

2000

Warranty Claims

Revision 2021.1



ATA e-BUSINESS PROGRAM

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E-mail: admin@atacbiz.org
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Highlights

Release History

Revision 2021.1 – Incorporated CR-2020-67_Warranty which added embodiment date (DAT) within the Original Equipment section of the XML Schema for Service Bulletin Claim to allow reporting the date of the incorporation of the SB on each aircraft or engine rather than the last aircraft or engine only.

Revision 2018.1 – Incorporated CR-2017-18 which added several new optional fields including CRC (Credit Recipient Code), WCN (Warranty Claim Number referenced on prior claim), WAR (Warranty Type Code). Added existing codes to additional places, increased length of several fields.

Revision 2012.1 – Complete rewrite of prior EDI messages into XML.

Changes Incorporated

Revision 2021.1

CR #	Description
CR-2020-67_Warranty	Added Embodiment/incorporation Date (DAT) to Original Equipment section within a Bulletin Claim.

How to Implement

Implementation of SPEC2000 is most feasible by chapter or, in some cases, by parts of a chapter. Since the majority of the chapters describe information exchange formats between companies, you should work with your trading partners on what parts of the specification to implement.

Implementation of many chapters is facilitated by the use of software provided by third parties, or often as a part of internal ERP or Maintenance Planning or Material Management software. Often times the majority of the information being exchanged already exists within a company's systems, and the main part of implementation involves mapping the data to formats described in the chapters.

Maintenance

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Any approved modifications to the specification shall be documented and included as revisions to the original specification. Implementation of revisions to the specification is left to each participant.

For more information about maintenance of the specification, contact:

ATA e-Business Program
1275 Pennsylvania Avenue NW, Suite 1300
Washington, D.C. 20004-1707
Telephone (202) 626-4039
E-Mail: admin@ataebiz.org
Web: www.ataebiz.org

Chapter 14. Warranty Claims

14-1. Overview

14-1-1. Purpose

This chapter provides a standardized set of data formats and implementation guidelines necessary for a warranty claimant to electronically submit claims to a warrantor.

14-1-2. Readership

The document is intended to be read by the customers, MROs, manufacturers, suppliers, software architects and developers which intend to program against these standards. It is assumed that the reader has basic knowledge of XML, XML schemas and data modeling as well as understanding of the use of warranty claims to support airline operations.

14-1-3. Context

The continuously increasing number of electronic platforms for warranty administration propagates into new challenges for the processes used to exchange data. Most companies of the civil aviation industry are now equipped with their own internal system to deal with the daily administration of warranty claims.

To enable diverse databases and applications to correctly interpret the information, it's necessary that the data be provided in a standard electronic format. For that reason, a working group has been created as part of the ATA e-Business Program (including manufacturers, customers, MROs and suppliers) in order to review the standard recommendations.

The objective was to provide a “simple” enough method to apply to the majority of the claims without needing so much programming or development work as to render the specification unused. This revised Chapter 14 provides a simplified set of business rules including a standard XML schema for electronic transactions.

All actors of the industry will be able to start implementing the revised standards into their current systems while sharing their experience, successes and constraints so that together we can improve the quality and flexibility in warranty processes.

14-1-4. Scope

The initial scope of this chapter covers the electronic exchange of the Warranty Claim submittal and the Warranty Claim acknowledgement. It will be expanded to include specifications for the Warranty Claim response.

This specification is limited to descriptions of the data and processes necessary for the exchange of electronic warranty claims. It does not include the internal processes that companies use to generate the data, authorize users of the data, nor process, store, or repurpose the data.

The rationale for this approach is that such internal processes are specific to each company and are governed by company policies and procedures. The purpose of this specification is to facilitate communication of information between companies and therefore there is no need, nor is it desirable, to standardize internal company processes.

14-1-5. Benefits

The benefits of using this section are in the simplification and standardization of warranty claim transactions between the claimant and the warrantor. The use of electronic data exchange as the regular mode of doing business results in reduced transaction time and cost. Immediate benefits are reduced manual administration, elimination of manual data entry and higher degree of data reliability and consistency.

14-2. Usage Guidelines

14-2-1. XML Implementation

This specification employs the use of the eXtensible Markup Language (XML) as the standard format for electronic exchange of warranty claims. XML is the predominant technology for structuring data and enabling interoperability between diverse computer systems, and is widely supported by most major software applications.

The primary XML component of this specification is an ATA standard XML schema. This schema is a template that defines the content and structure that any electronic claim must conform to in order to be properly processed by the recipient. By using a schema, a system can validate an XML file it receives to determine if it is compliant with the specification. And if so, it can correctly interpret the contents of each data element. This capability makes it possible to automate processing of the data.

The configurations of the XML schemas detailed in this specification are specified in the following files:

ATA_WarrantyClaim.xsd

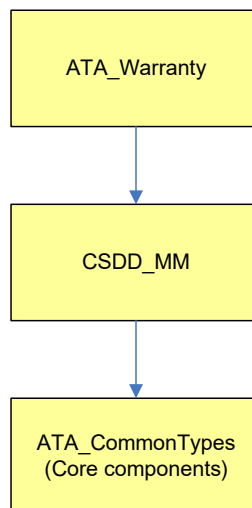
ATA_WarrantyAcknowledgement.xsd

In addition, there are two common schemas containing XML structures for common components that are usable across multiple messages. These common schemas listed below must be used in conjunction with the specific message schemas in order to obtain a complete picture of the ATA standard XML structures for warranty data.

The *ATA_CommonTypes.xsd* Contains common structural properties that may be applied to multiple data elements. This facilitates maintenance of the specification by allowing a single definition for certain data properties that can be reused multiple times.

The *CSDD_MM.xsd* contains descriptions of the structural properties for each data element used in SPEC2000, including data types, minimum and maximum lengths, and permitted code values.

Figure 14-1: XML Schema Modular Structure



Note:	All Schemas are contained within the ZIP file in which this document was delivered. If you do not have them with the document, please contact ATA.
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14-2-2. Documenting and Organizing the XML Schema

This section describes the Warranty Claim object data XML schema as well as the elements and child elements defined within the schema. After an overview of the Warranty Claim structure, each primary element within the XML schema is discussed. For each schema, a graphical representation within the ATA Warranty Claim XML schema is provided followed by element-level descriptions ([Table 14-1](#)).

The layout format of the element and attribute descriptions is a nested grid of parent-child elements. Parent elements are represented as spanning one or more sub-elements or children. Elements that also have other elements grouped within them are nested within the parent element until all elements and attributes are listed.

Table 14-1: Tabular Format for Describing ATA Warranty Claim XML Schema Elements and Attributes

Data Element Name	Tag	Data Type/ Length	Usage	Repeat (Y/N)	Remarks
Parent Element					
	Sub-Element				
	Sub-Element				
	Sub-Element with Children				
	Child to Sub-Element				
	Child to Sub-Element				
	Sub-Element				

Each row provides information for the following columns within the table:

Data Element Name – Name of the element as it appears in the Common Support Data Dictionary (CSDD).

Tag (Tag Name) – Except for certain parent elements, this is the three character tag name.

