VOLUME 3 - 2019

On Target

fordcrashparts.com

For Ford and Lincoln wholesalers and the collision repair industry

FORD PARTS

2019 FORD F-150: LANE KEEPING SYSTEM OVERVIEW

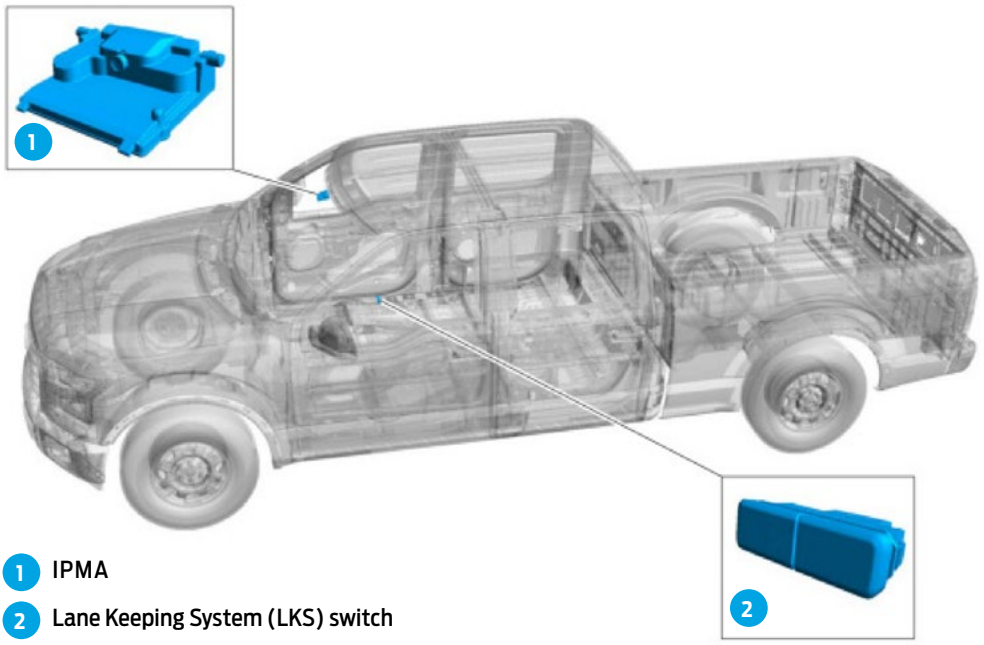
First introduced as options on higher-end models, the impressive benefits of advanced driver-assistance systems—commonly known as ADAS—have led many automakers to make them standard features on a wider range of vehicles, including Ford Motor Company, which continues in its commitment to provide new and improved driver-assistance technologies.

As ADAS technology becomes more commonplace and more advanced, technicians will need to become even more aware of the detailed steps needed to complete approved, proper and safe vehicle repairs.

One of these newer features is the Lane Keeping System, and using the system found on the 2019 Ford F-150 as an example, we present the first installment of an extensive overview of its operation.

Please note that the following information is intended as a general guideline and is not all-inclusive. For more in-depth repair information on this and other Ford and Lincoln vehicles, consult the *Ford Workshop Manual*, found at Motorcraftservice.com.

For more information, consult **Section 419-07: Lane Keeping System, Description and Operation.**



1. IPMA
2. Lane Keeping System (LKS) switch

OVERVIEW

The Lane Keeping System (LKS) has two functions: lane keeping alert and lane keeping aid. The system detects and tracks road lane markings by utilizing the camera located in Image Processing Module A (IPMA). The lane keeping alert detects unintentional drifting toward the outside of the lane and alerts the driver through steering wheel vibrations and a visual alert in the Instrument Panel Cluster (IPC) message center. The lane keeping aid assists the driver by automatically providing steering torque to help the driver keep the vehicle in the lane.

LANE KEEPING SYSTEM OPERATION

The LKS is turned on and off using the LKS switch located on the center console, which is directly connected to the IPMA. The last known on/off setting for the system is recalled every time the key is turned on. When a MyKey® is in use, the system defaults the lane keeping alert mode to "on" and cannot be turned off. When the system is on, it is active only when the vehicle speed is above 40 mph (64 km/h) and at least one lane marking can be detected by the camera. The system can be turned off at any time by pressing the LKS switch. If the switch is pressed when a MyKey® is in use, the IPC message center will display a message informing the driver that the system is on.

