



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

Memorandum

Subject: Forwarding documents to public file
Related to BMW Motorcycle Final Drive Petition

Date: August 30, 2012

From: *Bob Young*

To: Public file, DP12-001

Please file the attached material, related to the initial filing of the consumer's petition, for public access.

DP12-001

8/30/2012

MEMO

ATTACHMENT

DPResOpen, 1-20-12



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: DP 12-001
Prompted by: Consumer Letter
Date Opened: 01/20/2012
Investigator: Robert Young
Approver: Frank Borris
Subject: M/C final drive ball bearing failure
Reviewer: Bruce York-B

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: BMW OF NORTH AMERICA, LLC
Products: 1998-2009 K1200LT
Population: 15,413

Problem Description: Final Drive Crown Gear Ball Bearing Assembly ("the big bearing") progressive failure resulting in gear oil loss and/or bearing destruction with consequent rear wheel looseness.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	95	TBD	95
Crashes/Fires:	0	TBD	0
Injury Incidents:	0	TBD	0
Fatality Incidents:	0	TBD	TBD
Other*:	70	TBD	70

*Description of Other: From web-based "Final Drive Failure Registry" as of July, 2009 involving only K1200LT's.

ACTION / SUMMARY INFORMATION

Action: Open a Defect Petition and conduct an analysis of the allegations made in the letter referenced in the Summary below.

Summary:

By letter dated 11-28-2011, [REDACTED] of Edmunds, WA, requested that NHTSA "open an investigation into the repeated final drive bearing failure and possibly flawed assembly controls of the final drive unit on BMW K1200LT models..."

NHTSA's Office of Defects Investigation (ODI) is opening this investigation to examine [REDACTED] allegations and determine whether a safety-related defect trend currently exists involving final drive crown gear ball-bearing assembly failures on the subject motorcycles.

DP12-001

8/30/2012

MEMO

ATTACHMENT

12-6-11LttrSummary

Complaint Detail

07-DEC-2011

Complaint Information

ODI#: 10439549	Referral Source:	Num. Injured:	Property Damage: N
Received Date: 06-DEC-2011	Incident Date: 01-DEC-2008	Crash: N	Num Occurrences: 2
Description: 2001 BMW K1200LT. REQUEST FOR INVESTIGATION INTO BMW MOTORCYCLE FINAL DRIVE FAILURES *TGW THE CONSUMER STATED WHEN HE ATTEMPTED BRING THE MOTORCYCLE TO A SAFE STOP, HE DISCOVERED THE REAR BRAKES DID NOT WORK, WHICH FORCED HIM TO USE THE FRONT BRAKES ONLY, WHICH EXTENDED HIS STOPPING DISTANCE. HE WAS ABLE TO BRING THE BIKE TO A SAFE STOP WITHOUT INCIDENT. UPON INSPECTION, HE REALIZED THE REAR BRAKES FAILED BECAUSE THEY WERE SATURATED IN GEAR OIL, THAT LEAKED FROM THE FINAL DRIVE UNIT AFTER THE FINAL DRIVE BEARING SEAL FAILED. THE FINAL GEAR CROWN GEAR BEARING FAILED, CAUSING METAL PARTS TO BE CRUSHED BETWEEN THE SPINNING GEARS, TEARING THE SEAL AND ALLOWING THE OIL TO LEAK. THE CONSUMER STATED IT WAS THE SECOND TIME THE FINAL DRIVE BEARING FAILED ON HIS BIKE. *JB	Fire: N	Num. Deaths:	Police Report: N
			Confidential: Y

Consumer Information

Title:	Address: [REDACTED]	Zip Code: [REDACTED]	Evening Phone:	Country Phone Code: US
Name: [REDACTED]	City: EDMONDS	Country: UNITED STATES	Email:	
Org.:	State: WASHINGTON	Daytime Phone: [REDACTED]	Fax:	

Product Information

Vehicle Information

Product: <u>Product Type :VEHICLE Product Category :MOTORCYCLES</u> <u>Manufacturer :BMW OF NORTH AMERICA, LLC Make :BMW Model :K1200LT Model Year :2001</u>	Failure Mileage: 59310	Antilock Brakes: N
VIN:	Original Owner: N	Body Style:
# of Cylinders:	Engine Size:	Fuel Type:
Cruise Control: N	Vehicle Usage:	Purchase Date:
Current Mileage:	Transmission Type: MANUAL	Speed:
Component: <u>100000 POWER TRAIN</u>		Powertrain:
		Fuel System:

Complaint Detail

07-DEC-2011

Complaint Information

ODI#: 10438769

Referral Source:

Num. Injured:

Property Damage: N

Received Date: 06-DEC-2011

Incident Date: 04-DEC-2011

Crash: N

Num Occurrences:

Police Report: N

Description: ON TURNING ON THE IGNITION KEY IN MY GARAGE, THE FUEL PUMP WAS AUDIBLE, AND THE BIKE FAILED TO START WHEN THE STARTER BUTTON WAS PRESSED. IMMEDIATELY I NOTICED A VERY LARGE TORRENT OF GASOLINE POURING OUT OF THE BOTTOM OF THE ENGINE, RIGHT OVER THE EXHAUST HEADERS, WHICH WERE FORTUNATELY NOT YET HOT. THE AMOUNT OF GASOLINE LOST WAS AROUND 1 LITER, BEFORE I REALIZED WHAT WAS HAPPENING, AND TURNED OFF THE IGNITION KEY. FORTUNATELY, NO FIRE RESULTED AS I ROLLED THE BIKE OUT OF THE POOL OF GASOLINE AND ON OUT OF THE GARAGE.

Fire: N

Num. Deaths:

Confidential: Y

AFTER THE BIKE WAS TOWED TO THE DEALER, BOB'S BMW IN JESSUP, MD, I WAS INFORMED TODAY THAT THE TECHNICIAN FOUND THAT THE HOSE CLIPS THAT ATTACH THE FUEL HOSE TO THE FUEL RAIL WERE MISSING. THE PART ASSEMBLY INVOLVED IS BMW PART # 13537723527. THIS DEFECT, WHICH THE TECHNICIAN SAID WAS FACTORY-ASSEMBLED BY BMW IN GERMANY, NOT AT THE DEALER, WAS THUS PRESENT WHEN THE BIKE WAS DELIVERED NEW TO ME.

THIS REPRESENTS A POTENTIALLY LIFE-THREATENING RISK OF A SEVERE GASOLINE VEHICLE FIRE AND EXPLOSION. I REQUEST THAT BMW BE REQUIRED TO INSPECT ALL OF THE K1600 SERIES BIKES FROM THIS FACTORY TO ASCERTAIN HOW MANY OF THEM WERE SHIPPED WITH THIS EXTREMELY HAZARDOUS DEFECT. THE FACTORY SHOULD INSTITUTE NEW PROCEDURES TO GUARANTEE THAT THESE MOTORCYCLES CANNOT BE SHIPPED IN THIS HAZARDOUS CONDITION TO UNSUSPECTING BUYERS.

