Revision of Engineering Drawings and Associated Documents

Engineering Drawing and Related Documentation Practices

A N   A M E R I C A N   N A T I O N A L   S T A N D A R D

The American Society of Mechanical Engineers

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ASME Y14.35-2014
[Revision of ASME Y14.35M-1997 (R2008)]

Revision of Engineering Drawings and Associated Documents

Engineering Drawing and Related Documentation Practices

AN AMERICAN NATIONAL STANDARD

The American Society of Mechanical Engineers

Two Park Avenue • New York, NY • 10016 USA

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This Standard will be revised when the Society approves the issuance of a new edition.

Periodically certain actions of the ASME Y14 Committee may be published as Cases. Cases are published on the ASME Web site under the Y14 Committee Page at go.asme.org/Y14committee as they are issued.

Errata to codes and standards may be posted on the ASME Web site under the Committee Pages to provide corrections to incorrectly published items, or to correct typographical or grammatical errors in codes and standards. Such errata shall be used on the date posted.

The Y14 Committee Page can be found at go.asme.org/Y14committee. There is an option available to automatically receive an e-mail notification when errata are posted to a particular code or standard. This option can be found on the appropriate Committee Page after selecting "Errata" in the "Publication Information" section.

CONTENTS

FOREWORD

Subcommittee 35, Revision of Engineering Drawings, was formed in November 1981 as a subcommittee of ASME Standards Committee Y14, Engineering Drawing and Related Documentation Practices. The subcommittee is charged with the responsibility of preparing a standard that establishes methods for identifying and recording revisions to original drawings and associated documentation or digital data files. Every effort has been made to place emphasis on those practices found to be common to industry at large and that are documented by ASME Y14.100, Engineering Drawing Practices.

Changes contained in this revision are intended to improve standardization and to harmonize practices and methodology between industry and government. The following is a summary of the significant differences between ASME Y14.35M-1997 and this revision:

(a) Updated text format to agree with the new ASME style guide.

(b) Updated figure numbers to agree with the new ASME style guide.

(c) In section 1, added para. 1.2 for ASME Y14 series conventions.

(d) Updated references in section 2.

(e) In section 3, added the following definitions: *design activity identification (DAI)*, *field of drawing*, *obsolete*, and *product definition data set*.

(f) In section 3, updated the following definitions to agree with ASME Y14.100: *CAGE code*, *design activity*, *digital data*, *document*, *drawing*, and *original*.

(g) In section 3, added a list of acronyms used in this Standard.

(h) In section 3, added a list of abbreviations used in this Standard.

(i) In section 4, added para. 4.6 for system administrator initiated changes to digital data.

(j) In section 4, added para. 4.7 for design activity authority.

(k) In section 5, added initial release as para. 5.1. Renumbered remaining paragraphs.

(l) In section 5, revised the revision letter requirement from two characters to three characters.

(m) In section 5, added requirement for Advance Revision Authorization Document (ARAD).

(n) In section 6, added coverage to allow the deletion of obsolete current design activity notations.

Where this Standard is specified as a requirement in a document, its defined requirements are assumed to be consistent with the needs of the user. Therefore, each user provides appropriate interpretations, as the need arises, consistent with the environment in which it is applied.

The successful revision of this Standard is attributed to the subcommittee members and their respective companies, and the departments and agencies of the United States Government.

Suggestions for improvements of this Standard are welcome. They should be sent to The American Society of Mechanical Engineers, Attention: Secretary, Y14 Main Committee, Two Park Ave, New York, NY 10016-5999.

This revision was approved as an American National Standard on July 8, 2014.

ASME Y14 COMMITTEE
Engineering Drawing and Related Documentation Practices

(The following is the roster of the Committee at the time of approval of this Standard.)

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General. ASME Standards are developed and maintained with the intent to represent the consensus of concerned interests. As such, users of this Standard may interact with the Committee by requesting interpretations, proposing revisions, and attending Committee meetings. Correspondence should be addressed to:

> Secretary, Y14 Standards Committee
> The American Society of Mechanical Engineers
> Two Park Avenue
> New York, NY 10016-5990
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Proposing Revisions. Revisions are made periodically to the Standard to incorporate changes that appear necessary or desirable, as demonstrated by the experience gained from the application of the Standard. Approved revisions will be published periodically.

The Committee welcomes proposals for revisions to this Standard. Such proposals should be as specific as possible, citing the paragraph number(s), the proposed wording, and a detailed description of the reasons for the proposal, including any pertinent documentation.

Proposing a Case. Cases may be issued for the purpose of providing alternative rules when justified, to permit early implementation of an approved revision when the need is urgent, or to provide rules not covered by existing provisions. Cases are effective immediately upon ASME approval and shall be posted on the ASME Committee Web page.

Requests for Cases shall provide a Statement of Need and Background Information. The request should identify the Standard and the paragraph, figure, or table number(s), and be written as a Question and Reply in the same format as existing Cases. Requests for Cases should also indicate the applicable edition(s) of the Standard to which the proposed Case applies.

