

Interpretation: 10-1

Subject: ANSI B30.10-1975

Date Issued: October 7, 1987

Question: Is it the intent of ANSI B30.10-1975, para. 10-1.3.1, to require a latch on a hook used to lift a set of tongs carrying bar stock where the overhead crane operator must frequently engage and disengage the hook/tong combination without assistance from the floor?

Reply: The question specifically refers to ANSI B30.10-1975, para. 10-1.3.1. That paragraph states, in part, "Where required, a latch shall be provided . . ." The requirement is indicated by the type of hoist equipment being used. The pictures supplied show a crane that would be covered by ANSI/ASME B30.2-1983, Overhead and Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist). A latch requirement would be derived from a current issue of that standard for that equipment. Reference B30.2-1983, para. 2-1.11.5, Hooks, third and fourth sentences: "Latch equipped hooks shall be used unless the application makes the use of the latch impractical or unnecessary. When required, a latch or mousing shall be provided to bridge the throat opening of the hook for the purpose of retaining slings, chains, or other similar parts, under slack conditions (see ANSI B30.10)."

The use of the word *shall* makes hook latches mandatory for compliance with the standard. The B30 Committee fully realizes that application situations can be encountered where hook latches can create a hazardous condition and are, therefore, impractical. The exception phrase, ". . . unless the application makes the use of the latch impractical or unnecessary" is intended to cover such specific instances. This phrase is not intended to indiscriminately allow the absence of a hook latch; and unless a specific impractical or unnecessary situation can be substantiated, the hook latch is mandatory.

Interpretation: 10-2**Subject: ANSI/ASME B30.10-1982****Date Issued: September 7, 1988**

Question (1): What is the basis for the phrase "Latch supports . . . shall not be welded to a finished hook" in para. 10-1.3.2 of B30.10-1982? Does this prohibit techniques permitted under OSHA Standard found in CFR 1910.179(1)(3)(iii)(a) when tested in accordance with 29 CFR 1910.179(k)(2)?

Reply (1): B30.10-1982, para. 10-1.3.2 states, "Attachments such as handles, latch supports, etc., shall not be welded to a finished hook in field applications. If welding of an attachment such as these is required, it shall be done in manufacturing prior to any required final heat treatment." Welding of a latch support on a hook could affect the structural integrity of the hook if not thermally treated properly. The current B30.10-1987 Standard states, "If welding of an attachment such as these is required, it shall be done in manufacturing or fabrication prior to any required final heat treatment." It is hard to conceive how any final heat treatment could be done in the field to restore the hook to the state of integrity it had before welding on a latch support. It does not appear to be practically and economically feasible unless it is a very large, special, and very expensive hook relative to the cost of a replacement hook that has a latch support.

OSHA 29 CFR 1910.179 is a regulatory standard that pertains to "Overhead and Gantry Cranes" that was formulated from ANSI/ASME B30 standards. As such, the OSHA standard takes precedence over B30.2 and B30.10, and B30.10 does not prohibit techniques permitted under OSHA 1910.179(1)(3)(iii)(a) when tested in accordance with 1910.179(k)(2).

The OSHA warning ". . . under competent supervision . . ." hardly constitutes a technique, and addresses repairs as not being recommended, not the addition of latch supports. The "competent supervision" constitutes removing the hook to a shop that can thermally prepare the hook for welding and reheat the hook after welding.

Question (2): What ANSI standards were in effect in 1967-1969 that addressed welding on hooks?

Reply (2): B30.2.0-1967 and B30.5-1968 both addressed repairs by welding using language similar to that used in OSHA.

Interpretation: 10-3

Subject: ASME/ANSI B30.10-1987

Date Issued: September 21, 1989

Question: Para. 10-1.4.6(a) refers to latches, "if required for the service involved." Under what circumstances are latches required on these hooks?

Reply: The requirement for latches on hooks is dependent on the application or equipment where used as stated in the scope of B30.10 in Section 10-1.1., "Within the general scope defined in Section I, ASME/ANSI B30.10 applies to all types of hooks shown in Figs. 1 through 12 *used in conjunction with equipment described in other volumes of the B30 Standards.*"

This is further emphasized in para. 10-1.4.1(b), "inspection procedure and record keeping *requirements for hooks shall be governed by the kind of equipment in which they are used.*"

On equipment where a hook latch is recommended or required, refer to para. 10-1.3.1 which defines its purpose. This paragraph states that "When a latch is provided, it shall be designed to retain such items as, but not limited to, slings and chains under slack conditions. The latch is not intended to support the load."

Interpretation: 10-4

Subject: ASME/ANSI B30.10-1987

Date Issued: December 7, 1989

Question: How would a hook manufacturer know the temperature at which a "specific hook will be used"?

