

Illinois Guard Soldier's Invention to Save Army Hundreds of Thousands of Dollars

September 28 2016 4:17 PM



SPRINGFIELD, Illinois – Illinois Army National Guard Sgt. Wesley Todd, of La Porte, Indiana, invented a device that improves Soldier safety and equipment longevity while working on a light-towed Howitzer.



It is being adopted by the entire U.S. Army later this year and is projected to save taxpayers hundreds of thousands of dollars, perhaps more.

"I am shocked that the Army is going to adopt something I designed myself," said Todd, a noncommissioned officer with the 333rd Military Police Company in Freeport, Illinois, and a military technician with the Combined Support Maintenance Shop (CSMS) at North Riverside Armory in North Riverside, Illinois.

"It's an honor to know I improved the Army in a small way," Todd said.

Maj. Gen. Richard J. Hayes, the Adjutant General of the Illinois National Guard, said Todd's invention will affect the Army in more than a small way.



"This Soldier's invention will increase safety and save the entire Army hundreds of thousands of dollars in equipment parts and repair time," Hayes said. "These are resources that will now be able to be devoted to other U.S. Army priorities. Sgt. Todd and his leadership have set a great example. Sgt. Todd has shown how a single Illinois Army National Guard Soldier can improve a process for the entire Army, and his leadership has shown us a great example of how to listen to your Soldiers' ideas and help them implement positive changes. I'm proud to have these Soldiers under my command."

Chief Warrant Officer 2 Steve Murphy, Armament Supervisor at the Combined Support Maintenance Shop (CSMS) at North Riverside Armory in North Riverside, Illinois, said Todd took it upon himself to design and fabricate the device when he saw Soldiers struggling to remove a seized-up muzzle break on a light towed Howitzer.

The device invented by Todd makes removing seized muzzle breaks much easier, without the type of force that could damage the Howitzer tube or its rifling grooves. Just the tube of the light-towed Howitzer can cost over \$265,000.

"It can be very difficult to remove the muzzle break," said Murphy. "They sometimes seize up in varying weather conditions."

Sgt. 1st Class Edger Gomez of Oak Lawn, Illinois with Company B, 634th Brigade Support Battalion in Champaign, Illinois, and an artillery repairman as a military technician in the armament section at the CSMS in North Riverside, Illinois, said it takes far less force to remove the muzzle break with the device and eliminates the chances of damaging the equipment.



"This is a very helpful tool and I believe it will be very helpful throughout the Army as well," said Gomez. "It's awesome that this came from our state and he is an awesome machinist."

Murphy said Soldiers normally had to take a sledge hammer to the muzzle break to remove it, which frequently damaged the muzzle break and could damage the artillery tube.

"Using this device instead of a sledge hammer has and will continue to keep the Soldier safer when working on the equipment," said Murphy. "The device has also made the process much faster."

Despite the invention's big impact, Todd, a machinist at the CSMS said it was just in another day's work.

"Making things is a part of my job," said Todd. "This is by far the most impactful thing I have ever made though."

Todd, who has worked as a machinist at the CSMS for three years, said he normally repairs damaged parts and makes new parts for military vehicles and equipment.

"This was the first part that I designed myself and then fabricated," said Todd. "Normally I fabricate parts from manuals in the shop."

Todd said he hopes he improved the U.S. Army by inventing the part.

"I have no doubt this device will go on to make a huge impact to the efficiency of removing the muzzle break Army-wide," said Murphy. "He is an unbelievable machinist and I am very proud of him for stepping up when there was a need."

The Army has approved Todd's device for total adoption. It is scheduled to be implemented Dec. 31, 2016.

Photo 1 (bottom, left): Sgt. Wesley Todd, of La Porte, Indiana, tightens his invention, used to remove the muzzle break from the light towed Howitzer, on to a lathe in the machine shop at the at the Combined Support Maintenance Shop in North Riverside, Illinois. The device Todd invented improves Soldier safety and equipment longevity while working on the light towed Howitzer. (U.S. Army photo by Staff Sgt. Robert R. Adams, Illinois National Guard Public Affairs)

Photo 2 (right): Sgt. Michael Georgeff of Bourbonnais, Illinois with the 3625th Component Repair Company and Sgt. 1st Class Edgar Gomez of Oak Lawn, Illinois

with the 634th Brigade Support Battalion, both artillery mechanics at the Combined Support Maintenance Shop in North Riverside, Illinois use Sgt. Todd's invention and a pry bar to remove the muzzle off a light towed Howitzer. Sgt. Wesley Todd is a machinist at the Combined Support Maintenance Shop in North Riverside, Illinois and invented a device that improves soldier safety and equipment longevity while working on the Light Towed Howitzer. (U.S. Army photo by Staff Sgt. Robert R. Adams, Illinois National Guard Public Affairs)

Photo 3 (top, left): Sgt. Wesley Todd, of La Porte, Indiana checks the measurements on the device he invented at the machine shop in the Combined Support Maintenance Shop in North Riverside, Illinois. The device Todd invented improves Soldier safety and equipment longevity while working on the light towed Howitzer. (U.S. Army photo by Staff Sgt. Robert R. Adams, Illinois National Guard Public Affairs)

Photo 4 (top): Sgt. Wesley Todd, of La Porte, Indiana, poses for a photo in front of the Combined Support Maintenance Shop in North Riverside, Illinois. Todd invented a device that improves Soldier safety and equipment longevity while removing the muzzle break from the light towed Howitzer. (U.S. Army photo by Staff Sgt. Robert R. Adams, Illinois National Guard Public Affairs)