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STATE OF WASHINGTON

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COURT OF APPEALS, DIVISION II  
OF THE STATE OF WASHINGTON

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KAREN MOORE AND THE ESTATE OF JOHNNY C. MOORE,  
Appellants,

v.

HARLEY-DAVIDSON MOTOR COMPANY GROUP, INC.  
AND  
DESTINATION MOTORCYCLES TACOMA, LLC,

Respondents.

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RESPONDENTS' BRIEF

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## INTRODUCTION

This is a product liability action brought by Karen Moore and the Estate of Johnny C. Moore (collectively “appellants”) arising out of injuries to Karen Moore and the death of Johnny C. Moore in a single-vehicle accident near Astoria, Oregon on April 25, 2004. The accident occurred when Mr. Moore struck the guardrail on the shoulder of the opposing lane of Highway 30, near milepost 80 with his model year 2003 Harley-Davidson Ultra Classic Electra Glide motorcycle. Karen Moore was riding on the back of the motorcycle. Both Mr. and Mrs. Moore were thrown from the motorcycle as a result of the impact.

After an eight-day trial, on May 6, 2009 the jury found that respondents Harley-Davidson Motor Company Group, Inc. and Destination Motorcycles Tacoma LLC (collectively “Harley-Davidson”) did not provide Johnny Moore with a defective motorcycle and returned a verdict for the defendants. Appellants alleged that Johnny Moore’s Harley-Davidson motorcycle was defective in that it contained a 40-amp. main circuit breaker that tripped and caused the motorcycle engine to shut down (referred to herein as a “quit-while-running event”) and in turn caused the Moores’ motorcycle accident and Mr. Moore’s death. Appellants based their claim on the fact that the Moore motorcycle was part of a population of motorcycles subject to a recall because a small

percentage of them had a condition whereby the 40-amp. main circuit breaker could trip for reasons other than for which it was designed, causing a loss of electrical power.

The great weight of the evidence supported the jury's finding. Appellants presented no evidence that the circuit breaker tripped on the day of the accident or that the Moore's motorcycle was one of the few within the recall population that exhibited the condition that led to the recall. Harley-Davidson presented evidence that less than ½ of 1% of the recall population ever exhibited the condition whereby the circuit breaker could trip for reasons other than for which it was designed. Harley-Davidson's testing of the subject motorcycle confirmed that the Moores' circuit breaker could not have tripped on the day of their accident. Appellants performed no testing of the subject motorcycle.

The evidence showed that the far more likely cause of the Moores' accident was that Mr. Moore suffered a medical event causing him to become unresponsive and cease controlling his motorcycle. This was the conclusion of the Oregon State Police and Harley-Davidson's theory at trial. The autopsy report noted that Mr. Moore had severe coronary artery disease at the time of the accident. The Oregon State Medical Examiner testified that Mr. Moore's medical condition could have caused him to become unresponsive. Moreover, a medical event is consistent with the

accident facts, which included the Moore motorcycle drifting left across two lanes of traffic, including one oncoming lane, and making no evasive maneuver or attempt to avoid crashing into the guardrail on the opposite side of the road or even simply to pull to the side of the road and stop, despite ample opportunity to do so.

Additionally, the trial court correctly precluded Appellants from introducing expert opinion testimony under *United States v. Frye* regarding the ability to examine the contact points of the subject circuit breaker to determine how many times the breaker tripped. Appellants' experts admitted during depositions that the technique they employed was not generally accepted and was, in fact, novel. Eventually, in response to Harley-Davidson's motion to strike the opinion evidence, appellants offered a treatise on blood spatter evidence that they argued was similar to the technique their experts sought to employ. However, aside from the obvious differences between blood at a crime scene and molten metal created by an electrical arc, a reading of the blood spatter treatise revealed that the techniques and conclusions it discussed were at odds with appellants' expert's theory and methodology. In addition, Harley-Davidson's expert conclusively demonstrated that appellants' expert's proposed theory and methodology were unreliable.

