



The American Society of
Mechanical Engineers

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

ASSOCIATED LISTS

ASME Y14.34M-1996
(Revision of ASME Y14.34M-1989)

FOREWORD

(This Foreword is not part of ASME Y14.34M-1996.)

This revision adds the preparation requirements for application list, indentured data list, and wire list and also includes the requirements for the addition of application data on parts lists or a separate application list. Also, mandatory government requirements were deleted.

Suggestions for improvement of this Standard are welcome. They should be sent to the American Society of Mechanical Engineers, Secretary, Y14 Main Committee, 345 East 47th Street, New York, NY 10017.

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Engineering Drawing and Related Documentation Practices

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ENGINEERING DRAWING AND RELATED DOCUMENTATION PRACTICES

ASSOCIATED LISTS**1 SCOPE**

This Standard establishes the minimum requirements for the preparation and revision of parts lists, application lists, data lists, and index lists. In addition, this Standard presents certain options that may be incorporated into parts lists, data lists, index lists, application lists, indented data lists, and wire lists at the discretion of the design activity.

2 APPLICABLE DOCUMENTS

When the following American National Standards referred to in this Standard are superseded by a revision approved by the American National Standards Institute, the revision shall apply.

2.1 American National Standards

- ASME Y14.1-1995, Decimal Inch Drawing Sheet Size and Format
- ASME Y14.1M-1995, Metric Drawing Sheet Size and Format
- ASME Y14.2M, Line Conventions and Lettering
- ASME Y14.35M-1997, Revision of Engineering Drawings and Associated Documents
- IEEE 200-1975 (R1989) (ANSI Y32.16-1975), Reference Designations for Electrical and Electronic Parts and Equipment

2.2 United States Government Documents

Cataloging Handbook H4/H8, Commercial and Government Entity (CAGE)

3 DEFINITIONS

alphanumeric arrangement: for a designation in a list, a grouping of mixed symbols, numbers, and letters used to form the designation. These are arranged so that the first character in the designation aligns in the furthest leftmost position in the column. For each designation in the column, the first position characters are arranged by sym-

bols, e.g., a dash symbol, then numerically, then alphabetically, as applicable. Succeeding characters in the second position (and subsequent positions) are next arranged by symbol, then numerically, then alphabetically in the same manner as the first position. Designations composed only of single characters shall be arranged first within a column list, followed by those with a dash in the second character position. Next, after the dash second character position, shall come the numerical second position characters, then the alphabetical second position characters. These procedures are applicable for all remaining character positions within designations.

application data: the next assembly(ies), and the model number, nomenclature, or equivalent designator of the assembled unit(s), of which a part or assembly is a component.

application list (AL): application data presented in a separate list. See Fig. 13.

approval: an indication that the document meets general requirements for preparation and content. An entry does not indicate approval of the design depicted on the related drawing.

bulk items: constituents of an assembly or part, such as oil, wax, cement, ink, grease, flux, welding rod, twine, or chain, that satisfies one or more of the following criteria:

- (a) the quantity is not readily predetermined;
- (b) the physical nature of the material is such that it is not adaptable to pictorial representation;
- (c) the finished size is obtainable through use of such tools, such as shears, pliers, or knives, without further machining operation, and the final configuration is such that it can be described in writing without the necessity of pictorial representation.

CAGE Code (Commercial and Government Entity Code): a code assigned by the government to identify a firm which designs, manufactures, or supplies items.

data list (DL): a tabulation of all engineering drawings, associated lists, specifications, standards, and subordinate data lists pertaining to the item to which the data list ap-

plies and essential in-house documents necessary to meet the technical design disclosure requirements except for those in-house documents referenced parenthetically. See Figs. 11A and 11B.

design activity: an activity having, or having had, responsibility for the design of an item. The activity may be a government activity or a contractor, vendor, or other.

design activity, current: an activity currently having responsibility for the design of an item, and the preparation and maintenance of the drawings and associated documents. Current design activity could be the original design activity or new activity when that responsibility is transferred from another design activity.

design activity, original: an activity that initially had responsibility for the design of an item and the preparation and maintenance of the drawings and associated documents.

digital data: data created and stored on a computer system which employs a display on which the user and the computer interact to create entities for producing layouts, drawings, numerical control tapes, disks, or other engineering data.

find number or item number: a reference number assigned to designate an item on the field of the drawing in lieu of using the item's part or identifying number. It is entered as a cross reference to the line of the parts list where the item's actual part or identifying number and description are given. Reference designations in accordance with IEEE 200 (ANSI Y32.16) may be used as find numbers or item numbers.

flag note: a note whose text is prefixed by a note identification enclosed within a symbol (flag). The note is cross referenced to a specific area on a drawing, or associated list, by entering the flag at the point of application.

identification cross reference drawing: an administrative type drawing which assigns unique identifiers to provide a cross reference to the original incompatible identifiers.

indentured data list (ID): a data list showing the documents for a complete system or end item in a top-down (generation tree) order. See Figs. 8A and 8B.

index list (IL): a tabulation of data lists and subordinate index lists pertaining to the item to which the index list applies. See Fig. 12.

item: a nonspecific term used to denote any unit or product, such as a part, material, assembly, equipment, accessory, or attachment.

parts list (PL): a tabulation of all parts and bulk materials, except those materials that support a process and are not retained, such as cleaning solvents and masking materials, used in the item.

(a) *integral parts list*: a parts list prepared and revised as part of an engineering drawing. See Figs. 2 and 3.

(b) *separate parts list*: a parts list prepared as a document separate from the engineering drawing to which it is associated and one that may be revised independently of the drawing. See Figs. 10A and 10B.

