



TRUCK TECHNOLOGY FUNDAMENTALS — HDTT 1100

A. Course Description

- **Credits:** 4.00
- **Lecture Hours/Week:** 2.00
- **Lab Hours/Week:** 2.00
- **OJT Hours/Week:** 0
- **Prerequisites:** None
- **Corequisites:** None
- **MnTC Goals:** None

This course covers shop procedures and safety in the truck shop such as safety in the use of hand tools, power tools, hoists, jacks, and other equipment used by a heavy duty truck technician. Different types and uses of fasteners, thread repair, and similar procedures will be discussed. Methods of record keeping, repair orders, and the use of repair manuals and related service publications will also be covered. The student will be familiarized with the basic fundamentals of operating heavy trucks. Included will be pre-start and pre-trip inspection procedures, basic operation of the vehicle, and shut-down procedures. Dropping and hooking and basic maneuvering of the trailer will be covered. Prerequisites: None

B. Course Effective Dates: 3/22/98 – Present

C. Outline of Major Content Areas

As noted on course syllabus

D. Learning Outcomes

1. assemble aeroquip hose
2. assemble plastic air lines
3. define bolt size
4. define bolt types
5. define electric tool safety
6. define fire exit routes
7. define safe grinding procedures
8. demonstrate drilling procedures
9. demonstrate gas welding safety procedures
10. demonstrate helicoil installation
11. demonstrate jack stand positioning
12. demonstrate keensert installation

13. demonstrate safety glasses usage
14. demonstrate tap and die use
15. demonstrate wheel chocking procedures
16. describe accident procedures
17. describe eye wash station usage
18. describe gas welding safety procedures
19. describe hand tool usage
20. describe parts washer usage
21. describe proper lifting techniques
22. describe safety shower usage
23. describe shop air line+tool use
24. describe shop clean-up procedures
25. describe spring brake safety procedures
26. describe welding cylinder storage
27. display drill sharpening procedures
28. display safe behavior/work habits
29. display work habits safely
30. examine trade publications
31. explain fire extinguisher use
32. explain tractor pre-start inspection
33. explain tractor shifting procedures
34. identify brass fittings
35. identify hand tools
36. illustrate pipe fittings
37. make double flare (steel tube)
38. make drill sharpening gauge
39. make single flare (copper tube)
40. operate overhead hoists
41. perform tractor parking procedures
42. perform tractor backing-up procedures
43. perform tractor braking procedures
44. perform tractor safety inspection
45. perform tractor starting procedures
46. perform tractor/trailer backing up procedure
47. perform tractor/trailer driving procedures
48. perform tractor/trailer hook and drop procedures
49. perform tractor/trailer parking procedures
50. perform trailer safety inspections
51. read shop safety manuals
52. repair damaged threads

53. show cab jacking procedures
54. show spring brake caging procedures
55. turn tractor right AND LEFT
56. use hand tools
57. use power equipment
58. use pressure washer safely
59. use repair manuals
60. write repair orders accurately

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

F. Learner Outcomes Assessment

As noted on course syllabus

G. Special Information

None noted