



Collision Position Statement May 20, 2022

USE OF NON-OEM STRUCTURAL RIVETS ON FORD MOTOR COMPANY VEHICLES

Ford Motor Company vehicles are designed and built to provide enhanced structural integrity and performance in order to provide occupant safety, vehicle durability and enhance the driving experience. The mechanical fasteners used in the manufacture of vehicles that incorporate aluminum structural and cosmetic body components play a critical role in the integrity and safety of the vehicle structure. During body repairs that involve the replacement of structural or cosmetic body components it is critical that the vehicle be restored to proper operating condition.

All Ford Motor Company vehicles that incorporate aluminum structural and cosmetic body components require the use of OEM structural repair rivets and the use of approved installation tools when performing body repairs. The use of aftermarket structural rivets, including Self-Piercing, Blind and Solid rivets, is not authorized by Ford Motor Company. The Ford Motor Company considers the use of OEM structural rivets critical to the safety, reliability, and durability of the repaired vehicle.

Ford Motor Company vehicles that incorporate aluminum structural and cosmetic body components utilize mechanical fasteners and structural adhesives in place of conventional spot welds found in steel vehicles. These include Self-Piercing Rivets (SPR), Blind Rivets, Solid Rivets and Flow Drill Screws (FDS).

- Self-Piercing Rivets (SPR) provide high-strength sealed joints that are compatible with adhesives and sealants and can fasten stacks of two or more layers.

There are many unique SPR rivets required to properly complete aluminum repairs to Ford Motor Company vehicles. Each rivet is specific to its location and required to meet structural repair requirements. The Ford Motor Company OEM repair procedures provide the required rivet location and part number that must be used during a repair. **SPR rivets are not universal, and placement cannot deviate from the Ford Motor Company OEM repair procedures.**

Each SPR rivet requires a specific mandrel be used during installation. The SPR installation mandrel determines the proper depth and spread of the SPR rivet. Ford Motor Company OEM repair procedures provide the correct mandrel to be used during a repair. Following the Ford Motor Company OEM repair procedures is essential in ensuring that the rivet is driven to the correct depth to achieve a safe quality joint.

Proper installation of SPR rivets requires installation tools that can perform correct and repeatable SPR rivet installations. The Ford Motor Company has tested and validated the operation of the SPR installation tools listed below. These SPR installation tools are the only tools approved to be used in the repair of Ford Motor Company vehicles.

Ford Motor Company Approved SPR Riveting Systems	
Henrob Self-Pierce Riveting Kit	Spanesi SPR Gun
Pro Spot Electro-Hydraulic SPR Rivet Gun Kit	TKR Group PNP90 UN 2.0 (6-ton)
Car-O-Liner PNP90 (6-ton)	TKR Group PNP90 SNW XT (10-ton)
Car-O-Liner PNP90 XT2 (10-ton)	TKR Group VAS 6790 (6-ton)
CMO SPR Gun	Wielander and Schill XPress 800
Chief Basic Rivet Gun Kit	

- Blind rivets meet stringent specifications for material type, dimensions, and crush. Blind rivets are not universal, and placement cannot deviate from the Ford repair procedures.
- Solid rivets meet stringent specifications for material type, dimensions, and crush.
- **Solid rivets are not universal, and placement cannot deviate from the Ford Motor Company OEM repair procedures.**
- Flow Drill Screws (FDS) are used in several locations during the original manufacture of Ford Motor Company vehicles. **Flow Drill Screws cannot be reused and must be replaced with the rivet that is called out in the Ford Motor Company OEM repair procedures.**

During repairs to Ford Motor Company vehicles that incorporate aluminum structural and cosmetic body components, blind rivets or aluminum plug welds may be required in locations that originally used SPR rivets. This may result in repairs that have a different appearance from the original finish or from undamaged areas of the vehicle. This is considered normal and common across OEMs in the collision repair industry. It is important to utilize and follow the Ford Motor Company OEM repair procedures to determine what fastening methods must be used during the repair process.

It is important to utilize Ford Motor Company OEM repair procedures for all collision repairs to ensure complete proper repairs are performed. Failure to follow the Ford Motor Company OEM repair procedures may result in improper repairs and key vehicle structural and safety systems not functioning correctly. Ford dealer-owned body shops can access service information, training and diagnostic scan tool support through the Professional Technician Society at www.fordtechservice.dealerconnection.com and independent collision repairers can find information at www.motorcraftservice.com.

Ford Motor Company vehicles are designed and built to provide enhanced fit, function, safety and structural integrity. For this reason, The Ford Motor Company does not approve the use of aftermarket, recycled, salvaged, or reconditioned parts. The quality, performance and safety of these parts cannot be verified and may result in substandard repairs, which can inhibit proper vehicle function and cause erroneous DTCs. Only by using Ford Original Equipment replacement parts can you have confidence in the part's fit, finish, quality, and safety.