

REPLACEMENT OF STEEL UNITIZED STRUCTURES

SPS10

When replacing parts, how often does your repair facility find itself installing the complete part at the factory seams? There are many considerations for replacing parts at factory seams, including considerations for replacing complete parts, partial parts, and parts of assemblies using OE procedures. This course will provide students with the opportunity to learn from actual vehicle maker procedures for replacing parts at factory seams and offer solutions when OE procedures for disassembly at factory seams do not exist.

Also during this interactive course, students will explore some of the reasons why certain parts need to be completely replaced and factors that impact decision making when separating an assembly.

Course Content

Module 1 – Weld Removal and Replacement

The course opens by providing the student with an understanding of removing and replacing spot welds on a collision-damaged vehicle.

The instructor will cover different options for replacing spot welds, such as repair spot welds, GMA (MIG) plug welds and MIG brazing, which are gaining in popularity among vehicle makers. Also covered are considerations for replacement at factory seams, such as removing parts for access or protection and the importance of corrosion protection. The student will participate in interactive exercises that stress the importance of locating and using vehicle maker repair information.

Module 2 – Part Replacement at Factory Seams

The course continues by using actual vehicle maker procedures for replacing parts at factory seams and explores some of the reasons why certain parts need to be completely replaced. Also discussed are situations that technicians may encounter, such as working with materials other than steel and how to work with sensors.

Module 3 – Separating Assemblies

The final module of the course concludes with detailed information on disassembling an assembly at the factory seams and comparing it against installing a complete part assembly. Part of the discussion will

include considerations for disassembling an assembly when the vehicle maker does not provide procedures for doing so, or warns against it altogether. The instructor will provide information on what factors go into the decision for separating an assembly.

Recommendations

This course covers several collision repair topics when replacing structural parts at factory seams. It is recommended that students have a basic understanding of the collision repair process and damage analysis topics. Courses that are helpful include:

- Measuring (MEA01)
- Structural Straightening Steel (SSS01)
- Steel Unitized Structures Technologies and Repair (SPS07)

Registration

To register for Replacement of Steel Unitized Structures (SPS10), visit the I-CAR website at www.i-car.com or contact I-CAR Customer Care at 800-422-7872.

Course Highlights

Credit Hours: 3

Estimated Duration: 4 hours

Format: Classroom instruction with written test

Meets I-CAR ProLevel® or annual training requirements for the following roles:

 ESTIMATOR

 STEEL STRUCTURAL TECHNICIAN

 AUTO PHYSICAL DAMAGE APPRAISER

After completing this course, you will be able to:

- Remove and replace spot welds and OEM laser welds
- Understand when to replace at factory seams and when to replace a complete steel unitized part
- Recognize considerations when working with other materials, such as aluminum, magnesium, and plastics, on primarily steel vehicles
- Decipher important considerations for disassembling an assembly when vehicle maker recommendations do not exist



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