

**From:** Non-responsive content removed  
**To:** [Redacted]  
**CC:** [Redacted]

**Date:** 26.09.2008 17:53:00

**Subject:** Documents for Q offensive

**Attachments:** Non-responsive content removed [Audi CP4 Übersicht Aktivitäten gegen Triebwerksschäden 24-09-2008.ppt](#)  
Non-responsive content removed [Audi CP4 Q-Gespräch Übersicht Aktivitäten gegen Triebwerksschäden 22-09-2008.ppt](#)  
[Document.pdf](#)  
Non-responsive content removed [Audi CP4 Provokationsversuch mit n i O Laufrollen 24-09-2008.pdf](#)  
[Liste Triebwerkschäden CP4 26 09 08.xls](#)

Hello [Redacted]

I have finally assembled all the documents required for Monday's teleconference:

- \* Measures by Bosch Development (already contained in the report, but updated)
- \* Short continuous test with faulty cam roller and GDK650
- \* Measures by Bosch Development
- \* Graphics showing failures involving drivetrain damage
- \* Latest list of failures

[Redacted] for discussion of breakdowns at [Redacted] 02.10.08 !

>With best regards

>  
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AUDI AG

[Redacted]  
85045 Ingolstadt

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<http://www.audi.com>

Domicile/Sitz: Ingolstadt

Court of Registry/Registergericht: District Court of Ingolstadt

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**From:** Non-responsive content removed  
**To:** [REDACTED]  
**CC:**  
**Date:** 2/6/2009 4:33:00 PM  
**Subject:** CP4 robustness  
**Attachments:** [Bemerkung zur Robustheit CP4.doc](#)

Hi both,

What do you think of my comment on the Bosch slide?

Kind regards

>

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[REDACTED]

AUDI AG

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[REDACTED]

<http://www.audi.com>

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**From:** Non-responsive content removed  
**To:** [REDACTED]  
**CC:** [REDACTED]  
**Date:** 18.03.2010 13:22:39  
**Topic:** Re: Initial start times for all common rails from [REDACTED]  
**Attachments:** [Erststartzeiten Diesel R4 V6 Werk \[REDACTED\].xls \(Initial start times for Diesel R4](#)

[V6 NSU Plant\)](#)

>

>From: Non-responsive content removed  
>Sent: Tuesday, February 10, 2009, 10:04 AM  
>To: Non-responsive content removed  
>Cc: [REDACTED]  
Non-responsive content removed

>Subject: Initial start times for all common rails from NSU

>

>Hello all,

>

>Here are the current initial start times for all common rails from [REDACTED]  
>It has been observed that the initial start times for 2l common rail have also significantly decreased!?

>

>

>

> With best wishes,

>

Non-responsive content removed  
[REDACTED]

>

>AUDI AG

Non-responsive content removed

>74148 Neckarsulm

>Non-responsive content removed  
[REDACTED]

><http://www.audi.com>

>

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**From:** Non-responsive content removed  
**To:** [REDACTED]

**CC:**  
**Date:** 2/12/2010, 8:46:58 AM  
**Subject:** Re: Draft slide  
**Attachments:** [EHP2\\_4769\\_VN6235\\_Motormesungen.pdf](#)

Hello [REDACTED] Please find enclosed the shown slides from the task force on the subjects of turned tappet with kerosene.

I will send you the pictures on the subject of "quality pumps from [REDACTED]", which show preliminary damage, as soon as they are arrive at our Bosch/Audi exchange drive!

Regards, [REDACTED]

Best regards

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74148 Neckarsulm

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**From:** Non-responsive content removed  
**Sent:** Thursday, February 11, 2010, 5:42 PM  
**To:** Non-responsive content removed  
**Cc:** [REDACTED]  
**Subject:** Draft slide

Hello [REDACTED]

Please find enclosed the requested slide on the tappet measurements for the W19 engine.

Best regards / mit freundlichen Grüßen

[REDACTED]

Robert Bosch GmbH  
Non-responsive content removed

70442 Stuttgart  
GERMANY  
[www.bosch.com](http://www.bosch.com)

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Headquarters: Stuttgart, Court of Registry: Amtsgericht Stuttgart, HRB 14000;

Chairman of the Supervisory Board: Hermann Scholl; Management: Franz Fehrenbach, Siegfried Dais;

Bernd Bohr, Rudolf Colm, Volkmar Denner, Gerhard Kümmel, Wolfgang Malchow, Peter Marks,  
Peter Tyroller; Uwe Raschke

**From:** Non-responsive content removed  
**To:** [REDACTED]

**CC:**

**Date:** 1/25/2011, 5:48:26 PM

**Subject:** Damage sequence

**Attachments:** [ehp\\_0443\\_Schadensablauf\\_Bremsplatte\\_k2.pdf](#)

Are you familiar with this from the AUDI CP4 task force, or do you not read stuff like that?

Best regards,

Non-responsive content removed

## Subject: Commissioning CP4 in the Engine Plant, Cold Test

EA11003EN-00187[0]

### 1) Test sequence VW R4, CP4.1

- The target test sequence for [REDACTED] presented by Audi at the end of March 2008 is basically in line with Bosch requirements
- The startup phase, 1,000 rpm without rail pressure, is to be reduced to the minimum possible time and is currently OK at < 10 seconds.

### 2) Further test bench procedure, recommendation from Audi/Bosch, 10.4.2008:

- joint measurement at least one test bench "Actual test process" by Bosch/Audi [REDACTED] (Wednesday, early shift), Audi [REDACTED] to provide the interface, Bosch Measurement Technology (each party to be responsible for their own costs) Target date 04.2008
- Development/Test Bench Technology in [REDACTED] will attend during measurement, so that it will be able to carry out these measurements itself on the other test benches
- VW Test Technology in [REDACTED] were to take part in the meeting

### 3) Exchange of information relating to CP4 requirements

- A local meeting will be held in [REDACTED] after the measurement results are available, involving Bosch Development, the plant and QM, target date 05.2008

### 4) Permanent saving of test bench test parameters

- Check to establish that the present offering in relation to documentation from [REDACTED] meets requirements, V: Bosch, date 04.2008
- Costs are to be clarified between [REDACTED] and Audi

### 5) Hot test

- If the schedule allows, the hot test is also to be measured on the Wednesday afternoon, following the same procedure as for the cold test as described above

	<b>CAG 035227</b>	<b>CAG 036236</b>
<b>Setup time</b>	18.03.08 5:19	18.03.08 8:23 AM
<b>Vacuum pump assembly time</b>	18.03.08 7:16 AM	18.03.08 9:57 AM
<b>High-pressure fuel pump assembly</b>	18.03.08 7:43 AM	18.03.08 10:34 AM
<b>Rail mounting time</b>	18.03.08 7:47 AM	18.03.08 10:38 AM
<b>Rail fastening time</b>	18.03.08 7:50 AM	18.03.08 10:40 AM
<b>Wire harness</b>	None	None
<b>Fueling time</b>	18.03.08 8:26 AM	18.03.08 11:26 AM
<b>Cold test time</b>	18.03.08 8:26 AM	18.03.08 11:26 AM
<b>Cold test result</b>	Not OK: noises, starting torque too high	Not OK: noises, starting torque too high
<b>Rework</b>	Disassembly during cold	Disassembly during cold test

**From:** Non-responsive content removed  
**To:** [REDACTED]  
**CC:** [REDACTED]  
**Date:** 6/2/2009, 1:43:20 PM  
**Subject:** Re: [REDACTED] CP4 robustness  
**Attachments:** [0664 EHP4 \[REDACTED\] Audi, Kraftstoffqualität \[REDACTED\], 07-04-2009.ppt](#)  
[686 V02 EHP CP4 Robustheit.pdf](#)

Hi all,

Please find attached the documents that Mr. [REDACTED] presented at the last technical discussion.

With best wishes

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**From:** [REDACTED]  
**Sent:** Thursday, May 07, 2009, 11:44 AM  
**To:** [REDACTED]  
**Subject:** [REDACTED] / CP4 robustness

Hello [REDACTED],

For your information, as promised yesterday.

Please treat it confidentially - the slide is still in process - thank you!

Best regards / mit freundlichen Grüßen

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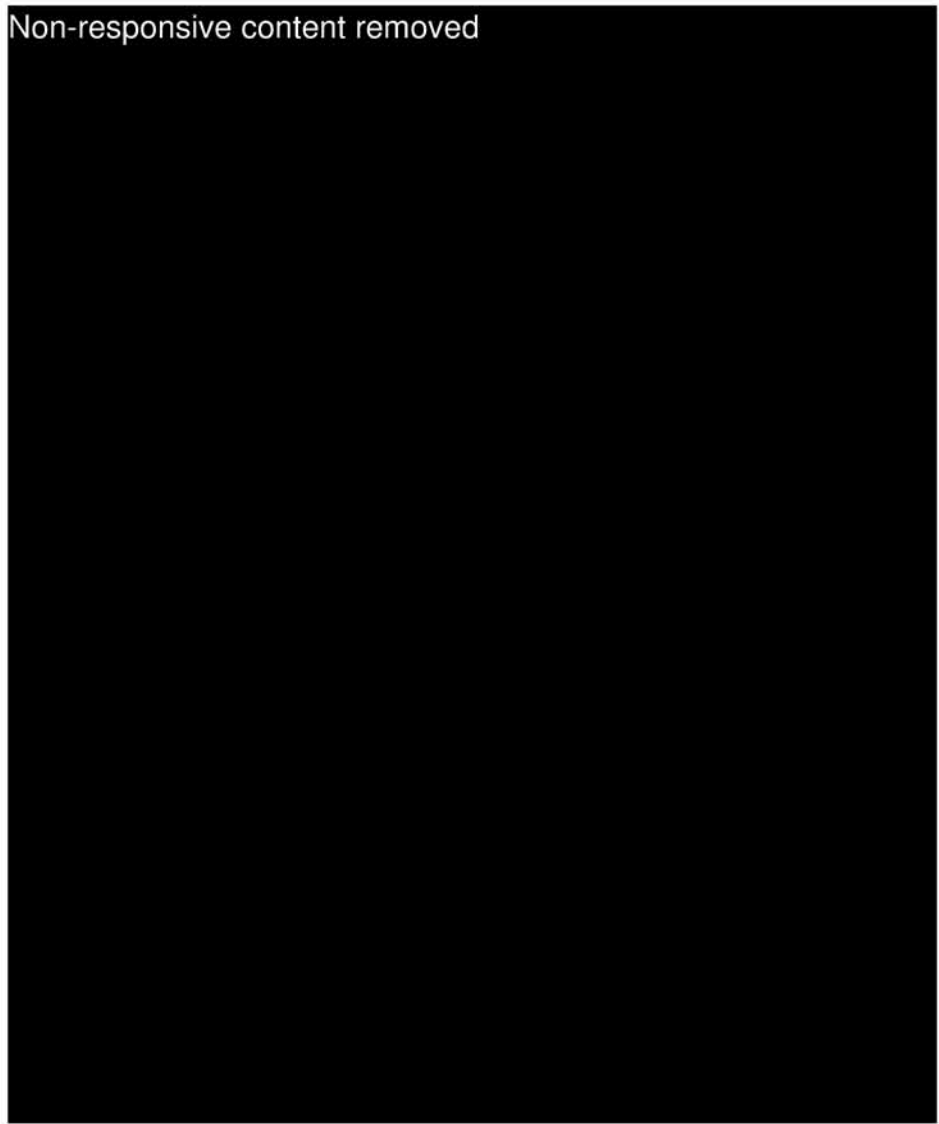
Robert Bosch GmbH

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Bernd Bohr, Rudolf Colm, Volkmar Denner, Gerhard Kümmel, Wolfgang Malchow, Peter Marks,  
Peter Tyroller; Uwe Raschke



**From:** Non-responsive content removed  
**To:**



**CC:**  
**Date:** 18/02/2008 14:24:23  
**Subject:** Minutes and attachments for CP4 technical discussion on 13/02/2008 in [redacted]  
**Attachments:** [882801 Protokoll CP4 Fachgespräch am 13.02.08 bei \[redacted\].pdf](#)  
[Übersicht DL-Ppen für Audi.pdf](#)  
[CP4 Audi\\_080213.pdf](#)

Gentlemen,

Please find attached the minutes and attachments from the CP4 technical discussion on 13/02/2008.

<<882801 Protokoll CP4 Fachgespräch am 13.02.08 bei [redacted].pdf>>

Slide attachment

<<??bersicht DL-Ppen für Audi.pdf>>      <<CP4\_Audi\_080213.pdf>>

Kind regards

[redacted]

-----  
Robert Bosch GmbH

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## AUDI on the US market

### Topic:

AUDI is planning to use the Piezo common rail system on the US market with a water separator without level sensor, possibly without water separator

### RB requirements for use on the US market:

- use of a water separator with level sensor
- emptying of the water separator in the service



## AUDI on the US market

### Use of water separators

- Is essential to maintain the water separator in order to avoid water entering the system
  - Ensure via feedback in the in the estate
- Examples of corrosion on the injectors

Parts of common rail injector



Injector body



## AUDI on the US market

### Justification of the RB requirement:

- On the US market, depending on the customer, CRIN2 shows up to 4000 ppm malfunctions due to corrosion in the injectors. The use of a water separator with level sensor and warning lamp drastically reduces the frequency of malfunctions with CRIN2.
- From the wcf test <sup>1)</sup> it is known that the CRI3.x is more sensitive than the CRIN2 to water in the fuel → Failure rate » 4000 ppm is to be expected for the CRI3.x on the US market if a water separator is not used!
- The wcf test <sup>1)</sup> shows that the 4 cylinder HFPPF reacts more sensitively to water in the fuel than other cylinder HFPPF  
→ Malfunctions are to be expected on the US market if water separators are not used!
- In accordance with the Tread Act legislation in the USA, a recall is necessary after a specific number of malfunctions has been recorded.

1) water contaminated fuel test: Pass information for the weak point analysis regarding corrosion; fuel without corrosion inhibitors with 1% free water (of which 90% is distilled water and 10% is synthetic seawater), NACE class C



## AUDI on the US market

### Knowledge from previous US applications:

- Customers with water separators and level sensors have no field complaints with regard to corrosion
- Field situation with various customers without level sensors shows, depending on the customer, the following situations on account of corrosion:
  - Constant c. 10 SF/1000 vehicle since A/2004
  - C. 12.5% of all injector complaints of a customer are corroded products
  - In 2006, approx. 2500 complaints due to corrosion (basis of around 200 000 vehicles)



## AUDI on the US market

### Water separator strategy (from TCD 0 449 D00 005)

- General **requirement** for water separators for Bosch common rail injection systems, if the fuel quality cannot be assured in accordance with DIN EN 590
- Degree of separation in accordance with DS requirements ( $\geq 93\%$  from 2% emulsion with max. rate of flow, for more details refer to DIN ISO 4020, part 1;
- Storage volume dependent on consumption and country, at least 200 ml
- Response threshold for water level sensors with half-filled water storage reservoir
- Water level sensor with warning lamp and fault entry in the fault memory




**Diesel systems**

 From
   
 [Redacted]

 Persons responsible
   
 [Redacted]

 Phone
   
 [Redacted]

 Fax
   
 [Redacted]

 [Redacted]
   
 October 23, 2009
   
 No. 990158

**Protocol**

 Recipient participant;
   
 [Redacted]

 Currently Non-responsive content removed
   
 [Redacted]

 Invited
   
 [Redacted]

 Audi participant:
   
 [Redacted]

 Non-responsive content removed
   
 [Redacted]

 Line
   
 [Redacted]

 Protocol
   
 [Redacted]

 Organis.
   
 [Redacted]

 Date/location **October 21, 2009 14:00 - Audi**
  
**middle meeting room**

 Topic **Technical discussion r.e. high-pressure fuel pump cylinder special topic - robustness of the 4 cylinder HFPF/water separation**
**1. Use of CRS in the rest of the world**

On account of returns from various markets, Audi is unsure about the use of the 4 cylinder HFPF worldwide. Audi's Quality Assurance Department is not prepared to approve further use of the 4 cylinder HFPF if the failure situation does not improve.

The technical discussion r.e. the 4 cylinder HFPF at this agreed date.

Further meetings Audi/Bosch with top level on October 27, 2009

and together with Volkswagen on December 08, 2009

**2. Robustness of the 4 cylinder HFPF - films**

See enclosure

Malfunctions as a result of lubrication capability/viscosity/water were detected by Bosch on the 4 cylinder HFPF and the 3 cylinder HFPF/CP1H - irrespective of the drive concept. Bosch considers the drive concept of the 4 cylinder HFPF to be superior to that of the CP1H - CP3 drive concepts.

There is always a dependence on fuels which could present a risk, depending on the country and time of year.

Customer sample can be ordered with robustness package as of February 2010 (see film 24). *Note: The price of the robustness package option is established based on the pass in 2010.*

A vehicle validation (see film 25) is necessary for the approval in the target



## Diesel systems

From

Non-responsive content removed

Persons responsible

Non-responsive content removed

Phone

Non-responsive content removed

Fax

Non-responsive content removed

October 23, 2009  
no. 990158

Protocol

Technical discussion r.e. high-pressure fuel pump cylinder special topic -  
robustness of the 4 cylinder HFPP/water separation

markets/target clusters and it would be practical for this to be carried out using edge parts, as mid-layer pumps cannot be used due to the wide safety reserve.

### 3. Water separator (Non-responsive content removed)

In the laboratory test, the fuel filters with water separators currently being used by Audi comply with the Bosch TCD.

In the vehicle (random sample), manually introduced water is partially dissolved again in the fuel flow. A remedy would be e.g. a "water trap", i.e. deflector for the separated water and disconnection from the fuel flow.

Tests were carried out with UIP, CP1H with CP & CP3.3 with CP. Bosch believes that the results cannot be transferred to CP4 with electric fuel pump, as the filter is run through much more often.

The current standard for the measurement of the degree of water separation is currently being revised, the new ISO16332 (new draft prov. E.2009) will take into consideration innovations with regard to the proportion of biodiesel, desulphurised fuel etc.. Bosch will draw upon this ISO for the fuel properties in the forthcoming TCD.

Audi has requested a representation of the changes - new/old TCD

Audi will clarify the further procedure internally.

### 4. Rail pressure deviation after cold start with B10

Audi has repeatedly established that with a cold shut-down of a vehicle (Q5 technology demonstrator) with fuel B10, the flow volume of the cylinder HFPP with a cold shut-down reduces on the CFPP of the fuel and rail pressure deviation is detected. The hypothesis is the clogging of the metering unit filter with the paraffin flakes in the pipe volume after the fuel filter up to the cylinder HFPP.

The current Audi requirements on the cold shut-down have not been achieved in this test.

Audi will draw up an internal fuel road map with the possible procedures. Bosch has asked that we prepare the topic for the next FG (within the scope of the CRI-FG or the cylinder HFPP FG or special meeting)

Non-responsive content removed



**From:** Non-responsive content removed

**To:**

**CC:**

**Date:** 2/13/2010, 4:49:22 PM

**Subject:** Re: Water separators in U.S. vehicles (such as VW Jetta, Audi A3)

**Attachments:** [Total 2008 11 28.xls](#)

Hello [REDACTED],

What our colleague wrote is definitely not correct.

In the SGS fuel survey, the ASTM 4176 conducts an optical assessment of appearance and impurities.

If the result is "w", this means free water.

One possible objection could be that when the correct sampling method (discharge several liters first) is used, free water from the filling nozzle, for example, is not recorded.

[REDACTED] ran numerous vehicles in the U.S., however, and checked the water separator regularly. They found nearly nothing. You can mention the file to Bosch, but please do not forward it.

The poor Nace ratings are a fact.

Regards,

[REDACTED]

**From:** Zohren, Frank (EAD/1)

**Sent:** Monday, February 08, 2010, 10:07 AM

**To:** Garbe, Thomas, Dr. (EADA)

**Cc:** Schumacher, Stefan (EADA/6); Krause, Andreas (EAD/1)

**Subject:** Re: Water separators in U.S. vehicles (such as VW Jetta, Audi A3)

Dear Thomas,

Is what our colleague from the South writes true?

I think Bosch wants to get us to reintroduce a water separator in the U.S., or withdraw the warranty.

Best wishes,

Frank

**From:** Non-responsive content removed

**Sent:** Tuesday, February 02, 2010, 7:37 PM

Non-responsive content removed

**Subject:** Re: Water separators in U.S. vehicles (such as VW Jetta, Audi A3)

Hello [REDACTED]

Free water is not recorded in the fuel surveys, which means the statement regarding free water is not sound/representative.

In addition, the corrosion protection additivation in U.S: markets is low (= poor NACE rating), which means free water can quickly result in corrosion attack.

Best regards / mit freundlichen Grüßen

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Robert Bosch GmbH

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GERMANY

[www.bosch.com](http://www.bosch.com)

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Bernd Bohr, Rudolf Colm, Volkmar Denner, Gerhard Kümmel, Wolfgang Malchow, Peter Marks,  
Peter Tyroller; Uwe Raschke

**From:** Non-responsive content removed  
**Sent:** Monday, February 01, 2010, 12:12 PM  
**To:** Non-responsive content removed  
**Cc:** Non-responsive content removed

**Subject:** Re: Water separators in U.S. vehicles (such as VW Jetta, Audi A3)

Hello M

As we discussed at the HPP workshop in on 12/08/2009, the Diesel vehicles in the U.S. were not equipped with a water separator.

The Audi A3 launched without water separators.

Water separators have not been used in VW vehicles since May 2009.

An evaluation of fuel analyses from SGS (see "SGS World Wide Fuel Survey") from the U.S. market does not show anything noteworthy with regard to water content.

Therefore, the use of a water separator system is not needed.

If you have any other questions, please feel free to contact me.

Best regards,

Non-responsive content removed

Non-responsive content removed

VOLKSWAGEN AG  
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Court of Registry/Registergericht: Amtsgericht Braunschweig  
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**From:** Non-responsive content removed ]  
**Sent:** Monday, February 01, 2010, 7:04 AM  
**To:** Non-responsive content removed  
**Cc:** Non-responsive content removed

**Subject:** Re: Water separators in U.S. vehicles (such as VW Jetta, Audi A3)

Hello [redacted],

I'm afraid I have not been able to find an answer yet.

During the next project meeting, could you please present the information that led you to eliminate the water separator in the CRS3.2 system (EFP, with CP4)?

Please also send me the date from which the water separator was eliminated.

Note:

We will examine a 4-cylinder NDKL with a 6-cylinder NDKL on the test bench and examine the subject of water impact there as well.

