# Content Development Kit Mechanical Parts Vector Illustrations with Part Numbers

**Vehicle Key - ACES** 

V1.2











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### 1 Description

The MOTOR Parts Vector Illustrations dataset provides exploded views of vehicle parts; each image representing a vehicle system or assembly. The delivery consists of vector (.SVG) illustrations, and the XML data files that provide the vehicle and part application data for the illustrations and the parts called out in the illustrations. This document focuses on the XML data files.

The application data is delivered in XML data files that utilize the ACES 3.0 Delivery Spec and Schema that can be found in the documentation package at <a href="http://www.autocare.org/what-we-do/technology/technologyhelp/">http://www.autocare.org/what-we-do/technology/technologyhelp/</a>. The package file ACES-Delivery\_Spec\_Version\_3.0.pdf contains a sample starting on page 31 which closely resembles this product. The MOTOR Parts Vector Illustrations dataset contains the following features that are not described in the Auto Care Association documentation.

- The data does contain any part quantities. The Qty elements are included in App elements because they are required, but they do not contain any values.
- The ACES 3.0 schema will fail when validating against these files because of the length of concatenated part numbers. Your copy of the schema should be updated to remove the length restriction on the Part element before validating the files against the schema.
- The Asset elements contain Note elements that described the Group and SubGroup of each illustration which can be used for creating illustration selection navigation.
- App and Asset elements can contain child Note elements that have an id attribute value. This value is
  a reference to the MOTOR\_Qualifier.xml file provided. This standardized qualifier list is used in place
  of the AAIA Qdb standard.
- In cases where our source data has not been mapped to PCdb data, we will include the value of 99999 for the id attribute in the PartType element.
- The PartType element value will contain the part description from our source data. This value does not come from the Part table in PCdb, though the id attribute value does.

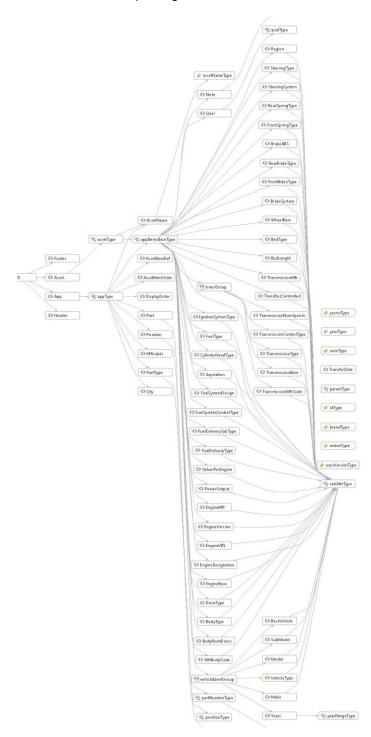
The part application data will be delivered in multiple files, each containing the data for a unique AAIA Make. The MOTOR Qualifier standard data is delivered in a file named MOTOR\_Qualifier.xml. The delivery also contains the schema file for MOTOR Qualifier.



# 2 XML Schema

#### 2.1 ACES 3.0 XML File

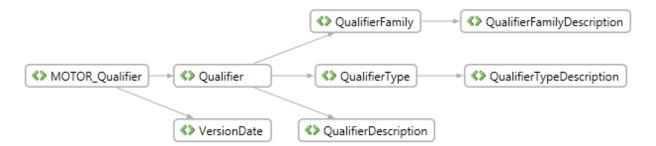
See documentation package for schema file.





#### 2.2 MOTOR Qualifier

See MOTOR\_Qualifier.xsd for more details.





# 3 Data Dictionary

#### 3.1.1 File: MOTOR\_Parts\_Vector\_Illustrations\_[AAIA Make].xml

#	Element name	Content Type	Content Model	Attributes	Element Reqd.	Attribute Reqd.	Description
1	ACES	Elements	(Header , App+ , Footer)	version	Yes	Yes	Root element, attribute version indicates the specification version number
2	Header	Elements	(Company, SenderName, SenderPhone, SenderPhoneExt?, TransferDate, MfrCode?, DocumentTitle, DocFormNumber?, EffectiveDate, ApprovedFor?, SubmissionType, MapperCompany?, MapperContact?, MapperPhoneExt?, MapperPhoneExt?, MapperEmail?, VcdbVersionDate, QdbVersionDate,		Yes		Header section describes data file information such as supplier, effective date, various data elements version dates etc.
3	Company	Туре	String		Yes	N/A	Data supplier company name, MOTOR Information Systems
4	SenderName	Type	String		Yes	N/A	Data supplier contact person name
5	SenderPhone	Туре	String		Yes	N/A	Data supplier contact person phone number



