



N63 Engine: Check the Timing Chain

This Service Information Bulletin (Revision 7) replaces SI B11 16 14 **dated February 2016**.

What's New (Specific text highlighted):

- Part number table updated with new numbers
- Claim Information section completely reformatted

MODEL

F01 and F02 (7 Series Sedan) produced from 9/2008 to 6/2012	F04 (ActiveHybrid 7) produced from 4/2010 to 6/2012	F07 (Gran Turismo) produced from 9/2009 to 6/2012	F10 (5 Series Sedan) produced from 3/2010 to 7/2013
F12 (6 Series Convertible) produced from 3/2011 to 7/2012	F13 (6 Series Coupe) produced from 7/2011 to 7/2012	E70 (X5) produced from 3/2010 to 6/2013	E71 (X6) produced from 7/2008 to 6/2014
E72 (ActiveHybrid X6) produced from 9/2009 to 9/2011			

INFORMATION

This bulletin outlines the procedure for checking the engine timing chains for wear, and **should be completed in conjunction with SI B11 06 14**, "N63 Customer Care Package."

The N63CCP and N63 Engine Check the Timing Chain are NOT mandatory Technical Campaigns or Recalls.

They should be completed only based on **parts availability, workshop capacity, and the customer's schedule**.

Performing the test plans identified in the procedure below will detect wear at an early stage and, if necessary, provide a repair solution. To avoid future valvetrain wear, the vehicle must be reprogrammed, and a shorter oil service interval must be retrofitted via ISTA/P.

Finally, drain and replace the engine's oil and filter.

After completing all necessary repairs included in the N63 Customer Care Package and the Timing Chain Check, the vehicle must be test driven for up to 30 minutes to ensure that the repairs were performed to the highest standard.

AFFECTED VEHICLES

This Service Action applies to E70, E71, E72, F01, F02, F04, F07, F10, F12, and F13 vehicles with the N63 engines corresponding to the production dates listed above.

PROCEDURE

1. Perform a vehicle test. If the vehicle already has faults stored for the VANOS or camshaft position, perform the recommended test plans for the faults stored before checking the timing chain. A defective component (VANOS actuator or solenoid) can affect the outcome of the timing chain check.
2. Perform the applicable test plan to measure the timing chain's elongation, using ISTA/D 3.47 or higher.

F01, F02, F04, F07, F10, F12, and F13 Timing Chains Test Plan path:

1. Select "Troubleshooting"
2. Select "Function structure"

3. Select "Drive"
4. Select "Engine electronics, quality control valve (MSV)"
5. Select "Valve gear"
6. Select "Start Search"
7. From the list of available test plans, select "VANOS solenoid valve, exhaust"
8. Select "Continue"
9. Select "Timing chain test" and follow the steps to complete the test plans.
10. Test plan will conclude with the statement "Timing chain is OK" or "Timing chain is not OK".
11. If the test plan results indicate the timing chains are stretched ("not OK"), replace both timing chains per Repair Instruction 11 31 052 "Replacing both timing chains \ PREMIUM" after completing the remaining portion of the vehicle evaluation procedure from [SI B11 06 14](#).

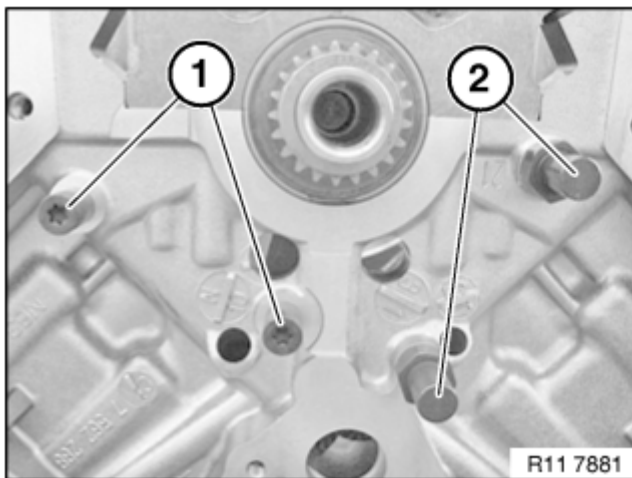
IMPORTANT – Before starting the engine for the first time, and after replacing the timing chains:

