Quality status of injection components “US07” projects

Q status CP4.1 - 03L 130 755 A - Jetta 1/1

Cause of failure: pump drivetrain damage

Status of US07 field failures* total **before measures** (pump DM before 05/15/2008)

- At customer: **9** Failures received and confirmed as drivetrain damage, of which **1** warranty case rejected due to corrosion
- In testing: **2** failures reported and confirmed as drivetrain damage

Status of US07 field failures* total **after measures** (pump DM after 05/15/2008)

No failures reported

Other complaints

Complaint	QC number	Vehicle ident. no.	Date of manufacture	Failure date	Mileage	Failure location (0km/field)	Cust. ref. No.	Diagnosis results
Engine will not start.	230002445082	71K99M28802[redacted]	8/16/2008	1/30/2009	2525	Field	VA 99058	Pump OK according to specification.
Error memory entry	230002460860	3VWRL71K19M0[redacted]	3/29/2008	2/13/2009	11901	Field	VA 99066	Corrosion and deposits in the pump, no drivetrain damage, no Bosch error
HPP defective	230002465672		11/7/2008	4/6/2009	0	0km/Puebla	1287958	Particles in intake valve

* Basic data of evaluation coordinated with VW/Audi: VW/Audi NFA [Non-responsive content removed] list (current version from 05/29/2009)

BOSCH

Quality status of injection components “US07” projects

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Quality status of injection components “US07” projects

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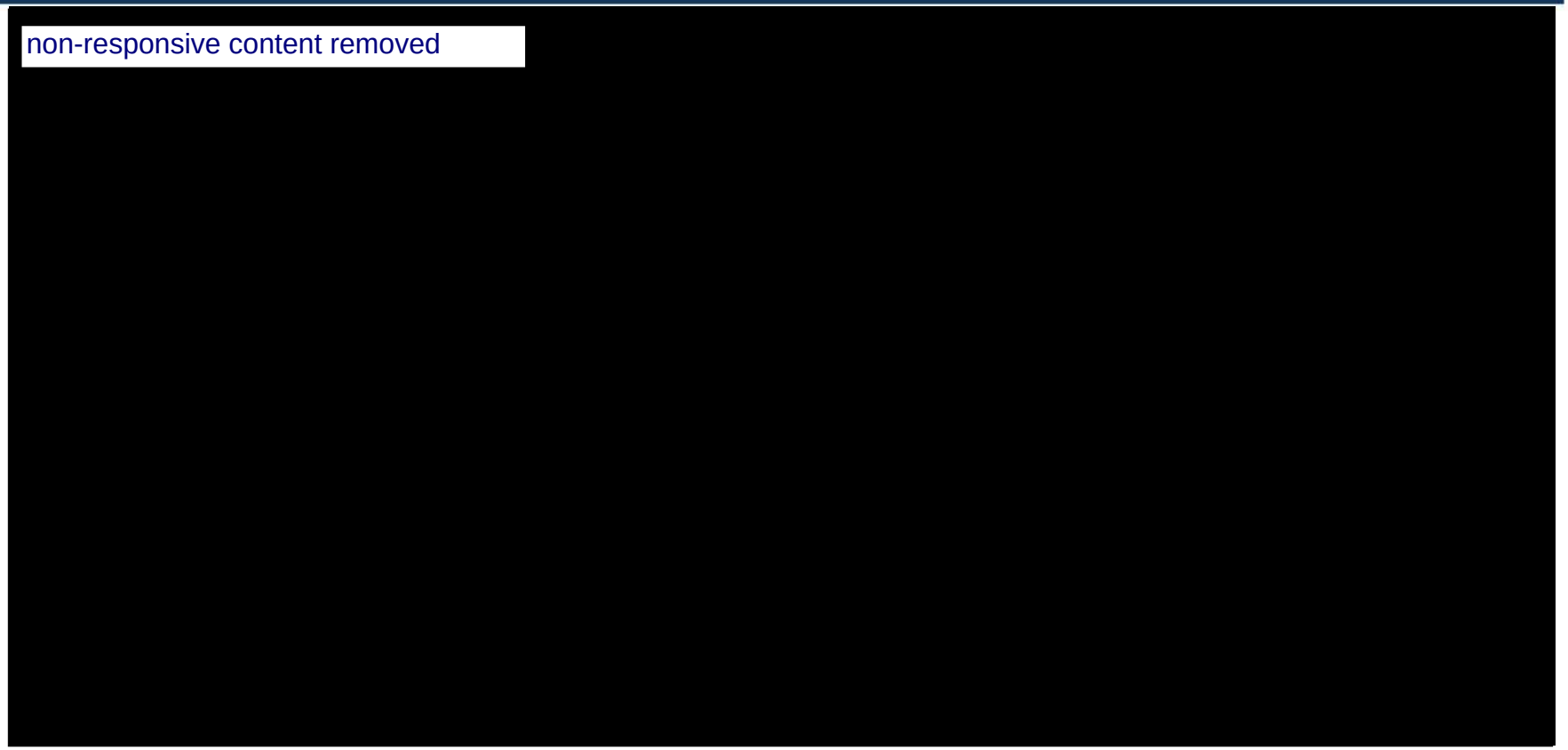


BOSCH

Bosch CP4.1 Claim plausibility check (2.0l TDI BIN5)

- **Listed claims:** MY 2009 = 99 vehicles
  MY 2010 = 12 vehicles

- **Plausibility check:**
  12 x double bookings
  17 x costs < [redacted] (no HPP change)
  11 x costs [redacted] - [redacted] (no injection system change, therefore no HPP drivetrain damage)
  71 x costs [redacted] – [redacted] (⇒ injection system change)
  ⇒ Large price rage for system change implausible!