Consumer Information

Title:

Address:

Zip Code:

Evening Phone:

Country Phone Code:

Name:

City: POTOMAC

Country: UNITED STATES

Email:

Org.:

State: MARYLAND

Daytime Phone:

Fax:

Product Information

Vehicle Information

Product: Product Type :VEHICLE Product Category :MOTORCYCLES
Manufacturer :BMW OF NORTH AMERICA, LLC Make :BMW Model :K
1600 GTL Model Year :2012

VIN: WB1061107CZ

Original Owner: N

Failure Mileage: 150

Antilock Brakes: N

of Cylinders:

Engine Size:

Body Style:

Speed: 0

Cruise Control: N

Vehicle Usage:

Fuel Type:

Powertrain:

Current Mileage:

Transmission Type:

Purchase Date:

Fuel System:

Component: 070000 FUEL SYSTEM, GASOLINE

DP12-001

8/30/2012

MEMO

ATTACHMENT

VOQletter10439549(Petition)

NHTSA ccmMercury Routing Slip



CL-10439549-9321

Printed: 12/5/2011

NHTSA #: ES11-007408

XREF #:

Delivery: EXP

Rec'd Date: 12/5/2011

Doc Type: GEN

Address To: NOA010

Referred By: NPO-011

Doc Date: 11/28/2011

Due Date:

S10 #:

DOT/I #:

RMP #:

Subject: REQUEST FOR INVESTIGATION INTO BMW MOTORCYCLE FINAL DRIVE FAILURES

Ack Date:

Sign Office: ENFORCEMENT

Cleared Date:

File Loc:

Added By: CBUTLER x60180

Ack By:

Signature: AS APPROPRIATE

Cleared By:

XREF File:

Modified By: Chris.Butler

Signed For:

Cleared For:

Closed Date: 12/5/2011

Most Recent Comment:

Author:

[REDACTED]

[REDACTED]

EDMONDS, WA [REDACTED]

Tel [REDACTED] **Fax:** **E-mail:**

Assigned To	Task	Asgn Date	Deadline	Returned Date
NVS-200	APPROPRIATE	12/5/2011		12/5/2011
NVS-010	INFORMATION	12/5/2011		12/5/2011

DEC 6 2011

NM

120611

TGW

[REDACTED]
Edmonds WA [REDACTED]
November 28, 2011

David L. Strickland
National Highway Safety & Traffic Administration
1200 New Jersey Ave SE – West Building
Washington DC 20590

RE: Request for Investigation into BMW Motorcycle Final Drive Failures

Dear Mr. Strickland:

On the evening of Friday, October 21, 2011, as I exited [REDACTED] in San Luis Obispo, California, I attempted to bring my 2001 BMW K1200LT to a safe, uneventful stop at the end of the off ramp, something I'd done countless times before. To my surprise, my rear brake did not work, forcing me to use front brake only, which extended my stopping distance and risked my entering the lane of oncoming traffic. Thanks to my training as a certified Motorcycle Safety Foundation Rider Coach, I was able to safely stop without hitting anyone and still remain upright. As a motorcyclist yourself, I'm sure you can appreciate the challenge of coming to a complete stop on a heavy motorcycle using just the front brake as you approach as T intersection, especially when you had no reason to anticipate brake failure.

Upon inspection, I realized the rear brake failed because it was saturated in the gear oil that had leaked from the final drive unit after the final drive bearing seal had failed. Enclosed please find the cause of the seal failure. The attached final drive (crown gear) bearing had failed, causing metal parts to be crushed between the spinning gears, tearing the seal and allowing the oil to leak. I have also attached a photo of the rear wheel at the time. I was lucky as the bearing parts could have just as easily caused the rear wheel to lock at speed, likely resulting in a loss of control. Or, the oil on the tire could have resulted in a loss of traction for the rear wheel, necessary for the stability of a motorcycle. Either event could have resulted in a crash, injury or death.

This was the second failure of the final drive bearing on my K1200LT. The first failure occurred at 59,310 miles in December 2008, but was identified before the seal was ruptured and oil leaked. BMW denied the near \$400 cost of that repair as my warranty had expired. However, this most recent failure, at 75,994 miles (less than 17,000 miles later), was the first time the failure resulted in a dangerous situation that put my safety at risk. After paying another \$400 for repairs, I intended to report the component failure to the NHSTA when I returned to my home in Washington.

Much to my surprise, I have learned that this component failure is not new to the NHSTA as your agency has received 145 complaints between 4/9/2001 and 8/7/2011 (as of 11/19/2011).¹

¹ While there have been additional complaints about final drive components for other BMW models, I have limited my research to the BMW models that share the same (1st generation) Paralever final drive bearing components as the K1200LT.

ES11-00 7408

Of those 145 complaints filed with the NHSTA, 110 (76%) have involved the K1200LT model sold in the US between 1999 and 2010. I have attached a spreadsheet compiled from data taken from the NHSTA website. As you can see, the number of complaints filed exploded with the 1999 release of the 780lb K1200LT, the heaviest of BMW motorcycles. Further, the overwhelming bulk of the complaints (83% overall; 88% K1200LT) are for model years 1999-2002, after which BMW reportedly changed the size of the crown gear bearing used and, likely focused on more precise assembly as discussed below. As you can also see, there is little consistency within NHSTA on how to classify this component's failure, with NHSTA using 18 different component classifications to describe the same event, ranging from Power Train to Brake and even Engine Cooling failures!

As far as I have been able to determine in my limited research, the cause of the crown gear bearing failure is officially unknown as, according to several BMW dealers, BMW has not formally acknowledged the component defect. However, as reported in the attached article published September 2008 in *Motorcycle Consumer News*, the root causes appear to be excessive preload on the crown gear bearing during assembly and/or an improperly sized ring gear shaft. These theories have been echoed by several independent mechanics within the motorcycling community (www.bmwlt.com; www.ibmwr.org; www.bmwmoa.org) and cited as the likely cause of many repeat failures on the same machine as dealers often merely replace the failed bearing and seal, but not the shaft or shims that affect spacing or preload. Not surprisingly, no other large circulation magazine has acknowledged this issue, perhaps to avoid losing the advertising revenue received from BMW? (MCN does not accept advertising.) However, I am not a mechanic or an engineer. So, I don't really know. I am, however, a consumer, voter and taxpayer outraged that after 145 complaints, the government agency chartered to research the very instances of vehicle manufacturer defect that pose safety risk, has not yet even opened an investigation into the issue.

I realize that 145 complaints may not seem significant in the scheme of things. After all, BMW has likely sold thousands of motorcycles in the US equipped with the 1st generation Paralever style final drive unit that utilizes the attached bearing in its design. Maybe the low complaint ratio is acceptable to the NHSTA, despite the obvious indication of increased failure on the 1999-2002 K1200LT models. So, I researched how many complaints NHSTA received about the 2007-2010 Toyota Camry accelerator pedal sticking before a recall was initiated on 10/5/2009. After all, the Camry was the top selling car in the US during those years. Camry production must be exponentially greater than BMW's little motorcycle division, right? Again, I was surprised that only 77 Camry complaints needed to be filed with NHSTA before the recall was issued. (That number may actually be lower as 14% of those complaints were dated "Jan 1, 1901.") Yet, even with such a fractional ratio of complaints to units sold, the NHSTA investigation prompted a massive recall. Of course, that case had the dramatic 911 call and tragic death of several occupants trapped in a speeding, out of control Toyota. Does someone really need to die from injuries sustained from a crash caused by this failure before the NHSTA will act?

