



## N63T AND S63T ENGINE: VALVE SEAL REPLACEMENT

### MODEL

F01 and F02 (7 Series Sedan) Produced from 7/2012	F07 (Gran Turismo) Produced from 7/2012	F10 (5 Series Sedan) Produced from 7/2013	F12 (6 Series Convertible) Produced from 7/2012
F13 (6 Series Coupe) Produced from 7/2012	F15 (X5) Produced from 6/2013	F16 (X6) Produced from 6/2014	F10 (M5) Produced from 7/2012
F12 (M6 Convertible) Produced from 7/2012	F13 (M6 Coupe) Produced from 7/2012		

### SITUATION

This SI provides a new tool and a new procedure for the N63TU valve seals replacement.

Please refer to the following applicable SIBs before replacing the valve seals.

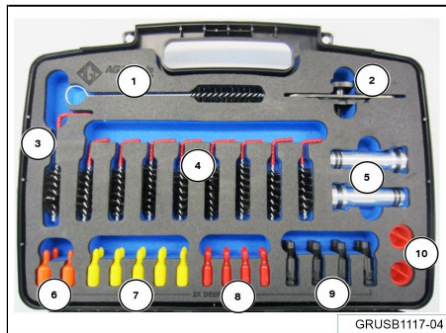
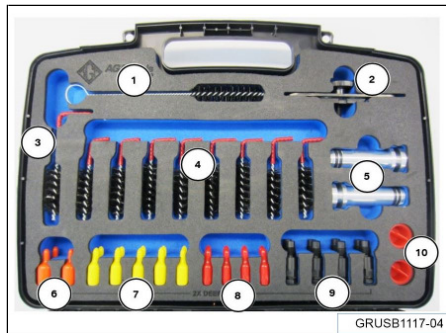
- [SI B11 07 11](#) - Turbocharger Failure: Oil Supply and Return Line Blockage and Proper Repairs
- [SI B11 01 13](#) - N63 and N63TU Engines: Engine Oil Consumption, Engine Oil Top-ups and Refill Capacity
- [SI B11 03 13](#) - Engine Oil Consumption (all models)
- [SI B11 04 13](#) - N63TU Engine: Engine Oil Consumption

If the valve seals are leaking, one of the following will help determine if the seals should be replaced.

- Smoke from the tailpipe when starting or aggressively accelerating and decelerating the engine
- Excessive engine oil consumption
- Spark plugs fouled with engine oil

### PROCEDURE

If one of these conditions is verified, replace the intake and exhaust valve stem seals using special tool P/N 83 30 2 450 434.



All quantities are one unless otherwise specified.  
Replacement parts can be ordered using the attached order form.

#### Kit Parts list:

1. Hand brush P/N AGA-HB-8-34
2. Injector Plug Hold Bracket with Knob P/N AGA-N63TU-IPHB
3. Timing Hole Brush P/N AGA-N63TU-THB
4. Plug Brush P/N AGA-N63-PB-34 (Quantity-8)
5. Fuel Injector Sealing Plug P/N AGA-N63TU-FISP (Quantity-2)
6. Injector Rail Supply Cap P/N AGA-CP-O14 (Quantity-4)
7. Injector & Injector Rail Cap P/N AGA-CI-Y12-10 (Quantity-10)
8. Injector Line Cap P/N AGA-LC-R08 (Quantity-8)
9. Spark Plug TDC Tool P/N AGA-SPT12-125 (Quantity-8)
10. Injector Bore Plastic Plug P/N AGA-N63TU-IBPP (Quantity-2)
11. 5mm Universal Allen P/N AGA-UA-60
12. VVT Spring Lever P/N AGA-N63TU-VSL
13. VVT Spring Compressor AGA-N63TU-VVTS
14. TDC Indicator Flag P/N AGA-TDC-1
15. Exhaust Compression Bracket P/N AGA-N63TU-ECB
16. VVT Wrench 4mm P/N AGA-VVT-R-N63TU
17. Compression Rod P/N AGA-N63TU-CR (Quantity-2)
18. Exhaust Valve Keeper Tool P/N AGA-N63TU-EVKT

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|  | 19. Valve Seal Pliers Straight P/N<br>AGA-VSPS         |
|  | 20. Valve Seal Pliers Angled P/N<br>AGA-VSPA           |
|  | 21. Locator Handle P/N AGA-VST-LH                      |
|  | 22. Ratcheting Wrench P/N AGA-RW-<br>N63               |
|  | 23. Intake Valve Keeper Tool P/N<br>AGA-N63TU-IVKT     |
|  | 24. Chain Holder P/N AGA-CH-<br>N63TU                  |
|  | 25. Camshaft Bracket P/N AGA-<br>N63TU-CB (Quantity-2) |
|  | 26. Valve Seal Installer P/N AGA-<br>N63TU-VSIT        |
|  | 27. Intake Compression Bracket P/N<br>AGA-N63TU-ICB    |

The attached valve seal replacement procedure supersedes the current version of the ISTA/D valve seal replacement repair instructions.

