

ASME Y14.34-2008

(Revision and Redesignation of ASME Y14.34M-1996)

Associated Lists

Engineering Drawing and Related Documentation Practices

AN AMERICAN NATIONAL STANDARD



**The American Society of
Mechanical Engineers**



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Mechanical Engineers**



Date of Issuance: January 20, 2009

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FOREWORD

This Standard establishes the requirements for associated lists and ties them together with the engineering drawing and related documentation practices in the Y14 series. It is not the intent of this Standard to be a stand-alone document. An accurate perception of associated lists practices is derived by treating ASME Y14.34, ASME Y14.100, ASME Y14.24, and ASME Y14.35M as a composite set.

This Standard is a revision of ASME Y14.34M-1996, Associated Lists. Changes contained in this revision are intended to improve standardization and harmonize practices and methodology between industry and government. See the Summary of Changes page for a list of revisions in this edition.

The successful revision of this Standard is attributed to the subcommittee members and their respective companies, and the department and agencies of the U.S. government.

Suggestions for improvement of this Standard are welcome. They should be sent to The American Society of Mechanical Engineers, Secretary, Y14 Standards Committee, Three Park Avenue, New York, NY 10016-5990.

This revision was approved as an American National Standard on July 29, 2008.

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Engineering Drawing and Related Documentation Practices

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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.

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Attending Committee Meetings. The Y14 Standards Committee regularly holds meetings or telephone conferences, which are open to the public. Persons wishing to attend any meeting or telephone conference should contact the Secretary of the Y14 Standards Committee or check the ASME Web site at <http://cstools.asme.org>.

ASME Y14.34-2008

SUMMARY OF CHANGES

Following approval by the ASME Y14 Committee and ASME, and after public review, ASME Y14.34-2008 was approved by the American National Standards Institute on July 29, 2008.

ASME Y14.34-2008 includes editorial changes, revisions, and corrections introduced in ASME Y14.34M-1996, as well as the following changes identified by a margin note, (08).

<i>Page</i>	<i>Location</i>	<i>Change</i>
1	1	Revised
	2.2	Revised
	2.3	Added
	3	Revised in its entirety
3	4	(1) Paragraphs 4.1.2, 4.3, and 4.6 revised (2) Paragraphs 4.6.1, 4.6.2, and 4.7 added
	5	Revised in its entirety
4, 5	6	Revised in its entirety
	7	(1) Paragraphs 7.1 and 7.2 revised (2) Paragraph 7.3 added
	8	(1) Paragraphs 8.1 and 8.2 revised (2) Paragraph 8.3 added
	9	Revised in its entirety

NOTE:

Figures in this document have been revised and renumbered. Former Figs. 8A and 8B have been deleted, and Figs. 11B, 12A, and 13B have been added.

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ASSOCIATED LISTS

(08) 1 SCOPE

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

2 APPLICABLE DOCUMENTS

The following revisions of American National Standards 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.

2.1 American National Standards

ASME Y14.1-2005, Decimal Inch Drawing Sheet Size and Format
 ASME Y14.1M-2005, Metric Drawing Sheet Size and Format
 ASME Y14.2M-1992, Line Conventions and Lettering
 ASME Y14.24-1999, Types and Applications of Engineering Drawings
 ASME Y14.35M-1997, Revision of Engineering Drawings and Associated Documents
 ASME Y14.41-2003, Digital Product Definition Data Practices
 ASME Y14.42-2002, Digital Approval System
 ASME Y14.44, Reference Designations for Electrical and Electronic Parts and Equipment (in preparation)
 ASME Y14.100-2004, Engineering Drawing Practices
 Publisher: The American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016-5990; Order Department: 22 Law Drive, P.O. Box 2300, Fairfield, NJ 07007-2300

(08) 2.2 United States Government Documents

Cataloging Handbook H4/H8, Commercial and Government Entity (CAGE)
 Publisher: DLIS-VSS Customer Contact Center, Defense Logistics Information Service, 74 Washington Avenue North, Battle Creek, MI 49017-3084

2.3 Figures

(08)

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 were deliberately left incomplete to illustrate a concept or facet thereof. The absence of figures has no bearing on the applicability of the stated requirements or practice.

3 DEFINITIONS

(08)

3.1 Alphanumeric Arrangement

alphanumeric arrangement: an ordered grouping of symbols, numbers, and letters used to form an identification.

3.2 Application Data

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.

3.3 Application List (AL)

application list (AL): application data presented in a separate list (see Figs. 12A and 12B).

3.4 Approval

approval: an indication that the document meets requirements for preparation and content (see Fig. 1).

3.4.1 Approval Indicator

approval indicator: any symbol adopted by the design activity to indicate approval (see ASME Y14.42).

