Star5 ProcessRepairOrder

In progress

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Overview

Star 5 Info

Link https://www.starstandard.org/images/SIGXMLSTAR5/RepairOrder.pd		
Repository Release	5.12.4	
Verb	Process, Aknowledge	

Input

Request Header

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Key	Value	Description
Content-Type	application/xml	
Accept	application/xml	
Authorization	Bearer <token></token>	The token must be generated

Request QueryString Parameters

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Name	Туре	Required?	Default	Description
PartyID	String	Υ		
DealerNumberID	String	Υ		
BODVersion	String	Υ		must correspond to the implemented STAR version, Ex: S5.12.4-D1.0

Request Body (BOD)

The body of a request must be a ProcessRepairOrder Business Object Document (BOD) in compliance with the implementation of the STAR XML Schema (S5.12.4-D1.0). This section describes the **Data Area** component and what properties a third party must set to make a valid request to process a Repair Order.

Verb (Process)

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 $See \ https://www.starstandard.org/images/guidelines/STAR5124/RepairOrder/ch05s04.html$

Name	Group Link	Required	Type (Max)	Notes
Process.acknowledgeCode	Process	Y	String	Accepted values: ["Always", "OnError", "Never"]. Defaults to: "Always".
Process.ActionCriteria. ActionExpression.actionCode	ActionExpr ession	Y	String	Represents the type of action request is intended to make on a resource. Accepted values: ["Add", "Change"]

Noun (RepairOrder)

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See https://www.starstandard.org/images/guidelines/STAR5124/RepairOrder/ch06.html#RepairOrder

Header: Uses the component RepairOrderHeaderType.

Name	Group Link	Required	Type(Max)	Notes
DocumentIdentificationGroup. AlternateDocumentIdentification. DocumentID.Value	DocumentIdentific ationType	N	String	Represents RO Number Required only if actionCode = "Change"
ServiceAdvisorParty	PartyABIEType	N	String	Advisor
InDistanceMeasure.Value	RepairOrderHead erType	Y	String	MilesIn Must be greater than zero.
OutDistanceMeasure.Value	RepairOrderHead erType	Y	Integer	MilesOut Must be greater or equal "MilesIn". If not provided, this value is set to "MilesIn" by default.
OrderNotes.Value	RepairOrderHead erType	N	String	Repair Order Comments. Comma separated string values representing individual comments.
DepartmentType.Value	RepairOrderHead erType	N	String	RO Type
CustomerAppointmentFlag	RepairOrderHead erType	N	Boolean	Indicator that the customer had an appointment for this vehicle.
CustomerAppointmentNumber.Value	RepairOrderHead erType	N	Integer	Customer appointment number. Required only if CustomerAppointmentFlag = true

VehicleHatNumber.Value	RepairOrderHead erType	N	String	
RepairOrderOpenedDateTime	RepairOrderHead erType	N	DateTime	Arrival
PromisedRepairCompletionDateTime	RepairOrderHead erType	N	DateTime	Date the repair completion was promised by.
				If not provided, a default value will be set using CompanyDefaults to determine the next day time.
Customer i	nformation: Uses the	component Pa	rtyABIEType	
DealerManagementSystemID.Value	PartyABIEType	N	String	Customer's CustomerNumber
				Used to get the CustomerID
GivenName.Value	PersonType	N	String	Customer's FirstName
MiddleName.Value	PersonType	N	String	Customer's MiddleName
FamilyName.Value	PersonType	N	String	Customer's LastName
Title.Value	PersonType	N	String	Customer's Title
NameSuffix.Value	PersonType	N	String	Customer's Suffix
ResidenceAddress.LineOne.Value	AddressABIEType	N	String	Customer's address: Address1
ResidenceAddress.LineTwo.Value	AddressABIEType	N	String	Customer's address: Address2
ResidenceAddress.CityName.Value	AddressABIEType	N	String	Customer's city
ResidenceAddress.Postcode.Value	AddressABIEType	N	String	Customer's address: Zip
ResidenceAddress. StateOrProvinceCountrySubDivisionID.Value	AddressABIEType	N	String	Customer's address: State
TelephoneCommunication.CompleteNumver. Value	TelephoneCommu nication	N	String	Customer's phone number
URICommunication.URIID.Value	CommunicationA BIEType	N	String	Represents customer's Suffix
Vehicle information	n: Uses the componer	nt RepairOrder\	/ehicleLineItem ⁻	Гуре
RepairOrderVehicleLineItem.Vehicle. ModelYear	VehicleABIEType	N	String	Year
RepairOrderVehicleLineItem.Vehicle. ModelDescription.Value	VehicleABIEType	N	String	Model
RepairOrderVehicleLineItem.Vehicle. MakeString.Value	VehicleABIEType	N	String	Make
RepairOrderVehicleLineItem.Vehicle.Model. Value	VehicleABIEType	N	String	ModelShort
RepairOrderVehicleLineItem.Vehicle. VehicleID.Value	VehicleABIEType	Υ	String	VIN
RepairOrderVehicleLineItem. LicenseNumberString	VehicleABIEType	N	String	LicensePlate

$\textbf{\textit{Job}} : \mbox{Represents the list of operations applied to a RO. Uses the component JobType.}$

Name	Group Link	Requir ed	Type (Max)	Notes
JobNumberString.Value	JobType	Y	String	Represent the operation label, used to identify operations from/to a third party. Accepted values: [AZ], or empty string when creating a new operation.
OperationID.Value	JobType	Y	String(20)	Represent the operation OpCode Accepted values: Any valid OpCode existing in the system or empty string when creating an operation w/o any OpCode.

CodesAndCommentsExpanded. CauseDescription.Value	CodesAndCommentsE xpanded	N	String	Cause
CodesAndCommentsExpanded. ComplaintDescription.Value	CodesAndCommentsE xpanded	Y	String	Concern
CodesAndCommentsExpanded. CorrectionDescription.Value	CodesAndCommentsE xpanded	N	String	Correction
JobCompletionDate	JobType	N	String	Date when the operation was completed. Should be provided when trying to complete an operation (StatusCode = "Completed"). * If not provided the current date is set as the default value for this property.
JobStatusCode.Value	JobType	N	String(50)	Represent different statuses an operation might go through. Accepted values: • Completed: a third party must set this value when completing an operation. • Recover: a third party must set this value when recovering a Completed operation. The StatusCode will automatically transition to the default status when this action is applied to an operation. • Deferred: a third party must set this value to defer an operation. • Accept: a third party must set this value when accepting a Deferred operation. The StatusCode will automatically transition to the default status when this action is applied to an operation. • Voided: a third party must set this value when voiding an operation. • Tech Complete: Technician completed the operation. Set to the current operation's StatusCode if not specified by the third party, or an empty string which will indicate the default StatusCode.
	Parts: Uses the comp	onent Servi	cePartsType	willon will indicate the default statusoode.
ServiceParts.	ServicePartsType	Y	String	PartNumber
ItemIdentificationGroup.ItemID	71		3	
ServiceParts.ItemQuantity.Value	ServicePartsType	Y	Int	Quantity
ServiceParts.ManufacturerName.Value	ServicePartsType	N	String	A value used to search for this part. If none is provided, we try to find provided part by using company's registered manufactures.
	Labors: Uses the comp	oonent Servi	iceLaborType	
ServiceLabor. LaborAllowanceHoursNumeric	ServiceLaborType	N	Decimal	LaborHours
ServiceLabor. LaborActualHoursNumeric	ServiceLaborType	N	Decimal	ActualHours
ServiceLabor. ServiceTechnicianParty. DealerManagementSystemID.Value	PartyABIEType	N	String	Technician's employee number. Used to determine the technician associated to this labor
ServiceLabor.Pricing.Price. ChargeAmount.Value	PriceABIEType	N	Decimal	LaborSale