1. Fill the engine with the specified amount of engine oil.
2. Connect a battery charger to the vehicle.
3. Remove the electric fuel pump fuse. Refer to the applicable wiring diagram using the VIN of the vehicle in ISTA/D.
4. Crank the engine for 10 seconds.
5. After 10 seconds have elapsed, stop the starter, and allow the starter to cool for 20 seconds.
6. Repeat steps 4 and 5 two additional times.
7. Reinstall the electric fuel pump fuse and start the engine. Verify proper engine operation.

IMPORTANT: Repair Instruction 11 31 052 for "Replacing both timing chains \ PREMIUM" describes the "replacement" of the engine oil pan gasket (seal).

- Failure to replace this gasket (seal) as outlined in the repair instruction can result in an engine oil leak and an unnecessary return visit to your workshop

Also, using liquid sealer to substitute the required replacement of this gasket (seal) on the engine is "not a proper" repair. A repair to correct engine oil leakage that results from not replacing the engine oil pan gasket (seal) as required during a previous repair is not a Warranty issue.



Important Note:

The current ISTA repair manual RA11 31 052 "Replacing both timing chains \ PREMIUM" instructs to release tension on four bearing bolts (indicated as #1 for cylinders 5 to 8; and #2 for cylinders 1 to 4) on the engine block.

IT IS NOT NECESSARY TO DO THIS.

DO NOT release these bolts, because the bearing bolts are micro-encapsulated, and they would have to be replaced if loosened up. The repair instructions will be updated soon.

8. Terminate the diagnostic session so that FASTA data will be transmitted.
9. Program the vehicle using ISTA/P 3.55.1 or a more recent version and retrofit the new engine oil service interval. The engine oil service interval of the vehicle must be retrofitted to a shorter service interval of 12 months or 10,000 miles. ISTA/P will automatically reprogram and code all

programmable control modules that do not have the latest software. Perform the programming, coding and engine oil service retrofit during the same ISTA/P session.

Important note: For F01, F02, F04, and F07 vehicles, check the operation of the trunk release with the remote. If the trunk does not open with the remote, refer to the special procedure in SI B66 04 15. Leave the ICOM connected to the vehicle.

For information on programming and coding with ISTA/P, refer to Centernet / Aftersales Portal / Service / Workshop Technology / Vehicle Programming.

Engine Oil Service Interval Retrofit Procedure (F01, F02, F04, F07, F10, F12, and F13):

1. From the ISTA/P start screen select “Start a new session”
2. Select “ISTA/P Server Automatically”
3. Select “Connect”
4. Select “Vehicle”
5. Select “Conversion, oil service 12months/15,000km/10,000 miles” from the retrofit list.
6. Select “Determine Measure Plan”
7. Select “Accept Measure Plan”
8. Select “Continue”
9. Select “OK”
10. Select “End Session”

The retrofit of the engine oil service is complete.

E70, E71 and E72 Timing Chain Test Plan Path:

1. Select “Troubleshooting”
2. Select “Function structure”
3. Select “Drive”
4. Select “Engine electronics, quality control valve (MSV)”
5. Select “Valve gear”
6. Select “Start Search”
7. From the list of available test plans select “Exhaust camshaft”, and then follow with the “Display” and then “Continue” buttons
8. Select “Bank 1” and Continue
9. Select “Timing chain test” and follow the steps to complete the test plans

If the test plan results indicate the timing chains are stretched (“Timing chain is not OK”), replace both timing chains per Repair Instruction 11 31 052 “Replacing both timing chains \ PREMIUM” after completing the remaining portion of the vehicle evaluation procedure outlined in [SI B11 06 14](#).

