Attachment 0010

Government Technical Data Package (TDP) Format
OPTION

Technical Data Package (TDP) Requirements

TDP shall contain complete product definition suitable for procurement. TDP shall conform to the requirements in the TDP Option Selection Worksheet and Tailoring Checklist in this attachment.

TDP Standards and Best Practices

The contractor shall develop the technical data package in accordance with Department of Defense (DoD) adopted ASME industry standards Y14.1, Y14.5, Y14.24, Y14.34, Y14.35, Y14.38, Y14.100, and MIL-STD-31000. Contractor's CAD solid modeling software application is acceptable. Government's preference is PTC's Pro/Engineer CAD modeling software. Version of CAD modeling software used for CAD data delivery will be agreed upon at the Start Of Work Meeting (SOWM). The contractor shall verify that TDP open without errors before each delivery. The Government will provide CAD Pro/Engineer start files and Pro/Engineer drawing formats upon request by the contractor.

TDP Deliverable File Formats

1. Parametric 3D and 2D Native CAD Models. **All parts/assemblies' models (other than for standard hardware)** shall be parametric, feature-based, dimensioned and include appropriate tolerances, notes, and metadata attributes. The 3D and 2D CAD models shall be associative. Any change in either the 3D or 2D will be automatically updated in the associated files. All Source Control and Vendor Item Control parts shall be modeled with sufficient information for procurement. The contractor shall assign Army Ordnance Part Numbers (AOPNs) to components with Government-Purpose or greater data rights.

2. Neutral CAD Format. The contractor shall translate all parametric and non-parametric 3D CAD solid models into an ISO 10303 STEP AP203 ed2 or AP214 format. The STEP Neutral files shall include all metadata attributes sourced from 3D CAD models per APPENDIX C.

3. Envelope Cosmetic Solid Models. All Military and Industry Standard parts shall be modeled for form, fit and function with sufficient envelope, mounting and mating features. Models shall be sufficient to provide adequate visualization, interface characteristics, accurate weight and center of gravity. Associated drawings are not required to be generated for standard hardware.

4. 2D PDF. All 2D CAD drawings shall be exported to PDF with at least 200 dpi resolution

File Naming Convention

Parts and assemblies shall be named using the following convention:
CAGE_Part Number.prt i.e. 19207_12345678.prt
Associated STEP and PDF files shall have the same filename with extension ".stp" and ".pdf.," respectively.

Security Markings

The contractor shall apply the applicable DoD Technical Distribution Statement and Export Control Warning required by DoD Instruction 5230.24 and Directive 5230.25 to all technical data produced or delivered. All statements, notices, and data rights legends shall be applied to all drawings on each sheet, directly above or adjacent to the title block. Associated lists and other related documents that are primarily of a textual nature shall have markings applied to each page. On models, all markings shall be applied to initial layer at opening.

Data Rights Markings on Tech Data Deliverables

In accordance with the DFARS, the Government has unlimited rights to technical data for Form, Fit, Function, Operation, Maintenance, Installation, and Training (FFFOMIT), regardless of who paid for the development of the item(s). The contractor shall correctly mark and deliver all technical data ordered to include items that are purchased with greater rights from the Contracting Officer-approved Assertions List. FFFOMIT data delivered shall not contain data rights or other contractor imposed restrictive legends. If FFFOMIT data is commingled in a model, drawing, or document, with data that is limited or restricted, the contractor shall mark only the specific portions, sheets, or pages of data subject to the limitation or restriction. The Government will require a distribution statement on all technical data delivered, and, if applicable, an export control warning, in accordance with DODI 5230.24.

Item Unique Identification (IUID) Marking Requirement

All items requiring IUID markings in accordance with DFAR 252.211-7003 (paragraph c) shall incorporate labeling or marking information as part of the TDP in accordance with MIL STD 130. Applicable 2D CAD drawings and 3D CAD solid model TDP shall include IUID marking information. The IUID information in drawings, solid models and associated lists shall indicate method of marking or labeling, label or plate material composition, data matrix location and orientation and other applicable information in accordance with MIL STD 130.

Referenced Documents

The contractor shall furnish all documents referenced in TDP deliverables as required under section 5.3 of MIL-STD-31000.

Company Standards

Company standards are not allowed. Refer to 5.3 of MIL-STD-31000.

