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Nomenclature Guide for Propulsion Systems Support Equipment

RATIONALE

This document has been determined to contain basic and stable technology which is not dynamic in nature.

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FOREWORD

Changes in this revision are format/editorial only.

1. SCOPE:

   This document lists recommended noun titles for drawings of support equipment and provides definitions for each. The use of secondary modifiers to distinguish a part from similar parts is also covered.

2. REFERENCES:

2.1 Applicable Documents:

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1.1 U.S. Government Publications: Available from DODSSP, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

MIL-STD-12
DOD Cataloging Handbook H6

3. COMPOSITION OF TITLES:

3.1 The title shall be the name by which a particular part or assembly is known. It shall be as brief as possible.

3.2 Drawing titles shall be composed in two basic parts. The first part is the item name which shall consist of a noun or noun phrase and a primary modifier(s). The second part shall consist of additional modifiers, as required, to complete the item identity and distinguish between similar items.

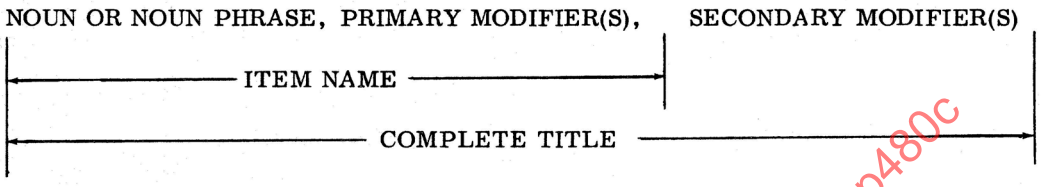

FIGURE 1

3.3 The following general rules shall apply in the composition of drawing titles:

3.3.1 The noun or noun phrase and modifiers or modifying phrases shall be separated from each other by commas.

3.3.2 No abbreviations shall be used in the item name except the word ASSEMBLY (ASSY), SUBASSEMBLY (SUBASSY), or INSTALLATION (INSTL). Abbreviations may be used in the second part of the title providing they conform to MIL-STD-12.

3.3.3 The conjunction “or” and the preposition “for” shall not be used in any part of a drawing title.

3.4 First Part of the Title (Item Name):

The first (or standardized) portion of the title shall be one of the nouns or noun phrases contained in Paragraph 5.

3.4.1 The word ASSEMBLY or ASSY when used shall appear as the last word of the noun phrase on applicable assembly drawings.

3.4.2 The second part of the item name (the primary modifier(s)) shall be those modifiers necessary to classify the noun or noun phrase by distinguishing between type grades and varieties of the item. Each primary modifier shall independently modify the noun or noun phrase and not a preceding modifier.

3.4.3 A modifier may be a single word or a modifying phrase. A word which qualifies another word in a modifying phrase shall precede the word it qualified; e.g., BRACKET, REGULATING VALVE. Note that the word “REGULATING” qualifies the word “VALVE” and precedes it in the modifying phrase.

3.4.4 When an item name from one title is used as a modifier on another title, it shall be written in a straight-forward manner without commas.

Example: NOZZLE, EXHAUST (item name)
ADAPTER, EXHAUST NOZZLE (used as modifier)

3.5 Second Part of Title (Secondary Modifiers):

The secondary modifiers shall be those modifiers (if any) required to distinguish a part from a similar part in the same component or unit and shall be kept to a minimum. Each secondary modifier or modifying phrase shall independently modify the item name and not a preceding modifier.

3.5.1 These modifiers may indicate, as required, the form, size, relative position, location, etc., of the item; e.g., number, right hand, left hand, clockwise, counterclockwise, inner, outer, upper, lower, forward, aft, round, square, etc., or the principal unit of which it is a part, if the item name has not done so. In the following examples, the modifiers - STAGE 2 and STAGE 3 - distinguish these similar items from each other and from other Compressor Rotor Disk Assemblies.