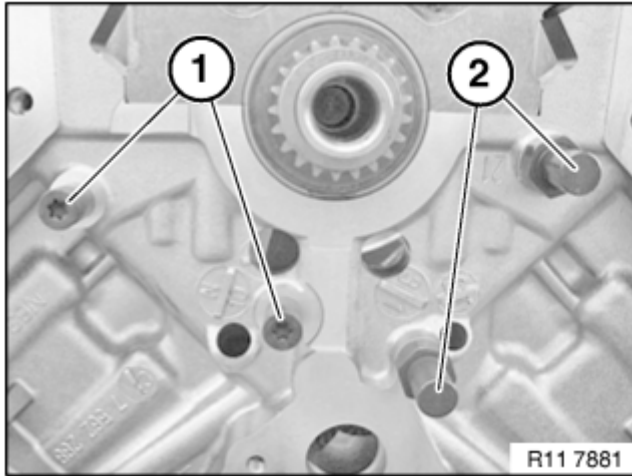
IMPORTANT - Before starting the engine for the first time and after replacing the timing chains:

1. Fill the engine with the specified amount of engine oil.
2. Connect a battery charger to the vehicle.
3. Remove the electric fuel pump fuse. Refer to the applicable wiring diagram using the vin number of the vehicle in ISTA/D.
4. Crank the engine for 10 seconds.
5. After 10 seconds have elapsed, stop the starter, and allow the starter to cool for 20 seconds.
6. Repeat steps 4 and 5 two additional times.
7. Reinstall the electric fuel pump fuse and start the engine. Verify proper engine operation.

IMPORTANT: Repair Instruction 11 31 052 for “Replacing both timing chains \ PREMIUM” describes the “replacement” of the engine oil pan gasket (seal).

- Failure to replace this gasket (seal) as outlined in the repair instruction can result in an engine oil leak and an unnecessary return visit to your workshop

Also, using liquid sealer to substitute the required replacement of this gasket (seal) on the engine is “not a proper” repair. A repair to correct engine oil leakage that results from not replacing the engine oil pan gasket (seal) as required during a previous repair is not a Warranty issue.



Important Note:

The current ISTA repair manual RA11 31 052 “Replacing both timing chains \ PREMIUM” instructs to release tension on four bearing bolts (indicated as #1 for cylinders 5 to 8; and #2 for cylinders 1 to 4) on the engine block.

IT IS NOT NECESSARY TO DO THIS.

DO NOT release these bolts, because the bearing bolts are micro-encapsulated, and they would have to be replaced if loosened up. The repair instructions will be updated soon.

8. Terminate the diagnostic session so that FASTA data will be transmitted.
9. Program the vehicle using ISTA/P 3.55.1 or a more recent version and retrofit the new engine oil service interval. The engine oil service interval of the vehicle must be retrofitted to a shorter service interval of 12 months or 10,000 miles. ISTA/P will automatically reprogram and code all programmable control modules that do not have the latest software. Perform the programming, coding and engine oil service retrofit during the same ISTA/P session.
10. For information on programming and coding with ISTA/P, refer to Centernet / Aftersales Portal / Service / Workshop Technology / Vehicle Programming.

Engine Oil Service Interval Retrofit Procedure (E70, E71 and E72):

1. From the ISTA/P start screen select “Start a new session”
2. Select “ISTA/P Server Automatically”
3. Select “Connect”
4. Select “Vehicle”
5. Select “Conversion, oil service 12months/15,000km/10,000 miles” from the retrofit list.
6. Select “Determine Measure Plan”
7. Select “Accept Measure Plan”
8. Select “Continue”
9. Select “OK”
10. Select “End Session”

The retrofit of the engine oil service is complete.

PARTS INFORMATION

The part numbers in the parts table below are no longer blocked. Do not send emails requesting the release of the parts identified in this document.

Only order the necessary parts, in the quantities needed, for customers’ vehicles that have confirmed failures or that failed the customer care package inspection.

Also, refer to ETK and the repair instructions for one-time use fasteners and component information regarding additional and/or replacement screws, gaskets, and seals that need to be installed and claimed.