The system can be temporarily suppressed at any time by the following actions:

- Rapid braking or acceleration
- Evasive steering maneuver
- Using the turn signal indicator (only for the side that the indicator is on)

LANE KEEPING ALERT

The lane keeping alert generates vibration through the steering wheel when an unintended lane departure is detected by the IPMA. When commanded by the IPMA, the Power Steering Control Module (PSCM) rapidly oscillates the power steering left to right, simulating the vehicle driving on a rumble strip. The intensity of the steering wheel vibration can be adjusted using the driver assist options in the message center. The system also provides a visual alert in the message center when a lane departure is detected.

LANE KEEPING AID

The lane keeping aid provides steering torque to help the driver keep the vehicle in its lane when a lane departure is detected. The IPMA sends the road curvature and calculated steering angle messages to the PSCM. The PSCM uses these messages to calculate and generate the intervention torque.

Additional installments on the Lane Keeping System—as well as information on proper ADAS functionality, features and proper repairs—will continue in future installments of *On Target*.

For questions on this or the proper repair of any Ford or Lincoln vehicle, contact the Ford Crash Parts Hotline at cphelp@fordcrashparts.com.

REPAIR PROCEDURE UPDATE

In the previous issue of *On Target* (2019 - Vol. 2), we included a story detailing the importance of proper fixed glass repairs, utilizing the procedure from the official Ford Workshop Manual. That repair procedure has been updated and now reads:

Fixed glass must be discarded only when:

- *The fixed glass is the windshield glass and is equipped with a camera bracket*
- *The fixed glass is the windshield glass and is equipped with adhesive moldings*

For more information, consult the Ford Workshop Manual, located on Motorcraftservice.com, or contact the Ford Crash Parts Hotline at cphelp@fordcrashparts.com.

2020 FORD EXPLORER: VEHICLE-SPECIFIC BODY CONSTRUCTION

While Ford continues to release repair details for its 2019 Ranger (see page 3, this issue), it has also begun providing collision repair information specific to the all-new 2020 Explorer, including the material makeup of its outer components.

Please note the following information is intended as a general guideline and is not all-inclusive. For more in-depth repair information on this and other Ford and Lincoln vehicles, consult the Ford Workshop Manual, found at Motorcraftservice.com.

BODY OF THE 2020 EXPLORER INCLUDES:

- Front frame rails constructed of high-strength aluminum
- Rear frame rails constructed of Boron high-strength steel
- Fender reinforcement tube constructed of Dual-Phase (DP) 800 high-strength steel
- Cast aluminum fender apron assembly
- Liftgate outer panel constructed of mild steel
- Body structure constructed of Boron, Dual-Phase and high-strength steels
- Bolted, removeable front fenders, hinged doors and hood
- Bodyside outer panels constructed of mild steel
- Steel hood hinges
- Mastic pads used on floor pan for sound deadening

For more information, refer to Section 501-26: Body Repairs – Vehicle Specific Information and Tolerance Checks, Description and Operation.

BUMPER BEAMS

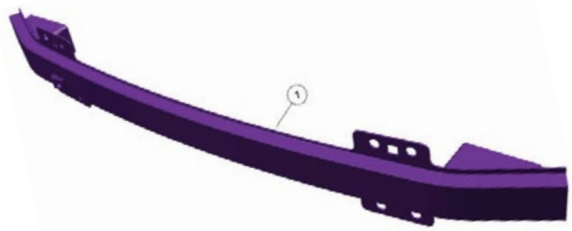
Bumper beams are typically constructed of high-strength (HS) or stronger class steel. If the bumper beam shows evidence of a kink or tear, it is **not** repairable and must be replaced. The use of heat to repair these components is **not** allowed as it will weaken the component. Minor damage may be corrected through the cold-straightening method only.

Below are some callouts on the 2020 Explorer highlighting specific component-level material construction.

