



FARM SHOW has published several articles about tandem tractors over its 49-year history.

‘Tandemizing’ Tractors Boosted Horsepower

Tractor owners have always desired more power. When their own souped-up engines or larger tractors didn’t fully satisfy that urge, farmers found alternative solutions. Australian farmers are recognized for developing tandem tractors in the early 1900s, and the concept eventually spread to the U.K. and the U.S.

In 1956, the engineering department at Iowa State College (now Iowa State University) in Ames built a tandem tractor that combined a Model 8N Ford at the front with a Ford 860 at the rear. They tested it thoroughly in various field operations and found it superior to a single tractor in pulling power and PTO performance. An ISC research paper noted that the main disadvantage was that coupling two tractors together would’ve been problematic for most farmers.

In the U.K., Ernest Doe & Sons of Essex built several versions of the Doe Triple-D tractor in 1958. The setup used two Fordsons connected by a drawbar turntable, with the rear tractor held by the turntable. Hydraulic cylinders activated the steering. Newer models, including the 100 hp and 130 hp, and the Triple D 150, which used two Ford Force 5000 tractors, were produced until production stopped in 1968.

In France, the Bi Som Trac, painted pumpkin orange, had a single engine at the front powering four drive wheels. It followed the Bisom 40, which was based on two Someca 40 tractors connected in tandem. They could be easily decoupled so that the producer would have two separate tractors available. Production was discontinued in 1964.

Don Dufner of Buxton, N.D., coupled two Deere 830s in 1958 and added more coupled tractors over the years. He also combined three Deere tractors, each with its own engine, to power six wheels. In nearly 70 years of farming, Dufner bought countless Deere tractors, restored them, and often coupled them to produce extra power for his farming operation and tractor pulls. FARM SHOW has written about several of Dufner’s tractor combinations, including a recent recap in Vol. 49, No. 1.

Roanoke, Ill., crop farmer C. Robert Haas built a tandem tractor that combined a Deere 730 and 720. Unlike most tandems, which steered from the rear tractor because the front tractor’s wheels were removed, Haas’s design steered from the front with the rear tractor resting on the front tractor’s drawbar. He rigged controls for the rear tractor that he could reach from the 730’s driver seat. Haas

coupled the tractors with a 6-in. I-beam main frame and later used a 4-in. H-beam, which provided 2 in. more ground clearance. He built the coupling for other farmers and later constructed a new tandem for his own farm using two Case 500 diesels. A family member still uses that setup.

Haas’s design and others from Illinois were described in a 1961 University of Illinois circular, Tandem Tractors Circular 829. Three different methods were shown, along with safety precautions that advised rigging up a kill switch for use if the tractors jackknifed and “practicing” driving in your yard before heading to the field.

FARM SHOW has published several articles about tandemized tractors over its 49-year history. In 1992 (Vol. 16, No. 1), Joe Wilson was featured with his tandem Allis-Chalmers. A double-up tractor built with two Deere 5020s was featured in Volume 18, No. 6. Earl Rockwell built his 4-WD tractor (Vol. 25, No. 1) by combining two Farmall F-30 rear ends with a 105-hp Detroit diesel engine.

Harry Lee was well known for building side-by-side tractors using vintage Farmalls. He even tripled his power with three F-20 engines side-by-side on a single frame. (Vol. 17, No. 4). Harry owned more than 50



Tandem tractor builds were a way to increase horsepower.

rare and unusual tractors, all in excellent condition.

A tandem setup in Iowa that used two Oliver 1950 diesels was built by Clinton Martz, his son and a neighbor (Vol. 44, No. 6). Martz used the 200-hp tandem in his farming operation for six or seven years, “a big tractor in those days,” he says, and eventually replaced it with a 300-hp Steiger.

For details on the 1950s Iowa State and Illinois setups, visit:

<https://dr.lib.iastate.edu/server/api/core/bitstreams/3e9df2a3-73e2-4462-b8d2-346a96cd94d6/content>



Bi Som Trac was a French tractor with a single engine and four drive wheels, a design that evolved from two Someca 40 tractors hooked in tandem.



Yonkovich took up wood turning because he found a bargain-priced lathe. Over 11 years, he has elevated his skills, purchased better equipment, and sold more than 500 carefully crafted and finished items.

Hobbyist Turns Craft Into A Business

By Lorn Manthey, Contributing Editor

Dean Yonkovich says he was perusing the internet one evening, looking for tools, when he found a small lathe for sale at 30% off.

“Naturally, I bought it because it seemed like a really good deal,” Yonkovich says with a grin. “Turns out—not a play on words—it stayed in a box at least a few years until I retired.”

The day arrived when Yonkovich decided to learn how the lathe worked, so he ordered some mid-quality turning tools and started

turning scrap wood into what resembled a soft drink bottle. He turned another piece into a vase shape, drilled a hole in the center, and covered it with varnish.

“My wife Nadine was courteous,” Yonkovich says, “not overly impressed, but she thought I had potential. That was my impetus to continue. I took a deep dive into online videos and advice sites, learned new techniques, and applied them to my wood. Years later, I’m still at it, producing beautiful items

from different woods whose grains and colors are exposed by my lathe tools.”

Yonkovich says he soon realized that, in his part of Montana, the only wood available was pine and fir, “basically what I used as firewood. My other option was old fence posts that had nice grain, plus a lot of insect holes. Some of the items I made actually had character, and I even sold a few.”

Soon, he came upon a downed Quaking Aspen, which led him to craft hollow forms and unique vessels with the beauty of natural, decayed wood.

“It took me years to produce consistently nice work with help from being a remote member of a wood turning club in Great Falls. I also had experience creating a show car finish on an old Thunderbird, which transferred nicely to woodworking.”

Yonkovich says producing hollow vessels can be very challenging “because I’m basically sticking a sharp tool into a 1-in. hole spinning at 1,000 rpm. Occasionally, things don’t turn out the way I expect. When they do, I can add wood-burned and painted designs, animals, plants, flowers and birds to the outsides. If the wood has unique knots, occlusions, or unique grain configurations, I try to magnify those qualities.”

With his designs gaining more approval from his wife and producing less scrap for firewood, Yonkovich says his work has actually appealed to others. He has become

skilled at turning flowers, gnomes, Christmas ornaments, unique snowmen, necklace medallions, goblets, urns and lamps. He’s also made heirloom-quality kaleidoscopes with first-surface mirrors, some featuring a rotating object lens.

Yonkovich says that although it may seem that wood turning is quick and fast because a machine is used, the opposite is true. Many of his items take several days because they require sanding, creating artwork, revisions on the lathe, unique lids, and finishes.

“At any stage, if something unexpected happens, it’s just firewood,” he says matter-of-factly.

For 11 years, Yonkovich has honed his skills on spherical surfaces to an artisan level. He’s received many compliments on his designs and sold more than 500 items. Using various woods, including some that have decayed, showcases the natural beauty of grains and color.

“I’ve made enough to justify a more modern lathe and better tools, and that’s even made the process more enjoyable,” he adds. “My wife has also become accomplished at photographing my work and posting on Facebook those that are for sale at the gift store in our small town of Lincoln, Mont.”

Contact: FARM SHOW Followup, Dean Yonkovich, Lincoln, Mont. (yonkdy41@gmail.com).