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AMERICAN NATIONAL STANDARD

FOR

BORED AND PREASSEMBLED LOCKS AND LATCHES



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 A156.2)

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 the result of the collective efforts of members of the Builders Hardware Manufacturers Association, Inc. who manufacture these products. The total Product Standards effort is therefore a collection of sections, each covering a specific category of items.

Performance tests and, where it has been necessary, dimensional requirements have been established to insure safety, security and stability to which the public is entitled. Performance criteria for resistance to surreptitious and forceful attack are not fully covered. There are no restrictions on design except for those dimensional requirements imposed for the 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 and methods will be developed. With this in mind, the Association will update, correct and revise these Standards on a regular basis. It shall also be the responsibility of manufacturers to request such appropriate revisions.

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

The BHMA numbers which indicate functions of locks and latches do not identify grade, finish or design and are not intended to be used without necessary supplementary information. Individual manufacturer's catalogs are to 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. Only functions compatible with the requirements of the applicable building codes are used.

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1. SCOPE

1.1 This Standard establishes performance requirements for bored and preassembled locks and latches, and includes cycle tests, strength tests, operational tests, security tests, material evaluation tests, finish tests, and dimensional criteria.

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

1.3 When 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 Testing Laboratory (NRTL) and shall be under an in-plant follow-up inspection service.

1.4 **Grade Qualifications** Manufacturers shall indicate the Grade level of their locks. Locks shall meet all tests for their grade listing. A Grade 1 lock shall meet all Grade 1 criteria, a Grade 2 lock shall meet all Grade 2 criteria, and a Grade 3 lock shall meet all Grade 3 criteria.

2. DEFINITIONS

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

2.2 **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.

2.3 Bolts

2.3.1 **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.

2.3.2 **Dead Locking Latch Bolt** A type latch bolt incorporating a plunger which, when depressed, automatically locks the projected latch bolt against return by end pressure. Also called dead latch.

2.4 Cylinders

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

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

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

2.4.4 **Interchangeable Core Cylinder** A cylinder that is removable from the lock with a designated key without disassembly of the lock.

2.5 **Lever Catch** Also called knob catch. The spring activated retainer which engages the lever in order to maintain its attachment to the lever spindle.

2.6 **Lock Front** A plate fastened to the edge of a door through which the bolt(s) pass.

2.7 Lock Series

2.7.1 **Preassembled Lock Series 2000** A lock fitting into a notched cutout in a door.

2.7.1 **Bored Lock Series 4000** A lock installed in a round bored opening in the edge and face of a door.

2.8 **Operating Trim** Lock components including levers, knobs, paddles, or handlesets and equivalent components.

2.9 Push Button and Related Terms

2.9.1 **Push Button Code Mechanism** A mechanism used in place of, or in conjunction with a key and cylinder.