NOTE: Other terms previously used to describe a parts list are: list of materials, bill of materials, stocklist, and item list.

revision authorization document: 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).

wire list (WL): a list of tabular data and instructions necessary to establish wiring connections. See Fig. 14.

4 COMMON REQUIREMENTS

4.1 Format

4.1.1 When a list is manually prepared as a separate document, it shall utilize a format size of either A(8.5 in. × 11 in.) or B(11 in. × 17 in.) for decimal inch sizes, or A4(210 mm × 297 mm) or A3(297 mm × 420 mm) for metric sizes and follow format design and preparation as provided herein. Lines and lettering shall be in accordance with ASME Y14.2M.

4.1.2 When a list is digitally prepared as a separate document, preprinted formats need not be utilized if machine operation can provide data in similar format. The size of the sheet shall be commensurate with the equipment capability and may be marginally punched continuous paper stock.

4.2 Block and Column Size and Arrangement

The size and arrangement of all blocks and columns shall be determined by the preparing activity according to the method of preparation used. Additional blocks or columns may be added by the preparing activity.

4.3 Sheet Numbering

The sheets of a multisheet list shall be numbered consecutively with whole numbers. The total number of sheets shall be entered on the first sheet, cover sheet, or the last sheet. In lieu of total number of sheets, a statement, such as END OF LIST, may be added on the last sheet. Sheets of an integral parts list shall be numbered as sheets of the drawing of which the list is a part.

4.4 Cover Sheets

When a separate list is prepared and a cover sheet is used, it shall include the mandatory information shown in Fig. 1; other information may also be included.

4.5 Revisions

Revisions shall be prepared in accordance with ASME Y14.35M and the following.

4.5.1 Adding Items. New items may be added at the end of a list or inserted in the list.

4.5.2 In lieu of revision DATE and REVISION AUTHORIZATION BLOCK, lists may include a revision history block.

4.5.3 Items that are relocated due to additions or deletions are not considered revised.

4.6 Heading Requirements (Applies to All Sheets)

The requirements in Fig. 1 shall apply in preparation of associated lists heading information, except where noted as optional.

() LIST ①	DESIGN ACTIVITY ②	CONTRACT NO ③	CAGE CODE ④	IDENTIFYING NO ⑤	REVISION ⑥
LIST TITLE ⑦	END ITEM ⑧	APPROVAL ⑨	REV AUTH NO ⑩	SHEET OF ⑪	SHTS

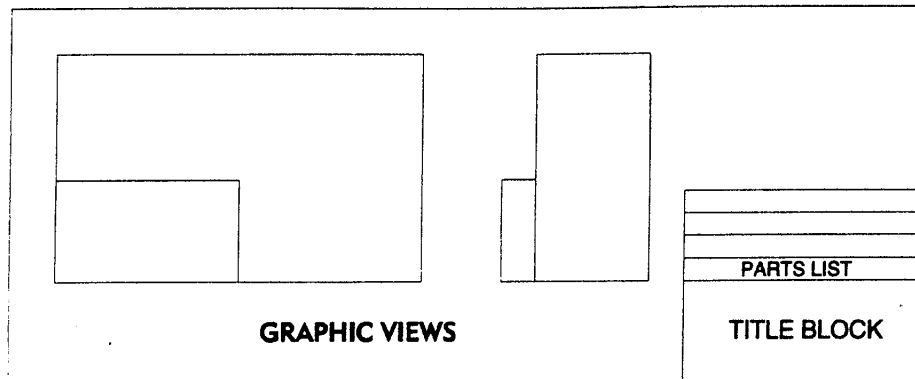
- ① LIST TYPE (Mandatory). Enter PARTS LIST, DATA LIST, INDEX LIST, APPLICATION LIST, INDENTURED DATA LIST, or WIRE LIST (as applicable).
- ② DESIGN ACTIVITY (Optional). Enter the name of the original design activity whose CAGE Code (if applicable) appears in ④ on all sheets.
- ③ CONTRACT NO (Optional). Enter the contract number (if applicable) under which the list was initially prepared. Subsequent contract numbers to which the list may apply may be omitted from this block.
- ④ CAGE CODE (Optional). Enter the Commercial and Government Entity Code of the original design activity assigned to the associated drawing.
- ⑤ IDENTIFYING NUMBER (Mandatory). Enter the identifying number assigned to the list. The identifying number includes the letter prefix PL, DL, IL, AL, ID, or WL, as applicable.
- ⑥ REVISION (Mandatory). See ASME Y14.35M.
- ⑦ LIST TITLE (Optional). Enter the basic noun or noun phrase from the title of the engineering drawing with which the list is associated.
- ⑧ END ITEM or SYSTEM DESIGNATOR (Optional, Indentured Data List Only). Enter the end item or system designator to which the list applies. When no designator has been assigned, the top assembly part number of the end item shall be entered.
- ⑨ APPROVAL (Optional). A signature or symbol of the preparing design activity may be entered on the first sheet or the cover sheet, if used. The entry may be handwritten, lettered, or mechanically printed.
- ⑩ REVISION AUTHORIZATION NUMBER (Mandatory). The number of the revision authorization document shall be entered when a revision description or revision record is not provided.
- ⑪ SHEET OF SHEETS (Mandatory). The total number of sheets shall be entered on the first sheet, cover sheet, the last sheet, or a statement such as END OF LIST. On subsequent sheets, enter the appropriate sheet number. For manually prepared lists when sheets have been added or deleted by revision action, the total number of sheets may differ from the number assigned to the last sheet. The total number of sheets shall be the actual sheet count.

