

New Ford F-150 a Hit at First Motor City NACE



The rejuvenated NACE/CARS Conference & Expo, held the last week of July in Detroit, was the latest backdrop as Ford Motor Company continues its year-long introduction of the all-new, 2015 F-150 to the collision repair industry. Equipped with a new, high-strength steel frame and high-strength, military-grade aluminum alloy body panels for the first time, the F-150 was a big attraction throughout the show.

Ford's 2,400-sq.-ft. display featured both a body-in-white cutaway of the 2015 F-150, painted to highlight its new materials and unique repair characteristics, and a custom-built showcase of bare aluminum-alloy body

parts. Also of great interest to repairers was an example of the new instruction sheets that will accompany each new genuine Ford replacement aluminum part for the truck. The sheets are part of the effort to provide as much detailed information as possible about the F-150's new and unique repair options.

"Many aspects of this truck were designed from the very beginning with repairers in mind," said Larry Coan, damageability product concern engineer for Ford Customer Service Division, who was on the NACE floor to answer any questions pertaining to the new truck. "Not only does the vehicle break new ground with the increased amounts of high-strength steel and high-strength, military-grade aluminum alloys, it features an upstream design to enhance and improve its overall repairability."

Ford's goal in designing the truck was to make it as tough—or tougher—than the current model, yet also hundreds of pounds lighter to improve towing capabilities, payload potential and fuel economy. Ford says the new F-150 has been tested more than any truck in the company's history and Ford engineers carefully selected only certain grades of aluminum that met their high-performance standards in all tests.

The truck also features an all-new, high-strength steel frame. Collaborating with its supplier, Metalsa, Ford

used tailor-rolled blanks with variable material thickness, patented structures that reduce material usage without decreasing performance. It also increased high-strength steel usage from 22 percent to 77 percent, and improved joining to take more than 60 pounds out of the frame, while improving rigidity and enabling higher towing and hauling ratings. Factor in the new aluminum alloys, and the new F-150 is up to 700 pounds lighter than the current model.

"Since its inception five years ago, specific design actions have been incorporated into this vehicle to improve its overall repairability while at the same time maximizing the lessons we have learned from previous aluminum-intensive vehicles," said Coan.

Coan, joined by Ford Senior Damageability Engineer Gerry Bonanni, presented a series of seminars on the truck's unique repair options, while Melissa Lester, collision marketing manager for FCSD, provided detailed information regarding Ford's new National Body Shop (NBS) program and its aluminum repair requirements. The seminars were among the most well-attended at the show.

"While developing the overall repair plan for the new F-150, it was important there not be any sense of

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New F-150 Highlights Improved NACE in Detroit

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exclusivity; anyone can do aluminum repair—if they have the proper tools and training,” said Bonanni. “We attended NACE/CARS as a way to inform repairers that the aluminum repair procedures approved for the truck—especially structural repairs—are very similar to steel repair procedures with different techniques. It is not harder, it is simply different.”

More information on the 2015 F-150, including an online repair course and the truck’s official Workshop Manual—which is currently being finalized—will be available at Motorcraftservice.com. Ford has also joined with I-CAR to offer training specifically for the 2015 F-150. Information is available at I-CAR.com.

As for the show itself, both the exhibitor floor space and the number of attendees was up significantly from the 2013 event in Las Vegas, and the Automotive Service Association—the show’s main sponsor—was thrilled. “The response for Detroit was overwhelmingly positive,” said Dan Risley, president and executive director of ASA. “Many said this was the best event in recent memory. Attendees were pleased with the education and training, and numerous exhibitors made significant sales on the show floor.”

As a result of the positive experience, ASA has announced NACE/CARS will be back in the Motor City again next year—July 23-25—and will once again be part of “Industry Week,” with numerous other associations and groups—including the Collision Industry Conference, Collision Repair Education Foundation and the National Auto Body Council—holding meetings that week. More information can be found at NACExpo.com.



