

Technical Bulletin

Model(s)	Year	Eng. Code	Trans. Code	VIN Range From	VIN Range To
All	2013-2016	All with TDI	All	All	All

Condition

23 15 04 August 19, 2015 **2041118** Supersedes Technical Bulletin V231501 dated June 24, 2015 to include additional service and fuel testing information.

Diesel Fuel System Diagnosis and Repair

One or more of the following fault codes may be stored in the ECM Fault Memory:

DTC	Description
P0087	Fuel Rail/System Pressure – Too Low
P0088	Fuel Rail/System Pressure – Too High
P0191	Fuel Rail Pressure Sensor “A” Circuit Range/Performance

Technical Background



Note:

These vehicles are not covered by the Warranty Extension found within Policies and Procedure Bulletin VWP-15-06.

The vehicle must have a Volkswagen-approved misfueling guard installed to be considered for regular or powertrain warranty.

Production Solution

Information Only.

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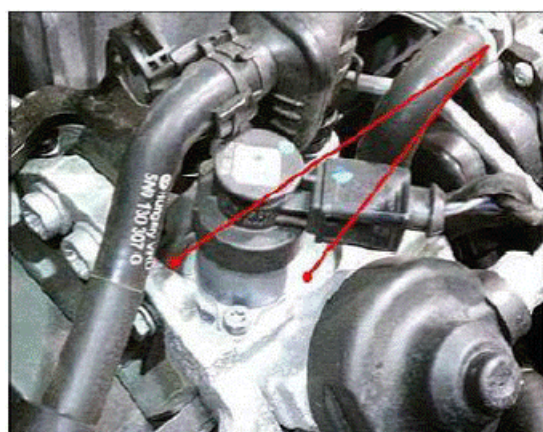
Service

Section A – Initial Diagnosis of the High Pressure Fuel Pump (HPFP)



Note:

Removing the N290 Fuel Metering Valve to inspect for metallic particles should only be considered as a last step after all GFF diagnostic procedures have been performed. This includes testing supply pressure to the high pressure fuel pump (low pressure side), and checking for internal leakage from the injectors and the N276 Pressure Regulating Valve.



Note:

Prior to removing the N290 Fuel Metering Valve, the area surrounding the valve (Figure 2) must be clean and dried with compressed air to remove ALL debris from the area. See Repair Manual Group 20 Fuel Supply, General Information, Clean Working Conditions in Elsa.

If debris enters the fuel system, components may be damaged.

Figure 2. Surrounding Area

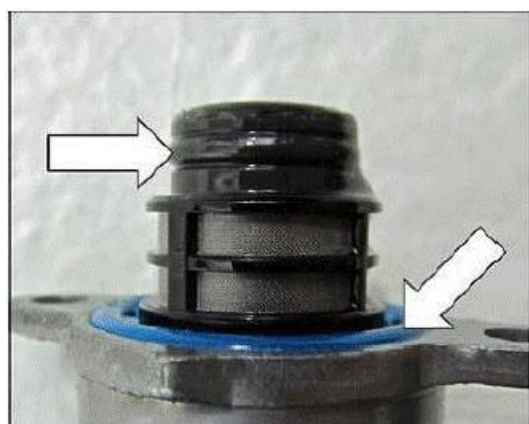


1. Remove the N290 Fuel Metering Valve and inspect the valve and valve bore for the presence of metallic particles (see Figure 3).

Figure 3. N290 Fuel Metering Valve and Valve Bore

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2. If metallic particles are found on the N290 Fuel Metering Valve or in the valve bore, replacement of the high pressure fuel pump and major components in the fuel system is necessary. **Proceed to Section B – Fuel Sampling and Analysis.**
3. If no metallic particles are found on the N290 Fuel Metering Valve or in the valve bore, do not replace the high pressure fuel pump. Open a VTA case and contact the Volkswagen Technician's Helpline for further assistance diagnosing the vehicle, this bulletin does not apply.



Note:

To prevent fuel system damage, ensure that the N290 Fuel Metering Valve is free of any contaminants before reinstalling.

Prior to reinstallation of the N290 Fuel Metering Valve, ensure that both O-rings are not damaged. If they are damaged, the high pressure fuel pump must be replaced.

To prevent damaging the O-rings when reinstalling the N290 Fuel Metering Valve, lubricate the O-rings with diesel fuel (**see Figure 4**).

