

PE12-012

GM

6/22/2012

Q_07_2 Vehicle FPA

2012 Cruze C7100050 - the



Fw: 2012 Cruze C7100050 - the real story on Stephanie Johnson's Cruze incident, after all

Jerry Hendler to: Curtis L Andreski, Robert B. Benedict, Brian Stouffer, Mark Deacon, Stacie Kraysovic, Gary F. Altman, Matthew A. Hurley 04/10/2012 11:24 AM

From: Jerry Hendler/US/GM/GMC
To: Curtis L Andreski/US/GM/GMC@GM, Robert B. Benedict/US/GM/GMC@GM, Brian Stouffer/US/GM/GMC@GM, Mark Deacon/US/GM/GMC@GM, Stacie Kraysovic/US/GM/GMC@GM, Gary F. Altman/US/GM/GMC@GM, Matthew A.

There was confusion at QEK about the vehicle actually involved in Stephanie's incident. Their records only showed Stephanie with one Cruze, a brand new one with the VIN in the previous emails.

However the incident vehicle was a captured test fleet vehicle with several thousand miles on it according to Stephanie.

Kay Klingensmith from QEK and Stephanie got in touch this morning to straighten out the confusion, and Kay just forwarded the following email regarding the actual incident vehicle, a 2012MY Cruze built on May 18, 2011, also with an LUJ 1.4L Turbo.

Oil fill cap not installed after oil change is the verbatim report from QEK.

Thanks,

Jerry

----- Forwarded by Jerry Hendler/US/GM/GMC on 04/10/2012 11:09 AM -----

From: "Klingensmith, Kay" <kklingensmith@qek.com>
To: "jerry.hendler@gm.com" <jerry.hendler@gm.com>
Date: 04/10/2012 10:52 AM
Subject: FW: 2012 Cruze C7100050

FYI

Kay Klingensmith | QEK

Supervisor, Disposal

An Employee of QEK

7111 11 Mile Rd | Warren, MI 48092 | Office: 586-757-9700 ext. 259 | Fax: 586-757-5759 | [GM CVO Web Site](#)

Fleet solutions that drive results.

From: stephanie.johnson@gm.com [mailto:stephanie.johnson@gm.com]
Sent: Tuesday, April 10, 2012 9:56 AM
To: Klingensmith, Kay
Subject: 2012 Cruze C7100050 (Tim Ludwig)

FYI, on the report of the Cruze with the alleged smoke from under hood. The oil fill cap not installed allowing oil splash over engine/exhaust. Cap was found sitting on the lower rad support.

VIN - 1G1PF5SC1C7100050

Miles - 11,605

Nothing in this message is intended to constitute an electronic signature unless a specific statement to the contrary is included in this message.

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Q_07_2 Vehicle FPA

29MR2011_GMNA_Cruze_DC
_Review 2-p

2011 NA Cruze Washington DC Issue

Agenda

• Fire Origin and Cause Analysis	Lou Carlin
• Product Design - Root Cause Analysis	Mark Gilmore
• Lab Test Incident Simulation / Results	Friedhelm Krake
• Field Performance	Stouffer / Kraysovic
• Design Comparison GM/Competitors	Friedhelm Krake
• Changes Under Consideration	Friedhelm Krake
• Next Actions (Short Term, Long Term)	Gary Altman



Fire Origin and Cause Analysis

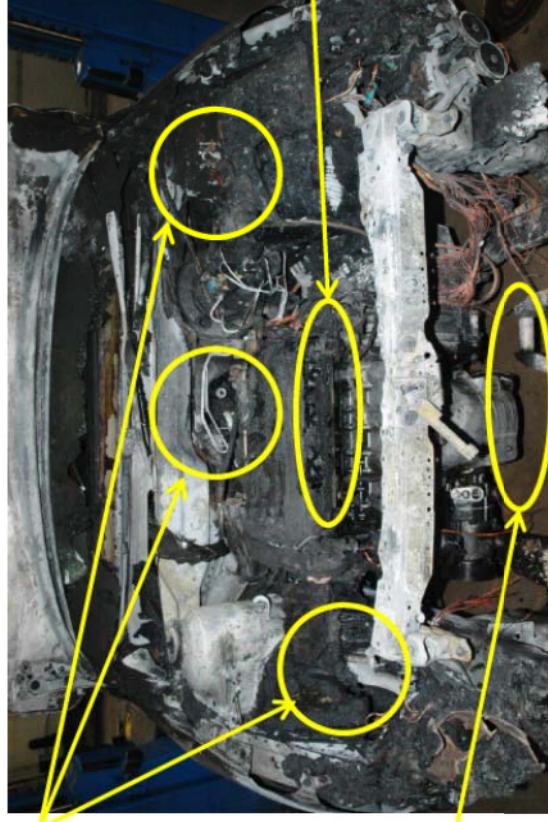
Incident Description From Driver Interviews

1. Incident Date: 2/14/2011
2. Driver transporting vehicle from auction house to GM dealer
3. Driver was previously a fireman and fire inspector
4. Starting odometer was 7 miles
5. Length of trip was 4 miles and approximately 10 minutes
6. Shift knob missing - shifter felt very loose
7. Noticed clutch slipping at three launches and during drive
8. Clutch felt out of adjustment or worn
9. Noticed wire burning smell and stopped vehicle
10. No lights indicating a problem on instrument panel
11. Smelled under instrument panel in an attempt to determine source
12. Driver passing by alerted Cruze driver to a fire under vehicle at the powertrain
13. Turned off and exited vehicle
14. Observed flames from rear of vehicle
15. Flames observed centered on vehicle at powertrain
16. No trail of fluids noticed
17. No leaking of fluids or flames on ground while he observed
18. Called 911 and upon arrival fire department extinguished the fire



Fire Origin and Cause Analysis Vehicle Burn Patterns

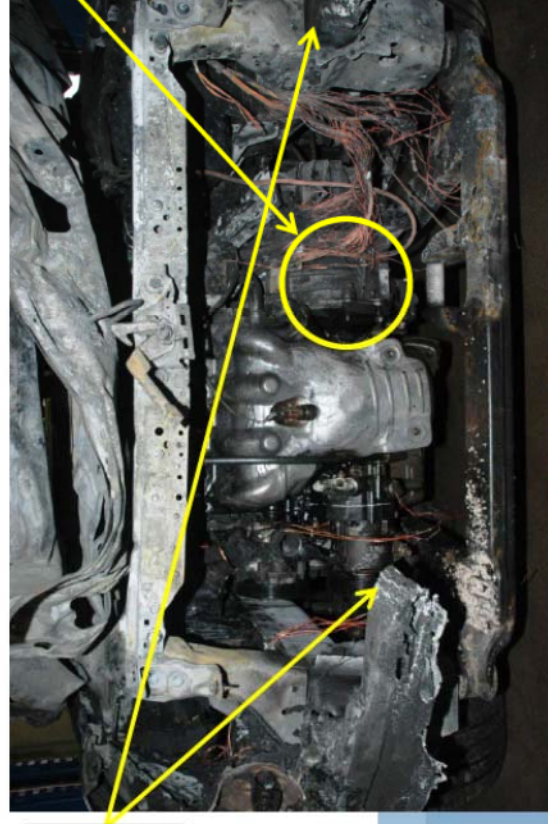
Significant Amount of
Unconsumed Plastics



Front End and Belly Pan
Consumed Without
Significant Road Debris

Forward Left Bias Burn
Damage on Valve Cover

Left Bias Burn Damage
on Bumper Beam/Crush
Cans



Probable Area of Origin
Based on Vehicle Burn
Patterns

Electrical
No Evidence of Short
Circuits / Arching

Probable Heat Source
Hot surface Ignition

Fire Origin and Cause Analysis

Powertrain Teardown / Analysis

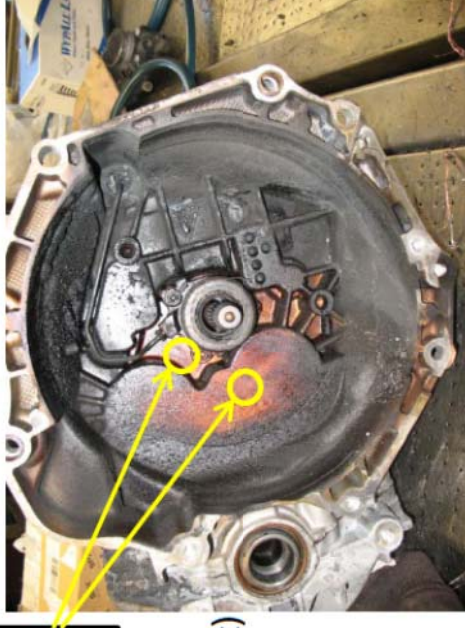
Engine Findings:

- No evidence of oil leakage prior to fire
- No evidence of hot surface ignition on exhaust manifold or heat shield
- Oil leakage resulted from fire damage to oil filter and valve cover

Transmission Findings:

- Clutch plate friction material severely worn and burned
- Evidence of clutch metal to metal contact and extreme heat (red hot)
- Evidence of fire inside clutch housing
- Plastic / combustible clutch housing materials consumed
- Evidence of brake fluid found in the clutch housing

Sample Locations Testing
Positive For Brake Fluid In
The Clutch Housing



Conclusion:

Based on the information available at this time, it appears that the fire point of origin was in the clutch housing with the most probable cause being the result of brake fluid from the clutch hydraulic system auto igniting on a clutch hot surface.

Root Cause - High energy slip conditions

Observations:

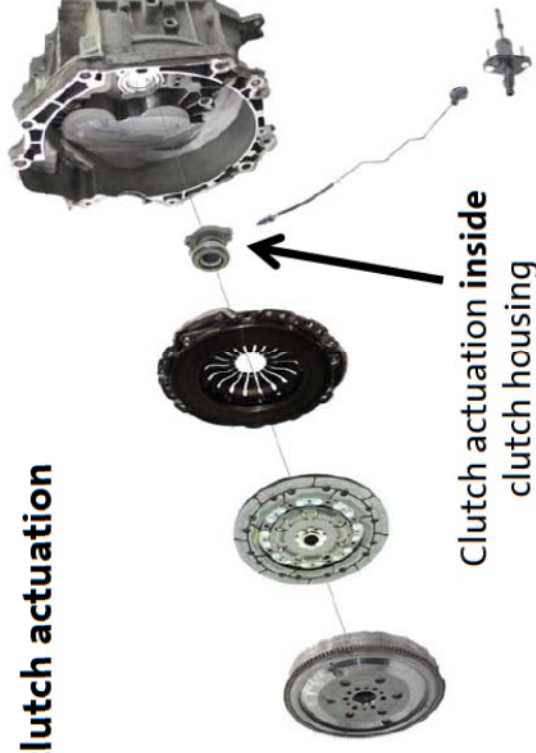
- Extreme temperature conditions
- Annealed diaphragm springs
- CSC over-traveled
- Metal-to-metal contact of clutch to pressure plate
- Chemical analysis identified clutch fluid evident on inside walls of clutch housing
- Extreme temperatures resulting from continued clutch slip conditions
- Shifter knob missing
- Shift cable not fully locked into position

Driver Comments:

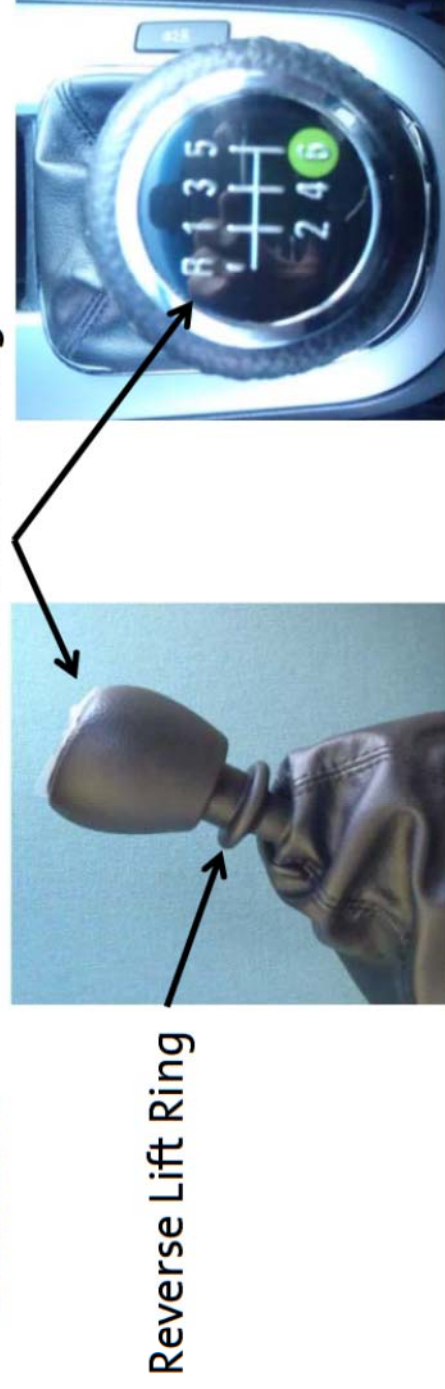
- Stated that clutch was slipping “bad” at receipt of vehicle, however, no clutch odor detected
- Driver eventually stopped vehicle due to “electrical” type of odor
- Driver travelled approximately four miles until he stopped the vehicle

Chevy Cruze M32 1.4T Clutch system with CSC (Concentric Slave Cylinder) = **internal**

clutch actuation



Root Cause - *continued*



Assumption:

- Driver was launching in a condition with considerable slipping of the clutch and generating excessive heat

Simulation Testing:

- Performed successive 3rd gear launches on a known “good” vehicle
- Odor generated after 10 launches. Extreme odor after 11 launches.
- Stopped test after 11 launches when clutch housing temperature reached 200C

Conclusion:

- Extreme temperatures were a result of repeated launches with high slip, possibly in 3rd gear
- Driver was not familiar with the vehicle and had no knob indicating shift pattern (thought it was a 5-speed)
- Driver continued to drive vehicle despite clear indications that clutch was distressed

Lab Test Incident Simulation / Results

Thermal issue reproduced in GME-lab

- **Test condition:** Modified Hot Flywheel and Pressure Plate Burst Test (GMPT 1164)
 - Engine U18XFR, clutch set and clutch-housing on bench
 - Clutch plate fix, torque apply via controlled clutch closure
- **Test execution & observation:**
 - Severe clutch slip reproduced, 1000°C clutch temperature
=> extreme heat settings & CSC overtravel
 - CSC actuations lead to spontaneous combustions.
 - Ignited material dropped out of clutch housing drain hole 5 min after test
- **Analysis:**
 - Brake fluid pressed out of the overtraveled CSC identified as source of combustions.
- **Conclusion:**
 - Severe misuse can lead to thermal incident.
 - Stress condition during test similar to vehicle incident.



Field Performance

- Tread Data Evaluation - Globally: No “Washington DC” incident reports
- GMNA Cruze: 15 TAC Cases 12MIS Projection 2.04 IPTV 2,772 Sold
*Projection based on no further failures past 1000 miles
- Customer Complaints: *Clutch odor, slipping clutch and/or loss of drive or reverse*
- *9 / 15 failed in dealer hands (PDI, Test drives, dealer trade); 1 in customer hands confirmed “driver abuse”*
- *13 / 15 is 0 – 555 Mileage failures*
- *2 / 15 1000+ Mileage failures*
- GME M20/32 Actual: 12MIS Projection 0.13 IPTV 636,000 Sold
- *Current M20/32 Clutch, clutch material & CSC in production since 2007MY*
- *The M20/32 zero mileage failures are similar to the ones in NA in that they are burnt and/or lost junction (replaced clutch & pressure plate)*



Design Comparison GM/Competitors

Clutch system used in Chevy Cruze:

- { * }
- { * }

Design comparison at GM:

- { * }
- { * }

Design comparison outside GM:

- Usage of RCF1 in combination with internal CSC in Ford, Fiat & VW in various applications.
- RCF1 with external clutch actuation CRC was used in Audi/Seat applications 1.8l-turbo 210Nm.
- Various applications with internal CSC (non travel limited) but different clutch linings.
 - Ford Fiesta 1.4, Suzuki Splash 1.3D, Ford Galaxy 1.8D, Ford Grand C-Max 1.6,...
 - Total CSC (no travel limited) sold b FTE = 5 Mio per year, about 50 mio in total so far since 2001.

Conclusion:

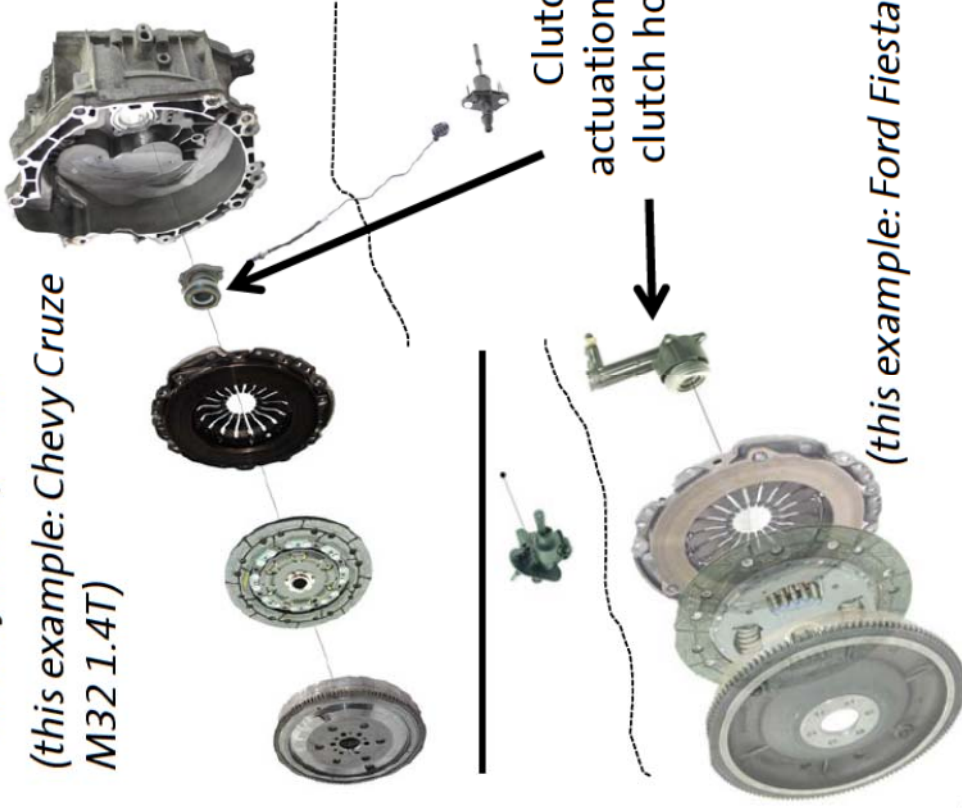
- { * }
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CSC / CRC Concepts

Clutch system with CSC concept (Concentric

Slave Cylinder) = **internal clutch actuation**

(this example: Chevy Cruze M32 1.4T)

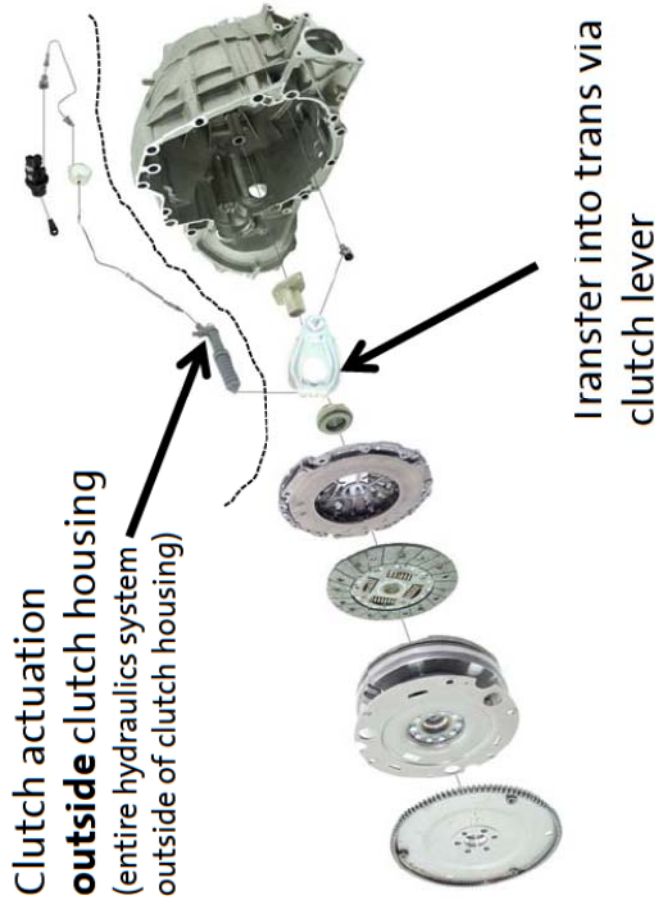


(this example: Ford Fiesta 1.6D)

Clutch system with **CRC concept** (Clutch Release

Cylinder) = **external clutch actuation**

(this example: Audi Q5, 2.0 TDI)





Recommended Next Actions

Immediate/Short Term

- No immediate action required
 - Investi_ation su_orts extreme clutch sli_ in_b_ Wash DC Driver
 - GM Internal and Competitive Clutch/CSC designs are similar
 - Over 636,000 M20/32 Vehicles (2007-11MY) with no evidence fire propagation out of clutch housing
 - 3.8 Million with RFC1 Material & CSC design with no evidence fire propagation out of clutch housing

Long Term

- { * }
- { * }
- { * }



Back-Up

Calibration Implementation



















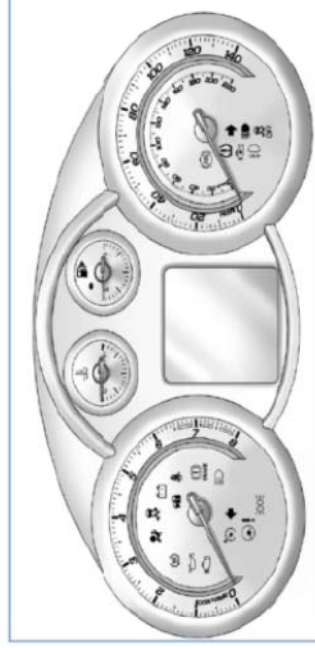




Clutch protection functions

scenarios

Instruments and Controls 5-21	
<p>If the light stays on and the engine does not start, there could be a problem with the theft-deterrent system. See <i>Immobilizer Operation</i> on page 2-10 for more information.</p> <p>Reduced Engine Power Light</p> 	<p>The reduced engine power light should come on briefly as the engine is started. If it does not come on have the vehicle serviced by your dealer.</p> <p>This light, along with the service engine soon light, displays when a noticeable reduction in the vehicle's performance occurs. Stop the vehicle and turn off the ignition.</p>
<p>Wait for 10 seconds and restart the vehicle. This might correct the condition.</p> <p>The vehicle can be driven at a reduced speed when the reduced engine power light is on but acceleration and speed might be reduced. The performance could be reduced until the next time the vehicle is driven. If this light stays on, see your dealer as soon as possible for diagnosis and repair.</p> <p>High-Beam On Light</p> 	<p>The high-beam on light comes on when the high-beam headlamps are in use.</p> <p>See <i>Headlamp High/Low-Beam Changer</i> on page 6-2 for more information.</p>



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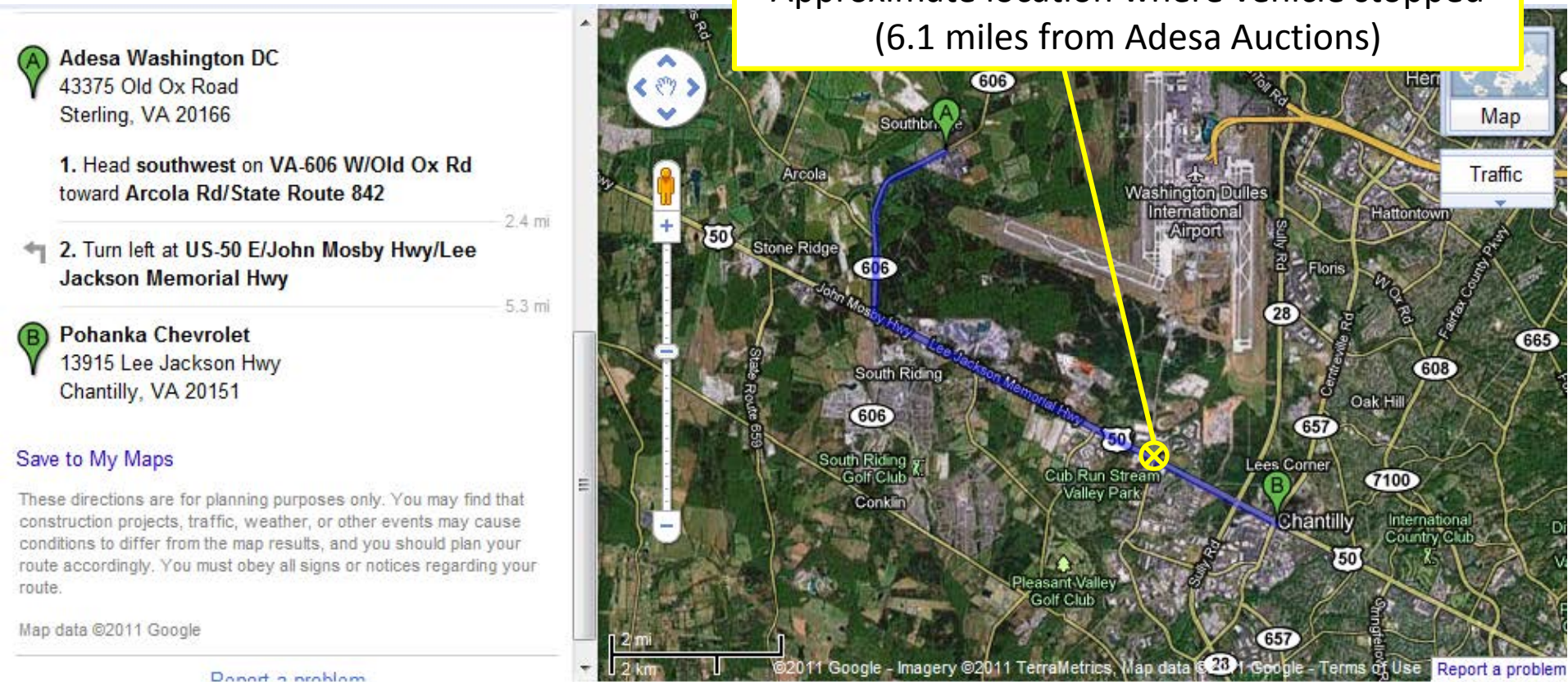
Q_07_2 Vehicle FPA