6	SenderPhoneExt	Туре	String	1	No N/A	Data supplier contact person extension phone number
7	TransferDate	Туре	String	Y	'es N/A	Data file create date, formatted as "CCYY-MM-DD", where "CC" is represents century, "YY" represents two digit year and "MM" represents two digit month and "DD" represents two digit day.
8	MfrCode	Туре	String	1	No N/A	Vehicle manufacturer code
9	DocumentTitle	Туре	String	Y	es N/A	Brief description of the contents in the document
10	DocFormNumber	Туре	String	1	No N/A	Data supplier's document number, if available
11	EffectiveDate	Туре	String	Y	'es N/A	Date on which the data contents in the file are effective from. Formatted as "CCYY-MM-DD", where "CC" is represents century, "YY" represents two digit year and "MM" represents two digit month and "DD" represents two digit day.
12	ApprovedFor	Туре	String	ı	No N/A	ISO country code for which the data is approved for. For US market the code is "US" and for Canada it is "CA"
13	SubmissionType	Туре	String	Y	'es N/A	Data submission type, TEST, FULL or UPDATE. If the submission type is TEST or FULL, all applications in the file must have "action"



						attribute "A" to indicate "add" records. If the submission type is UPDATE, the "action" attribute can be either "A" for "add" records or "D" for "deleted" records. For the updated records, there will be two applications one with action attribute "D" and other with action attribute "A". By default, MOTOR Information Systems will deliver data in FULL.
14	MapperCompany	Туре	String	No	N/A	Name of the company that mapped the data to AAIA standard data
15	MapperContact	Туре	String	No	N/A	Contact person from the mapping
16	MapperPhone	Туре	String	No	N/A	Mapping contact person's phone number
17	MapperPhoneExt	Туре	String	No	N/A	Mapping contact person's extension phone number
18	MapperEmail	Туре	String	No	N/A	Mapping contact person's e-mail address
19	VcdbVersionDate	Туре	String	Yes	N/A	Version date from Vcdb database. Formatted as "CCYY-MM-DD", where "CC" is represents century, "YY" represents two digit year and "MM" represents two digit month and "DD" represents two digit day.
20	QdbVersionDate	Туре	String	No	N/A	Version date from Qdb database, if it is used in this data deliverable.



-	21	PcdbVersionDate	Туре	String		Yes	N/A	Formatted as "CCYY-MM-DD", where "CC" is represents century, "YY" represents two digit year and "MM" represents two digit month and "DD" represents two digit day.  Version date from Pcdb database. Formatted as
j								"CCYY-MM-DD", where "CC" is represents century, "YY" represents two digit year and "MM" represents two digit month and "DD" represents two digit day.
	23	Арр	Elements	(BaseVehicle, SubModel?, MfrBodyCode?, BodyNumDoors?, BodyType?, DriveType?, EngineBase?, EngineDesignation?, EngineVIN?, EngineVersion?, EngineMfr?, ValvesPerEngine?, FuelDeliveryType?, FuelDeliverySubType?, FuelSystemControlType?, FuelSystemDesign?, Aspiration?, CylinderHeadType?, FuelType?, IgnitionSystemType?, TransmissionMfrCode?, (TransmissionMsseeds?))?, TransmissionNumSpeeds?))?, TransmissionNumSpeeds?))?, TransmissionMfr?,	action id ref validate	Yes	Yes Yes No No	The values attribute  "action" are "A" for "add" and "D" for "delete" applications. The attribute "id" uniquely identifies the application.  The optional "validate" attribute indicates if the application must be validated against Vcdb data. Possible values "yes" and "no".