⇒ **71 potential, but not yet confirmed, cases of CP4.1 drivetrain damage**

- **Diagnosis result (return of 15 high pressure fuel pumps in total):**
  1 x no defect
  1 x radial shaft seal camshaft leaking
  13 x HPP drivetrain damage

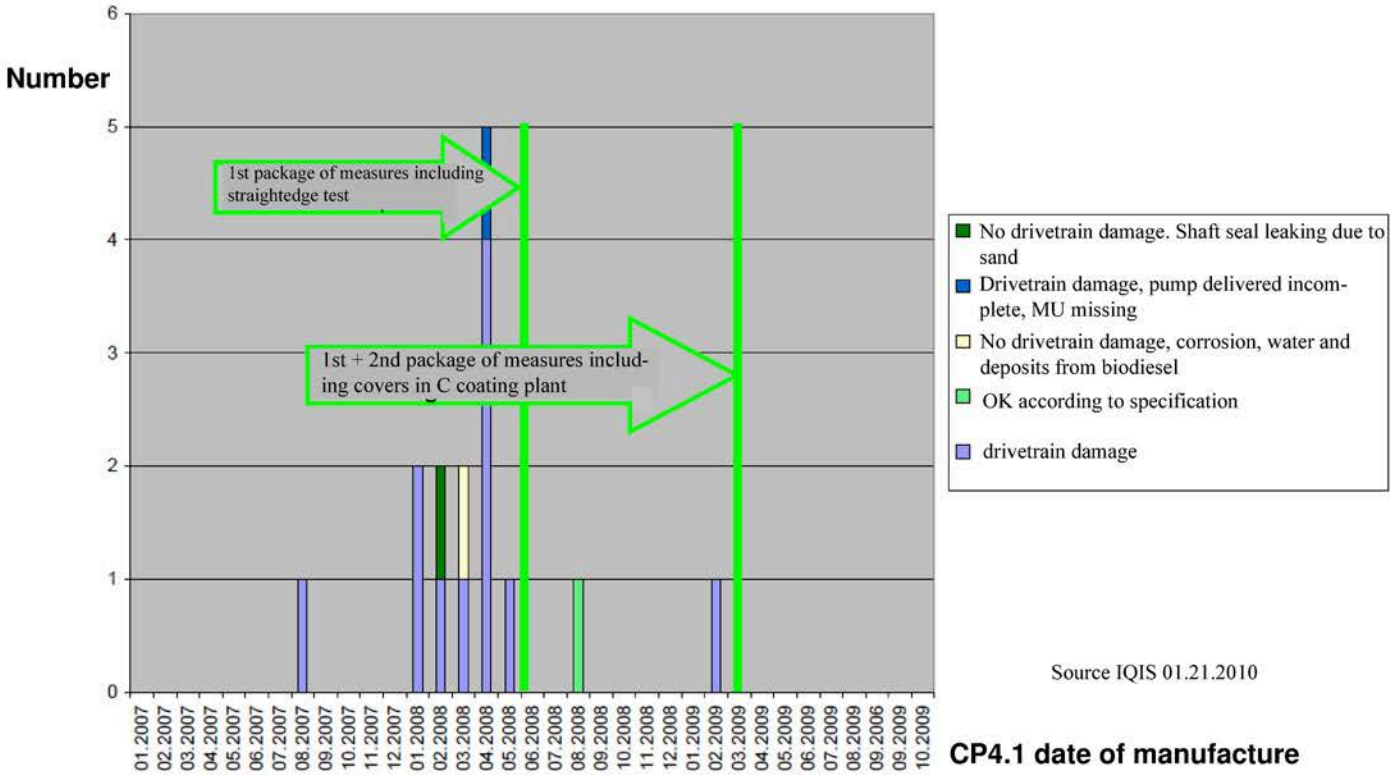
Author/Dept.: [redacted]

EA11003EN-01879[1]

Bosch CP4.1 Claim plausibility check (2.0l TDI BIN5)

VW CP4.1 Field complaints from USA (0L 130 755A)

CP4.1 Field complaints from USA, status10, 21, 2010



Source IQIS 01.21.2010

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Diesel Systems

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6/19/2008

Log

Recipients, see participants
Info: Non-responsive content removed
Host
Participants VW
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Head
Minutes
Organiz.
Date/location **06/12/2008, 12:00 PM - 2:00 PM, Bosch** Non-responsive content removed
Topic **Review field launch support R4 2.0L CRS3.2** Non-responsive content removed

Summary

The field deployments to date in the framework of the shared launch support of the R4 2.0L gen.1 were introduced and discussed. A continuation of the collaboration between the VW field launch team and the Bosch Field Competence Team for subsequent launches was agreed upon. In addition, in preparation for future launches, VW- and Bosch-FCT will already receive support with problems in the framework of development and Q verification endurance runs.

Detailed minutes

Info in field complaints without reports to FCT (Attachment 1, Page 4)

- Vehicle. ID VWGZZZ5NZ8W : Pump was exchanged in frame-work of MU exchange campaign, but was OK

Notes on field deployments in R4, 2l launch (Attachment 1)

- Note on case 5 (Pages 15-16): Workshop will exchange the control unit. If this corrects the fault, the CU will be sent to Bosch for diagnosis through standard channels; feedback to Bosch FCT

- GFF is broken off in workshops in some cases. Reason unclear.

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Diesel Systems

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6/19/2008

Log

Review field launch support R4 2.0L CRS3.2 Non-responsive content remove d

Further information on improving diagnosis in VW workshops

- Extend guided fault finding to low pressure circuit
- Start GFF from tank
- Check of low pressure circuit and pressure before PRV should be integrated in standard diagnosis => Simple check with potential to prevent expensive incorrect dismantling of turbocharger and high-pressure pump in case of certain PRV defects (for example, Attachment 1, Pages 17-18, case 6).
  Suitable diagnostic tools (LP case, HP case, return volume measurement device) were introduced by Bosch (Attachment 2)
- Implementation of improvements in GFF are responsibility of VW; already in process according to VW

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Follow-on launches

- The subsequent launches, particularly with reporting requirements for complaints involving the fuel system (Passat CC, Golf 6-Wk45/08, Scirocco-Wk48/08) were introduced (Attachment 3).
- Continuation of the previous collaboration for subsequent launches was agreed upon.
- Support for the Bosch FCT after the end of the required reporting period was promised for serious complaints.
- Bosch proposed to expand support by VW-[redacted] and Bosch-FCT for relaunches to test endurance runs and Q assurance endurance runs (particularly CRS2.5). This support should start around 3 months before market launch and serves to establish expertise for the series launch.
  This suggestion was received positively by VW and will be implemented as needed.

