

Apparatus Safety

Terms

Write the definition of the terms below on the blanks provided.

1. Situational Awareness (23)

2. Spotter (34)

True/False

Write True or False on the blanks provided; if false, write the correct statements on the lines provided.

- _____ 1. As many as 25 firefighter deaths per year are caused by vehicle collisions. (22)

- _____ 2. Good situational awareness involves forgoing the right-of-way if doing so decreases the likelihood of a collision. (24)

- _____ 3. Driver/operators must remember that fire apparatus can stop faster than privately owned vehicles. (27)

- _____ 4. The driver/operator must be prepared to report to duty without any compromise of physical or mental ability. (28)

- _____ 5. The area in which hose loading is performed must be closed to other vehicular traffic. (32)
- _____ 6. Approximately 100 deaths occur annually while backing vehicles. (34)
- _____ 7. Yelling is an effective way to communicate with a driver/operator from the rear of the apparatus. (36)

Short Answer

Write the correct answers on the blanks provided.

1. What are the cause of accidents? (23)
2. What are some of the more common problems associated with reckless driving by the public? (26)
3. What are four causes of lack of driving skills by the driver/operator? (27-28)

Multiple Choice

Write the correct answers on the blanks provided.

- _____ 1. Statistics historically show that ____ percent of all firefighter injuries and deaths in the United States are caused by vehicle collisions while responding to or returning from emergency calls. (22)
- A. 10 to 15
 - B. 15 to 20
 - C. 20 to 25
 - D. 25 to 30
- _____ 2. Which of the following is NOT a basic cause of fire apparatus collisions? (25)
- A. Excessive speed
 - B. Reckless driving
 - C. Improper backing
 - D. Poor vehicle maintenance
- _____ 3. Which basic cause of fire apparatus collision accounts for a significant portion of overall damage cost? (25)
- A. Excessive speed
 - B. Reckless driving
 - C. Improper backing
 - D. Poor vehicle maintenance
- _____ 4. It may take slightly longer to stop a fire apparatus equipped with ____ brakes. (27)
- A. air
 - B. vehicle
 - C. parking
 - D. traditional
- _____ 5. In a study of commercial truck drivers, in ____ percent of all collisions, the driver/operator was not aware of a problem until it was too late to correct it. (27)
- A. 22
 - B. 32
 - C. 42
 - D. 52

- _____ 6. All riders must be seated and belted before the apparatus: (30)
- A. has been started.
 - B. arrives on-scene.
 - C. leaves the station.
 - D. is put into motion.
- _____ 7. Which of the following statements regarding loading fire hose while the apparatus is moving is MOST accurate? (30-32)
- A. This practice is strictly forbidden by NFPA® 1500.
 - B. At least two safety officers must be assigned to the operation.
 - C. The apparatus may be driven forward or backward at low speed.
 - D. Members in the hose bed must sit or kneel while the apparatus is moving.
- _____ 8. A tiller operator or instructor not in an enclosed area must wear: (32)
- A. a harness belt.
 - B. full PPE and SCBA.
 - C. hearing and eye protection.
 - D. a helmet and eye protection.
- _____ 9. Where should a tiller instructor sit during training? (32)
- A. In the enclosed tiller area
 - B. In the cab of the apparatus
 - C. On the tailboard of the apparatus
 - D. In a detachable seat placed next to the tiller operator
- _____ 10. According to the National Safety Council, _____ of all collisions are caused during backing of vehicles. (34)
- A. $\frac{1}{4}$
 - B. $\frac{1}{3}$
 - C. $\frac{1}{2}$
 - D. $\frac{3}{4}$
- _____ 11. Which of the following is NOT a general rule for backing the apparatus? (34-35)
- A. Use one or more spotters.
 - B. Use portable radios whenever possible.
 - C. Activate emergency lights during backing.
 - D. Use rearview mirrors to back up apparatus whenever possible.

_____ 12. Where should a spotter be located? (36)

- A. Directly behind the apparatus, 10 to 15 feet (3 m to 4.5 m) behind the rear.
- B. In the rearview mirror, 10 to 15 feet (3 m to 4.5 m) behind the rear of the apparatus.
- C. In the left rearview mirror, 8 to 10 feet (2.4 m to 3 m) behind the rear and slightly left of the apparatus.
- D. In the right rearview mirror, 8 to 10 feet (2.4 m to 3 m) behind the rear and slightly right of the apparatus.

Identification

Identify the hand signals on the lines provided.



1.



2.



3.



4.



5.



6.

Skill Sheet 2-1

Objective 5: Back apparatus using mirrors. (NFPA® 1002, 1.4.3, 4.3.2, 4.3.3, 4.3.4)

Directions

For this skills evaluation checklist, students will safely back an apparatus using mirrors. This skill should be performed according to the procedures set forth by the AHJ.

Equipment & Materials

- Two firefighters; one to operate the apparatus, one to serve as spotter
- Fire service aerial apparatus
- Apparatus operator's manual
- Fire department SOPs on backing apparatus

Task Steps

1. Mount the apparatus, secure seatbelt, and start the apparatus.
2. Adjust all mirrors, sitting straight with both hands on the steering wheel and moving head from side to side until spotter can clearly be seen.
3. Place the apparatus in reverse.
 - a. Manual transmission: Place gear shifter in reverse gear.
 - b. Automatic transmission: Depress interlock on shifter and move it to R, or correct number or range of numbers, or depress pushbutton selector.
4. Back the apparatus slowly, checking each mirror from time to time, but always looking for spotter. Follow spotter's directions, and stop if spotter cannot be seen. Continue to back up until spotter signals to stop.
5. Shut down the apparatus.