Thank you.

Best regards / mit freundlichen Grüßen

Non-responsive content removed

Robert Bosch GmbH

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[www.bosch.com](http://www.bosch.com)

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EA11003EN-00329[3]

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Bernd Bohr, Rudolf Colm, Volkmar Denner, Gerhard Kümmel, Wolfgang Malchow, Peter Marks,  
Peter Tyroller; Uwe Raschke

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**From:** Non-responsive content removed  
**Sent:** Thursday, November 19, 2009, 1:36 PM  
**To:** Non-responsive content removed  
**Cc:** Non-responsive content removed  
**Subject:** Re: Water separators in U.S. vehicles (such as VW Jetta, Audi A3)

Hello Non-responsive content removed

Could you please confirm (or have confirmed) that the current 4-cylinder vehicles no longer have water separators?

Or does this only apply to certain vehicle types, that is: the Audi A3 has a water separator, the Jetta hasn't had a water separator since x.xx?

< Message: VW\_R4\_2.0I\_EU5\_low\_CRS3.2 (1.Gen): Filter or water separator >>  
If an overview of this is available, it would surely help the discussion.

Best regards / mit freundlichen Grüßen

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Bernd Bohr, Rudolf Colm, Volkmar Denner, Gerhard Kümmel, Wolfgang Malchow, Peter Marks,  
Peter Tyroller; Uwe Raschke

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**From:** Non-responsive content removed  
**Sent:** Thursday, November 12, 2009, 4:20 PM  
**To:** Non-responsive content removed  
**Cc:** Non-responsive content removed  
**Subject:** Water separators in U.S. vehicles (such as VW Jetta, Audi A3)

Hello Mr. Non-responsive content removed

Do the current VW U.S. vehicles (such as VW Jetta, Audi A3, ...) have water separators?

If not, were water separators installed in the past?

If so, when did the conversion take place - that is, when are the water separators present?

If one was ever installed, where was it positioned?

Thank you.

Best regards / mit freundlichen Grüßen

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Robert Bosch GmbH

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GERMANY

[www.bosch.com](http://www.bosch.com)

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Headquarters: Stuttgart, Court of Registry: Amtsgericht Stuttgart, HRB 14000;  
Chairman of the Supervisory Board: Hermann Scholl; Management: Franz Fehrenbach, Siegfried Dais;  
Bernd Bohr, Rudolf Colm, Volkmar Denner, Gerhard Kümmel, Wolfgang Malchow, Peter Marks,  
Peter Tyroller; Uwe Raschke





**From:** Non-responsive content removed

**To:**

**CC:**

**Date:** 7/29/2009 11:51:52 AM

**Topic:** 8D reports piston seizure for IKB 733242 (4VW221)

**Attachments:** [8D-Bericht-4VW221.pdf](#)

Gentlemen,

Attached please find the signed 8D report for the following case:

IKB 733242 QT no Non-responsive content removed

With best wishes

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Robert Bosch GmbH

Non-responsive content removed

70442 Stuttgart

GERMANY

[www.bosch.com](http://www.bosch.com)

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Domicile: Stuttgart, Court of Registry: District Court Stuttgart, HRB 14000;

Chairman of the supervisory board: Hermann Scholl; Management: Franz Fehrenbach, Siegfried Dais; Bernd Bohr, Rudolf Colm, Volkmar Denner, Gerhard Kümmel, Wolfgang Malchow, Peter Marks, Peter Tyroller; Uwe Raschke



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**Date:** 02.09.2010 09:02:51

**Thema:** Components to the analysis

**Attachments:** [31.08.10--US07-Teileanlieferung.xls](#)  
[31.08.10-Voranalyse HD-Pumpen US07.xls](#)  
[01\\_09\\_10-Voranalyse HD-Pumpen doc.pdf](#)  
[Voranalysen US07 -Bauteile doc.pdf](#)

Hello

I send you the list with the components in to the analysis have come.  
( with 1st analysis)

1. Analysis High -Pressure Pump

Mit freundlichen Grüßen/ Regards

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> \*\*\*\*\*

>Volkswagen Sachsen GmbH

>Sitz/Domicile: Zwickau

>Registergericht/Court of Registry: Amtsgericht Chemnitz

>HRB Nr./ Commercial Register No.: 1666

>Vorsitzender des Aufsichtsrats/Chairman of the Supervisory Board: Jochem Heizmann

>Geschäftsführer/Executive Directors: Frank Löschmann (Sprecher/Managing Director), Henry Mehnert, Robert Stauß

>

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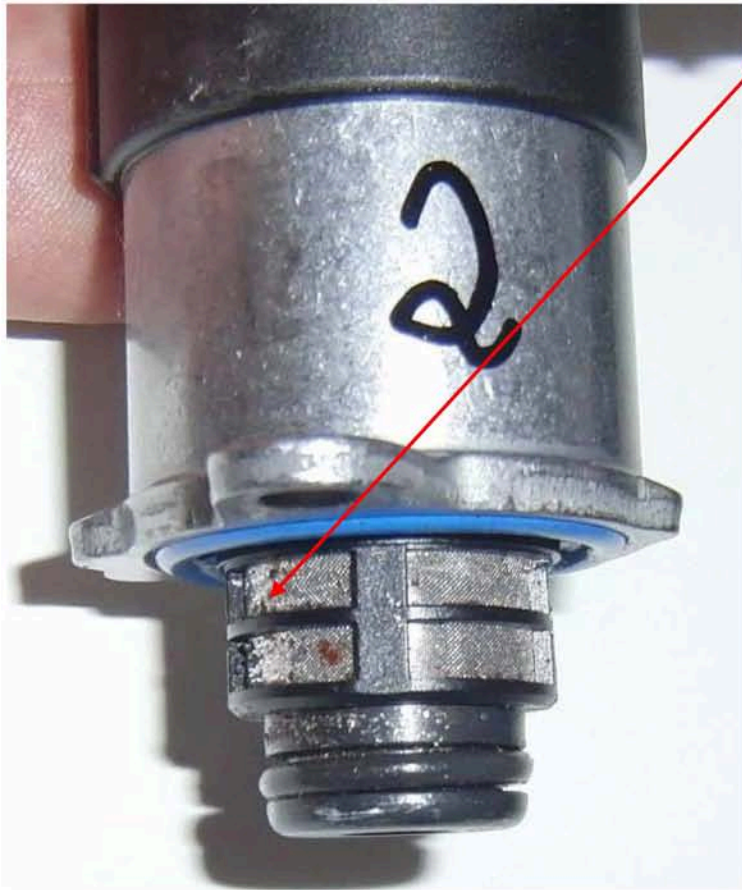
P pump no. 2

probable drivetrain damage



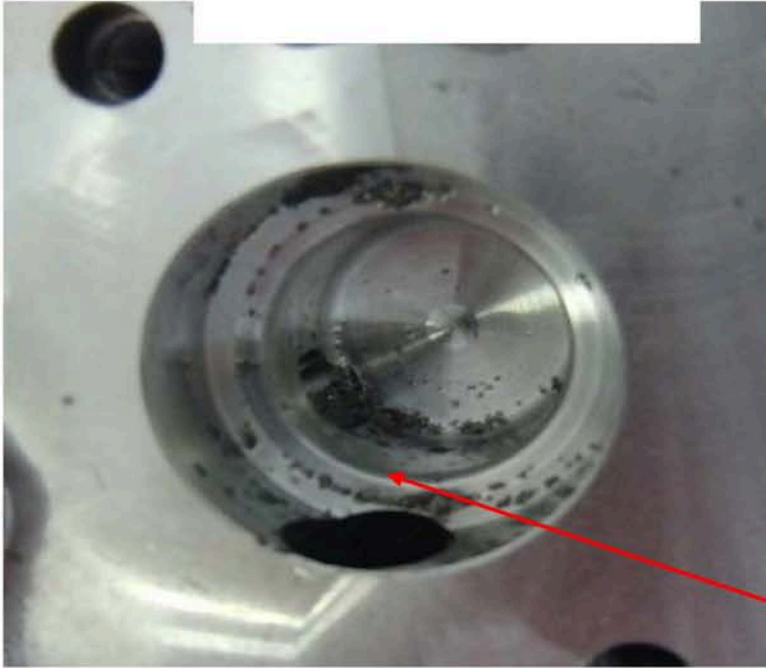
HP pump no. 2

Chips deposits metering unit strainer and in the pump chamber below metering unit



P pump no. 24

probable drivetrain damage



HP pump no. 24

Chips deposits metering unit strainer and in the pump chamber below metering unit





Ser. no.	VIN no.	Bosch Material	Serial no. Bosch	ProdDat Bosch	KM- LL (Mileage)	Engine no.	CP4 date	VIN no.	Customer complaint	Preliminary analysis	Cause:	Analysis Bosch
2	3VWTL7AJ1AM	445.010.508	BPT0831	25.11.2009	5.119	CJA030072	Non-responsive content removed	3VWTL7AJ1AM	Engine does not start, metallic chips metering unit	Chips collection at strainer metering unit and in the pump chamber below metering unit	PTD (Drivetrain damage)	
6	3VWRL7AJ7AM	445.010.508	BPT0143	17.09.2009	6.638	CJA017859		3VWRL7AJ7AM	Engine does not start, restart	externally without complaint; metering unit strainer without complaint; no deposits in the pump chamber below metering unit	t.b.d.	
7	3VWAL7AJ2AM	445.010.508	BPT 1100	18.07.2009	7.078	CJA003968		3VWAL7AJ2AM	P0087 - rail system pressure too low	externally without complaint; metering unit strainer without complaint; no deposits in the pump chamber below metering unit	t.b.d.	
21	3VWPL7AJXAM	445.010.508	BPT 00074	03.11.2009	6.977	CJA025707		3VWPL7AJXAM	Chips in the fuel system	externally without complaint; metering unit strainer without complaint; no deposits in the pump chamber below metering unit	t.b.d.	
24	WVWNM7AJXAM	445.010.508	BPT 0361	13.02.2010	3.103	CJA042995		WVWNM7AJXAM	Chips in the fuel system	Chips collection at strainer metering unit and in the pump chamber below metering unit	PTD	

= after June 20, 2009 clean-date motor no. CJAA005303



**From:** Non-responsive content removed

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**To:** "[Martinez-Banuelos, Ramon \\(\GQM-2/3\\)](#)" <ramon.martinez-banuelos@volkswagen.de>

**CC:** "[Zohren, Frank \\(\EADE\\)](#)" <frank.zohren@volkswagen.de>

**Date:** 11/3/2010 10:20:25 AM

**Topic:** FW: Analysis reports high-pressure pumps Bosch - (US07)

**Attachments:** [03.11.10-4VW549 Zwischenbericht.pdf](#)  
[03.11.10--4VW552 Zwischenbericht.pdf](#)  
[03.11.10--4VW551 Zwischenbericht.pdf](#)  
[03.11.10--4VW550 Zwischenbericht.pdf](#)  
[02.11.10--4VW564 Zwischenbericht.pdf](#)  
[02.11.10--4VW563 Zwischenbericht.pdf](#)  
[02.11.10--4VW577 Zwischenbericht.pdf](#)  
[02.11.10--4VW562 Zwischenbericht.pdf](#)  
[02.11.10--4VW561 Zwischenbericht.pdf](#)  
[02.11.10--4VW559 Zwischenbericht.pdf](#)  
[02.11.10--4A560 Zwischenbericht.pdf](#)  
[02.11.10---8D-Bericht 4VW563.pdf](#)

For information!

Kind regards

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>  
>From: Non-responsive content removed  
>Sent: Wednesday, November 03, 2010 6:53 AM  
>To: Non-responsive content removed  
>Subject: Analysis reports high-pressure pumps Bosch - (US07)

>  
>  
>Dear Non-responsive content removed  
>Attached please find the reports from Bosch.  
>Please enter these reports in my table.

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>With best wishes

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>\*\*\*\*\*

- >Volkswagen Sachsen GmbH
- >Domicile/Head office: Zwickau
- >Court of Registry: Amtsgericht Chemnitz
- >HRB no./ Commercial Register no.: 1666
- >Chairman of the Supervisory Board: Jochem Heizmann
- >Executive Directors/Managing Directors: Frank Löschmann (Sprecher/Managing Director), Henry Mehnert, Robert Stauß

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>\*\*\*\*\*  
>  
>  
>

**From:** Non-responsive content removed  
**To:** [REDACTED]  
**CC:** [REDACTED]  
**Date:** 12/3/2010 3:58:22 PM  
**Topic:** RE: RP1 Failure USA \_BC / QTS 3833800  
**Attachments:** [4A970 Zwischenbericht.pdf](#)

Dear [REDACTED]

Yes, it came up, for results of standard findings see set of slides in the Appendix:  
- Overflow valve jams because of deposits in the entire pump  
- Functional test not OK, no overflow quantity

Visual finding with development (focus on guide rollers)  
We did not find any base plate / brake plate on the guide rollers. The results of the fuel investigation and deposits analysis are still pending.  
There is a visual abnormality (regular cross-stripes) on the camshaft, which is being clarified by the development.

I will be readily available for your queries.

I wish you a nice weekend and a pleasant holiday. Have a nice trip!

With best wishes

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Robert Bosch GmbH

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Postfach 30 02 20  
70442 Stuttgart  
GERMANY  
[www.bosch.com](http://www.bosch.com)

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Bernd Bohr, Rudolf Colm, Volkmar Denner, Wolfgang Malchow, Peter Marks,  
Peter Tyroller; Stefan Asenkerschbaumer, Uwe Raschke, Wolf-Henning Scheider

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**From:** Non-responsive content removed  
**Sent:** Thursday, December 02, 2010 5:06 PM  
**To:** Non-responsive content removed  
**Subject:** RE: RP1 Failure USA \_BC / QTS 3833800

... and did it come up?

With best wishes

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From: Non-responsive content removed  
Sent: Friday, November 26, 2010 4:58 PM  
To: Non-responsive content removed  
Subject: RE: RP1 Failure USA \_BC / QTS 3833800

Dear Mr. [REDACTED],

We have received the pump. I have planned it for our round of analysis on Tuesday together with the development.

With best wishes

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Robert Bosch GmbH  
Non-responsive content removed  
Postfach 30 02 20  
70442 Stuttgart  
GERMANY  
[www.bosch.com](http://www.bosch.com)

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Domicile: Stuttgart, Court of Registry: District Court Stuttgart, HRB 14000;  
Chairman of the supervisory board: Hermann Scholl; Management: Franz Fehrenbach, Siegfried Dais;  
Bernd Bohr, Rudolf Colm, Volkmar Denner, Wolfgang Malchow, Peter Marks,  
Peter Tyroller; Stefan Asenkerschbaumer, Uwe Raschke, Wolf-Henning Scheider

From: Non-responsive content removed

Sent: Friday, November 19, 2010 2:58 PM

Non-responsive content removed

Subject: RP1 Failure USA\_BC / QTS 3833800

Hello All,

This RP1 Failure USA\_BC pump is being dispatched today to the Feuerbach plant.

Please analyze it as quickly as possible with RB Development.

This is probably (as per QTS) the second pump at 5649 miles/km; the first one in the QTS is not recorded.

As per SAGA there is a first RP1 accounting for this vehicle at 3882 miles/km in GS-2 please clarify.

Veh. no. SA miles or km

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5649

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10

3882

Have a nice weekend!

With best wishes

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**From:** Non-responsive content removed  
**To:** [REDACTED]  
**CC:**  
**Date:** 1/19/2011 5:55:08 PM  
**Topic:** FW: 8D reports high-pressure pumps Bosch  
**Attachments:** Non-responsive content removed

[12.01.11-Datenstand HD-Pumpen.pdf](#)  
[8D-Bericht 4VW816.pdf](#)  
[8D-Bericht 4VW822.pdf](#)  
[8D-Bericht 4VW830.pdf](#)  
[8D-Bericht 4VW834.pdf](#)  
[8D-Bericht 4VW835.pdf](#)  
[8D-Bericht 4VW836.pdf](#)

>  
>From: Non-responsive content removed  
>Sent: Thursday, January 13, 2011 7:59 AM

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>Subject: 8D reports high-pressure pumps Bosch

>Dear Mr. Non-responsive content removed

>Attached are the latest 8D reports from Bosch.

>8D reports of high-pressure pumps: USA no. (see table): No. 10; 82; 89; 93; 94; 95

>All these high-pressure pumps had drivetrain damage (PTD).

>The analysis done by Bosch showed the cause as not-OK fuel - as proof, deposits were found inside the high-pressure pump.

>Bosch's responsibility was rejected because of consequential damage.

>The manufacturing date of all these high-pressure pumps is before the last measurements taken by Bosch (anti-wear package 1)

>8D reports - injectors: USA no. (see table): No. 62; 90; 92

>The analyses done by Bosch did not show any defects in the components - all the injectors are fully "functional".

>Please translate for Mr. [REDACTED] – Thank you

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> \*\*\*\*\*

> Volkswagen Sachsen GmbH  
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> Court of Registry: Amtsgericht Chemnitz  
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> Chairman of the Supervisory Board: Jochem Heizmann  
> Executive Directors/Managing Directors: Frank Löschmann (Sprecher/Managing Director), Henry Mehnert, Robert Stauß

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EA11003EN-00712[0]

Ser. no.	No. USA	Vehicle identification No.	HP Data Bosch	HP Data Bosch	HP Data Bosch	KM LL (Mileage)	Engine No.	CP4 date	Customer complaint	Results of Pre - analysis	further components for Complaint	Comments activities from Preliminary analysis	Analysis Bosch	Analysis Bosch
1	10	Non-responsive content removed	02240709	BPT1133	0007	28,756	CJA010361	8/7/2009 C,C	Metal chips in fuel system	PTD - Metal wear in metering unit pump chamber and strainer	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Inappropriate fuel - 8D report - 1/12/2011
2	16		04130210	BPT0234	Without	18,121	CJA024847	2/16/2010 S,C	Metal chips in fuel system	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	
3	20		04170410	BPT0468	Without	7,375	CJA056043	4/28/2010 S,C	does not start - P0087 - fuel syst pr too low	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components were not analyzed because metal chips	Handover for analysis / 8D report - 12/7/2010	
4	28		01040310	BPT0267	Without	8,084	CJA046361	3/15/2010 S,C	P0087 - Fuel System pressure too low	Plug of the HP pump broken-v.m. - PTD	1 x change filter 1 x Fuel filter	accompanying components were not analyzed because metal chips	Handover for analysis / 8D report - 12/7/2010	
5	29		01080909	BPT0250	0007	15,976	CJA016478	9/17/2009 C,C	P0087 - Fuel system pressure too low does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	
6	39		04300310	BPT0048	Without	4,868	CJA051563	4/8/2010 S,C	P0087 - Fuel System pressure too low	PTD - Metal wear in metering unit pump chamber and strainer	1 x change filter 1 x Fuel filter	accompanying components were not analyzed because metal chips	Handover for analysis / 8D report - 12/7/2010	
7	50		01301009	BPT0240	0007	787	CJA025097	11/10/2009 C,C	Metal chips in fuel system	no metal chips metering unit found , filter checked - suspicion of particles	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	
8	62		04190410	BPT0430	Without	3,112	CJA056466	4/30/2010 S,C	no output	no metal chips metering unit found , filter checked - suspicion of particles	4 x injectors	For further analysis the 4 injectors were given to Bosch	Handover for analysis / 8D report - 12/7/2010	8D-report available about the injectors - all OK 1/3/2011
9	73		02060210	BPT0909	Without	10,234	CJA041107	2/17/2010 S,C	Metal chips in fuel system	no metal chips metering unit found , filter checked - suspicion of particles	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	
10	81		04240909	BPT0839	0007	15,542	CJA019335	10/5/2009 C,C	P0087 - Fuel system pressure too low does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	
11	82		04240609	BPT0400	0007	15,293	CJA005671	6/30/2009 C,C	P0087- and metal chips in system	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
12	83		02051109	BPT1352	0007	2,931	CJA026490	11/17/2009 C,C	Does not start - electr. fault	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	
13	84		01090110	BPT1242	Without	12,389	CJA035025	1/20/2010 S,C	P0087 - Fuel System pressure too low	no metal chips metering unit found , filter checked - suspicion of particles			Handover for analysis / 8D report - 12/7/2010	
14	85		04110509	BPT0798	0006	22,726	CJA003401	5/27/2009 C,C	Does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components were not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	
15	86		01050110	BPT1386	Without	8,953	CJA033742	1/14/2010 S,C	P0087 - Fuel system pressure too low metal chips in the filter	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	
16	88		02280410	BPT1037	Without	23	CJA056684	4/30/2010 S,C	P0087 - Fuel System pressure too low	no metal chips metering unit found , filter checked - suspicion of particles			Handover for analysis / 8D report - 12/7/2010	
17	89		01170909	BPT1336	0007	20,922	CJA017951	9/24/2009 C,C	Metal chips in Fuel system, P013B	PTD - Metal wear in metering unit pump chamber and strainer		For further analysis the 4 injectors were given to Bosch	Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
18	90		02151009	BPT0930	0007	7,684	CJA023120	10/27/2009 C,C	no output	no metal chips metering unit found , filter checked - suspicion of particles	4 x injectors		Handover for analysis / 8D report - 12/7/2010	8D-report available about the injectors - all OK 1/3/2011
19	91		04130210	BPT0347	Without	11,335	CJA042927	2/26/2010 S,C	P0087/P0088 - Fuel System pressure too low	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors		Handover for analysis / 8D report - 12/7/2010	
20	92		01171009	BPT0891	0007	20,902	CJA023595	10/29/2009 C,C	Metal chips in Fuel system	no metal chips metering unit found , filter checked - suspicion of particles	2x injectors	For further analysis the 4 injectors were given to Bosch	Handover for analysis / 8D report - 12/7/2010	8D-report available about the injectors - all OK 1/3/2011
Ser. no.	No. USA	Vehicle identification No.	HP Data Bosch	HP Data Bosch	HP Data Bosch	KM LL (Mileage)	Engine No.	CP4 date	Customer complaint	Results of Preliminary analysis	Further components for complaint	Comments activities from Preliminary analysis	Analysis Bosch	Analysis Bosch
21	93	3VWRL7AJ5AM057501	02020909	BPT0447	0007	19,355	CJA015510	9/12/2009 C,C		PTD - Metal wear in metering unit pump chamber and strainer	4x Injectors 1x Distributor rail 1x Holder inline EFP	accompanying components were not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11

EA11003EN-00712[1]

22	94	Non-responsive content removed	01090509	BPT1015	0006	42,541	CJA003123	5/25/2009 C,C	Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
23	95		02190110	BPT0056	Without	9,280	CJA037049	1/29/2010 S,C	P0087 - Fuel System pressure too low Does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components were not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
24	96		01120509	BPT1015	0006	38,984	CJA003834	6/4/2009 C,C	Does not start	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components were not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	
25	97		01180909	BPT1167	0007	10,156	CJA018611	9/30/2009 C,C	Starts poorly - metal chips in the filter	no metal chips metering unit found , filter checked - suspicion of particles	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	
26	98		01301009	BPT0900	0007	5,882	CJA025311	11/10/2009 C,C	P0087 - Fuel System pressure too low	no metal chips metering unit found , filter checked - suspicion of particles	4 x injectors, 1 x Pressure control valve	Pressure control valve for analysis given to Bosch	Handover for analysis / 8D report - 12/7/2010	
27	100		4260809	BPT0311	0007	13,694	CJA014411	9/7/2009 C,C	P0087 - Fuel System pressure too low	PTD - Metal wear in ZME pump room - delivered without ZME	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	
28	104		1070809	BPT0767	0007	38,082	CJA011934	8/20/2009 C,C	Dismantled by changing the engine - complaint unknown	no metal chips metering unit found , HP pump change through engine change			Handover for analysis / 8D report - 12/7/2010	
29	82		2021009	BPT0345	0007	8,400	CJA020853	10/13/2009 C,C	Leakages	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report 05.01.11-	
30	99		2180310	BPT0433	Without	6,996	CJA049352	3/29/2010 S,C	Engine does not start - P0877	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report 05.01.11-	
31	102		4030909	BPT0849	0007	9,551	CJA015659	9/12/2009 C,C	Vibration and sounds	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report 05.01.11-	
32	105		1150909	BPT0169	0007	16,311	CJA017656	9/23/2009 C,C	Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report 05.01.11-	



**From:** Non-responsive content removed  
**To:**  
**CC:**  
**Date:** 1/19/2011 5:55:33 PM  
**Topic:** FW: 8D reports high-pressure pumps Bosch  
**Attachments:** [8D-Bericht 4VW815.pdf](#)  
[8D-Bericht 4VW819.pdf](#)  
[8D-Bericht 4VW817.pdf](#)  
[8D-Bericht 4VW818.pdf](#)  
[13.01.11-8D-Bericht 4VW827.pdf](#)  
[13.01.11-8D-Bericht 4VW820.pdf](#)  
[13.01.11-8D-Bericht 4VW826.pdf](#)

>  
>From: Non-responsive content removed

>Sent: Wednesday, January 19, 2011 7:40 AM

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>Subject: 8D reports high-pressure pumps Bosch

>Dear Mr. Non-responsive content removed

>Attached are the latest 8D reports from Bosch.