So, why hasn't the NHSTA opened an investigation into the BMW final drive failures? Unlike your critics during the Toyota fiasco, I am not insinuating that the NHSTA is the lapdog of the manufacturers. After all, and as discussed below, NHSTA has opened investigations in the past into BMW motorcycle related safety issues that resulted in recalls. But I am wondering what

the magic equation of complaints to units sold is necessary to warrant government interaction? Perhaps the 18 different component classifications failed to trigger an algorithmic program to elevate the issue? Again, I do not know.

What I am certain about is that there have been many more incidents of final drive failure than have been reported to NHSTA. [REDACTED] the BMW motorcyclist referenced in the *MCN* article, had been maintaining a registry of final drive failures online (www.bmwfinaldrive.com) in an effort to quantify the number of riders affected. Before terminating his efforts in 2009, he had logged 172 failures, with only 48% the owners at that time indicating they had reported the failures to NHSTA. His claim is consistent with my own non scientific research conducted by surveying owners on several web sites where fewer than 30% of those responding with a final drive failure report having notified the NHSTA. I must assume this is a common finding when measuring the ratio of complaints to actual occurrences and that your agency has a formula to estimate projected vehicle exposure based on the number of actual complaints received and total number of units manufactured. In any event, my findings would suggest the actual incidence of component failure is much greater than what has been reported to the NHSTA.

In addition, recalls by BMW are not unprecedented. Based on the NHSTA records, you received fewer complaints by BMW motorcycle owners about leaking fuel lines than final drive failures before a manufacturer's recall was prompted to repair the defective parts under NHSTA campaign #04V028000. Similarly, fewer complaints were also received from owners of 2009-2010 BMW K1300GT models for a stalling problem before a recall was initiated under campaign #09V471000. In fact, BMW issued a recall on 10/6/2006 for 700 R1200GS-HP2 and R1200S models as the (2nd generation "Evo" Paralever) final drive O-ring may not have been installed correctly during assembly. NHSTA campaign #06V399000 reported that "if a leak were to occur, oil could come into contact with the rear brake disc, increasing the risk of a crash." This is precisely what I experienced and, according to the comments noted with each complaint, what happened to at least 32% of the complainants reporting to the NHSTA. (3% reported the rear wheel locked; in another instance, the rear wheel separated from the motorcycle causing a crash and injuring rider and passenger².) In campaign #06V399000, BMW agreed to replace the O-ring in the affected models. While some owners of the motorcycles with the 1st generation Paralever style final drive have reported that BMW voluntarily paid all or some of the cost of repairs even if the motorcycle was out of warranty, these incidents still required the component to first fail, exposing the rider and passenger to harm, in addition to greater expense and inconvenience. This behind the scenes "goodwill" approach is not corporate accountability and should not be acceptable practice while thousands remain at risk and potentially unaware.

I request that the NHSTA open an investigation into the repeated final drive bearing failure and possibly flawed assembly controls of the final drive unit on BMW K1200LT models, if not all BMW motorcycles equipped with the Paralever style final drive unit. I realize that current agency budget constraints may make additional investigations challenging. Hopefully, you can appreciate that the consumers you have sworn to represent and protect have already done much of the heavy

² NHSTA notes for ODI #10410646 do not specify final drive failure; however failure of the crown gear itself would result in the rear wheel separating from the motorcycle described by the consumer.

lifting on this issue. Based on the information already collected within the NHSTA consumer complaints database (just poorly organized), and the excellent investigative and mechanical research already completed by concerned owners, the pattern of component failure has already been established with information identifying affected models, symptoms, likely causes and possible remedy. Further, campaign # 06V399000 has already established the manufacturer's awareness of the safety risks associated with oil leaking from a final drive unit and demonstrated BMW's willingness to correct, once brought to their attention. Assuming the investigation confirms what me and hundreds, if not thousands of BMW motorcycle owners have already learned, the manufacturer should be required to recall the affected models for inspection of component wear and proper assembly of the unit, with extended warranty of the affected component.

Alternatively, I would like for you to explain why the NHSTA has ignored 145 complaints from consumers about a critical vehicle component that, when it fails, can result in oil coating 50% of the vehicle' wheels, with potential loss of 50% of the vehicle's braking capacity, exposing the operator to the potential loss of control, possible crash, injury and, if left unaddressed, eventual fatality. Can you answer that for me?