Attending Committee Meetings. The Y14 Standards Committee regularly holds meetings and/or telephone conferences that are open to the public. Persons wishing to attend any meeting and/or telephone conference should contact the Secretary of the Y14 Standards Committee. Future Committee meeting dates and locations can be found on the Committee Page at go.asme.org/Y14committee.

REVISION OF ENGINEERING DRAWINGS AND ASSOCIATED DOCUMENTS

1 GENERAL

1.1 Scope

This Standard defines the practices for revising drawings and associated documents and establishes methods for identification and recording revisions. The revision practices of this Standard apply to any form of original drawing and associated documents. It is essential that this Standard be used in close conjunction with ASME Y14.24, ASME Y14.34, ASME Y14.41, and ASME Y14.100.

1.2 ASME Y14 Series Conventions

The conventions in paras. 1.2.1 through 1.2.10 are used in this and other ASME Y14 standards.

1.2.1 Mandatory, Recommended, Guidance, and Optional Words

(a) The words "shall" and "will" establish a mandatory requirement.

(b) The word "should" establishes a recommended practice.

(c) The word "may" establishes an optional practice.

(d) The words "typical," "example," "for reference," or the Latin abbreviation "e.g." indicate suggestions given for guidance only.

(e) The word "or" used in conjunction with a mandatory requirement or a recommended practice indicates that there are two or more options for complying with the stated requirement or practice.

1.2.2 Cross-Reference of Standards.
Cross-reference of standards in text with or without a date following the standard designator shall be interpreted as follows:

(a) Reference to other ASME Y14 standards in the text without a date following the standard designator indicates that the issue of the standard identified in the References section (section 2) shall be used to meet the requirement.

(b) Reference to other ASME Y14 standards in the text with a date following the standard designator indicates that only that issue of the standard shall be used to meet the requirement.

1.2.3 Invocation of Referenced Standards.
The following examples define the invocation of a standard when specified in the References section (section 2) and referenced in the text of this Standard:

(a) When a referenced standard is cited in the text with no limitations to a specific subject or paragraph(s) of the standard, the entire standard is invoked. For example, "Dimensioning and tolerancing shall be in accordance with ASME Y14.5" is invoking the complete standard because the subject of the standard is dimensioning and tolerancing and no specific subject or paragraph(s) within the standard are invoked.

(b) When a referenced standard is cited in the text with limitations to a specific subject or paragraph(s) of the standard, only the paragraph(s) on that subject is invoked. For example, "Assign part or identifying numbers in accordance with ASME Y14.100" is invoking only the paragraph(s) on part or identifying numbers because the subject of the standard is engineering drawing practices and part or identifying numbers is a specific subject within the standard.

(c) When a referenced standard is cited in the text without an invoking statement such as "in accordance with," the standard is for guidance only. For example, "For gaging principles, see ASME Y14.43" is only for guidance and no portion of the standard is invoked.

1.2.4 Parentheses Following a Definition.
When a definition is followed by a standard referenced in parentheses, the standard referenced in parentheses is the source for the definition.

1.2.5 Notes.
Notes depicted in this Standard in ALL UPPERCASE letters are intended to reflect actual drawing entries. Notes depicted in initial uppercase or lowercase letters are to be considered supporting data to the contents of this Standard and are not intended for literal entry on drawings. A statement requiring the addition of a note

with the qualifier "such as" is a requirement to add a note, and the content of the note is allowed to vary to suit the application.

1.2.6 Acronyms and Abbreviations. Acronyms and abbreviations are spelled out the first time used in this Standard, followed by the acronym or abbreviation in parentheses. The acronym is used thereafter throughout the text.

1.2.7 Units. The International System of Units (SI) is featured in this Standard. It should be understood that U.S. Customary units could equally have been used without prejudice to the principles established.

1.2.8 Figures. The figures in this Standard are intended only as illustrations to aid the user in understanding the practices described in the text. In some cases, figures show a level of detail as needed for emphasis. In other cases, figures are incomplete by intent so as to illustrate a concept or facet thereof. The absence of figure(s) has no bearing on the applicability of the stated requirements or practice. To comply with the requirements of this Standard, actual data sets shall meet the content requirements set forth in the text. To assist the user of this Standard, a listing of the paragraph(s) that refer to an illustration appears in the lower right-hand corner of each figure. This listing may not be all inclusive. The absence of a listing is not a reason to assume inapplicability. Some figures are illustrations of models in a three-dimensional environment. Figures illustrating drawings in digital format have a border included. When the letter "h" is used in figures for letter heights or for symbol proportions, select the applicable letter height in accordance with ASME Y14.2.

