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Nealey Repair Kits Still Patching Tires

Longtime FARM SHOW readers may have discovered the Nealey Tire Repair Kit when they were first introduced in 1981 (Vol. 5, No. 1). And it’s likely they still use it today to repair tubeless tires on farm equipment, semis, motorcycles and other vehicles.

It continues to be the best DIY tire repair available, says Douglas Downing, who purchased the company with his brother, Joe, in 2022. Charles Nealey’s invention was Downing’s first product as a manufacturer’s rep 37 years ago. After working with many nationally known products, he invested in it when Nealey’s son, Matt, retired. Joe retired as a paramedic and is younger, so the company will be in business for many years, Downing says.

“We call them a permanent repair if done right. The biggest thing is that our product is embedded and vulcanizes with the tire and becomes part of the tire. We’ve had a person brag about fixing the sidewall of a tractor 25 years ago,” Downing says, noting that isn’t recommended for highway vehicles.

Other similar products use glue or cement and an open-eye needle tool to push the cord in the tire. U.S.-made Nealey kits have uncured butyl and silicone rubber impregnated on a cotton cord inserted with

a closed-eye needle tool. For most tires, the standard 7-in. cords are inserted, twisted 1 1/2 turns and the tool is pulled back out and cut free to create a knot inside, leaving four strands in the tire’s hole. Air pressure adds to the seal, and driving on the tire melts the coated cord into the puncture. The kits cost \$15 for 10 strands and the tool.

For heavy-duty pickups, semis and vehicles with 6 to 24-ply tires, there are kits with 14-in. strands and the tool (10 and 20-unit packs and tool, \$19 and \$25), as well as refill kits with just the cords.

Many customers are in agriculture and forestry. However, with Internet sales, vehicle owners, motorcyclists, ATV enthusiasts, garden tractor owners, and people who like fixing things are discovering the 43-year-old product.

“You can repair a tire for less than \$2,” Downing points out.

Customers can still call to place their orders or order online.

Contact: FARM SHOW Followup, Kool Tools DBA Nealey Company, 175 Coolidge St., Swan, Iowa 50252 (ph 800-289-9781; nealeykooltools@yahoo.com; www.nealeytirerepairkit.com).



Valve Capper allows for checking air pressure without moving the truck and has a built-in valve core removal tool.

Tool Simplifies Checking Tires

The handiest tools are ones invented by people who actually use them. That’s the case of the Valve Capper, invented by Al Starry, a trucker from Alexandria, Minn. He came up with the idea to create the foot-long device while recovering from an injury. Checking the air in his tires every week was important but tedious since he had to move the truck often to get the valve stems in the right position to reach them.

With a rubber end that firmly grips and holds the valve cap on a long shaft, he could check the air pressure in all the tires without moving the truck. Later, he designed a valve core removal tool for the other end of the Valve Capper.

“It has an insert that holds the core,” says Josh Krause, sales and customer service representative for Country Enterprises, Inc., which manufactures and sells the Valve

Capper.

With its dual purpose, the \$13 tool is a staple for many truck drivers, especially in the Midwest. Country Enterprises recognized it was a good tool and purchased the rights from Starry, who couldn’t keep up with making and shipping them himself.

The company redesigned it slightly, added a new patent and set up equipment to assemble the Valve Capper. It fits well with the markers for tile, hydrants, driveways, plows, fencing and other ag products that the Minnesota company manufactures and sells on its website.

The simple tool is popular with truckers and farm operations, Krause says.

Contact: FARM SHOW Followup, Country Enterprises, Inc., 410 North St., Lucan, Minn. 56255 (ph 800-349-8752; www.countryent.net).

Mid-Range Welding Helmet Loaded With High-End Features

By Jim Ruen, Contributing Editor

The Sentinel A60 is an auto-darkening filter (ADF) variable-shade welding helmet from ESAB. It has everything you need for most welding applications except overhead applications. Its wide shade range of 5 to 13 with a passive shade of 3 fits most welding applications.

The Sentinel doesn’t have the curved glass technology of the Speedglas G5-02 from 3M (Vol. 48, No. 3). However, Kevin Beckerdite, ESAB, suggests that curved glass comes at a cost in dollars and restrictions in use.

“The Sentinel is a more versatile helmet at a much better price point (\$369 vs. \$860 for the G5-02),” notes Beckerdite. “Curved ADFs (auto-darkening filters) require using very thin glass. We’ve received feedback that they can become damaged if doing higher amperage MIG welding in close proximity.”

The Sentinel features a more traditional flat ADF. It achieves perfect 1/1/1 EN optical ratings, the highest possible for optical class, light diffusion, light homogeneity and angle dependence. In layperson’s terms, it delivers a clear view with even shade across the full height and width of the viewing area. The welder sees the arc and the workpiece without distortion.

Beckerdite adds that the enhanced true-color OpTCS technology reduces eye fatigue while helping identify changes and impurities in the arc.

While this writer has not worked with the Speedglas G5-02, ESAB did provide the Sentinel for a trial. It lived up to the claims of quality optics and responsive auto-darkening. There was no comparison between its 0.04 millisecond switching time and other features and the entry-level ADF welding helmet previously purchased at Harbor Freight.

The Sentinel’s Halo headgear was easily adjusted and provided good fit and balance. Beckerdite notes that it and the shell (1.4 lbs.) are designed to minimize neck fatigue while maintaining good clearance.

Switching between welding and grinding can be frustrating as sparks from the angle grinder set off ADF sensors. ESAB eliminates the frustration with a quick-access, external grind button.

The A60 is an improved version of ESAB’s earlier Sentinel helmet. It has a 40 percent larger viewing area (4.65 in. by 2.80 in.). Its 3/5 to 13 shade range is adjustable by half-value digital increments. Four hyper-acting arc detection sensors offer automatic light recognition in any work environment. A replaceable ADF battery with solar backup powers the helmet.

A dual-color LED control panel inside the helmet offers up to nine programmable ADF memory settings that can be saved for use with different welding profiles. A graphical meter displays shade sensitivity and delay settings. When desired, a shade-lock feature maintains the ADF at its selected shade until



Sentinel A60 (left) and entry-level Harbor Freight helmet (right).



A dual-color LED control panel inside the helmet offers up to nine programmable ADF memory settings that can be saved for use with different welding profiles.

turned off. Warning lights alert the user to grind mode, ADF shade lock and low battery levels.

This user noted only two frustrations with the helmet. The first was the poor quality of the instruction manual. The icons were too small and unclear. The second involved installing the button battery. While the manual didn’t call for doing so, removing the headgear assembly simplified access.

When these were pointed out to Beckerdite, he responded immediately, agreeing that the manual needed work, particularly on the clarity of icons. As for battery access, he admitted it’s not ideal due to the legal requirement to use a tool when installing.

“Future helmets will see something much better,” says Beckerdite.

Contact: FARM SHOW Followup, ESAB Welding & Cutting Products, 2800 Airport Rd., Denton, Texas 76207 (ph toll-free 800-372-2123; www.esab.com).

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