Output

A successful call will return an HTTP 200 status code containing an AcknowledgeRepairOrder Business Object Document (BOD) in the response, in compliance with the implementation of the STAR XML Schema (S5.12.4-D1.0). The following describes what the **Data Area** component of this object will be populated with.

Verb (Acknowledge)

The Acknowledge verb will contain a copy of the ApplicationArea for the original BOD that was processed in the request.

Noun (RepairOrder)

The Repair Order Noun populated in the response will be the same object populated in a **ShowRepairOrderDataArea** component. See GetRepai rOrder output.

Failure

Bad requests.

There are several rules in place used to validate every incoming request in order to keep data consistency and avoid processing errors. Any request that fails these validation rules is considered invalid and a **Bad Request** (HTTP 400) status code is sent back to the caller. The following is a description of these errors:

Error ID	Error Message	Issue	Resolution
400	When processing a Repair Order, the 'Process' property can only be Add or Change.	A request having an action code different from the supported actions for process RO (Add, Change).	
400	Miles In value cannot be null or empty.	A request with invalid Miles In.	'InDistanceMeasure' node must not be empty and must contain a value greater than zero.
400	Miles Out value cannot be null, empty, or less than the Miles In value.	A request with invalid Miles Out.	
400	VIN is required.	A request missing a vehicle VIN number.	Node RepairOrderVehicleLineItem. Vehicle.VehicleID must be populated with a valid VIN number
400	Repair Orders should contain at least one operation.	A request with no operations	Provide a request where the 'Job' node contains at least one item.
400	Repair Order operations should be labeled with a letter, A-Z.	Found operations with incorrect operation label.	
400	Either OpCode or Concern must be provided when creating operations.	Trying to add a new operation missing required data.	If a request is adding new operations, it must populate either operationID.Value or CodesAnd CommentsExpanded. ComplaintDescription.Value to be a valid request.
400	Part Number is required.	A request to add a new part to a RO without providing a PartNumber value for it.	Provide a request whereServiceP arts. ItemIdentificationGroup node is not null and contains a non empty ItemID value.
400	Quantity is required for each Part and must be greater than zero.	A request to add a new part to a RO without providing a Quantity value for it.	
400090	Operation ' <label>' - The Status of Voided Operations cannot be changed. Ex: Operation 'A' - The Status of Voided Operations</label>	An attempt to change the StatusCode of a Voided operation	
	cannot be changed.		
400090	Operation ' <label>' - The Status of Deferred operations can only be changed to "Accepted".</label>	An attempt to change StatusCode other than 'Accept' to a 'Deferred' operation.	
400090	Operation '< abel>' - Operations that have not been Deferred cannot be changed to a Status of Accepted.	An attempt to 'Accept' an operation that was not previously 'Deferred'.	

400090	Operation ' <label>' - Operations that have not been Completed cannot be changed to a Status of Recovered.</label>	An attempt to 'Recover' an operation that was not previously 'Completed'.	
400087	Repair Orders are limited to 26 operations. Please create a separate Repair Order for any additional operations.	An attempt to add more than 26 operations to a RO.	
400089	Operation ' <label>' has a fixed parts price with no billed parts. You must bill at least one part before completing this operation.</label>	An attempt to complete a fixed price operation having no billed parts.	
400089	Operation ' <label>' has a labor charge with zero labor hours.</label>	An attempt to complete an operation with incomplete labor data.	
400089	Operation ' <label>' has labor hours but no labor charge.</label>	An attempt to complete an operation with incomplete labor data.	
400089	Operation ' <label>' must have at least one labor line with an assigned technician in order to be completed.</label>	An attempt to complete an operation without at least one labor line with an assigned technician.	
400089	Operation ' <label>' has parts that have not been billed.</label>	An attempt to complete a fixed price operation with requested parts.	
400089	Operation ' <label>' has not been completed by the tech and time is still running.</label>	An attempt to complete an operation with opened tech time.	
400091	Operation ' <label>' cannot be deferred with any billed parts.</label>	An attempt to defer an operation containing with billed parts.	
400091	Operation ' <label>' cannot be deferred if at least one paid tech exists.</label>	An attempt to defer an operation with paid techs (for at least one labor).	
400091	Operation ' <label>' cannot be deferred if there is a Purchase Order attached.</label>	An attempt to defer an operation with at least a purchase order attached.	
400093	Operation ' <label>' - Fixed price operations must have one labor line, please assign a technician to the operation.</label>	An attempt to delete a labor line, or add more than one when in a fixed price operation.	
400094	Operation ' <label>' - Only one technician can be assigned to a fixed price operation, please remove any additional labor lines.</label>	An attempt to create more than one labor line per operation, when in a fixed price operation.	
400095	Operation ' <label>' - Labor amount cannot be greater than the operation total, please adjust the labor amount of the technician accordingly.</label>	An attempt to update/create a labor line with a LaborSale value greater than the OperationTotal for fixed price operations.	
400096	Technicians can only be assigned one labor line per operation, please remove duplicate instances.	An attempt to assign the same Technician to multiple labor lines in the same operation.	
400092	Operation ' <label>' - Parts cannot be removed from a completed operation.</label>	An attempt to remove a part from a completed operation.	
400088	Operation ' <label>' - Fixed price operations cannot be voided.</label>	An attempt to void a fixed price operation.	
400088	Operation ' <label>' cannot be voided with any billed parts.</label>	An attempt to void an operation containing billed parts.	
400088	Operation ' <label>' cannot be voided with any Charges, Discounts, or Taxes.</label>	An attempt to void an operation with any Fees(charges, discounts, or taxes).	
400088	Operation ' <label>' cannot be voided with any labor lines</label>	An attempt to void an operation containing labor lines.	
400088	Operation ' <label>' cannot be voided while at least one paid tech exists.</label>	An attempt to void an operation with paid techs (for at least one labor).	
400088	Operation ' <label>' cannot be voided with a Purchase Order attached.</label>	An attempt to void an operation with a Purchase Order attached.	
400088	Operation ' <label>' cannot be voided while there are sublets with charges.</label>	An attempt to void an operation containing sublets with charges.	
400085	The provided vehicle does not exist.	Vehicle not found. Occurs when a third party sends a non-existent VIN number.	
400099	Operation ' <label>' - Request contains unidentified parts.</label>		
400098	Operation ' <label>' -</label>		
.55550	Labor lines cannot be removed from a completed operation.		

