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Professional Tool & Equipment News

\$15.00 • October 2017 Volume 28, Number 9



The Independent Tool Authority



ZEUS WITH INTELLIGENT DIAGNOSTICS PLATFORM By Snap-on

Details on the cover products and other new tools

Page 10



▲ Fits all SAE and metric grease fittings Fuel injector hold-down bolt repair





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EXCLUSIVE

56 PEOPLE'S CHOICE WINNERS

The 2017 *PTEN* People's Choice collection features the top 28 products selected by our readers, per product category, that were originally nominated for the 2017 *PTEN* Innovation Awards.

64 AAPEX/SEMA PREVIEW

Check out some of the tools and equipment to be featured at these upcoming shows in Las Vegas this November.

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FEATURED NEW PRODUCTS

Check out new tools from Lumax, Snap-on, Alert Stamping and ProMAXX. Then, read about all the other new products, beginning on page 11.

TOOL BRIEFING Contributing Editor Barry Hoyland discusses ways to integrate new technologies, like scan tools and lab scopes, into the shop setting.

TOP 10 TOOLS A dealership-turnedindependent tech shares the top tools he uses for diagnosing a wide range of driveability issues.

76 TOOL REVIEWS Our review panel gives feedback on the following tools:

- •Matco Tools COB Folding Light •Vampliers 7.5" Long Nose Screw Extraction Pliers
- •Tri Springs Tool Door Guards

B DIAGNOSTIC TOOL REVIEWS

Our review panel gives feedback on the following tools: •Innova 5160 CarScan PRO scan tool







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Large equipment buys and expensive tool purchases are big decisions. How do you build a case for buying a particular tool or piece of equipment?

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This month's section features product information on shop equipment and tool storage. In addition to product details, this section features links to product video demos, tech tips and more.

BB MARKETPLACE

 BIG-TIME BOXES
 Owner: Richard Hays
 Shop: Service King Paint and Body #302
 Location: McDonough, GA

ON OUR COVER



ZEUS platform with intelligent diagnostics by Snap-On

IN THE NEXT ISSUE

Find out the AAPEX and SEMA Editor's Picks from this year's show.





DIAGNOSTICS AT THE PRICE YOU NEED **BONDERFUL** MAXISYS TABLET SCAN TOOLS



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TOOL REVIEW

The Mueller-Kueps Twin Cone Wheel Bearing Kit. A tapered design allows one person to do a two-person job, the reviewer says. To read the full review, visit VehicleServicePros.com/ 20977736

ASK THE EXPERT



Are all multi-purpose lubricants the same? To read the full article, visit. VehicleServicePros.com/20974231

TECH TIP



Learn how to spot the symptoms of a dirty fuel injector and how to remove buildup on fuel injectors to keep them operating at peak efficiency. To read the full article, visit: VehicleServicePros.com/20976945

VINFO



A demonstration of the Bartec USA Tech400Pro placard feature. To watch the video, visit: VehicleServicePros.com/20975174



Professional Tool & Equipment News The Independent Tool Authority

Published by SouthComm Business Media, Inc

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PO Box 803 • 1233 Janesville Ave Fort Atkinson WI 53538

SouthComm Business Media 920-563-6388 • 800-547-7377

Printed in the U.S. Volume 28, Number 9: October 2017

GROUP PUBLISHER Larry M. Greenberger LGreenberger@SouthComm.com

PUBLISHER Kylie Hirko 262-473-9497 KHirko@SouthComm.com

EDITOR Erica Schueller 800-547-7377 x1630 ESchueller@SouthComm.com

MANAGING EDITOR Sara Scullin 800-547-7377 x1394 SScullin@SouthComm.com

ASSISTANT EDITOR Vesna Braikovic 800-547-7377 x1645 VBrajkovic@SouthComm.com

ASSISTANT EDITOR Stefanie Von Rueden 800-547-7377 x1602 SVonrueden@SouthComm.com

MULTIMEDIA ACCOUNT EXECUTIVE Cortni Jones 800-547-7377 x1391 CLJones@SouthComm.com

MULTIMEDIA ACCOUNT EXECUTIVE Diane Braden 800-547-7377 x1364 DBraden@SouthComm.com

MULTIMEDIA ACCOUNT EXECUTIVE Mattie Gorman 800-547-7377 x1636 MGorman@SouthComm.com

INSIDE SALES Kavlee Kidd 800-547-7377 x1362 KKidd@SouthComm.com

PRODUCTION MANAGER Connie Wolf 800-547-7377 x1679 CWolf@SouthComm.com

ART DIRECTOR Eric Van Egeren

LIST RENTAL REP Elizabeth Jackson 847-492-1350 x18 ejackson@meritdirect.com

AUDIENCE DEVELOPMENT MANAGER Debbie Dumke

SOUTHCOMM INC CEO – Chris Ferrell CFO – Bob Mahoney COO - Blair Johnson VP. Production Operations - Curt Pordes VP, Technology – Eric Kammerzelt EVP – Gloria Crosby

Subscription Customer Service 877-382-9187 847-559-7598

Circ.ProfDistmag@omeda.com PO Box 3257 • Northbrook IL 60065-3257

Article reprints • Brett Petillo Wright's Media 877-652-5295, ext. 118 bpetillo@wrightsmedia.com

Professional Tool & Equipment News (USPS 012-426, ISSN 1081-4485 Professional 1001 & Equipment News (USPS 012-426), ISSN 1001-4465 print; ISSN 2150-2072) is published ten times a year in February, March, April, May, June, July, August, September, October, and December by SouthComm Business Media, LLC. 1233 Janesville Avenue, Fort Atkinson, WI 53538. Periodicals postage paid at Fort Atkinson, WI 53538 and additional mailing offices. POSTMASTER: Send address changes to Professional Tool & Equipment News, PO Box 3257, Northbrook, IL 60065-3257. Canada Post PM40612608. Return undeliverable Canadian addresses to: Professional Tool & Equipment News, PO Box 25542, London, ON N6C 6B2

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FFATURED PRODUCTS



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1-1/2" Drive Air Impact Wrench, No. NC-9223 Mighty-Seven VehicleServicePros.com/



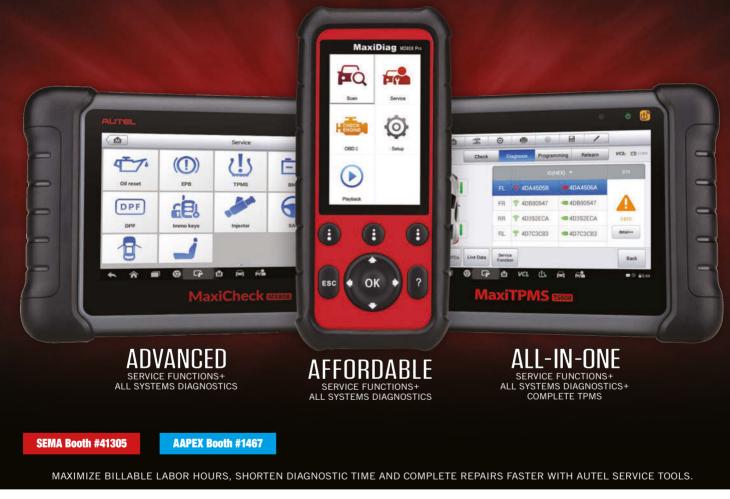
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SEDITOR'S NOTE



The return on investment for new tool technologies

How do you build a case for your next shop purchase?

By Erica Schueller, Editor Erica@VehicleServicePros.com

s an independent repair shop business owner, your large equipment buys and higher price tag tools for the shop likely involve a fair amount of research before you sign off on the purchase.

When making these decisions, how do you build a case for buying a particular tool or piece of equipment? While cost is a considerable factor, making that buying decision goes much deeper than "How many times do I need to use 'X' to get my investment back?"

In addition, you likely gather feedback from your technicians, shop managers, service managers and/or other employees in the shop who will be using the product. The evaluation will involve comparison shopping to review all of the options available in that particular tool category. Not to mention, testimonials and user feedback can go a long way in making a sound decision.

You also want to be sure you're making a long-term investment in your shop's future. Will this equipment last five years? 10 years, or longer? Is it upgradeable or updatable, or does it have capabilities to retrofit particular accessories for adjustments in the future? (Think tire changers, RRR machines, scan tools, etc.)

For newer tool technologies on the market, some of these tool categories are just emerging for the aftermarket.

When you're looking to the future, it's also important to understand there are some products that haven't been on the market for long – but they'll still be a value to your technicians.

Evaluating the need and value of these products can be challenging, which is why it's crucial to stay up-to-date on changing vehicle technologies, and how those will affect the products developed due to these industry changes.

So, what is on the horizon for new products you may be tooling up for soon?

This month, Contributing Editor Barry Hoyland provides readers with an indepth look at the different tool technologies recently introduced to the aftermarket. He covers everything from the traditional and more familiar scan tools and lab scopes, to digital inspection tools, telematics and tools for calibrating advanced driver assist systems (ADAS).

Just like the changes in refrigerants, the adoption of some of these technologies may take years before you see them. Others – like scan tools and lab scopes – are in your shop already. It's just a matter of making sure you're using those products to their fullest potential.

To read more about these new tool technologies in this month's Tool Briefing, "How to integrate new tool technologies into your shop," turn to page 68. And, as always, check out other new tools available now in the New Products section, starting on page 10. **PTEN**

Check out the VehicleServicePros.com online product guide, which is updated daily with details on new tools and guipment. To search, visit. VehicleServicePros.com/directory



Sara Scullin Managing Editor



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FEATURED NEW PRODUCTS

Fits all SAE and metric grease fittings

The Lumax Heavy Duty Quick Release Coupler, No.

LX-1403, has an innovative design that enables it to firmly latch onto the grease fitting, enabling hands-free greasing, according to the company. The heavy duty quick release grease coupler locks on and creates a leak-proof seal. The LX-1403 has a

working pressure of 15,000 psi and burst pressure of 22,000 psi. The LX-1403 has four hardened jaws to withstand high pressures without deformation. No spurts or splashes when disconnecting.

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Prevents plug separation from extension cords

The Alert Stamping Heavy Duty Retractable Extension Cord Reel, No. 8675MFT, uses a straight blade locking feature that helps prevent plugs separating from extension cords. The reel's illuminated Tri Tap offers three 5-15R outlets, and the center outlet has a plug lock/ unlock push button. The oil-resistant housing can contain 75' of 14/3 or 65' of 12/3 wire. The wire retracts by pulling on the cord and is guided into the housing by anti-friction rollers. A coated steel mounting bracket is included for attaching the reel to walls and ceilings.

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Fuel injector hold-down bolt repair

The **ProMaxx Nico ProKit** is designed to repair the fuel injector hold-down bolt found in the Ford 6.7L Power Stroke Diesel engine. As the Ford 6.7L engine ages, the fuel injector hold-down bolt corrodes due to moisture and heat duty cycles. Once this happens, the bolt may fracture when the technician

attempts to remove and replace the fuel injector, turning a simple fuel injector replacement into a major repair problem.The Nico easily repairs the broken bolt on the cylinder head, reducing a 16-hour repair to under an hour, according to the company. Simply bolt the Nico in place, machine the broken bolt and complete the repair without removing the cylinder head or the cab. The Nico ProKit is made in the U.S.A.

Circle 22 on card, or enter at "e-inquiry" on VehicleServicePros.com icking off the New Products section each month, our Featured New Products page includes brand new products showcased on the cover that are available to the automotive market.



Provides clear, relevant diagnostics information for each repair

The first tool to exclusively feature Snap-on Intelligent Diagnostics software, the **ZEUS platform** (No. EEMS342) provides all the functions and repair tips that technicians need to guickly diagnose, repair and manage any vehicle issue. The ZEUS platform is designed to anticipate the technician's next move to guide the user through every step, by displaying only the information that's relevant to the specific vehicle and fault code. ZEUS offers a scan tool, lab scope, functional tests and more. ZEUS uses "Smart Data" to automatically configure the display to show vehicle data parameters (PID) relevant to the fault code, while non-related data parameters are filtered out to save technicians time. It also highlights vehicle data that is out of expected range.

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Arrange and rearrange for fast work

Matco Tools' toolbox drawer organization kits are a completely customizable solution that are engineered to maximize efficiency and profitability for today's technician. With thousands of holes on the organization boards, technicians can arrange and rearrange tools to work faster. By holding everything in its place, technicians can better protect their investments by preventing movement in the drawer, and easily see if a tool goes missing. Organization kits are available for every toolbox within the Matco Tools line - including the 4S, 5S, 6S and new Revel and RevelX toolboxes. Matco Tools No. ORGKIT-R25, ORGKIT-R28, ORGKIT-425, ORGKIT-525, ORGKIT-625, ORGKIT528, ORGKIT-628, ORGKIT-631. Circle 24 on card, or enter at "e-inquirv" on VehicleServicePros.com



25-degree offset allows for easy access

The K-Tool International Exhaust Hanger Pliers, No. KTI54055, have a 25-degree offset which allows access in tight spaces. These pliers, designed with cushion slip-resistant handles, can be used to remove hardened exhaust hangers by pressing on the steel hanger bracket and pulling the rubber hanger in one motion. The self-locating force pin locks onto the pin, while the flat paddle pulls off the rubber hanger from behind.

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Three adjustable stages of speed

The Zipp Air 3/4" Twin Hammer Mini Impact Wrench, No. ZIW6511, has three

adjustable stages of speed for forward and reverse operation. Providing 1,100 ft/lbs of torque, this impact is suited for both automotive and heavy truck applications. The ZIW6511 has a twin-hammer design and a hot forged alloy steel hammer cage and anvil to create more torque and provide longer life. The 5.8-lb tool offers 7,200 rpm of free speed, an operating air pressure of 90 psi and an average air consumption of 8.12 cfm.

ZIPP388

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Secure items with key-locking drawers and wall panel

The Beta Tools C57SB MasterCargo Workbench features 10 drawers which operate on ball-bearing slides. Each of the two units of drawers are individually locked by keys. The wall panel has an aluminum shutter door that rolls up and down, and is also key-locking. This wall panel allows users to keep their most frequently used tools right above the bench. Because the shutter door is key-locking, users can also secure the tools at the end of the day without having to remove them and place them in traditional tool storage. The bench top comes with three, predrilled holes for mounting a bench vice (sold separately).

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Offers additional storage space

The Snap-on Slot Panels for Masters and EPIQ Roll Cabs, No. KA2637, offers plenty of additional storage space. When used with optional storage trays and tool mounts, the KA2637 is designed to hold accessories, hand tools, cleaning supplies, shop lubricants and more. These unique panels are mountable on the left or right side of roll cabs and can be organized to eliminate bulky items from taking up drawer space. The panel is secured using handle holes and fits both EPIQ and Masters 1000 series handle hole patterns. The KA2637 is engineered to save space, add storage and draw attention with six slot panel colors available.



Includes a rugged nylon roll-up pouch

The **E-Z Red 1/4" 20-pc Mini Master Set**, No. MMS14, includes a 1'4" flex head drive with bit bolder end, eight spline low profile metric sockets (4-11mm), 10 bits, a 3" extension and a rugged nylon roll-up pouch.

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Designed to pierce wire insulation

The Electronic Specialties Wire Piercing Test Clips, No. 619, are designed to save time when the testing application requires tapping of live electrical readings. They are designed to pierce wire insulation and tap readings in wires where a direct connection is not possible. The clip pierces wire sizes from 14 awg to 22 awg. These test clips are designed to work with most DMM/Scope test lead kits. They connect using a standard size 4mm banana jacks. 619 is sold as a set of two clips.

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Reads and clears powertrain codes on all 1996 and newer vehicles

The **Innova 5023 CarScan Code Reader** reads and clears powertrain codes on all 1996 and newer vehicles. It also displays diagnostic trouble code severity, and freezeframe data shows the engine condition at the time the Malfunction Indicator Lamp (MIL) was set. The 5023 includes access to RepairSolutions Pro diagnostic solutions resource, created to help professionals and shops diagnose and repair today's complex vehicles by providing verified fixes, difficulty ratings, TSBs, step-by-step instructions, resource to connect with fellow pros and more. The higher-end 5100 and 5160 tools also include Bluetooth connectivity to conveniently communicate with the RepairSolutions Pro mobile app (iOS and Android).



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Good for tight work spaces

The **E-Z Red Quarter Stick Ratchet**, No. 4S08XL, offers a low profile design. The ratchet has a 1/4" square drive on one end and a magnetic bit drive on the other. Both are reversible and feature a low profile knurled thumb wheel. The heads are offset 15 degrees to allow easier access in constricted work spaces. This ratchet has an overall length of 8".

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New Impact Wrenches



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Restore clear finish to headlight covers

Penray's Headlight Restoration Kit, No. 8405, is designed to be quick, easy to use, effective and longlasting. According to



the company, this two-step treatment can restore a crystal-clear finish to headlight covers that have developed fading, yellow or glazing. The Lens prep lotion wipes away dirt and grim, and the protect spray just needs two coats across each headlight lens. The protectant clears the lens and is designed to protect against future wear. The kit does not require any special tools or ultraviolet lighting, says the company.

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Detects DC voltage ranging from 3V to 24V DC

The Monster Heavy Duty Cordless Circuit Tester, No. MSTCHT504, detects DC voltage on automobiles, trucks and motorcycles ranging from 3V to 24V DC without the need for a connection to ground. It's made with an audible beep and dual color LED lights that alert the user to DC voltage presence, red for power and green for ground on 6V, 12V and 24V systems. Designed with a clear body to view the indicator lights, the stainless steel testing probe has an attached tip protector. The built-in 3.6V lithium battery allows a 30-hour minimum runtime. Its compact size means it can be used in tight access areas with no cord interference and stored in a pocket with the metal pocket clip.

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Large color display

The Launch Tech Millennium 70 Multipurpose Code Reader offers a large

color display and provides full OBD-II/EOBD diagnostic functions, mode 1-10, ABS and SRS system diagnostic functions. The Millennium 70 can read live data streams from ABS, SRS systems and record and replay OBD-II data. This code reader features four color graphs, multi-lingual support and allows users to print data via PC.



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Diagnostic solutions from Bosch. Fastest from code-to-fix with more than 30 years of OE-level coverage. The easy-to-use tools are favored among technicians who want coverage and repair information for vehicles they see in the shop every day.

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What drives you, drives us





Planetary-gear system

The **Onyx 3" Geared Palm Polisher Kit**, No. 331, from **Astro Pneumatic Tool Co.**, was designed to provide high power, durability and reduced vibration. Its insulating thermo rubber protects against cold and helps to ensure a good grip. The one-hand orbital sander has an ergonomic design, and the polisher kit includes a built-in regulator for any speed. The 331 also includes a planetary-gear system with needle bearings for power and long-term working, as well as rear exhaust with a silencer for quiet and clear operation.

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Made for tight spaces

The Mac Tools 8-pc SAE Flex-Head Ratcheting Wrench Set, Nos. SRWF28PTA and SRWLF28PT, has a 12-pt. and 72-tooth gear count ratcheting box. The 5-degree arc and offset head maximizes versatility when working in tight spaces. The compact head design improves accessibility, says the company. Also available with a locking flex head (SRWLF28PT), which holds securely in the desired position to improve ease of use.