Ford representatives—from left, Melissa Lester, Gerry Bonanni and Larry Coan—hosted a series of popular seminars during the three-day NACE/CARS event in Detroit. The topics included the new and unique repair options for the 2015 F-150 and information on Ford’s National Body Shop Program.



2015 F-150: Most-Tested Truck in Ford History

Even before the first 2015 F-150 rolls off the assembly line, it will be the most tested truck in the history of Ford Motor Company, having been subjected to 10 million miles of combined real-world and simulated durability testing. Here are 10 of the toughest tests the new F-150 endured to make sure it’s ready to carry on the Built Ford Tough tradition:

- 1. Seven-Channel Input:** A specially designed torture rack twists and shakes the vehicle in seven different directions at the same time, simulating 225,000 miles of abuse.
- 2. Silver Creek:** The Silver Creek durability course combines two test tracks—one with 15 different types of potholes and the other made of broken concrete, with 500 feet of test track equivalent to about 200,000 miles of rough country roads.
- 3. Power Top Hill:** The steep, 11 percent grade hill—steeper than the final section of most ski jump ramps—stresses engine and transmission components when the wheels lose contact and then return to the surface.
- 4. Drum Drop:** 55-gallon drums repeatedly drop into the truck bed at sharp angles to test the cargo box floor’s toughness.
- 5. Corrosion Bath:** A Ford-developed, modified corrosion test that uses an acidified spray to test the high-strength aluminum alloy.
- 6. Davis Dam:** The Davis Dam durability route in Arizona is an endurance run in which the 2015 F-150 drives at posted speed limits, up an incline, while pulling a maximum trailer load with the air-conditioning running full blast ... for 13 miles.
- 7. Peck Alley:** This area is designed to test vehicle paint finish. The F-150 is driven 150 miles over gravel roads, then another 150 miles over extremely jagged scrap iron, all on oversized tires that spray the stones and scrap iron at every surface of the truck.
- 8. Engine Thermal Shock:** After hooking up the engine of the new F-150 to a dynamometer—which simulates pulling a heavy load up a steep incline at full throttle—the engine is then put through extreme temperature fluctuations, from 270 degrees all the way down to minus 20 degrees. This is repeated 350 times over more than 400 hours to prove the durability of the engine block, seals, gaskets, cylinder heads and liners.
- 9. Rock and Stop:** Ford performs 500 aggressive starts on a stand specially designed to torture rear axles. The stand creates impacts at nearly 2,000 lb.-ft. of torque. This is more torque than the truck is capable of making—130 percent more and then some—just to be certain the rear axle and all of its parts can withstand the abuse.
- 10. Twist Ditch:** A set of parallel dirt mounds built to create a situation in which one front wheel hangs in the air while the opposing rear wheel leaves the ground repeatedly. Only two small patches of rubber are left to make contact with a slippery surface and maintain traction. These ditches can put incredible stress on the truck’s body and frame.

All-New 2015 Ford Transit: Repairability and Safety

The all-new 2015 Ford Transit 15-passenger van joins the nation's best-selling lineup of commercial vehicles, giving Ford customers best-in-class gasoline engine torque, industry-leading safety features, enormous cargo space and headroom, as well as increased capability and Built Ford Tough durability.

Body Structure Components

The body consists of the following:

- HSLA (high-strength low-alloy), HS (high-strength), Boron and mild steels
- Dent-resistant steel hood
- Body-side outer panels constructed of mild steel
- Bolted, removable front fenders, hinged doors and hood
- Dent-resistant steel fenders
- UHSS (ultra-high-strength steel) front and rear bumper beam
- Underbody components constructed of mild, dual-phase and HSLA steels

- Mastic pads used on floor pan for sound deadening

Safety / Standard

- Industry-first, five-row, side-curtain airbag (see additional story on page 4)
- AdvanceTrac® with Roll Stability Control™
- Front and front-seat side airbags for the driver and front passenger
- Side-intrusion door beams
- Four-wheel anti-lock braking system
- Tire pressure monitoring system
- Three-point safety belts for all seating positions