Data Type / Length – Indicates the type of data that may be stored (alpha, numeric) and any limitations on the number of characters or decimal places.

Usage – Indicates whether a value for the element is mandatory (indicated as M) or optional (indicated as O) or Conditional (indicated as C) in the XML instance document. Conditional elements are required under certain conditions described in the remarks column

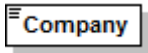
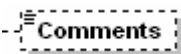
Repeat (Y/N) – Value indicates whether or not an element may be repeated

Remarks – Additional notations and field description.

14-2-3. XML Schema Illustration Convention

Throughout the document, the ATA Warranty Claim XML schema elements and attributes, constraints, and relationships are described through the use of text and illustrations. Table 14-2 includes explanations of the symbols used in the illustrations.

Table 14-2: XML Schema Illustration Conventions

Convention	Meaning	Example
Rectangle drawn with solid lines	Mandatory element or attribute.	
Rectangle with small-dashed lines	Optional element or attribute	
Octagonal object containing a horizontal line with three dots on it	Indicates that child elements must be ordered in the sequence shown.	
Numbers under an object	Indicates how many instances of the object may occur at that location in the schema hierarchy. The first number specifies the minimum number of instances. The second number indicates the maximum number of instances. An infinity symbol means that there is no upper bound to the number of instances.	
Octagonal object containing three vertical dots connected by a line	Indicates a choice – any child element (1 or more) may be included in the document instance	
Rectangle drawn with an arrow	Indicates that the element definition is established by reference	

14-2-4. XML Data Types

Data types used in XML are defined by the World Wide Web Consortium (Reference [2]). For convenience, several data type format definitions are included here.

1. date

Date to conform to the ISO 8601 format:

[yyyy] – [mm] – [dd] (example 2017-05-26)

2. dateTime

Date and time conform to the ISO 8601 extended format:

[yyyy] – [mm] – [dd] T[hh]: [mm]: [ss] + [hh]: [mm]

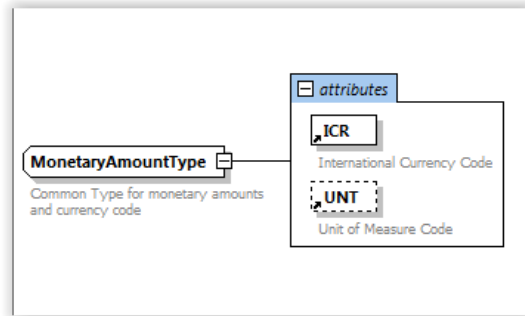
Or for UTC

[yyyy] – [mm] – [dd] T[hh]: [mm]: [ss] Z

3. MonetaryAmountType

This is a complex type developed to be used against monetary amounts, which also requires an international currency code, and optionally a unit of measure. For example, if the price of a product is measured in \$USD per Liter, then both ICR and UNT would be used to describe the decimal field supplied.

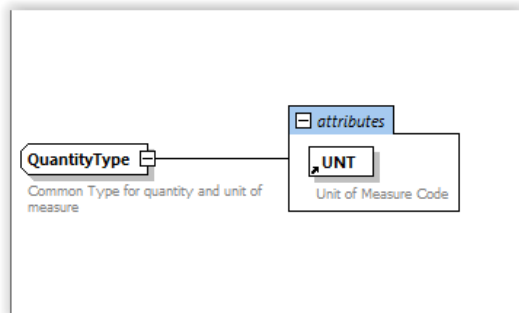
Figure 14-2: Monetary Amount Type XML Schema Design View



4. QuantityType

This is a complex type developed to be used against quantities of items. If the items are counted as singular, then use the UNT EA.

Figure 14-3: Quantity Type XML Schema Design View



14-2-5. Business Rules

The following guidelines shall be followed in order to be considered in compliance with this specification:

1. The resolution of the claim is not covered in the scope of this revision of the specification.
2. Revisions are not addressed by the process described. The necessary following process needs to be mutually agreed by trading partners. For example, the revised claim could be generated by the claimant as a new claim with a new claim reference.
3. The indication of the aircraft or engine model (MOL) shall follow the nomenclature assigned by the manufacturer and registered with the airworthiness authorities.
4. The information transmitted in Part Description (PDT) shall be consistent with the part description in the IPC/IPL.
5. Only one currency shall be used per warranty claim.
6. The choice of communication protocol should be left up to trading partners to decide. They should select a protocol that provides features for reliable messaging and non-repudiation.
7. Trading partners should employ sufficient internal system security controls and procedures to provide a high level of assurance that archived electronic warranty claims cannot be altered by unauthorized personnel.

14-2-6. Warranty Claim Types

Due to the complexity of warranty claims, close attention must be paid to the structure of this transaction. The claim submittal structure is different for each of the following warranty claim types.

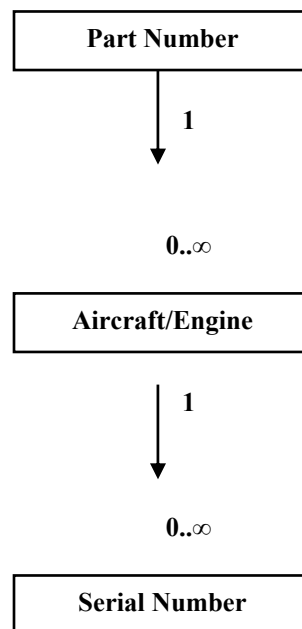
1. Part Claim

A claim filed because of an anomalous failure found on a part. A claim filed against the embodiment of one aircraft/engine service bulletin or one or more vendor service bulletin(s) on a part number.

The part claim can be filed against original equipment delivered on one or more aircraft/engine(s). The part claim can be filed against one or more purchased spare items with one common part number.

The part number is mandatory.

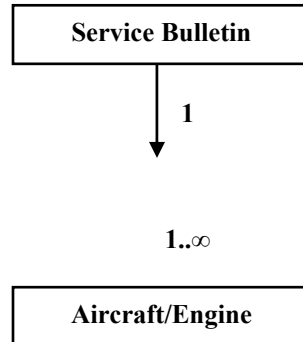
Figure 14-4: Part Claim Structure



2. Aircraft/Engine Bulletin Claim

A claim filed against the embodiment of an aircraft/engine service bulletin on one or more aircraft/engine(s). The service bulletin and aircraft/engine serial number are mandatory.

Figure 14-5: Aircraft / Engine Bulletin Claim Structure



3. Issue Claim

A claim filed for all issues not covered under ‘Part Claim’ or ‘Aircraft/Engine Bulletin Claim’. For example, this could include painting issue, interface issue or notice of defect.

14-3. Warranty Claim XML Schema

14-3-1. Warranty Claim Submittal XML Schema Overview

The ATA Warranty Claim XML Schema contains several elements and child elements that together define a claim template in the form of an XML instance document. Figure 14-6 and Table 14-3 depict the high-level structure of this XML schema.