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Offers comfortable grip and trigger

The **Mighty-Seven 3/4**" **Drive Composite Impact Wrench**, No. NC-6266, offers 1,500 ft-lb of max reverse torque. This tool weighs 6.5 lbs and features a comfortable grip and trigger, grease port for easy maintenance and seven spring loaded rotor blades. The wrench also has a 360-degree swivel air inlet designed to improve overall performance and durability, according to the company.

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ITM TPMS Announces Software Update v3.72

(v4.22 for OBDII)

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SEMA Booth #40055



Features automatic shut-off

The **Saber Rechargeable LED Pocket Light**, No. ATD-80340, is a 1.3-watt COB LED light with automatic shut off and overcharge protection to prolong battery life. The light features a



magnetic base that swivels 180 degrees, a 360-degree rotating hanging hook and two brightness settings. The light includes a versatile three-in-one charging system, giving users the option to charge from the included 120V AC wall plug, 12V DC vehicle power plug, or USB charging port with included USB cord.

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For damaged or distorted caps

Steelman Half-size Impact Flip Sockets are designed for damaged or distorted caps. These are 1/2" drive impact flip style for use with extended anvil impact wrenches, or with an impact extension. These half-sized impact flip sockets feature a thin wall design and



are covered by a Steelman lifetime warranty. These sockets come in three sizes: 21.5mm by 22.5 mm (No. 60187); 21 mm by 21.5mm (No. 60230); and 22mm by 22.5mm (No. 60231).

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Diagnoses both light and commercial vehicles

The MAHLE Service Solutions TechPro **Diagnostic Systems VDS Combo Kit** includes components to diagnose and repair both light and commercial vehicles, and is ideal for fleets and repair shops who service a variety of vehicle sizes. The VDS1000 is designed to help analyze, diagnose and repair light vehicles. The VDS1000HD provides more than 54,000 heavy and medium duty fault codes with detailed OEM level component and trailer descriptions. The combo kit includes a one-year subscription that allows users to activate and use both the VDS1000 and VDS1000HD diagnostic software, and includes regular software updates.

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Gorilla Glass screen

The **TEXA AXONE Nemo** diagnostic tool can now be used with a TEXA proprietary tablet. The AXONE Nemo has been designed and developed by TEXA according to military standards for heavy duty use in the toughest environments, according to the company. The tablet has a wide, 12"-large display and tough Gorilla Glass screen. The AXONE Nemo works on a Windows 10 platform specifically customized by TEXA engineers to run IDC5 flawlessly.

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For use with impact drivers

Tools in the **Irwin Tools 34-pc Impact Automotive Screwdriver Bit Set**, No. 1840391, are designed to offer durability and long life with impact drivers. These bits are forged rather than milled, so they fit the fasteners more precisely to reduce stripping, according to the company. They are also manufactured with heavy duty, cold-forged, high-grade steel to withstand high torque output. The black oxide finish helps resist corrosion and extend the life of the bits.

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Accuracy within +/- 1.6 percent

The **K Tool International** (**KTI**) **Tire Inflator Gauge**, No. KTI89005, is designed for measuring, inflating and deflating vehicle tires with accuracy within +/- 1.6 percent. Made of aluminum die cast, the body is heavy



duty. The gauge comes fitted with a 2-1/2" mechanical pressure gauge with protective shroud for monitoring tire pressure, 24" long flexible hose to attach to tire valves and a steel extension with grip. It has a built-in swivel and dual chuck for truck tires. The gauge is equipped with a 1/4" NPT inlet, has a maximum pressure of 230 psi, and is covered by a one-year repair or replace warranty.

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Tech

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MB8800 Shown in Olive Drab Green

GREEN

AVAILABLE ON ANY MADE-TO-ORDER (MTO) TOOL STORAGE PRODUCT DISTRIBUTORS PLEASE NOTE: ORDER AS MTO-XXXXX AND MARK "DT" OR "OG" IN THE PROMOTIONAL COLOR FIELD.

For More Information, Visit **MACTOOLS.COM** or Contact Your Local Mac Tools Distributor Circle 55 on card, or enter at "e-inquiry" on VehicleServicePros.com



Resistant to corrosion and abrasion

The **Milwaukee Hook and Pick Set**, No. 48-22-9215, is designed to be 50 percent more durable than other hook and pick sets, according to the company, with an all-metal core that helps prevent the shank from being pulled out of the handle. The shank is chrome-plated for resistance to corrosion and abrasion, and offers a comfort grip for increased control. The set comes in a plastic storage tray and comes with a lifetime guarantee.

Circle 56 on card, or enter at "e-inquiry" on VehicleServicePros.com





Works like cloth

Galeton White Embossed DRC Medium Weight Wipers are shop towels designed for light duty, general purpose wiping. These wipers are designed to work like cloth. They are soft on hands and face, and are more absorbent than airlaid wipers of the same weight, according to the company. The wipers are available in three options: 1/4 Fold Wipers (No. 13241), DRC Pop Up Dispenser (No. 13242) and DRC Jumbo Rolls (No. 13243). The Wipers are made in the U.S.A. with 45 percent recycled cellulose fibers.

Circle 57 on card, or enter at "e-inquiry" on VehicleServicePros.com

Pinpoint leaks in fluid systems

The **Tracer UV Multi-Colored Fluid Dye Kit**, No. TP-8693HD, is designed to pinpoint the exact source of multiple leaks in all fluid systems. The kit includes: Tracer's TP8695 cordless, high intensity UV LED flashlight; three eight ounce bottles of dye for petroleum or synthetic based fluid systems (the TP-3320 fluoresces white, the TP-3340 fluoresces blue and the TP-3380 fluoresces yellow); 8-oz twin-neck bottle of water-based coolant dye for heavy duty cooling systems (TP-3900, which fluoresces green); and UV absorbing sunglasses.

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The Original Wireless Portable Lift System





EXPERIENCE THE GRAY DIFFERENCE

U.S. Patents 6,634,461 • 7,014,012 • 7,219,770 • 9,334,145 • 9,352,944 • RE41554 • 9,593,000 • 9,656,843 • 9,679,421 • 8,282,075 Canadian Patent 2,406,340

Improve productivity and flexibility:

- Wireless feature enables technicians to:
- Get set-up FASTER...
- Get the vehicle up **FASTER...**
- Get the job done **FASTER...**





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The Professional Technician's Choice





Offers USB interface upgrades

The Launch Tech Millennium 50 Code Reader offers a 2.8" color display, graphical data streams and USB interface upgrades. The tool includes



the following functions: OBD-II/EOBD diagnostic functions mode 1-10, read dynamic data

streams and MIL, freeze frame data, read current DTCs, clear DTCs, read pending DTCS, read permanent DTCs, O2 sensor test and on-board monitor test.

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Lifts medium and heavy duty vehicles

The Rotary Lift Mach 14 Flex Mobile Column Lift, powered by RedFire, is a wireless, remote-controlled mobile column lift. This lift is available in configurations of two, four, six or eight columns, providing a lifting capacity of 28,000 lbs per axle and up to 112,000 lbs total. It can be used to lift most medium duty and heavy duty vehicles. The Mach 14 Flex is battery operated with an onboard charger, and features built-in forklift pockets and a spring-loaded steering and braking system. This lift is ALI certified.

Circle 62 on card, or enter at "e-inquiry" on VehicleServicePros.com

Quick-change retainer for easy bit changes

Mac Tools' Short Barrel Air Hammer, No. MPH1931, includes a quick-change retainer for easy bit changes. The hammer features a variable speed trigger, forward handle design for improved balance and ergonomics, and a comfortable rubber grip. The tool's anti-vibration technology reduces shock and increases comfort during use, according to the company. Also available with a chisel kit (No. MPH1931K).

Circle 63 on card, or enter at "e-inquiry" on VehicleServicePros.com









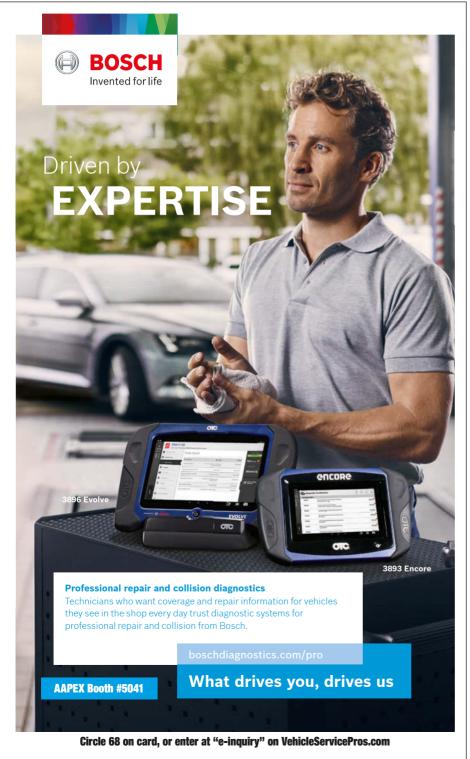
Designed for large engines

The **Revive Turbo Cleaner Big T Kit** is designed for engines over 5.0L. The kit includes two 750ml bottles of Revive Engine Cleaner, an applicator and user instructions. The

turbo cleaner is water-based, safe and nontoxic, according to the company. The kit is designed for all turbocharged diesel or gas engines.



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Features adjustable self-locks

The **Eagle Equipment Four-Post Service Lift** offers a cable-driven lifting system and features 20" runways and a pneumatic single-point release near the 220V power unit. The lift features adjustable self-locks and slack cable safety locks in each post, steel cable anti-rupture protection and a slide rail inside of runways for an optional rolling air jack. This lift has a 12,000-lb capacity.

Circle 67 on card, or enter at "e-inquiry" on VehicleServicePros.com

Clamps increase pressure of hooks

The Universal Puller Set, No. K-204-V-210-1 from Kukko Tools was was designed for pulling and removing bearings, gears and more. The legs of the puller feature an adjustable height, are partially invertible and have standard pulling and separating claws. The puller hooks are specially hardened and smoothed, and multiple boreholes in the pulling hooks enable users to work with variable reach. Features of the puller set include: universal application thanks to adjustable clamping depths and two types of hook; clamps to significantly increase the pressure of the hooks, as well as assist with safe, fast and efficient disassembly.

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That's pretty... what's that word again? Find out at www.thecoolboss.com.

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Swivel end provides access to fasteners

The **Beta Tools Extra Long Breaker Bar**, No. 920/35L, has a 1/2" drive male-end with a swivel to provide access to fasteners at multiple angles. It offers an all-steel handle with a bright chrome finish, has an overall length of 24" and weighs 33 oz. **Circle 72 on card, or enter at "e-inquiry" on VehicleServicePros.com**



Features 120V power strip

The Cornwell Pro Series Neon Green 6 Drawer Cart, No. CTSPS600UNG, features four 4" drawers, one 6" drawer and one 8" drawer, with 120-lb ball bearing slides on each drawer and double slides on the 6" and 8" drawers. A drawer liner kit is provided. This cart offers plastic corner bumpers on all four sides, a handle with over molded grip and a 120V power strip with USB charging capability mounted at a 45-degree angle. A cord wrap is supplied to mount on the rear of the unit for improved mobility. There are cutouts on sides for large tool storage. This tool cart is made in the U.S.A. with globally sourced components.

Circle 73 on card, or enter at "e-inquiry" on VehicleServicePros.com



Circle 74 on card, or enter at "e-inquiry" on VehicleServicePros.com



Built for small-footprint shops

The **Blackhawk Postlift** is designed to take up less space than frame racks while still providing the power of traditional racks. The Postlift can be set at multiple working heights, and its collision repair pulling system is designed to allow users greater access to vehicles for diagnostics, measuring and repairs. The lift's compact size allows it to fit into a smaller shop footprint, and it can be installed into a pit for a clear work bay when not in use.

Circle 75 on card, or enter at "e-inquiry" on VehicleServicePros.com



Includes 2017 vehicle coverage

The ITM sensorAID TPMS Tool Software Update v.3.72 offers sensor programming and diagnostic features. The update includes more 2017 model year vehicle application coverage, expanded Asian

make cover and expanded European market coverage. ITM TPMS also offers a new 24/7 TPMS technical support team. The improved TPMS offers 95 percent coverage, OBD-II relearn and lifetime free updates and tools.

ITM

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Bends over 90 degrees

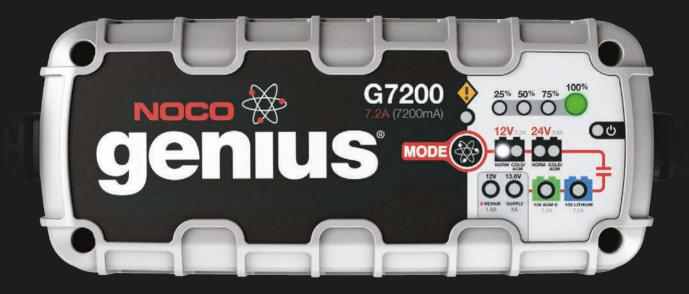
The Lisle Flexible Light Holder with Spring Clamp, No. 70450, offers a flexible 9" gooseneck design that bends over 90 degrees and rotates 360 degrees to aim light where it is needed. The light holder is designed to hold a variety of flashlights or trouble lights from 0.625" to 2" diameter, and offers a two-position, flexible finger design.

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CHARGE SNART, UltraSafe® Battery Chargers & Maintainers

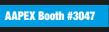


Cars, Boats, RVs, SUVs, Trucks, Motorcycles +

G7200 Features:

- Water, shock & dirt resistant with a rubberized base
- Charge 12V & 24V batteries lead-acid and lithium-ion
- **Recover** deeply discharged batteries down to 2V
- Spark-proof technology for safe battery connections
- Built-in battery desulfator and repair mode
- Monitor battery activity with zero overcharge
- Constant Power Supply to power 12V devices

Shop Chargers & More At:







Scrapes off sticky residue

The **Mueller-Kueps Carbide Scraper Kit**, No. 268 220, offers a double edged blade that allows users to scrape off sticky residue, paint and glue, carbon on exhaust manifolds and more. The scraper is ergo-nomically designed to fit comfortably in the hand, and high quality carbide tips ensure a longer lifespan.

Circle 80 on card, or enter at "e-inquiry" on VehicleServicePros.com



LAUNCH TECH USA CREATE • CHANGE

FINALLY, A LINE OF PROFESSIONAL CODE READERS INTRODUCING MILLENNIUM

Millennium Code Readers from Launch Tech USA "Feature Filled and Economically Priced"

Millennium 40, 50 and 60

Featuring Live Data and Graphing on a color display these are capable, value oriented, code readers. They meet all OBD-II/EOBD communication requirements, provide the most commonly used diagnostic functions, and come in generic or manufacturer specific configurations.

Millennium 70, 80 and 90

These professional code readers provide enhanced OBDII/EOBD diagnostic functions for mode 1-10. The Millennium 70 features Live Data for ABS and SRS. The Millennium 80 features 6 of the most common reset functions. Millennium 90 combines all the features of both tools making it the most capable hand held code reader on the market today.



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Belt clip for easy access

The **Monster Unipen LED Worklight**, No. MST1090, features a 180-degree rotating bracket with magnet for more applications, with a belt clip and switch at the back of the lamp. The front COB LED provides 90-110 lm, or 30-45 lux at 1m, and the top SMD LED provides 50-70 lm, or 85-100 lux at 1m. This light includes a 3.7V 1200mAh Li-ion battery, 2-1/2 to 3 hours of running time, 2 to 3 hours of charging time and a mini USB charging port.

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Designed for use in a vehicular emergency

The Extractor Multi-functional Vehicle Escape Device, from Morgan Manufacturing LLC, is designed for use in a vehicular emergency where the driver or passengers are unable to escape from the vehicle due to damage from the accident. The escape device consists of a handheld device equipped with a removable clip, an economic handgrip, and a stainless steel blade to cut seat belt, wire, rope or bungie cord in an emergency. The tungsten carbide steel coated probe is used to shatter automotive window glass with a single stroke; an ice scraper removes debris from the window glass, and a plurality of hex head openings are designed to remove or tighten hex head bolts within the vehicle. The device is made of high-density molded plastic to withstand pressures likely to be encountered in an emergency situation.

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The truly portable QuickJack[™] is convenient and lightning fast to use, allowing technicians to easily move the lift wherever it's needed. The QuickJack eliminates the need to bend over, kneel or squat when working on vehicles. A lowered height of just 3" means it goes where other jacks don't. Choose either 110V AC or 12V DC power unit to use your QuickJack virtually anywhere. Sturdy lock bars, remote pendant control and adjustable rubber contact pads make QuickJack the perfect lifting solution. Available in 3500, 5000 or 7000-lb. capacity.

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*Free shipping available to most areas in the 48 contiguous states. © QuickJack USA 2017. QuickJack products are protected by one or more patents or patent pending applications in the United States, China, Europe and other countries. **Circle 84 on card, or enter at "e-inquiry" on VehicleServicePros.com**





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Complete brake tool assortment

The **S.U.R.&R. Brake Tool Assortment Bundle**, No. BTB5K, offers a complete brake line tool assortment designed to provide easier, faster and more profitable repairs. According to the company, the kit contains everything needed to accurately cut, prep, bend and straighten brake line tubing. This bundle includes the Automatic Ratcheting Tubing Cutter, Tubing Straightener & Bending Pliers, Brake Tubing Reamer, Tubing Pliers and Fluid Line Stopper clamps.

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Balances a variety of wheels

The **Cartek Bear 80-901L 3D Wheel Balancer** is designed to handle a variety of wheels with rim diameters from 10" to 28", tire diameters up to 35" and rim widths from 1.5" to 20". This balancer offers a 22" color monitor display with an on-screen menu the company says is intuitive and easy to navigate. Two electronic gauge arms help to achieve quick and accurate balancing by automatically entering diameter, distance and width. A guided adhesive weight placement function is designed to stop the wheel at the exact position of imbalance.

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Non-slip rubber strap

The **Lumax 2-pc Strap Wrench Set**, No. LX-1819, offers a flexible strap designed to fit any shape filter and avoid surface damage. The strap is non-slip, industrial strength, rubber and built for durability, says the company. The large filter wrench has a range from 1" to 6-1/2" (25mm to 165mm) in diameter. The small filter wrench has a range from 3/8" to 5-1/4" (10mm to 133mm) in diameter.

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High-resolution touchscreen

The Schumacher SchuLink SDT1 Wireless Scan Tool with Battery Tester Module is powered by lithium ion batteries and provides a 10' wireless range. The controller features a 7" high resolution touchscreen, the SchuLink app, embedded on-screen video training and the user manual. Test results are delivered onscreen, or via text or email if connected to a wireless network. This rugged tool is durable for shop use, and the tester and clamps store neatly at the back of the unit when not in use.

Circle 129 on card, or enter at "e-inquiry" on VehicleServicePros.com



Keeps tools within reach

The **OEMTOOLS 29**" Stainless Steel Tear Down Tray, No. 24634, offers a

convenient tool storage solution designed to allow technicians to keep their tools within reach. The tray's offset support column allows more of the base to slide beneath a vehicle for completing under-vehicle work, and users can adjust the tray height from 38.38" to 47.63". The tray offers five compartments lined with custom-fit foam EVA for tool organization. The tray features a stainless steel finish and can hold up to 165.35 lbs.