FIG. 1 SEPARATE LIST HEADING

5 PARTS LIST PREPARATION

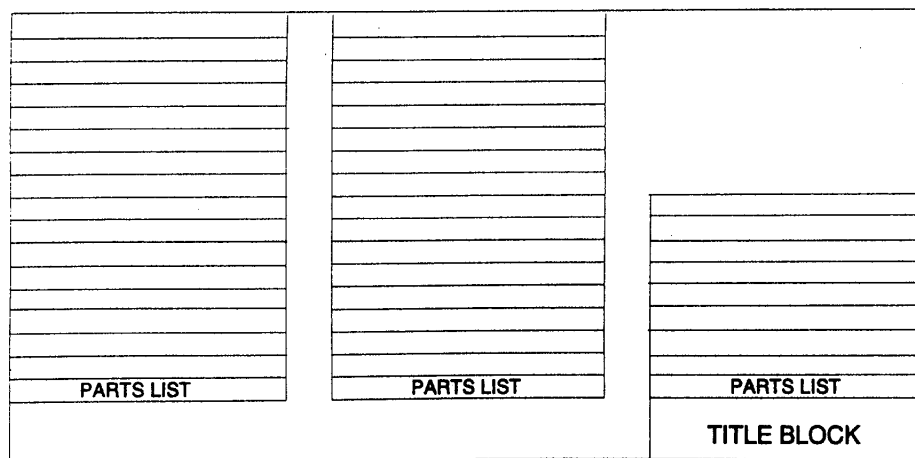
Parts lists shall be prepared for each assembly level drawing and may be prepared for other level drawings. An integral parts list may be prepared on drawing graphics sheets or on drawing sheets separate from the drawing

ing graphics sheets (see Figs. 2 and 3). A separate parts list shall be prepared separate from the drawing. In accordance with the following, some requirements apply to all methods, while others apply to only one method.



GENERAL NOTE: Parts list headings may be placed at the top of the sheet.

FIG. 2 INTEGRAL PARTS LIST—GRAPHIC SHEET OF DRAWING



GENERAL NOTE: Parts list headings may be placed at the top of the sheet.

FIG. 3 INTEGRAL PARTS LIST—SEPARATE SHEET OF DRAWING

5.1 Integral Parts List Format

5.1.1 Drawings may contain both a graphics presentation and an integral parts list on the same drawing sheet.

5.1.2 When an integral parts list is prepared as a separate sheet or sheets of the drawing, the size of the sheets shall be selected from ASME Y14.1 or ASME Y14.1M. The PL prefix shall not be used with integral parts lists.

5.1.3 When an integral parts list is included on a drawing sheet or sheets that denotes the graphic presentation, the heading shall be PARTS LIST, as shown in Fig. 2 or 3.

5.1.4 When an integral parts list is included as digital data files or manually prepared separate drawing sheets, the heading shall be PARTS LIST as shown in Fig. 3.

5.2 Heading Requirements

Parts list headings shall be in accordance with Fig. 1. The locations of heading information may vary to suit the needs of the design activity.

5.3 Integral and Separate Columnar Entries

5.3.1 The following columns apply to both integral and separate parts lists. See Fig. 4.

- (a) *Quantity Required*. This column is mandatory.
- (b) *Commercial and Government Entity Code (CAGE Code or CAGEC) in Accordance With Cataloging Handbook H4/H8*. This column is optional.
- (c) *Part or Identifying Number (PIN)*. This column is mandatory.
- (d) *Next Assembly*. This column is mandatory when application data is included in the parts list.
- (e) *Used on*. This column is mandatory when application data is included on the parts list.
- (f) *Nomenclature or Description*. This column is mandatory.
- (g) *Find Number*. This column is optional.

NOTE: Column (g) may be omitted when the required entries are not subject to frequent usage and the data required can be entered or referenced in another column (e.g., the remarks or note column) when the information is required.

(h) *Weights of Units and Assemblies*. This column is optional.

(i) *Notes or Remarks*. This column is optional. Use this column to denote such items as nuclear hardness critical or electrostatic discharge sensitive conditions, ven-

dor or source control items, or to identify notes providing information. As an alternative method, flag notes may be added adjacent to, or within, the related line entries to meet that intent. Other types of notes may be added or referenced in the column.

5.3.2 Optional columns may include but need not be limited to listing the following entries.

(a) *Unit of Measure*. Units of measure other than quantity may be entered in this column, or in the quantity column per Fig. 4.

(b) *Drawing or Document Number*. The following information may be entered:

(1) the document number applicable to the material from which a listed part delineated on the corresponding drawing is fabricated;

(2) the document number applicable to a listed item for which a designation type, class, condition, or other information has been entered in the part or identifying number column;

(3) the drawing number applicable to a listed item in the part or identifying number column;

(4) the document number when the part is defined by a number that must be decoded by using the procurement specification;

(5) referenced documents.

(c) A size column may be included to indicate the document size.

5.4 Sheet Numbering

Multisheet integral parts list shall be numbered as applicable sheet(s) of the multisheet drawing.

5.5 Location

Integral parts lists shall be located in accordance with Figs. 2 and 3.

5.6 Cross Reference

5.6.1 When separate parts lists are used, the engineering drawing with which the parts list is associated shall contain a cross reference note located above the title block. The recommended working of the note is "SEE SEPARATE PARTS LIST".

5.6.2 When application data is included on a separate parts list, the note required by para. 5.6.1 shall be expanded to read "SEE SEPARATE PARTS LIST FOR PARTS AND APPLICATION DATA".

① FIND NO	② QTY REQD	③ CAGE CODE	④ PART OR IDENT NO	⑤ NOMENCLATURE OR DESCRIPTION	⑥ NEXT ASSY	⑦ USED ON	⑧ WT	⑨ NOTES OR REMARKS
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Complete the parts list columns in accordance with the following parts list columnar information.