Figure 14-6: ATA_WarrantyClaim XML Schema Design View

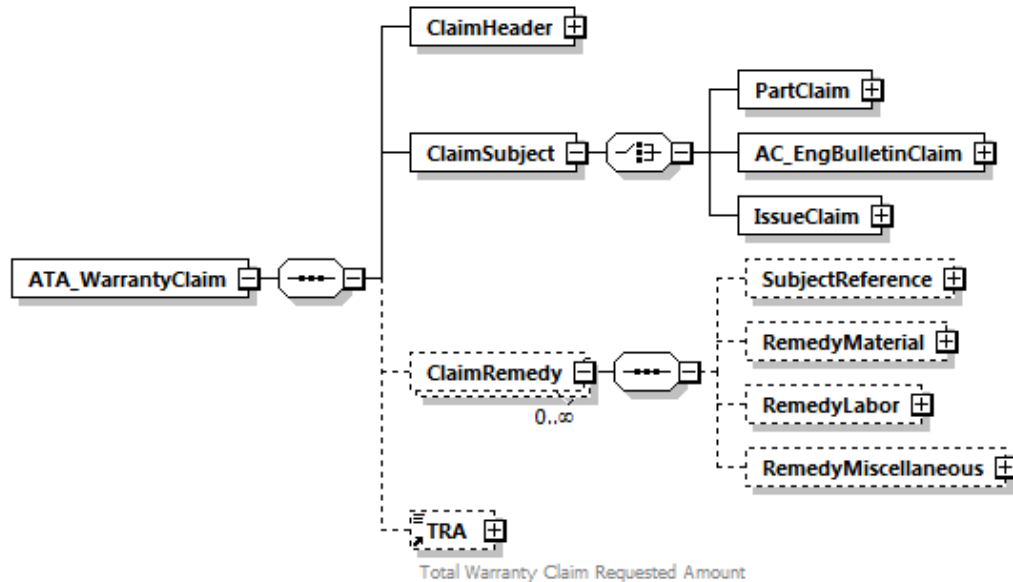


Table 14-3: ATA_WarrantyClaim Child Elements

Data Element Name	Tag	Data Type / Length	Usage	Repeat (Y/N)	Remarks
ATA_WarrantyClaim					Top (root) element for Warranty Claim
ClaimHeader			M	N	Represents information about the claimant, the warrantor and the type of claim (see Claim Header Section)
ClaimSubject			M	N	Represents details about the subject of the claim. One of the sub-segments is required.
PartClaim			C	N	Identifies information related to a specific part number (see Part Claim Section)
AC_EngBulletinClaim			C	N	Identifies claim information related to specific Aircraft or Engine Service Bulletins (see Bulletin Claim Section)
IssueClaim			C	N	Identifies claim information related to other claim types.(see Issue Type Section)
ClaimRemedy			O	Y	Represents details about the remedies requested by the claimant to the warrantor (see Claim Remedy Section).

	SubjectReference			O	N	
	RemedyMaterial			O	N	
	RemedyLabor			O	N	
	RemedyMiscellaneous			O	N	
	Total Warranty Claim Requested Amount	TRA	MonetaryAmountType	O	N	Identifies the requested monetary amount of the entire claim.

14-3-2. Claim Header XML Schema Definition

This section contains an illustrative view of the ClaimHeader XML Schema (Figure 14-7) and field definitions (Table 14-4).

Figure 14-7: ClaimHeader XML Schema Design View

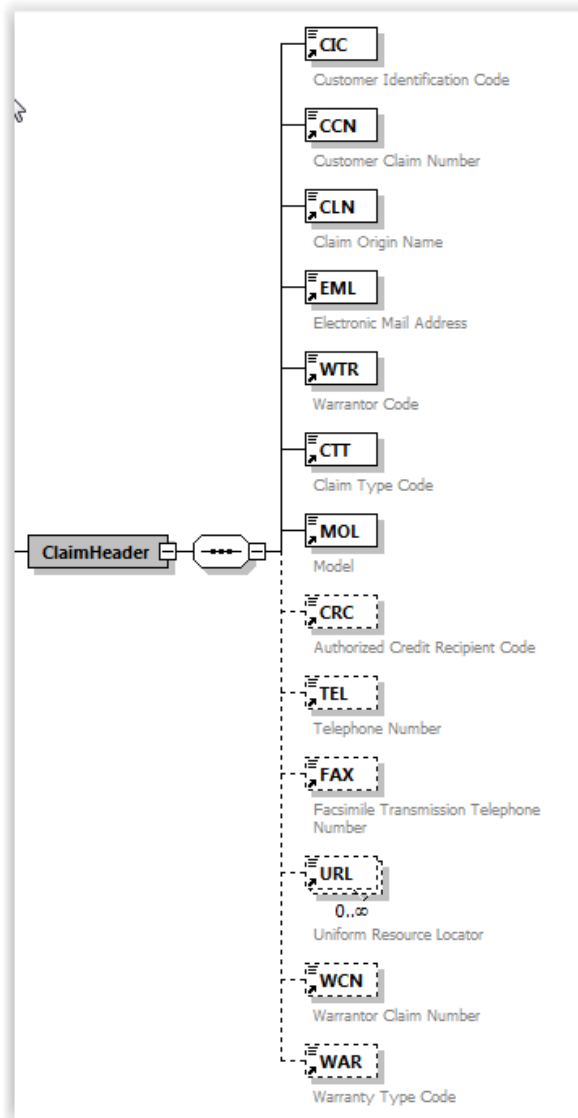


Table 14-4: ClaimHeader Child Elements

Note: Additional detailed information with definitions and data descriptions for each of the items below can be found in the Common Support Data Dictionary (CSDD) which is included at the end of the specification. Please note also that the sequence of the elements shown in the table below are from a business perspective. The sequence of the elements in the XML Schema are slightly different and should followed in the creation of the XML instance documents.

Data Element Name	Tag	Data Type / Length	Usage	Repeat (Y/N)	Remarks
ClaimHeader			M	N	Parent Element.
Customer Identification Code	CIC	xs:string [3-5]	M	N	Code of company submitting the warranty claim.
Customer Claim Number	CCN	xs:string [1-16]	M	N	Unique customer's ID for the claim.
Claim Origin Name	CLN	xs:string [2-40]	M	N	Name of person submitting the claim.
Electronic Mail Address	EML	xs:string [1-50]	M	N	Email address of the person submitting the claim.
Telephone Number	TEL	xs:string [1-25]	O	N	Phone number of the person submitting the claim.
Facsimile Transmission Telephone Number	FAX	xs:string [1-25]	O	N	Fax number of the person submitting the claim.
Warrantor Code	WTR	xs:string [5-5]	M	N	CAGE Code of company to whom the warranty claim is submitted.
Claim Type Code	CTT	xs:string [1-1]	M	N	Identifies type of warranty claim: The valid codes are: P = Part Claim B = Aircraft/Engine Bulletin Claim - I = Issue Claim - Subject is neither part nor service bulletin
Model	MOL	xs:string [1-64]	M	N	Model identifier for the delivery aircraft or engine as designated by the airframe or engine manufacturer.
Uniform Resource Locator	URL	xs:string [1-1000]	O	Y	URL address hosting one or several attachment files.
Authorized Credit Recipient Code	CRC	xs:string [3-5]	O	N	If warranty credits are to be assigned to a party other than the claimant. Use CAGE code or airline code.
Warrantor Claim Number	WCN	xs:string [1-14]	O	N	Identification number assigned by the manufacturer to a claim that was previously submitted. Not applicable when CTT = B

ATA SPEC2000 Warranty Claims – Ch. 14

	Warranty Type Code	WAR	xs:string [1-2]	O	N	Specific warranty obligation that covers issue being claimed: Aircraft/Spare Part Warranty Claims Only: D = Design Warranty M = Material & Workmanship S = Conformance to Detail Specification T = Service Like Policy V = Supplier Backup Warranty Y = Delivery Commitment Engine Warranty Claim Only: B = Service Bulletin C = Airline Commitment G = Guarantee and Other I = Line Limited Part N = New Engine P = Purchase/New Part
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14-3-3. Claim Subject XML Schema Definition

1. Part Claim

This section contains an illustrative view of the PartClaim XML Schema (Figure 14-8) and field definitions (Table 14-5).

