



SHEET METAL REPAIR

A. Course Description

- **Credits:** 5.00
- **Lecture Hours/Week:** 1.00
- **Lab Hours/Week:** 4.00
- **OJT Hours/Week:** 0
- **Prerequisites:** None
- **Corequisites:** None
- **MnTC Goals:** None

This course covers the tools and processes used for repairing minor damage on sheet metal panels. Safe and proper use of body fillers are included in this course. Prerequisites: ABCT1111

B. Course Effective Dates: 3/12/98 – Present

C. Outline of Major Content Areas

As noted on course syllabus

D. Learning Outcomes

1. Apply corrosion protection
2. Apply filer on 5 low crown dents.
3. Apply filler on 5 high crown dents.
4. Apply filler on 5 style line dents.
5. Apply filler on crease.
6. Apply filler to aluminum panel.
7. Apply filler to metal patch.
8. Apply finishing filer on 6 high crown dents.
9. Apply finishing filler on 5 low crown dents.
10. Apply finishing filler on 5 style line dents.
11. Apply finishing filler on crease.
12. Apply seam sealers.
13. Demonstrate body filler safety.
14. Describe abrasive usage.
15. Describe aluminum panel repair techniques.
16. Describe corrosion protection equipment

17. Describe corrosion protection materials.
18. Describe corrosion repair procedures.
19. Describe disc grinding techniques.
20. Describe heat shrinking techniques.
21. Describe metal patch fabrication procedures.
22. Describe noise vibration harshness (NVH) materials.
23. Describe plastic filler shaping techniques.
24. Describe porta-power equipment
25. Describe seam sealers.
26. Describe sheet metal cleaning methods
27. Describe sheet metal damage
28. Describe sheet metal repair tool maintenance
29. Describe sheet metal repair methods
30. Describe sheet metal/body filler preparation procedures
31. Describe types of body fillers
32. Determine direct, indirect, hidden, and work hardened sheet metal damage.
33. Develop sheet metal damage repair plan.
34. Fabricate metal patch.
35. Identify body filler safety.
36. Identify body filler tools.
37. Identify corrosion causes.
38. Identify sheet metal repair safety
39. Identify sheet metal repair tools
40. Perform aluminum panel dent repair.
41. Perform cold metal shrinking techniques.
42. Perform disc grinding.
43. Perform hammer and dolly techniques.
44. Perform heat shrinking.
45. Perform pry bar techniques.
46. Perform pull rod techniques.
47. Perform sandblasting.
48. Perform stud gun techniques.
49. Perform surface rust repair.
50. Prepare sheet metal for body filler application.
51. Protect adjacent panels, glass, and interior components
52. Protect adjacent vehicles
53. Repair 5 high crown dents
54. Repair 5 low crown dents

55. Repair 5 style line dents.
56. Repair crease.
57. Restore NVH materials.
58. Sand filler on 5 high crown dents.
59. Sand filler on 5 low crown dents.
60. Sand filler on 5 style dents
61. Sand filler on aluminum panel.
62. Sand filler on crease.
63. Sand filler on patch.
64. Sand finishing filler on 5 high crown dents.
65. Sand finishing filler on 5 low crown dents.
66. Sand finishing filler on 5 style line dents.
67. Sand finishing filler on crease.
68. Test sheet metal straightness
69. Use porta-power equipment
70. Use wax and grease remover.
71. Weld metal patch.
72. Weld torn or damaged sheet metal.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

F. Learner Outcomes Assessment

As noted on course syllabus

G. Special Information

None noted