Sincerely,



Christopher D. Cimino

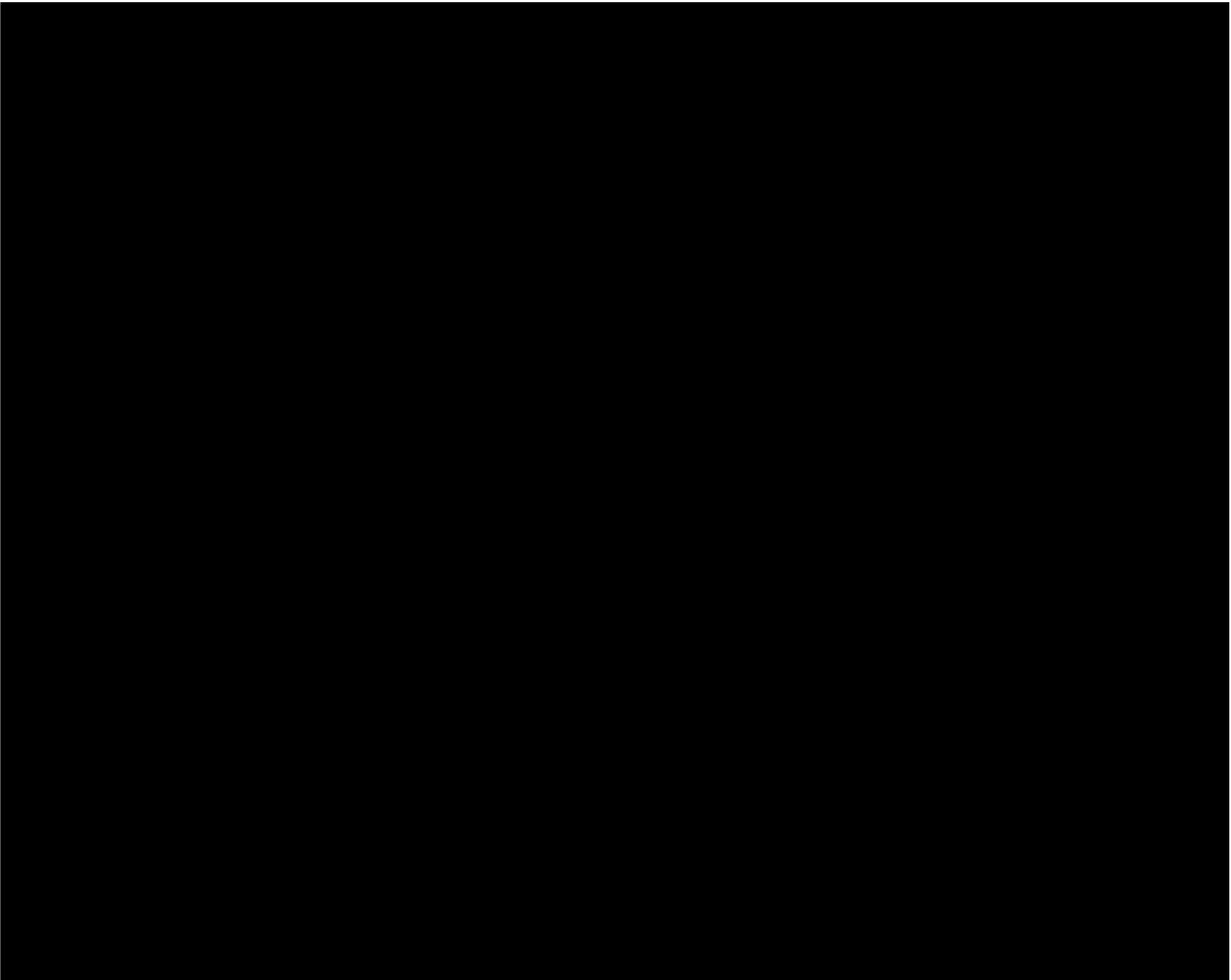
Christopher D. Cimino

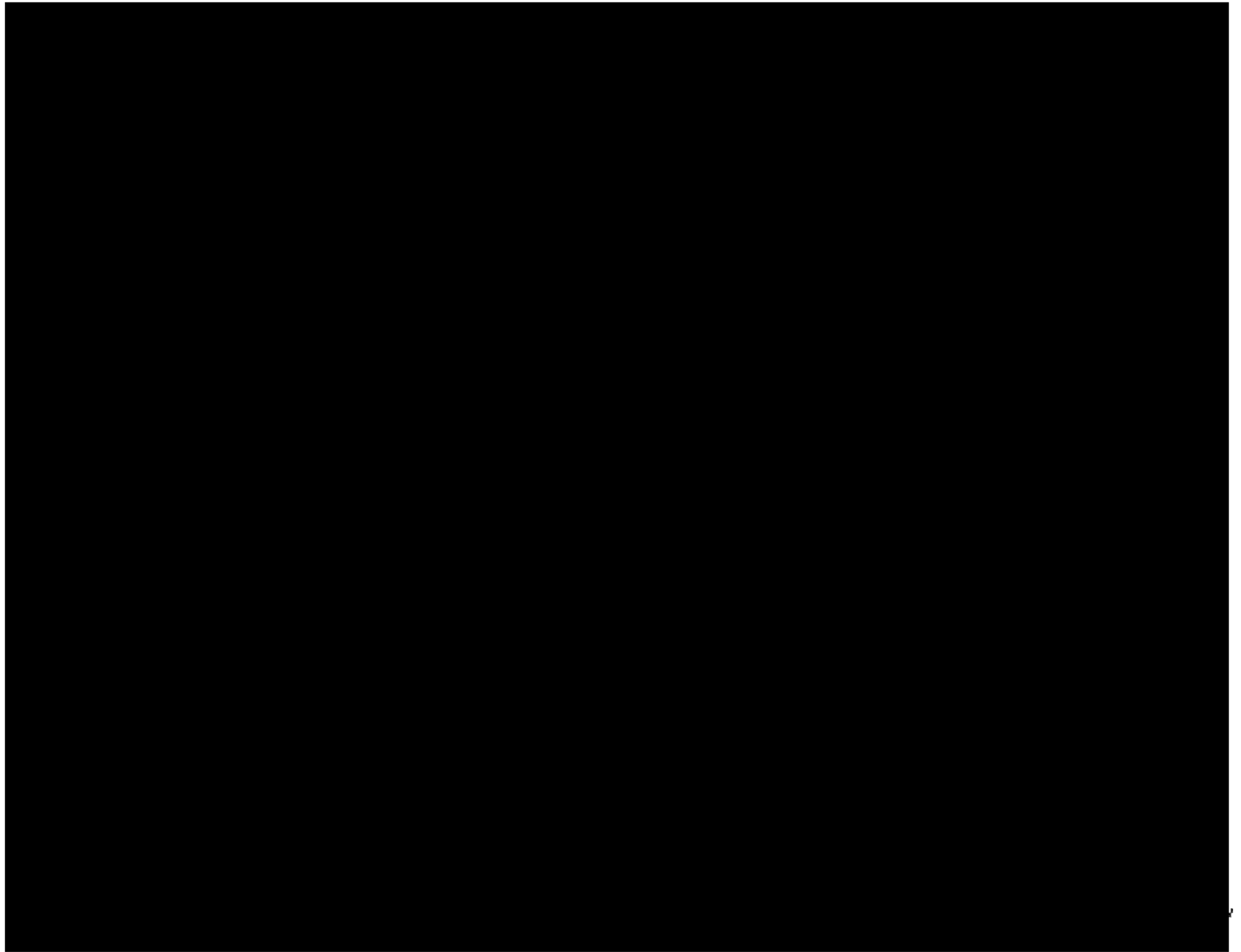
Attachments: Failed crown gear bearing (removed 10/22/11 at 75,994 miles);
Photo of rear wheel covered in gear oil (taken 10/21/11)
Data compiled from NHSTA website as of 11/23/2011