Figure 4. N290 Fuel Metering Valve O-rings

4. Install the N290 Fuel Metering Valve into the valve bore using light pressure.
5. Install and hand tighten both M5 fasteners, ensuring that the threads are clean and dry.
Pre-tighten to 2 Nm, then to 6.5 – 7 Nm.
6. If metallic particles are found on the N290 Fuel Metering Valve or in the valve bore (**see figure 3**), replacement of the high pressure fuel pump and major components of the fuel system are necessary.

Section B – Fuel Sampling and Analysis



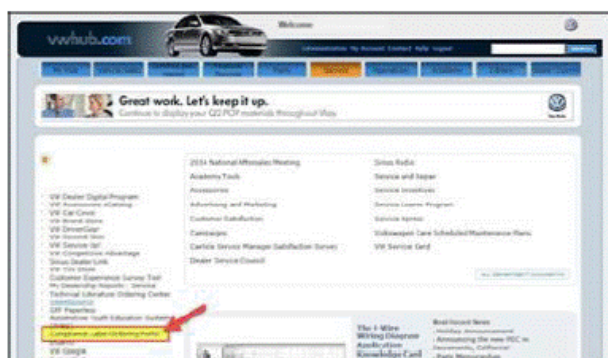
Note:

A fuel sample must be taken and analyzed prior to repairing the vehicle.

*Hawaii, Alaska, Puerto Rico: Please follow step one. Once a fuel sample is ordered, you will be contacted by a Volkswagen of America representative who will provide further instructions. A third party will be used to package and ship your fuel samples to the laboratory.

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1. The fuel sample kit, P/N LQ1LKIT must be ordered via the Compliance Label Ordering Portal in vwhub.com fuel sample kit will be sent to the dealership within 1 business day*.



The Compliance Label Ordering Portal is available through the Service or Parts tab in VWHub.com

Figure 5. Compliance Label Ordering



Enter the VIN in the Quick VIN Order field.

Figure 6. Enter VIN

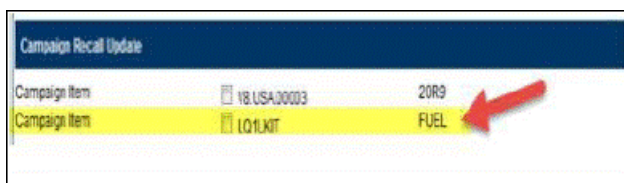


Figure 7. Select part number LQ1LKIT



Tip:

When ordering LQ1LKIT on the Compliance Label Ordering Portal, please include a secondary email address (ie. service manager) in the purchase order field for dealer e-mail notification.



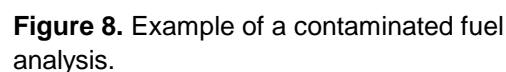
5. To determine if this repair is covered under warranty, always refer to the Warranty Policies & Procedures Manual.

6. When the fuel analysis process is complete, proceed to **Section C – High Pressure Fuel Pump Replacement and Fuel System Repair**.

[illegible]

Each Certificate of Analysis will contain a “Pass” or “Fail” comment as shown.

Figure 7. Example of a clean fuel sample analysis.



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**Note:**

The “injector quantity calibration” and the “injector voltage calibration” for the new injectors must be programmed into the Engine Control Module -J623- after replacing one or more injectors. Refer to “Guided Functions” in the vehicle diagnostic tester.

11. Using the VAS tester, perform the guided function “Vent Fuel System”. (see Elsa for additional information under “Fuel System, Filling and Bleeding”).

**Note:**

If the test plan is unavailable through Guided Functions, switch to Self Diagnosis>Engine Electronics>Basic Settings>35 and perform the basic settings 3 times consecutively. For UDS vehicles, perform basic settings for initial fueling.

12. Once the repairs are complete, test drive the vehicle.

13. Inspect for fuel seepage at the fuel injector return line connector. If seepage is found the condition MUST be corrected.

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Warranty

Warranty covers the replacement of diesel fuel system components **only** if:

- The vehicle has a Volkswagen-approved misfueling guard installed **and**
- The correct, uncontaminated fuel is present in the vehicle.

Please use appropriate labor operations from ELSA and parts from ETKA based on vehicle type.