Example: PROTECTOR, COMPRESSOR ROTOR, STAGE 2
PROTECTOR, COMPRESSOR ROTOR, STAGE 3

4. EXAMPLES OF ACCEPTABLE DRAWING TITLES:

4.1 The following titles are presented graphically to illustrate the proper arrangement.

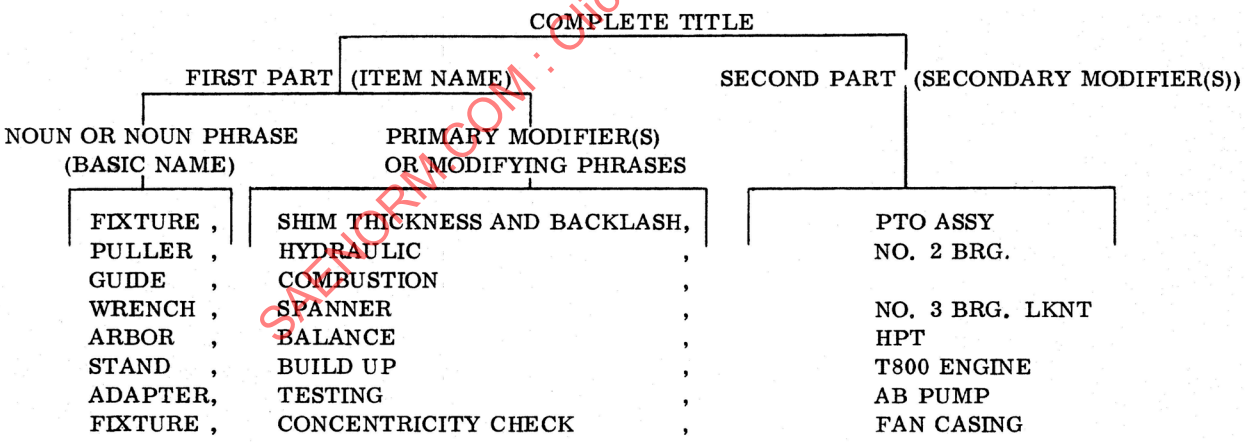

FIGURE 2

5. NOUN TITLES AND DEFINITIONS:

ADAPTER:

1. (Mechanical) Any modifying part, piece, or device, designed to facilitate connection, provide accommodation, enable application and to broaden or permit the use of a given item with an unlike item of mechanical equipment when the two items are not designed for direct mating to each other.

2. (Electrical) An item which provides the necessary accommodations to electrically connect two or more items whose design or function will not normally warrant their connection.

   Example: ADAPTER, Lifting, Aircraft Engine

ANVIL: The fixed block of characteristic shape on which solid material is supported during the shaping or forming operation. See RESIZING TOOL.

ARBOR: A piece of material usually cylindrical in shape, generally applied to locate a rotating part, or cutting tool, about a center.

ARM: A rigid member which extends to support or provide contact beyond the perimeter of the basic item.

BAR: A piece of material, long in proportion to its width and thickness.

Example: BAR, Aligning
BAR, Boring

BASE: A structural foundation upon which an item is to be permanently assembled. The base is an integral part of the item for which it is a foundation. See HOLDER.

BEAM: A member used to provide rigid support. See ADAPTER, SUPPORT.

BEARING: A part in which a journal, gudgeon, pivot, pin, shaft, or like revolving parts are supported to reduce friction.

Example: BEARING, Ball
BEARING, Roller

BELLMOUTH: Not recommended - See NOZZLE.

BENDER: A device for use in precision and non-precision bending of material.

BIT: A manual or power driven boring tool.

BLOCK: A piece of material such as wood, stone, or metal, usually with one or more plane or approximately plane faces, used to strengthen or sustain.

5. (Continued):

BOLT: A pin or rod to fasten or hold something in place, having a wrench head designed to be held or turned at one end and a screw thread on the other.

BORESCOPE: A viewing device used to visually inspect items such as cannon bores, internal combustion engine cylinder walls, propellant perforations of rocket motors or similar items, for defects of manufacture, corrosion, scars, erosion, etc., without the necessity of disassembling the item(s). It may or may not have extension tubes to cover the various ranges of inspection. The item is basically a straight tube telescope using a mirror or prism.

BOTTLE: A hollow vessel usually having a neck smaller than the body and a narrow mouth for a stopper or other type closure. See TANK.

