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AMERICAN NATIONAL STANDARD

FOR

MORTISE LOCKS & LATCHES

SERIES 1000



SPONSOR
BUILDERS HARDWARE MANUFACTURERS ASSOCIATION, INC.

AMERICAN NATIONAL STANDARDS INSTITUTE, INC.

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AMERICAN NATIONAL STANDARD

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FOREWORD (This Foreword is not a part of ANSI/BHMA A156.13)

The general classification of builders hardware includes a wide variety of items which are divided into several categories. To recognize this diversity, a sectional classification system has been established. Locks and Lock Trim is one such section and this Standard is a result of the collective efforts of members of the Builders Hardware Manufacturers Association, Inc. who manufacture this product. The total Product Standards effort is, therefore, a collection of sections, each covering a specific category of items.

Performance tests and, where necessary, material and dimensional requirements have been established to ensure safety and stability to which the public is entitled. There are no restrictions on design except for those dimensional requirements imposed for reasons given above. It is also required that locks fit certain cut-out dimensions.

This Standard is not intended to obstruct but rather to encourage the development of improved products, methods and materials. The BHMA recognizes that errors will be found, items will become obsolete, and new products, methods and materials will be developed. With this in mind, the Association plans to update, correct and revise these Standards on a regular basis.

In most cases, products have been described in grade levels related to performance. Choice of grade and specific product are made on the basis of utility, aesthetics, security objectives and end use required.

The BHMA numbers which indicate functions of mortise locks do not identify grade, finish, or design and are not intended to be used without necessary supplementary information. Individual manufacturer's catalogs should be consulted.

Users of this Standard consult applicable local building codes as to requirements affecting the functions of locks used on fire doors and doors within a means of egress. Some communities require the use of exterior door locks having a dead bolt with a 1 inch (25.4 mm) projection for the purpose of providing greater security. Only functions compatible with the requirements of the applicable building codes are to be used.

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1. SCOPE

1.1 This Standard establishes requirements for Mortise Locks and Latches and includes operational tests, security tests, cycle tests, finish tests, material evaluation tests and dimensional criteria.

1.2 Tests described in this Standard are performed under laboratory conditions. In actual usage, results may vary because of installation, maintenance, and environmental conditions.

1.3 When mortise locks and latches are used in fire door assemblies, they shall have been tested and listed for use in fire doors by a Nationally Recognized Independent Testing Laboratory (NRTL) and shall be under an in-plant follow-up inspection service.

1.4 Grade Qualifications (Also see Appendix A)

1.4.1 Two classifications of Grades are described in this Standard. Manufacturers shall indicate separately, for both an Operational Grade and a Security Grade level of mortise locks and latches. The minimum acceptable grade level for Operational and Security grades shall be a grade 3.

1.4.1.1 Operational Grades shall meet the requirements of Sections 9, 11, 12 and 13.

1.4.1.2 Security Grades shall meet the requirements of Section 10.

1.4.2 Any function shall be tested for qualification under Operational Grades and all other functions shall be considered as meeting the criteria provided the lock case and operating parts are of the same construction as that of the lock previously tested.

1.4.3 Function F21 or a similar function with dead bolts and function F04 or a similar function without dead bolts to be certified shall be tested with the trim for qualification under Security Grades. All other functions where access is prevented shall be considered as meeting the criteria provided the lock case and operating parts are of the same construction as that of the lock previously tested.

2. DEFINITIONS

2.1 **Backset** The distance from the edge of the door measured at the centerline of the door thickness to the centerline of the cylinder or spindle.

2.2 **Bolts**

2.2.1 **Auxiliary Dead Latch** A lock component which, when actuated, automatically locks a projected latch bolt against return by end pressure.

2.2.2 **Dead Bolt** A lock component which protrudes from, or is withdrawn into the lock front by action of the lock mechanism. When the door is closed and the dead bolt is thrown, it extends into a hole provided in the strike, locking the door and does not return with end pressure.

2.2.3 **Latch Bolt** A lock component having a beveled end which projects from the lock front in its extended position, but is forced back into the lock case by end pressure or drawn back by action of the lock mechanism. When the door is closed, the latch bolt projects into a hole provided in the strike, holding the door in a closed position.

2.3 **Cylinder** The subassembly of a lock containing a plug with a keyway and cylinder body with a tumbler mechanism.

2.3.1 **Cylinder Body** The portion of a cylinder that surrounds the plug and contains the tumbler mechanism.

2.3.2 **Cylinder Plug** A component of the cylinder within the body which is actuated when the correct key is inserted.