Figure 14-8: PartClaim XML Schema Design View

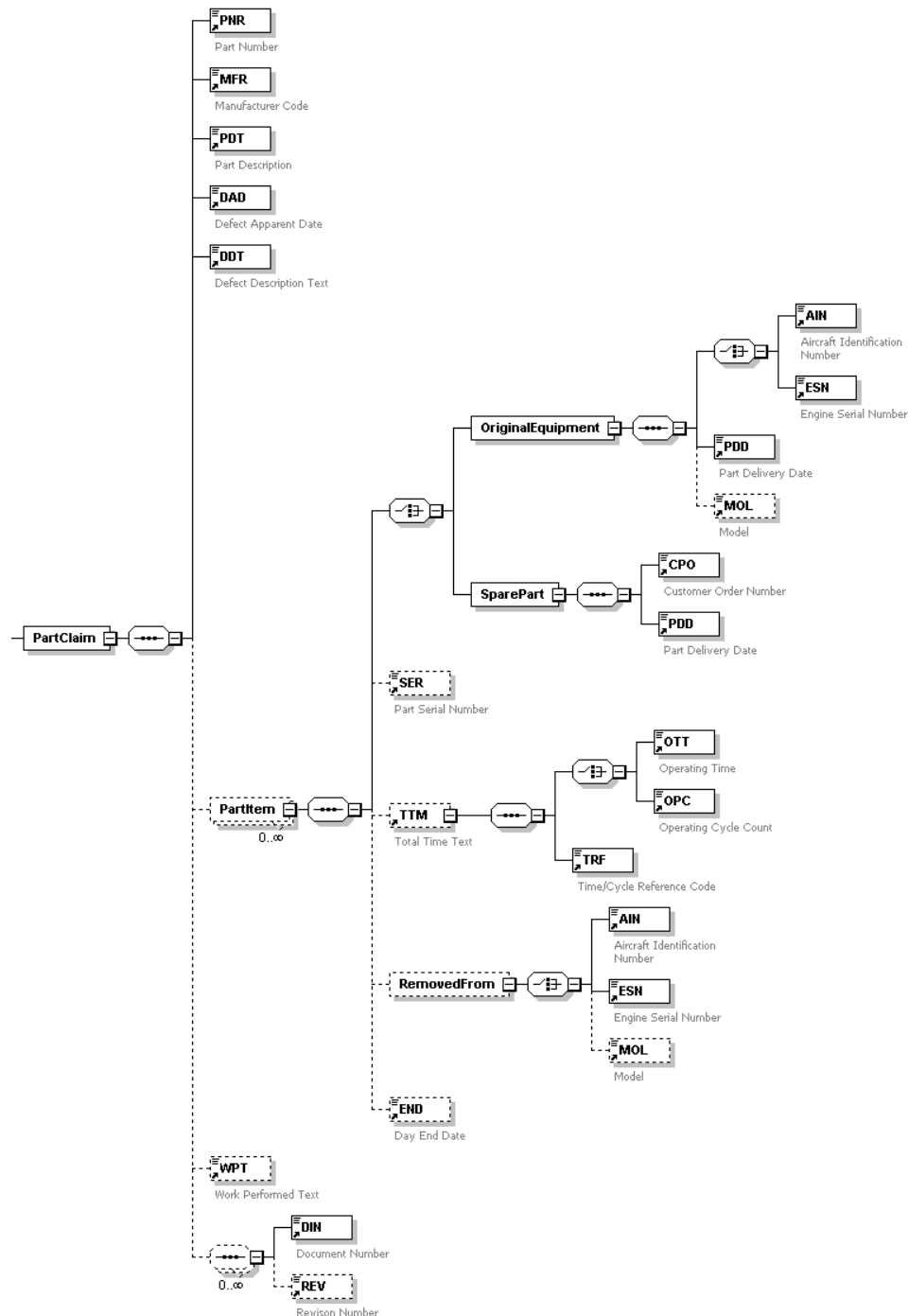


Table 14-5: PartClaim Child Elements

Note: Additional detailed information with definitions and data descriptions for each of the items below can be found in the Common Support Data Dictionary (CSDD) which is included at the end of the specification

Data Element Name	Tag	Data Type / Length	Usage	Repeat (Y/N)	Remarks
PartClaim					This segment is conditional (CTT = P. However, if used, all mandatory fields must be provided.
Part Number	PNR	xs:string [1-32]	M	N	The manufacturer's part number for the subject part
Manufacturer Code	MFR	xs:string [5-5]	M	N	CAGE code of manufacturer of the part.
Part Description	PDT	xs:string [1-100]	M	N	Specifies the full descriptive name of the part.
Defect Apparent Date	DAD	xs:date	M	N	The date on which the defect of the part became apparent
Defect Description Text	DDT	xs:string [1-4000]	M	N	Provides miscellaneous information in free-form text format pertaining to reason for the claim
PartItem			O	Y	Represents details about the subject of the claim.
OriginalEquipment			C	N	Identifies information regarding the original installation of the part. Either OriginalEquipment segment or SparePart segment is required.
Aircraft Identification Number	AIN	xs:string [1-10]	C	N	Unique identifier for the airframe designated by the manufacturer. Either AIN or ESN is required.
Engine Serial Number	ESN	xs:string [1-15]	C	N	Unique identifier for the engine designated by the manufacturer. Either AIN or ESN is required.
Part Delivery Date	PDD	xs:date	M	N	The date on which the aircraft or engine was delivered to the customer.
Model	MOL	xs:string [1-64]	M	N	Model identifier for the delivery aircraft designated by the airframe or engine manufacturer.
SparePart			C	N	Identifies information related to a spare part. Either OriginalEquipment segment or SparePart segment is required.
Customer Order Number	CPO	xs:string [1-11]	M	N	The customer's identity number assigned to a specific order for a given part.
Part Delivery Date	PDD	xs:date	M	N	The date on which the part was delivered to the customer.
Part Serial Number	SER	xs:string [1-30]	O	N	The manufacturer's serialized identity for an individual part.

