



## Self-Loading "Roll-Back" Trailer

"It doesn't have a ramp and is made out of aluminum which reduces its weight by 1,500 lbs. compared to other comparable-sized steel trailers. As a result I can use a 1/2-ton pickup to pull a load that would normally require a 3/4-ton pickup," says Frank Faulring, North Collins, N.Y., about his "roll-back" fifth wheel aluminum trailer. It's equipped with tandem axle wheels that automatically roll forward toward the front of the trailer, forcing the back end down to the ground for loading and unloading.

The main frame of the 18-ft. long, 7 1/2-ft. wide trailer is made of aluminum and it has a pressure-treated wood deck. It weighs only 2,100 lbs. and has a gross vehicle weight capacity of 7,000 lbs.

The trailer is equipped with a pair of 3,500-lb. torque flex axles. They roll back and forth together on a frame, pulled along by a 1-in. dia. screw that runs the length of the trailer. The screw is operated by a 12-volt electric motor at the front of the trailer. A pair of 5-in. aluminum I-beams run the length of the trailer and form a track for the wheels. Four rollers ride against the underside of the track and four other rollers ride against both sides of it to keep the wheels in line.

To move the wheels forward for loading, Faulring releases a lock over the axles that holds the wheels in place, then hits a

two-way switch mounted next to the electric motor. As the wheels move forward the back of the trailer drops down. To compensate for the raising and lowering of the trailer hitch, Faulring built a telescoping hitch that's equipped with a 30-in. long, 2 1/2-in. dia. hydraulic cylinder. The cylinder works as a shock absorber, slowing the rate of travel as the hitch expands during the lowering of the rear end of the trailer. When the trailer is raised back into travel position, the shock system works in reverse to slow the rate of hitch retraction. Once the load is on, he moves the wheels back to their normal position and locks them into place.

"It works great," says Faulring. "I built it because state gross vehicle weight (GVW) laws are being enforced more strictly in our state. We used to be able to license a pickup at 10 to 20% over its GVW with no problems, but not any more so I can't haul as much in my pickup any more. By using my lightweight trailer I can haul up to 7,000 lbs.

"I spent about \$3,500 to build it. It's like a lot of things that I build - at first I didn't think that I could justify the cost, but now that it's built I use it all the time."

Contact: FARM SHOW Followup, Frank W. Faulring, 4841 Genesee Road, North Collins, N.Y. 14111 (ph 716 337-3682).