1.2.9 Precedence of Standards. The following are ASME Y14 standards that are basic engineering drawing standards:

ASME Y14.1   Decimal Inch Drawing Sheet Size and Format

ASME Y14.1M   Metric Drawing Sheet Size and Format

ASME Y14.2   Line Conventions and Lettering

ASME Y14.3   Orthographic and Pictorial Views

ASME Y14.5   Dimensioning and Tolerancing

ASME Y14.24   Types and Applications of Engineering Drawings

ASME Y14.34   Associated Lists

ASME Y14.35   Revision of Engineering Drawings and Associated Documents

ASME Y14.36M Surface Texture Symbols

ASME Y14.38   Abbreviations and Acronyms for Use on Drawings and Related Documents

ASME Y14.41   Digital Product Definition Data Practices

ASME Y14.100 Engineering Drawing Practices

All other ASME Y14 standards are considered specialty types of standards and contain additional requirements or make exceptions to the basic standards as required to support a process or type of drawing.

1.2.10 Unless Otherwise Specified (UOS). The phrase "unless otherwise specified" or UOS is used to indicate a default requirement. The phrase is used when the default is a generally applied requirement and an exception may be provided by another document or requirement.

2   REFERENCES

The following revisions of American National Standard form a part of this Standard to the extent specified herein. A more recent revision may be used, provided there is no conflict with the text of this Standard. In the event of a conflict between the text of this Standard and the references cited herein, the text of this Standard shall take precedence.

ASME Y14.1-2012, Decimal Inch Drawing Sheet Size and Format
ASME Y14.1M-2012, Metric Drawing Sheet Size and Format
ASME Y14.2-2008, Line Conventions and Lettering
ASME Y 14.5-2009, Dimensioning and Tolerancing

ASME Y14.24-2012, Types and Applications of Engineering Drawings

ASME Y 14.34-2008, Associated Lists

ASME Y14.41-2012, Digital Product Definition Data Practices

ASME Y14.100-2013, Engineering Drawing Practices

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3 DEFINITIONS

3.1 Approval

approval: an endorsement applied manually or electronically attesting to the correctness of a document or a revision made on a document.

3.1.1 Approval Indicator

approval indicator: any symbol adopted by the design activity to indicate approval (ASME Y14.100).

3.2 Associated Documents

associated documents: general reference to documentation supportive of and directly related to drawing content, such as application lists, data lists, index lists, parts lists, and wiring lists.

3.3 Canceled Drawing

canceled drawing: a drawing that has been removed from the drawing system and the part or assembly shown on the drawing is removed from all next assembly usage. Drawings that have been superseded or become obsolete are also considered to be canceled drawings.

3.4 Change

change: alterations made to a drawing or associated document as part of a Revision Authorization Document.

3.5 Data Set (See 3.19 Product Definition Data Set)

3.6 Commercial and Government Entity (CAGE) Code

commercial and government entity (CAGE) code: a five-character code that provides a unique activity identifier used by the Government for activity identification. This method of activity identification has also been widely adopted by industry. CAGE Codes are listed in Cataloging Handbook H4/H8 (ASME Y14.100).

3.7 Data Processing System

data processing system: system used to collect, process, and reproduce data in a selected format through the use of electronic or other automated equipment.

3.8 Design Activity

design activity: an organization that has, or has had, responsibility for the design of an item (ASME Y14.100).

3.8.1 Design Activity — Current

design activity — current: the design activity currently responsible for the design of an item. This may be the original design activity or a design activity to which the design responsibility has been transferred (ASME Y14.100).

3.8.2 Design Activity — Original

design activity — original: the design activity originally responsible for the design and identification of an item whose drawing number and activity identification and address (city and state), or CAGE Code is shown in the title block of the drawings and associated documents (ASME Y14.100).

3.9 Design Activity Identification (DAI)

design activity identification (DAI): the application of a unique identifier that distinguishes an activity or organization from another activity or organization. Examples of activity identification include activity name, activity name and address, or CAGE Code (ASME Y14.100).

3.10 Digital Data

digital data: data stored on a computer system that employs a display on which the user and the computer interact to create or alter entities for production of layouts, drawings, numerical control tapes, or other engineering data (ASME Y14.100).

3.11 Document

document: a term applicable to the specification, drawing, list, standard, pamphlet, report, and printed, typewritten, or otherwise created information relating to the design procurement, manufacture, testing, or acceptance inspection of items or services (ASME Y14.100).

3.12 Drawing

drawing: an engineering document or data set that discloses directly or by reference, by means of graphic or textual presentations, or combinations of both, the physical or functional requirements of an item (ASME Y14.100).

3.13 Field of Drawing

field of drawing: the area of the drawing that contains the product definition of an item (ASME Y14.100).

3.14 Fit

fit: the ability of an item to physically interface or interconnect with or become an integral part of another item.

3.15 Form

form: the shape, size, dimensions, mass, weight, and other physical parameters that uniquely characterize an item. For software, form denotes the language and media.

3.16 Function

function: the action or actions that an item is designed to perform.

3.17 Obsolete

obsolete: released information that has been superseded by another revision.