3.5 Associated List

associated list: a tabulation of engineering information pertaining to an item depicted on an engineering drawing or by a set of drawings, e.g., application list, data list, index list, parts list, and wire list.

3.6 Bulk Items

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

- (a) the quantity required cannot not readily be 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 as shears, pliers, or knives, without further machining operation

(d) the final configuration is such that it can be described in writing without the necessity of pictorial representation (see ASME Y14.100).

3.7 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. Refer to Cataloging Handbook H4/H8 (see ASME Y14.100).

3.8 Data List (DL)

data list (DL): a tabulation of all engineering drawings, associated lists, specifications, standards, and subordinate data lists pertaining to the item(s) to which the data list applies, and essential in-house documents necessary to meet the technical design disclosure requirements, except for those in-house documents referenced parenthetically (see Figs. 10A and 10B).

3.9 Design Activity

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

3.9.1 Current Design Activity

current design activity: 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 (see ASME Y14.100).

3.9.2 Original Design Activity

original design activity: the design activity originally responsible for the design and identification of an item, whose drawing number and activity identification is shown in the title block of the drawings and associated documents (see ASME Y14.100).

3.10 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 (see ASME Y14.100).

3.11 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 the production of layouts, drawings, numerical control tapes, or other engineering data (see ASME Y14.100).

3.12 Document

document: a term applicable to the specifications, drawings, lists, standards, pamphlets, reports, and printed, typewritten, or otherwise created information relating to the design, procurement, manufacture, testing, or acceptance inspection of items or services (see ASME Y14.100).

3.13 Drawing

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

3.14 Engineering Data

engineering data: engineering documents such as drawings, associated lists, accompanying documents, specifications, standards, or other information prepared or used by a design activity and relating to the design, manufacture, procurement, testing, or inspection of items (see ASME Y14.100).

3.15 Find Number or Item Number

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.

NOTE: Reference designations for electrical and electronic parts and equipment, in accordance with ASME Y14.44, may be used as find numbers or item numbers.

3.16 Flag Note

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.

3.17 Identification Cross-Reference Drawing

identification cross-reference drawing: an administrative-type drawing that assigns unique identifiers to provide a cross-reference to the original incompatible identifiers (see ASME Y14.24).

3.18 Index List (IL)

index list (IL): a tabulation of data lists and subordinate index lists pertaining to the item(s) to which the index list applies (see Figs. 11A and 11B).

3.19 Item

item: a nonspecific term used to denote any unit or product, including materials, parts, assemblies, equipment, accessories, and computer software (see ASME Y14.100).

3.20 Parts List (PL)

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

3.20.1 Integral Parts List

integral parts list: a parts list prepared and revised as part of an engineering drawing (see Fig. 4).

3.20.2 Separate Parts List

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. 9A and 9B).

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

3.21 Revision Authorization Document

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) (see ASME Y14.35).

3.22 Wire List

wire list (WL): a list of tabular data and instructions necessary to establish wiring connections (see Figs. 13A and 13B).

(08) 4 COMMON REQUIREMENTS FOR ASSOCIATED LISTS

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 when the machine operation can provide data in similar format.

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 initially be numbered consecutively with whole Arabic numbers. The total quantity of sheets shall be entered on the cover sheet, first sheet, or the last sheet. In lieu of total quantity of sheets, a statement such as "END OF LIST" may be added on the last sheet. The total quantity of sheets shall be the actual sheet count.

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 as detailed in paras. 4.5.1 through 4.5.3.

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

4.5.2 In lieu of a REVISION DATE and REV AUTHORIZATION NO 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

4.6.1 The requirements in Fig. 1 shall apply to each sheet in preparation of associated lists heading information, except where noted as optional. The locations of heading information may vary to suit the needs of the preparing activity.

4.6.2 Continuation sheets of an associated list may limit heading information to DAI, IDENTIFYING NO, REVISION, and SHEET.

4.7 List Identification

List identification is established through the associated drawing number or part or identifying number (PIN) and the original design activity identification (DAI). The list number of an associated list is established by a prefix, such as AL, DL, IL, PL, or WL, and its separate associated drawing number or PIN as applicable.

5 PARTS LIST PREPARATION

(08)

A parts list shall be prepared for each assembly drawing and may be prepared for other drawings. An integral parts list may be prepared on drawing graphic sheets or on drawing sheets separate from the drawing graphic sheets (see Figs. 2 and 3). A separate parts list shall be prepared separate from the drawing. Parts list columnar heading may be placed at the top or bottom of columns (see Figs. 2 and 3). In accordance with the following,

some requirements apply to all methods, while others apply to only one method. When application data is included in a parts list, it shall be entered in the NEXT ASSY and USED ON columns of Fig 4.