Converting Service Appointment to Repair Order

Error ID	Error Message	Issue	Resolution	
400	CustomerAppointmentNumber value cannot be null or empty.	CustomerAppointmentNumbervalue cannot be null or empty.	Update the request and resend it.	
400018	Invalid Vin.	Service Appointment has an invalid Vehicle Vin.	Update the Service Appointment	
400039	Service Appointment not Found.	Service Appointment not Found.	and resend the request	
400085	Vehicle not found.	Vehicle not found in the vendor system with the Vin information in the Service Appointment header		
400100	Service Appointment already has an associated Repair Order.	Service Appointment has an associated a Repair Order.		
400101	Service Appointment must have an associated Vehicle, to create a Repair Order.	Service Appointment does not have vehicle information.		
400102	Estimated Mileage field is less than Last Recorded Mileage in the Vehicle.	Service Appointment has an estimated mile less than the last recorded in the Vehicle		
400103	Service Appointment has been canceled.	Service Appointment has been canceled.	N/A	

Any other unexpected error is returned to the caller as an internal server error (HTTP 500) status code.

Business Rules

Vehicle information.

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Scenar io	Action	Expected behavior	
1	Third party provides valid vehicle information to process a Repair Order (a VIN number is required and must exist in our system).	 Update the vehicle information in the RO header using the provided values in the request. Use actual vehicle record values to populate any of the following fields in the RO header that could be missing in the request: StockNumber, Make, makeld, manufacturersld, MakeLocation, MilesOut, LicensePlate, Year, Model, modelld, vehicleModelld, ModelLocation No modifications is made to the actual vehicle record. 	
2	Third party fails to provides valid vehicle information to process a RO.	An error is returned.	
3	Miles In must be greater than zero.	If this condition is not met an error is returned.	
4	Miles Out must be greater than or equal to Miles In.	If Miles Out is not provided, this value defaults to the same value of Miles In.	

Customer information.

Scenar io	Action	Expected behavior
1	Customer information is not required.	

2	Customer information provided.	Update the customer information in the RO header using the provided values in the request.
		If we are provided with a valid CustomerNumber, we use the actual customer record to populate the customer information in the RO header.
		 If CustomerNumber not provided but they provide FirstName, LastName, PhoneNumber, and Email, we can search for a matching customer and populate the RO based on our search result.
		If any customer information of the RO header is missing, we will use any existing customer record to populate it:
		CustomerId, FirstName, LastName, CustomerName, PhoneNumber, Address1, Address2, County, City, State, Zip.
		5. No modifications are made to the actual customer record.
		If RO has a customer associated without loyalty number, we update loyalty from RO, if any.
3	Customer information not provided.	Look up the Customer information using vehicle's VIN number, if a customer record is found we apply the same rules in scenario 2.

Comments.

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Scenar io	Action	Expected behavior
1	Adding new comments.	 Check which of the incoming comments already exist so we keep them. Add any other comment as a new comment.
2	Delete a comment	Do not allow a third party to delete any existing comment.

Operations.

Scenar io	Action	Expected behavior
10		

Adding a new operation with a valid **OpCo** de.

- From a provided OpCode an account code is determined from the best match of the following options, in this order:
 - a. Matching all of the below items b. c. and d. (Best match).
 - **b.** Matching the vehicle Manufacturer and MakeLocation.
 - c. Matching VIN Year range (VINLowYear and VINHighYear).
 - d. Matching vehicle Modelld.
- 2. If no system default account code can be determined from the provided OpCode, we determine a default account by using (in the following order):
 - a. A customer's default account code (CustomerFinancials).
 - b. A company's default account code (CompanyDefaults).
- Having a system account we can determine the PayType, as well as the best Labor Rate.
- 4. Create a new operation with values:
 - a. Operation: Will be assigned with consecutive letters from the alphabet [A-Z]
 - b. Cause: Will be determined using the OpCode (Cause field).
 - c. Concern: A provided value by the third party.
 - **d.** Correction: Uses any provided value by the third party, otherwise is determined using the OpCode.
 - e. OpCodeModelsId: Set value from [dbo].[OpCodesModels]
 - ServiceCodesId: The service account determined in scenario 1.1. or 1.2.
 - g. SkillSetLevelsId: Will be determined using the OpCode (SkillSetsLevelsId field).
 - h. PartsPriceCodesId: Set from the service account determined in scenario 1.1. or 1.2 (PartsPriceCodesId field).
 - i. LaborRateId: Will be determined using the OpCode
 - j. LaborRateCode: Will be determined using the OpCode
 - k. HourlyRate: Will be determined using the OpCode
 - I. FixedPrice: Will be determined using the OpCode
 - **m.** *Taxable*: Will be true only when RO is taxable and the service account used is taxable, otherwise false.
 - n. StatusCode: Set to the default value.
- 5. Create DCS Warranty records determined by the manufacturer:
 - a. KIA
 - b. FORD
- **6.** When in a fixed price operation, a record linked to this operation is created in [dbo].[RepairOrderOperationsFixedPrice].
- A new operation total record linked to this operation is created in [dbo]. [RepairOrderOperationsTotals].

2	Adding a new operation without OpCode .	The default system account is determined using the procedure in scenario
		1.2.2. Create a new operation with values:a. <i>Operation</i>: Will be assigned with consecutive letters from the alphabet [A-Z]
		b. Cause: null.
		c. Concern: A provided value by the third party.
		d. Correction: Uses any provided value by the third party.
		e. OpCodeModelsId: null
		 f. ServiceCodesId: The default service account determined in scenario 2.1 (Id field).
		g. SkillSetLevelsId: null
		 h. PartsPriceCodesId: Set from the service account determined in scenario 2.1 (PartsPriceCodesId field).
		 i. LaborRateId: We try to set this value following this order: i. Try to get this value from the default service account determined in scenario 2.1.
		ii. null otherwise.
		 j. LaborRateCode: We try to set this value following this order: Try to get this value from the default service account determined in scenario 2.1.
		ii. null otherwise.
		k. HourlyRate: We try to set this value following this order:
		i. Try to get this value from the default service account determined in scenario 2.1.
		ii. null otherwise.
		I. FixedPrice: false
		 m. Taxable: Will be true only when RO is taxable and the service account is taxable, otherwise false.
		n. StatusCode: Set to the default value.

1. Defer an operation:

- a. Third party must set the StatusCode to "Deferred" for any operation they request to defer.
- b. The following conditions must be met to allow a third party to defer an operation:
 - i. An operation cannot be deferred if there are any billed parts.
 - ii. An operation cannot be deferred if at least one paid tech exists.
 - An operation cannot be deferred if there is a Purchase Order attached.
- c. If request is valid a deferred operation record is created in [dbo]. [RepairOrderOperationsDeclinedService] table using the following values:
 - i. the third party GlobalEmployeeID is used to populate declinedBy field.
 - ii. "SecureVue2" string is used to populate Reasonfield
 - iii. PrintDeclinedService= false

2. Accept an operation:

- Third party must set the StatusCode to "Accept" for any operation they request to accept.
- b. Only a previously deferred operation can be accepted.
- If request is valid, the record created in [dbo].
 [RepairOrderOperationsDeclinedService] table is deleted.

