

## “Do-It-Yourself” Hydraulic Hose Repair Kit

You can repair damaged or blown hydraulic hose right in the field with this new replacement hose assembly repair kit.

“This kit lets you easily assemble replacement hose, with no crimping necessary,” says Larry Johnson. “You can assemble a complete hose in less than 10 min. without any special equipment. The repair can be made on the bed of your truck using wrenches in your toolbox.”

The kit is designed to repair 3/8 and 1/2-in. dia. hose. It comes in a durable, water-resistant case and includes 30 ft. of thermoplastic hydraulic hose; a hose cutter tool; a vise holder die set; and 6 different field attachable couplings.

To replace a broken hose, you cut the new hose to the desired length, then run the hose through the die and tighten the die in a vise.

Then use a socket wrench or combination wrench to screw a ferrule counterclockwise onto the end of the hose, leaving a 1/8-in. gap. Once the ferrule is secure, remove the die and screw on a threaded coupling, inserting the coupling clockwise into the ferrule until it bottoms out.

“If you want you can use a pair of C-clamps or channel locks to hold the die holder in place, or grip the hose with your hand,” says Johnson.

Johnson has a background in logging and was asked by the Nitta Corporation of America to introduce their hydraulic products into end user markets. “Nitta is a manufacturer that supplies OEM products. They’ve never sold anything to the public, so I’m trying to get the word out now,” says Johnson.

He says the thermoplastic hose has a smaller outside diameter for easier routing than conventional hydraulic hose, and the polyurethane cover is more abrasion resistant than rubber.

“The 3/8-in. dia. hose has an operating pressure of 3,450 psi, and the 1/2-in. hose has an operating pressure of 2,900 psi,” says Johnson. “Adaptors are also available for connecting unique end configurations.”

The standard kit sells for \$220 plus S&H. “This item pays for itself the first time you use it, and the couplings are reusable,” notes Johnson.

To see an instructional video about the product, go to: [www.nitta.com/linemate.htm](http://www.nitta.com/linemate.htm).

Contact: FARM SHOW Followup, Larry Johnson (ph 678 780-8797; [ljohnson@nitta.com](mailto:ljohnson@nitta.com)). To request literature about all



**Kit lets you easily assemble replacement hose without needing any special equipment.**

of the company’s products, contact: Nitta Corporation of America, 7605 Nitta Dr., Suwanee, Ga. 30024 (ph 800 221-3689 or 770 497-0212; [www.nitta.com](http://www.nitta.com)).

## His Portable Vehicle Hoist Works Great

“I was sitting on a beach in Florida and this idea just came to me,” says Brussels, Ont. farmer Wayne Hopper, who built his own portable hydraulic car and truck hoist out of steel tubing, loader cylinders and scrap metal. The hoist normally sits in his shop, but he made it portable so he can move it outside to change oil on vehicles without making a mess inside.

Hopper’s hoist has two 12-in. wide wheel ramps made from channel iron. They’re adjustable to the wheelbase and are raised and lowered on four lifting posts made from 4-in. square steel tubing. Each post has a 48-in. hydraulic cylinder. Hopper plumbed the cylinders to supply lines that he connects to his tractor for hydraulic power.

“We’ve always got a tractor available, so it made sense to use those hydraulics rather than buy a special power pack to raise and lower a vehicle,” Hopper says. “Each cylinder is rated for 2,500-lb. lift capacity so the hoist and the tractor have no problem lifting cars or pickups.”

To stabilize the lift he has a 3-in. flat steel X-brace connecting the foot of each leg and an X-brace connecting the two legs on each side. He uses 1/2-in. bolts through each leg when the hoist is in the air, as safety pins.

“The lift is very sturdy when a vehicle is on it,” Hopper says, “so I don’t have it bolted to the floor. That way I can move it outside with a loader or forklift.”

Hopper says materials for the hoist cost him about \$1,500 and it took him about a week to build it. “There wasn’t too much head scratching that went into it, which was kind of amazing compared to other things I’ve built. The best part is that it really works. For years and years I’ve rolled under cars on different floor dollies, bumped my head and gotten lots of dirt in my face. This thing makes repair and maintenance a whole lot easier,” Hopper says.

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**Portable hydraulic car and truck hoist has two 12-in. wide, channel iron wheel ramps that are raised and lowered on 4 lifting posts.**

## Custom-Made Grinding Jig For Deere 2020

Vince Osburn’s homemade grinding tool lets him get inside the differential housing on a Deere 2020 tractor to guide a grinding wheel to resurface the brake contact area. Adding a second plate and spacers make the tool perfect for resurfacing brake pistons, too.

“I don’t know what it would’ve cost to get the housing surface area refinished or replaced,” says Osburn. “I don’t even know where I would go to have it done.”

The grinding tool was designed specifically to fit inside the differential housing of Osburn’s 2020 Deere. He suggests that it could easily be modified for any size cavity that needed to be resurfaced.

The tool has an arbor made from a #8 bolt drilled out to hold a standard 4 1/2-in. grinding wheel mounted on a 1/2-in. drill. It also has a steel plate sized to fit the housing and three roller guides fashioned from window cord pulleys. The guides keep the grinding wheel in position while allowing it to move around inside the housing.

Osburn’s homemade arbor is reinforced with a 5/8-in. bolt that’s locked tight to the plate with a double set of nuts. At the drill, the bolt is welded to a clamp. Osburn fabricated the clamp from two pieces of pipe cut in half lengthwise and bolted together over the drill drive barrel.

“I didn’t know what the perfect placement would be, so I slotted the holes for the roller guides,” says Osburn. “They can move about an inch as needed. With the bolt reinforcement, there’s very little flex or bend. It’s very rigid. I just ground a little at a time, rotating the plate to get a decent finish all the way round.”

Once the brake contact area was resurfaced to his satisfaction, Osburn modified the tool to work on the brake piston. He added a second steel plate, larger than the first, so it could be clamped to a work surface.

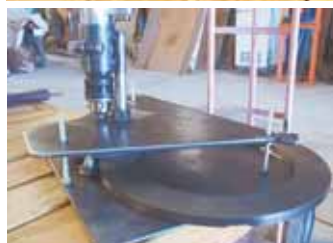
“I replaced the bearings with 3 bolts to serve as spacers between the original plate and a second plate,” he explains. “The roller guides were remounted on the upper side of the second plate to keep the brake piston in place, yet let it rotate.”

With his resurfacing finished, Osburn has no more need for his tool and has offered it on eBay for \$75. Interested readers can find it under John Deere Brake Resurfacing Tool, listing #230864203226. He can also be reached at home with questions.

Contact: FARM SHOW Followup, Vince Osburn, 8436 Prospect St., Mojave, Calif. 93501 (ph 818 371-5377; [flyby41@earthlink.net](mailto:flyby41@earthlink.net)).



**Vince Osburn made this grinding tool to fit inside the differential housing on his Deere 2020 tractor, allowing him to resurface the brake contact area.**



**Photo at left shows grinding tool being used to resurface brake; photo at right shows resurfaced brake installed in differential housing.**