Collision Damage Appraisal and Total Loss Evaluation Technology

Purpose

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of collision damage appraisal and total loss evaluation.

First, download and review the General Regulations at: http://updates.skillsusa.org.

Eligibility

Open to active SkillsUSA members enrolled in programs with collision damage appraisal and total loss evaluation as an occupational objective.

Clothing Requirements

Class D: Contest Specific — Blue Attire

- Official SkillsUSA light blue work shirt.
- Navy pants.
- Black, brown or tan leather work safety shoes (with protective toe cap).

Note: Safety glasses with side shields or goggles (prescription glasses may be used only if they are equipped with side shields. If not, they must be covered with goggles).

These regulations refer to clothing items that are pictured and described at: www.skillsusastore.org. If you have questions about clothing or other logo items, call 1-888-501-2183.

Note: Contestants must wear their official contest clothing to the contest orientation meeting.

Equipment and Materials

1. Supplied by the technical committee: Basic equipment of a collision damage appraisal and total loss evaluation laboratory
   a. Materials for computerized estimating segment:
      1. Automated Estimating System (see SkillsUSA website for details on which estimating systems will be used annually: http://updates.skillsusa.org).
      2. Digital camera or tablet with imaging capabilities.
      3. Printer networked to estimating systems and digital camera and Wi-Fi Capability.
   b. Materials for Total Loss Evaluation:
      1. A vehicle that is an obvious total loss
      2. Total loss evaluation software or paper equivalent (See SkillsUSA website for details on which total loss and valuation systems will be used annually)
      3. Digital camera
      4. Vehicle evaluation guide (See SkillsUSA website for details on which vehicle evaluation systems will be used annually)
      5. Conditioning matrix
   c. Materials for vehicle scan, diagnostic trouble code identification and understanding OEM repair procedures:
      1. Diagnostic trouble code scan tool
      2. OEM repair procedures, e.g., quarter panel replacement on specific year, make, model.

2. Supplied by the contestant for interview:
   a. Two hard copies of résumé.

Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website: http://updates.skillsusa.org.

Scope of the Contest

The contest will be consistent with the Collision Repair/Refinishing Technician Task List outlined in the guidelines published by the National Institute for Automotive Service Excellence (ASE) and the National Technicians Education Foundation (NATEF), www.natef.org. Contestants will demonstrate their ability to perform jobs of skills selected from the standards mentioned above as determined by the SkillsUSA Championships technical committee. National Committee membership

includes: ABRA, ASE, Audatex, Caliber Collision, CCC, Collision Repair Education Foundation (CREF), GEICO, Gerber Collision & Glass, Insurance Auto Auction (IAA) and State Farm Insurance Companies.

Knowledge Performance

The contest includes a written knowledge test given by ASE, which will consist of 50 questions covering the areas of the Damage Analysis and Estimating that are identified in the NATEF Collision Repair/Refinishing Program Standards and the ASE Official Study Guide: Collision Repair/Refinish. An estimating test for the high school and college contests will be comprised of diagnosis and repair content from this skill area:

1. Damage Analysis – 12 questions that cover tasks necessary to analyze vehicle damage.
2. Estimating – 13 questions that cover the tasks necessary to estimate vehicle damage.
3. Legal and Environmental Practices – 2 questions that cover the tasks associated with legal and environmental practices.
4. Vehicle Construction – 7 questions that cover the tasks associated with vehicle construction.
5. Vehicle Systems Knowledge - 8 questions that cover tasks to identifying vehicle systems.
6. Parts and Source Identification – 6 questions that cover the tasks for parts and source identification
7. Customer Relations and Sales Skills – 2 questions that cover the tasks associated with customer relations and sales skills.

Skill Performance

Contestants will demonstrate their ability to perform jobs and skills based on the task list outlined by the National Institute for Automotive Service Excellence (ASE) and the National Automotive Technicians Education Foundation (NATEF). The competition includes a series of competencies to assess skills in the following areas: Handwritten estimate preparation using paper manuals, two computerized estimates/appraisals on frontal damage including unibody damage and light mechanical damage and rear damage including quarter panel replacement, "virtual" estimate prepared from images assessing virtual (remote) estimating skill and a total loss vehicle inspection report and vehicle evaluation including digital images associated with all computerized estimating and total loss evaluation.