Part Number	Description	Quantity
11 31 7 567 500	Timing chain with tensioner rail	2
11 36 7 598 001	VANOS adjustment unit, inlet camshaft	2
11 36 7 598 002	VANOS adjustment unit, outlet camshaft	2
11 31 7 574 397	Guide rail	2
11 31 7 565 242	Slide rail	2
11 21 8 655 426	Sprocket gear	1
11 31 7 557 741	Timing chain tensioner	2
11 35 7 564 346	VANOS collar screw	4
11 31 7 550 461	Seal	2
11 42 7 583 220	Set oil-filter element	1
Refer to EPC	Cylinder Head Gasket (Set)	1

Sublet – Material

BMW PN/Refer to SIB	5W30 BMW Engine Oil	Up to 9.5 liters, (E72, F04, up to 8.5 liters)
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CLAIM INFORMATION

Reimbursement for this repair will be via normal claim entry utilizing the information below that applies and the part numbers listed above.

Defect Code:	0013480200	E7x F0x F1x N63 Check US version timing chain (additional scope of Customer Care)
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Refer to AIR for the corresponding flat rate unit (FRU) allowances.

Labor Operation	Description	Labor Allowance
00 62 913	Performed with labor operations 00 62 111 to 00 62 118: Check the timing chain (no replacement necessary), change engine oil and filter. Modifying the oil service interval programming/encoding is reimbursed via a different Technical Campaign or repair (all)	Refer to AIR
Or:		
00 62 914	Performed with labor operations 00 62 111 to 00 62 118: Check the timing chain (no replacement necessary), change engine oil, and filter and modify the oil service interval (programming/encoding, all and E7x without CAS)	Refer to AIR
Or:		
00 62 915	Performed with labor operations 00 62 111 to 00 62 118: Check the timing chain (no replacement necessary), change engine oil, and filter and modify the oil service interval (programming/encoding, E7x with CAS only)	Refer to AIR

Timing Chain Replacement is Necessary

In conjunction with Labor Operation 00 62 111 ([SI B11 06 14](#))

Labor Operation	Description	Labor Allowance

00 62 916	Performed with labor operation 00 62 111: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter. Modifying the oil service interval programming/encoding is reimbursed via a different Technical Campaign or repair during the same workshop visit (all)	Refer to AIR
Or:		
00 62 917	Performed with labor operation 00 62 111: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter and modify the oil service interval (programming/encoding, all, and E7x without CAS)	Refer to AIR
Or:		
00 62 918	Performed with labor operation 00 62 111: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter and modify the oil service interval (programming/encoding, E7x with CAS only)	Refer to AIR

In conjunction with Labor Operation 00 62 112 ([SI B11 06 14](#))

Labor Operation	Description	Labor Allowance
00 62 954	Performed with labor operation 00 62 112: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter. Modifying the oil service interval programming/encoding is reimbursed via a different Technical Campaign or repair during the same workshop visit (all)	Refer to AIR
Or:		
00 62 961	Performed with labor operation 00 62 112: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter and modify the oil service interval (programming/encoding, all, and E7x without CAS)	Refer to AIR
Or:		
00 62 968	Performed with labor operation 00 62 112: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter and modify the oil service interval (programming/encoding, E7x with CAS only)	Refer to AIR

In conjunction with Labor Operation 00 62 113 ([SI B11 06 14](#))

Labor Operation	Description	Labor Allowance
00 62 955	Performed with labor operation 00 62 113: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter. Modifying the oil service interval programming/encoding is reimbursed via a different Technical Campaign or repair during the same workshop visit (all)	Refer to AIR
Or:		
00 62 962	Performed with labor operation 00 62 113: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter and modify	Refer to AIR

	the oil service interval (programming/encoding, all and E7x without CAS)	
Or:		
00 62 969	Performed with labor operation 00 62 113: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter and modify the oil service interval (programming/encoding, E7x with CAS only)	Refer to AIR