Finally, the trial court correctly allowed Harley-Davidson's expert, Larry Hejlik to testify regarding temperature testing of the subject circuit breaker at GT Engineering in Redmond, Washington. Contrary to appellants' argument, Mr. Hejlik drew his conclusion that the circuit breaker did not trip on the day of the accident not just from this temperature testing, but also from instrumented ride-testing of the subject motorcycle that informed the temperature testing. Also, contrary to appellants' argument, the temperature testing was based on generally accepted testing practices set forth in a Society of Automotive Engineers standard on circuit breakers.

#### **COUNTERSTATEMENT OF THE CASE**

Appellants' statement of the case is incomplete and incorrect. Appellants' statement of the case neglects to include any facts introduced at trial regarding the accident or the autopsy of Mr. Moore. Appellants also mischaracterize the condition that led Harley-Davidson to initiate the subject recall, as well as Harley-Davidson's testing and expert testimony.

**A. The Moores' Accident.**

On the day of the accident in April 2004, the Moores were traveling with their friends Linda and Louis "Sonny" Ristick. The two couples left the Portland, Oregon area between 12:00 and 1:00 p.m. RP 266. They stopped twice, once for gas and once for lunch, before

stopping at a fishing spot called Gnat Creek. RP 268-69. At Gnat Creek, the couples pulled their motorcycles onto a gravel road, and parked. RP 269. Mr. and Mrs. Ristick and Mrs. Moore walked down a dirt trail to look at the river. Mr. Moore stayed with the motorcycles and removed his leather riding gear as he had complained of the heat. The foursome remained at Gnat Creek for only 15 to 20 minutes. RP 270. The Moores' accident occurred about three (3) miles after they left Gnat Creek.

According to eyewitness testimony, as the Moore motorcycle was traveling westbound on Highway 30, it drifted to the left across two lanes of traffic, one of which was an oncoming lane. Mrs. Moore tapped her husband's shoulder when he started to drift across the road. Mr. Moore did not respond. RP 336; RP 285. Mrs. Ristick noticed the Moore motorcycle drifting across the roadway and yelled to Mrs. Moore asking her what the Moores were doing. Mrs. Ristick testified as follows:

And then all of a sudden I noticed that they were, like, actually, like, just veering to the other lane, which there's two lanes going our direction toward Astoria. They were veering toward the other lane and kind of like slowing down. We were like, you know – I'm going, "Sunny, what are they doing?" Because it was quite obvious to me that they were doing something that was out of the ordinary. So they kept just like a – you know, just like a controlled, deliberate drift or glide over across the other lane of traffic, but at that point there were no cars coming, and I actually at one point I was – Karen and I caught eye contact. I don't know if she could hear me, but I was like, "Karen, what are you doing? What are you guys doing?" I did notice that

she did, you know, pat Johnny on the shoulders, but I didn't feel that the – that anything was really out of control, other than I didn't understand why they were going that way.

RP 172-73.

The eyewitnesses testified consistently that they never saw Mr. Moore make any evasive movement prior to striking the guardrail. RP 284. Mr. Moore never turned his head to the left or right or moved his head up or down. RP 135; 164; 286. Mr. Moore never attempted to change the angle of the motorcycle to avoid the guardrail or apply the brake to stop the motorcycle. RP 286. Instead, Mr. Moore's head remained tilted downward until the motorcycle collided with the guardrail, in contrast to how Mr. Moore would have normally held his head while riding. RP 285-86. Mr. Ristick, the witness with the longest and best view of the Moore accident, testified that he did not see Mr. Moore make any movement that Mr. Ristick thought was intentional. RP 285-86.

**B. The Harley-Davidson Recall and the Circuit Breaker.**

Appellants' claim that the Moore motorcycle was defective was based on the fact that the Moore motorcycle was subject to a recall. In April of 2004, shortly after the accident, Mrs. Moore received a recall letter from Harley-Davidson. The recall concerned the 40-amp. circuit breaker originally included in the Moores' 2003 Ultra Classic. The recall provided that the Moores' motorcycle was within a population of

motorcycles, a minute percentage of which had a condition whereby the 40-amp. main circuit breaker could open due to reasons other than for which it was designed, causing an unexpected interruption of all electrical power to the motorcycle.