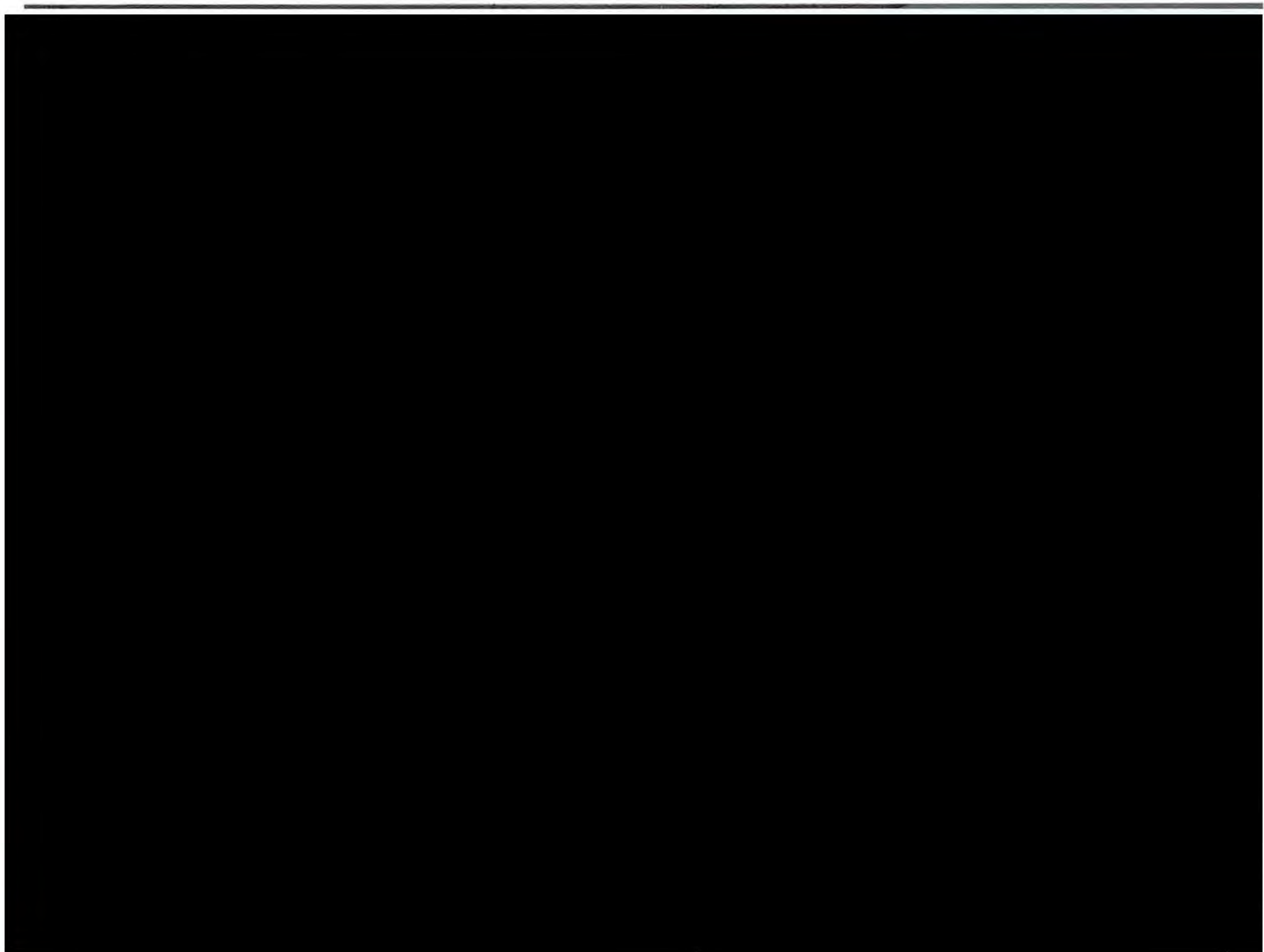
2008 in Motorcycle Consumer News published September

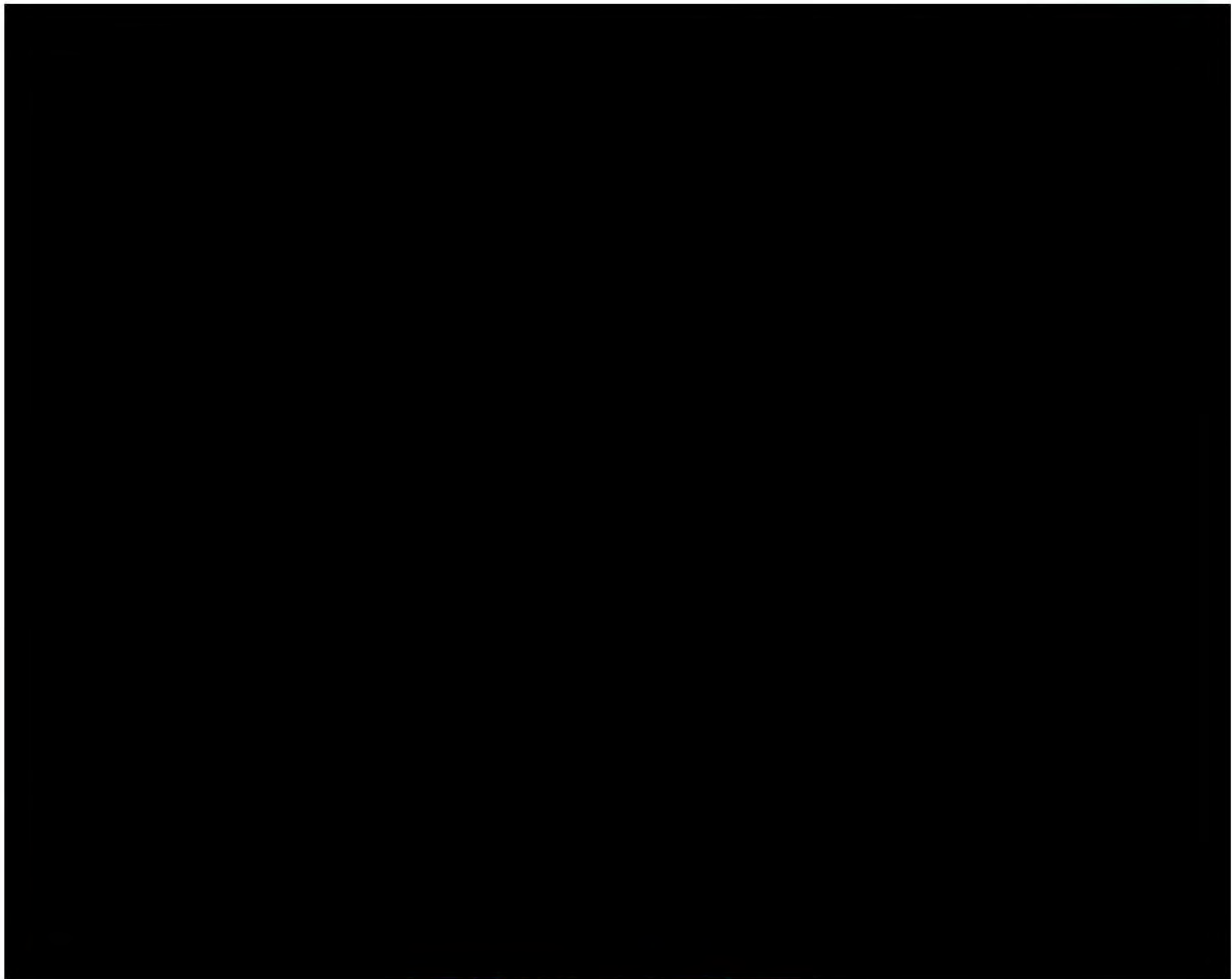
CC: Ray LaHood, Secretary of Transportation
 Senator Patty Murray, Chairman of the Subcommittee on Transportation, Housing and Urban Development
 and Related Agencies











