

EA11003EN-01202[0]

From: Non-responsive content removed
To:
CC:

Date: 9/15/2010, 4:04:12 PM
Subject: ANS: Correction of the mileage of the two dismantled 2.0l 2HBBA012 RPU engines
Attachments: [2010-CP4_0156_Bericht_DS-241775_gez.pdf](#)
[2010-CP4_0155_Sichtbefund_Bericht_gez.pdf](#)
[2010-CP4_0227_Bericht.pdf](#)

INFORMATION Redacted PURSUANT TO THE FREEDOM OF
INFORMATION ACT (FOIA), 5 U.S.C. 552(B)(6)

Hello Mr. Non-responsive content removed

Please find attached 3 diagnosis reports as promised:

- * Engine CDC 000 018; Pump 260109-1383; Mileage 100,000 km; Report 2010-CP4_0156_Bericht_DS-241775_gez.pdf
- * Engine CDC 000 543 (534?); Pump 161106-1144; Mileage 50,000 km; Report 2010-CP4_0155_Sichtbefund_Bericht_gez.pdf
- * Engine CDC 000 047; Pump 261109-1419; Mileage 56,551 km; Report 2010-CP4_0227_Bericht.pdf (not 100,000 km; EN590; did you mean this vehicle? If not, please provide more info if possible so that I can look for it specifically)

Mit freundlichen Grüßen / Best regards

Non-responsive content removed

[Robert Bosch GmbH](#)

Non-responsive content removed

Domicile: Stuttgart, Court of Registry: Local District Court Stuttgart, Commercial Register No. 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: Wednesday, September 15, 2010, 3:12 PM

To: Non-responsive content removed
Cc: Non-responsive content removed

Subject: Re: Correction of the mileage of the two dismantled 2.0l 2HBBA012 RPU

EA11003EN-01202[1]

Importance: High

Hello [Non-responsive content removed]

Please find attached the two vehicle/engine nos. of the RPUs run in [Non-responsive content removed] as promised. In addition to these two vehicles, there is a third vehicle also run in [Non-responsive content removed] (100,000 km). I need the report on the findings of the HPPs for this vehicle today.

Can you also tell me when to expect delivery of the first sample parts for the requested CP4.1 for T5 and Crafter with C3.1 coating (RP+).

Engine data:

Veh.: AMAROK AMAROK

Veh. no.: [Non-responsive content removed]

Engine no. CDC 000 018 CDC 000 543

Mileage: 100,000 km / 50,000 km

Many thanks in advance and best regards

With best wishes

[Non-responsive content removed]

Volkswagen AG

[Non-responsive content removed]

VOLKSWAGEN AG

Sitz/Domicile: Wolfsburg

Registergericht/Court of Registry: Local District Court Braunschweig

HRB No./ Commercial Register No.: 100484

Vorsitzender des Aufsichtsrats/Chairman of the Supervisory Board: Ferdinand Piëch Vorstand/
Board of Management: Martin Winterkorn (Vorsitzender/Chairman), Francisco J. Garcia Sanz,
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From: Non-responsive content removed
To: [Redacted]
CC: [Redacted]
Date: 3/31/2011, 5:06:09 PM
Subject: VW-CP4 reports on findings
Attachments: [VW_RPU_62106km_2010_CP4_0812.pdf](#)
[VW_Fzg_104887km_2010_CP4_0460.pdf](#)

SECTION CONFIDENTIAL

Good morning [Redacted]

Please find attached 2 diagnosis reports if you have not already received them.

I have lost track slightly of which reports on findings you already have. For this reason, I suggest I send you all the current reports, even if there is a risk that you might already have received them from our development department.
If these reports should also be sent to other VW colleagues can I ask you to forward them internally.

Thank you.
Mit freundlichen Grüßen / Best regards

[Redacted]

Robert Bosch GmbH

[Redacted]

Domicile: Stuttgart, Court of Registry: Local District Court Stuttgart, Commercial Register No. 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-01217[0]

From: Non-responsive content removed**To:****CC:****Date:** 07.26.2011 4:47:14 PM**Subject:** Result of [REDACTED] endurance run**Attachments:** [2011-CP4_0508_Bericht_gez_31514.pdf](#)
[2011-CP4_0505_Bericht_gez_31512.pdf](#)
[2011-CP4_0507_Bericht_gez_31513.pdf](#)
[Pages from 1903_EHC1_La 117. PG VW R4.pdf](#)

Hello [REDACTED]

Please find attached the reports and additional page from the presentation in the project meeting as requested. The result, in my view, is positive.

Please also provide info on part disposition. Do you want the pumps in WOB or should we scrap them as standard?

Mit freundlichen Grüßen / Best regards

Non-responsive content removed

Robert Bosch

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Domicile: Stuttgart, Court of Registry: Local District Court Stuttgart, Commercial Register No. 14000;
Chairman of the Supervisory Board: Hermann Scholl; Management: Franz Fehrenbach, Siegfried Dais;
Stefan Asenkerschbaumer, Bernd Bohr, Rudolf Colm, Volkmar Denner, Wolfgang Malchow, Peter Marks, Uwe Raschke, Wolf-Henning Scheider, Peter Tyroller

**From:** Non-responsive content removed**Sent:** Friday, July 22, 2011, 3:25 PM**To:** Non-responsive content removed**Cc:****Subject:** ANS: HPP from endurance run on the findings

Hello [REDACTED]

Here is the story of the MNS HPP (Q verification run failure at 31,874 km)

During yesterday's shift run traveling on the freeway at approx. 120 km/h, there was a performance dropout of the engine.

No fuel intake possible, preheat light started flashing in the station wagon, when the vehicle came to a standstill the engine stopped.

The vehicle could not be restarted and had to be towed to the station.

3 static error memory entries in CU01:

"P0087 Fuel rail / system pressure too low

0110 0001 upper limit value exceeded"

Diagram readout of the MWB engine and transmission attached.

EA11003EN-01217[1]

A fuel sample was taken from the vehicle and examined with the "fuel identification device DMP 02". (Unfortunately this device only outputs information about the type of fuel, not the quality.)
Result: 100% diesel (see attached photo "diesel sample")

The analysis approached used was to examine the HPP, in which some shavings were found (see photos).

HPP parts data:

805 010 511 0, Bosch 1000, 1027, 02/53R/1S4PC/RC, A557 031 L30, 01 21 80 80, 1540TPB.

Crafter and RPU HPP supply with [redacted] test fuel. Low pressure circuits with both series.

We will try to complete the additional information (questionnaire) you requested soon and, if successful, would pass this onto you in a findings meeting.

Please send the results of the [redacted] HPP analysis to me and [redacted] in advance. I will not be able to find out the result in PM 117 because of plant holiday.

Thank you

Best regards

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VOLKSWAGEN AG

Non-responsive content removed

From: [redacted]

Sent: Friday, July 22, 2011, 1:57 PM

To: [redacted]

Subject: Re: HPP from endurance run on the findings

Hello [redacted]

Here are the questions from Mr [redacted]

With best wishes

Non-responsive content removed

Volkswagen AG

Non-responsive content removed

From: [redacted]

Sent: Thursday, July 21, 2011, 4:53 PM

To: [redacted]

EA11003EN-01217[2]

Subject: Re: HPP from endurance run on the findings

Hi all,

If I am reading it right, are the bottom two the failures? Please answer my questions as far as you can, thank you. Would be very helpful in the findings. Thank you.

Mit freundlichen Grüßen / Best regards

Non-responsive content removed

Robert Bosch

Non-responsive content removed

Domicile: Stuttgart, Court of Registry: Local District Court Stuttgart, Commercial Register No. 14000;
Chairman of the Supervisory Board: Hermann Scholl; Management: Franz Fehrenbach, Siegfried Dais;
Stefan Asenkerschbaumer, Bernd Bohr, Rudolf Colm, Volkmar Denner, Wolfgang Malchow, Peter Marks, Uwe Raschke, Wolf-Henning Scheider,

Peter Ty-roller

Description:
cid:b28ce4b8-b627-448e-aecd-19b7a229ed22

From: Non-responsive content removed
Sent: Thursday, July 21, 2011, 3:16 PM
To: Non-responsive content removed
Cc: Non-responsive content removed
Subject: HPP from endurance run on the findings

Hello

I have received the three high-pressure fuel pumps. They will go to Stuttgart tomorrow on an application vehicle.

We have received the following info on the HPPs:

1. 03L 130 755 A no info on the HPP ;-(
08 081210
BPT 0451
2. 03L 130 755 AB from VN 817 1 0360 with 89,297km
02 211010
BPT 0249
2. 03L 130 755 AB from VN 831 9 0143 with 143,821km (EWP)
08 100810
BPT 0022

Can you please send us the missing info about HPP no. 1!

please enter the HPPs in the findings list. The HPPs are in the Passat (NMS) that is going from BS to Fe tomorrow.

Please take the parts out of the trunk on Monday and give them to Mr. Non-responsive content removed

Thanks for your efforts!

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Robert Bosch GmbH

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EA11003EN-01217[3]

www.bosch.com

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Domicile: Stuttgart, Court of Registry: Local District Court Stuttgart, Commercial Register No. 14000;
Chairman of the Supervisory Board: Hermann Scholl; Management: Franz Fehrenbach, Siegfried Dais;
Stefan Asenkerschbaumer, Bernd Bohr, Rudolf Colm, Volkmar Denner, Wolfgang Malchow, Peter Marks, Uwe Raschke, Wolf-Henning Scheider,
Peter Tyroller

< OLE object: Picture (Enhanced Metafile) >>

From: Non-responsive content removed
To:
CC:

Date: 7/21/2008, 8:06:56 AM
Subject: Re: Other diagnosis reports on W19EU5
Attachments: 19695 W19EU5.pdf
19803 W19EU5.pdf
19677 W19BIN5.pdf
19684 W19BIN5.pdf
19675 W19BIN5.pdf

SECTION CONFIDENTIAL

Hi all,
Here are more analysis of CP5 ER reports:

Unfortunately I need to raise a new issue, there is cavitation damage between the roller support and high-pressure fuel pump (report 19803+ BIN5 19677), which Bosch regards as raised but non-critical.

I will raise the issue at the next TM and think it would be sensible to run another diagnosis bench in Feuerbach.

Non-responsive content removed what do you think of that suggestion?

Regards

Non-responsive content removed

With best wishes

Non-responsive content removed

AUDI AG

Non-responsive content removed

Sitz/Domicile: Ingolstadt

Registergericht/Court of Registry: Local District Court Ingolstadt

HRB Nr./Commercial Register No.: 1

Vorsitzender des Aufsichtsrats/Chairman of the Supervisory Board: 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
Date: Thursday, July 17, 2008, 6:23 PM
To: Non-responsive content removed
Subject: Re: Other diagnosis reports on W19EU5

Hallo Non-responsive content removed

Please find attached more diagnosis reports on the W19BIN5 and W19EUS project.

W19EU5:

<<19695 W19EU5.pdf>> <<19803 W19EU5.pdf>>
W19BIN5:

<<19677 W19BIN5.pdf>> <<19684 W19BIN5.pdf>> <<19675 W19BIN5.pdf>>

Mit freundlichen Grüßen / Best regards

Non-responsive content removed

Robert Bosch GmbH

Non-responsive content removed

Robert Bosch GmbH, Domicile: Stuttgart, Court of Registry: Local District Court Stuttgart, Commercial Register No. 14000, Chairman of the Supervisory Board: Hermann Scholl; Management: Franz Fehrenbach, Siegfried Dais; Bernd Bohr, Wolfgang Chur, Rudolf Colm, Gerhard Kümmel, Wolfgang Malchow, Peter Marks; Volkmar Denner, Peter Tyroller

EA11003EN-01747[0]

From: Non-responsive content removed**To:****CC:****Date:** 2/15/2010, 8:51:14 AM**Subject:** ANS: T5 [REDACTED] TDI

Hello [REDACTED]

Without sufficient validation of our system robustness under representative market conditions we on the high-pressure side would not have the confidence for this. At present we do not have the right AWP for the CP4.1 from BOSCH to hand for these markets, nor can we say that we would operate stably and without risk with fuels with poor lubricity. Our recommendation is therefor not to risk any quick responses in [REDACTED] but to start the development activities now and, once these are successfully complete, to schedule SOP for 2nd half of 2011 at the earliest unless something crops up and there are no exclusion criteria.

Best regards,

[REDACTED]

>

>From: Non-responsive content removed

>Sent: Saturday, February 13, 2010, 12:30 PM

Non-responsive content removed

>Subject: ANS: T5 [REDACTED] TDI

>

>Hello [REDACTED]

>

>China is demanding EU IV for all cars from 2011 onwards.

>

>At present fuel suitable for DPF is only available in [REDACTED]

>

>There are fuel types throughout the country with 350 (official launch 2010), 500 and 2000 mg/kg of sulfur. >A 50 mg/kg type (this is what the DPF needs) is to be introduced "in due course" whatever that means.

>

>Summary: DPF cannot be used anywhere outside the major cities.

>

>With regard to abrasion: Risk country:

>Metals, impurities in large volumes, previously enormous problems with water in fuel,

>high portion of arctic fuel qualities (low viscosity)

>

>Best regards,

>

EA11003EN-01747[1]

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>

>

>From: Non-responsive content removed

>Sent: Friday, February 12, 2010, 6:52 PM

Non-responsive content removed

>Subject: Re: T5 [redacted] TDI

>Importance: High

>

>Hi all,

>

Non-responsive content removed Assessment of fuel quality -> is DPF? working, is there a risk of carbonization and abrasion in the high pressure fuel system?

Non-responsive content removed Exhaust gas treatment EU4 with PMS ???

Non-responsive content removed Your estimation of the scope of development for PMS (if necessary)

Non-responsive content removed Have we had questions of this type before?

>

>Please let me have your feedback by Monday 2.00 pm so that the response can be agreed and returned in good time (= 18:00 hours)

>

>Best regards / mit freundlichen Grüßen

>

Non-responsive content removed

>Volkswagen AG

Non-responsive content removed

>

>From: Non-responsive content removed

>Sent: Friday, February 12, 2010, 5:18 PM

>To: Non-responsive content removed

>Cc: Non-responsive content removed

>Subject: Re: T5 [redacted] TDI

>

>Hello Non-responsive content removed

>

>Our sales organization is now reconsidering T5 in [redacted] primarily via 132kW TDI with DQ as EU4.

>

>What needs to be done to the TDI for [redacted] Is it necessary to develop PMS for [redacted] (This would mean that there would be no bridging scenario with the TDI)

>

>Please send an estimate of potential through [redacted] by Monday to [redacted] for [redacted], as he is to meet with [redacted] at SoFa.