Thomas McGowan of Harley-Davidson, who became the technical lead of the Recall Investigation Committee in 2003, testified regarding the recall and the circuit breaker. RP 645. Mr. McGowan testified that Harley-Davidson began using the 40-amp. circuit breaker in 1999. The circuit breaker is designed to protect the engine from fire in the event of an electrical short. The breaker contains a bi-metallic strip that connects two terminals, maintaining current. Because the two different kinds of metal in the strip react to heat differently, the strip changes shape when it reaches a given temperature. The change in shape causes the strip to move, thus opening or tripping the electric circuit. "If too much current flows through it, it generates excessive heat and senses that heat and opens." RP 658-59. Because the circuit breaker is a thermal device, it can also be affected by other sources of heat, such as ambient heat or heat from the engine combined with heat from the electrical current. RP 659.

Mr. McGowan explained that the fact that Harley-Davidson declared the recall did not mean that all of the motorcycles in the recall population exhibited the condition that led to the recall. RP 677. Out of

the 88,000 motorcycles recalled, less than ½ of 1% of those motorcycles ever exhibited the condition that led to the recall. RP 660-61.

Harley-Davidson declared the recall out of concern that a quit-while-running event could present a dangerous situation such as a circuit breaker tripping at night because if the circuit breaker trips, the lights turn off. RP 659. Harley-Davidson was also concerned that a quit-while-running could present a danger in traffic, such as on an expressway when following traffic could overtake a slowing vehicle. RP 659. However, a loss of power does not affect the ability to steer or brake the motorcycle. RP 844.

Contrary to portions of appellants' brief, the circuit breakers were not defective.<sup>1</sup> Instead, Harley-Davidson declared the recall because circuit breakers were tripping due to conditions that led to high temperatures at the circuit breaker. Mr. McGowan testified that in investigating quit-while-running reports, Harley-Davidson found that some motorcycles had loose electrical connections that led to resistive heating and ultimately caused the circuit breakers to trip. RP 674-75. Mr. McGowan testified as follows:

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<sup>1</sup> Appellants mistakenly argue in portions of their brief that the circuit breakers themselves were defective. (*See, e.g.*, App. Brief at p. 8.) In other portions, appellants seemingly understand that the issue concerning the recall and this case was never whether the circuit breakers themselves were defective. (*See, e.g.*, App. Brief at p. 17.)

- Q. What have you determined was causing the circuit breaker related quit-while-running events that culminated in the 113 recall?
- A. The bikes that seemed to be opening when they shouldn't, typically turned out to be a combination of engine heat and a number were found to have, in fact, loose nuts on the terminals, and we have also found some wiring issues, that is, we had – the way the wires connect to the terminals on the circuit breaker is the wires have a ring terminal crimped on the end, which is an open loop that fits over the stud on the circuit breaker and then is cramped down by the nut. We found some wires that had bad crimps and therefore generated additional resistive heating. So it's typically been a number of issues with some particular bikes that have caused unusual resistive heating at the terminals.

RP 674-75.

C. **Testimony of Dr. Karen Gunson Regarding Mr. Moore's Autopsy Results.**

Harley-Davidson's theory at trial was that the accident did not occur as a result of any problem with the motorcycle, but that Mr. Moore became unresponsive and stopped controlling his motorcycle. At trial, appellants introduced the videotaped preservation testimony of the Oregon State Medical Examiner, Dr. Karen Gunson, who conducted Mr. Moore's autopsy. Dr. Gunson testified that the Moore family requested an autopsy because there was a question as to whether Mr. Moore lost consciousness prior to drifting across the roadway and striking the guardrail. Dr. Gunson testified as follows:

Q. Why did you perform the autopsy on Johnny Moore?

A. Johnny Moore died in Clatsop County, which is a coastal county here in Oregon, and his death was reported to me by Dr. Opie, who is the County Medical Examiner. The day after Johnny Moore sustained serious injuries in this motorcycle crash, his family requested that an autopsy be done through a social worker at Emanuel hospital, which is a trauma hospital here in Portland to which his wife had been taken. And she had learned that the family was requesting an autopsy, as they were concerned – and I’m reading this from the report – they were concerned the decedent had lost consciousness prior to the accident.

Dr. Gunson Preservation Deposition at p. 7, Appendix Exh. A.<sup>2</sup>

Dr. Gunson found that Mr. Moore died from the impact from the accident and that he was alive at the time of the accident. However, Dr. Gunson could not conclude whether or not Mr. Moore experienced a medical event that caused him to stop controlling the motorcycle prior to the accident. Gunson Preservation Dep. at p. 26, Appendix Exh. A.