- ① FIND NO (Optional). Enter the identifying find number for each component of the assembly assigned a find number, in lieu of a part number, on the field of the drawing.
- ② QUANTITY REQUIRED (Mandatory). The number of these columns need not be limited to one. When additional columns are used, the numbers of columns shall be consistent with the number of assemblies appearing on the list. Each parts list sheet need only list assembly columns for those assemblies for which the sheet will list quantities. The head of each column shall indicate the part number suffix identifier of the assembly in which the listed item or items is used. As an alternative method for presenting quantities and other part numbers for multiple assemblies, particularly on digital parts lists, assembly listings may be stacked as individual horizontal listings. Part entries appear under each assembly heading. Column lengths will vary to suit each assembly.

The number entered in this column shall denote the quantity, volume, length, or other unit of measure required to complete one of the items to which the column applies. When this number applies to other than quantity, enter the unit of measure in this column or in an optional unit of measure column. When the exact amount of an item is not known, one of the following methods may be used.

- (a) Enter "AR" (as required) with no expression of amount.
- (b) Enter the numerical amount with "EST" (ESTimated) in this or the unit of measure column, or by a note on the parts list.

The find number column on the parts list and the quantity column can be used to indicate substitute parts or bulk items. The preferred item is indicated by entering the applicable find number in the find number column and the actual quantity required, if known, shall be shown in the quantity column. If the quantity is not known, see (a) and (b) above. The substitute item is indicated by entering the same find number (when find number system is used) as the preferred item in the find number column and the abbreviation SUB or ALT for substitute or alternative part shall be shown in the quantity column. See substitute or alternative parts example below. This procedure may also be used for the range of "select in test" items. When the find number system is not used, the substitution condition may be satisfied by reference to a note.

FIND NO	QTY	PART OR IDENT NO	NOMENCLATURE OR DESCRIPTION
15	8	MS9321-16	WASHER, FLAT - AMS 6320
15	SUB	MS9320-16	WASHER, FLAT - AMS 5510

Substitute or Alternative Parts Example

Symbols other than the above may be used for other conditions, provided they are explained on the parts list or on a referenced document.

- ③ CAGE CODE (When Applicable). Enter the Commercial and Government Entity Code assigned to the original design activity whose part or identifying number and reference documents appears in column ④. This may be omitted when the CAGE Code is identical to that in block ④ of Fig. 1.
- ④ PART OR IDENTIFYING NUMBER (PIN) (Mandatory). Enter the part or identifying number including the suffix identifier (when applicable) for each item on the parts list. When the part or identifying number exceeds 15 characters, it may be entered in the nomenclature or description column, or may be reidentified using an Identification Cross Reference Drawing. A line, arrow, or ditto marks may be used to indicate the identical portion of adjacent entries. The first and last entries of a series must be complete. When the identifying number applies to an item detailed on the engineering drawing with which the list is associated, and a suffix identifier system is used, only the suffix identifier need be entered.

FIG. 4 PARTS LIST COLUMN ENTRIES

When an item is controlled by a specification or standard and is individually identified by a part or identifying number, such as RNC55H1001FS, make this entry as part of the part or identifying number. When there is no coherent relationship between a part number and its parent document, such as RNC55H1001FS and MIL-R-55182/1, identify its parent document in a note or column in the using document or parts list. When specification or standard type, class, or condition are required for identification, such information shall be entered as part of the part or identifying number.

Parenthetical referencing between in-house, design agent, and design activity numbers, standard part numbers, or other numbers is permissible on parts lists if a note indicates that the parenthetical identification is for reference only. Parenthetical identities may be listed in the drawing or document number column.

- ⑤ NOMENCLATURE OR DESCRIPTION (Mandatory). Enter the assigned noun or noun phrase of the item whose identifying number appear in column ④.
- ⑥ NEXT ASSEMBLY. Required only when application data is included in the parts list. Enter the drawing number of the engineering drawing detailing the assembly of which the item is a component.
- ⑦ USED ON. Required only when application data is included in the parts list. Enter the model number, nomenclature, or the equivalent designator of the assembled unit(s) of which the item is a component.
- ⑧ WEIGHT (Optional).
- ⑨ NOTES OR REMARKS (Optional). Notes may be entered directly in this column or listed elsewhere on the parts list or the related drawing. When a drawing note is referenced by a note number on a separate parts list, the separate parts list shall identify that reference as a drawing note. Notes may be identified by letters, codes, or symbols. The identifications may be enclosed within symbols (flags) to designate specific applications. The following examples illustrate types of flag notes and symbol:

HCI = HARDNESS CRITICAL ITEM

CSI = CRITICAL SAFTEY ITEM

12 = DRAWING FLAG NOTE TEXT

For systems which cannot produce unique boxed symbols and other symbols, and for standard text, alternative symbols, such as *HCI*, -CSI-, *12*, in applicable note and text size, may be used.

FIG. 4 PARTS LIST COLUMN ENTRIES (CONT'D)

5.7 Notes

5.7.1 Drawing notes providing supplementary data may be referenced in the parts list. On a separate parts list, drawing notes shall be identified as such.

5.7.2 When note information is included on a separate parts list, and the clarity and understanding of the other information is not compromised, the note required by para. 5.6.1 shall be expanded to read "SEE SEPARATE PARTS LIST FOR PARTS AND NOTES".

5.8 Revisions to Integral Parts Lists

Revisions to integral parts lists shall be treated as revisions to the drawing.

5.9 Application Data

5.9.1 When application data is included on a parts list, the following columns are mandatory as noted (see Fig. 4).

(a) *Next Assembly*. The drawing number(s) of the next higher assembly drawing(s) to which the drawing applies.

(b) *Used on*. The model number(s), nomenclature, or equivalent designator(s) of the assembled unit(s) of which the drawing part(s) are a component.