EA11003EN-01747[2]

>

>Best regards,

Non-responsive content removed

>

>

>

>From Non-responsive content removed

>Sent: Friday, February 12, 2010, 4:46 PM

>To Non-responsive content removed

>Subject: T5 TDI

>

>Dear Non-responsive content removed

>

>I met with the brand executive board today about the project group. We also discussed the topic of the use of T5 TDI in . Until now the response has always been that a PMS would have to be available before the TDI could be used. Is this still the case? Non-responsive content removed quoted a mail from you indicating that adjustments were still required.

> < File: Brief von Non-responsive content removed 20100208.pdf >>

>Can we talk about this by phone on Monday? You will get me at IHC 80321. I am hard to reach at the moment.

>

>Thank you.

>

>Regards

Non-responsive content removed

>

Use of 2.0l 103kW TDI CR EU4 for

Non-responsive content removed

(planned SOP Wk45/10)

Q statement on use of 2.0l 103kW TDI CR for the

Non-responsive content removed

market

Due to new findings by Bosch from the market, a failure rate of up to 100% must be expected with the currently planned high-pressure fuel pump in connection with the locally available fuel quality. The primary causes of this are high water content, low viscosity and lubricity, and other impurities in the fuel. This will require a new anti-wear package from Bosch for the injector unit. Verification-capable parts are not expected until Wk 27/10.

Therefore, requires 6 vehicles with mileage of 100,000 km each for the verification run in

Non-responsive content removed

Vehicles approved to date:

1 0S vehicle (via EU4 poor fuel quality countries)

1 0S vehicle (via FBU market)

Vehicles to be approved:

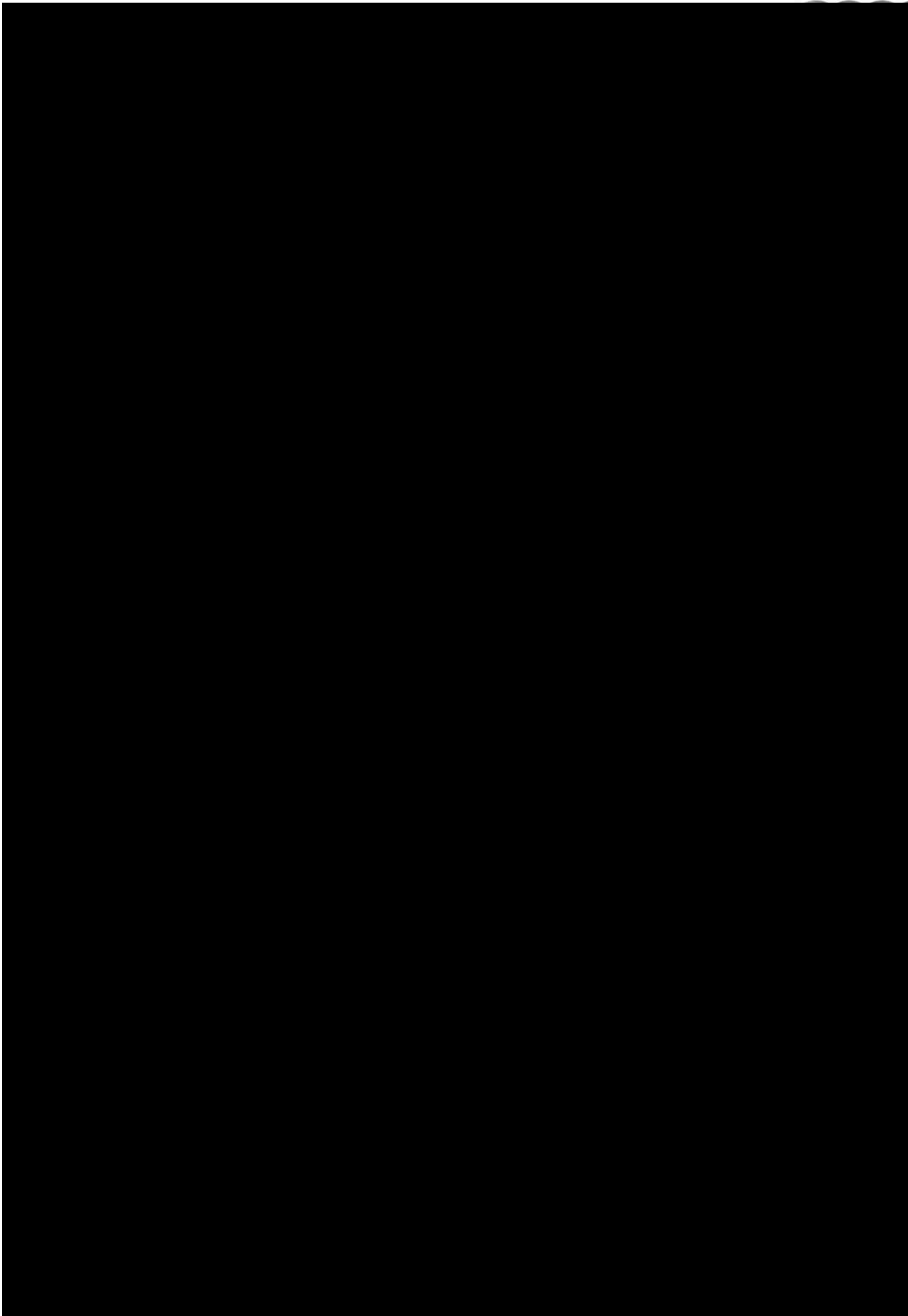
4 0S vehicles (open)

2x 50,000km (for the already approved vehicles)

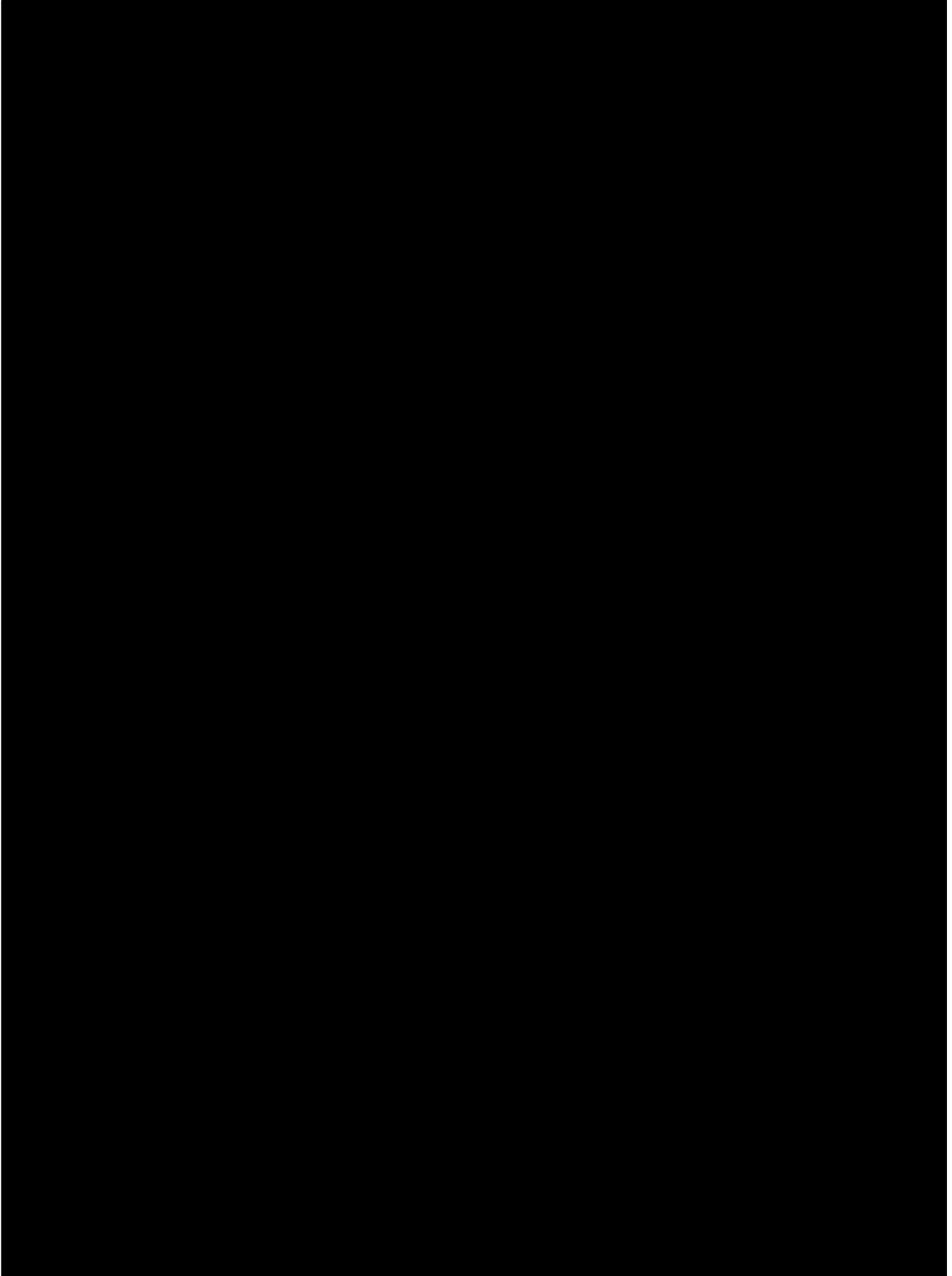
6x flight costs to

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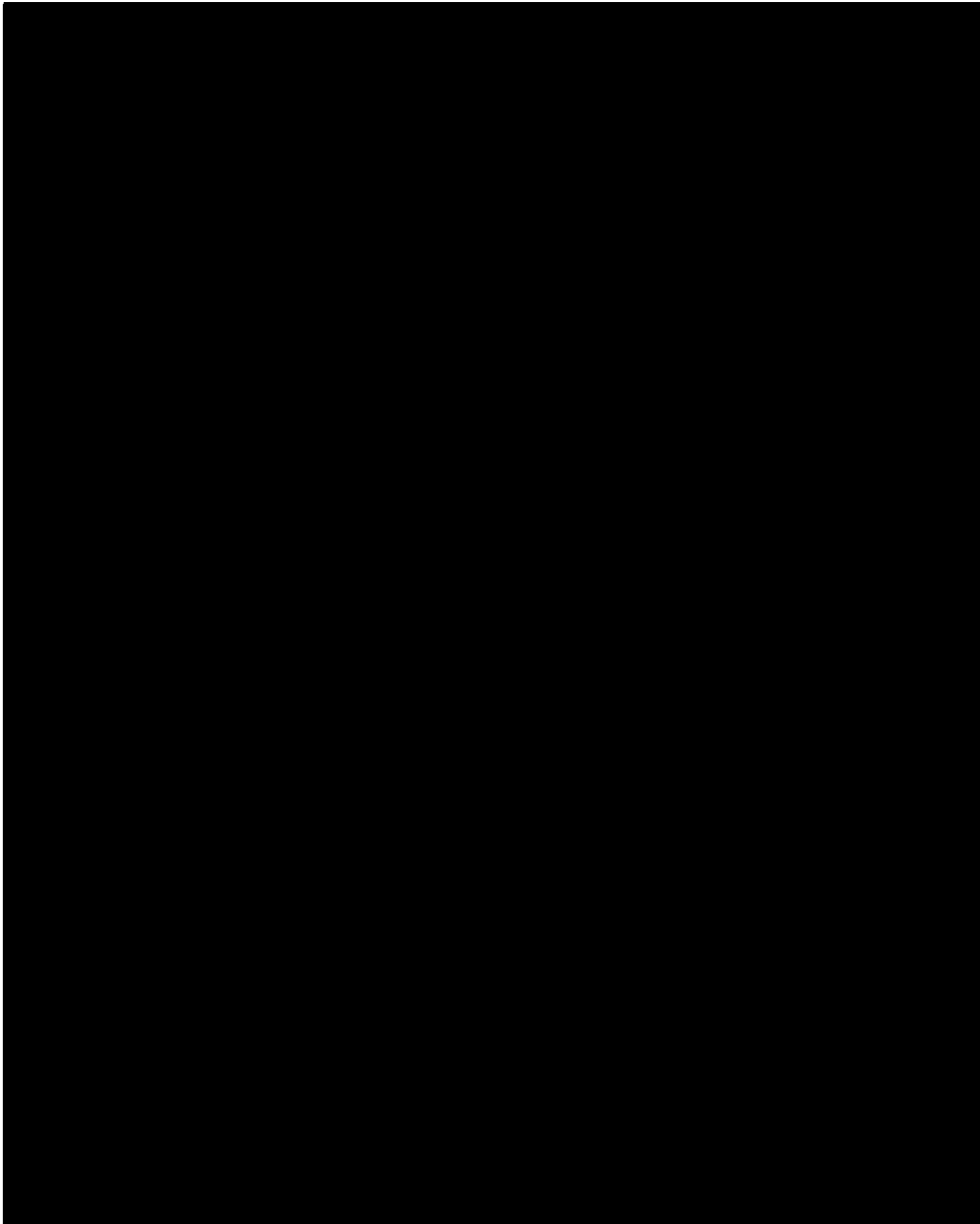