>8D reports of high-pressure pumps: USA no. (see table): No. 20; 28; 29; 81; 83; 84; 86; 85; 16; 91; 96;100

>All these high-pressure pumps had drivetrain damage (PTD).

>These drivetrain damage - complaints were acknowledged by Bosch.

>Corrective actions were initiated.

>The manufacturing date of all these high-pressure pumps is before the last measurements taken by Bosch (robustness package 1)

>>The diesel fuel samples from USA -Non-responsive content removed

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>were analyzed by the Inolab laboratory. I will request for the analysis reports and send them to you.

>Since the data volume is very high, I will distribute the 8D reports in 2 mails.

>Please translate for Mr. Non-responsive content removed - Thank you

>With best wishes

Non-responsive content removed

>Volkswagen Sachsen GmbH

>Domicile/Head office: Zwickau

>Court of Registry: Amtsgericht Chemnitz

>HRB no./ Commercial Register no.: 1666

>Chairman of the Supervisory Board: Jochem Heizmann

>Executive Directors/Managing Directors: Frank Löschmann (Managing Director/Speaker), Henry Mehnert, Robert Stauß

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**From:** Non-responsive content removed  
**To:** [REDACTED]  
**CC:**  
**Date:** 2/16/2011 7:32:10 PM  
**Topic:** FW: 8D reports high-pressure pumps Bosch - Part 2  
**Attachments:** [13.01.11-8D-Bericht 4VW828.pdf](#)  
[8D-Bericht 4VW837.pdf](#)  
[14.01.11-8D-Bericht 4VW840.pdf](#)  
[14.01.11-8D-Bericht 4VW829.pdf](#)  
[14.01.11-8D-Bericht 4VW832.pdf](#)

Have a look at Point D4 in the 8D reports.

It is actually written there that the CP4 failures are caused, amongst other things, by pump defects and therefore we urgently need anti-wear packages in order to handle the pump deficits!

Best wishes,

[REDACTED]

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>From: Non-responsive content removed  
>Sent: Friday, January 21, 2011 12:11 PM  
>Non-responsive content removed  
>Subject: FW: 8D reports high-pressure pumps Bosch - Part 2

>  
>fyi.  
>  
>  
>With best wishes

>  
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>[REDACTED]

>  
>Volkswagen Aktiengesellschaft  
>Postfach 74610  
>D-38231 Salzgitter

>  
>Non-responsive content removed  
>[REDACTED]

>  
>Volkswagen Aktiengesellschaft  
>Domicile: Wolfsburg  
>Court of Registry: Amtsgericht Braunschweig  
>HRB no.: 100484  
>Chairman of the Supervisory Board: Ferdinand Piëch Board of Directors: Martin Winterkorn (Chairman),  
Francisco J. Garcia Sanz, Jochem Heizmann, Christian Klingler, Michael Macht, Horst Neumann,  
Hans Dieter Pötsch, Rupert Stadler

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>From: Non-responsive content removed  
>Sent: Wednesday, January 19, 2011 7:58 AM

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>Subject: 8D reports high-pressure pumps Bosch - Part 2

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>Dear Mr. Non-responsive content removed

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>Attached are the 8D reports from Bosch. - part 2

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>With best wishes

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>Volkswagen Sachsen GmbH  
>Domicile/Head office: Zwickau  
>Court of Registry: Amtsgericht Chemnitz  
>HRB no./. Commercial Register no.: 1666  
>Chairman of the Supervisory Board: Jochem Heizmann  
>Executive Directors/Managing Directors: Frank Löschmann (Sprecher/Managing Director), Henry Mehnert, Robert Stauß

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>

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**From:** Non-responsive content removed  
**To:** [REDACTED]  
**CC:**  
**Date:** 2/17/2011 12:02:17 PM  
**Topic:** Report  
**Attachments:** [4vw825\\_8D\\_Bericht1.pdf](#)  
[4vw825\\_unterschrieben.pdf](#)

Dear Mr. [REDACTED]

as requested

Dear Mr. [REDACTED]

Please find attached, as discussed, the more urgent of the two mentioned cases. The file "4vw825\_unterschrieben.pdf" contains 2 scanned pages with signature, however, one sentence is lost because of pagination:  
"Deposits were found at the following parts:  
- Camshaft lateral surface" ...)  
which is the reason for the 2nd PDF with the unsigned 8D, with the same contents, but in 3 pages.

With best wishes

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> \*\*\*\*\*  
Volkswagen Sachsen GmbH  
Domicile/Sitz: Zwickau  
Court of Registry/Registergericht: Amtsgericht Chemnitz  
HRB no./ Commercial Register no.: 1666  
Chairman of the Supervisory Board/Vorsitzender des Aufsichtsrats: Hubert Waltl  
Executive Directors/Geschäftsführer: Hans-Joachim Rothenpieler (Speaker/Managing Director),  
Henry Mehnert, Robert Stauß

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**From:** Non-responsive content removed  
**To:**  
**CC:**

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**Date:** 3/23/2011 8:26:10 AM  
**Topic:** 8D reports Bosch high-pressure pumps  
**Attachments:** [15.03.11-8D-Bericht 4VW923.pdf](#)  
[23.03.2011- Voranalyse- HD-Pumpen US07.pdf](#)  
[15.03.11-8D-Bericht 4VW924.pdf](#)  
[15.03.11-8D-Bericht 4VW928.pdf](#)  
[15.03.11--8D-Bericht 4VW926.pdf](#)  
[15.03.11--8D-Bericht 4VW937.pdf](#)  
[15.03.11--8D-Bericht 4VW936.pdf](#)

Dear Mr. Non-responsive content removed

Attached are more 8D reports from Bosch for the delivered high-pressure pumps from USA. Data has been incorporated in the table.

Total: 6 x 8D reports; Cause: 6 x improper fuel

With best wishes

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> \*\*\*\*\*

Volkswagen Sachsen GmbH  
Domicile/Sitz: Zwickau  
Court of Registry/Registergericht: Amtsgericht Chemnitz  
HRB no./ Commercial Register no.: 1666  
Chairman of the Supervisory Board/Vorsitzender des Aufsichtsrats: Hubert Waltl  
Executive Directors/Geschäftsführer: Hans-Joachim Rothenpieler (Speaker/Managing Director),  
Henry Mehnert, Robert Stauß

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EA11003EN-00717[0]

Ser. no.	No. USA	Vehicle identification No.	HP Data Bosch	HP Data Bosch	HP Data Bosch	KM LL (Mileage)	Engine No.	CP4 date	Customer complaint	Results of Pre - analysis	Further components for Complaint	Comments activities from pre-analysis	Analysis Bosch	Analysis Bosch
1	10	Non-responsive content removed	02240709	BPT1133	0007	28,756	CJA010361	8/7/2009 C,C	Metal chips in fuel system	PTD - Metal wear in metering unit pump chamber and strainer	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Inappropriate fuel - 8D report - 1/12/2011
2	16		04130210	BPT0234	Without	18,121	CJA024847	2/16/2010 S,C	Metal chips in fuel system	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted - corrective action deployed - 1/14/2011
3	20		04170410	BPT0468	Without	7,375	CJA056043	4/28/2010 S,C	does not start - P0087 fuel - system pressure too low	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
4	28		01040310	BPT0267	Without	8,084	CJA046361	3/15/2010 S,C	P0087 - Fuel System pressure too low	Plug of the HP pump broken - v.m. - PTD	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
5	29		01080909	BPT0250	0007	15,976	CJA016478	9/17/2009 C,C	P0087 - Fuel system pressure too low does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
6	39		04300310	BPT0048	Without	4,868	CJA051563	4/8/2010 S,C	P0087 - Fuel System pressure too low	PTD - Metal wear in metering unit pump chamber and strainer	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Deposits- inappropriate fuel - 8D report - 3/8/2011
7	50		01301009	BPT0240	0007	787	CJA025097	11/10/2009 C,C	Metal chips in fuel system	no metering unit metal chips found, filter checked - particles are suspected	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	Deposits- inappropriate fuel - 8D report - 3/8/2011
8	62		04190410	BPT0430	Without	3,112	CJA056466	4/30/2010 S,C	no output	no metering unit metal chips found, filter checked - particles are suspected	4 x injectors	For further analysis the 4 injectors were given to Bosch	8D report about the Injectors available - all OK 1/3/2011	
9	73		02060210	BPT0909	Without	10,234	CJA041107	2/17/2010 S,C	Metal chips in fuel system	no metering unit metal chips found, filter checked - particles are suspected	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report 01/25/11
10	81		04240909	BPT0839	0007	15,542	CJA019335	10/5/2009 C,C	P0087 - Fuel system pressure too low does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted - corrective action deployed - 1/13/2011
11	82a		04240609	BPT0400	0007	15,293	CJA005671	6/30/2009 C,C	P0087- and metal chips in system	PTD - Metal wear in metering unit pump chamber and strainer		P0087	Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
12	83		02051109	BPT1352	0007	2,931	CJA026490	11/17/2009 C,C	Does not start - electr. fault	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted - corrective action deployed - 1/13/2011
13	84		01090110	BPT1242	Without	12,389	CJA035025	1/20/2010 S,C	P0087 - Fuel System pressure too low - 5 faults	no metering unit metal chips found, filter checked - particles are suspected			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
14	85		04110509	BPT0798	0006	22,726	CJA003401	5/27/2009 C,C	Does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
15	86		01050110	BPT1386	Without	8,953	CJA033742	1/14/2010 S,C	P0087 - Fuel system pressure too low metal chips in the filter	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by Bosch accepted - corrective action deployed - 01/13/11
16	88		02280410	BPT1037	Without	23	CJA056684	4/30/2010 S,C	P0087 - Fuel System pressure too low	no metering unit metal chips found, filter checked - particles are suspected			Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report 01/25/11
17	89		01170909	BPT1336	0007	20,922	CJA017951	9/24/2009 C,C	Metal chips in Fuel system, P013B	PTD - Metal wear in metering unit pump chamber and strainer		For further analysis the 4 injectors were given to Bosch	8D report about the Injectors available - all OK - 1/3/2011	Deposits - inappropriate fuel - 8D report - 1/12/11
18	90		02151009	BPT0930	0007	7,684	CJA023120	10/27/2009 C,C	no output	no metering unit metal chips found, filter checked - particles are suspected	4 x injectors	Handover for analysis / 8D report - 12/7/2010	8D report about the Injectors available - all OK 1/3/2011	No defect verified - HP pump - 8D report - 01/25/11

EA11003EN-00717[1]

19	91	Non-responsive content removed	04130210	BPT0347	Without	11,335	CJA042927	2/26/2010 S,C	P0087/P0088 - Fuel System pressure too low -5 faults	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/14/11
20	92		01171009	BPT0891	0007	20,902	CJA023595	10/29/2009 C,C	Metal chips in Fuel system	no metering unit metal chips found, filter checked - particles are suspected	2x injectors	For further analysis the 2 injectors were given to Bosch	8D report about the Injectors available - all OK 1/3/2011	HP pump - no defect verified - 8D report 1/25/2011
21	93		02020909	BPT0447	0007	19,355	CJA015510	9/12/2009 C,C		PTD - Metal wear in metering unit pump chamber and strainer	4 x injector 1 x distributor rail 1 x holder inline EFP	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
22	94		01090509	BPT1015	0006	42,541	CJA003123	5/25/2009 C,C	Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
23	95		02190110	BPT0056	Without	9,280	CJA037049	1/29/2010 S,C	P0087 - Fuel System pressure too low Does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
24	96		01120509	BPT1015	0006	38,984	CJA003834	6/4/2009 C,C	Does not start	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by Bosch accepted - corrective actions deployed - 1/14/20
25	97		01180909	BPT1167	0007	10,156	CJA018611	9/30/2009 C,C	Starts poorly - metal chips in the filter	no metering unit metal chips found, filter checked - particles are suspected	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	8D report - Corrosion deposits - fuel OK - 2/1/11
26	98		01301009	BPT0900	0007	5,882	CJA025311	11/10/2009 C,C	P0087 - Fuel System pressure too low	no metering unit metal chips found, filter checked -	4 x injectors, 1 x Pressure control valve	Pressure control valve for analysis Handed over to Bosch	Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report 01/25/11
27	100		04260809	BPT0311	0007	13,694	CJA014411	9/7/2009 C,C	P0087 - Fuel System pressure too low	PTD - Metal wear in ZME pump room - delivered without ZME	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by Bosch accepted - corrective actions deployed - 1/14/20
28	104		01070809	BPT0767	0007	38,082	CJA011934	8/20/2009 C,C	Dismantled by changing the engine - complaint unknown	no metering unit metal chips found, HP pump change by changing the engine			Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report 01/25/11
29	82		02021009	BPT0345	0007	8,400	CJA020853	10/13/2009 C,C	Leakages	no metal chips at the ZME sieve and pump room found			Handover for analysis / 8D report 05.01.11-	No defect verified - 8D report - 1/21/11
30	99		02180310	BPT0433	Without	6,996	CJA049352	3/29/2010 S,C	Engine does not start - P0877	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report 05.01.11-	Inappropriate fuel - 8D report - 1/21/11
31	102		04030909	BPT0849	0007	9,551	CJA015659	9/12/2009 C,C	Vibration and sounds	no metal chips at the metering unit strainer and pump			Handover for analysis / 8D report 05.01.11-	8D report - no defect verified - 2/1/2011
32	105	01150909	BPT0169	0007	16,311	CJA017656	9/23/2009 C,C	Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report 05.01.11-	8D report - PTD by Bosch accepted - corrective actions deployed - 3/8/2011	

starting from 1/1/2011

33	126	Non-responsive content removed	02020909	BPT0143	0007	20,859	CJA015246	9/11/2009 C,C	P0087 - metal chips in fuel system	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel / 8D report 3/1/11
34	127		04140708	BPT0836	0005	32,025	CBE008173	7/23/2008	Check lamp on, metal chips	Brown particles can be seen in the metering unit room and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel - 8D report - 2/28/11
35	128		04190410	BPT0483	Without		CJA056376	4/29/2010	Engine does not start, glow plug check lamp on P0087 - metal chips	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	8D report - PTD by Bosch accepted - corrective actions deployed - 1/14/20
36	129		01160808	BPT0464	0005	38,705	CBE015576	9/9/2008 C,C	Engine does not start again - metal chips in the filter	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel / 8D report 3/1/11
37	130		04090410	BPT0086	Without	20,283	CJA033742	1/14/2010 S,C		PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel - 8D report - 2/28/11
38	131		04251109	BPT0898	0007	8,414	CJA029969	12/7/2009 S,C	Engine does not start again - metal chips in the filter	no metal chips at the ZME sieve and pump room found			Handover for analysis / 8D report - 2/9/2011	No defect verified - 8D report 3/22/2011



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39	A	Non-responsive content removed	01201209	BPT0321	Without	15,109	CJA033033	1/11/2010 S,C	Metal chips fuel filter	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/22/2011
40	20		02220110	BPT0226	Without	11,955	CJA038037	2/3/2010 S,C	Sounds - 21 fault stored control device	brownish deposits - metering unit absent!	4 x injectors		Handover for analysis / 8D report - 2/22/2011	
41	61		02051009	BPT0007	Without	19,773	CJA039871	2/11/2010 S,C	P0191, P0087 - generator Fuel pressure	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report - 2/22/2011	
42	105		02140508	BPT0927	0004		CJA017656	9/23/2009 C,C		PTD - Metal wear in metering unit pump chamber and strainer - brownish colouring	4 x injectors		Handover for analysis / 8D report - 2/22/2011	
43	109		04020810	BPT0039	Without	9	CJA078570	8/11/2010 S,C	Leaking - fuel loss	Leakage at shaft sealing ring - <b>known problem</b>			Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/23/2011
44	110		04140209	BPT0304	0006		CJA018611	9/3/2009 C,C	Engine stalls - switch gear 1 to 2	no metal chips at the metering unit strainer and pump chamber found	4 x injectors		Handover for analysis / 8D report - 2/22/2011	No defect verified - 8D report - 3/22/2011
45	111		06030810	BPT1020	Without	176	CJA078881	8/12/2010 S,C	Leaking at the HP pump front side	Oil seal leakage - <b>known problem</b>			Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/23/2011
46	112		02240909	BPT1189	Without	32,250	CJA020378	1/12/2009 C,C	Metal chips fuel filter	no metal chips at the metering unit strainer and pump chamber found	4 x injectors		Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/22/2011
47	113		02150110	BPT0368	Without	19,955	CJA036555	1/27/2010 S,C	Does not start - goes out	PTD - Metal wear in metering unit pump chamber			Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/23/2011
48	114		02020110	BPT0021	Without	20,193	CJA033014	1/11/2010 S,C	P009, P0183 - Valve f. fuel dos.	PTD - Metal wear in metering unit pump chamber			Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/23/2011
49	115		01071009	BPT1305	0007	5,655	CJA012541	8/26/2009 C,C	Does not start, deposits in the HP pump	no metal chips at the metering unit strainer and pump chamber found	4 x injectors		Handover for analysis / 8D report - 2/22/2011	No defect verified - 8D report - 3/22/2011
50	118		04110509	BPT0732	Without	19067	CJA003440	5/25/2009 C,C	Metal chips fuel filter	PTD - Metal wear in metering unit pump chamber			Handover for analysis / 8D report - 2/22/2011	
51	119		04240909	BPT0739	0007	3055	CJA019260	10/5/2009 C,C	Does not start	PTD - Metal wear in metering unit pump chamber - delivered without metering unit			Handover for analysis / 8D report - 2/22/2011	8D report - PTD by Bosch accepted - corrective actions deployed - 3/22/2011
52	120		01140809	BPT0672	Without	20,000	CJA013216	8/28/2009 C,C	Does not start, after filling the fuel	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/22/2011	
53	121		04230610	BPT1301	Without	150	CJA070452	7/8/2010 S,C	P0087 - mechan. defect, filter chips	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report - 2/22/2011	No defect verified - 8D report - 3/22/2011
54	122		04020608	BPT0210	Without	44,922	CJA006136	7/11/2008 C,C	Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/22/2011	
55	123		02050809	BPT0688	0007	24,254	CJA011284	8/18/2009 C,C	P0087 - Filter chips	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors		Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/23/2011
56	124	02020210	BPT0345	Without	2289	CJA021338	10/15/2009 C,C	P0087 - Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer	delivered without metering unit		Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/23/2011	
57	125	02180709	BPT1107	Without	10,441	CJA051959	4/12/2010 S,C	P0087 - Engine does not start	no metal chips at the metering unit strainer and pump chamber found	4 x injectors		Handover for analysis / 8D report - 2/22/2011		

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EA11003EN-00717[4]

EA11003EN-00717[5]

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EA11003EN-00717[34]



**From:** Non-responsive content removed  
**To:**  
**CC:**

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**Date:** 3/4/2011 10:57:38 AM  
**Topic:** High-pressure pumps analysis 2.0l-103kW CR Us07  
**Attachments:** [04.03.11-Analyse HD-Pumpen-Chemnitz.pdf](#)  
[28.02.11-8D-Bericht 4VW910.pdf](#)  
[28.02.11-8D-Bericht 4VW908.pdf](#)  
[01.03.11-8D-Bericht 4VW913.pdf](#)  
[01.03.11-8D-Bericht 4VW912.pdf](#)

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Attached are the analysis status and 8D reports for the high-pressure fuel pumps delivered to [REDACTED]

With best wishes

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> \*\*\*\*\*  
Volkswagen Sachsen GmbH  
Domicile/Sitz: Zwickau  
Court of Registry/Registergericht: Amtsgericht Chemnitz  
HRB no./. Commercial Register no.: 1666  
Chairman of the Supervisory Board/Vorsitzender des Aufsichtsrats: Hubert Waltl  
Executive Directors/Geschäftsführer: Hans-Joachim Rothenpieler (Speaker/Managing Director),  
Henry Mehnert, Robert Stauß