For more information, refer to **Section 501-26: Body Repairs – Vehicle Specific Information and Tolerance Checks, General Procedures.**

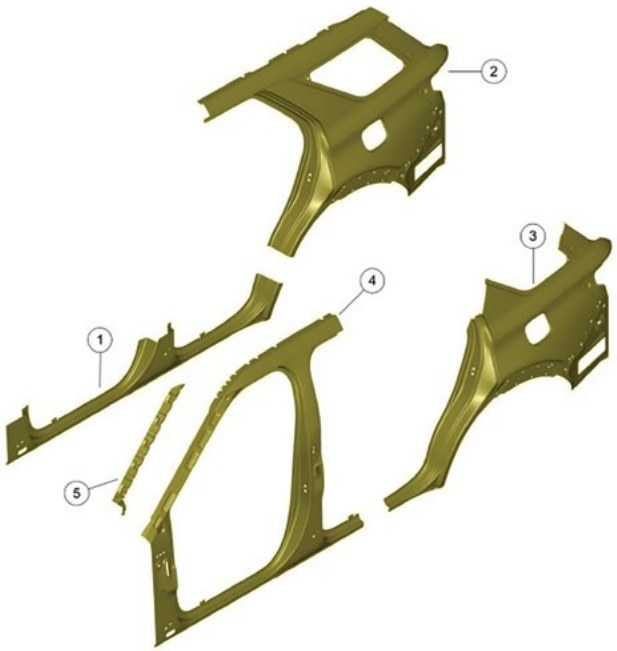
On Target plans to include additional repair information on the 2020 Explorer in future issues, continuing with the vehicle-specific body construction details as well as body-panel sectioning options.

For more information on the Explorer, or any Ford or Lincoln vehicle, contact the Ford Crash Parts Hotline at cphelp@fordcrashparts.com or visit I-CAR's RTS Portal at RTS.i-car.com.



FRONT BUMPER

ITEM	DESCRIPTION	STEEL TYPE
1	Bumper Assembly	High-Strength Aluminum



BODY SIDE OUTER PANELS

ITEM	DESCRIPTION	STEEL TYPE
1	Rocker Panel	Mild Steel
2	Outer Quarter Panel	Mild Steel
3	Body Side Panel	Mild Steel
4	Door Frame Panel	Mild Steel
5	Bracket	Mild Steel

FORDCRASHPARTS.COM

Ford Motor Company wants to remind repairers of FordCrashParts.com, one of the many online resources available to help them in their day-to-day operations of repairing vehicles correctly the first time. The site provides easy access to important collision repair materials directly from Ford. Visit FordCrashParts.com and check back often for new content.

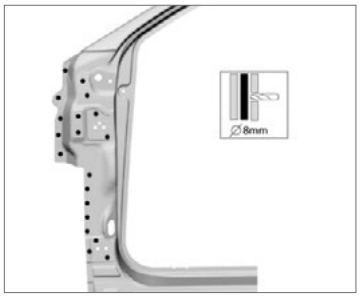


Figure 1

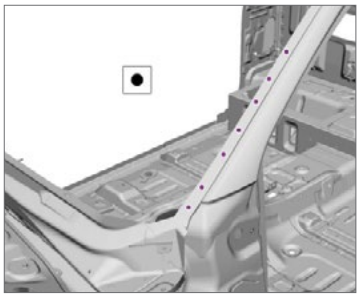


Figure 2

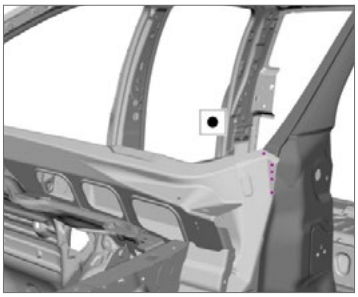


Figure 3

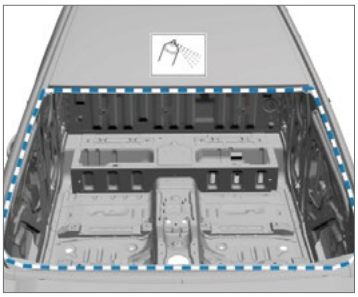


Figure 4

2019 FORD RANGER: A-PILLAR OUTER PANEL (INSTALLATION)

FORD SENIOR DAMAGEABILITY ENGINEER GERRY BONANNI CONTINUES THE CONVERSATION REGARDING REPAIRS ON THE NEW TRUCK.