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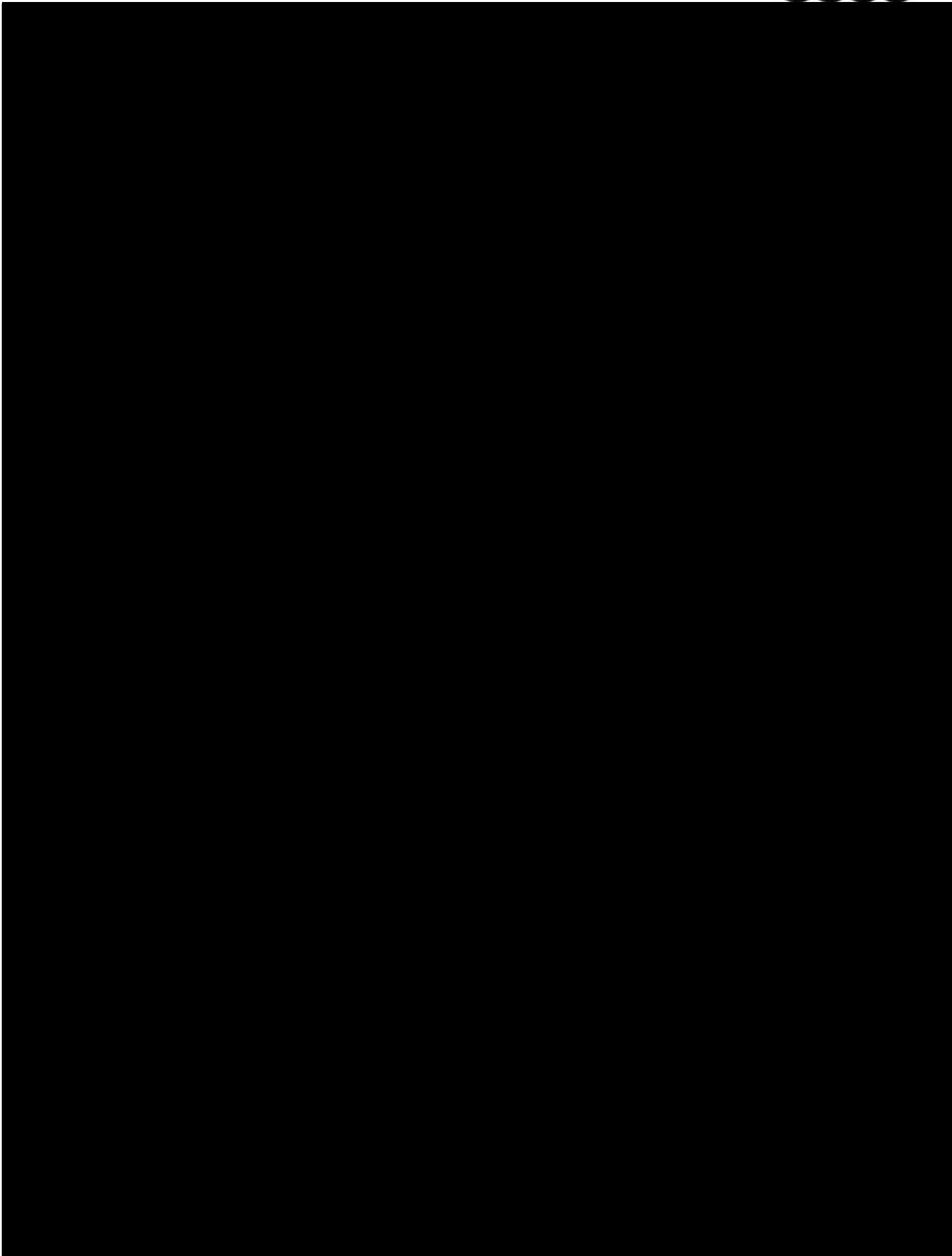
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Audi
突破科技 启迪未来



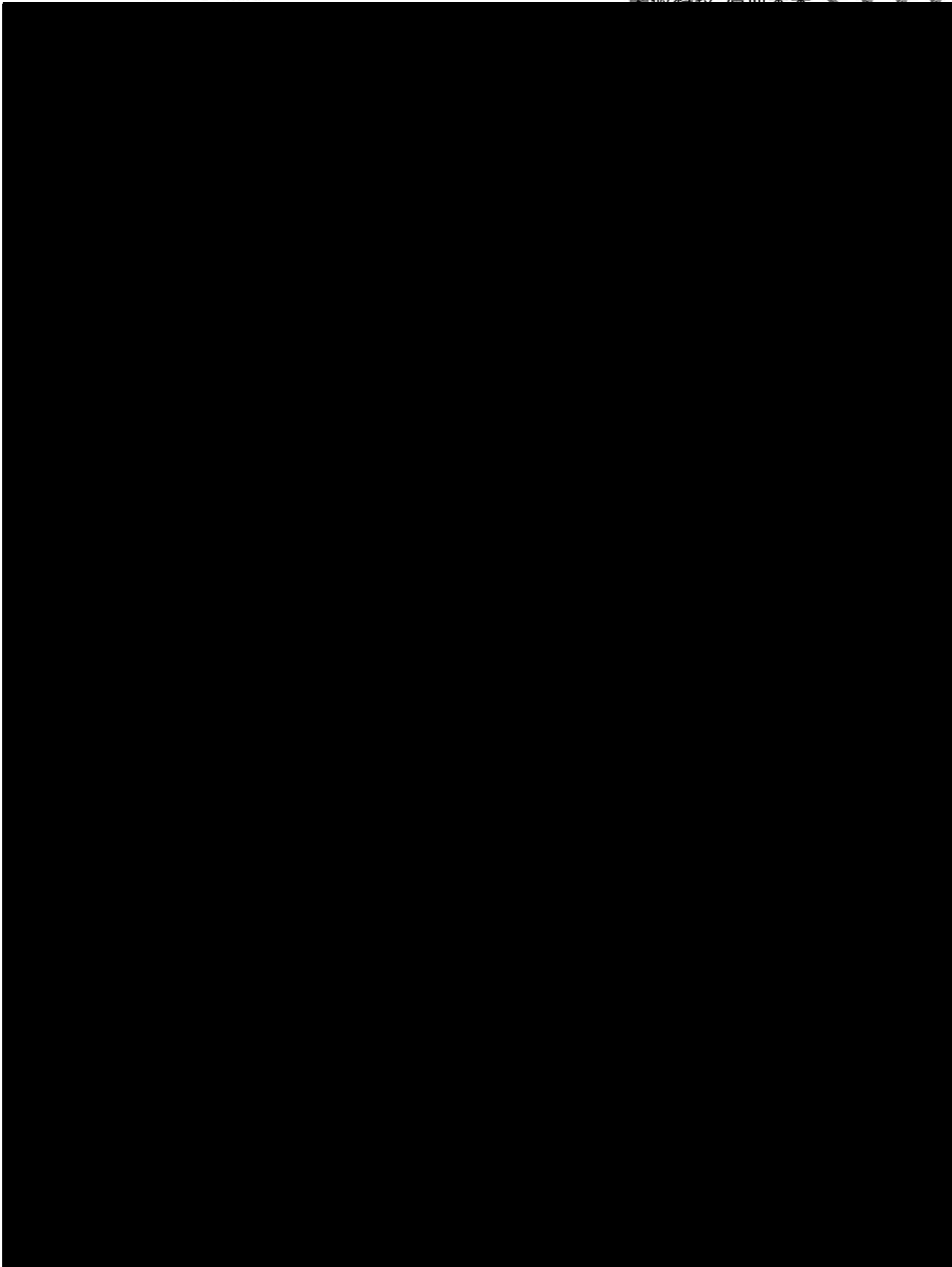
一汽-大众

Audi
突破科技 启迪未来



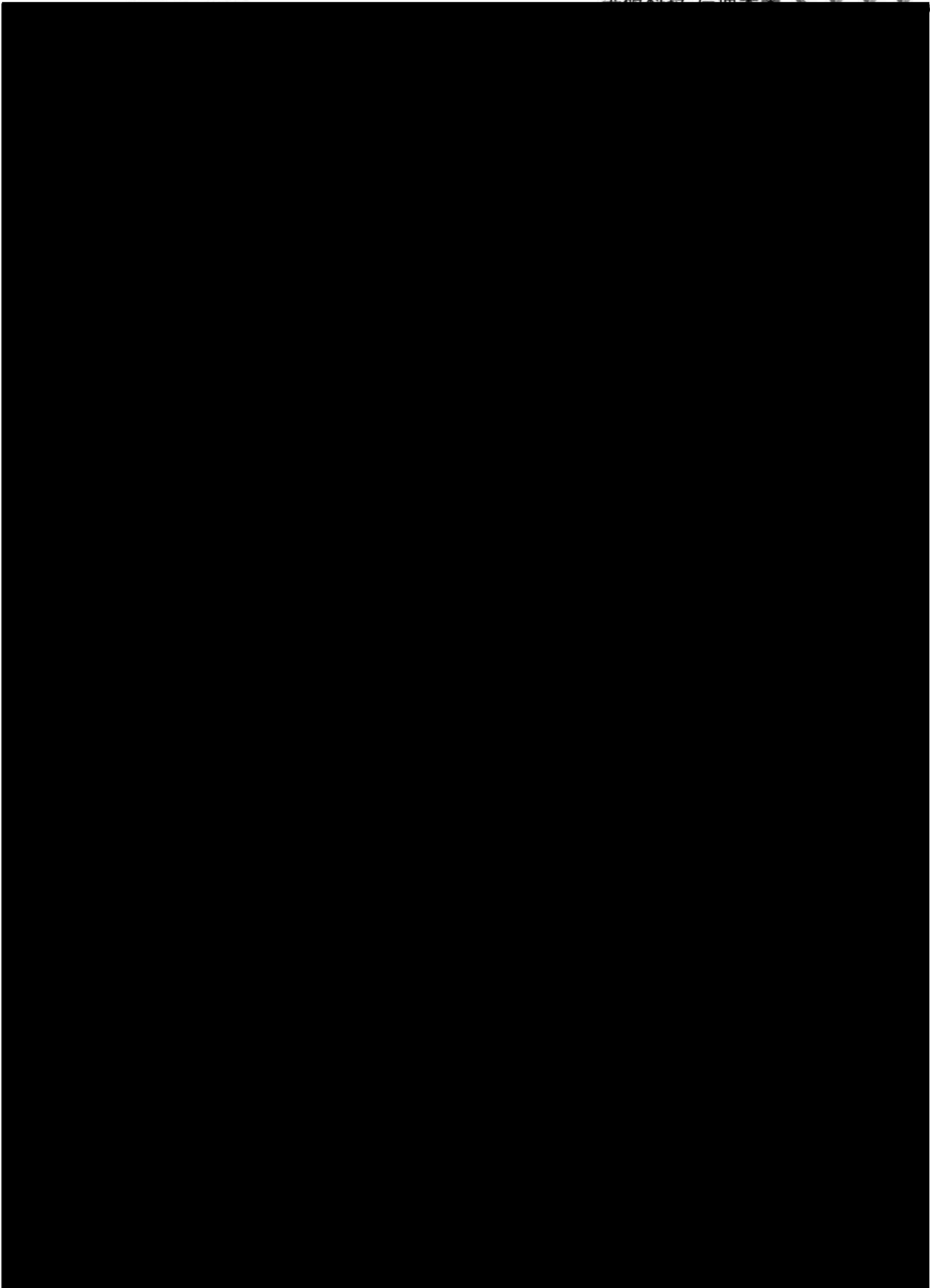
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EA11003EN-01753[0]

From: Non-responsive content removed

To:

CC:

Date: 6/21/2010, 2:26:07 PM

Subject: Short report "Release of EU4 Diesel for China" 6/14/2010

Please correct.

Our concerns and the lack of market experience should be clarified by the Q continuous runs, We have already reported our concerns and are out of this. We are traveling to the country with the best we have but only for the give numbers and with no further development measures. We cannot comment further unless someone carried a couple of parts back from the market for diagnosis.

Regards,

Non-responsive content removed

From: Non-responsive content removed

Sent: Monday, June 21, 2010, 3:18 PM

To: Non-responsive content removed

Subject: Short report "Release of EU4 Diesel for China" 6/14/2010

Importance: High

Short report "Release of EU4 Diesel for [redacted]" 6/14/2010

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The meeting was used as an opportunity to discuss the release scenario for the Diesel Tiguan.

A number of points were mentioned, indicating that Quality Assurance needs to revise its current release scenario.

- the current water separator in the fuel system has been identified by [redacted] as inadequate.
- the high level of kerosene in [redacted] would lead one to suspect that the high-pressure fuel pumps with the "anti-wear measures" will also fail.
- Development does not have sufficiently broad fuel analysis results from [redacted].

The following orders resulted from the session:

- the current failure statistics for diesel in the [redacted] market in Audi is to be presented. (responsibility [redacted])
- the concerns on the engine developer side (see above) should be explained. (responsibility [redacted])
- to enable the fuel problem to be analyzed further, more fuel analysis results (summer and winter fuel) are to be obtained from the [redacted] regions. (responsibility [redacted])

A follow-up meeting on this subject will be arranged by GQG-B

Yours sincerely,

Non-responsive content removed



Audi

Non-responsive content removed



V6 TDI

Non-responsive content removed

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, 2010-11-24

V6 TDI Non-responsive content removed**Overview of engines and vehicles**

- ▶ Initial situation
 - ▶ Block on all V6 TDI variants for the Non-responsive content removed market on 11/12/2010 on the basis of a decision by Non-responsive content removed
 - ▶ Breakdowns: Drivetrain of high-pressure fuel pump total worn out due to poor fuel quality (consequence: whole high-pressure and low-pressure system including tank contaminated with particles).
- ▶ **Overview of engines / vehicle volume**
- ▶ AHM
 - No engines in stock for Non-responsive content removed at AHM
- ▶ Changchun
 - ▶ around 1400 engines in stock
 - ▶ Recommendation: Recall and conversion to RP2 and subsequent delivery to NSU
- ▶ A6 2,7l TDI in Changchun
 - ▶ 168 vehicles
 - Planning in progress for conversion campaign to RP2 package VSI Start A WK 49 and completion before Christmas
- ▶ A6 2,7l TDI in the field, Non-responsive content removed
 - ▶ around 4300 cars; of which 102 DISS messages/ 79 WG settlements
 - Conversion as part of workshop campaign via APS IN agreed
- ▶ Touareg 3.0l TDI
 - ▶ Around 2800 cars on their way to the market in Non-responsive content removed Touareg volume
 - ▶ Decision on procedure in relation to update/ conversion as part of KAF WK 47 between Non-responsive content removed
- ▶ At the same time, concept will be examined in relation to a robust V6 TDI poor quality fuel variant with Non-responsive content removed at Non-responsive content removed First info will be available end of WK 47/10



Backup



V6 TDI Non-responsive content removed

Overview of engines and vehicles - Touareg

VW 526 Touareg NFStatus of Startup of V6 TDI for Non-responsive content removed Market

Project Date 11/23/10

- **BLOCK message** from Audi AG dated 11/12/2010 for the **V6 TDI in all variants in the** Non-responsive content removed **market** because of a lack of lubrication in the HP fuel pump due to poor quality fuel
- **SOP since WK 34/10**

Overview of cars at checkpoints (Source: VWSK, TAF)

- Handover to customer:	2 veh.
- Currently on ships:	1951 veh.
- Stock in <small>Non-responsive content removed</small> ports	666 Veh.
- Planned deliveries from <small>Non-responsive content removed</small> ports:	11/24/2010
- Campaign message for ports initiated:	11/23/2010
- Intake from Bremerhafen	66 veh.
- Stock, Bremerhafen	79 veh.
- Plant (<small>Non-responsive content removed</small>)	29 veh.
	Σ 2793 veh.

