

#### 15 Oil leak from the cylinder head - 2.9 and 3.0TFSI only

15 21 39 2053278/8 June 25, 2021. Supersedes Technical Service Bulletin Group 15 number 21-38 dated April 1, 2021 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
A4, Q5	2018 - 2020	All	2.9 and 3.0 TFSI
Q5, SQ5	2021	000001 - 044156	2.9 and 3.0 TFSI
A4	2021	000001 - 019775	2.9 and 3.0 TFSI
A6, A7, S6, S7, A8, S8, and Q8	2019 - 2020	All	2.9 and 3.0 TFSI
A6, A7, S6, and S7	2021	000001 - 028126	2.9 and 3.0 TFSI
Q7, SQ7, and SQ8	2020	All	2.9 and 3.0 TFSI
A8, S8	2021	000001 - 008158	2.9 and 3.0 TFSI
Q8, SQ8	2021	000001 – 013958	2.9 and 3.0 TFSI
Q7, SQ7	2021	000001 - 017837	2.9 and 3.0 TFSI
RS 5, RS 5 Cabriolet, and RS 5 Sportback	2019	All	2.9 and 3.0 TFSI
RS 5, RS 5 Cabriolet, and RS 5 Sportback	2021	900001 - 900620	2.9 and 3.0 TFSI

### Condition

REVISION HISTORY		
Revision	Date	Purpose
8	-	Revised Warranty (Updated Labor Operations)
7	04/01/2021	Revised Warranty (Updated Labor Operations)
6	02/16/2021	Revised Required Parts and Tools (Updated part number)

#### **Customer states:**

© 2021 Audi of America, Inc.

Page 1 of 8

All rights reserved. Information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Audi of America, Inc., its affiliated companies and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites, without the prior expressed written permission of the publisher.



- Oil loss in the area around the engine compartment, front end, and underbody.
- Oil level warning (too low).
- There is a smell coming from the engine compartment.

#### Workshop findings:

- There is a leak in the area around the cylinder head cover, valve cover, and cylinder head.
- There is a leak in the area around the injector.
- There is a leak in the area around the Audi valvelift system actuator.

### **Technical Background**

Metal shavings produced during manufacture in sealing groove between cylinder head cover and the cylinder head.

### **Production Solution**

Improved production processes.

### **Service**

As the oil loss in the area of the cylinder head cover may involve two different issues, proceed as follows to clearly determine the source of the leak.

1. Remove the engine compartment cover and the heat shield below it.

© 2021 Audi of America, Inc.

All rights reserved. Information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Audi of America, Inc., its affiliated companies and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites, without the prior expressed written permission of the publisher.



 Remove the upper noise insulation of the affected cylinder bank (Figure 1).

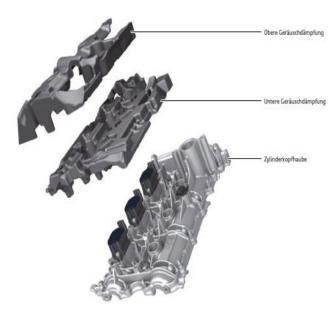


Figure 1. Removing the upper noise insulation.

3. Remove the Audi valvelift system actuator of the affected cylinder.

**A.** If there is a substantial quantity of oil below the Audi valvelift system actuator (illustration), the cause of the leak is the O ring of the Audi valvelift system actuator.



Please take photos of the oil under the Audi valve lift system actuator as shown in Figure 2. Then upload them into DOC-IT with the repair order. Photos should:

- Have a date stamp and VIN reference.
- Be taken in focus and with sufficient light.

Replace the Audi valvelift system actuator with an O ring, clean the engine compartment, and if necessary replace the noise



Figure 2. Oil in the Audi valve lift system.

Page 3 of 8

<sup>© 2021</sup> Audi of America, Inc.

All rights reserved. Information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Audi of America, Inc., its affiliated companies and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites, without the prior expressed written permission of the publisher.



insulation (if it is soaked in oil) (Figure 2).

**B.** If there is no substantial quantity of oil below the Audi valvelift system actuator continue with Step 4!

- 4. Remove the lower noise insulation.
- Locate the affected cylinder. Oil should have gathered in the area of the injector (Figure 3) and the noise insulation should also be soaked in oil.



Figure 3. Locating the affected cylinder.

6. Remove the cylinder head cover and the seal (Figure 4).

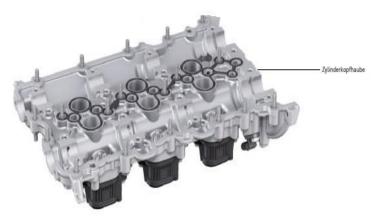


Figure 4. Remove the cylinder head cover and gasket.

<sup>© 2021</sup> Audi of America, Inc.

All rights reserved. Information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Audi of America, Inc., its affiliated companies and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites, without the prior expressed written permission of the publisher.



 Inspect the gasket groove in the cylinder head cover and remove any casting residues with a suitable tool (Figure 5). The residues can be removed with a small flat screwdriver (Figure 6).

U Note:

Make sure not to damage the seal groove!