(c) *Part or Identifying Number*. Part or identifying number requirements for application data shall be in accordance with Fig. 5, when the application data is not included with the column groupings of para. 5.3.1.

5.9.2 An application block, when used, as opposed to application data on parts lists, shall be in accordance with ASME Y14.1 or ASME Y14.1M.

5.9.3 For a separate application list, see para. 6.

6 SEPARATE APPLICATION LIST PREPARATION

6.1 Heading Requirements

Application list (AL) headings shall be in accordance with Fig. 1. The locations of heading information may vary to suit the needs of the preparing design activity.

6.2 Column Entries

The column entries in Fig. 5 shall apply, as a minimum, in preparation of a separate application list.

PART OR IDENTIFYING NUMBER ①	NEXT ASSEMBLY ②	USED ON ③
------------------------------------	--------------------	--------------

Complete the application list columns in accordance with the following.

- ① **PART OR IDENTIFYING NUMBER**. Enter the identifying number for each item detailed or assembled on the engineering drawing which is a component of an assembly detailed on another drawing. When the item is identified on the engineering drawing by an identifier suffix system, only that suffix need be entered.
- ② **NEXT ASSEMBLY**. Enter the part number of the engineering drawing detailing the assembly of which the item is a component.
- ③ **USED ON**. Enter the model number, nomenclature, or the equivalent designator of the system or end item of which the item is a component.

FIG. 5 APPLICATION LIST COLUMN ENTRIES

7 DATA LIST PREPARATION

cation of heading information may vary to suit the needs of the preparing design activity.

7.1 Heading Requirements

Data list (DL) headings shall include the information shown in Fig. 1, except where noted as optional. The lo-

7.2 Column Entries

See Fig. 6.

CAGE CODE ①	DWG SIZE ②	DOCUMENT NO ③	NO OF SHEETS ④	REV STATUS ⑤	NOMENCLATURE OR DESCRIPTION ⑥
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Complete the data list columns in accordance with the following.

- ① CAGE CODE (Optional). Enter the Commercial and Government Entity (CAGE) Code assigned to the original design activity whose document number is entered in column ③. When a government specification or standard is entered in column ③, no entry is required in column ①. When the CAGE Code is identical to that entered in block ④ of Fig. 1, no entry is required in column ①.
- ② DRAWING SIZE (Optional). Enter the size designation for the sheet of each drawing entered in column ③. When drawing consists of different size sheets, a separate line entry is required for each different sheet size.
- ③ DOCUMENT NUMBER (Mandatory). Enter the identifying number of each document applicable to the item. The drawings and other documents may be segregated into groups and presented as follows:
 - drawings
 - lists—as specified herein, and other lists (usage, inspection, equipment, or other)
 - specifications
 - standards
 - publications
 - other documents referenced on drawings and parts lists
 When lists are prepared using digital data, the sequence of groups is optional provided the separation of the groups is not violated.
- ④ NO OF SHEETS (Optional). The total number of sheets for drawings and lists is entered in this column. All other entries need not have the total number of sheets entered.
- ⑤ REVISION STATUS. Enter the latest revision status applicable to the document whose number appears in column ③.

NOTE: When revision status applicable to specific configuration identifications are maintained and provided as required through digital data systems, the use of column ⑤ is optional.

- ⑥ NOMENCLATURE OR DESCRIPTION. As a minimum, enter the assigned noun or noun phrase (title) of each document whose number appears in column ③.

FIG. 6 DATA LIST COLUMN ENTRIES

8 INDEX LIST PREPARATION

heading information may vary to suit the needs of the preparing design activity.

8.1 Heading Requirements

Index list (IL) headings shall be in accordance with Fig. 1, except where noted as optional. The locations of

8.2 Column Entries

See Fig. 7.

CAGE CODE ①	LIST NO ②	REV STATUS ③	LIST TITLE ④
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Complete the index list columns in accordance with the following.

- ① CAGE CODE (Optional). Enter the Commercial and Government Entity Code assigned to the design activity whose document number appears in column ②. When the CAGE Code is identical to that entered in item ④ of Fig. 1, do not repeat the number in column ①.
- ② LIST NUMBER (Mandatory). Enter the list number of each list and subordinate lists applicable to the item to which the list applies. Items may be grouped under the following headings as applicable:
 - data lists
 - index lists
 - indentured data list

When new entries are required as the result of revision action, the new entries may be added to the end of the existing list following the same sequence.
- ③ REVISION STATUS (Mandatory). Enter the latest revision status applicable to the data list or index list whose number appears in ②.
- ④ LIST TITLE (Mandatory). Enter the noun or noun phrase of each list whose number appears in ②.

FIG. 7 INDEX LIST COLUMN ENTRIES

9 INDENTURED DATA LIST PREPARATION

9.1 Format

The indentured data list (ID) shall consist of a header followed by a two part listing consisting of all documents comprising a technical data package.

9.2 Heading Requirements

Indentured data list headings shall include the information shown in Fig. 1, except where noted as optional. The location of heading information may vary to suit the need of the preparing design activity.

9.3 Part I Listing

9.3.1 Part I of the indentured data list shall identify all documents except standardization documents required to define an item, assembly, or system. The scope of documents covered is governed by the level to which the indentured data list is prepared. All documents listed for the complete system or end item shall be listed in a top-down breakdown order.