After detailing the 2019 Ranger's all-new frame (2018 - Vol. 3) front fender apron (2019 - Vol. 1) and removal of the A-pillar (2019 - Vol. 2) in recent issues, this time we take a look at the installation of the Ranger's A-pillar outer panel.

Please note that the following repair information and steps are intended as a general guideline and are not all-inclusive. For more in-depth repair information on this and other Ford and Lincoln vehicles, consult the *Ford Workshop Manual*, found at Motorcraftservice.com.

SECTION 501-29: SIDE-PANEL SHEET METAL REPAIRS, REMOVAL AND INSTALLATION

"Fully researching the repair before any work is started is the most important piece of information I can give," said Bonanni. "Referencing the workshop manual for official Ford repair procedures is the only way to ensure the vehicle is repaired correctly and safely, and its components will continue to work as designed and intended."

The repair procedure begins by detailing the tools, equipment and materials needed for installation (and previously, removal) including:

- **Resistance spot-welding equipment (installation)**
- **Spherical cutter (removal and installation)**
- Hot air gun (removal)
- Air body saw (removal)
- **8mm drill bit (installation)**
- **MIG/MAG welding equipment (installation)**
- Spot-weld drill bit (removal)
- **Locking pliers (installation)**
- **Metal bonding adhesive (TA-1, TA-1-B, 3M™ 08115, LORD Fusor® 108B) (installation)**
- **Seam sealer (TA-2-B, 3M™ 08308, LORD Fusor® 805DTM) (installation)**
- **Flexible foam repair (3M™ 08463, LORD Fusor® 121) (installation)**

NOTE: Procedure applies to SuperCab and Crew Cab vehicles.

After removing the **two layers** of spot welds at the upper cowl extension flange and bracket for access, using the spot weld drill bit, and removing the entire A-pillar outer panel section using a hot air gun—as detailed in the previous installment—the new service panel is ready to be installed.

"The first step in the installation process is to cut the new service panel to fit the size of the repair, using the air body saw and the spherical cutter," said Bonanni.

NOTE: The use of a backer plate when creating butt-weld joints will produce a stronger and more uniform repair.

To create a backer plate, take an unused portion of the old body panel—or service replacement panel—and install on the vehicle at each sectioning joint, referring to section **501-25: Body Repairs – General Information, General Procedures.**

Next, remove the e-coat and clean the panel using 80-grit sandpaper. Using the 8mm drill bit, prep the panel for plug welding. **(Figure 1)**

After drilling, apply metal bonding adhesive and flexible foam (TA-1, TA-1-B, 3M™ 08115, LORD Fusor® 108B and 3M™ 08463, LORD Fusor® 121).

After the service panel is clamped into position with locking pliers, complete the backer plate installation to the replacement panel. The sectioning joints should be seam-welded using MIG/MAG welding equipment. The panel in the windshield opening flange should also be welded, utilizing resistance spot-welding equipment. **(Figures 2 and 3)**

"Repairers are warned they should not place new spot welds in the same location as the original welds," said Bonanni. "They should be placed adjacent to the original welds but must include the same number of welds."

Metal finish all seams using typical metal-finishing techniques. Seal all seams to production level, using seam sealer TA-2-B, 3M™ 08308, LORD Fusor® 805DTM.

Sand and clean the windshield opening channel and prime it, using a Ford-approved epoxy primer, and allow to dry. Mask the glass channel **(Figure 4)**, and prime and refinish the entire repair area using a Ford-approved paint system and typical refinishing techniques. Then remove the masking from the windshield opening channel.

Finish by restoring corrosion protection and installing the previously removed components, including windshield, front door hinges, bolt, front door and front fender. Align the front door, seal the door hinges and repower the Supplemental Restraint System.