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Cuts light gauge sheet metal

The Mayhew 5-pc Pneumatic Body & Panel Tool Set, No. 32027, is designed to help technicians cut, trim, slit and rip body panels, fenders or any other light gauge sheet metal. The set includes a double cut body ripper, panel cutter, panel



slitter, slotted panel cutter and sheet metal trimmer. The set features a black oxide finish to help prevent corrosion. This set is made in the U.S.A. and includes a lifetime warranty.

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ready to step up to comfort? contact your local tool distributor

EASY ESCAPE HD STEEL TOE + HEAVY DUTY TOE PROTECTION

A new look on a familiar classic features the original Redback steel toe coupled with a thermoplastic polyurethane scuff cap which provides extra toe protection for those who work under tough conditions that demand a longer lasting boot.

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High mileage footwear for the high output worker.

Hark a mile



Replace low or high pressure lines

The S.U.R.&R. PS2000 Power Steering Kit is designed to repair or replace high or lower pressure line types quickly and easily. The 37-pc kit includes five compression-style hoses 6" to 30" in length, two 25' coils of UltraBend Tubing (3/8" and 5/16") and threaded fittings to cover 85 percent of domestic or foreign power steering lines, according to the company. This kit exceeds SAE J188 Type 1 specifications. **Circle 95 on card, or enter at "e-inquiry" on** VehicleServicePros.com





Durable cushion grip handle

Milwaukee Cushion Grip Screwdrivers feature a durable tri-material cushion grip handle with an anti-peel design that helps prevent the grips from falling off. These screwdrivers offer tactile identification at the end of every tool, allowing users to simply feel for the correct tool without having to look. A wrench-ready bolster allows users to use a wrench to maximize the tightening and loosening force.

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For cars and light trucks

The **Eagle Equipment 9,000-lb Symmetric Mechanix 2-Post Car Lift** is designed for lifting cars and light trucks. This lift features a post height of a little over 9'. The lift offers dual cylinders with low-friction chain rollers, low 1-3/4" floorplate, automatic carriage locks in each post, automatic arm restraints and a 2,250-lbs capacity for each arm. This lift features a powdercoated finish in Eagle Blue.

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Professional Hand Tools

Tool Trolley Offers technicians a unique tool storage unit that collapses for easy transportation or storage. When collapsed, it has a centralized locking system that secures with keys provided. The two center tray drawers slide-out in either direction enabling easy access to tools. The handles fold-over to make it convenient to store the unit in a car trunk or under a workbench.

AAPEX Booth #468



96T T-Handle Hex Key Wrench

High torque t-handles have a continuous metal bar running through the handle and forged hex tip ends for greater strength and longer wear. The oversized handle provides a larger surface area for holding the tool to increase torque and comfort. Available in metric, SAE, and Torx sizes.

ITALIAN DESIGN

SINCE 1939

951 Sliding T-Handle Hex Key Wrench

Three usable hex ends that are forged into shape to provide a better fit and longer wear. Available in metric, standard hex, and Torx drive.



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POWERFUL 7.8 AMP MOTOR DELIVERS MORE OUTPUT AND VARIABLE (180 - 790) RPM

7/32" (5.5MM) ORBIT DIAMETER PRODUCES A SWIRL-FREE FINISH

ERGONOMICALLY DESIGNED HANDLE

PROVIDES PRECISION AND CONTROL





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Belt Molding Tool for domestic and import vehicles

Lisle's Belt Molding Tool, No. 35240, is designed to quickly remove belt molding without damage. The unique flared head design and beveled edges allow the tool to be inserted under the molding at an angle. This tool works on most domestic and import vehicles,

according to the company.

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Rotating Jaw Tips KNIPEX

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OPENING AND CLOSING COULDN'T BE EASIER (OR FASTER)

Part No. 85 51 250 C



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Opening and closing Click Clamps does *not* require special skill; it requires a special tool. KNIPEX has again designed a specialized pliers to perform this specific function—quickly and effectively. And these pliers will not harm the clamps they're compressing, allowing them to be reused over and over again.

See a video of this tool: http://bit.ly/ClickClampPliers



TOOLS & EQUIPMENT SECTION BOOTH 10265



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Can be hand-held or hands-free

The Bayco 1,200 lm Worklight with Magnetic Hook, No. SL-866, offers a bright, hand-held and hands-free worklight with a heavy duty retractable metal reel and 50' of 18/2 SVT cord. This worklight has 1,200 lm and 600 lm brightness settings, is lightweight and durable. The SL-866 features two built-in magnets with a detachable metal hook, and an octogonal shaped handle designed to keep the floodlight aimed in the correct direction when the light is set on its side. This worklight includes a mounting bracket that allows the reel to be attached to the wall or ceiling. Circle 101 on card, or enter at "e-inquiry" on VehicleServicePros.com



Drivers gloves with ventilated mesh

Galeton's Palomino Meshback Pigskin Drivers Gloves, No. 12755, feature ventilated mesh to keep hands cooler and drier during hot weather, keystone thumbs for better mobility and elastic back for fit. These gloves are made with grain pigskin.

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It's about time somebody introduced R/R/R machines for the 21st century!



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WI-FI capability allows for real time, interactive

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Vacuum/Leak

fully customizable

options allow the

user to personalize

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Test Screen



SV06 SV07

SV10

EXIT BACK

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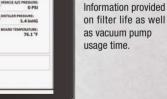
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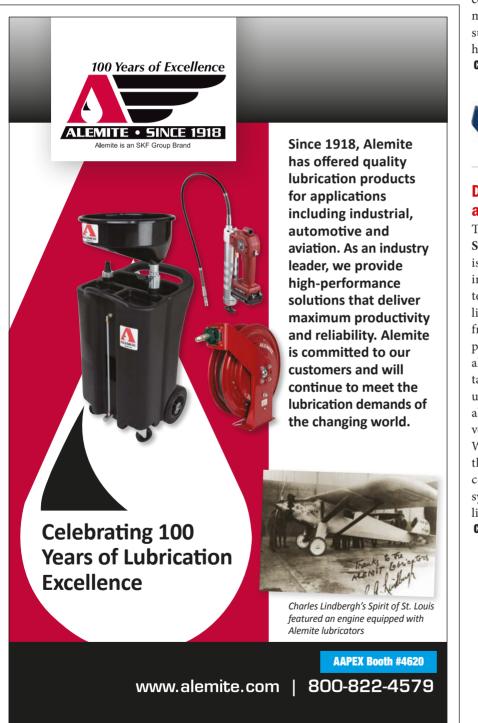


Memory for up to 50 readings

The **Cornwell 1/2" Drive Digital Torque Wrench,** No. CTG5000, offers an accuracy

of +/- 2 percent clockwise and +/- 3 percent counterclockwise. This wrench features memory for up to 50 readings, 12 LED lights to provide visual signal, and a buzzer for audible signal. The wrench also offers an overload indicator, a non-slip comfort grip handle and both track and peak modes. The CTG5000 uses AA batteries (included), and offers a 110-hr battery life with continuous use. The wrench comes in a blow molded case.

Circle 105 on card, or enter at "e-inquiry" on VehicleServicePros.com



Circle 107 on card, or enter at "e-inquiry" on VehicleServicePros.com

Screw and nut organization

The **Killer Tools Lug Nut Caddy**, No. ART53, is designed to help technicians keep lug nuts and parts organized so they don't get lost. The caddy offers anodized aluminum construction and a low profile design. The caddy is 12" long and 2" wide, and is designed to offer technicians easy access even while wearing gloves. The company says this caddy features strong magnets so it can be attached to any steel surface, as well asrecessed dimples for holding screws and nuts.

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Designed to charge, condition and maintain batteries

The PulseTech 10-watt Solar Pulse Solar Charger Maintainer, No. SP-10, is designed to eliminate jump starts, increase battery power and extend battery life by returning older batteries to like new condition. The SP-10 uses high frequency pulse technology with microprocessor controlled intelligent charging algorithms to charge, condition and maintain vehicle and equipment batteries by up th three times. The SP-10 works with all types of 12V batteries, including conventional flooded, gel, AGM and VRLA. When mounted on a vehicle or equipment, the SP-10 is an entirely automatic battery conditional and charge/maintenance system. The SP-10 comes with a five-year limited warranty.

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Cloud-based shop operation

The AutoVitals Smartflow X Digital Shop Suite combines tablet-based inspections and work-order processing with workflow automation into a single cloudbased application. This streamlined process enables auto repair shops to increase average repair orders by more than 20 percent, according to the company. SmartFlow X is designed to standardize, automate and record the in-shop process at every step, giving shop owners unprecedented visibility into and control over the daily operations of their businesses. SmartFlow is designed to provide business process improvement while improving communication both within the shops and to their customers with a number of features, including a digital inspection tool, workflow management, customer retention campaigns and more.

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Solar-powered welding filters

ArcOne Retro-Fit Singles Filters offer a clear view of the area surrounding the weld and fit most 2X4-1/4" welding helmets, according to the company. These filters are solar-powered, so there are no batteries to charge. They offer High Definition technology designed to make colors in the light state clearer, and to allow users to see their work as clearly as possible during welding.

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Automatic target search

The Chief C3080 3D Wheel Alignment System features fixed cameras with automatic target search and recognition, tiregrabbing clamps and remote-controlled sensors that can provide an alignment reading in eight seconds, according to the company. The system's measuring heads are designed with automatic lift level compensation to help provide accurate measuring, regardless of the device used to lift the vehicle. The cameras have LED signal repeaters that flash intermittently while the alignment is in process, allowing the technicians to open the vehicle doors without interfering with the alignment process. Circle 111 on card, or enter at "e-inquiry" on VehicleServicePros.com

Cleanup kit for a safer shop

The DayMark Safety Systems SafetyApplied Spill Cleanup Kit is designed to make cleanup of spills quick and easy, to help prevent slips and falls and to protect building users and cleanup workers from harmful norovirus and other diseases. This kit includes critical items and written instructions for removing spills and reducing the risk of contamination with bodily fluid incidents. The SafetyApplied Absorbent Spill Pad, which is included in the spill kit, are designed for cleaning common liquid spills in frontand back-of-house situations, and can also be purchased separately in boxes of 12. Circle 112 on card, or enter at "e-inquiry" on

VehicleServicePros.com





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STORAGE

LIFTS 10,000 through 18,000 lb. capacitie<u>s for</u> storage and vehicle service. Inquiry #11

MOBILE COLUMN LIFTS

MP-Series electric-hydraulic mobile lifts available in 2,4, 6. or 8 post configurations. Inquiry #12



FOUR POST RUNWAY LIFTS 19,000 through

120.000 lb. capacity models give complete under vehicle access Inquiry #13

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Adds coverage for 2,542 new systems

The OTC Bravo 2.11 Diagnostic Software Update for Evolve and Encore includes enhanced report options, maintenance test improvements, all-system scan speed improvements and increased vehicle coverage. The release adds coverage for 2,542 new systems and 10,169 new vehicle-ECU combinations. With the new update, users are able to customize printed and saved screen reports with additional information such as repair order number, VIN and more. Reports can be saved, printed or emailed.

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Test leads with screw-off clips

The Electronic Specialties 10' Test Leads with Screw-off Alligator Clips, No. 629, are designed to save time and increase productivity. These test leads feature an extended length of 10' and include a set of screw-off alligator clips. The 4mm banana jacks are designed to work with any brand DMM. The alligator clips screw on and off so that users can choose whether to clamp the test lead permanently to the test point. **Circle 115 on card, or enter at "e-inquiry" on** VehicleServicePros.com

Uses HVAC industrial relay switches

The **Killer Tools Dent Removal Machine**, No. ART38, is designed to be up to five times faster than pin welders. This 110-volt system does not use circuit boards. Instead, it uses HVAC industrial relay switches designed for 1,000s of safe operations. The Dent Removal Machine is available in 110volt or 120-volt sizes, includes a five-year warranty and is made in the U.S.A.

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Locating **short** and **open circuits** faster and more accurate than ever before.



POWER PROBE SHORT/OPEN ELECTRICAL CIRCUIT TESTER

The Power Probe ECT3000 transmits a signal into an isolated circuit (shorted or open) and traces the direction to the problem. It's perfectly designed to track down wiring problems in trailers, tractors and hard to reach places. The receiver allows you to see the distance from the wire being traced and the direction to the short. The auto-signal locking feature eases first-time use and eliminates the need to remove interior trims and carpets. The integrated flashlight will illuminate the workspace and the automatic 10-minute shut off helps users save battery life.



SNEW PRODUCTS



Smart charge technology

The Matco Tools 18,000mAh Jumpstarter/Charger, No. VERSAPRO2, provides 450 cranking amps, 900 peak amps of power to efficiently and safely jumpstart vehicles and charge devices. VERSAPRO2 includes 12V DC port, two USB ports, an LCD charge indicator and multiple built-in safety features. It uses an 18,000mAh high-capacity, high-power battery that is fast charging and has low self-discharge. It also features reverse polarity, over current, under current, back charge protection and temperature protection. Smart charge technology identifies devices for the best charge. Circle 119 on card, or enter at "e-inquiry" on VehicleServicePros.com



Wheel aligner with open cabinet

The **Chief C3060 Professional Wheel Aligner** is designed to provide wireless efficiency, with all the characteristic angles of both vehicle axles controlled by four measuring heads with eight CCD sensors and infra-red transmission. The wheeled control unit houses computer, printer and battery charger. There is an open cabinet to store clamps and accessories.

Circle 120 on card, or enter at "e-inquiry" on VehicleServicePros.com

Built for reduced fatigue

The Legacy Manufacturing Flexzilla Pro Reciprocating Air Saw Kit, No. AT8565FZ, offers a lightweight, compact design and low vibration designed to reduce operator fatigue during extended use. The saw's high-speed, 9,500 rpm allows users to easily cut through tough materials. This kit includes the Flexzilla Pro Air Saw, a Flexzilla Custom Length Whip Hose with High Flow Ball Swivel, a 1/4" FNPT Coupler, a 1/4" MNPT Coupler and two 1/4" FNPT plugs.

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Circle 122 on card, or enter at "e-inquiry" on VehicleServicePros.com



For heavy duty applications

OTC offers the Hendrickson Front Suspension Bushing Tool Sets, Nos.

4274 and 5275, to assist technicians when

replacing front suspension bushings in heavy duty applications. The 4274 Hendrickson Front Suspension Bushing Tool Set and 4275 Hendrickson Front Suspension Bushing Master Tool Set with hydraulic pump help remove rusted and frozen heavy-duty front suspension bushings easily and faster than traditional heat-and-beat methods, says the company. The tool, which is used without removing suspension parts from the vehicle, significantly reduces time spent on bushing service. Adapters help to align the tool to ensure proper bushing installation, reducing the possibility of misalignment or damage during removal and installation. An included 25-ton high-force cylinder provides the force technicians need when completing bushing work. The 4275 Hendrickson Front Suspension Bushing Master Tool Set also includes an air/hydraulic pump for expedited bushing service.

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A full array of service products for start-stop systems

The Clore Automotive Start-Stop Batteries/Systems Line offers a full array of battery service products for Start-Stop systems. The line includes the Booster PAC jump starters, the PRO-LOGIX battery chargers, the BA series testers and the PL2140 6/12V 4A Battery Maintainer. Circle 30 on card, or enter at "e-inquiry" on VehicleServicePros.com



Adjust welding settings at the arc

Lincoln Electric's CrossLinc Remote allows operators to adjust welding settings at the arc, including current for stick and TIG welding or voltage on select wire features. The remote is compatible with all CrossLinc equipped Flextec welders. It auto-detects the mode setting at the power source and displays actual voltage or current while welding.

Circle 34 on card, or enter at "e-inquiry" on VehicleServicePros.com



Circle 123 on card, or enter at "e-inquiry" on VehicleServicePros.com



Weighs less than a pound

The **Snap-on Flex-Head TechAngle Micro Torque Wrenches** weigh less than a pound and feature a 72-tooth ratchet gear. The wrenches offer a knurled handle to provide a more secure grip, and four alert modules indicated by LCD, LED, vibration and sound when the desired torque is reached. These tools also measure rolling torque, and feature five scale references: ft-lbs, in-lbs, Nm, Kg-cm and dNm. These wrenches are available in 1/4" (No. ATECJ1FS240) and 3/8" (No. ATECH2CS240). The wrenches operate on a AA battery and include a two-year warranty.





Designed for fuel dispensing

The **Hannay Reels 7500 Series Reel for Fuel Dispensing** can handle 1" through 1-1/2" ID hose. This heavy duty reel is designed for longer hose lengths and is intended for fuel dispensing, bulk transfer, suction and discharge operations. A gear driven crank rewind or a chain and sprocket drive powered by an electric, hydraulic or compressed air motor is available. The 7500 series is offered in aluminum or stainless steel.

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Mini air ratchet kit

The Legacy Manufacturing Flexzilla Pro Reactionless Mini Air Ratchet Kit, No. AT8535FZ, offers a compact and lightweight design that is ideal for small workspaces, such as under automotive dashboards. The reactionless clutch is designed to prevent kickback when users bottom out. This ratchet offers a built-in air regulator, built-in swivel, 650 rpm and 45 ft-lbs of torque. The kit includes the Flexzilla Pro Air Ratchet, Flexzilla Custom Length Whip Hose with High Flow Ball Swivel, one 1/4" FNPT Coupler, one 1/4" MNPT Coupler and two 1/4" FNPT plugs.

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Sound blocking foam barriers

The DV Systems Apache A5T Air Compressor is a rotary screw air compressor designed for automotive repair shops where a reliable supply of compressed air is required. This air compressor is designed to withstand the demands of an industrial environment while minimizing noise levels. It features steel tubes for ruggedness, solid steel base frames and floors, powdercoated heavy guage insulated steel cabinets and sound blocking foam barriers with an oil resistant coating.

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Wireless connection

The AirPro Diagnostics AirPro Scan Tool uses both OEM and independent proprietary software to wirelessly connect to the shop's existing Wi-Fi or cellular hotspot to help deliver dealershiplevel pre- and post-repair scanning. The AirPro scan tool connects directly to the vehicle's DLC port. Then, the AirPro **ORION** Diagnostic Management system can be used to submit scan requests, track and maintain scan reports and request and store related invoices. This remote diagnostics, calibrations and programming tool offers 98 percent coverage for vehicle years 1996-2018, according to the company.

Circle 128 on card, or enter at "e-inquiry" on VehicleServicePros.com

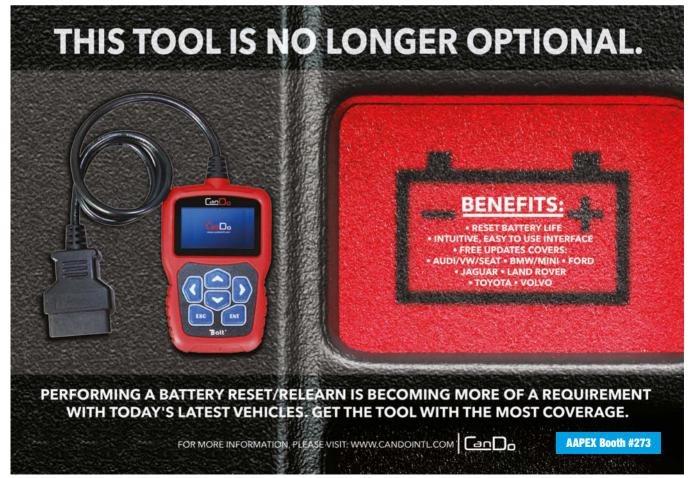


NEW **PRODUCT**

Lightweight and heavy duty

The **Wolverine Overpass Boots** are designed to bend and flex to improve comfort and performance. They also feature waterproof leather with abrasion resistant toe, moisture wicking mesh lining and removable OrthoLite cushioning footbed. These boots offer a lightweight rubber lug outsole with built-in shock absorption for added protection. They are backed by a 30-day comfort guarantee.