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Diesel Systems

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6/19/2008

Log

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General

- The VW FAT/Bosch FCT collaboration was assessed very positively by both houses, both individually and as a concept.
- In the case of preliminary examinations of Bosch CR components through field complaints by VW, the participation of Bosch employees is agreed upon in advance

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- VW requested that Bosch FCT hold spare parts ready during deployments, to supply the affected workshop in case of bottlenecks in VW spare parts supply.
  Bosch pointed out that eliminating the causes in the supply chain would be more effective. The FCT's task in collaboration with the VW field launch team is to improve diagnosis in the VW workshop.
- VW employees [redacted] have already contributed knowledge from the Bosch CRS diagnosis training course in [redacted] to the VW GFF

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- VW requests that Bosch check whether the CRS diagnosis training course can be held in WOB.
  This is not currently possible due to capacity bottlenecks among the instructors. As a result, synergy effects through interchange with participants from other OEMs (rated very positively by previous participants) would be excluded.
- Series launch US07 (Jetta) in the U.S. will take place without direct support by the VW field launch team.

The next meeting will take place after the end of the mandatory reporting period for the Golf 6 (E2008/A2009) or as needed to discuss new on-site deployments.

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1. Review Field Launch Support

VW-BOSCH
for R4 2.0l CRS 3.2

[redacted]

06/12/2008

[redacted]

BOSCH

1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

Agenda

1. Presentation of FCT activities from [redacted] and [redacted] — Bosch, VW
2. Discussion of detected optimization options in repair shop diagnostics — Bosch, VW
3. Roadmap for further VW launches with mandatory reporting — VW
4. Agreement to further cooperation — VW, Bosch

   Field Launch Team, VW and Bosch FCT

   - Series: [redacted]
   - Non-series, e.g. ER support development, quality validation

[redacted]

BOSCH

1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

Summary of FCT cases for VW R4 engine

- Because of the good start with the R4, there were few field complaints in the period under review.
  6 cases were reported to FCT (in 2 cases the HPP was examined by VW Development and only presented to Bosch in dismantled form).
  3 additional cases are only documented in the Bosch warranty data-base (IQIS), which means a total of 9 cases are known
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BOSCH

EA11003EN-01899[6]

1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

R4 field failures up to 06.09.08 (from Bosch warranty system) VW failures

VW failures

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CP4.1 failures

QC no.	QC issue date	RB Customer	Customer Material	Material	Date of manufacture	Date/purchase	Date of failure	Mileage KM VIN		Vehicle model	Customer complaint (keyword)	Decision	Remark:
230001915354	09.01.2008	VW	03L130755	0445010507	10.05.2007	12.07.2007	12.14.2007	14	5N8W01028[redacted]	5N1143	The O-ring of the MU has sheared off	Bosch's responsibility	No info to FCT
230001933956	01.28.2008	VW	03L130755	0445010507	10.20.2007	12.07.2007	01.04.2008	396	WVGZZZ5NZ8W[redacted]	5N1242	Mechanical fault	OK according to specification	No info to FCT

Audi failures

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CP4.1 failures

QC no.	QC issue date	RB Customer	Customer Material	Material	Date of manufacture	Date/purchase	Date of failure	Mileage KM VIN		Vehicle model	Customer complaint (keyword)	Decision	Remark:
230001917421	1/10/2008	AUDI	03L130755	0445010507	9/17/2007	12/11/2007	1/4/2008	350	WAUZZZ8K48A[redacted]	8K20QC	Rail pressure not OK	Bosch responsibility	Info to FCT
230001930606	1/23/2008	AUDI	03L130755	0445010507	5/1/2007	12/6/2007	12/13/2007	365	8K08A002485	8K20QC B8	Mechanical fault	Bosch responsibility	Info to FCT
230001992667	3/13/2008	AUDI	03L130755	0445010507	1/18/2007	3/4/2007	3/12/2008	6793	8K69A000578	B8	Leak	Bosch responsibility	Info to FCT
230002070696	4/14/2008	AUDI	03L130277	0445010507	1/11/2008	3/26/2008	3/26/2008	25	WAUZZZ8K48[redacted]	8K20QC	Engine will not start.	Bosch responsibility	Info to FCT
230002125197	5/28/2008	AUDI	03L130755	0445010507	3/12/2008	4/17/2008	5/5/2008	1584	8K18A035821	8K20QC	Preheat light lights up, vehicle stopped	Not classified	Info to FCT

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BOSCH

1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

VW R4 field failures (reported to FCT)

No.	customer	VIN:	VOT no:	Case date:	QC number:	Location:	Eng. typ	Part:	Remark:
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2	VW	5NZ8W003205	1558	1/15/2008		[redacted]	R4	CP4.1	Chip in intake valve HPP analysis from VW Development
3	VW	5NZ8W004458	1605	2/21/2008			R4	CP4.1	After replacement of CP4 vehicle OK, HPP analysis at VW Development --> Chip in intake valve (see report)
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1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

Case 1: Non-responsive content removed

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1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

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1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

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1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

Case 2: Non-responsive content removed

Vehicle data

Delivery date:	1/4/2008
Chassis number:	5NZ8W003205
MILEAGE:	35 kilometers
Report date WS to TSC:	1/8/2008
Report date to FCT:	1/15/2008
FCT deployed on:	1/16/2007
Involved:	VW Non-responsive content removed

Complaint data/ error code

Vehicle stopped while going and would not restart, error code: P0087

Fuel rail/system pressure too low

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1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

Case 2: Non-responsive content removed

Symptoms reason for failure/ cause:

Cause of failure: HPP cannot build up pressure due to particles in intake valve.
Analysis by VW Development.