Reimbursement for Sections A & B Only Where Fuel Analysis Result = FAIL

To determine if this procedure is covered under Warranty, always refer to the Warranty Policies and Procedures Manual ¹⁾					
Model(s)	Year(s)	Eng. Code(s)	Trans. Code(s)	VIN Range From	VIN Range To
Golf, Jetta, Jetta SportWagen, Beetle, Beetle Convertible	2013-2016	2.0L TDI (CJAA, CVCA, CRUA)	All	All	All
SAGA Coding					
Claim Type:	Use applicable Claim Type ¹⁾				
Service Number:	Damage Code	HST		Damage Location (Depends on Service No.)	
2374	0010	--		Use applicable when indicated in Elsa (L/R)	
Parts Manufacturer		Golf, Jetta, Jetta Wagon, Jetta SportWagen, Beetle, Beetle Convertible		3ME ²⁾	
Causal Part: Select Labor Operation			01320000		
Diagnostic Time ⁴⁾					
GFF Time expenditure	01500000 = As required			YES	
Road Test	01210002 = 00 TU 01210004 = 00 TU			NO	
Technical Diagnosis	01320000 = As required			YES	

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Claim Comment: Input "As per Technical Bulletin 2041118" in comment section of Warranty Claim.

- ¹⁾ Vehicle may be outside any Warranty in which case this Technical Bulletin is informational only
- ²⁾ Code per warranty vendor code policy.
- ³⁾ Labor Time Units (TUs) are subject to change with ELSA updates.
- ⁴⁾ Documentation required per Warranty Policies and Procedures Manual.

Reimbursement for Sections A & B Only Where Fuel Analysis Result = FAIL

To determine if this procedure is covered under Warranty, always refer to the Warranty Policies and Procedures Manual ¹⁾					
Model(s)	Year	Eng. Code	Trans. Code	VIN Range From	VIN Range To
Touareg	2013-2016	3.0L TDI (CNRB)	All	All	All
Passat	2013-2016	2.0L TDI (CKRA, CVCA)	All	All	All
SAGA Coding					
Claim Type:		Use applicable Claim Type ¹⁾			
Service Number:	Damage Code	HST		Damage Location (Depends on Service No.)	
2374	0010	--		Use applicable when indicated in Elsa (L/R)	
Parts Manufacturer		Touareg, Passat		WWO ²⁾	
Causal Part: Select Labor Operation			01320000		
Diagnostic Time ⁴⁾					
GFF Time expenditure	01500000 = As required			YES	
Road Test	01210002 = 00 TU 01210004 = 00 TU			NO	

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Technical Diagnosis	01320000 = As required	YES
Claim Comment: Input "As per Technical Bulletin 2041118" in comment section of Warranty Claim.		
¹⁾ Vehicle may be outside any Warranty in which case this Technical Bulletin is informational only ²⁾ Vendor code BPY or BPT must be recorded from the original High Pressure Fuel Pump. ³⁾ Labor Time Units (TUs) are subject to change with ELSA updates. ⁴⁾ Documentation required per Warranty Policies and Procedures Manual.		

Reimbursement for Sections A & B & C Where Fuel Analysis Results = PASS

To determine if this procedure is covered under Warranty, always refer to the Warranty Policies and Procedures Manual ¹⁾					
Model(s)	Year(s)	Eng. Code(s)	Trans. Code(s)	VIN Range From	VIN Range To
Golf, Jetta, Jetta SportWagen, Beetle, Beetle Convertible	2013 - 2016	2.0L TDI (CJAA, CVCA, CRUA)	All	All	All
SAGA Coding					
Claim Type:	Use applicable Claim Type ¹⁾				
Service Number:	Damage Code	HST		Damage Location (Depends on Service No.)	
2374	0010	--		Use applicable when indicated in Elsa (L/R)	
Parts Manufacturer		Golf, Jetta, Jetta SportWagen, Beetle, Beetle Convertible		BPY or BPT ²⁾	
Labor Operation ³⁾ : Fuel System Clean and Replacement			23744299 = 750 TU		
Causal Part: High Pressure Fuel Pump			*** 130 775* OR ***130 851**		
Outside Material: Diesel Fuel			Part Number: DIESEL		
Diagnostic Time ⁴⁾					

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GFF Time expenditure	01500000 = As required	YES
Road Test	01210004 = 10 TU	YES
Technical Diagnosis	01320000 = As required	YES
Claim Comment: Input "As per Technical Bulletin 2041118" in comment section of Warranty Claim.		
¹⁾ Vehicle may be outside any Warranty in which case this Technical Bulletin is informational only ²⁾ Vendor code BPY or BPT must be recorded from the original High Pressure Fuel Pump. ³⁾ Labor Time Units (TUs) are subject to change with ELSA updates. ⁴⁾ Documentation required per Warranty Policies and Procedures Manual.		