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EA11003EN-00719[0]

Ser. no.	No. USA	Vehicle identification No.	HP Data Bosch	HP Data Bosch	HP Data Bosch	KM LL (Mileage)	Engine No.	CP4 date	Customer complaint	Results of Pre - analysis	Further components for Complaint	Comments activities from pre-analysis	Analysis Bosch	Analysis Bosch
1	10	Non-responsive content removed	02240709	BPT1133	0007	28,756	CJA010361	8/7/2009 C,C	Metal chips in fuel system	PTD - Metal wear in metering unit pump chamber and strainer	1x change filter 1x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Inappropriate fuel - 8D report - 1/12/2011
2	16		04130210	BPT0234	Without	18,121	CJA024847	2/16/2010 S,C	Metal chips in fuel system	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted - corrective action deployed - 1/14/2011
3	20		04170410	BPT0468	Without	7,375	CJA056043	4/28/2010 S,C	does not start - P0087 - fuel syst pr too low	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
4	28		01040310	BPT0267	Without	8,084	CJA046361	3/15/2010 S,C	P0087 - Fuel System pressure too low	Plug of the HP pump broken - v.m. - PTD	1x change filter 1x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
5	29		01080909	BPT0250	0007	15,976	CJA016478	9/17/2009 C,C	P0087 - Fuel system pressure too low does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer	1x change filter 1x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
6	39		04300310	BPT0048	Without	4,868	CJA051563	4/8/2010 S,C	P0087 - Fuel System pressure too low	PTD - Metal wear in metering unit pump chamber and strainer	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	
7	50		01301009	BPT0240	0007	787	CJA025097	11/10/2009 C,C	Metal chips in fuel system	no metering unit metal chips found, filter checked - particles are suspected	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	
8	62		04190410	BPT0430	Without	3,112	CJA056466	4/30/2010 S,C	no output	no metering unit metal chips found, filter checked - particles are suspected		For further analysis the 4 injectors were given to Bosch	8D report about the injectors available - all OK 1/3/2011	
9	73		02060210	BPT0909	Without	10,234	CJA041107	2/17/2010 S,C	Metal chips in fuel system	no metering unit metal chips found, filter checked - particles are suspected	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report - 01/25/11
10	81		04240909	BPT0839	0007	15,542	CJA019335	10/5/2009 C,C	P0087 - Fuel system pressure too low does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted - corrective action deployed - 1/13/2011
11	82a		04240609	BPT0400	0007	15,293	CJA005671	6/30/2009 C,C	P0087 - and metal chips in system	PTD - Metal wear in metering unit pump chamber and strainer		P0087	Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
12	83		02051109	BPT1352	0007	2,931	CJA026490	11/17/2009 C,C	Does not start - electr. fault	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted - corrective action deployed - 1/13/2011
13	84		01090110	BPT1242	Without	12,389	CJA035025	1/20/2010 S,C	P0087 - Fuel System pressure too low - 5 faults	no metering unit metal chips found, filter checked - particles are suspected			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
14	85		04110509	BPT0798	0006	22,726	CJA003401	5/27/2009 C,C	Does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
15	86		01050110	BPT1386	Without	8,953	CJA033742	1/14/2010 S,C	P0087 - Fuel system pressure too low metal chips in the filter	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by Bosch accepted - corrective action deployed - 01/13/11
16	88		02280410	BPT1037	Without	23	CJA056684	4/30/2010 S,C	P0087 - Fuel System pressure too low	no metering unit metal chips found, filter checked - particles are suspected			Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report - 01/25/11
17	89		01170909	BPT1336	0007	20,922	CJA017951	9/24/2009 C,C	Metal chips in Fuel system, P013B	PTD - Metal wear in metering unit pump chamber and strainer		For further analysis the 4 injectors were given to Bosch	8D report about the injectors available - all OK - 1/3/2011	Deposits - inappropriate fuel - 8D report - 1/12/11
18	90		02151009	BPT0930	0007	7,684	CJA023120	10/27/2009 C,C	no output	no metering unit metal chips found, filter checked - particles are suspected	4 x injectors	Handover for analysis / 8D report - 12/7/2010	8D report about the injectors available - all OK 1/3/2011	No defect verified - HP pump - 8D report - 01/25/11

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19	91	Non-responsive content removed	04130210	BPT0347	Without	11,335	CJA042927	2/26/2010 S,C	P0087/P0088 - Fuel System pressure too low - 5 faults	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/14/11
20	92		01171009	BPT0891	0007	20,902	CJA023595	10/29/2009 C,C	Metal chips in Fuel system	no metering unit metal chips found, filter checked - particles are suspected	2x injectors	For further analysis the 2 injectors were given to Bosch	8D report about the injectors available - all OK 1/3/2011	HP pump - no defect verified - 8D report 1/25/2011
21	93		02020909	BPT0447	0007	19,355	CJA015510	9/12/2009 C,C		PTD - Metal wear in metering unit pump chamber and strainer	4 x injector 1 x distributor rail 1 x holder inline EFP	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
22	94		01090509	BPT1015	0006	42,541	CJA003123	5/25/2009 C,C	Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
23	95		02190110	BPT0056	Without	9,280	CJA037049	1/29/2010 S,C	P0087 - Fuel System pressure too low Does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
24	96		01120509	BPT1015	0006	38,984	CJA003834	6/4/2009 C,C	Does not start	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by Bosch accepted - corrective actions deployed - 1/14/20
25	97		01180909	BPT1167	0007	10,156	CJA018611	9/30/2009 C,C	Starts poorly - metal chips in the filter	no metering unit metal chips found, filter checked - particles are suspected	1x change filter 1x Fuel filter		Handover for analysis / 8D report - 12/7/2010	8D report - Corrosion deposits - fuel OK - 2/1/11
26	98		01301009	BPT0900	0007	5,882	CJA025311	11/10/2009 C,C	P0087 - Fuel System pressure too low	no metering unit metal chips found, filter checked - particles are suspected	4 x injectors, 1 x Pressure control valve	Pressure control valve for analysis Handed over to Bosch	Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report - 01/25/11
27	100		04260809	BPT0311	0007	13,694	CJA014411	9/7/2009 C,C	P0087 - Fuel System pressure too low	PTD - Metal wear in ZME pump room - delivered without ZME	1x change filter 1x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by Bosch accepted - corrective actions deployed - 1/14/20
28	104		01070809	BPT0767	0007	38,082	CJA011934	8/20/2009 C,C	Dismantled by changing the engine - complaint unknown	no metering unit metal chips found, HP pump change by changing the engine			Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report - 01/25/11
29	82		02021009	BPT0345	0007	8,400	CJA020853	10/13/2009 C,C	Leakages	no metal chips at the ZME sieve and pump room found			Handover for analysis / 8D report 05.01.11-	No defect verified - 8D report - 1/21/11
30	99		02180310	BPT0433	Without	6,996	CJA049352	3/29/2010 S,C	Engine does not start - P0877	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report 05.01.11-	Inappropriate fuel - 8D report - 1/21/11
31	102		04030909	BPT0849	0007	9,551	CJA015659	9/12/2009 C,C	Vibration and sounds	no metal chips at the metering unit strainer and pump chamber			Handover for analysis / 8D report 05.01.11-	8D report - no defect verified - 2/1/2011
32	105	01150909	BPT0169	0007	16,311	CJA017656	9/23/2009 C,C	Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report 05.01.11-		

starting from 1/1/2011

33	126	Non-responsive content removed	02020909	BPT0143	0007	20,859	CJA015246	9/11/2009 C,C	P0087 - metal chips in fuel system	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel - 8D report - 3/1/11
34	127		04140708	BPT0836	0005	32,025	CBE008173	7/23/2008	Check lamp on, metal chips	Brown particles can be seen in the metering unit room and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel - 8D report - 2/28/11
35	128		04190410	BPT0483	Without		CJA056376	4/29/2010	Engine does not start, glow plug check lamp on P0087 - metal chips	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	8D report - PTD by Bosch accepted - corrective actions deployed - 1/14/20
36	129		01160808	BPT0464	0005	38,705	CBE015576	9/9/2008 C,C	Engine does not start again - metal chips in the filter	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel / 8D report - 3/1/11
37	130		04090410	BPT0086	Without	20,283	CJA033742	1/14/2010 S,C		PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel - 8D report - 2/28/11
38	131		04251109	BPT0898	0007	8,414	CJA029969	12/7/2009 S,C	Engine does not start again - metal chips in the filter	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report - 2/9/2011	
39	A		01201209	BPT0321	Without	15,109	CJA033033	1/11/2010 S,C	Metal chips fuel filter	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report - 2/22/2011	

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40	20	Non-responsive content removed	02220110	BPT0226	Without	11,955	CJA038037	2/3/2010 S,C	Sounds - 21 fault stored control device	brownish deposits - metering unit absent!	4 x injectors		Handover for analysis / 8D report - 2/22/2011	
41	61		02051009	BPT0007	Without	19,773	CJA039871	2/11/2010 S,C	P0191, P0087 - generator Fuel pressure	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report - 2/22/2011	
42	105		02140508	BPT0927	0004		CJA017656	9/23/2009 C,C		PTD - Metal wear in metering unit pump chamber and strainer - brownish colouring	4 x injectors		Handover for analysis / 8D report - 2/22/2011	
43	109		04020810	BPT0039	Without	9	CJA078570	8/11/2010 S,C	Leaking - fuel loss	Leakage at shaft sealing ring - <b>known problem</b>			Handover for analysis / 8D report - 2/22/2011	
44	110		04140209	BPT0304	0006		CJA018611	9/3/2009 C,C	Engine stalls - switch gear 1 to 2	no metal chips at the metering unit strainer and pump chamber found	4 x injectors		Handover for analysis / 8D report - 2/22/2011	
45	111		06030810	BPT1020	Without	176	CJA078881	8/12/2010 S,C	Leaking at the front side HP pump	Oil seal leakage - <b>known Problem</b>			Handover for analysis / 8D report - 2/22/2011	
46	112		02240909	BPT1189	Without	32,250	CJA020378	1/12/2009 C,C	Metal chips fuel filter	no metal chips at the metering unit strainer and pump chamber found	4 x injectors		Handover for analysis / 8D report - 2/22/2011	
47	113		02150110	BPT0368	Without	19,955	CJA036555	1/27/2010 S,C	Does not start - goes out	PTD - Metal wear in metering unit pump chamber			Handover for analysis / 8D report - 2/22/2011	
48	114		02020110	BPT0021	Without	20,193	CJA033014	1/11/2010 S,C	P009, P0183 - Valve f. fuel dos.	PTD - Metal wear in metering unit pump chamber			Handover for analysis / 8D report - 2/22/2011	
49	115		01071009	BPT1305	0007	5,655	CJA012541	8/26/2009 C,C	Does not start, deposits in the HP pump	no metal chips at the metering unit strainer and pump chamber found	4 x injectors		Handover for analysis / 8D report - 2/22/2011	
50	118		04110509	BPT0732	Without	19067	CJA003440	5/25/2009 C,C	Metal chips fuel filter	PTD - Metal wear in metering unit pump chamber			Handover for analysis / 8D report - 2/22/2011	
51	119		04240909	BPT0739	0007	3055	CJA019260	10/5/2009 C,C	Does not start	PTD - Metal wear in metering unit pump chamber - delivered without metering unit			Handover for analysis / 8D report - 2/22/2011	
52	120		01140809	BPT0672	Without	20,000	CJA013216	8/28/2009 C,C	Does not start, after filling the fuel	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/22/2011	
53	121		04230610	BPT1301	Without	150	CJA070452	7/8/2010 S,C	P0087 - mechan. fault, filter chips	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report - 2/22/2011	
54	122		04020608	BPT0210	Without	44,922	CJA006136	7/11/2008 C,C	Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/22/2011	
55	123		02050809	BPT0688	0007	24,254	CJA011284	8/18/2009 C,C	P0087 - Filter chips	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors		Handover for analysis / 8D report - 2/22/2011	
56	124		02020210	BPT0345	Without	2289	CJA021338	10/15/2009 C,C	P0087 - Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer	delivered without metering unit		Handover for analysis / 8D report - 2/22/2011	
57	125	02180709	BPT1107	Without	10,441	CJA051959	4/12/2010 S,C	P0087 - Engine does not start	no metal chips at the metering unit strainer and pump chamber found	4 x injectors		Handover for analysis / 8D report - 2/22/2011		

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**Date:** 3/15/2011 12:43:21 PM  
**Topic:** 8D reports high-pressure fuel pump analysis  
**Attachments:** [08.03.11--8D-Bericht 4VW850.pdf](#)  
[08.03.11--8D-Bericht 4vw825.pdf](#)  
[08.03.11--8D-Bericht 4vw824.pdf](#)  
[09..03.2011- Voranalyse- HD-Pumpen US07.pdf](#)

Dear Mr. Non-responsive content removed

Attached are the pending 8D reports from Bosch. Data is incorporated in the table.

With best wishes

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Volkswagen Sachsen GmbH  
Domicile/Sitz: Zwickau  
Court of Registry/Registergericht: Amtsgericht Chemnitz  
HRB no./ Commercial Register no.: 1666  
Chairman of the Supervisory Board/Vorsitzender des Aufsichtsrats: Hubert Waltl  
Executive Directors/Geschäftsführer: Hans-Joachim Rothenpieler (Speaker/Managing Director),  
Henry Mehnert, Robert Stauß

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EA11003EN-00721[0]

Ser. no.	No. USA	Vehicle identification No.	HP Data Bosch	HP Data Bosch	HP Data Bosch	KM LL (Mileage)	Engine No.	CP4 date	Customer complaint	Results of Pre - analysis	Further components for Complaint	Comments activities from pre-analysis	Analysis Bosch	Analysis Bosch
1	10	Non-responsive content removed	02240709	BPT1133	0007	28,756	CJA010361	8/7/2009 C,C	Metal chips in fuel system	PTD - Metal wear in metering unit pump chamber and strainer	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Inappropriate fuel - 8D report 1/12/2011
2	16		04130210	BPT0234	Without	18,121	CJA024847	2/16/2010 S,C	Metal chips in fuel system	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted - corrective action deployed - 1/14/2011
3	20		04170410	BPT0468	Without	7,375	CJA056043	4/28/2010 S,C	does not start - P0087 - fuel syst pr too low	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
4	28		01040310	BPT0267	Without	8,084	CJA046361	3/15/2010 S,C	P0087 - Fuel System pressure too low	Plug of the HP pump broken - v.m. - PTD	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
5	29		01080909	BPT0250	0007	15,976	CJA016478	9/17/2009 C,C	P0087 - Fuel system pressure too low does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
6	39		04300310	BPT0048	Without	4,868	CJA051563	4/8/2010 S,C	P0087 - Fuel System pressure too low	PTD - Metal wear in metering unit pump chamber and strainer	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Deposits- inappropriate fuel - 8D report - 3/8/2011
7	50		01301009	BPT0240	0007	787	CJA025097	11/10/2009 C,C	Metal chips in fuel system	no metering unit metal chips found, filter checked - particles are suspected	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	Deposits- inappropriate fuel - 8D report - 3/8/2011
8	62		04190410	BPT0430	Without	3,112	CJA056466	4/30/2010 S,C	no output	no metering unit metal chips found, filter checked - particles are suspected	4 x injectors	For further analysis the 4 injectors were given to Bosch	8D report about the Injectors available - all OK 1/3/2011	
9	73		02060210	BPT0909	Without	10,234	CJA041107	2/17/2010 S,C	Metal chips in fuel system	no metering unit metal chips found, filter checked - particles are suspected	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report - 01/25/11
10	81		04240909	BPT0839	0007	15,542	CJA019335	10/5/2009 C,C	P0087 - Fuel system pressure too low does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted - corrective action deployed - 1/13/2011
11	82a		04240609	BPT0400	0007	15,293	CJA005671	6/30/2009 C,C	P0087- and metal chips in system	PTD - Metal wear in metering unit pump chamber and strainer		P0087	Handover for analysis / 8D report - 12/7/2010	Deposits- inappropriate fuel - 8D report - 1/12/11
12	83		02051109	BPT1352	0007	2,931	CJA026490	11/17/2009 C,C	Does not start - electr. fault	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted - corrective action deployed - 1/13/2011
13	84		01090110	BPT1242	Without	12,389	CJA035025	1/20/2010 S,C	P0087 - Fuel System pressure too low - 5 faults	no metering unit metal chips found, filter checked - particles are suspected			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
14	85		04110509	BPT0798	0006	22,726	CJA003401	5/27/2009 C,C	Does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
15	86		01050110	BPT1386	Without	8,953	CJA033742	1/14/2010 S,C	P0087 - Fuel system pressure too low metal chips in the filter	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by Bosch accepted - corrective action deployed - 01/13/11
16	88		02280410	BPT1037	Without	23	CJA056684	4/30/2010 S,C	P0087 - Fuel System pressure too low	no metering unit metal chips found, filter checked - particles are suspected			Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report - 01/25/11
17	89		01170909	BPT1336	0007	20,922	CJA017951	9/24/2009 C,C	Metal chips in Fuel system, P013B	PTD - Metal wear in metering unit pump chamber and strainer		For further analysis the 4 injectors were given to Bosch	8D report about the Injectors available - all OK - 1/3/2011	Deposits- inappropriate fuel - 8D report - 1/12/11
18	90		02151009	BPT0930	0007	7,684	CJA023120	10/27/2009 C,C	no output	no metering unit metal chips found, filter checked - particles are suspected	4 x injectors	Handover for analysis / 8D report - 12/7/2010	8D report about the Injectors available - all OK 1/3/2011	No defect verified - HP pump - 8D report - 01/25/11

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19	91	Non-responsive content removed	04130210	BPT0347	Without	11,335	CJA042927	2/26/2010 S,C	P0087/P0088 - Fuel System pressure too low - 5 faults	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/14/11
20	92		01171009	BPT0891	0007	20,902	CJA023595	10/29/2009 C,C	Metal chips in Fuel system	no metering unit metal chips found, filter checked - particles are suspected	2x injectors	For further analysis the 2 injectors were given to Bosch	8D report about the Injectors available - all OK 1/3/2011	HP pump - no defect verified - 8D report 1/25/2011
21	93		02020909	BPT0447	0007	19,355	CJA015510	9/12/2009 C,C		PTD - Metal wear in metering unit pump chamber and strainer	4 x injector 1 x distributor rail 1 x holder inline EFP	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
22	94		01090509	BPT1015	0006	42,541	CJA003123	5/25/2009 C,C	Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
23	95		02190110	BPT0056	Without	9,280	CJA037049	1/29/2010 S,C	P0087 - Fuel System pressure too low Does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
24	96		01120509	BPT1015	0006	38,984	CJA003834	6/4/2009 C,C	Does not start	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by Bosch accepted - corrective actions deployed - 1/14/20
25	97		01180909	BPT1167	0007	10,156	CJA018611	9/30/2009 C,C	Starts poorly - metal chips in the filter	no metering unit metal chips found, filter checked - particles are suspected	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	8D report - Corrosion deposits - fuel OK - 2/1/11
26	98		01301009	BPT0900	0007	5,882	CJA025311	11/10/2009 C,C	P0087 - Fuel System pressure too low	no metering unit metal chips found, filter checked - particles are suspected	4 x injectors, 1 x Pressure control valve	Pressure control valve for analysis Handed over to Bosch	Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report - 01/25/11
27	100		04260809	BPT0311	0007	13,694	CJA014411	9/7/2009 C,C	P0087 - Fuel System pressure too low	PTD - Metal wear in ZME pump room - delivered without ZME	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by Bosch accepted - corrective actions deployed - 1/14/20
28	104		01070809	BPT0767	0007	38,082	CJA011934	8/20/2009 C,C	Dismantled by changing the engine - complaint unknown	no metering unit metal chips found, HP pump change by changing the engine			Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report - 01/25/11
29	82		02021009	BPT0345	0007	8,400	CJA020853	10/13/2009 C,C	Leakages	no metal chips at the ZME sieve and pump room found			Handover for analysis / 8D report 05.01.11-	No defect verified - 8D report - 1/21/11
30	99		02180310	BPT0433	Without	6,996	CJA049352	3/29/2010 S,C	Engine does not start - P0877	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report 05.01.11-	Inappropriate fuel - 8D report - 1/21/11
31	102		04030909	BPT0849	0007	9,551	CJA015659	9/12/2009 C,C	Vibration and sounds	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report 05.01.11-	8D report - no defect verified - 2/1/2011
32	105		01150909	BPT0169	0007	16,311	CJA017656	9/23/2009 C,C	Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report 05.01.11-	8D report - PTD by Bosch accepted - corrective actions deployed - 3/8/2011

starting from 1/1/2011

33	126	Non-responsive content removed	02020909	BPT0143	0007	20,859	CJA015246	9/11/2009 C,C	P0087 - metal chips in fuel system	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel / 8D report - 3/1/11
34	127		04140708	BPT0836	0005	32,025	CBE008173	7/23/2008	Check lamp on, metal chips	Brown particles can be seen in the metering unit room and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel - 8D report - 2/28/11
35	128		04190410	BPT0483	Without		CJA056376	4/29/2010	Engine does not start, glow plug check lamp on P0087 - metal chips	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	8D report - PTD by Bosch accepted - corrective actions deployed - 1/14/20
36	129		01160808	BPT0464	0005	38,705	CBE015576	9/9/2008 C,C	Engine does not start again - metal chips in the filter	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel / 8D report - 3/1/11
37	130		04090410	BPT0086	Without	20,283	CJA033742	1/14/2010 S,C		PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel - 8D report - 2/28/11
38	131		04251109	BPT0898	0007	8,414	CJA029969	12/7/2009 S,C	Engine does not start again - metal chips in the filter	no metal chips at the ZME sieve and pump room found			Handover for analysis / 8D report - 2/9/2011	