Non-responsive content removedNon-responsive content removed

Audi



GF for Compact product line on 5/6/2010

Project VW316 Tiguan

Subject:

11V585P1 FBU [Non-responsive content removed] – Diesel enhancement

Description of the situation & Possible activities:

The PI 11V551C2 marks the start of the 2.0l CR-Diesel as EU4 engine with PRS for countries with poor quality fuel in the Tiguan. The CDE VP11702 high-pressure fuel pump integrates an anti-wear package in the high-pressure fuel pump because pump failures are to be feared. The anti-wear package is always required when delivering to the [Non-responsive content removed] market.

Q verification run in [redacted] will be requested.

Recommended decision:

Approve PI

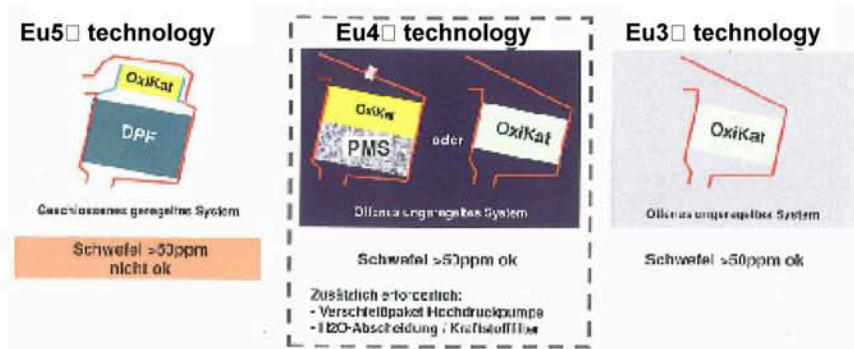
- Despite additional expenditure and reduced volume, the result of the decision is positive.
- The new information from EA necessitate an additional Q verification run, otherwise these is a risk of breakdowns (-> damaged image).
- If not approved, the diesel can only start at MPI 22/11, first FBU vehicles not expected before WK 30/11, further loss of volume possible after that.



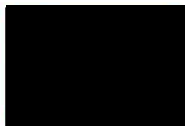
GF for Compact product line on 5/6/2010 Project VW316 Tiguan

Decision status

4/09: 11V551C2 EU4 CR Diesel
Non-responsive content removed Engine decision



4/10: 11V585P1 FBU Non-responsive content removed
Diesel enhancement EU4 CR



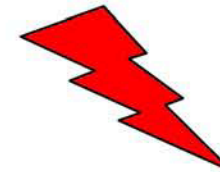
Change

CDE VP11702 High-pressure fuel pump approved by EA, relates to 11V551C

- without testing
- without verification run
- ongoing use, necessitates testing and verification for FBU Non-responsive content removed



Effect



PI follow-up for

- Cost entry
- Approval of verification run
- Action date control

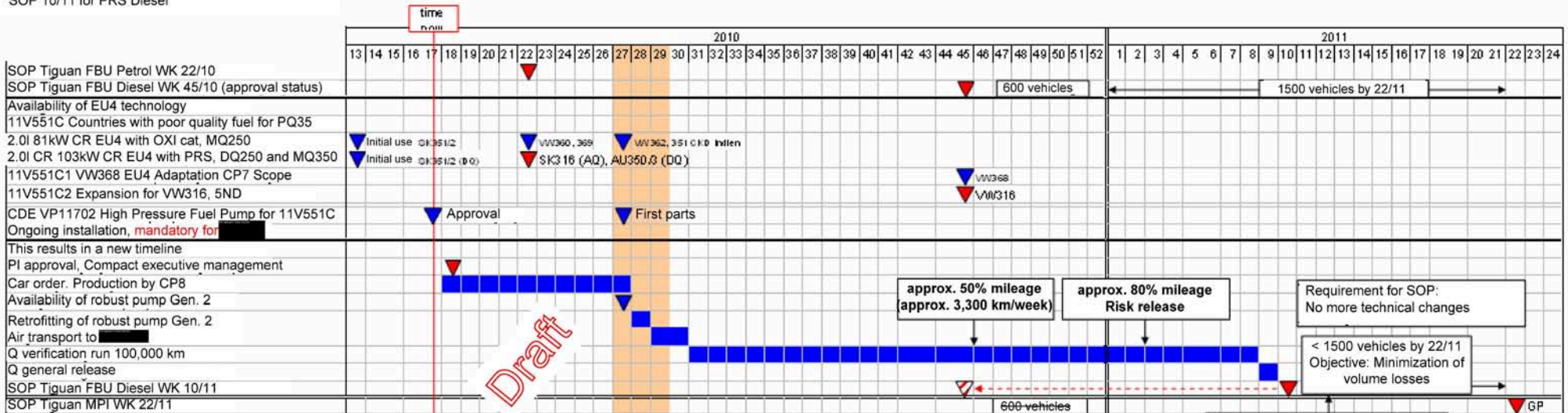


GF for Compact product line on 5/6/2010

Project VW316 Tiguan - time-based component

Schedule Tiguan FBU for [REDACTED]

SOP 10/11 for PRS Diesel



GF for Compact product line on 5/6/2010 Project VW316 Tiguan - financial impact

Tiguan (VW316): PI 11V585P1 Tiguan FBU [REDACTED] – Diesel enhancement Here: General Financial Evaluation

		FBU [REDACTED] (Diesel) B / (s) Project status
SOP 45/10 EOP 21/11		
● Volume in running time	Veh.	2,100
● Expenditure	Million EUR	(0.5)
● Result of decision prior to additional volume	Million EUR	(0.5)
● Additional volume in comparison with PR 58.2		
● Earnings contribution additional volume	Million EUR	6.0
● Result of decision including additional volume	Million EUR	5.5
● Capital value including additional volume (17%)	Million EUR	positive

Non-responsive content removed

Basis for evaluation:

The evaluation is based on the necessary technical measures for an EA 189 Gen2 103 kW TDE EU4 PRS quotation as part of PBU delivery in [REDACTED] (according to approved PI 11V585P) in the Comfortline and Highline equipment lines on the basis of Track&Field with AQ 450-6A. Because there were no diesel models in the 2010 and 2011 budgets, this is purely additional volume. It is assumed there is no substitution with petrol models. An EC of EUR 2,865 per vehicle is assumed for safety sake when evaluating this additional volume (average EC spot business 2009)

Summary:

Because of the significant profits promised by an FBU export in comparison with the comparatively small expenditure, the implementation of the program point can be recommended from a financial perspective. As with the PI 11V585P (Tiguan FBU [REDACTED] petrol version) Finance requires that the Tiguan FBU [REDACTED] Diesel should make at least the same contribution to earnings as in 2009 spot business (EUR 2,300 for Comfortline and EUR 3,430 for Highline)

Non-responsive content removed

X:\fcv-2\AS\2010\ll. Aggregate\Tiguan\Erweiterung Diesel [REDACTED] FBU\FBU [REDACTED] Diesel Rechnung-GF.xls]PER



GF for Compact product line on 5/6/2010

Project VW316 Tiguan - strategic risk

Market:

EU4 with OBD required for Diesel with effect from 7/2011 throughout the country. No approval for diesel in [Non-responsive content removed] DPF may become mandatory in cities [Non-responsive content removed] (currently undergoing endurance run [Non-responsive content removed] CR with DPF). The environmental authorities current evaluate high emissions (MOx, fine particles) in diesel higher than the fuel saving. *)

Innovativeness:

The Tiguan FBU Diesel is the first VW diesel car with EU4 technology in the [Non-responsive content removed] market. The risk of failures if to be secured because of a lack of experience in the field and new informationt from EA, so as to avoid damaging our image due to breakdowns.



GF for Compact product line on 5/6/2010

Project VW316 Tiguan

11V585P, first SOP at minor expense Sales order for swift implementation:

- 125kW TSI EVO1 EU4 with AQ 450-6A
- Lead period WK 22/10 to WK 21/11, 6,900 units
- Order to Non-responsive content removed plant to document FB 2 certification
- Homologation and approval of petrol engine

Use with MPI, change of additional volume MPI at minor expense with risk CCC certification:

- Diesel and petrol models included in the project
- from WK 22/11 to EOP, 29,450 units
- CCC certification of components (e.g. SBBR)

▼ Use of MPI by 22/11

(Units)	2010	2011	2011	2012	2013	2014	Total
Volume TSI	4,650	2,250	2,250	4,000	3,600	3,400	20,150
Volume TDI	600	1,500	1,500	4,200	5,400	5,100	19,250
Total volume	6,200	3,750	3,750	8,200	9,000	8,500	39,400

11V585P1, additional volume opportunity with diesel with minor expense with risk of use of new technology PRS:

- 103kW TDI EU4 with PRS with AQ450-6A (provision of PRS technology with 11V551C2 in WK 45/10)
- Technical necessity, at the earliest WK 45/10 to WK 21/11, 2,100 units
- Approval of diesel engine must be documented



EA11003EN-01761[0]

From: Non-responsive content removed**To:****CC:****Date:** 11/25/2010, 10:28:57 AM**Subject:** ANS: BLOCKING NOTICE**Attachments:** [Markt \[REDACTED\] VW 526 \(Weiteres Vorgehen\).msg](#)Dear **Non-responsive content removed**

As promised here is the latest version of the documents from the CP4.2. We had a meeting yesterday:

The arrangements described here relate to the Touareg cars in circulation.

At the same time, as discussed, even with the RP2 package and the latest SW, there will be no lifting of the block for the [REDACTED] market (based on the restart of production and delivery)

With best wishes

Non-responsive content removed

Sitz/Domicile: Ingolstadt

Registergericht/Court of Registry: Local District Court Ingolstadt

HRB Nr./Commercial Register No.: 1

Vorsitzender des Aufsichtsrats/Chairman of the Supervisory Board: 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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From: **Non-responsive content removed**

EA11003EN-01761[1]

Sent: Wednesday, November 24, 2010, 4:11 PM

Non-responsive content removed

Subject: ANS: BLOCKING NOTICE

Dear Non-responsive content removed
we have gathered the following information.

A flash solution exists that is to be implemented in the cars in circulation in WK 50. At the same time another test is to take place (by WK 4?)

If this information is correct, then can you estimate when the engine will be re-released?

We need this information immediately if possible.

Thank you for your attention!

With best wishes

Non-responsive content removed

Non-responsive content removed

VOLKSWAGEN AG

Non-responsive content removed

From: Non-responsive content removed

Sent: Friday, November 19, 2010, 4:05 PM

Non-responsive content removed

Subject: ANS: BLOCKING NOTICE

Addendum: Minor changes in green.

Best regards

Non-responsive content removed

AUDI AG

Non-responsive content removed

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

From: Non-responsive content removed

Sent: Friday, November 19, 2010, 3:50 PM

Non-responsive content removed

Subject: ANS: BLOCKING NOTICE

Non-responsive content removed

The problem is that we already have 79 warranty bills out of around 4,300 engines (102 DISS messages) in relation to HPP damage.

The pump does not seem to work in the market because it cannot deal with the fuel, metering unit corroded due to water in diesel.

Breakdown/drivetrain of high-pressure fuel pump total worn out due to poor fuel quality (consequence: whole high-pressure and low-pressure system including tank contaminated with particles).

I have no idea how long the block will last. Non-responsive content removed as the responsible development manager, have the job of developing a variant for [redacted]. That leads me to answer until further notice.' I am not aware of any timetable. The first interdisciplinary meeting is to take place next week by teleconference.

Of course this issue has far-reaching consequences for the group.

I do not need to look to the group, as the losses at AHM are also considerable.

As far as I know Non-responsive content removed mainly made his decision based on the technical background.

I would not be able to say what was or is clear to him at that moment.

If he needs to be provided with other information from the group's perspective, then you should do so.

I don't believe his decision will be any different. After all: 'Quality before customers'.

To my colleagues in Ingolstadt: If I'm wrong please let me know.

Best wishes

Non-responsive content removed

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

EA11003EN-01761[3]

From: [Redacted] Non-responsive content removed

Sent: Friday, November 19, 2010 2:44 PM To:

[Redacted] Non-responsive content removed

Subject: Re: BLOCKING NOTICE

Dear [Redacted] Non-responsive content removed

Unfortunately, I was unable to reach you by phone. We urgently need more information about the process.

We need to know the precise nature of the problem and how long the block is likely to last.

According to [Redacted] from Planning Control the block may have more serious consequences than [Redacted] Non-responsive content removed realizes.

Hence my urgent request for more information.

With best wishes

[Redacted] Non-responsive content removed



Non-responsive content removed

Market: VW526 Touareg NF V6TDI

VW526 Touareg NF V6TDI Non-responsive content removed se market

Status

- ▶ Approx. 2,800 cars produced for [REDACTED] currently blocked
- ▶ Vehicles assembled with high-pressure fuel pump CP4.2 with anti-wear package (without RP2) data record still same as “Master 04” (needs-based conveyance same as MAF failure in USA)
 - > **Cannot be delivered in this condition**

Possible measures and dates

- ▶ **Variant 1:** Reflash to data as in “Master 05” with full conveying at engine start and at fuel temperature >70°C (same as Q7)
 - ▶ Availability: immediate/ effort expenditure: approx. 30 min per car
- ▶ **Variant 2:** Measures same as variant 1 + activation of fuel pump with terminal 15 and with door contact and in overrun
 - ▶ Availability of data level WK 04/11, GQ release from WK 08/11, under clarification
Expenditure of effort: approx. 30 mins. per car
- ▶ **Variant 3:** Measures the same as for variant 2 + conversion to HPP with RP2 including altered fuel lines
 - ▶ Availability of data set as in Variant 2, parts availability for HPP from a current perspective, confirmation from supplier still awaited / expenditure of effort: approx. 2 hours per car.

Recommendation N/EA-6

- ▶ Immediately: Reflash to data as in “Master 05” (Variant 1)
- ▶ In service: Reflash the 2,800 vehicles to optimised controller of fuel pump (Variant 2)
- ▶ Further deliveries beyond the 2,800 vehicles only with the general packages as in Variant 3

Backup



Status V6TDI Non-responsive content removed Market,

Sales volume in Non-responsive content removed since 2009

- ▶ Q7 V6TDI Gen1 (2009/2010) FBU, Production in Non-responsive content removed 505* cars in the field
- ▶ A6 2.7TDI Gen1 (2009/2010) CKD, Production in Non-responsive content removed 6340* cars in the field
- ▶ Touareg NF V6TDI Gen1 FBU, Production Non-responsive content removed 2800 cars in intake

* Figures from I/VT-5

Failures according to DISS message

- ▶ Q7: 5 HPP failures (approx 1%)
- ▶ A6: 103 HPP failures (approx 1.6%)

Note from Production Non-responsive content removed

- ▶ First fill of fuel does not meet company specification, significantly exceeded in some cases.
- ▶ Production inspections in Non-responsive content removed revealed numerous cases of preliminary damage to HPP at “0km”.
- ▶ Non-responsive content removed plant has been informed of a possible source (Info from Bosch in October 2010) in Non-responsive content removed for OK fuel.

