

# Techs Beat Book Time Pulling Stuck Sensors

## Air-Hammer-Powered SHOCKIT Technology

**R**ecently, a third-party judging panel of industry experts selected the Shockit Diesel NOx & Particulate Sensor Removal Kit from LTI Tools by Milton as the 2023 Specialty Tool Innovation Award Winner. This confirms that techs use this kit to increase productivity on sensor repairs making them faster and easier.

This unique air-hammer SHOCKIT-powered Sensor Removal Kit uses harmonic vibration to “shock” loose difficult-to-remove sensors, vastly shortening repair times.

### SHOCKIT WORKS ON JUST ABOUT ANY ENGINE

The kit pops NOx sensors and particulate sensors (soot sensors) on Chevy Duramax, Dodge Cummins and Ford Power Stroke. It also pulls NOx sensors and lock nuts on Jeep and RAM ECO Diesel and removes Class 8 sensors including Kenworth, Caterpillar, Cummins, International, Detroit, Volvo engines and many more.

When a Long Island, New York construction company’s fleet vehicle started to run rough and burn through excessive amounts of fuel, they took the Ford F-550 to the experienced technicians at Northport Spring & Brake. After a quick diagnostic test, the answer was clear... a bad Diesel NOx Sensor was to blame.

### THE MASTER TECH WANTED A BETTER TOOL

When Rob Limmer, an ASE-certified master technician with more than 30 years of experience took a look at the rusted-on sensor, he knew he needed a different tool for this application due to limited access for the repair.

So, he searched the web for a way to get it done with less hassle than with a conventional socket, ratchet or open ended wrench. He came across the SHOCKIT Diesel Sensor Removal Kit. After studying the online content and reviewing the video, Limmer took the next step.

Sean Hatch, the shop’s service writer purchased the device. With the fleet truck sitting in his bay not earning any revenue, he picked the perfect solution to help him help his customer. The item shipped fast and arrived quickly to expedite the repair and move the asset from the shop, back onto the road and back to making the construction company money.

### WHY ARE SENSORS TOUGH TO PULL?

Over time, when a NOx sensor is coated in soot, it gives inaccurate readings. Also, it is exposed to abrasive gases, allowing moisture to intrude, damaging the internal components. Due to constant temperature and environmental changes, the sensor rusts and seizes.

According to Limmer, the old-fashioned way to pull seized sensors involves using a torch to heat the frozen component to cherry-red. Then, a ratchet socket is used to muscle it out. After that, the threads are cleaned and a new sensor is inserted. This takes time, sweat and tons of patience.

“There are usually a lot of different ways to get a job done. But, every now and then you come across a new tool that hits a home run,” Limmer said. “The powerful impact from the unique air-hammer powered punch rod and dimpled socket allowed me to easily spin the stuck sensor out.”

### HOW DOES SHOCKIT TECHNOLOGY WORK?

The secret to this kit is that it uses the amplified force and harmonic vibration of an air-hammer-powered punch drive to “shock” the sensor free. Experienced techs know how to remove corroded fasteners, applying tension and smacking them with a hammer. That usually does the trick.

With SHOCKIT, the system not only uses a hammer, it uses the constant impact effect of the hammer concentrated on a very small surface area, which translates to more power, less effort, and better results. Each of the five sizes of Shockit NOx Sockets are strong cast-hardened steel incorporating three

**Cheap Sockets Stink!**

## Don't Bet on Cheap Sockets That BUST!

Unlike various types of cheap sockets, the LTI Tools 8mm punch and Shockit Sockets are cast-hardened steel and extremely durable. They come with a lifetime warranty for manufacturing defects!



driving ears with indexed holes for delivering maximum rotational force.

The socket's inverted holes allow for tightening and loosening, working stubborn sensors back and forth. No back-and-forth cranking on a ratchet or pry-bar is necessary. This means they work great in tight spaces. The kit also includes 20mm, 22mm, & 27mm bottoming tap and dies for sensor and mounting hole threads.

"The entire job took me about 15 minutes to complete, and book time said it should take an hour," Limmer. "After just a few uses, this tool will pay for itself. They really covered all the bases."

Mike Powers is a master tech at Washington Ford in Western Pennsylvania. Recently, he snapped a cheap, non-Shockit socket in half while trying to ratchet out a stuck oxygen sensor on a Ford F-150.

### CHEAP TOOLS BREAK KNUCKLES

"I busted the cheap socket and banged my knuckles," he said. It probably would have stripped the threads too. That's the last time I use trash like that."

A few days later Diesel Tech Kevin Miller was working on a 2014 Ford F-150 with a 5.0L Coyote engine. He realized the



**Diesel Tech Kevin Miller uses the 7/8-inch Shockit socket to quickly pull a stuck sensor on a Ford Coyote 5.0L engine.**

Shockit Sensor Removal Kit's 7/8-inch socket would work on his Ford gas engine.

"We grabbed the kit for our shop because of its versatility," Miller said. "Yes, we can use it on diesel engines. But, we service a lot of other vehicles that it will work on. I'd recommend the Shockit for any shop. This kit nails it."

# SHOCKIT™

**PRODUCTIVITY MADE SIMPLE**

LT996D



**2023 Innovation  
Award Winner**

## SHOCKIT™ DIESEL NOx & PARTICULATE SENSOR

- ▶ Compact sizes for reaching sensors in restricted access areas
- ▶ Allows most sensors to be removed without damaging the threads
- ▶ Removes sensors on Chevy Duramax, Dodge Cummins, Ford Power Stroke, Jeep/RAM ECO Diesel, Kenworth, International, Detroit, & Volvo
- ▶ Each socket has inverted index holes for tightening and loosening allows for stubborn and frozen sensors to be worked back and forth

Save hours of time without having to drop an exhaust system.



**Air-Hammer-Powered**



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**Remove Stubborn Bolts, Sensors, & Fasteners  
with the Power of an Air Hammer**