Notes: The component causing the problem was clearly determined using the HP case
The VW GFF for error memory entry “Fuel rail/system pressure too low” could not be carried out because the engine operating
temperature (target 50°C; actual <50°C [engine doesn’t run]).

1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

Case 3: Non-responsive content removed

Vehicle data

Delivery date:	11/15/2007
Chassis number:	5NZ8W004458
MILEAGE:	2,493 kilometers
Report date WS to TSC:	2/20/2008
Report date to FCT.	2/21/2008
Telephone support on:	2/21/2008

No FCT deployment at local level because HPP already replaced before reporting to FCT.

Complaint data/ error code

Vehicle stopped and will not start
Error code: none

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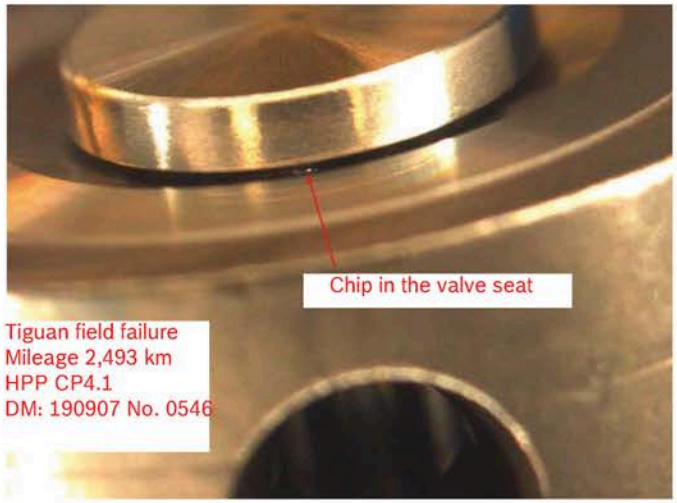
1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

Case 3: [redacted]



Symptom reason for failure/ cause

Cause of failure: HPP cannot build up pressure due to particles in intake valve. Analysis by VW Development.

Notes: None

[redacted]

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1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

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1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

Case 4: Non-responsive content removed

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1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

Case 5: Non-responsive content removed

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1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

Case 5: Non-responsive content removed

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1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

Case 6: [redacted]

Vehicle data

Delivery date:	-
Chassis no.:	3CZ8E232070
Mileage:	218 kilometers
Report date WS to TSC:	5/28/2008
Report date to FCT	5/28/2008
FCT deployed on:	5/29/2008
Involved:	VW
	RB

[redacted]

Complaint data/ error code

Loss of performance at approx. 2900 rpm, under load.

Error code: [redacted]

P0088 Fuel rail/system pressure too high

[redacted]

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1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

Case 6: Non-responsive content removed

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BOSCH

1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

Conclusions

- Good cooperation with VW in the cases listed
  - → Open communication with [redacted] and workshop.
- Swift reaction from FCT
  - → Max. 1 day to deployment

Potential for improvement in cooperation

- Earlier consultation with Bosch can help reduce examination and repair time => high level of customer satisfaction
- Incorporate FCT in all cases.
- Submit all damaged parts via RB standard examination channel.

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1. Review Field Launch VW-BOSCH for R4 2.0l CRS 3.2

Possible improvements when diagnosing rail pressure errors

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- Examination of the pre-conveyor pumps for pressure and conveying volume.

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BOSCH

EA11003EN-01899[23]

Service tools for Bosch Common Rail Piezo System

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Service tools for Bosch Common Rail Piezo System

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Automotive Aftermarket

[redacted] | 01/2008 |

BOSCH

Service tools for Bosch Common Rail Piezo System

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Service tools for Bosch Common Rail Piezo System

Bosch order number:
0 986 613 100

Case: Diesel Set 3

- To test pressure build-up of CR pump
- For RDS comparison check

Automotive Aftermarket

BOSCH

Service tools for Bosch Common Rail Piezo System

Pressure build-up check

➢ Description

The test unit, consisting of pressure build-up test device and display unit is used to **check the pressure build-up of the high-pressure fuel pump** in common rail (CR) systems. The determined values for the pressure level represent a measure for the pressure build-up capacity of the pump under engine start conditions

➢ How it works

The test device with catch tank is connected directly to the high-pressure connector of the diesel high-pressure fuel pump. To do so, the high-pressure line between pump and rail is detached and the test device is connected to the high-pressure fuel pump through a test line. The engine cannot be started in this condition. While the starter is pressed, the delivered volume is collected in the pressure chamber. The overflow volume flows into the catch tank. The determined pressure value is shown on the corresponding digital display. To protect the pump, the overflow valve is activated when pressure > 500 bar is reached, for pressure relief.

➢ Notes

Adaptation for all widespread CR systems is possible; it could also be used in conventional systems, as well as low-pressure and gasoline systems. *)

*) Applicability must be checked individually

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Service tools for Bosch Common Rail Piezo System

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Service tools for Bosch Common Rail Piezo System

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Automotive Aftermarket

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Service tools for Bosch Common Rail Piezo System

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VOLKSWAGEN
AKTIENGESELLSCHAFT

Deployment dates (ZP4) CR engines in the vehicles 2008

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EA11003EN-01901[0]