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39	A	Non-responsive content removed	01201209	BPT0321	Without	15,109	CJA033033	1/11/2010 S,C	Metal chips fuel filter	no metal chips at the metering unit strainer and pump chamber			Handover for analysis / 8D report - 2/22/2011
40	20		02220110	BPT0226	Without	11,955	CJA038037	2/3/2010 S,C	Sounds - 21 fault stored control device	brownish deposits - metering unit absent!	4 x injectors		Handover for analysis / 8D report - 2/22/2011
41	61		02051009	BPT0007	Without	19,773	CJA039871	2/11/2010 S,C	P0191, P0087 - generator Fuel pressure	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report - 2/22/2011
42	105		02140508	BPT0927	0004		CJA017656	9/23/2009 C,C		PTD - Metal wear in metering unit pump chamber and strainer - brownish colouring	4 x injectors		Handover for analysis / 8D report - 2/22/2011
43	109		04020810	BPT0039	Without	9	CJA078570	8/11/2010 S,C	Leaking - fuel loss	Leakage at shaft sealing ring - <b>known problem</b>			Handover for analysis / 8D report - 2/22/2011
44	110		04140209	BPT0304	0006		CJA018611	9/3/2009 C,C	Engine stalls - switch gear 1 to 2	no metal chips at the metering unit strainer and pump chamber found	4 x injectors		Handover for analysis / 8D report - 2/22/2011
45	111		06030810	BPT1020	Without	176	CJA078881	8/12/2010 S,C	Leaking at the front side HP pump	Oil seal leakage - <b>known problem</b>			Handover for analysis / 8D report - 2/22/2011
46	112		02240909	BPT1189	Without	32,250	CJA020378	1/12/2009 C,C	Metal chips fuel filter	no metal chips at the metering unit strainer and pump chamber found	4 x injectors		Handover for analysis / 8D report - 2/22/2011
47	113		02150110	BPT0368	Without	19,955	CJA036555	1/27/2010 S,C	Does not start - goes out	PTD - Metal wear in metering unit pump chamber			Handover for analysis / 8D report - 2/22/2011
48	114		02020110	BPT0021	Without	20,193	CJA033014	1/11/2010 S,C	P009, P0183 - Valve f. fuel dos.	PTD - Metal wear in metering unit pump chamber			Handover for analysis / 8D report - 2/22/2011
49	115		01071009	BPT1305	0007	5,655	CJA012541	8/26/2009 C,C	Does not start, deposits in the HP pump	no metal chips at the metering unit strainer and pump chamber found	4 x injectors		Handover for analysis / 8D report - 2/22/2011
50	118		04110509	BPT0732	Without	19067	CJA003440	5/25/2009 C,C	Metal chips fuel filter	PTD - Metal wear in metering unit pump chamber			Handover for analysis / 8D report - 2/22/2011
51	119		04240909	BPT0739	0007	3055	CJA019260	10/5/2009 C,C	Does not start	PTD - Metal wear in metering unit pump chamber - delivered without metering unit			Handover for analysis / 8D report - 2/22/2011
52	120		01140809	BPT0672	Without	20,000	CJA013216	8/28/2009 C,C	Does not start, after filling the fuel	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/22/2011
53	121		04230610	BPT1301	Without	150	CJA070452	7/8/2010 S,C	P0087 - mechan. fault, filter chips	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report - 2/22/2011
54	122		04020608	BPT0210	Without	44,922	CJA006136	7/11/2008 C,C	Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/22/2011
55	123		02050809	BPT0688	0007	24,254	CJA011284	8/18/2009 C,C	P0087 - Filter chips	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors		Handover for analysis / 8D report - 2/22/2011
56	124		02020210	BPT0345	Without	2289	CJA021338	10/15/2009 C,C	P0087 - Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer	delivered without metering unit		Handover for analysis / 8D report - 2/22/2011
57	125		02180709	BPT1107	Without	10,441	CJA051959	4/12/2010 S,C	P0087 - Engine does not start	no metal chips at the metering unit strainer and pump chamber found	4 x injectors		Handover for analysis / 8D report - 2/22/2011

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EA11003EN-00721[34]



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**To:**  
**CC:**

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**Date:** 3/22/2011 9:58:35 AM  
**Topic:** 8D reports high-pressure fuel pump US07  
**Attachments:** [22.03.2011- Voranalyse- HD-Pumpen US07.pdf](#)  
[22.03.11--8D-Bericht 4VW933.pdf](#)  
[22.03.11-8D-Bericht 4VW932.pdf](#)  
[22.03.11--8D-Bericht 4VW911.pdf](#)  
[22.03.11--8D-Bericht 4VW921.pdf](#)  
[22.03.11--8D-Bericht 4VW925.pdf](#)  
[22.03.11--8D-Bericht 4VW929.pdf](#)  
[22.03.11--8D-Bericht 4VW934.pdf](#)

Dear Mr. Non-responsive content removed

Attached are more 8D reports from Bosch for the defective high-pressure pumps (delivery to Non-responsive content removed)

Total: = 7 reports, of these 4 x no defect verified (TNF); 2 x incorrect fuel; 1 x Bosch acknowledged defect.

With best wishes

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Volkswagen Sachsen GmbH  
Domicile/Sitz: Zwickau  
Court of Registry/Registergericht: Amtsgericht Chemnitz  
HRB no./. Commercial Register no.: 1666  
Chairman of the Supervisory Board/Vorsitzender des Aufsichtsrats: Hubert Waltl

Executive Directors/Geschäftsführer: Hans-Joachim Rothenpieler (Speaker/Managing Director),  
Henry Mehnert, Robert Stauß

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EA11003EN-00723[0]

Ser. no.	No. USA	Vehicle identification No.	HP Data Bosch	HP Data Bosch	HP Data Bosch	KM LL (Mileage)	Engine No.	CP4 date	Customer complaint	Results of Pre - analysis	Further components for Complaint	Comments activities from pre-analysis	Analysis Bosch	Analysis Bosch
1	10	Non-responsive content removed	02240709	BPT1133	0007	28,756	CJA010361	8/7/2009 C,C	Metal chips in fuel system	<b>PTD</b> - Metal wear in metering unit pump chamber and strainer	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	<b>Inappropriate fuel</b> - 8D report - 1/12/2011
2	16		04130210	BPT0234	Without	18,121	CJA024847	2/16/2010 S,C	Metal chips in fuel system	<b>PTD</b> - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - <b>PTD</b> by M/s Bosch accepted - corrective action deployed - 1/14/2011
3	20		04170410	BPT0468	Without	7,375	CJA056043	4/28/2010 S,C	does not start - P0087 - fuel syst pr too low	<b>PTD</b> - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - <b>PTD</b> by M/s Bosch accepted Corrective actions deployed - 1/13/2011
4	28		01040310	BPT0267	Without	8,084	CJA046361	3/15/2010 S,C	P0087 - Fuel System pressure too low	Plug of the HP pump broken - v.m. - <b>PTD</b>	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - <b>PTD</b> by M/s Bosch accepted Corrective actions deployed - 1/13/2011
5	29		01080909	BPT0250	0007	15,976	CJA016478	9/17/2009 C,C	P0087 - Fuel system pressure too low does not start - lamp on	<b>PTD</b> - Metal wear in metering unit pump chamber and strainer	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - <b>PTD</b> by M/s Bosch accepted Corrective actions deployed - 1/13/2011
6	39		04300310	BPT0048	Without	4,868	CJA051563	4/8/2010 S,C	P0087 - Fuel System pressure too low	<b>PTD</b> - Metal wear in metering unit pump chamber and strainer	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	<b>Deposits- inappropriate fuel</b> - 8D report - 3/8/2011
7	50		01301009	BPT0240	0007	787	CJA025097	11/10/2009 C,C	Metal chips in fuel system	<b>no metering unit metal chips</b> found, filter checked - particles are suspected	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	<b>Deposits- inappropriate fuel</b> - 8D report - 3/8/2011
8	62		04190410	BPT0430	Without	3,112	CJA056466	4/30/2010 S,C	no output	<b>no metering unit metal chips</b> found, filter checked - particles are suspected	4 x injectors	For further analysis the 4 injectors were given to Bosch	8D report about the <b>Injectors</b> available - all OK 1/3/2011	
9	73		02060210	BPT0909	Without	10,234	CJA041107	2/17/2010 S,C	Metal chips in fuel system	<b>no metering unit metal chips</b> found, filter checked - particles are suspected	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	<b>No defect</b> verified - 8D report - 01/25/11
10	81		04240909	BPT0839	0007	15,542	CJA019335	10/5/2009 C,C	P0087 - Fuel system pressure too low does not start - lamp on	<b>PTD</b> - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - <b>PTD</b> by M/s Bosch accepted - corrective action deployed - 1/13/2011
11	82a		04240609	BPT0400	0007	15,293	CJA005671	6/30/2009 C,C	P0087- and metal chips in system	<b>PTD</b> - Metal wear in metering unit pump chamber and strainer		P0087	Handover for analysis / 8D report - 12/7/2010	<b>Deposits - inappropriate fuel</b> - 8D report - 1/12/11
12	83		02051109	BPT1352	0007	2,931	CJA026490	11/17/2009 C,C	Does not start - electr. fault	<b>PTD</b> - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - <b>PTD</b> by M/s Bosch accepted - corrective action deployed - 1/13/2011
13	84		01090110	BPT1242	Without	12,389	CJA035025	1/20/2010 S,C	P0087 - Fuel System pressure too low - 5 faults	<b>no metering unit metal chips</b> found, filter checked - particles are suspected			Handover for analysis / 8D report - 12/7/2010	8D report - <b>PTD</b> by M/s Bosch accepted Corrective actions deployed - 1/13/2011
14	85		04110509	BPT0798	0006	22,726	CJA003401	5/27/2009 C,C	Does not start - lamp on	<b>PTD</b> - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - <b>PTD</b> by M/s Bosch accepted Corrective actions deployed - 1/13/2011
15	86		01050110	BPT1386	Without	8,953	CJA033742	1/14/2010 S,C	P0087 - Fuel system pressure too low metal chips in the filter	<b>PTD</b> - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - <b>PTD</b> by Bosch accepted - corrective action deployed - 01/13/11
16	88		02280410	BPT1037	Without	23	CJA056684	4/30/2010 S,C	P0087 - Fuel System pressure too low	<b>no metering unit metal chips</b> found, filter checked - particles are suspected			Handover for analysis / 8D report - 12/7/2010	<b>No defect</b> verified - 8D report - 01/25/11
17	89		01170909	BPT1336	0007	20,922	CJA017951	9/24/2009 C,C	Metal chips in Fuel system, P013B	<b>PTD</b> - Metal wear in metering unit pump chamber and strainer		For further analysis the 4 injectors were given to Bosch	8D report about the <b>Injectors</b> available - all OK - 1/3/2011	<b>Deposits - inappropriate fuel</b> - 8D report - 1/12/11
18	90		02151009	BPT0930	0007	7,684	CJA023120	10/27/2009 C,C	no output	<b>no metering unit metal chips</b> found, filter checked - particles are suspected	4 x injectors	Handover for analysis / 8D report - 12/7/2010	8D report about the <b>Injectors</b> available - all OK 1/3/2011	<b>No defect</b> verified - HP pump - 8D report - 01/25/11

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19	91	Non-responsive content removed	04130210	BPT0347	Without	11,335	CJA042927	2/26/2010 S,C	P0087/P0088 - Fuel System pressure too low - 5 faults	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/14/11
20	92		01171009	BPT0891	0007	20,902	CJA023595	10/29/2009 C,C	Metal chips in Fuel system	no metering unit metal chips found, filter checked - particles are suspected	2x injectors	For further analysis the 2 injectors were given to Bosch	8D report about the Injectors available - all OK 1/3/2011	HP pump - no defect verified - 8D report 1/25/2011
21	93		02020909	BPT0447	0007	19,355	CJA015510	9/12/2009 C,C		PTD - Metal wear in metering unit pump chamber and strainer	4 x injector 1 x distributor rail 1 x holder inline EFP	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
22	94		01090509	BPT1015	0006	42,541	CJA003123	5/25/2009 C,C	Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
23	95		02190110	BPT0056	Without	9,280	CJA037049	1/29/2010 S,C	P0087 - Fuel System pressure too low Does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
24	96		01120509	BPT1015	0006	38,984	CJA003834	6/4/2009 C,C	Does not start	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by Bosch accepted - corrective actions deployed - 1/14/20
25	97		01180909	BPT1167	0007	10,156	CJA018611	9/30/2009 C,C	Starts poorly - metal chips in the filter	no metering unit metal chips found, filter checked - particles are suspected	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	8D report - Corrosion deposits - fuel OK - 2/1/11
26	98		01301009	BPT0900	0007	5,882	CJA025311	11/10/2009 C,C	P0087 - Fuel System pressure too low	no metering unit metal chips found, filter checked - particles are suspected	4 x injectors, 1 x Pressure control valve	Pressure control valve for analysis Handed over to Bosch	Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report 01/25/11
27	100		04260809	BPT0311	0007	13,694	CJA014411	9/7/2009 C,C	P0087 - Fuel System pressure too low	PTD - Metal wear in ZME pump room - delivered without ZME	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by Bosch accepted - corrective actions deployed - 1/14/20
28	104		01070809	BPT0767	0007	38,082	CJA011934	8/20/2009 C,C	Dismantled by changing the engine - complaint unknown	no metering unit metal chips found, HP pump change by changing the engine			Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report 01/25/11
29	82		02021009	BPT0345	0007	8,400	CJA020853	10/13/2009 C,C	Leakages	no metal chips at the ZME sieve and pump room found			Handover for analysis / 8D report 05.01.11-	No defect verified - 8D report - 1/21/11
30	99		02180310	BPT0433	Without	6,996	CJA049352	3/29/2010 S,C	Engine does not start - P0877	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report 05.01.11-	Inappropriate fuel - 8D report - 1/21/11
31	102		04030909	BPT0849	0007	9,551	CJA015659	9/12/2009 C,C	Vibration and sounds	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report 05.01.11-	8D report - no defect verified - 2/1/2011
32	105		01150909	BPT0169	0007	16,311	CJA017656	9/23/2009 C,C	Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report 05.01.11-	8D report - PTD by Bosch accepted - corrective actions deployed - 3/8/2011

starting from 1/1/2011

33	126	Non-responsive content removed	02020909	BPT0143	0007	20,859	CJA015246	9/11/2009 C,C	P0087 - metal chips in fuel system	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel / 8D report 3/1/11
34	127		04140708	BPT0836	0005	32,025	CBE008173	7/23/2008	Check lamp on, metal chips	Brown particles can be seen in the metering unit room and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel - 8D report - 2/28/11
35	128		04190410	BPT0483	Without		CJA056376	4/29/2010	Engine does not start, glow plug check lamp on P0087 - metal chips	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	8D report - PTD by Bosch accepted - corrective actions deployed - 1/14/20
36	129		01160808	BPT0464	0005	38,705	CBE015576	9/9/2008 C,C	Engine does not start again - metal chips in the filter	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel / 8D report 3/1/11
37	130		04090410	BPT0086	Without	20,283	CJA033742	1/14/2010 S,C		PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel - 8D report - 2/28/11
38	131		04251109	BPT0898	0007	8,414	CJA029969	12/7/2009 S,C	Engine does not start again - metal chips in the filter	no metal chips at the ZME sieve and pump room found			Handover for analysis / 8D report - 2/9/2011	No defect verified - 8D report 3/22/2011



EA11003EN-00723[2]

39	A	Non-responsive content removed	01201209	BPT0321	Without	15,109	CJA033033	1/11/2010 S,C	Metal chips fuel filter	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/22/2011
40	20		02220110	BPT0226	Without	11,955	CJA038037	2/3/2010 S,C	Sounds - 21 fault stored control device	brownish deposits - metering unit absent!	4 x injectors		Handover for analysis / 8D report - 2/22/2011	
41	61		02051009	BPT0007	Without	19,773	CJA039871	2/11/2010 S,C	P0191, P0087 - generator Fuel pressure	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report - 2/22/2011	
42	105		02140508	BPT0927	0004		CJA017656	9/23/2009 C,C		<b>PTD</b> - Metal wear in metering unit pump chamber and strainer - brownish colouring	4 x injectors		Handover for analysis / 8D report - 2/22/2011	
43	109		04020810	BPT0039	Without	9	CJA078570	8/11/2010 S,C	Leaking - fuel loss	Leakage at shaft sealing ring - <b>known problem</b>			Handover for analysis / 8D report - 2/22/2011	
44	110		04140209	BPT0304	0006		CJA018611	9/3/2009 C,C	Engine stalls - switch gear 1 to 2	no metal chips at the metering unit strainer and pump chamber found	4 x injectors		Handover for analysis / 8D report - 2/22/2011	No defect verified - 8D report 3/22/2011
45	111		06030810	BPT1020	Without	176	CJA078881	8/12/2010 S,C	Leaking at the front side HP pump	Oil seal leakage - <b>known problem</b>			Handover for analysis / 8D report - 2/22/2011	
46	112		02240909	BPT1189	Without	32,250	CJA020378	1/12/2009 C,C	Metal chips fuel filter	no metal chips at the metering unit strainer and pump chamber found	4 x injectors		Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/22/2011
47	113		02150110	BPT0368	Without	19,955	CJA036555	1/27/2010 S,C	Does not start - goes out	<b>PTD</b> - Metal wear in metering unit pump chamber			Handover for analysis / 8D report - 2/22/2011	
48	114		02020110	BPT0021	Without	20,193	CJA033014	1/11/2010 S,C	P009, P0183 - Valve f. fuel dos.	<b>PTD</b> - Metal wear in metering unit pump chamber			Handover for analysis / 8D report - 2/22/2011	
49	115		01071009	BPT1305	0007	5,655	CJA012541	8/26/2009 C,C	Does not start, deposits in the HP pump	no metal chips at the metering unit strainer and pump chamber found	4 x injectors		Handover for analysis / 8D report - 2/22/2011	No defect verified - 8D report 3/22/2011
50	118		04110509	BPT0732	Without	19067	CJA003440	5/25/2009 C,C	Metal chips fuel filter	<b>PTD</b> - Metal wear in metering unit pump chamber			Handover for analysis / 8D report - 2/22/2011	
51	119		04240909	BPT0739	0007	3055	CJA019260	10/5/2009 C,C	Does not start	<b>PTD</b> - Metal wear in metering unit pump chamber - delivered without metering unit			Handover for analysis / 8D report - 2/22/2011	8D report - <b>PTD</b> by Bosch accepted - corrective actions deployed - 3/22/2011
52	120		01140809	BPT0672	Without	20,000	CJA013216	8/28/2009 C,C	Does not start, after filling the fuel	<b>PTD</b> - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/22/2011	
53	121		04230610	BPT1301	Without	150	CJA070452	7/8/2010 S,C	P0087 - mechan. fault, filter chips	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report - 2/22/2011	No defect verified - 8D report 3/22/2011
54	122	04020608	BPT0210	Without	44,922	CJA006136	7/11/2008 C,C	Engine does not start	<b>PTD</b> - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/22/2011		
55	123	02050809	BPT0688	0007	24,254	CJA011284	8/18/2009 C,C	P0087 - Filter chips	<b>PTD</b> - Metal wear in metering unit pump chamber and strainer	4 x injectors		Handover for analysis / 8D report - 2/22/2011		
56	124	02020210	BPT0345	Without	2289	CJA021338	10/15/2009 C,C	P0087 - Engine does not start	<b>PTD</b> - Metal wear in metering unit pump chamber and strainer	delivered without metering unit		Handover for analysis / 8D report - 2/22/2011		
57	125	02180709	BPT1107	Without	10,441	CJA051959	4/12/2010 S,C	P0087 - Engine does not start	no metal chips at the metering unit strainer and pump chamber found	4 x injectors		Handover for analysis / 8D report - 2/22/2011		

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**Date:** 3/24/2011 9:36:51 AM  
**Topic:** 8D reports Bosch high-pressure pumps US07  
**Attachments:** [24.03.2011- Voranalyse- HD-Pumpen US07.pdf](#)  
[24.03.11--8D-Bericht 4VW930.pdf](#)  
[24.03.11--8D-Bericht 4VW940.pdf](#)  
[24.03.11--8D-Bericht 4VW939.pdf](#)  
[24.03.11--8D-Bericht 4VW938.pdf](#)

Dear Mr. Non-responsive content removed

Attached are more 8D reports from Bosch.

