FOREWORD

This American National Standard, Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings, has been developed under the procedures accredited by the American National Standards Institute (ANSI). This Standard had its beginning in December 1916 when an eight-page Code of Safety Standards for Cranes, prepared by an ASME Committee on the Protection of Industrial Workers, was presented at the annual meeting of the ASME.

Meetings and discussions regarding safety on cranes, derricks, and hoists were held from 1920 to 1925, involving the ASME Safety Code Correlating Committee, the Association of Iron and Steel Electrical Engineers, the American Museum of Safety, the American Engineering Standards Committee (AESC) [later changed to American Standards Association (ASA), then to the United States of America Standards Institute (USASI), and finally to ANSI], Department of Labor – State of New Jersey, Department of Labor and Industry – State of Pennsylvania, and the Locomotive Crane Manufacturers Association. On June 11, 1925, AESC approved the ASME Safety Code Correlating Committee’s recommendation and authorized the project with the U.S. Department of the Navy, Bureau of Yards and Docks, and ASME as sponsors.

In March 1926, invitations were issued to 50 organizations to appoint representatives to a Sectional Committee. The call for organization of this Sectional Committee was sent out on October 2, 1926, and the Committee was organized on November 4, 1926, with 57 members representing 29 national organizations. Commencing June 1, 1927, and using the eight-page code published by ASME in 1916 as a basis, the Sectional Committee developed the Safety Code for Cranes, Derricks, and Hoists. The early drafts of this safety code included requirements for jacks, but due to inputs and comments on those drafts, the Sectional Committee decided in 1938 to make the requirements for jacks a separate code. In January 1943, ASA B30.2-1943 was published, addressing a multitude of equipment types, and in August 1943, ASA B30.1-1943 was published, addressing just jacks. Both documents were reaffirmed in 1952 and widely accepted as safety standards.

Due to changes in design, advancement in techniques, and general interest of labor and industry in safety, the Sectional Committee, under the joint sponsorship of ASME and the Bureau of Yards and Docks (now the Naval Facilities Engineering Command), was reorganized on January 31, 1962, with 39 members representing 27 national organizations. The new committee changed the format of ASA B30.2-1943 so that the multitude of equipment types it addressed could be published in separate volumes that could completely cover the construction, installation, inspection, testing, maintenance, and operation of each type of equipment that was included in the scope of ASA B30.2. This format change resulted in the initial publication of B30.3, B30.5, B30.6, B30.11, and B30.16 being designated as Revisions of B30.2 with the remainder of the B30 Volumes being published as totally new volumes. ASA changed its name to USASI in 1966 and to ANSI in 1969, which resulted in B30 Volumes from 1943 to 1968 being designated as either ASA B30, USAS B30, or ANSI B30 depending on their date of publication.

In 1982, the Committee was reorganized as an Accredited Organization Committee, operating under procedures developed by ASME and accredited by ANSI. This Standard presents a coordinated set of rules that may serve as a guide to government and other regulatory bodies and municipal authorities responsible for the guarding and inspection of the equipment falling within its scope. The suggestions leading to accident prevention are given both as mandatory and advisory provisions; compliance with both types may be required by employers of their employees.

In case of practical difficulties, new developments, or unnecessary hardship, the administrative or regulatory authority may grant variances from the literal requirements or permit the use of other devices or methods, but only when it is clearly evident that an equivalent degree of protection is thereby secured. To secure uniform application and interpretation of this Standard, administrative or regulatory authorities are urged to consult the B30 Committee, in accordance with the format described in the introduction of Section IX, before rendering decisions on disputed points.
Safety codes and standards are intended to enhance public safety. Revisions result from committee consideration of factors such as technological advances, new data, and changing environmental and industry needs. Revisions do not imply that previous editions were inadequate. The B30.17-2015 consolidates the requirements of B30.17-2006 (R2012) and B30.11-2010. The Volume has been completely revised to incorporate these revisions. **This edition contains updates to bumper design requirements among other changes.**

This Volume of the Standard, which was approved by the B30 Committee and by ASME, was approved by ANSI and designated as an American National Standard on TBD.
17-1.9.3 Bridge Bumpers

(a) (stays the same)
(b) Bridge bumpers shall have the following minimum characteristics:
   (1) (stays the same)
   (2) (stays the same)
   (3) Design and installation with a means of retaining the bumper in case of broken or loosened mounting connections. The retention requirement may be omitted for elastomeric bumpers if determined unnecessary by a qualified person.

17-1.9.4 Trolley Bumpers

(a) (stays the same)
(b) Bridge Trolley bumper shall have the following minimum characteristics:
   (1) (stays the same)
   (2) (stays the same)
   (3) Design and installation with a means of retaining the bumper in case of broken or loosened mounting connections. The retention requirement may be omitted for elastomeric bumpers if determined unnecessary by a qualified person.

Rationale: Industry experience has shown that these lightweight bumpers are not prone to coming loose in the field and present no significant hazard.
Revision to section 17-1.18-1 (a):

(a) Trolley wheel configuration shall be matched to the track, beam, or rail shape and size (see Fig. 17-1.18-1). Consideration shall be given to possible interferences between the trolley wheels and the rail system including, but not limited to, track splices, hangers, and sway bracing. Clearance between the trolley(s) and the support system shall be maintained in accordance with the recommendations of the manufacturer or a qualified person.