BOX: A container having a cover (usually attached) to be used for storage or shipment of a specific item. See CASE.

BRACKET: An item of rigid construction which is attached to and projects from a main body, for the purpose of sustaining a secondary item in a predetermined suspended position, relative to the main body.

BRUSH: A device composed of bristles, wire, etc., set in a suitable back or handle and used for applying liquids, cleaning, scrubbing, removing burrs, etc.

BUSHING: A replaceable part, cylindrical in shape, hollow, and designed primarily to be inserted in a hole to reduce the effective inside diameter of the hole, and to protect the body structure about the hole from damage resulting from stress, strain, and vibration.

CAM: An irregularly shaped device, that revolves around an axis, or slides within limits, which actuates other parts by contact to change the direction, speed and/or timing of a part in motion.

CAP: A protecting and/or closing part, basically circular, designed with an integral means of securing itself and must partially enclose some protruding, external portion of the item to which it is attached. See GUARD, COVER, PROTECTOR.

CASE: A container designed to hold a specific item(s) in a fixed position by virtue of conforming dimensions and/or attachments. The item(s) which it contains is complete in itself for removal and use outside the container. However, the container may be constructed so as to permit the use of the item(s) without removal. It does not include the item(s). Excludes shipping containers designed to be discarded after shipment of equipment. See BOX.

CHART: A sheet or plate giving printed information in tabular and/or graphic form. It is not intended for, neither does it have provisions for, recording additional information thereon. Excludes maps.

5. (Continued):

CLAMP: A device which, by rigid compression, holds a piece or part in position, or retains units in close proximity or parts in alignment, its compression quality depending upon an integral screw mechanism or screws, bolts, and like mechanical fasteners.

CLIP: A mechanical device (usually quickly removable) which clasps, holds, fastens; its holding or gripping quality depending entirely upon the spring action of the material.

COLLAR: An item designed to be mounted around and secured to a part to limit axial movement.

COLLET: A work holding device consisting of a longitudinally slotted sleeve which has a tapering or conical end designed to fit into a corresponding taper so that lengthwise movement of the sleeve, or mating part, causes a contraction or expansion of the gripping surfaces.

COMPRESSOR: A device which has the main function of temporarily reducing a compressible type part to a desired dimension.

CONSOLE: A grouping of controls, indicators, and similar items contained in a specially designed model cabinet for floor mounting and is at operator's permanent working position.

CONTROL:

1. (Mechanical) A device used to govern a machine or mechanism in operation.

2. (Electrical) A component which governs the operation of another component or grouping of components.

COUNTERBORE: An end cutting tool having two or more cutting edges with flutes or grooves adjacent thereto for the passage of cuttings and an integral or inserted pilot, or centrally located hole for insertion of a pilot, for guiding the tool. The flutes or grooves are usually helical to give a positive rake at the cutting edge. It is used to form a flat-bottomed enlargement of the mouth of a previously formed cylindrical hole. The tool may have a straight shank, tapered shank, or special shank requiring a special holder, for holding in a power - or hand-operated machine.

COUNTERSINK: An angular cutting tool, usually made with angular relief, having two or more flutes with specific size angle cutting edges. It is used for chamfering and countersinking holes. The tool may have a straight shank, tapered shank, bit stock shank or special shank requiring a special holder, for holding in a power or hand-operated machine. It may be designed to be driven or turned by means of a wrench or carpenter's brace.

COUPLING: A device that serves to couple or connect the ends of adjacent parts.

COVER: A protective device, rigid or flexible, to enclose an opening against foreign material where mutilation is not involved. See CAP, GUARD, MASK, PROTECTOR.

CRADLE: A device to cradle a part by engaging the contour of the part. See SADDLE.

5. (Continued):

CRIMPER: A device to flute, corrugate; or compress or otherwise deform a part to change its initial shape.

CUTTER: A rotary cutting tool of cylindrical form with either single or double cutting ends and with either a straight or tapered shank. The teeth may be straight or helical and be either right hand or left hand. It is used for milling slots, keyways and pockets where the ordinary arbor type of milling cutter cannot be used.