2015 Transit: Body-Panel Sectioning Procedure

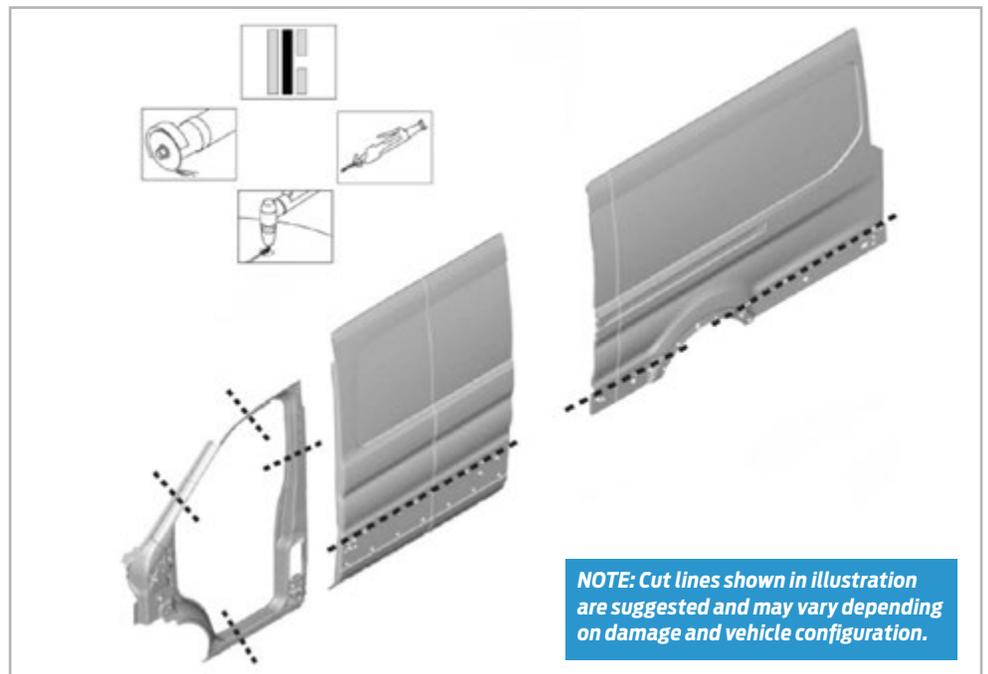
Below is an outline of a common sectioning procedure, using the extended wheelbase van without the driver-side cargo door for reference. For more in-depth repair information, for this and other Ford vehicles, please consult the Ford Workshop Manual, Section 501-26: Body Repairs – Vehicle-Specific Information and Tolerance Checks, located at Motorcraftservice.com.

Tools / Equipment / Materials

- Resistance Spot Welding Equipment
- Spherical Cutter
- Plasma Cutter
- Air Body Saw
- MIG/MAG Welding Equipment
- Spot Weld Drill Bit
- Seam Sealer TA-2

Do not begin removal of the vehicle body-side until the replacement panel is available for reference.

NOTE: Always consider using the smallest sectioning point available, which will help minimize metal finish efforts and provide a higher-quality repair



1. De-trim the vehicle as necessary and remove spot welds from the damaged area.
2. Only remove as much of the outer body panel as necessary.

NOTE: Do not carry out body-side sectioning repairs in areas of door hinge or striker anchoring points, as welding within 50 mm (1.96 in) of these areas may compromise structural integrity in a collision. In addition, Ford does not approve of sectioning within the door-hinge portion of the A-pillar, B-pillar or dog-leg portion of the quarter panel.

3. Where possible, create a lap-joint backer plate using a portion of the old panel, which will create a stronger joint.

NOTE: When welding overlapping surfaces or substrates, apply a high-quality, weld-through primer between the surfaces prior to welding.