Version Control

The contractor shall assign a unique identifier to TDP and utilize disciplined version control in managing digital data. Each revision shall be a new master, and the contractor shall retain all approved revisions (versions) of each document and model representation to provide a traceable history in order to access the correct revision when needed. The content of a document and model revision is fixed once approved. Numerical revisions are not allowed. The contractor shall insure that all representations (i.e., hard copy, raster, Adobe PDF, CAD, STEP, etc.) of a single version or revision of data, delivered to the Government for approval and subsequently maintained by the contractor for the term of this contract, are identical. The terms version and revision as used herein are interchangeable. The revision history description for all TDP shall cite the applicable Change Request with Change Notice or Change Order number for data revised prior to product baseline.

Product Baseline Changes

At Product Baseline and beyond, changes are only authorized by a Government-approved ECP and incorporated into the Product Baseline by Government approval of the new revision. Revised data shall cite the Engineering Release Record (ERR) Number in the description of change block or applicable CAD parameter as authorization to release the data, and shall be married to the ERR as the ERR package deliverable.

Part Number Assignment: Army Ordnance Part Numbers (AOPNs)

For components other than standard hardware shall be assigned Government-issued AOPNs. Refer to “File Naming Convention” in this attachment. Components identified as vendor item control or source control drawings shall be assigned AOPNs that are called out on higher up assemblies. The contractor shall request AOPNs from the designated Government CM (CDM) Representative. The contractor shall request additional blocks of numbers on an as needed basis via e-mail to the CM (CDM) representative.

Original Equipment Manufacturer (OEM) Part Numbers

The contractor shall utilize the OEM's part number and CAGE to identify parts that the contractor does not manufacture in accordance with MIL-STD-31000. The contractor shall not re-identify or re-mark supplier or purchased parts or related TDP with his own part number and CAGE. The contractor shall not use their numbers for items that can be defined by Government/industry standards or specifications. The contractor's TDP, including BoMs, Drawings, Models, Parts Lists, and reports, shall be consistent in calling out the OEM part number and CAGE as the primary part.

The contractor shall investigate and convert all purchased components' part numbers to OEMs or standard part numbers prior to submitting TDP to the Government. The contractor may utilize the on-line tool called WEBFLIS (http://www.dlis.dla.mil/webflis/) for researching part numbers, or contact the Defense Logistics Agency (DLA) customer service at: http://www.dlis.dla.mil/cust.asp for assistance with web access, accounts, or assistance in finding part numbers for standard items.

National Stock Numbers (NSNs) and Part or Identifying Numbers (PINs)

The PIN, in combination with the CAGE, establishes unique item identification of items in the TDP. The NSN for items may be cited in the TDP in addition to the PIN-CAGE; however, NSNs do not establish unique item identification and shall not be cited within the TDP in lieu of the PIN-CAGE.

NSNs placed within the TDP either in lieu of a PIN-CAGE or that conflict with the PIN/CAGE provisioning data found in WebFLIS will be reason for Government rejection of the TDP containing the conflicting data, and will be returned to the contractor for correction and re-submittal.

APPENDIX A

TDP OPTION SELECTION WORKSHEET

SYSTEM: BRIDGE ERECTION BOAT (BEB) DATE PREPARED:

A. CONTRACT NO.	B. EXHIBIT/ATTACHMENT NO.	C. CLIN	D. CDRL DATA ITEM NO(s). A024

1. TDP Level (X and complete as applicable.)

A.	B. REMARKS:
☐ CONCEPTUAL LEVEL ☐ DEVELOPMENTAL LEVEL ☒ PRODUCTION LEVEL	

2. TYPE AND FORMAT (X all that apply and complete as applicable.)

A.	B.
☐ TYPE 2D: 2D DRAWINGS ☐ TYPE 3D: 3D MODELS ONLY ☒ TYPE 3D: 3D MODELS WITH ASSOCIATED 2D DRAWINGS	☒ CAD (SPECIFY TYPE) Contractro's CAD 3D Modeling Software. Preferred PTC Pro/Engineer. ☒ ISO 10303 STEP FORMAT (Specify STEP PROTOCOL AP203 ed2, AP 214 etc.) AP214 or AP203 (include mass & material properties and center of gravity) ☒ ISO 32000 PORTABLE DOCUMENT FORMAT Adobe Acrobat at minimum 200 dpi ☐ OTHER ELECTRONIC FORMAT (SPECIFY TYPE) _____ ☐ HARDCOPY: _____ REMARKS: _____

