

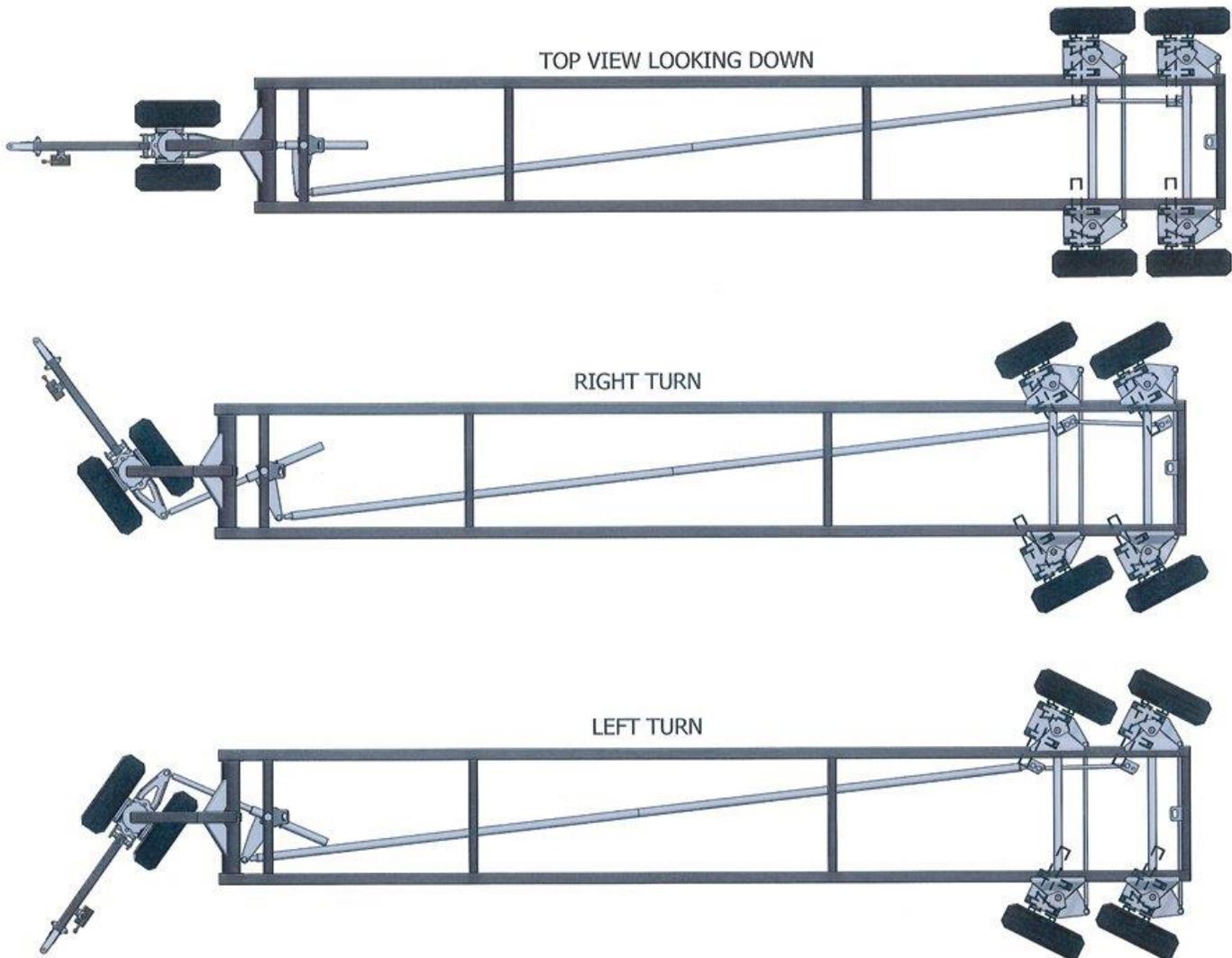
Six-Wheel Steering Trailer Gets Around

By Ron Lyseng

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The Duo Lift patent application, above, spells out why the trailer is different from others. The narrow track of the front dolly tires allows the front end to make a sharper turn compared to other trailers with the conventional wide track front tires. The long tie rod connecting the front dollies to the rear six tires allows those rear tires to steer around a sharp field driveway in the same way that long fire trucks used to have a guy at the back with a steering wheel for the back end of the truck. | Duo Lift Image

The new Duo Lift All Steer Head Hauler Trailer drives rings around conventional trailers where the turning gets tough and the yard tight

Combine heads are getting bigger and bigger. As a result, the problem of transporting them and gracefully getting them from the road into the field is becoming bigger and bigger.

A solution can be found in trailer technology. Wide heads require long trailers. But the problem compounds itself. Longer trailers create bigger problems getting in and out of fields. Truck drivers are forced to make wide turns

with trailers that cannot make wide turns. Keeping that header out of ditches and driveway drop-offs makes truck drivers pull out their hair.

A 45-foot header is a precise delicate device. A drop into a ditch with a minor bump at one end is greatly amplified at the other end, according to Paul Hottovy at Duo Lift in Columbus Nebraska.

Duo Lift has been building head haulers for 20 years. Hottovy says in the past few years they've been getting more requests for steering trailers because of the difficult turns hauling big headers. However, Hottovy says the company wanted to take a different approach to steering trailers.

"Admittedly, we were one of the last major combine header trailer manufacturers to come out with any kind of four-wheel steer," he says. "Part of that delay was we wanted our four-wheel steer and now our six-wheel steer to have the same towing and loading characteristics our dealers and customers have come to expect from us.