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Circle 130 on card, or enter at "e-inquiry" on VehicleServicePros.com

<u>Snew Products</u>

Widened MX-Sensor coverage

The Autel V5.30 Update for TS608 features widened MX-Sensor vehicle coverage, including Audi, Bently, BMW, Infiniti, Jaguar, KIA, Land Rover, Lincoln, Mercedes, Land Rover, Aston Martin, Lexus, Toyota and more. The update also adds OBD functionality for Buick, Cadillac, Chervrolet, GMC, Pontiac, Renault, Saturn and VW; widens psi placard value reset vehicle coverage; improves tire pressure warning functionality; and improves relearn procedures.

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Chrome plated to resist rust

The **GreatNeck 175-pc Mechanic's Set** from **OEMTOOLS** is a chrome vanadium set that features a selection of SAE and metric sockets, ratchets and accessories in 1/4", 3/8" and 1/2" drives. This set also includes hex keys, bit driver, assorted bits and 12 combination wrenches. The set is CR-V steel and chrome plated to resist rust, says the company. The entire set comes in a blow molded storage case. **Circle 132 on card, or enter at "e-inquiry" on**

VehicleServicePros.com

180-degree swing motion

The **CRKT Daktyl Pocket Knife** is a nontraditional pocket knife with a unique 180-degree swing motion that is employed by a simple flick of a digit, according to the company. The Daktyl includes a slide lock mechanism that allows user to slide a lever at the top of the handle to reduce the chance of the knife opening unexpectedly. This blade is completely ambidextrous and rotates both to the right and the left. This knife offers a bead blasted modified wharncliffe style blade that fits snugly into the handle. The skeletal, ergonomic frame sits well in the hand, and a round hole at the base helps improve grip.

Circle 133 on card, or enter at "e-inquiry" on VehicleServicePros.com





NEW **Produc**i



Automotive tool set

The Channellock 171-pc Mechanic's Tool Set, No. 39053, is designed to be a strong, reliable tool set for automotive applications. The set includes 1/4", 3/8" and 1/2" 45 teeth ratchets; 20 1/4" sockets; 35 standard and deep 3/8" sockets; 12 1/2" sockets; two spark plug sockets; 3" extensions; a magnetic bit driver; 40 Philips slotted torx, pozi, square and hex driver bits; 20 SAE and Metric nut driver bits: 18 SAE and Metric hex keys; 12 SAE and Metric combo wrenches; and a magnetic parts tray. The entire set comes in a durable storage case.

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Eight ways to adjust

The Honeywell Uvex Avatar Line of Safety Eyewear is designed with 12 advanced features to help offer personalized fit, fog-free protection and more style options. This eyewear features eight points of adjustability and multi-material technology to provide better flexibility, grip and comfort. Key features include soft temple tip pads, angle-adjustable ratchet temples, insulated wire-core temples and ultra-light frame construction. Some models also include an anti-fog lens coating and hardcoat. Avatar's lens is available in five tints, and frames are available in five colors, to further customize the eyewear.

Circle 136 on card, or enter at "e-inquiry" on VehicleServicePros.com



Folds away for easy storage

The ATD Tools Heavy Duty Folding Aluminum Platform, No. ATD-10325, is designed to provide users extra reach when working on trucks, vans, SUVs and RVs. This non-slip platform is 19-1/2" tall and holds up to 330 lbs. The platform is lightweight with an aluminum alloy construction and folds away for easy storage.



LINCOLN

Save money with the PowerLuber tool-only option



Model 1800-NB 18V NiCd

PowerLuber

Model 1260-NB 12V Lithium-Ion

Model 1200-NB

12V NiCd

PowerLuber

PowerLuber

20V Lithium-Ion PowerLuber

Four of Lincoln's PowerLuber grease guns are now available in a tool-only option. Compatible with your existing PowerLuber battery and charger, this offering saves you money when buying a replacement or an additional grease gun to increase productivity.

PowerLuber advantages:

- Operating pressures up to 10,000 psi
- Ergonomically designed and balanced for operator comfort
- Durability and reliability

Find out more at MoreLincoln.info/pten1017 or call 800-435-9599

AAPEX Booth #4620

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Large or Small, Lead Acid or Lithium CHOOSE THE BRAND THAT MEANS POWER

Jump-N-Carry jump starters are ideal for use in a wide variety of jump starting environments, including automotive, marine, fleet and industrial. Extreme jump starting power, long cranking duration and extended service life are the key features of *Jump-N-Carry*.

New 300 Series lithium jump starters bring dependable power, valuable features and trademark durability to this class of product. Model JNC318 features a PreHeat mode to overcome frigid temperatures, a challenge for many lithium units. Both models feature enhanced safety circuitry for peace of mind.



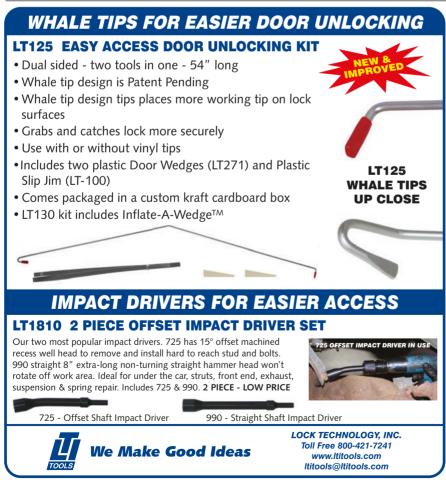
Whether you rock it old school or prefer the new kid on the block, *Jump-N-Carry* means power, each time and every time you use it.

www.jumpstarter.com

AAPEX Booth #4131



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Hybrid Vehicle A/C Dye Injection Kit

Tracer Products offers the **Mini-EZ Hybrid Vehicle A/C Dye Injection Kit,** No. TP-9812. The kit contains three 0.25 oz (7.4 ml) Mini-EZ capsules filled with co-solvent free fluorescent ester dye, formulated with unique additives blended specifically for hybrid A/C systems. The kit includes an EZ-Ject injector assembly with plunger handle and fitting; solidbrass, swivel-type R-13a hybrid coupler with check valve; R-12a purge fitting and three drip plugs.

Circle 150 on card, or enter at "e-inquiry" on VehicleServicePros.com



For use with construction vehicles, gensets and street sweepers

Jaltest OHW, available from Cojali USA, Inc., is an all-makes diagnostic tool for construction vehicles, gensets and street sweepers, according to the company. The tool has portable and lightweight hardware designed to work in demanding conditions along with its new software. Some of the functionalities offered include advanced diagnostics functions: component actuations, calibrations, and more; parameterizations; auto-detection of electronic systems in the vehicle; embedded technical information and wiring diagrams; as well as repair guides for troubleshooting by code or symptoms. Integration of new coverage comes with each software update. The company offers a dedicated product support call center, as well as training and e-learning programs for users.

Circle 142 on card, or enter at "e-inquiry" on VehicleServicePros.com





New cup in every lid

The **3M Automotive Aftermarket PPS Series 2.0 Spray Cup System** improves on 3M's previous spray cup system by eliminating the collar, adding a quarterturn lid locking system and incorporating new features designed to make painting easier and more efficient. Key features of this system include: a wide spout adapter with four-point connection; quarter-turn lid locking system; domed lid with fulldiameter filter; new cup in every lid and liner kit; access window; and larger cup sealing plug.

Circle 143 on card, or enter at "e-inquiry" on VehicleServicePros.com

Bent for easy access

The **Lang Tools Prybars** feature strike protected hard capped handles designed for comfort, secure grip and durability. The prybars are manufactured from high carbon alloy forged steel that is heat treated for strength and durability, and bent for ease of access. These prybars are available in 12", 17", 25", 31" and 36" sizes. Three- and five-piece kits are also available. These prybars exceed ASME standards, are made in the U.S.A. and come with a lifetime warranty.

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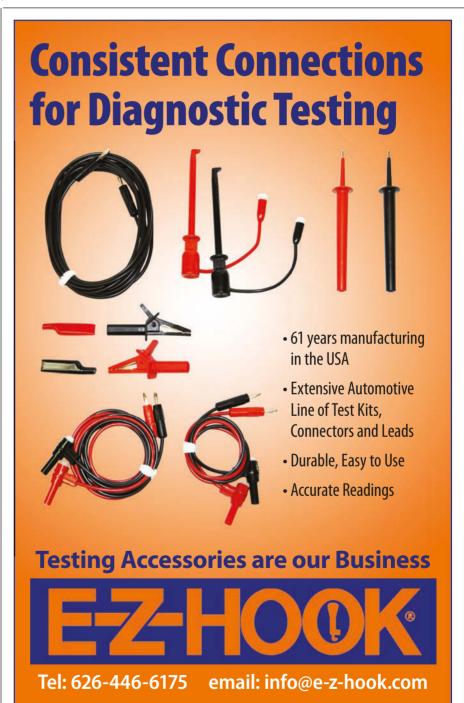




Designed to stay on for year-round protection

The **Penray Connector Seal**, No. 7015, is designed to help drivers and technicians protect their electrical systems from the elements. This formula seals wiring and electrical connections to help protect from moisture, road salt and corrosion. This weather-resistant formula is designed to stay on to protect year-round.

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Includes most common shapes and profiles

The ATD Tools 44-pc 1/4" Drive 6 Point SAE and Metric Pro Socket Set, No. ATD-1200H, features fiberglass hammer handles designed for long service life, three body hammers designed for balance and feel, four dollies in the commonly used shapes and profiles and a molded storage carrying case. This set also includes a free 10-pc Metric T-Handle Hex Key set.

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clears The DeVilbiss Tekna

Clearcoat Spray Gun, No. TEK-704198, features a TE25 air cap designed to make spraying difficult, high-solid clears easy with straight sided pattern. The spray gun offers improved atomization for a tighter finish with less orange peel and high gloss, says the company. The kit includes the Tekna Clearcoat Gun; TE25 (HE) and HV30 air caps; 1.2, 1.3 and 1/4 needle/nozzle sets; DEV-HAV-555 digital gauge; disposable cup adapter; gun wrench and color ID rings.

Circle 141 on card, or enter at "e-inquiry" on VehicleServicePros.com



For commercial truck, bus and passenger vehicles

The **Rotary R544 Pro Truck 2D Wheel Balancer** is designed to quickly and accurately balance a wide array of commercial truck, bus and passenger vehicles. The R544 features a microprocessor with selfcalibration and self-diagnostic features, as well as specific balancing programs for static, dynamic and light alloy/alluminum wheels. The R544 can raise up to 441 lbs with the integrated wheel lift and features a pneumatic wheel lock. The digital caliper with optical scanner provides 2D automatic data input of distance and diameter up to 26".

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Moves large volumes of A/C lubricant oil

The **Robinair 14390 Refrigerant Oil Pump** is designed to make A/C service faster. This compact pump is designed for moving large volumes of A/C lubricant oil back into HVAC and commercial refrigerant systems quickly and efficiently. This pump is compatible with any cordless drill and can move 1 gallon of oil in less than 75 seconds, according to the company. The Refrigerant Oil pump includes a mechanical pump with 1/4" hex drive shaft for power tool use, nylon hose and dip/bottle tube and works with ester, alkybenzene or mineral oil for servicing.

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Tilts 120 degrees

The Maxxeon WorkStar LightStik, No. MXN01000, is a rechargeable inspection light and worklight designed for daily use in shop environments. The white flood-style light beam produces 600 lm on high and 260 lm on low, and a light at the end of the light bar produces 120 lm. This light has a run-time of two to five hours, depending on the light output setting. The LightStick offers a magnetic base and a rubber coated handle to prevent scratching.

The light bar has five positions, tilts 120 degrees and includes a 120V charger and USB cable.

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Dispenses in pints, quarts, gallons or liters

The Lincoln Lubrication LFC 612 Fluid Management System, available from SKF, is designed for dispensing engine oil, transmission fluid, antifreeze and diesel exhaust fluid. The LFC 612 is easy to install and operate, with no special training required, according to the company. The system manages one fluid to 12 hose reels or two fluids to six hose reels each. Its touchscreen LCD shows the amount dispensed and has memory of the last three entries, plus quick-select quantities defined by the operator. The LFC 612 dispenses in pints, quarts, gallons or liters and operates effectively in temperatures ranging from 32 to 122 degrees F.

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Features adjustable shelf rack

Extreme Tools RX Series Professional Hutches are designed with built-in holes and slots in the adjustable shelf rack that allow users to organize screwdrivers, wrenches and more. The shelf edge was designed to hang accessories such as a power tool rack, media/electronics stand, socket holder and tool and can organizer. These hutches are available in 55" and 72" sizes, and include a powerstrip and USB ports.

Circle 153 on card, or enter at "e-inquiry" on VehicleServicePros.com



Half the swing arc of a regular ratchet

The SK Professional Tools DT Ratchet Series features Double-Tooth technology designed to provide users with half the swing arc of a standard ratchet. These new ratchets feature a traditional SK ratchet body with the new DT mechanism. This mechanism can also be used on traditional SK ratchets, allowing users to upgrade their current ratchets. The DT Series ratchets are available in 1/4", with 3/8" and 1/2" drive sizes coming soon. They are available to purchase as a new ratchet or as just the mechanism for an existing ratchet body.

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GTC505m Engine Ignition Analyzer

Quick, powerful, and easy to use

- 3.5" color display shows ignition waveform in real time
- Detects intermittent misfires
- Compares measurements between cylinders
- For use on car, motorcycle, marine, and small engines:
 - coil on plug
- waste spark
- coil near plug
- conventional (distributor)
- magneto, etc.



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or the fourth year in a row, we have allowed our readers to weigh in on the *PTEN* Innovation Awards. Named the 2017 *PTEN* People's Choice, the following pages feature the top 28 products selected by our readers, per product category, that were originally nominated for the 2017 *PTEN* Innovation Awards.

PTEN magazine will be hosting an official awards ceremony to honor *PTEN* Innovation Awards winners and the *PTEN* People's Choice winners at the AAPEX Show this October.

Lock Technology

The Loc Twist technic air hamr

Texas Twister, No. LT85 The Lock Technology Texas Twister, No. LT855, allows technicians to convert their air hammer into a pneumatic slide hammer. Its curved air bit snaps into the collet of the

air hammer. Then technicians can reverse the air hammer handle in their hands and use their thumb to push the trigger, generating pulling power from the air hammer. The patent-pending tool offers one-handed operation, and allows controlled part removal. The axle crow foot and pry bar sealer puller can be used to remove stubborn axles and inner axle seals, while the flat blade puller can be used for removing frozen distributors, pulley wheels and speed sensors without damaging them. The J-shaped hammer bit allows users to hammer from the back side, and the double-ended female 1/2-20 connector bar joins the Texas Twister to pullers. The LT855 comes with a 20" extender bar, 10 jam nuts for setup and a heavy

duty storage bag. CATEGORY: Tool Accessories

Circle 157 on card, or enter at "e-inquiry" on VehicleServicePros.com

Snap-on Tools

EPIQ 84" 16-Drawer Roll Cab The super-wide drawers of the **Snap-on EPIQ 84" 16-Drawer Roll Cab**, No. KETN843A, provide easy access to reach for sockets in the 5"

to reach for sockets in the 5" top drawer, wrenches in the 3" second drawer and 36" or 48" prybars, or even a ball joint press in the 4" third drawer. It holds up to 54,378 cu. in. of tools, and the drawers feature easy open InPulse technology that won't drift, says the company. Each of the ISO-Ride 7" by 2" swivel-lock mag wheels have a 1-ton capacity, and the independent, torsion spring suspension makes it easy to roll across a shop floor. Available in 13 color choices. *CATEGORY: Tool Storage*

KNIPEX Tools

Ear Clamp Pliers

The **KNIPEX Tools series of Ear Clamp Pliers** are designed for simple clamping of one- and two-ear clamps. Available in front-jaw and dual-front- and side-jaw options, the pliers do not damage the press points on ear clamps, according to the company. The Ear Clamp Pliers are ideal for work on CV boots, coolant and fuel lines, air pressure systems and compressors. Available in single- and double-jaw options, the pliers are 8-3/4" long and weigh 1 lb. The dual-jaw option is ideal when operating in confined spaces as the slim head allows for accessibility, and the jaw design is useful as the front and side jaws allow for clamping perpendicular or parallel to the clamp. *CATEGORY: Hand Tools*

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Power Probe TeK

ECT3000 Intelligent Short and Open Finder

The Power Probe TeK ECT3000 Intelligent Short and Open

Finder makes locating shorts and opens more accurate by showing the direction to follow and distance from the wire the user is chasing. When the ECT3000 Transmitter is connected to an isolated circuit, it will quickly determine if the circuit has an open or if the circuit is shorted to ground. The ECT3000 receiver is designed to detect signals from the transmitter, and its new adjustable distance indicator allows for accurate detection. Additional hardware is included for testing lighting systems, connecting to universal adapters, tapping into fuse terminals, for backprobing connectors, piercing a wire and connecting to a terminal. A blow molded case comes included to store the ECT3000 and all the accessories. *CATEGORY: Electrical Systems*

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Mueller-Kueps 5-pc Clip Lifter Set, No. 277015 Produced out of durable steel with a high-quality pol-

ished chrome finish, the Mueller-Kueps 5-pc Clip Lifter Set, No. 277 015, can be used for the quick and easy removal of a variety of retaining vehicle clip types. A thinned and U-shaped edge makes it easier for the lifter to grasp clips in tough-to-reach places. With its ergonomic design and the rubberized non-slip grip, it fits comfortably in any user's hand and won't slip off, according to the company. The tools are arranged in a quality die-cut foam case to enable the user to keep them organized.