DOI No.	Date of Failure	Model Year Reported	NHSTA Model Category	model by VIN	NHSTA Component Category	Notes from Summary	Mileage at Failure	Injuries	Deaths	Written Complaint
10237573	5/14/2006	1996	BMW Motorcycle	K1100RS	power train, driveline	FD failure	not stated	0	0	No
10209113	7/12/2007	1996	R1100RT		power train, driveline, center support bearing	FD failure	not stated	0	0	No
2		1996								
10036701	9/11/2003	1997	BMW Motorcycle	K1100LT	power train	FD failure at 70mph without warning	not stated	0	0	No
749492	not stated	1997	K1200RS	K1100RS	engine and engine cooling, gasoline	seal holding 90wt oil failed, coating rear wheel	not stated	0	0	Yes
10201908	6/16/2006	1997	R1100RT		power train, axle assembly, axle shaft, seal	2nd FD failure (1st at 35,000, oil on rear tire, wobbly)	50000	0	0	Yes
3		1997								
10208084	5/20/2005	1998	BMW Motorcycle	R1100RT	power train; driveline, differential unit	FD failure with oil on rear tire and brakes	27000	0	0	No
10173420	7/19/2004	1998	R100RS		suspension, rear	FD bearing failure, wheel "cocked" and bike became unstable	not stated	0	0	No
2		1998								
10278887	7/28/2009	1999	BMW Motorcycle	K1200LT	power train	FD failure, crown gear ball bearing	not stated	0	0	No
10040932	9/26/2003	1999	BMW Motorcycle	K1200LT	power train	FD failure	31000	0	0	No
10037122	8/25/2003	1999	BMW Motorcycle	K1200LT	power train; axle assembly; axle shaft	FD failure with severe vibration and loss of control	not stated	0	0	No
10208116	5/12/2005	1999	BMW Motorcycle	R1100LT	power train, driveline	FD failure, \$2000 cost to repair	50000	0	0	No
10074714	5/1/2004	1999	BMW Motorcycle	K1200LT	power train, driveline	FD failure with vibration and wobble	not stated	0	0	No
10197092	10/15/2006	1999	BMW Motorcycle	K1200LT	power train, driveline; differential unit	2 FD failures; \$800 each to repair	not stated	0	0	No
10093543	9/27/2004	1999	BMW Motorcycle	K1200LT	power train, driveline; differential unit	FD failure	not stated	0	0	No
10067913	4/25/2004	1999	BMW Motorcycle	K1200LT	power train, driveline; differential unit	2 FD failures w/in 13,000 miles	not stated	0	0	No
10026575	5/20/2002	1999	BMW Motorcycle	K1200LT	power train, driveline, driveshaft	FD failure	not stated	0	0	No
10291986	9/7/2009	1999	BMW Motorcycle	K1200LT	wheels	rear wheel separated from m/c, vehicle destroyed	18600	2	0	No
10210816	10/18/2007	1999	BMW Motorcycle	K1200LT	service brakes, hydraulic, foundation components	FD failure	45000	0	0	No
10009341	7/15/2001	1999	K1200LT		engine and engine cooling	Rear FD failure causes oil to leak onto rear tires at speed	not stated	0	0	Yes
10197957	7/27/2007	1999	K1200LT		power train	FD failure	37000	0	0	No
10032546	5/15/2001	1999	K1200LT		power train	FD failure, bearing collapsed	not stated	0	0	No
10088613	7/24/2004	1999	K1200LT		power train, axle assembly	FD failure, noticed growling sound, rear wheel wobble	not stated	0	0	No
10038900	9/6/2003	1999	K1200LT		power train, axle assembly	bearing failure in rear drive assembly	not stated	0	0	No
770746	7/23/2002	1999	K1200LT		power train, axle assembly	FD failure	not stated	0	0	No
764997	6/20/2002	1999	K1200LT		power train, axle assembly	no summary	not stated	0	0	No
764241	7/5/2002	1999	K1200LT		power train, axle assembly	no summary	not stated	0	0	No
762917	4/21/2002	1999	K1200LT		power train, axle assembly	"there should be a recall before someone gets killed"	38155	0	0	Yes
10210677	10/26/2007	1999	K1200LT		power train, axle hubs	FD failure, "its a pretty common occurrence"	not stated	0	0	No
10020547	7/5/2002	1999	K1200LT		power train, axle hubs	FD bearing failure	not stated	0	0	No
10227768	5/8/2008	1999	K1200LT		power train, driveline	FD failure with oil on rear brake; 2nd failure (1st at 14,000)	not stated	0	0	No
10045830	11/7/2003	1999	K1200LT		power train, driveline	FD failure "without warning"	not stated	0	0	No
10032009	8/3/2003	1999	K1200LT		power train, driveline	FD failure	not stated	0	0	No

NHSTA Complaints Data
BMW Final Drive Failures
compiled by Chris Cimino
as of 11/23/2011