Reply: The temperature at which a specific hook is used is dependent upon the equipment with which it is used. Therefore, it is the responsibility of the equipment supplier and user to assure a proper hook is designated for the application of the equipment.

Interpretation: 10-5

Subject: ASME/ANSI B30.10-1987

Date Issued: October 21, 1991

Question: Is it the committees' interpretation that the intent of the standard is to recommend NDE as the preferred method to identify deficiencies to preclude catastrophic hook failure?

Reply: No. All inspections listed are visual. The result of the visual inspection may indicate that additional inspections are required; however, the standard does not recommend a preferred method.

Interpretation: 10-6

Subject: ASME B30.10c-1992

Date Issued: December 20, 1993

Question: Is a manufacturer's mark on the hook mandatory to meet the requirements of para. 10-1.1.1, which states, "Manufacturer's identification shall be forged, cast, or die stamped on a low stress and nonwearing area of the hook"?

Reply: Yes.

Interpretation: 10-7

Subject: ASME B30.10-1993

Date Issued: March 22, 1994

Question (1): On page 6, Figs. 1 through 5 refer to "Latch — When Required"; on page 9, Section 10-1.1.2(c) states, ". . . If welding of (attachments such as handles, latch-supports, etc.) is required, it shall be done in manufacturing or fabrication . . ." Required by whom?

Reply (1): "Whom" indicates that one person in particular would determine the requirement. The requirement is application specific, not person specific. The requirement for latches on hooks is dependent upon the application or equipment where used, as stated in the Scope of B30.10 in Section 10-0.1, "Within the general scope defined in Section I, ASME B30.10 applies to all types of hooks shown in Figs. 1 through 12 used in conjunction with equipment described in other volumes of the B30 standard."

This is further emphasized in para. 10-1.2.1.1(b), "Inspection procedure and record keeping requirements for hooks in regular service shall be governed by the kind of equipment in which they are used."

Question (2): Are there federal or state regulations applicable specifically to the State of Texas for businesses (a) engaged in interstate commerce; or (b) engaged in intrastate commerce? Please refer us to the pertinent regulations.

Reply (2): This question is beyond the scope of the ASME B30 Committee.

Interpretation: 10-8

Subject: ASME B30.10-1993

Date Issued: September 22, 1994

Question (1): Does the manufacturer's identification requirement of Section 10-1.1.1 mean that the manufacturer's name, trademark, logo, or tradename shall be included on the hook as part of the identification?

Reply (1): Yes.

Question (2): Does the manufacturer's identification requirement of Section 10-1.1.1 preclude the use of a manufacturer's part number, serial number, forging number as the sole means of identification?

Reply (2): Yes.

Interpretation: 10-9

Subject: ASME B30.10-1993, Hooks; ASME B30.16-1993, Overhead Hoists (Underhung)

Date Issued: December 20, 1994

Background: Paragraph 10-1.1.1 of ASME B30.10-1993, Hooks, states the following: "Manufacturer's identification shall be forged, cast, or die stamped on a low stress and nonwearing area of the hook."

Paragraph 16-1.2.9 of ASME B30.16-1993, Overhead Hoists (Underhung), states the following: "If hooks are of the swiveling type, they should rotate freely. Hooks shall be equipped with latches unless the application makes the use of the latch impractical. When required, a latch shall be provided to bridge the throat opening of the hook and retain, under slack conditions, such items as, but not limited to, slings and chains. Refer to ASME B30.10."

Question (1): Does para. 10-1.1.1 apply only to swivel type hooks? Ref. B30.10 and B30.16.

Reply (1): No.

Question (2): Does para. 10-1.1.1 apply only to swivel type hooks with latches? Ref. B30.10 and B30.16.

Reply (2): No.

Question (3): If there is a hook with a latch, are both the hook and latch required to be marked per para. 10-1.1.1? Ref. B30.10.

Reply (3): No.

Question (4): Does para. 10-1.1.1 apply only to hooks with latches? Ref. B30.10.

Reply (4): No.

Question (5): If para. 10-1.1.1 does not apply to either hook or latch, to which part of the lifting apparatus does it apply? Ref. B30.10.

Reply (5): Paragraph 10-1.1.1 does apply to the hook.

Question (6): Does para. 10-1.1.1 apply only to the latches on nonswiveling hooks? Ref. B30.10.

Reply (6): No.

Question (7): Does para. 10-1.1.1 apply only to nonswiveling hooks? Ref. B30.10.

Reply (7): No.

Question (8): Does para. 16-1.2.9 apply only to swivel type hooks? Ref. B30.16.

Reply (8): No.

Question (9): Does para. 16-1.2.9 apply to all hook types depicted in Figs. 1 through 12? Ref. B30.10 and B30.16.

Reply (9): No.

Question (10): Does para. 16-1.2.9 apply only to hook types depicted in Figs. 1 through 7? Ref. B30.10 and B30.16.