VW 526 Touareg NF

Status of Startup of V6 TDI for [Non-responsive content removed] Market

Project Date 11/23/10

- **BLOCK message** from Audi AG dated 11/12/2010 for the **V6 TDI in all variants in the** [Non-responsive content removed] **market** because of a lack of lubrication in the HP fuel pump due to poor quality fuel
- SOP since WK 34/10

Overview of cars at checkpoints (Source: VWSK, TAF)

- Handover to customer	2 Veh.
- Currently on ships	1951 Veh.
- Stock in [Non-responsive content removed] e ports	666 Veh.
- Planned deliveries from [Non-responsive content removed] ports	11/24/2010
- Campaign message for ports initiated:	11/23/2010
- Intake from Bremerhafen	66 Veh.
- Stock, Bremerhafen	79 Veh.
- Plant [Non-responsive content removed]	29 Veh.
	Σ 2793 Veh.

[Non-responsive content removed]

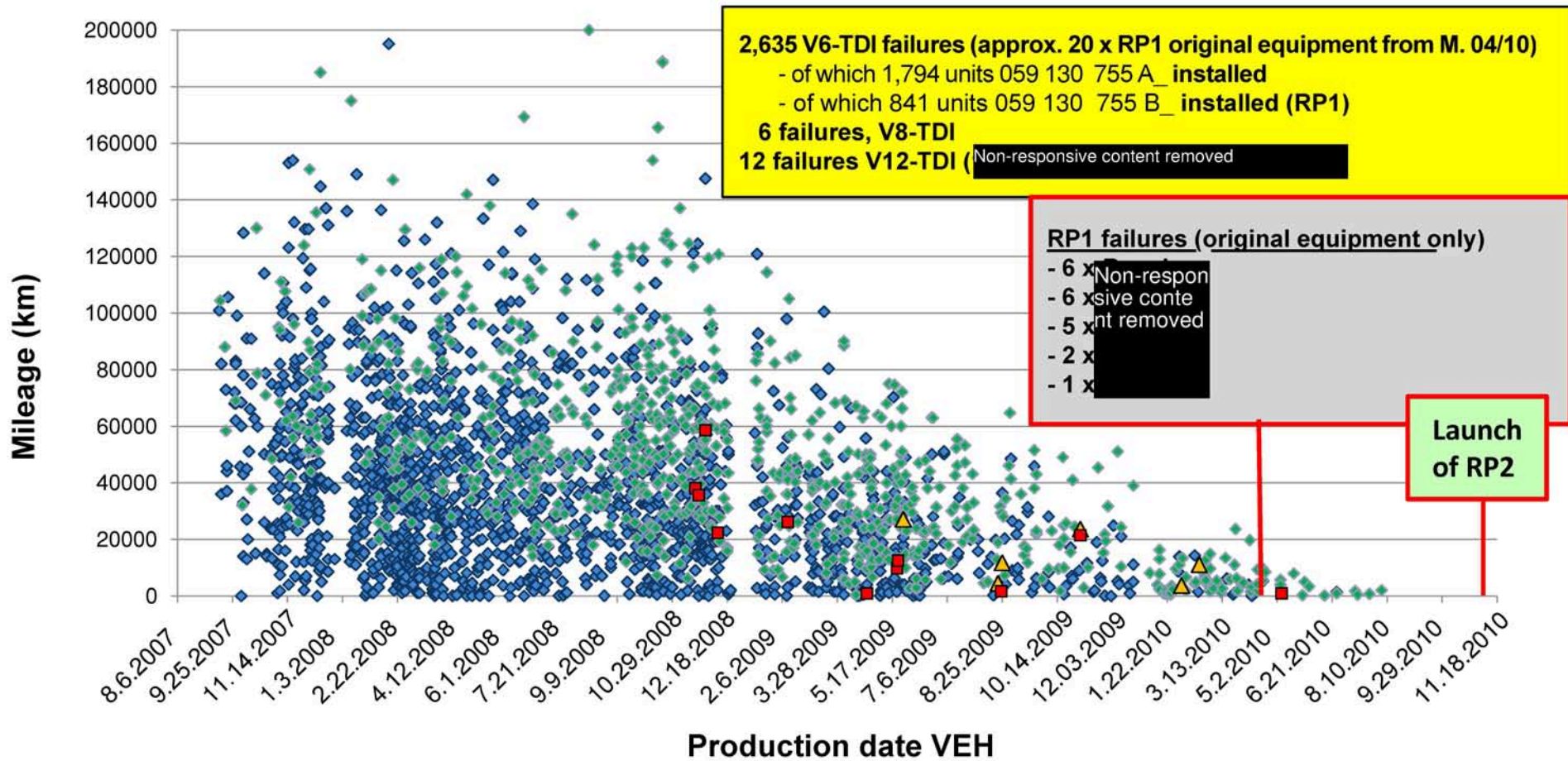
[Non-responsive content removed]



All bills of high-pressure fuel pumps V6-/V8-/V12-TDI Audi

(SAGA status 11.16.2010)

◆ 059 130 755 A_ ◆ 059 130 755 B_ ▲ V8-TDI in Q7 057 130 755 T ■ V12-TDI 05A 130 755_





Audi

Non-responsive content removed



V6 TDI

Non-responsive content removed

Non-responsive content removed

, 2010-11-24

V6 TDI Non-responsive content removed**Overview of engines and vehicles**

- ▶ Initial situation
 - ▶ Block on all V6 TDI variants for the Non-responsive content removed market on 11/12/2010 on the basis of a decision by Non-responsive content removed
 - ▶ Breakdowns: Drivetrain of high-pressure fuel pump total worn out due to poor fuel quality (consequence: whole high-pressure and low-pressure system including tank contaminated with particles).
- ▶ **Overview of engines / vehicle volume**
- ▶ AHM
 - No engines in stock for Non-responsive content removed at AHM
- ▶ Changchun
 - ▶ around 1400 engines in stock
 - ▶ Recommendation: Recall and conversion to RP2 and subsequent delivery to NSU
- ▶ A6 2,7l TDI in Changchun
 - ▶ 168 vehicles
 - Planning in progress for conversion campaign to RP2 package VSI Start A WK 49 and completion before Christmas
- ▶ A6 2,7l TDI in the field, Non-responsive content removed
 - ▶ around 4300 cars; of which 102 DISS messages/ 79 WG settlements
 - Conversion as part of workshop campaign via APS IN agreed
- ▶ Touareg 3.0l TDI
 - ▶ Around 2800 cars on their way to the market in Non-responsive content removed Touareg volume
 - ▶ Decision on procedure in relation to update/ conversion as part of KAF WK 47 between Non-responsive content removed
- ▶ At the same time, concept will be examined in relation to a robust V6 TDI poor quality fuel variant with Non-responsive content removed at Non-responsive content removed first info will be available end of WK 47/10



Backup



V6 TDI Non-responsive content removed

Overview of engines and vehicles - Touareg

VW 526 Touareg NF

Status of Startup of V6 TDI for Non-responsive content removed Market

Project Date 11/23/10

- **BLOCK message** from Audi AG dated 11/12/.2010 for the **V6 TDI in all variants in the** Non-responsive content removed **market** because of a lack of lubrication in the HP fuel pump due to poor quality fuel

➤ **SOP since WK 34/10**

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- Campaign message for ports initiated:	11/23/2010
- Intake from Bremerhafen	66 veh.
- Stock, Bremerhafen	79 veh.
- Plant (<small>Non-responsive content removed</small>)	29 veh.
Σ	2793 veh.

Non-responsive content removed

Non-responsive content removed





Non-responsive content removed

Market: VW526 Touareg NF V6TDI

VW526 Touareg NF V6TDI Non-responsive content removed market

Status

- ▶ Approx. 2,800 cars produced for [REDACTED] currently blocked
- ▶ Vehicles assembled with high-pressure fuel pump CP4.2 with anti-wear package (without RP2) data record still same as “Master 04” (needs-based conveyance same as MAF failure in USA)
 - > **Cannot be delivered in this condition**

Possible measures and dates

- ▶ **Variant 1:** Reflash to data as in “Master 05” with full conveying at engine start and at fuel temperature >70°C (same as Q7)
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Sales volume in Non-responsive content removed since 2009

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* Figures from I/VT-5

Failures according to DISS message

- ▶ Q7: 5 HPP failures (approx 1%)
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Note from Production Non-responsive content removed

- ▶ First fill of fuel does not meet company specification, significantly exceeded in some cases.
- ▶ Production inspections in Non-responsive content removed revealed numerous cases of preliminary damage to HPP at “0km”.
- ▶ Changchun plant has been informed of a possible source (Info from Bosch in October 2010) in Non-responsive content removed or OK fuel.

VW 526 Touareg NF

Status of Startup of V6 TDI for [Non-responsive content removed] Market

Project Date 11/23/10

- **BLOCK message** from Audi AG dated 11/12/2010 for the **V6 TDI in all variants in the** [Non-responsive content removed] **market** because of a lack of lubrication in the HP fuel pump due to poor quality fuel
- SOP since WK 34/10

Overview of cars at checkpoints (Source: VWSK, TAF)

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	Σ 2793 Veh.

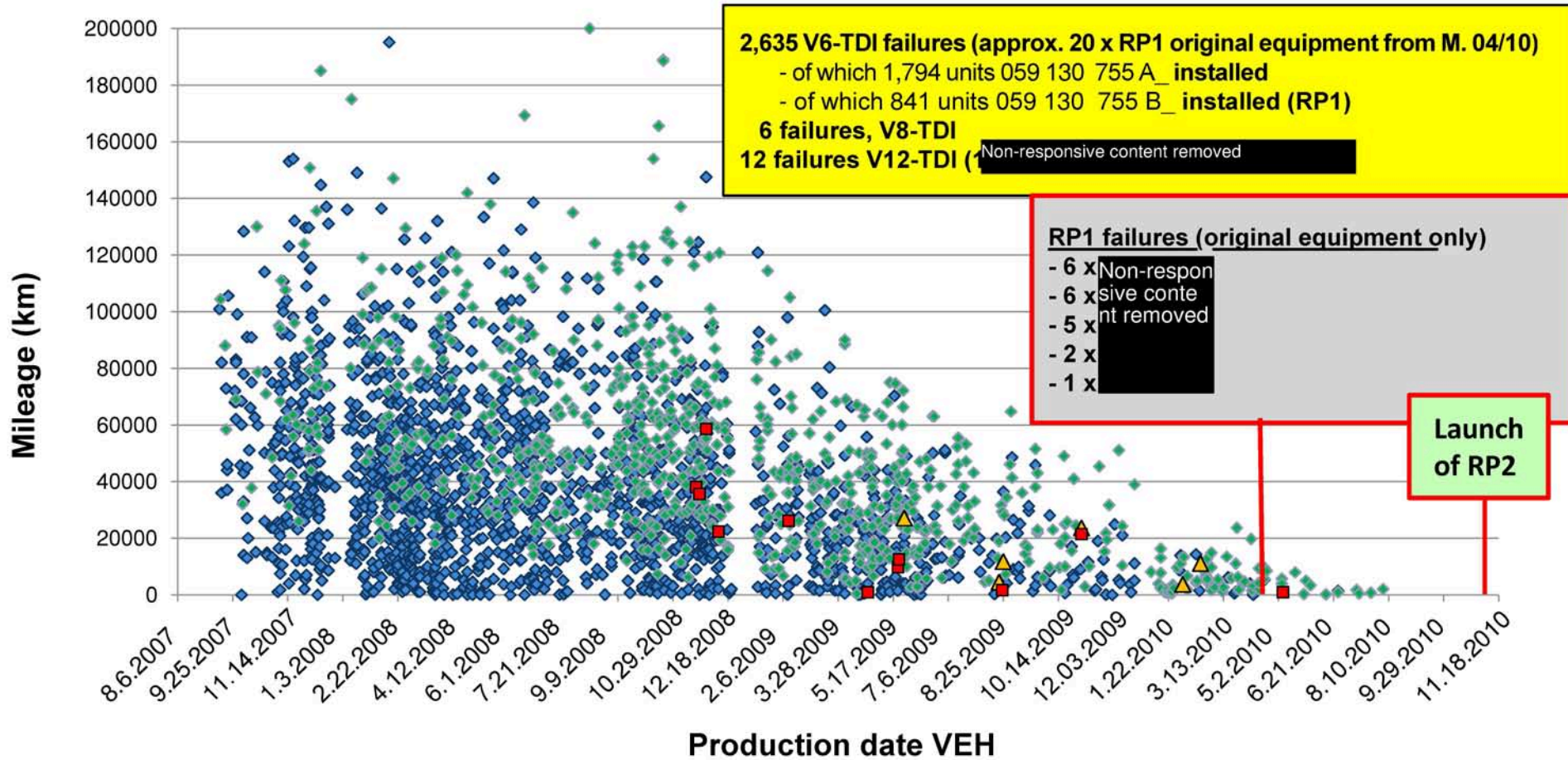
[Non-responsive content removed]

[Non-responsive content removed]



All bills of high-pressure fuel pumps V6-/V8-/V12-TDI Audi (SAGA status 11.16.2010)

◆ 059 130 755 A_ ◆ 059 130 755 B_ ▲ V8-TDI in Q7 057 130 755 T ■ V12-TDI 05A 130 755_



Note

Non-responsive content removed

Blocking of V6 TDI Non-responsive content removed **11/12/2010**

Following the block, it was found that approx. 2,800 Touareg cars are already assembled and are on their way to the Non-responsive content removed market.

The following procedure was defined for these cars in consultation with Non-responsive content removed
Non-responsive content removed

1. Non-responsive content removed cars will be released to Master 05 with maximum delivery when the engine is started and with a fuel temperature $> 70^{\circ}$ as in the USA
2. The "SW solution" involving an EFP inflow via tmn. 15 is to be prepared immediately and the release should take place by WK 6. In the case of the released 2,800 cars, this data level will be reflashed at the first service.

Further procedure for the establishment of Q7 and Touareg 3.0 TDI Non-responsive content removed will be clarified in the next few days.
The basic level involves the HPP RP2 and the new EFP data.

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[Signature illegible]

Non-responsive content removed

Good morning

Non-responsive content removed

Non-responsive content removed is due to make a statement to Non-responsive content removed today at the KAF about the **VW Touareg** with **V6-TDI**.

As you know, the V6-TDI engine from Győr for Non-responsive content removed has been blocked by Non-responsive content removed

This also affects the VW Touareg.