10032796	8/13/2003	1999	K1200LT		power train, driveline	FD failure	not stated	0	0	No
10030246	7/27/2003	1999	K1200LT		power train, driveline	FD failure with oil dumped on rear brake and tire	not stated	0	0	No
10025494	7/16/2001	1999	K1200LT		power train, driveline	FD failure	15,000	0	0	No
10023586	6/9/2003	1999	K1200LT		power train, driveline	FD failure allowing oil to leak onto rear tire and brakes	not stated	0	0	No
8010000	9/15/2001	1999	K1200LT		power train, driveline	FD failure at speed	27500	0	0	Yes
768662	10/11/2002	1999	K1200RS		power train, driveline, differential unit	FD failure with oil dumped on rear brake and tire	not stated	0	0	No
10201628	4/19/2007	1999	R1100R		engine and engine cooling	FD bearing failure w/oil seeping from seal	not stated	0	0	No
10278451	7/13/2009	1999	R1100RT		power train, driveline	FD failure with oil leaking on tire at speed	not stated	0	0	No
10074938	5/27/2004	1999	R1100RT		power train, driveline, driveshaft	FD failure	85000	0	0	No
10167232	8/17/2006	1999	R1100RT		power train, manual transmission	FD failure	not stated	0	0	No
752759	9/30/2001	1999	R1100S		engine and engine cooling	twice replaced FD bearing	not stated	0	0	Yes
10231964	5/14/2008	1999	R1200C		power train, driveline	FD bearing failure discovered with metallic chips in oil	not stated	1	0	No
10173805	3/6/2006	1999	R1200C		power train, driveline	FD bearing failure at speed with oil on brakes and rear tire	not stated	0	0	No
767900	9/2/2002	1999	BMW	K1200LT	power train, axle assembly		not stated	0	0	No
39		1999					not stated	0	0	No
767811	7/4/2002	2000	BMW	K1200LT	power train, axle assembly	2nd FD bearing failure with oil leaked over rear tire and brake	not stated	0	0	No
10275623	6/22/2009	2000	BMW Motorcycle	K1200LT	power train	FD failure	not stated	0	0	No
10091284	9/4/2004	2000	BMW Motorcycle	K1200LT	power train, axle assembly	Sudden FD failure; spread oil over rear tire	not stated	0	0	No
10132253	6/20/2005	2000	BMW Motorcycle	K1200LT	power train, driveline	FD failure	not stated	0	0	No
10093619	7/13/2002	2000	BMW Motorcycle	R1150GS	power train, driveline	FD failure with oil on tire and rear brake	not stated	0	0	No
10088417	8/23/2004	2000	BMW Motorcycle	K1200LT	power train, driveline, differential unit	FD failure with oil on tire and rear brake	not stated	0	0	No
10041049	9/7/2003	2000	BMW Motorcycle	K1200LT	power train, driveline, differential unit	FD failure	not stated	0	0	No
10016566	10/10/2002	2000	BMW Motorcycle	K1200LT	suspension, rear	FD bearing failure	not stated	0	0	No
10073505	5/7/2004	2000	K1200LT		power train	FD bearing failure caused fluid to leak onto rear tire	17581	0	0	Yes
10240795	9/2/2008	2000	K1200LT		power train, axle assembly	FD failure	not stated	0	0	No
10040827	9/27/2003	2000	K1200LT		power train, axle assembly	rear wheel bearing failure created unsafe handling	not stated	0	0	No
10030746	6/27/2003	2000	K1200LT		power train, axle assembly	2nd FD failure w/oil on tire (1st at 29,000) "should be investigated"	35000	0	0	No
10280436	7/23/2009	2000	K1200LT		power train, driveline	2nd FD failure. Wheel locked up; oil on tire and brakes	26000	0	0	No
10280434	4/1/2005	2000	K1200LT		power train, driveline	FD bearing failure resulting gear oil leaking onto brakes	not stated	0	0	No
10240734	8/20/2008	2000	K1200LT		power train, driveline	FD failure resulting in rear wheel lock	not stated	0	0	No
10137034	8/25/2005	2000	K1200LT		power train, driveline	FD failure at speed with oil dumped over tire and brake	not stated	0	0	No
10037084	9/1/2003	2000	K1200LT		power train, driveline	FD failure	18200	0	0	No
10030697	7/16/2003	2000	K1200LT		power train, driveline	FD failure	not stated	0	0	No
10060187	2/28/2004	2000	K1200LT		power train, driveline, central support bearing	FD bearing failure resulting in wobble to wheel	not stated	0	0	No
10033203	7/12/2003	2000	K1200LT		power train, driveline, central support bearing	FD failure "bearings disintegrated"	not stated	0	0	No
10000075	9/4/2002	2000	K1200LT		power train, driveline, central support bearing	FD bearing worn out	38632	0	0	No
10164170	7/26/2006	2000	K1200LT		power train, driveline, differential unit	FD failure with vibration then oil on rear brake	not stated	0	0	No
10091019	8/19/2004	2000	K1200LT		power train, driveline, differential unit	FD failure with vibration then wobble	14500	0	0	No
10090737	8/7/2004	2000	K1200LT		power train, driveline, differential unit	FD failure with vibration then lubricant on brake and tire	not stated	0	0	No
10088433	7/29/2004	2000	K1200LT		power train, driveline, differential unit	FD failure with gear oil all over rear tire "bearing disintegrated"	not stated	0	0	No

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10078886	6/26/2004	2000	K1200LT	power train; driveline; differential unit	FD failure, grinding noise and wobble	not stated	0	0	No
10037168	6/18/2002	2000	K1200LT	power train; driveline; differential unit	FD failure, oil on rear rim "BMW doing nothing about it. We need your help"	not stated	0	0	No
10029251	3/27/2003	2000	K1200LT	power train; driveline; differential unit	FD failure locked rear wheel in rain; bearing "pulverized"	15697	0	0	No
762592	11/4/2000	2000	K1200LT	power train; driveline; differential unit	FD failure at 70mph	not stated	0	0	No
767535	8/31/2002	2000	K1200LT	power train; driveline; driveshaft	FD failed at speed	not stated	0	0	No
10259615	1/5/2009	2000	K1200LT	service brakes; hydraulic	FD failure	not stated	0	0	No
10154980	4/5/2006	2000	K1200LT	service brakes; hydraulic	FD failed; oil on rear brake and tire; temp loss of control	not stated	0	0	No
764892	6/16/2002	2000	K1200LT	service brakes; hydraulic	FD crown bearing and seal failed; oil on rear brake	not stated	0	0	No
10162905	4/3/2006	2000	K1200LT	service brakes; hydraulic; anti-lock	FD failure with oil on rear brakes	not stated	0	0	No
10016602	4/8/2003	2000	K1200LT	suspension	FD failure, loud noise from rear before failure	not stated	0	0	No
10161135	6/17/2006	2000	K1200LT	suspension; rear	2nd FD bearing failure	not stated	0	0	No
767395	9/7/2002	2000	K1200LT	suspension; rear	"known rear end failure with this model"	not stated	0	0	No
10025799	5/12/2003	2000	K1200LT	wheels; center section	FD failure; oil all over rear tire made unsafe driving condition	not stated	0	0	No
755821	8/21/2001	2000	K1200RS	power train; axle assembly; axle shaft	2nd FD failure; 1st at 47,200, 2nd at 73,800 at speed with lube on tire	73800	0	0	No
10043275	10/16/2003	2000	R1150GS	power train; driveline	FD failure	not stated	0	0	No
10043215	3/1/2003	2000	R1150GS	power train; driveline	FD failure	35000	0	0	No
10025676	6/16/2003	2000	K1200LT	power train; driveline	FD failure (listed as 2002 on NHSTA; but states 2000 model year in summary)	2000	0	0	No
10375760	11/13/2010	2000	R1200C	service brakes; hydraulic	3rd FD failure; grinding noise, coated rear tire and brakes with oil, disabled ABS	not stated	0	0	No
43		2000							
10123936	5/23/2005	2001	K1200LT	power train; axle assembly; axle shaft; seal	FD failure	37000	0	0	No
764433	7/14/2002	2001	K1200LT	power train; axle assembly; axle shaft; seal	FD failure with gear oil on rear tire and brakes	not stated	0	0	No
10247463	9/30/2008	2001	K1200LT	power train; driveline	FD failure	not stated	0	0	No
10195101	6/25/2006	2001	K1200LT	power train; driveline; differential unit	FD failure with gear oil on rear tire and brakes	not stated	0	0	No
10136116	8/26/2005	2001	K1200LT	power train; driveline; differential unit	FD failure at speed with gear oil on wheel and brakes, tire slipped on road	not stated	0	0	No
10032995	8/7/2003	2001	K1200LT	power train; driveline; differential unit	FD failure with rear wheel wobble	not stated	0	0	No
8009914	5/12/2002	2001	K1200LT	power train; driveline; driveshaft	FD failure at 65mph with oil on wheel and brakes; rear was "shimmying"	29300	0	0	Yes
10324690	4/9/2001	2001	K1200LT	service brakes; hydraulic	FD failure with oil on tire and brakes	not stated	0	0	No
10250905	11/28/2008	2001	K1200LT	service brakes; hydraulic	FD failure; vibration noted	not stated	0	0	No
10201220	8/2/2004	2001	K1200LT	service brakes; hydraulic; anti-lock	FD failure	not stated	0	0	No
10151127	1/25/2006	2001	K1200LT	service brakes; hydraulic; anti-lock	FD bearing failure with tire and brakes covered in gear lube	not stated	0	0	No
766292	7/2/2002	2001	K1200LT	suspension	FD bearing failure with vibration and rear wheel wobble	not stated	0	0	No
10193709	6/15/2007	2001	K1200LT	suspension; rear	FD failure	not stated	0	0	No
10091356	7/27/2001	2001	R1150GS	power train; driveline	FD failure	not stated	0	0	No
10030794	5/20/2003	2001	R1150GS	power train; driveline; center support bearing	FD failure	not stated	0	0	No
15		2001							