5.1 Integral Parts List Format

When an integral parts list is prepared as a separate sheet or sheets of the drawing, the size of the sheets should be the same size as the other sheets of the drawing. The PL prefix shall not be used with integral parts lists.

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

5.1.2 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.

5.1.3 Each sheet of an integral parts list shall be numbered as a sheet(s) of the drawing.

5.1.4 An integral parts list shall be located in accordance with Figs. 2 and 3.

5.2 Separate Parts List Format

5.2.1 Heading Requirements. For heading requirements, see para. 4.6.

5.2.2 Cross-Reference

5.2.2.1 When a separate parts list is used, the engineering drawing with which the parts list is associated shall contain a cross-reference note, e.g., "SEE SEPARATE PARTS LIST." For manually prepared drawings, the cross-reference note shall be located above the title block. For electronically prepared drawings, the cross-reference note shall be located in the general notes (see ASME Y14.41).

5.2.2.2 When drawing data, e.g., notes, application data, and wire data, are provided on a separate parts list, a note with content and location similar to that required by para. 5.2.2.1 shall be used.

5.3 Integral and Separate Columnar Entries

5.3.1 The column entries shall include the mandatory information shown in Fig. 4. Other information may also be included.

Other types of notes may be added or referenced in the NOTES OR REMARKS column.

5.3.2 Optional columns may be included, 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) *Size.* A SIZE column may be included to indicate the document size.

(d) *Materials.* A MATERIALS column may be included to specify material used in the fabrication of items detailed on the related drawing. An included materials column may also be used to delineate materials used in subordinate details, assemblies, and items identified on control or modifying drawings.

6 APPLICATION LIST PREPARATION

(08)

6.1 Integral Application List

When application data is provided integral to the drawing but separate from an integral parts list, the data shall be presented in an application block per ASME Y14.1 or ASME Y14.1M.

6.2 Separate Application List

6.2.1 Heading Requirements. For heading requirements, see para. 4.6.

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

7 DATA LIST PREPARATION

(08)

7.1 Heading Requirements

For heading requirements, see para. 4.6.

7.2 Content

Data list entries shall be segregated into the following order of groups:

- (a) drawings
- (b) lists — as specified herein, and other lists (usage, inspection, equipment, or other)
- (c) specifications
- (d) standards
- (e) publications
- (f) other documents referenced on drawings and associated lists

Listings within each group should be arranged by DAI and further listed in alphanumeric arrangement.

NOTE: When lists are prepared using digital data, the sequence of groups is optional, provided the segregation of groups is maintained. When revising manually prepared lists, the new entries may be added to the end of the existing list following the same sequence.

7.3 Column Entries

Complete the data list columns in accordance with Fig. 6.

(08) 8 INDEX LIST PREPARATION

8.1 Heading Requirements

For heading requirements, see para. 4.6.

8.2 Content

Index list entries shall be segregated into the following order of groups:

- (a) data lists
- (b) index lists

Listings within each group should be arranged by DAI and further listed in alphanumeric arrangement.

NOTE: When lists are prepared using digital data, the sequence of groups is optional, provided the segregation of groups is maintained. When revising manually prepared lists, the new entries may be added to the end of the existing list following the same sequence.

8.3 Column Entries

Complete the index list columns in accordance with Fig. 7.

9 WIRE LIST PREPARATION

(08)

9.1 Heading Requirements

For heading requirements, see para. 4.6.

9.2 Content

9.2.1 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

9.2.2 When an integral wire list is prepared as a separate sheet or sheets of the drawing, the size of the sheets should be the same size as the other sheets of the drawing. The WL prefix shall not be used with integral wire lists.

9.3 Column Entries

Columnar arrangement of wire lists may be in accordance with Fig. 8, or may vary to suit the design activity.

Fig. 1 Separate List Heading

LIST TYPE ①	DESIGN ACTIVITY ②	CONTRACT NO ③	DAI ④	LIST NO ⑤	REVISION ⑥
LIST TITLE ⑦	END ITEM ⑧	APPROVED ⑨	REV AUTHORIZATION NO ⑩	SHEET ⑪	

- ① **LIST TYPE** (Mandatory). Enter **APPLICATION LIST**, **DATA LIST**, **INDEX LIST**, **PARTS LIST**, or **WIRE LIST** (as applicable).
- ② **DESIGN ACTIVITY** (Optional). Enter the name of the original design whose DAI appears in block ④. When the Design Activity name and address is being used as the DAI and is the same as block ④ then block ② may be left blank.
- 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 **DAI** (Mandatory). Enter the identification of the original design activity for the drawing number that is called out. When the CAGE Code is not used, identify by Flag note the type of Design Activity Identification (DAI) that is being used.
- ⑤ **LIST NO** (Mandatory). Enter the list number assigned to the list.
- 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** (Mandatory). 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 **APPROVED** (Mandatory). An approval indicator of the preparing design activity shall be entered on the first sheet. The entry may be handwritten, lettered, or mechanically printed.
- ⑩ **REV AUTHORIZATION NO** (Mandatory). The number of the revision authorization document shall be entered when a revision description or revision record is not provided.
- ⑪ **SHEET** (Mandatory). Enter sheet number.

