

AUTO BODY REPAIR/1: NON-STRUCTURAL (360 Hours)

Course No.: 79-80-51

COMPETENCY CHECKLIST

Student Name _____

Teacher Name _____ School Site _____

Start Date _____ Completion Date _____ Certificate Date _____

Teacher Signature _____ Student Signature _____

(Signatures verify completion of course competencies)

A. ORIENTATION AND SAFETY (5 hrs)

- _____ 1. Scope and purpose of course
- _____ 2. Classroom policies and procedures
- _____ 3. First aid and emergency procedures
- _____ 4. Occupations for auto body repair technicians
- _____ 5. Importance of "safety first" attitude
- _____ 6. OSHA workplace requirements
- _____ 7. EPA legislation effect on industry practices
- _____ 8. ARB legislation effect on industry practices
- _____ 9. Use of MSDS as it applies to industry
- _____ 10. Safety items required by feds/state/local
- _____ 11. Role of NATEF in auto tech training
- _____ 12. Proper use of protective clothing/gloves
- _____ 13. Proper use of protective respiratory gear
- _____ 14. Proper use of protective eye gear
- _____ 15. Proper ventilation in auto body shop
- _____ 16. Proper handling/storage chemicals/materials
- _____ 17. Safety test

B. TOOLS AND EQUIPMENT (10 hrs)

- _____ 1. Use/maintenance/storage of hand tools
- _____ 2. Use/maintenance/storage of repair tools

C. TRADE MATHEMATICS (5 hrs)

- _____ 1. Practical applications of math to industry
- _____ 2. Whole number problems
- _____ 3. Various fraction problems
- _____ 4. Various decimal problems
- _____ 5. Fractions to decimals
- _____ 6. Decimals to fractions
- _____ 7. English system: Measuring length
- _____ 8. English system: Measuring weight
- _____ 9. English system: Measuring volume/capacity
- _____ 10. English system linear units
- _____ 11. English system: Units of volume/capacity

- _____ 12. English system measuring problems
- _____ 13. Measuring techniques of various objects

D. RESOURCE MANAGEMENT (2.5 hrs)

- _____ 1. Define listed terms related to topic
- _____ 2. Resource management in auto repair industry
- _____ 3. Examples of effective management
- _____ 4. Benefits of effective resource management
- _____ 5. Economic/environmental benefits/liabilities

E. NON-STRUCTURAL ANALYSIS AND DAMAGE REPAIR: PREPARATION (55 hrs)

- _____ 1. Read and analyze a damage report
- _____ 2. Analyze damage to determine repair methods
- _____ 3. Develop and document a repair plan
- _____ 4. Working with exterior trim and moldings
- _____ 5. Working with interior trim and components
- _____ 6. Non-structural body panels and components:
- _____ 7. Vehicle mechanical and electrical components
- _____ 8. Protect panels, glass, and parts near work area
- _____ 9. Wash entire vehicle; use appropriate cleaner
- _____ 10. Remove coatings necessary to perform repairs
- _____ 11. Inspect/remove/replace plastics/components

F. NON-STRUCTURAL ANALYSIS AND DAMAGE REPAIR: OUTER BODY PANEL REPAIRS, REPLACEMENTS AND ADJUSTMENTS (65 hrs)

- _____ 1. Extent of direct & indirect damage
- _____ 2. Determine direction of impact
- _____ 3. Document a repair plan
- _____ 4. Bolted/bonded/welded steel panel/assemblies
- _____ 5. Extent of damage: Aluminum body panels
- _____ 6. Hood, hood hinges, and hood latch
- _____ 7. Deck lid, lid hinges and lid latch
- _____ 8. Doors, tailgates, hatches, lift gates, hardware

- _____ 9. Bumper bars, covers and other related items
- _____ 10. Front fenders, headers and other panels
- _____ 11. Straighten and rough-out damaged panels
- _____ 12. Weld damaged or torn steel body panels
- _____ 13. Restore corrosion protection
- _____ 14. Restore door skins
- _____ 15. Restore sound deadeners & foam materials
- _____ 16. Perform panel bonding
- _____ 17. Diagnose/repair leaks and wind noise

G. NON-STRUCTURAL ANALYSIS AND DAMAGE

REPAIR: METAL FINISHING AND BODY FILLING

(55 hrs)

- _____ 1. Remove paint from damaged area of panel
- _____ 2. Locate and reduce surface irregularities
- _____ 3. Demonstrate hammer and dolly techniques
- _____ 4. Heat shrink stretched panel areas to contour
- _____ 5. Cold shrink stretched panel areas
- _____ 6. Mix body filler
- _____ 7. Apply body filler; shape during curing
- _____ 8. Rough sand cured filler to contour; finish sand
- _____ 9. Metal finishing techniques for aluminum
- _____ 10. Proper application of body filler to aluminum

H. NON-STRUCTURAL ANALYSIS AND DAMAGE

REPAIR: MOVABLE GLASS AND HARDWARE

(35 hrs)

- _____ 1. Window regulators, run channels, glass, etc.
- _____ 2. Leaks, wind noise, weather-stripping
- _____ 3. Manually/power operated roof panel, sunroof
- _____ 4. Convertible top and related mechanisms

I. NON-STRUCTURAL ANALYSIS AND DAMAGE

REPAIR: METAL WELDING AND CUTTING (85 hrs)

- _____ 1. Weldable and non-weldable materials
- _____ 2. Weld/cut high-strength steel & other steels
- _____ 3. Weld and cut aluminum
- _____ 4. Determine correct welder type to be used
- _____ 5. Set up & adjust welder for material welded
- _____ 6. Store/handle/install hi-pressure gas cylinders
- _____ 7. Determine ground location & attach
- _____ 8. Proper gun angle/direction for the type of weld
- _____ 9. Protect adjacent areas from welding/cutting
- _____ 10. Protect computers /electronic modules
- _____ 11. Prepare metal for weld/assure good fit
- _____ 12. Determine joint type for weld being made
- _____ 13. Type of welds for specific welding operations
- _____ 14. Perform listed/different types of welds
- _____ 15. Perform visual/destructive tests on welds
- _____ 16. Causes of various welding defects
- _____ 17. Contact tip burn-back/failure of wire to feed

- _____ 18. Cutting process for different materials
- _____ 19. Attaching non-structural components

J. NON-STRUCTURAL ANALYSIS AND DAMAGE

REPAIR: PLASTICS AND ADHESIVES (35 hrs)

- _____ 1. Types of plastics; determine reparability
- _____ 2. Plastics repair procedures; prepare the surface
- _____ 3. Rigid, semi-rigid, & flexible plastic panels
- _____ 4. Remove/repair damaged exterior panel areas
- _____ 5. Replace/straighten/align exterior body panels

K. EMPLOYABILITY SKILLS (7.5 hrs)

- _____ 1. Employer requirements in an employee
- _____ 2. Identify potential employers thru job search
- _____ 3. Sample résumé/cover letters
- _____ 4. Accurate, legible application
- _____ 5. Sample job applications
- _____ 6. Enthusiasm on the job
- _____ 7. Appropriate appearance on a job
- _____ 8. Upgrading of skills on a job
- _____ 9. Customer service to build relationships