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10417790	6/6/2011	2002	K1200LT	power train; driveline	2nd FD bearing failure; 1st at 17,520 miles	42502	0	0	No
10253054	8/28/2009	2002	K1200LT	power train; driveline	2nd FD bearing failure; 2nd failure occurred 3000 miles after new bearing installed	non stated	0	0	No
10282941	6/26/2009	2002	K1200LT	power train; driveline	FD failure at 70mph with gear oil leaking; wheel later locked up	non stated	0	0	No
10201745	7/27/2007	2002	K1200LT	service brakes; hydraulic; anti-lock	FD failure with vibration and rear wheel wobble; wobble damaged ABS sensor	non stated	0	0	No
10195550	5/26/2007	2002	K1200LT	power train; driveline; center support bearing	FD bearing and seal failure	non stated	0	0	No
10175866	11/15/2006	2002	K1200LT	power train; driveline; differential unit	FD bearing failure	non stated	0	0	No
10151093	10/17/2005	2002	K1200LT	service brakes; hydraulic; anti-lock	FD bearing failure; "suddenly rear of (m/c) started 'dancing' "	14079	0	0	No
10135893	8/26/2005	2002	K1200LT	power train; driveline	FD bearing and seal failure; felt grinding; bearing was "shredded"	non stated	0	0	No
10132728	7/16/2005	2002	K1200LT	power train; driveline; differential unit	FD bearing failed; vibration and rear wheel hopping	non stated	0	0	No
10090678	9/5/2004	2002	K1200LT	power train; driveline	FD bearing and seal failure; oil leaked to tire resulting in tire sliding	non stated	0	0	No
10060124	2/29/2004	2002	K1200LT	power train; driveline	FD failure; vibration and grinding noises	non stated	0	0	No
10060122	5/30/2003	2002	K1200LT	power train; driveline	FD failure with leaking fluid onto to rear wheel and tire	non stated	0	0	No
10036008	8/26/2003	2002	K1200LT	power train; driveline; differential unit	FD failure	non stated	0	0	No
10032679	8/11/2003	2002	K1200LT	power train; driveline; differential unit	FD failure; grinding, vibration and wobble	non stated	0	0	No
10016679	4/9/2003	2002	K1200LT	power train; driveline; differential unit	FD failure; "bike went all wobbly"	non stated	0	0	No
10154607	3/6/2005	2002	K1200RS	power train; driveline; differential unit	FD failure at speed with oil on tire and brakes; bike became unstable;	33000	0	0	No
10032838	8/9/2003	2002	K1200RS	power train; driveline; differential unit	FD failure	non stated	0	0	No
10025248	7/18/2003	2002	K1200RS	suspension; rear	FD failure	non stated	0	0	No
767225	9/1/2002	2002	K1200RS	power train; driveline; differential unit	FD failure; contact directed NHSTA to research other complaints	non stated	0	0	No
10208574	10/15/2007	2002	R1150RS	power train; axle assembly	FD bearing failure; oil leaked on tire	non stated	0	0	No
10168484	4/18/2005	2002	R1150GS	power train; driveline	FD bearing and seal replaced	36000	0	0	No
10093567	10/2/2004	2002	R1150GS	power train; driveline; driveshaft	FD failure at 70mph; gear oil on tire and rear brakes; wheel hopped	non stated	0	0	No
10025521	6/21/2003	2002	R1150GS	power train; driveline; driveshaft	FD failure resulting in loss of gear oil and ABS sensor replacement	28200	0	0	No
10238033	7/20/2008	2002	R1150RT	power train	FD bearing failure	non stated	0	0	No
24		2002							
10217729	2/4/2008	2003	K1200LT	power train; driveline	FD failure with loss of oil	non stated	0	0	No
10167906	8/31/2006	2003	K1200LT	power train; driveline; driveshaft	FD failure	non stated	0	0	No
10167135	8/30/2006	2003	K1200LT	power train; manual transmission	FD bearing failure	19000	0	0	No
10150393	2/1/2006	2003	K1200LT	power train; manual transmission	FD bearing failure	non stated	0	0	No
10355723	9/12/2010	2003	K1200LT	power train; driveline	FD failure at 75mph; rear wheel locked causing skid; seal failed; oil loss	54000	0	0	Yes
5		2003							

10410546	6/17/2011	2004	K1200LT		wheels	tire separated on hwy, loss of control, totaled bike, injuries (research pending)	not stated	2	0	No
10346214	7/22/2010	2004	R1150GS		power train; driveline	FD failure vibration w/oil on wheel/breaks (contact reports 2 addtl)	not stated	0	0	No
10297919	12/28/2009	2004	R1150RT		power train; driveline	FD fails R1100RT)	31000	0	0	No
10235119	7/15/2007	2004	R1150RT		power train	FD bearing failure	not stated	0	0	No
4		2004								
10210376	10/15/2007	2005	K1200GT		power train; manual transmission; lubricant	FD failure	not stated	0	0	No
10291369	11/2/2009	2005	K1200LT		power train; driveline	FD failure; bearing had been "obliterated"	not stated	0	0	No
10267148	4/20/2009	2005	K1200LT		power train; driveline	FD bearing failure	36000	0	0	No
10235069	10/25/2007	2005	K1200LT		power train; driveline	FD failure, crown bearing cage "destroyed"	31000	0	0	No
10210805	11/10/2007	2005	K1200R	K1200LT	power train; driveline; differential unit	FD bearing "loose"	not stated	0	0	No
5		2005								
10419264	8/7/2011	2007	K1200GT	K1200LT	service brakes; hydraulic	FD failure	not stated	0	0	No
1		2007								
10276014	7/7/2009	2008	K1200GT	K1200LT	power train	FD failure with leaking oil. "if it had happened while riding could have caused crash"	7600	0	0	No
10242999	8/30/2008	2008	K1200GT	K1200LT	power train; driveline	FD failure with oil on rear tire	6500	0	0	No
2		2008								
Total										
2	Model Year	No. K12LT								
3	1996	0	N/A							
2	1997	0	N/A							
39	1998	0	N/A							
43	1999	31	79%							
15	2000	38	88%							
24	2001	13	87%							
5	2002	15	63%							
4	2003	5	100%							
5	2004	1	25%							
1	2005	4	80%							
2	2007	1	100%							
2	2008	2	100%							
145		110	76%							