Figure 5. Before the repair.



Figure 6. After the repair.

8. Install a new seal, re-assemble the camshaft cover, clean the engine compartment, and if necessary replace the noise insulation (if it is full of oil).



Do not replace the Audi valvelift system actuator(s) with an O-ring seal when the leak has been determined to be around the area of the injector(s).

Page 5 of 8

<sup>© 2021</sup> Audi of America, Inc.

All rights reserved. Information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Audi of America, Inc., its affiliated companies and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites, without the prior expressed written permission of the publisher.



Warranty			
Claim Type:	<ul> <li>110 up to 48 Months/50,000 Miles.</li> <li>G10 for CPO Covered Vehicles – Verify Owner.</li> <li>If the vehicle is outside any warranty, this Technical Service Bulletin is informational only.</li> </ul>		
Service Number:	<ul> <li>1580 (Leak on injector)</li> <li>1551 (Leak on Audi valvelift system actuator)</li> </ul>		
Damage Code:	<ul> <li>0050 (1580 only)</li> <li>0010 (1551 only)</li> </ul>		
Labor Operations:	For 3.0L engines		
	Adjusting mechanism for Valvelift system remove + reinstall (if AVS leak location)	1551 1943 (Left) 1551 1944 (Right)	See SRT with associated operations
		1551 9999 <b>(Q8)</b>	110 TU (Right) 170 TU (Left)
	Camshaft adjusters remove + reinstall (if injector leak location)	1584 1943 (Left) 1584 1944 (Right)	See SRT with associated operations
	Camshaft housing remove + reinstall (if injector leak location)	1503 1993 (Left) 1503 1994 (Right)	See SRT with associated operations
	Clean engine cover, heat shield, upper and engine	1083 9999	40 TU
	Radar sensor adjust (if applicable)	9163 1650 <b>Or</b> 9163 1550	See SRT with associated operations
	Preparation Driver Assist Calibration (if applicable)	9092 0050	See SRT with associated operations
	Vehicle front + rear check (if applicable)	4495 0100	See SRT with associated operations

Page 6 of 8

© 2021 Audi of America, Inc. All rights reserved. Information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Audi of America, Inc., its affiliated companies and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites, without the prior expressed written permission of the publisher.



Overhead view camera adjusted (if applicable)	9083 1500	See SRT with associated operations
For 2.9L engines (RS models)		
Adjusting mechanism for Valvelift system remove + reinstall (if AVS leak location)	1551 1945 (Left) 1551 1946 (Right)	See SRT with associated operations
Front bumper cover remove + reinstall (if injector leak location)	6329 1900	See SRT with associated operations
Front bumper remove + reinstall (if injector leak location)	6310 1950	See SRT with associated operations
Radiator remove + reinstall (if injector leak location)	1970 1995	See SRT with associated operations
Camshaft adjusters remove + reinstall (if injector leak location)	1584 1995 (Left) 1584 1996 (Right)	See SRT with associated operations
Camshaft housing remove + reinstall (if injector leak location)	1503 1995 (Left) 1503 1996 (Right)	See SRT with associated operations
Clean engine cover, heat shield, upper and engine	1083 9999	40 TU
Overhead view camera adjusted (if applicable)	9083 1500	See SRT with associated operations
Radar sensor adjust (if applicable)	9163 1650	See SRT with associated operations
Preparation Driver Assist Calibration (if applicable)	9092 0050	See SRT with associated operations

<sup>© 2021</sup> Audi of America, Inc. All rights reserved. Information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Audi of America, Inc., its affiliated companies and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites, without the prior expressed written permission of the publisher.



	Vehicle front + rear check (if applicable)	4495 0100	See SRT with associated operations
Diagnostic Time:	GFF (if applicable)	0150 0000	Time stated on the diagnostic protocol (Max 50 TU)
	Road test prior to service procedure	No allowance	0 TU
	Road test after service procedure	0121 0004	10 TU
Claim Comment:	As per TSB #2053278/8		

All warranty claims submitted for payment must be in accordance with the Audi Warranty Policies and Procedures Manual. Claims are subject to review or audit by Audi Warranty.

### **Required Parts and Tools**

Always check with your Parts Department and/or ETKA for the latest information and parts bulletins.			
Part Number	Part Description	Quantity	
See ETKA	Fasteners, Bolts, Nuts, and Screws as needed per the Repair Manual	See ETKA/ELSA	
06M906048F	Solenoid valve (if applicable)	01	
06M103650D	Gasket Cylinders 1-3 (if applicable)	01	
06M103649D	Gasket Cylinders 4-6 (if applicable)	01	
G 12E050S0	Coolant concentrate 1.5L (if applicable)	02	

### **Additional Information**

All parts and service references provided in this TSB (2053278) are subject to change and/or removal.

©2021 Audi of America, Inc. All rights reserved. Information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Audi of America, Inc., its affiliated companies, and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites without the prior expressed written permission of the publisher.

© 2021 Audi of America, Inc.

#### Page 8 of 8

All rights reserved. Information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Audi of America, Inc., its affiliated companies and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites, without the prior expressed written permission of the publisher.