

MARTA HERDA CASE

**Forensic Officers for Prosecution**

**Garad Forensic collision investigator**

**Cliff Harding:**

Age 30's Experience : Moderate

Education: Forensic Road Accident Investigation - De Montfort University, UK

Affiliate: Unknown

**Garda Public Service Vehicle Inspector**

**Adrian Tucker**

Age 40's -50's Experience: Very experienced

Education: Advanced

Affiliate: Registered Engineering Technician with Engineers Ireland and MAE ( IMI)

**Garda Diving Team**

**Garda Emergency response Team**

**Garda Removal Team**

**Garda Crime scene technicians**

**Garda District officer**

**Civilian Witness**

Nurse Claire Best

Bryne

**GARDA WITNESS**

Garda Anthony Crehan

**Cause effect and analysis of the Skid mark**

Low battery power due to night driving during winter, and successive engine start in cold winter weather and heavy light and fan heater use during dark. Low battery can disable the ABS on older Volkswagen models and will cause havoc with the circuitry of the ABS module and other on board systems. The sudden application of ABS brakes will bring the battery power in combination with all others features below the threshold and cause a shut down of the ABS due to low or inconsisntent voltage power.

In addition the Bosch 5.3 Abs Module has a known fault.

Source:

Bulletin	Bulletin date	Replacement Bulletin	Item no.	Added
SERVICE BRAKES, AIR - ANTILOCK - CONTROL UNIT/MODULE				
TT-45-06-54	11/16/2012	10051242		
Volkswagen: update to information. providing correct coding values for abs control modules on certain vehicles without can-bus. models 1998-2002 passat. *pe				02/25/2013
SERVICE BRAKES, HYDRAULIC - ANTILOCK - CONTROL UNIT/MODULE				
0517	07/14/2005	0521 10016037		
Anti-lock brake system (abs) control module warranty repair process. *tt				08/19/2005

**Recalls**

SERVICE BRAKES, HYDRAULIC:ANTILOCK

Recall for 2001 Volkswagen Jett

Recall Announced

JANUARY 31 2002

NHTSA Reference

#02V031000

Number Affected

55,000

Summary: On some passenger vehicles, short circuits can occur within the electronic control unit of the anti-lock braking system (ABS).

### **Introduction**

It is important to understand recalls are only required on cars no older than 8 years, so if Volkswagen was to recall present models with the Bosch 5.3 /5.4 ..etc it would only recall cars as far back as 2009.

The issue with getting a recall is another challenge, The NHTSA are understaffed and lack proper qualified engineers and have severe cost shortages and in many countries are non-existent. A recall is based mainly on a safety aspect, it is also generated by frequency of complaints and other variables. The approach to a recall would be very different to an approach by a Forensic Investigator. A forensic investigator would know not to rely on recalls but to use them in assistance with bulletins and common cause complaints to properly understand why a specific part failed or could have failed.

There have been campaigns in the UK and USA for many years to have the Bosch 5.3/5.7 ABS module recalled. The Vehicle and operators service agency/ The driver and vehicles standards agency strongly considered the Volkswagen ABS module defect some years ago but felt that as the cause 'an intermittent dash board bulb' that in effect the driver was aware of the issue and could in fact pull over and have the car towed and repaired. This was not a proper diagnosis at that time and my understanding was that Volkswagen did come to an agreement back then to service the defective modules free of charge under certain conditions and we now know the defect was more complicated.

As we can see from the bulletins above and the previous Jetta recall that this problem has been on going now for many years.

The actual cause of the defect was discovered and consequently a private industry has sprung up and developed around the problem offering Bosch ABS Module rebuilds and ABS module repairs on certain modules with the 00 273 serial part number.

The actual cause of the defect was the heavy solenoid coils were attached to the electric circuit board by bond wires that were ultrasonically joined to the substrate inside the module. This method of solder and the design meant the bond wires were weak, and the position of the ABS module in the engine exposed the module to severe vibrations and heat which over time contributed to the decay and breaking down of the solder. The result was intermittent loss of ABS as the connections were interrupted.