STATUS: 8/29/2008

High pressure fuel pump 03L 130 755 Hall/field 2008

Pos	GEN.	FIELD	Week in km	IR	COMPLAINT DATE	VEHICLE	ENGINE 1.4 tsi	ENGINE code letters	Engine fact.nbr	Lieferscheinnummer number	AUDI	VW	COMPLAINT	ANALYSIS VW SZ	Injector JEU/ DATE YEAR	DAY	No.	MONTH	QT-No.	ROOT CAUSE ANALYSIS PIERBURG	MEASURES	SHIPPINGS
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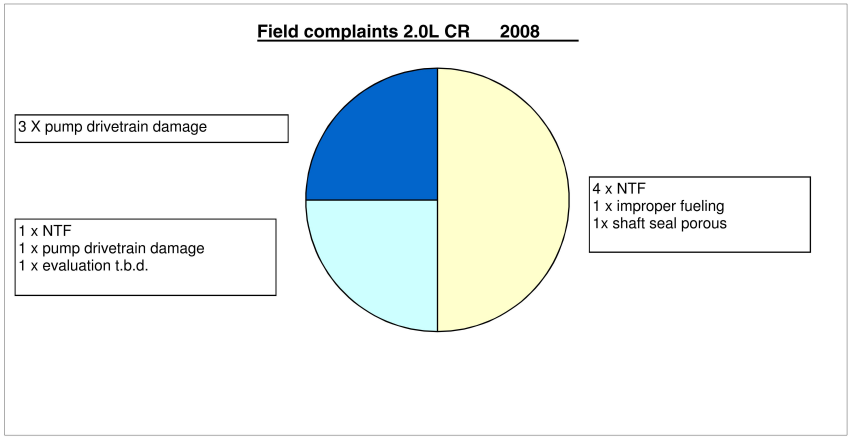
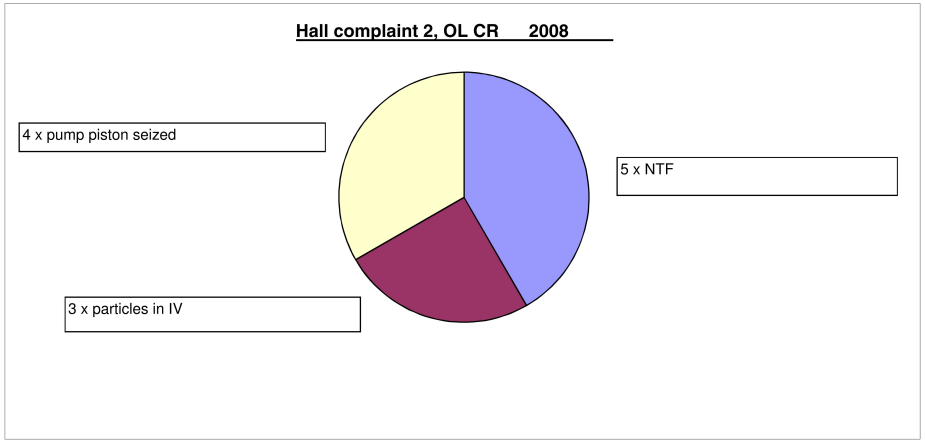
EA11003EN-01901[1]

Tiguan improper fueling	
Tiguan shaft seal porous	
Tiguan NTF	6
Passat NTF	3
Passat pump drivetrain damage	
Passat t.b.d.	
Jetta pump drivetrain damage	3

Passat NTF	5
Passat particles IV	3
Passat pump piston seized	4





EA11003EN-01901[2]