3 x improper fuel  
1 x no trouble found

With best wishes

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Domicile/Sitz: Zwickau  
Court of Registry/Registergericht: Amtsgericht Chemnitz  
HRB no./. Commercial Register no.: 1666  
Chairman of the Supervisory Board/Vorsitzender des Aufsichtsrats: Hubert Waltl  
Executive Directors/Geschäftsführer: Hans-Joachim Rothenpieler (Speaker/Managing Director),  
Henry Mehnert, Robert Stauß

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EA11003EN-00725[0]

Ser. no.	No. USA	Vehicle identification No.	HP Data Bosch	HP Data Bosch	HP Data Bosch	KM LL (Mileage)	Engine No.	CP4 date	Customer complaint	Results of Pre - analysis	Further components for Complaint	Comments activities from pre-analysis	Analysis Bosch	Analysis Bosch
1	10	Non-responsive content removed	02240709	BPT1133	0007	28,756	CJA010361	8/7/2009 C,C	Metal chips in fuel system	PTD - Metal wear in metering unit pump chamber and strainer	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Inappropriate fuel - 8D report - 1/12/2011
2	16		04130210	BPT0234	Without	18,121	CJA024847	2/16/2010 S,C	Metal chips in fuel system	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted - corrective action deployed - 1/14/2011
3	20		04170410	BPT0468	Without	7,375	CJA056043	4/28/2010 S,C	does not start - P0087 fuel - system pressure too low	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
4	28		01040310	BPT0267	Without	8,084	CJA046361	3/15/2010 S,C	P0087 - Fuel System pressure too low	Plug of the HP pump broken - v.m. - PTD	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
5	29		01080909	BPT0250	0007	15,976	CJA016478	9/17/2009 C,C	P0087 - Fuel system pressure too low does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
6	39		04300310	BPT0048	Without	4,868	CJA051563	4/8/2010 S,C	P0087 - Fuel System pressure too low	PTD - Metal wear in metering unit pump chamber and strainer	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Deposits- inappropriate fuel - 8D report - 3/8/2011
7	50		01301009	BPT0240	0007	787	CJA025097	11/10/2009 C,C	Metal chips in fuel system	no metering unit metal chips found, filter checked - particles are suspected	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	Deposits- inappropriate fuel - 8D report - 3/8/2011
8	62		04190410	BPT0430	Without	3,112	CJA056466	4/30/2010 S,C	no output	no metering unit metal chips found, filter checked - particles are suspected	4 x injectors	For further analysis the 4 injectors were given to Bosch	8D report about the Injectors available - all OK 1/3/2011	
9	73		02060210	BPT0909	Without	10,234	CJA041107	2/17/2010 S,C	Metal chips in fuel system	no metering unit metal chips found, filter checked - particles are suspected	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report 01/25/11
10	81		04240909	BPT0839	0007	15,542	CJA019335	10/5/2009 C,C	P0087 - Fuel system pressure too low does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted - corrective action deployed - 1/13/2011
11	82a		04240609	BPT0400	0007	15,293	CJA005671	6/30/2009 C,C	P0087- and metal chips in system	PTD - Metal wear in metering unit pump chamber and strainer		P0087	Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
12	83		02051109	BPT1352	0007	2,931	CJA026490	11/17/2009 C,C	Does not start - electr. fault	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted - corrective action deployed - 1/13/2011
13	84		01090110	BPT1242	Without	12,389	CJA035025	1/20/2010 S,C	P0087 - Fuel System pressure too low - 5 faults	no metering unit metal chips found, filter checked - particles are suspected			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
14	85		04110509	BPT0798	0006	22,726	CJA003401	5/27/2009 C,C	Does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/13/2011
15	86		01050110	BPT1386	Without	8,953	CJA033742	1/14/2010 S,C	P0087 - Fuel system pressure too low metal chips in the filter	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	8D report - PTD by Bosch accepted - corrective action deployed - 01/13/11
16	88		02280410	BPT1037	Without	23	CJA056684	4/30/2010 S,C	P0087 - Fuel System pressure too low	no metering unit metal chips found, filter checked - particles are suspected			Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report 01/25/11
17	89		01170909	BPT1336	0007	20,922	CJA017951	9/24/2009 C,C	Metal chips in Fuel system, P013B	PTD - Metal wear in metering unit pump chamber and strainer		For further analysis the 4 injectors were given to Bosch	8D report about the Injectors available - all OK - 1/3/2011	Deposits - inappropriate fuel - 8D report - 1/12/11
18	90		02151009	BPT0930	0007	7,684	CJA023120	10/27/2009 C,C	no output	no metering unit metal chips found, filter checked - particles are suspected	4 x injectors	Handover for analysis / 8D report - 12/7/2010	8D report about the Injectors available - all OK 1/3/2011	No defect verified - HP pump - 8D report - 01/25/11

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19	91	Non-responsive content removed	04130210	BPT0347	Without	11,335	CJA042927	2/26/2010 S,C	P0087/P0088 - Fuel System pressure too low - 5 faults	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by M/s Bosch accepted Corrective actions deployed - 1/14/11
20	92		01171009	BPT0891	0007	20,902	CJA023595	10/29/2009 C,C	Metal chips in Fuel system	no metering unit metal chips found, filter checked - particles are suspected	2x injectors	For further analysis the 2 injectors were given to Bosch	8D report about the Injectors available - all OK 1/3/2011	HP pump - no defect verified - 8D report 1/25/2011
21	93		02020909	BPT0447	0007	19,355	CJA015510	9/12/2009 C,C		PTD - Metal wear in metering unit pump chamber and strainer	4 x injector 1 x distributor rail 1 x holder inline EFP	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
22	94		01090509	BPT1015	0006	42,541	CJA003123	5/25/2009 C,C	Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report - 1/12/11
23	95		02190110	BPT0056	Without	9,280	CJA037049	1/29/2010 S,C	P0087 - Fuel System pressure too low Does not start - lamp on	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the system	Handover for analysis / 8D report - 12/7/2010	Deposits - inappropriate fuel - 8D report -1/12/11
24	96		01120509	BPT1015	0006	38,984	CJA003834	6/4/2009 C,C	Does not start	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by Bosch accepted - corrective actions deployed - 1/14/20
25	97		01180909	BPT1167	0007	10,156	CJA018611	9/30/2009 C,C	Starts poorly - metal chips in the filter	no metering unit metal chips found, filter checked - particles are suspected	1 x change filter 1 x Fuel filter		Handover for analysis / 8D report - 12/7/2010	8D report - Corrosion deposits - fuel OK - 2/1/11
26	98		01301009	BPT0900	0007	5,882	CJA025311	11/10/2009 C,C	P0087 - Fuel System pressure too low	no metering unit metal chips found, filter checked - particles are suspected	4 x injectors, 1 x Pressure control valve	Pressure control valve for analysis headed over to Bosch	Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report 01/25/11
27	100		04260809	BPT0311	0007	13,694	CJA014411	9/7/2009 C,C	P0087 - Fuel System pressure too low	PTD - Metal wear in ZME pump room - delivered without ZME	1 x change filter 1 x Fuel filter	accompanying components are not analyzed because metal chips are in the	Handover for analysis / 8D report - 12/7/2010	8D report - PTD by Bosch accepted - corrective actions deployed - 1/14/20
28	104		01070809	BPT0767	0007	38,082	CJA011934	8/20/2009 C,C	Dismantled by changing the engine - complaint unknown	no metering unit metal chips found, HP pump change by changing the engine			Handover for analysis / 8D report - 12/7/2010	No defect verified - 8D report 01/25/11
29	82		02021009	BPT0345	0007	8,400	CJA020853	10/13/2009 C,C	Leakages	no metal chips at the ZME sieve and pump room found			Handover for analysis / 8D report 05.01.11-	No defect verified - 8D report - 1/21/11
30	99		02180310	BPT0433	Without	6,996	CJA049352	3/29/2010 S,C	Engine does not start - P0877	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors	accompanying components are not analyzed because metal chips are in the	Handover for analysis / 8D report 05.01.11-	Inappropriate fuel - 8D report - 1/21/11
31	102	04030909	BPT0849	0007	9,551	CJA015659	9/12/2009 C,C	Vibration and sounds	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report 05.01.11-	8D report - no defect verified - 2/1/2011	
32	105	01150909	BPT0169	0007	16,311	CJA017656	9/23/2009 C,C	Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report 05.01.11-	8D report - PTD by Bosch accepted - corrective actions deployed - 3/8/2011	

starting from 1/1/2011

33	126	Non-responsive content removed	02020909	BPT0143	0007	20,859	CJA015246	9/11/2009 C,C	P0087 - metal chips in fuel system	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel / 8D report 3/1/11
34	127		04140708	BPT0836	0005	32,025	CBE008173	7/23/2008	Check lamp on, metal chips	Brown particles can be seen in the metering unit room and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel - 8D report - 2/28/11
35	128		04190410	BPT0483	Without		CJA056376	4/29/2010	Engine does not start, glow plug check lamp on P0087 - metal chips	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	8D report - PTD by Bosch accepted - corrective actions deployed - 1/14/20
36	129		01160808	BPT0464	0005	38,705	CBE015576	9/9/2008 C,C	Engine does not start again - metal chips in the filter	PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel / 8D report 3/1/11
37	130		04090410	BPT0086	Without	20,283	CJA033742	1/14/2010 S,C		PTD - Metal wear in metering unit pump chamber and strainer			Handover for analysis / 8D report - 2/9/2011	Inappropriate fuel - 8D report - 2/28/11
38	131		04251109	BPT0898	0007	8,414	CJA029969	12/7/2009 S,C	Engine does not start again - metal chips in the filter	no metal chips at the ZME sieve and pump room found			Handover for analysis / 8D report - 2/9/2011	No defect verified - 8D report 3/22/2011

EA11003EN-00725[2]

39	A	Non-responsive content removed	01201209	BPT0321	Without	15,109	CJA033033	1/11/2010 S,C	Metal chips fuel filter	no metal chips at the metering unit strainer and pump chamber found			Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/22/2011	
40	20		02220110	BPT0226	Without	11,955	CJA038037	2/3/2010 S,C	Sounds - 21 fault stored control device	brownish deposits - metering unit absent!	4 x injectors			Handover for analysis / 8D report - 2/22/2011	
41	61		02051009	BPT0007	Without	19,773	CJA039871	2/11/2010 S,C	P0191, P0087 - generator Fuel pressure	no metal chips at the metering unit strainer and pump chamber found				Handover for analysis / 8D report - 2/22/2011	
42	105		02140508	BPT0927	0004		CJA017656	9/23/2009 C,C		PTD - Metal wear in metering unit pump chamber and strainer - brownish colouring	4 x injectors			Handover for analysis / 8D report - 2/22/2011	
43	109		04020810	BPT0039	Without	9	CJA078570	8/11/2010 S,C	Leaking - fuel loss	Leakage at shaft sealing ring - <b>known problem</b>				Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/23/2011
44	110		04140209	BPT0304	0006		CJA018611	9/3/2009 C,C	Engine stalls - switch gear 1 to 2	no metal chips at the metering unit strainer and pump chamber found	4 x injectors			Handover for analysis / 8D report - 2/22/2011	No defect verified - 8D report - 3/22/2011
45	111		06030810	BPT1020	Without	176	CJA078881	8/12/2010 S,C	Leaking at the HP pump front side	Oil seal leakage - <b>known problem</b>				Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/23/2011
46	112		02240909	BPT1189	Without	32,250	CJA020378	1/12/2009 C,C	Metal chips fuel filter	no metal chips at the metering unit strainer and pump chamber found	4 x injectors			Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/22/2011
47	113		02150110	BPT0368	Without	19,955	CJA036555	1/27/2010 S,C	Does not start - goes out	PTD - Metal wear in metering unit pump chamber				Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/23/2011
48	114		02020110	BPT0021	Without	20,193	CJA033014	1/11/2010 S,C	P009, P0183 - Valve f. fuel dos.	PTD - Metal wear in metering unit pump chamber				Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/23/2011
49	115		01071009	BPT1305	0007	5,655	CJA012541	8/26/2009 C,C	Does not start, deposits in the HP pump	no metal chips at the metering unit strainer and pump chamber found	4 x injectors			Handover for analysis / 8D report - 2/22/2011	No defect verified - 8D report - 3/22/2011
50	118		04110509	BPT0732	Without	19067	CJA003440	5/25/2009 C,C	Metal chips fuel filter	PTD - Metal wear in metering unit pump chamber				Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/24/2011
51	119		04240909	BPT0739	0007	3055	CJA019260	10/5/2009 C,C	Does not start	PTD - Metal wear in metering unit pump chamber - delivered without metering unit				Handover for analysis / 8D report - 2/22/2011	8D report - PTD by Bosch accepted - corrective actions deployed - 3/22/2011
52	120		01140809	BPT0672	Without	20,000	CJA013216	8/28/2009 C,C	Does not start, after filling the fuel	PTD - Metal wear in metering unit pump chamber and strainer				Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/24/2011
53	121		04230610	BPT1301	Without	150	CJA070452	7/8/2010 S,C	P0087 - mechan. defect, filter chips	no metal chips at the metering unit strainer and pump chamber found				Handover for analysis / 8D report - 2/22/2011	No defect verified - 8D report - 3/22/2011
54	122		04020608	BPT0210	Without	44,922	CJA006136	7/11/2008 C,C	Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer				Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/24/2011
55	123		02050809	BPT0688	0007	24,254	CJA011284	8/18/2009 C,C	P0087 - Filter chips	PTD - Metal wear in metering unit pump chamber and strainer	4 x injectors			Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/23/2011
56	124	02020210	BPT0345	Without	2289	CJA021338	10/15/2009 C,C	P0087 - Engine does not start	PTD - Metal wear in metering unit pump chamber and strainer	delivered without metering unit			Handover for analysis / 8D report - 2/22/2011	Inappropriate fuel - 8D report - 3/23/2011	
57	125	02180709	BPT1107	Without	10,441	CJA051959	4/12/2010 S,C	P0087 - Engine does not start	no metal chips at the metering unit strainer and pump chamber found	4 x injectors			Handover for analysis / 8D report - 2/22/2011	No defect verified - 8D report - 3/24/2011	

**From:** Non-responsive content removed  
**To:**  
**CC:**

Non-responsive content removed

**Date:** 3/30/2011 6:08:45 AM  
**Topic:** 8D report high-pressure pump US07 - engine 2.0l-103kw TDI CR  
**Attachments:** [30.03.11--8D-Bericht 4VW841.pdf](#)

Dear Mr. Non-responsive content removed

Attached is one more 8D report of high-pressure pumps, which were delivered to Non-responsive content removed

With best wishes

Non-responsive content removed

Non-responsive content removed

> \*\*\*\*\*  
> Volkswagen Sachsen GmbH  
> Domicile/Sitz: Zwickau  
> Court of Registry/Registergericht: Amtsgericht Chemnitz  
> HRB no./ Commercial Register no.: 1666  
> Chairman of the Supervisory Board/Vorsitzender des Aufsichtsrats: Hubert Waltl  
> Executive Directors/Geschäftsführer: Hans-Joachim Rothenpieler (Speaker/Managing Director),  
> Henry Mehnert, Robert Stauß

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**From:** Non-responsive content removed  
**To:**  
**CC:**

**Date:** 4/4/2011 3:43:13 PM  
**Topic:** Results of findings CP4.1 - 7 pumps from VW Development  
**Attachments:** [8D-Bericht 4VW951.pdf](#)  
[8D-Bericht 4VW952.pdf](#)  
[8D-Bericht 4VW953.pdf](#)  
[8D-Bericht 4VW954.pdf](#)  
[8D-Bericht 4VW955.pdf](#)  
[8D-Bericht 4VW956.pdf](#)  
[8D-Bericht 4VW957.pdf](#)

Dear Mr. [REDACTED],

Attached please find the 8D reports for the 7 CP4.1, which you handed over to us on 3/23/2011 in [REDACTED]

Summary

- 7 pumps with drivetrain damage
- in all the pumps we could see indications of a fuel being used that did not conform to the specifications
- > brownish deposits on different components (e.g. intake valve, sealing disc on the intake valve, spring seat, metering unit adjustment ring, roller support, overflow valve pistons)
- > 8Ds rejected due to customer error

VIN: 3VWCL71K9M [REDACTED]  
VIN: 3VWTL81K99 [REDACTED]  
VIN: 3VWTL71K09 [REDACTED]  
VIN3VWAL71K49M [REDACTED]  
VIN: 3VWRL71L89 [REDACTED]  
VIN:3VWTL71K19 [REDACTED]  
VIN: 3VWAL71K59 [REDACTED]

With best wishes

Non-responsive content removed

Robert Bosch GmbH  
Non-responsive content removed  
Postfach 30 02 20  
70442 Stuttgart  
GERMANY  
[www.bosch.com](http://www.bosch.com)

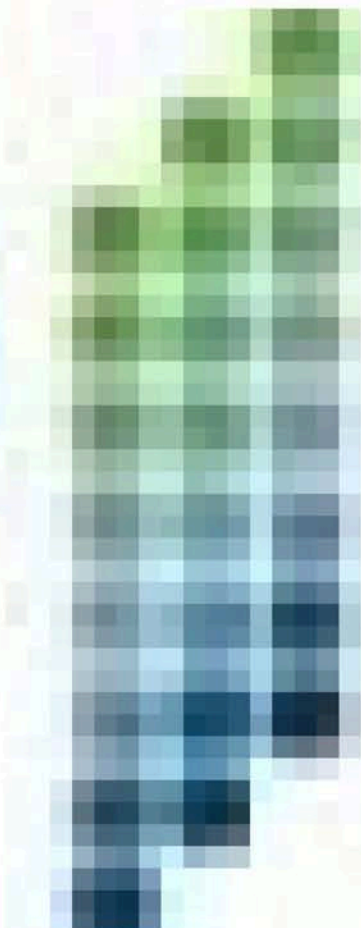
Non-responsive content removed

Domicile: Stuttgart, Court of Registry: District Court Stuttgart, HRB 14000;  
Chairman of the supervisory board: Hermann Scholl; Management: Franz Fehrenbach, Siegfried Dais;  
Bernd Bohr, Rudolf Colm, Volkmar Denner, Wolfgang Malchow, Peter Marks,





125



1000-2011

1000-2011

**From:** Non-responsive content removed  
**To:** [REDACTED]  
**CC:**  
**Date:** 6/21/2011 4:09:10 PM  
**Topic:** FW: Analysis results Bosch high-pressure pumps  
**Attachments:** [8D-Bericht 4VW977.pdf](#)  
[8D-Bericht 4VW979.pdf](#)  
[8D-Bericht 4VW978.pdf](#)  
[Ablehnung von Triebwerksschäden.msg](#)

FYI

**From:** Non-responsive content removed  
**Sent:** Tuesday, June 21, 2011 3:46 PM  
**To:** Non-responsive content removed  
**Cc:** [REDACTED]  
**Subject:** Analysis results Bosch high-pressure pumps

Hello Mr. [REDACTED]

In the past few weeks Bosch has again received via VW [REDACTED] 3 pieces of high-pressure pumps CP4.1 / TT no. 03L 130 755A for analysis.  
Attached are the 8D reports:

Allow me to add one more comment to this;  
All pumps were found to have drivetrain damage.  
Historically, such cases were normally part of Bosch's responsibility, when customer influence could not be proved beyond doubt. This process was changed owing to intensive work done by a task force for AUDI.  
The result of this work is that pumps always get drivetrain damage when they are operated outside the technical customer document. This can, for instance, be the initial filling, prefilling, type and quality of fuel parameters. Such parameters are outside our sphere of influence, therefore such cases are now not the responsibility of BOSCH. This process is being used in this way since May 2011 and does not affect the old cases.

Please see here the attached mail, in which Bosch has officially informed the component champion at VW [REDACTED] about the process. Further central communication with Bosch about this process will also be done via Mr. [REDACTED]

With best wishes

Non-responsive content removed

Robert Bosch GmbH  
Non-responsive content removed

Postfach 33 33  
38023 Braunschweig  
GERMANY  
[www.bosch.com](http://www.bosch.com)

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Domicile: Stuttgart, Court of Registry: District Court Stuttgart, HRB 14000;  
Chairman of the supervisory board: Hermann Scholl; Management: Franz Fehrenbach, Siegfried Dais;  
Bernd Bohr, Rudolf Colm, Volkmar Denner, Wolfgang Malchow, Peter Marks,  
Peter Tyroller; Stefan Asenkerschbaumer, Uwe Raschke, Wolf-Henning Scheider



EA11003EN-0073d101

**From:** Non-responsive content removed

**To:**

**CC:**

**Date:**

**Topic:** Rejection of drivetrain damage

Dear Mr. Non-responsive content removed

Our studies suggest that the drivetrain damage occur only when the CP4s are operated beyond the technical customer document. The results of these studies were presented and discussed in detail with Audi in the task force.

For this reason we reject the complaints with the fault pattern "drivetrain damage", as long as it is caused by a fault for which Bosch is not responsible.

With best wishes

Non-responsive content removed

Robert Bosch GmbH

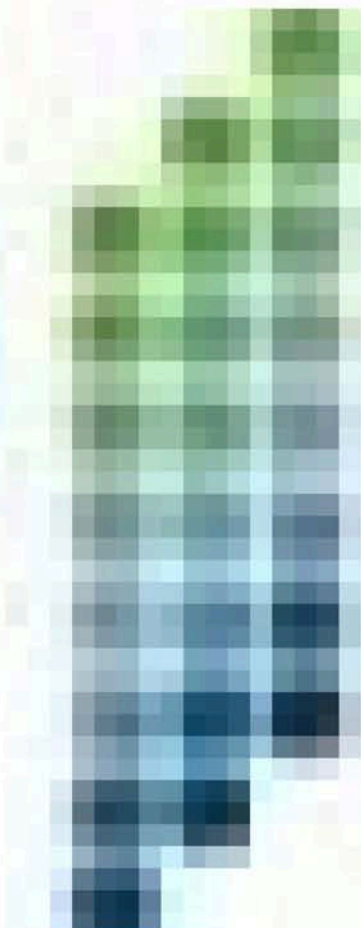
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Domicile: Stuttgart, Court of Registry: District Court Stuttgart, HRB 14000;  
Chairman of the supervisory board: Hermann Schöll; Management: Franz Fehrenbach, Siegfried Dais;  
Bernd Bohr, Rudolf Colm, Volkmar Denner, Wolfgang Malchow, Peter Marks,  
Peter Tyroller; Stefan Asenkerschbaumer, Uwe Raschke, Wolf-Henning Scheider



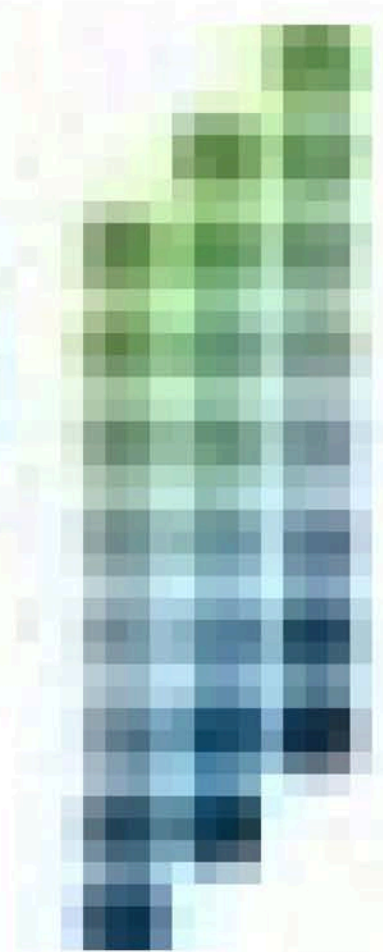
125



E05CH

1000-2011

125



1000-2011

1000-2011

**From:** Non-responsive content removed

**To:**

**CC:**

**Date:** 8/18/2011 3:31:00 PM

**Topic:** FW: IQIS:230003310149\_Info\_1

You can scrap the pumps!

With best wishes

**From:** [redacted]  
**Sent:** Thursday, August 18, 2011 3:21 PM

**To:** Non-responsive content removed

**Subject:** RE: IQIS:230003310149\_Info\_1

Thanks very much [redacted]

We can scrap the pumps.

**From:** [redacted] **Sent:** Thursday, August 18, 2011 3:51 AM

**To:** Non-responsive content removed

**Cc:** [redacted]  
**Subject:** FW: IQIS:230003310149\_Info\_1

Hello [redacted]

You can reject the pump as per the warranty.  
Do you want to have the pump back? (this will cost); or can I scrap it? Substantial deposits in the interior; even RP1 doesn't help here, although the effectiveness of RP1 is very high.

With best wishes

**From:** Non-responsive content removed

**Sent:** Wednesday, August 17, 2011 3:47 PM

**To:** Non-responsive content removed

**Cc:** CP4 complaints

**Subject:** IQIS:230003310149\_Info\_1

Hello,

I am sending you hereby the information about the analysis of the CP4.2 pump mentioned above.