3. CAGE CODE AND DOCUMENT NUMBERS	A. ☐ CONTRACTOR CAGE AND DOCUMENT NUMBERS ☒ GOVERNMENT CAGE (COMPLETE 3B & 3C OR 3D)	D. To Be Assigned By: CM Gov't Rep.
B. USE CAGE CODE: 19207	C. USE DOCUMENT NUMBERS: As Assigned	

4. DRAWING FORMATS (X one and complete as applicable)

☐ CONTRACTOR FORMAT.
☒ GOVERNMENT FORMAT.
REMARKS: PTC Pro/E start part files and drawing formats are available upon request

5. TDP ELEMENTS REQUIRED (X all that apply)

ELEMENTS REQUIRED TO BE DETERMINED BY CONTRACTOR - OR THE FOLLOWING ARE REQUIRED:

☐ CONCEPTUAL DRAWINGS/MODELS AND ASSOCIATED LISTS
☐ DEVELOPMENTAL DESIGN DRAWINGS/MODELS AND ASSOCIATED LISTS
☒ PRODUCT DRAWINGS/MODELS AND ASSOCIATED LISTS
☒ COMMERCIAL DRAWINGS/MODELS AND ASSOCIATED LISTS
☒ QUALITY ASSURANCE PROVISIONS
☒ SPECIAL INSPECTION EQUIPMENT (SIE) DRAWINGS/MODELS AND ASSOCIATED LISTS
☒ SPECIAL TOOLING (ST) DRAWINGS/MODELS AND ASSOCIATED LISTS
☒ SPECIFICATIONS
☒ SOFTWARE DOCUMENTATION
☒ SPECIAL PACKAGING INSTRUCTIONS (SPI) DRAWINGS/MODELS AND ASSOCIATED LISTS

6. ASSOCIATED LIST (X and complete as applicable)

☒ A. PARTS LIST (X ONE)	☒ (1) INTEGRAL	☐ (2) SEPARATE
☐ B. DATA LISTS (X ONE)	☒ (1) NOT REQUIRED	☐ (2) REQUIRED (SPECIFY LEVELS OF ASSEMBLY)
☐ C. INDEX LISTS (X ONE)	☒ (1) NOT REQUIRED	☐ (2) REQUIRED (SPECIFY LEVELS OF ASSEMBLY)
☒ D. WIRING LISTS (X ONE)	☐ (1) NOT REQUIRED	☒ (2) REQUIRED (SPECIFY LEVELS OF ASSEMBLY)
☒ E. INDENTURED DATA LISTS (X ONE)	☐ (1) NOT REQUIRED	☒ (2) REQUIRED (SPECIFY LEVELS OF ASSEMBLY)
☒ F. APPLICATION LISTS (X ONE)	☐ (1) NOT REQUIRED	☒ (2) REQUIRED (SPECIFY LEVELS OF ASSEMBLY)

7. APPLICABILITY OF STANDARDS. The following Standards apply: (X as applicable)

☒ ASME Y14.100 ENGINEERING DRAWING PRACTICES WITH APPENDICES: ☒ B ☒ C ☒ D ☒ E	☒ ASME Y14.24 TYPES AND APPLICATIONS OF ENGINEERING DRAWINGS ☒ ASME Y14.34 ASSOCIATED LIST ☒ ASME Y14.35M REVISION OF ENGINEERING DRAWINGS AND ASSOCIATED LIST ☐ ASME Y14.41 DIGITAL PRODUCT DEFINITION DATA PRACTICES ☒ ASME Y14.5 DIMENSIONING AND TOLERANCING	☒ OTHER STANDARDS APPLY AS DESCRIBED: ASME Y14.1 COMPANY STANDARDS PERMITTED ☐ YES ☒ NO

8. OTHER TAILORING (Attach additional sheets as necessary)

Metadata Attributes - All 3D CAD parts and assemblies shall incorporate File Attributes per APPENDIX C for Government configuration and data management requirements.