On Target will continue detailing repair information on the Ranger in its next issue, including the procedure for the A-Pillar Outer Panel Section and Reinforcement.

FOR REPAIR QUESTIONS ON THE RANGER, OR ANY FORD OR LINCOLN VEHICLE, CONTACT THE FORD CRASH PARTS HOTLINE AT CPHELP@FORDCRASHPARTS.COM OR VISIT I-CAR'S RTS PORTAL AT RTS.I-CAR.COM.

FORD INTRODUCES ALL-NEW 2020 ESCAPE

Completely redesigned for the 2020 model-year, Ford Motor Company is proud to present the all-new Escape, featuring the small SUV's best-ever performance, flexibility and smart new technology.

In crafting a sportier look for the all-new Escape, designers turned to Ford's performance vehicles for inspiration. The shield-shaped trapezoidal grille is inspired by the sixth-generation Mustang, while the lower front end borrows from Ford GT. Compared to the current model, the all-new Escape stands lower, wider and longer.

With a sloped roofline, optimized liftgate spoiler and strake, and efficient underbody, the all-new Escape is the most aerodynamic to date, while shedding more than 200 pounds from the current model, due partly to the extensive use of high-strength, lightweight steel.

The Escape—which debuted the world's first hybrid SUV in 2005—also brings back two hybrid choices for 2020: a standard hybrid and a plug-in variant, while introducing technologies ranging from drive modes and driver-assist features to electric vehicle ingenuity and on-board connectivity.

Gas engine-powered models, as well as the standard hybrid models, are available with all-wheel drive. EcoBoost®-equipped models get new, quick-shifting 8-speed automatic transmission and powertrain systems, which not only aid in weight reduction but also help to improve overall vehicle aerodynamics. Every Escape also receives an all-new, updated suspension system and a new, isolated rear subframe.

With a selectable drive mode system standard across the lineup, Escape makes it easy for drivers to create the ride experience they desire — or the one that conditions demand. Modes are tailored for normal, eco, sport and slippery, plus snow and sand conditions.

In addition, Titanium models are available with an all-new head up display, a first for Ford in North America. The feature projects onto a 6-inch screen, giving drivers easy access to important information, such as vehicle speed, without taking their eyes off the road.

The all-new Escape, available in S, SE, SE Sport, SEL and Titanium series trim levels, is expected in showrooms this fall. Plug-in hybrid units are due to arrive next spring.

Detailed collision repair information on the 2020 Escape will be provided in future editions of *On Target*, as it becomes available.

TECHNIQUES FOR RIVET-BONDING ALUMINUM VEHICLES (PART 2)

Courtesy of Douglas Craig, Technical Application Engineer & Collision Industry Liaison, Structural Adhesives Tech Service, LORD Corporation

[Editors note: For Part 1 of this installment, consult *On Target*, 2018 - Vol. 3.]

SIMPLICITY WITH COMPLEXITY

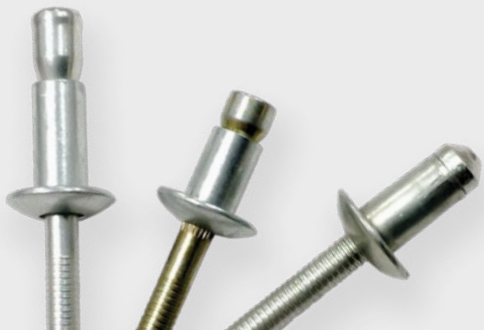
Rivet bonding is a relatively simple process; the complexity results from having to fix multiple vehicle models. Each damaged vehicle coming into a repair shop will have different requirements for the type of rivets and adhesives to be used. Follow OEM specifications for rivet type and adhesive brand to ensure that a proper repair will be made.

Using adhesives in the rivet bonding process is not complicated:

- Apply adhesive to the panels that will be bonded.
- Position the panels properly and lock them in place with a temporary clamp.
- The rivets will be installed through the adhesive and the substrate panel.
  - If you are using a pull-style rivet (known in the Ford Workshop Manual as a blind rivet), drill the holes first, apply the adhesives and join the panels.
  - With SPRs, install the rivets once the panels have been joined.
  - When using flow-form rivets (known in the Ford Workshop Manual as solid rivets), punch the holes after the panels have been joined, then install the rivets.