3.18 Original

original: the current design activity's reproducible drawing or data set(s) on which is kept the revision record recognized as official (ASME Y14.100).

3.19 Product Definition Data Set

product definition data set: a collection of one or more data file(s) that discloses, directly or by reference, by means of graphic or textual presentations, or combinations of both, the physical or functional requirements of an item (ASME Y14.41).

3.20 Revision

revision: changes made to an original drawing or associated document after authorized release that require the revision level to be advanced.

3.21 Revision Authorization Document (RAD)

revision authorization document (RAD): a document recognized as the authority for making a change to a drawing or associated documentation. Revision authorization documents are frequently identified by terms, such as alteration notice (AN), advance drawing change notice (ADCN), change in design (CID), drawing change notice (DCN), engineering change notice (ECN), engineering change order (ECO), engineering notice (EN), engineering order (EO), or notice of revision (NOR).

3.22 Revision History Block

Revision History block: a designated area on the drawing reserved for describing or summarizing revisions to the drawing and for recording certain specifics regarding the revisions.

3.23 Revision Letter

revision letter: identifies the revision level of the drawing using one, two, or three alpha character(s).

3.24 Superseded

superseded: a notation used to indicate that a document has been replaced by another document with a different document number or to indicate that an original has been replaced by a new original.

3.25 Total Number of Sheets

total number of sheets: the number of active sheets that make up the drawing.

3.26 Acronyms

The following is a list of acronyms used in this Standard:

ADCN	Advance Drawing Change Notice
AN	Alteration Notice
ARAD	Advance Revision Authorization Document
ASME	American Society of Mechanical Engineers
CAGE Code	Commercial and Government Entity Code
CID	Change in Design
DAI	Design Activity Identification
DCN	Drawing Change Notice
ECN	Engineering Change Notice
ECO	Engineering Change Order
EN	Engineering Notice
EO	Engineering Order
NOR	Notice of Revision
RAD	Revision Authorization Document
SI	International Systems of Units
UOS	Unless Otherwise Specified

3.27 Abbreviations

The following is a list of abbreviations used in this Standard:

CANC	Canceled
DEL	Delete
Fig.	Figure
Para.	Paragraph
REV	Revision

4 DRAWING PRACTICES

Drawing practices associated with drawing changes shall be consistent with those already used on the drawing to be revised unless the latest applicable standards can be incorporated without conflict. When a drawing is revised and does not reference the dimensioning and tolerancing standard or applicable issue, determination of the applicable standard or issue shall be made and the proper standard shall be specified on the drawing and recorded as a change in the Revision History block or in the applicable Revision Authorization document (RAD). Except for as stated in para. 4.6 for digital data, any change to a drawing after release, including a change to rights in data or security classification, requires the revision level to be advanced and shall be recorded in the Revision History block. Revision History block requirements are defined in ASME Y14.1 or ASME Y14.1M.

NOTE: Addition of Distribution statement and delivery contract numbers to copies of contractors drawings upon release for delivery to the government do not require revision level advance.

4.1 Revision Methods

Changes may be made by adding, deleting, or crossing out the information or by redrawing the drawing.

4.1.1 Deleting.   The deleted line, word, or detail shall not show in subsequent reproduction. The area where data was removed shall accept new data without smudging, spreading, or feathering.

4.1.2 Crossing Out.   The crossing out of data applies to manually prepared drawings only and shall be by one or two lines through each line of text, or by a series of diagonal parallel lines at a uniform spacing through the

entire deleted detail. Each crossed out area shall permit readability in reproduction of the drawing following incorporation of the revision. Superseding data, or reference to its location, may be placed adjacent to the crossed out portion. Line conventions shall be in accordance with ASME Y14.2.

4.2 Dimensional Changes

When dimensional changes are made and the product definition is on a computer system, the scale of the feature and the dimensions shall be maintained. When dimensional changes are made and the product definition is on manually prepared originals, the scale of the feature and the dimensions should be maintained. When not maintained, the practice for dimensions not to scale in ASME Y14.5 shall be used.

4.3 Redrawn Drawings

Depending on the circumstances, drawings may be redrawn either with or without change and shall include the original date and contract number as applicable.

4.3.1 Redrawn Drawing With Change. When a revision warrants redrawing of the drawing, the revision letter next in sequence shall be entered in the REV column of the Revision History block of the new original. The names of the individuals whose signatures appeared in the Title block of the old original and the revisions record, if retained, are entered on the new original. Enter the notation REDRAWN WITH CHANGE in the DESCRIPTION column of the Revision History block on the new original; accompany this entry with the required entries in accordance with para. 6.1.3. All previous revision symbols and crossed out areas may be omitted. See Fig. 4-1, illustration (a).