DIE:

1. The moveable block of characteristic shape by which solid material is formed or shaped in a forming operation.

2. A base containing appropriate contours used to shape, form or establish a piece from a parent metal sheet.

DISTRIBUTOR: A block type unit with an inlet and several outlets to provide force to multiple points, generally hydraulic or air. See MANIFOLD.

DOLLY: A low truck with one or more wheels, rollers, or casters, having either an open or solid platform for moving heavy objects. It does not have super-structure, handles, tongues, stakes, or the like. It may have provisions to permit it to be pulled.

Note: Use only if STAND, TRAILER or TRUCK does not apply.

DOG: A machine tool accessory used as a clamp for gripping a piece of work and conveying motion to it.

Example: DOG, Lathe

DRIFT: A bar tube or shaft type tool used for specific purpose of assembling or separating two or more parts by axially applying impact or pressure by means of an external force.

DRILL: An end cutting tool having one or more cutting edges, and having straight or helical flutes or grooves adjacent thereto for the admission of coolant and the ejection of cuttings or chips, used for drilling holes in various materials.

DRIVER: A hand tool for assembling or removing components. See EXTRACTOR, PULLER, PUSHER.

DUCT: A single duct designed to be attached to the rear of a turbine engine, providing an uninterrupted discharge for the exhaust gases. Not to be used when exhaust gases are to be controlled for proper velocity. See NOZZLE.

Example: DUCT, Exhaust, Turbine Engine

5. (Continued):

EJECTOR: A device used in conjunction with the mechanism of a machine, fixture, or the like; which automatically sorts or throws out completed, accepted, or rejected items from the working station.

EXPANDER: A device which has main function of temporarily increasing an expansible type part to a desired dimension. See SPREADER.

EXTENSION: An attachment for extending the length of a boring bit, socket wrench or handle, tow bar, and like items. The body of the item may be either a coil spring or a solid bar, as applicable. The items permit the connection of ends that are designed for direct mating to each other.

EXTRACTOR: A device which has main function of removing threaded or sleeved part from blind holes and requires hand gripping. For other removing categories, see DRIVER, PULLER.

EYE: A device which has main function of lifting with a hoist.

FAIRING: A stationary member or structure, whose primary function is to produce a smooth contour. It serves to cover projecting parts that would offer resistance to air flow.

FITTING: Not recommended. (Too general)

FIXTURE: Use only when other categories do not suffice. A device for rigidly holding or positioning a part for a specific operation.

Example: FIXTURE, Checking
FIXTURE, Reaming

GAGE: Device to ascertain a specific or comparative dimension.

Example: GAGE, Plug, Plain, Cylindrical

GUARD: A protective or safety device to protect against injury, soiling, loss or the like. See CAP, COVER, MASK, PROTECTOR.

GUIDE: A device with prime function of attaching to engine parts for purposes of locating two or more parts for assembly or disassembly.

HANDLE: An item designed to be held in the hand to provide proper leverage.

Example: HANDLE, Wire Brush
HANDLE, Socket Wrench

HARNESS: A multi-conductor cable with leads spaced along its length.

HEATER: A device which provides controlled heat to a specific area.

5. (Continued):

HOIST: A mechanical device consisting of a supporting frame and integral mechanism specifically designed to raise or lower a load by tensile force.

Example: HOIST, Chain

HOLDER: A device specifically designed to accommodate and position another item to facilitate quick replacement of the item held. (Do not use if a more specific item name applies.) See BASE, STAND.

HOUSING: The outer component of an assembly designed to enclose, support, and/or protect the internal mechanism.

INDICATOR: A mechanism for amplifying and measuring the displacement of a movable contact point, to be measuring a determination or variation from a standard determination. It consists essentially of a case with means for mounting the indicator, a spindle carrying the contact point, an amplifying mechanism, a point, and a graduated dial. May include accessories and/or attachments.

INSULATOR: A prefabricated item specifically designed to prevent any undesirable flow of energy between a conductor and/or other objects.

JACKSCREW: A device which is a type of puller which separates two parts by utilizing threaded action by one of its details. Used to lift or exert pressure.