"Prior to steering trailers, we've been known for heavy-duty trailers that can be adjusted to haul all header types. The other thing we were known for is trailers that tow smoothly and straight without wiggle and wander, whether they're being pulled on dirt roads, gravel roads or highways."



The long tie rod makes the rear tires steer in the opposite direction of the front tires, allowing the rear of the trailer to swing out and around for a tighter turn radius. | Duo Lift Photo

Hottovy explains that the industry only builds trailers with a wide front axle and a wide rear axle that hook together to steer. But with only four tires, you only have so much capacity. He says you can take a good trailer and put a heavy header on it and it sinks into the ground. He says trailer maneuverability is highly sought after by growers hauling headers from 35 feet to 45 feet, especially when fields are farther away and tight corners are involved.

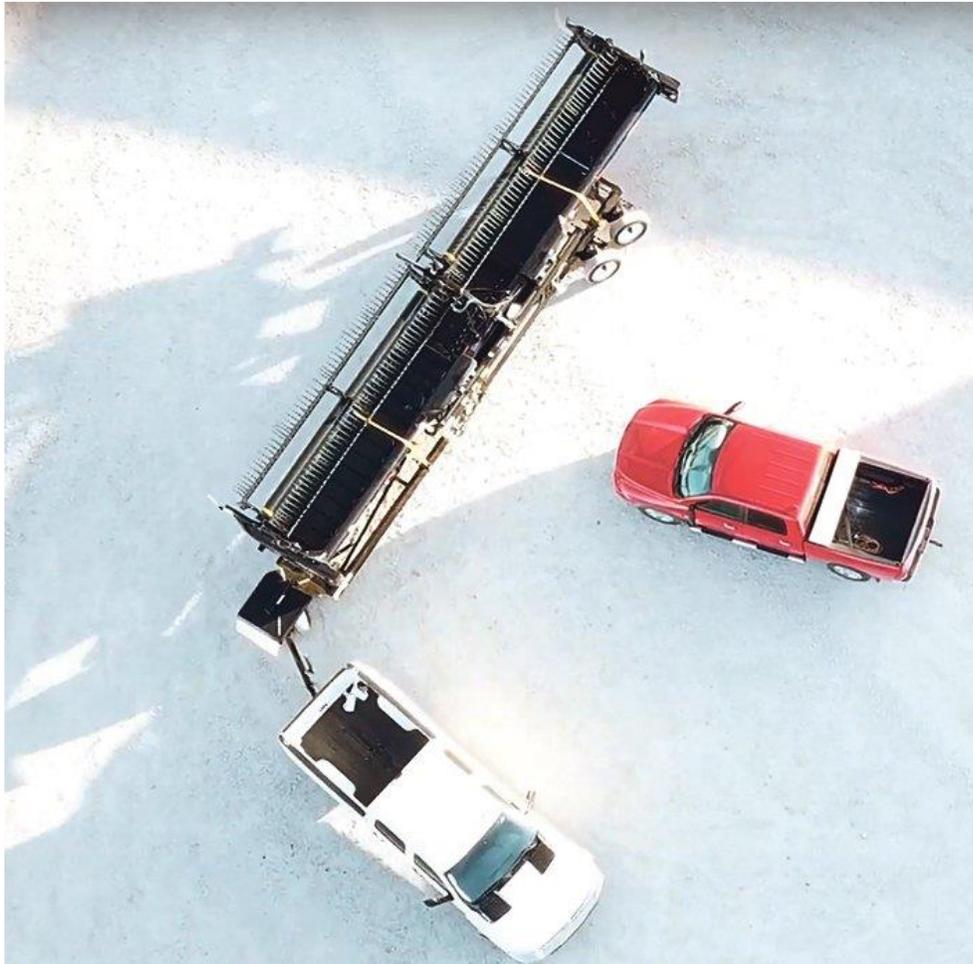
"There are fewer farmers farming more ground farther from the home base. They have to be extraordinarily careful moving these large headers and turning into farm fields from highways and gravel roads.

“The six-wheel steer gives the maneuverability of the four-wheel steer, with the appropriate capacity to carry modern headers. Six-wheel steering allows that whole trailer to follow behind an extended cab pickup. It’s like a tame calf being led by a halter and rope.”

Duo Lift unveiled its first All Steer head hauler trailers with four-wheel steering at Husker Harvest Days in 2018. A year later at the event, they unveiled a version with six-wheel steer and tandem rear axles.

To improve maneuverability on the new trailers, Duo Lift developed a narrow front-wheel track with a front dolly wheel and tongue assembly, rather than waste time toying with the conventional wide front-wheel track. With six-wheel steering, the trailer handles modern heavyweight headers without being forced to ever make wide turns.

“The unique engineering feature is front dolly wheels that have a steering rod mechanism hooked to them. That steering rod goes in and out as you turn. It goes into a pivoting steering arm. That steering arm pulls and pushes a tie rod that’s connected to a steering axle segment on the right-hand side of the trailer. That steering segment is hooked to the first left-hand steering segment by a tie rod.



The ability to move a big header in tight yards and around other machinery makes the Duo Lift trailer unique. | Duo Lift video still

“That forms the basis for us to add a second right-hand steering segment and a second left-hand steering segment. Those steering segments are secured to the trailer and have their own pivot. They’re hooked together so when one steers the other one also steers. Then we join the rear pair to the front pair with a long tie rod.”

Depending on length and options, six-wheel steer models range from US\$12,000 to \$16,300. On the Prairies, Duo Lift steering trailers are handled by GBC Equipment in Humboldt, Sask.