Reply (10): No.

Question (11): Does para. 16-1.2.9 apply only to hooks that require latches? Ref. B30.16.

Reply (11): No.

Question (12): Does para. 16-1.2.9 apply only to hook types depicted in Figs. 1 through 12? Ref. B30.10 and B30.16.

Reply (12): Yes, depending upon user and manufacturer specification requirements for the application.

Interpretation: 10-10

Subject: ASME B30.10-1993

Date Issued: June 15, 1998

Question: Would it be correct to interpret the throat opening as the narrowest opening between the back of the hook and the tip at the entrance to the bowl as shown in Fig. 2?

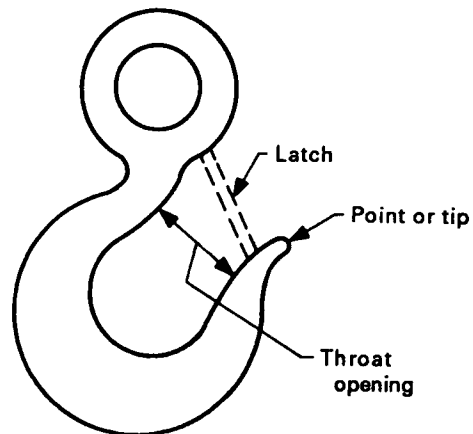


FIG. 2 EYE HOOK
(Latch — When Required)

Reply: Yes, your interpretation is correct for the figure cited. However, your interpretation may not be correct for other hook configurations.

Interpretation: 10-11

Subject: ASME B30.10b-1991, Hooks, Section 10-2.2

Date Issued: September 20, 1999

Question (1): In reference to para. 10-2.2.1.2(c), does inspection of a hook that has areas covered by nonreadily removable assemblies comply if only the visible portions are inspected?

Reply (1): Inspection of only the visible portions (of the hook) does not comply with the requirements of para. 10-2.2.1.2(c)(4), which requires inspection of the hook attachment and securing means.

Question (2): In reference to Section 10-2.2, is the intent of the inspection to look at or nondestructively test all areas of the hook?

Reply (2): The intent of the inspection is to visually inspect all visible areas of the hook as well as to visually inspect the hook attachment or securing means. There is no requirement in the inspection section for a nondestructive test.

Question (3): With reference to Sections 10-2.2, 16-2.1, 21-1.2, and 21-3.2, what recommendation is given by the Standard to properly inspect the hook if the shank and swivel are riveted into an assembly that makes it impossible to examine the hook for cracks, distortion of the shank, or evidence of other distress?

Reply (3): There are at least eight recommendations given in the B30 Standard in volumes B30.10, B30.16, and B30.21 to properly inspect the hook. The physical parts to be inspected have been identified in the replies to questions one, two, and three and are included in paras. 10-2.2.1.2(c), 10-2.2.1.3(c), 16-2.1.2(c)(5), 16-2.1.3(d)(4), 21-1.2.2(c)(2), 21-1.2.3(d)(4), 21-2.2.2(c)(2), 21-2.2.3(d)(4), 21-3.2.2(c)(2), and 21-3.2.3(d)(4). Other recommendations and requirements include:

(a) The intervals at which the inspections shall be made based on the kind of equipment in which they are used and the type of service in which the equipment is used: normal, heavy, severe.

(b) The inspector shall be a person selected by the employer or the employer's representative as being competent to perform the inspection.

(c) Records if external conditions are required to provide a basis for a continuing evaluation.

(d) A requirement that a competent person shall determine whether conditions found during the inspection constitute a hazard and whether a more detailed inspection is required.

(e) The Periodic Inspection may be performed with the hoist in its normal location and does not require the hoist to be disassembled (the hook and its securing means are a part of the hoist).

(f) A requirement that a competent person shall determine whether conditions found during the inspection constitutes whether disassembly is required.

(g) Convenient aids to inspection such as Tables 1 and 2 found in ASME B30.16, and Tables 1, 2, and 3 of ASME B30.21.

Interpretation: 10-12

Subject: ASME B30.10-1999, Hooks, Chapter 10-2

Date Issued: May 30, 2001

Question: Chapter 10-2 does not mention or show point load hooks. Would this hook be included with grab hooks, foundry hooks, sorting hooks, and choker hooks?

Reply: No.

Interpretation: 10-13

Subject: ASME B30.10-1999, Hooks, Para. 10-1.2.2

Date Issued: May 30, 2001

Question (1): What are the requirements for verifying manufacturing?

Reply (1): The Committee cannot offer an interpretation since requirements to verify manufacturing are not contained in ASME B30.10.

Question (2): What methods other than proof testing are acceptable for verifying manufacturing?

Reply (2): Refer to Reply (1).

Question (3): Are there requirements regarding these other methods?

Reply (3): No. Refer to Reply (1).