9.3.2 Column entries for Part I shall be in accordance with Fig. 8A.

DOC TYPE ①	INDENT LEVEL ②	DOC NO ③	NO OF SHEETS ④	CAGE CODE ⑤	REV ⑥	OUT CHGS ⑦	SOURCE CODE ⑧	RTS INFO ⑨	SPEC COND ⑩	REMARKS ⑪
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- ① TYPE OF DOCUMENT CODE (Optional). Enter the document type code as required by the procuring activity.
- ② INDENTURE LEVEL (Mandatory). Enter a numerical code to indicate the relationship of the document listed in ③ to the end item or system, and its subordinate assemblies and sub-assemblies. A two digit number shall be used beginning with 01 to indicate the top drawing indenture. Codes shall follow the pattern shown here:
- 01 12345 (drawing for complete system or configuration item)
 - 01 PL12345 (parts list for drawing 12345)
 - 02 S3245 (company standard listed in drawing 12345 notes)
 - 02 MKI37 (company part marking standard listed in the notes on drawing 12345)
 - 02 FIN3589 (company paint standard listed on drawing 12345)
 - 02 678910 (assembly drawing listed on drawing 12345)
 - 02 PL678910 (parts list for drawing 678910)
 - 02 S3245 (company standard listed in drawing 678910 notes)
 - 03 MKI37 (company part marking standard listed in the notes on drawing 678910)
 - 03 SCHM993 (schematic diagram listed on drawing 678910)
 - 03 WL993 (wire list called out on drawing 678910)
 - 03 13579 (assembly drawing listed on drawing 678910)
 - 03 PL13579 (parts list for drawing 13579)
 - 04 97531 (detail part drawing listed on drawing 13579)
 - 04 102030 (drawing for attached parts as listed on drawing 13579 parts list)
 - 04 19285 (part listed on drawing 13579)
 - 04 58291 (alternative part for 19285)
 - 05 112233 (detail part drawing listed on drawing 19285)
 - 05 86420 (drawing for attached parts listed on drawing 19285)
 - 06 S3245 (company standard listed in drawing 86420 notes)
 - 03 2DPK660 (detail part drawing listed on drawing 678910)
 - 02 7654321 (assembly drawing shown on drawing 123450)
 - 02 PL7654321 (parts list for drawing 7654321)
- ③ DOCUMENT NUMBER (Mandatory). Enter the complete document identification number for the document being listed. (A complete document identification number includes prefixes such as IL, DL, ID, AL, PL, and WL for associated lists.)
- (a) Alternative documents shall immediately follow primary documents at the same indenture level.
 - (b) Items listed in parentheses on the drawing and parts list are for reference only and shall not be recorded on the list.
 - (c) Drawing preparation documents and technical manuals shall not be included in the indentured data list.
- ④ NUMBER OF SHEETS (Optional). Enter the total number of sheets comprising the document listed in ③ when all sheets of the document are maintained at the same revision level, or when the document itself contains a listing of the revision status of sheets. If the total number of sheets exceeds 999, then "999" shall be the entry. If the sheets of the document listed in ③ are revised independently and the document does not contain revision status of its sheets listing, each sheet of the document shall be listed separately by its sheet number.
- ⑤ CAGE CODE (Optional). Enter the Commercial and Government Entity Code assigned to the document listed in ③.
- ⑥ REVISION LEVEL (Mandatory). The latest revision level applicable to the document listed in ③. If each sheet of the document is listed separately in ③, the entry is the revision level applicable to each sheet. For documents such as ASME, the entry shall be the last two digits of the date indicating the year of issue or reaffirmation date.
- ⑦ OUTSTANDING CHANGES (Optional). Enter the identification number of each change against a document that has not yet been incorporated into a new revision.

FIG. 8A INDENTURED DATA LIST COLUMN ENTRIES (PART I)

- ⑨ **SOURCE CODE (Optional).** When items are source coded, the source code assigned to the part identified in ③ shall be entered as follows:
- A nonprocurable assembly which can be built up from details at any maintenance level
 - A1 same as A, but depot level only
 - M field manufacture, procurement not justified
 - M1 same as M, but depot level manufacture only
 - P6 parts procurable by open competition
 - P7 parts procurable only from selected sources
 - P8 parts which must be procured from a sole source
 - U documents and parts which are not significant to the maintenance of the item or system
- ⑩ **RIGHTS INFORMATION (Mandatory).** For documents which have an unlimited right to use, enter U. For documents which have only a limited right to use, enter L.
- ⑪ **SPECIAL CONDITIONS (Optional).** Enter the identification of special conditions noted on the listed documentation. These conditions are identified with the following codes. Additional codes may be used, but must be defined at the end of the list.
- CSI critical safety item
 - CSP critical safety process
 - ENI environmental impact items
 - ESD electrostatic discharge sensitive devices
 - ESS environmental stress screening
 - HAZ HAZardous conditions, processes, or materials
 - HCI hardness critical item
 - HCP hardness critical process
 - INT INTerface control
 - I/R interchangeability/replaceability
 - OCI observable critical item
 - OCP observable critical process
 - ODS ozone depleting substances
- ⑫ **REMARKS (Optional).** Enter any appropriate explanatory remarks or notations that may be useful or informative regarding the entries in any of the preceding elements.

FIG. 8A INDENTURED DATA LIST COLUMN ENTRIES (PART I) (CONT'D)**9.4 Part II Listing**

9.4.1 Part II of the indentured data list shall identify all standardization documents cited or referenced in the documents listed in Part I.

9.4.2 Part II entries shall follow the last entry in Part I and shall be in accordance with Fig. 8B.

CAGE CODE	DOCUMENT IDENTIFIER	DOCUMENT TITLE
①	②	③

- ① CAGE CODE (Optional).
- ② DOCUMENT IDENTIFIER (Mandatory). Enter the document identifier with applicable revision level indicator.
- ③ DOCUMENT TITLE (Mandatory). Enter the document title or, if the document has no title, a short descriptive phrase.

