

TDS-NAVFAC EXWC-SH-2206

Update to TDS-2078-SHR

Pre-Engineered Explosive Magazines

June 2022

Background

This Technical Data Sheet is issued as an update to TDS-2078-SHR, dated June 2001.

Overview

Pre-engineered explosive magazines provide an alternative to permanent conventional construction for the storage of fuses, detonators, small arms ammunition, and pyrotechnics. All pre-engineered magazines must meet the criteria established for storage of Arms, Ammunition and Explosives (AA&E) as detailed in DoD Manual 5100.76, Reference (ao) – NSWC 3046-93-1. The pre-engineered explosive magazines are to be constructed in accordance with the Bureau of Alcohol, Tobacco and Firearms (ATF) regulation (27 CFR part 55) for Type I and Type II bullet resistant magazines with modifications to meet physical security requirements of DoD 5200.08R, Reference (g).

Magazine Features

All exterior surfaces of the pre-fabricated steel magazine are manufactured of at least ¼ inch carbon steel, meeting or exceeding the specifications of ASTM A-36. All exterior joints, seams and other openings are continuously welded to provide strength, penetration resistance, and weather tight integrity equivalent to the steel plate itself. Pre-engineered magazines have a protective exterior coating capable of resisting environmental elements and preventing oxidation/deterioration. Pre-engineered explosive magazines contain 1 cubic yard or greater useable volume, and are lined with at

least 3 inches of hardwood or 5 ¼ inches of soft wood and/or plywood. Pre-engineered magazines are vented, constructed on skids/runners, and equipped with lift straps/hooks/eyelets for handling and transportation. The net weight of the pre-engineered explosive magazine does not exceed 210 pounds per square foot of the magazine base area specified here. The full weight of the magazine and its contents is distributed evenly across the entire base of the magazine. The magazine's base and top area shall be of the same dimensions.

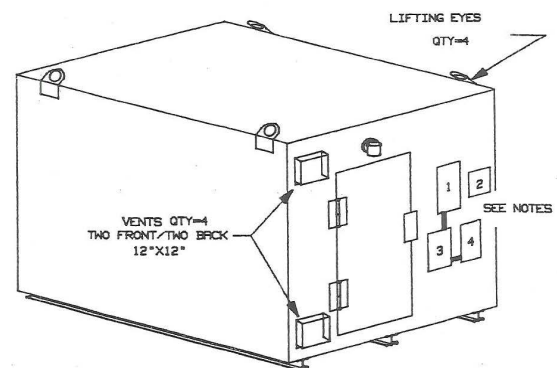


Figure 1. Pre-Engineered Explosive Magazine
(As found in NSWC 3046-93-1)

As described above, the pre-engineered magazine is supported in such a manner as to prevent its floor from having direct contact with the ground and also to facilitate portability. Ventilation is provided to prevent dampness and heating of stored explosive materials. Ventilation openings in side walls and foundations shall be offset or shielded for bullet resistance. Magazines shall

have a wooden lattice lining or equivalent to prevent the packages of explosive materials from being stacked against the side walls and blocking the air circulation.

Magazine Door Requirements

Magazine door(s) is constructed of ¼ inch A-36 mild steel plate and designed to swing outward and include door jambs (1/2 inch minimum), to provide positive door location and weather tight integrity. Magazine door(s) is sized to fit a clear opening of 36 inches minimum in width and six-foot minimum height. Magazines that have sufficient sidewall height have a door height of 90 inches clear.

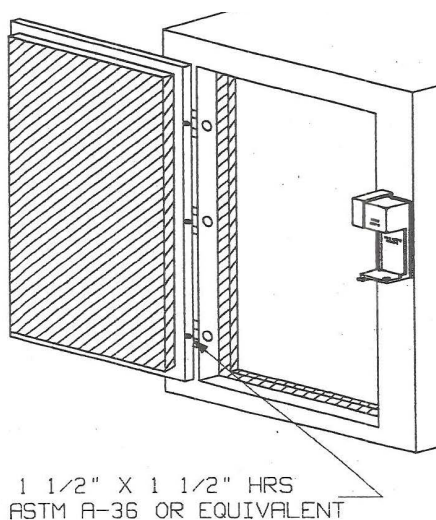


Figure 2. Pre-Engineered Explosive Magazine Door (As found in NSWC 3046-93-1)

Magazine Hasp & Padlock Requirements

All magazine doors are secured with an approved hasp and locking system. High security hasp(s) meets the requirements of MIL-DTL-29181C. The high security padlock must meet the current requirements of MIL-DTL-43607J. Approved high security padlocks are available from the national stock system.

Note

Pre-engineered explosive magazines are not considered relocatable buildings, so they are exempt from OPNAVINST 11010.33A. "Relocatable Buildings; Procurement and Use of."

Pre-Engineered Explosive Magazine Sources

Contact Force Protection Systems Branch, Naval Surface Warfare Center, Indian Head Division (D25) for procurement inquiries.

High Security Padlock Sources

DoD Agencies, Non-DoD Federal Agencies, and DoD Contractors must order high security padlocks through the Defense Logistics Agency (DLA) procurement website <https://www.FedMall.mil>. You can also call the DLA Contact Center at (877) 352-2255 for procurement information.

Department of Defense

Use NSN: **5340-01-217-5068**

Non-DoD Federal Agencies and DOD Contractors

Use NSN: **5340-01-449-4346**

For further information on pre-engineered magazines, contact:

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