4.3.2 Redrawn Drawing Without Change. When a drawing, or a sheet of a drawing, is to be replaced because of loss, destruction, or degradation due to age, it may be redrawn without change. The replacement shall duplicate the requirements of the old original that is being replaced. The names of the individuals whose signatures appear in the Title block of the old original and revision record, if retained, are entered on the new original. The notation REDRAWN WITHOUT CHANGE with the signature of those who prepared the replacement and date shall be entered in the Revision History block. The advancement of the revision letter is not required. See Fig. 4-1, illustration (b).

4.3.3 Historical Annotations. When a drawing has been redrawn, the old original, if available, shall be marked as follows: The notation REPLACED (WITH or WITHOUT) CHANGE BY REV [*Enter the revision letter of the superseding drawing or if no revision leave blank or enter a - (dash) or an "A" in accordance with para .5.1*] shall be entered in the DESCRIPTION column of the superseded drawing. The notation SUPERSEDED shall be placed as near to the Title block as possible, in 0.25 in. minimum high letters. Alternatively, other procedures may be used to remove superseded drawings from active status.

4.4 Superseding a Drawing

4.4.1 Superseding (New) Drawing. When a drawing is superseded by a drawing with a different number, enter the notation REPLACES WITH CHANGE DRAWING (*Enter superseded drawing number.*) REV [*Enter superseded revision letter. When no revision, leave blank or enter - (dash) or an "A" in accordance with para. 5.1.*] in the DESCRIPTION column of the superseding drawing. Follow the above notation with an entry in the description of change or reference to the RAD in accordance with para. 6.1.3. See Fig. 4-2. No entry is required in the REV letter, DATE, or APPROVED column. New Title block approval entries apply.

4.4.2 Superseded (Old) Drawing. When the superseded drawing will be retained, enter the notation REPLACED WITH CHANGE BY DRAWING (*Enter the superseding drawing number.*) REV [*Enter the revision letter of the superseding drawing or when no revision, leave blank or enter a dash (-) or an "A" in accordance with para. 5.1.*] in the DESCRIPTION column of the superseded drawing. Follow the above notation with an entry in the description of change or reference to the RAD in accordance with para. 6.1.3. See Fig. 4-3. Complete the remainder of the Revision History block by entering the next sequential revision letter in the REV column and by entering the required approval signature(s) and date(s) in the APPROVED and DATE columns.

4.4.3 Supersession of Digital Data. For digital data files, alternative procedures may be used to indicate supersession information.

4.5 Revisions of Digital Data

Revisions of digital data files and copies of digital data files shall not be considered redraws in accordance with para. 4.3 except when the document is converted from a manually maintained to a digitally maintained document. Revisions to digital data files shall retain original approval indicators, dates, and contract number when included.

Fig. 4-1   Notations for a Redrawn Drawing

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED
		REDRAWN WITH CHANGE (Enter description of change or reference to the revision authorization document) (a)		4.3.1

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED
		REDRAWN WITHOUT CHANGE (Enter revision authority, signature of those who prepared the replacement and date or reference to the revision authorization document) (b)		4.3.2

Fig. 4-2   Notations for a Superseding Drawing

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED
		REPLACES WITH CHANGE DRAWING 123XXXX7 REV C (Enter description of change or reference to the revision authorization document)		

4.4.1

Fig. 4-3   Notations for a Superseded Drawing

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED
		REPLACED WITH CHANGE BY DRAWING 123XXXX8 REV - (Enter description of change or reference to the revision authorization document)		

4.4.2

4.6 System Administrator Initiated Changes to Digital Data

Digitally prepared product definition data maintained in a product data management system may be changed without advancing the revision level to facilitate manufacturing and logistics systems when initiated by a system administrator per the following requirements:

System administrator initiated changes address a common change applied to a large volume of product definition data sets. System administrator initiated changes shall not affect existing released end item configurations and requirements that when applied would affect form, fit, or function and thereby would require item re-identification in accordance with ASME Y14.100. System administrator initiated changes do not apply to individual drawing corrections or other general drawing changes. System administrator initiated changes may apply, but are not limited to the following examples: adding future applications or effectivities, updating digital drawing graphic sheet templates, application of distribution statements and delivery contract numbers, standard part supersession, and adding unique database attributes. When system administrator initiated changes are used, internal process control documentation shall be issued.

4.7 Design Activity Authority

To maintain item configuration, original drawings shall only be revised or changed only by the current design activity. Copies of drawings purchased or acquired by a customer or supplier shall not be revised or changed by that entity, whether or not they have unlimited or limited rights to the drawing. When a customer or supplier, with appropriate data rights, has a need for the drawings to be revised, the requestor shall arrange for the current design activity to incorporate required revisions or changes.

5 IDENTIFYING INITIAL RELEASE AND REVISIONS ON DRAWINGS

5.1 Initial Release

At initial release of a drawing, the revision entry is not required; however, a dash (-) or revision "A" may be used. When revision "A" is used, enter "INITIAL RELEASE" in the Revision History block.

