

Valve Spring Replacement

Service Category Service

Section Function Group 214

Technician Skill Level A

Market North America

Applicability

VOLVO

Years	Models
2021	VNL, VNR, VHD

Introduction

Volvo has received reports of valve springs on some D11 and D13 engines exhibiting early life failures. Through further examination it was found some suspect valve springs do not meet Volvo's stringent quality requirements. To ensure product reliability, Volvo Trucks will be requiring replacement of all the affected valve springs on certain engines. The removed valve springs will need to be returned for inspection.

Production Change Information

This bulletin applies to vehicles built within the specified production changes below.

Brand	Engine	Emission Level	Starting Build Date	Ending Build Date
Volvo	D11, D13	EOBD U21	18-JAN-2021	21-JAN-2021

Warranty Information

This repair is covered by an authorized Service Program. Reimbursement is obtained through the normal claim handling process.		
Claim Type (used only when uploading from the Dealer Bus. Sys.)		B
Main Labor Code	Description	Hours
2144-03-03-03	Valve Spring, Replacement (All)	4.0
2146-01-01-01	Rocker Arm Shaft, Removal	1.7
2146-02-01-01	Rocker Arm Shaft, Installation	4.0
Causal Part	23803415, 23803420	
SCC Authorization Code	S7598	
Expiration Date	August 31, 2022	

Valve Spring Replacement

Parts Information

Parts required for D11

Part Numbers	Part Names	Quantity
20510747	Valve Cotter (Keeper)	48
23803420	Valve Spring Inner	24
23803415	Valve Spring Outer	24
21487571	Valve Cover Gasket, upper (D11)	1
23002534	Fuel Lines (left D11)	3
23002543	Fuel Lines (right D11)	3
21344774	Injector Hold Down Bolts	6

Parts required for D13

Part Numbers	Part Names	Quantity
20510747	Valve Cotter (Keeper)	48
23803420	Valve Spring Inner	12
23803415	Valve Spring Outer	24
22777560	Valve Cover Gasket, upper (D13)	1
23000870	Fuel Lines (left D13)	3
23000879	Fuel Lines (right D13)	3
21344774	Injector Hold Down Bolts	6

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Required Tools & Equipment

- Access to Trucks Dealer Portal and the IMPACT application.
- Special tools contained in the below procedures.

Calibration Information

- None

Repair Procedure

1. Secure Vehicle for service
2. Remove valve cover and rocker shaft using IMPACT operation ID 2146-01-01-01.
 - a. **NOTE:** Do not disassemble the rocker shaft.
3. Replace ALL valve springs using IMPACT operation ID 2144-03-03-03.
 - a. **NOTE:** Save all removed valve springs for inspection. Place the old springs in the packaging the new springs arrived in and mark the position on the bag from which the spring came (i.e. CYL 1 EXH). See shipping information below.
4. Reinstall rocker shaft, adjust valves, and reinstall valve cover using IMPACT operation ID 2146-02-01-01.
5. Package removed valve springs as mentioned above and as seen on next page.
6. Release the vehicle for service.

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Valve Spring Return Process

The UCHP Claim (part return) will be arriving in your “MI Tab” within no later than 7 days after crediting. Please follow the below shipping instructions on the UCHP shipping documents

- As previously mentioned, place the used valve springs in the individual packaging from which the new valve springs arrived in.
- Write on the individual bag which position the used valve spring came from (i.e. CLY 1 EXH, as seen in the image below).
- Box all individually bagged springs in one container for shipping.

Sample of return packaging