The bulletins listed above and UK and Volkswagen private agreements and it's associated recalls

are factual evidence of this defect and the ongoing problem in this feature of the volkswagen can only highlight how common the problem is which has effected hundreds of thousands of volkswagens in US and UK and coupled with the brake light defect we get a number in the millions of volkswagen motorists.

We can expect that the Garda PSV inspector Adrian Tucker and the Forensic Collision Investigator Cliff Harding were aware of the common failure of ABS brakes in many models of car, (Volvo, BMW and Mazda and AUDI and GOLF and in particular all Volkswagen models particularly the 2001 passat) and were aware that the cold weather in the dark and age of the car suggested that the ABS brakes were defective.

They would have known or could have known the ABS brakes on the 2001 volkswagen passat are highly problematic.

Had the solicitor Tom Honan consulted with a chartered engineer or hired an expert witness to examine the cause of the accident, then all of these issues would have been brought to light. A combination of concealment by the Gardai of the potential cause of the skid mark and the ineffective counsel of the solicitor created a trial that was not in due course of the law.

This can be seen by the judge directing the jury that the Passenger pulled the emergency handbrake.

The handbrake was disengaged when the car was examined, thus we only have the forensic evidence of the skid mark to go by. From this; for the judge to direct the jury that the passenger pulled the emergency handbrakes meant a serious miscarriage of justice occurred during the trial and this was due to inadequate counsel and the failure by the Solicitor to seek an expert witness to challenge the states evidence.

### **The Handbrake**

SPR (Small particle reagent) was developed in 1977 by Morris and Wells from the Atomic Weapons research.

In 1988 Two Forensic scientists from the Chicago forensic science laboratory conducted a study developing Latent Prints on Water-Soaked Firearms to conclude that firearms found in waterways both salt and fresh can yield fingerprints even after 35 days in submersion.

The FBI have also conducted tests and have extended that time to 70 days.

All police are trained to preserve evidence found in water, and police labs around the world use wet printing and other techniques to take fingerprints from object exposed to water.

As to the handbrake; It still stands that we can use a the most modern technique to retrieve latent fingerprints using columnar thin film (CTF) technology which uses vapourised glass

instead of cyanoacrylate fuming. This results in significantly superior detail and topography.

A lack of fingerprint presence from the passenger and the presence of a handprint from the driver (Marta) would prove almost conclusively that she is innocent.

Had the solicitor Tom Honan raised this issue during trial it would have strengthened the defence. The solicitor is poorly trained in Criminal expertise and therefore neglected to seek consultation from an expert and raise the point at trial.

### **Concealment by Gardai**

Evidence of concealment by the gardai is found in the actions by the forensic collision investigator Cliff Harding.

ABS skid/scuff expire after 24 hours as they are caused by bitumen from heat reaction and dissipate after 24 hours whereas locked wheels cause the tyre rubber to heat leaving a much more permanent mark which can be detected after a significantly longer period of time.

Garda Cliff Harding stated in court that he failed to detect ABS skid marks and used his Forensic skills and forensic tools and instrumentation to try detect ABS scuff/skid marks and detected no evidence of any at the scene of the accident.

However this is extremely misleading. Cliff Harding is required by policy and law to be the first responder and to take responsibility for the preservation of the accident scene.

This is clearly stated in the RTA Garda Handbook which is based on international standards. The fact that Cliff Harding did not appear as a first responder is contrary to both policy and practice of An Gardas síochána and the national police handbook. Therefore Cliff Harding should have revealed this technical fact to the court and treated this omission as exculpatory evidence for the defence.

The deliberate and or malicious concealment of exculpatory evidence is now a felony in California. It is irreprehensible in our jurisdiction and is unacceptable of any police officer to conceal such a pertinent fact to both court and defence in any commonwealth jurisdiction and contrary to the ECHR which Ireland is a signatory.

### **Why is this significant and why is it exculpatory evidence.**

A defective proportional valve would leave rear locked wheel and front abs scuff skid marks and would be instantly recognisable, but would not be recognisable after 24 hours, That is the science of abs skid marks they fade after 24 hours which to a first responder would be significant and explanatory but to Cliff Harding arriving after 30 hours to conduct his examination would be impossible to see.