NOTE: Where possible, use resistance spot welding which will result in a higher-quality repair.

4. Rough-finish all sectioning joints with a fiber-based body filler; final-finish sectioning joints and plug welds with conventional body filler.
5. Properly seal all horizontal joints to prevent moisture intrusion. Water and moisture migrate toward horizontal joints and corrosion tends to occur more rapidly in these areas.
6. Refinish the repair area using a Ford-approved paint system and manufacturer's recommendations.
7. Restore corrosion protection (refer to Section 501-25: Body Repairs – General Information, General Procedures).
8. Re-apply the vehicle trim as necessary.

2015 Transit Debuts First Five-Row, Side-Curtain Airbag

The all-new Ford Transit 15-passenger van makes its North American debut with the industry's only five-row, side-curtain airbag. As part of Ford Motor Company's Safety Canopy® System, this jumbo airbag is designed to help provide enhanced head and neck protection in rollover and side-impact crashes.

The airbag measures close to 15 feet long and 3 feet tall with a volume of 120 liters. By comparison, a side-curtain airbag for a sedan like the Ford Fusion is approximately 6.8 feet long and 2 feet tall with a volume of 42 liters.

In a crash situation, a series of sensors detects the impact and triggers two of the industry's largest inflators to fill the entire airbag with stored gas in a fraction of a second. The inflators fill the bag in a pattern engineered to manage the direction of bag deployment and control cushion thickness throughout the length of the bag.

The airbag, developed by Ford in partnership with supplier TRW Automotive, is made of a coated, polyester-based fabric that holds the gas, so the bag remains inflated for several seconds. The single-bag design—in conjunction with tethering and the vehicle's B-, C- and D-pillars—helps keep the curtain supported when deployed.

The side-curtain airbag is just one of many standard safety features on the all-new Ford Transit, which also boasts standard front and front-seat side airbags for the driver and front passenger; three-point safety belts for all seats; AdvanceTrac® with Roll Stability Control™; and SOS Post-Crash Alert System™.



Ford Collision Parts Truckload Program Adds 97 New Parts

Ford Customer Service Division (FCSD) has added 97 new parts to its Collision Parts Truckload Program, including parts for the popular Fusion, Mustang and F-series vehicle lines. The list price reduction averages 15 percent on the new parts and allows the program to be instrumental in helping collision repairers deliver high-quality, cost-effective repairs to their customers.

The program—now in its 17th year—offers Ford and Lincoln wholesaling dealers the most popular replacement parts in bulk at competitive prices. “Our goal with the Truckload Program has always been to give our dealers and independent body shops the ability to compete more effectively against non-OEM copy parts and other parts specified by insurance companies,” said George Gilbert, FCSD's Truckload Program manager. “The program allows repairers and insurers to offer our customers—Ford vehicle owners—a safe and sound repair using the genuine replacement parts they want and expect at competitive prices.”

Ford continually evaluates the Truckload Program—refreshing the parts offered twice a year—to keep the most-in-demand parts on the program and competitive. It currently includes over 550 high-volume parts, covering over a dozen replacement part types, including bumper fascias, steel bumpers, bumper bars, step pads, fender shields, exterior lighting, mirrors, car and truck radiators, wheels, header panels, grilles/GORs/GOPs, isolators/impact pads/shafts, brackets and valances.

The 97 new part additions include 36 exterior lights, 20 wheels, 11 grilles, 10 mirrors, six isolators, five radiators, five fascias, two step pads, and two steel bumpers.

For more information on FCSD's Collision Parts Truckload Program, or for a list of the parts currently available, contact your local Ford or Lincoln collision parts wholesaling dealer or the Ford Collision Parts Hotline at cphelp@ford.com.



INSIDE THE INDUSTRY

Length of Rental Up Slightly in Q3

The average length of vehicle rental (LOR)—being used to approximate and track collision repair cycle time—increased to 11.0 days nationwide in this year's third quarter, up 0.2 days from the same period a year ago. That's according to Enterprise, which reports Minnesota posted the shortest LOR, at 8.2 days, while the longest was in Rhode Island, at 14.5 days.