5.2 Revision Letters

The revision letter is the identification of the revision level of the sheet or drawing. Upper case letters shall be used in sequence beginning with A and omitting letters "I," "O," "Q," "S," "X," and "Z" for single, double, and triple revision letters. When the single letters have been exhausted, the revisions following "Y" shall be "AA," "AB" through "AY." Should "AA" to "AY" be exhausted, the next sequence shall be "BA," "BB," etc. When the double letters have been exhausted, the revision following "YY" shall be "AAA", "AAB" through "AYY". Should "AAA" through "AYY" be exhausted, the next sequence shall be "BAA", "BAB," etc. Revision letters shall not exceed three alpha characters. Initial issue of a drawing does not constitute need for a revision letter and may be indicated by the use of a - (dash). The revision letter is the identification of the revision level of the sheet or drawing. The identity of the RAD or an itemized description of change(s) is included in the Revision History blocks part of the revision. Other practices that may require special accommodations for revision identification are as follows:

(a) When a RAD preassigns a revision letter in advance of the changes being incorporated in the original and describes the specific drawing changes, the changes may be identified by simply referencing the RAD in the Revision History block. This practice may be supplemented by using revision symbols on the field of drawing. On the other hand, when the RAD preassigns the revision letter and does not describe each change, the changes shall be itemized in the Revision History block, and the applicable revision letter from the RAD is applied.

(b) When a RAD does not preassign a revision letter in advance of the changes being incorporated in the original drawing and describes the specific drawing changes, the changes may be identified by simply referencing the RAD in the Revision History block and assigning the applicable revision letter. Drawing changes on the field of drawing may be identified by the assigned revision symbol. On the other hand, when the RAD does not preassign the revision letter and does not describe each change, the drawing changes shall be itemized in the Revision History block.

(c) When several RAD are incorporated at the same time and have preassigned revision letters, they shall be incorporated individually as separate revisions in alphabetic sequence to the drawing. The revision letters used on the drawing and the revision letter used on the RAD providing approval shall be the same.

(d) When several RAD are incorporated at the same time and do not have preassigned revision letters, they shall be incorporated as a group. The changes may be entered in numeric sequence to permit ready identification of a specific change. In this case the appropriate sequence number will appear as a suffix to the revision letter in the field of the drawing. The incorporation of multiple, non preassigned revision level, RAD shall only raise the revision letter one level.

(e) When minor changes not affecting form, fit, or function, such as correction of misspelled words or addition of reference dimensions, are required on the drawing, the changes should be incorporated at the same time as other RAD.
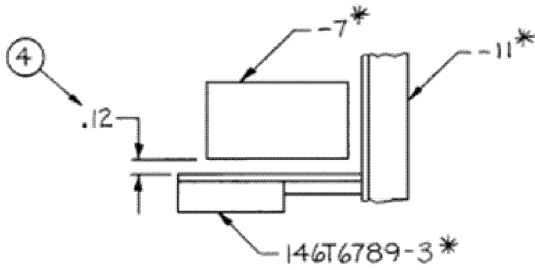
(f) An Advance Revision Authorization Document (ARAD) that defines changes for the field of drawing that are defined on a separate document and has its own identity may be revised or canceled by an ARAD as follows:

(1) Canceling an ARAD. A new ARAD may cancel a released ARAD by assigning a new identity to the new ARAD and identify the requirements. Add the following statement to the field of the new ARAD: THIS ARAD CANCELS ARAD (X). See Fig. 5-1.

(2) Replacing an ARAD. Obtain the existing ARAD to be replaced and line through the current identity on the ARAD. Obtain the next available ARAD identity and add to the existing ARAD.

In the field of the existing ARAD, make the required changes to the field of the ARAD and line through the obsolete data. Add a block to the field of the existing ARAD to identify the following: new change number, reason,

Fig. 5-1 Canceling an ARAD

ACME Company		APPROVALS		TITLE	SHEET 1 OF 1
DAI − ABC12		ROLE	DATE	BRACKET ASSEMBLY	ISSUE DATE
		DESIGN Jones, Jack	2012-09-29		2013-02-25
CONTRACT NUMBER 123456789ABC	REFERENCES CD ABC123	QUALITY Smith, Andrew	2012-10-15	DRAWING NUMBER	RAD / REV
		STRENGTH Williams, Jessie	2012-10-24	123P654321	5 / A
AUTHORIZATION FOR CHANGE NCR 123456		PRODUCIBILITY Taylor, Helen	2012-10-18	REASON FOR CHANGE	
		MANAGER Johnson, Daniel	2012-10-25		

* ARAD REFERENCE

THIS ARAD
CANCELS ARAD 4

4
.12
−7 *
−11 *
146T6789-3 *
* INSTL −1

5.2 (f)(1)

and new approval signatures that were required for the released ARAD being replaced. Add the following statement to the field of the new ARAD: THIS ARAD REPLACES ARAD (X). See Fig. 5-2.

