

STRUCTURAL STRAIGHTENING STEEL

SSS01

The construction of today's modern vehicles include many strengths of HSS, AHSS and UHSS. Understanding the properties of these steels, vehicle design and how energy is transferred through the structure, places challenges on the technician. Incorrect anchoring can cause collateral damage in other areas of the vehicle due to the differing combinations of steels used. Being able to correctly use the alignment equipment for structural repairs and restore the structural integrity is critical in performing a complete and safe repair.

Course Content

Module 1—Developing a Repair Plan

The first module of the course explains the importance of anchoring and how to locate anchoring points. Considerations around removing the part versus keeping it attached are explained in this module.

Module 2—Anchoring

The second module of the course explains the importance of anchoring and how to locate anchoring points. An explanation of anchoring unibody and full frame vehicles, as well as anchoring equipment is offered in this module.

Module 3—Straightening Equipment

Learning objectives in the third module are descriptions of straightening equipment and their uses, as well as pulling equipment and hardware.

Module 4—Straightening Steel

As students move through the course, they will learn about working with hardened steel. Additionally, hot and cold stress relieving technologies as well as temperature indicators are introduced.

Module 5—Correcting Structural Damage

The final module of the course explains vehicle pulls and positioning pull clamps. The student will learn methods for straightening a unibody vehicle and tools used in the process. Additionally, final inspection procedures are explained.

Recommendations

This class involves understanding the various repair options available for structural repairs in unibody and full frame vehicles. It is recommended that students have an understanding of damage analysis and vehicle construction. Other courses that may be helpful include:

- Corrosion Protection (CPS01)
- Fundamentals of Collision Repair (FCR01)
- Structural Steel Technologies and Repair (SPS07)

Registration

To register for Structural Straightening Steel (SSS01) click [here](#) or visit www.i-car.com.au

Course Highlights

Points: 1

Estimated Duration: 4 Hours

Format: Classroom & Virtual Classroom

Meets the I-CAR training requirements for the following roles:



STRUCTURAL TECHNICIAN

After completing this course, you will be able to:

- Identify structural steel damage and develop a repair plan
- Understand the importance of anchoring a vehicle and how to locate anchoring points
- Identify anchoring and straightening equipment
- Understand considerations around straightening structural steel
- Identify methods for correcting structural damage



3M—Adhesive Bonding Program

Introduction

Automotive OEM's and other third parties often call for the use of adhesive in outer panel replacements. In many cases, the use of adhesive alone is specified, or its use in conjunction with weld bonding or rivet bonding is recommended. Correct preparation and application by the technician of 3M™ Panel Bonding Adhesive provides good uniform load distribution and inhibits corrosion while providing an additional layer of noise and vibration damping protection.

Course Goals:

Participants who successfully complete this course will be able to:

- Understand the types and characteristics of adhesives used in panel repair
- Properly remove a panel that has been previously bonded
- Properly clean a metal surface for bonding
- Properly prepare the metal surface for bonding (grinding)
- Properly use the applicator gun
- Apply the adhesive and secure the replacement panel
- Understand clamp time and methods of decreasing it
- Use proper sealing techniques
- Understand the need for and location of supplemental welds
- Re-establish corrosion protection