Customer	RB TT no.	Customer TT no.	IQIS	FD	S. no.	Compl. text	KM	Country of failure	Reference no.:	QTS no.	Finding
AUDI	059 130755 BC	0445.010.613	230003310149	24.06.10	BPT 0423	No specification from AUDI	15385	US	IGG000007 [redacted]	4116860	Drivetrain damage

**Analysis** (done in FeP):

- Packaging OK, protective covers absent. - Fuel sample not available

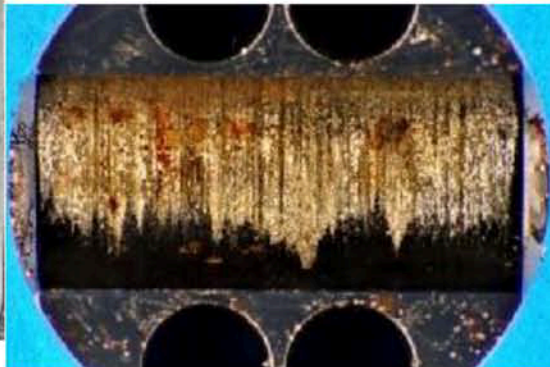
- Chips and deposits in inflow/outflow pipes not OK  
- NRV spring holder offset OK -> CH R=3.61 mm CH L=3.61mm  
- NRV spring R and L visual check OK. - Chips and deposits at metering unit not OK.

Pump dismantled:  
- Vacuum testing CH R OK vacuum testing CH L not OK, because HP piston is sluggish - roller support running surface R and L completely worn-out not OK.

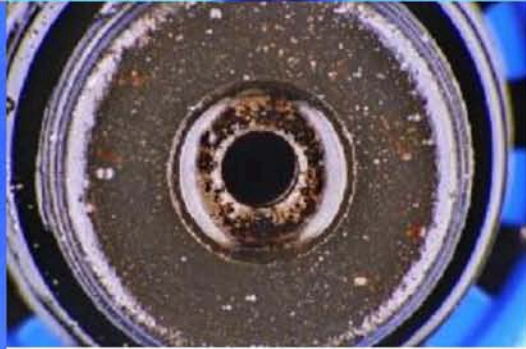
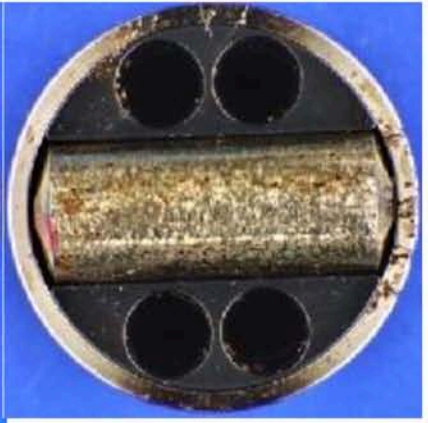
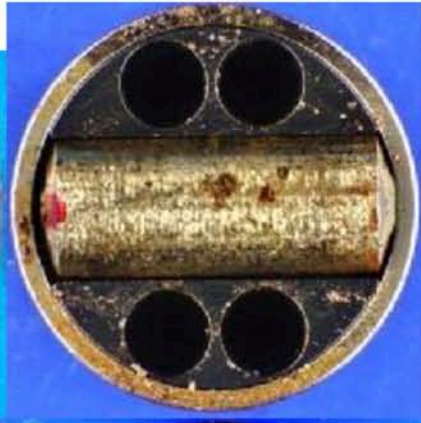
- NoWe running surface worn-out not OK  
- Flange and housing bearing bush fused not OK  
- All internal pump parts with deposits not OK

Drivetrain damage, deposits on all parts

**Pictures:**

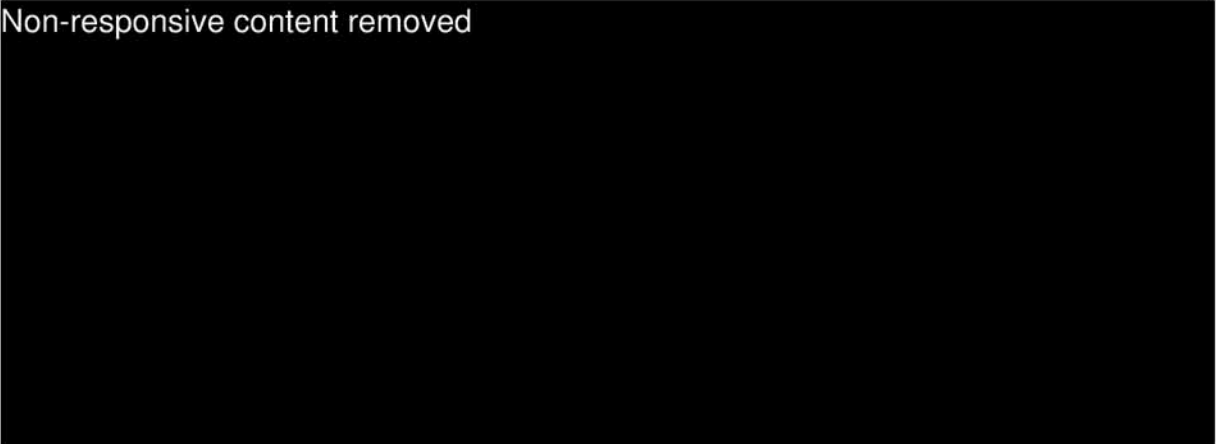


**Summary:**  
Deposits were found on all pump parts.  
Drivetrain damage occur only when the pumps are operated outside of the technical customer document (fuel type, air, starting conditions, temperature).  
We must reject the complaint for this reason.








**From:** Non-responsive content removed  
**To:** 

**CC:**  
**Date:** 8/19/2011, 3:26:00 PM  
**Subject:** APS 8/22/11 NEW  
**Attachments:** [APS 22.08.2011.pptx](#)

Hi all,

Please find attached the document for the APS meeting on Monday, 08/22/11.

Best regards

Non-responsive content removed  


Domicile/Sitz: Ingolstadt  
Court of Registry/Registergericht: Amtsgericht Ingolstadt  
Commercial Register No./HRB Nr.: 1  
Chairman of the Supervisory Board/Vorsitzender des Aufsichtsrats: Martin Winterkorn  
Vorstand/Board of Management: Rupert Stadler (Vorsitzender/Chairman), Ulf Berkenhagen, Michael Dick, Frank Dreves, Peter Schwarzenbauer, Thomas Sigi, Axel Strotbek

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Wichtiger Hinweis: Die vorgenannten Angaben werden jeder E-Mail automatisch hinzugefügt und lassen keine Rückschlüsse auf den Rechtscharakter

der E-Mail zu.

From: Non-responsive content removed  
Sent: Thursday, August 04, 2011, 1:39 PM  
To: Non-responsive content removed  
Cc: Non-responsive content removed

Subject: Re: CP4.2 field [redacted] etc.

Hello [redacted],

As we discussed, please send invitations to a technical meeting ASAP.

And please make sure my boss has time, too ;-)

Best regards

Non-responsive content removed

From: Non-responsive content removed  
Sent: Thursday, August 04, 2011, 10:09 AM  
To: Non-responsive content removed  
Subject: Re: CP4.2

Non-responsive content removed

I thought of you yesterday on my way home from [redacted] (it was my first working day after 2 ½ weeks of vacation), why? à see below!

I've received many lists like this; some of the part numbers are incorrect.

We've already examined 43 of the pumps and notified [redacted], because he stopped the action after around 300 – 500 cars (see attachment).

Our definitive proposal from the CP4 Task Force today is to continue the action with additional measures; I still have to coordinate it with [redacted] etc.

We know the following since yesterday:

- It is essential that the pump be "inserted in the TDC position" when installed at the workshop; just 1 wrong tooth will have a major influence on large rotational fluctuations in the belt drive (2-3 teeth are extremely critical; according to current information, even an OK status could be an accompanying cause for increased

CP4.2 failures in the Audi W19 !!! (we know this from a [REDACTED] field visit, for example; it surely also occurs in other markets). The action documents must definitely point this out; a reference to RLF or GFS isn't enough !!!

· In addition to the pump, install the EU6 or W24 tensioner (057 109 243 M) !!!

Best regards

Non-responsive content removed

From: [REDACTED]  
Sent: Thursday, August 04, 2011, 2:35 AM  
To: [REDACTED]  
Subject: CP4.2

Hello [REDACTED]

Have a look at the list, shipped pumps from [REDACTED] from the action, BK pumps are included, but I can't tell you whether any are really there; perhaps it would make sense to have a look when they get here.

Otherwise, everything else is fine here in [REDACTED], we have permanent summer, but probably only just this month, then fall will begin again.

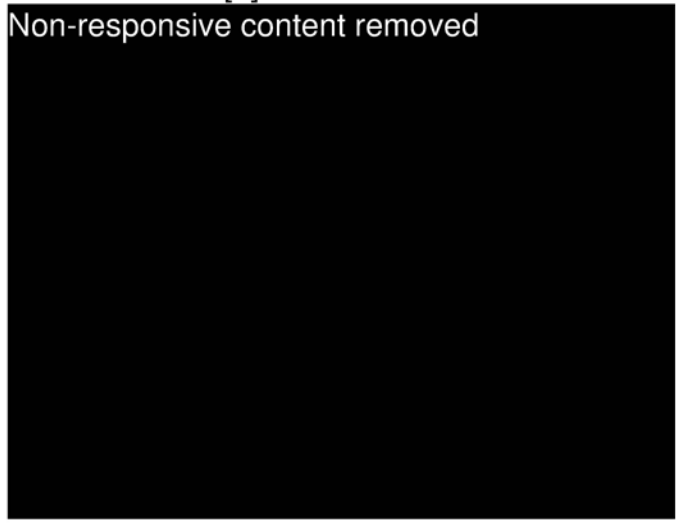
Regards, [REDACTED]

best regards

Best regards

Non-responsive content removed

Non-responsive content removed



**From:** Non-responsive content removed  
**To:** [REDACTED]  
**CC:** [REDACTED]

**Date:** 11/18/2011, 5:09:00 PM

**Subject:** CP4.1 drivetrain damage / terminal 15

**Attachments:** [AW\\_HDP\\_Triebwerkschaden.msg](#)

Hello [REDACTED]

Development in Wolfsburg sees no option or necessity of implementing this conversion for the entire series.

[REDACTED] notified you and us of this on 10/19/2011.

To my knowledge, measures have been implemented at [REDACTED] (starter delay).

The CP4.1 pump is generally much better with regard to venting and is therefore much less critical with regard to prefilling at terminal 15 than the V6-TDI pump; therefore, we at [REDACTED] will accept the procedure.

I also coordinated this with [REDACTED] before he left for Győr.

Best regards

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**From:** Non-responsive content removed  
**Sent:** Tuesday, November 15, 2011, 7:02 PM  
**To:** Non-responsive content removed  
**Cc:** [REDACTED]  
**Subject:** HPP drivetrain damage

Hello [REDACTED]

Are there any new findings on this subject?

Was activation of terminal 15 recommended for better venting of the pump?

The subject is on the agenda again, for the ZP7 meeting on 11/22/2011.

Thanks in advance for your information.

Best regards

Non-responsive content removed

**From:** Non-responsive content removed  
**To:** [Redacted]  
**CC:** [Redacted]  
**Date:** 10/19/2011, 3:49:30 PM  
**Subject:** Re: HPP drivetrain damage  
**Attachments:** [Status SW-Maßnahmen im KVS.pdf](#)

Hello [Redacted]

There are no changes to the existing series.  
The first fuel stage must be vented and BOSCH then recommends 10s engine running.  
Energizing terminal 15 is no help here, since venting has been more than sufficient, and was not implemented.

You are already well familiar with our status on this subject through my boss, [Redacted]

Regards  
[Redacted]

>  
>From: Non-responsive content removed  
>Sent: Monday, October 17, 2011, 11:47 AM  
>To: Non-responsive content removed  
>Subject: Re: HPP drivetrain damage  
>  
>Hello [Redacted]  
>  
>Is there any new information on the R4-CR with regard to the early EFP warm-up?  
>  
>Best regards  
>  
>Non-responsive content removed  
>  
>From: Non-responsive content removed  
>Sent: Monday, October 17, 2011, 11:45 AM  
>To: Non-responsive content removed  
>Cc: [Redacted]  
>Subject: Re: HPP drivetrain damage  
>  
>  
>... if you mean the 4-cylinder: NO!  
>  
>Best regards  
>  
>Non-responsive content removed  
>  
>From: Non-responsive content removed  
>Sent: Monday, October 17, 2011, 11:39 AM  
>To: Non-responsive content removed  
>Cc: [Redacted]

>Subject: RE: HPP drivetrain damage

>

>

>Hello [redacted]

>

>Do you know if anything has been done with the other item, EFP warm-up at terminal 15?

>Regards

>

>

>Non-responsive content removed  
>[redacted]

>

>

>

>From: [redacted]

>Sent: Monday, October 17, 2011 10:26 AM

>To: [redacted]  
Non-responsive content removed  
[redacted]

>Subject: Re: HPP drivetrain damage

>Importance: High

>

>

>Hi all,

>

>Please find attached the intervention call >10 sec engine running after the first start in [redacted]

>Applies to the 4-cylinder and 6-cylinder from Audi A4 to Audi A7.

>

>We will assess the overall situation of all plants again soon.

>

>Hello [redacted]

>Would it be possible for you to select all the open items for each plant (all incl. [redacted]) with regard to "first warm-up/venting"?

>

>Hello [redacted]

>Please draw up a proposal for a modified warm-up regulation.

>We have to define the processes (PDM or ....)

>

>Best regards

>

>[redacted]

>

>

>\_\_\_\_\_



>From: Non-responsive content removed  
>Sent: Monday, October 17, 2011, 9:30 AM  
>To: Non-responsive content removed  
>Subject: FW: HPP drivetrain damage  
>Importance: High

>  
>

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>From: Non-responsive content removed  
>Sent: Monday, October 10, 2011 1:48 PM  
>To: Non-responsive content removed  
>Cc: Non-responsive content removed  
>Subject: Re: HPP drivetrain damage  
>Importance: High

>  
>

>Hello Non-responsive content removed  
>Since 10/07/11, all employees in production (B and C series) have been instructed that each vehicle receive 10sec engine running with the first engine start.

>  
>  
>

>Best regards

>Non-responsive content removed

>  
>  
>  
>

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>From: Non-responsive content removed  
>Sent: Friday, September 23, 2011 4:25 PM  
>To: Non-responsive content removed  
>Cc: Non-responsive content removed  
Non-responsive content removed

>Subject: Re: HPP drivetrain damage

>  
>

>Hello Non-responsive content removed

>The engine first start was reduced to approx. 3sec engine running at the inspection center (A14) due to insufficient suction and odor nuisance.

>In the interim, the suction system performance has been optimized.

>We will carry out a trial run for one day on Tuesday over all 3 shifts.

>10 sec engine running for all TDIs.

>If the employees do not complain (no odor nuisance), we can change the engine running to 10 sec.

>If there are complaints, we will have to find a solution together with the planning department.

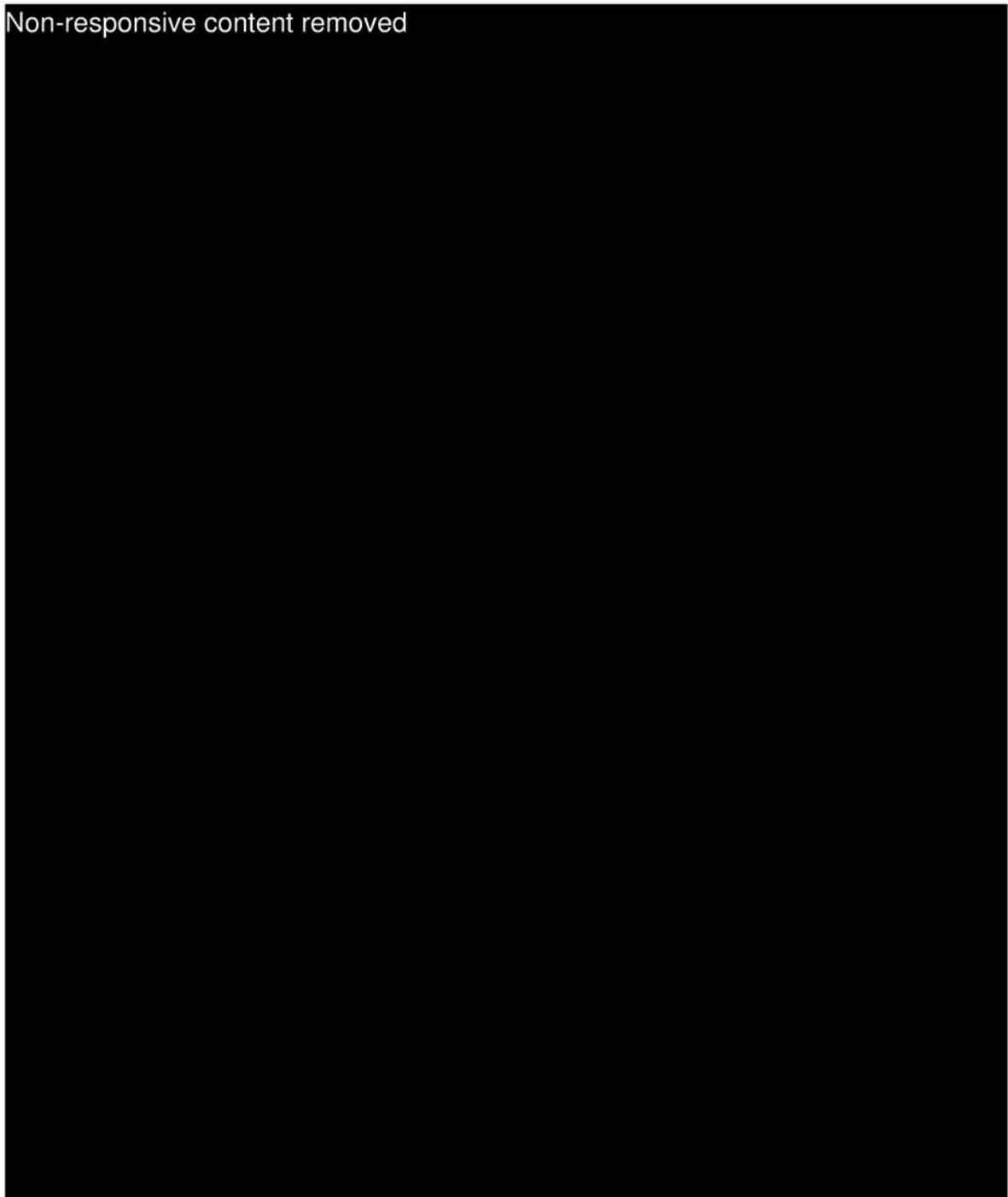
>  
>

>Best regards

>Non-responsive content removed

>  
>  
>  
>

**From:** Non-responsive content removed  
**To:**



**CC:**

**Date:** 6/30/2009, 5:58:26 AM

**Subject:** Minutes: Audi CP4 - technical discussion from 06/10/2009

**Attachments:** [986166\\_01\\_cp4\\_fg\\_090610.pdf](#)  
[CP4-Lebensdauerabsicherung\\_Kunden.pdf](#)

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[EHP\\_0718](#) Non-responsive content removed [Auszug opt. Stoßelverband.pdf](#)  
[EHP\\_0717](#) Non-responsive content removed [opt-c-schicht.pdf](#)

Dear Sir/Madam,


Please find attached the minutes of the last CP4 technical discussion. Due to the late distribution and the next pending technical discussion, the distribution is being made without prior coordination.

Attachments

- 1) DL overview
- 2) W36
  
- 3) Opt. tappet assembly
- 3) C-layer

Best regards / mit freundlichen Grüßen

Non-responsive content removed



Headquarters: Stuttgart, Court of Registry: Amtsgericht Stuttgart, HRB 14000;  
Chairman of the Supervisory Board: Hermann Scholl; Management: Franz Fehrenbach, Siegfried Dais;  
Bernd Bohr, Rudolf Colm, Volkmar Denner, Gerhard Kümmel, Wolfgang Malchow, Peter Marks,  
Peter Tyroller; Uwe Raschke

**From:** Non-responsive content removed  
**To:** [REDACTED]  
**CC:** [REDACTED]  
**Date:** 1/29/2010, 1:38:29 PM  
**Subject:** Re: Bosch warranty decisions for [REDACTED] (e.g., here: V12-TDI)

Kind regards,

Non-responsive content removed

Head of Product Technology, Diesel Engines

AUDI AG

85045 Ingolstadt

Non-responsive content removed

<http://www.audi.com>

Domicile/Sitz: Ingolstadt  
Court of Registry/Registergericht: Amtsgericht Ingolstadt  
Commercial Register No./HRB Nr.: 1  
Chairman of the Supervisory Board/Vorsitzender des Aufsichtsrats: Martin Winterkorn  
Vorstand/Board of Management: Rupert Stadler (Vorsitzender/Chairman), Ulf Berkenhagen, Michael Dick, Frank Dreves, Peter Schwarzenbauer, Axel Strotbek, Werner Widuckel

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**From:** Non-responsive content removed  
**Sent:** Friday, January 29, 2010, 1:35 PM  
**To:** Non-responsive content removed  
**Subject:** Re: Bosch warranty decisions for [REDACTED] (e.g., here: V12-TDI)

Hello [REDACTED]

The answer from [REDACTED] **Yes**

**From:** Non-responsive content removed  
**Sent:** Thursday, January 28, 2010, 5:53 PM  
**To:** Non-responsive content removed  
**Subject:** Re: Bosch warranty decisions for [REDACTED] (e.g., here: V12-TDI)

Hello [REDACTED]

Attached for your information:

Bosch denies warranty coverage for the high-pressure pump failure in [REDACTED], although the fuel sample result was okay.

In addition, the warranty decision contains the note: **Pump not approved for the [REDACTED] market**

Do you think this would be a topic for 02/12?

Kind regards,

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Head of Product Technology, Diesel Engines

AUDI AG

85045 Ingolstadt

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<http://www.audi.com>

Domicile/Sitz: Ingolstadt

Court of Registry/Registergericht: Amtsgericht Ingolstadt

Commercial Register No./HRB Nr.: 1

Chairman of the Supervisory Board/Vorsitzender des Aufsichtsrats: Martin Winterkorn

Vorstand/Board of Management: Rupert Stadler (Vorsitzender/Chairman), Ulf Berkenhagen, Michael Dick, Frank Dreves, Peter Schwarzenbauer, Axel Strotbek, Werner Widuckel

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**From:** Non-responsive content removed

**Sent:** Thursday, January 28, 2010, 8:40 AM

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**Subject:** Re: Bosch warranty decisions for [REDACTED] (e.g., here: V12-TDI)

Hello

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BOSCH CRS systems are generally approved for diesel fuel according to the European EN590 standard. Approvals under the U.S. ASTM D975 standard are also possible, but the lower lubricity must be compensated for by using a Low Lubricity Package.