Fig. 2 Integral Parts List — Graphic Sheet of Drawing

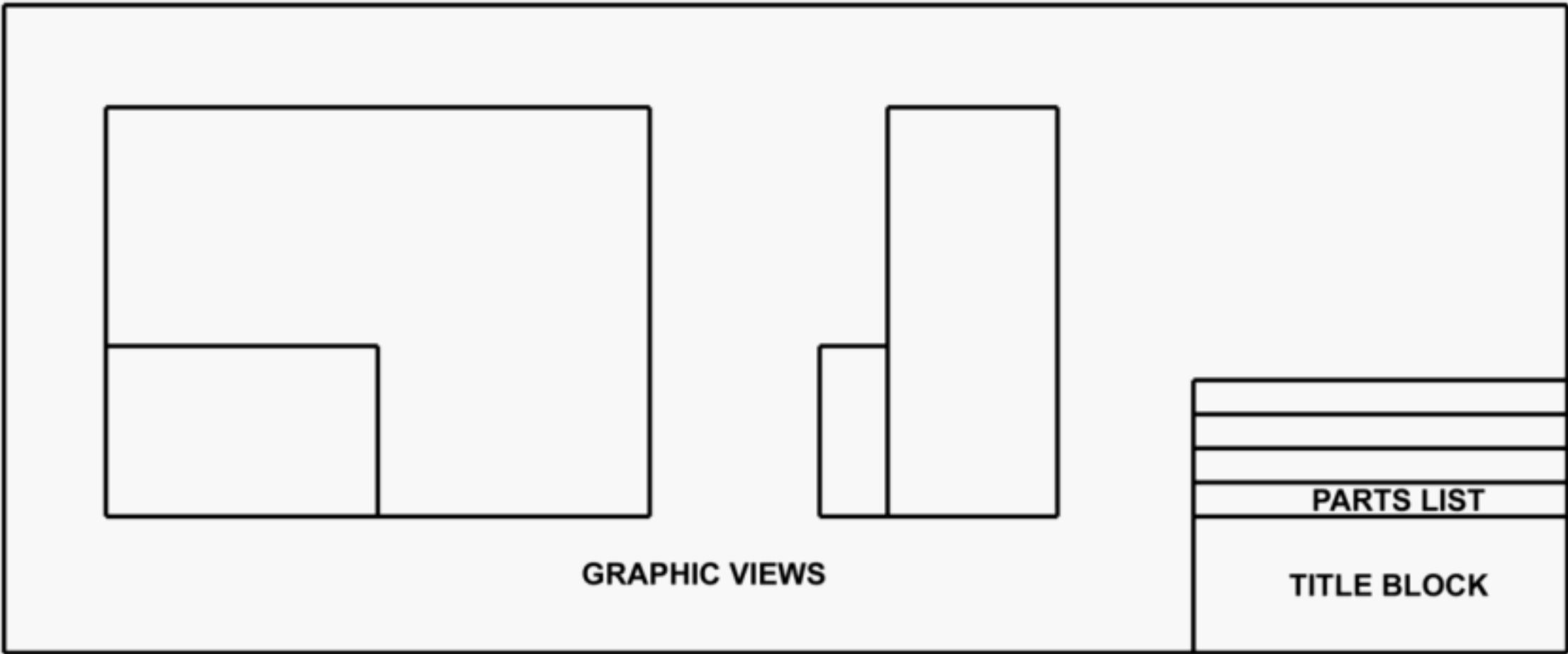
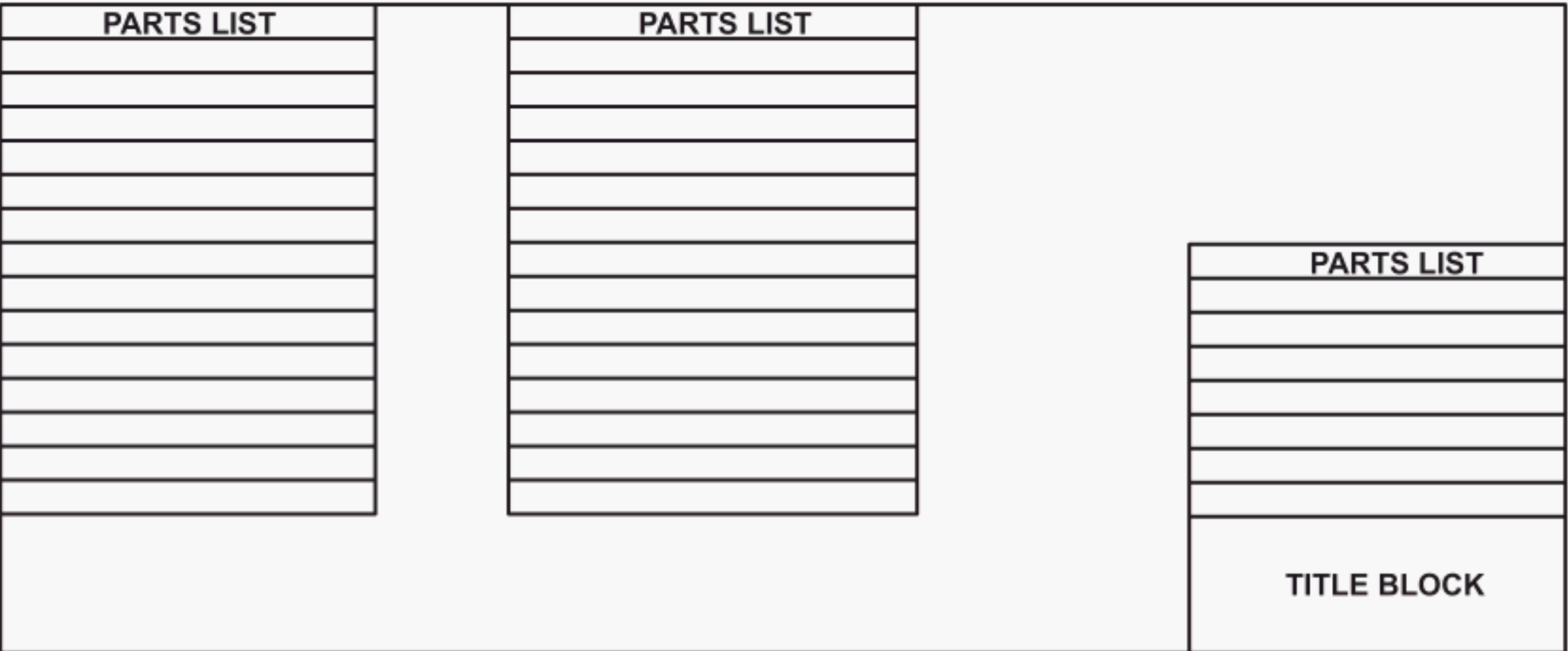


