## B, C, AND D MASONRY FASTENERS

## 1. GENERAL

1.01 This section is reissued to:

- Show D Masonry Fastener rated MD
- Show B Masonry Fastener used with new C Wire Loop
1.02 These zinc-coated, heat-treated steel fasteners are for use in making attachments to masonry. They may be driven directly into masonry by means of a hand-operated drive tool the B Stud Driver. The fasteners, each equipped with a flat steel washer, are designated as B, C, and D (MD). Each type is available in several lengths designated by size number. The C fastener comes equipped with a hexagonal nut which is shipped loose.
1.03 Description and operation of the hand-operated drive tool used to install these fasteners is covered in Division 081. Description, operation, and maintenance of B Stud Driver is covered in Division 075.
1.04 B Masonry Fasteners (Fig. 1) are classified as nail-type fasteners and are used at permanent installations. The $B$ fastener may be used with the new C Wire Loop.
1.05 C Masonry Fasteners (Fig. 2) are classified as a threaded-type fastener and are used at temporary installations or where equipment may be removed.
1.06 D (MD) Masonry Fasteners (Fig. 3) are classified as wire loop fasteners and are used to support the B (MD) Wire Loop.
1.07 Table A contains the recommended fastener to be used when attaching various items of station apparatus. In order to obtain secure fasteners, observe the following:
(a) Table A is fc" materials of average hardness; for soft mat rifials a longer fastener is used and for harder materials a shorter fastener.
(b) If less than three hammer blows are required on drive tool to drive in fastener, use a longer fastener.
(c) If more than six blows are required, use a shorter fastener.
(d) For plaster over masonry walls, add thickness of plaster for proper penetration.
(e) Fasteners should be driven into horizontal seams for best results on brick construction.
(f) Do not use fasteners on brittle material such as tile.
1.08 To remove fasteners, it is necessary to break the compression bond of the fastener by hitting it lightly on opposite sides with a hammer and removing it with a nail puller.

> Caution: B Masonry Fasteners which are primarily intended only for permanent installation, should be removed only under extenuating circumstances and then with every precaution against flying parts.t


| $\begin{aligned} & \text { SIZE } \\ & \text { NO. } \end{aligned}$ | LENGTH |  |
| :---: | :---: | :---: |
|  | SHANK (S) | NOMINAL (L) |
|  | IN. |  |
| 2 | 1/2 | 9/16 |
| 3 | 3/4 | 13/16 |
| 4 | 1 | 1-1/16 |
| 5 | 1-1/4 | 1-5/16 |
| 6 | 1-1/2 | 1-9/16 |
| 8 | 2 | 2-1/16 |
| 10 | 2-1/2 | 2-9/16 |
| 12 | 3 | 3-1/16 |

Fig. 1 - B Masonry Fastener

| SIZE <br> NO. | Length |  |  |
| :--- | :---: | :---: | :---: |
|  | SHANK (S) | NOMINAL (L) | THREADED (T) |
|  | IN. |  |  |
| 31 | $3 / 4$ | 1 | $1 / 4$ |
| 32 | $3 / 4$ | $1-1 / 4$ | $1 / 2$ |
| 35 | $3 / 4$ | 2 | $1-1 / 4$ |
| 41 | 1 | $1-1 / 4$ | $1 / 4$ |
| 42 | 1 | $1-1 / 2$ | $1 / 2$ |
| 45 | 1 | $2-1 / 4$ | $1-1 / 4$ |
| 51 | $1-1 / 4$ | $1-1 / 2$ | $1 / 4$ |
| 52 | $1-1 / 4$ | $1-3 / 4$ | $1 / 2$ |
| 55 | $1-1 / 4$ | $2-1 / 2$ | $1-1 / 4$ |


| SIZE <br> NO. | LENGTH |  |
| :--- | :--- | :--- |
|  | SHANK (5) |  |
|  | NOMINAL (L) |  |
| 3 | $3 / 4$ |  |
| 4 | 1 | $1-1 / 2$ |
| 5 | $1-1 / 4$ | 2 |

Fig. 3 - D (MD) Masonry

Fig 2 - C Masonry Fastener
-table a
FASTENERS

| equipment to be anchored | mounting SURFACE |  | MASONRY fastener |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | B | c | D (MD) |
|  |  |  | No. |  |  |
| Metal Molding* | Concrete |  | 3 |  |  |
| IW Cable Clamps and Cable Clamps | Mortar |  | 4 | 51 |  |
| Metal Boxes, Light Gauge |  | Block | 5 |  |  |
|  | Cinder |  |  |  |  |
| Wood, 3/4-inch thick Example: 82-Type Backboard | Concrete |  | 5 |  |  |
|  | Mortar |  | 6 |  |  |
|  | Cement | Block | 8 |  |  |
|  | Cinder |  |  |  |  |
| Backboards with Predrilled Holes $\dagger$ | Concrete |  |  | 32 |  |
|  | Mortar |  |  | 35 |  |
|  | Cement | Block |  | 55 |  |
|  | Cinder |  |  |  |  |
| C Wire Loops $\ddagger$ Size No. $1 / 2,5 / 8,7 / 8$, and 1-1/4 in. | Concrete |  | 3 |  |  |
|  | Mortar |  | 4 |  |  |
|  | Cement | Block | 5 |  |  |
|  | Cinder |  |  |  |  |
| B (MD) Wire Loops $\ddagger$ Size No. $1 / 2,5 / 8,7 / 8$, and 1-1/4 in. | Concrete |  |  |  | 3 |
|  | Mortar |  |  |  | 4 |
|  | Cement | Block |  |  | 5 |
|  | Cinder |  |  |  |  |

* Drive fastener through metal molding.
$\dagger$ Hold in place by securing $1 / 4-20$ hexagon nuts on threaded fasteners.
$\ddagger$ Selection is dependent upon the wire-carrying capacity required.