Solid Model Geometric Validation Proprieties (GVP) Checks. Contractor shall conduct geometric validation properties checks on all Government native (fully defined feature based parametric) part and assembly solid models. Disregard manufacturing process models.
The minimum 3-D Component Geometry, Assembly Construction, Validation Checks are:
3-D Component Geometry

1) Each model must contain only 1 solid.
2) Models are single part files consisting of modeling entities and attributes.
3) Models contain drafting entities necessary to present geometrical dimensioning and tolerancing information.
4) Models are generated for every part number that is production intent, production related, or to be prototyped.
5) No reference geometry models reside within the model.
6) Models contain no surface data (non-commercial components).
7) Parameters (attributes) are present and contain acceptable values.
8) Models contain proper density
9) Layers contain correct objects.
10) Models contain coordinate system.
11) Models that are positioned in more than one location on the vehicle end-item shall be designated at the absolute coordinated system and located in the vehicle end-item position in the assembly. All other models shall be designated in this vehicle position.
12) Models are saved in an isometric view.
13) Models and views not used are deleted.
14) All corner and fillet radii are modeled
15) All unnecessary wireframes are deleted.
16) Models passed all native CAD system (design software) solid model validation checks.
17) Models passed all interference checks (bolt/nut and gasket is ok).
18) Models contain no tiny objects or tiny edges.
19) Modeling tolerances applied in accordance with Contractor's geometry and CAD creation standard. A default tolerance value shall be indicated in standard.
20) Model does not have any unnecessary parent/child relationships.

3-D Assembly Construction

21) Assembly contains CSYS/WCS displayed in absolute zero (x=0, y=0, z=0).
22) Assembly in body position.
23) Assembly can contain standard parts; however, standard parts must be UNMODIFIED from original.
24) Assembly is fully constrained.

3-D Component and Assembly in Explicit Non-Parametric Merged Solid Shrink-Wrap Format

25) Part and assemblies in merged solid format.
26) Complete with sufficient envelope.
27) Accurate mounting and mating dimensions (intefaces to Governent baseline configuraiton items).
28) Body position in accordance with absolute coordinate system.
29) Includes applicable interface characteristics.
30) Current mass proprieties, weight, center of gravity and inertia information.
31) Incorporation of user-defined TDP metadata attributes.
32) Quality level at highest reasonable selection.
33) Skeletons, quilts, and small surfaces removed.
34) Real colors not gray-neutral colors presented.

BLOCK 5. Special Tooling Drawings and Associated Lists. Special tooling (e.g. jigs, dies, fixtures, molds, patterns, and other equipment or manufacturing aids) drawings developed for the Government under contract and required for production, maintenance, and logistics support shall be delivered. These models/drawings and associated lists shall permit the Government or a competent manufacturer to produce the special tooling that duplicates the performance characteristics of the original tooling and manufacturing of an acceptable item.

APPENDIX B
ASME Y14.100 TAILORING CHECKLIST – SHEET 1

A. Drawing Media (Choose all that apply)	
(1) Non-digital (Specify)	☐
(2) Digital Data (3D Native, 2D neutral CAD Adobe PDF, Word, etc., IAW DI-SESS-81000C)	☒
(3) Other (Specify)	☐
B. Drawing Format (Choose One)	
(1) Contractor	☐
(2) Government (forms supplied by the Government)	☒
(3) Government (forms supplied by the Contractor)	☒
C. Drawing Sheet Size and Format (Choose One)	
(1) ASME Y14.1	☒
(2) ASME Y14.1M	☐
D. Application Data (Choose all that apply)	
(1) Contractor option	☐
(2) Required	☒
(a) On drawing	☒
(b) By reference (Specify)	☐
(c) Contractor option	☐
(3) General use or multi-use notations	☒
(a) allowed	
(b) not allowed	☒
	☐
E. Drawing Detail (ASME Y14.24) (Choose all that apply)	
(1) Monodetail	☒
(2) Multidetail	☒
(3) Tabulated	☒
F. Dimensioning and Tolerancing (Choose all that apply)	
(1) Metric	☐
(2) Decimal-inch	☒
(3) Application of ASME Y14.5M	
(a) Specific issue (revision) required (Specify issue)	☐
(b) Issue in effect (ASME Y14.5-2009)	☒
G. Drawing Notes (Choose One)	
(1) On drawing	☒
(2) By reference (Specify)	☐
(3) Contractors option	☐
H. Types of Drawings (ASME Y14.24) (both, as needed)	
(1) Contractor selects (as needed)	☐
(2) Government selects (as needed)	☒