5.3 Identifying Revision Locations

Whether incorporating a change or replacing the drawing with change, a revision location shall be identified by one or more of the following methods:

(a) revision symbol in the field of the drawing (see para. 5.5)
(b) description in the Revision History block
(c) zone locations in the ZONE column of the Revision History block
(d) RAD identified in the DESCRIPTION or other dedicated column of the Revision History block

5.4 Multiple Changes

All changes authorized by a single RAD shall be incorporated into the document at the same time. All changes to a drawing incorporated at one time shall be identified by the same revision letter when the revision letter is assigned at the time the changes are incorporated. The changes may be numbered sequentially to permit ready identification of a specific change. In this case, the appropriate sequence number will appear as a suffix to the revision letter in the field of drawing.

5.4.1 Sequence Number Use.   Where a revision involves two or more individual changes on a drawing, each change may be identified by a sequence number enclosed in parentheses preceding the description of the change. Use a continuous unbroken sequence for the entire set of changes under each revision or a continuous unbroken sequence to each affected sheet through the entire set of changes under each revision. When revision symbols are used in accordance with para. 5.5, the sequence number may be included in the symbol as a suffix to the revision letter. See Figs. 5-3 and 5-4.

Fig. 5-2   Replacing an ARAD

ACME Company DAI – ABC12	APPROVALS		TITLE BRACKET ASSEMBLY	SHEET 1 OF 1

ACME Company
DAI – ABC12

APPROVALS	
ROLE	DATE
DESIGN Jones, Jack	2012-09-29
QUALITY Smith, Andrew	2012-10-15
STRENGTH Williams, Jessie	2012-10-24
PRODUCIBILITY Taylor, Helen	2012-10-18
MANAGER Johnson, Daniel	2012-10-25

TITLE
BRACKET ASSEMBLY

SHEET 1 OF 1
ISSUE DATE
2013-02-25

CONTRACT NUMBER 123456789ABC	REFERENCES CD ABC123

AUTHORIZATION FOR CHANGE NCR 123456	

DRAWING NUMBER
123P654321

REASON FOR CHANGE

	RAD	REV
	~~3~~	~~A~~
	4	A

* ARAD REFERENCE

THIS ARAD
REPLACES ARAD 3

RAD ID: 4
REASON: XXXXXXXX

APPROVALS / DATE:
Jones, Jack   2012-12-15
Johnson, Daniel   2012-12-16

5.2 (f)(2)

Fig. 5-3   Sequence Number

REVISION HISTORY					
ZONE	REV	DESCRIPTION		DATE	APPROVED
		SHEET 1 (1) -------- (2) -------- SHEET 2 (3) -------- (4) --------			

5.3.1

Fig. 5-4 Revision Symbol
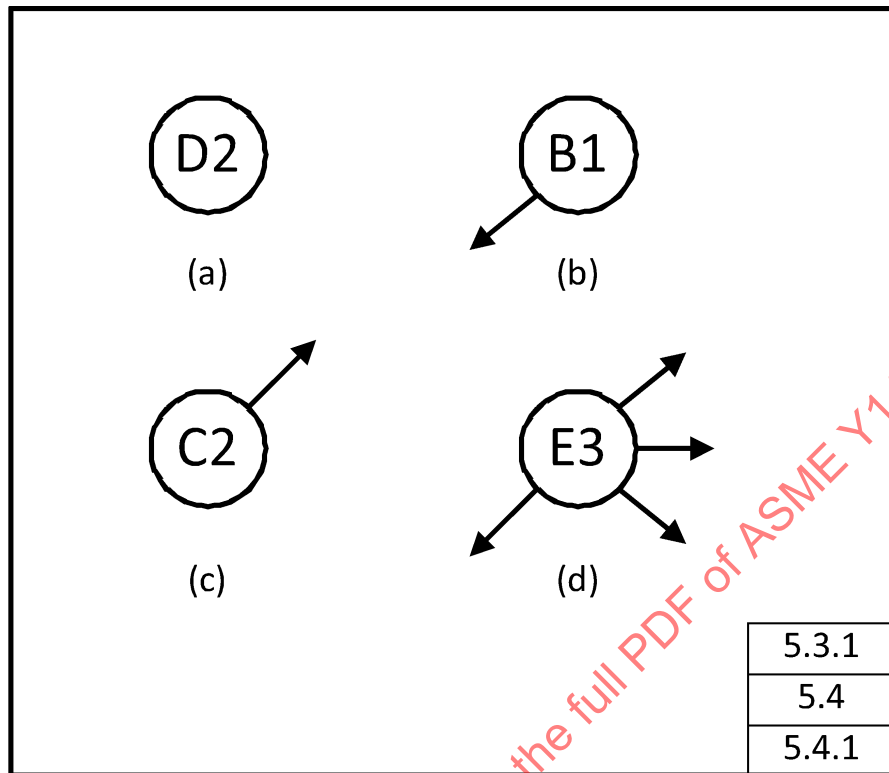
5.5 Revision Symbol

The revision symbol may be used to identify an item or area of change on the drawing. The symbol should be placed at or near the location affected by the change. When many individual changes required by the RAD would create an overly crowded condition, a single revision symbol may be used. See Fig. 5-4, illustration (d).

