



Fuel Cell Standards

XV. On-Board Hydrogen Storage

XV.b Hydrogen Storage System Schematics

Overview:

Classroom and lab instruction on reading and understanding both electrical and mechanical schematics

- Industrial symbology for both electrical and gas handling systems
- Reading a schematic and understanding gas flows
- Schematic representations versus actual components
- Where to find schematic representation in OEM service procedures

Description:

The ability to read electrical and mechanical schematics and applying that skill to actual systems is critical to more complex troubleshooting and for the safe repair of systems

Outcome (Goal):

Students will be able to identify high pressure vehicle safety systems on fuel cell vehicles by utilizing OEM wiring and mechanical schematic diagrams and match components on the diagram to an actual component or connector.

Objectives:

Students shall be able to:

1. Be able to identify major hydrogen storage components and locations in mechanical schematic representations
2. Be able to identify major hydrogen storage components and locations in electrical schematic representations



3. Match either pictures or actual components to symbols on the schematics
 4. Identify ports and piping junction to actual components
 5. Identify connector pinouts to actual connector positions
 6. Reference OEM service procedures to find critical information.
-

Tasks:

Students will

1. Given a vehicle or hydrogen storage system match the mechanical schematic to actual components
 2. Given a vehicle or hydrogen storage system will match the electrical schematic to actual components
 3. Given a generic mechanical schematic show the flow of gas on the mechanical schematic
 4. Given a generic mechanical schematic will identify check valves, control valves and emergency pressure relief
-

To comment or offer suggestions on this standard, contact Ken Mays:

Ken Mays

NEVTEX

541-383-7753

kmays@cocc.edu



NSF / ATE Grant Award # 1700708

Northwest Engineering and Vehicle Technology Exchange (NEVTEX)

Advanced Vehicle Technician Standards Committee (AVTSC)