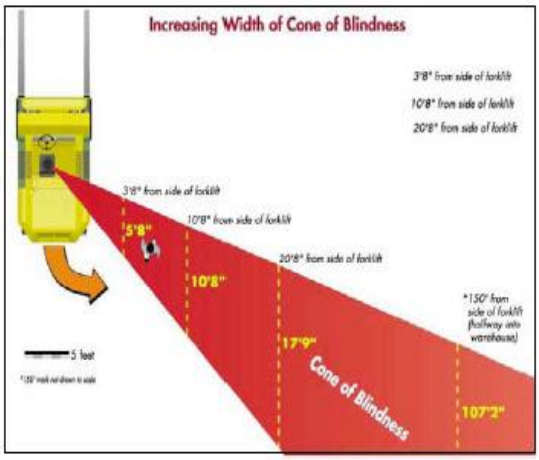
FORKLIFT SAFETY (REVERSE TRAVEL)

Figure 1



- Figure 1 illustrates the starting point of the "Cone of Blindness" or "Blind Spot" in the operator's vision on one side of the typical forklift with operator in normal driving position.
- The operator must physically turn the head to look into these areas to prevent striking pedestrians, objects, racks etc. and must be especially mindful of the areas if machine has tail swing.
- Normally, the forklift travels 50% or more of the time in reverse and the typical position of the operator is illustrated in Figures 2

Figure 2

- During a normal 8 hour shift the operator is positioned as above for over one-half of the shift.

- In this position the head and body are necessarily turned and focused to one side of the vehicle.
- OSHA requires that the operator is required to look toward and keep a clear view of the travel path of the unit. Regulation 1910.178(n) (6)
- To accommodate the OSHA requirement to view the travel path of the lift, the operator must continuously turn the head and in addition, the entire body to be able to see the area of the "blind spot" on the opposite side of the vehicle.
- Failure to consistently perform the maneuver during travel in reverse increases the risk of striking persons or objects on the opposite side of the vehicle as it moves along and performing the maneuver involves twisting and turning repetitively which has long been recognized as an ergonomic risk factor for injuries to the operator.

SOLUTION

The M-C Mirror Technology (US Patent No.8,172,411) develops its wider view using multiple rates of curvature in the same glass. The result allows us to control the size of images produced in the mirror so information provided has limited distortion. For the forklift application we have used our technology to develop a 4 inch (101.6 mm) x 10 inch (254 mm) mirror. The mirror is 4mm glass, shatter-proof, heated or non-heated, and is easily retrofitted on existing lifts. The location of the mirror on the forklift is important to get the maximum benefit and we recommend it be placed in the inside of the operator's station at the front edge if the ROPS cage. See Figure 3. While travelling in reverse the operator can see what is in the "blind spot" on the opposite side with just a glance instead of having to turn to face that direction.

Figure 3

Contact information

Richard T. Ince
Safety Director
email dince@m-cglobal.com 1-800-680-5951