The competitors will also participate in an interview. The overall accuracy and quality of the finished products, speed and proper safety practices will be judged.

Standards and Competencies

CDA 1.0 — Complete a computerized estimate on a frontal damaged unibody vehicle where unibody damage and light mechanical damage are present. This will be done consistent with related tasks in National Automotive Technicians Foundation (NATEF) Collision Repair and Refinishing Standards and ASE Catalog of Collision Repair/Refinishing Tests B6 (Damage Analysis and Estimating)

1.1 List entrant number on estimating test

1.2 Locate provided "Vehicle Description and Labor Rate information" and complete owner and vehicle information section on estimate (e.g., owner name, address, phone numbers, license plate, vehicle year, series, mileage and vehicle identification number)

1.3 Identify and record customer/vehicle information

1.4 Identify and record vehicle identification (VIN) information

1.5 Locate and select vehicle to be estimated in the provided collision estimating software application.

1.6 Prepare estimate properly identifying parts to be replaced or repaired.

- 1.6.1 Make proper determination of refinishing needs including partial refinishing, blending and application of two- or three-stage paint applications
- 1.6.2 Make proper use of alternative parts available on the "Parts information document" as applicable (e.g. New OEM, Aftermarket, Recycled, Rebuilt, reconditioned, etc.)
- 1.6.3 Identify and estimate for unibody/frame damage conditions.

1.6.4 Identify and estimate for mechanical damage using the "mechanical information document" as applicable (e.g. refrigerant pricing, alignment information, etc.)

CDA 2.0 — Complete a computerized estimate on a damaged unibody vehicle where quarter panel damage is present and necessitates a replacement. This will be done consistent with related tasks in National Automotive Technicians Foundation (NATEF) Collision Repair and Refinishing Standards and ASE Catalog of Collision Repair/Refinishing Tests B6 (Damage Analysis and Estimating)

2.1 List entrant number on estimating test
2.2 Locate provided "Vehicle Description and Labor Rate information" and complete owner and vehicle information section on estimate (e.g., owner name, address, phone numbers, license plate, vehicle year, series, mileage, vehicle identification number)
2.3 Identify and record customer/vehicle information
2.4 Locate and select vehicle to be estimated in the provided collision estimating software application
2.5 Prepare estimate properly identifying parts to be replaced or repaired.
- 2.5.1 Make proper determination of refinishing needs including partial refinishing, blending and application of two or three stage paint applications.
- 2.5.2 Make proper use of alternative parts available on the "Parts information document" as applicable (e.g., New OEM, Aftermarket, Recycled, Rebuilt, reconditioned, etc.).
- 2.5.3 Identify and estimate for unibody/frame damage conditions, if applicable.
- 2.5.4 Identify and estimate for any glass R&I or R&R using the available "Pricing Information Document."

CDA 3.0 — Complete a "virtual" computerized estimate on a damaged unibody vehicle using the computerized estimating system from supplied photos. Vehicle estimate is expected to be in the $2500-$3000 range. This will be done consistent with related tasks in National Automotive Technicians Foundation (NATEF) Collision Repair and Refinishing Standards and ASE Catalog of Collision Repair/Refinishing Tests B6 (Damage Analysis and Estimating)

3.1 Students are expected to properly identify and enter the vehicle VIN.
3.2 Students are expected to enter and verify all vehicle options and packages.
3.3 Students are expected to enter replace/repair and material labor rates along with taxe rates.
3.4 Students are expected to enter Repair facility Information.
3.5 Students are expected to enter all vehicle damage on the estimate in a logical format making appropriate repair vs replace decisions.
3.6 Students are expected to enter photos into the estimating system in the proper location and enter a photo description.

CDA 4.0 – Complete a total loss vehicle inspection report and conduct a vehicle evaluation. Using the total loss and vehicle evaluation system:

4.1 Document or validate the VIN, year, make and model of the loss vehicle
4.2 Document or validate (if decoded from VIN) all vehicle options
4.3 Document the mileage, aftermarket accessories and any prior damage.
4.4 Using the conditioning matrix, accurately rate each area of the vehicle with the proper condition rating. Use specific conditioning comments as necessary.
4.5 Using the vehicle evaluation guide or consumer website
- 4.5.1 Identify the correct vehicle and trim level
- 4.5.2 Identify the correct options and mileage
- 4.5.3 Document the vehicle evaluation

CDA 5.0 — Complete a vehicle pre scan (using an OEM or non-OEM Scan tool), interpret the diagnostic trouble code and research OEM Repair Procedures.