Replace the engine oil and engine oil filter when the valve seal replacement is completed.

If the engine oil service task shows Recommended, Due or qualifies to be performed based on the “60-day Bundling” procedure (see [SI B01 06 13](#)), reset the engine oil service CBS data to 100%.

The video procedure for replacing the valve stem seals can be viewed via the TIS Website using the following path:

1. Select “Service Reference” from the top menu bar.
2. Select “Service Videos.”
3. Select “General Search.”
4. Select “[11] Engine” and “Submit.”

Select “V11 02 17” February 2017 – “N63TU Valve Stem Seal Tool Procedure”

## 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 34 0 039 494	Valve seal repair kit	2
11 12 7 614 700	Cylinder head cover profile gasket (cylinders 1-4)	1
11 12 7 614 701	Cylinder head cover profile gasket (cylinders 5-8)	1
11 12 7 588 416	High-pressure pump profile gasket	2
11 42 7 583 220	Engine oil filter	1
13 53 7 591 006	Injector gasket ring seal	8
13 53 7 577 649	Injector decoupling element	8

#### Bulk Materials - Sublet

Part Number	Description	Quantity
83 21 2 365 950	0W30 BMW engine oil - 1 liter (MY 2016 to present)	Up to 9.6 liters
Or		
83 21 2 449 994	0W30 BMW engine oil - Tanker (MY 2016 to present)	Up to 9.6 liters
82 14 1 467 704	Antifreeze (1 Gallon*)	See Sublet
		(3.4 Gallons*)
83 29 0 429 576	Hydraulic fluid CHF 11 S (1000ml)	See Sublet
		(up to 1)
83 22 2 289 720	Automatic transmission fluid (GA8HP70Z) (One	See sublet

	liter)	
(up to 1)		
81 22 0 142 156	Brake fluid (12oz bottle.)	See sublet
(up to 3)		



**Note\*:** Two (2) gallon of antifreeze equals four (4) gallons at a 50/50 solution mixture.

## WARRANTY INFORMATION



**Note:** The above procedure replaces performing and claiming labor operation 11

**34 560 together with the other corresponding “pre-work procedure” labor operations which are listed/identified in the KSD2.**

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>1134064800</b>	
<b>Labor Operation:</b>	<b>Labor Allowance:</b>	<b>Description:</b>
11 00 050	Refer to KSD2	Removing and installing engine (Main work)
Or		
11 00 505	Refer to KSD2	Removing and installing engine (Plus work)
And:		
00 50 000	110 FRU	Work time to remove cylinder head covers and replace all the valve seals with special tool, Part Number 83 30 2 450 434

If you are using a Main labor code for another repair, use the Plus code labor operation 11 00 505 instead.

Refer to KSD2 for the corresponding flat rate unit (FRU) allowances.

Work time labor operation code 00 50 000 is not considered a Main labor operation. Also, since the

“work time” FRU allowance to be claimed is specified, a separate punch time is not required.

### **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, then

Submit and claim for the engine oil and filter “part numbers” under the BMW Maintenance Program (Defect Code).

And:

### **Sublet – Bulk Materials**

Sublet Code 4	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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Reimbursement for 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.”

### **SPECIAL TOOL WARRANTY AND REPLACEMENT PARTS**

The N63TU valve seal replacement kit is not covered by the BMW Special Tool Warranty.

The limited warranty is administered by All German Auto – see the details below.

The warranty period is 12 months from the date of purchase. In the event of a warranty or service replacement part-related issue, please refer to the attached order form.

## **ATTACHMENTS**

View PDF attachment [B110117\\_N63TU\\_Valve\\_Seal\\_Tool\\_Order\\_Form.](#)

View PDF attachment [B110117\\_VST\\_Procedure.](#)

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