

# Paragraph K344.1 Errata

TN 24-11 (B31.3 SG-E)

ERRATA to B31.3-2022

Error was made during publication of TN 13-1720

ASME B31.3-2022

(a) Table K341.3.2 states acceptance criteria (limits on imperfections) for welds. See Figure 341.3.2 for typical weld imperfections.

(b) Acceptance criteria for castings are specified in para. K302.3.3.

**K341.3.3 Defective Components and Workmanship.** Defects (imperfections of a type or magnitude not acceptable by the criteria specified in para. K341.3.2) shall be repaired, or the defective item or work shall be replaced.

Examination shall be as follows:

(a) When the defective item or work is repaired, the repaired portion of the item or work shall be examined after the completion of any required heat treatment. The examination shall use the same methods and acceptance criteria employed for the original examination.

(b) When the defective item or work is replaced, the new item or work used to replace the defective item or work shall be examined after the completion of any required heat treatment. The examination shall use any method and applicable acceptance criteria that meet the requirements for the original examination.

## K341.4 Extent of Required Examination

Piping shall be examined to the extent specified herein or to any greater extent specified in the engineering design.

### K341.4.1 Visual Examination

(a) The requirements of para. 341.4.1(a) apply with the following exceptions in regard to extent of examination:

(1) *Materials and Components.* 100%.

(2) *Fabrication.* 100%.

(3) *Threaded, Bolted, and Other Joints.* 100%.

(4) *Piping Erection.* All piping erection shall be examined to verify dimensions and alignment. Supports, guides, and points of cold spring shall be checked to ensure that movement of the piping under all conditions of startup, operation, and shutdown will be accommodated without undue binding or unanticipated constraint.

(b) *Pressure-Containing Threads.* 100% examination for finish and fit is required. Items with visible imperfections in thread finish or any of the following defects shall be rejected:

(1) *Tapered Threads.* Failure to meet gaging requirements in API Spec 5B or ASME B1.20.1, as applicable.

(2) *Straight Threads.* Excessively loose or tight fit when gaged for light interference fit.

(c) *Brazed Joints.* 100% of all brazed joints shall be examined by in-process examination in accordance with para. K344.7.

### K341.4.2 Radiographic and Ultrasonic Examination

(a) All girth, longitudinal, and branch connection welds shall be 100% radiographically examined, except as permitted in (b) below.

(b) When specified in the engineering design and with the owner's approval, ultrasonic examination of welds may be substituted for radiographic examination where  $\bar{T}_w \geq 13 \text{ mm}$  ( $\frac{1}{2} \text{ in.}$ ).

(c) In-process examination (see para. 344.7) shall not be substituted for radiographic or ultrasonic examination of welds.

**K341.4.3 Certifications and Records.** Paragraph 341.4.1(c) applies.

## K341.5 Supplementary Examination

Any of the examination methods described in para. K344 may be specified by the engineering design to supplement the examination required by para. K341.4. The extent of supplementary examination to be performed and any acceptance criteria that differ from those specified in para. K341.3.2 shall be specified in the engineering design.

**K341.5.1 Hardness Tests.** Paragraph 341.5.2 applies.

**K341.5.2 Examinations to Resolve Uncertainty.** Paragraph 341.5.3 applies.

## K342 EXAMINATION PERSONNEL

Paragraph 342 applies in its entirety.

## K343 EXAMINATION PROCEDURES

Paragraph 343 applies, except that the examination methods shall comply with para. K344.

## K344 EXAMINATION METHODS

(22)

### K344.1 General

(22)

Paragraph 344.1.1 applies in its entirety.

### K344.2 Visual Examination

Paragraph 344.2 applies in its entirety.

Paragraph 344.1 applies in its entirety.

### K344.3 Magnetic Particle Examination

The method for magnetic particle examination shall be as specified in

(a) paragraph K302.3.3(b) for castings

(b) ASME BPVC, Section V, Article 7 for welds and other components

### K344.4 Liquid Penetrant Examination

The method for liquid penetrant examination shall be as specified in

(a) paragraph K302.3.3(b) for castings

(b) ASME BPVC, Section V, Article 6 for welds and other components

## ASME B31.3-2018 Edition (as printed)

## Proposed Revisions

### M341.4 Extent of Required Examination

Paragraph 341.4.1 applies with the following exceptions:

(a) *Visual Examination*

(1) All fabrication shall be examined.

(2) All threaded, bolted, and other mechanical joints shall be examined.

(b) *Other Examination.* The radiography/ultrasonic examination requirements of para. 341.4.1(b)(1) apply, except that 100% of circumferential butt and miter welds and of fabricated lap and branch connection welds comparable to those shown in Figure 328.5.4E; Figure 328.5.4F; and Figure 328.5.5, illustrations (d) and (e), shall be examined.

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(a) *Visual Examination*

(1) All fabrication shall be examined.

(2) All threaded, bolted, and other mechanical joints shall be examined.

(b) *Other Examination.* The radiography/ultrasonic examination requirements of para. 341.4.1(b)(1) apply, except that 100% of circumferential butt and miter welds and of fabricated lap and branch connection welds comparable to those shown in Figure 328.5.4E; Figure 328.5.4F; and Figure 328.5.5, illustrations (d) and (e), shall be examined.

groove

*The above revision is just to make this consistent with the base code.*

### M344 TYPES OF EXAMINATION

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### M344 ~~TYPES OF EXAMINATION~~ METHODS

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*No other changes needed to Chapter VIII Category M because random radiography/ultrasonic was removed from this chapter in the 2016 Edition.*

### Table K341.3.2

#### GENERAL NOTES:

(a) Weld imperfections are evaluated by one or more of the types of examination methods given, as specified in paras. K341.4.1 and K341.4.2.

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### K344 TYPES OF EXAMINATION

#### K344.1 General

Paragraphs 344.1.1 and 344.1.2 apply. In para. 344.1.3,

terms other than "100% examination" apply only to supplementary examinations.

### K344 ~~TYPES OF EXAMINATION~~ METHODS

#### K344.1 General

Paragraphs 344.1.1 and 344.1.2 apply **applies in its entirety**. In para. 344.1.3, ~~terms other than "100% examination" apply only to supplementary examinations.~~