The reason Dr. Gunson could not rule out whether some medical event caused Mr. Moore to cease controlling his motorcycle is that her autopsy revealed severe coronary artery disease. Regarding her finding of severe coronary artery disease, Dr. Gunson testified as follows:

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<sup>2</sup> Dr. Gunson’ deposition, as well as other parts of the record, have been designated by defendant Harley-Davidson, but do not yet have a number assigned by the clerk. For this reason, the factual references for these statements are to an Appendix that is filed with this brief.

Q. What is the most common cause of death in the United States?

A. Atherosclerotic heart disease.

Q. What does that mean, atherosclerotic heart disease?

A. Atherosclerotic heart disease means that there's a build-up of fatty plaque in the coronary arteries of the heart. The coronary arteries are found on the surface of the heart, and they supply blood and oxygen and nutrients to the heart muscle itself. So if there is a build-up of this plaque material in the heart, that causes obstruction of the blood flow. And obstruction of the blood flow decreases the amount of oxygen to the heart.

Q. Did Johnny Moore have that condition?

A. He did.

Q. And did you find that in your autopsy?

A. I did.

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A. You can call it coronary artery disease or you can call it ASHD, which is what we call it.

Q. His heart disease, would that be called severe coronary heart disease?

A. Could be as well. That's another term for that.

Q. Did Johnny Moore have severe coronary heart disease?

A. Yes.

Gunson Preservation Dep. at pp. 29-30, Appendix Exh. A.

Dr. Gunson testified that Mr. Moore's coronary heart disease put him at risk for various heart related medical conditions.

Q. In your opinion, based on reasonable medical probability, did Johnny Moore's heart disease subject him to risk?

A. Yes.

Q. What kind of risks?

A. There was the risk of having angina or heart pain. There's a risk of the myocardial infarct; that is, lack of blood flow to the heart muscle, which causes the heart muscle to die. And there was a risk of sudden cardiac arrhythmia as well.

Gunson Preservation Dep. at pp. 31-32, Appendix Exh. A.

Dr. Gunson testified that one of the risks faced by Mr. Moore because of his coronary artery disease was cardiac arrhythmia, which is consistent with a lack of responsiveness. This possibility led the Clatsop County Medical Examiner to include atherosclerotic heart disease as a "contributing condition" in the autopsy. Dr. Gunson testified as follows:

Q. And if there were observations of lack of responsiveness, what would be the medical explanation consistent with your autopsy; a medical explanation?

A. One explanation is that he has suffered some type of arrhythmia. And I rule out ventricular fibrillation for reasons that we have discussed. But there can be other arrhythmias that might cause him to be unresponsive. One of them being tachycardia, or a fast heart rate. One of them perhaps being bradycardia, or slow heart rate, where the blood is

not being pumped sufficiently to his brain to maintain consciousness.

And then there's a myriad of other things not related to the heart, such as some type of metabolic event, some type of heat-related event, because he had complained of that. It could even be something like a stroke-like event that I'm not seeing because he died so suddenly from it.

I think that is sort of remote, but it's a possibility.

So there are even times when we do autopsies on people and we see absolutely no reason for them to die, and yet they have dropped dead suddenly and unexpectedly right in front of someone, and we find no physical cause of death. So ours is not a perfect science.

- Q. In the death certificate did Dr. Opie put down any other item of significance beyond the injuries that you found?
- A. Yes. He put atherosclerotic heart disease in part 2, or other contributing conditions.

Gunson Preservation Dep. at pp. 33-34, Appendix Exh. A.

**D. Testimony of Harley-Davidson's Expert Larry Hejlik Regarding the Testing of the Motorcycle and Circuit Breaker.**

Representatives from Harley-Davidson traveled to Tacoma on October 10, 2007 and May 19, 2008 to inspect and perform ride-testing on the subject motorcycle. RP 745. The inspection revealed that there were no loose connections in the Moore motorcycle that could create resistive

heating. Regarding this finding, Harley-Davidson expert engineer

Mr. Hejlik testified as follows:

Q. With respect to resistive heating due to a loose connection, were you able to rule that out?

A. Yes, I was.

Q. In terms of the Moore motorcycle?

A. As far as the Moore motorcycle, absolutely. The nuts were tight. There was no resistive heating from the nuts.

Q. And with respect to the testing the resistance of the load wire –

A. Yes. I was able to measure the resistance in the load wire. It was within specifications. So I was able to eliminate that as a possibility of resistive heating, which had caused the circuit breaker to trip.