Fig. 3 Integral Parts List — Separate Sheet of Drawing



OR

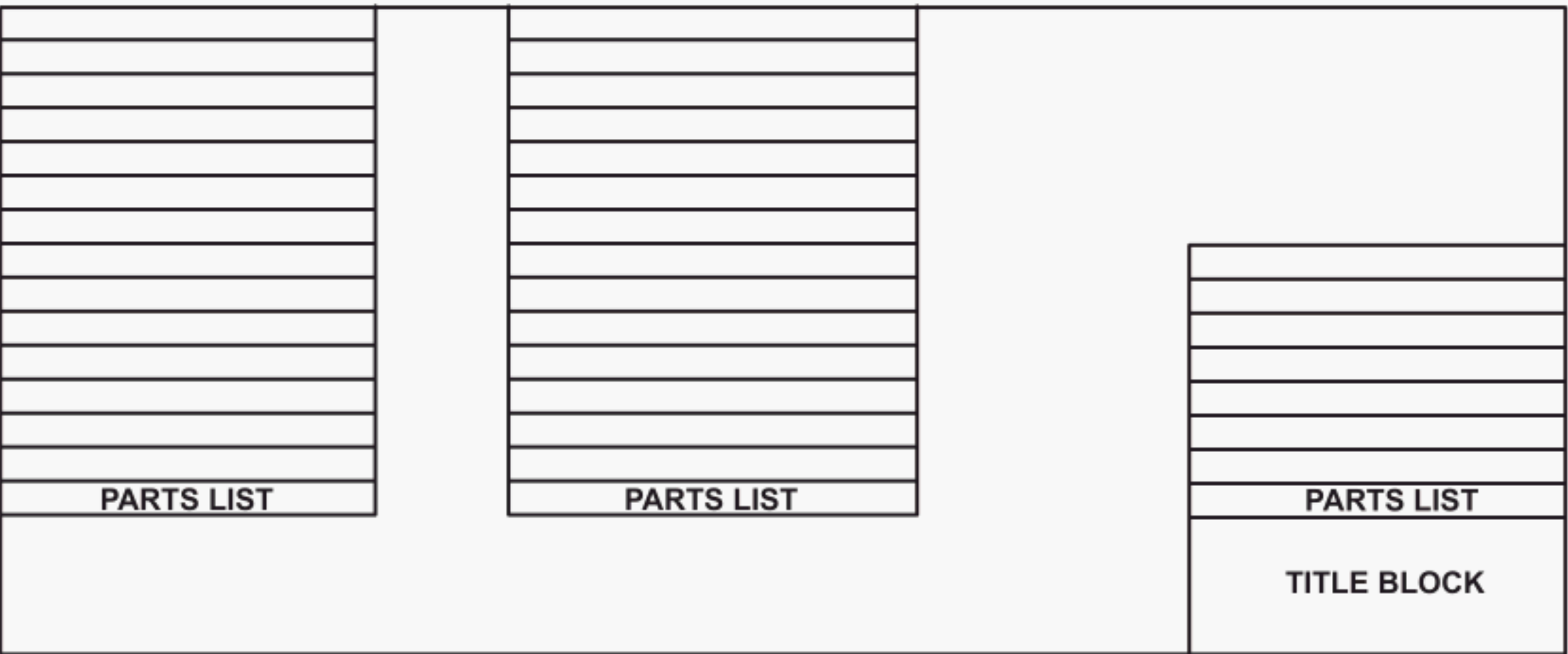


Fig. 4 Parts List Column Entries

① FIND NO	② QTY REQD	③ DAI	④ PART OR IDENT NO	⑤ NOMENCLATURE OR DESCRIPTION	⑥ NEXT ASSY	⑦ USED ON	⑧ WT	⑨ NOTES OR REMARKS
-----------------	------------------	----------	--------------------------	-------------------------------------	-------------------	-----------------	---------	--------------------------

- 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 **QTY REQD** (Mandatory). The number of these columns need not be limited to one. When additional columns are used, the number 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 optional unit of measure column. When the exact quantity of an item is not known, one of the following methods may be used.

(a) Enter "**AR**" (as required) with no expression of quantity.

(b) Enter the numerical quantity 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, when known, shall be shown in the quantity column. When the quantity is not known, see (a) or (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 **SUBST** or **ALTN** 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 REQD	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
15	8	MS9321-16	WASHER, FLAT - AMS 6320
15	SUBST	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 **DAI** (Mandatory). When required for identification of the original design activity for the drawing number that is called out. When the CAGE Code is not used, identify by Flag note the type of Design Activity Identification (DAI) that is being used. When the Design Activity, name and address is being used as the DAI and is the same as Block ② in Figure 1, this block may be left blank.

- ④ **PART OR IDENT NO (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 the available space, 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 associated engineering drawing and a suffix identifier system is used, only the suffix identifier is entered.

Fig. 4 Parts List Column Entries (Cont'd)

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, and design activity numbers, standard part numbers, or other numbers is permissible on parts list when a note indicates that the parenthetical identification is for reference only. Parenthetical identifiers 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 appears in column ④.
