

LESSON 2: Tractor Component Basics

A. Basic tractor systems (big picture)

1. Engine
2. Fuel system
3. Cooling
4. Electrical system
5. Hydraulic system
6. Transmissions
7. Operator station
8. Hitching system
9. Traction system
10. ROPS/cab
11. Operator instructions, safety signs and messages

B. Operator controls

1. Types and function of primary controls
2. Location and identification
3. Color coding of controls

C. Instruments and gauges

1. Types and function
2. Identification and location

D. Universal symbols

1. Development of universal symbols
2. Widely used examples of universal symbols

E. Universal hand signals

1. Why they are important
2. Widely used hand signals

F. Operator/Machine/Environment relationships

1. Operator influences
2. Machine hazard identification
3. Environmental hazards

G. Characteristics of the safe operator

1. Appropriate training and knowledge of hazards
2. Appropriate attitude/patience/self-control
3. Appropriate physical preparation and condition
4. Appropriate dress

H. Laws and regulations that apply to youth working in agricultural workplaces

1. OSHA
2. Fair Labor Standards Act (Agricultural Hazardous Occupations Orders)
3. Wage and Hour restrictions
4. EPA
5. Agricultural exemptions
6. Tinted windows/safety glass

I. Universal hand signals

1. Why they are important
2. Widely used hand signals

