



Company _____ Job Name _____ Date _____

Weekly Tool Box Talk: Temporary Stair Railings and Guard Rails

Temporary stair railings and guard rails are required by law on all construction projects to protect workers like you from falls. Since falls from upper levels account for such a high percentage of construction accidents, both stair railings and guard rails should be built in conjunction with the building progress.

A standard guard rail must be 42" high from floor to top of rail, its posts must not exceed 8' centers, it must have a midrail, and a 4" high toeboard strong enough to stop tools, materials, etc, from sliding or rolling over the edge. If a 4" toeboard is not sufficient to restrain adjacent materials, then paneling or screening should be used. All guard rails must be capable of withstanding a 200 pound load in any direction.

The minimum requirements for wooden rails are 2" x 4" stock for posts and top rail, with a 1" x 6" midrail. The material should be selected to avoid defects and splinters. If you prefer steel, use 1 1/2" pipe, or 2" x 2" x 3/8" angle for posts, top and midrail. Other materials of equal or greater strength may be substituted, however, due to its unpredictable strength and brittleness, re-bar is not acceptable material for use as guard rail.

The construction of stair railings should be similar to that of the guard rails mentioned above, except that the top surface of the railing should be a distance of 30 to 34 inches as measured from the top, forward edge of the trend, (in line with the face of the riser below it), upward in a vertical line, to the top of the railing. Landings and platforms require standard guard rails.

Wire rope has gained widespread application in the construction industry as a guard rail material. The failure of a wire rope while in use can result in serious injuries, fatalities or property damage. The most common method used to make an eye or attach a wire rope to a piece of equipment is with cable or Crosby clips of the U-Bolt and saddle type. U-Bolt clips must have the U-Bolt section on the dead or short end of the rope and the saddle on the live or long end of the rope. The wrong application of even one clip can reduce the strength of the connection to 40%. Never use fewer than the number of clips recommended. Turn back the correct amount of rope for dead ending to permit proper spacing of the clips. Always use new clips; re-used clips will not develop the proper efficiency. It is equally important to always use a thimble to prevent the rope from wearing the eye and to provide a safer connection.

After the rope has been in operation for an hour or so, all nuts on the clip bolts will have to be retightened, and they should be checked for tightness at frequent intervals thereafter. This is necessary because the rope will stretch slightly, causing a reduction in diameter which will loosen the clips. Never use any kind of clip to directly connect two straight lengths of rope. If this is necessary, use the clips to form an eye in each length and connect the eyes together.

Safety Recommendations: _____

Job Specific Topics: _____

M.S.D.S. Reviewed: _____

Attended By: _____
