

Steel Interchange

Steel Interchange is an excellent forum for Modern Steel Construction readers to exchange useful and practical professional ideas and information on all phases of steel building and bridge construction.

Answers and/or questions should be typewritten and double-spaced on 8 1/2 x 11 inch paper. Questions should be prepared by word-processing software.

1 East Wacker Drive

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Steel is the most common engineering material used by architects and engineers in the design of buildings and bridges. It is a strong, ductile material that can be formed into a wide variety of shapes and sizes. The strength and ductility of steel are due to its atomic structure, which consists of a lattice of iron atoms with carbon atoms interspersed between them. This structure gives steel its characteristic strength and ductility. Steel is also a highly recyclable material, which makes it an attractive choice for sustainable building design.

It follows

$$M_x = \int y^2 dA$$
$$M_y = \int x^2 dA$$
$$= S_x + S_y$$

where M_x is the moment in the

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different.

- Where does the load originate? Does the explosion come from within the structure, or is it external? If the explosion occurs from within, a residual gas pressure, with a duration substantially longer than

produce a satisfactory hole. The heat affected zone bordering the cut has no more adverse affect than does that bordering a weld, and should not be a concern in lug design.

However, pin holes are