FIG. 8B INDENTURED DATA LIST COLUMN ENTRIES (PART II)

10 WIRE LIST PREPARATION

10.1 Format

10.1.1 A wire list (WL) provides the information necessary for making wiring connections for one or more related assemblies. A separate wire list or an integral wire list may be prepared on drawing graphics sheets or separate from the drawing graphics sheets similar to parts lists in Figs. 2 and 3. A wire list includes, as applicable:

- (a) location identification and termination methods for each end of wire terminating on associated drawing;
- (b) a description of each wire (type, size, and color);
- (c) connection of items with wire leads;
- (d) material (wire, sleeving, other required material) and process requirements for connections when they are not specified on the associated drawing;
- (e) reference to the associated drawing, connection diagram, interconnection diagram, or wiring harness drawing.

10.1.2 When an integral wire list is prepared as separate sheets of the drawing, the size of the sheets shall be selected from ASME Y14.1 or ASME Y14.1M.

10.2 Heading Requirements

Wire list headings shall include the information shown in Fig. 1, except where noted as optional. The location of heading information may vary to suit the needs of the design activity.

10.3 Column Entries

Columnar arrangement of wire lists may be in accordance with Fig. 9 or may vary to suit the design activity.

WIRE NO ①	COLOR ②	SIZE ③	WIRE RUNS				FUNCTION ROUTING REMARKS ⑧	APPROX LENGTH ⑨	USE FIND NO ⑩
			FROM ④	NOTE OR VIEW ⑤	TO ⑥	NOTE OR VIEW ⑦			

- ① WIRE NO (Mandatory). Enter the wire numbers in consecutive order or in an order dictated by the terminal component. Single wires are listed by number only. Multiple wires are listed by a number and may also have consecutive alpha characters assigned. If a wire is deleted, that wire number shall not be used for another purpose.
- ② COLOR (Mandatory). Enter the color of each wire, using abbreviations. If wires are multi-color, separate the colors with a / (slash).
- ③ SIZE AWG or METRIC (Mandatory). Enter the gauge of each wire.
- ④ FROM (Mandatory). Identification of the wire originating point (e.g., reference designator, terminal component, etc.), or the wiring harness stitch location of the wire or cable.
- ⑤ NOTE OR VIEW (Optional). Any information or view identification on the assembly drawing for connecting the wire.
- ⑥ TO (Mandatory Except for Installation Drawings Installing a Harness Assembly). Identification of the wire terminating point, or the wiring harness stitch location of the wire or cable.
- ⑦ NOTE OR VIEW (Optional). Any information or view identification on the associated drawing for connecting the wire.
- ⑧ FUNCTION, ROUTING, REMARKS (Optional). The function or designation of the wire from the associated schematic or wiring diagram. Any specific routing requirements or remarks.
- ⑨ APPROX LENGTH (Optional). The approximate length of the wire.
- ⑩ FIND NO (Mandatory). The item's find number on the associated parts list. Note: When the item find number system is not used, PIN shall be used as the column header and the item's part number shall be entered in the column.

FIG. 9 WIRE LIST COLUMN ENTRIES

[illegible]

FIG. 10A SEPARATE PARTS LIST FORMAT (EXAMPLE 1)

PARTS LIST AJAX CO. INC.				CONTRACT NO		CAGE CODE		PL 3115AS2014		REV A	
TITLE: PWB ASSY, END ITEM BUFFER I/O				N00123-94-C-6007		00000		PIN 3115AS2014-1		SHEET 1 OF 1	
										REV. AUTH. NO.: H12345	
										DATE: 95/05/10	
										APPROVED: R. DE BOLT	
FIND NO.	QTY U/M	CAGE CODE	DRAWING OR DOCUMENT NO	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	SUPPLEMENTARY PART/IDENT NO		NOTES			
001	1.0000.			.3115AS2016	.PWB, I/O BUFFER						
002	EA										
002	1.0000.			.30809-982	.PANEL, AOA						
003	EA										
003	1.0000.			.20817-330	.EXTR HANDLE - TOP						
004	KT										
004	1.0000.			.20817-329	.EXTR HANDLE-BOTTOM						
005	KT										
005	1.0000.			.21100-745	.MOUNTING KIT						
006	EA										
006	4.0000.96906.			.MS51957-5	.SCREW						
007	EA										
007	8.0000.80205.			.NAS620C2	.WASHER						
008	EA										
008	4.0000.96906.			.MS35338-134	.WASHER						
009	EA										
009	4.0000.80205.			.NAS671C2	.NUT						
	EA										
C 001	1.0000.81349.	MIL-C-39006/25		.M39006/25-0226	.086-56						
	EA				.CAPACITOR						
C 002	1.0000.81349	MIL-C-39006/25		.M39006/25-0226	.33UF-10-50						
	EA				.CAPACITOR						
C 003	1.0000.81349.	MIL-C-39014/5		.M39014/05-2255	.33UF-10-50						
	EA				.CAPACITOR						
C 004	1.0000.81349.	MIL-C-39014/5		.M39014/05-2255	.01UF-10-50						
	EA				.CAPACITOR						
	EA				.01UF-10-50						

***** END OF PARTS LIST *****

FIG. 10B SEPARATE PARTS LIST GENERATED FROM DIGITAL DATA (EXAMPLE 2)

[illegible]

DESIGN ACTIVITY		CONTRACT NO	CAGE CODE	IDENT NO	REV	
DATA LIST	FRANKFORT ARSENAL PHILADELPHIA, PA	A00000-88-A- 000	19200	8267742	C	
LIST TITLE	END ITEM	APPROVED		REV AUTH NO	SH	
SEGMENT ASSY	8267750	R. TREMBLER		MCO 12345-1	1	
CAGE CODE	PREFIX CODE	DWG SIZE	DOCUMENT NO	NO OF SHTS	NOMENCLATURE OR DESCRIPTION	NOTES
	PS	A	7586885	1	NUT, ROUND	
			PS7586885	1	PKG DATA SHEET - NUT, ROUND	
		A	7586885	1	RETAINER	
	PS		PS7586885	1	PKG DATA SHEET, NUT, ROUND	
		C	8667742	1	SEGMENT ASSEMBLY	
	PL		PL867742	1	PARTS LIST - SEGMENT ASSEMBLY	
96906			MS51960	1	SCREW, MACH, FL, CTSK, HD, 82DEG CR REC, CRES ST, UNF-2A	