The most important properties in which fuels outside of Central Europe differ from those described in the named standards are

- Lubricity
- Particle content
- Water content

With regard to [REDACTED]

- With regard to lubricity, fuel surveys indicate that
  - only 30% of samples comply with EN590
  - and 40% of samples are worse than ASTM D975

As a result, the use of a Low Lubricity Package is mandatory here.

- With regard to water and particle intrusion, it is known that these factors are much greater in [REDACTED] than in Central Europe (due to the poorer road conditions) that that filtration and water separation, which are entirely sufficient in our environment, are not sufficient in [REDACTED] in most cases; the vehicle-specific location of the tank ventilation plays a major role here
- Therefore, a country-specific trial must also be provided for [REDACTED] before we can grant a vehicle-specific approval (side note: it would be nice to have a trial in every other country, to take all country specifics into account; in any case, Non-responsive content removed [REDACTED] to cover at least the typical countries)

Finally, a few statements resulting from the fact that fuel samples from the complaint-related vehicles were standard-compliant:

- Fuel variances, particularly those regarding lubricity, do not result in the spontaneous failure of our components, since such cases are taken into account in the robustness reserve, which is also guaranteed
- However, ongoing operation with non-standard-compliant fuels may result in preliminary damage, which then may result in more serious damage in the course of further operation (this can be the case even if standard-compliant fuel is used after the initial damage)
- Therefore, a single fuel sample is not significant; a large number of damaged vehicles with standardized fuel would be required before one could draw the conclusion that the fuel in a specific country was unsuitable

As a result of the above statements, we conclude that the rejection of complaints from the [REDACTED] market was the correct decision.

Best regards / mit freundlichen Grüßen

Non-responsive content removed

Robert Bosch GmbH

Non-responsive content removed

[www.bosch.com](http://www.bosch.com)

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d

**From:** Non-responsive content removed

**Sent:** Monday, January 25, 2010, 6:23 PM

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**Subject:** Re: Bosch warranty decisions for [REDACTED] (e.g., here: V12-TDI)

**Importance:** High

Hello Mr. [REDACTED]

From the warranty decision below, I presume that BOSCH has generally not approved the CP 4.2 [REDACTED]

This statement is completely new to me and I request that you either confirm or deny it explicitly!

Until now, I understood your "official" letter (see file) that you link your warranty with operation of the pump with fuels of EN 590 quality. And the sample did not show any deviations in this case!

And until a deviation is proven, there is no foundation for rejecting the warranty!

So:

Either change the guarantee decision or provide plain language from Bosch to our Executive Board members with regard to prohibited markets!

Please provide feedback.

Best regards

Non-responsive content removed

AUDI AG

[REDACTED]  
85045 Ingolstadt

Non-responsive content removed

<http://www.audi.com>

Domicile/Sitz: Ingolstadt

Court of Registry/Registergericht: Amtsgericht Ingolstadt

Commercial Register No./HRB Nr.: 1

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**From:** Non-responsive content removed  
**Sent:** Friday, January 22, 2010, 4:07 PM  
**To:** Non-responsive content removed  
**Subject:** Re: Bosch warranty decisions for [REDACTED] (e.g., here: V12-TDI)

Hello [REDACTED]

Yes!  
The sample was completely nondescript with 43.8 mg/kg water, no RME.

Best regards / mit freundlichen Grüßen

Non-responsive content removed

Robert Bosch GmbH  
PO box 30 02 20  
70442 Stuttgart  
GERMANY  
[www.bosch.com](http://www.bosch.com)

Tel. 0711/811-41746

**From:** Non-responsive content removed  
**Sent:** Friday, January 22, 2010, 1:55 PM  
**To:** Non-responsive content removed  
**Subject:** Re: Bosch warranty decisions for [REDACTED] (e.g., here: V12-TDI)

Hello [REDACTED]

Is there a fuel analysis as well?

Best regards

Non-responsive content removed

8D-Report-Nr: 000182010 Compl. date: 20.01.2010 USERID [REDACTED]  
----- PROBLEM DESCRIPTION -----  
Customer complaint: No info from AUDI---Bosch finding: R :Rolle(R) Running surface -- ground down ----  
----- CAUSES OF FAULT -----  
- ----Pump drive damage----~ Pump not approved for [REDACTED] because diesel fuels there do not fulfill the requirements of EN590. ~~ Since no RB responsibility was determined, the 8D was terminated at D4.  
----- IMMEDIATE MEASURES -----  
Assess the damage ~ Through drive damage task force.~ Analyze and compare the damage with other pump drive damage.  
----- CORRECTION MEASURES -----  
empty D5 Step

-----Original message-----

From: Non-responsive content removed  
Sent: Thursday, January 21, 2010, 12:56 AM  
To: Non-responsive content removed



EA11003EN-01568[5]

Subject: BNR information to damage processor T 21 G NI

Dear damage processor,

The 8D reports for the following QTS complaints were completed by the vendor the previous day and you may now check and process them further.

Sincerely yours

AUDI AG Non-responsive content removed

Supp.-No.	Supplier name	BNR	Part number	Part name	BSCHL	FSCHL	Recognized origin
00001283	30 ROBERT BOSCH GMBH		0003524481	05A 130 755 B	HIGH PRESSURE PUMP		TFK04 N FIELD

Non-responsive content removed

Date: 4/4/2011, 10:55:35 AM

Subject: Re: Rating catalog LR, RS, CS

I believe we are talking at cross purposes

Air:

If a pump that can handle air is demanded, we will deliver it (you know that we're working on it)

The current status is that we exclude the delivery of free air in the pump inlet in the TCD. And that is the foundation of our delivery contract, to which Audi did not reject.

You also know that the entire trials at Bosch took place without air.

Water:

The standard in the U.S. is 300 ppm instead of 200 ppm water. Our drivetrain can handle that.

This is the foundation of our TCD and we guarantee it. Poor results are obtained if water content is significantly higher

In my estimation, the water problem is a local problem at most, but not a general problem.

We also need an amplification factor for air: Poor fuel conditions, gasoline, aged biodiesel, ... with the poor friction value from oxide abrasion and the poor friction value of the fuel and/or lubricating film thickness from the viscosity, this can prevent the warm-up of the roller.

In the case of gasoline, the risk of outgassing must also be added. This can only be prevented by significantly increasing the internal pump pressure. But we also have potential with the discussion on a low pressure circuit from last week (increase of the opening pressure)

Best regards / mit freundlichen Grüßen

Robert Bosch GmbH

Non-responsive content removed

Headquarters: Stuttgart, Court of Registry: Amtsgericht Stuttgart, HRB 14000;  
Chairman of the Supervisory Board: Hermann Scholl; Managing Directors: Franz Fehrenbach, Siegfried Dais;  
Bernd Bohr, Rudolf Colm, Volkmar Denner, Wolfgang Malchow, Peter Marks, Peter Tyroller; Stefan Asenkerschbaumer, Uwe Raschke, Wolf-Henning Scheide

FROM: Non-responsive content removed  
SENT: MONDAY, APRIL 04, 2011, 9:34 AM

Non-responsive content removed

SUBJECT: RE: RATING CATALOG LR, RS, CS  
IMPORTANCE: LOW

Good morning

- 1) If Bosch does not allow free air in the pump, then I have to ask why the pump cannot be run air-free.
- 2) According to the U.S. standard, even more water than 200 ppm is possible; we discussed this recently; in this case, you have a problem in the U.S..
- 3) We you did not find any high water content in our factory fuels, nor in our German field fuels; the brown linings occur even at low water content, which means the pump is not suitable for standardized fuels. You continue to shift the problem from the pump to us and our customers.

We will have to discuss it on Wednesday anyway.  
Bosch has yet to provide the chain of evidence for your claims.

Best regards

Roland Nilp QA Engine Product Technology

Diesel Injection Systems

AUDI AG I/GQ-221

85045 Ingolstadt  
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Thomas Sigt,  
Axel Strotbek

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AUDI AG.

FROM:

Non-responsive content removed

SENT: MONDAY, APRIL 04, 2011, 7:19 AM

Non-responsive content removed

SUBJECT: RE: RATING CATALOG LR, RS, CS

The Rating catalog is a catalog that was coordinated with me and

Each of the scenarios was developed systematically, based on cause-effect relationships, and coordinated with the TCD / FMEA

Your example can be compared directly with the TCD

1 We do not allow any free air in the pump in the TCD, which secures the pump

2 We allow 200 ppm of water in the TCD and we know that hydroxides can occur at higher water content

We also know that when oxides and hydroxides are created on the roller, the abrasion can be deposited on the roller contact, significantly worsening the coefficient of friction  
As a result, the conditions for brake plates and drivetrain damage are given

Therefore, there is no reason to modify the catalog from RB's point of view. We also continue to maintain an internal catalog of indicators that provides us with information on non-standardized fuels, ...  
This catalog enables us to explain very well how much water was present in the pump and for how long.

Once the air trials are finished, we will be able to supplement the catalog for air as well.

Best regards / mit freundlichen Grüßen

Robert Bosch GmbH

Non-responsive content removed

Headquarters: Stuttgart, Court of Registry: Amtsgericht Stuttgart, HRB 14000;  
Chairman of the Supervisory Board: Hermann Scholl; Management: Franz Fehrenbach, Siegfried Dais;  
Bernd Bohr, Rudolf Colm, Volkmar Denner, Wolfgang Malchow, Peter Marks,  
Peter Tyroller; Stefan Asenkerschbaumer, Uwe Raschke, Wolf-Henning Scheider

FROM: Non-responsive content removed

SENT: FRIDAY, APRIL 01, 2011 1:51 PM TO: BOECKING FRIEDRICH (DS-PC/ENP); SCHORR DIETMAR (DS-PC/EHP5)

Non-responsive content removed

SUBJECT: RE: RATING CATALOG LR, RS, CS

Hello

I hereby object to the individual ratings in the rating catalog, because your red rating gives the impression that a serious fault (heavy wear and tear) is present.

Example: brown roller - whether the roller is discolored 50% or 100% does not have any impact on its function, in my opinion.

Reason: QA uses the R7 brown roller in a warranty decision to reject the pump as a >>customer error<<.

Please add the rating catalog to the task force agenda, in addition to the topic of diagnosis, for Wednesday, 04/06.

Have a nice weekend!

Best regards

FROM: Non-responsive content removed

SENT: FRIDAY, APRIL 01, 2011, 12:51 PM

TO: Non-responsive content removed

CC: Non-responsive content removed  
SUBJECT: RATING CATALOG LR, RS, CS

Hello

As requested, please find attached the rating catalog for LR, RS and CS.

Best regards / mit freundlichen Grüßen

Robert Bosch GmbH

Non-responsive content removed

[www.bosch.com](http://www.bosch.com)

Non-responsive content removed

Headquarters: Stuttgart, Court of Registry: Amtsgericht Stuttgart, HRB 14000;  
Chairman of the Supervisory Board: Hermann Scholl; Managing Directors: Franz Fehrenbach, Siegfried Dais;  
Bernd Bohr, Rudolf Colm, Volkmar Denner, Wolfgang Malchow, Peter Marks, Peter Tyroller; Stefan Asenkerschbaumer, Uwe Raschke, Wolf-Henning Scheider

FROM: [Redacted]  
SENT: THURSDAY, MARCH 31, 2011, 4:14 PM  
TO: [Redacted]  
CC: [Redacted]  
SUBJECT: RE: IQIS:230003167314\_INFO

Hello [Redacted]

Please let me know the drive folder or send me the rating catalogs for

- Brown discoloration
- Position lines / brake plates
  
- Etc.

Hello [Redacted]

Audi believes that they cannot blame us for the 7 rating.  
Please keep the pump – we have to clarify this.  
And it has nothing to do with the customer complaint anyway.

Thank you.

Best regards

[Redacted]

FROM: [Redacted]  
SENT: TUESDAY, MARCH 29, 2011, 7:08 PM

[Redacted]

[Redacted]

SUBJECT: IQIS:230003167314\_INFO

Hello,

Here is information about the analysis of the HP-CP4.1

Analysis - (carried out in FeP)

- Packaging OK. 02/172011 (Ug)
- Fuel sample approx. 3 m. taken - too little for analysis
- Supply/return positioners OK
- Depression depth 3.60 mm - Visual inspection of spring OK
  
- Bubble test OK
- Nowe rotation check OK
- Torque MU bolts OK 02/18/2011 (Sen) - Functional check (3x) OK
  
- Visual inspection of tightness on computer bench OK 03/08/2011 (Lp)
- Disassembly of cylinder head and visual inspection of all drive parts: NOT OK => brown discoloration / corrosion on roller R7

SUMMARY : Pump function carried out 3x – OK

Rust marks on roller.  
We have to reject the complaint for this reason.

Further handling of the pump is subject to customer decision

Regards

[Redacted]

BOSCH DIESEL s.r.o.  
[Redacted]

[Redacted]

[Redacted]

KUNDE	TTNr	IQIS	FD	SNr.	Beanst. Text	[KM]	Ausfall-land	Rezerenz Nr:	QTS Nr:	Befund
AUDI	0445.010.507	230003167314	16.11.09	BPT 1157	FZG springt nicht mehr an	106484	DE	IGG000007008-001	3926077	Korrosion an der Laufrolle



**BOSCH**

515

0 445 010 507

CR/CP4S1/R35/20

03L 130 755



03 161 109

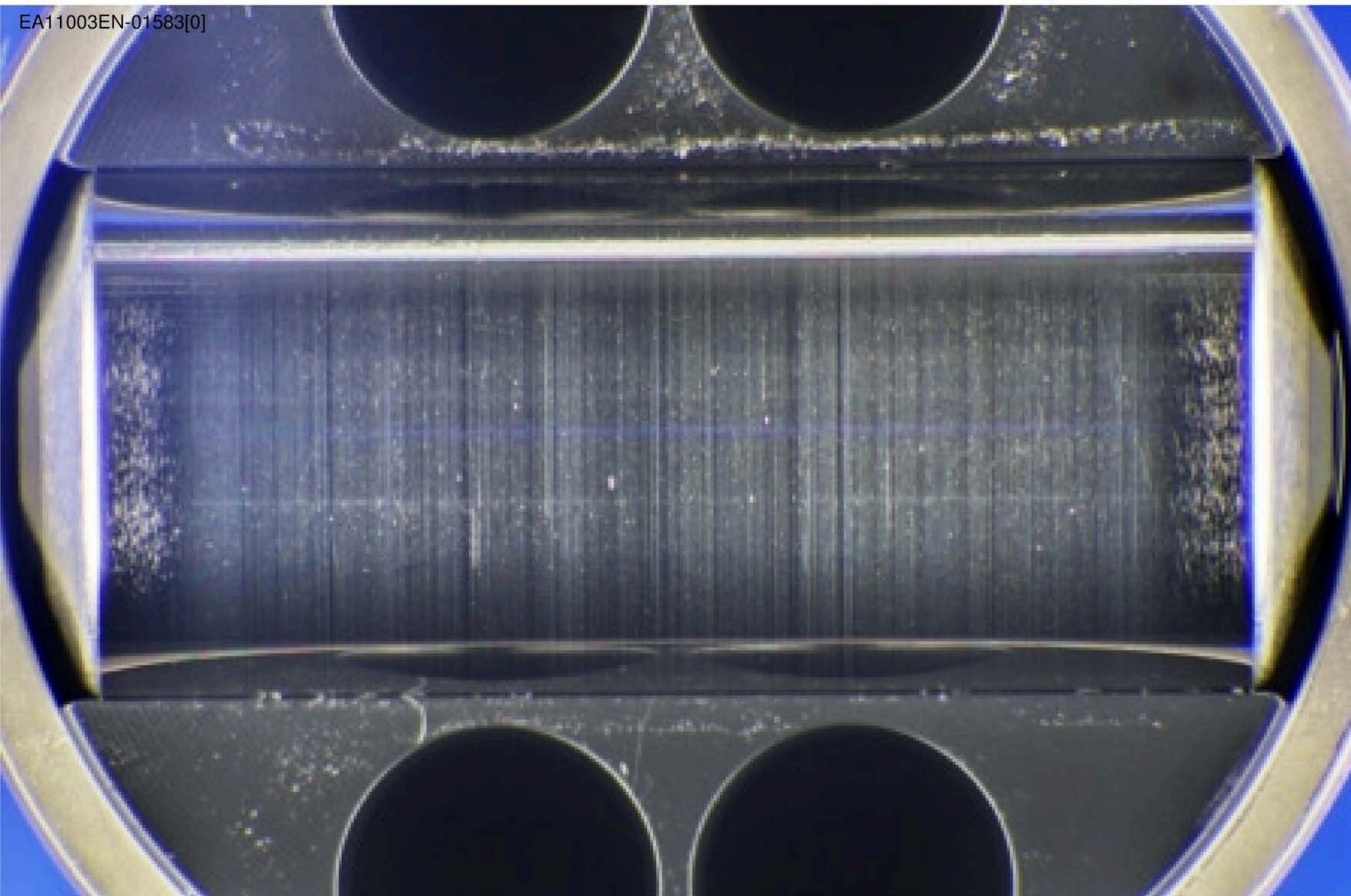
BPT 1157



0008



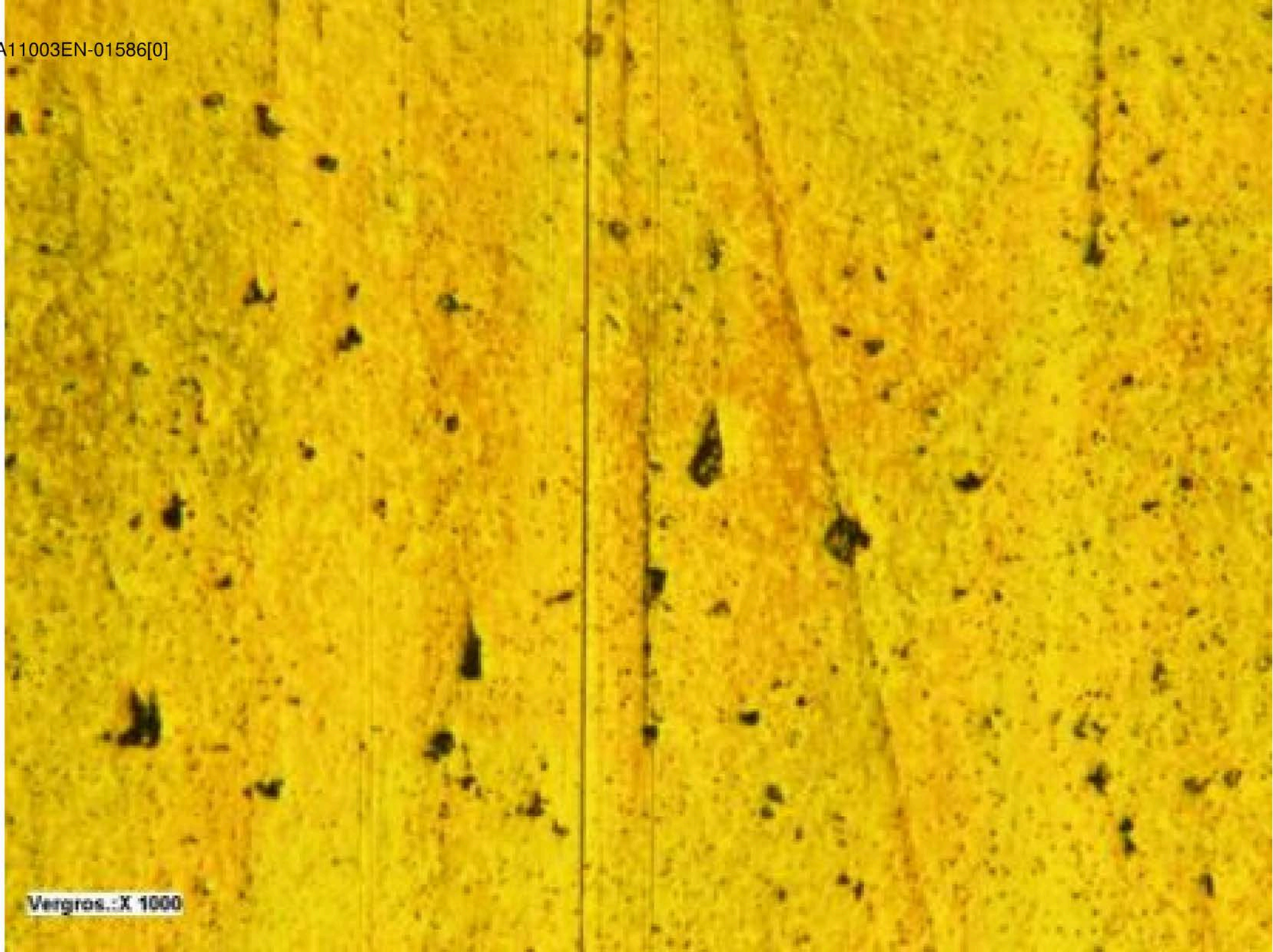
Made in Czech Republic





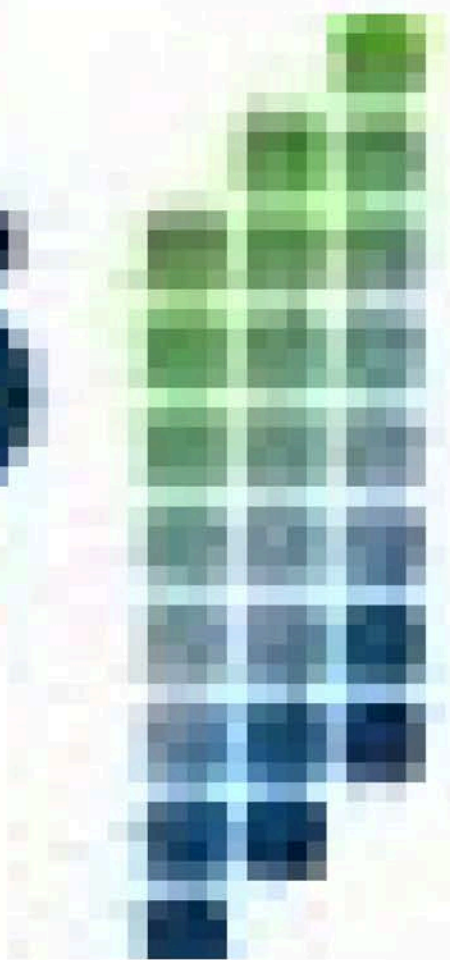






Vergros.:X 1000

125



Bosch

1886-2011