Adesa, Washington DC to

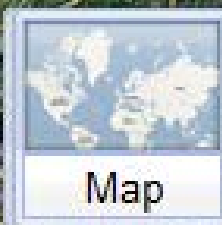
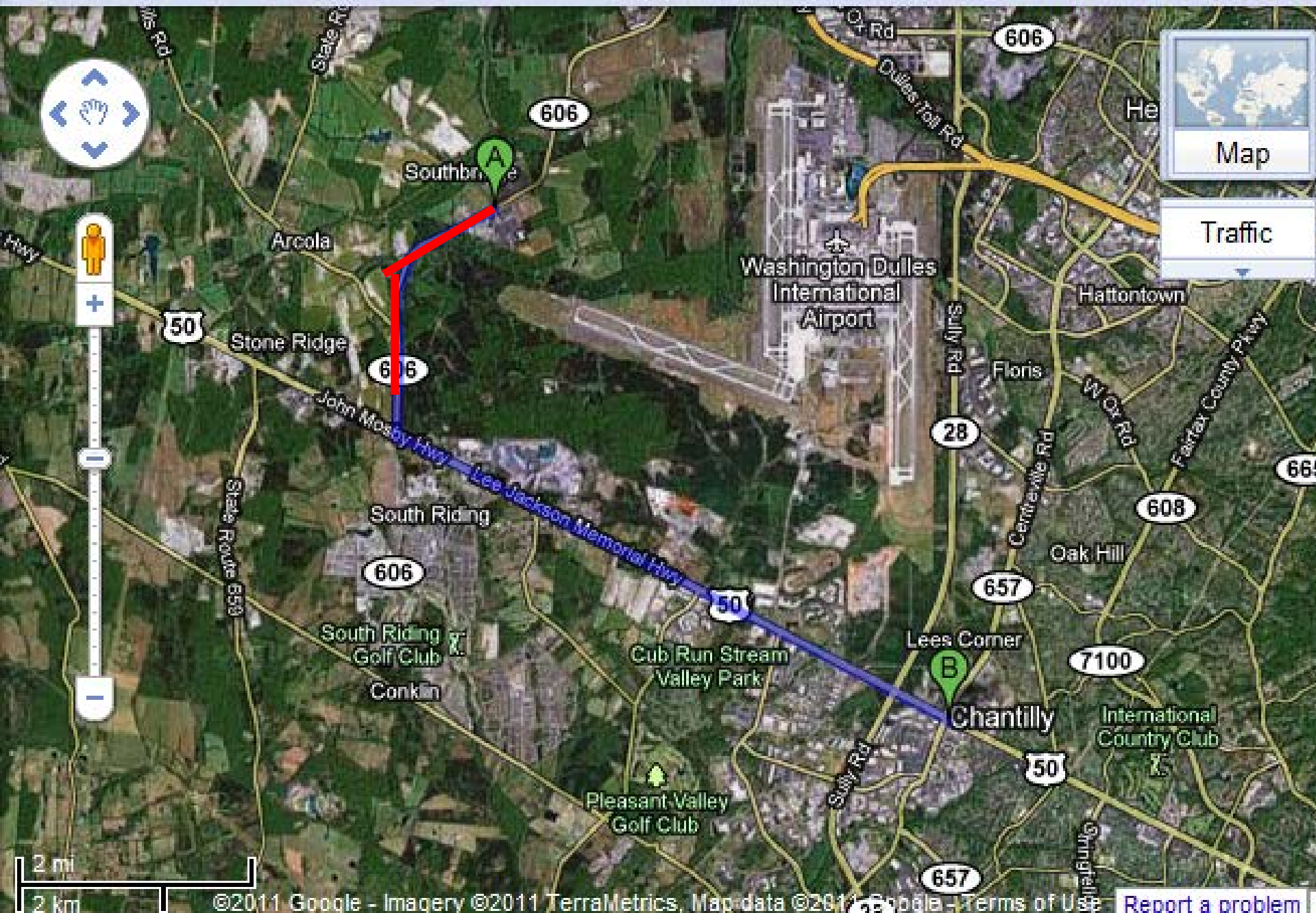
Pohanka Chevrolet,

Adesa, Washington DC to Pohanka Chevrolet, Chantilly, VA 7.7 miles

Approximate location where vehicle stopped
(6.1 miles from Adesa Auctions)



Per Adesa personnel roads generally flat



2 mi

2 km

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DC Clutch System Analysis

02Mar2011

MT System Known Information

- Fire existed inside clutch housing
- Paths into or out of Clutch housing – Bottom Drain, ½ shaft clearance cutout, Clutch Hydraulics Nylon 6-6 connector
- Driver noted that clutch was slipping during driving, most noticeable at launch,
- Clutch friction material was completely worn, Metal to metal disc to pressure plate & flywheel. However Clutch was still transmitting torque
- Color of cast Iron pressure plate (light grey) indicates it was red hot (+500°C)
- Diaphragm spring was hot enough to anneal / lose hardness, Diaphragm fingers dropped by 20 mm, CSC over Traveled due to continued driving
- Final chemical matching indicate Brake Fluid was on outside of CSC and rear of clutch housing
- Shift knob was missing
- Shift Cable was loose at auto show / attempted reattach for repair
 - No documentation on repair at auto show
- Driver noted shifter felt loose
- Shift Cable was not fully lock down / loose as received in Warren

MPG Study - 3rd Gear Launch Test

- 3rd gear Launches approximately 1 minute apart
- Engine rpm varied from 2000 to 4000 rpm 10 total Launches, clutch housing temperature increased from 46 to 180°C
- After 10 Launches moderate acceleration, clutch odor was noted
- Procedure switched to attempting to drive vehicle with normal launches and Clutch pedal had poor pedal modulation
- Clutch was slipping even with low to moderate torque, housing temp increase to 200°C
- Odor was extremely strong,
- Vehicle was still driveable even with continuous slip
 - Clutch Appearance very similar to Incident Vehicle
 - Disc Material was fully worn / pressure plate showed signs of smearing casting metal
 - Temperature would have continued to increase to level of Incident Vehicle
- Based on experience, this is the normal expected sequence & results for any MT System

Completed Tasks

- Final Chemical Analysis Completed on interior clutch housing samples - Brake Fluid found
- Driver Interview Completed to better understand Clutch and Shifter Performance:
 - Clutch already damaged as received by Driver
 - Damage occurred in original 7 miles of usage
- Shift System Review Complete - Select Cable Secured / Shift Cable reported loose multiple times
 - High potential that drivers did not always shift gears correctly
 - Shifter knob missing, disappeared during show
- Geometric Stack on Clutch Hydraulic System Complete – No potential for clutch fluid leakage due to normal clutch operation from NEW to WORN conditions (including max. variation)

Next Steps

- Bench test Development to duplicate potential sequence (Germany)
 - Brake Fluid will be tested on friction material to define clutch slip potential 04Mar2011
 - Potential sequence: System Repair made resulting in missing, multiple, or mis-positioned CSC line O-ring
 - Full System Bench being defined to duplicate incident vehicle proposed sequence 11Mar2011
 - Potential sequence: Clutch had experienced high energy abuse slip, Friction Material fully worn, Metal to Metal contact with continued clutch slip, High Heat tempering clutch diaphragm springs allowing CSC to over travel, CSC piston seal is damaged / cut resulting in fluid expulsion when clutch pedal depressed
- Was CSC or other powertrain systems repaired before Auto Show - Stall, Electrical Only
- Vehicle Delivery and Transportation event history -
 - Shipped Car Hauler
 - ADESA Odo as received – 2 miles / Condition report
 - ADESA Show Prep – 6 miles / No Hills / No info on +4 miles
 - Car Hauler to Hotel
 - Hotel to Auto Show driven 3 blocks (9 day show)
 - Cannot shift transmission / cable connect repair
 - Auto Show to Hotel 3 blocks
 - Hotel to ADESA – Flat Bed
 - Driven 6 miles before incident

MT & Clutch System Cruze Investigation

- Clutch System Architecture Design Reviews:
 - Technical Specialist FMEA Review Completed: No unique system failure modes compared to other GM or OEM MT Clutch Systems
 - Study design options to limit CSC travel or improve system robustness – tests concepts on Full System Bench Test
 - CSC Disconnect / Repair procedure being updated to prevent multiple or mis-positioned seals. Service Bulletins being developed.

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DC Cruze Photos B7145209





















MFD BY GENERAL MOTORS LLC

DATE
11/10

GVWR
1833 KG
4041 LB

GAWR FRT
945 KG
2084 LB

GAWR RR
888 KG
1957 LB

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR
VEHICLE SAFETY, BUMPER, AND THEFT PREVENTION STANDARDS IN
EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

1G1PD5SH6B7

TYPE: PASS CAR



















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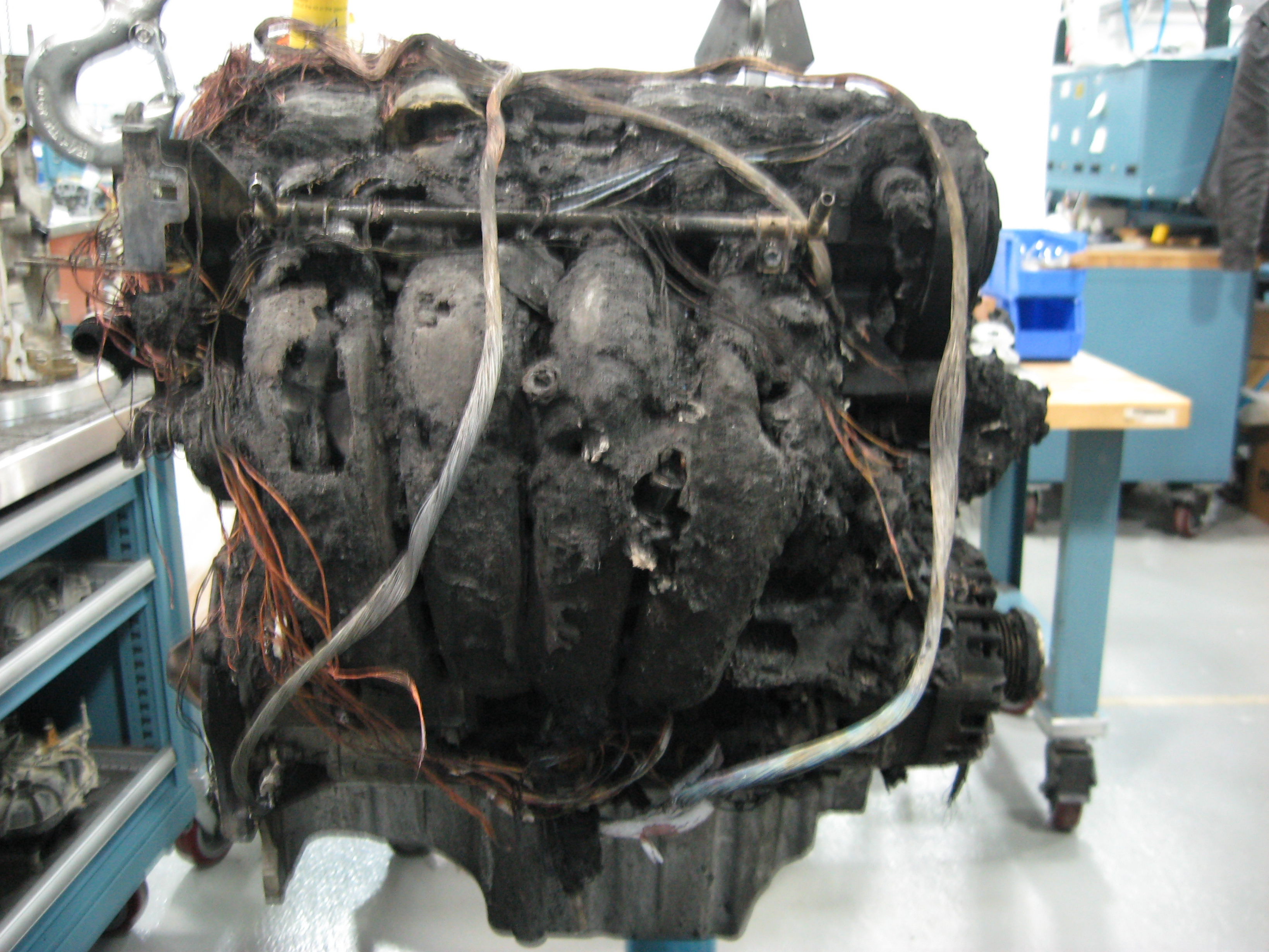
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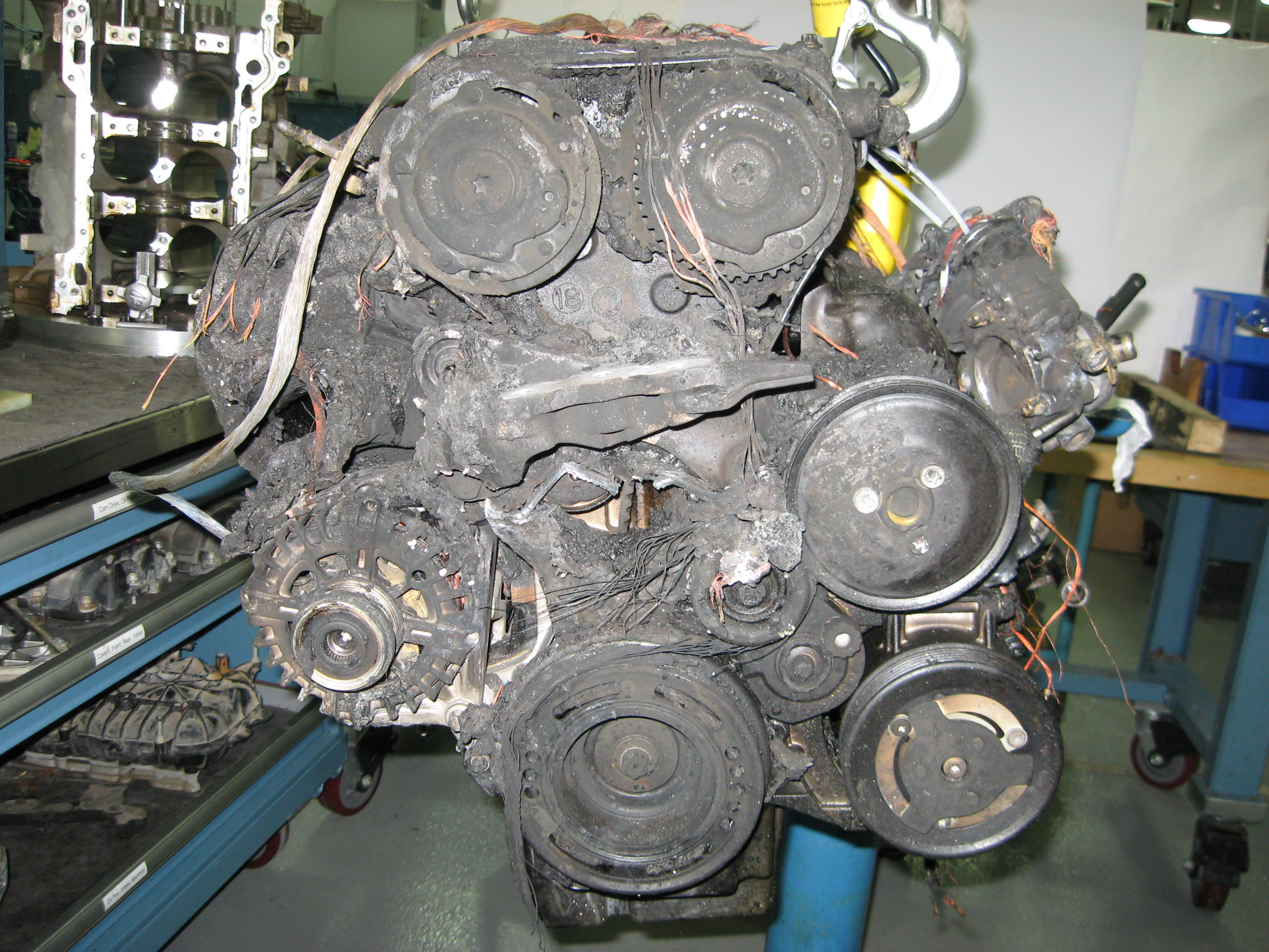
6/22/2012

Q_07_2 Vehicle FPA

DC Engine Photos 2-25-11



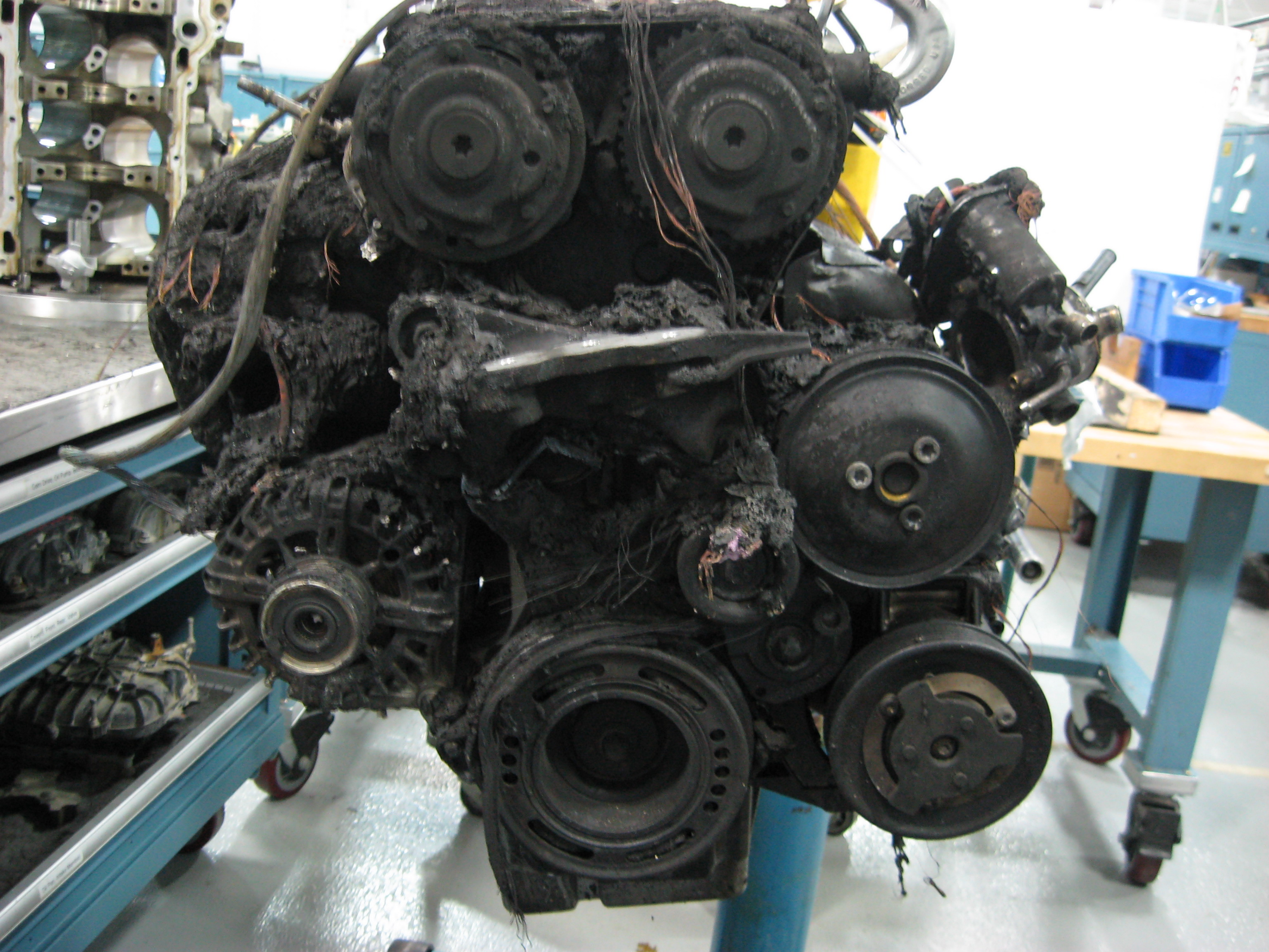




Cam Drive Oil

Cam Drive Oil

Oil Pan (from Engine)





DO NOT LIFTING

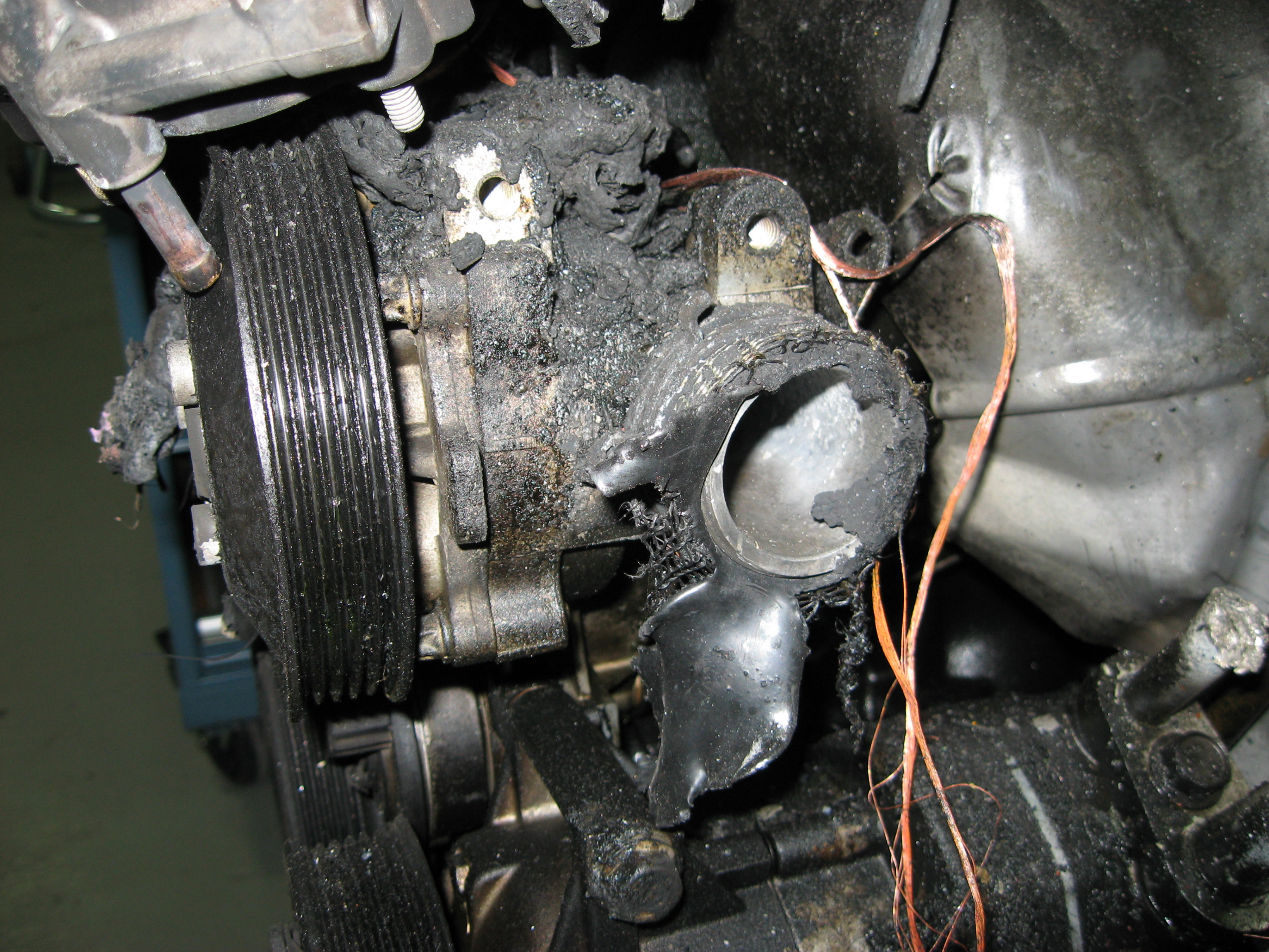
WARNING

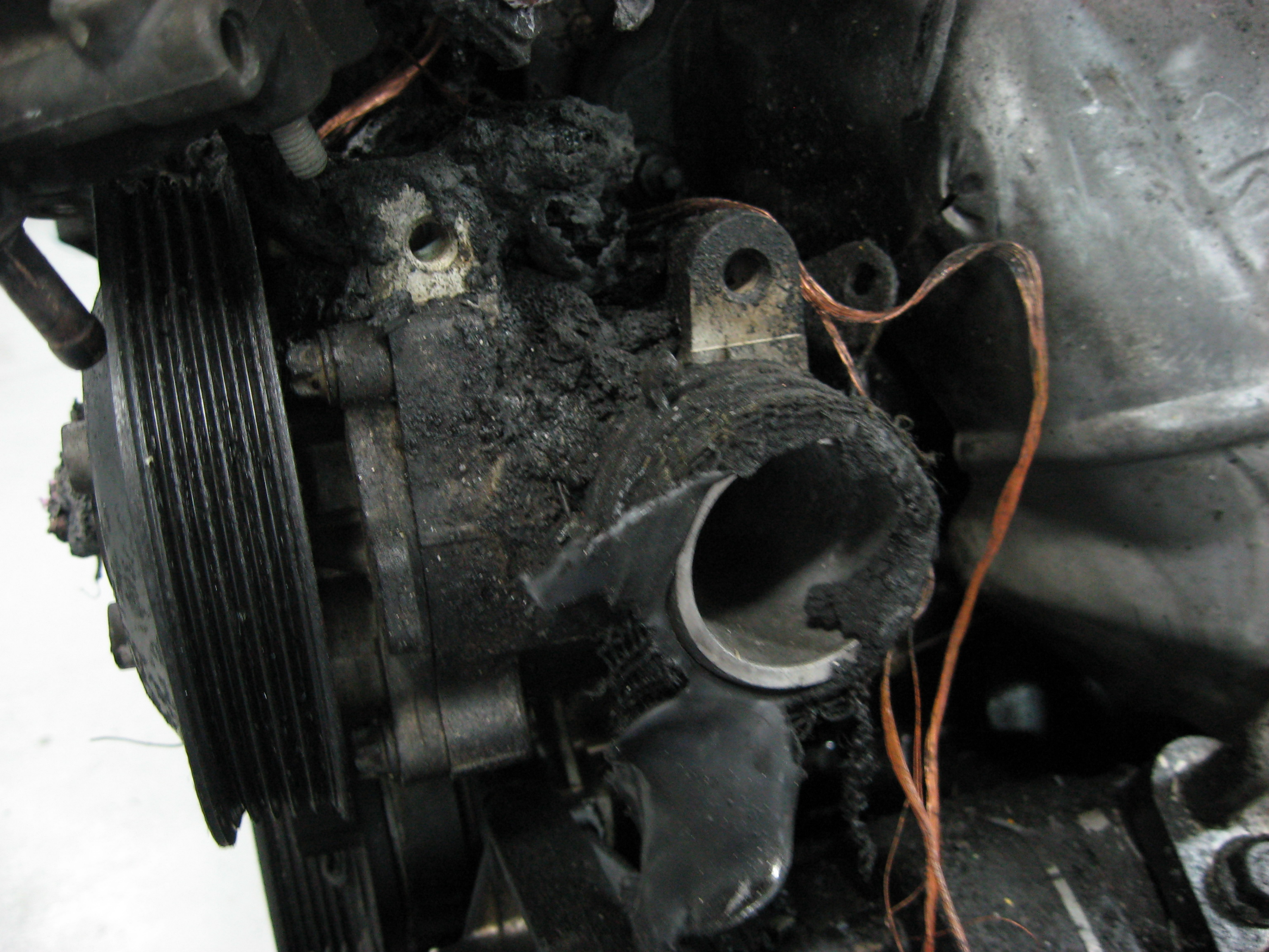
Air Line Lubricator
Check the level of oil
Contact your supplier
for inspection items