JAW:

1. A mechanical device which engages a mating component for the purpose of holding or exerting force to transmit motion.

2. A mechanical device resembling or suggesting the jaw of an animal in form or action; either of two or more opposing parts movable so as to open or close, for grasping or crushing anything between them; as jaws of a vice, or lathe.

JIG: A device which attaches and positions on the part for purposes of locating and controlling another tool for machining.

Example: JIG, Drill

KIT: A group of related but non-homogeneous items used for service or modification purposes. Do not use this term alone but only use it in a noun or modifying phrase, as INSTRUMENTATION KIT, INSTRUMENTATION KIT ASSEMBLY, MODIFICATION KIT, ADAPTER KIT.

LAP: A controlled surface, used to remove insignificant amounts of metal.

5. (Continued):

LEAD: A definite length of one-conductor electrical wire, wire braid, or other conductive material, except cable or cord, one or both ends of which are processed or terminated. The lead may be of any size or shape, insulated or uninsulated.

Example: LEAD, Test, Thermocouple, High Current

LEVERAGE TOOL: Not recommended.

LIFT: Not recommended. Use ADAPTER, SLING.

LINK: An intermediate rod or piece of material that transmits force or motion.

MANDREL: A cylindrical-shaped tool with a slight taper on the overall length with or without a flexible sleeve, centered on each end with a flat milled on the ends for a holder. Used for holding work for machining operations. Also used as a round anvil to form metal.

MANIFOLD: A preformed item with two or more inlet ports and passages, and a common outlet. See DISTRIBUTOR.

MASK: A protective covering used to limit the area to be affected by a surface treatment. See COVER, GUARD, PROTECTOR.

Example: MASK, Painting
MASK, Plating

MASTER: A device or mechanism that controls the operation of different mechanisms or establishes a standard. Used with modifier.

Example: MASTER GAGE
MASTER NOZZLE

MOUNT: A device to be attached direct to a part to suspend or support the part at a given position.

NOZZLE: A device used to control the flow of air, gas ,or liquids. May be designed with a constricting throat section and/or a divergent section.

Example: NOZZLE, Inlet, Engine Test
NOZZLE, Exhaust, Engine Test

NUT: A fastening device of various shapes having threads, lugs, or prongs designed to mate with a thread for the purpose of securely holding a mating part.

PILOT: Not recommended. Use GUIDE.

PIN: A cylindrical object used as a connector or as a guide in aligning mating parts.

5. (Continued):

PLATE: Any tool which has the general configuration of a smooth, flat piece of material of uniform thickness.

Example: PLATE, Surface

PLIERS: A hand tool with scissor-type action having special jaws for the purpose of compressing, cutting, expanding, forming, or handling of small parts.

PLUG:

1. (Mechanical) A device which fits into a hole and serves as a stopper.
2. (Electrical) A male fitting for making electrical connections by insertion into a receptacle.

PRESS: A mechanical device deriving its power from a drive screw or hydraulic plunger for the purpose of assembling, disassembling, cutting, straightening, etc. of parts when equipped with proper accessories.

PROBE: An instrument for remote inspection or sampling.

PROTECTOR: A device which encloses a part or portion of a part to prevent mutilation. See CAP, COVER, GUARD, MASK.

PROTRACTOR: A flat shaped piece of material graduated radially from a given point in units of angular measurement.

PULLER: A mechanism which exerts a pulling force on a specific part in respect to another. May be of the hydraulic, knocker, lever, cam, or screw type. See DRIVER, EXTRACTOR.

PULLEY: A form of wheel used to transmit and/or change direction of force applied by a flexible band, belt or the like.

PUSHER: A mechanism which exerts a pushing force on a specific part in respect to another. May be of the hydraulic, knocker, screw, lever, or cam type.

RACK: A framework, stand, or grating on or in which articles are placed.

RAKE: A mechanical device with projecting tubes, prongs, etc., set in such a manner as to pick up temperature, pressure, etc.

Example: RAKE, Temperature, Tailpipe Thermocouple

REAMER: Special type cutting device to size close tolerance holes. See DRILL.

REMOVER: Not recommended. See DRIVER, EXTRACTOR, PULLER.