ASME B18.8.200M-2000

COTTER PINS, HEADLESS CLEVIS PINS, AND HEADED CLEVIS PINS (METRIC SERIES)

Incorporating ASME B18.8.6M, B18.8.7M, and B18.8.8M

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The 2000 edition of this Standard is being issued with an automatic addenda subscription service. The use of addenda allows revisions made in response to public review comments or committee actions to be published as necessary. The next edition of this Standard is scheduled for publication in 2003.

ASME issues written replies to inquiries concerning interpretations of technical aspects of this Standard. The interpretations will be included with the above addenda service.

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FOREWORD

The need for a standard covering machine pins was recognized by industry as far back as March 1926, when the Sectional Committee on the Standardization of Machine Pins was organized under the procedure of the American Standards Association (later the United States of America Standards Institute and as of October 6, 1969, the American National Standards Institute, Inc.), with the Society of Automotive Engineers and the American Society of Mechanical Engineers as joint sponsors.

For the next year or two, an effort was made via correspondence to develop a basis on which a standard for straight, taper, split, and dowel pins might be established. Through this correspondence a distinct difference of opinion developed between the manufacturers and users of taper machine pins, which seemed to discourage the members of the committee from attempting standardization on any of the types of pins within its scope. The sponsor organizations made frequent efforts to revive this project through letters and the distribution of technical literature on this general subject, without avail.

In December 1941, in its periodic review of standards projects for which the Society is sponsor, the ASME Standardization Committee decided that there was little hope for reviving of this project to Sectional Committee B5 on the Standardization of Small Tools and Machine Tool Elements. The sponsors agreed and on July 7, 1942, the ASA sanctioned this action, Sectional Committee B43 was discharged, and the project was officially transferred to Sectional Committee B5.

At its meeting in December 1942, Sectional Committee B5 voted to enlarge its scope to include machine pins. Technical Committee No. 23 was subsequently established and charged with the responsibility for technical content of standards covering machine pins. This group held its first meeting on November 30, 1943, at which time a Subgroup on Correlation and Recommendations was appointed, and it was voted to include clevis pins in addition to the other pin types already under consideration. Several drafts were prepared by the subgroup, distributed for critical comment to users, manufacturers, and general interests, and revised and resubmitted for comments. This action finally resulted in acceptance by Technical Committee 23 of a draft dated November 1945, which was duplicated in printer’s proof form, under a date of October 1946, and distributed to the members of Sectional Committee B5 for letter ballot approval. Subsequent to the approval of the Sectional Committee, the proposal was next approved by the sponsor bodies and presented to the American Standards Association for approval as an American Standard. This designation was granted on July 7, 1947.

Following the issuance of the Standard, it became apparent that the table on cotter pins needed revision. Accordingly, in 1953 a proposed revision was submitted to the Sectional Committee. After attaining Sectional Committee and sponsor approval, this revision was approved by the American Standards Association on July 9, 1954, as ASA B5.20-1954.

In 1956 and 1957, in response to requests from industry, extensive changes were incorporated into a proposed revision. These included revisions to chamfer values and tolerances on straight pins and unhardened ground dowel pins; revisions to under head to hole, pin end dimensions, and hole size tolerances on clevis pins; addition of chisel point to cotter pin end styles; and the incorporation of coverage on grooved pins. Following

Sectional Committee and sponsor approvals, this revision was adopted by the American Standards Association on March 25, 1958, as ASA B5.20-1958.

Late in 1961, Sectional Committee B5 suggested that Sectional Committee B18 on the standardization of bolts, nuts, rivets, screws, and similar fasteners assume jurisdiction over standards for pins. Recognizing that the bulk of the products covered in the ASA B5.20 standards were fastener rather than machine oriented, this recommendation was supported by the B18 Committee and officially endorsed by the sponsor organizations. Consequently, at the September 14, 1962, meeting of this Committee, it was decreed that Subcommittee 23[1] should be formed to undertake a review and update of the pin standard.

At the initial meeting of Subcommittee 23 held on June 3, 1964, it was decided to add standards for spring pins (inch series), to establish seven subgroups, each of which would have technical responsibility for specific pin products, and to publish respective products under separate cover as projects were completed.

Over the ensuing several years, work by Subgroups 2, 3, 4, 5, and 6 culminated in the development of a proposal for revision of the standards covering taper, dowel, straight, and grooved pins and including coverage for spring pins (inch series), which was approved by letter ballot of Subcommittee B8 on February 24, 1977. Subsequent to acceptance by American National Standards Committee B18 and the sponsor organizations, this document was duly submitted to the American National Standards Institute for approval as an American National Standard. This was granted on April 5, 1978, and the Standard was published under the designation ANSI B18.8.2, superseding in part the coverage provided in ASA B5.20-1958.

ANSI B18.8.2-1978 was reaffirmed in 1979, 1983, and 1988, and was revised and approved by the Board of Standardization on July 9, 1993.

In response to increased user demand as well as to the federally endorsed metrication program, a metric Standard was developed for coiled type spring pins, and ASME B18.8.3M was issued in 1990.

In May 1993, Subcommittee 8 submitted proposed Standards B18.8.6M, B18.8.7M, and B18.8.8M covering cotter pins, headless clevis pins, and headed clevis pins, metric series, for the B18 standards committee.

In April 1999, Subcommittee 8 proposed that B18.8.6M, B18.8.7M, and B18.8.8M be consolidated into B18.8.200M. Each Standard was approved by ANSI on June 22, 2000.

[1] As of April 1, 1966, Subcommittee 23 was redesignated Subcommittee B.