SETTING UP A MIRROR CHECK STATION

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Why a Mirror Check Station?

A driver’s best weapon against the dangers that lurk around the vehicle is his/her vision. The driver must see a hazard in order to avoid hitting it or being hit. In an automobile the visibility is clear in all directions, but in a large commercial vehicle the view to the sides and rear are restricted. Drivers are forced to rely on the information that they can gather from their mirrors. Unfortunately, many drivers have never been taught proper mirror adjustment or do not have a good means of properly adjusting their mirrors. This is where a mirror check station comes in to play.

Statistics show that the majority of accidents involving commercial vehicles fall into one of three categories – backing, turning, and lane changing. All of these types of maneuvers rely heavily on the use of mirrors. Since many drivers either do not know how or do not have a good tool to adjust their mirrors, is it any mystery why these three types of accidents are so common? Yes, many times another vehicle has moved into an area that it should not be in, but does this really cause the accident? Have you had a driver come in and say, “Well I saw this car out beside me, but I changed lanes and hit it anyway!”? No, the driver hit the car because he/she did not see it was there. If the driver had been able to see the car, he/she would have avoided it as all good drivers do.

Properly adjusted mirrors will not eliminate 100% of the blind spots around the vehicle, but when combined with the “lean and look method” of scanning it will greatly reduce the areas. This in turn should result in fewer accidents for the company which goes right back to the bottom line. Mirror check stations are very inexpensive to set up, many times you already have the materials and can construct one for free.

Mirror Size and Location

There are several different types of mirrors available on the market today. It is recommended that each conventional tractor be equipped with one flat mirror on each side, one convex mirror on each side, and at least a fender mount convex on the right side. Left side fender mounts can be used as well if the vehicle is designed in a way that makes spotting hazards out of the driver’s side window difficult.

Cab-over models should be equipped with the flat and convex mirrors on each side, and a top mounted convex mirror. This top mount mirror will eliminate the right corner blind spot that leads to many of the lane change collisions.

It is recommended that flat mirrors be at least 5” wide by 10” high. In addition, the flat mirrors should be located on a line parallel to the windshield and a maximum of 18 inches in front of the driver. The center of the mirror on should be 1 to 7 inches above eye level. The inside edge of the mirror should be in line with the outer edge of the vehicle body.

Convex mirrors should be at least 6 inches in diameter, with radius of curvature 20 to 30 inches. Convex mirrors should be placed 1 to 5 inches below the flat mirrors on each side. The size and configuration of the side windows will determine the space needed. The goal is to try to eliminate as much of the blind spots as possible.

Fender mounted convex mirrors should also be a minimum of 6 inches in diameter, and mounted as far forward as possible toward the front corner of the vehicle. The inside edge should again be in line with the outer edge of the vehicle body.

**Permanent or Temporary?**

This question depends on the facilities that are available. A permanent check station has the advantage of allowing drivers to have access to it 24 hours a day with little set up guidance. It can be painted onto an asphalt or concrete surface, and takes up an area about 30 feet wide and 100 feet long. If a more mobile station is desired, then a tape measure and some form of position markers (5 feet wide by 8 feet long) will be needed. This type of setup will require more work on the driver’s part, and will probably hurt participation in the program.

**Setting Up a Permanent Check Station**

1) Paint a straight line 60 feet long by 6 inches wide. (line A).
2) Paint a straight line (line B) at a 90 degree angle to the end of line A.
3) Paint a 5 feet by 8 feet box (target C) that begins 35 feet below line B, and immediately to the left of line A.
4) Paint a 5 feet by 8 feet box (target D) 75 feet below line B, and 10 feet to the right of line A.

   - The boxes can be solid, outlined, crossed, etc. Suggest using bright color such as yellow.
   - See Diagram 1 for help

As you can see, it takes very little materials to set up a station. The minimal costs will be recovered many times over in reduced accidents numbers.

**Adjusting Mirrors at a Mirror Check Station**

1) Position tractor parallel to, and as close to line A as possible.
2) Stop tractor with side mirror aligned with line B.
3) Rotate each flat mirror horizontally until the left and right sides of the trailer are visible in the inside edge of the respective mirror.
4) Tilt each flat mirror vertically until the appropriate Target C or D (left or right) is visible in the bottom edge of the mirror.

5) Rotate each convex mirror horizontally until the inside edge shows the left and right sides of the trailer.

6) Tilt each convex mirror vertically until Target C/D is visible in the top edge of the mirror.

7) Adjust the fender mounted convex mirror so that the inside edge of the mirror shows the side of the tractor. The tires of the tractor(front tandems) should be visible inside the upper portion of the mirror.