- ⑥ **NEXT ASSY.** Required only when application data is included in the parts list. Enter the drawing number(s) or PIN of the next higher assembly(ies) to which the drawing applies. When there are multiple next assemblies a separate line entry is required.
- ⑦ **USED ON.** Required only when application data is included in the parts list. Enter the model number or the equivalent designator of the system or end item.
- ⑧ **WEIGHT** (Optional).
- ⑨ **NOTES OR REMARKS** (Optional). This column may be used to denote such items as nuclear hardness critical or electrostatic discharge sensitive conditions, vendor 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. 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 symbols:

HCI = HARDNESS CRITICAL ITEM

CSI = CRITICAL SAFETY ITEM

12 = DRAWING FLAG NOTE TEXT

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

Fig. 5 Application List Column Entries

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

- 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 drawing number(s) or PIN of the next higher assembly(ies) to which the drawing applies. When there are multiple next assemblies a separate line entry is required.
- ③ **USED ON.** Enter the model number or the equivalent designator of the system or end item.

Fig. 6 Data List Column Entries

DAI ①	DWG SIZE ②	DOCUMENT NO ③	NO OF SHEETS ④	REV STATUS ⑤	NOMENCLATURE OR DESCRIPTION ⑥
----------	------------------	---------------------	----------------------	--------------------	-------------------------------------

- ① **DAI (Mandatory).** Enter the identification of the original design activity for the drawing number that is called out. When the CAGE Code is not used, identify by Flag note the type of Design Activity Identification (DAI) that is being used. When the Design Activity, name and address is being used as the DAI and is the same as Block ② in Figure 1, this block may be left blank.
- ② **DRAWING SIZE (Optional).** Enter the size designation for the sheet of each drawing entered in column ③. When a drawing consists of different size sheets, a separate line entry is required for each different sheet size.
- ③ **DOCUMENT NO (Mandatory).** Enter the identifying number of each document applicable to the item.
- 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 **REV STATUS (Mandatory).** 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 systems, the use of column ⑤ is optional.
- ⑥ **NOMENCLATURE OR DESCRIPTION (Mandatory).** As a minimum, enter the assigned noun or noun phrase (title) of each document whose number appears in column ③.