High pressure fuel pump 03L 130 755 Hall/field 2008 — Status. 11/28/2008

POS.	FIELD	Mileage in km	COMPLAINT data IR	DATE	VEHICLE	ENGINE 1 / Kbf	ENGINE Code letters	Engine Number	VI Number	AUDI	VW	COMPLAINT	Origin part	number VW	CONSTRUCTION DATE HPP YEAR	Month	Day	Suppl. no	Plant	QT no. QK no	SHIPPING	Preliminary analysis VW/Bosch	ROOT CAUSE ANALYSIS Bosch	MEASURES	Feedback causal factor
1		X	0	3/18/2008	Non-responsive content removed	2.0L/103				X		Rail pressure not OK	Non-responsive content removed	03L 130 755	08	03	06	BPT 0346	515	QK 4725480	ICL 731561 3/18/2008		No trouble found	No HPP OK.	
2		X	0	4/1/2008		2.0L/103	CBA	055744		X		Rail pressure not OK		03L 130 755				BPT 0620	515	QK 4730347	ICL 731570 4/1/2008				
3		X	0	4/1/2008		2.0L/103	CBA	054423		X		Rail pressure not OK		03L 130 755				BPT 0803	515	QK 4730347	ICL 731570 4/1/2008		Particles in the intake valve	Cleanliness concept	
4		X	0	4/15/2008		2.0L/103	CBA	057741		X		Rail pressure not OK		03L 130 755	08	02	23	BPT 0094	515	QK 4737136	ICL 731591 4/15/2008		No trouble found	No HPP OK.	
5		X	0	4/18/2008		2.0L/103	CBA	077380	3CBE239480	X		Rail pressure not OK		03L 130 755	08	04	18	BPT 0242	515	QK 4758464	HU dusty-pulled without pump		Pump piston seized	Change of the machining of the piston ring groove (new parts)- current condition: piston grooves are turned. Planned condition: piston grooves are Cr9	
6		X	0	7/1/2008		2.0L/103	CBA	081340		X		Rail pressure not OK		03L 130 755	08	04	29	BPT 0036	515	QK 4776320	ICL 732202 6/30/2008		No trouble found	No HPP OK.	
7		X	15	8/28/2008		2.0L/103	CBA	088313		X		Engine no longer starts up after a mileage of 15 km		03L 130 755	08	05	18	BPT 0969	515	QK 4804658	ICL 732233 8/28/2008		Pump piston seized	Change of the machining of the piston ring groove (new parts)- current condition: piston grooves are turned. Planned condition: piston grooves are Cr9	
8		X	0	8/28/2008		2.0L/103	CBA	098749		X		Rail pressure not OK		03L 130 755	08	06	18	BPT 0115	515	QK 4804679	ICL 732234 8/28/2008		Particles in the intake valve	Training for all employees in carefull pre-assembly of the LS Regular cleaning of vacuum cleaner filter andorder of new filters Cleanliness Sealing disc: implementation of a new floor insert in grab container Geometry of thread on KK was changed due to burr build-up.	
9		X	0	9/2/2008		2.0L/103	CBA	097355		X		Engine will not start.		03L 130 755	08	06	11	BPT 0879	515	QK 4806390	ICL 732241 9/2/2008		Pump piston seized	Change of the machining of the piston ring groove (new parts)- current condition: piston grooves are turned. Planned condition: piston grooves are Cr9	
10	X	14,461				2.0L/103	CBA	000174	3C5E0066	X		Q endurance run		03L 130 755	07	11	01	BPT 0015	515		AV3 697446		No striking feature after Q endurance run	ER pump	
11	X	14		12/14/2007		2.0L/103	CBA	007373	SNB8010285	X		Rail pressure not OK		03L 130 755	07	10	05	BPT 0919	011		AV3 697447		MU O-ring damaged Assembly error	Program of measures implemented	
12	X	52,665		1/30/2008		2.0L/103	CBA	000173	3C5E0065	X				03L 130 755	07	11	01	BPT 0006	515		AV3 697455		Result: Functional check OK LP leakage test (bubble test) OK Visuall finding OK (no striking features) good condition	ER pump	
13	X	54,220		3/13/2008		2.0L/103	CBA	000043	3C0P017177	X				03L 130 755	07	10	25	BPT 0014	515		AV3 1195353				
14	X	50,000		4/29/2008		2.0L/103			3C5E0075	X				03L 130 755	07	11	01	BPT 0013	515		AV3 1195362		High pressure fuel pump technically OK	Release can be granted	
15		X	3,452	4/1/2008	5/5/2008	2.0L/103	CBA	025930	SNBW036616	X		Engine died while driving		03L 130 755	08	01	22	BPT 0152	515	QT 80288	FA 98799 6/27/2008		Wear on roller Customer responsability Improper fueling Approx. 7% biodisel	No HPP OK	
16		X	3,901	5/14/2008	8/11/2008	2.0L/103	CBA	071364	3CBE234655	X		Liquid loss Diesel beneath engine compartment fuel comes visibly between pump shaft and shaft seal on the HPP		03L 130 755	08	04	07	BPT 0384	515	QT 80428	FA 98866 9/5/2008		Leaking on shaft seal Inner seal lip has a tear. The outer sealing lip also a dam-aged on surface. e	No corrective measure was implemented as the cause was unknown. Warehouse stocks checked 100%	11/27/2008
17		X	0	9/10/2008		2.0L/103	CBA	110920		X		Engine will not start.		03L 130 755	08	06	20	BPT 0937	515	QK 4810828	ICL 732255 9/10/2008		Particles in the intake valve	Training for all employees in carefull pre-assembly of the LS Regular cleaning of vacuum cleaner filter and order of new filters Cleanliness Sealing disc: implementation of a new floor insert in grab container Geometry of thread on KK was changed due to burr build-up.	
18	X	30	1/2/2008	2/22/2008		2.0L/103	CBA	009083	SNBW011353	X		Fuel loss		03L 130 755	07	10	18	BPT 0828	011	QT 80443	FA 98873 9/11/2008		Shaft seal porous	Optimized production process with process monitoring 2/14/08	
19	x	19	6/12/2008	6/23/2008		2.0L/103	CBA	055744	3CZBE220615	x				03L 130 755	08	03	19	BPT 0453	515	QT 80460	FA 98882 9/26/2008		HPP checked according to TCD, no trouble found.	No HPP OK	
20	x	2,902		8/5/2008		2.0L/103	CBA	065872	3CZBE214253	x				03L 130 755	08	03	21	BPT 0536	515	QT 80462	FA 98882 9/26/2008		Pump drivetrain damage Tracking and improvement as part of the task force work		
21	x	2,925	7/20/2008	7/21/2008		2.0L/103	CBA	072087	3CZBE233613	x				03L 130 755	08	04	09	BPT 0017	515	QT 80459	FA 98882 9/26/2008		Bosch responsability: piston spring broken, the analysed bapuet spring was broken into 5 pieces. All broken surfaces feature a fatigue crack morphology. The surface of the spring shows depressions	Optimized cleaning of wires before marking the defective spots for better adhesion of paint. Optimization of marking at supplier. Improvement of color recognition on vending machine. Implementation of cleaning of drawing powder residues or wire before marking of not OK. spot. Implementation of strong adhesive paint for the identification of the non OK spot. Deadline 6/19/08 done	
22	x	14,549	2/19/2008	7/14/2008		2.0L/103	CBA	017320	5NZ0W020543	x				03L 130 755	07	11	29	BPT 0706	011	QT 80461	FA 98883 9/26/2008		HPP checked according to TCD, no trouble found.	No HPP OK	
23	x	20105 20816	1/16/2008	8/1/2008		2.0L/103	CBA	011353	5NZ0W014360	x		Engine will not start.		03L 130 755	07	10	29	BPT 0600	011	QT 80465	FA 98884 10/1/2008		HPP checked according to TCD, no trouble found.	No HPP OK.	