Revision to Figure 17-1.18-1:

Figure 17-1.18-1  Trolley Wheel Configurations

S-Beam
Compound/Universal Tread
(Acceptable)

S-Beam with Canted
Flat/Cylindrical Tread
(Acceptable)
Trolleys on S Flange Beams
Trolleys on W Flange Beams
Rationale: Embrace current industry terms, show the current configurations, and achieve more consistency.
17-1.9.1 Runway Stops

(a) Stops shall be provided to prevent motion beyond the limits of travel of the bridge.
(b) Stops shall be provided at open ends of tracks, interlocking crossovers, track spurs, track openers, and track switches.
(c) Stops shall engage the bumper or bumper pads mounted on a power-driven bridge and withstand the forces applied to by the bumpers.
(d) On a hand-operated bridge, the stops should engage parts of the crane other than the wheel. If a stop engages the tread of the wheel, its height shall be no less than the radius of the wheel.

17-1.9.2 Trolley Stops

(a) Stops shall be provided to prevent motion beyond the limits of travel of the trolley.
(b) Stops shall be provided at open ends of tracks, interlocking crossovers, track spurs, track openers, and track switches.
(c) Stops shall engage the bumper or bumper pads mounted on a power-driven trolley and withstand the forces applied to by the bumpers.
(d) On a hand-operated trolley, the stops should engage parts of the trolley other than the wheel. If a stop engages the tread of the wheel, its height shall be no less than the radius of the wheel.

Rationale: Language in 17-1.19.1 and 17-1.19.2 is incorrect as the bumper applies the force to the stop. New items for recirculation ballot are highlighted in yellow.
shall: use of this word indicates that a rule is mandatory and must be followed. a word indicating a requirement

should: use of this word indicates that a rule is a recommendation, the advisability of which depends on the facts in each situation. a word indicating a recommendation

Rationale: Revise to meet Global 2014-2
Add new definition:
original language(s): language(s) used by the manufacturer to develop product instructions and manual(s).

SECTION 17-1.19: TECHNICAL AND SAFETY-RELATED INSTRUCTIONS AND MANUALS

17-1.19.1 General Information
(a) The crane manufacturer shall furnish with each crane at least one copy of the manual. The manual shall include general information applicable to the following:
   (a) installation
   (b) operation
   (c) inspection
   (d) testing
   (e) lubrication
   (f) maintenance
   (g) parts
   (h) wiring diagram (may be supplied separately)

(b) The instructions and manuals shall be provided in a language specified by the purchaser at the time of the initial sale by the manufacturer.
(c) Pictograms used to identify controls shall be described in the instructions. The pictograms should comply with ISO 7000, ISO 7296, or other recognized source, if previously defined.
(bd) Personnel responsible for the supervision, installation, operation, inspection, or maintenance of the crane shall be familiar with the applicable contents of the manual furnished with the crane.

17-1.19.2 Translation of technical and safety-related instructions and Manuals
(a) Translation of Non-English Documentation Into English
   (1) The wording of written non-English safety information and manuals regarding use, inspection, and maintenance shall be translated into English by professional translation industry standards, which include, but are not limited to, the following:
      (-a) translation of the complete paragraph message, instead of word-by-word
      (-b) grammatical accuracy
      (-c) respectfulness of the source document content without omitting or expanding the text
      (-d) accurate translation of the terminology
      (-e) reflection of the level of sophistication of the original document
(2) The finished translation shall be verified for compliance with paras. 17-1.19.2(a)(1)(e) through (a)(1)(e) by a qualified person having an understanding of the technical content of the subject matter.

(3) Pictograms used to identify controls shall be described in the manuals. The pictograms should comply with ISO 7000, ISO 7296, or other recognized source, if previously defined. The text of the description shall meet the criteria of paras. 17-1.19.2(a)(1) and (a)(2).

(b) Any non-English documentation provided in addition to English shall be translated and reviewed in accordance with the requirements listed above.

(a) The entities responsible for the operation use, inspection, testing, maintenance, assembly and disassembly of the covered equipment shall have the technical and safety-related information available in a language that their employees can read and understand. If the information is not available in a language understood by their employees, the entities shall obtain a translation of the original manufacturer's technical and safety related information from the manufacturer or from a translation service provider.

(b) Translations of the original language instructions [if the manufacturer no longer exists, translation of the instructions with the machine is acceptable] shall meet professional translation industry standards, which include, but are not limited to, the following:

1. Translating the complete paragraph message, instead of word by word
2. Ensuring grammatical accuracy
3. Preserving the source document content without omitting or expanding the text
4. Translating the terminology accurately
5. Reflecting the level of sophistication of the original document

(c) The finished translation shall be verified for compliance with paragraphs (b)(1) through (b)(5) by a qualified person having an understanding of the technical content of the subject matter.

(d) If the manufacturer no longer exists, translation of the instructions with the machine is acceptable

Rationale: Revise to meet Global 2016-2