	Total Time Text TTM			O	Y	Grouping to contain time / cycle information about the part. May be repeated to provide more than one type of time or cycle data.
	Time/Cycle Reference Code	TRF	xs:string	M	N	The reference from which the Time and Cycles in OTT and OPC apply. The valid codes for a warranty claim are: N = since installation as a new part O = since last overhaul
	Operating Time	OTT	xs:integer [6]	M	N	The number of operating hours accumulated as designated by TRF.
	Operating Cycle Count	OPC	xs:integer [6]	M	N	The number of operating cycles accumulated as designated by TRF.
	RemovedFrom			O	N	This segment identifies the most recent aircraft or engine the part was removed from. If used, either AIN or ESN is required.
	Aircraft Identification Number	AIN	xs:string [1-10]	C	N	Unique identifier for the airframe from which the part was removed from. Either AIN or ESN is required.
	Engine Serial Number	ESN	xs:string [1-15]	C	N	Unique identifier for the engine from which the part was removed from. Either AIN or ESN is required.
	Model	MOL	xs:string [1-64]	O	N	Model identifier for the aircraft or engine as designated by the airframe or engine manufacturer.
	Day End Date	END	xs:date	O	N	The date on which the defect was corrected
	Work Performed Text	WPT	xs:string [1-4000]	O	N	Provides details in free-form text format about the work performed to correct the defect.
	Document Number	DIN	xs:string [1-32]	O	Y	Contains the Service Bulletin number, technical reference, or other authority needed for a warranty claim.
	Revision Number	REV	xs:string [1-6]	O	Y	Revision release number of the document

2. Aircraft/Engine Bulletin Claim

This section contains an illustrative view of the AC_EngBulletinClaim XML Schema (Figure 14-9) and field definitions (Table 14-6).

Figure 14-9: AC_EngBulletinClaim XML Schema Design View

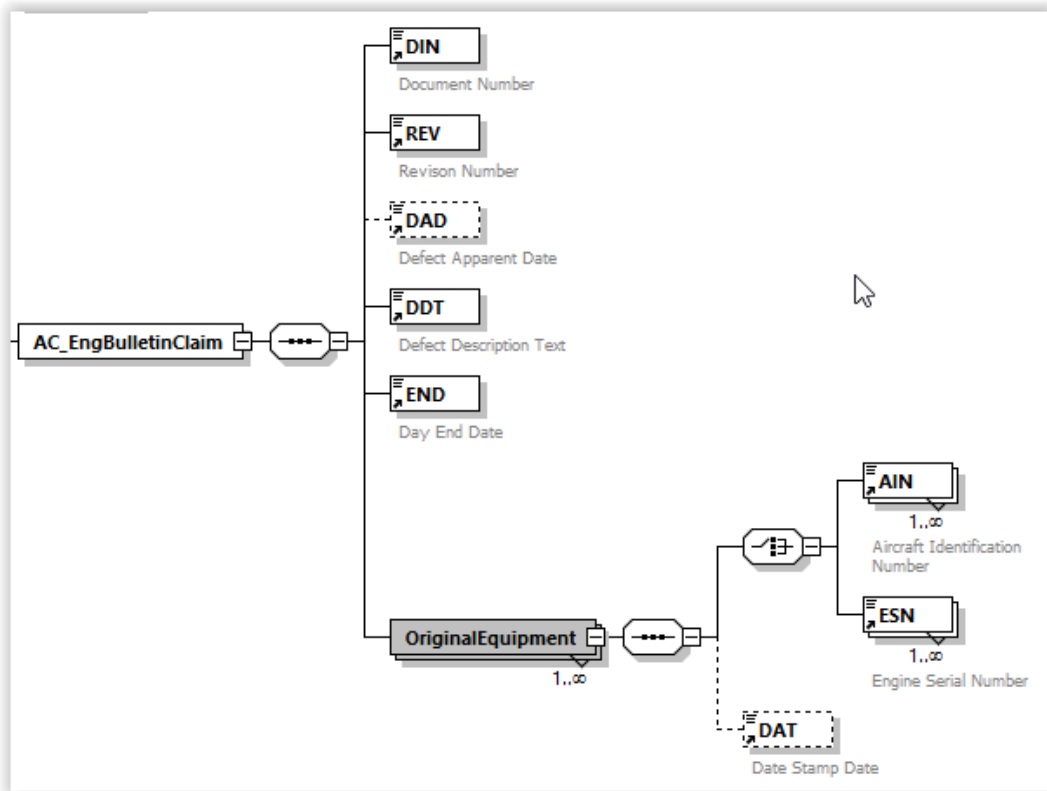


Table 14-6: AC_EngBulletinClaim Child Elements

Note: Additional detailed information with definitions and data descriptions for each of the items below can be found in the Common Support Data Dictionary (CSDD) which is included at the end of the specification

Data Element Name	Tag	Data Type / Length	Usage	Repeat (Y/N)	Remarks
AC_EngBulletinClaim					This segment is conditional (CTT = P). However, if used, all mandatory fields must be provided.
Document Number	DIN	xs:string [1-32]	M	Y	Contains the Service Bulletin number, technical reference, or other authority needed for a warranty claim.
Revision Number	REV	xs:string [1-6]	M	Y	Revision release number of the document
Defect Apparent Date	DAD	xs:date	O	N	The date on which the defect became apparent
Defect Description Text	DDT	xs:string [1-4000]	M	N	Provides miscellaneous information in free-form text format pertaining to reason for the claim
Day End Date	END	xs:date	O	N	The date on which the service bulletin was embodied on the last aircraft or engine.
OriginalEquipment			M	Y	Identifies information regarding the affected equipment. Either AIN or ESN is required. May be repeated for each engine or aircraft affected by the bulletin claim.
Aircraft Identification Number	AIN	xs:string [1-10]	C	Y	Unique identifier for the airframe designated by the manufacturer.
Engine Serial Number	ESN	xs:string [1-15]	C	Y	Unique identifier for the engine designated by the manufacturer.
Embodiment Date	DAT	xs:date	O	N	Identifies the date on which the bulletin was embodied on the aircraft or engine indicated in the OriginalEquipment block.

3. Issue Claim

This section contains an illustrative view of the IssueClaim XML Schema (Figure 14-10) and field definitions (Table 14-7).