5.1 Diagnostic Pre Scan

5.1.1 Perform a vehicle scan using available diagnostic scan tool.
5.1.2 Interpret any identified diagnostic trouble code(s).

5.2 Access OEM Technical Repair Proceedures
5.2.1 Locate specific repair procedure
5.2.2 Interpret necessary steps outlined in procedure – this will be graded using a written testing format.

CDA 6.0 — Contestants shall participate in a mock Job Interview

6.1 Maintain professional appearance and demonstrate proper SkillsUSA attire
6.2 Provide professional resume
6.3 Demonstrate professional job interview skills.

CDA 7.0 — Contestants shall participate in a mock estimator/customer interaction

7.1 Ability to present and explain a pre-prepared estimate (*will be provided at orientation*) to a customer as if the estimator (contestant) just wrote the estimate for the customer.
7.2 Ability to explain shop value. *(Shop information will be provided at orientation*)
7.3 Demonstrate industry knowledge and professional sales skills

Committee Identified Academic Skills

The technical committee has identified that the following academic skills are embedded in this contest.

Math Skills

- Understand the measurement angles on a three-dimensional object.
- Understand the surface area and perimeter of three-dimensional objects.
- Solve problems involving symmetry and transformation.
- Use measures of interior and exterior angles of polygons to solve problems.
- Measure angles.
- Make predictions using knowledge of probability.
- Organize and describe data using matrixes.
- Use fractions to solve practical problems.
- Solve practical problems using percents.
- Calculate percentages.
- Make comparisons, predictions and inferences using graphs and charts.

Science Skills

- Use knowledge of mechanical, chemical and electrical energy.
- Use knowledge of principles of electricity and magnetism (practical example: current and amperage settings on the GMA [MIG] welder in relationship to weld penetration).
- Use knowledge of static electricity.
- Use knowledge of pressure in relation to the concept of force.
- Use knowledge of simple machines and compound machines.
- Use knowledge of potential and kinetic energy.
- Use of knowledge of simple machines, compound machines, powered vehicles, rockets and restraining devices.
- Describe characteristics of types of matter based on physical and chemical properties.
- Use knowledge of physical properties (shape, density, solubility, odor, melting point, boiling point and color).
- Use knowledge of chemical properties.
- Describe and identify physical changes to matter.
- Use knowledge of heat, light and sound energy.
- Use knowledge of temperature scales, heat and heat transfer.
- Plan and conduct a scientific investigation.
- Use knowledge of work, force, mechanical advantage, efficiency and power.

Source: McREL compendium of national science standards. To view and search the compendium, visit: www2.mcrel.org/compendium/browse.asp.

Language Arts Skills

- Demonstrate comprehension of a variety of informational text.
- Demonstrate knowledge of appropriate reference materials.
- Use print, electronic databases, online resources to access information in books and articles.

- Provide information in conversations and in group discussions.
- Provide information in oral presentations.
- Demonstrate use of verbal communication skills: word choice, pitch, feeling, tone and voice.
- Demonstrate use of nonverbal communication skills: eye contact, posture and gestures using interviewing techniques to gain information.
- Organize and synthesize information for use in written and oral presentations.
- Edit writing for grammar, capitalization, punctuation, spelling, sentence structure and paragraphing.

Connections to National Standards

State-level academic curriculum specialists identified the following connections to national academic standards.

Math Standards

- Problem solving.
- Numbers and operations.
- Measurement.
- Geometry.
- Representation.
- Communication.
- Connections.

Source: NCTM Principles and Standards for School Mathematics. For more information, visit: http://www.nctm.org.

Language Arts Standards

- Students apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies and their understanding of textual features (e.g., sound- letter correspondence, sentence structure, context, and graphics).
- Students adjust their use of spoken, written and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.
- Students use spoken, written and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion and the exchange of information).

Source: IRA/NCTE Standards for the English Language Arts. To view the standards, visit: www.ncte.org/standards.

Science Standards

- Understands the structure and properties of matter.
- Understands the sources and properties of energy.
- Understands forces and motion.
- Understands the nature of scientific inquiry.