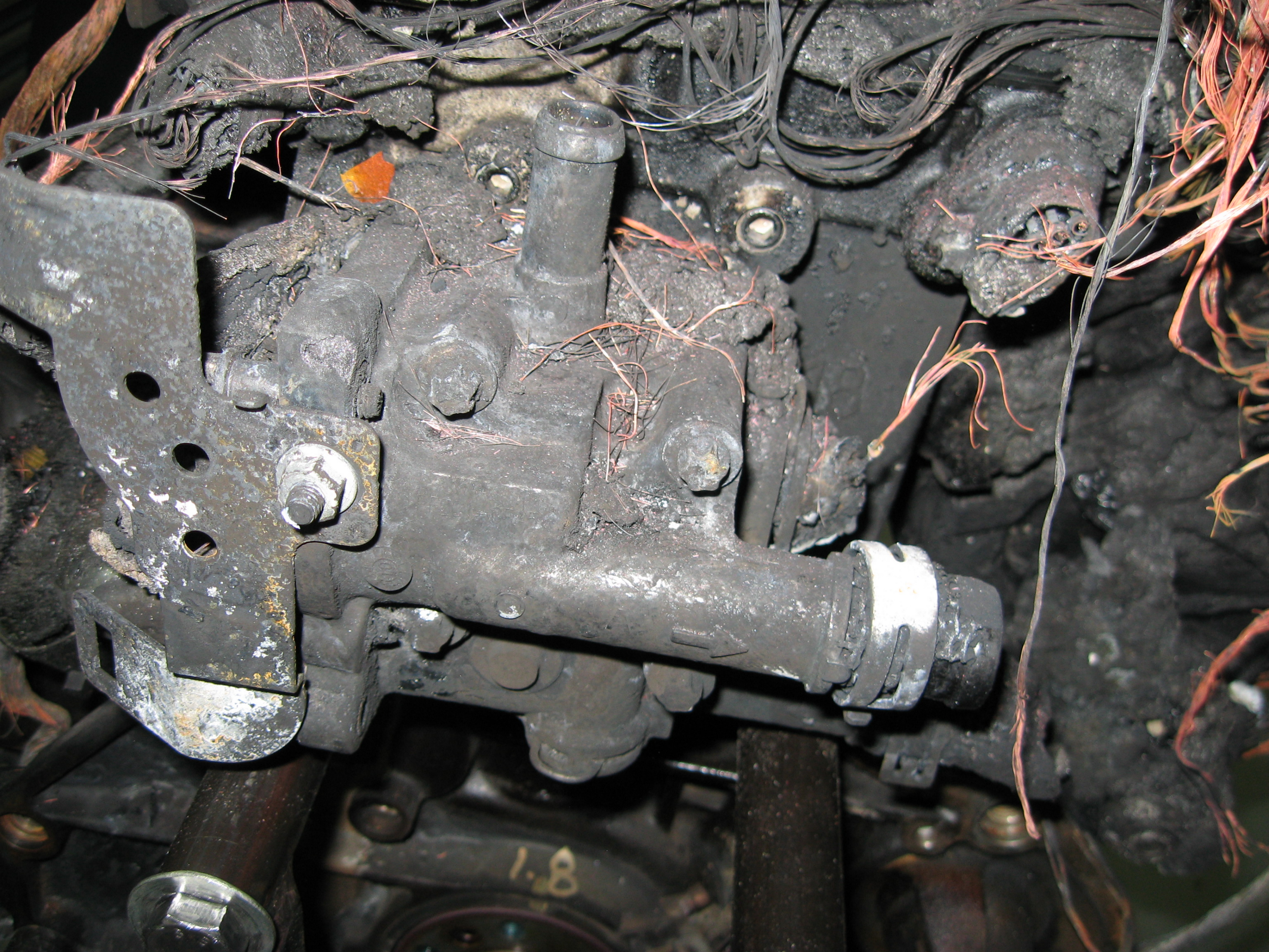


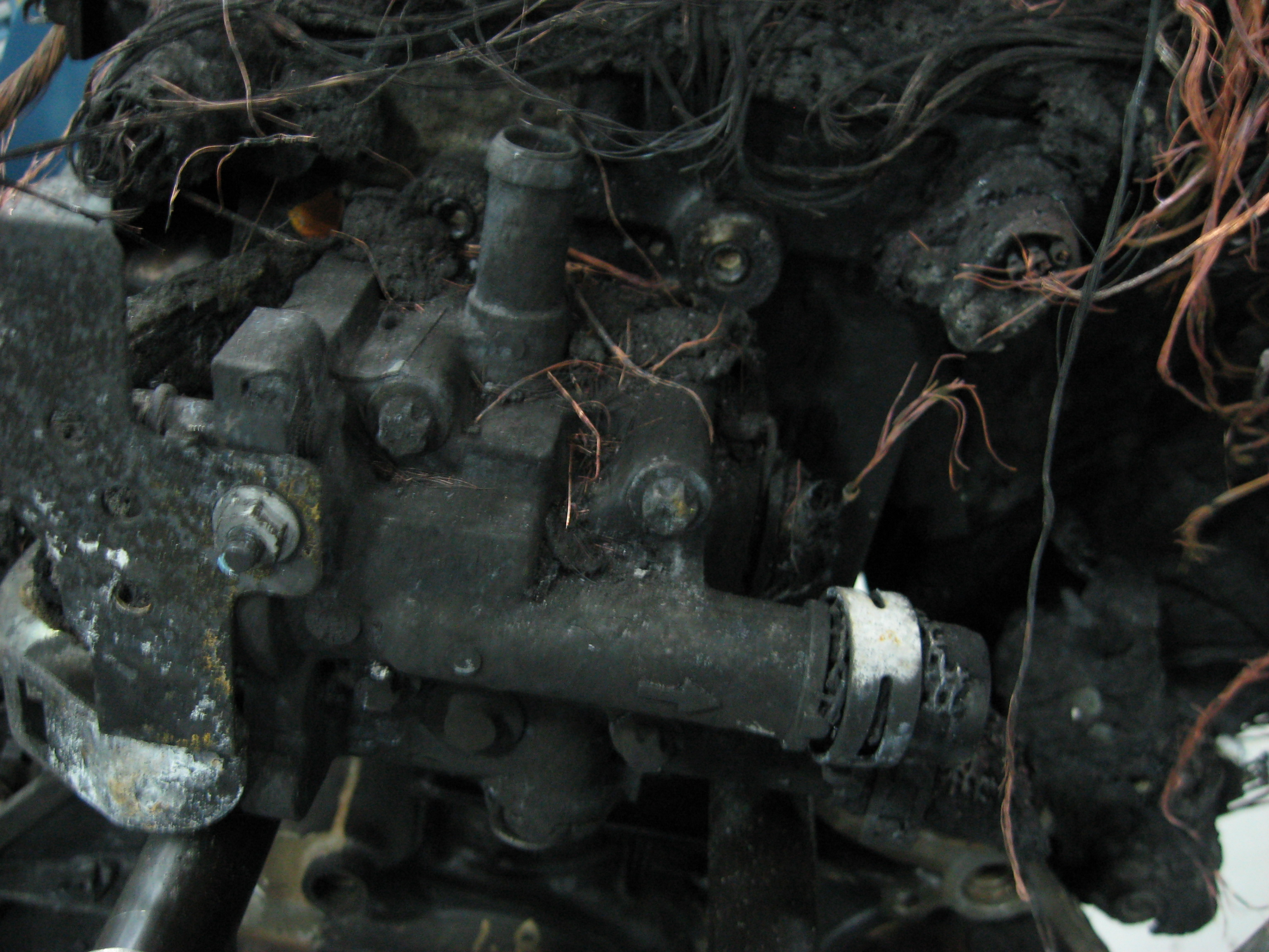


















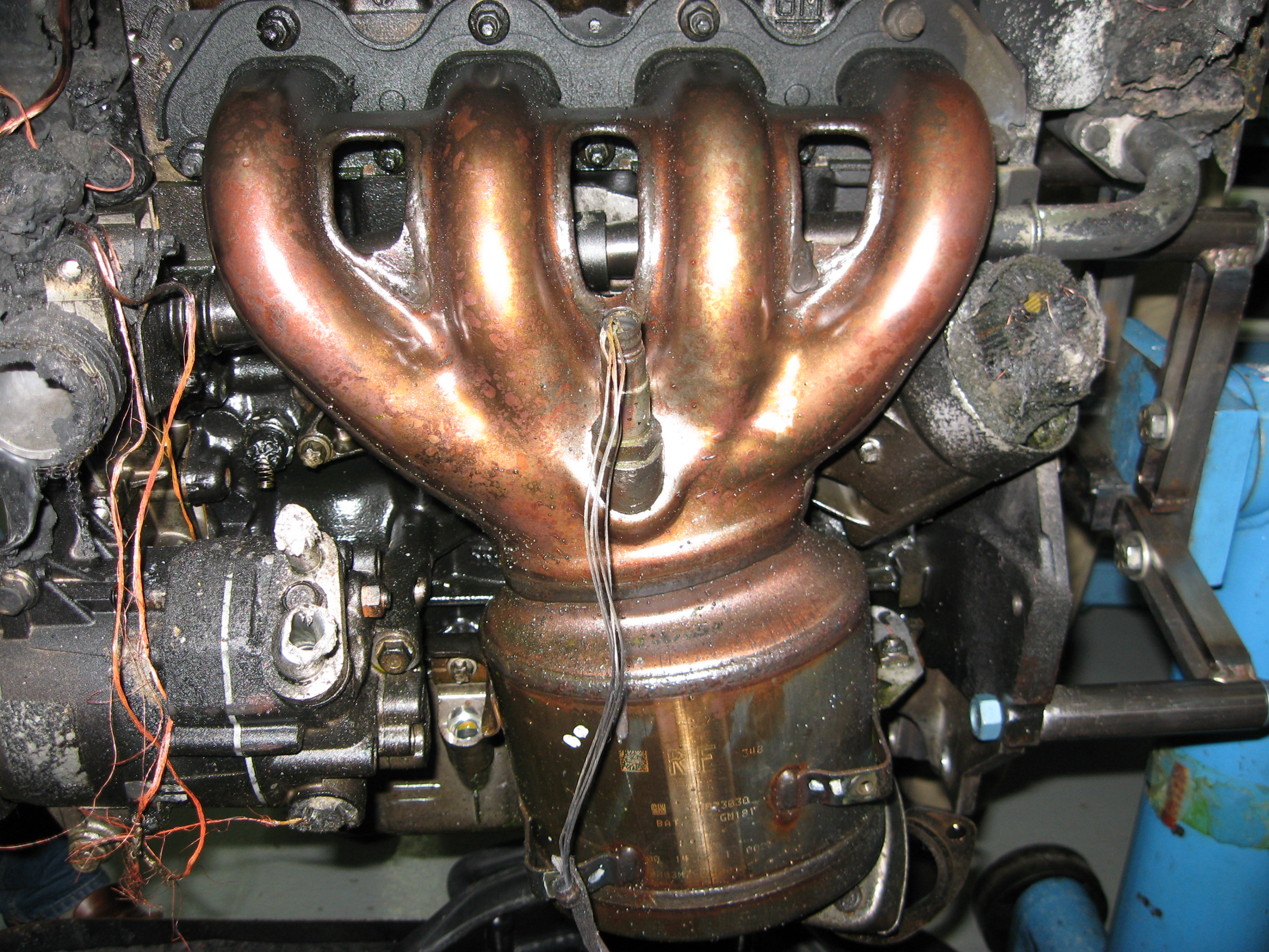




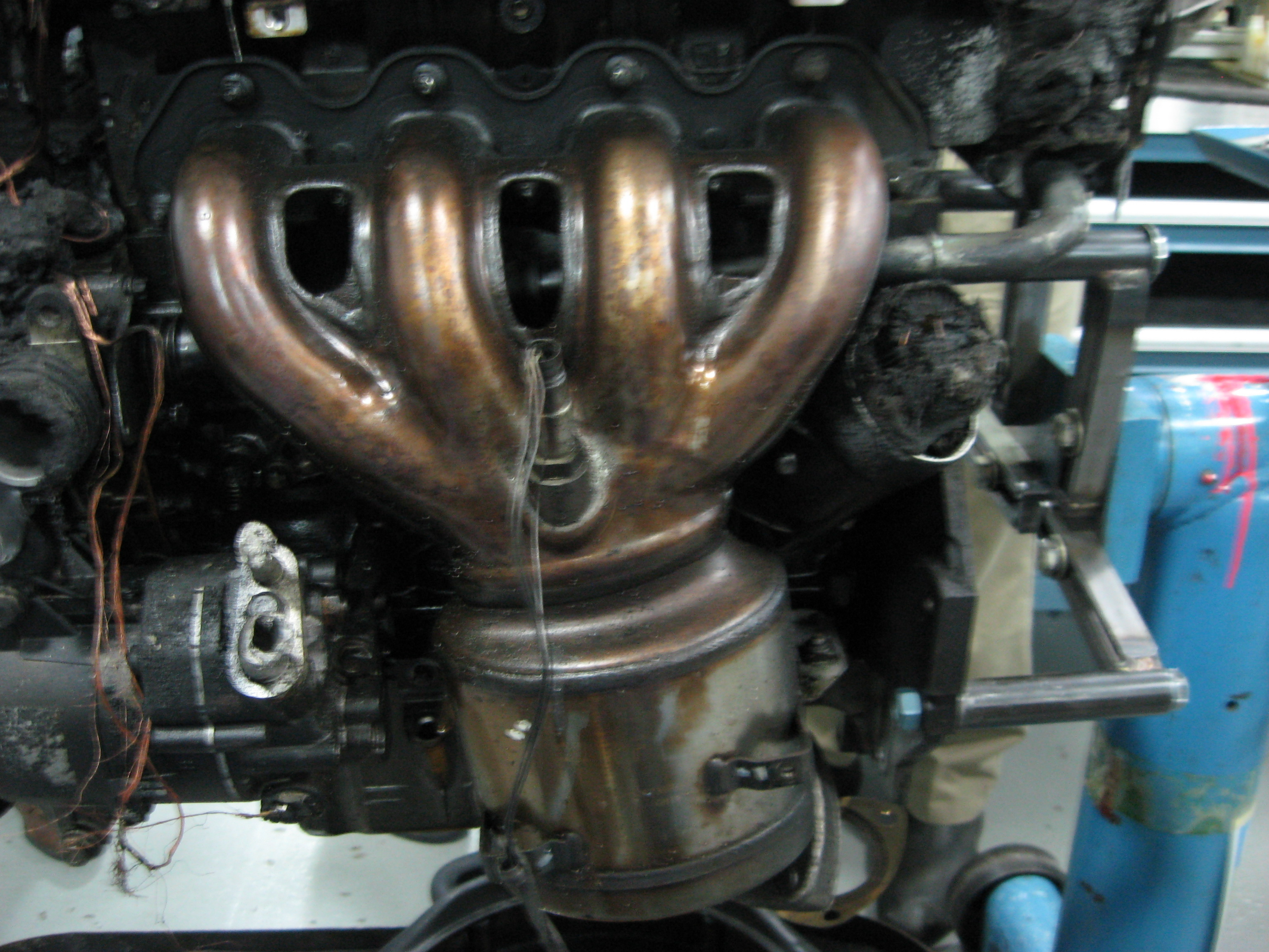


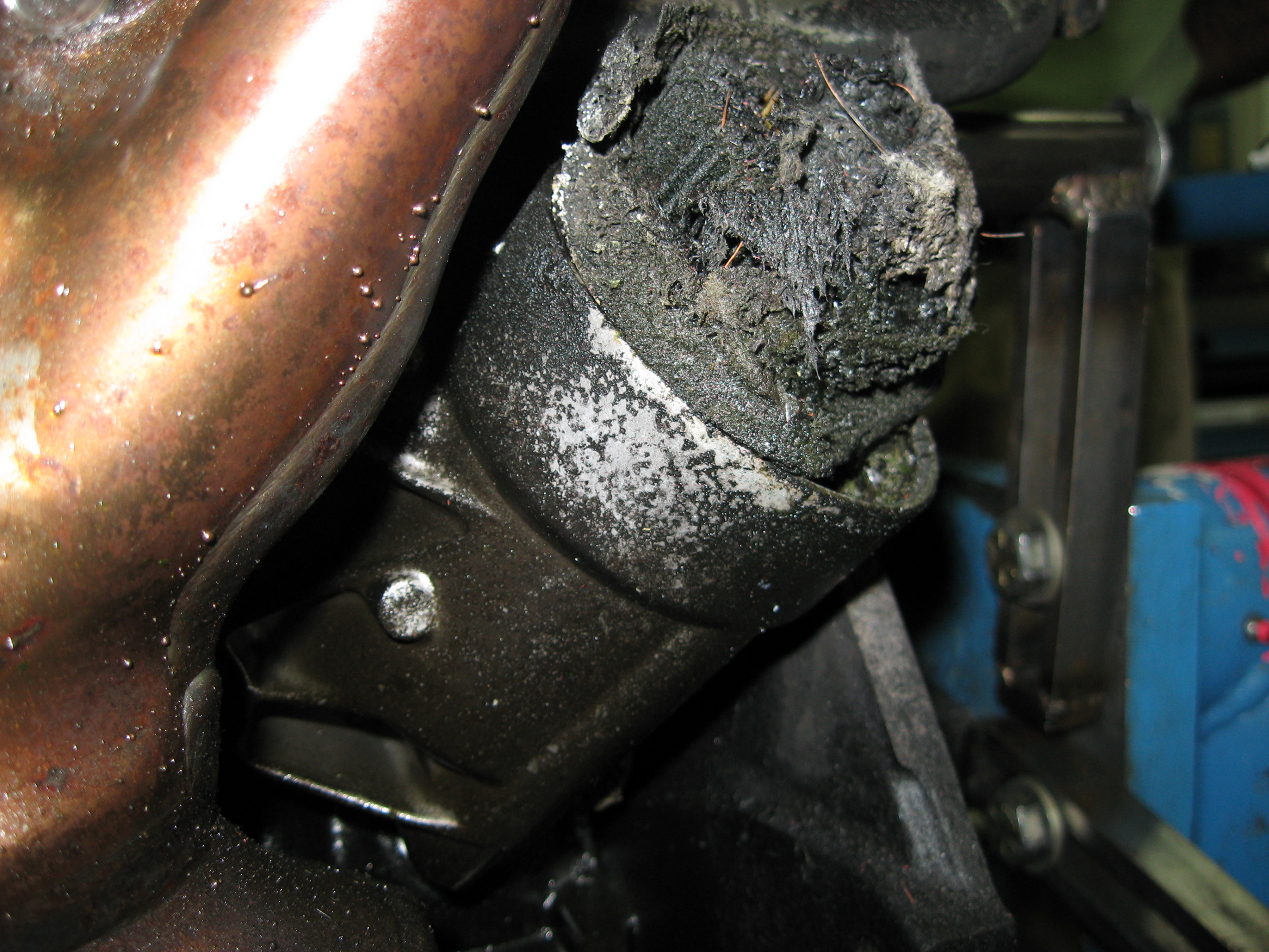




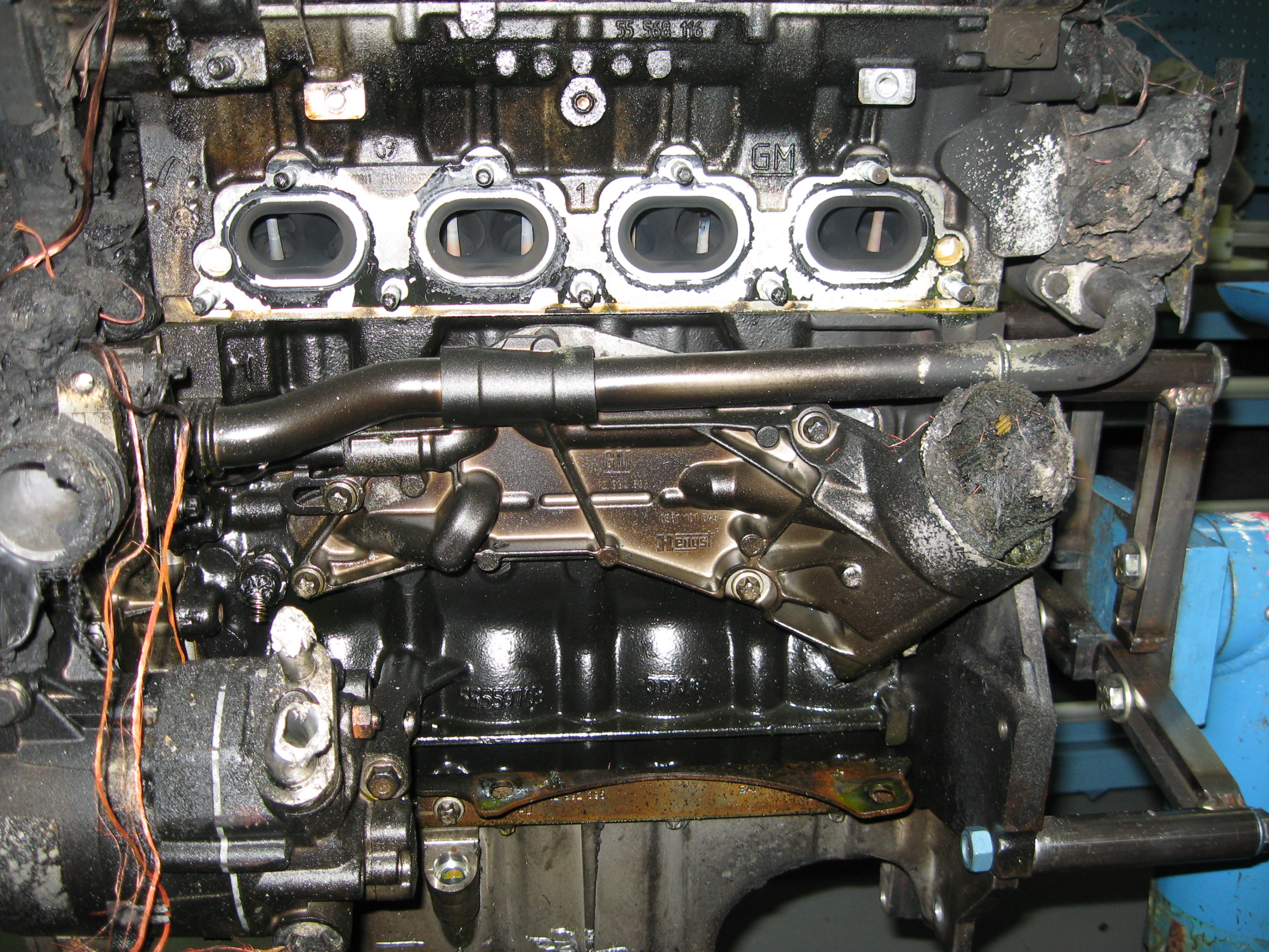


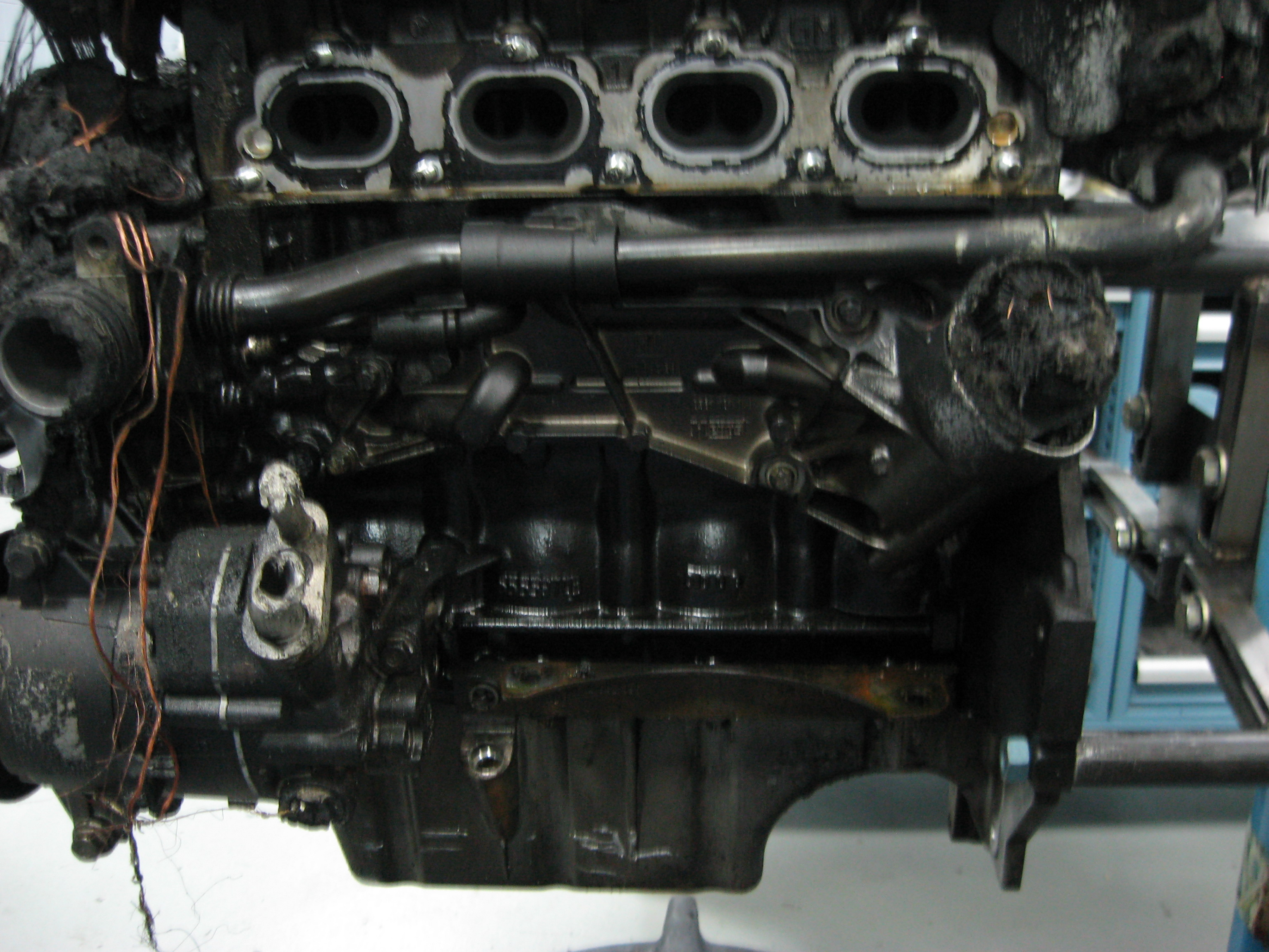
RF 348
GM 3030
BAT GM181
30 14 1 000



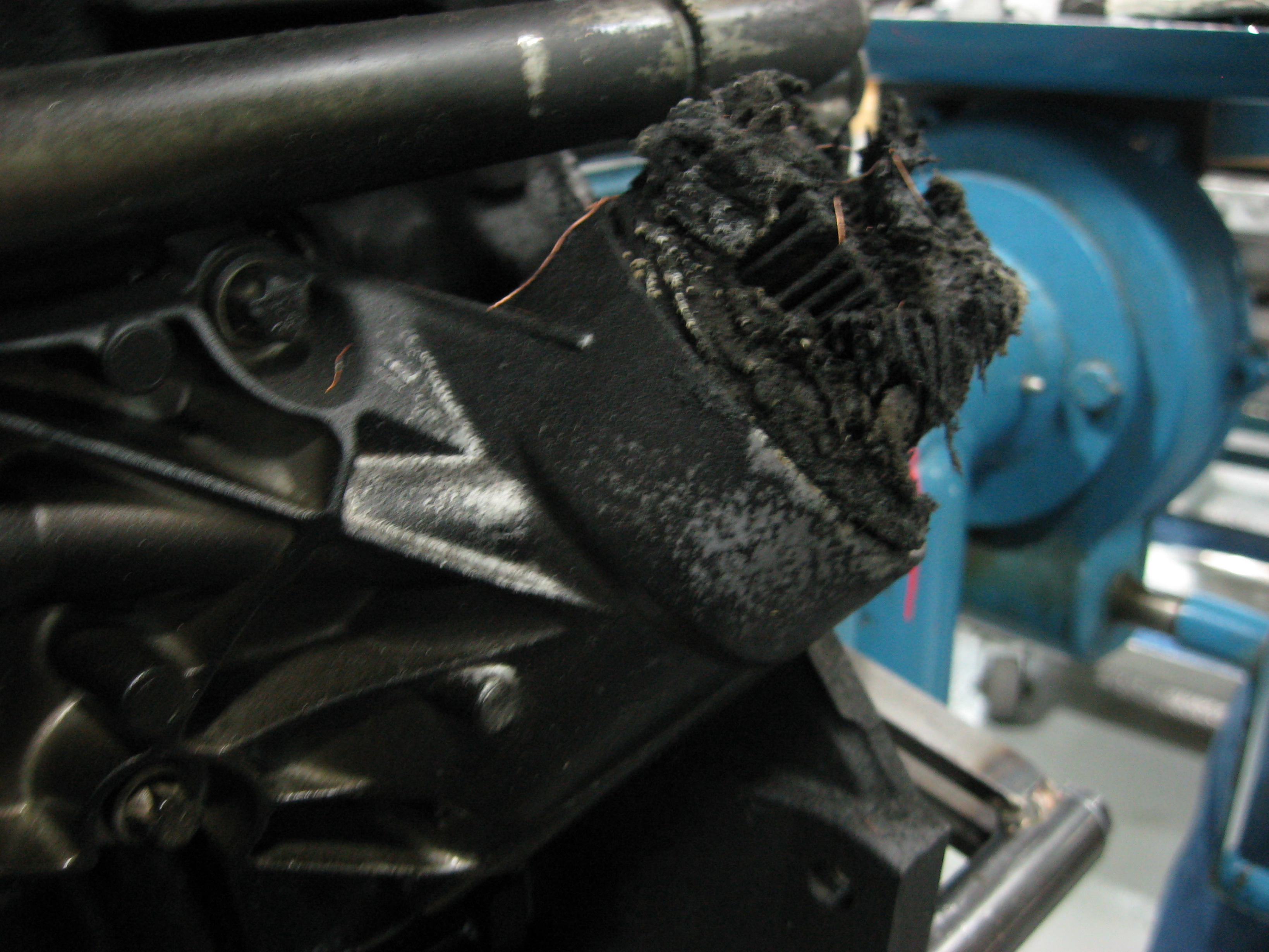


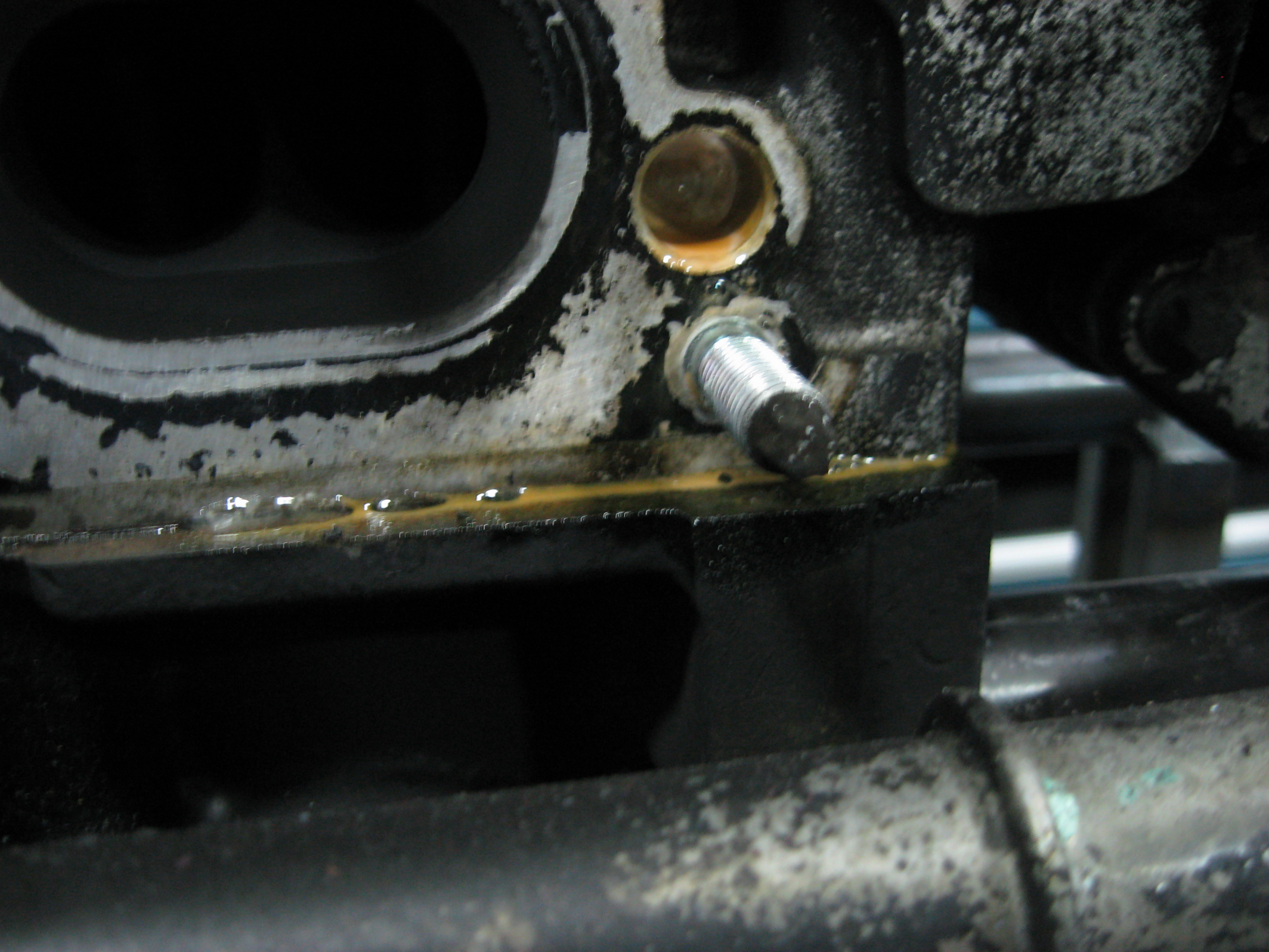


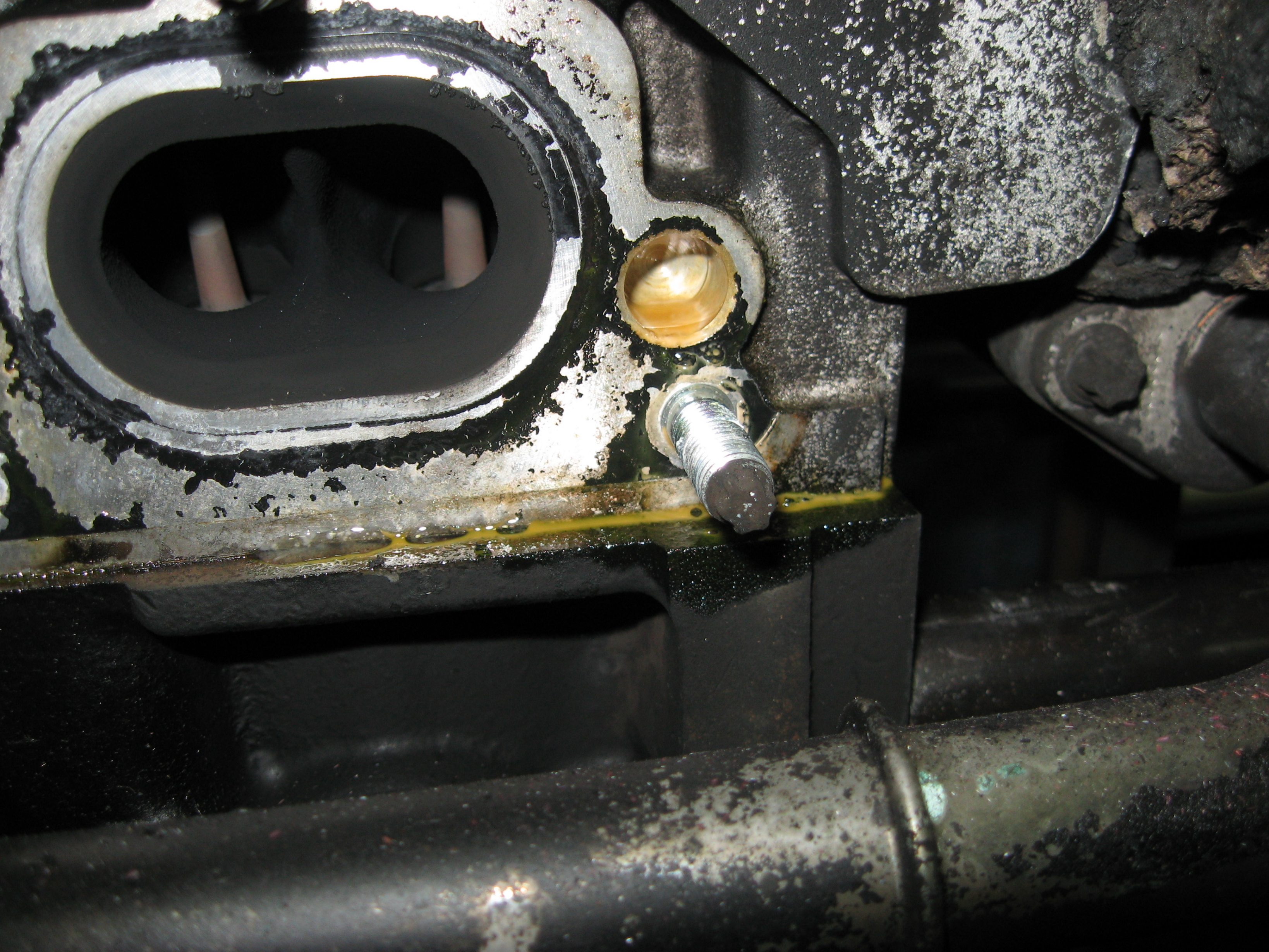


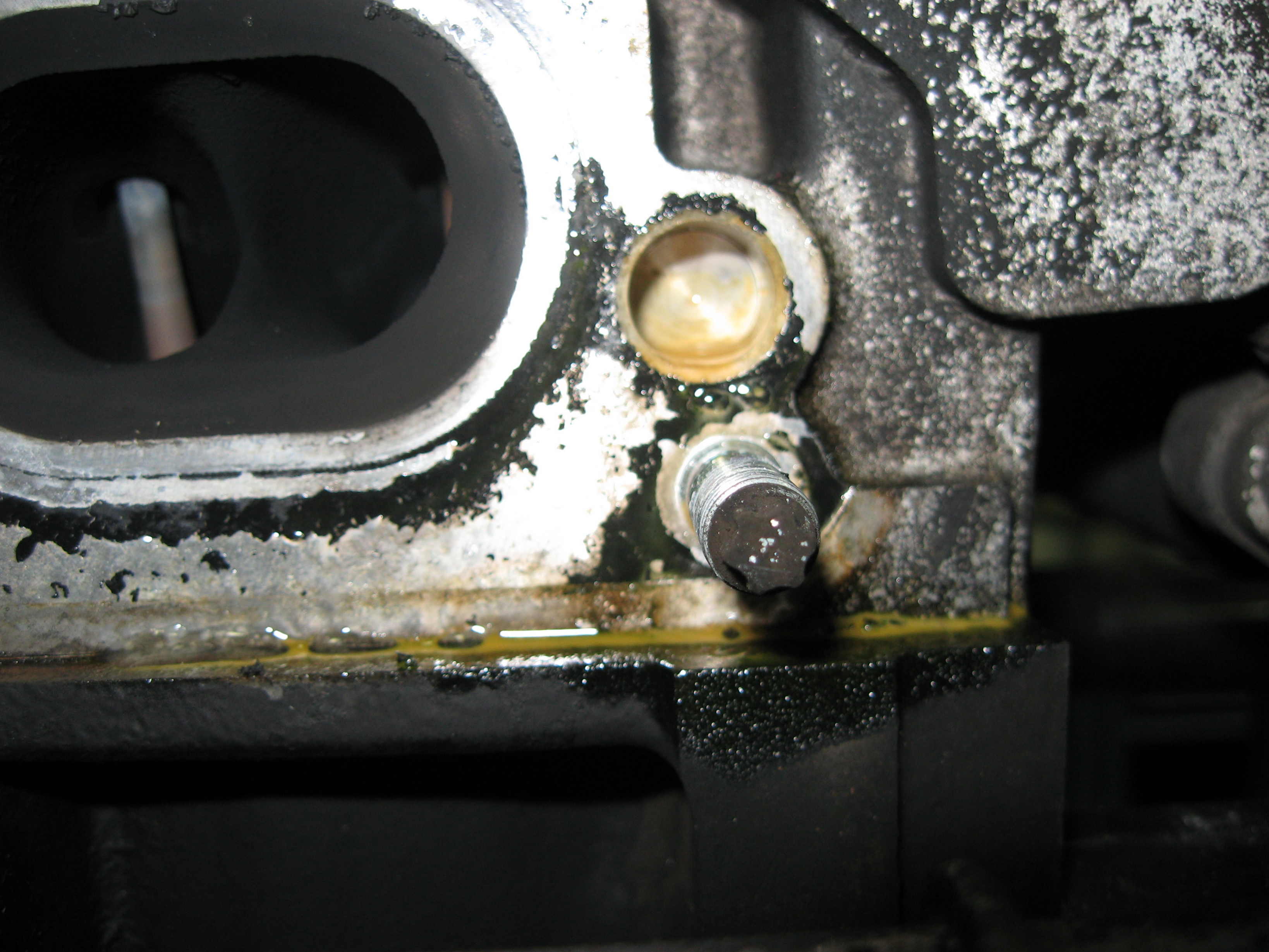


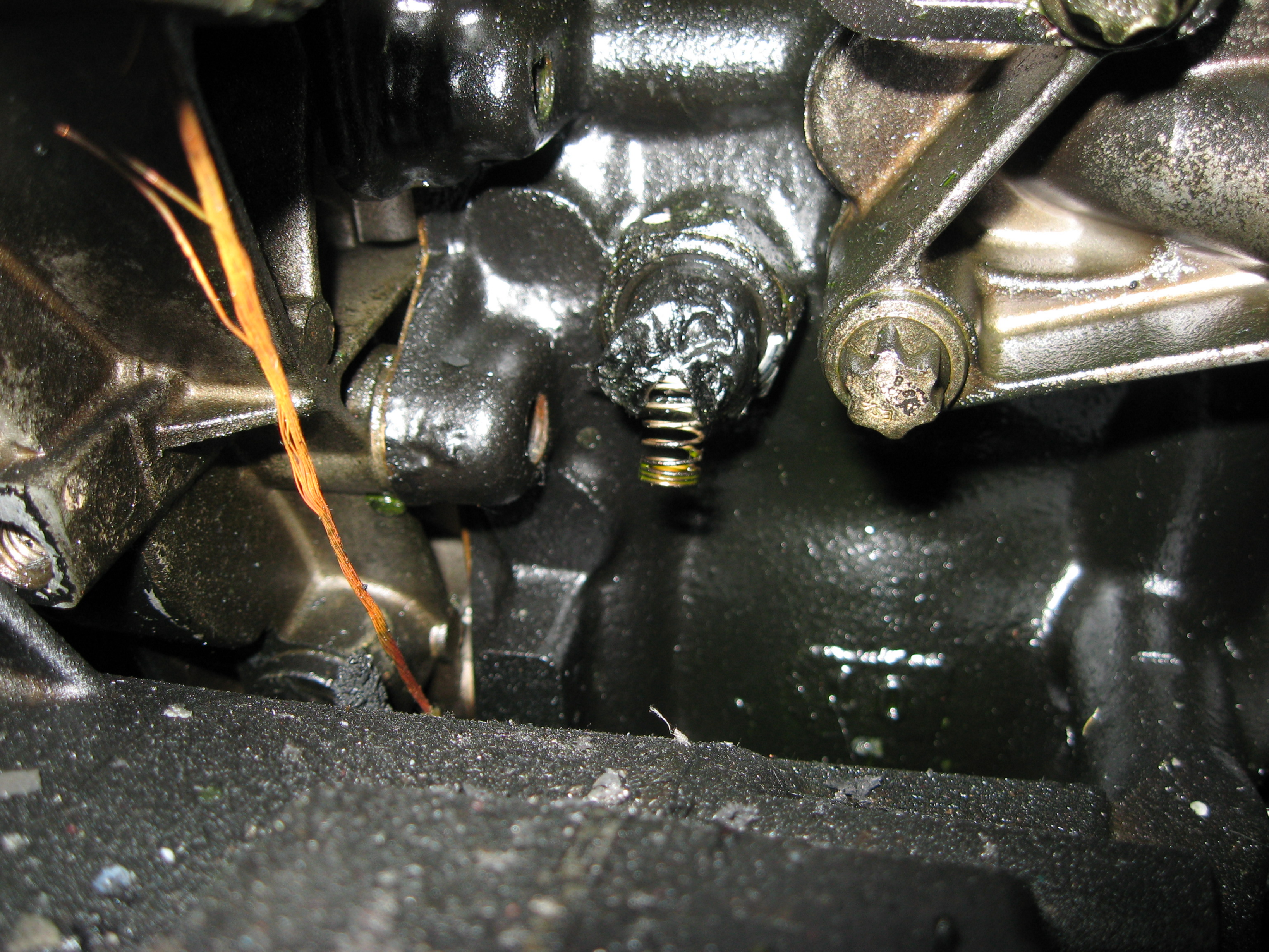


















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6/22/2012

Q_07_2 Vehicle FPA

DC Vehicle

1G1PD5SH6B7XXXXXX time
line

2011 Chevrolet Cruze with Manual Transmission (1G1PD5SH6B7[REDACTED])

- 11/29/10 Build complete (12:10 AM)
- 11/29/10 Engine stalls (12:30 AM)
- 11/29/10 Engine stall root cause electrical (12:33 AM)
- 11/29/10 DVT passed (12:33 AM)
- 11/29/10 Build complete (12:35 AM)
 - NOTE: Batch and hold in place at this time at Lordstown. Could have affected time from build to ship by car hauler.
- 12/09/10 Shipped from Lordstown to Washington DC area (ADESA Auctions near Dulles Airport)
 - 9 car hauler. Location on hauler not recorded
- 12/10/10 Arrives ADESA Auctions (256 miles)
- 12/14/10 ADESA condition report (Odometer 2 miles)
 - NOTE: ADESA property is flat
- 01/24/10 ADESA prep for show (Odometer 6 miles per warranty history).
 - ADESA can't account for +4 miles given logistics of car on property
- 01/25/11 Delivered to hotel near DC auto show (33 miles)
 - 9 car hauler. Location on hauler not recorded. No comments on drivability.
- 01/25/11 Car driven 3 blocks from hotel to auto show
 - Car prepped for show. Negative battery cable removed and wipe down of underhood perimeter
- 01/28/11 DC auto show start
- 02/06/11 DC auto show end
- 02/06/11 Shift cable found disconnected when attempting to remove vehicle from show. Cable reconnected. No comments on drivability.
- 02/06/11 Vehicle driven 3 blocks to DC hotel
- 02/06/11 Vehicle returned to auction facility
 - 3 car flatbed (vehicles driven onto flatbed).
- 02/14/11 Vehicle experiences underhood fire while being driven from ADESA to dealership for sale.
 - 6.1 miles total distance from ADESA to incident

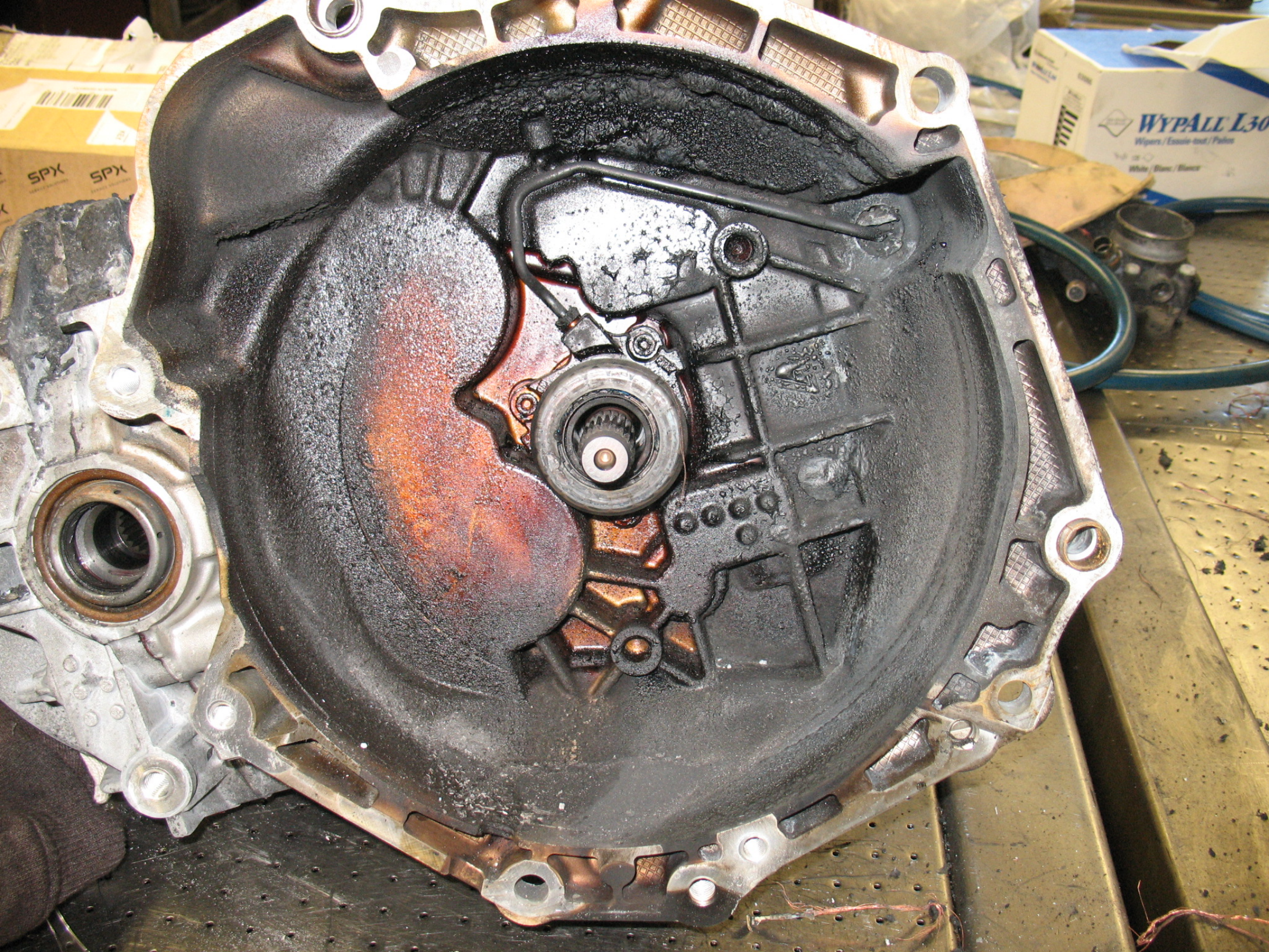
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DC Vehicle Clutch Housing
Photo



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DC vehicle Cruze 2-28 Meeting

Friday 2-28-11 Washington DC Cruze Meeting

Overview of actions since last Friday

Report outs

Sample test results

Fuel Line inspection findings

Engine Inspection findings

Transmission / Clutch Inspection findings

Next steps

Actions since Friday 2-18 Inspection

Shifter Inspected in Vehicle 2-18