Figure 14-10: IssueClaim XML Schema Design View

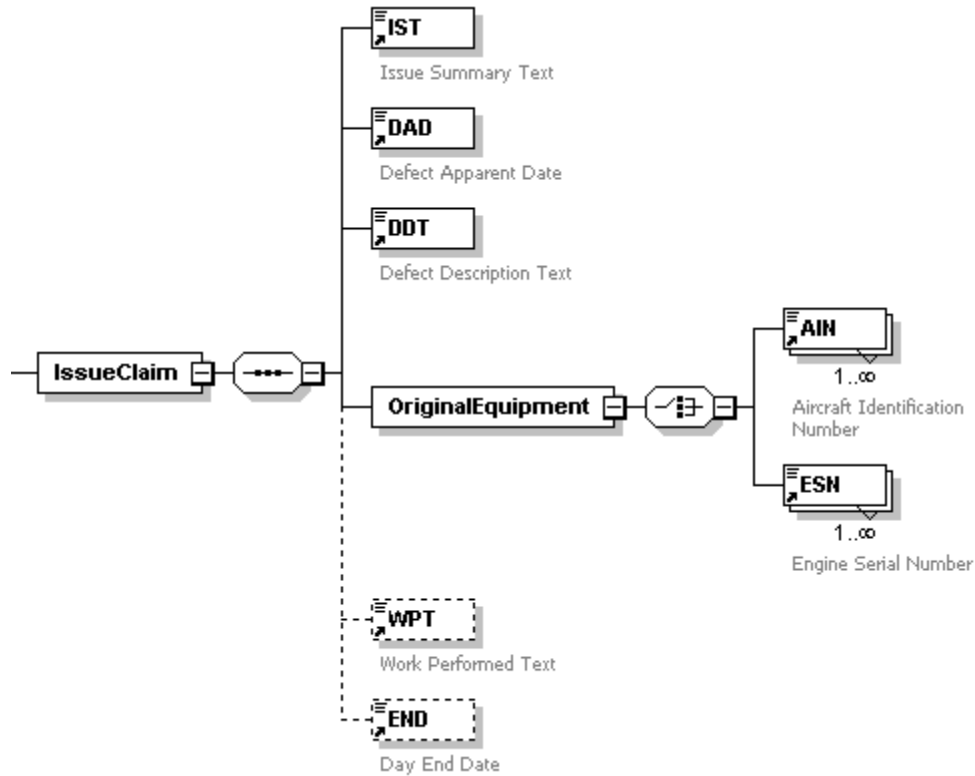


Table 14-7: IssueClaim Child Elements

Note:	Additional detailed information with definitions and data descriptions for each of the items below can be found in the Common Support Data Dictionary (CSDD) which is included at the end of the specification. Please note also that the sequence of the elements shown in the table below are from a business perspective. The sequence of the elements in the XML Schema are slightly different and should followed in the creation of the XML instance documents.
-------	---

Data Element Name	Tag	Data Type / Length	Usage	Repeat (Y/N)	Remarks
IssueClaim					This segment is conditional (CTT = I). However, if used, all mandatory fields must be provided.
Issue Summary Text	IST	xs:string [1-200]	M	N	Specifies quick description of the issue.
Defect Apparent Date	DAD	xs:date	M	N	The date on which the issue became apparent.
Defect Description Text	DDT	xs:string [1-4000]	M	N	Provides details in free-form text format about the reason for claiming.
Work Performed Text	WPT	xs:string [1-4000]	O	N	Provides details in free-form text format about the work performed to correct the issue.
Day End Date	END	xs:date	O	N	The date on which the work performed was ended.
OriginalEquipment			M	N	Identifies information regarding the affected equipment. Either AIN or ESN is required.
Aircraft Identification Number	AIN	xs:string [1-10]	C	Y	Unique identifier for the airframe designated by the manufacturer.
Engine Serial Number	ESN	xs:string [1-15]	C	Y	Unique identifier for the engine designated by the manufacturer.

14-3-4. Claim Remedy XML Schema Definition

This section contains an illustrative view of the ClaimRemedy XML Schema section (Figure 14-11) and field definitions (Table 14-8)

Figure 14-11: Claim Remedy XML Schema Design View

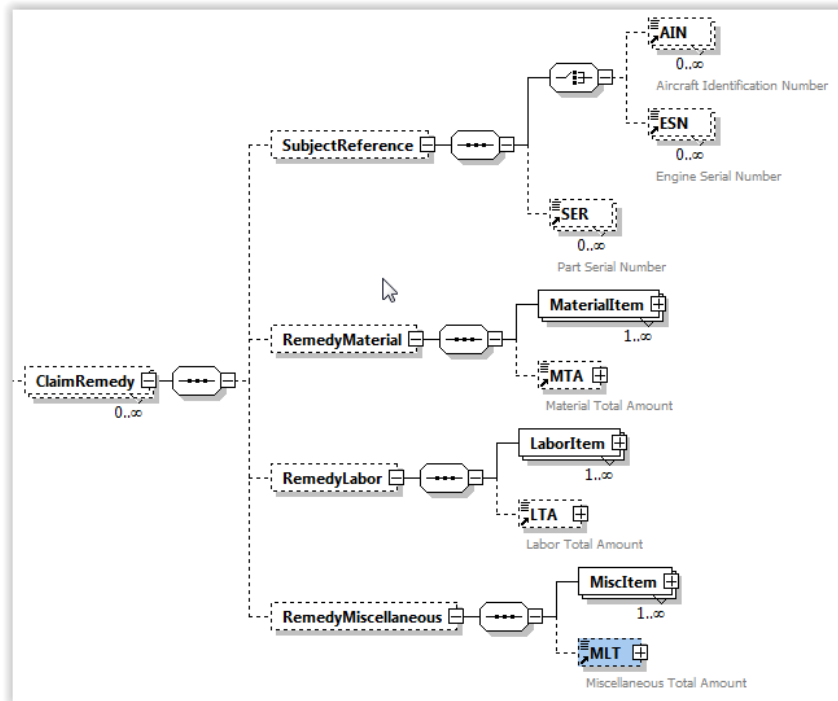


Figure 14-12: Material Item XML Schema Design View

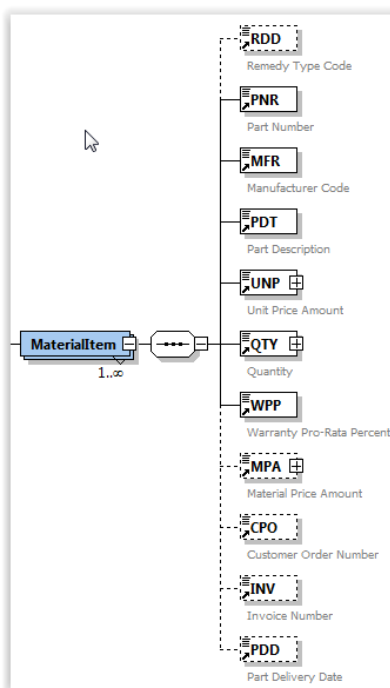


Figure 14-13: Labor Item XML Schema Design View

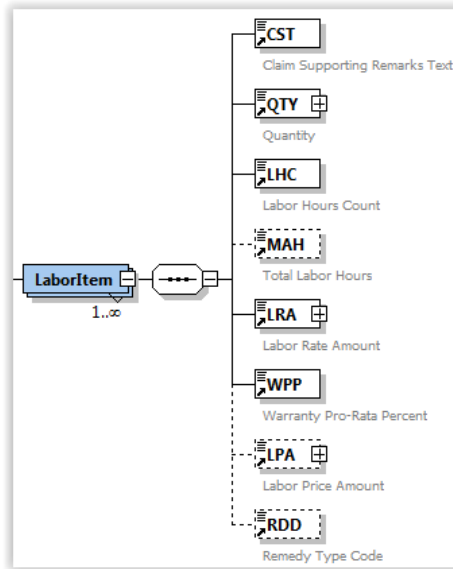


Figure 14-14: Misc. Item XML Schema Design View

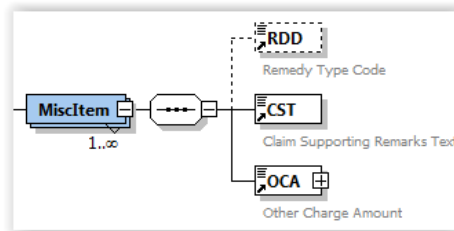


Table 14-8: ClaimRemedy Child Elements

Note: Additional detailed information with definitions and data descriptions for each of the items below can be found in the Common Support Data Dictionary (CSDD) which is included at the end of the specification

Data Element Name	Tag	Data Type / Length	Usage	Repeat (Y/N)	Remarks
ClaimRemedy					Parent Element
SubjectReference			O	N	This segment uniquely identifies the aircraft, engine or part for which the remedy is associated
Aircraft Identification Number	AIN	xs:string [1:10]	O	N	Unique identifier of the airframe as designated by the manufacturer.
Engine Serial Number	ESN	xs:string [1:15]	O	N	Unique identifier of the engine as designated by the manufacturer.
Part Serial Number	SER	xs:string [1:30]	O	N	The manufacturer's serialized identity for a given part.
RemedyMaterial			O	N	Represents details about the material remedies requested.