5.5.1 Symbol Application. When a revision symbol is used, the revision letter, and the sequence number when used, shall be enclosed in a circle to form a revision symbol. See Fig. 5-4, illustration (a). A leader(s) may be added to the circle to indicate a specific location. See Fig. 5-4, illustrations (b), (c), and (d).

5.5.2 Omitting Symbols. On drawings where use of revision symbol(s) may conflict with other symbols used on the drawing creating a possible misinterpretation, the revision description will be adequate.

6 RECORDING REVISIONS

Changes to drawings shall be recorded in the Revision History block. The Revision History block format shall be in accordance with ASME Y14.1 or ASME Y14.1M and completed as follows:

6.1 Revision History Block Entries

6.1.1 ZONE Column. When a drawing is zoned and the locations of changes to the drawing are recorded using the drawing zone method, the zone to which each revision description applies shall be entered in the ZONE column. When a single change is made to several zones, the zone entries may be made in the DESCRIPTION column immediately after the description of change. See Fig. 6-1, illustration (c). Zone listings for multi-sheet changes may be accomplished by one of the methods defined in Fig. 6-1, illustration (a) or (b).

6.1.2 REV Column. The revision letter assigned to a particular revision is the only character allowed to be entered in the REV column. See Fig. 6-1.

6.1.3 DESCRIPTION Column. Record changes made to a drawing by one or more of the following methods.

Fig. 6-1   Zone and Revision Columns

ZONE	REV	DESCRIPTION	DATE	APPROVED
		REVISION HISTORY		
B1 A6 B3 A2	A	SHEET 1 (1) -------- (2) -------- SHEET 2 (3) -------- (4) --------		

(a)

ZONE	REV	DESCRIPTION	DATE	APPROVED
		REVISION HISTORY		
B1-1 A6-1 B3-2 A2-2	A	(1) -------- (2) -------- (3) -------- (4) --------		

(b)

ZONE	REV	DESCRIPTION	DATE	APPROVED
		REVISION HISTORY		
	A	(1) ------------------- ZONES A2, C1, B3, B4, A5		

(c)

6.1.1
6.1.2

Fig. 6-2 Description Column

REVISION HISTORY					
ZONE	REV	DESCRIPTION	DATE	APPROVED

		(1) REVISED PICTURE TO DELETE -1 AND
		      ALL COMPONENTS
		(2) REVISED PARTS LIST AND PICTURE
		      SHEET TO SHOW RELEASE OF -2 AND
		      ALL COMPONENTS		

6.1.3 (a)

(a) Enter a description of change in the DESCRIPTION column. When used, the appropriate sequence number in accordance with para. 5.4.1 shall precede each entry in the column. See Fig. 6-2.

(b) When changes resulting from one or more RAD are so extensive or complicated as to make a clear description impracticable, but not such as to require redrawing, the entry in the DESCRIPTION column may be limited to a clearly phrased general description of the change such as COMPLETELY REVISED FOR RELOCATION OF OXYGEN SYSTEM or a statement such as GENERAL CHANGE — ZONES A1, B3, C4 and the identity of the RAD listed.

(c) Removal of revision history is accomplished using one of the following methods:

(1) Remove one complete revision record entry at a time until enough space is available to record the current revision, starting with the oldest revision recorded and continuing in alphabetical order until sufficient space is available.

(2) Remove all previous revision history.

(3) Remove all previous revision history but retain a line entry for each revision level that identifies the RAD and date of revision.

(4) Remove all previous revision history except that associated with the revision immediately preceding the current revision.

NOTE: Revision entries addressing rights in data or security classification shall be retained.

(d) A reference to the revision authorization document may be used in lieu of detailing the revision description in the Revision History block, provided the RAD authorization describes the specific drawing changes.

6.1.4 DATE Column.   The date entered in the DATE column shall be the date the revision was incorporated on the drawing. Enter the date in accordance with ASME Y14.100.

6.1.5 APPROVED Column.   Authorized signature(s), name, or approval indicator, as required, shall be entered to indicate approval of the change(s) made to the drawing.

6.1.6 Separating Revisions.   Each revision entry shall be separated by a horizontal line drawn across the complete Revision History block.

6.1.7 Revision Description for Digital Data.   Revise digital data in accordance with para. 6.1.3 with the following exceptions:

(a) The revision description shall not identify a revision to a digital data file as a redraw except as noted in para. 4.5.

(b) Revise the digital data file identification to reflect the current revision letter.

(c) Electronically generated names or digital signatures are allowed provided there is an electronic authorization system. The system procedures shall provide for entry of the name or a signature of the responsible individuals in the Title block and Revision History block of the drawing.