



Technical Service Bulletin

15 4.0 TFSI EA825 engine - Misfiring, Engine does not run smoothly - Possible broken valve spring

15 23 45 2065684/5 August 18, 2023. Supersedes Technical Service Bulletin Group 15 number 23-43 dated April 5, 2023, for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
RS 6, and RS 7	2021	910164 – 999999	4.0L Engine
	2022	900000 – 904851	
A8	2021	025383 – 999999	
S8	2021	023779 – 099999	
	2022	000000 – 003630	
SQ 7	2021	039618 – 099999	
	2022	000000 – 014657	
SQ8	2021	0369698 – 999999	
	2022	000000 – 022217	
RS Q8	2021	042970 – 999999	
	2022	000000 - 022517	

Condition

REVISION HISTORY		
Revision	Date	Purpose
5	-	<i>Header data</i> (Updated VIN breaks)
4	04/5/2023	<i>Warranty</i> (Updated labor operations)
3	05/11/2022	<i>Revised Production Solution</i> (Modified Engine production date) <i>Service</i> (Modified repair procedure and production date range table) <i>Warranty</i> (Updated labor operations)

Customer states:

- Engine not running smoothly.
- MIL on and/or flashing.

Workshop findings:

One or more of the following DTC's may be stored in the engine control module:



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- DTC P030000
- DTC P030100
- DTC P030200
- DTC P030300
- DTC P030400
- DTC P030500
- DTC P030600
- DTC P030700
- DTC P030800

A broken valve spring (intake/exhaust) is identified during diagnosis.

Technical Background

There was an issue with raw material quality at the supplier.

Production Solution

Improved valve springs were introduced as of vehicle production date (see VIN break):

Model	VIN Break	Production Date
A8	*****MN033093	After January 11, 2022
S8	*****NN003631	After December 17, 2021
SQ7 and SQ8	*****ND022217	After March 31, 2021
RS Q8	*****ND022678	After March 26, 2022
RS 6 and RS 7	*****NN904852	After January 27, 2022

Service

1. Verify the customer's complaint.
2. Check compression on all cylinders (*15 Cylinder Head, Valvetrain >>> Cylinder Head >>> Compression Checking*).
3. Check all of the valve springs on the cylinder with the lowest compression.
4. If a broken valve spring (intake or exhaust side) is identified during diagnosis, use a borescope to check whether the piston and valve head have made contact.
5. If valves **did not** contact the piston:



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a. Use the vehicle production date table below to determine the proper repair procedure:

	Replace all 16 intake and 16 exhaust valve springs	Replace all 16 intake valve springs (Only)	Replace the damaged valve spring. (Only)
Model/Engine code	Vehicle production range 1	Vehicle production range 2	After Vehicle production range 2
A8 (CXYA)	June 15, 2021 - October 28, 2021	October 29, 2021 - January 11, 2022	After January 11, 2022
S8 (CWWB)	June 14, 2021 - November 5, 2021	November 6, 2021 - December 17, 2021	After December 17, 2021
SQ7/SQ8 (DCUE)	June 16, 2021 - October 1, 2021	October 2, 2021 - March 31, 2021	After March 31, 2021
RSQ8 (DHUB)	June 6, 2021 - October 13, 2021	October 14, 2021 – March 25, 2022	After March 26, 2022
RS6/RS7 (DJPB)	June 6, 2021 - October 21, 2021	October 22, 2021 - January 27, 2022	After January 27, 2022

If the valves did contact the pistons: This TSB does not apply, perform the appropriate diagnostic procedure, and perform the necessary repairs.

Warranty

Claim Type:	<ul style="list-style-type: none"> • 110 Up to 48 Months/50,000 Miles • G10 for CPO Covered Vehicles – Verify owner • If the vehicle is outside of any warranty, this Technical Service Bulletin is informational only. 		
Service Number:	1565		
Damage Code:	0010		
Labor Operations:	Cylinder compression check (all cylinders)	1019 0199	30 TU (remaining time is included in repair operation 1565 2099)
	Check cylinder block with a borescope	1009 0299	20 TU



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	Remove and install engine (engine remains on engine scissor table)	1085 1923	See SRT with associated operations
	After Vehicle production range 2:		
	Replace Valve Spring on Cylinder 4 and 8	1565 1999	790 TU
	Replace Valve Spring on Cylinder 1, 2, 3, 5, 6, 7	1565 1999	40 TU
	Remove and install camshaft housing	1503 19xx	See SRT with associated operations
	Vehicle production range 2:		
	Replace 16 intake valve springs (Only)	1565 2099	1400 TU
	Vehicle production range 1:		
	Replace all 32 valve springs	1565 2099	1450 TU
Diagnostic Time:	GFF	0150 0000	30 TU Max
	Road test prior to the service procedure	No allowance	0 TU
	Road test after the service procedure	0121 0004	10 TU
Claim Comment:	As per TSB 2065684/5		

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
0P2109623	Exhaust valve spring (as applicable)	16
06E109623AD	Intake valve spring	16
06M998907	Repair kit for valve unit	8



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0P2103649E	Gasket	1
0P2103650E	Gasket	1
0P2103113A	Cover	3
D176501A1	Silicone adhesive sealant	As needed
WHT005184	Seal	2

Tool Number	Tool Description
VAS 5161 A	Kit for removal and installation of valve keeper
VAS 5161 A/38	Guide Plate
VAS 6131 B	Engine scissor table
VAS 6160/VAS 6150	VAS tester with the current version of ODIS

Additional Information

All parts and service references provided in this TSB (**2065684**) are subject to change and/or removal.

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