



SIMPLE "STRIP SYSTEM" LETS VEHICLE WINCH ITSELF OUT OF MUD OR SNOW

Slick Way To "Unstuck" Cars, Trucks Or Tractors

An amazingly simple "strip system" is the slickest thing we've ever seen for "unstucking" cars, trucks or tractors hopelessly mired in mud, snow or sand.

Until we saw it demonstrated, we didn't really believe anything so simple could be so effective. "It may look simple but you won't believe all the time and money it took to get the idea perfected," inventor Tod Granryd, told FARM SHOW.

A consulting agricultural engineer by profession, he is also president of TG Strips, a new company he founded to manufacture and market his patented new invention for "unstucking" virtually any four wheel vehicle — car, truck, tractor, camper, van, bus or whatever.

Sets of TG Strips designed for "unstucking" passenger cars, pickups, campers and vans are already in production. Heavier duty models for freeing tractors, trucks or possibly combines from mud or snow will be available in early 1978, reports Granryd.

Here's how the system works in "unstucking" a passenger car:

Everything you need to move it out of a deep mud hole or snow bank comes in a small 8 by 10 box, weighs only 10 lbs., and has no moving parts. It consists of:

1. A pair of anchoring-traction strips (one for each side of the car). Each strip (see photos) is made up of a 4 ft. long anchoring mat at one end and a 3 ft. long traction mat at the other. These two mats have deep corrugations on one side for traction and are securely connected to each other with seat belt type webbing. A heavy duty buckle allows distance between the mats to be adjusted, as needed, to fit wheel bases from 85 to 125 in.

2. Also in the box is a winch assembly made up of two short straps (one for each rear wheel) and two short pieces of hose (which makes for easy unbuckling when the job is done). These "winch assembly"

pieces are needed only if the car is really buried in mud or snow. In most cases, the strips alone will be sufficient to free the vehicle, Granryd points out. Here are the steps to follow in "unstucking" a car or pickup with rear-wheel drive:

1. Roll out the strip along the vehicle (one on each side).

2. Lay the anchoring mat portion of it in front of the front "non-driving" tire, with corrugations toward the ground.

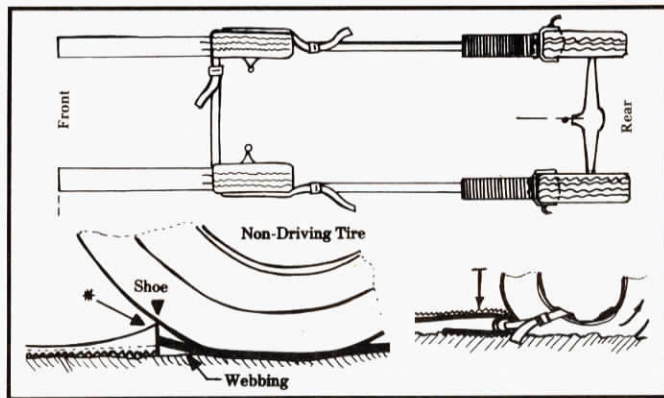
3. Lay the traction mat portion of it in front of the rear tire, with the corrugations toward the tire.

4. Repeat for the opposite side of the vehicle.

"In most cases, that's all that's required to get going and it takes but a few minutes," Granryd points out. "Each strip creates its own fixed point by means of the anchoring mat placed ahead of the front non-driving wheel. It stays put, thanks to the weight exerted upon it by the car, and to a special shoe which is molded right into the mat itself. The heavy corrugations are built in to provide the highest possible coefficient of friction."

Granryd spent a lot of time and money searching for a strong, lightweight and durable coupling between the two mats that wouldn't rust, and that wouldn't rip or break. He gave up on the invention twice, unable to find a fabric strong enough. He finally hit on the idea of using ordinary seat belt webbing. It has a minimum breaking strength of 5,000 lbs., is light weight and also abrasion resistant. In manufacturing the strips, this strong seat belt webbing is used from one end to the other of each strip assembly and is molded right into the front and rear wheel mats to form a super bond, explains Granryd.

Once he had the strips perfected, he discovered that there can be times when they alone wouldn't do the job if the vehicle was severely mired down in mud or snow. "There is a



Upper drawing shows arrangement of Strips for vehicle with rear-wheel drive. With straps laid out in this fashion, driver puts transmission in low gear forward, accelerates slowly. After moving car only about 4 or 5 ft., upfront anchoring mats, having maintained their positions on the ground, will lay free and clear behind front wheel.

Key to entire system is way in which anchoring mats are held secure by front wheels to anchor traction mats so that rear driving wheels can't spin and throw them out behind vehicle.

Arrow in lower right drawing shows how traction mat is folded around short piece of hose and strapped onto rear tire with a short "winch kit" strap. Strap goes through hose. As rear drive wheel turns, it winds on traction mat to winch itself out of deep mud or snow. Lower left drawing shows special shoe molded right into traction mat which is placed snug against front of each front (non-driving) wheel.

limit to the coefficient of friction that can be obtained between two free surfaces — even crawler tractors, for example, will spin their tracks at times," he points out.

To eliminate this limitation, Granryd hit on the idea of a simple winching kit, which consists of a short strap and a short piece of hose for each rear wheel: "The straps tie the traction mats to the rear driving wheels, making them function as two powerful winches. You simply put the transmission in gear and step on the throttle. As you roll out a few feet, the vehicle's weight and front wheels keep the anchoring portion of each strip from moving backwards. Therefore, as the rear driving wheels rotate, the traction portion must wind itself onto the driving tire. In the process, the vehicle only has to move out of the hole."

Purpose of the hose?

"It took some effort for the car to lift itself out of the predicament, and, during that process, the tire strap buckle was strained. By merely rolling the hose forward, that strain is relieved, making it easy to unbuckle each of the straps," explains Granryd.

Once the vehicle is free, you just toss the strips into the trunk. When you get time, just wash or wipe them off, roll them up and put them back in the box and they're ready for the next emergency.

The key design feature which makes the invention work is the unique way in which the front wheel "anchoring mat" serves to anchor or tie down the rear traction mat so it can't be tossed out the back of the vehicle by the spinning wheel. The anchoring mat works its way under the front wheel automatically — without having to jack up the wheel. "You simply lay the mat in front of the front tire, butting it snug against the face of the tire," explains Granryd. "The car's front wheel automatically anchors the mat, holding it in place while it serves as an anchor for



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the traction mat behind it on the rear wheel."

Granryd notes that one of the strips alone is strong enough to lift a full size car. Yet, it only weighs 4 lbs. When rolled up, it makes a coil 7 in. in dia. and only 4½ in. wide. The strips can be used for either 2 (front or rear) or 4 wheel drive vehicles.

Are they safe to use?

"During several years of extensive research, not a single accident or mishap has occurred," says Granryd. "And, we haven't put a single scratch on any of the vehicles we have worked with in testing the invention."

A set of TG Strips to fit most passenger cars, pickups, campers or vans sells for \$54.75, including parcel post charges. Dealer inquiries welcome. Granryd estimates that the heavier model of TG Strips he is developing for farm trucks and tractors will be priced at approximately \$100 per set.

For more details, write to: FARM SHOW Followup, TG Strips, Inc., T.G. Granryd, president, 825 North Sheridan Road, Lake Forest, Ill. 60045.