3. Complete an operation:

- a. Third party must set the StatusCode to "Completed" for any operation they request to complete.
- A DateCompleted value should be provided when completing an operation, otherwise we default to the current date.
- c. The following conditions must be met to allow a third party to complete an operation:
 - An operation cannot be completed if it has a fixed parts price with no billed parts.
 - An operation cannot be completed if it has a labor charge with zero labor hours.
 - iii. An operation cannot be completed if it has labor hours but no labor charge.
 - iv. An operation cannot be completed if it has not at least one labor line with an assigned technician.
 - v. An operation cannot be completed if it has parts that have not been billed.
 - vi. An operation cannot be completed if it has not been completed by the tech and time is still running.
 - vii. An operation cannot be completed if it is still pending manager approval.
- d. If request is valid, the recovery logic is executed.

4. Recover an operation:

- Third party must set the StatusCode to "Recover" for any operation they request to recover.
- b. Only a previously completed operation can be recovered.

5. Void an operation:

- a. Third party must set the StatusCode to "Voided" for any operation they request to void.
- b. The following conditions must be met to allow a third party to void an operation:
 - i. A fixed price operations cannot be voided.
 - ii. An operation cannot be voided if there are any billed parts.
 - An operation cannot be voided if it has Charges, Discounts, or Taxes.
 - iv. An operation cannot be voided if there are any labor records.
 - v. An operation cannot be voided if at least one paid tech exists.
 - vi. An operation cannot be voided if there is a Purchase Order attached.
 - vii. An operation cannot be voided if there are sublets with charges.

4	Delete an operation	Not allowed
•	Boloto all'opolation	Tiet allowed.

Labors.

Labors can be added, modified, and deleted from a repair order.

Scenar o	Action	Expected behavior
1	Determine existing labors.	We do not exchange any labor identifier with a third party so that we could use in every request to match existing labors and determine which ones are new. For this reason we use the technician information to match existing records whenever possible in the following way:
		Use technician employee number to help identify labors since operations can only have one technician per labor line.
		 Any existing record not matching by the above criteria is deleted and incoming labors lines in the request are saved as new labors for the curren operation. This could happen for the following reasons: A new labor is being added.
		b. Third party removed the technician information from labor.
		c. Third party changed the technician information in a labor.
2	Adding new labor line.	Third party can add one or more labor lines to an operation.
_	ridding new laber line.	For fixed price operations, only one labor line per operation can be created.
		3. In the case of receiving multiple labor lines while in a fixed price operation, we should return an error and abort the request.
		Technicians can only be assigned once per operation.
		5. When creating a labor line we set the following fields: a. <i>TechnicianId</i> : Set this value from the provided technician employee number in the request.
		b. LaborHours: A value provided by the third party.
		c. ActualHours: i. If company setting "AutoActualHours" is set to true, this property set with a value provided by the third party.
		ii. Otherwise zero.
		d. LaborCost.
		 i. When in fixed price operation and operation was created using an OpCode having a FixedLaborCost > 0, then use OpCodeModel FixedLaborCost value.
		ii. Otherwise zero.
		e. LaborSale:
		 i. When in fixed price operation and operation was created using an OpCode, then use OpCodeModel LaborAmount value.
		ii. Otherwise any value provided by the third party.
		f. FixedLabor. i. True: when operation was created without an OpCode
		 ii. True: when in fixed price operation and operation was created using an OpCode, and OpCodeModel LaborAmount value is greater than zero.
		iii. False: otherwise.
		g. FixedLaborCost.
		 i. True: when in fixed price operation and operation was created using an OpCode, and OpCodeModel FixedLaborCost value is greater than zero.
		ii. False: otherwise.
3	Add a default labor line.	When adding a new operation a default labor line is added to the new operatior this will follow the same behavior in scenario 2. with the only exception that the aborHours will be set to zero.

4	Delete a labor line.	 Third party can delete labors. A labor line associated to a fixed price operation cannot be deleted. The request must omit any labor line to be removed. 	
5	Update a labor line.	 When in fixed price operations, LaborSale cannot be set to a value greater than the OperationTotal. 	
		Properties from scenario 2.5.b, 2.5.c, 2.5.e, 2.5.f are updated with values provided in the request.	

Parts.

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Scenar io	Action	Expected behavior
1	Identify requested parts.	 For any request to add parts to a Repair Order a PartNumber value is required, otherwise an error is returned.
		 There are three ways of identifying provided parts (in this order): By searching in our Parts Inventory using the provided PartNumber (Al ternatePart).
		 By searching in our PriceMaster if a vendor has the provided part: request contains a manufacturer name value as well.
		 By searching in our PriceMaster the first vendor has the provided part: This search uses the company's registered manufacturers.
2	Third party request to add new parts to a	1. Request will contain a list of parts to be added.
	Repair Order.	2. Parts are identified using rules stated in scenario 1.2.
		3. Any part identified using scenario 1.2.b/1.2.c is added to the inventory.
		 Part is then added it to the repair order using the provided requested quantity from the 3P.
3	Add default parts to a Repair Order	 For new operations, if third party does not provide any part we try to find in inventory any part required by the the operation based on the provide OpCode (if any) and attach it to the RO.
4	Remove parts from a Repair Order.	1. A third party is allowed to remove parts from a RO.
		2. They cannot remove parts from a Completed operation.
		3. The request must omit any part line to be removed.
		Quantity on hand (QOH) in inventory is updated using the quantity that was billed for the part we are removing.
		5. Removed any part's fees:a. Only fees associated to billed parts are removed.
		 b. If the part to be removed is on multiple part lines we do not delete the associated fee.
		 c. If there is any other part in the same operation with the same PartType we do not delete the associated fee.
		Delete any entry in RepairOrderPartsProration table associated to the part being removed.
5	Update parts	 Third party is allowed to update the quantity requested value used in a Repair Order.

Fees.

Scenario Action	Expected behavior
-----------------	-------------------

1	Apply default fees to new added operations.	 Service fees are applied to every new added operation: a. Fees derived from OpCodes are applied to operations using the OpC ode (if any) used to create an operation.
		b. Fees derived from PayType are applied to operations using the PayT ype determined from the service account used to create an operation.
		2. Only fees with LimitsAppliedTo = 'O' are applied at the operation level.
2	Apply fees to Repair Order.	1. Fees with LimitsAppliedTo <> 'O' are applied at the Repair Order level.
3	Add new Fees	N/A
4	Delete a fee	N/A

Convert Service Appointment to Repair Order

✓ Click here to expand...