ASME Y14.100 TAILORING CHECKLIST – SHEET 2

I. Maintenance of Multi-Sheet Drawings (ASME Y14.35M) (Choose all that apply)

- (1) Drawing revision level (DOD preferred) ☒
- (2) All sheets same revision level ☐
- (3) Sheet revision level ☐

J. Redrawn Drawings (redrawing without change) (ASME Y14.35M) (Choose one)

- (1) Advance revision level ☒
- (2) Revision level is not advanced ☐

K. Maintenance of Revision History (Choose all that apply)

- (1) Contractor option ☐
- (2) Optional methods
  - (a) Remove one or more revision record as required ☐
  - (b) Remove all previous revision history ☐
  - (c) Remove all revision history but retain line entry for revision authorization and date of revision ☐
  - (d) Remove all except revision preceding current ☐
  - (e) Maintain revision history in its entirety ☒

L. Adding Sheets (ASME Y14.35M) (Choose all that apply)

- (1) Contractor option ☐
- (2) Optional methods
  - (a) Renumber sheets using consecutive whole numbers ☒
  - (b) Number added sheets in decimal-number sequence ☐
  - (c) Number added sheets in alpha-numeric sequence ☐

M. Deleting Sheets (ASME Y14.35M) (Choose all that apply)

- (1) Contractor option ☐
- (2) Optional methods
  - (a) Renumber all affected remaining sheets ☒
  - (b) Affected remaining sheets not renumbered (revision status of sheets block is updated with notations such as CANC or DEL) ☐

N. Markings on Engineering Drawings (Choose one)

- (1) Special items and processes apply
  - (a) Applicable symbols (Table 1, Pg 12 o f ASME Y14.100-2004) ☒
  - (b) Applicable special notes (Specify) ☐
- (2) Special items and processes do not apply ☐

O. Associated Lists (ASME Y14.34M) (Choose all that apply)

- (1) Non-digital (Specify) ☐
- (2) Digital Data (Native CAD Models, Drawings, and PDF IAW DI-SESS-81000D) ☒
- (3) Other (Specify) ☐

ASME Y14.100 TAILORING CHECKLIST – SHEET 3

P. Types of Associated Lists (ASME Y14.34M) (Choose all that apply)

(1) Parts Lists	☒
(a) Integral	☒
(b) Separate	☐
(c) Contractors option	☐
(2) Application List (on drawing)	☒
(3) Data Lists	☐
(4) Index Lists	☐
(5) Indentured Data List	☒
(6) Wire List (as needed)	☒
(7) Other (Specify)	☐

Q. Angle of Projection (ASME Y14.3M) (Choose one)

(1) 3rd Angle	☒
(2) 1st Angle	☐

R. Language (Choose one)

(1) English required	☒
(2) Other (Specify)	☐

S. Applicability of Appendices

(1) Appendix B	
(a) as detailed herein	☒
(b) as modified	☐
(2) Appendix C	
(a) as detailed herein	☒
(b) as modified	☐
(3) Appendix D	
(a) as detailed herein	☒
(b) as modified	☐
(4) Appendix E	
(a) as detailed herein	☒
(b) as modified	☐