MaterialItem			O	Y	The segment may occur once for each material item. If used, all required elements must be provided.
Part Number	PNR	xs:string [1-32]	M	N	The manufacturer's part number for the subject material item.
Manufacturer Code	MFR	xs:string [5-5]	M	N	CAGE code of the manufacturer of the part.
Part Description	PDT	xs:string [1-100]	M	N	Specifies the full descriptive name of the part.
Unit Price Amount	UNP	MonetaryAmountType	M	N	The sell price for one unit of the subject part conforming to the Currency Code and Unit of Measure.
Quantity	QTY	QuantityType	M	N	Number of units for the material item.
Warranty Pro-Rata Percent	WPP	xs:integer	M	N	The expected percentage of recovery from the warranty claim.
Material Price Amount	MPA	MonetaryAmountType	O	N	Cost of material for the item. $MPA = UNP \times QTY \times WPP / 100$
Customer Order Number	CPO	xs:string [1-11]	O	N	The customer's Purchase Order number assigned for the given material item
Invoice Number	INV	xs:string [1-25]	O	N	The supplier's Invoice number for the given material item.
Remedy Type Code	RDD	xs:string [2-2]	O	N	Identifies the type of remedy requested. The valid codes for material items are: RP = Reimburse Part/Tool/Kit EP = Exchange Part/Tool/Kit LP = Loan Part/Tool/Kit SP = Seed Part/Tool/Kit FP = Free of Charge Part/Tool/Kit
Part Delivery Date	PDD	xs:date	O	N	The date on which the part was delivered to the customer
Material Total Amount	MTA	MonetaryAmountType	O	N	Total cost of remedy material requested. Equals the sum of MPA for each material item.
RemedyLabor			O	N	Represents details about the labor remedies requested.
LaborItem			O	Y	The segment may occur once for each labor item. If used, all required elements must be provided.
Claim Supporting Remarks	CST	xs:string [1-64]	M	N	Specifies the description of the labor task.
Quantity	QTY	QuantityType	M	N	Number of units related to the labor task.
Labor Hours Count	LHC	xs:decimal	M	N	Number of labor hours for one unit.
Total Labor Hours	MAH	xs:decimal	O	N	Total man-hours required to complete the labor task.

					MAH = QTY x LHC
Labor Rate Amount	LRA	MonetaryAmountType	M	N	The monetary value of labor per hour.
Warranty Pro-Rata Percent	WPP	xs:decimal	M	N	The expected percentage of recovery from the warranty claim.
Labor Price Amount	LPA	MonetaryAmountType	O	N	Cost of labor for the task. $LPA = QTY \times LHC \times LRA \times WPP / 100$
Remedy Type Code	RDD	xs:string	O	N	Identifies the type of remedy requested. The valid codes for remedy labor are: IL = Inspection Labor ML = Modify/Repair Labor RR = Remove and Refit Labor OM = Other
Labor Total Amount	LTA	MonetaryAmountType	O	N	Total cost of remedy labor requested. Equals the sum of LPA for each labor item.
RemedyMiscellaneous			O	N	Represents details about the miscellaneous remedies requested.
MiscItem			M	Y	The segment may occur once for each miscellaneous item. If used, all required elements must be provided.
Claim Supporting Remarks	CST	xs:string [1-64]	M	N	Specifies the description of the miscellaneous item.
Other Charges Amount	OCA	MonetaryAmountType	M	N	Cost of the miscellaneous item
Remedy Type Code	RDD	xs:string [2-2]	O	N	Identifies the type of remedy requested. The valid codes for miscellaneous items are: FM = Freight SM = Shop Supplies TM = Technical Assistance Only AM = AOG Team CM = Test Cell PM = Fuel OM = Other
Miscellaneous Total Amount	MLT	MonetaryAmountType	O	N	Total cost of remedy miscellaneous requested. Equals the sum OCA for each misc item.

14-3-5. Warranty Claim Acknowledgement XML Schema Definition

If the choice of communication protocol between trading partners provides features for reliable messaging and non-repudiation, this message may not be necessary.

This section contains an illustrative view of the ATA_WarrantyAcknowledgement XML Schema (Figure 14-15) and field definitions (Table 14-9).

Figure 14-15: ATA_WarrantyAcknowledgement XML Schema Design View

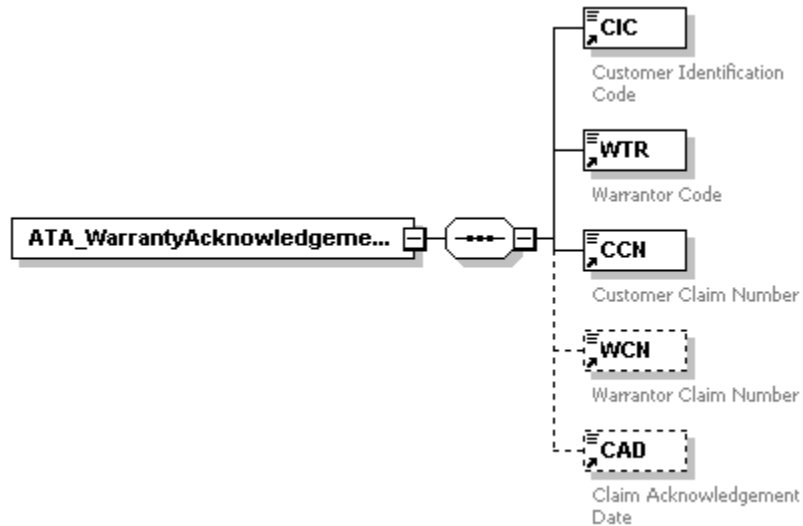


Table 14-9: ATA_WarrantyAcknowledgement Child Elements

Note: Additional detailed information with definitions and data descriptions for each of the items below can be found in the Common Support Data Dictionary (CSDD) which is included at the end of the specification