In conjunction with Labor Operation 00 62 114 ([SI B11 06 14](#))

Labor Operation	Description	Labor Allowance
00 62 956	Performed with labor operation 00 62 114: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter. Modifying the oil service interval programming/encoding is reimbursed via a different Technical Campaign or repair during the same workshop visit (all)	Refer to AIR
Or:		
00 62 963	Performed with labor operation 00 62 114: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter and modify the oil service interval (programming/encoding, all and E7x without CAS)	Refer to AIR
Or:		
00 62 970	Performed with labor operation 00 62 114: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter and modify the oil service interval (programming/encoding, E7x with CAS only)	Refer to AIR

In conjunction with Labor Operation 00 62 115 ([SI B11 06 14](#))

Labor Operation	Description	Labor Allowance
00 62 957	Performed with labor operation 00 62 115: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter. Modifying the oil service interval programming/encoding is reimbursed via a different Technical Campaign or repair during the same workshop visit (all)	Refer to AIR
Or:		
00 62 964	Performed with labor operation 00 62 115: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter and modify the oil service interval (programming/encoding, all and E7x without CAS)	Refer to AIR
Or:		
00 62 971	Performed with labor operation 00 62 115: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter and modify the oil service interval (programming/encoding, E7x with CAS only)	Refer to AIR

In conjunction with Labor Operation 00 62 116 ([SI B11 06 14](#))

Labor Operation	Description	Labor Allowance
00 62 958	Performed with labor operation 00 62 116: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter. Modifying the oil service interval programming/encoding is reimbursed via a different Technical Campaign or repair during the same workshop visit (all)	Refer to AIR
Or:		
00 62 965	Performed with labor operation 00 62 116: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter and modify the oil service interval (programming/encoding, all and E7x without CAS)	Refer to AIR
Or:		
00 62 972	Performed with labor operation 00 62 116: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter and modify the oil service interval \ (programming/encoding, E7x with CAS only)	Refer to AIR

In conjunction with Labor Operation 00 62 117 ([SI B11 06 14](#))

Labor Operation	Description	Labor Allowance
00 62 959	Performed with labor operation 00 62 117: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter. Modifying the oil service interval programming/encoding is reimbursed via a different Technical Campaign or repair during the same workshop visit (all)	Refer to AIR
Or:		
00 62 966	Performed with labor operation 00 62 117: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter and modify the oil service interval (programming/encoding, all, and E7x without CAS)	Refer to AIR
Or:		
00 62 973	Performed with labor operation 00 62 117: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter and modify the oil service interval (programming/encoding, E7x with CAS only)	Refer to AIR

In conjunction with Labor Operation 00 62 118 ([SI B11 06 14](#))

Labor Operation	Description	Labor Allowance
00 62 960	Performed with labor operation 00 62 118: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter. Modifying the oil service interval programming/encoding is reimbursed via a different Technical Campaign or repair during the same workshop visit (all)	Refer to AIR
Or:		
00 62 967	Performed with labor operation 00 62 118: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter and	Refer to AIR

	modify the oil service interval (programming/encoding, all, and E7x without CAS)	
Or:		
00 62 974	Performed with labor operation 00 62 118: Check and replace the timing chain (includes removing and installing cylinder head), change engine oil and filter and modify the oil service interval (programming/encoding, E7x with CAS only)	Refer to AIR

And, if applicable:

When other additional work and/or parts are required as a direct result of this issue, including the applicable labor operations listed in AIR, claim these items under the defect code listed above.

And, as needed:

Sublet – Bulk Materials (RO and Claim Comments Required)

Sublet Code 4	Up to \$100.00	Reimbursement for the repair-related bulk materials (Do not use the BMW part numbers for claim submission)
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Sublet reimbursement calculation for claiming the applicable repair-related bulk material (BMW part number) is at the dealer net price amount for the quantity used plus your center’s handling.