RP 749. From his inspection, Mr. Hejlik could definitively conclude that the only sources of heat acting on the circuit breaker at the time of the Moore accident were the heat of the day, the heat from the engine and the heat from the current crossing the circuit breaker. RP 750.

To determine how much heat the circuit breaker was exposed to on the day of the Moores' accident, Harley-Davidson performed instrumented ride-testing under conditions as close as possible to those existing on the day of the accident to record the temperature proximate to the circuit breaker and the current flowing across the circuit breaker. RP 760-61. The ride-testing was performed on a day with a similar temperature to the

day of the Moores' accident, 75-80° F. RP 769. The ride-testing followed a route designed to simulate the Moores' ride on the day of the accident. RP 769. And the ride-testing was conducted with a rider and passenger to approximate the load the motorcycle was carrying on the day of the accident. RP 768-69. During the ride-testing, the circuit breaker did not trip. RP 770.

The testing revealed that the amount of additional heating supplied by the motorcycle engine proximate to the circuit breaker is between 35° and 50°F. The testing further showed that the current flowing across the circuit breaker during operation averages slightly less than 25 amps. RP 769. Given this data and the known temperature of not more than 80°F on the day of the Moores' accident, Mr. Hejlik concluded that the circuit breaker in the Moore motorcycle was exposed to a temperature of not more than 130°F and current of 25 amps. RP 769.

With these values established and because the circuit breaker did not trip during ride-testing, Mr. Hejlik needed to determine what temperature would cause the circuit breaker to trip given known current values. To determine this, Mr. Hejlik took the circuit breaker from the Moore motorcycle to GT Engineering to conduct laboratory testing based on protocols set forth in a Society of Automotive Engineers Standard regarding circuit breakers. RP 752, 816. Based on those protocols, the

circuit breaker was placed in a temperature controlled chamber warmed to 80°F, approximating the ambient temperature both on the day of the Moores' accident and during ride testing, and provided a constant flow of 30 amps of current across the circuit-breaker, which represented a higher current level than that observed in the ride-testing. The temperature inside the chamber was raised incrementally until the breaker tripped. This process was repeated three times for the sake of reliability in the data. The results of the testing were that the subject circuit breaker opened at 210.8°F, 221.7°F and 222.0 F all while a constant 30 amps of current flowed through the circuit breaker. RP 771-78; Ex. 123.

Based on his inspections of the motorcycle and the testing he performed, Mr. Hejlik's opinion was that the circuit breaker did not trip on the day of the accident. RP 753-54; 777-78.

E. **Harley-Davidson's Expert Warner Riley's Testimony Regarding Accident Scene Evidence.**

Harley-Davidson's expert Warner Riley testified regarding motorcycle operation and his conclusion that the Moores did not experience a quit-while-running event due to the tripping of the main circuit breaker based on the evidence presented. As the basis for that opinion, Mr. Riley testified as follows:

Q. If we could, for the jury, the basis for your opinion, why do you say that?

- A. Well, you have the testimony of Mr. Ristick with regards to speed and distance. If you look at the arithmetic of reconstruction, what you can do with it, that doesn't suggest the bike was without power. You have the testimony of – is it Mrs. Walla – with regard to the lights staying on and the motorcycle not slowing. That is inconsistent. You can't – if you have a quit-while-running, the bike slows, and the lights go out. It's just like you flipped the main switch. That's what you have. The only difference is you're rolling along the highway. Everything is still turning. You have no throttle. Everything else works.

RP 856.

Mr. Riley explained that a quit-while-running event would have no effect on the operator's ability to control and stop the motorcycle.