FIG. 11B DATA LIST GENERATED FROM DIGITAL DATA (EXAMPLE 2)

[illegible]

FIG. 12 INDEX LIST FORMAT

ASSOCIATED LISTS

ASME Y14.34M-1996

APPLICATION LIST	AJAX CO. INC.	CONTRACT NO	CAGE CODE	AL 15-P38795P	REV A
		N00000-94-C-0000	00000	PIN 15-P38795P001	SHEET 1
TITLE: LID, HYBRID	END ITEM	15-P38000P	REV. AUTH. NO: H12345		DATE: 95/05/10
			APPROVED: R. DE BOLT		
PART OR IDENTIFYING NUMBER		NEXT ASSEMBLY		USED ON	
15-P38795P001		01-P38791P001		ATRM	
15-P38795P001		01-P39871P001		ATRM	

FIG. 13 APPLICATION LIST GENERATED FROM DIGITAL DATA

WIRE LIST			DESIGN ACTIVITY AJAX CO. INC.		CONTRACT NO N00000-95-C-0000		CAGE CODE 00000	IDENTIFYING NO WL01-P38791P		REVISION A	
LIST TITLE CHASSIS ASSY			END ITEM 01-P-38700P		APPROVED R. DE BOLT		REV AUTH NO MCO 15234-4		SHEET 1 OF 4 SHTS		
WIRE NO	COLOR	SIZE AWG	WIRE RUNS				FUNCTION ROUTING REMARKS	APPROX LENGTH	USE FIND NO		
			FROM	NOTE OR VIEW	TO	NOTE OR VIEW					
1A	WHT	22	FL22-2		J1-3		F/F PH TX+		28		
1B	BLUE	22	FL23-2		J1-4		F/F PH TX-		28		
1C	SHIELD		FL22- 2/FL22-3		J1-3/J1-4		GND		28		
2A	WHT	22	FL20-2		J1-1		F/FPHCV+		28		
2B	BLU	22	FL21-2		J1-2		F/FPHCV-		28		
2C	SHIELD		FL20- 2/FL21-2		J1-1/J1-2		GND		28		
3A	WHT	22	FL26-2		J1-8		R/FPHTX+		28		
3B	BLU	22	FL27-2		J1-9		R/FPHTX+		28		
3C	SHIELD	22	FL26- 2/FL27-2		J1-8/J1-9		GND		28		
4A	WHT	22	FL24-2		J1-6		R/FPHCV+		28		
4B	BLU	22	FL25-2		L1-7		R/FPHCV-		28		
4C	SHIELD		FL24/FL25 -7		J1-6/J1-7		GND		28		
5	GRN	22	FL22/23 SHIELD	D	FL20/21 SHIELD	D	GND		21		
6	GRN	22	FL20/21 SHIELD	D	FL24/25 SHIELD	D	GND		21		
7	GRN	22	FL24/25 SHIELD	D	FL26/27 SHIELD	D	GND		21		

FIG. 14 WIRE LIST FORMAT

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RELATED DOCUMENTS

Abbreviations	Y1.1-1989
Engineering Drawing and Related Documentation Practices	
Decimal Inch Drawing Sheet Size and Format	Y14.1-1995
Metric Drawing Sheet Size and Format	Y14.1M-1995
Line Conventions and Lettering	Y14.2M-1992
Multiview and Sectional View Drawings	Y14.3M-1994
Pictorial Drawings	Y14.4M-1989(R1994)
Dimensioning and Tolerancing	Y14.5M-1994
Mathematical Definition of Dimensioning and Tolerancing Principles	Y14.5.1M-1994
Certification of Geometric Dimensioning and Tolerancing Professionals	Y14.5.2-1995
Screw Thread Representation	Y14.6-1978(R1993)
Screw Thread Representation (Metric Supplement)	Y14.6aM-1981(R1993)
Gears and Splines	
Spur, Helical, Double Helical and Racks	Y14.7.1-1971(R1993)
Bevel and Hypoid Gears	Y14.7.2-1978(R1994)
Castings and Forgings	Y14.8M-1996
Mechanical Spring Representation	Y14.13M-1981(R1992)
Optical Parts	Y14.18M-1986(R1993)
Types and Applications of Engineering Drawings	Y14.24M-1989
Chassis Frames — Passenger Car and Light Truck — Ground Vehicle Practices	Y14.32.1M-1994
Associated Lists	Y14.34M-1996
Revision of Engineering Drawings and Associated Documents	Y14.35M-1992
Surface Texture Symbols	Y14.36M-1996
A Structural Language Format for Basic Shape Description	Y14 Technical Report 4-1989
Graphic Symbols for:	
Pipe Fittings, Valves, and Piping	Y32.2.3-1949(R1994)
Heating, Ventilating, and Air Conditioning	Y32.2.4-1949(R1993)
Heat Power Apparatus	Y32.2.6-1950(R1993)
Plumbing Fixtures for Diagrams Used in Architecture and Building Construction	Y32.4-1977(R1994)
Railroad Maps and Profiles	Y32.7-1972(R1994)
Fluid Power Diagrams	Y32.10-1967(R1994)
Process Flow Diagrams in Petroleum and Chemical Industries	Y32.11-1961(R1993)
Mechanical and Acoustical Elements as Used in Schematic Diagrams	Y32.18-1972(R1993)

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