Fig. 7 Index List Column Entries

DAI (1)	LIST NO (2)	REV STATUS (3)	LIST TITLE (4)
------------	----------------	-------------------	-------------------

- (1) **DAI** (Mandatory). Required for identification of the original design activity for the drawing number that is used. When space is not available, enter the number of a note that identifies the DAI. The DAI may be omitted when it is identical to the DAI in (4) of Fig.1.
- (2) **LIST NO** (Mandatory). Enter the list number of each list and subordinate lists applicable to the item to which the list applies.
- (3) **REV STATUS** (Mandatory). Enter the latest revision status applicable to the data list whose number appears in column (2).
- (4) **LIST TITLE** (Mandatory). Enter the noun or noun phrase of each list whose number appears in column (2).

Fig. 8 Wire List Column Entries

WIRE NO (1)	COLOR (2)	SIZE (3)	WIRE RUNS				FUNCTION ROUTING REMARKS (8)	APPROX LENGTH (9)	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 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.
- (2) **COLOR** (Mandatory). Enter the color of each wire, using abbreviations. If wires are multicolored, separate the color 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 is not used, PIN shall be used as the column header and the item's part number shall be entered in the column.

Fig. 9A Separate Parts List — Manually Generated Format

PARTS LIST		DESIGN ACTIVITY		CONTRACT NO		DAI	LIST NO		REVISION	
LIST TITLE		END ITEM		APPROVED		REV AUTHORIZATION NO		SHEET		
FIND NO	QTY REQD	DAI	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	NEXT ASSY	USED ON	WT	NOTE OR REMARK		
REV	DESCRIPTION	DATE	APVD	REV	DESCRIPTION	DATE	APVD	REV	APVD	

Fig. 9B Separate Parts List — Digitally Generated Format

PARTS LIST		AJAX CO. INC.		CONTRACT NO		DAI	PL 3115AS2014	REV A
TITLE: PWB ASSY		END ITEM		N00123-94-C-6007		00000		SHEET 1 OF 1
			BUFFER I/O					REV. AUTHORIZATION NO.:H12345
								DATE: 95/05/10
								SUPPLEMENTARY
								PART/IDENT NO NOTES
FIND NO.	QTY REQD	DAI	DRAWING OR DOCUMENT NO	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION			
001	-2	1 EA		3115AS2016	PWB, I/O BUFFER			
002	1 EA	1 EA		30808-982	PANEL, AOA			
003	1 EA	1 EA		20817-330	EXTR HANDLE – TOP			
004	1 KT	1 KT		20817-329	EXTR HANDLE-BOTTOM			
005	1 EA	1 EA		21100-745	MOUNTING KIT			
006	4 EA	4 EA	96906	MS51957-5	SCREW			
					.0860-56X .375			
007	8 EA	8 EA	80205	NAS620C2	WASHER			
					.086			
008	4 EA	4 EA	96906	MS35338-134	WASHER			
					.086			
009	4 EA	4 EA	80205	NAS671C2	NUT			
					.086-56			
C001	1 EA	1 EA	81349	MIL-C-39006/25	CAPACITOR			
					.33UF-10-50			
C002	1 EA	1 EA	81349	MIL-C-39006/25	CAPACITOR			
					.33UF-10-50			
C003	1 EA	1 EA	81349	MIL-C-39014/5	CAPACITOR			
					.01UF-10-50			
C004	1 EA	1 EA	81349	MIL-C-39014/5	CAPACITOR			
					.01UF-10-50			
010	1 EA			3115AS2019	PWB, I/O BUFFER			

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

Fig. 10A Data List — Manually Generated Format

DATA LIST		DESIGN ACTIVITY		CONTRACT NO		DAI		LIST NO		REVISION	
LIST TITLE				END ITEM		APPROVED		REV AUTHORIZATION NO		SHEET	
DAI		DWG SIZE		DOCUMENT NO		NO OF SHEETS		REV STATUS		NOMENCLATURE OR DESCRIPTION	
REV		DESCRIPTION		DATE		APVD		REV		APVD	