APPENDIX C

US ARMY - TACOM/TARDEC

REQUIRED MINIMUM PARAMETERS IN CAD PARTS AND ASSEMBLIES

Line #	PARAMETER NAME	TYPE	PARAMETER DESCRIPTION	FORMAT EXAMPLE	POPULATE PARAMETERS FOR INITIAL DELIVERY (REQ=REQUIRED)	PLM SEARCHABLE (DESIGNATED)?
1	AGENCY	String	Agency or service	US ARMY	REQ	Yes
2	CAD_FORMAT_TYPE	String	CAD system used, version and release	WILDFIRE 5 M040	REQ	Yes
3	CAGE_CODE	String	Original Design Activity CAGE code-The activity originally authorizing/creating the design. For TACOM Army Ordnance Part Numbers, use 19207; commercial designs use original design manufacturer CAGE corresponding to the original design manufacturer's part number in parameter name PART_NUMBER	19207	REQ	Yes
4	CENTER_OF_GRAVITY	String	Calculated center of gravity of a part or assembly	X, Y, Z = 3, 4, 6	REQ	No
5	CHECKER_NAME	String	Person that checked the original drawing	J. DOE	REQ	No
6	CONTRACT_NUMBER	String	Contract # under which technical data is being delivered	W31P4Q-11-R-0043	REQ	Yes
7	CRITICAL_SAFETY_ITEM	Yes No	Part Criticality to System Operation	YES	REQ	Yes
8	DATA_RIGHTS_CODE	String	Data rights concern the ability to modify, reproduce, perform, display, release, or disclose recorded information. U - Unlimited Rights. All uses for all purposes, Government and Commercial. G - Government Purpose Rights. All uses, but only for Government purposes. L - Limited. Internal Government use for Government purpose with very little else authorized. R - Restricted Rights. Internal Government use for Government purpose with very little else authorized. SB - Small Business Innovative Research (SBIR). A special catch-all category (SBIR Rights) and alters the normal use of some of the other legends. When dealing with a	U	REQ	Yes

			SBIR contract, the SBIR data rights clause must be applied. SL - Special License Rights. As specified by the negotiated contract terms. Often used to alter the default rights under the clauses or agree to an apportionment of rights which does not fit neatly into the default categories.			
9	DESIGN_ACTIVITY	String	Design activity	TANK AUTOMOTIVE & ARMAMENTS COMMAND	REQ	Yes
10	DESIGN_ACTIVITY_LOCATION	String	Design activity city, state and zip code	WARREN, MICHIGAN 48397-5000	REQ	Yes
11	DESIGN_APPROVAL_NAME	String	Government approver name for engineering design	J. DOE	*	Yes
12	DESIGN_CONTRACTOR	String	Contractor/Agency/Office physically creating drawings and models for the original design activity (optional with commercial data; mandatory with Government funded noncommercial or mixed funded TDP)	STEWART & STEVENSON SERVICES, SEALY TEXAS U.S.A.	REQ	Yes
13	DISTRIBUTION_CODE	String	Technical Distribution Statement Code (DoDD 5230.24) A (Approved for public release; distribution is unlimited) B (Distribution authorized to U.S. Government Agencies only) C (Distribution authorized to U.S. Government Agencies and their contractors) D (Distribution authorized to the Department of Defense and U.S. DoD contractors only) E (Distribution authorized to DoD Components only) F (Further dissemination only as directed) X (Distribution authorized to U.S. Government Agencies and private individuals or enterprises eligible to obtain export-controlled technical data)	D	REQ	Yes
14	DOCUMENT_TYPE	String	Type of item being defined in accordance with doc types listed below CD (Computer Aided Design (CAD)	DP	REQ	Yes

			Document) D1 (Altered Item) D7 (Stable Base: Master Pattern) DA (Interface Control) DC (Installation) DD (Inspection) DE (Inspection Equipment & Maintenance) DG (Envelope) DI (Instruction) DN (Rework) DO (All Kits) DP (Product) DV (On vehicle Equipment/ Basic Issue Item) DX (Source Control) DZ (Vendor Item Control) ED (List of Equipment - Depot Installed) EM (List of Equipment - Manufacturer Installed) ET (List of Equipment-Troops Installed) IM (Inspection Manual/Standard) PD (Packaging Data Sheet) PE (Per/Detail Design/Purchase Description) QF (Final Inspection Record) QP (Inspection Equipment Supply List) QS (Supplemental QA Provision) SC (Schematic)			
15	DRAWING_APPROVAL_NAME	String	Government approver name of drawing.	J. DOE	*REQ	Yes
16	DRAWING_DATE	String	Date original drawing created	12/4/2013	REQ	No
17	DRAWING_NUMBER	String	Drawing number the part/assembly is defined on	12414568	REQ	Yes
18	DRAWN_BY	String	Person who created original drawing	J. DOE	REQ	No
19	ENGINEER_NAME_1	String	Primary design engineer	J. DOE	REQ	No
20	ENGINEER_NAME_2	String	Secondary design engineer	J. DOE		No
21	ERR_ECP_APPROVAL	String	Government approving official of latest ECP	J. DOE	**REQ	No
22	ERR_ECP_DATE	String	Date current revision was released	12/9/2020	**REQ	No
23	ERR_ECP_NUMBER	String	Approved Engineering Change Proposal (ECP), Change Request or Change Order, Change Notice, or Engineering Release Record (ERR) authorizing initial release or new revision. (For Level 3 TDP the three-character contractor name prefix as assigned by the government followed by	TACV1234	**REQ	No