Here are a few fastening guidelines to help with the rivet bonding process:

- Follow OEM repair recommendations to determine if a bond-only installation is allowed.
- If a bond-only recommendation is specified, replacement is complete when the panels are clamped.
- Mechanical fastening should be completed when the replacement panel is clamped and before the adhesive begins to cure.
- Clamps can be removed as the mechanical fastening is completed, since the fasteners will hold the panel in position until the adhesive cures.



ADHESIVE SELECTION, MIXING AND PREP

Adhesives are specified by the OEM according to supplier name; this means that the OEM has tested the adhesive material and knows that it will work for the repair. Don't just reach for "any adhesive" off the shop shelves to do a repair. While a shop might have some adhesives in stock, it is preferable to use fresh adhesives. Do not use an adhesive that is past its expiration date. As with rivets, order the OEM-recommended adhesive to execute the repair work.

The adhesives you will be using for rivet bonding are two-component formulations and it is crucial that the cartridge is equalized before applying the adhesive. When using two-component adhesives, "Part A" must be mixed with "Part B" to obtain the proper adhesive blend. But most important, the cartridge must be equalized before use. A small amount of the adhesive must be pre-extruded to ensure that both parts will be dispensed when pressure is applied to the cartridge through the applicator. The adhesive will be weakened if the correct mix is not attained. To prepare the cartridge after equalization, attach the mixer, expend a small portion of the mixed material and discard it; the adhesive will then be on ratio.

Surface preparation is another important element of the rivet bonding procedure. Follow the adhesive manufacturer's instructions and OEM recommendations for proper surface preparation. This should include removing any existing adhesive and/or corrosion on the substrate's surface. When replacing panels, remove the e-coating on the service part so that you are working with a metal-to-metal surface. After the adhesive has cured, the panel is ready for finishing processes and painting.

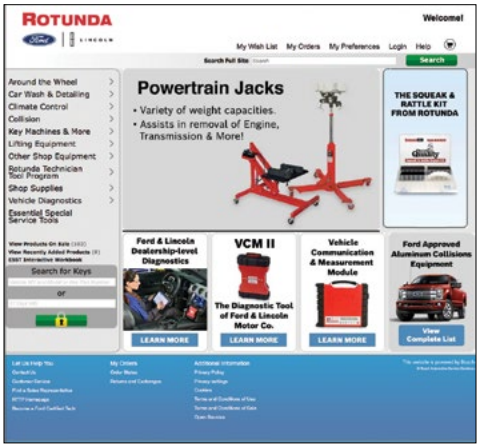
As OEMs continue to use lighter substrates (aluminum, carbon fiber, plastics) in vehicle design, rivet bonding (cold-joining) will become a standard repair procedure. Rivet bonding is not a difficult process, but it is crucial to use OEM-recommended rivets and adhesives. If the appropriate steps are followed, a successful repair will be performed.

For more information on rivet-bonding repairs as it directly relates to Ford and Lincoln vehicles, contact the Ford Crash Parts Hotline at cphelp@fordcrashparts.com or visit I-CAR's RTS Portal at RTS.i-car.com.

FORD'S ROTUNDA HANDLES ALL COLLISION REPAIR EQUIPMENT NEEDS

Created in 1964 to help its dealers source the proper tools and equipment they needed, the Ford Rotunda Equipment Program has since evolved into an elite tool, diagnostic, keys and equipment program, one that partners only with top-notch suppliers.

The program connects Ford dealership networks with its exclusive list of equipment suppliers, ensuring that its tested and proven equipment makes it into all Ford/Lincoln service departments. All equipment added to the program is fully vetted by Ford engineering to provide vehicle owners with peace of mind they will have the very best possible service experience, no matter which Ford or Lincoln dealership they choose to visit.



