



## N20 AND N26 ENGINE: HIGH PITCHED WHINING NOISE FROM LOWER ENGINE AREA

### MODEL

E84 (X1 28i)	E89 (Z4 sDrive28i)	F10 (528i Sedan)	F25 (X3)
F30 (320i, 328i Sedan)			

Produced before 3/2013

### SITUATION

Whining noise from the lower engine area near the engine oil pump that increases frequency when increasing the engine RPM.

### CAUSE

Wear on the engine oil pump chain drive sprockets.

### CORRECTION

Replace the engine oil pump drive chain module, timing chain, timing chain tensioner, slide rail, tensioning rail and guide rail.

### PROCEDURE

1. Verify the noise is present and compare to the noise found on the TIS Website using the following path:
2. Select "Service Reference" from the top menu bar.
3. Select "Service Videos."
4. Select "General Search."
5. Select "[11] Engine" and "Submit."

Select "V11 01 17 February 2017 – "N20/N26 High Pitched Engine Noise from Lower Engine Area"

6. If the engine noise is the same as the sound file on the TIS website then submit a TC Case with "N2X Engine Noise" in the subject line and wait for a response.

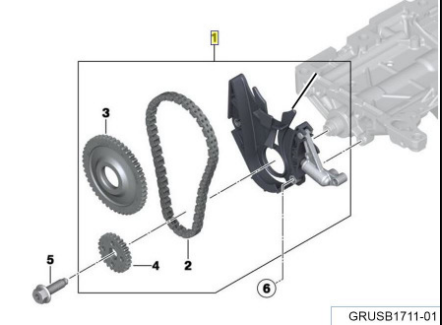
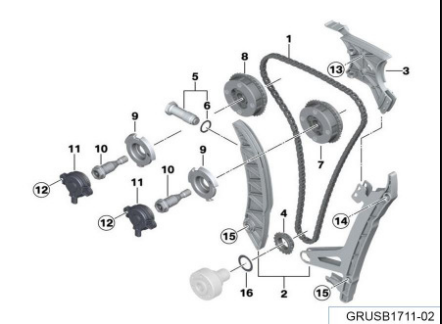
**Do not replace any oil pump chain module or timing chain module components without TeileClearing authorization.**

7. When authorization is provided, replace the following components as per Repair Instruction 11 41 010 “Removing and installing/replacing chain module for oil pump (N20, N26)”.

And

Replace the timing chain module as per Repair Instruction 11 31 051 “Replacing timing chain (N20, N26)”.

Change engine oil and filter.

 <p>GRUSB1711-01</p>	<p><b>Oil Pump Chain Module Overview</b>          Replace item #1 in the illustration.          Item #1 Chain Drive includes the gears, chain and tensioning device.          The bolts are reusable as per the applicable repair instructions.</p>
 <p>GRUSB1711-02</p>	<p><b>Timing Chain Module Overview</b>          Replace the following components in the illustration.          #1 – Timing chain          #2 – Chain tensioner and guide rail          #3 – Slide rail          #4 – Sprocket          #5 – Chain tensioner with seal</p>

## PARTS INFORMATION

The parts information below only applies to the intake and the exhaust valve seal replacement.

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

Part Number	Description	Quantity
11 41 7 605 366	Chain Drive	1
11 31 8 648 732	Timing chain	1
11 31 7 592 877	Chain tensioner and guide rail	1
11 31 7 603 944	Sprocket	1

11 31 8 685 091	Chain tensioner with gasket ring	1
11 24 7 614 270	Collar screw	1
Refer to EPC	Engine oil filter kit	1
11 23 7 600 595	Washer – Manual transmission vehicles only – Enter the vin number into ETK to determine the requirement.	1

### Bulk Materials - Sublet

83 21 2 365 950	0W-30 BMW Engine Oil 1 liter	Up to 5.3 liters
	Or	
83 21 2 449 994	0W-30 BMW Engine Oil Bulk	Up to 5.3 liters
82 14 1 467 704	Antifreeze*	As needed

\*Replacing drained quantity with a “50/50 antifreeze/water solution

## WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks or the BMW Certified Pre-Owned Program.

<b>Defect Code:</b>	<b>1141906900</b>	
<b>Labor Operation:</b>	<b>Labor Allowance:</b>	<b>Description:</b>
00 62 282	Refer to KSD2	Replace the oil pump chain module and timing chain module (including replace the engine oil and engine oil filter) (Main work)
Or:		
00 62 987	Refer to KSD2	Replace the oil pump chain module and timing chain module (including replace the engine oil and engine oil filter) (Plus work – Vehicle already in the workshop)

### BMW Maintenance Program

If the vehicle has a “active” maintenance program and the “Engine oil” Service task shows “Recommended or Due” in the Service status field or it “qualifies” to be performed based on the “60-day Bundling” procedure (See SI B01 06 13), then:

- Perform the “Engine oil” Service task; and
- “Reset” the CBS data.

Claim and submit the engine oil and filter “part numbers” under the:

- BMW Maintenance Program (Defect Code).

Claim the remaining repair-related items that are outlined in this Service Information bulletin under:

- Defect Code “11 41 90 69 00” with flat rate labor operation “00 62 987.”

And:

#### **Sublet – Bulk Materials**

<b>Sublet Code 4</b>	See sublet reimbursement calculation below	Reimbursement for used quantities of required operating fluids, including engine oil only when it is not claimed under the BMW Maintenance Program (applicable BMW part numbers). Please do not use these part numbers for claim submission.
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BMW Antifreeze/Coolant for the amount needed to replace what was drained with a “50/50 coolant/water solution” at dealer net plus your center’s handling (BMW part number).

Reimbursement for other used quantities of required operating fluids (applicable BMW part numbers) at dealer net plus your center’s handling.

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

#### **Overlapping Labor Procedure – Other Repairs**

If invoicing the KSD2 flat rate labor operation codes for other repair work results in overlapping labor, for those flat rate labor operations that are affected, you can now:

- Replace the stated KSD2 “FRU allowance” with a “reduced FRU value” to eliminate the overlapping labor.

Eligible other repair work being claimed under a different defect code will require separate punch times.

On the repair order and in the claim comment section, please identify and itemize those labor operations being claimed with a “reduced FRU value.”

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