ALUMINUM PANELS AND STRUCTURES DAMAGE ANALYSIS

DAM05e

Over the last two decades, aluminum materials have become a viable option for several vehicle makers. Aluminum panels and structures are lightweight, resistant to corrosion, and recyclable. Being able to assess damage to aluminum panels and structures requires understanding its properties, characteristics, design, and construction. This knowledge can help direct repair vs. replace decisions and support a safe and complete repair.

Course Content

Module 1 – Aluminum Properties and Identification
In the first module of the course, the student will gain an understanding of the basic physical properties of aluminum. The student will also become familiar with the descriptions of aluminum alloys and understand how to identify vehicle part design.

Module 2 – Aluminum Exterior Panels Damage Analysis
As the student moves through the course, he or she will be able to describe characteristics of aluminum exterior panels and understand proper damage analysis and repair vs. replace considerations.

Module 3 – Aluminum Structure Damage Analysis
The third module of the course identifies aluminum structural design and construction. The student will gain more information on damage analysis considerations and the important considerations around repair vs. replace decisions for aluminum structural panels.

Module 4 – Aluminum Collision Repair Facilities
In the final module of the course, the student will learn about the different areas and functions of the repair facility, as well as information on welding, riveting, and straightening equipment. The student will also learn about other available vehicle-specific training and I-CAR training.

Recommendations

This class covers damage analysis and collision repair topics common on many of today's vehicles. Other courses that may be helpful include:

- Vehicle Identification, Estimating Systems, and Terminology (DAM01)
- Frontal Impact Analysis (DAM02)
- Mechanical Systems Analysis (DAM03)
- Restraints, Interior, Glass, Side and Rear Impact Analysis (DAM04)

Registration

To register for Aluminum Panels and Structures Damage Analysis (DAM05e), visit the I-CAR website at www.i-car.com.

Course Highlights

Points: 1

Estimated Duration: 3 hours

Format Option:
- Online instruction with test

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

ESTIMATOR

AUTO PHYSICAL DAMAGE APPRAISER

After completing this course, you will be able to:

- Explain aluminum properties and characteristics and be able to identify their differences
- Be able to identify vehicle part design
- Analyze damage to aluminum exterior panels and identify repair procedures
- Analyze damage to aluminum structural parts and understand repair considerations
- Understand the considerations around making repair vs. replace decisions
- Identify different areas of a repair facility and understand the functions of specific equipment

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