		TransferCaseBase?, TransferCase?, TransferCaseMfr?, BedLength?, BedType?, WheelBase?, BrakeSystem?, FrontBrakeType?, RearBrakeType?, BrakeABS?, FrontSpringType?, RearSpringType?, SteeringSystem?, SteeringType?, RestraintType?, Region?, Qual*, Note*, Qty, PartType, MfrLabel?, Position?, DisplayOrder?, AssetName?, AssetItemOrder?, AssetItemRef?)?				
BaseVehicle	Туре	String	id	Yes	Yes	References the Base Vehicle table in Vcdb database. The attribute "id" indicates the BaseVehicleID
SubModel	Туре	String	id	No	Yes	References the SubModel table in Vcdb database. The attribute "id" indicates the SubModelID.
MfrBodyCode	Туре	String	id	No	Yes	References the MfrBodyCode table. The attribute "id" indicates the MfrBodyCodeID
BodyNumDoors	Туре	String	id	No	Yes	References the BodyNumDoors table. The attribute "id" indicates the BodyNumDoorsID
BodyType	Туре	String	id	No	Yes	References the BodyType table. The attribute "id" indicates the



						BodyTypeID
DriveType	Туре	String	id	No	Yes	References the DriveType table. The attribute "id" indicates the DriveTypeID
EngineBase	Туре	String	id	No	Yes	References the EngineBase table. The attribute " <b>id</b> " indicates the EngineBaseID
EngineDesignation	Туре	String	id	No	Yes	References the EngineDesignation table. The attribute "id" indicates the EngineDesignationID.
EngineVIN	Туре	String	id	No	Yes	References the EngineVIN table. The attribute "id" indicates the EngineVINID.
EngineVersion	Туре	String	id	No	Yes	References the EngineVersion table. The attribute " <b>id</b> " indicates the EngineVersionID.
EngineMfr	Туре	String	id	No	Yes	The manufacturer that actually built the engine. References the Mfr table. The attribute "id" indicates the MfrID.
ValvesPerEngine	Туре	String	id	No	Yes	References the Valves table. The attribute "id" indicates ValvesID.
FuelDeliveryType	Туре	String	id	No	Yes	References the FuelDeliveryType table. The attribute "id" indicates FuelDeliveryTypeID.
FuelDeliverySubType	Туре	String	id	No	Yes	References the FuelDeliverySubType table. The attribute "id"



							indicates FuelDeliverySubTypeID
FuelSys	temControlType	Туре	String	id	No	Yes	References the FuelSystemControlType table. The attribute "id" indicates FuelSystemControlTypel D
FuelSys	temDesign	Туре	String	id	No	Yes	References the FuelSystemDesign table. The attribute "id" indicates FuelSystemDesignID
Aspiration	on	Туре	String	id	No	Yes	References the Aspiration table. The attribute "id" indicates AspirationID
Cylinder	:HeadType	Туре	String	id	No	Yes	References the CylinderHeadType table. The attribute "id" indicates CylinderHeadTypeID
FuelTyp	е	Туре	String	id	No	Yes	References the FuelType table. The attribute "id" indicates FuelTypeID
IgnitionS	SystemType	Туре	String	id	No	Yes	References the IgnitionSystemType table. The attribute "id" indicates IgnitionSystemTypeID
Transmi	issionMfrCode	Туре	String	id	No	Yes	References the TransmissionMfrCode table. The attribute "id" indicates TransmissionMfrCodeID
Transmi	issionBase	Туре	String	id	No	Yes	References the TransmissionBase table. The attribute "id" indicates



						TransmissionBaseID
TransmissionType	Туре	String	id	No	Yes	References the TransmissionType table. The attribute "id" indicates TransmissionTypeID
TransmissionControlType	Туре	String	id	No	Yes	References the TransmissionControlType table. The attribute "id" indicates TransmissionControlType ID
TransmissionNumSpeeds	Туре	String	id	No	Yes	References the TransmissionNumSpeeds table. The attribute "id" indicates TransmissionNumSpeeds ID
TransElecContolled	Empty		id	No	Yes	References the ElecControlled table. The attribute "id" indicates ElecControlledID
TransmissionMfr	Туре	String	id	No	Yes	The manufacturer that actually built the transmission. References the Mfr table. The attribute "id" indicates MfrID
TransferCaseBase	Туре	String	id	No	Yes	References the TransferCaseBase table. The attribute "id" indicates TransferCaseBaseID
TransferCase	Туре	String	id	No	Yes	References the TransferCase table. The attribute "id" indicates TransferCaseID
TransferCaseMfr	Туре	String	id	No	Yes	The manufacturer that