24	x	106	8/3/2008	8/4/2008		2.0L/103	CBA	231053	5NZ0W027929	x		Engine will not start Rail pressure too low		03L 130 755	08	07	06	BPT 0316	515	QT 80466	FA 98885 10/1/2008		HPP checked according to TCD, no trouble found.	No HPP OK.	11/27/2008
25	X	8,000 Mil		10/7/2008	Jetta TDI	2.0L/103			3VWCL71K29M0 00523	X		chipse	Complaint USA	03L 130 755 A	08	01	17	BPT 0771	011		FA 98886 10/7/2008		Pump drive mechanism damage	Pump scrapped at Bosch	
26	X	9,051	11/9/2007	5/21/2008	[redacted]	2.0L/103	CBA	004055	SNBW003445	X		Engine will not start.	[redacted]	03L 130 755	07	09	17	BPT 0707	011	QT 80509	FA 98890 10/8/2008		HPP checked according to TCD, no trouble found.	No HPP OK.	
27	X	12 Mil		4/9/2008	Jetta TDI	2.0L/103			3VWAL71K09M0 11638	X		Rail pressure not OK	Complaint USA	03L 130 755 A	08	04	03	BPT 0954	011		FA 98891 10/8/2008		Pump drive mechanism damage	Pump scrapped at Bosch	
28	X	3622 Mil		8/14/2008	Jetta TDI	2.0L			3VWCL71K79M0 01246	X		Rail pressure not OK	Complaint USA	03L 130 755 A	08	01	11	BPT 0029	011		FA 98891 10/8/2008		Pump drive mechanism damage	Pump scrapped at Bosch	
29	X	20,422			Non-responsive content removed	2.0L/103			WBBN0022279	X		Engine stopped stopped and doesn't start again	Non-responsive content removed	03L 130 755	08	04	04	BPT 0134	515	QTS no. 3118777	Audi		Water in fuel Incipient rust on mineral pump parts, particles on MU	Customer is not responsible	
30		X	0	9/17/2008		2.0L/103	CBA	123110	5NZ0W018374	X		No rail pressure		03L 130 755	08	06	12	BPT 0045	515	QK 4814268	ICL 732262 9/17/2008		Pump piston seized	Change of the machining of the piston ring groove (new parts)- current condition: piston grooves are turned. Planned condition: piston grooves are Cr9	
31		X	0	9/17/2008		2.0L/103	CBA	123108	3C2BE029656	X		No rail pressure		03L 130 755	08	06	12	BPT 0958	515	QK 4814268	ICL 732262 9/17/2008		Pump piston seized	Change of the machining of the piston ring groove (new parts)- current condition: piston grooves are turned. Planned condition: piston grooves are Cr9	
32		X	0	9/17/2008		2.0L/103	CBA	123109		X		No rail pressure		03L 130 755	08	06	18	BPT 0074	515				HPP checked in Salzgitter, no trouble found.	No HPP is OK.	
33		X	0	9/18/2008		2.0L/103						Does not start. Low pressure of the pump is not ok	Non-responsive content removed		08	06	20	BPT 0937	515		Skoda Auto		Particles in the intake valve		
34	X	41,830		4/3/2008		2.0L/103	CBE	000568		X				03L 130 755	07	07	09	BPT 0478	011		AV3 1195359		Result: Rail pressure OK Status of drivetrain OK Circumferential polishing on roller and camshaft Uncritical		
35	X	95,000		10/22/2008		2.0L/103	CBA	000268	3C5900348	X		Q endurance run		03L 130 755	08	04	15	BPT 0679	011		AV3 1195380				
36		X	0	10/30/2008		2.0L/103	CBD	122540		X		Rail pressure not OK		03L 130 755	08	08	26	BPT 0668	515	QK 4847104	ICL 732298 10/30/2008		HPP checked according to TCD, no trouble found.	No HPP OK.	
37		X	0	10/30/2008		2.0L/103	CBD	309028		X		Rail pressure not OK		03L 130 755	08	10	06	BPT 0657	515	QK 4847248	ICL 732299 10/30/2008		HPP checked according to TCD, no trouble found.	No HPP OK.	
38		X	10,380	5/17/2008	9/19/2008	2.0L/103	CBAB		SNBW026463	X		Rail pressure not OK		03L 130 755	08	01	16	BPT 0713	011		FA 98914 10/31/2008				
39	X	10,898		10/30/2008		2.0L/103				X		Rail pressure not OK Endurance run startet...	Complaint USA	03L 130 755	08	05	10	BPT 0424	011		AV3 1195383				
40	X	100,000		10/30/2008	Non-responsive content removed	2.0L/103	CBA	000260	3C59B550	X		Q endurance run	Non-responsive content removed	03L 130 755	08	04	15	BPT 0681	011		AV3 1195384				
41		X	13,000	11/9/2009	9/24/2008	2.0L/103	CBA	002757	SNBW002189	X		Engine shudders when accelerating		03L 130 755	07	08	21	BPT 0609	011	QT 80594	FA 98945 11/13/2008	MU pulled with Mr [redacted] no visible chips or damage	HPP checked according to TCD, no trouble found.	No HPP OK.	11/27/2008
42		X	27,372	4/16/2008	10/17/2008	2.0L/103	CBA	061040	3CBE208532	X		Fuel loss		03L 130 755	08	03	14	BPT 0333	515	QT 80600	FA 98950 11/20/2008	Visual check with Mr [redacted] White marking on shaft seal			
43		X	120	8/2/2008	11/12/2008	2.0L/103	CBA	233870	SNBW508006	X		Clacking noisese		03L 130 755	08	07	12	BPT 0338	515	QT 80609	FA 98953 11/20/2008	MU pulled with [redacted] no visible chips or dam-age			
44		X	45,095	4/4/2008	10/10/2008	2.0L/103	CBA	051736	3CBE203203	X		Rail pressure not OK		03L 130 755	08	01	24	BPT 0300	011	QT 80608	FA 98954 11/20/2008	MU pulled with [redacted] chips on the filter			
45		X	611	5/6/2008	5/16/2008	2.0L/103	CBA	003393	SNBW006667	X		Rail pressure not OK		03L 130 755	07	08	22	BPT 0301	011	QT 80603	FA 98955 11/20/2008	MU pulled with [redacted] no visible chips or damage. Plastic can damaged.			
46		X	7,225	3/31/2008	9/23/2008	2.0L/103	CBB	001033	SNBW037104	X		Rail pressure not OK		03L 130 755	08	01	28	BPT 0235	515	QT 80615	FA 98963 11/26/2008				
47		X	10,718	1/24/2008	10/24/2008	2.0L/103	CBA	012884	SNBW016269	X		Rail pressure not OK		03L 130 755	07	11	13	BPT 0023	011	QT 80614	FA 98964 11/26/2008				
48	X	100,000	9/18/2007	11/21/2008		2.0L/103	CBA	000205		X		Q endurance run		03L 130 755	07	05	02	BPT 0322	011		AV3 1195389				
49	X	48,239	12/4/2007	11/21/2008		2.0L/103	CBA	000735		X		Q endurance run		03L 130 755	07	07	06	BPT 0120	011		AV3 1195389				
50	X	47,610	12/10/2007	11/21/2008		2.0L/103	CBA	000749		x		Q endurance run		03L 130 755	07	09	22	BPT 0014	011		AV3 1195389				
51		X	0			2.0L/132				x		T5 Biturbo 132Kw Leaking output shafte		03L 130 755	08	08	25	BPT 0635	515				High pressure fuel pump delivered in Salzgitter for the 2nd fitting of brake. Pump underwent an endurance run of 5 hours, no leakage was discovered.		No HPP OK
52	X	13,539		10/30/2008		2.0L/103	CBD	011229	3VWC81K09M2 58026	x		Test vehicle Vehicle did not start up after stopping.		03L 130 755	08	05	19	BPT 0741	515						
53	X	77,554		9/30/2008		2.0L/103	CBB	5000024		X		Change package 4 endurance run		03L 130 755	08	05	14	BPT 0404	011						
54		X	0	8/1/2008		2.0L/103	CBA	224348	SNBW505714	X		Engine will not start.		03L 130 755	08	06	18	BPT 0912	515		AV3 1200377 Chemnitz				
55		X	0	8/29/2008		2.0L/103	CBA	240590	SNBW037249	X		Engine does not run		03L 130 755	08	07	20	BPT 0749	515		AV3 1200377 Chemnitz				
56		X	0	9/8/2008		2.0L/103				X		Engine does not run		03L 130 755	08	08	03	BPT 0006	515						
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Bosch CP4.1 Claim plausibility check (2.0l TDI BIN5)