Enter this material cost in sublet and itemize the amount on the repair order and in claim comment section

Claim Repair Comments

Based on which one applies to your center, please refer to [SI B01 01 20](#) or [B01 07 20](#) for the applicable procedure for documenting, claiming, and explaining, on the RO and in the claim comments, your diagnosis work time (WT), job/repair work time (WT), and the vehicle repairs your center performed, unless otherwise required by State law.

Programming and Encoding - Vehicle Control Units (RO and Claim Comments Required)

This procedure automatically reprograms and encodes any vehicle control modules that do not have the latest software I-level.

If one or more control modules fail during the reprogramming procedure, claim the required consequential repair work procedures to address this issue (including performing the IRAP Control Unit Recovery first as required, refer to the SIB in AIR) under the Defect Code in this bulletin with the labor operations in AIR that apply.

Please explain the additional work procedures that were performed (The why and the what) on the repair order and in the claim comments.

For covered repairs that address control module failures that occurred prior to performing this reprogramming procedure, claim this work with the Defect Code and labor operations (including diagnosis) in AIR that apply.

After the Engine Oil Service Retrofit is Completed, a CBS Data Reset and if applicable a CBS Correction Must Be Performed

The engine oil service interval calculation will now be based on 12 months or approximately 10,000 miles; one of the following steps should be performed:

- If the engine oil service task **shows** either Bundling Eligible (BE), Recommended or Due, reset the engine oil service CBS data to 100%, or
- If the engine oil service task **does not show** Bundling Eligible (BE), Recommended, or Due, reset the engine oil service CBS data to 100% and perform a CBS correction to reduce the engine oil service counter by one (1).

Combined and Other Required Maintenance Service Tasks

Please be sure to perform the service tasks that are combined with engine oil when applicable, as well as any standalone maintenance tasks that qualify.

If eligible, claim these other items under the BMW Maintenance Program or, after reviewing with the customer with his or her approval, invoice these items separately as customer-pay.

Previous Customer-pay Repairs

BMW of North America, LLC will provide reimbursement for qualifying customer-pay timing chain repairs that were performed on an eligible vehicle prior to the release of the N63 Engine Timing Chain Inspection Measure.

Customer-pay repairs are subject to the same vehicle eligibility requirements, limitations, and exclusions that apply to the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks.

Repairs performed on ineligible vehicles, or the diagnosis and repair of other unrelated issues do not qualify for reimbursement.

To request reimbursement for a qualifying customer-pay repair, performed either by an authorized BMW center or independent repair shop, please have your customer submit a reimbursement request online at

Previous Customer-pay Repairs

BMW of North America, LLC will provide reimbursement for qualifying customer-pay timing chain repairs that were performed on an eligible vehicle prior to the release of the N63 Engine Timing Chain Inspection Measure.

Customer-pay repairs, when they were performed, are subject to the applicable New Vehicle/SAV Limited Warranty's exclusions and limitations, in addition to the vehicle and coverage eligibility requirements.

Repairs performed on ineligible vehicles, or the diagnosis and repair of other unrelated issues do not qualify for reimbursement.

To request reimbursement for a qualifying customer-pay repair, performed either by an authorized BMW center or independent repair shop, please have your customer submit a reimbursement request online at www.BMW-RP.com.

Reimbursement Procedure

To initiate the online process, the customer will be asked to attach PDF files of the required documentation; this is outlined in the attachment below.

Alternatively, he or she may mail or fax his or her request and documentation directly to the BMW Customer Reimbursement Center.

For more information, please refer to the PDF attachment: B110614_Customer_CP_Reimbursement Procedure that is included in SI [B11 06 14](#). A copy of this attachment can be provided to the customer.

QUESTIONS REGARDING THIS BULLETIN

Technical inquiries	Submit feedback at the top of this bulletin
Warranty inquiries	Please contact the Warranty department by either using the Live Chat that's available in the Warranty Documentation Portal or through IDS by selecting Coverage, Policy, Coding Questions and Mileage Corrections
Parts inquiries	Submit an IDS ticket to the Parts Department