Mr. Riley testified as follows:

- Q. Now, in the event of that hypothetical the main circuit breaker on that motorcycle were to trip while you were riding, what would happen?
- A. You would lose power and electrical.
- Q. Can you still steer?
- A. Yes. Steering is not – it's unlike a car. There's no electrical or power steering or anything like that. The motorcycle steers exactly the same with or without power.
- Q. Can you still brake?
- A. Yes. The brakes are independent. You have a front brake, a rear brake. You can steer. You can apply either or both brakes.

RP 844.

Mr. Riley considered the testimony of the eye witnesses regarding the speed of the Moore motorcycle and the time it took for the accident to occur and calculated that it was impossible for the bike to have quit-while-running. RP 842. Mr. Riley's opinion in that regard was based on the starting speed of the motorcycle and the amount it would decelerate if the motorcycle quit running. RP 842.

Mr. Riley also inspected the accident scene and determined that there was ample room for Mr. Moore to pull off on the right side of the road if he had a mechanical problem with his motorcycle. RP 853.

**F. Appellants' Expert's Testimony at Trial.**

**1. Gerald Schaefer's Testimony.**

Appellants' expert, Gerald Schaefer, testified regarding his opinion as to the cause of the accident. Mr. Schaefer opined that the accident was caused by a quit-while-running event. However, Mr. Schaefer could not say that the circuit breaker caused the quit-while-running event.

Mr. Schaefer testified as follows:

Q. You're not here to say a circuit breaker tripped on the day of the accident more probably than not and that's what distracted Mr. Moore, are you?

A. No, the quit while running. I don't know it's the circuit breaker. That's correct.

Q. I believe I heard you say that you can't tell this jury what might have caused the motorcycle to quit running. Isn't this true?

A. That's correct.

RP 565-66.

Following this testimony, the jury asked Mr. Schaefer whether he could opine that the circuit breaker tripped on the day of the accident.

Schaefer testified as follows:

THE COURT: Is it your opinion, based on a more probable than not basis, that the Moore circuit breaker failed on the day of the accident?

THE WITNESS: I can't make that to a more probable than not basis.

RP 576.

Mr. Schaefer went on to testify that a quit-while-running event does not necessarily mean the motorcycle is defective. In this regard,

Schaefer testified as follows:

Q. Mr. Schaefer, would you agree that the motorcycle that quits while running because it ran out of gas would not be defective, yes or no?

A. That's correct.

Q. Would you agree that a motorcycle that quit-while-running because it had been improperly maintained, for example, would not be defective, in the sense as it left the manufacturer?

A. It has a defect. It's not a manufacturer or design defect. It's a maintenance defect.

Q. Okay. So when you answered the question, if a motorcycle quits while running is that a defect, you don't need mean to say every time a motorcycle

quits, it had to be ineffectively designed or manufactured, do you?

A. Correct. It doesn't necessarily imply a defect. Sometimes it's an expected – if you're 250 miles into a tank that goes 250 miles, you expect it's going to start missing. It's a different kind of quit-while-running. Instead of – you start missing a little bit. That's the hint you're running out of fuel.

Q. Right. But it would be incorrect to say that any quit-while-running event means the motorcycle had a design or manufacturing defect; isn't that true?

A. Yes.

RP 540-41.

Mr. Schaefer further testified that Mr. Ristick's description of the accident is not consistent with a quit-while-running event:

Q. . . . Assuming Mr. Ristick's testimony is accurate for purposes of this question, that the motorcycle traveled for 1300 feet at no less than 40 miles per hour uphill with two passengers, that would be inconsistent with a quit while running event; isn't that true?

A. Yes.

RP 550. Mr. Schaefer testified that the testimony of another eye witness, Esther Walla, who was in the car following the two motorcycles, was also inconsistent with a quit-while-running event:

Q. If Ms. Walla's opinion, based on her recollection and her personal observations was accurate, that would be inconsistent with a quit while running event, wouldn't it?

- A. Yes. If her opinion was accurate, rather than her recollection, that's true.

RP 552.

Finally, Schaefer's opinion was that even if the Moore motorcycle quit while running, Mr. Moore should have been able to come to a safe stop rather than contacting the guardrail. Schaefer testified as follows:

- Q. Thank you. And you would agree that a normally skilled rider, if they were to choose to ride a motorcycle across the highway, that is a normally skilled rider should be able to stop the motorcycle on the shoulder adjacent to the guardrail where the accident happened without hitting the guardrail?

- A. Yes.