			the 5 alpha-numeric characters the Contractor assigns from the Government-issued block of ECP/ERR numbers.) ERR number required for level 3 TDP at initial Product Baseline and beyond; ECP or contractor's change documentation number required for tech data prior to Product Baseline. (if assigned, otherwise put "NA")			
24	EXPORT_CONTROL	Yes No	Controlled by International Traffic in Arms Regulation	YES	REQ	Yes
25	MATERIAL_ENGINEER	String	Person who approved material for design	J. DOE	REQ	No
26	MATERIAL_TYPE	String	Material type used for part or assembly	Steel	REQ	No
27	MODEL_REV	String	Only alpha revisions following ASME Y 14.35M revision standard allowed after Product Baseline release for production TDP.	C	REQ	Yes
28	MODELER_NAME_1	String	Primary Pro/E modeler	J. DOE	REQ	No
29	NEXT_ASSY_1	String	First next higher assy part no. (shall match USED_ON_1 above)	12419847	REQ	No
30	NEXT_ASSY_2	String	Second next higher assy part no.	12586793		No
31	NEXT_ASSY_3	String	Third next higher assy part no.	12957485		No
32	NEXT_ASSY_4	String	Fourth next higher assy part no.	12456873		No
33	NEXT_ASSY_5	String	Fifth next higher assy part no.	12213484		No
34	NEXT_ASSY_6	String	Sixth next higher assy part no.	12436875		No
35	NEXT_ASSY_7	String	Seventh next higher assy part no.	12435623		No
36	NEXT_ASSY_8	String	Eighth next higher assy part no.	12986458		No
37	NOMENCLATURE	String	Drawing name. It can be a combination of the three nomenclature lines or represents only the first line.	BODY ASSEMBLY, CARGO, MTV LWB	REQ	Yes
38	NOMENCLATURE_1	String	First line of drawing nomenclature	BODY ASSEMBLY,		No
39	NOMENCLATURE_2	String	Second line of drawing nomenclature	CARGO, MTV LWB		No
40	NOMENCLATURE_3	String	Third line of drawing nomenclature			No
41	PART_NUMBER	String	Item part number	12423205	REQ	Yes
42	PMIC	String	Precious Metal Indicator Code	A		No
43	QA_ENGINEER_NAME	String	Quality assurance engineer	J. DOE	REQ	No
44	REMARKS	String	Remarks	PRELIMINARY	***REQ	No
45	SPEC_NUMBER	String	Spec number	MIL-STD-105		No
46	TOLERANCE_1_PLACE	String	Default tolerance if indicated on drawing			No
47	TOLERANCE_2_PLACE	String	Default tolerance if indicated on drawing			No
48	TOLERANCE_3_PLACE	String	Default tolerance if indicated on drawing			No
49	TOLERANCE_ANG	String	Default tolerance if indicated on drawing			No

50	UID_MARKABLE	Yes No	In accordance with contract requirements, indicate if part requires Unique Identification (UID) marking	YES	REQ	Yes
51	UNIT_WEIGHT	Real Number	Mass value	1.25	REQ	No
52	USED_ON_1	String	First used on item	M270A1	REQ	No
53	USED_ON_2	String	Second used on item			No
54	USED_ON_3	String	Third used on item			No
55	USED_ON_4	String	Fourth used on item			No
56	USED_ON_5	String	Fifth used on item			No
57	USED_ON_6	String	Sixth used on item			No
58	USED_ON_7	String	Seventh used on item			No
59	USED_ON_8	String	Eighth used on item			No
60	WEIGHT_UNIT	String	Automatically filled out - toolkit application	lb	REQ	No

*Parameter value will be added after approval.

** Parameters are 'REQ' when relevant.

*** "PRELIMINARY" value is required for initial delivery. "PRELIMINARY" will be taken off at time of release.