The issue now is to deal with the cars already in circulation. Among others, there are 2,800 cars on the way to Non-responsive content removed by ship.

Non-responsive content removed and his team, who liaised with me yesterday, are to draw up proposals.

The following 3 solutions exist:

1. Reflashing of vehicles to Software Master 05 (topic USA failure MAF). This extremely simple solution is immediately available.
2. Reflashing of vehicles to Master 05 and software solution EFP inflow with door contact or terminal 15 and EFP after-run. Software is not yet ready. Schedule indicates software will be available GQ WK 04/11; TD release WK 06.
3. Conversion of cars to RP2 pumps with fuel hoses and software (see 1. and 2.), because this question will probably need to be dealt with again later as a field action.
Problem: Pumps not yet available --> Request made to Bosch --> Information expected by 9:30 AM. Hoses open! Non-responsive content removed also foresees a problem with the conversion of such a large number of cars in Non-responsive content removed (parking? personnel?) parts? etc.)

Note:

So far in parallel with the series in Changchun (A6 2.7l) in 2009, 162 units and in 2010 343 units (total 505) FBU Q7 cars with V6 TDI EU3 have been delivered to Non-responsive content removed. No failures reported to date. **Addendum: 5 cases to date!**

There are 102 DISS messages and 79 guarantee settlements (8 with RP1) out of 4,300 cars delivered for A6, 2.7l.

Assumption: The 102 cars were mostly pre-damaged in the factory, but not the FBU Bratislava. --> Non-responsive content removed is to investigate.--> **Also fail ! (see above)**

11/24/10, 8:30 AM

Non-responsive content removed

EA11003EN-01769[0]

From Non-responsive content removed
To
CC

Date: 11/30/2010, 5:10:12 PM

Subject: Efficiency test RP2: PI 11P585A

Dear Non-responsive content removed

The following is a short response regarding RP2 efficiency test.

- The CP4.2 with RP2 went into serial installation for all V6 TDI engines in week 45/10
- At the same time, vehicles with drivetrain damage in CS were given an RP2 pump (starting in fuel-critical markets)
- in Changchun a further approximately 100 blocked C6 PAs are to be converted to RP2 prior to delivery
- In parallel an ongoing SW optimization (1st quarter 2011) will help to improve flushing/pressure build-up in the high-pressure pump when the engine is started

Naturally, the failure situation in the field is being followed very closely. However, in order to gain an initial (market-based) estimate of the effectiveness in the field, an installation period of approx. 6 months in series/CS is required.

This is how the date of mid 2011 was determined (see below)

Non-responsive content removed

85045 Ingolstadt

Non-responsive content removed

Sitz/Domicile: Ingolstadt

EA11003EN-01769[1]

Registergericht/Court of Registry: Local District Court Ingolstadt

HRB Nr./Commercial Register No.: 1

Vorsitzender des Aufsichtsrats/Chairman of the Supervisory Board: 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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legally binding upon AUDI AG.

From: Non-responsive content removed

Sent: Tuesday, November 30, 2010, 10:10 AM

Non-responsive content removed

Subject: RE: PI 11P585A

Dear Non-responsive content removed

Is there a detailed timeline for determining the effectiveness of RP2 and how to proceed?

In the case of VW526, an immediate SW measure will be decided via my e-mail from yesterday.

Thank you for your response.

S pozdravom / Best wishes

Non-responsive content removed

Non-responsive content removed

From Non-responsive content removed

Sent: Monday, November 29, 2010 12:59 PM

Non-responsive content removed

Subject: Re: PI 11P585A

Hello Non-responsive content removed

We are not planning any diesel releases for [REDACTED] until further notice.

We first need to determine the effectiveness of the RP2 and at the same time develop a "robust" unit for markets of this kind Then we shall see.

We will have more information in mid-2011

Best regards

Non-responsive content removed

Sitz/Domicile: Ingolstadt

Registergericht/Court of Registry: Local District Court Ingolstadt HRB Nr./Commercial Register

No.: 1

EA11003EN-01769131

Vorsitzender des Aufsichtsrats/Chairman of the Supervisory Board: 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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legally binding upon AUDI AG.

From: Non-responsive content removed
Sent: Monday, November 29, 2010, 11:31 AM
To: Non-responsive content removed
Cc:
Subject: ANS: PI 11P585A

The engine is blocked for [redacted] until further notice.

Non-responsive content removed

when is [redacted] lanning a release?

[redacted]

Best regards

Non-responsive content removed

Sitz/Domicile: Ingolstadt

Registergericht/Court of Registry: Local District Court Ingolstadt

HRB Nr./Commercial Register No.: 1

Vorsitzender des Aufsichtsrats/Chairman of the Supervisory Board: Martin Winterkorn Vorstand/
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>constitute a representation that the content of this e-mail is legally relevant and/or is intended to be

EA11003EN-01769[4]

legally binding upon AUDI AG.

From: [Non-responsive content removed]

Sent: Monday, November 29, 2010 11:13

AMTo: [Non-responsive content removed]

Subject: PI 11P585A

Hello [Redacted]

As far as I know, all V6 TDI engines have been stopped for the [Redacted] market

The Q7 is affected with engine "3.0l V6 TDI 176kW EU4 without DPF [Redacted] 2000 ppm Sulfur" program item 11P585A. What is the current timeline for this program item?

What is the further procedure for this program item?

Please send me more information.

Thank you.

S pozdravom / Best wishes

[Non-responsive content removed]

EA11003EN-01770[0]

From: Non-responsive content removed**To:****CC:****Date:** 1/31/2011, 10:18:02 AM**Subject:** RE: Question relating to HPP

Dear

Non-responsive content removed

"If there is not much fuel in the tank, the electric fuel pump runs for 60 seconds upon ignition. This ventilates the system"

--> I understand this, but what is there to guarantee that the driver will wait the relevant 60 seconds before starting. We were able to start the car in question with an empty tank with no problem (without waiting the 60 seconds)

"Of course it is not good if cars are run completely empty in [redacted] are then the pump is operated for a long time with no fuel. Can you find out more?"

The [redacted] logistics colleagues are turning this into a sport. You will see one car every 500 meters between the factory and the stores. The transport buses always bring several cans of fuel with them and pass these on to their "unhappy" colleagues We saw this for ourselves.

"How many cars have been affected?"

I have found 2 examples with no fuel and one with very small amounts (computer indicated 0 km).

"How long were the pumps run without fuel?"

Certainly more than 5 times. I cannot say for definite because the care was repaired by FormelD in December and I didn't get to see it until January. (certainly not much because the battery was not flat and we were able to start the car).

"Did this occur with the normal standard process?"

I don't really understand this question. The cars were not treated in the normal way. They have been in storage for several months.

Furthermore, the cars have been through the standard process. I am unable to say whether any reworking took place.

"Please send the pumps to Bosch for analysis, clearly stating that they were run for a long time (how long?) without fuel."

We didn't deal with the pump of the car separately, so I cannot provide it for Bosch damage. I didn't think of that. :(

Non-responsive content removed

EA11000ENL0157021
Non-responsive content removed

>
>From: Non-responsive content removed
>Sent: Monday, January 31, 2011 8:13 AM
>Non-responsive content removed
>
>Subject: Re: Question relating to HPP

>
>Hello Non-responsive content removed

>
>To answer your questions:

>
>It is true that you can continue to activate the starter even when the tank is empty.
>If the high-pressure fuel pump is unable to build up any more rail pressure because of a lack of fuel, then the engine is switched off due to a rail pressure error. An entry is then made in the error memory.

>
>If there is not much fuel in the tank, the electric fuel pump runs for 60 seconds upon ignition. This ventilates the system

>
>Of course it is not good if cars are run completely empty in [REDACTED] are then the pump is operated for a long time with no fuel. Can you find out more?

>* How many cars have been affected?

>* How long were the pumps run without fuel?

>* Did this occur with the normal standard process?

>* Please send the pumps to Bosch for analysis, clearly stating that they were run for a long time (how long?) without fuel.

>

>

>

>With best wishes

Non-responsive content removed

>Sitz/Domicile: Ingolstadt

>Registergericht/Court of Registry: Local District Court Ingolstadt

>HRB Nr./Commercial Register No.: 1

>Vorsitzender des Aufsichtsrats/Chairman of the Supervisory Board: Martin Winterkorn >Vorstand/
Board of Management: Rupert Stadler (Vorsitzender/Chairman), Ulf Berkenhagen, Michael

EA11003EN-01770[2]

Dick, Frank Dreves, Peter Schwarzenbauer, Thomas Sigi, Axel Strotbek

>

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

>Important Notice: The above information is automatically added to this e-mail. This addition does not constitute a representation that the content of this e-mail is legally relevant and/or is intended to be legally binding upon AUDI AG.

>

>

>Non-responsive content removed

>From:

>Sent: Thursday, January 27, 2011, 9:09 AM

>To: Non-responsive content removed

>Subject: Question relating to HPP

>Importance: High

>

>

>Hello colleagues,

>

>As you probably know I am currently working in [REDACTED] switching the HPPs to RP2.

>We have found an interesting phenomenon:

>There were 2 cars in Changchun with seized HPPs. One of these was reworked by FormelD, but they were unable to start it. We took a look and found there was no fuel in the tank. Our [REDACTED] colleagues started the engine several times with no fuel. The tank was filled but we were unable to start the engine. After the entire fuel system was replaced the car was OK

>

>What do you think? Is it technically possible if the car is run empty, is there no abort function in the controller to prevent the activation of the starter?

>If so, this could also be a risk factor with the cars in the field because this could also cause preliminary damage to the HPP. In addition, after a particular mileage there is no continuous EFP activation, so that the pump cannot be correctly ventilated before the first restart.

>

>Thank you

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V6TDI EU4- Non-responsive content removed **in VW611 and VW526**
Status WK 05/11

V6TDI EU4 Non-responsive content removed in VW611 and VW526

Status WK 05/11

▶ Initial situation:

- ▶ Blockage of all V6TDI Non-responsive content removed activities and sales in Q4/2010 on a group-wide basis because of the poor fuel quality and the associated damage to the drivetrain of the CP4.2.

▶ Measures:

- ▶ Introduction of anti-wear package 2 (RP2) in the CP4.2 (standard in all V6 TDI Gen1 and Non-responsive content removed since WK 45/10)
- ▶ SW measures for improving fuel supply when starting the engine
 - Control with door contact for the 6 bar tank system in VW526
 - Control of tank EFP with tmn. 15 and in the engine outlet when the engine is stopped in VW526
 - Control of tank EFP and inline EFP with tmn. 15 with the 2 bar tank system VW611

▶ Recommendation for Non-responsive content removed

- ▶ Release of VW611 and VW526 with V6TDI with the measures shown for the Non-responsive content removed market. Release available for acoustic system for tank controller.

▶ Dates:

- ▶ VW526 V6TDI Gen.1 with 6 bar tank system: Pre-master in WK 04/11 ✓ BMG WK 06/11
- ▶ VW526 V6TDI Non-responsive content removed with 6 bar tank system: Pre-master planned in WK 06/11 BMG WK 09/11
- ▶ VW611 V6TDI Gen.1 with 2 bar tank system: Pre-master planned in WK 09/11 BMG WK 12/11
- ▶ Dates for releases at VW to be defined

High pressure pump

Touareg V6 TDI

High pressure pump warranty status

So far 40 high pressure pump was damaged, 1 car replaced high pressure pump twice, 4 engines were damaged due to it.

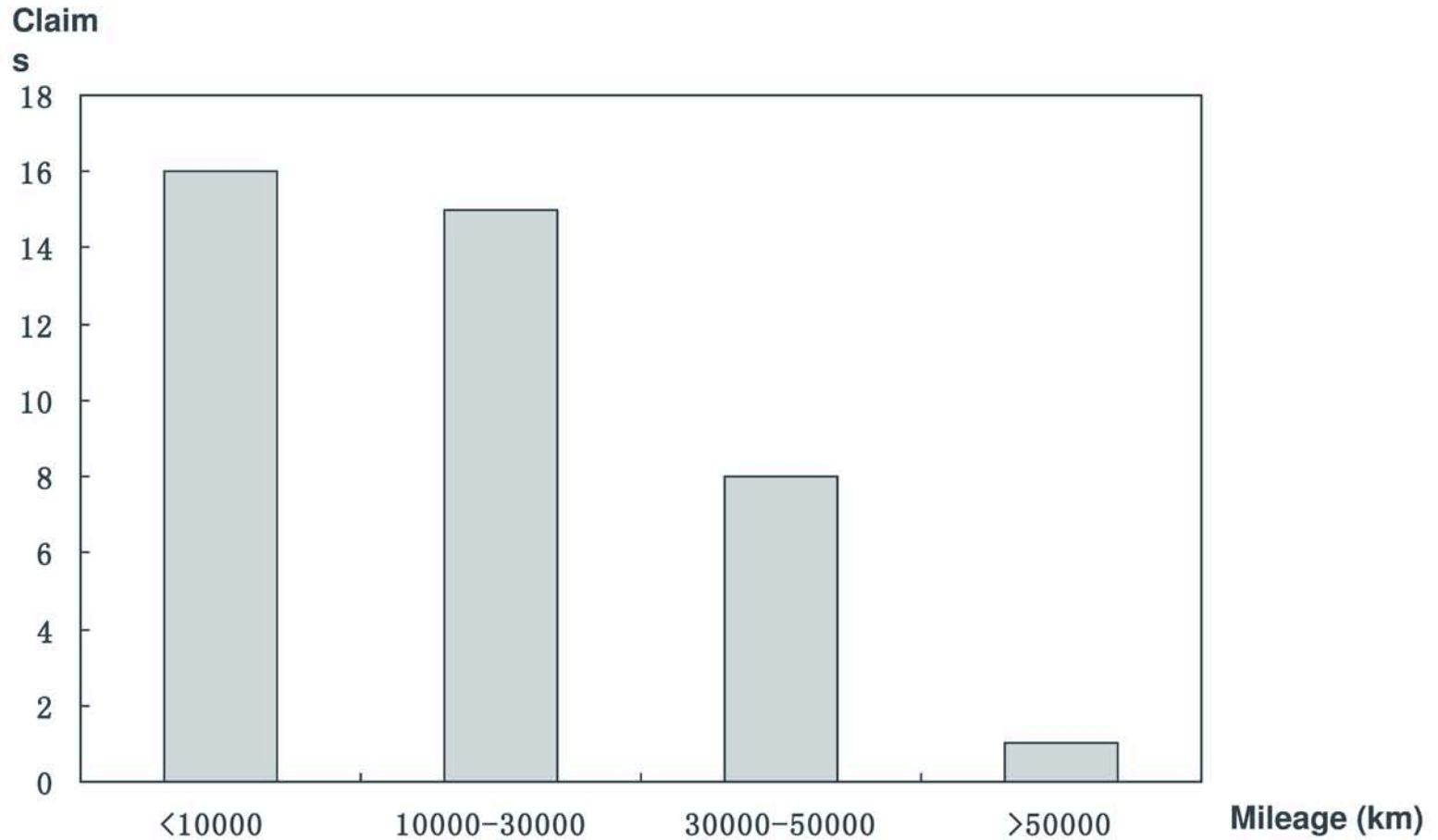
More claims related to high pressure pump are estimated.

