

3.6 Vehicle Backing

3.6.1 PURPOSE

Backing accidents injure and kill firefighters, civilians and damage apparatus every year. These guidelines will provide rules and information pertinent to safe backing operations for Fire Department vehicles and apparatus.

3.6.2 Backing of fire department vehicles and apparatus should be avoided whenever possible. Where backing is unavoidable spotters shall be used. In addition, spotters shall be used when vehicles must negotiate forward turns with restrictive side clearances and where height clearances are uncertain. When backing is necessary the engineer will slowly back the apparatus with the anticipation that something may go wrong.

3.6.3 Under circumstances where the vehicle is manned by only the driver, that vehicle or apparatus driver shall attempt to utilize any available fire department personnel to act as spotters. Where no personnel are available to assist, the vehicle driver shall get out of the vehicle and make a complete 360 degree survey of the area around the vehicle to determine if any obstructions are present.

3.6.4 When apparatus having a crew are backed, at least two members of the crew should be deployed as spotters.

3.6.5 The primary spotter should be located approximately 10 feet behind and on the left side of the apparatus in plain view of the engineer. The secondary spotter should be located approximately 10 feet behind and to the right of the apparatus in a position that can be seen by the engineer and which the secondary spotter can see the other side of the apparatus and the primary spotter. In congested or tight areas all crew members (except the engineers) will dismount the apparatus and act as spotters, including the Company Officer who will oversee the safety of the operation. When only a single spotter is available, the spotter should be located approximately 10 feet off the left rear corner, and will act as the primary spotter.

3.6.6 Spotters are not permitted to ride on steps or tailboard(s) at any time while backing fire apparatus.

3.6.7 Members are prohibited from riding on the tailboard, steps, or any exposed position when the vehicle is in motion.

3.6.8 Remote warning buzzers will not be used during backing operations.

3.6.9 The vehicle shall not be backed until all spotters are in position and communicate their readiness to start backing.

3.6.10 Spotters will remain visible to the engineer/driver at all times. Anytime the driver loses sight of the primary spotter, the vehicle shall be stopped immediately until the spotter is visible, and the communication to continue backing is given.

3.6.11 When apparatus must be backed where other vehicle traffic exists, day or night, the apparatus emergency lights (if equipped with such lights) shall be operating and traffic safety vests shall be worn by all spotters.

3.6.12 The Company Officer is responsible for compliance with this procedure and the safe backing of the apparatus.

3.6.13 All crew members must share responsibility for safe backing operations.

3.6.14 Safety

1) The Officer's and Engineer's Responsibilities

- a) The Company Officer is responsible for the operation of the apparatus and its crew.
- b) The Company Officer is responsible for following and enforcing the policies and procedures. In this case, deploying spotters when backing up or as necessary to allow the safe movement of the apparatus.
- c) The Engineer is in control of the apparatus and therefore responsible for its movement. He/she should not move the apparatus until directed by the Company Officer and all spotters have been deployed, and are in position in a backing situation.
- d) If the Engineer loses sight of a spotter, he/she shall stop the apparatus until they are back in his/her sight.
- e) If more than one spotter is being used, the engineer will need to maintain contact with both of them. This means shifting his/her attention from one spotter to another frequently so as to safely move the apparatus.
- f) This should result in an apparatus that is moving at a slower than normal rate to watch both spotters.
- g) If at any time the engineer feels that the situation is not safe, he/she should stop the apparatus until the situation is corrected. This may mean getting out and walking around the apparatus and down the road where the apparatus is headed.

2) The Spotters Responsibilities

- a) The spotter is there to direct the engineer while backing up the apparatus.
- b) The spotter needs to be constantly aware of the surroundings while performing this function.
- c) The spotter needs to be constantly looking and listening for other vehicles and people that may enter the path of the apparatus that is backing up.
- d) The spotter must either stop the oncoming hazard or stop the apparatus being backed up.
- e) The spotter must be aware of objects and direct the engineer safely around them.
- f) The spotter must not only look at the ground level for obstructions, but also look up for overhead hazards – tree branches, wires, signs, canopies, ladders...
- g) The spotter shall maintain visual contact with the engineer at all times.
- h) The spotter needs to be in the line of sight of the mirrors of the apparatus being backed up at all times.

l) At night, the spotter should position one of the rear spotlights on themselves or use a flashlight to help the engineer see them. DO NOT point the flashlight directly in the mirror of the engineer, as it may blind him/her.

j) The spotter shall use hand signals to direct the engineer. These hand signals should be somewhat exaggerated so that the engineer can be clear as to what the spotter is signaling in the mirror.

k) Voice communication between the spotter and the engineer is also good, but the engineer may not hear the spotter over the noise of the apparatus and other background noise.

l) When backing into roadways or traffic, extreme caution must be exercised to ensure that all cross traffic is stopped prior to entering the roadway.

m) The use of portable radios to communicate between the spotter and the engineer may prove beneficial in certain circumstances. (operations channel)

n) Spotters must also be vigilant in managing their own safety by being alert to traffic and changing traffic conditions.

o) In congested or tight areas, the whole crew may be needed as spotters, including the Company Officer.

p) In congested or tight areas, one spotter may be needed at the rear and one at the front of the apparatus being moved either forward or backwards and the Company Officer to act as safety.

q) Spotters should also be used when going forward in tight areas, to avoid hitting objects.

3.6.15 Signals

- 1) **STRAIGHT BACK:** One hand above the head with palm toward face, waving back. Other hand at your side. (Left or right hand optional) See Figure 1.
- 2) **Back Left/Right:** Point in the direction that the operator is to back the vehicle and signal to back-up with the free hand. (Figures 2a & 2b)
- 3) **STOP:** Both arms crossed with hands in fist. See Figure 3. Be sure to yell the stop order loud enough that the engineer/driver can hear the warning.



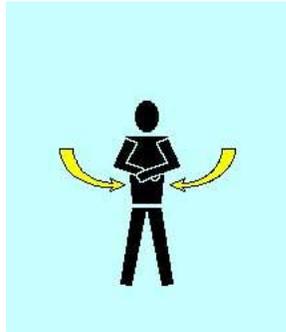
**Straight Back
Figure 1**



**Back Right
Figure 2a**



**Back Left
Figure 2b**



**Stop
Figure 3**