Money-Saving Repairs & Maintenance Shortcuts



Twin sets of wheel support rails are attached between the lift arms of hydraulic, 2-post car lift, making it easy for Brauer to work on his garden tractors.

2-Post Car Lift Can Handle Little Tractors

William Brauer gets double duty out of his hydraulic, 2-post car lift, thanks to the garden tractor adapter he made. Twin sets of rails attached between the lift arms make it easy to work on his collection of 7 Deere 140 lawn and garden tractors.

"I looked at commercial lift adapters, but they were too expensive," says Brauer. "The open center between the lift arms makes it easy to change oil and work on the tractors."

Brauer fabricated the attachment using lengths of 2-in. square tubing for 2 sets of wheel support rails. They extend between the arms of the full-size lift. Short lengths of 2-in. channel iron are bolted to the ends of the rails to form parallelograms.

A 2-in. steel pipe is bolted to the underside and at the center of the channel iron. It is sized to match holes in the arm ends that normally house vehicle frame rest pads. To attach the rails, Brauer removes the pads from the arms and slips the pipe into their place.

"The front set of rails (first to be driven over) are telescoping to accommodate wider wheel bases," explains Brauer.

The rails are 2-piece with lengths of 1 1/2-in. steel bar inside them. Brauer can slide them apart as needed. He regrets not making the rear set of rails telescoping as well. "I have a Deere 318 garden tractor that has wheels that are a little large for the rails," says Brauer. "However, I have had a zero-turn mower on it. Even the way it is, it's



Removable ramps make it easy to drive over the rails.

very versatile."

Brauer fabricated removable ramps for the rails. They consist of 4 sets of 8 by 10-in. steel pads, each with a 2-in. bend in one end to fit over the front rails and "lock" on. Each set of ramps is connected by light chains to a block of wood that sets between the rails. A single set of ramps fits the rear or far rails with chains that wrap around the rear most rail.

"The ramps make it much easier to drive over the rails when mounting a tractor on them," says Brauer. "When I raise the lift, the wood blocks drop down so the wheels rest on the rails."

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Ford "N" Shop Tips

Mark Burris describes his Ford 8N as a best buy, but he has done a fair amount of tinkering on it. That includes dealing with a lack of oil pressure and learning how to partially split a tractor.

"The tractor was a basket case when I got it with bad tires, a pulled starter, and worn out valves," says Burris. "By the time I finished the overhaul, I had learned quite a bit about N tractors. Since then I've overhauled 3 more."

The oil pressure problem is a common one with the N's, he suggests, due to the placement of the pump. On the N's, it sits alongside the block, not in the oil pan like later tractors.

"If a Ford 2, 9 or 8N sits for a long time, it can appear to have no oil pressure, even though it did when you last used it," says Burris. "What happens is the motor loses its 'prime'. You can tear the motor apart and find nothing wrong with it."

To regain the prime, Burris suggests over filling the crankcase almost to the top. Start it at idle and watch the oil gauge.

"Once you have pressure, turn off the motor and drain out the excess oil," says Burris

If that doesn't take care of the problem, he invites readers to give him a call. He will help identify other possible problems and solutions.

Another shop tip Burris passes along is how to almost split a tractor, something he first tried when he needed to replace a ring gear on the flywheel. All it takes is a couple of pieces of perforated angle iron and 2 pieces of all-thread rod.

"I use the perforated angle iron to lock the front wheels together," says Burris. "I disconnect the tie rods and slip them backwards on the axle. If there is room, I slip the angle iron through in front of the fan and connect the steering arm to it with 3/8-in. bolts. If not, I'll use a brace to go underneath"

He suggests tightening the tie rods up so they don't twist at the steering arm. Once the front wheels are stabilized, he jacks up the front of the tractor enough to get a car stand or wood block supports under the transmission. This locks the rear axle in place.

As the goal is to partially split the tractor, he pulls the hood off and disconnects oil lines and electrical wiring running between the engine and the transmission halves of the tractor.

"I pull 2 bolts on the bell housing running forward to the engine block just ahead of the oil pan and 2 just below it," says Burris. "These are 7/16-in. bolts, and I slide 18-in. lengths of 7/16-in. all-thread rod through the holes into the engine block"

With the all-thread rod in place, Burris removes the other bolts from the bell housing. He says he can then wiggle and push the engine end of the tractor forward while watching to be sure the all-thread stays seated in the engine block and in the holes of the bell housing.

"The engine balances on the all-thread and the front axle," explains Burris. "I've never had any problem, but for safety sake, you could block the front end as you do on the rear."

Burris has used the technique to work on the clutch, the flywheel and the starter.

"You can buy a clutch kit and replace the whole thing or pull the flywheel off to replace the ring gear," he says. "If you have it split, it's a good time to replace the pirate bearing on the flywheel or the throwout bearing on the back of the clutch. I replaced the Bendix on the starter without pulling the starter."

Simply reverse the process to put the engine and transmission back together, adds Burris. He says it is a quick process that speeds many repairs.

"I can do a clutch replacement in about 4 hrs. this way," he says.

Burris is eager to help other N owners solve their repair problems. He suggests calling after 8 p.m. during the week or any time on weekends.

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He Specializes In Rare IH Parts

When International Harvester went out of business in the mid-1980's, Glen Mlnarik got into the business of buying and selling IH parts. His dad and uncle were IH dealers for 26 years in Dodge, Neb., and Mlnarik bought as much as he could at liquidation auctions.

"I saw that people were restoring tractors and that business really started taking off in the early 1990's," explains the Howells, Neb., owner of Little Red Tractor Company, LLC. His inventory of parts covers models from the late 30's (F12 and F20 IH) to the 60's (460 and 560 IH).

He carries everything he can get hold of from good used parts to overseas-built aftermarket parts for IH and Cub Cadet. Besides tractor parts and manuals, he carries parts for implements and has IH Chromed tools.

Some of the parts in biggest demand are original gauges, tachometers and emblems —"the bling," Mlnarik says. They are getting more difficult to find, and restorers seek them

out. With more competition on the Internet, Mlnarik says it's more difficult to find them. But he's always on the lookout and tries to be a good source of information to customers.

The retired Master Chief Petty Officer and his wife, Joan, have kept their business small intentionally and run it as a part-time retirement business (Monday-Thursday).

While they have a shop and a website, most customers contact him by phone. It's important to get the right model number, year and sometimes the serial number, Mlnarik says. His experience restoring tractors and selling parts and an extensive library of IH parts books help get customers what they need.

"It's so much easier to do it on the telephone," he explains. "I treat every person with the same amount of time and effort to get it right."

He keeps information about customers' tractors on file so that he can quickly fill followup orders.



Glen Minarik helps farmers find IH parts, including used and overseas-built aftermarket parts. He also carries parts for implements and has IH Chromed tools.

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