Fuel Line Removed and returned 2-18 (Mike Trahan)

Powertain removed and sent to Milford for analysis -2-22-11

Transmission and clutch separated from engine inspected 2-22-11 (Jim Partyka)

 Took additional samples from Bell Housing for analysis

Engine shipped to Pontiac for engine analysis (Curt Andreski)

Sample Test Results Completed

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Q_07_2 Vehicle FPA

DC Vehicle fire GRIT report



GM Global Security Investigation Report

Investigation Information		
Region GM North America	Investigation Number 43893	Date Created 03/08/2011
Country United States	Investigator Fulton, Donna M	Last Modified 05/06/2011
Group / Division Office/ WFG/ VSSM	Attached Incidents 143687	
File Number Vehicle fire- loss		
GMAS Electronic Work Paper Number		

Classification
Category Fire Related
Subcategory Fire
Sub subcategory

Incident Occurrence Details		
Facility Renaissance Center	Specific Location	Company Type General Motors Company
From 02/14/2011	Local Time 12:00	
To 02/14/2011	Local Time 12:00	
Reported Date 03/07/2011	Reported Time 16:14	
Cause of Incident		
Reported to Police Yes	Police File Number 1102914	

Awareline Information
Awareline Call No

Case Information	
Case Status	Date Case Closed
Closed	05/06/2011

Incident Persons		
<u>Incident Person Details: 1 of 5</u>		
Person Type Other		Last Modified 05/06/2011
First Name Loues	M.I. J	Last Name Carlin
Alias		Known Associates
Clothing Worn		Distinguishing Features
<u>Personal Details</u>		
Date of Birth		Age

Sex		Salutation	
Hair		Eyes	
Height		Race	
Weight			
<u>Home Address</u>			
Address		City	
State / Province		Zip / Postal Code	
Country		Phone Number	
<u>Employment Details</u>			
Employer		SSN	
GM			
Employee Type		Employee Level	
GM Salaried		Other	
Occupation			
FPA Engineer			
Address 1		Address 2	
30200 Mound		Engineering Center E2-048	
City		State / Province	
Warren		Michigan	
Zip / Postal Code		Country	
48090		United States	
Phone Number			
586-899-2804			
<u>Incident Person Details: 2 of 5</u>			
Person Type		Last Modified	
Victim		05/06/2011	
First Name	M.I.	Last Name	
██████		██████	
██████		Known Associates	
Clothing Worn		Distinguishing Features	
<u>Personal Details</u>			
Date of Birth		Age	
Sex		Salutation	
Hair		Eyes	
Height		Race	
Weight			
<u>Home Address</u>			
Address		City	
		Zip / Postal Code	
State / Province		Phone Number	
Country			
<u>Employment Details</u>		SSN	
Employer			
Adesa Auction and Fleet		Employee Level	
Employee Type		Other	
Other			
Occupation			
Porter			
Address 1		Address 2	
████████████████████			
City		State / Province	
Washington DC		District of Columbia	
Zip / Postal Code		Country	
		United States	

Phone Number**Incident Person Details: 3 of 5****Person Type**

Person Reporting Offense (PRO)

First Name

M.I.

