

OUTDOOR MAGAZINE CONSTRUCTION & SECURITY

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ABSTRACT

The security of explosive materials is a vital concern to every mine, quarry and contractor engaged in blasting. Proper construction of magazines and sufficient locking mechanisms are the fundamental means of maintaining secure storage.

The object of this paper is to review the proper methods of construction of storage facilities for explosives as defined by the Alcohol, Tobacco, and Firearms regulations. Subpart K subsection 55.208 and the Institute of Makers of Explosives recommendations.

The requirements will be covered in detail using illustrations to show the proper methods and materials used by current manufactures to meet these standards. Illustrations of actual field magazines will be used to point out specific areas of compliance. Security measures required by regulations will be discussed and contrasted with field examples.

The results of a new lock survey will be presented in chart form listing, by manufacturer and model, those locks that meet or exceed the standards set forth in current regulations.

When discussing explosive storage and security with a blaster, he will immediately inform you that their materials are in magazines and locked up, and while this may be the case, do these magazines and locks give the maximum amount of security and meet existing laws & regulations? In many instances the magazines and locks leave much to be desired when it comes to security.

What are the requirements for a properly constructed magazine?

As an example, consider the Class II portable magazine which is the most common. Most of the standards which apply to this magazine, also apply to the other classes of magazines.

The Bureau of Alcohol, Tobacco, and Firearms (BATF) sets five standards for a magazine:

1. Fire Resistant
2. Weather Resistant
3. Well Ventilated
4. Bullet Resistant
5. Theft Resistant