CATEGORY: Body Shop

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Test Kit. No. 69700 The Lisle Corporation 13-pc Turbo Air System Test Kit, No. 69700, helps locate air leaks in turbo system components by plugging the output side

of the turbo and the intake inlet. Air is applied through one adapter to show the presence of leaks within the system. The kit features a pressure gauge, shut-off valve and pressure regulator, and includes six pairs of stepped adapters to fit most turbo systems on cars and light trucks. This test kit can also be used on some cooling system

hoses. CATEGORY: Leak Detection Circle 162 on card, or enter at "e-inquiry" on VehicleServicePros.com



Robinair

34988NI Premium A/C Recovery Machine The Robinair 34988NI Premium A/C Recovery Machine can recover, vacuum, leak test and charge on its own, eliminating the need to monitor the machine while in operation. The 34988NI is designed for use with R-134a, covering a majority of passenger vehicles on the road. The 34988NI is SAE J2788 compliant, recovering up to 98.5 percent of refrigerant. It detects leaks by injecting UV dye into the vehicle's A/C system to locate cracks that are difficult to see, and

automatically injects the correct amount of lubricant back into the A/C system. The 34988NI features a large, easy-to-read color dis-

play with printer. CATEGORY: Air Conditioning Service

Circle 163 on card, or enter at "e-inquiry" on VehicleServicePros.com



technicians needed to be able to apply more forming pressure with less effort. The tool combines features of an in-line flaring tool and a hydraulic flaring tool to provide a lightweight, low-profile tool. Designed to be easy to use compared to hydraulic-type and traditional offerings, this tool offers time savings and fits into tightaccess areas. It also does single, double and bubble flares with the option to expand into quick-connect fittings, and it includes a con-

stant tension tube cutter. **CATEGORY: Specialty Tools**

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Snap-on Tools

Cal-Van Tools

Hvdraulic in-Line

Flaring Tool, No. 166

The Cal-Van Tools

Hvdraulic in-Line

Flaring Tool, No. 166,

was developed because

Oil Filter Housing Flip Socket, No. 0FS2432 Developed to save technicians time, the Snap-on Oil Filter Housing Flip Socket, No. OFS2432, features 24mm and 32mm sizes, offering the convenience of using one tool for removal of the most common filter housings. This versatile socket can be used to remove and install oil filter caps on Audi, Volkswagen, Porsche, Chrysler, Dodge, Jeep, RAM, Lamborghini and Mercedes-Benz



engines. Compatible with V6, V8, V8 turbo and I4 diesel engines, this 3/8" drive socket is precision machined and heat-treated for maximum durability to stand up to repeated oil changes on various U.S. and import 2001 to 2014 vehicles. CATEGORY: Oil & Lube

Matco Tools

Parking Brake Cable Coupler Removal Tool, No. PBP1050 The Matco Tools Parking Brake Cable Coupler Removal Tool, No. PBP1050, is a versatile set of 14" pliers designed to assist with disconnecting and reconnecting brake cables, without the risk of injury. They are designed for use on light duty trucks, SUVs, vans and passenger vehicles with either drum or disc brakes, which are usually rear-wheel drive. The one-handed operation safely and quickly disassembles the mid-cable coupler from the cable end. Sliding the handles to different settings reverses the operation for reassembly of the coupler and cable. These pliers are heat-treated for durability and work on vehicles from the 1980s to current year production. CATEGORY: Brake Service

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Snap-On Tools

Advanced Wireless Video Scope, No. BK8500 With wireless capability, dual view imager head

and a large 5" LCD viewing screen, the **Snap-on Advanced Wireless Video Scope**, No. BK8500, is a critical problem-solving tool, ideal for inspecting cylinders, transmissions, electrical routing and locating leaks. Following download and setup, sync the BK8500 to a choice of mobile platforms (iOS, Android and Windows compatible) to provide a way to capture diagnostic media and send visual information directly to customers. Onboard mode selection keys automatically configure the screen saturation and color for best results in common applications: valve inspections, cylinder wall inspections, leak detection, wire tracing and general purpose. *CATEGORY: Inspection Tools, Lab Scopes*

Tech-Life

BeatBlock Twins Wireless Bluetooth Speakers Tech-Life BeatBlock Twins Wireless Bluetooth Speakers offer a compact size and can be paired together for a true stereo sound or used separately for added portability. The speakers have a resilient rubberized coating and weatherproof design. They also offer up to 10 hours of battery life, an active subwoofer in each speaker,



30' Bluetooth range and a built-in mounting system for any digital camera mount or tripod. *CATEGORY: Personal Gear*

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Mac Tools

Mini Air Impact Wrenches Di

Mac Tools Mini Air Impact Wrenches pack a heavy punch for their nimble 4.4" frame, and can access small spaces. Available in a 3/8" drive (No. AWP038P) and a 1/2" drive (No. AWP050M), these tools

are rated at 445 ft-lbs and 635 ft-lbs reverse breakaway torque, respectively. Designed for compact applications, the one-hand forward/reverse switch with three-position regulator (6,000 rpm max on 3/8" and 10,000 rpm max on 1/2"), and a variable speed trigger, allow for precise control. At 2.8 lbs., these mini air impact wrenches will remain comfortable even after extended use, according to the company. The grip is designed to withstand harsh automotive environments, including automotive solvents and fluids. *CATEGORY: Air Tools*

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OTC

Strut Tamer II Extreme with Stand, No. 6637-ST

The **OTC Strut Tamer II Extreme with Stand**, No. 6637-ST, was designed to assist technicians in replacing struts. It features forged locking jaws with large pads and offsets to clamp onto and compress springs tightly. To provide additional strength, stability and safety, the

compression arms are thick 5/8" steel. Locking trunions allow for optimal stability during spring compression. Arm-locking rings adjust by hand to eliminate the need for tools to adjust them. The 6637-ST Strut Tamer II Extreme includes a stand with wheels for moving easily around the shop. The OTC Strut Tamer II Extreme meets ASME PASE safety standards for spring compressors. The OTC Struct Tamer II Extreme, No. 6637, is also available on its own. *CATEGORY: Shop Equipment*

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SFA Companies

2,000-lb Heavy Duty 3-in-1 Car Dolly Set, No. 47020 The **2,000-lb Heavy Duty 3-in-1 Car Dolly Set**, No. 47020, from **SFA Companies**, holds a vehicle by the wheel, by the pinch weld and by the frame. With no tools required for assembly or use, this dolly set features integrated frame adapters

and locking casters. The adapters are secured with pins. This dolly set is self-stacking for storage. The set is sold in pairs of two. *CATEGORY: Lifts, Jacks & Stands* **Circle 167 on card, or enter at**

"e-inquiry" on VehicleServicePros.com

Snap-on

Diagnostic Thermal Imager, No. EETH300

The **Snap-on Diagnostic Thermal Imager**, No. EETH300, uses infrared technology to make heat "visible" and reveal problems anywhere on a vehicle, such as brakes, heaters, A/C, engine performance, electrical and bearings. This technology includes detailed thermal images made up of 4,800 distinct temperature zones,

an exclusive database of guided tests, automotive applications and reference images to help interpret results and automatic scaling to show the temperature of everything in the image. This tool can show the source of heat to track faults, such as bearing wear, friction, brake heat, misfires, electrical impedance and coolant blockage. The thermal image reveals heat sources, shows extreme temperatures up to 840 degrees F and has the ability to save and store images. *CATEGORY: Diagnostic Test Equipment*

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The only automated wheel balancing system on the market to offer completely touchless measurement and analysis of Runout Force Vectoring (RFV), the B2000P Wheel Balancer from John Bean® combines patented Power Clamp technology with advanced diagnostics to ensure exceptional uniformity and ride quality. For more productivity from your team—and more efficient business for your shop.

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Circle 170 on card, or enter at "e-inquiry" on VehicleServicePros.com JOHN BEAN **B2000P**



Innovation Awards PEOPLE'S CHOICE 2017

Snap-On Tools

No. EEJP600

12V Lead-Acid Engine Starter+,

Starter+, No. EEJP600, features a smart

digital display to indicate internal battery percent of charge, DC

voltage, plus vehicle battery voltage, and an integrated USB port

provides phone charging capability. The EEJP600 offers 350 (290

cold) cranking amps and tough 2-gauge 100-percent copper wire

to create strength and durability. A safety override switch is used to

ensure technicians are ready to start vehicles with battery voltage

less than 1.5V DC. The EEJP600 prevents operation if clamps are

connected in reverse polarity, keeping technicians safe.



OTC

Evolve, No. 3896

The **OTC Evolve**. No. 3896, is a ruggedized tablet capable of diagnosing more than 25,000 vehicle systems and 58,000 vehicle ECU combinations using new Bravo 3.0 software and an Android operating system. The tablet features a 10.4" optically bonded screen providing visibility in most conditions, including direct sunlight. The Evolve includes a one-year diagnostic subscription complete with multiple coverage updates per year and exclusive access to full-color, fullsystem wiring diagrams, available directly on the tool. Featuring more than 11,000 actuation tests and more than 1,400 adjustment tests, the Evolve also offers dual Wi-Fi architecture that provides a reliable Wi-Fi connection to the included J2534-compliant wireless VCI with simultaneous internet connection to the shop. A tablet docking station and backpack for storage are included in the diagnostic kit. **CATEGORY: Scan Tools**

Circle 171 on card, or enter at "e-inquiry" on VehicleServicePros.com

Creepex

Fastback The Creepex Fastback allows technicians to maneuver over floor grates, air hoses and even unpaved driveways. This patent-pending creeper offers handling control



for an ideal working position without the user having to pull themselves up by grabbing the vehicle being worked on. Two 7" wheels in a "positive camber" configuration provide the capability to spin on a dime, and wheel repositioning can be done at "waist level." The wheels have a dual tread profile for both smooth surfaces or rugged surfaces. The Fastback has a two-position ground clearance. Thanks to the extremely low center of gravity, a rollover is physically impossible, the company says. The FastBack features a heavy duty blow molding HDPE shell, and a comfortable ergonomic shape, including a polyurethane headrest. CATEGORY: Creepers & Seats

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Mac Tools

Pro Eye Rechargeable Area Light, No. SPL1500M

The Mac Tools Pro Eye Rechargeable Area Light, No. SPL1500M, uses Chip-On-Board (COB) LED technology to provide a super bright 1,500 lm to the work area. The SPL1500M includes three power settings: low, medium and high. The SPL1500M can be used corded

or cordless. This worklight has a run time of seven-plus hours on the low setting. The tool comes with a magnetic base, but also can be fitted to a tripod stand. It is IP67rated, which makes it water-resistant and

durable in tough environments. CATEGORY: Lighting

Circle 174 on card, or enter at "e-inquiry" on VehicleServicePros.com



Radiator Hose Pick Set. No. SGA102BR The Snap-on Radiator Hose Pick Set, No. SGA102BR, makes removing radiator hoses from clamps and fit-

CATEGORY: Battery Service Equipment

Snap-On Tools

tings easier. With a thin, wide blade style to significantly reduce the chance of puncturing and damaging hoses, this set offers durable, nickel-chrome finished bent and straight blades, and comfortable ergonomic Instinct handles. A longer blade option in the set faces back toward the handle so a hose can be "pulled" off, and a shorter blade option makes it easy for a hose to be "pushed" off, according to the company. CATEGORY: Engine Service & Repair



Theyton

Heater Core Back Flush Tool with Air Assist, No. 815 The Thexton Heater Core Back Flush Tool with Air Assist, No. 815, fits 1/2", 5/8" and 3/4" heater hoses, and a 1/8" NPT for shop air fitting. A basic garden hose hook-up cleans cooling systems and heater cores without disassembly, with no need to use acids or caustic solutions. A radiator pressure cap prevents over-boosting and water pressure can be easily controlled with the ergonomic handle. The push-button air assist helps remove stubborn clogs; previously technicians would have had to take the hose off the car and develop a make-shift way to fix a clog, adding time to their job. Another option that some technicians used was just completely replacing the heater core, which in turn costs the consumer more money. This tool saves from the costly replacement of even the most stubborn clogged heater cores, according to the company. CATEGORY: Fluid Exchange

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ULTRA DING MASSAGER DF-DM555UDX

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NEW! T-PULLER WITH COMFORT GRIP



NEW! KNOCKDOWN WITH POINTED & ROUNDED TIPS







Launch Tech USA

X-431 Heavy Duty Truck Add-On Module The Launch X-431 Heavy Duty Truck Add-On Module turns the company's Pad II into a full-function heavy duty truck scan tool. The module provides access to Class 4 through Class 8 vehicles, and com-

municates via Bluetooth, or can be hardwired to the vehicle. Users can download the HD Truck app to work on 12V or 24V systems. The module offers extensive model coverage and special functions, including engine, transmission, ABS and auxiliary from manufacturers such as Wabco, Bendix and Allison. The module works on CAT, Cummins, Detroit, Freightliner, Fuso, Hino, International, Isuzu, Kenworth, Peterbilt, Sterling and Volvo.

CATEGORY: Heavy Duty Diagnostics

GDI IVD Intake Valve & Turbo Cleaner

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CRC Industries



The **CRC Industries GDI IVD Intake Valve & Turbo Cleaner** dissolves and lifts deposits from valve stems and tops without top engine teardown. Especially needed to remove carbon deposits in GDI engines where fuel additives don't reach intake valves, this cleaner contains the highest PEA (polyether amine) detergency available, says the company. The cleaner is designed to help stabilize rough idle, hesitation and stalling, as well as improve airflow and miles per gallon. The formula is safe for turbos, intercoolers and all gasoline engines. *CATEGORY: Chemicals*

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Matco

MAXTPMS Activation/Program Tool, No. MDMAXTPMS The Matco MAXTPMS Activation/Program Tool, No. MDMAXTPMS, is a TPMS programming tool with built-in manual procedures. The tool features an easy-to-use icon-based interface with bright color display to guide users through replacing and servicing TPMS sensors. For multi-brand repair shops that require a mix of universal programmable and OE sensors, the

MAXTPMS can activate and read OE TPMS sensors, as well as program leading universal programmable aftermarket sensors. In seconds, the MAXTPMS displays all sensor data, including ID, tire pressure, tire temperature and battery status. The MAXTPMS is frequently updated with new vehicle and sensor coverage, and is compatible with existing Maximus scan tools. *CATEGORY: Tire, Wheel Service* **Circle 179 on card, or enter at "e-inquiry" on VehicleServicePros.com**

Snap-On Tools

Snap-on Twin Torch Synergic Pulse MIG Welder, No. MIG225i The **Snap-on Twin Torch Synergic Pulse MIG Welder**, No. MIG225i, features pulse wave technology for precise heat control, reduced warpage and minimized post-weld cleanup times. There are separate torches for steel and aluminum, with the aluminum torch featur-

ing a feed motor allowing extended cable length for increased accessibility. The MIG225i features 225A of output power to handle welding a variety of thicknesses found on today's vehicles. Setup time, using a large LCD display and a one-touch selection button, is reduced with a full library of synergic curves that pre-program optimal heat and wire speed settings based on material types and individual welding thicknesses. *CATEGORY: Welding*



makes of Class 4-8 trucks. Key features include built-in business reporting, an interactive work in progress dashboard, customer engagement tools, appointment scheduling, plate-to-VIN decoding and automated data recovery. The Manager SE Truck Edition integrates with Mitchell 1's TruckSeries repair information and includes repair, labor estimating and management tools. *CATEGORY: Computers & Software*

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Snap-On Tools

Mitchell 1 Manager SE

Truck Edition

The Mitchell 1 Manager

SE Truck Edition is a shop

management software for

repair shops that service all

1/4" Cordless Ratchet, No. CTR714

The **Snap-on Tools 1/4" Cordless Ratchet**, No. CTR714, allows for quick fastener removal and installation. The CTR714 provides 350 rpm free speed, and the 35 ft-lbs of torque output is ideal for applications with fasteners 10mm or smaller, such as those under the dash. With a variable speed trigger for precision control, its dedicated 1/4" ratchet platform has a compact design to reach into tight work areas. The ratchet also features a built-in LED headlight for task and space illumination.

CATEGORY: Power Tools



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2017 PRODUCT PREVIEW

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s we prepare for AAPEX and SEMA 2017, we offer a sneak peek at some products that will be on-hand at these shows. Check out some of the products that will be on display this year.

Protects a variety of finishes

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The Flitz International Premium Sealant protects vehicles against salt corrosion, UV sun rays, waters stains and more, according to the company.



The sealant is engineered to work on all metal surfaces, fiberglass, painted finishes, clear coats, plastics and glass, and is designed to protect finishes for eight months or more. The sealant comes in an 8-oz bottle, which is enough to do three full size trucks, according to the company. The sealant includes a trigger spray bottle and a dual sided 16" X 16"

microfiber cloth.

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Detect and flag reserve capacity issues

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The Battery Diagnostic Service System, No. DSS-5000, featuring Conductance Profiling from Midtronics, Inc., is designed to provide more, and deeper, information about battery State of Charge (SOC) and State of Health (SOH). The technology delivers fewer Charge & Retest decisions, in addition to battery reserve capacity warnings, according to the company. The DSS-5000 detect and flags reserve capacity issues. It supports diagnostics for conventional lead-acid, AGM and EFB batteries and advanced vehicle systems, including start-stop. The DSS-5000 features an easy-to-hold three-piece design, and includes a controller with 5" full-color touchscreen display, tester pod and charging/storage dock.

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Offers controlled battery charging

The **Midtronics Controlled Charger**, No. MCC-070, offers controlled charging to service different battery types (regular lead acid, AGM, EFB, Li-ion ready), appdriven charging routines and wireless connectivity to support automated software updates. The MCC-070 features J2534 reflashing support, quick fill and full charging capabilities, on-demand current and constant clean

voltage to the vehicle battery for the extended period of time required to update the vehicle computer software, selectable voltage levels from 11V to 16V DC (0.1 VDC), pre-programmed applications and a streamlined user interface. The charger has full integration with Midtronics equipment and data system in an advanced battery management solution; also functional as a standalone product.

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Detects motion and shuts off automatically

Big Ass Solutions' AirEye directional fan

detects motion and shuts off automatically. Featuring an occupancy sensor and advanced motor, AirEye is quiet, longlasting, easy-to-clean

and efficient, according to the company. AirEye only runs when workers are present, saving energy effortlessly during shift changes, breaks and shutdowns. The standard infinite speed control allows the fan to operate at 1 to 100 percent of full speed, rather than the typical two to three settings. The AirEye is available in 20", 24" and 30" diameters with a variety of mounts, including I-beam, C-channel, wall, swivel and portable pedestal. This fan comes with a seven-year full warranty.



Provides up to 48 hours of illumination

The **Big Ass Light Bar** offers a durable battery powered LED worklight designed to withstand dust, dirt and liquid. The light features six brightness settings from 80 lm to 5,000 lm, a 260-degree light angle, a high-capacity rechargeable battery and an octagonal shape that prevents the light from rolling away when set down. The light is made from extruded aluminum and high-quality polymers, resins and rubberized components. This worklight provides 1.5 hours of illumination at the brightest setting and 48 hours at the dimmest.

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Two new 4.5" and 5" models on display

Chicago Pneumatic will unveil new additions to its range of CP Cordless Angle Grinders, designed to help users achieve a high-quality finish with minimal effort every time, says the company. These tools are equipped with tight handles that are ergonomically designed to optimize the position of the battery and provide maximum comfort for users. Two new 4.5" and 5" models will be on display, which offer up to 8,500 rpm of grinding power. In addition to ensuring maximum material removal, the grinders have been developed with protection of users in mind. For this reason, they are equipped with an adjustable metal guard and safety level.

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With four selectable forward positions

Featuring a brushless motor, the **Chicago Pneumatic CP8849 cordless impact wrench** offers four selectable forward positions, two shut off positions and one reverse position, a unique element in the market for this type of tool, says the company. Weighing in at 6.94 lbs, Chicago Pneumatic's latest compact and efficient cordless impact wrench delivers 885 ft-lbs of torque. This represents a 12 percent increase in power over the previous model in its class, making it ideal for handling tough nuts and bolts in tire change, general maintenance and MRO applications for light vehicles. The CP8849 is available with 4 Ah or 6 Ah batteries.