Fig. 10B Separate Data List — Digitally Generated Format

DESIGN ACTIVITY		CONTRACT NO	DAI	LIST NO	REV	
DATA LIST	FRANKFORT ARSENAL	A00000-88-A-		DL 8267742	C	
	PHILADELPHIA, PA	000		19200		
LIST TITLE	END ITEM	APPROVED		REV AUTHORIZATION NO.	SH	
SEGMENT ASSY	8267750	R. TREMBLER		MCO 12345-1	1	
DAI	PREFIX SIZE	DWG NO	DOCUMENT	NO OF SH	NOMENCLATURE OR DESCRIPTION	NOTES
96906		A	7586885	1	NUT, ROUND	
	PS		PS756885	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	
			MS51960	1	SCREW, MACH, FL, CSK 82°, CROSS REC, CRES ST, UNF-2A	

[illegible]

Fig. 11B Separate Index List — Digitally Generated Format

INDEX LIST	DESIGN ACTIVITY	CONTRACT NO	DAI	LIST NO	REV
FRANKFORT ARSENAL		A00000-88-A-		IL 8267742	C
PHILADELPHIA, PA		000	19200		
END ITEM		APPROVED		REV AUTHORIZATION NO.	SH
8267750		R. TREMBLER		MCO 12345-1	1
SEGMENT ASSY					
DAI	LIST NO	REV STATUS	LIST TITLE		
19200	PL8267742	B	SEGMENT ASSEMBLY		
19200	DL8267742	C	SEGMENT ASSEMBLY		

Fig. 12A Application List — Manually Generated Format

APPLICATION LIST		DESIGN ACTIVITY AJAX CO INC	CONTRACT NO N00000-05-D-0001	DAI 00000	LIST NO	AL15-P38795P	REVISION A
LIST TITLE LID, HYBRID		END ITEM 15-P38000P	APPROVED R.DE FACTS		REV AUTHORIZATION NO H12345		SHEET 1
PART OR IDENTIFYING NUMBER		NEXT ASSEMBLY		USED ON			
15-P38795P001 15-P38795P001		01-P38791P001 01-P39871P001		ATRM ATRM			
REV	DESCRIPTION	DATE	APVD	REV	DESCRIPTION	DATE	APVD

Fig. 12B Application List — Digitally Generated Format

APPLICATION LIST	AJAX CO INC	CONTRACT NO	DAI	AL	15-P38795P	REV A
		N00000-05-D-0001	00000	PIN	15-P38795P001	SHEET 1
TITLE: LID, HYBRID END ITEM 15-P38000P		REV AUTHORIZATION NO: H12345		DATE: 04/05/10		
		APPROVED: R. DE FACTS				
PART OR IDENTIFYING NUMBER		NEXT ASSEMBLY			USED ON	
15-P38795P001		01-P38791P001			ATRM	
15-P38795P001		01-P39871P001			ATRM	

Fig. 13A Wire List — Manually Generated Format

WIRE LIST		DESIGN ACTIVITY AJAX CO INC		CONTRACT NO N00000-95-C-0000		DAI 00000	LIST NO WL01-P38791P		REVISION A		
LIST TITLE CHASSIS ASSY			END ITEM 01-P-38700P		APPROVED R. DE BOLT		REV AUTHORIZATION NO MCO 15234-4			SHEET 1 OF 4	
WIRE NO	COLOR	SIZE AWG	WIRE RUNS				FUNCTION ROUTING REMARKS	APPROX LENGTH	FIND NO		
			FROM	NOTE OR VIEW	TO	NOTE OR VIEW					
1A	WHT	22	FL22-2		J-13		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. 13B Wire List — Digitally Generated Format

WIRE LIST			DESIGN ACTIVITY		CONTRACT NO		DAI	LIST NO	REVISION
			AJAX CO INC		N00000-95-C-0000		00000	WL01-P38791P	A
LIST TITLE			END ITEM		APPROVED		REV AUTHORIZATION NO		SHEET 1 OF 4
CHASSIS ASSY			01-P-38700P		R. DE BOLT		MCO 15234-4		
					WIRE RUNS				
WIRE NO	COLOR	SIZE AWG	FROM	NOTE OR VIEW	TO	NOTE OR VIEW	FUNCTION ROUTING REMARKS	APPROX LENGTH	FIND NO
1A	WHT	22	FL22-2		J-13		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

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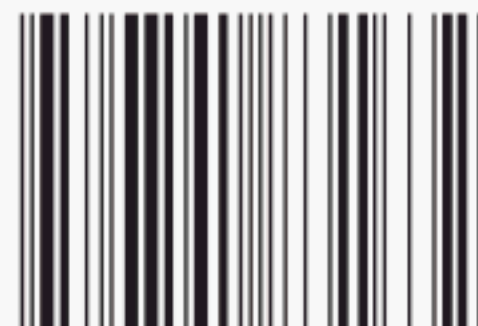
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