						actually built the Transfer Case. References the Mfr table. The attribute "id" indicates MfrID
BedLength	Туре	String	id	No	Yes	References the BedLength table. The attribute "id" indicates BedLengthID
BedType	Туре	String	id	No	Yes	References the BedType table. The attribute "id" indicates BedTypeID
WheelBase	Туре	String	id	No	Yes	References the WheelBase table. The attribute "id" indicates WheelBaseID
BrakeSystem	Туре	String	id	No	Yes	References the BrakeSystem table. The attribute "id" indicates BrakeSystemID
FrontBrakeType	Туре	String	id	No	Yes	The brake type used on the front wheels. References the BrakeType table. The attribute "id" indicates BrakeTypeID
RearBrakeType	Туре	String	id	No	Yes	The brake type used on the rear wheels. References the BrakeType table. The attribute "id" indicates BrakeTypeID
BrakeABS	Туре	String	id	No	Yes	References BrakeABS table. The attribute "id" indicates BrakeABSID
FrontSpringType	Туре	String	id	No	Yes	The basic suspension type used in the front of the vehicle. References the SpringType table.



_	_			1		ı	T
							The attribute "id"
	RearSpringType	Туре	String	id	No	Yes	indicates SpringTypeID The basic suspension
	RearSpringrype	Type	String	lu lu	INO	168	type used in the rear of
							the vehicle. References
							the SpringType table.
							The attribute "id"
							indicates SpringTypeID
	SteeringSystem	Туре	String	id	No	Yes	References the
							SteeringSystem table.
							The attribute "id" indicates
							SteeringSystemID
	SteeringType	Туре	String	id	No	Yes	References the
	Otechnig rype	Турс	Guing	Id	140	103	SteeringType table. The
							attribute " <b>id</b> " indicates
							SteeringTypeID
	RestraintType	Type	String	id	No	Yes	References the
							RestraintType table. The
							attribute "id" indicates
	Design	T	Ctrin a	id	No	Yes	RestraintTypeID
	Region	Туре	String	la la	INO	res	Region where sold. References the Region
							table. The attribute " <b>id</b> "
							indicates RegionID
	Qual	Elements	(param*, text)	id	No	Yes	Not Used. Qdb coded
			,				qualifier data. The
							attribute "id" references
							the Qdb table. Sub-
							elements include one or
							more optional "param"
							tag and a required "text" tag.
	param	Туре	String	value	Yes	Yes	param substitutes the
				uom	1	No	value and <b>uofm</b> for Qdb
				altvalue		No	qualifiers
				altuom		No	
	text	Type	String	id	No	Yes	Additional qualifier text for



						the coded qualifier
Note	Туре	String	id	No	No	Note element describes
			lang		No	MOTOR Qualifiers for the
			displayorder		No	application. The attribute "id" refers to the attribute
						"Qualifier.id" in
						MOTOR_Qualifier.xml file
						"vehicleattribute"
						indicates if the MOTOR
						Qualifier is vehicle
						attribute not covered by ACES specs.
						7.020 oposo.
						Asset elements will
						always have at least two
						notes; one with the prefix "Group: " and another
						with the prefix
						"SubGroup: ." These,
						along with an optional
						third note
						"SubGroupQualifier: " contains the textual
						information required to
						navigate to a desired
						illustration.
						App elements may have
						children Note elements
						with prefix of
						"PartQualifier: ." These
						are source data free form
						text qualifiers that may or may not be represented
						by included VCdb
						Attributes or MOTOR
						Qualifiers.



	Qty	Туре	String		Yes	N/A	Quantity for specified part. Does not apply and value is left empty.
	PartType	Туре	String	id	Yes	Yes	Reference to the PCdb Part table. In cases where the data is not mapped to PCdb, a value of "99999" is used. The value provided is the source data textual description of the part, not the PCdb description.
	MfrLabel	Туре	String		No	N/A	<b>Not Used:</b> Manufacturer specific descriptions, if its available.
	Position	Type	String	id	No	Yes	References the AAIA Position table. (Part of the relational PCDB). The attribute "id" indicates PositionID
	DisplayOrder	Туре	String		No	Yes	Display order sequence number, when its required to display data in specific order.
	AssetName	Туре	String		No	N/A	File name, less the file extension, of the svg referenced by the Asset or App.
	AssetItemOrder	Туре	String		No	N/A	Not Used.
	AssetItemRef	Туре	String		No	N/A	Call out in the Illustration that the App information is referencing.
23	Asset	Elements	(BaseVehicle, SubModel?, MfrBodyCode?, BodyNumDoors?, BodyType?, DriveType?, EngineBase?, EngineDesignation?,	action id ref validate	Yes	Yes Yes No No	The values attribute  "action" are "A" for "add"  and "D" for "delete"  applications. The attribute "id" uniquely