Claims per region

Region	Claims
EAST	3
NORTH	25
SOUTH	5
WEST	7



Claims per mileage



EA11003EN-01778[0]

From: Non-responsive content removed**To:****CC:****Date:** 6/27/2011 4:32:08 PM**Subject:** ANS: 43 pumps**Attachments:** [QMM32 Audi Befundung \[REDACTED\] Feld Pumpen 21-43.ppt](#)
[EHP5_0585_PB TF Audi Befundung \[REDACTED\] a Feld Pumpen 21-43.xls](#)

Sorry, my mistake.

Here are all the documents I have.

Mit freundlichen Grüßen / Best regards

Non-responsive content removed

Domicile: Stuttgart, Court of Registry: Local District Court Stuttgart, Commercial Register No. 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:** Monday, June 27, 2011, 5:25 PM**To:** Non-responsive content removed**Cc:****Subject:** 43 pumps**Importance:** Low

Dear Non-responsive content removed

1. When can I expect a result for the 43 pumps?

2. If you are not attending the Task Force on Wednesday (as I have heard) I would like an opportunity to speak to you beforehand about scheduling measures from your perspective.

Best regards

Non-responsive content removed

From: Non-responsive content removed

Sent: Tuesday, May 31, 2011, 9:48 AM

Non-responsive content removed

Subject: Re: Campaign 23G7

Dear Non-responsive content removed

As just discussed by phone we are sending the 43 pumps to Non-responsive content removed

Here is a list of the 43 pumps with the correct part numbers - there is no RP2 there. J

Please delete the "old" [redacted] list.

@ Non-responsive content removed according to Non-responsive content removed this should not be entered in IQIS!

Please send it off as soon as possible; list attached; usual address in Stuttgart Non-responsive content removed

Non-responsive content removed

Thank you.

EA11003EN-01778[2]

@ [REDACTED], the list from [REDACTED] contains incorrect part numbers (not all removed damaged parts, but also installed part number sin some cases).

The list here is correct.

Best regards

Non-responsive content removed

AUDI AG

Non-responsive content removed

From: Non-responsive content removed

Sent: Tuesday, May 31, 2011, 8:38 AM

Non-responsive content removed

Subject: Re: Campaign 23G7

Hello

Non-responsive content removed

We do not wish to record the pumps in [REDACTED] o [REDACTED]

Please send the pumps to Feuerbach to [REDACTED]

Non-responsive content removed

We will dismantle and analyze the pumps there. A detailed analysis of the most interesting pumps will then take place in Development.

Mit freundlichen Grüßen / Best regards

Non-responsive content removed

Robert Bosch GmbH

Non-responsive content removed

Non-responsive content removed

Domicile: Stuttgart, Court of Registry: Local District Court Stuttgart, Commercial Register No. 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: Monday, May 30, 2011, 10:46 AM

Non-responsive content removed

Subject: Campaign 23G7

Dear Non-responsive content removed

The order was issued by our senior Quality Officer at Audi, Non-responsive content removed 500 (!) pumps from the field campaign in [redacted] are to be examined.

I suggested that we should first analyze 25 out of 50 pumps with Non-responsive content removed in Development with photographic documentation, etc. and then proceed according to the results; this was agreed to (we have to submit the report to him before the TOP meeting).

I now have 43 pumps from [redacted] here and would like to send them to you as soon as possible.

I am a little horrified because here too RP2 pumps are listed as failed parts, however this has not yet been checked by us.

Please contact me to arrange how to proceed quickly.

I do not want to record the pumps in QTS; they are certainly not IQIS either, which is not necessary for development analyses.

Best regards

Non-responsive content removed

AUDI AG

Non-responsive content removed

Sitz/Domicile: Ingolstadt

Registergericht/Court of Registry: Local District Court Ingolstadt

HRB Nr./Commercial Register No.: 1

Vorsitzender des Aufsichtsrats/Chairman of the Supervisory Board: 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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Inspection report / Recommendation

43 Non-responsive content removed pumps from field campaign

7/15/2011; Non-responsive content removed

Inspection report 43 Non-responsive content removed pumps in the field

Summary of examination results (red evaluations):

- ▷ 13 out of 43 pumps (30%) show signs of wear with material transfewr (very critical)
- ▷ 6 out of 43 pumps (14%) have hydrodynamically critical linings (4 x also wear)
- ▷ 8 out of 43 pumps (19%) show signs of strong brown discoloration (seriousness unclear)

Summary:

1. A very large proportion of the pumps show signs of preliminary damage that will lead to pump failure in the long or short term ~~at~~ Start campaign end of 2010 was correct
2. Hardly any regional differences apparent
3. Current knowledge from the CP4 Work task force requires a decision in relation a change in continuing with the campaign Vibrations W19 engine/ Viscosity
4. Task Force CP4 recommendation: Install a reinforced belt clamp (standard in W19 EU6 and W24) **and / or** change the orientation of the pump shaft TDC.
This requires a positive completion of the injection volume and vibration measurements by Non-responsive content removed and Bosch in approx. WK 30/31.

Inspection report 43 Non-responsive content removed pumps in the field

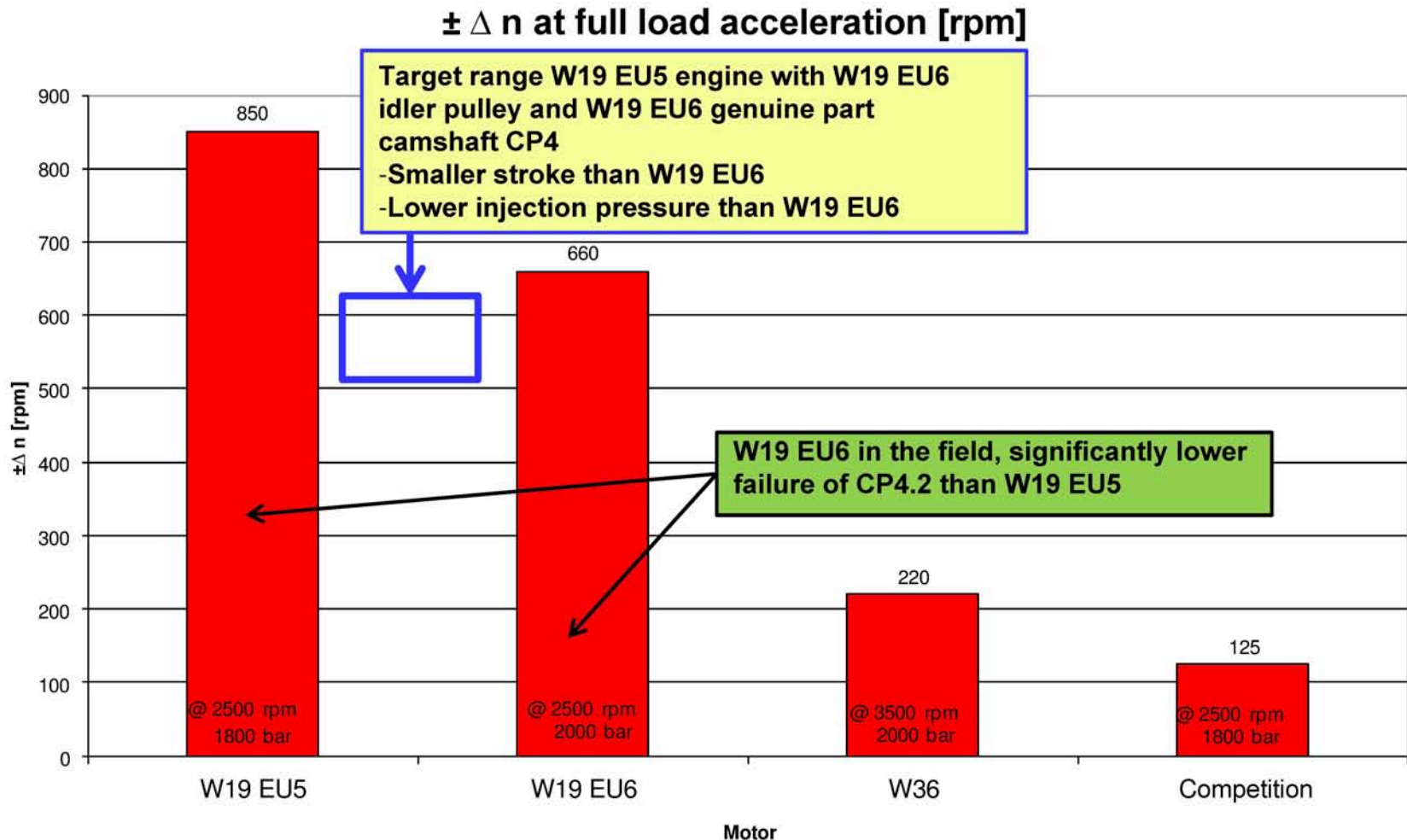
Mileage	Roller left		Roller right		RS left	RS right	Camshaft discoloration	FIN
	Discoloration	Wear	Discoloration	Wear	Deposits	Deposits		
18,826km	5	8	5	2	2	2	slightly	LFV5A44FX9
13,960km	2	7	2	2	3	5	none	LFV5A44FX9
59,238km	2	2	2	2	3	3	none	LFV5A44F09
48,834km	2	2	2	2	5	5	none	LFV5A44F79
30,615km	2	6	2	8	3	7	clearly	LFV5A44F99
25,646km	2	2	3	2	3	3	none	LFV5A44F39
29,935km	2	6	7	2	3	7	none	LFV5A44F99
50,715km	2	2	2	4	2	2	none	LFV5A44F39
14,597km	2	2	2	2	3	3	none	LFV5A44FX9
31,193km	2	2	2	2	3	2	none	LFV5A44F09
74,208km	2	2	2	6	5	7	slightly	LFV5A44F79
14,840km	2	2	2	2	2	2	none	LFV5A44F7A
20,306km	2	2	2	4	5	5	none	LFV5A44FX9
30,267km	3	6	7	8	5	7	clearly	LFV5A44F5A
42,767km	3	2	3	2	2	3	none	LFV5A44F59
22,838km	3	6	3	2	5	5	clearly	LFV5A44F6A
not known	2	2	3	2	2	3	none	LFV5A44F5A
20,595km	3	4	3	7	7	7	none	LFV5A44F3A
68,004km	3	2	3	6	3	3	none	LFV5A44F9A
61,228km	3	8	3	2	7	7	clearly	LFV5A44F09
Mileage	Roller left		Roller right		RS left	RS right	Camshaft discoloration	FIN
	Discoloration	Wear	Discoloration	Wear	Deposits	Deposits		
28,515km	1	4	3	6	3	3	none	LFV5A44F0A
15,877km	3	1	4	4	3	3	slightly	LFV5A44F9A
21,903km	7	1	5	4	1	1	slightly	LFV5A44F3A
26,056km	6	4	7	4	3	3	none	LFV5A44F9A
62,064km	7	7	1	7	1	1	clearly	LFV5A44F39
10,512km	3	8	3	8	1	1	clearly	LFV5A44F1A
50,557km	1	4	1	8	3	1	slightly	LFV5A44F29
20,068km	4	4	4	1	1	1	slightly	LFV5A44F6A
28,672km	3	1	3	1	3	3	slightly	LFV5A44F3A
26,999km	3	1	1	6	3	3	clearly	LFV5A44F49
28,514km	3	4	3	4	1	1	none	LFV5A44F3A
16,488km	1	1	5	1	3	3	none	LFV5A44F0A
39,099km	1	4	1	8	3	3	clearly	LFV5A44F89
35,595km	1	1	5	1	1	1	none	LFV5A44F1A
112,044km	3	1	1	6	3	3	clearly	LFV5A44F29
25,266km	5	6	1	8	1	1	clearly	LFV5A44FX9
19,980km	3	4	3	4	3	3	none	LFV5A44FXA
63,913km	3	1	3	8	3	3	clearly	LFV5A44F09
12,018km	7	1	5	1	1	1	none	LFV5A44F0A
37,747km	1	8	7	8	3	3	clearly	LFV5A44F89
29,935km	1	1	1	1	3	3	none	LFV5A44F99
9,410km	1	4	1	1	1	3	none	LFV5A44F5A
30,915km	7	1	1	6	3	1	slightly	LFV5A44F99

EA11003EN-01782[3]

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Speed variations of the high-pressure fuel pump shaft V6 TDI W19 / W36 and comparison with the competition



Inspection report 43 Non-responsive content removed pumps in the field

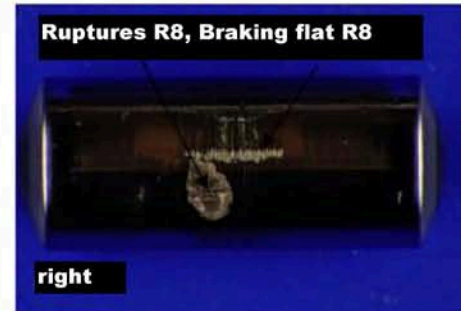
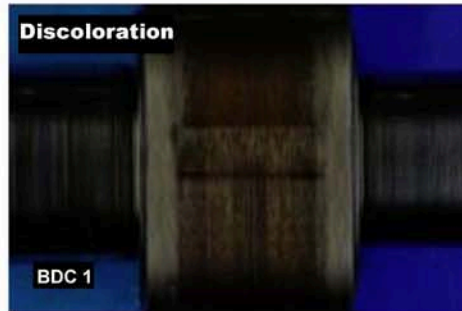
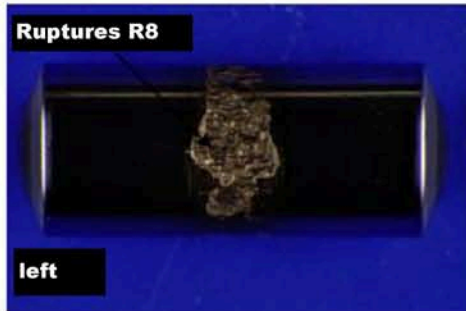
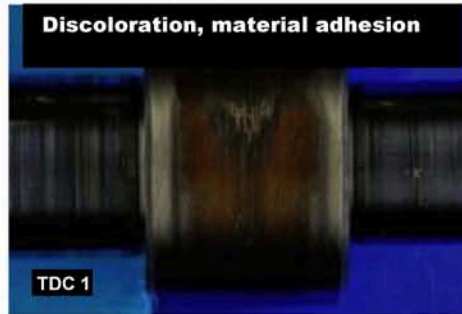
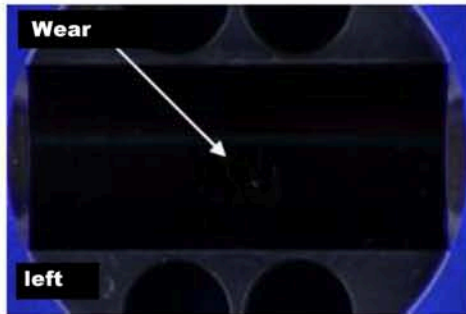
CP4 Task Force Audi – Field Diagnosis Non-responsive content removed