The program offers equipment covering such areas as: brake service; tire and wheel repair service (including tire pressure monitoring system); climate control service; heavy-duty equipment such as vehicle lifts, floor jacks and engine cranes; and collision-dedicated equipment, including aluminum repair, dent repair, frame racks, measuring systems, Ford-approved paint systems, welders, riveters and much more. While some of the material Rotunda offers is proprietary to Ford, such as diagnostic equipment, keys and some wheel locks, other than that, independent collision repair facilities can order from Rotunda as well to fit most of their automotive equipment needs.

To help shops with smaller items, like shop consumables and hand tools, Ford also created the Rotunda Technician Tool Program (RTTP), with recent releases including Ford-branded tools such as screwdrivers, wrenches, ratchets, and heavy-duty tool boxes.

Rotunda offers deferred financing on minimum purchase amounts and has also collaborated with third-party companies to work with shops after their deferment has ended.

Visit Rotunda.Service-Solutions.com to see what we can do for you.

FORD AND THE INDUSTRY BENEFIT FROM I-CAR® SUSTAINING PARTNER™ PROGRAM

By Mark Bochenek, Principal, OEM Business Development, I-CAR

I-CAR is pleased to welcome Ford Motor Company as the first automaker to join the Sustaining Partner Program, which currently includes 25 other inter-industry leaders from the insurance, information services and supplier segments.

The Sustaining Partner Program's primary purpose is to forge a stronger collision repair industry. One of its key goals is to generate additional support to help I-CAR effectively deliver quality training to collision repairers and educational institutions. The program also supports I-CAR's mission of ensuring that every person in the industry has the information, knowledge and skills required to perform complete, safe and quality repairs.

This noteworthy initiative is designed to help address the collision repair industry's shortage of technicians and expand training opportunities throughout the inter-industry. The Sustaining Partner Program also makes I-CAR training more accessible and affordable for career and technical school students across the country, which helps advance I-CAR's mission, while expanding the industry's future workforce. Strong program participation has already broadened I-CAR 's ability to deliver increasingly accessible, on-demand and relevant education, knowledge, skills, services and solutions to the industry.

As a Sustaining Partner, Ford also can access the robust portfolio of I-CAR standard products and services that are relevant. This helps better equip technicians in the Ford Certified Collision Network (FCCN) with the education and training that are critically important in today's repair landscape. Ford has a long history of commitment to training, and this program further extends that support to trade and technical schools through I-CAR.

NEW INDUSTRY BODY SHOP LOCATOR

Thanks to the efforts of Ford and other organizations, motorists now have a valuable new tool to help them understand the importance of selecting collision repair shops with an ongoing commitment to training, no matter where they are located. It is the industry's first neutral, online body shop locater, BodyShopology™, powered by I-CAR and accessible at BodyShopology.com. BodyShopology directs consumers to trained and credentialed collision repair shops via a simple ZIP Code input. It includes more than 8,100 shops located around the nation, along with filters for selecting car makes and insurers.

These shops must achieve and maintain Gold Class® recognition, as well as successfully complete three Ford-specific course requirements. Shops that participate in the network confirm their commitment to delivering a superior repair experience to their customers.

RTS PORTAL PROVIDES VALUABLE RESOURCE

To better support FCCN shops, I-CAR's Repairability Technical Support® (RTS) Portal gives technicians detailed resources for making repairs exclusive to Ford vehicles. It features a wealth of information ranging from calibration and diagnostics pre- and post-repair scanning to glass replacement.

With the advancing mobility and technology being incorporated into vehicles, I-CAR and Ford will continue to rely on their successful collision repair training and education collaboration. Businesses and consumers alike know that not all collision repair shops are created equal; that's why I-CAR is raising the bar on its industry training programs and can do so thanks to the invaluable support of industry leaders such as Ford.

Learn more about Ford's and I-CAR's training relationship by visiting I-CAR.com/Ford, or RTS.i-car.com/FCCN.

Ford-Approved Repair Tool Spotlight: Pro Spot De-Combi Dust-Free Workstation

Ford Motor Company continues to keep repairers in mind, not only when designing new vehicles, but also in the creation and application of new repair methods, official procedures, and in working with its approved vendors to create new tooling to help technicians in their efforts to provide safe and authorized repairs. One such tool is the Pro Spot De-Combi Dust-Free Workstation.