Data Element Name	Tag	Data Type / Length	Usage	Repeat (Y/N)	Remarks
ATA_WarrantyAcknowledgement					Parent Element.
Customer Identification Code	CIC	xs:string [3-5]	M	N	Code of company which submitted the warranty claim.
Warrantor Code	WTR	xs:string [5-5]	M	N	CAGE code of company to whom the warranty claim was submitted
Customer Claim Number	CCN	xs:string [1-14]	M	N	Unique customer's ID for the claim.
Warrantor Claim Number	WCN	xs:string [1-14]	O	N	Unique warrantor's ID for the claim
Claim Acknowledgement Date	CAD	xs:date	O	N	The date on which the warranty claim was received by the warrantor

14-4. Examples

14-4-1. Single Part Claim

The claimant is making a new claim against a single part failure which was replaced. The requested remedies are parts and modification labor.

```
<?xml version="1.0" encoding="UTF-8"?>
<ATA_WarrantyClaim xsi:noNamespaceSchemaLocation="ATA_WarrantyClaim.xsd"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <ClaimHeader>
    <CIC>ABC</CIC>
    <CCN>LFK487SK</CCN>
    <CLN>JOHN SMITH</CLN>
    <EML>JOHN.SMITH@ABC.COM</EML>
    <WTR>FAPE3</WTR>
    <CTT>P</CTT>
    <MOL>A320</MOL>
    <TEL>+12026857483</TEL>
    <FAX>+12026857459</FAX>
  </ClaimHeader>
  <ClaimSubject>
    <PartClaim>
      <PNR>D9483728571948</PNR>
      <MFR>FAPE3</MFR>
      <PDT>FAIRING</PDT>
      <DAD>2012-04-15</DAD>
      <DDT>BROKEN</DDT>
      <PartItem>
        <OriginalEquipment>
          <AIN>3876</AIN>
          <PDD>2011-08-13</PDD>
          <MOL>A320</MOL>
        </OriginalEquipment>
        <SER>1837248372</SER>
        <TTM>
          <OTT>12567</OTT>
          <TRF>N</TRF>
        </TTM>
        <RemovedFrom>
          <AIN>3876</AIN>
        </RemovedFrom>
        <END>2012-04-17</END>
      </PartItem>
      <WPT>REPLACED</WPT>
    </PartClaim>
  </ClaimSubject>
  <ClaimRemedy>
    <RemedyMaterial>
      <MaterialItem>
        <PNR>D9483728571948</PNR>
        <MFR>FAPE3</MFR>
        <PDT>FAIRING</PDT>
        <UNP ICR="USD">2570.00</UNP>
        <QTY UNT="EA">1</QTY>
        <WPP>100</WPP>
        <MPA ICR="USD">2570.00</MPA>
        <CPO>A1297S</CPO>
        <INV>87342827</INV>
      </MaterialItem>
      <MTA ICR="USD">2570.00</MTA>
    </RemedyMaterial>
    <RemedyLabor>
      <LaborItem>
        <CST>Removal/Installation</CST>
        <QTY UNT="EA">1</QTY>
        <LHC>12</LHC>
      </LaborItem>
    </RemedyLabor>
  </ClaimRemedy>
</ATA_WarrantyClaim>
```

```

        <MAH>12</MAH>
        <LRA ICR="USD">50.00</LRA>
        <WPP>100</WPP>
        <LPA ICR="USD">600.00</LPA>
        <RDD>RR</RDD>
    </LaborItem>
    <LTA ICR="USD">600.00</LTA>
</RemedyLabor>
</ClaimRemedy>
<TRA ICR="USD">3170</TRA>
</ATA_WarrantyClaim>

```

14-4-2. Aircraft Service Bulletin Claim

The claimant is making a new claim against the embodiment of an aircraft Service Bulletin on two aircraft. The requested remedies are modification labor.

```

<?xml version="1.0" encoding="UTF-8"?>
<ATA_WarrantyClaim xsi:noNamespaceSchemaLocation="ATA_WarrantyClaim.xsd"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <ClaimHeader>
        <CIC>ABC</CIC>
        <CCN>LJFU673M</CCN>
        <CLN>JOHN SMITH</CLN>
        <EML>JOHN.SMITH@ABC.COM</EML>
        <WTR>FAPE3</WTR>
        <CTT>B</CTT>
        <MOL>A320</MOL>
        <TEL>+12026857483</TEL>
        <FAX>+12026857459</FAX>
    </ClaimHeader>
    <ClaimSubject>
        <AC_EngBulletinClaim>
            <DIN>21-1213</DIN>
            <REV>01</REV>
            <DDT>EMBODIMENT OF SB 21-1213 ON MENTIONED AIRCRAFT.</DDT>
            <END>2012-04-17</END>
            <OriginalEquipment>
                <AIN>4589</AIN>
                <DAT>2020-09-10</DAT>
            </OriginalEquipment>
            <OriginalEquipment>
                <AIN>5022</AIN>
                <DAT>2020-09-17</DAT>
            </OriginalEquipment>
        </AC_EngBulletinClaim>
    </ClaimSubject>
    <ClaimRemedy>
        <RemedyLabor>
            <LaborItem>
                <CST>SB MODIFICATION</CST>
                <QTY UNT="EA">2</QTY>
                <LHC>18</LHC>
                <MAH>36</MAH>
                <LRA ICR="USD">50.00</LRA>
                <WPP>100</WPP>
                <LPA ICR="USD">1800.00</LPA>
                <RDD>ML</RDD>
            </LaborItem>
            <LTA ICR="USD">1800.00</LTA>
        </RemedyLabor>
    </ClaimRemedy>
    <TRA ICR="USD">1800</TRA>
</ATA_WarrantyClaim>

```

Name	Aircraft Identification Number	Mod	2019
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ALSO KNOWN AS: AIN

DEFINITIONS		
Class	Definition	Source
Concept	The manufacturer's permanently-applied serial number for the airframe.	2000,

Name	Aircraft Identification Number	Mod	2019
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APPLICATION IN SPECIFICATIONS				
Source	Context	Key (e.g., Tag or TEI)	Type	Properties
2000	MSG & File	AIN	Element	Data Type: AN Min Length: 1 Max Length: 6 Cobol Picture: X(01) to X(06) Decimals: 0 Usages: Chapter 1, 5 Record Type 22, 26, 28
2000	XSD	AIN	Element	Data Type: xs:string Min Length: 1 Max Length: 10 Usages: Chapter 11, 14, 15 Schema AircraftEvent, AircraftHoursAndLandings, AircraftOutOfService, AircraftStatusChange, ATA_WarrantyClaim, DeliveredAircraftTransferPartList, EngineRemoval, Flight, Logbook, LRU_Removal, QuantityPerAircraft, ScheduledMaintenance, ServiceBulletin, ShopFindings, SummaryData
2000	TEI	AIN	Data Element	Data Type: String Min Length: 1 Max Length: 10 Usages: Chapter 9

Name	Authorized Credit Recipient Code	Mod	2018
------	----------------------------------	-----	------

DEFINITIONS		
Class	Definition	Source
Specific	Company Code to which warranty credits are to be assigned if other than the claimant.	2000,

APPLICATION IN SPECIFICATIONS				
Source	Context	Key (e.g., Tag or TEI)	Type	Properties
2000	XSD	CRC	Element	Data Type: xs:String Min Length: 3 Max Length: 5 Use IATA Airline Code or CAGE code. Usages: Chapter 14 Schema ATA_WarrantyClaim