Alias**Clothing Worn****Personal Details****Date of Birth****Sex****Hair****Height****Weight****Home Address****Address****State / Province****Country****Employment Details****Employer**

GM

Employee Type

GM Salaried

Occupation

Coordinator CLM Process and Communications

Address 1**City**

Detroit

Zip / Postal Code**Number****Last Modified**

03/09/2011

Last Name**Known Associates****Distinguishing Features****Age****Salutation****Eyes****Race****City****Zip / Postal Code****Phone Number****SSN****Employee Level**

Other

Address 2

Floor 25

State / Province

Michigan

Country**Incident Person Details: 4 of 5****Person Type**

Other

First Name

M.I.

Alias**Clothing Worn****Personal Details****Date of Birth****Sex****Hair****Height****Weight****Home Address****Address****State / Province****Country****Employment Details****Employer****Last Modified**

05/06/2011

Last Name**Known Associates****Distinguishing Features****Age****Salutation****Eyes****Race****City****Zip / Postal Code****Phone Number****SSN**

Adesa Auction and Fleet

Employee Type

Supplier

Occupation

Fleet Lease Manager

Address 1

[REDACTED]

City

Washington DC

Zip / Postal Code

Phone Number

[REDACTED]

Employee Level

Manager

Address 2

State / Province

District of Columbia

Country

United States

Incident Person Details: 5 of 5

Person Type

Other

First Name

M.I.

[REDACTED]

Alias

Clothing Worn

Personal Details

Date of Birth

Sex

Hair

Height

Weight

Home Address

Address

State / Province

Country

Employment Details

Employer

GM

Employee Type

GM Salaried

Occupation

Field Performance Engineer

Address 1

[REDACTED]

City

Warren

Zip / Postal Code

[REDACTED]

Phone Number

[REDACTED]

Last Modified

05/06/2011

Last Name

[REDACTED]

Known Associates

Distinguishing Features

Age

Salutation

Eyes

Race

City

Zip / Postal Code

Phone Number

SSN

Employee Level

Other

Address 2

[REDACTED]

State / Province

Michigan

Country

United States

Incident Vehicles

Incident Vehicle Details: 1 of 1

Vehicle Classification

General Motors Vehicle

License Plate Number

State of Issue

Vehicle Make

Last Modified

05/06/2011

Vehicle VIN Number

1G1PD5SH6B7 [REDACTED]

Registered Owner Name

GM

Vehicle Model

Chevrolet	Cruze
Vehicle Year	Vehicle Color
2011	Metallic Silver
Vehicle Type	Insurance Company
Passenger Car	
Policy Number	Damage to Vehicle
	Total loss due to fire
Driver Details	
First Name	Last Name
M.I.	Unknown
Driver License Number	Expiration Date
State / Province	License Class
Restrictions	

Incident Items	
Incident Item Details: 1 of 1	
Property Type	Last Modified
Company Property	03/17/2011
Property Description	
2011 Chevrolet Cruze	
Asset Tag/Serial Number	
1G1PD5SH6B7 [REDACTED]	
Amount Lost / Stolen (USD)	Loss Type
\$17,095.00	Chevrolet
Amount Damaged (USD)	Evidence
\$0.00	No
Amount Recovered (USD)	Date Recovered
\$0.00	
Cost Avoidance (USD)	
\$0.00	

Corrective Actions
There are no Corrective Action records for this Investigation.

Locked Narrative
There are no Locked Narrative records for this Investigation.

Narrative
<p>Background:</p> <p>On March 8, 2011 I received a fire related GRIT report, incident 143687, submitted by Verlynda Moreland, Claim Analyst-Corporate Activities.</p> <p>Moreland reported that a 2011 Chevy Cruze LS was being driven/delivered to Poharka Chevrolet from the Washington D.C. Auto Show when it caught fire. Moreland reported the driver had not been injured; the driver was not named in the report. Moreland reported the vehicle is a total loss and was valued at \$17,095.00. The vehicle was moved to the Warren Technical Center as directed by FPA Louis Carlin, FPA Engineer-Vehicle Fires.</p> <p>A GM vehicle incident report was filed by Suzanne Peterson, vehicle coordinator, that stated Adesa Auction of Washington D.C. was delivering the vehicle to the Pohanka dealership after picking it up from the Washington D.C. Auto show.</p> <p>Synopsis:</p> <p>March 9, 2011, I made contact with Bethany Tillman, ESIS, Corporate Activities</p> <p>March 9, 2011, I made contact with vehicle coordinator, Suzanne Peterson</p> <p>March 14, 15, 24 and 25, 2011, messages left for Trish Pozdyn, Adesa Vehicle Fleet Manager in Washington D.C.</p> <p>March 17, 2011, I conducted a phone interview with Brian Stouffer, Field Performance Assessment Engineer and a phone interview with Louis Carlin, FPA Engineer.</p> <p>March 31, 2011, I was informed by Trish Pozdyn that she was still continuing to have difficulty in finding out which fire emergency agency responded to the vehicle fire.</p>

April 8, 2011, I left a message for Trish Pozdyn to see if any progress had been made on obtaining the report.

April 20, 2011 I contacted Trish Pozdyn again to inquire about the status of obtaining the police or fire report. I also contacted the driver, William Hartman.

April 26, 2011, I received a call from T. Pozdyn and she stated the report had been located with Loudin County Fire Department.

May 5, 2011, I left a voice mail inquiring about the delivery of the report.

May 6, 2011, a copy of the Loudin County Fire Department report was received.

Findings:

After reviewing the report I contacted Bethany Tillman, ESIS representative, to obtain additional information. Tillman stated she has requested a copy of the fire report and will forward it when it is received from Trish Pozdyn, the Washington D.C. contact. Tillman did not know if a police report was made or not.

I spoke with Suzanne Peterson the vehicle coordinator for the Cruze. Peterson advised that the Cruze had been delivered by Adesa Auction in Washington and may have had a temporary transport plate on it provided by Adesa. Peterson did not have any additional information regarding the incident. Peterson referred me to Brian Stouffer, Field Performance Assessment Engineer, at the Warren Tech Center for additional details.

I attempted contact with Trish Pozdyn of Adesa Fleet and Lease in Washington D.C. Adesa had managed the transport/delivery of the 2011 Cruze to the auto show. Voice mail messages have been left for Pozdyn on March 14 and March 15. Pozdyn left a voice mail message on March 16 and stated that a police report for the incident had not been made and is in the process of contacting the Sheriff's Department to determine if a report was made by the fire department.

Pozdyn also advised that she was unsure which county the incident occurred in and she had been calling two county sheriff departments and fire departments to determine which county was the responding agency.

I contacted Brian Stouffer, Field Performance Engineer, and he informed me that the Cruze was returned to the Warren Technical Center to investigate the cause of the fire. The power train system was been sent to Milford for evaluation and the remainder of the vehicle is stored at the Service Operations Facility in Warren. Stouffer summarized that the clutch materials degraded and the porter continued to drive the vehicle. A preliminary assessment of the clutch mechanisms has been conducted and it is possible the clutch became extremely over-heated due to the degraded materials which may have caused an ignition of the fluids.

Stouffer informed me that Lou Carlin, FPA Engineer, interviewed the driver. I contacted Carlin and Carlin provided additional information regarding the possible cause of the vehicle fire. Carlin believed the fire may have begun with the clutch system failure. Carlin advised that he interviewed William Hartman, who was the driver of the vehicle at the time of the incident. Carlin said he is unsure if any driving actions contributed to the fire or if there had been any damage to the vehicle prior to the fire. Carlin advised that there were multiple factors that may have contributed to the fire and they are continuing to research the composition of the clutch system materials.

I contacted William Hartman and he advised that the responding agency was the Loudin County Fire Department, Arcola Station. I asked him to explain what occurred. Hartman advised that he had only driven the vehicle approximately five miles and the clutch had been slipping. He said he was alerted to the fire by another motorist and pulled to the side of the highway. He said he exited the vehicle and viewed flames in the area of the bottom of the engine compartment and on the bottom of the motor. Hartman said he called emergency services and that by the time the fire department arrived the vehicle was engulfed in flames.

The fire report, written by Firefighter Mike Shiffler, indicates that the fire crew received a call at 2:03 pm on February 14, 2011 to respond to a car fire at the intersection of John Mosby Highway and Pleasant Valley Road in Chantilly Virginia. The report lists that a Chevrolet passenger vehicle was on fire and the cause of the fire was undetermined. The report remarks section says that the engine bay was well involved and the fire was extinguished. No injuries were reported.

There are no further investigative steps required; case is closed.

Attachments

Vehicle Fire Incident.pdf

ESIS Cruze Fire .TIF

CRUZE ESIS LTR (FROM METRO) .TIF

PE12-012

GM

6/22/2012

Q_07_2 Vehicle FPA

DC Vehicle Fire Incident

A	FDID	State	MM	DD	YYYY	Station	Incident Number	Exposure	NFIRS - 1 Basic
	10709	VA	02	14	2011	619	1102914	0	
Incident Date									

B	Location								
	Address Type	John Mosby Highway							
	Number/Milepost	Prefix	Street or Highway			Street Type	Suffix		
			Chantilly			VA	20152		
	Apt./Suite/Room	City			State	Zip Code			
	Census Tract	Pleasant Valley Rd							
Cross street or directions, as applicable									

C	Incident Type	E1 Dates & Times						E2 Shifts & Alarms	
	Incident Type	Midnight is 0000						Local Option	
D	Aid Given or Received	Month Day Year Hour Min Seconds						Shift or platoon Alarms District	
	Alarm	02/14/2011 14:03						D	
	Arrival	02/14/2011 14:08							
	Controlled							E3 Special Studies	
	Last Unit	02/14/2011 14:33						Local Option	
	Cleared							Special Study ID# Special Study Value	
	Their FDID								
	Their State								
	Their Incident Number								
	N - None								
Type Aid Given or Received									

F	Actions Taken	G1 Resources		G2 Estimated Dollar Losses & Values					
	11 - Extinguish	Check this box and skip this section if an Apparatus or Personnel form is used.		LOSSES: Required for all fires if known. Optional for non fires.					
		Apparatus Personnel		Property \$ 15000					
		Suppression 1 3		Contents \$ 0					
		EMS 1 2		PRE-INCIDENT VALUE: Optional					
		Other 0 0		Property \$					
		Check box if resource counts include aid received resources.		Contents \$					
Actions Taken									

H1	Casualties	H2 Detector			
	Deaths Injuries	H3 Hazardous Materials Release			
Fire Service	0 0	Mixed Use Property			
Civilian	0 0	J Property Use		961 - Highway or divided highway	

K1	Person/Entity Involved								
	Mr., Ms., Mrs.	First Name	MI	Last Name	Suffix				
	Number	Prefix	Street or Highway			Street Type	Suffix		
	Post Office Box	Apt./Suite/Room	City						
	State	Zip Code	Business name (if applicable)			Area Code	Phone Number		

K2	Owner								
	Mr., Ms., Mrs.	First Name	MI	Last Name	Suffix				
	Number	Prefix	Street or Highway			Street Type	Suffix		
	Post Office Box	Apt./Suite/Room	City						
	State	Zip Code	Business name (if applicable)			Area Code	Phone Number		

A	<input type="text" value="10709"/>	<input type="text" value="VA"/>	<input type="text" value="02"/> MM	<input type="text" value="14"/> DD	<input type="text" value="2011"/> YYYY	<input type="text" value="619"/>	<input type="text" value="1102914"/>	<input type="text" value="0"/>	NFIRS - 2 Fire
	FDID	State	Incident Date			Station	Incident Number	Exposure	

B Property Details	C On-Site Materials or Products	
	B1 <input type="text" value="0"/> <input checked="" type="checkbox"/> Not Residential Estimated number of residential living units in building of origin	<div></div>
	B2 <input type="text" value="0"/> Number of buildings involved	
	B3 <input type="text" value="0"/> Acres burned (outside fires)	
	On-site materials	On-site materials use

D Ignition	E1 Cause of Ignition	E3 Human Factors Contributing To Ignition	
	D1 <input type="text" value="83 - Engine area, running ge"/> Area of fire origin		<div></div>
	D2 <input type="text" value="UU - Undetermined"/> Heat source		
	D3 <input type="text" value="UU - Undetermined"/> Item first ignited		
	D4 <div></div> Type of material first ignited		
<div></div> Confined to object of origin	E2 Factors Contributing To Ignition	Estimated age of person involved <input type="text"/>	
	<div></div> Factors contributing to ignition	Gender of person involved <input type="text"/>	

F1 Equipment Involved In Ignition	F2 Equipment Power	G Fire Suppression Factors		
			F3 Equipment Portability	
	<div></div> Equipment involved		<div></div> Equipment power source	<div></div>
	<div></div> Brand		<div></div> Equipment portability	
	<div></div> Model		Fire suppression factors	
	<div></div> Serial #			
<div></div> Year				

H1 Mobile Property Involved	H2 Mobile Property Type & Make	Local Use
<div></div> Mobile property involved	<div></div> Mobile property type	
<div></div> Mobile property model	<div></div> Mobile property make	
<div></div> License plate number	<div></div> Year	
<div></div> State	<div></div> VIN number	

A

10709

FDID

VA

State

MM

DD

YYYY

02/14/2011

Incident Date

619

Station

1102914

Incident Number

0

Exposure

NFIRS
Remarks

Remarks

Dispatched for a car fire. AOS with one car with the engine bay well involved. Pulled the front bumper line and extinguished the fire. E619 cleaned up and returned to service.

M

Authorization

Officer in charge ID

Trevor Lambert

Signature

Lt

Position or rank

Assignment

Month Day Year

Member making report ID

Mike Shiffler

Signature

Tech

Position or rank

Assignment

Month Day Year

<div> <div>FDID</div> <div>State</div> <div>Incident Date</div> <div>Station</div> <div>Incident Number</div> <div>Exposure</div> </div> <div> <div>MM</div> <div>DD</div> <div>YYYY</div> </div> <div> <div>10709</div> <div>VA</div> <div>02/14/2011</div> <div>619</div> <div>1102914</div> <div>0</div> </div> <div> <div>NFIRS - 9</div> <div>Apparatus or Resources</div> </div>									
B Apparatus or Resource		Dates and Times			Sent	Number of People	Use	Actions Taken	
Use codes listed below		Month	Day	Year	Hours/Mins	<input checked="" type="checkbox"/>		Check ONE box for each apparatus to indicate its main use at the incident.	
1	ID <input type="text" value="E619"/> Type <input type="text" value="11"/>	Dispatch	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="text" value="3"/>	<input type="text"/>	<input type="text"/>
		Arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text" value="1 - Suppress"/>	<input type="text"/>
		Clear	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
2	ID <input type="text" value="A619"/> Type <input type="text" value="75"/>	Dispatch	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="text" value="2"/>	<input type="text"/>	<input type="text"/>
		Arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text" value="2 - EMS"/>	<input type="text"/>
		Clear	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
3	ID <input type="text"/> Type <input type="text"/>	Dispatch	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
		Clear	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
4	ID <input type="text"/> Type <input type="text"/>	Dispatch	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
		Clear	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
5	ID <input type="text"/> Type <input type="text"/>	Dispatch	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
		Clear	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
6	ID <input type="text"/> Type <input type="text"/>	Dispatch	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
		Clear	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
7	ID <input type="text"/> Type <input type="text"/>	Dispatch	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
		Clear	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
8	ID <input type="text"/> Type <input type="text"/>	Dispatch	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
		Clear	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
9	ID <input type="text"/> Type <input type="text"/>	Dispatch	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
		Clear	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
10	ID <input type="text"/> Type <input type="text"/>	Dispatch	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
		Clear	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
11	ID <input type="text"/> Type <input type="text"/>	Dispatch	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
		Clear	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
12	ID <input type="text"/> Type <input type="text"/>	Dispatch	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
		Clear	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
13	ID <input type="text"/> Type <input type="text"/>	Dispatch	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>
		Clear	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>

[illegible]

PE12-012

GM

6/22/2012

Q_07_2 Vehicle FPA

DC Vehicle Fire Origin and
Cause rev 3.28-p

Fire Origin and Cause Analysis

Incident Description From Driver Interviews

1. Incident Date: 2/14/2011
2. Driver transporting vehicle from auction house to GM dealer
3. Driver was previously a fireman and fire inspector
4. Starting odometer was 7 miles
5. Length of trip was 4 miles and approximately 10 minutes
6. Shift knob missing - shifter felt very loose
7. Noticed clutch slipping at three launches and during drive
8. Clutch felt out of adjustment or worn
9. Noticed wire burning smell and stopped vehicle
10. No lights indicating a problem on instrument panel
11. Smelled under instrument panel in an attempt to determine source
12. Driver passing by alerted Cruze driver to a fire under vehicle at the powertrain
13. Turned off and exited vehicle
14. Observed flames from rear of vehicle
15. Flames observed centered on vehicle at powertrain
16. No trail of fluids noticed
17. No leaking of fluids or flames on ground while he observed
18. Called 911 and upon arrival fire department extinguished the fire





PE12-012

GM

6/22/2012

Q_07_2 Vehicle FPA

DC Vehicle GM Accident
Report

3) ☒ In GM Car ☐ In Other Car ☐ Pedestrian

Name _____

Address _____
(Street)

(City) _____ (State) _____ (Zip) _____

(Day Phone No.) _____ (Evening Phone No.) _____

Hospitalized: ☐ Yes ☐ No

Describe Injury _____

DESCRIPTION OF INCIDENT and DAMAGE

Upon conclusion of Washington D.C.
Auto Show the auction was delivering
the vehicle to Pohanka Chevrolet.
While in-route the driver smelled
Smoke, pulled over; the vehicle
caught on fire. Per Adesa Washington
D.C. the driver is ok.

Vehicle is located at:
Adesa Washington D.C.
Contact:
[REDACTED]

(Required - Signature of Person to Whom the Vehicle
was Assigned at the Time of Incident)

Date

AND, if different from the above named person,

(Printed Name of the Person Who Completed This Form
at the Direction of the Above Named Person)

(Signature of the Person who Completed This Form
at the Direction of the Above Named Person)

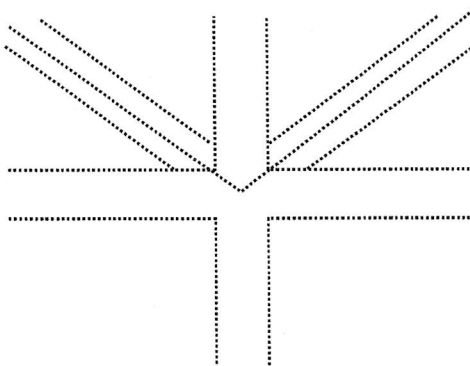
Date

Phone No. 313-665-4241

Fax No. _____

DIAGRAM

Indicate position of each vehicle involved, both
before and after the accident.



INCIDENT REPORT

REQUIREMENTS

- (A) Submit this form to report a crash, a non-crash damage incident, or a theft AND before obtaining any vehicle repair ⁽¹⁾
- (B) See INSTRUCTIONS sheet in envelope for specific requirements, which include, but are not limited to:
- Filling out this form ⁽²⁾
 - Calling ESIS at 1-800-888-0154⁽³⁾
 - Faxing AND mailing this form to ESIS⁽⁴⁾
 - Call GM Contact -- See Instructions - Paragraph F
- (C) Attach separate sheet, if necessary

- (1) Excluding warranty and product recall repair; non-crash incident tire repair or replacement; and some glass replacement (see INSTRUCTIONS sheet).
- (2) In the case of crashes, fill out the form at the crash scene!
- (3) In the case of crashes involving serious third party bodily injury or serious third party property damage, call ESIS at any time of day or night. For less serious injury or damage, call ESIS within the next 48 business hours.
- (4) After the form has been signed by the person to whom the vehicle was assigned at the time of the damage incident (required), fax this form to ESIS at (313) 665-0904 AND then mail the original to ESIS in the enclosed pre-paid envelope within 48 business hours with a photocopy to your GM contact.

THE INCIDENT

Date 2/14/11 Time _____ AM PM

Location Washington DC Auto Show
vehicle being portered to dealership
(Street)

Current location: Adesa Washington D.C.
B7145209 (City and State)

Light Conditions: ☐ Daylight ☐ Dusk ☐ Dawn ☐ Dark

Weather: ☐ Rain ☐ Snow ☐ Clear ☐ Fog

Road Surface: ☐ Dry ☐ Wet ☐ Snow ☐ Ice

Road Design: ☐ Divided ☐ Undivided

Number of Lanes _____ Speed Limit _____

Traffic Signal _____ Functioning _____

Other Traffic Controls _____

**PERSON TO WHOM THE VEHICLE WAS ASSIGNED
AT THE TIME OF THE DAMAGE INCIDENT:**

Name _____
Soc. Sec. No. _____

(Day Phone No.) (Evening Phone No.)

Fax No. _____

GM Business Unit Name _____

GM Business Unit Location _____

Internal Mail Code _____

Unit CISCO Code _____

Vehicle Make Cruze Year 2011

License Plate No. _____ State _____

Veh. ID No. (VIN) 1G1PD5SH6B7145209
(Complete VIN No.)

GM VEHICLE OPERATOR:

Operator's Name _____

Operator's Address _____
(Street)

(City) (State) (Zip)

(Day Phone No.) (Evening Phone No.)

Relationship between the operator and the person to
whom the vehicle was assigned at the time of the
damage incident:

☐ Same Person ☐ Spouse ☐ Child

☐ Other (Explain) _____

Operator's License No. _____ State _____

Operator's Date of Birth _____

Operator's Soc. Sec. No. _____

Purpose of Use _____

Describe Damage _____

No. of Passengers _____

Was Vehicle Used with Permission of Person to Whom
It Was Assigned? ☐ Yes ☐ No

Is Vehicle Driveable? ☐ Yes ☐ No

Vehicle Can Be Seen At: _____

(Day Phone No.)

**OTHER DRIVER(S) AND VEHICLE(S) (Important:
Obtain at Accident Scene)**

1) Name of Other Driver

Driver's License No. _____ State _____

Address _____
(Street)

(City) (State) (Zip)

(Day Phone No.) (Evening Phone No.)

Name of Vehicle Owner _____

Address _____
(Street)

(City) (State) (Zip)

(Day Phone No.) (Evening Phone No.)

Vehicle Make _____ Year _____

License Plate No. _____ State _____

Vehicle Insured By _____

Policy No. _____

No. of Passengers _____

Describe Damage _____

Vehicle Driveable? ☐ Yes ☐ No

Vehicle Can Be Seen At _____

(Day Phone No.)

2) Name of Other Driver

Driver's License No. _____ State _____

Address _____
(Street)

(City) (State) (Zip)

(Day Phone No.) (Evening Phone No.)

Name of Vehicle Owner _____

Address _____
(Street)

(City) (State) (Zip)

(Day Phone No.) (Evening Phone No.)

Vehicle Make _____ Year _____

License Plate No. _____ State _____

Vehicle Insured By _____

Policy Number _____

No. of Passengers _____

Describe Damage _____

Vehicle Driveable? ☐ Yes ☐ No

Vehicle Can Be Seen At _____

(Day Phone No.)

POLICE/SECURITY COMPANY

Department _____ Report No. _____

Name of Investigating Officer _____

Badge No. _____

Address of Station _____
(Street)

(City) (State) (Zip)

(Station Phone Number)

Citation Issued? ☐ Yes ☐ No

If Yes: ☐ GM Car ☐ Other Car

WITNESS(ES)

(Give Name, Address and Phone Numbers)

1) _____

2) _____

3) _____

PERSON(S) INJURED

1) ☐ In GM Car ☐ In Other Car ☐ Pedestrian

Name _____

Address _____
(Street)

(City) (State) (Zip)

(Day Phone No.) (Evening Phone No.)

Hospitalized: ☐ Yes ☐ No

Describe Injury _____

2) ☐ In GM Car ☐ In Other Car ☐ Pedestrian

Name _____

Address _____
(Street)

(City) (State) (Zip)

(Day Phone No.) (Evening Phone No.)