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Organize, store and hold gravity fed spray guns

Organize, store and hold gravity fed spray guns or other heavy tools with the **Master Magnetics Magnetic Spray Gun Holder**. This powerful magnetic spray gun holder keeps tools in easy reach and safely stored on any flat ferrous surface. Re-position and move this magnetic holder, ensuring an efficient work area where it's

> AAPEX Booth No.

> > 1565

needed most. The heat-resistant, silicon-covered hook protects tools from damage, and the durable rubber-coated base prevents surface scratches without sacrificing any of its strength. Ideal for use in spray booths, garages, warehouses and other manufacturing operations.

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KANOLABORATORIES.COM

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Built-in Bluetooth speaker

The Advanced Lighting Systems LED Worklights, from JohnDow Industries, include spot lights, head lamps, under hood lights, articulating lights and ALS Audio Lights. The Audio Lights combine a COB LED spot light with a builtin Bluetooth speaker that delivers up to 5,000 lm of light and high quality sound for music. All ALS lights have an

IP65 or IP67 rating. Circle 185 on card, or enter at "e-inquiry" on VehicleServicePros.com AAPEX Booth No. 630



Removes R-1234yf refrigerant for air conditioning systems

The MAHLE Service Solutions ArcticPRO ROU250 Recovery Only Unit is designed to safely remove the mildly flammable R-1234yf refrigerant even if it is contaminated. It will also safely recover R-134a refrigerant. The ArcticPRO ROU250 features fully automatic servicing to ensure easy, time-saving and precise refrigerant recovery for vehicle air conditioning systems. It features a 1/2 HP compressor that does not require oil and comes with a limited one-

year warranty.

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- With rotating ring welded to lug nut, use included twist socket (LT4569B) to remove lug nut
- Safe, Fast, Easy solution to rotating ring lug nut locks
- LT4569A consumable item with factory defect warranty only

We Make Good Ideas

- LT4569B has a lifetime warranty
- Patent Pending on LT4569A Silicone Welding Shield



LT45694

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How to integrate new tool technologies into your shop

An overview of new tool technologies and benefits to implementing these technologies to maximize your investment.

By Barry Hoyland, Contributing Editor

ome of the tool types have been around for quite some time, but advances in their technology have

increased their value to you, your technicians and your service advisors. Many technicians do not fully utilize a tool for various reasons, but the primary reason for not using all the features is that they do not understand how to utilize the tool to create the best value.

Let's take a look at some of the different tool categories, how those tools have changed and how your shop can benefit from adopting these new technologies.

SCAN TOOLS

Scan tools may not seem as if they have changed significantly, other than having the ability to interact with more vehicle platforms. That is true to some point, but one of the most significant changes is that most scan tools have gone to either a PC or mobile platform, allowing other applications to work with the tool. Having multiple applications on a scan tool can expedite the diagnosis and repair by having repair information, interaction with your shop management system and a web search engine right at the technician's fingertips. All of these features can assist the technician to be more productive.

Other benefits to PC-based scan tools will be revealed shortly when Right-to-Repair (R2R) rules come into effect in 2018. In short, R2R mandates vehicle manufacturers provide individuals or shops the ability to access dealership level software. Installing OE vehicle software onto a laptop will provide a technician the ability to have the same repair informa-



tion, scanning capabilities and programming capabilities as the dealership.

One of the potential drawbacks to installing OE vehicle software on a laptop has been that some of the vehicle-specific software does not work if a competing OE vehicle software is on the same computer. An example has been Nissan or Jaguar software having issues if Ford software is on the same laptop. The most common fix for this has been to send the computer out to an expert to partition the hard drive, separating the different programs. I have found a simpler fix for this by installing each OEs software onto a separate external hard drive (external hard drives have come down in price, and are relatively inexpensive now), and plugging in the appropriate external hard drives as I need them.

Other improvements in scan tools are their ability to graph multiple PIDs, additional bidirectional controls and complete Mode \$06 data and definitions.

Innovations in remote diagnostics, like

Launch Tech USA's Tech-to-Tech installed onto their Pad scan tools, allow a technician to remotely log in from their scan tool to another Launch tool to perform remote diagnosis. This can be useful for shops that have multiple locations, or you could even place a scan tool in a customer's vehicle and remotely connect to diagnose intermittent issues, provided you have an internet connection.





LAB SCOPES AND ACCESSORIES

Scopes have been used to diagnose issues in vehicles for many years. The first ones that were used were the "big box" oscilloscopes used to analyze ignition systems. Later, features were added to test batteries and test for resistance using voltmeters and ohmmeters. Some other testers added fuel pressure and vacuum gauges for additional capability. Further improvements incorporated digital technology into their testing ability, which allowed technicians to obtain more data quickly in order to analyze issues. The other benefit of digitizing the data was having the ability to store data and images in order to compare test results with either known good, or known bad, test images.

These oscilloscopes were very useful, but not unlike today, many of the features were not utilized by the technicians using the tool. The good news is there have been quite a few improvements to the tools, including more channels and tutorial features included in many of the newer lab scopes.

In addition to tutorials, there are many how-to videos and comparative waveforms available from various resources that may assist a technician to both connect a scope and information based on test results to determine what the issue is on the vehicle.

There are now many accessories available along with information on how to test individual components with these accessories. Some of the most popular accessories and their uses are:

- **Inductive pick-up probes** for RPM signals are very good for quickly analyzing signals that sync to a specific event, such as checking an ignition event compared to the actual crankshaft position.
- **Pressure transducers** for measuring vacuum and pressure can be used to analyze each cylinder's pressure throughout its cycle and compare it to other cylinders on the vehicle, or known good vehicles. This type of test can easily determine if an individual cylinder has a problem, or if there is something like a timing belt issue, affecting all of the cylinders. Tests with transducers can also be conducted in the intake or exhaust systems to determine if there are pressure pulses that could be an indication of an internal mechanical issue with the engine.
- **Current clamp probes**, both for high and low current applications, can be a great asset for your lab scope. Using a current clamp allows you to connect to a circuit without cutting or piercing the wires. Observing a waveform with a high amp clamp is useful for checking starting and charging systems. By adding an inductive pickup on the number 1 cylinder, you can use a waveform to perform a cranking test showing relative compression. Low current probes are useful for checking for irregularities in fuel pump current, fuel injectors or primary ignition waveforms.

Another relatively new addition to lab scopes is software and hardware for Noise, Vibration and Harshness (NVH). Using this feature, a technician is able to place probes throughout the



▲ Using the Noise, Vibration and Harshness (NVH) feature, a technician is able to place probes throughout the vehicle and analyze waveforms to pinpoint the source of noise or vibrations. This can be very helpful in saving time locating intermittent or inconsistent issues.

vehicle and analyze waveforms to pinpoint the source of noise or vibrations. This can be very helpful in saving time locating intermittent or inconsistent issues.

During the last few years, technology has been able to reach many more technicians by both reducing the size of the tool and by adding features such as self-setting or auto-set.

One benefit to smaller lab scopes is the transition from larger standalone devices to software accessible via apps for tablets and phones. These advancements have provided many more technicians the ability to obtain a single- or dual-channel scope, maybe without all the features of a full-sized one, but due to their relatively low price, they are able to see the value of using a scope in their diagnostic process.

Auto-set features have allowed techs without much experience using lab scopes to quickly connect and use them for diagnosing issues. In my opinion, both smaller scopes and auto-set features will pave the way for technicians to use scopes more often and purchase larger full-feature scopes.



specific event, such as checking an ignition event compared to the actual ▼ This Fluke pressure transducer is a helpful accessory for use with a lab scope or DMM.



Continued on page 70 🍣

crankshaft position.



BORESCOPES AND OTHER CAMERAS

Camera technology has come a very long way in recent years, mainly in the size of the cameras, the quality of the images and the number of images you are able to store and send. For automotive uses, providing images of faulty components to your customer can go a long way to communicate the reason for suggesting a repair.

For diagnostic testing purposes, using a GoPro camera or similar camera mounted to the vehicle to capture images under driving conditions can save time and validate a diagnosis. For instance, we once used cameras to record images of suspension movement on both sides of the vehicle in order to determine if there was a mechanical condition causing a rough ride. Using a camera aimed at a dial indicator on both sides of the rear axle suspension showed less movement from one side than the other, which was due to the suspension bottoming out.

Borescope technology has also come a long way. Relatively inexpensive models can be attached to mobile platforms or laptops to capture images that can be saved or shared. There are many models available that work in high-heat areas such as a warm engine. Camera heads that are more flexible with attached LED lighting allow these tools to reach into smaller areas than before with much better image clarity.

Typical uses for borescopes go beyond looking at the condition of an engine cylinder; they can be used inside door panels to check window linkage or in HVAC ducting to check the operation and condition of ducts and doors.

Thermal imagers are another camera technology finding its

way into repair shops. These imagers allow a technician to visualize the heat signature of components to see how well they are working compared to others, such as engine cylinders.

Voltage that is flowing generates heat, so using an imaging camera is also a quick way to determine which fused circuit is allowing voltage to flow. This is a great and efficient way to determine the cause of a parasitic drain.

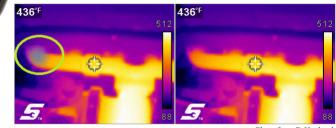


Photo from B. Hoyland

Thermal imagers are another camera technology finding its way into repair shops. These imagers allow a technician to visualize the heat signature of components to see how well they are working compared to others, such as engine cylinders.

DIGITAL INSPECTION TOOLS

All of us have performed inspections at some level on our customer's vehicles. The process for some shops is to perform the inspection and record the results on paper, or a pre-printed form, then share the outcome of the inspection with the customer. Many other shops have done inspections and only report the items they feel need attention during the current visit.

Today, your customers understand more about their vehicles and desire to be more involved and informed about maintenance and repairs. Additionally, many of your customers are comfortable in the digital world and want information quickly, and in a digital format.

One of the best ways to accommodate your customers' request for more information is to provide them with the results of a digital inspection. There are a few companies that have products, such as Bolt On Technology and Auto Vitals, available to incorporate customizable inspection reports directly into your shop management system. Many digital inspection formats allow technicians to use a phone or tablet to record the results, as well as take photos of reported faults during the process.

According to Bolt On Technology, the primary benefit of digital inspections is gaining the ability to have clearer and more communication with your customers. An additional advantage of performing inspections and recording them digitally is it creates an opportunity to perform more consistent and complete inspections by every technician.

Other benefits include the ability to share the results via a text message or via email instantly with your customer, show them before and after inspection results and maintain records of maintenance and repair recommendations. A long-term benefit of this process includes helping to build trust between you and your customers.



▲ One of the best ways to accommodate your customers' request for more information is to provide them with the results of a digital inspection report. Some companies offer a product suite allowing shops to incorporate customizable inspection reports directly into a shop management system.



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VEHICLE INFORMATION SOURCES

For many years, repair information has been relatively consistent with few changes. Recently though, providers such as Mitchell 1, ALLDATA and Identifix have incorporated much better search functionality, correlating repair data into their database that shows the most likely cause of an issue. Using these sources for symptom-based fault analysis can save a technician a lot of time by showing likely causes of failure. But, you need to remember that probable causes do not always relate to what is wrong with the vehicle you are working on.

The best and most efficient way to utilize information like this is to create a starting point for your diagnostic tests. For instance, if you were to look up a code P0420, a typical diagnostic fault tree would take you through tests for the fuel delivery, oxygen sensors and catalytic converters. Using a fault-based, vehicle-specific format, the probable fault may indicate multiple vehicles had issues with an exhaust leak near an oxygen sensor. Following this approach, you could check for a leak and either discount that as the issue, or quickly find the cause.

There are also some information sites that could be categorized as "social network" sites. These are mostly organized by "chat" subjects for specific issues with specific vehicles. These sites can provide great insight for pattern failure issues. One site in particular, iATN, has an outstanding resource library of waveforms for various systems and components.

As always, replacing parts is not a quick solution without performing diagnostic tests or testing individual components.

TELEMATICS

We have been hearing "telematics" is coming for quite a few years. Many of your customers hear about the ability of their vehicle communicate electronically with their dealer. Others have installed telematics devices into the OBD port for use by their insurance company.

Knowing that, there is still a lot of confusion, mostly from the aftermarket repair shop side, on how to access vehicle data, how to store it, how to utilize it and maybe most importantly, how to monetize it.

There has been quite a bit of effort from various sources to integrate this process into an aftermarket shop and with the vehicle owner's acceptance. Realistically, there has been very limited success for the processes and products currently available. I believe there is a need and desire both from a shop management side as well as from your customers to create a low-cost solution that works to meet everybody's needs. There is a rumor that Mitchell 1 has been working on a solution and will soon be releasing a product that meets this need.



Photo from Mitchell 1

TOOLS FOR CALIBRATING ADAS

Somewhat new to the industry, but a process that is becoming more commonplace, is the need to calibrate Advanced Driver Assist Systems (ADAS, typically pronounced "A-DAS"). Calibrations of these systems may be necessary when components are replaced, or after a collision has occurred.

Most ADAS use radar reflectors, or modules and/or cameras placed throughout the vehicle to determine if there are obstacles that could cause a collision, or even to relay information for adaptive cruise control or braking. Any time a camera or radar unit angle has moved, it will need to be recalibrated. In some cases, even a four-wheel alignment may require a calibration of an ADAS.

Every vehicle is different, and you will need to obtain specific vehicle information prior to starting the process, but in most cases a static calibration, followed by an active calibration, will be required.

Static tests start with placing the vehicle in a level spot with specific clearances around the vehicle. Next, levels may need to be placed on cameras or radar units in order to angle the camera or radar module properly. In many cases, targets will need to be placed on or around the vehicle, and a calibration process using onboard systems or a scan tool will need to be followed.

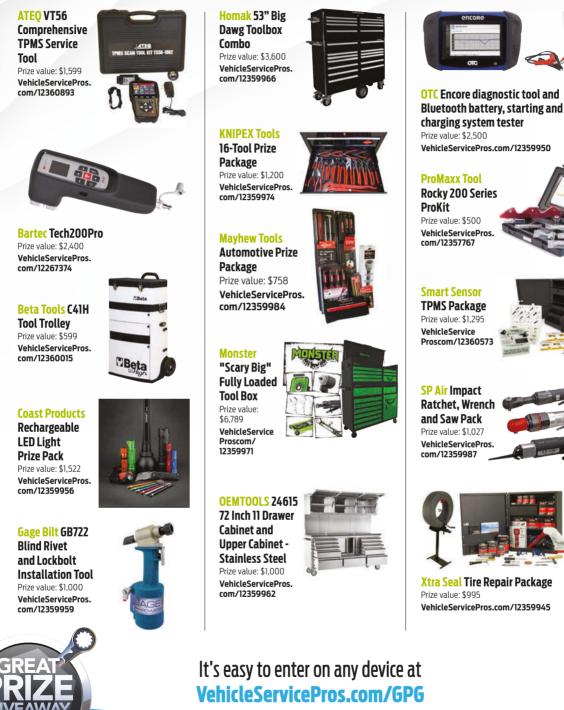
Active tests may include a test drive that allows the ADAS to recognize obstacles during a road test. An active test can take 20 to 45 minutes all while driving under very specific conditions. Some issues that can arise during active calibrations are the inability to drive at a consistent speed, or weather conditions like snow ice or rain or even road markers that are missing or inconsistent.

Collision shops are facing many of the ADAS issues now, but this creates an opportunity for independent repair shops to perform this service for collision shops and their own customers by purchasing the tools to do the job.

All in all, as technology advances in vehicles, tool technology will need to advance along with it. Technicians willing to invest in obtaining the tools will be able to not only keep up with the vehicles, but be able to set a standard consumers will look for when choosing their shop. **PTEN**

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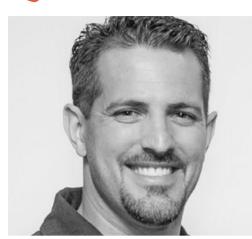


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VEHICLESERVICEPROS

TOP 10 TOOLS



Top driveability and diagnostics tools

This dealership-turned-independent technician shares the top tools he uses for diagnosing a wide range of driveability issues.

By Stefanie Von Rueden, Assistant Editor

TECHNICIAN: Brandon Steckler

LOCATION: Whiteland, IN

SHOP: Advanced Automotive **Diagnostics and Repair**

Brandon Steckler has been a technician for 18 years. He is a Master Factory Honda Technician with 14 years of dealership experience, and has worked as an independent tech for four years. He currently works at a small, full-service shop in Whiteland, Ind. that specializes in driveability and diagnostics. Steckler says he enjoys the automotive industry because it constantly provides new challenges and never gets monotonous. "The industry is struggling for a fortitude of sharp technicians, and I feel it's a duty of mine to attempt to remain at the forefront of technical know-how and to empower and educate others whenever the opportunity presents itself," he says.



Want to show off YOUR Top 10 Tools? For more information, email Editor@VehicleServicePros.com.

ALLDATA Repair is an online repair solution that delivers OEM repair information directly from all manufacturers. "The information is affordable and easy to access," Steckler says. "If information is missing, a simple email to the company will suffice, and the information will be sent directly to you via email." Circle 190 on card, or enter at "e-inquiry" on VehicleServicePros.com

This scan tool offers OEM-specific coverage for more than 70 vehicle systems and can be used for various jobs including hybrids, TPMS, steering and clean diesels. "I like this tool over some of its more expensive cousins because it has what I need and none of the other bells and whistles," Steckler notes. Circle 191 on card, or enter at "e-inquiry" on VehicleServicePros.com

The MODIS Edge is a combination full-function scan tool and scope/graphing meter. "I still use an older MODIS many times per week," Steckler says. "It provides me with a very portable four-channel lab scope for road test fault captures."

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"I use this inexpensive probe in conjunction with my MODIS in a dual-graphing meter mod," Steckler says. "By monitoring system voltage and battery charging over time, it reliably detects a defect in the system without needing to drag over a carbon-pile tester." This probe measures parasitic draw and is designed to work with all digital multimeters.

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The EScan Elite turns a laptop into a diagnostic scan tool. "This scan tool will 5 fill cells on a block chart based upon engine speed and load. I can guickly determine if the cause of the driveability concern is due to a fault related to fuel delivery, restricted exhaust, engine mechanical faults, vacuum leaks, unmetered air and even faulty MAF sensors," Steckler says. Circle 194 on card, or enter at "e-inquiry" on VehicleServicePros.com

This tool is a powerful 16-bit PC-based eight-channel, adjustable dual time 6 base oscilloscope with complete accessory kit. Steckler says he appreciates that this scope allows him to test from eight different points simultaneously. Circle 195 on card, or enter at "e-inquiry" on VehicleServicePros.com

This tool allows users to detect pressure changes in the cylinders through the spark plug hole, and identify misfiring cylinders from the exhaust tail pipe. Steckler says he appreciates that these issues can be pinpointed without timeconsuming disassembly.

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Steckler likes that this tool offers the functionality of a test light without the electrical load a test light can carry. "I can safely measure a circuit's potential at a specific point and also provide a 'known-good' power or ground supply to prove out faults before replacement," he says.

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Steckler uses this tool to determine if combustion gases are present in a cooling system. "I can know, prior to investing in a repair, whether the engine sustained any damage and prepare my customer accordingly," Steckler says. "I also use this tool to determine the functionality of a vehicle's ability to control fuel/feedback.

