

# Collision Repair

Demonstrate safety principles, practices, and guidelines to the work environment. [STS.HS.9.1](#)

- a** Complete applicable safety assessment with 100% accuracy. [STS.HS.9.1.A](#)
- b** Identify and explain the use of personal protective equipment. [STS.HS.9.1.B](#)
- c** Describe proper use of a fire extinguisher. [STS.HS.9.1.C](#)
- d** Demonstrate automotive lift safety best-practices [STS.HS.9.1.D](#)
- e** Demonstrate automotive battery safety best-practices. [STS.HS.9.1.E](#)
- f** Demonstrate the safe use of tools, machines, and equipment in alignment with industry standards to maintain a safe workplace. [STS.HS.9.1.F](#)
- g** Describe the role of government agencies in providing a safe workplace. [STS.HS.9.1.G](#)

Explain proper usage of hand tools, power tools, fasteners, and equipment. [STS.HS.9.2](#)

- a** Identify common hand tools, power tools, and equipment needed for diagnosis and repair of the automobile or mobile equipment. [STS.HS.9.2.A](#)
- b** Identify and use basic measuring tools. [STS.HS.9.2.B](#)
- c** Identify proper fasteners, gaskets, seals, and sealants used in transportation. [STS.HS.9.2.C](#)

Identify career opportunities in the transportation industry. [STS.HS.9.3](#)

- a** List the most common transportation careers and related fields of employment. [STS.HS.9.3.A](#)
- b** List the traits and skills employers look for in their employees. [STS.HS.9.3.B](#)
- c** Explain the specialized tasks completed by a collision repair technician. [STS.HS.9.3.C](#)
- d** Identify the training, education, certification, and licensing requirements for various careers in the transportation industry. [STS.HS.9.3.D](#)

Explain fundamentals of Collision Repair and Refinishing measurement and math. [STS.HS.9.4](#)

- a** Employ both customary and metric measuring systems. [STS.HS.9.4.A](#)
- b** Identify and use basic collision repair and refinishing measuring tools. [STS.HS.9.4.B](#)

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**c Employ basic math skills used in collision repair and refinishing.** STS.HS.9.4.C

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**Identify fundamentals of Collision Repair Information.** STS.HS.9.5

**a Describe the different types of service information.** STS.HS.9.5.A

**b Explain the different kinds of information and Illustrations used in service information.** STS.HS.9.5.B

**c Utilize print and online service information.** STS.HS.9.5.C

**d Understand shop work orders.** STS.HS.9.5.D

**e Describe how to order parts for repair.** STS.HS.9.5.E

**Explain fundamentals of Nonstructural Repairs.** STS.HS.9.6

**a Describe steps for a nonstructural panel repair.** STS.HS.9.6.A

**b Explain steps for a bolted nonstructural panel replacement.** STS.HS.9.6.B

**c Identify the procedure to repair welded and bonded nonstructural panel replacement.** STS.HS.9.6.C

**d Recall steps and procedures for plastic repair.** STS.HS.9.6.D

**e Describe steps for glass repair.** STS.HS.9.6.E

**Explain fundamentals of Structural Repairs.** STS.HS.9.7

**a Identify unibody/frame-straightening equipment.** STS.HS.9.7.A

**b Discuss the various types of measurements used for structural repairs.** STS.HS.9.7.B

**c Describe the steps for unibody straightening.** STS.HS.9.7.C

**d Identify the steps for full frame repair.** STS.HS.9.7.D

**e Summarize the process for various types of structural component replacement.** STS.HS.9.7.E

**Explain fundamentals of Refinishing Technology used in Collision Repair.** STS.HS.9.8

**a Explain various refinishing materials used.** STS.HS.9.8.A

**b Describe steps for paint mixing and reducing.** STS.HS.9.8.B

**c Explain correct spray techniques.** STS.HS.9.8.C

**d Explain various techniques for surface preparation.** STS.HS.9.8.D

**e Identify steps for color matching.** STS.HS.9.8.E

**f Describe the process for paint application.** STS.HS.9.8.F

**g Explain the steps used in detailing.** STS.HS.9.8.G

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**Explain fundamentals of Estimating used in Collision Repair.** STS.HS.9.9

**a Describe the process of collision repair estimating.** STS.HS.9.9.A

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**b Describe the steps involved in completing a repair estimate** STS.HS.9.9.B

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**c Explain the process for completing an estimate.** STS.HS.9.9.C