Scenario	Action	Expected behavior
1	Add a new Repair Order from Service Appointment • actionCode must be equal to "Add" • CustomerAppointmentFlag must be equal to true	The Vendor system creates a Repair Order and associates it with this Service Appointment.
	 CustomerAppointmentNumber must have a value and exist in the vendor's system 	

Appendix A. ProcessRepairOrder BOD Samples

Add Repair Order

```
<ProcessRepairOrder releaseID="S5.12.4-D1.0" xmlns="http://www.</pre>
starstandard.org/STAR/5" xmlns:oagis="http://www.openapplications.org
/oagis/9">
    <ApplicationArea>
        <Sender>
            <CreatorNameCode>Test</CreatorNameCode>
            <SenderNameCode>Test/SenderNameCode>
            <PartyID>0000000</PartyID>
        </Sender>
        <CreationDateTime>2020-05-29T22:53:41.052Z</CreationDateTime>
        <BODID>quid</BODID>
        <Destination>
            <DestinationNameCode>Destination/DestinationNameCode>
            <DealerNumberID>SVD999801/DealerNumberID>
            <ServiceMessageID>S5.12.4-D1.0/ServiceMessageID>
        </Destination>
    </ApplicationArea>
    <ProcessRepairOrderDataArea>
        <Process acknowledgeCode="Always">
```

```
<ActionCriteria xmlns="http://www.openapplications.org</pre>
/oagis/9">
                <ActionExpression actionCode="Add" />
            </ActionCriteria>
        </Process>
        <RepairOrder>
            <RepairOrderHeader>
                <DocumentIdentificationGroup>
                     <DocumentIdentification>
                         <DocumentID>N/A</DocumentID>
                     </DocumentIdentification>
                </DocumentIdentificationGroup>
                <OwnerParty>
                     <DealerManagementSystemID>8373<</pre>
/DealerManagementSystemID>
                    <SpecifiedPerson>
                         <GivenName>Dev20200701</GivenName>
                         <FamilyName>Customer/FamilyName>
                         <TelephoneCommunication>
                             <ChannelCode>Telephone</ChannelCode>
                             <CompleteNumber>4566665554<
/CompleteNumber>
                             <UseCode>Home</UseCode>
                             <UsagePreference />
                         </TelephoneCommunication>
                         <URICommunication>
                             <URIID>ashley.cote@drivedominion.com<</pre>
/URIID>
                             <ChannelCode>Email</ChannelCode>
                         </URICommunication>
                         <ContactMethodTypeCode>Day Phone<</pre>
/ContactMethodTypeCode>
                     </SpecifiedPerson>
                </OwnerParty>
                <RepairOrderVehicleLineItem>
                     <Vehicle>
                         <Model>F-250</Model>
                         <ModelYear>2019</ModelYear>
                         <ModelDescription>F-250 Super Duty<
/ModelDescription>
                         <MakeString>Ford</MakeString>
                         <SaleClassCode>New</SaleClassCode>
                         <TransmissionGroup>
                             <TransmissionTypeName>Automatic<</pre>
/TransmissionTypeName>
                         </TransmissionGroup>
                         <VehicleClassCode>passenger</VehicleClassCode>
                         <Engine>
                             <NumberOfEngineCylindersNumeric>0
/NumberOfEngineCylindersNumeric>
```

```
<EngineSerialString />
                         </Engine>
                         <VehicleID>1FT7W2BT5KED07573</vehicleID>
                         <VehicleWeightMeasure unitCode="pound">0<</pre>
/VehicleWeightMeasure>
                         <VehicleStockString>45513</VehicleStockString>
                         <VehicleHistoryDateGroup>
                             <VehicleHistoryDate>2020-04-07<</pre>
/VehicleHistoryDate>
                             <VehicleHistoryTypeDescription>In-Service
Date</VehicleHistoryTypeDescription>
                         </VehicleHistoryDateGroup>
                     </Vehicle>
                     <OriginalSoldDate>2020-04-14</OriginalSoldDate>
                     <DeliveryDistanceMeasure unitCode="mile">0<</pre>
/DeliveryDistanceMeasure>
                     <VehicleDemoIndicator>false</vehicleDemoIndicator>
                     <LicenseNumberString />
                </RepairOrderVehicleLineItem>
                <InDistanceMeasure unitCode="mile">2020<</pre>
/InDistanceMeasure>
                <OutDistanceMeasure unitCode="mile">2020<</pre>
/OutDistanceMeasure>
                <DepartmentType>Service/DepartmentType>
                <CustomerAppointmentFlag>false
/CustomerAppointmentFlag>
            </RepairOrderHeader>
            <Job>
                <JobNumberString></JobNumberString>
                <OperationID>S6QT</OperationID>
                <OperationName>Lof/Rotate
                <CodesAndCommentsExpanded>
                     <CauseDescription>N/A</CauseDescription>
                     <ComplaintDescription>Whatever<</pre>
/ComplaintDescription>
                </CodesAndCommentsExpanded>
                <ServiceLabor>
                     <LaborAllowanceHoursNumeric>0.50
/LaborAllowanceHoursNumeric>
                    <LaborRateAmount currencyID="USD">74.45<</pre>
/LaborRateAmount>
                    <Pricing>
                         <Price>
                             <PriceCode>Labor</PriceCode>
                             <ChargeAmount currencyID="USD">1.00<</pre>
/ChargeAmount>
                         </Price>
                     </Pricing>
                     <LaborActualHoursNumeric>0.00
/LaborActualHoursNumeric>
```

```
<ServiceTechnicianParty>
                         <DealerManagementSystemID>DMSAE0005<</pre>
/DealerManagementSystemID>
                         <SpecifiedPerson>
                             <GivenName>Alexis</GivenName>
                             <FamilyName>Echemendia/FamilyName>
                         </SpecifiedPerson>
                    </ServiceTechnicianParty>
                </ServiceLabor>
                <LaborActualHoursNumeric>0.00
/LaborActualHoursNumeric>
                <ServiceTechnicianParty/>
            </Job>
        </RepairOrder>
    </ProcessRepairOrderDataArea>
</ProcessRepairOrder>
```