Traffic Fatalities, VMT Down This Year

The Federal Highway Administration reports an estimated 6,800 people died in vehicle crashes on U.S. roadways during the first three months of this year. That's a 4.9 percent decrease compared to the first quarter of 2013; during the same period,

vehicle miles traveled nationwide fell 0.6 percent. There were 32,850 traffic deaths reported all of last year, a 2.1 percent decline vs. 2012.

ASA Addresses Refinish Issues

The Automotive Service Association has announced it will undertake an effort to smooth what it says are widespread and common misunderstandings between repairers and insurers on paying to refinish repaired panels. The association says the problems involve blend within panel procedures, with its member shops frequently subjected to arbitrary reductions in refinish times and a lack of reimbursement for necessary additional labor and materials. ASA says it will contact the top 10 insurers to get their positions on the issue, and asks shops to e-mail potential examples of arbitrary reductions to blendwithin@asashop.org.

State Farm Loses Top Spot in Oregon

A new collision shop survey in Oregon finds Oregon Mutual and Mutual of Enumclaw are the top two insurers when it comes to their policies, attitudes and payment practices. The survey, conducted by the Northwest Automotive Trades Association, ranks State Farm tied for fourth—it's the first time since 2004 that State Farm has not been ranked number one.

CREF Enjoys Record Fundraiser in Detroit

The Collision Repair Education Foundation says this summer's annual golf outing fundraiser—held in Metro Detroit in conjunction with NACE/CARS and Industry Week—brought in a record \$85,000. The money raised will help CREF support scholarships and grants for collision schools and students nationwide.

Ford Makes Inflatable Safety Belt Available to Others

Ford Motor Company says it will license its patented inflatable safety belt technology to other interested automakers with the aim of improving all-around driver and passenger safety. The company hopes the move will lead to the wider adoption of inflatable safety belts, which could make vehicle travel safer.

In everyday use, inflatable safety belts operate like conventional safety belts, but in a crash the inflatable safety belt deploys over a vehicle occupant's torso and shoulder to help distribute crash forces to as much as five times more area than a traditional safety belt. Spreading those forces over a larger area helps reduce pressure on the passenger's chest, and helps control head and neck motion.

The inflatable safety belt is currently available on Ford Explorer, Flex, Fusion and the upcoming all-new, 2015 F-150. It is also available on Lincoln MKT and MKZ for outboard second-row seating positions.

In addition to its competition, Ford is offering the technology to companies and industries outside of the automotive world, saying it is potentially applicable to other forms of seated-passenger transportation, including military use, airborne passengers traveling by helicopter or airplane, and even for water travel.

The offer to share the inflatable seat belt isn't the first time Ford has made safety-related technologies available outside the company. Other examples include Roll Stability Control™, which prevents rollover accidents; "surveillance mode," which warns police of suspects unexpectedly approaching the vehicle; Belt-Minder®, which reminds drivers to buckle up; and Ford's driver-alert warning system, which monitors the driver's level of attention, which is often affected by distraction or drowsiness.



BELT IN EVERYDAY USE



Ford's rear inflatable safety belt functions like a standard safety belt in everyday use. The vehicle's crash-sensing system determines when the inflatable belt should deploy.

BELT INFLATES DURING CRASH



In a blink of an eye, the tubular airbag rapidly inflates across the body, with cold compressed gas flowing through a specially designed buckle from a cylinder housed below the seat.

BELT FULLY INFLATED



The fully inflated belt helps distribute crash force energy across five times more of the occupant's body than a traditional belt to help reduce injury risks.