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- Q. And you believe, as a skilled rider, Mr. Moore should have been able to stop without crashing into the guardrail; isn't it that true?

- A. That's correct.

- Q. And you think it was error on his part to have struck the guardrail. Isn't that true?

- A. Yes, it is.

RP 564.

**2. Appellants' Expert Douglas Barovsky's Trial Testimony.**

Appellants offered Mr. Barovsky to testify regarding the inclusion of the 40-amp. circuit breaker in the motorcycle design as well as a

rebuttal witness regarding Harley-Davidson's testing. Mr. Barovsky was critical of Harley-Davidson's testing of the Moore circuit breaker at GT Laboratories because the test did not include vibration. But on cross-examination, Mr. Barovsky admitted that at the time he formed his final opinions in this case, he had concluded that vibration played no significant role in the temperature at which the circuit breaker could trip. RP 927-28. Mr. Barovsky also admitted that the GT Laboratory testing was similar to testing set forth in SAE J553. RP 913. Mr. Barovsky testified that the SAE standard was something that someone examining breakers would customarily rely on. RP 913-14.

Mr. Barovsky admitted that he proposed that appellants conduct the same ride-testing Harley-Davidson performed on the Moore motorcycle. RP 924. Ultimately, appellants conducted no testing of the subject motorcycle. Mr. Barovsky testified that he believed that appellants had not done sufficient testing to determine the cause of the accident. RP 929.

**G. Appellants' Experts' Proposed Opinions Excluded by Frye.**

Before trial, on March 20, 2009, the trial court granted Harley-Davidson's motion excluding appellants' expert Keith Cline from testifying regarding his novel theory and methodology for determining how many times the subject circuit breaker tripped. CP 567-68.

Appellants wanted to offer Cline to testify that in his opinion, the circuit breaker tripped five (5) times: once when it was manufactured and subject to quality control measures, three times during temperature testing at GT Laboratories and one other time. Piggybacking on this theory, appellants' other experts (Barovsky and Schaefer) would opine that the unaccounted for trip occurred on the day of the accident. The court excluded Cline's novel theory under *Frye* finding that it was not generally accepted science. CP 567-68.

**1. Keith Cline's Proposed Testimony.**

In his expert report and deposition testimony, Cline asserted that he could discern, through microscopic examination of one of the two circuit breaker contact points, whether and how many times a given breaker tripped. He proposed to testify that the Moores' circuit breaker analyzed under a scanning electronic microscope ("SEM") revealed evidence that it tripped five (5) times. CP 215. Because it is known that the breaker tripped once at the factory and three times in laboratory testing by Harley-Davidson, appellants sought to use Cline's testing to argue to the jury that the circuit breaker tripped on the day of the Moores' accident.

The conclusions set forth in Cline's report are as follows:

1. Optical microscopic and SEM examinations of exemplar circuit breakers tested at MDE determined that each individual actuation of the circuit breakers created

discernible changes in the appearance of the circuit breaker contact surfaces. *Basis: my education and experience, and direct examination of exemplar circuit breaker contact surfaces.*

2. Review of SEM results from August 13, 2008 and a subsequent examination of the subject circuit breaker performed on September 26, 2008 at MDE, determined that multiple actuations of the circuit breaker had occurred. A total of five (5) actuations were determined to have occurred. The number of actuations was determined by reviewing the SEM micrographs and finding topological features and spatter spray directions created during each arc event. Images showing an un-altered SEM micrograph and an annotated diagram showing the arc locations are attached to this report (Attachment 1.) *Basis: my education and experience, and direct examination of exemplar circuit breaker contact surfaces.*

CP 215.

Cline further clarified the bases for his opinion in his deposition.

Cline explained that markings on the circuit breaker contact points are pits and spatter marks that are created when the circuit breaker opens. CP 224-25. He testified that these markings occur because when the circuit breaker opens, the heat of the electrical arc between the two contact points creates an arc of molten metal that causes the pits and spatter marks. CP 224-25.