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"[The Automotive Technician (TaT) MyScan] software* provides me with a very inexpensive and efficient means of accurately calculating the point of a fault in a 720-degree engine cycle, as well as the duration of the fault," Steckler says. "The piston charts provide a means to determine what is going on inside the engine from the aspect of any cylinder at any point in time during the engine cycle."





ALLDATA REPAIR

INNOVA ELECTRONICS DMM INDUCTIVE AMP PROBE, NO. 3347

















Makita Impact Gold 9-pc 3/8" Drive 6-Point Impact Socket Sets

The reviewer appreciated that these socket sets were high quality and easy to use.

by Stefanie Von Rueden, Assistant Editor

PRODUCT DESCRIPTION:

The **Impact Gold 9-pc 3/8" Drive 6-Point Impact Socket Sets** are machined from heat-treated alloy steel for extreme torque applications and feature a black oxide finish for longer socket life. Each 9-pc set includes a 1/4" Hex Shank Adapter with an Impact Gold 3/8" Square Drive Socket Adapter that tilts up to 15 degrees for work in tight areas. This set is available with SAE sizes 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16" and 3/4" and metric sizes 8mm, 10mm, 12mm, 13mm, 14mm, 15mm, 17mm and 18mm. The Socket Sets are part of the expanding Makita Impact Gold line. Impact Gold insert bits, bit holders, double-ended power bits, nutsetters, impact sockets and socket adapters are exclusively designed for use with high-torque impact drivers.

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ou Fort, lead technician at K.A.R.S. Inc. in Huntingburg, Ind., appreciated that the Makita Impact Gold 9-pc 3/8" Drive 6-point Impact Socket SAE and Metric Sets were high quality and easy to use.

There was no setup required for these socket sets: simply install the bit driver adapter onto a driver tool, then attach whichever socket is needed. Fort notes that users do need to pay attention to the orientation of the hole in the socket's side, ensuring that it lines up with the ball of the adapter. Failure to do so can reduce the angle at which the bit driver will work.

Both the metric and standard socket sets were packaged in cardboard display hanger backings. The backings featured information on the sockets, including details on the materials used in manufacturing the sockets and the advantages of the included bit adapters. Both sets included a silicon holder to keep the sets organized: the standard set included a red organizer, and the metric set included a teal organizer.

Fort used these sockets every day while performing his usual repairs, for everything from rebuilding differential assemblies to removing dash assemblies in the replacement of heater cores. He also notes that he used the bit drive adapter with a Makita XDT15 Impact Driver whenever possible. He found that the bit driver in both socket sets offered him some time savings with its ability to work at an angle up to 15 degrees.

"I was very surprised to find how precise all the sockets were," Fort says. He liked that the fasteners fit securely in the socket, which helps prevent the rounding off of fasteners. Even after heavy usage, he found that the sockets kept true to their sizes and the Bit Drive Adapters held up well. "I honestly expected them to break in short order, but I haven't broken one yet," he says.

"I have used sockets of all makes and types my whole career, and bit driver adapters for more than 10 years. These sockets are among the highest quality sockets I have ever used, and the adapters are, so far, a step above all the others I have owned and used," Fort adds. Fort did notice that the size markings on the sockets can be a little hard to read, particularly in low-light situations. As an improvement, he suggests using colored laser etching for the size markings on the sockets. He also suggested adding size markings to the silicon organizers for easier socket identification.

Overall, Fort really enjoyed using these socket sets. "All of the sockets have taken a beating with no signs of wear," he says. "I love their inclusion of the 1/4" hex shank adapter (bit driver adapter). It may be a little thing, but at times, it is the little things that make the biggest difference." **PTEN**



KNIPEX Tools Hose Clamp Pliers for Click Clamps

Using this set of pliers provided the user the ability to easily remove and reuse the same click clamps on a variety of applications.

by Erica Schueller, Editor

hen working on fuel hoses, vacuum pipes, suction nozzles and other areas of the vehicle requiring the removal of small clamps known as Clic or Clic-R clamps, technicians can oftentimes become frustrated. A technician may have trouble accessing or removing this clamp type, sometimes requiring a replacement of the original clamp. With the introduction of the KNIPEX Tools Hose Clamp Pliers for Click Clamps, technicians can now use a tool designed to easily remove and reuse these click clamps.

"These clamp pliers have saved me a lot of time when dealing with this style of clamps," says Lou Fort, lead technician at K.A.R.S. Inc. in Huntingburg, Ind.

Fort confirmed the tool setup was simple with the push-button adjustment to set the opening size of the tool head, as well as the rotating tips to adjust the tool to the appropriate position.

Fort says he received a demonstration kit with his tool, allowing for an easy visual of how to use the tool. "It had two different styles of [click] clamps on a piece of hose over a brass tube insert," says Fort.

Of the features that stood out, Fort liked the overall size of the tool, as well as the adjustable jaw opening. "The fiveto-one leverage makes resetting even the largest clamp a snap," Fort says. "The shape of the jaw, along with having a row of teeth on the top jaw used to help loosen up the hose once the clamp has been released, is a feature I have not seen on competitor's (tools)."

Fort also appreciated the ability to replace the rotating tips of the tool, if needed.

He confirmed the tool allowed him to unlock clamps as necessary, but he oftentimes used a pick to complete this task. He more often used the Hose Clamp Pliers with Click Clamps to lock the clamp back in place.

The only drawback Fort found was the rare instance where he could not access the clamp due to the difficult positioning of the clamp.

As a suggestion for future iterations of the tool, Fort suggested having additional tip options available to remove a wider variety of clamp types. "How about making a few different sets of tips for use with different types of spring clamps?** Offer a set that would allow the jaws to pivot from side to side?"

Fort found a number of applications on which to use the Hose Clamp Pliers for Click Clamps.

"They proved handy when working on Jaguar, BMW, VW and Mercedes that used the Clic-R style hose clamps.

PRODUCT DESCRIPTION:

The KNIPEX Tools Hose Clamp Pliers for Click Clamps, No. 85 51 250 C, are designed to open and close click clamps quickly and effectively, with and without limit-stops in the locking mechanism. The tool will not harm the clamps they're compressing, allowing the click clamps to be reused multiple times. The rotating swivel tips allow access from multiple angles, and the push-button adjustment helps users find the right adjustment position.

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I was able to reuse rather than replace most of (the clamps)," Fort says.

> "Using the KNIPEX 85 51 250 C couldn't be much easier," Fort con-

firms. "I have used a few different models of click clamp pliers made by different companies. None of them make working with this style of clamp as easy as KNIPEX does."

Fort does confirm it is still a challenge to find a local vendor selling replacement Clic-R clamps, which is another benefit to having this tool on-hand. He currently must work with a local dealer to obtain replacement clamps.

Overall, Fort appreciated the KNIPEX Tools Hose Clamp Pliers for Click Clamps. "These are a very high-quality tool that work as intended with an ease that is expected," Fort confirms. **PTEN**

Manufacturer's note: The Hose Clamp Pliers for Click Clamps are intended for use with the Clic and Clic-R style clamps. KNIPEX also offers the 85 51 250 A and 85 51 250 AF with lock to assist with accessing other types of spring hose clamps.



Matco Tools COB Folding Light

The reviewer appreciated several different features of the light – including a magnet, belt clip and hook – to allow for hands-free use.

by Vesna Brajkovic, Assistant Editor

hen it comes to automotive repair, having hands-free illumination options is not only a convenience, but a necessity. Because the Matco Tools COB Folding Light, No. MFLCOB25G, has several different features for hand-free use, like a magnet, belt clip and hook, Lou Fort, lead technician at K.A.R.S. Inc in Huntingburg, Ind., says it allowed him to use it while performing all sorts of repairs around the shop.



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PRODUCT DESCRIPTION:

The **Matco Tools COB Folding Light**, No. MFLCOB25G, is thinner and lighter than Matco's previous handheld lights, and offers 350 lm output. The light features a magnet with 180-degree pivot, belt clip and hook, allowing it to be attached almost anywhere. The light offers durable housing that is IP54 water- and dust-resistant, and is cordless and rechargeable with an included micro USB charger.

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"I was quite impressed with the holding power of the magnet," Fort says. "But not every place has metal for the magnet to hold onto, so having a built-in hook to hang the light from is a bonus."

Fort used the hook option of the COB Folding Light when performing work inside, or through, the wheel wells by hanging it on the lip of fenders.

"This is the only light I can hang on those thin fender lips and use the swivel feature to put the light where I want it," Fort says.

He has also used the hook or magnet on the light when doing under-vehicle work, like transmission, wiring and suspension repairs.

Fort says using the light for under-dash work is more challenging, and that there would be a better light option for that kind of work.

But overall, Fort says he was impressed with the handheld light.

"I love the size of this little powerhouse of a light," Fort says. "I have used all kinds of cordless LED lights over the years. This one seems to be one of the best in terms of balance. The magnet is strong but not overpowering, the light output is average to above average, and run and recharge times are average."

When Fort received the MFLCO25G, it came in a small box which included a charger cord, replacement hook for hanging the lamp and a basic manual. The light arrives uncharged, and needs to be plugged in and brought up to a full charge before use.

"Good things do still come in small packages, and this is one of them," Fort says. "Of all the cordless lights I own, this is the only one I am going to own a pair of." **PTEN**

Vampliers 7.5" Long Nose Screw Extraction Pliers

The reviewer appreciated the serrated jaws on these pliers.

by Stefanie Von Rueden, Assistant Editor

emoving broken screws can be a time-consuming endeavor for technicians. Phil Fournier, owner and technician at Phil's Auto Clinic in Hemet, Calif., appreciated the quality and the gripping power of the serrated jaws on the Vampliers 7.5" Long Nose Screw Extraction Pliers.

"As an 'old school' guy, I was concerned that a tool made in Japan would not be of good enough quality to function reliably. I was certainly wrong there," Fournier says.

"Here in California, we have fewer cases of rust as compared to other areas, but one place that always tends to rust is the exhaust shields on most vehicles. It is very common for the manufacturer to use low-quality screws, and the heads shear right off. These pliers will [sometimes] back the screw right out," he says. He notes that this is a huge timesaver, since it prevents him from having to drill the screw out in these instances.

Fournier noted that the pliers have very precise alignment. The serrated edges of the screw extraction portion of the pliers make them good for pulling out screws that have broken or rounded off. "Even though the primary design calls for extraction of broken screws, I find that their precision grip and fine cutting edge makes them a tool I now grab routinely," he adds. Fournier also appreciated that the plastic grip handles worked well even with greasy hands.

There was no manual included with the pliers, and although Fournier found them easy to use, he suggested that including a link to the pliers' product video would be helpful. Fournier notes that he watched the product video to get a better understanding of the pliers' intended uses. "I've never heard of this tool company before and have not seen it on the tool trucks. It seems pretty unique," he says.

There was nothing that Fournier disliked about the tool, but he did suggest that a locking mechanism to help maintain the grip on a broken screw might be helpful for some applications.

Overall, Fournier appreciated the quality of the steel and the gripping power of the pliers. "I wish I had this tool long ago," he says. **PTEN**

PRODUCT DESCRIPTION:

The **Vampliers Long Nose 7.5" Screw Extraction Pliers** by **Vampire Tools** are designed for removing stripped, rusted, corroded, stuck or one-sided torx screws, nuts and bolts. The pliers are designed with patented Vampliers technology and feature inter-meshed top teeth for a non-slip grip, ergonomic handles designed for comfort and T-shaped forge handles to prevent the grip covers from twisting or slipping off. The pliers are designed for hard-to-reach screws up to 5.5mm in diameter and 2.2mm in height. The pliers are made in Japan from high-carbon stainless steel.

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Tri Springs Tool Door Guards

These door guards harness the power of industrial-strength magnets to help protect vehicle doors from unwanted dents and dings.

by Sara Scullin, Managing Editor

othing devalues a shop's work and reputation faster than a vehicle that suffers damage while being serviced. That's why it's important for shop owners to enlist the help of products aimed at preventing chips and dents — such as automotive door guards — so the real work can shine through.

Lou Fort, the Lead Tech at K.A.R.S. Inc. in Huntington, Ind., reports they have a set of Tri Spring door guards, models NAN-67 and NAN-47, installed on their 10-ton and 6-ton two-post lifts in the shop. Upon reviewing the guards, he was first pleased to note their fairly painless setup. "Once they are installed, you don't need or have to do anything else," says Fort, though he adds setup time will vary depending on which model of the door guard shops use, and how they will be attached to the lift.

"The 67s would work on either [the 10-ton or 6-ton Rotary two-post lift], whereas the 47s only fit our 10-ton," says Fort. The technicians at K.A.R.S. had never used aftermarket door guards on their lifts in the past, as they'd always relied on what came with the lift. Because the Tri Springs door guards are magnetic, and because they are designed in a way that allows them to be permanently attached, Fort maintains this puts them "a step above what the hoist builders provided."

"What I found most to my liking was how the guards could be placed on the lift arm posts so they raise and lower with the vehicle, unlike what the OE guards do," says Fort. "The magnetic strips on the NAN-67 are strong enough to keep them in place without having to screw them down." He adds, the NAN-67 is also flexible, as it allows for a wider range of applications than the NAN-47. "The NAN-47 also stays in place without being screwed down, but it is easy to knock off when not screwed down. [The NAN-47 guards] can have the rubber bumpers replaced should they become damaged."

Based on his experience, Fort wonders whether a modified bumper shape might improve the product's protection in future iterations. "I am thinking of a bumper more in the shape of a mushroom head or modified triangle," he says. Fort added, he also wouldn't mind seeing "touched up paperwork" with more extensive product information. (The door guards currently come with a few sheets on product placement and a page that details screw place-

PRODUCT DESCRIPTION:

The **Tri Springs Tool Automotive Door Guards** are designed to be placed on square-post hoists to prevent chips to paint and door dents. The use of industrial-strength magnets offer ease of installation and mobility. The NAN-67 weighs 0.5 lbs, is flexible, 18.5" long with a 5/8" rise, fits 0 to beyond 90 degrees, and is compatible with most hoists. These door guards are available in black. The NAN-47 consists of metal with the protection tube, weighs 1.75 lbs., is 18.5" long with a 1-3/4" rise. This guard is designed for use on Rotary Lift lifts. The Automotive Door Guards are made in the U.S.A. Additional lengths and colors are available with special orders and pricing.

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ment recommendations).

Overall, Fort was very satisfied with the quality and performance of the NAN-47 and NAN-67 door guards.

"Both of the Tri Springs Tool, LLC door guards are quality built and provide an added level of protection to vehicles being serviced when attached [and] used as intended," says Fort. **PTEN**



TOOL REVIEW

Innova 5160 CarScan PRO Scan Tool

This scan tool offers a wealth of resources and is fast, too.

by Sara Scullin, Managing Editor

t's amazing the amount of information manufacturers can now pack into one handheld tool. Scan tools have become an indispensable workhorse in automotive repair shops — and for good reason. They often hold the key to complex diagnostics and troubleshooting. They can point technicians in the right direction and connect them with fellow professionals.

For reviewer Rip Patel, shop foreman of Laguna Auto Service Center in Laguna Beach, Calif., the Innova 5160 CarScan PRO scan tool offered many useful capabilities. But he was blown away by its speed, and how easy it was to use.

Patel said the 5160 was "Awesome! ... [the] quickest scanner in my toolbox." He added the CarScan PRO is as fast as a code reader, yet as powerful as one of his larger OE scan tools.

Many technicians will be pleased to hear that this scanner is ready to go outof-the-box, and from Patel's point of view is "very, very simple to navigate."

Patel reports the tool comes with a soft grip slip-on cover, LED-lit OBD-II connector and a soft carry case.

He used the included (multilingual) Quick Reference Guide to learn about the tool's functions. The features he enjoyed the most were the 5160's "easy-to-understand" emission monitor readiness — in color, battery and alternator monitor and oil reset function.



Technicians at Laguna Auto Service Center put the 5160 CarScan PRO to work daily to check monitor readiness on all makes and models prior to performing smog checks. They also used it to scan generic OBD-II codes on every vehicle with an illuminated MIL, reset oil lamps on oil changes that require a tool to do so, and set steering angle after performing alignments on certain vehicles that require it.

"These are all daily activities," says Patel. "I use this tool at least five times a

PRODUCT DESCRIPTION:

The Innova 5160 CarScan PRO scan tool features an all-systems module Network Scan, Active Test and bi-directional controls to perform diagnostic routines, ABS and SRS live data and maintenance system resets for most gas, diesel and hybrid OBD-II vehicles on the road today. Optional OBD-I coverage is available to service model year 1982 to 1995 vehicles. It also features FixAssist technology with patented on-screen code and troubleshooting repair tips, and trip cycle procedures to support technicians in the proper validation of repairs. Users can clearly view and record diagnostic results on the tool's full-color 3.5" display that provides the convenience to view up to four live data parameters at one time. The 5160 also features battery initialization, as well as steering angle, battery and oil light reset. The 5160 comes with a protective rubber boot and soft storage pouch. The 5160 includes access to the RepairSolutions Pro diagnostic solutions resource, created to help professionals and shops diagnose and repair today's complex vehicles by providing verified fixes, difficulty ratings, TSBs, step-by-step repair instructions, resource to connect with fellow pros and more.

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day and up to 20, depending on what's in the shop that day."

Overall, he was "very impressed" with the scan tool.

"I believe this tool ... can keep up with [other] brands us techs are familiar with and spend thousands of dollars on. [In fact] I feel it has more of an advantage ... since it is easy to use and offers all the key features you need to get the job done," Patel says. He compares "learning" a new scan tool to "learning" a new smartphone. In this case, he feels the 5160 "cuts that time down to nothing."

"I even have my service writer using it to pull DTCs for customers when they're at the counter and want a better idea of what's going on," he adds. **PTEN**

CATEGORY SPOTLIGHT





FLUSH AND BLEED ENTIRE BRAKE SYSTEM

The Link New Tech Owik Draw Brake Flush and Bleeder, No. QD8, allows a single technician to flush and bleed an entire brake system, including the master cylinder and ABS components, in less than 10 minutes. Redesigned from previous versions, the QD8 has a spacious adapter tray for storage and drip and overflow collection, a holster of the brake bleeding octopus and the no drip bleeder hookup. The device, which comes with 13 automatic adapters and chains for all makes and models, operates off the shop's air system and offers automatic shutoff, without any electricity or battery power. The 10L capacity clear fiberglass tanks allow for easy monitoring of old and new fluids. It is made in the U.S.A. and comes with a three-year limited manufacturer's warranty.

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FLASH EVAPORATION FOR QUICK COOLING

The Wilton Cold Front 3037 Atomized **Cooling Fan** applies patented Flow Blurring technology, which uses low air pressure and water to produce micro-droplets that evaporate instantly and create cooler air covering 3,161 sq. ft. The Cold Front 3037 runs for more than 10 hours on a single fill-up of its 19-gal water tank. The single-speed cooling fan operates on standard 120V AC/60 Hz current and has independent fan and cooling controls. A dual onboard accessory outlet with GFCI protection is provided. The Cold Front 3037 measures 4' 8" high, and is powered by a 0.5 hp, direct-drive motor that turns the 30" blade at 1,100 rpm. It generates air flow of 8,462 CFM and air velocity of 22.3 mph. Mounted on four 12" wheels with solid rubber tires, the mobile fan rolls through standard doorways and has a standard foot brake control. Made in the U.S.A.