INSIDE THE INDUSTRY

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Louisiana Sues State Farm; Joins Others Consolidated in FL

Louisiana's Attorney General has filed a lawsuit against State Farm, alleging the insurer steered customers to its preferred shops in violation of the state's Unfair Trade Practices Act and Monopolies Law. The suit is similar to cases in five other states (FL, MS, IN, TN & UT) and another in Louisiana that accuse multiple insurers of attempting to artificially suppress repair costs. All of the cases have been conditionally consolidated in a Florida court, pending a final ruling.

Most/Least Expensive States for Car Owners

An analysis of repair, insurance and gasoline costs finds Wyoming is the most expensive state in which

to own a vehicle, with an average annual cost of \$2,705. The Bankrate.com report shows the cheapest state is Iowa, at just \$1,942, while the average for all 50 states is \$2,223.

Deer Collisions Expected to Rise

Motorists nationwide have a one in 169 chance of hitting a deer this year, a three percent increase compared to last year. That's according to claims data from State Farm, which finds drivers in West Virginia are once again most likely to experience a car-deer crash, with odds of one in 39. The insurer also reports the average deer collision claim cost has spiked 13.9 percent from 2013, to \$3,888.

NACE Returns to Detroit; ASA Moves Headquarters

The Automotive Service Association has announced that the 2015 NACE/CARS Expo and Conference will once again take place in Detroit, Mich., July 23 – 25,

2015. More information, as it becomes available, can be found at NACEexpo.com.

At the same time, the association also says it has moved its headquarters, from Colleyville, Texas, to North Richland Hills, Texas. Go to ASAshop.org for more information.

Uninsured Motorist Numbers Decline but Costs Soar

A new report finds the number of uninsured motorists fell from nearly 15 percent in 2003 to 12.6 percent in 2012, for a total of about 30 million across the country. According to the report issued by Wells Media and the Insurance Research Council, however, the cost to cover uninsured motorist claims jumped to \$2.6 billion in 2012, an increase of 75 percent.

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| FORD PARTS

SHARE YOUR THOUGHTS

The purpose of **On Target** is to provide Ford and Lincoln dealership parts departments and independent collision repair shops with the general and technical information needed to deliver efficient, high-quality repairs to Ford, Lincoln and Mercury vehicle owners. In addition, information on parts wholesaling policies and procedures, and collision repair industry activities will also be featured. **On Target** is scheduled to be published three times a year.

Your comments and article ideas are welcome. You can contact **On Target** through e-mail at: cphelp@ford.com.

Additional copies of **On Target** are available through Ad Creator or FMCDDealer.com. Independent collision repair shops should contact their Ford or Lincoln wholesaling dealer. **On Target** is also available free of charge at Motorcraft.com under technical resources / quick guides.

On Target

Produced for Ford and Lincoln wholesaling dealers and their collision repair customers.

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FORD PARTS

Dealership Information

Crash Parts Order Form

Use this form to provide us with the information necessary to make certain we deliver the right parts on time ... the first time!

The information below can be found on the certification label located on the driver's-side door jamb.

If the vehicle is damaged in this area provide us with the Vehicle ID# located on the driver's-side front corner of the dashboard.

VEHICLE ID#	(Need all 17 Digits)				
TRIM CODE		YEAR		DAMAGE AREA (Circle)	
MLDG. CODE		MAKE		FRONT	REAR
BODY CODE		PHONE:	()	LEFT SIDE	RIGHT SIDE
CONTACT:		SHOP:		UNDERBODY	LEFT / RIGHT

