EMERGENCY VEHICLE OPERATOR
CLASS “A”

Session 1-2
Operating Tractor-Drawn Apparatus
To provide each driver/operator with the basic skills and knowledge required to safely, efficiently, and effectively operate tractor-drawn fire apparatus
Principles for Driving Tractor Drawn Apparatus

- **Teamwork is Essential!**
  - Good communication can avoid collisions
  - Driver is responsible for the entire apparatus
  - Tiller person is there to assist
Advantages of TDA

- Maneuverability in congested traffic areas
- Allows for better positioning at incidents
- Compartment space for equipment
Operating Tractor Drawn Apparatus - Right Turns

- Lane Position
- Traffic Patterns
- Road Type
- Passing on Right
Operating Tractor Drawn Apparatus - Left Turns

- Lane Position
- Traffic Pattern
- Road Design
- Vehicle Position
- Round off Turn 90%
Operating Tractor Drawn Apparatus-Blind Spots

Driver & Tiller Person

- Front
- Right Side
- Rear
- Left Side
Operating Tractor Drawn Apparatus - Curves

- Rear wheels will track at a shorter distance
- Tiller person may have to counter steer to off-set centrifugal force
**Figure 1:** If you lock the steering axle brakes, the rig will move straight ahead regardless of the wheel angle.
Figure 2: If you lock the drive axle, the rig will jackknife.
Operating Tractor Drawn Apparatus -
Jackknifing

Figure 3: If you lock the trailer axle, you will get trailer swing.
• When operating tiller trucks, the following terminology should be understood.

• Signals from the driver to the tiller operator/tiller operator to driver without headsets:
  o 1 beep for stop
  o 2 beeps for forward
  o 3 beeps for back up

* All communication requires an acknowledgement- use the same horn blasts to acknowledge.
• **In-Line:** Tractor & Trailer are in straight-alignment, wheels straight.
• 5th Wheel Push

• Where the driver steers the tractor to assist the tiller operator with pivoting the truck during backing. Only when necessary!!
PRINCIPLES OF BACKING

- The tiller operator leads the truck
- Tractor follows the trailer
- 5th Wheel Push as necessary
PRINCIPLES OF BACKING

- Hand Position: Turn steering wheel clockwise, trailer will steer to the left
PRINCIPLES OF BACKING

- Hand Position: Turn steering wheel counter-clockwise, trailer will steer to the right
While moving forward, hands should be positioned at either 9/3 or 5/7. Steer away from obstacles.
TILLERING

The View from the Tiller Seat