Field observation in Non-responsive content removed

QTS 21G / none

2011-CP4_4CH26 0445 010 611, RP1

DM: 3/26/2010, no correspondence to veh., mileage, QTS



BOSCH

Inspection report 43 Non-responsive content removed pumps in the field

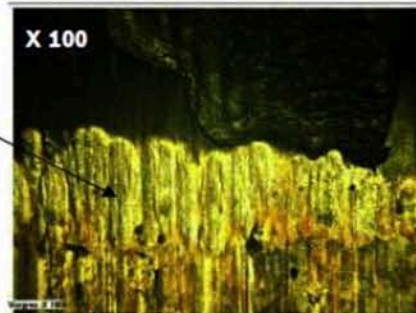
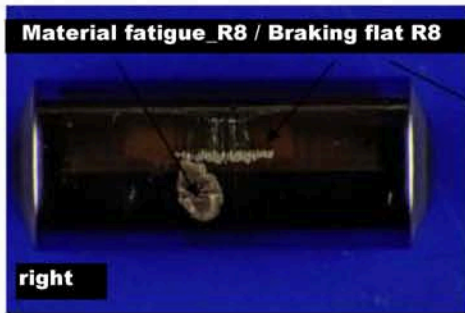
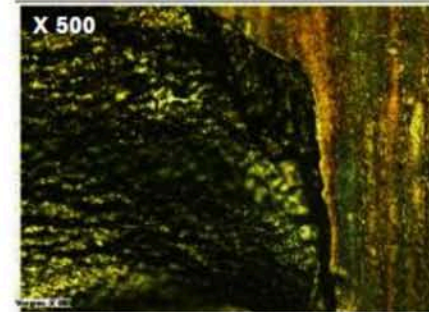
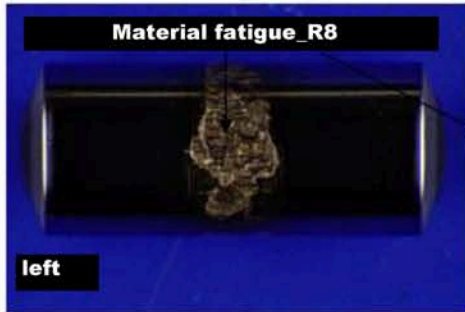
CP4 Task Force Audi – Field Diagnosis Non-responsive content removed

Field observation in [REDACTED]

2011-CP4_4CH26 0445 010 611, RP1

DM: 3/26/2010, no correspondence to veh., mileage, QTS

QTS 21G / none



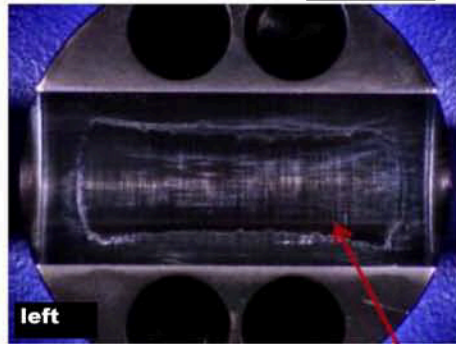
BOSCH

Inspection report 43 [redacted] pumps in the field

CP4 Task Force Audi - Field Diagnosis

Field observation in [redacted]
2011-CP4_0469 Pump 0445 010 611 W19 EU5 without RP
Veh. LJV5A44F5A3 [redacted]; DM: 3/8/2010, Mileage: 30,267km

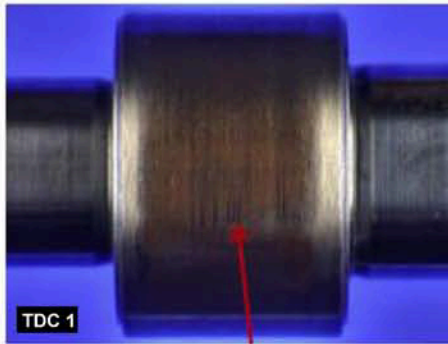
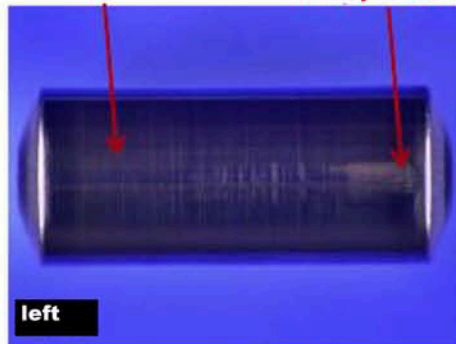
QMM: 4CW16
21G/4057494



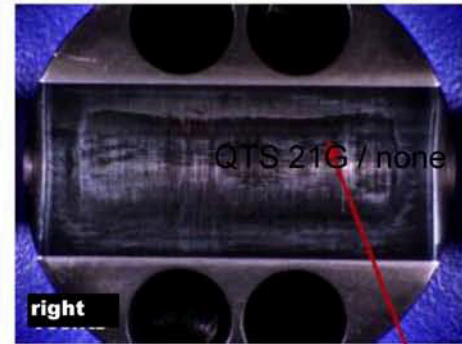
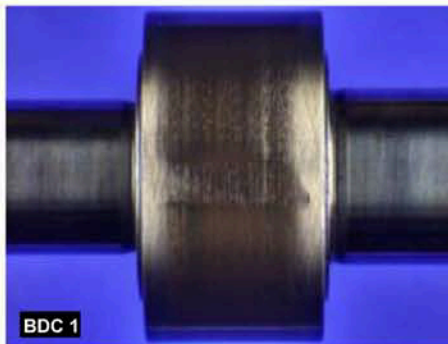
Discoloration R3

Linings R5

Flat spot R6

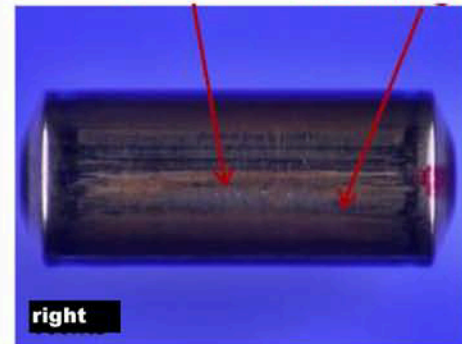


Material transfer



Linings R7

Discoloration R7



Braking flat R8



Inspection report 43 Non-responsive content removed pumps in the field

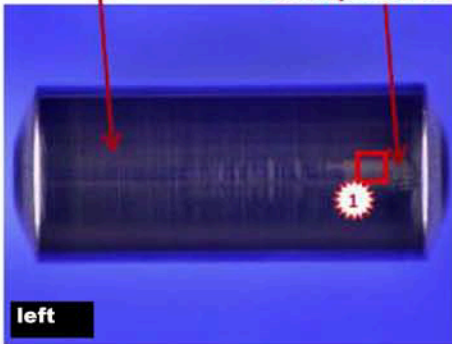
CP4 Task Force Audi - Field Diagnosis

Field observation in Non-responsive content removed
2011-CP4_0469 Pump 0445 010 611 W19 EU5 without RP
Veh. LFV5A44F5A3 Non-responsive content removed DM: 3/8/2010, Mileage: 30,267km

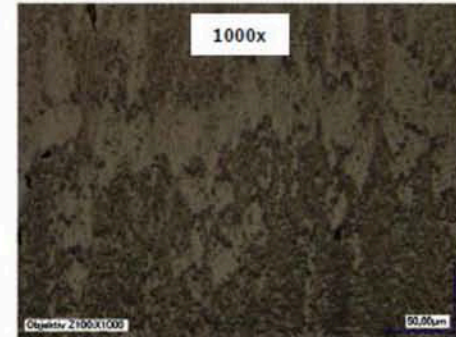
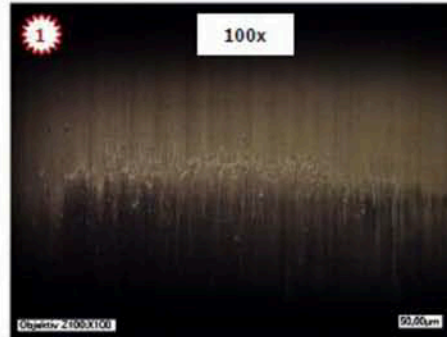
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Discoloration R3

Flat spot R6

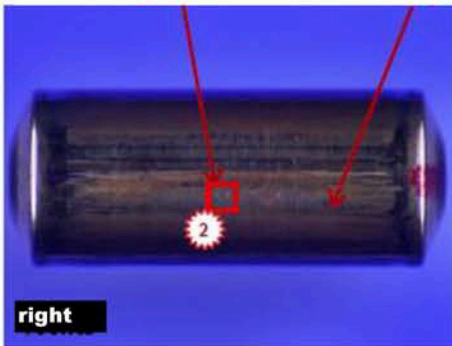


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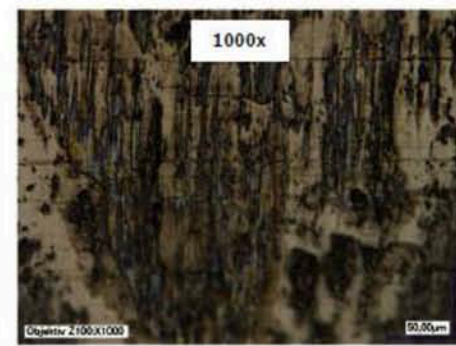
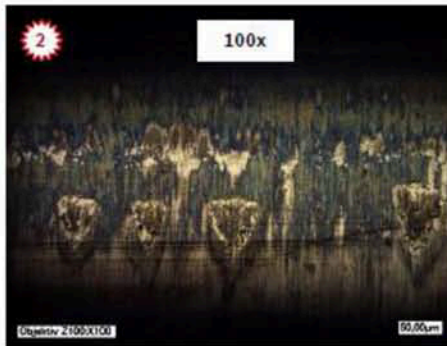


Braking flat R8

Discoloration R7



right



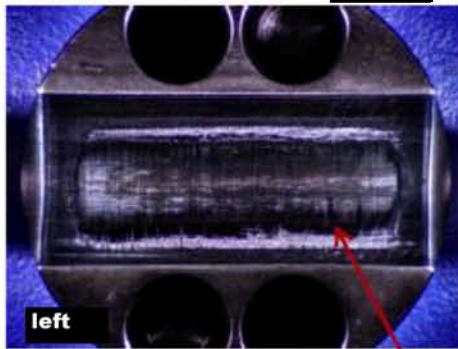
BOSCH

Inspection report 43 pumps in the field

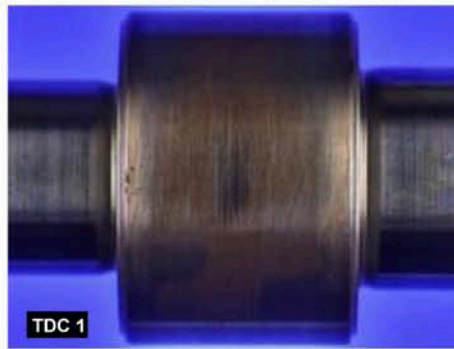
CP4 Task Force Audi - Field Diagnosis

Field observation in 2011-CP4_0475 Pump 0445 010 611 W19 EU5 without RP
Veh. Lfv5A44F0930; DM: 3/8/2010, Mileage: 61,228km

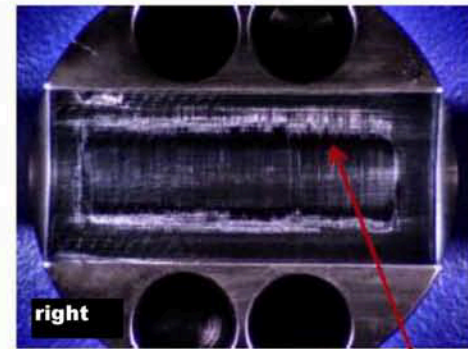
QMM: 4CW08
21G/4057688



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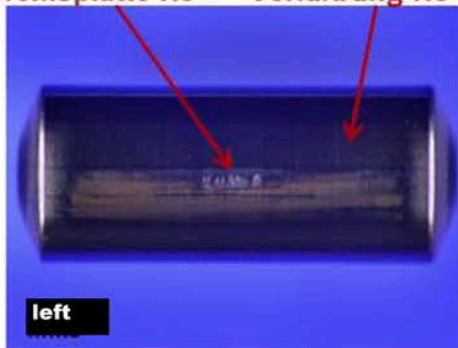
Linings R7

Linings R7

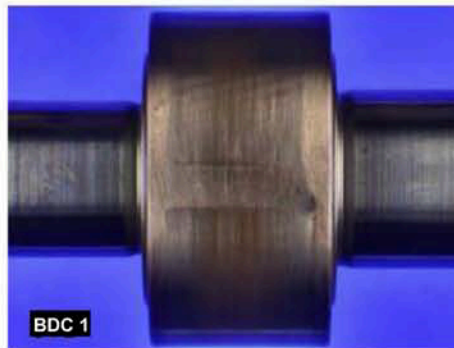
Braking flat R8

Discoloration R3

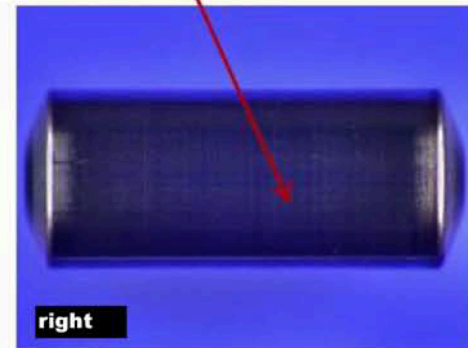
Discoloration R3



left



BDC 1



right