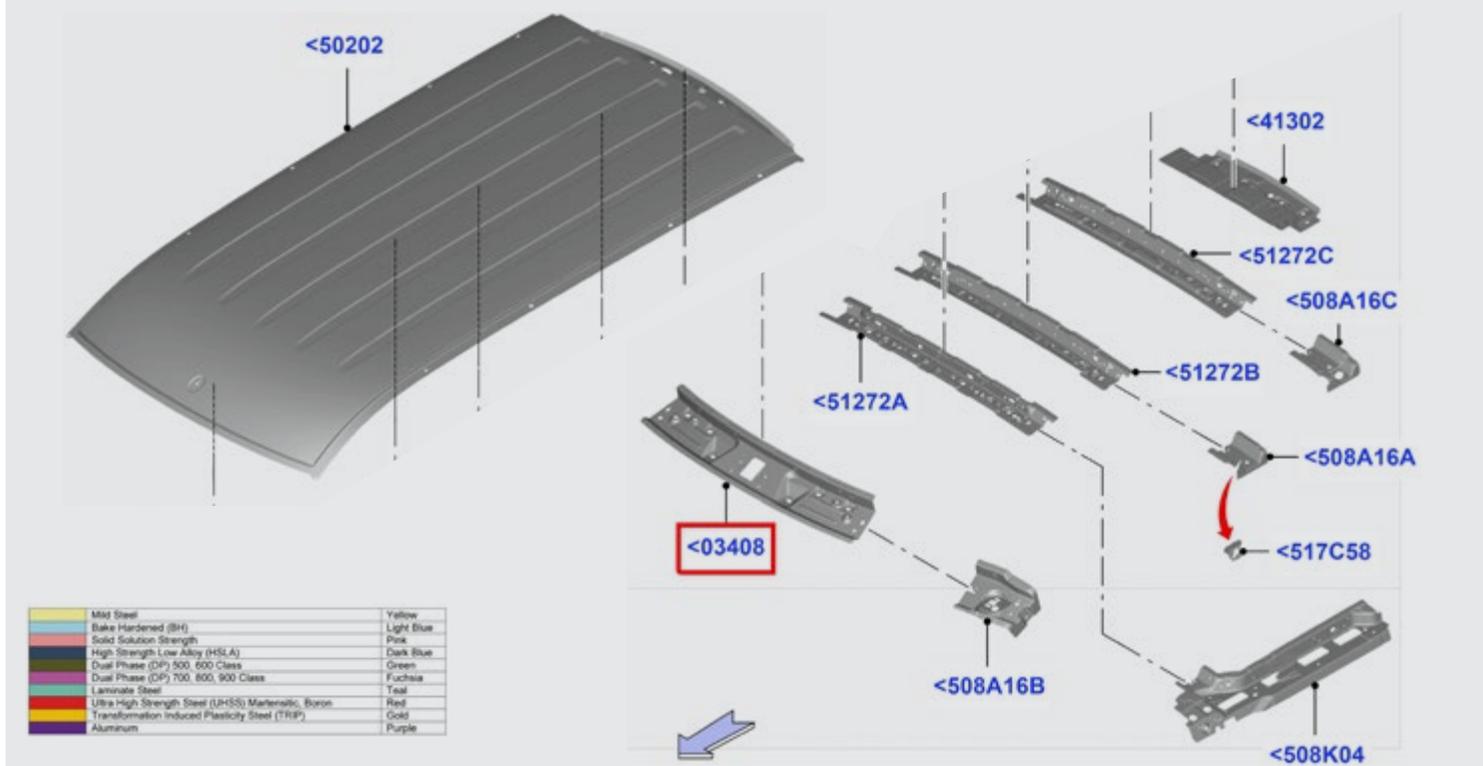
2015 FORD TRANSIT CONNECT

Date Ordered:	PARTS ORDER	Date Needed:
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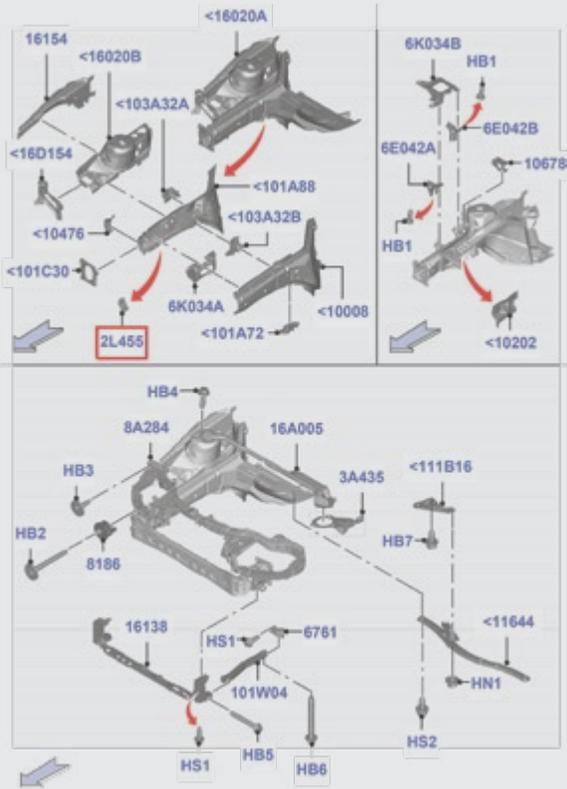
QUANTITY	PART NUMBER / PART DESCRIPTION