Question (4): When proof testing is used to verify manufacturing, what are the requirements for sampling?

Reply (4): Sampling requirements are not contained in ASME B30.10.

Please note that testing requirements for assembled items employing hooks may be contained in other Volumes of the B30 Standard.

Interpretation: 10-14

Subject: ASME B30.10-1999, Hooks

Date Issued: January 28, 2002

Question: When are safety latches required to be on hook slings?

Reply: Neither ASME B30.9 (Slings) nor B30.10 (Hooks) address when hook latches are required on hooks. Other codes and standards may require hook latches. The need for a latch on any hook is a function of the application of the hook, which is beyond the scope of ASME B30.10.

Interpretation: 10-15

Subject: ASME B30.10-1999, Hooks, Para. 10-1.1.1

Date Issued: May 26, 2004

Question (1): What is the definition of "manufacturer's identification"?

Reply (1): Manufacturer's identification is any unique marking, trademark, or name that can be used to determine the source or producer of the hook.

Question (2): What is the reason or intended purpose for marking the hook with the manufacturer's identification?

Reply (2): The manufacturer's identification is intended to provide the buyer, user, or manufacturer with a means to determine or trace the source or producer of the hook.

Question (3): If the hook is marked with a rated load, does this by itself meet the requirement of para. 10-1.1.1?

Reply (3): No.

Question (4) Does para. 10-1.1.1 apply only to the hook itself, or does it also apply to the yoke or load block assembly?

Reply (4): The requirements of ASME B30.10, para. 10-1.1.1 only apply to the hook, and do not address the yoke or load block assembly. As stated in Section 10-0.1, "...ASME B30.10 applies to all types of hooks shown in Figs. 1 through 21 used in conjunction with equipment described in other volumes of the B30 Standard."

Interpretation: 10-16

Subject: ASME B30.10-1999, ASME B30.16-2003, and ASME B30.21-1999

Date Issued: June 22, 2005

Question: Are the hooks supplied as an integral part of a hoist that do not have the hook manufacturer's identification on the hooks (as required by B30.10, para. 10-1.1.1) acceptable as meeting the requirements of ASME B30.16 and ASME B30.21?

Reply: Yes. ASME B30.16-2003 and ASME B30.21-1999 do not require hooks to be marked with the manufacturer's identification.

Interpretation: 10-17

Subject: ASME B30.10-2005, Fig. 1, Clevis Sling Hook, and Fig. 18, Clevis Grab Hook

Date Issued: February 18, 2009

Question: Are load pins with cotter pins now an allowed device for overhead lifting?

Reply: ASME B30.10 does not prohibit the use of load pins with cotter pins for overhead lifting.

Interpretation: 10-18

Subject: ASME B30.10-1999 and ASME B30.10-2005, Para. 10-0.2, Definitions, and Para. 10-1.3, Operating Practices

Date Issued: June 29, 2009

Background: Under Section 10-0.2, Definitions:

hook, self-closing: a hook with a throat opening that is closed by a spring-loaded latch, gate, or bail that is manually opened for loading and closes upon release. It may be locked in the closed position.

Question (1): Is this definition saying that the closing means must be a spring?

Reply (1): Yes, the spring device is required.

Question (2): Is an alternate means such as gravity acting on a counterweight appropriate for the closing means?

Reply (2): No, the reliance on gravity alone to close the latch does not meet the requirements of the definition.

Background: Under Section 10-1.3, Operating Practices:

(k) When a lock is equipped with a latch, the latch should not be restrained from closing during use.

Question (3): Can the latch have a feature to pin it in an open position just for purposes of installing slings onto the hook? During lifting of the load, this pin is removed and the latch is automatically closed.

Reply (3): Yes. Paragraph (k) allows devices that can be used to hold the latch open during installation of slings.

Interpretation: 10-19

Subject: ASME B30.10-2005, Para. 10-1.1.2

Date Issued: June 29, 2009

Question: Has this ruling been changed or is it still the choice of the user to use or not use a latch?

Reply: It is not within the scope of ASME B30 to interpret OSHA rulings. ASME B30.10, Hooks addresses the functionality and the inspections requirements, but does not define when latches shall be used on hooks.

Interpretation: 10-20

Subject: ASME B30.10-2005, Para. 10-1.3(g)

Date Issued: June 23, 2010

Question: Paragraph 10-1.3(g) mentions the proper way to load duplex hooks but does not mention anything about sling angles. Duplex hooks must be designed for a certain maximum sling angle. How does the user know the maximum allowable sling angle? How does the hook manufacturer know what sling angle to use for design? Conventional wisdom for this included angle is 60 deg (maximum), but are there any standards that mention this?

Reply: ASME B30.10 does not address sling angles on hooks. The user should contact the hook manufacturer for allowable sling angles for duplex hooks.