Hospitalized: ☐ Yes ☐ No

Describe Injury _____

PE12-012

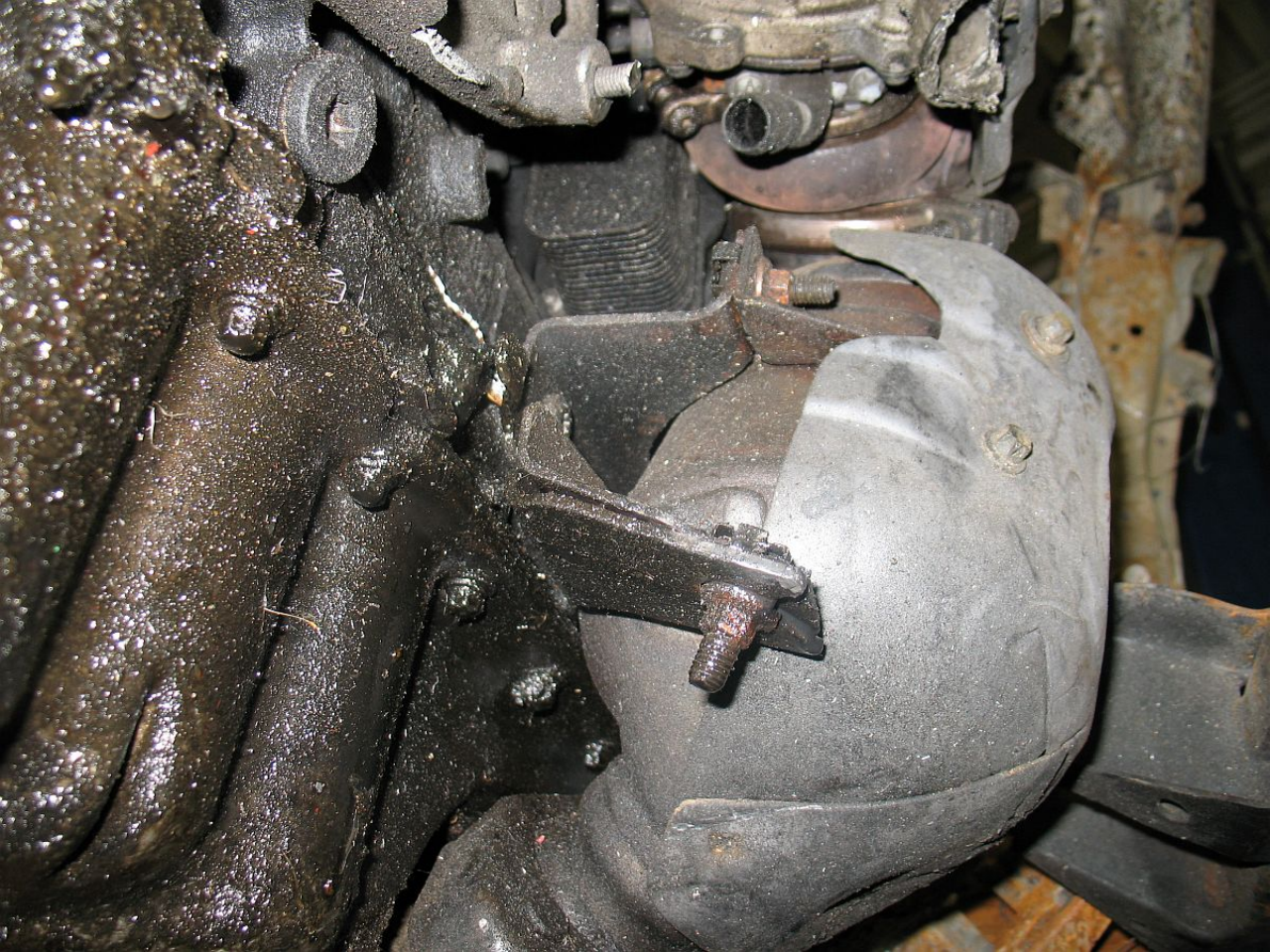
GM

6/22/2012

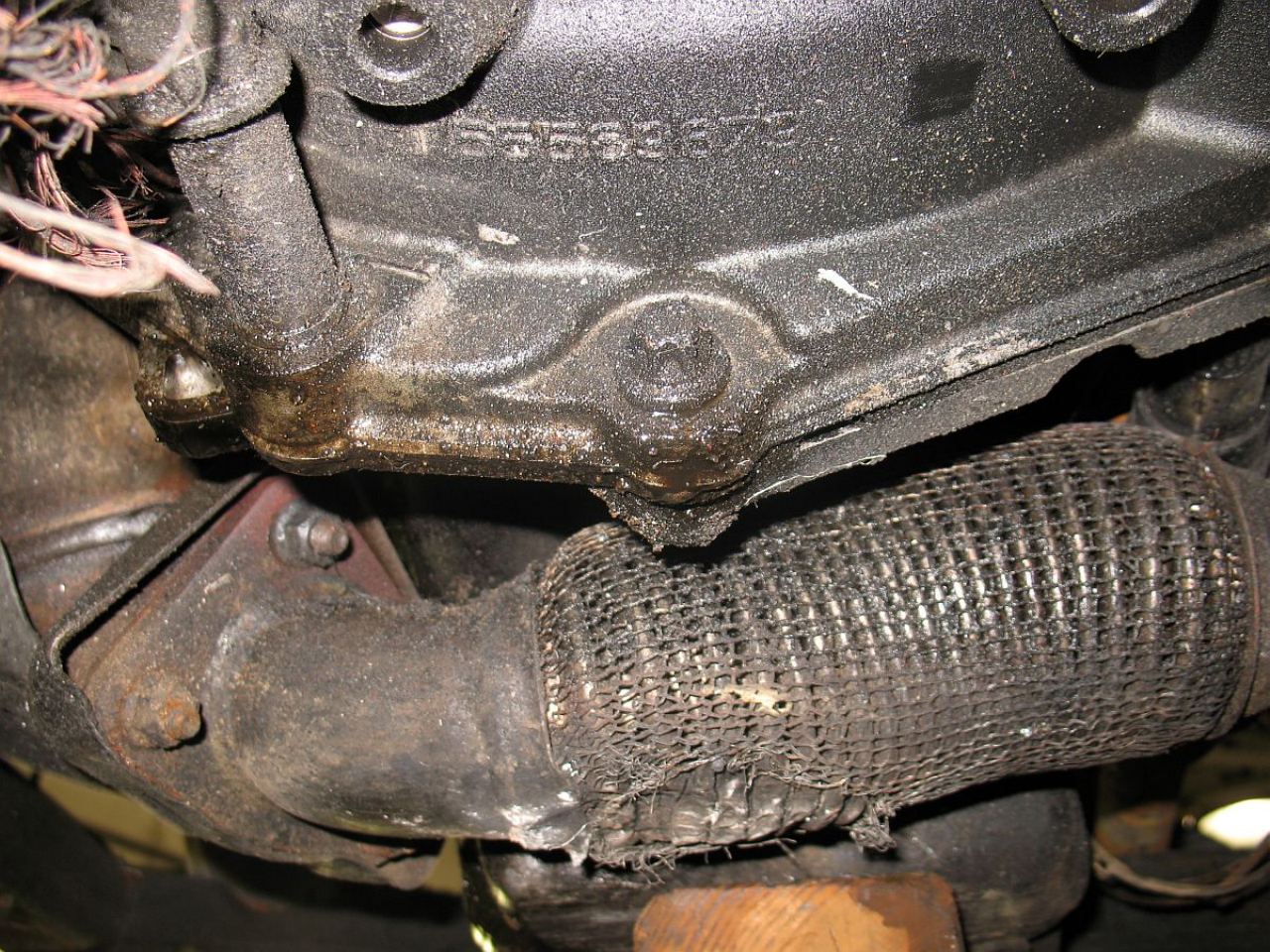
Q_07_2 Vehicle FPA

DE_Cruze_B7280263-Polann
Photos

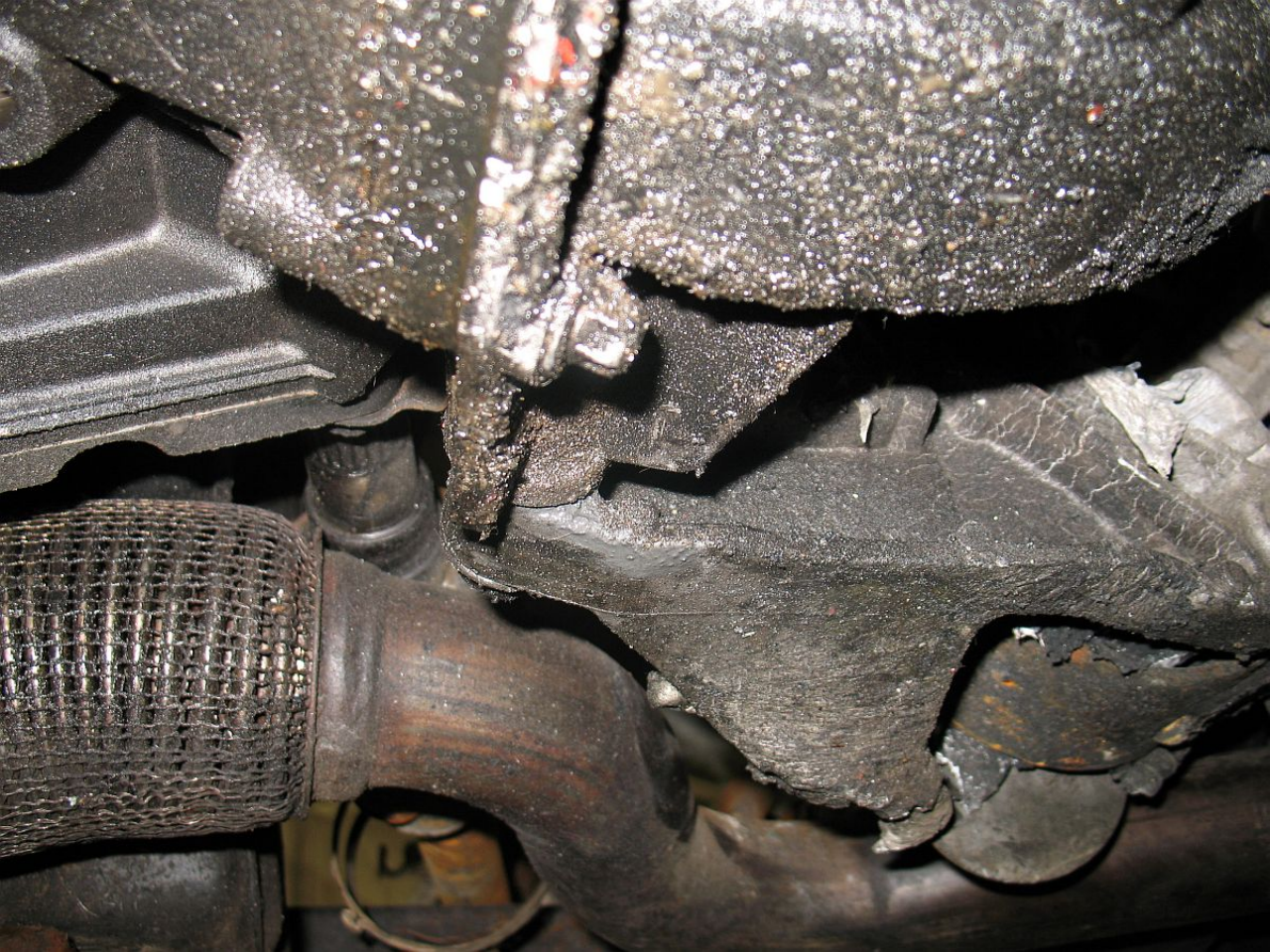








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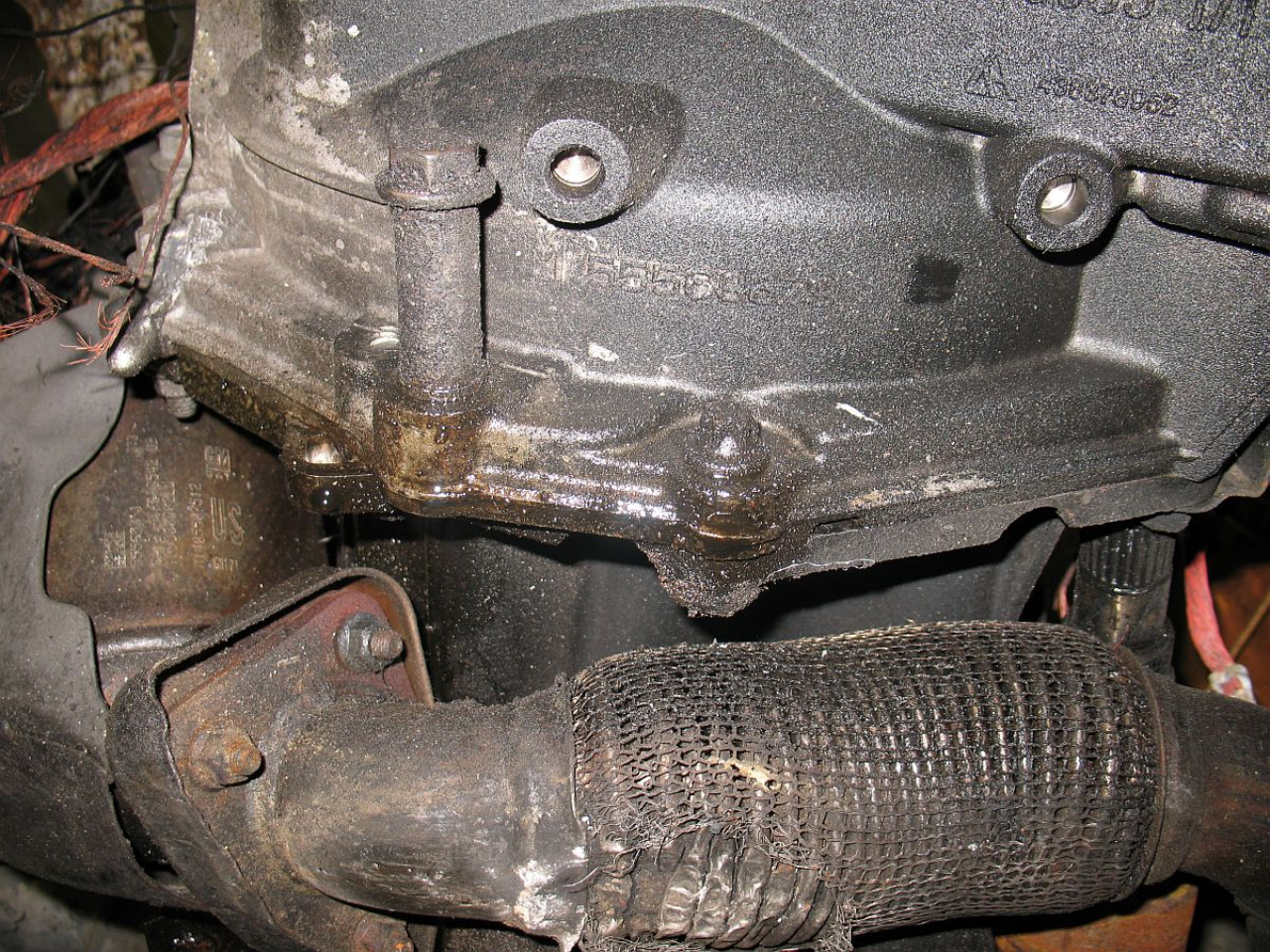