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5/8" STEEL COMPRESSION ARMS

The **OTC Strut Tamer II Extreme with Stand**, No. 6637-ST, was designed to assist technicians replacing struts. It features forged locking jaws with large pads and offsets to clamp onto and compress springs tightly. To provide additional strength, stability and safety, the compression arms are thick 5/8" steel. Locking trunions allow for optimal stability during spring compression. Arm-locking rings adjust by hand to eliminate the need for tools to adjust them. The 6637-ST Strut Tamer II Extreme includes a stand with wheels for moving easily around the shop. The OTC Strut Tamer II Extreme meets the ASME PASE safety standards for spring compressors. The OTC Strut Tamer II Extreme, No. 6637, is also available on its own.

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EASY WRENCH STORAGE

Hansen Global's Quik-Pik Wrench Racks organize wrenches while the clear labeling makes sizes easy to grab and go. Empty slots quickly show which wrenches are missing, and patented spring tabs in each slot keep wrenches in place. These low-profile racks fit 2"-deep toolbox drawers. Made in the U.S.A. of tough polypropylene plastic with a lifetime warranty. Two sizes available: Metric (gray) No. 5302, holds 6mm, 7mm, 8mm, 9mm, 10mm, 11mm, 12mm, 13mm, 14mm, 15mm, 16mm,17mm and 18mm sizes. SAE (red) No. 5301 holds 1/4", 5/16", 11/32", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8" and 15/16" sizes.

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WELDING STOOL WITH POLYURETHANE SEAT

The **ShopSol Welding Stool**, No. 1010302, has a polyurethane seat developed with a chemical mix designed not to deteriorate, even with welding splash that is not removed immediately. The seat will wipe clean. With all components tested in welding environments, the seat's ergonomic design promotes increased productivity, according to the company. The round ring height adjustment control can be accessed from any seating position to

move the seat from its low setting of 15-1/2" to 20-1/2" or its high setting of 19-1/2" to 26-1/2". The Welding Stool includes an 18" diameter steel tool tray, and it meets and exceeds BIFMA testing standards.

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INTEGRATED 120V POWER STRIP

The **Cornwell Pro Series 76" Toolboxes** are made from 14 to 18 gauge heavy duty U.S. steel. The drawers range from heights of 4" to 10" and fit into a 25" deep cabinet. The toolboxes have a polished chrome handle and an integrated 120V power strip with three outlets and two USB ports. The 6" x 2" casters provide mobility. The toolboxes also feature standard TLC locking drawers, an electronic keypad lock, foam drawer liners and an embossed Cornwell rubber top mat. **Circle 212 on card, or enter at "e-inquiry" on**

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FEATURES IMPROVED O-RING SEALING

Coxreels V-100 Series vacuum hose reels feature improved O-ring sealing designed for greater vacuum consistency and performance, a redesigned fluid path and a new swivel retention system that strengthens the frame and prevents separation of the swivel under excessive lateral loading. The zinc plating of the swivel components offers greater corrosion protection. The hose reel accepts 1.5" or 2" inlets. The reels with hose are offered in two hose lengths. For vacuums with 5 HP or less ratings, the 35' model is recommended. For vacuums with more than 5 HP ratings, the 50' model is recommended. **Circle 213 on card, or enter at "e-inquiry" on**

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ONLY ONE PUMP TO LOAD FAST LIFT TECHNOLOGY

The **Omega 3-ton Low-Profile Service Jack**, No. 29033, from **SFA Companies**, features a low, 3-1/2" pick height, a generous 20-1/2" maximum height, one pump to load fast lift technology, a foam-padded handle and a U-joint release for metered control while lowering the vehicle. The 29033 weighs 91 lbs and also meets or exceeds all of the ASME/PASE 2014 safety requirements. SFA Companies covers this jack with a one-year manufacturer warranty and customer support.

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FEATURES HEAVY DUTY FRAME CONSTRUCTION

The **LDS Industries 75-Bin Parts Cabinet**, No. 1010013, features heavy duty steel frame construction with clear bins made out of high-strength polymer. Easy-grip handles allow for bins to be opened and closed conveniently. Clear cover bins provide visibility to view stored parts, and bin labeling stickers help to organize parts efficiently, the company says.

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GRIPPY FLOOR MAT

The **New Pig Corp. Grippy Floor Mat** was designed to help reduce injury slip, trip and fall claims in busy shops. The adhesive-backed (patent-pending) mat never shifts, ripples or flips, according to the company.

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ONE-HAND HEIGHT ADJUSTMENT MECHANISM

The **Snap-on Flat-Oval Adjustable Creeper**, No. JCW67R, has a one-hand height adjustment mechanism and four-position headrest, making underbody work easier and more comfortable. The creeper frame's innovative flat-oval tubing does away with sharp edges and corners, and a new caster profile reduces rolling resistance, making the JCW67R easy to maneuver. These creepers are available in multiple colors and prints (red, black, green, orange and Real Tree Max 4). The solid plywood core of this 500-lb capacity, 40" long by 17" wide by 4" high creeper is fully padded with highdensity, 80-lb foam surrounded by heavy duty, easy-to-clean vinyl.





HEAVY DUTY CORD REELS

The **8600 series of Heavy Duty Retractable Extension Cord Reels**, from **Alert Stamping**, including the No. 8665TFS 65' 12/3 pictured here, offer a variety of durable cord reels capable of holding up to 85' of 12/3, 14/3 and 16/3 wire. The cord is SJTOW oil-resistant and cold-weather flexible. Anti-friction rollers assure smooth operation. A steel bracket for wall or ceiling mount is detachable for portability with the strong carry handle.

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RAISED EDGE ON WORKTOP PREVENTS TOOLS FROM ROLLING OFF

The **Beta Tools C56 Workbench** is 79" long by 25" deep and features an all-steel top with an edge on the sides and back to prevent tools and fasteners from rolling off. The front edge is rolled-down to prevent sharp edges. For storage underneath the worktop there are two drawers on ball-bearing slides that are key-locking, as well as a large open bottom shelf. The C56 includes six legs for added stability. It has welded "L" brackets at the bottom of the six legs to secure to the floor. This workbench has a static load capacity of 2,600 lbs, and is available in orange, gray and red.

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CONSTRUCTED UTILIZING A ROBOTIC WELDING SYSTEM Matco Tools RevelX toolboxes are con-

structed utilizing a robotic welding system for a consistent, strong welding process. Featuring a fully welded T-construction center shelf for strength and rigidity, there are no visible welds on the front of the box. These boxes have improved paint coverage for durability, including a flat bottom design for added paint coverage and strength. RevelX toolboxes feature a locking computer drawer with 110V and USB power and approximately 285.5 sq. in. of lockable space. A slide-out locking work surface provides additional storage, and handle end caps and chamfered design protect from sharp edges, along with extruded aluminum four-corner trim. Featuring a one-lock system, units also come with exterior power, as well as a power charging drawer.

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BUILT FOR RUGGED DUTY

JET JWS Series Web Strap Hoists, which come in single or double pull models with capacities of 1 or 1-1/2 tons, were designed with an isolated ratcheting gear, over-sized strap guide and bottom block assembly to guide the web strap smoothly onto the drum and prevent it from binding. A friction brake and double interlocking pawls allow for precise, micro-inching when lowering loads. The hoists feature an open housing design that allows for guick cleaning and fast daily inspections. The JWS hoists have corrosion-resistant stainless steel springs, bronze bushings, drum shafts, self-lubricating bearings and drop-forged steel hooks, which rotate 360 degrees. The fiberglass handles of JWS hoists are built for rugged duty, and are tested and certified to withstand 15kV/1' for one minute. The hoists' 1:1 gear ratio requires minimal handle effort and provides up to 1-1/2" lifts per 45-degree handle stroke.

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GRIPPER WRENCH ORGANIZERS

Ernst Mfg. Gripper Wrench Organizers are designed to help technicians organize wrenches and securely transport wrenches around the shop. Made from soft, flexible material, these organizers accommodate a wide variety of wrenches and allow for immediate recognition of a missing wrench. While holding wrenches secure for transportation, they also allow for easy one-handed engagement and removal of wrenches. The Gripper Wrench Organizers come in two standard colors – red and black – to make identification of different sets easy.

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REMOVABLE DUAL LIGHT FIXTURES

The Bayco Products LED Convertible Dual Fixture Work Light on Tripod

Stand, No. SL-1530, produces 10,000 Im and includes an 8' tripod. The removable dual light fixtures can be directed independently of each other, allowing users to position each fixture exactly where light is needed. Each worklight

fixture has a tempered glass lens, and is powdercoated for long wear and durability with a

multi-fin heat sink design keeping each fixture cool to the touch. **Circle 225 on card, or enter at "e-inquiry" on**

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SHINES AT 1,900 LM

The Bosch GLI18V-1900N 18V LED Floodlight allows users

to illuminate virtually any work area at any time of day, with a compact, carry-along tool. The 18V light can illuminate every inch of a room in a small (3.5-Ib) package, according to the company. It shines at 1,900 lm, but can

also can run on a 50 percent

mode and blast 1,000 Im, doubling the battery life. It runs up to eight hours at 50 percent, or four hours at the full 1,900 Im output.

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CATEGORY **SPOTLIGHT**

Shop Equipment & Tool Storage



ALLOWS LONGER LENGTHS OF LARGER DIAMETER HOSE

Reelcraft's **G9000 Series Hose Reels** are designed to be compact and allow for longer lengths of larger diameter hose. The redesigned gooseneck can be removed from the reel for easier hose attachment. An external drive spring allows for convenient access to the spring components, and the roller bearing inside the pillow block produces smooth spool rotation.

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PROVIDES MAXIMUM OPERATING PRESSURE

Ingersoll Rand's **3-5hp single-stage compressors** provide maximum operating pressure, increased air flow and extended duty cycles. The compressor offers 100-percent continuous duty for the toughest applications. Efficient finger valves are easy to operate and maintain. The compressor is made from durable cast iron. The pump is long-lasting, with an extended pump life of over 5,000 hours.

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16 SINGLE-STAGE BELT-DRIVEN MODELS

The **Jenny Products** line of **Single-Stage Air Compressors** offers 16 single-stage beltdriven models that feature cast-iron compressor pumps and powdercoated ASME certified tanks. Each unit is coated with Jenny "Ultimate Blue" Compressor Pump Oil to help ensure the pistons, bearings, crankshaft rings and cylinders are protected. Other features include manual tank drains and an automatic start/stop control with a pressure unloader. This line consists of horizontaltank stationary air compressors.

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MAGNETICALLY HOLDS FROM THE CENTER OF THE WRENCH

The **E-Z Red Wrench Rac**, No. WR2400, holds up to 24 wrenches. The magnetic organizer holds any sized wrench, allowing one-handed access. It is designed to magnetically hold from the center of the wrench, unlike conventional "V-style" holders. Utilizing non-scratch, heavy duty, anodized aluminum with magnetic end caps, the Wrench Rac adheres to any steel surface and accommodates flex head and stubby wrenches, in addition to standard models.

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INCLUDES TOP CHEST AND ROLLER CABINET

The **Homak 53" Big Dawg Series Toolbox Combo** includes a nine-drawer Top Chest and a 13-drawer Roller Cabinet with a large compartment for extra service. The combo features a high security locking system, ball-bearing drawer slides, extra-large aluminum drawer pulls and heavy duty no-slip liners. The toolbox is available in blue, red, burgundy, yellow and black.

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COOLS MORE THAN 3,000 SQ. FT.

The **Portacool Jetstream 250** provides powerful cooling with 8,500 cfm that cools more than 3,000 sq. ft. With built-in handles and heavy duty casters, the Jetstream 250 provides mobility for a variety of work and spaces. Additionally, the Jetstream 250 is equipped with KUUL Comfort evaporative media, which is made in the U.S.A. exclusively for Portacool products, to provide additional cooling comfort.

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VIDEO



CHIEF VULCAN ADU ADHESIVE DEBONDING UNIT

As the vehicle industry continues to evolve, more vehicles are using industrial adhesives. This video demonstrates how the Vulcan ADU can help save shops time and money by breaking the bond of adhesive on most materials or surfaces. Watch the video: VEHICLESERVICEPROS.COM/20856752

VIDEO



PLYMOVENT 360 VIEW OF VEHICLE EXHAUST SYSTEMS

Diesel engines produce a mixture of toxic gases and particulates from the combustion process. This video shows, in 360 degrees, three types of Plymovent vehicle exhaust systems for clean air inside fire stations, protecting workers from hazardous diesel fumes. To watch the video, visit: VEHICLESERVICEPROS.COM/20866924

TOOL REVIEW



MASTERCOOL ARCTIC COMMANDER LINE OF RRR MACHINES

"We needed (an RRR machine) that was fast and we could count on to be reliable," says the reviewer. "We're using them every day. And when you need one, you need it to work." The reviewer and his fellow technicians found exactly what they were looking for in the Mastercool Arctic Commander Line of RRR machines. To read the full review, visit: VEHICLESERVICEPROS.COM/20851028

STAINLESS STEEL SLIDE TOP LID FOR DURABLE. EASY-TO-OPEN CART TOP

The Sunex Tools 3 Drawer Slide Top Service Cart, No. 8035XT, is constructed from 1.2mm steel providing a 500-lb load capacity. The cart measures 37" wide by 20" deep by 43" high, for easy maneuverability. This cart features a stainless steel slide top lid for a durable, easyto-open cart top, with latching drawers as well as 5" by 2" locking casters for secure placement throughout the shop. The custom-knurled handle is designed for comfort, and the PVC drawer liners are constructed of an anti-slip material to secure tools during transport. Protective corner bumpers help prevent damage to the cart and an integrated power strip in the top compartment provides three outlets and two USB ports. Available in red, black, blue, lime green and neon orange.

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LONGER 12' HOSES FOR **MORE VERSATILITY**

The Mac Tools R134A Semi-Auto A/C Service, No. ACR220M, allows users to recover, vacuum and charge, and the offering provides longer 12' hoses for more versatility when raising vehicles and working on large trucks. The unit's 1.5 cfm, two-stage pump provides a fast and powerful vacuum, and also features a full-color, multilingual 5cm by 9cm display. The ACR220M includes an optional on-screen vehicle refrigerant and oil specification database. An automatic air purge eliminates air from the system, and the unit offers a 98.5 percent recovery efficiency. SAE J2788 certified, the ACR220M displays refrigerant use and monitors filter life.

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CATEGORY **Spotlight** Shop Equipment & Tool Storage

VARIABLE. PULSED CLEANER DELIVERY

Purus Fuel Technologies' IC-2 GDI Service Equipment is designed to improve the effectiveness and safety of completing induction services for GDI engine deposits. This equipment features multiple cleaner operation, including a surfactant cleaner and a solvent cleaner, which are used to provide the most effective cleaning combination. The unit is programmed to alternate between the two cleaners through multiple cycles to optimize effectiveness. With the ThermoCyclic Cleaning feature, a spray of cleaner is stopped to create dozens of thermal shock events and the HydroSafe function uses a vacuum switch to shut the flow off of the cleaner into the engine if it stalls. Variable, pulsed cleaner

delivery is used to prevent pooling of cleaner in the air intake. Programmed service gives the vehicle a 60-second pause during the service to clear the intake and re-establish a strong idle.

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s	tatement of Ownership, Manag (Requester Publications Only)	gement, and Circulation
. Publication Title Professional Tool & Equipment News	2. Publication Number 012-426	3. Filing Date September 15, 2017
. Issue Frequency ebruary, March, April, May, lune, July, August, September, October, December	5. Number of Issues Published Annually 10	6. Annual Subscription Price Free to Qualified Subscribers
. Complete Mailing Address of Known Office of Publication SouthComm Business Media, LLC 1233 Janesville Ave 20 Box 803	Street, City, County, State, and Zip+4)	Contact Person Debbie Dumke Telephone
Fort Atkinson, WI 53538-0803		800-547-7377 ext. 1763
. Complete Mailing Address of Headquarters or General Bus SouthComm Business Media, LLC, 1233 Janesville		803
Full Names and Complete Mailing Addresses of Publisher,	Editor, and Managing Editor	
rublisher (Name and Complete Mailing Address) Kylle Hirko 1233 Janesville Ave ört Atkinson. WI 53538		
iditor (Name and Complete Mailing Address) Frica Schueller (233 Janesville Ave		
Fort Atkinson, WI 53538 Managing Editor (Name and Complete Mailing Address) Sara Scullin		
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13. Publication Title Professional Tool & Equipment New

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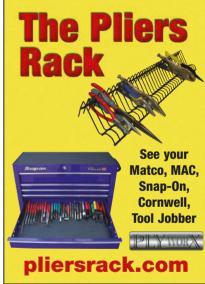
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BIG TIME BOXES

READERS OFFER A PROUD LOOK AT THEIR AWESOME TOOL STORAGE SYSTEMS.



Piece by piece

For a body shop technician, a triple box setup may seem big enough, but this tech wants to keep adding.

by Vesna Brajkovic, Assistant Editor

ver the past five years, Richard Hays of Service King in McDonough, GA, has purchased his now 12' long Snap-on setup in sections, and he says he's not done adding yet.

Currently, the box itself is 12.5' long, 7' tall, 2.5' deep. The setup features a main box, complete with personalized name plate, hutch, side locker and side cabinet with an open work surface. That's not even mentioning his matching Snap-on tool cart.

"The size of the box is quite large for a body shop technician," Hays says. "It has plenty of room for storage, but I will probably add a few more sections in the next few years."

Managing a big 30-drawer box like Hays' can be a handful, but he says keeping it organized is his best trick.

"I try to put everything up at the end of each day, and sometimes during the day, to

OWNER:

Richard Hays Service King Paint and Body #302 McDonough, GA

keep everything handy, and to make sure nothing is left in any vehicle," Hays says.

Generally, each of the drawers is designated by tool type, from a wrench and socket drawer, to electrical testing equipment.

A Snap-On Verus diagnostic scan tool, Hays' go-to tool, has a home in the hutch next to his laptop. The 72" hutch also stores cleaning supplies, aerosol can greases and an underhood worklight. On top of the hutch Hays keeps reference books, welding equipment and a stereo, which will likely find a home in a horizontal locker Hays plans to purchase in the near future. Additional storage can also be found in the single locker on the main box, which holds some of his lesser used

▲ The 30 drawers of this Snap-on box are organized by tool type, and Richard Hays says he puts everything back in its designated place at the end of the day.

items, as well as larger blow molded cases that don't fit in a regular drawer.

Some of his blow molded cases are kept under his box, as well. But the addition of a second side locker, which Hays plans to add, would provide a place for some of those bulky miscellaneous items.

Next to his setup is a matching blue Snap-on flip-up tool cart which holds "everyday" hand, air and battery operated tools, including sockets.

Hays has been a technician for over 30 years, and has been with Service King, primarily a body repair facility, for about 11 of them. He completes mechanical repairs, diagnostics, alignments and brakes, among other things. **PTEN**

Want to see more photos of Hays' box? Visit: VehicleServicePros.com/20977762



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