		EngineVIN?, EngineVersion?, EngineMfr?, ValvesPerEngine?, FuelDeliveryType?,			identifies the application.  The optional "validate" attribute indicates if the
		FuelDeliverySubType?, FuelSystemControlType?, FuelSystemDesign?, Aspiration?, CylinderHeadType?, FuelType?, IgnitionSystemType?, TransmissionMfrCode?, (TransmissionBase   (TransmissionType?, TransmissionControlType?, TransmissionNumSpeeds?))?, TransElecContolled?, TransmissionMfr?, TransferCaseBase?, TransferCaseBase?, TransferCaseMfr?, BedLength?, BedType?, WheelBase?, BrakeSystem?, FrontBrakeType?, RearBrakeType?, RearBrakeType?, RearSpringType?, SteeringSystem?, SteeringType?, RestraintType?, Region?, Qual*, Note*, AssetName?,)?			application must be validated against Vcdb data. Possible values "yes" and "no".
Footer	Туре	String	No	N/A	Container for footer tags, current specs calls for Record count, which indicates total number of App and Asset elements in the file
RecordCount	Туре	String	No	N/A	Indicates the number of App and Asset elements



					_
				in the file	

#### 3.1.2 File: MOTOR\_Qualifier.xml

When more than one image or image callout exists for a given set of VCdb attributes (Such as Base Vehicle or Engine Config) and PCdb attributes (such as part type and position), MOTOR Qualifiers are often used to provide an additional level of distinction. MOTOR Qualifiers cover information not represented in PCdb or VCdb, such as "With Air Conditioning" or "To MM/DD/YYYY". The Qualifier ID, Qualifier Type ID, and Qualifier Family ID are all persistent, and the related textural description will not conceptually change. For example, a qualifier description may be updated from "With Cruise" to "With Cruise Control", but it would not be changed to "With Park Distance Control".

#	Element name	Content Type	Content Model	Attributes	Element Reqd.	Attribute Reqd.	Description
1	MOTOR_Qualifier	Elements	(VersionDate , Qualifier+)		Yes		MOTOR Qualifier root element
2	VersionDate	EMPTY		schema	Yes	Yes	Attribute "schema" indicates the schema version date (see date format note below)
				extraction		Yes	Attribute "extraction" indicates the extraction date (see date format note below)
				mtp		No	Attribute "mtp" indicates the MOTOR taxonomy version date, if applicable (see date format note below)
3	Qualifier	Elements	(QualifierDescription+ , QualifierType , QualifierFamily)	id	Yes	Yes	Attribute "id" is unique for each MOTOR qualifier description, this id is referenced in the application data.



4	QualifierDescription	Elements	string	lang	Yes	No	MOTOR Qualifier description The attribute "lang" indicates the language for the description, default language is English. Descriptions can be multiple, each with different "lang" attribute
5	QualifierType	Elements	(QualifierTypeDescription+)	id	Yes	Yes	MOTOR Qualifier type
6	QualifierTypeDescription	Elements	string	lang	Yes	No	MOTOR Qualifier type description The attribute "lang" indicates the language for the description, default language is English. Descriptions can be multiple, each with different "lang" attribute
7	QualifierFamily	Elements	(QualifierFamilyDescription+)	id	Yes	Yes	MOTOR Qualifier Family
8	QualifierFamilyDescription	Elements	string	lang	Yes	No	MOTOR Qualifier family description The attribute "lang" indicates the language for the description, default language is English. Descriptions can be multiple, each with different "lang" attribute



# 4 Document

**Document History** 

Date	Version	Change Reference
09/2010	1.0	
10/2013	1.1	Updated MOTOR Qualifier Section
08/2015	1.2	Updated link to ACES documentation