Modify Repair Order

→ Add new operations with parts/modify existing operations's StatusCode.

```
<ProcessRepairOrder releaseID="S5.12.4-D1.0" xmlns="http://www.</pre>
starstandard.org/STAR/5" xmlns:oagis="http://www.openapplications.org
/oagis/9">
    <ApplicationArea>
        <Sender>
            <CreatorNameCode>Test</CreatorNameCode>
            <SenderNameCode>Test</SenderNameCode>
            <PartyID>0000000</PartyID>
        </Sender>
        <CreationDateTime>2020-05-29T22:53:41.052Z</CreationDateTime>
        <BODID>guid</BODID>
        <Destination>
            <DestinationNameCode>Destination/DestinationNameCode>
            <DealerNumberID>SVD999801/DealerNumberID>
            <ServiceMessageID>S5.12.4-D1.0/ServiceMessageID>
        </Destination>
    </ApplicationArea>
    <ProcessRepairOrderDataArea>
        <Process acknowledgeCode="Always">
            <ActionCriteria xmlns="http://www.openapplications.org</pre>
/oagis/9">
                <ActionExpression actionCode="Change" />
            </ActionCriteria>
        </Process>
        <RepairOrder>
            <RepairOrderHeader>
                <DocumentIdentificationGroup>
```

```
<DocumentIdentification>
                         <DocumentID>N/A</DocumentID>
                    </DocumentIdentification>
                    <AlternateDocumentIdentification>
                         <DocumentID>104599</DocumentID>
                    </AlternateDocumentIdentification>
                </DocumentIdentificationGroup>
                <OwnerParty>
                    <DealerManagementSystemID>8373<</pre>
/DealerManagementSystemID>
                    <SpecifiedPerson>
                         <GivenName>Dev20200701</GivenName>
                         <FamilyName>Customer/FamilyName>
                         <TelephoneCommunication>
                             <ChannelCode>Telephone</ChannelCode>
                             <CompleteNumber>4566665554<
/CompleteNumber>
                             <UseCode>Home</UseCode>
                             <UsagePreference />
                         </TelephoneCommunication>
                         <URICommunication>
                             <URIID>ashley.cote@drivedominion.com<</pre>
/URIID>
                             <ChannelCode>Email</ChannelCode>
                         </URICommunication>
                         <ContactMethodTypeCode>Day Phone<
/ContactMethodTypeCode>
                    </SpecifiedPerson>
                </OwnerParty>
                <RepairOrderVehicleLineItem>
                    <Vehicle>
                         <Model>F-250</Model>
                         <ModelYear>2019</ModelYear>
                         <ModelDescription>F-250 Super Duty<
/ModelDescription>
                         <MakeString>Ford</MakeString>
                         <SaleClassCode>New</SaleClassCode>
                         <TransmissionGroup>
                             <TransmissionTypeName>Automatic<</pre>
/TransmissionTypeName>
                         </TransmissionGroup>
                         <VehicleClassCode>passenger</VehicleClassCode>
                         <Engine>
                             <NumberOfEngineCylindersNumeric>0
/NumberOfEngineCylindersNumeric>
                             <EngineSerialString />
                         </Engine>
                         <VehicleID>1FT7W2BT5KED07573</vehicleID>
                         <VehicleWeightMeasure unitCode="pound">0<</pre>
/VehicleWeightMeasure>
```

```
<VehicleStockString>45513</VehicleStockString>
                         < VehicleHistoryDateGroup>
                             <VehicleHistoryDate>2020-04-07<</pre>
/VehicleHistoryDate>
                             <VehicleHistoryTypeDescription>In-Service
Date</VehicleHistoryTypeDescription>
                         </VehicleHistoryDateGroup>
                     </Vehicle>
                     <OriginalSoldDate>2020-04-14</OriginalSoldDate>
                     <DeliveryDistanceMeasure unitCode="mile">0<</pre>
/DeliveryDistanceMeasure>
                     <VehicleDemoIndicator>false</vehicleDemoIndicator>
                     <LicenseNumberString />
                </RepairOrderVehicleLineItem>
                <InDistanceMeasure unitCode="mile">2020<</pre>
/InDistanceMeasure>
                <OutDistanceMeasure unitCode="mile">2020<</pre>
/OutDistanceMeasure>
                <OrderNotes>This is a RO comment</OrderNotes>
                <DepartmentType>Service/DepartmentType>
                <CustomerAppointmentFlag>false<
/CustomerAppointmentFlag>
            </RepairOrderHeader>
            <Job>
                <JobNumberString>A</JobNumberString>
                <OperationID>S6QT</OperationID>
                <OperationName>Lof/Rotate
                <CodesAndCommentsExpanded>
                     <CauseDescription>N/A</CauseDescription>
                     <ComplaintDescription>Whatever<
/ComplaintDescription>
                     <CorrectionDescription>Change Oil, Filter, Rotate
Tires</CorrectionDescription>
                </CodesAndCommentsExpanded>
                <ServiceLabor>
                     <LaborAllowanceHoursNumeric>0.50
/LaborAllowanceHoursNumeric>
                    <LaborRateAmount currencyID="USD">74.45<</pre>
/LaborRateAmount>
                    <Pricing>
                         <Price>
                             <PriceCode>Labor</PriceCode>
                             <ChargeAmount currencyID="USD">0.00<</pre>
/ChargeAmount>
                         </Price>
                     </Pricing>
                     <LaborActualHoursNumeric>0.00
/LaborActualHoursNumeric>
                     <ServiceTechnicianParty>
                         <DealerManagementSystemID>DMSAE0005<</pre>
```

```
/DealerManagementSystemID>
                        <SpecifiedPerson>
                             <GivenName>Alexis</GivenName>
                             <FamilyName>Echemendia/FamilyName>
                        </SpecifiedPerson>
                    </ServiceTechnicianParty>
                </ServiceLabor>
                <LaborAllowanceHoursNumeric>0.50
/LaborAllowanceHoursNumeric>
                <LaborActualHoursNumeric>0.00
/LaborActualHoursNumeric>
                <ServiceTechnicianParty />
                <ServiceComponents>
                    <ComponentTypeCode>Freight</ComponentTypeCode>
                </ServiceComponents>
            </Job>
            <dob>
                <JobNumberString></JobNumberString>
                <OperationID>NEWCD</OperationID>
                <OperationName>New Car Detail
                <CodesAndCommentsExpanded>
                    <CauseDescription>N/A</CauseDescription>
                    <ComplaintDescription>New Car Detail<</pre>
/ComplaintDescription>
                </CodesAndCommentsExpanded>
                <ServiceParts>
                    <ItemIdDescription>FILTER-ENGINE OIL<</pre>
/ItemIdDescription>
                    <ItemQuantity>0</ItemQuantity>
                    <Pricing>
                        <Price>
                             <PriceCode>Sold</PriceCode>
                             <ChargeAmount currencyID="USD">0.00<</pre>
/ChargeAmount>
                        </Price>
                    </Pricing>
                    <Pricing>
                        <Price>
                             <PriceCode>PartCost</PriceCode>
                             <ChargeAmount currencyID="USD">4.95<</pre>
/ChargeAmount>
                        </Price>
                    </Pricing>
                    <ItemIdentificationGroup>
                        <ItemIdentification>
                             <ItemID>1AML00003A</ItemID>
                        </ItemIdentification>
                    </ItemIdentificationGroup>
                    <ManufacturerName>Chrysler</ManufacturerName>
                </ServiceParts>
```

```
<ServiceLabor>
                     <LaborAllowanceHoursNumeric>0.50
/LaborAllowanceHoursNumeric>
                    <LaborRateAmount currencyID="USD">74.45<</pre>
/LaborRateAmount>
                    <Pricing>
                         <Price>
                             <PriceCode>Labor</PriceCode>
                             <ChargeAmount currencyID="USD">1.00<</pre>
/ChargeAmount>
                         </Price>
                     </Pricing>
                     <LaborActualHoursNumeric>0.00
/LaborActualHoursNumeric>
                     <ServiceTechnicianParty>
                         <DealerManagementSystemID>DMSAE0005<</pre>
/DealerManagementSystemID>
                         <SpecifiedPerson>
                             <GivenName>Alexis</GivenName>
                             <FamilyName>Echemendia/FamilyName>
                         </SpecifiedPerson>
                     </ServiceTechnicianParty>
                </ServiceLabor>
                <LaborAllowanceHoursNumeric>0<</pre>
/LaborAllowanceHoursNumeric>
                <LaborActualHoursNumeric>0</LaborActualHoursNumeric>
                <ServiceTechnicianParty />
            </Job>
        </RepairOrder>
    </ProcessRepairOrderDataArea>
</ProcessRepairOrder>
```