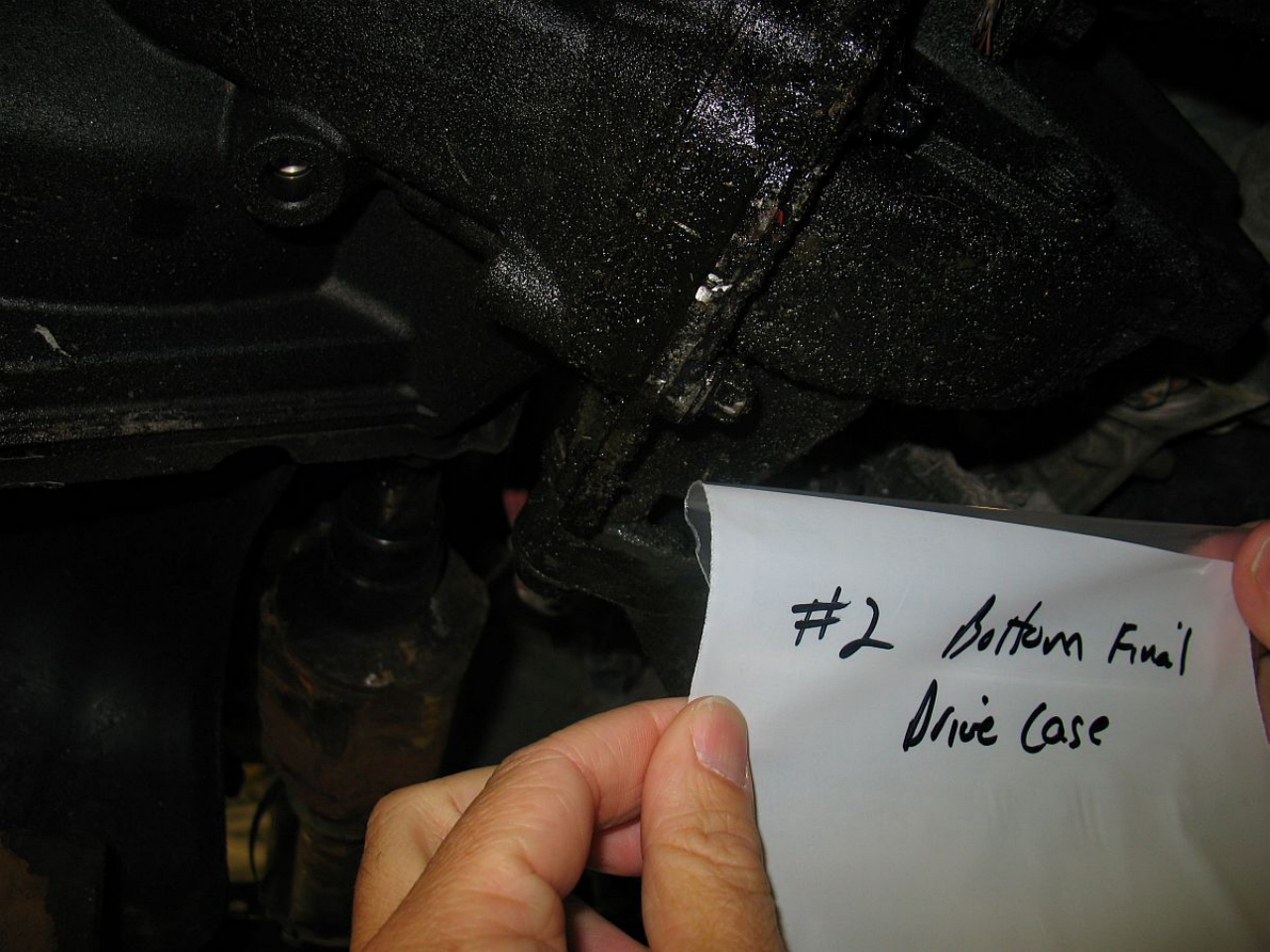


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US
6171

#1 Oil Pan Flant
Side



#2 Bottom Final
Drive Case











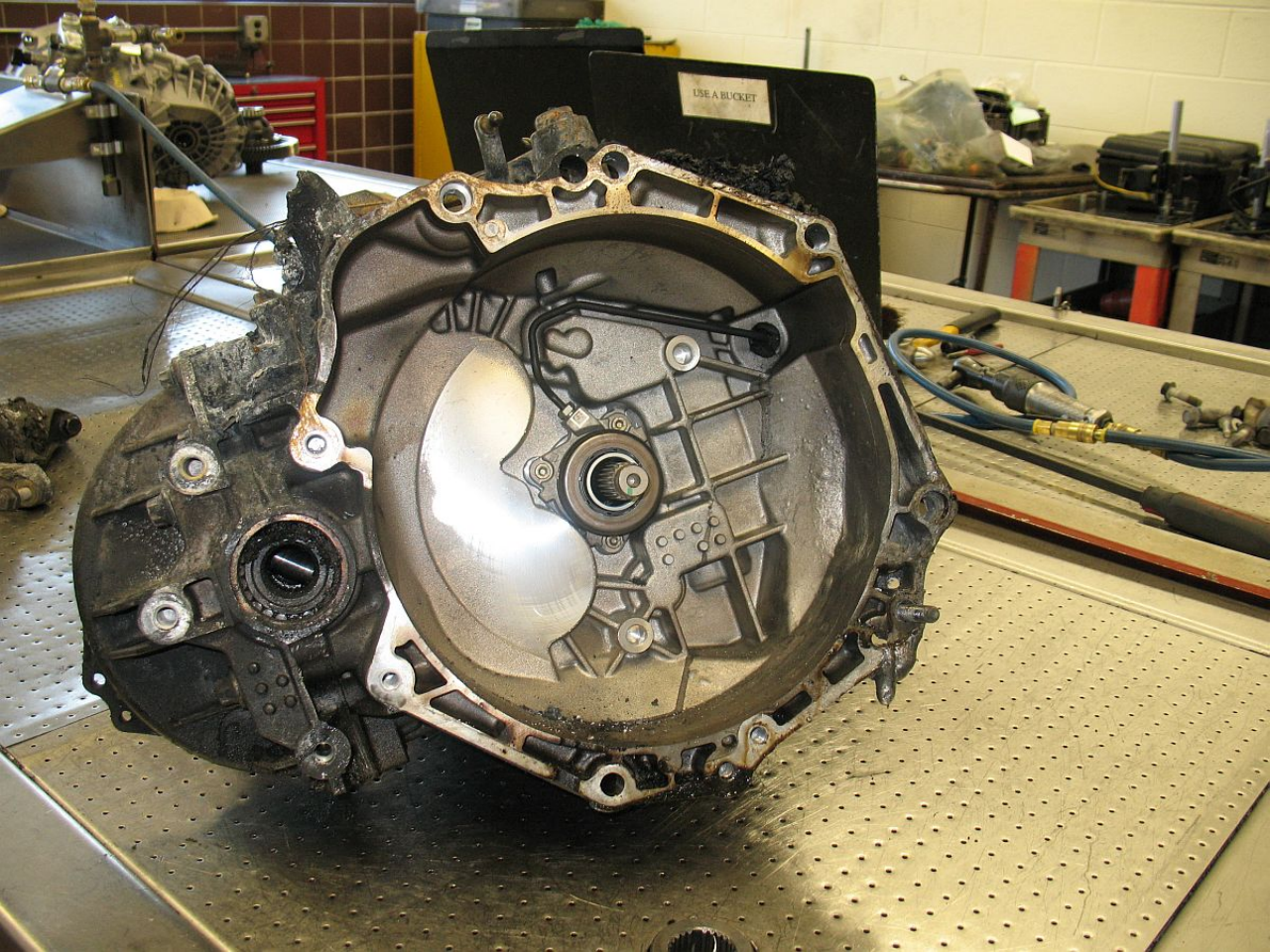


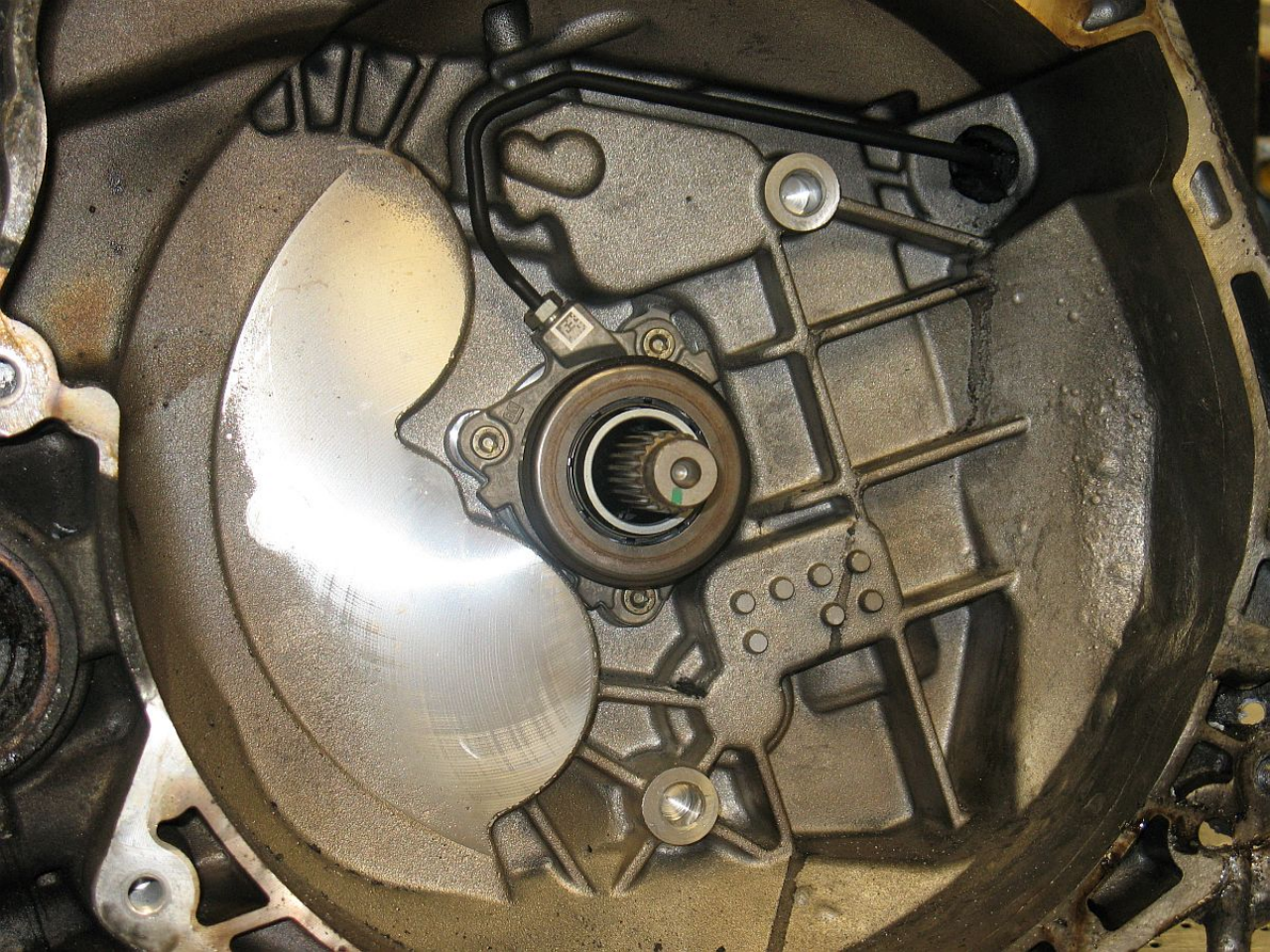


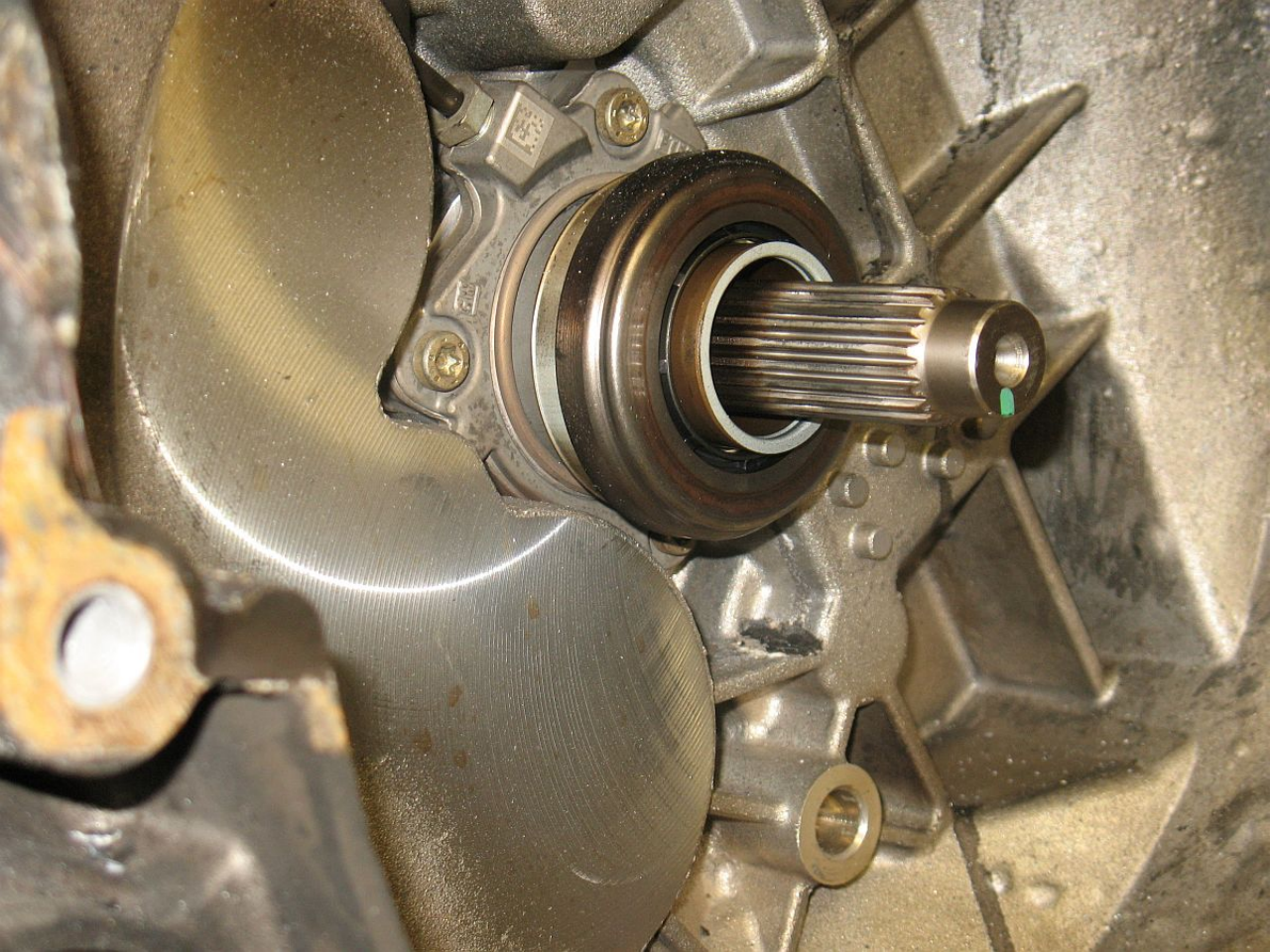




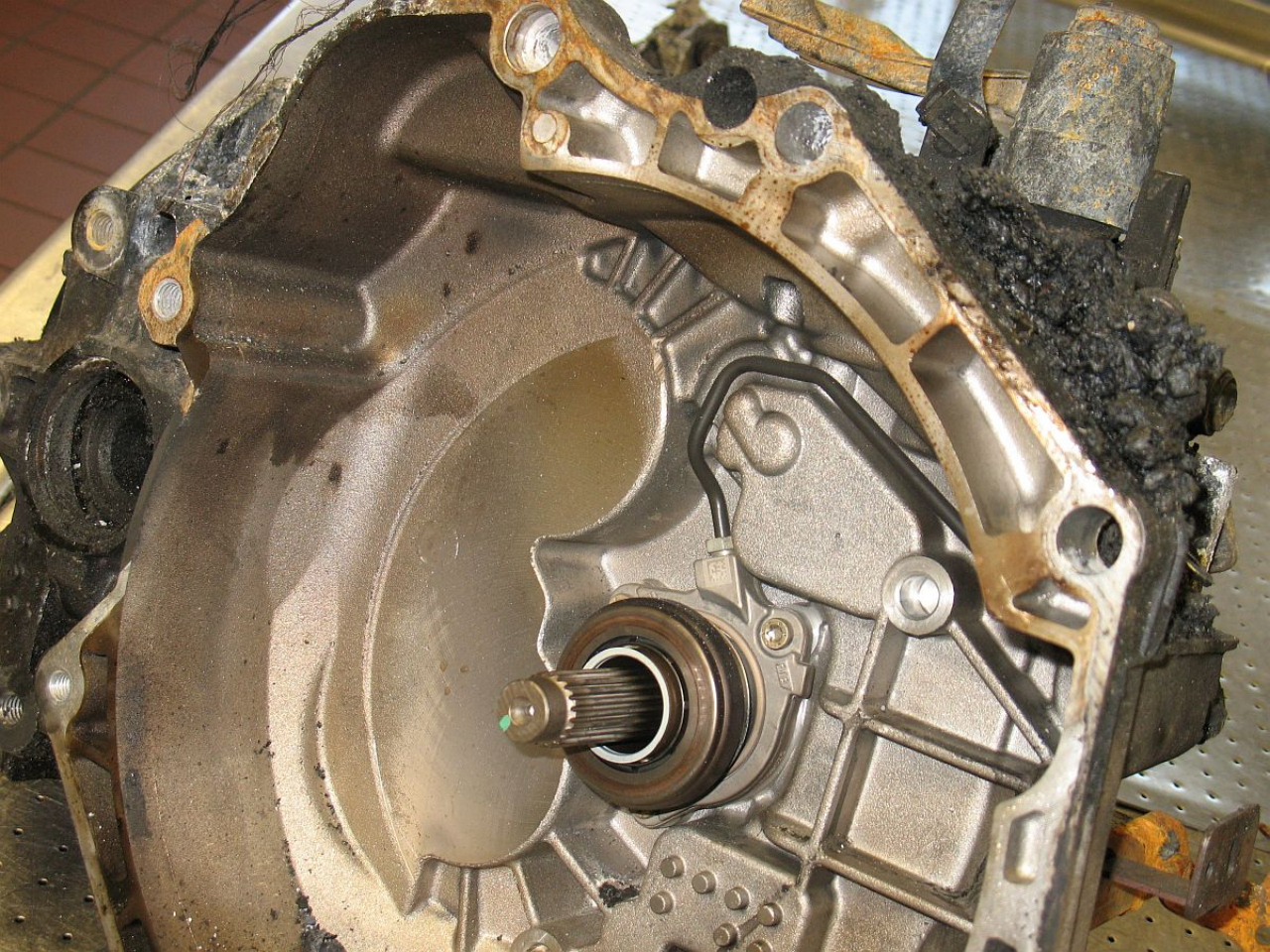




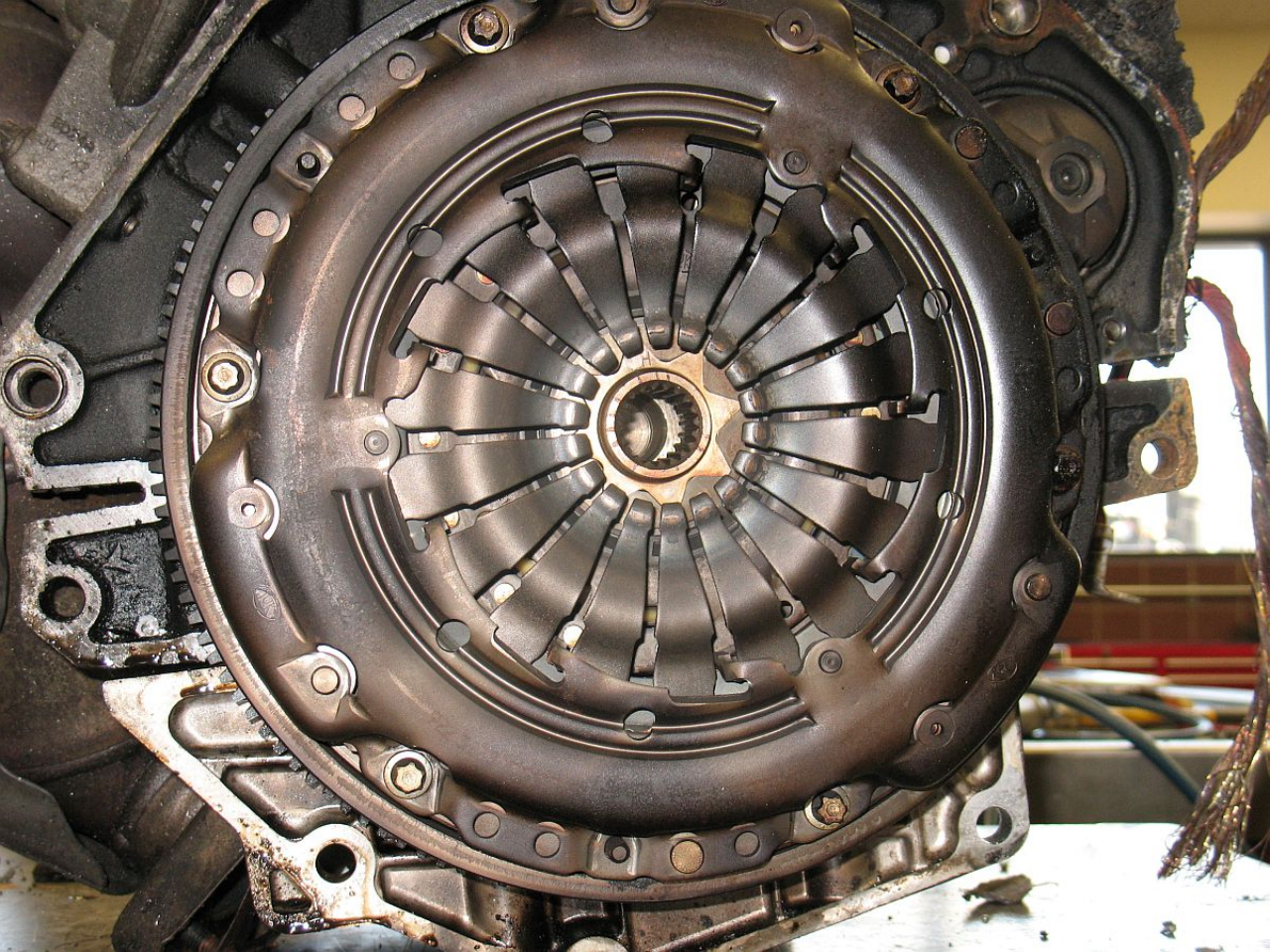




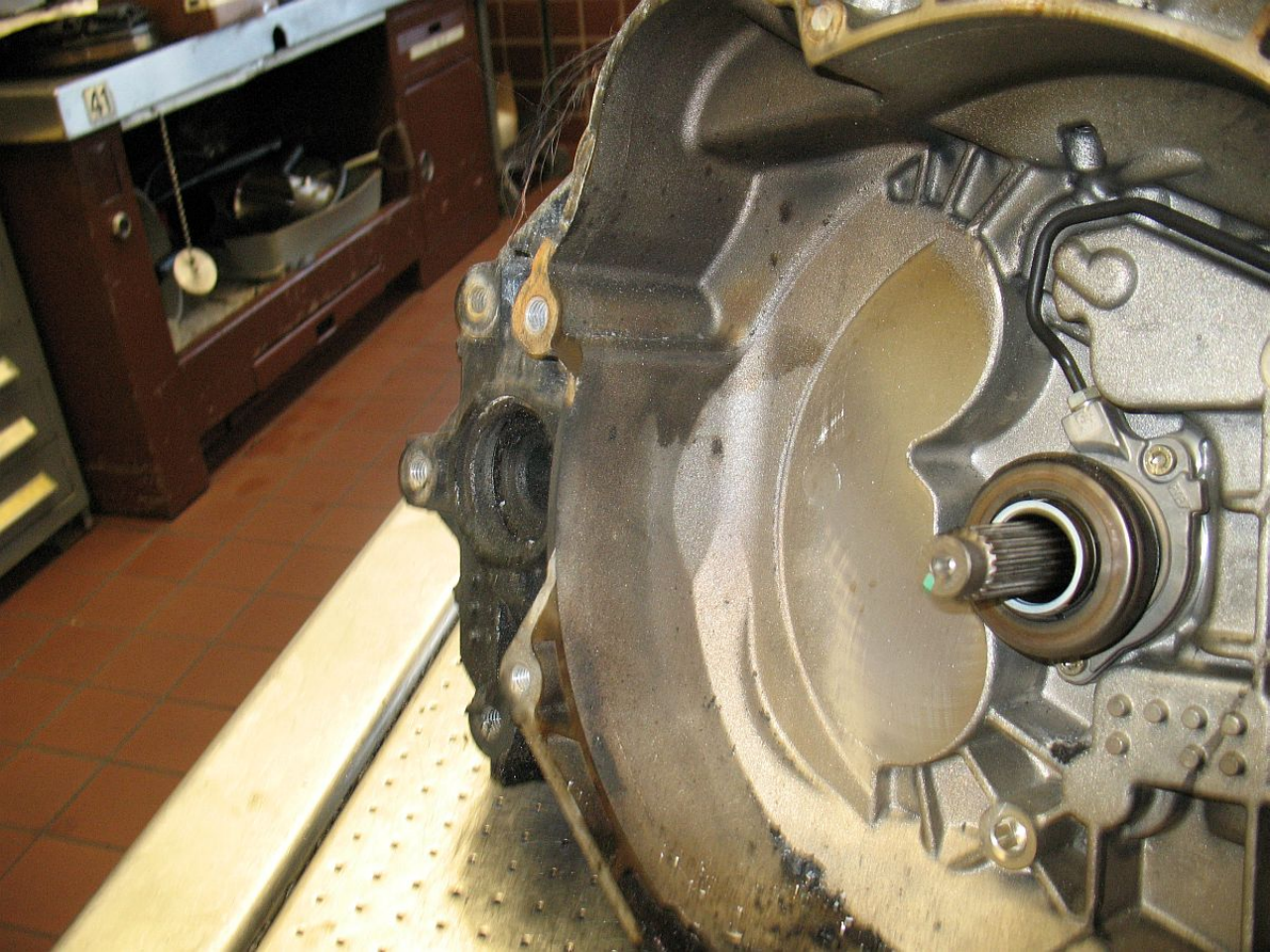


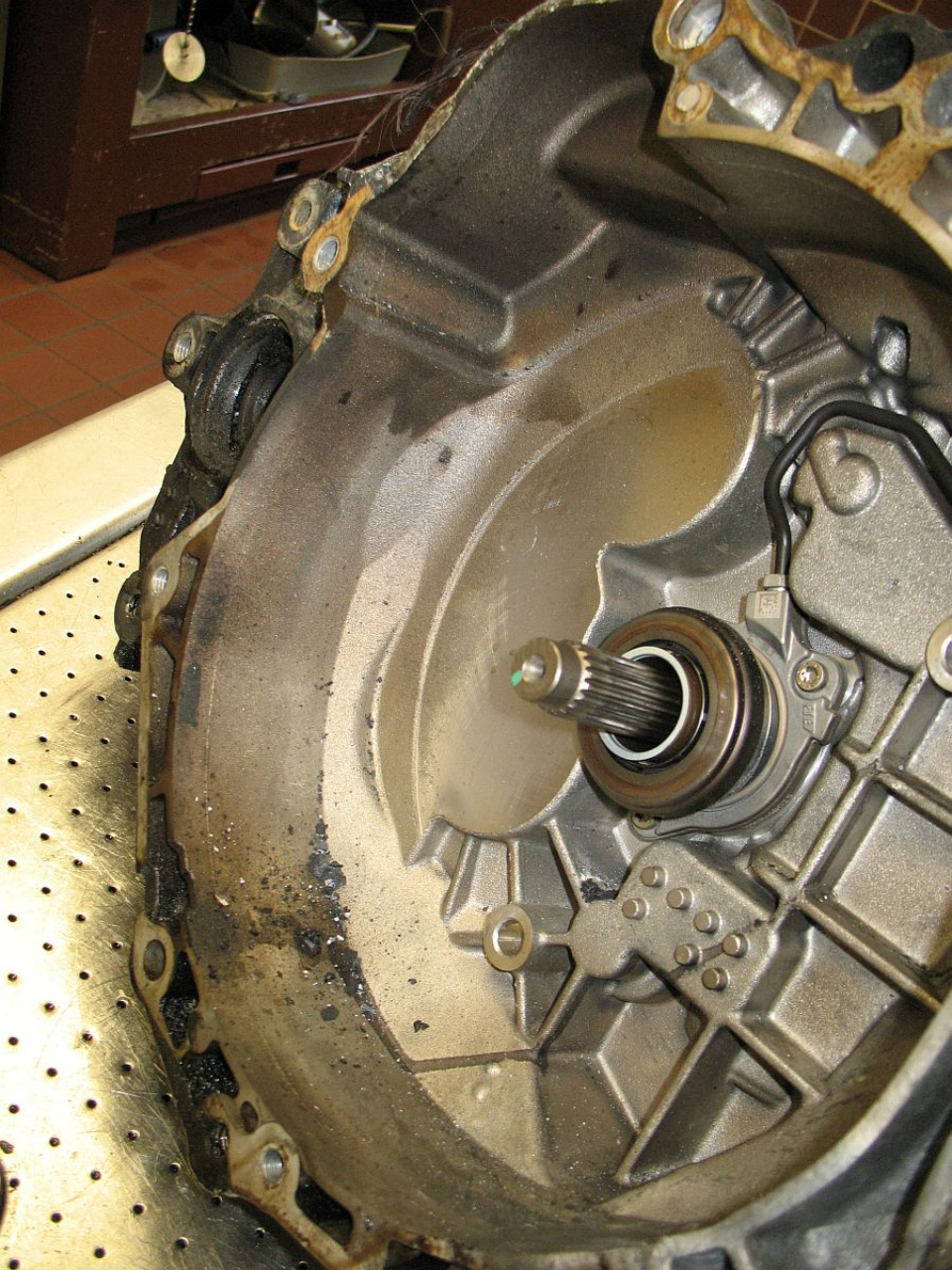




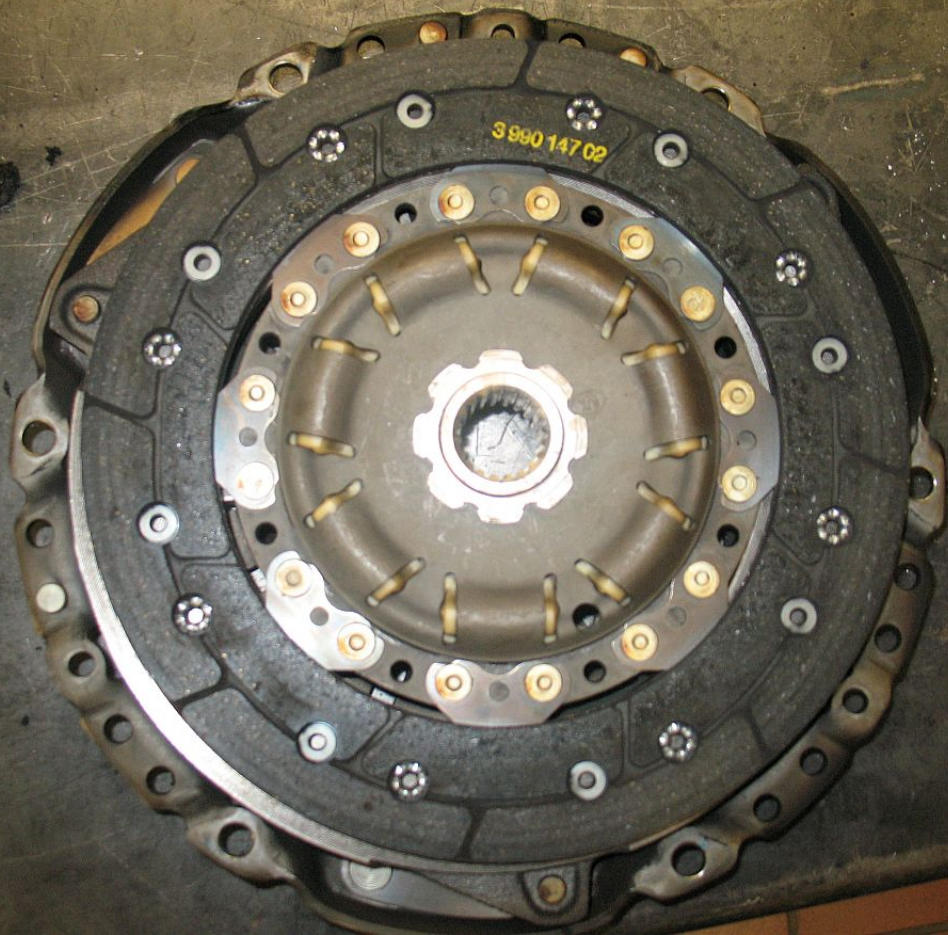




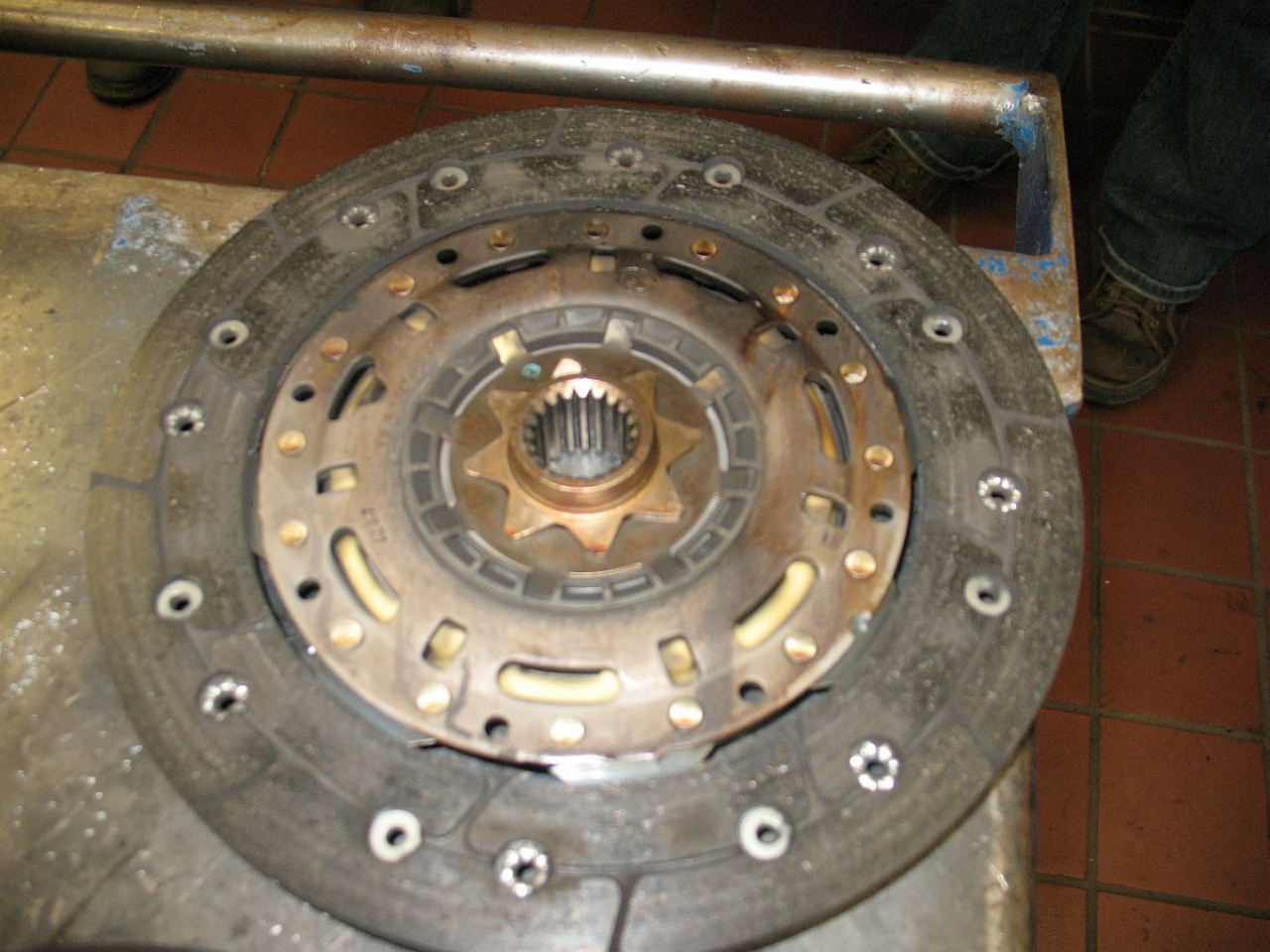


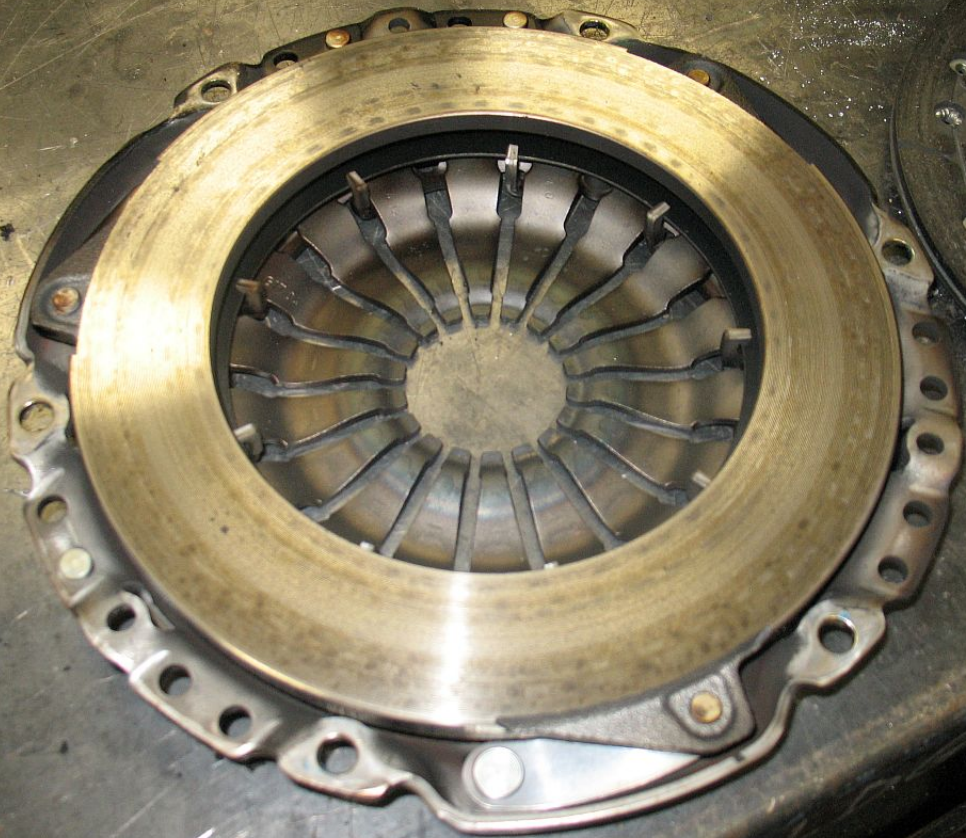


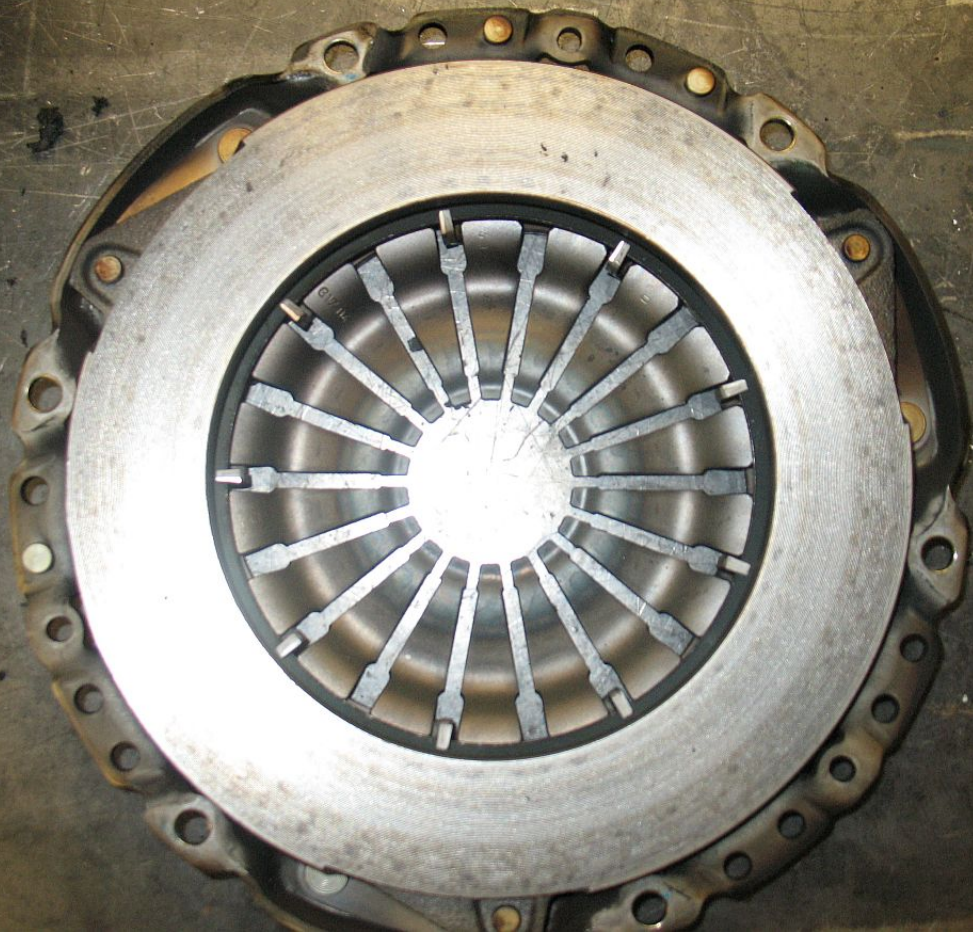


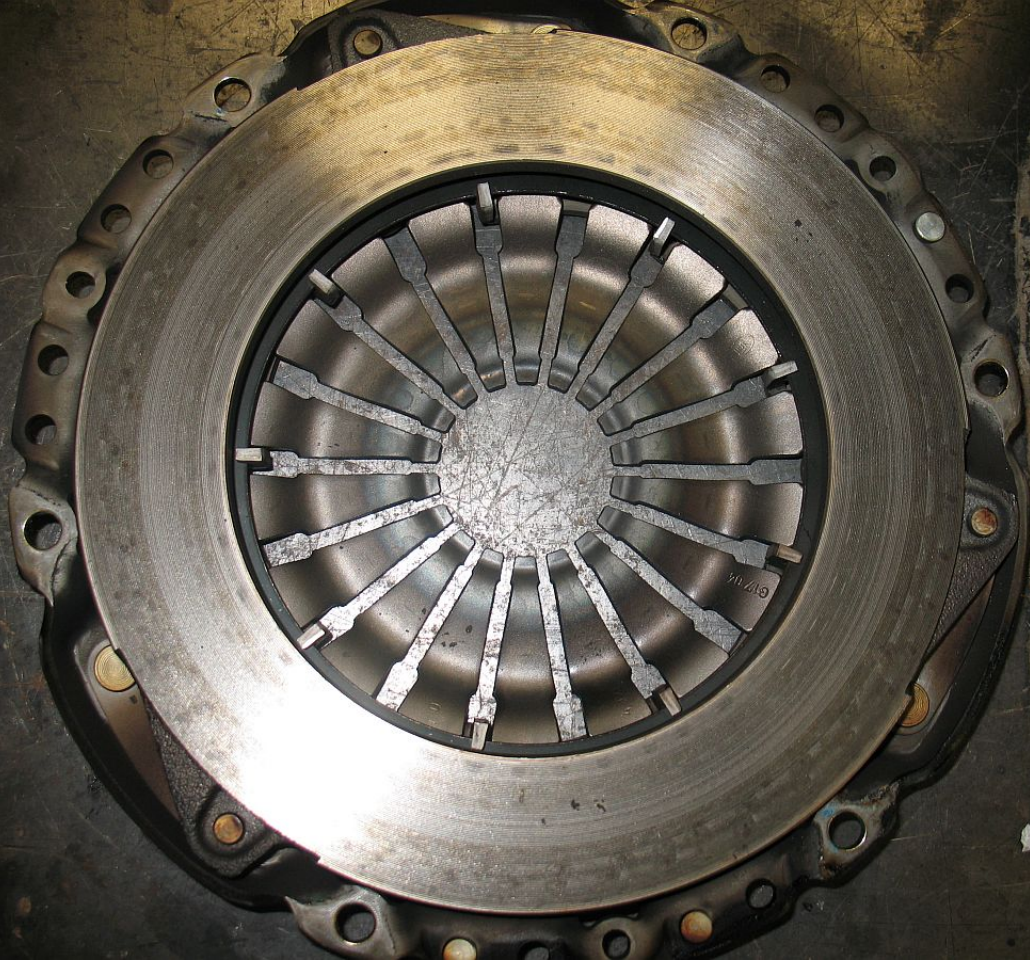












PE12-012

GM

6/22/2012

Q_07_2 Vehicle FPA

List Cruze Fire_Summary 5-23-
12 Root Cause

Sent to NHTSA (5/11/12 response)	Total included in NHTSA response		Reports since the data was pulled for 5/11/12 response	Total since date pull for NHTSA response
Back of engine	3		Back of engine	0
MT Clutch	1		MT Clutch	2
Collision Damage	2		Collision Damage	0
Exhaust to Belly Pan (no indication of recent oil change)	4		Exhaust to Belly Pan (no indication of recent oil change)	2
Exhaust to Belly Pan (recent oil change)	12		Exhaust to Belly Pan (recent oil change)	4
Missing Oil Cap (after oil change)	1		Missing Oil Cap (after oil change)	0
Unknown	5		Unknown	1
Total	28		Total	9

All Total = 37

PE12-012

GM

6/22/2012

Q_07_2 Vehicle FPA

N120081 2011-2 Cruze

Underhood FPET 5-31-12-p



Discovery:

First report of fire related to manual trans March 2011. Incident believed to be isolated, and no action taken. Based upon oil change related fires, additional drainage holes added to belly pan at Lordstown October 21, 2011 (TWO 1620340).

Current Status:

Partial response for PE12010 provided to the NHTSA May 11, 2012. Final response with all related actions and risk assessment due June 22, 2012.

{*}

{*}

{*}

{*}

Summary of Alleged Fires

US & Canada Fires

Origin	Model Year		Grand Total
	2011	2012	
Back of Engine Origin	1	2	3
Clutch	2	1	3
Collison Damage	1		1
Exhaust to belly pan*	19	3	22
Missing Oil fill cap	1		1
Unknown	1		1
Grand Total	25	6	31

*17 occurred from 30 minutes to 7 days after oil change











Back-up















PE12-012

GM

6/22/2012

Q_07_2 Vehicle FPA

Photos -Washington DC Cruze

2-17-11



FIELD PERFORMANCE ASSESSMENT Photo Documentation Sheet

CASE NAME CRUZE WASHINGTON DC SHOW CAR

DATE FEBRUARY 17, 2011

LOCATION SERVICE OPERATIONS GARAGE
WARREN TECH CENTER

VEHICLE 2011 CHEVROLET CRUZE

VIN No. 1G1PD5SH6B [REDACTED]

PHOTOGRAPHER LOU CARLIN

ROLL No. 1 2 3 4 5 6 7 8



25

13

26 36



FLAMMABLE
KEEP FIRE
AWAY

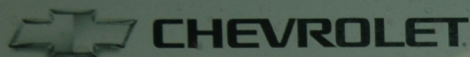
CRUZE











2011 CRUZE LS

EXTERIOR: SILVER ICE METALLIC
INTERIOR: JET BLACK / MEDIUM
TITANIUM

ENGINE: 1.8L ECOTEC VVT DOHC
TRANSMISSION: 6 SPEED MANUAL

Visit us at www.chevy.com

STANDARD EQUIPMENT

ITEMS FEATURED BELOW ARE INCLUDED AT NO EXTRA CHARGE IN THE STANDARD VEHICLE PRICE SHOWN

- 5 YEAR/100,000 MILE POWERTRAIN LIMITED WARRANTY SEE DEALER FOR DETAILS

MECHANICAL

- TIRE SEALANT & INFLATOR KIT IN PLACE OF SPARE TIRE
- OIL LIFE MONITOR SYSTEM
- ENGINE, 1.8L ECOTEC VVT DOHC 4 CYL
- TRANSMISSION, 6 SPEED MANUAL

SAFETY AND SECURITY

- AIRBAGS, DRIVER & FRONT PASSENGER FRONTAL, KNEE, SIDE IMPACT & HEAD CURTAIN; REAR OUTBOARD PASSENGERS SIDE IMPACT & HEAD CURTAIN
- STABILITRAK-STABILITY CONTROL SYSTEM W/ TRACTION CONTROL
- 4 WHEEL ANTILOCK BRAKES,

FRONT DISC/REAR DRUM

- POWER OPERATED REAR DR LOCKS, CHILD SECURITY
- REAR CHILD SEAT LATCH ANCHORS
- THEFT DETERRENT SYSTEM, CONTENT THEFT ALARM
- DAYTIME RUNNING LAMPS
- REMOTE KEYLESS ENTRY
- 6 MTHS ONSTAR DIRECTIONS AND CONNECTIONS WITH AUTOMATIC CRASH RESPONSE & TURN-BY-TURN NAVIGATION (ASK DEALER ABOUT GEOGRAPHIC COVERAGE)
- TIRE PRESSURE MONITOR

EXTERIOR

- WHEELS, 16" STEEL
- GLASS, SOLAR RAY LIGHT TINTED
- WINDSHIELD WIPERS VARIABLE & INTERMITTENT
