

## **Steel Unibody A-, B-, C-. D-Pillars, And Rocker Panels (SPS02)**

### **Module 1—Construction And Repair Options**

- A. Definitions And Construction
  - 1. Learning Objectives
  - 2. Part Location
  - 3. Additional Part Locations
  - 4. One-Part And Multi-Part Construction
  - 5. Mating Flanges
  - 6. Hydroformed Construction
- B. Foam Filler
  - 1. Foam Filler
  - 2. Foam Filler Removal Methods
  - 3. Foam Filler Replacement Considerations
  - 4. Foam Filler Type
  - 5. Heat-Activated Foam
- C. Repair Decisions
  - 1. Repair Decisions
  - 2. General Sectioning May Not Be Applicable
  - 3. Repair Or Replace Decision Criteria
  - 4. Repair Procedure Sources
  - 5. Partial Replacement Recommendations Matrix
  - 6. Reinforcement Identification
  - 7. Non-Visible Strength Differences
  - 8. Restore Vehicle Dimensions And Integrity
  - 9. Reasons For Adjacent Part Removal
  - 10. Types Of Sectioning Joints
  - 11. Inserts
  - 12. Cut-And-Join Method
  - 13. Offset Joints
  - 14. Flanged Lap Joint
  - 15. Steps That May Affect Procedure
- D. Repair Procedure
  - 1. Vehicle Preparation
  - 2. Planning The Repair
  - 3. Making Initial Cuts
  - 4. Removing The Original Damaged Part
  - 5. Inner Panel And Reinforcements
  - 6. Inner Panel Removal
  - 7. Replacement Panel Preparation
  - 8. Replacement Panel Preparation (cont'd)
  - 9. Existing Panel Preparation
  - 10. Test-Fitting A Replacement Part
  - 11. Welding Preparation
  - 12. Welding The Replacement Panel
  - 13. Panel Repair Completion

14. Completing The Repair
15. Post-Repair Inspection
- E. Review
  1. Review #1
  2. Review #2
  3. Review #3
- F. Conclusion
  1. Conclusion
  2. Conclusion
  3. Conclusion

## **Module 2–Pillars And Rocker Panels**

- A. Cows And A-Pillars
  1. Learning Objectives
  2. Cowl Definition
  3. Cowl Designs
  4. Part Removal To Access Cowl
  5. A-Pillar Definition
  6. A-Pillar Designs
  7. Convertible A-Pillar Design
  8. Windshield Pinchweld Flange
  9. Interior Adjacent Part Removal
  10. Exterior Adjacent Part Removal
  11. Additional Part Removal
  12. Video: Replacing An Outer A-Pillar
  13. Reasons For Roof Removal
  14. Roof Removal Considerations
- B. B-Pillars
  1. B-Pillars Definition
  2. B-Pillar Construction
  3. B-Pillar Construction (cont'd)
  4. Two-Door And Four-Door B-Pillar Designs
  5. Designed For Access
  6. Procedure For Access
  7. Adjacent Part Removal
  8. Video: Sectioning A B-Pillar
- C. C- And D-Pillars
  1. C- And D-Pillar Definition
  2. Two-Door C-Pillar Designs
  3. Four-Door C-Pillar Designs
  4. C-Pillar Replacement
  5. Adjacent Part Removal
  6. Curtain Airbag Inflators
  7. Video: Replacing A C-Pillar
  8. D-Pillar Designs
  9. D-Pillar Replacement
  10. Adjacent Part Removal
- D. C-Pillar And D-Pillar Assembly

1. Multi-Part Structure
  2. Multi-Part Structure (cont'd)
  3. Roof Panel Overlapping Outer Panel
  4. Removing Outer Rocker Panel
  5. Foam Filler Locations
  6. Tail Lamp Housing Removal
  7. Rear Header Panel Considerations
  8. Lower Liftgate Opening Reinforcement
  9. Liftgate Trough Removal
  10. Upper D-Pillar Reinforcement Removal
  11. Lower D-Pillar Reinforcement Removal
  12. Lower Wheelhouse Reinforcement Removal
  13. Outer Wheelhouse Removal
  14. Roof Bow And Sliding Door Reinforcement Removal
  15. Inner Corner Reinforcement Considerations
  16. Inner Structure Removal
- E. Rocker Panels
1. Rocker Panel Definition
  2. Rocker Panel Designs
  3. Rocker Panel Features
  4. Adjacent Part Removal
- F. Review
1. Review #1
  2. Review #2
  3. Review #3
- G. Conclusion
1. Conclusion
  2. Conclusion (cont'd)

### **Module 3—Unisides And Recycled Part Considerations**

- A. Uniside Considerations
1. Learning Objectives
  2. Outer Uniside Construction
  3. Uniside Replacement Considerations
  4. Roof Removal
  5. Video: Uniside Replacement
- B. Recycled Part Considerations
1. Recycled Parts And Assemblies
  2. Recycled Part Issues
  3. VIN Plate And Labels
  4. Part Removal Considerations
  5. Cutting Off The Part
  6. Part Condition
  7. Construction Material And Design
  8. Preparation Operations
  9. Installation Considerations
  10. Documentation Procedures
  11. Full Disclosure

- C. Conclusion
  - 1. Conclusion
  - 2. Post-Test