Add Repair Order from Service Appointment

```
<ProcessRepairOrder releaseID="S5.12.4-D1.0" xmlns="http://www.</pre>
starstandard.org/STAR/5" xmlns:oagis="http://www.openapplications.org
/oagis/9">
    <ApplicationArea>
        <Sender>
            <CreatorNameCode>Test</CreatorNameCode>
            <SenderNameCode>Test/SenderNameCode>
            <PartyID>0000000</PartyID>
        </Sender>
        <CreationDateTime>2020-05-29T22:53:41.052Z</CreationDateTime>
        <BODID>quid</BODID>
        <Destination>
            <DestinationNameCode>Destination/DestinationNameCode>
            <DealerNumberID>SVD999801/DealerNumberID>
            <ServiceMessageID>S5.12.4-D1.0/ServiceMessageID>
        </Destination>
    </ApplicationArea>
    <ProcessRepairOrderDataArea>
        <Process acknowledgeCode="Always">
            <ActionCriteria xmlns="http://www.openapplications.org</pre>
/oagis/9">
                <ActionExpression actionCode="Add" />
            </ActionCriteria>
        </Process>
        <RepairOrder>
            <RepairOrderHeader>
                <DocumentIdentificationGroup>
                    <DocumentIdentification>
                        <DocumentID>N/A</DocumentID>
                    </DocumentIdentification>
                </DocumentIdentificationGroup>
                <CustomerAppointmentFlag>true<
/CustomerAppointmentFlag>
                <CustomerAppointmentNumber>12345<</pre>
/CustomerAppointmentNumber>
            </RepairOrderHeader>
        </RepairOrder>
    </ProcessRepairOrderDataArea>
</ProcessRepairOrder>
```