Note:

Vendor code BPY or BPT must be recorded from the original High Pressure Fuel Pump for claiming purposes.

Reimbursement for Sections A & B & C Where Fuel Analysis Results = PASS

To determine if this procedure is covered under Warranty, always refer to the Warranty Policies and Procedures Manual ¹⁾					
Model(s)	Year	Eng. Code	Trans. Code	VIN Range From	VIN Range To
Touareg	2013-2016	3.0L TDI (CNRB)	All	All	All
Passat	2013-2016	2.0L TDI (CKRA, CVCA)	All	All	All
SAGA Coding					
Claim Type:	Use applicable Claim Type ¹⁾				
Service Number:	Damage Code	HST		Damage Location (Depends on Service No.)	
2374	0010	--		Use applicable when indicated in Elsa (L/R)	

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Parts Manufacturer	Touareg, Passat	BPY or BPT ²⁾
Labor Operation ³⁾ : Fuel System Clean and Replacement	23744299 = 850 TU (Touareg)	
Labor Operation ³⁾ : Fuel System Clean and Replacement	23744299 = 750 TU (Passat)	
Causal Part: High Pressure Fuel Pump	*** 130 755 **	
Outside Material: Diesel Fuel	Part Number: FUEL	
Diagnostic Time ⁴⁾		
GFF Time expenditure	01500000 = As required	YES
Road Test	01210004 = 10 TU	YES
Technical Diagnosis	01320000 = As required	YES
Claim Comment: Input “As per Technical Bulletin 2041118” in comment section of Warranty Claim.		
¹⁾ Vehicle may be outside any Warranty in which case this Technical Bulletin is informational only		
²⁾ Vendor code BPY or BPT must be recorded from the original High Pressure Fuel Pump.		
³⁾ Labor Time Units (TUs) are subject to change with ELSA updates.		
⁴⁾ Documentation required per Warranty Policies and Procedures Manual.		



Note:

Vendor code BPY or BPT must be recorded from the original High Pressure Fuel Pump for claiming purposes.

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Required Parts and Tools

2013-2014 Jetta, Golf, Beetle, Beetle Convertible



Note:

Part numbers are for reference only; please consult ETKA by VIN for most current information.

Part No:	Part Description	Quantity
03L 130 851AX	High pressure pump	1
03L130321	Line	1
03L 130 301	Line	1
03L 130 301R	Line	1
03L 130 301B	Line	1
03L 130 301C	Line	1
03L 130 089	Rail	1
5N0 130 307J	Line	1
1K0 127 400K	Filter complete	1
03L 130 235S	Return Line	1
03L 130 277A	Injectors	4
5N0 906 129B	Auxiliary Pump	1
059 130 216 C	Plate	4
WHT 000 884	Seal	4
03L 201 360G	Fuel Line	1
1K0 130 295AH	Fuel Line	1
1K0 130 307BJ	Fuel Hose	1

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1K0 130 307BG	Fuel Line	1
N 911 803 01	Bolt	3
WHT 002 494	Bolt	1
N 107 145 01	Bolt	2
N 910 488 02	Bolt	4
N 107 158 01	Bolt	3
038 109 454A	Nut	1
1K0 919 050 J	In-Tank fuel pump (sending Unit) Jetta	1
1K0 919 050 AB	In-Tank fuel pump (sending Unit) Golf	1
	All torque to yield bolts must be replaced	All

2013-2014 Jetta SportWagen



Note:

Part numbers are for reference only; please consult ETKA by VIN for most current information.

Part No:	Part Description	Quantity
03L 130 851AX	High pressure pump	1
03L130321	Line	1
03L 130 301	Line	1
03L 130 301R	Line	1
03L 130 301B	Line	1
03L 130 301C	Line	1
03L 130 089	Rail	1

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5N0 130 307J	Line	1
1K0 127 400K	Filter complete	1
03L 130 235S	Return Line	1
03L 130 277A	Injectors	4
5N0 906 129B	Auxiliary Pump	1
059 130 216 C	Plate	4
WHT 000 884	Seal	4
03L 201 360G	Fuel Line	1
1K0 130 295AH	Fuel Line	1
1K0 130 307BJ	Fuel Hose	1
1K0 130 307BG	Fuel Line	1
N 911 803 01	Bolt	3
WHT 002 494	Bolt	1
N 107 145 01	Bolt	2
N 910 488 02	Bolt	4
N 107 158 01	Bolt	3
038 109 454A	Nut	1
1K0 919 050 AB	In-Tank fuel pump (sending Unit)	1
	All torque to yield bolts must be replaced	All

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2013-2014 Passat



Note:

Part numbers are for reference only; please consult ETKA by VIN for most current information.