NOTE: Refer to vehicle diagrams for part identification and numbers.

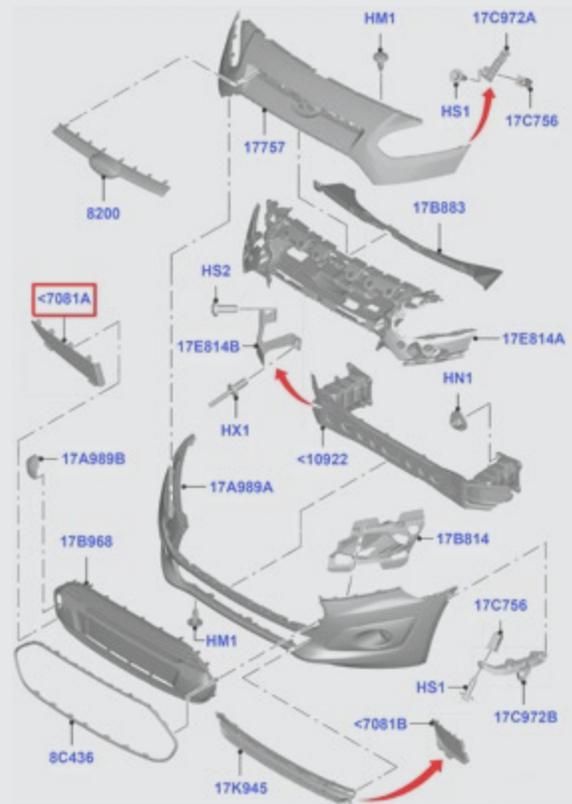
Roof



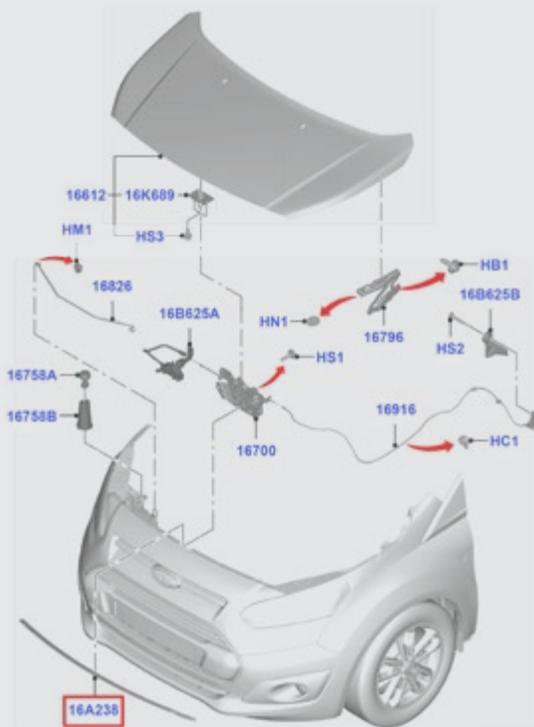
Front Apron



Front Bumper



Hood



Rear Bumper