- **Listed claims:** MY 2009 = 99 vehicles
  MY 2010 = 12 vehicles

- **Plausibility check:**
  - 12 x double bookings
  - 17 x costs < [redacted] (no HPP change)
  - 11 x costs [redacted] - [redacted] (no injection system change, therefore no HPP drivetrain damage)
  - 71 x costs [redacted] - [redacted] (⇒ injection system change)
  - ⇒ Large price range for system change implausible!

⇒ **71 potential, but not yet confirmed, cases of CP4.1 drivetrain damage**

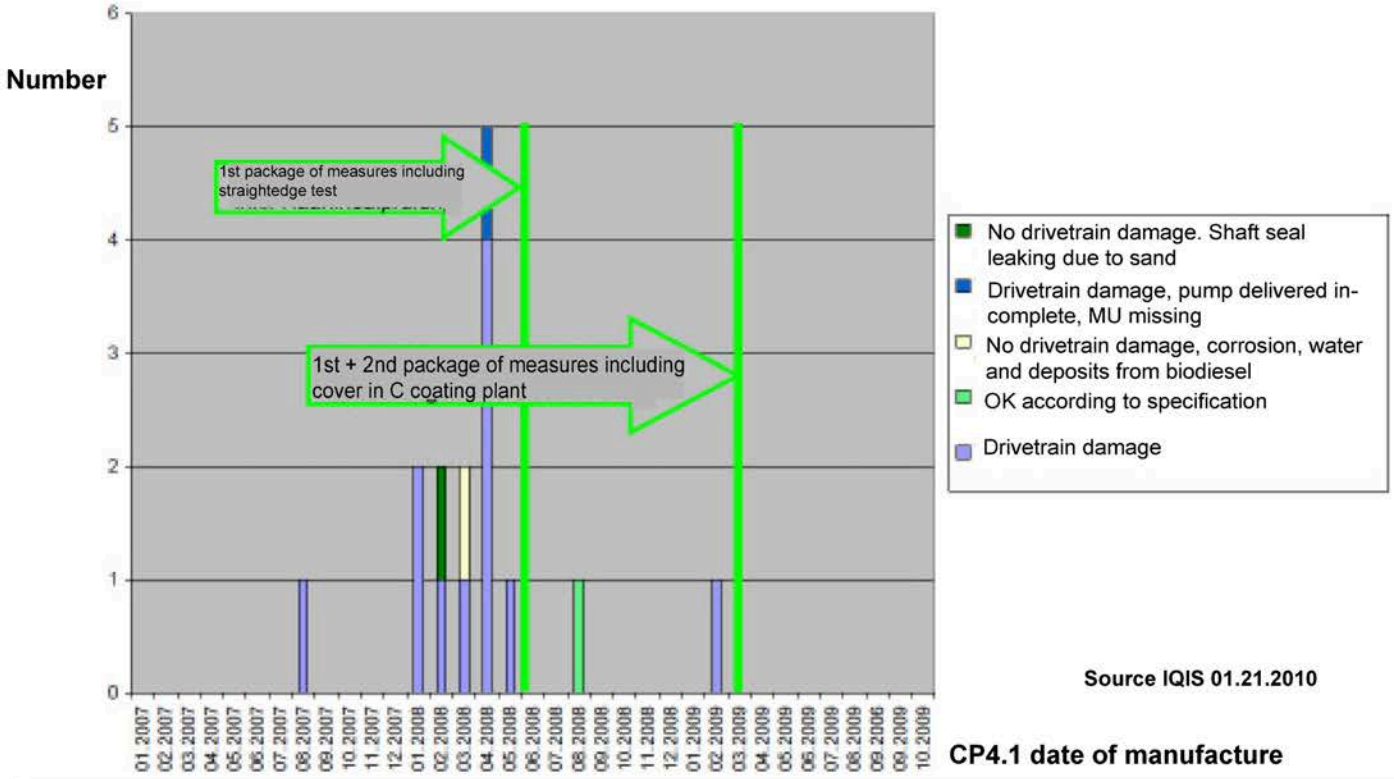
- **Diagnosis result (return of 15 high pressure fuel pumps in total):**
  - 1 x no defect
  - 1 x radial shaft seal camshaft leaking
  - 13 x HPP drivetrain damage

Bosch CP4.1 Claim plausibility check (2.0l TDI BIN5)

VW CP4.1 field complaints from U.S. (0L 130 755A)

CP4.1 Field complaints from U.S.

Status 10.21.2010



Source IQIS 01.21.2010