A low battery in conjunction with the sudden application of brakes in an emergency stop is sufficient to cause the ABS to shut down mid application due to the sudden surge and then loss

of battery power.

This common defect would reveal itself to a first responding Forensic collision investigator who would be able to determine the presence of ABS brakes and the the loss of ABS brakes resulting in wheel lock. Cliff Harding arriving after 30 hours to conduct his examination would not see this and it would be impossible to see as the ABS would have dissipated.

A common defect with Volkswagen ABS is both solenoid and short circuit which can cause a staggering of brakes and or an uneven distribution of braking force in the rear and front wheel causing rear wheels to lock. These are common problems and you can find references to them in a simple Haynes manual on the Volkswagen and in the Volkswagen Passat factory repair manual.

The uneven distribution of braking power would also leave clear evidence of ABS and locked wheels which to a first responder would be significant and explanatory but to Cliff Harding arriving after 30 hours to conduct his examination it would be impossible to see this.

The concealment doesn't end there, confronted with the now useless evidence of a rubber skid mark the Gardai decide not to properly investigate if the car does have any of the above defects or issues. The Gardai would be very aware a 2001 Volkswagen Passat would have many brake and circuitry issues which is common to the model and the age of the car would almost make it impossible for their not to be some problem that would explain away the rubber skid mark.

No effort was made to rectify the negligence of the first responder arriving after 30 hours and in fact the main effort seemed to be to not examine the Volkswagen Passat to determine if the first responder would have found exculpatory evidence of ABS braking had the first responder arrived and examined the crash scene within the first 24 hours.

Instead a kind of witch hunt is instigated almost a year later focusing on whimsical circumstantial evidence that exploited the poor language barrier between Marta and the police.

### **Interpreter and vague answers to critical questions**

The solicitor Tom Honan could have and should have consulted with a forensic linguist to properly assess the statements taken by Gardai from Marta as the statements are highly controversial in their meaning due to the language barrier. He simply could have posted the material to an expert and sought an opinion.

The instructions received by Tom Honan must be given through an interpreter and if this was not the case then it would explain the many gaps and holes in the defence case and critical aspects were not properly explained during trial.

One example might be why Marta was driving in harbour at 6.20 on a cold and dark winter

morning. Did she have friends that lived in that area? Where were they going and for what purpose. Many questions were left unanswered as the Solicitor was negligent in every respect and failed to have proper discourse with his client in the presence of an interpreter and it was the solicitors inability to communicate through the interpreter to seek and find answers to these questions and prepare for trial.

I think it is obvious the reason for important missing gaps in the defence were due to the solicitor not properly seeking the relevant information from Marta through the interpreter. I have no doubt Marta tried to explain everything to the solicitor and that she felt in her mind that she properly explained all aspects of her situation but as the interpreter was not always present then there most likely is missing and overlapping parts of Marta's story and instructions that the solicitor should have realised were missing and sought to learn of and have clarified these missing facts through the interpreter.

A typical two pronged point with this case, is the open window of the car. The solicitor provides no explanation, and seeks no explanation and does not challenge the states contention that it is not possible to open a window once is in the water.

#### Prong 1

The solicitor failed to get an chartered engineer who would have presented strong established and factual data that shows you can operate a power window while the car is in the water, vehicles dont sink on impact they float for a period of time and the power window will work even under water until the pressure threshold point.

#### Prong 2

The solicitor never ascertains Marta's version of events, through her interpreter. He doesnt clarify whether the window was down or up before the car entered the water. The solicitor may even believe that a power window wont operate while the car is in the water compounding the problem even further, he may not even want to know or seek answers as he may be misled by his own conviction that a power window is not likely to work when the car is submerged in water.

### **The Garda Underwater Emergency response unit**

As Cliff harding was not present as first responder to conduct and supervise the accident scene, we have a somewhat chaotic situation. However what we know for certain is that the Garda Divers are trained as are all police Emergency response Divers to detect and preserve evidence. As we discussed earlier that fingerprints can be taken from anything ranging from the bottom of a swimming to pool to 70 day old firearm discovered in a waterway by a police underwater responder.