Part No:	Part Description	Quantity
03L 130 755AA	High Pressure Pump	1
03L 130 321Q	Line	1
03L 130 301AR	Line	1
03L 130 301AS	Line	1
03L 130 301AT	Line	1
03L 130 301BA	Line	1
03L 201 360AD	Fuel Line	1
03L 130 235AD	Return Line	1
04L 130 216	Plate	2
WHT 004 739	Bolt	2
03L 130 277R	Injector	4
03L 130 089J	Rail	1
N 911 761 01	Bolt	3
N 107 145 01	Bolt	2
WHT 002 494	Bolt	1
N 910 488 04	Bolt	4
N 911 854 01	Bolt	3
WHT 004 739	Bolt	2
038 109 454A	Nut	1

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7N0 127 400D	Filter	1
561 130 307	Fuel Line	1
561 130 295D	Fuel Line	1
561 130 307B	Fuel Line	1
561 919 050B	In-Tank Fuel pump	1
	All torque to yield must be replaced	All

2013 - 2016 Touareg



Note:

Part numbers are for reference only; please consult ETKA by VIN for most current information.

Part No:	Part Description	Quantity
059 130 755 CB Or 059 130 755 CD	High pressure pump	1
7P6 127 401	Filter	1
059 130 216K	Plate	6
059 130 218 AM	Retention Valve	1
059 130 089 BT	Fuel Rail Left	1
059 130 090 CN	Fuel Rail Right	1
059 130 277 CD	Injector	6
059 130 241 CQ	Pressure Lines	2
059 130 241 CR	Pressure Lines	2
059 130 241 CS	Pressure Lines	2
059 130 310 BL	Fuel Line	1

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059 130 309 CD	Fuel Line	1
059 130 299AH	Fuel Line	1
7P0 130 295L	Fuel Line	1
059 130 312 AC	Fuel Line	1
059 130 297AD	Fuel Line	1
WHT 004 923B	Bolt	6
7P6 919 715 A	Suction Jet Pump	1
7P6 919 088 B	In-Tank fuel pump	1
	All torque to yield bolts must be replaced	All

2015 - 2016 Jetta, Beetle, Beetle Convertible, Passat, Golf, Golf Sportwagen



Note:

Part numbers are for reference only; please consult ETKA by VIN for most current information.

Part No:	Part Description	Quantity
04L 130 755E	High pressure pump	1
04L 130 321	Line	1
03L 130 301AR	Line	1
03L 130 301AS	Line	1
03L 130 301AT	Line	1
03L 130 301BA	Line	1
04L 130 089G	Rail	1
04L 201 360T	Line	1
1K0 127 400N	Filter complete (Passat/Jetta/Beetle)	1

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5Q0 127 400F	Filter complete (Golf/Sportwagen)	1
04L 130 235G	Return Line	1
04L 130 277AC	Injectors	4
04L 130 216	Plate	4
WHT 000 884	Seal	4
1K0 130 295AP	Fuel Line (Passat/Jetta/Beetle)	1
1K0 130 307BM	Fuel Line (Passat/Jetta/Beetle)	1
1K0 130 307BN	Fuel Line (Passat/Jetta/Beetle)	1
5Q0 130 295J	Fuel Line (Golf/Sportwagen)	1
5Q0 130 307P	Fuel Line (Golf/Sportwagen)	1
5Q0 130 307L	Fuel Line (Golf/Sportwagen)	1
561 919 050B	In-Tank fuel pump (Passat)	1
WHT 005 478	Bolt	2
N 106 650 01	Bolt	2
N 107 145 01	Bolt	1
038 109 454A	Nut	1
N 910 488 04	Bolt	4
1K0 919 050AD	In-Tank fuel pump (Jetta/Beetle)	1
5Q0 919 050P	In-Tank fuel pump (Golf/Sportwagen)	1
	All torque to yield bolts must be replaced	All

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Tool Description	Tool No:
Midtronics Battery Tester/Charger	InCharge 940 (INC-940) or GRX3000VAS
VAS Diagnostic Tool	VAS 6150/X & VAS 6160/X with: ODIS Service with current online updates

Additional Information

All part and service references provided in this Technical Bulletin are subject to change and/or removal. Always check with your Parts Dept. and Repair Manuals for the latest information.