you the gross vehicle weight if the trailer is dedicated to that tractor, as well as readings for the payload," says Ambrose. "It flashes when you get close to the legal limit.

"QuickLoad communicates changes in air pressure via an air line that runs from the trailer suspension system on each axle group forward to the dash," he says. "All the sensors and electronics are in the dash pod. If you change trailers, you have to double check calibration."

In addition to gross vehicle weight, QuickLoad can deliver steering axle, driving axle and trailer axle weights, as does the full-featured LoadMaxx system. This is important as the DOT can ticket a driver if an axle group is overloaded even if the gross vehicle weight is under the legal limit.

LoadMaxx has sensors located in the suspension system of both the trailer and the tractor unit. Signals from a control box

mounted on the trailer are sent electronically to the monitor in the cab via the standard multi-plex wiring harness used for lights. No extra cables or wiring harness is needed.

"If you pull more than one trailer with the same tractor or swap out trailers over the course of the day, LoadMaxx retains the calibrated weight of the trailer and communicates it to the tractor when hooked up," explains Ambrose.

LoadMaxx offers a printer interface on the monitor. With the optional printer, the operator can print weights for sharing with a landlord or when switching fields.

A CAN bus interface allows wireless transfer of information to fleet headquarters, dash display, or transfer to an on-board computer. Two alarms can be set to warn the operator when an axle group weight or the gross vehicle weight approaches and exceeds legal limits.

Ambrose says customers describe new ways of working with area grain merchants made possible by the accuracy of the on-board scales. "We have customers who have worked out arrangements with their grain buyers to accept readouts in lieu of scale tickets," says Ambrose. "Our system isn't licensed or certified, but they have seen how accurate it is. Some have even told us they found out their local elevator scale wasn't as accurate as they thought."

Both systems are easy to install, he says. "About 80 percent are self installed. The hardest part is running the connection to the 12-volt panel."

QuickLoad has a suggested retail price of \$400 and approximately \$200 for each trailer unit, depending on brackets and other hardware needed. The LoadMaxx runs \$850 to \$900, depending on hardware for the cab connections. Each trailer module costs around \$700.

Ambrose reports the systems are gaining popularity as available options from trailer manufacturers and a growing number of tractor manufacturers, including Mack and Freightliner. Others offer it as a dealer installed option.

Contact: FARM SHOW Followup, Air-Weigh, 1730 Willow Creek Circle, Eugene, Ore. 97402 (ph 541 343-7884; toll free (888 459-3444; www.air-weighscales.com).

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