The person best positioned to answer any controversy over the position of the handbrake were the divers who has first contact with the vehicle and then the removal team.

The solicitor did not call the personnel as witness nor seek to clarify this point.

The solicitor did not challenge to object to the Public Service vehicle Inspector answering the states loaded question as to if the handbrake could have been disengaged during removal as the Public service vehicle Inspectors only get involved after the forensic and technical team are finished.

### **RTC Garda handbook**

Finally please clarify the policy and procedure for yourslef in realtion to the failure of Garda Cliff Harding to be a first responder.

<http://www.garda.ie/Documents/User/Finding%20your%20Way%20-%20A%20%20guide%20for%20victims%20of%20RTC's.pdf>

### **Investigation Personnel**

Forensic Collision Investigators (FCI)

If there is a death or if there is likely to be one, the District Officer calls for the services of the Forensic Collision Investigation (FCI) Unit. (Members of this unit are City and Guilds and De Montfort University qualified investigators. See “Forensic Collision Investigation” An Garda Síochána Management Journal, April 2010).

They are attached to the Traffic Corps in Divisions throughout the country and their role is critical. The FCI unit assists the District Officer in:

- x Identifying the full extent of the scene(s)
- x Ensuring that the scene is secured and preserved to prevent, as far as possible, the loss of evidence.
- x Advising and updating him/her so that informed decisions can be made concerning road closures.
- x Recording and evaluating available evidence.



x Ensuring that the scene is photographed and recorded on video.

x Liaising with the District Officer and preparing appropriate reports.

Their role is to locate, record, gather, evaluate and interpret any relevant physical or forensic evidence that arises from a collision.

The evidence can be varied and includes “gouges” or other marks on the road surface, marks left by vehicle tyres, establishing a point or area of impact, the rest position of vehicles in relation to this point of impact, projectiles (including parts of, or entire vehicles, pedestrians or riders thrown from bicycles or motorcycles), and damage caused to vehicles. FCIs use digital photography and state of the art surveying equipment . Using this equipment they carry out an electronic survey of the entire scene.

### **About the Crash**

There were 2 barriers. 1 barrier was very small and was to protect a small insulation. The second barrier was the larger but very weak and improper.

The new evidence is that when the car hit the first barrier this disengaged the ABS module. Which is why there is only a 13 foot locked wheel skid from the edge of the pier.

This means the reason for the 'locked wheel skid mark' was due to the impact of the crash, which damaged the ABS module. The module is located on the right side passenger, above the wheel rim. So we can see in picture from the car after the accident that the ABS would have been damaged on impact.

The Garda Forensic collision officer was negligent as he arrived at the crash to examine after 30 hours. ABS scuff marks dissipate ( disappear) after 24 hours. The bitumen from the asphalt that is raised during an ABS skid quickly dissipates as there is less heat and friction.

However with no ABS the wheels lock and this causes heat and friction and you have a skid mark that is called a locked wheel skid mark. This skid marks will last maybe weeks or months.

The car when examined it was found the handbrake was in an off position. It had not been used!!!!

**he Garda Forensic collision Officer told many lies.**

**'He testified in court that he examined the crash scene and could find no evidence of signs of ABS braking.'** **'Therefore he said the locked wheel skid mark came from the handbrake used by the passenger.'**

The Judge believed him and directed the Jury that the handbrake was used in the accident. This was the only reason Marta was convicted.

The car when examined it was found the handbrake was in an off position. It had not been used!!!!

You can also wet print the handbrake to see what fingerprints are on the handbrake. There is no question Marta used her brakes, that is why there is a skid mark.

I suggest maybe you do a blog and then a Pod cast because it is a complicated story but there is overwhelming forensic evidence that Marta is innocent and was framed by the Garda.

She also suffered ineffective counsel and had no expert engineer to examine her case or speak for her which is why she was convicted.

The next Step for Marta ( awaiting the ECHR judgement which since jan 2019 can be mediated domestically in a short time) The next step is to make a final appeal under the criminal procedure act 1993, where you can appeal a case if there is new evidence or can demonstrate a miscarriage of justice.

Of course the more attention people can bring to the case the easier it is to appeal.