Appendix B. AcknowledgeRepairOrder sample

```
<AcknowledgeRepairOrder xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" releaseID="S5.
```

```
12.4-D1.0" xmlns="http://www.starstandard.org/STAR/5">
    <ApplicationArea>
        <Sender>
            <CreatorNameCode>D2</CreatorNameCode>
            <SenderNameCode>D2</SenderNameCode>
            <PartyID>0000000</PartyID>
        </Sender>
        <CreationDateTime>2020-07-04T00:36:54Z</CreationDateTime>
        <BODID>4b84a8cf-5cb8-4390-a382-75989e0384a2</bodID>
        <Destination>
            <DestinationNameCode>D2</DestinationNameCode>
            <DealerNumberID>SVD999801/DealerNumberID>
            <ServiceMessageID>S5.12.4-D1.0/ServiceMessageID>
        </Destination>
    </ApplicationArea>
    <AcknowledgeRepairOrderDataArea>
        <Acknowledge>
            <Original Application Area>
                <Sender>
                    <CreatorNameCode>Test/CreatorNameCode>
                    <SenderNameCode>Test/SenderNameCode>
                    <PartyID>000000</PartyID>
                </Sender>
                <CreationDateTime>2020-05-29T22:53:41.052Z
/CreationDateTime>
                <BODID>quid</BODID>
                <Destination>
                    <DestinationNameCode>Destination
/DestinationNameCode>
                    <DealerNumberID>SVD999801/DealerNumberID>
                    <ServiceMessageID>S5.12.4-D1.0/ServiceMessageID>
                </Destination>
            </OriginalApplicationArea>
        </Acknowledge>
        <RepairOrder>
            <RepairOrderHeader>
                <DocumentIdentificationGroup>
                    <DocumentIdentification>
                        <DocumentID>N/A</DocumentID>
                    </DocumentIdentification>
                    <AlternateDocumentIdentification>
                        <DocumentID>104599/DocumentID>
                    </AlternateDocumentIdentification>
                </DocumentIdentificationGroup>
                <OwnerParty>
                    <DealerManagementSystemID>8373<</pre>
/DealerManagementSystemID>
                    <SpecifiedPerson>
                        <GivenName>Dev</GivenName>
                        <FamilyName>Customer/FamilyName>
```

```
<GenderCode>O</GenderCode>
                         <TelephoneCommunication>
                             <ChannelCode>Telephone/ChannelCode>
                             <CompleteNumber>4566665554<</pre>
/CompleteNumber>
                             <UseCode>Home</UseCode>
                             <UsagePreference />
                         </TelephoneCommunication>
                         <TelephoneCommunication>
                             <ChannelCode>Telephone/ChannelCode>
                             <CompleteNumber>5455425632<</pre>
/CompleteNumber>
                             <UseCode>Work</UseCode>
                             <UsagePreference />
                         </TelephoneCommunication>
                         <TelephoneCommunication>
                             <ChannelCode>Telephone/ChannelCode>
                             <CompleteNumber>5553656598
/CompleteNumber>
                             <UseCode>Snapshot</UseCode>
                             <UsagePreference />
                         </TelephoneCommunication>
                         <URICommunication>
                             <URIID>ashley.cote@drivedominion.com<</pre>
/URIID>
                             <ChannelCode>Email</ChannelCode>
                         </URICommunication>
                         <ContactMethodTypeCode>N/A<
/ContactMethodTypeCode>
                     </SpecifiedPerson>
                     <Privacy>
                         <PrivacyIndicator>false</privacyIndicator>
                         <PrivacyTypeString>Do Not Contact<</pre>
/PrivacyTypeString>
                     </Privacy>
                     <Privacy>
                         <PrivacyIndicator>false</privacyIndicator>
                         <PrivacyTypeString>Text Allowed<</pre>
/PrivacyTypeString>
                     </Privacy>
                     <Privacy>
                         <PrivacyIndicator>false</privacyIndicator>
                         <PrivacyTypeString>Phone Call Allowed<</pre>
/PrivacyTypeString>
                     </Privacy>
                     <Privacy>
                         <PrivacyIndicator>false</privacyIndicator>
                         <PrivacyTypeString>Email Allowed<</pre>
/PrivacyTypeString>
                     </Privacy>
```

```
<Privacy>
                        <PrivacyIndicator>false</privacyIndicator>
                        <PrivacyTypeString>Mail Allowed<</pre>
/PrivacyTypeString>
                    </Privacy>
                    <PartyActionEvent>
                        <EventID>Created</EventID>
                        <EventOccurrenceDateTime>2018-09-27T13:26:
41.16</EventOccurrenceDateTime>
                    </PartyActionEvent>
                    <PartyActionEvent>
                        <EventID>Changed</EventID>
                        <EventOccurrenceDateTime>2019-08-26T16:22:
59.187</EventOccurrenceDateTime>
                    </PartyActionEvent>
                </OwnerParty>
                <RepairOrderVehicleLineItem>
                    <Vehicle>
                        <Model>F-250</Model>
                        <ModelYear>2019</ModelYear>
                        <ModelDescription>F-250 Super Duty<
/ModelDescription>
                        <MakeString>Ford</MakeString>
                        <SaleClassCode>New</SaleClassCode>
                        <TransmissionGroup>
                            <TransmissionTypeName>Automatic<</pre>
/TransmissionTypeName>
                        </TransmissionGroup>
                        <VehicleClassCode>passenger</VehicleClassCode>
                        <Engine>
                            <NumberOfEngineCylindersNumeric>0<
/NumberOfEngineCylindersNumeric>
                            <EngineSerialString />
                        </Engine>
                        <VehicleID>1FT7W2BT5KED07573</vehicleID>
                        <VehicleWeightMeasure unitCode="pound">0<</pre>
/VehicleWeightMeasure>
                        <VehicleStockString>45513</VehicleStockString>
                        <VehicleHistoryDateGroup>
                            <VehicleHistoryDate>2020-04-07<</pre>
/VehicleHistoryDate>
                            <VehicleHistoryTypeDescription>In-Service
Date</VehicleHistoryTypeDescription>
                        </VehicleHistoryDateGroup>
                    </Vehicle>
                    <OriginalSoldDate>2020-04-14
                    <DeliveryDistanceMeasure unitCode="mile">0
/DeliveryDistanceMeasure>
                    <VehicleDemoIndicator>false</VehicleDemoIndicator>
                    <LicenseNumberString />
```

```
</RepairOrderVehicleLineItem>
                <Warranty>
                    <WarrantyStartDate>2020-04-14</WarrantyStartDate>
                    <WarrantyExpirationDate>2021-04-14
/WarrantyExpirationDate>
                    <WarrantyStartDistanceMeasure unitCode="mile">0
/WarrantyStartDistanceMeasure>
                    <WarrantyEndDistanceMeasure unitCode="mile">12000
/WarrantyEndDistanceMeasure>
                    <WarrantyCoverage>
                         <TermMeasure unitCode="month">12</TermMeasure>
                    </WarrantyCoverage>
                </Warranty>
                <InDistanceMeasure unitCode="mile">2020<</pre>
/InDistanceMeasure>
                <OutDistanceMeasure unitCode="mile">2020<</pre>
/OutDistanceMeasure>
                <OrderNotes>This is a RO comment</OrderNotes>
                <DepartmentType>Service/DepartmentType>
                <RentLoaner>
                    <RentNotes>No</RentNotes>
                </RentLoaner>
                <Price>
                    <ChargeAmount currencyID="USD">0.00</ChargeAmount>
                    <PriceDescription>Part Discount</priceDescription>
                </Price>
                <Price>
                    <ChargeAmount currencyID="USD">0.00</ChargeAmount>
                    <PriceDescription>Labor Discount<
/PriceDescription>
                </Price>
                <Price>
                    <ChargeAmount currencyID="USD">0</ChargeAmount>
                    <PriceDescription>Customer Pay Header Fees
/PriceDescription>
                </Price>
                <Price>
                    <ChargeAmount currencyID="USD">0</ChargeAmount>
                    <PriceDescription>Internal Pay Header Fees
/PriceDescription>
                </Price>
                <Price>
                    <ChargeAmount currencyID="USD">0</ChargeAmount>
                    <PriceDescription>Warranty Pay Header Fees<</pre>
/PriceDescription>
                </Price>
                <Price>
                    <ChargeAmount currencyID="USD">0</ChargeAmount>
                    <PriceDescription>Total Header Discount<</pre>
/PriceDescription>
```

```
</Price>
                <RepairOrderStatus>
                    <StatusText>Opened</StatusText>
                </RepairOrderStatus>
                <CustomerAppointmentFlag>false<
/CustomerAppointmentFlag>
                <PromisedRepairCompletionDateTime>2020-07-04T12:00:
00Z</PromisedRepairCompletionDateTime>
                <RepairOrderOpenedDateTime>2020-07-04T00:26:50Z
/RepairOrderOpenedDateTime>
            </RepairOrderHeader>
            <Job>
                <JobNumberString>A</JobNumberString>
                <OperationID>S6QT</OperationID>
                <OperationName>Lof/Rotate
                <CodesAndCommentsExpanded>
                    <CauseDescription>N/A</CauseDescription>
                    <ComplaintDescription>Whatever<</pre>
/ComplaintDescription>
                    <CorrectionDescription>Change Oil, Filter, Rotate
Tires</CorrectionDescription>
                </CodesAndCommentsExpanded>
                <ServiceLabor>
                    <LaborAllowanceHoursNumeric>0.50
/LaborAllowanceHoursNumeric>
                    <LaborRateAmount currencyID="USD">74.45<</pre>
/LaborRateAmount>
                    <Pricing>
                        <Price>
                             <PriceCode>Labor</PriceCode>
                             <ChargeAmount currencyID="USD">0.00<</pre>
/ChargeAmount>
                        </Price>
                    </Pricing>
                    <LaborActualHoursNumeric>0.00
/LaborActualHoursNumeric>
                    <ServiceTechnicianParty>
                        <DealerManagementSystemID>DMSAE0005<</pre>
/DealerManagementSystemID>
                        <SpecifiedPerson>
                             <GivenName>Alexis</GivenName>
                             <FamilyName>Echemendia/FamilyName>
                        </SpecifiedPerson>
                    </ServiceTechnicianParty>
                </ServiceLabor>
                <LaborAllowanceHoursNumeric>0.50
/LaborAllowanceHoursNumeric>
                <LaborActualHoursNumeric>0.00
/LaborActualHoursNumeric>
                <ServiceTechnicianParty />
```

```
<ServiceComponents>
                     <ComponentTypeCode>Freight</ComponentTypeCode>
                </ServiceComponents>
            </Job>
            <Job>
                <JobNumberString>B</JobNumberString>
                <OperationID>NEWCD</OperationID>
                <OperationName>New Car Detail
                <CodesAndCommentsExpanded>
                     <CauseDescription>N/A</CauseDescription>
                     <ComplaintDescription>New Car Detail<</pre>
/ComplaintDescription>
                </CodesAndCommentsExpanded>
                <ServiceParts>
                     <ItemIdDescription>FILTER-ENGINE OIL<</pre>
/ItemIdDescription>
                    <ItemQuantity>0</ItemQuantity>
                     <Pricing>
                         <Price>
                             <PriceCode>Sold</PriceCode>
                             <ChargeAmount currencyID="USD">0<</pre>
/ChargeAmount>
                         </Price>
                     </Pricing>
                     <Pricing>
                         <Price>
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