- REAR WINDOW ELECTRIC DEFOGGER

INTERIOR

- AM/FM STEREO, CD PLAYER

- MANUAL SEAT ADJUSTER, DRIVER 8 WAY
- MANUAL SEAT ADJUSTER, PASSENGER 8 WAY
- ACOUSTIC INSULATION PKG
- A/R CONDITIONING
- VISORS, DRIVER/FRT PASSENGER W/ VANITY MIRRORS
- AUXILIARY AUDIO INPUT JACK
- POWER WINDOWS, EXPRESS DOWN
- DRIVER INFO CENTER, PERSONALIZATION, WARNING, MESSAGES AND VEHICLE INFO
- REAR SEAT, 60/40 SPLIT, FOLDING SEATBACK
- STEERING COLUMN, TILT & TELESCOPING
- REAR SEAT CENTER ARMREST WITH CUPHOLDERS
- POWER DOOR LOCKS WITH LOCKOUT PROTECTION
- SEAT TRIM, DELUXE CLOTH
- XM RADIO - SERVICE

- SUBSCRIPTION SOLD SEPARATELY BY SIRIUS/XM AFTER 3 MTHS
- AUDIO SYSTEM, 6 SPEAKER

OPTIONS & PRICING

MANUFACTURER'S SUGGESTED RETAIL PRICE

STANDARD VEHICLE PRICE **\$16,275.00**

OPTIONS INSTALLED BY THE MANUFACTURER (MAY REPLACE STANDARD EQUIPMENT SHOWN)

COMPACT SPARE TIRE (REPLACES TIRE SEALANT AND INFLATOR KIT) 100.00

TOTAL OPTIONS \$100.00

TOTAL VEHICLE & OPTIONS \$16,375.00

DESTINATION CHARGE 720.00

TOTAL VEHICLE PRICE* \$17,095.00

EPA Fuel Economy Estimates

CITY MPG

26

Expected range for most drivers
21 to 31 MPG

Estimated
Annual Fuel Cost
\$1,498

based on 15,000 miles
at \$3.00 per gallon

Combined Fuel Economy

This Vehicle

30

14 41

ALL COMPACT CARS

HIGHWAY MPG

36

Expected range for most drivers
29 to 43 MPG

Your actual
mileage will vary
depending on how you
drive and maintain
your vehicle.

AHJ

GOVERNMENT SAFETY RATINGS

This vehicle has not been rated by the government for frontal crash, side crash or rollover risk.

Source: National Highway Traffic Safety Administration (NHTSA).

www.safercar.gov or 1-888-327-4236

PARTS CONTENT INFORMATION

FOR VEHICLES IN THIS CARLINE:
U.S./CANADIAN PARTS CONTENT: 45%
MAJOR SOURCES OF FOREIGN PARTS
CONTENT: MEXICO 15%
AUSTRIA 19%

NOTE: PARTS CONTENT DOES NOT INCLUDE FINAL ASSEMBLY, DISTRIBUTION, OR OTHER NON-PARTS COSTS.

FOR THIS VEHICLE:
FINAL ASSEMBLY POINT:
LORDSTOWN, OH U.S.A.
COUNTRY OF ORIGIN:
ENGINE: MEXICO
TRANSMISSION: AUSTRIA

This label has been applied pursuant to Federal law. Do not remove prior to delivery to the ultimate purchaser. *Includes Manufacturer's Recommended Pre-Delivery Service. Does not include dealer installed options and accessories not listed above, local taxes or license fees.

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GM/BL_PPCD_0018-1002/12/09

ORDER NO P06701 SALES CODE E
SALES MODEL CODE 1PLM
DEALER NO 31045
FINAL ASSEMBLY
LORDSTOWN, OH U.S.A.
VIN 1G1PD5SH6B7145209

DEALER TO WHOM DELIVERED
GENERAL MOTORS LLC
100 RENAISSANCE CTR/NE/482-A25-C48
DETROIT, MI 48265-1000



UU

1GA1247872



See the FREE Fuel Economy Guide at dealers or www.fueleconomy.gov





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COUNTRY OF ORIGIN:
ENGINE: MEXICO
TRANSMISSION: AUSTRIA

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ORDER NO PG0021 SALES CODE E
SALES MODEL CODE 1P48
DEALER NO 31045
FINAL ASSEMBLY:
LORDSTOWN, OH U.S.A.
VIN 1G1PD5SH6B7145209

DEALER TO WHOM DELIVERED
GENERAL MOTORS LLC
100 RENAISSANCE CTR/NE/482-A25-C48
DETROIT, MI 48265-1000



UU

1GA1247872



See the FREE Fuel Economy Guide at dealers or www.fueleconomy.gov





TIRE AND LOADING INFORMATION

SEATING CAPACITY : TOTAL 5 : FRONT 2 : REAR 3

The combined weight of occupants and cargo should never exceed 408 kg or 899 lbs.

TIRE	ORIGINAL SIZE		COLD TIRE PRESSURE
FRONT	P215/60R16	S	240 kPa, 35 PSI
REAR	P215/60R16	S	240 kPa, 35 PSI
SPARE	T115/70R16	M	420 kPa, 60 PSI

SEE OWNER'S
MANUAL FOR
ADDITIONAL
INFORMATION

1G1PD5SH6B7145209



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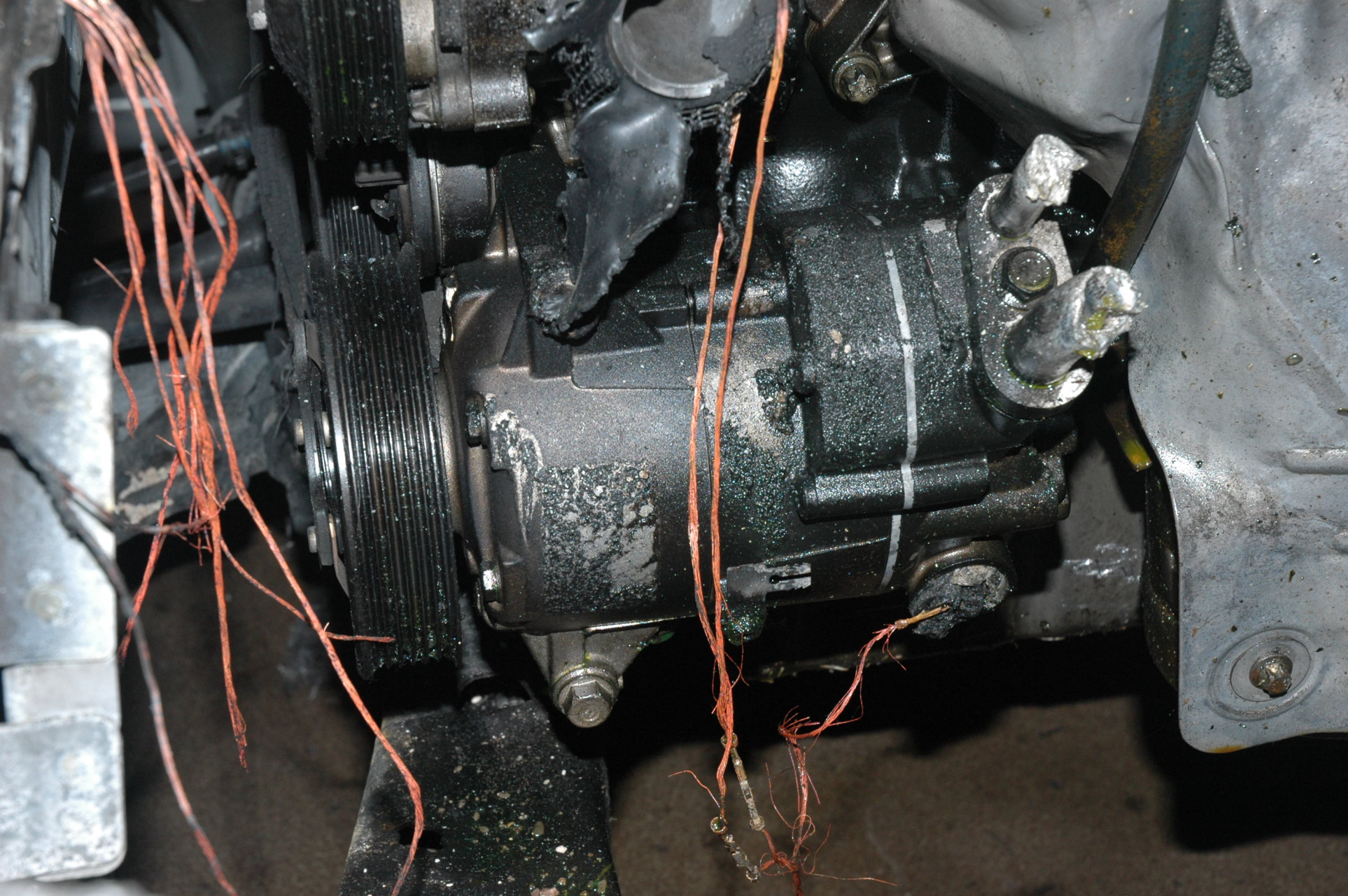


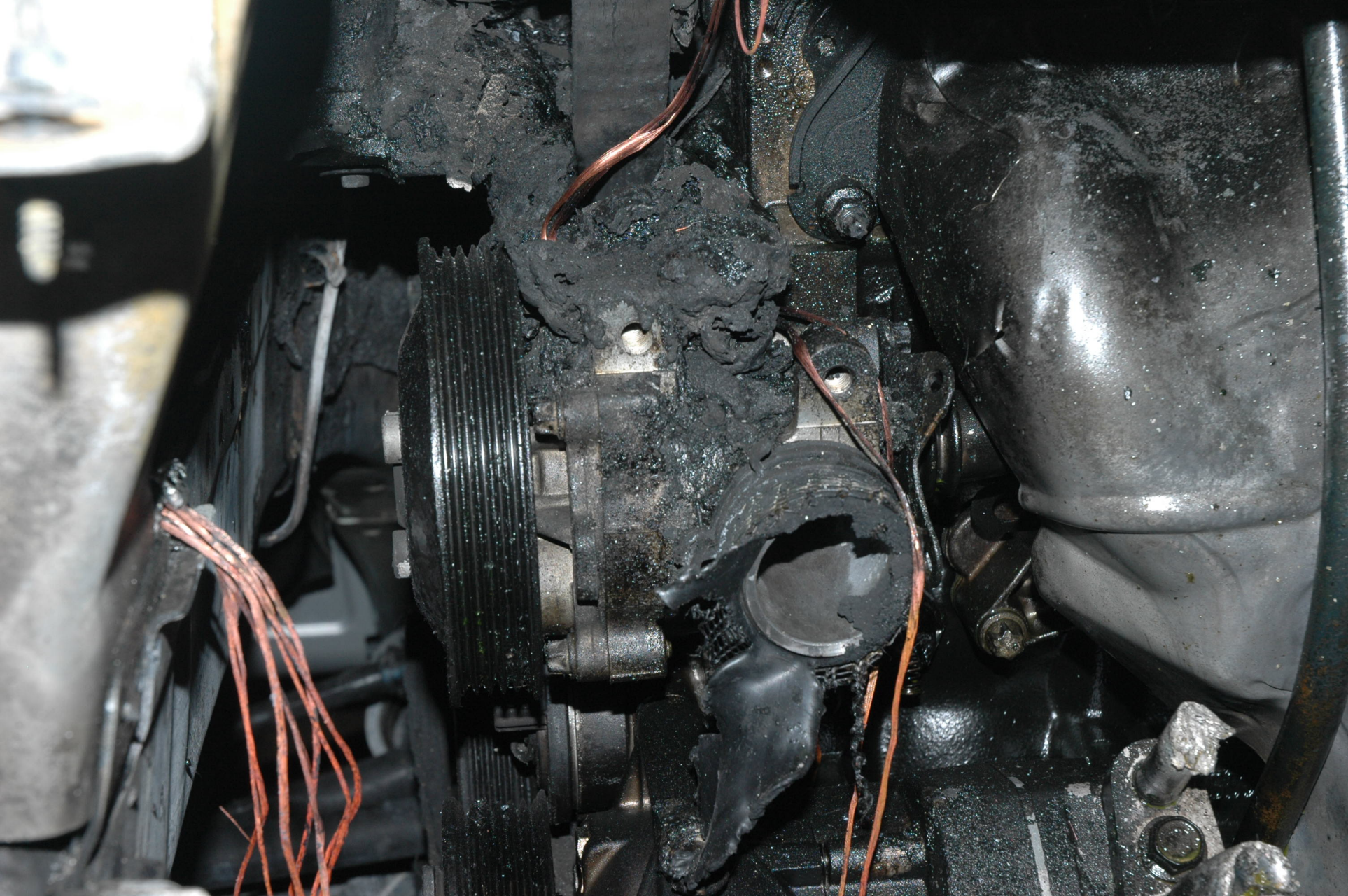




























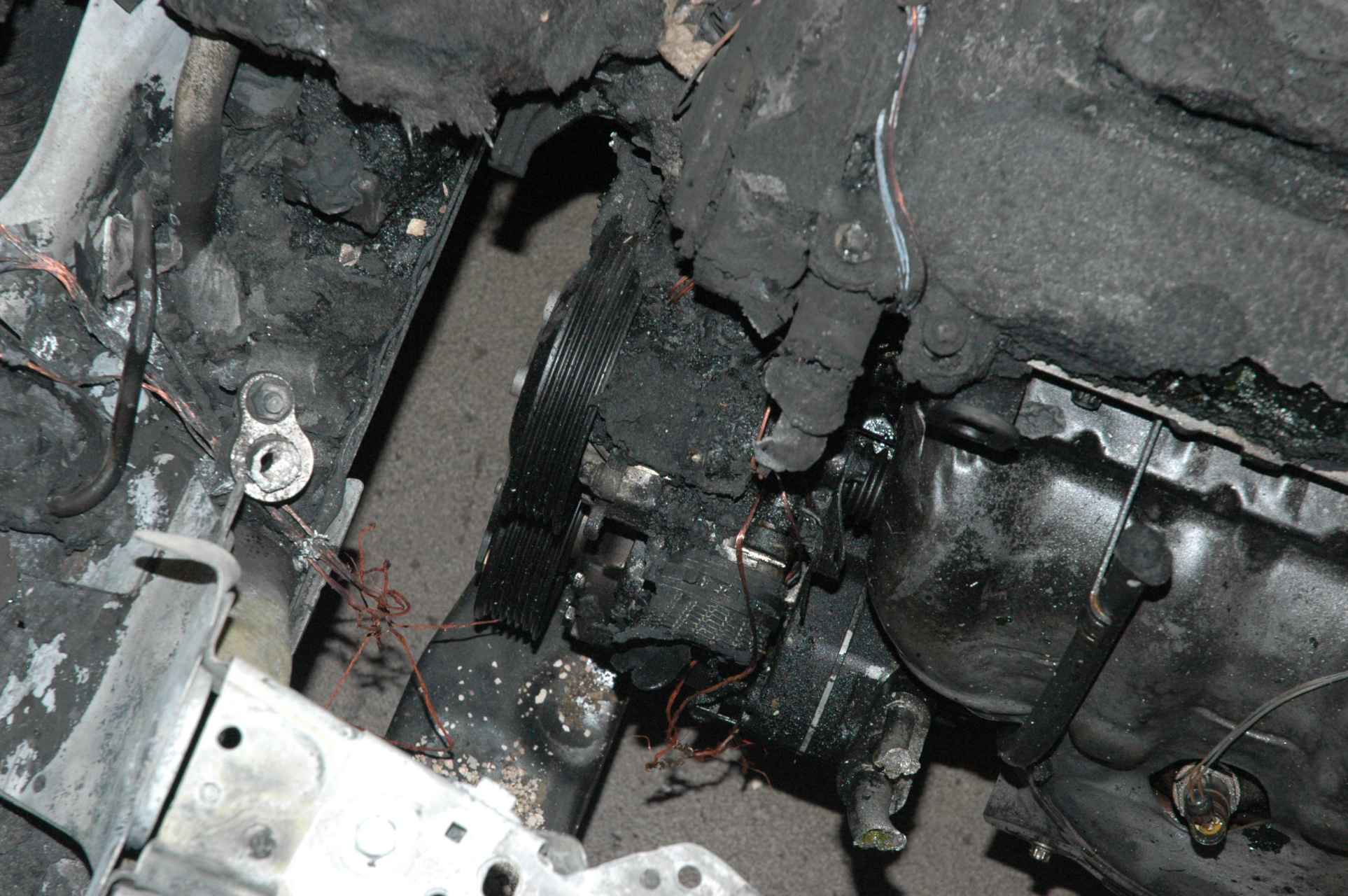














































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AAJK
KL06

GM
AALL
2720
DO NOT OPEN
UNTIL TIGHTENED
BY TORQUE