The De-Combi vacuum and sanding system—the only Ford-approved, aluminum-safe dry system that doesn't require sludge removal—is built for shops that need an inexpensive system that can keep up with today's industry demands, utilizing patented technology to safely and efficiently sand and remove dust. The workstation offers mobility, storage and fast clean up to keep the shop clean and the air dust-free.

Featuring no electrical parts, it is a system well-suited for aluminum or steel, though it is recommended to have dedicated systems for each to avoid contamination. With easy access side doors, the De-Combi workstation (Rotunda part # 254-DE-COMBI) allows quick filter and vacuum bag changes, unlike wet systems, which require draining and sludge removal. The De-Combi also allows users the opportunity to keep different sanding tools on-hand with added storage to fit every unique repair job.

Technicians can attach their favorite DA sander/handblock to the De-Combi system, which can also run two sanders at once, increasing productivity. The workstation also comes complete with Pro Spot's selection of premium sanding discs.

The De-Combi workstation—which also meets the requirements for Ford's Certified Collision Network—runs completely on air, side-stepping additional electrical costs for the shop. The patented system runs on only 50psi, running efficiently at 5 - 7 CFM (cubic feet per minute), lowering air compressor usage and costs. This allows shops to use the De-Combi and their paint booths simultaneously, without affecting air compression.

Pro Spot De-Combi Dust-Free Workstation key features:

- Mobile and portable
- No electric motors
- Anti-static hoses
- Dust-collecting vacuum bags
- Tool hanger for quick tool use
- Extra storage space

For more information on this and other Ford-approved equipment, visit Rotunda.Service-Solutions.com or prospot.com.

INSIDE THE INDUSTRY

Average Vehicle Age Edges Up

The average age of all light vehicles on U.S. roads has reached 11.8 years, up slightly from 11.7 years old in 2018. That's according to IHS Markit, which reports the number of registered cars and light trucks hit a record 278 million this year, a jump of 5.9 million from last year. The company predicts the number of new to five-year-old vehicles will increase just 2 percent between 2018 and 2023, while the number that are 6-11 years old will spike by 27 percent.

I-CAR Announces Enhanced Training Model

I-CAR (Inter-Industry Conference on Auto Collision Repair) has announced the launch of several updates to its core education and recognition programs. The new features include enhanced courses and programs, better and more flexible pricing options, and a series of program updates that will help ensure repairers possess the right knowledge and skill level to repair vehicles correctly. For more information, visit i-cartraintogain.com.

NC Issues Steering Reminder

The North Carolina Department of Insurance has issued a reminder to insurance companies and agents regarding the state's anti-steering laws. The June memorandum followed complaints by some shops that some insurers were telling customers "their claim would be more heavily scrutinized" if they went to a particular collision repair shop. North Carolina's anti-steering law includes fines of up to $2,000 for violations.

Counterfeit Airbag Distributor Sentenced

An Ohio man convicted of selling counterfeit airbags online has been sentenced to a year in prison and ordered to pay restitution of nearly $76,000. The U.S. Attorney's office says David Nichols and his partner imported approximately 364 counterfeit airbags from China between August 2015 and March 2016. The fake airbags were subsequently sold as "genuine airbags" to unsuspecting customers.

Record Precipitation

The last 12 months has seen a record-setting amount of precipitation in the contiguous U.S. That's according to the National Oceanic and Atmospheric Administration, which reports an average of 37.86 inches of rain and snow fell from July 2018 to June 2019, nearly eight inches higher than normal.

On Target

Scheduled to be published four times a year, *On Target* aims to provide Ford and Lincoln dealership parts departments and independent collision repair shops with the technical information needed to deliver efficient, high-quality repairs to Ford and Lincoln vehicle owners.

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On Target Digital

Download *OnTarget* for free at **FordCrashParts.com**, or by clicking the Ford page on **OEM1Stop.com.**

GENUINE PARTING THOUGHTS

Have an idea?

We'd love to hear from you. Your comments and article suggestions can be sent to:

cphelp@fordcrashparts.com

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