Cline explained that he based his assertion that he can determine how many times a breaker has tripped on his examination of two (2) new, unused circuit breakers. Cline disassembled the first circuit breaker and found a single pit and spatter marks caused by electrical arcing which

occurred when the circuit breaker was tested at the time it was manufactured. Cline caused the second breaker to trip in the laboratory and then disassembled it, finding a pit he attributed to the manufacturing test, and a second which he claimed is from arcing which occurred when he tripped the breaker. From this pair of observations, he asserted that he could reliably determine by examining the Moore breaker whether it ever tripped after it was tested at the factory. CP 224-25.

In his deposition, Cline admitted that this case is the first time he attempted to determine how many times a circuit breaker opened by interpreting pits and spatter marks on the contact points of the breaker:

Q. Okay. But the particular question I asked was whether you had ever attempted, by examining the surface of an electrical contact, to determine how many times a circuit breaker had cycled or tripped, and you said you had never done that before this case?

A. That's never been my specific task, no.

Q. And similarly with respect to the electrical contacts you have examined with respect to electric resistance heaters, counting how many times those may have cycled has never been your specific task either, has it?

A. No.

CP 223.

Cline also testified that he is not aware of any literature or standard suggesting that such an interpretation can be done:

- Q. No problem. Can you direct me to any SAE or ASTM or other standard or published treaties or texts that describes the use of either optical or scanning electron microscopy to determine how many times a circuit breaker has tripped by examining contact surfaces for evidence of arcing?
- A. I didn't look to see if there were any specifically owing to the fact that this is really basic physical sciences. So I cannot direct you to any of that.
- Q. You haven't come across any in your years as a material scientist, have you?
- A. Not that I recall. I have come across numerous articles that I have read regarding arc damage to the contact surfaces and circuit breaker type devices and attended a conference in Seattle in which the analysis of such devices was discussed and papers were presented.
- Q. Did any of those concern counting or attempting to count the number of times a device had been cycled based upon the appearance of arc damage?
- A. Not specifically. They talked about the actual physical appearance that – the damages that occurred during a make or break arc in such a device, but none of them were specifically directed towards counting.

CP 223.

Cline based his conclusions on the examination of only three breakers: an unused breaker, a breaker he tripped and the subject breaker. From this sample of only two controls, he determined that he could determine how many times the subject breaker tripped:

Q. (By Mr. Kircher) How did you determine that your methodology was reliable?

A. From – from the appearance of the arc.

Q. From the appearance of the arc pit?

A. When I looked at the unused, when I looked at the unused contact surfaces, they exhibited a single arc that was located in such a manner and with such a surface morphology that I thought that it would be possible to determine the number of times that a circuit breaker actuated.

Q. So your sample size for unused breakers was one?

A. Yes.

CP 226.

Ultimately, Cline's theory that by analyzing SEM images of contact points he could determine how many times a breaker tripped was based on nothing more than his feeling that he could do so. CP 226-27. Cline could not assign a rate of error to his methodology or assure in any way that it was accurate. CP 226-27.

Because Cline's testimony was not based on generally accepted scientific principles, Harley-Davidson brought a motion to exclude it. CP 283-304; CP 166-282. After a hearing, the trial court granted the motion. CP 567-68. In determining that Cline's theory and methodology did not meet the *Frye* standard, the trial court also precluded the portions

of Barovsky and Schaefer's testimony that were based on Cline's conclusion of five (5) trips. CP 568.

Barovsky proposed to testify that the circuit breaker tripped on the day of the accident based on Cline's report. CP 248. Barovsky relied on Cline's opinion, despite submitting three (3) prior sworn declarations in which he opined that Cline's methodology could not be performed. *E.g.*, February 21, 2008 Barovsky Declaration, Appendix Exh. B; CP 251. Barovsky declared that after the laboratory testing performed by Harley-Davidson it would be impossible to determine how many times the circuit breaker tripped. *Id.* In his deposition, Barovsky conceded that his opinion in this regard had changed and that his opinion in his sworn declarations was wrong. Barovsky testified as follows:

- Q. At the bottom of Page 3 there's a paragraph that reads in part – the second sentence reads: "All I can tell the court is that if the proposed Harley-Davidson circuit breaker testing occurs, there will be no way to ever determine from examination of the circuit breaker whether it was previously tripped or whether the tell-tale damage is attributable to the testing currently under consideration."
- A. That was my opinion at the time.
- Q. Is that still your opinion?
- A. No. I was actually fairly pleasantly surprised when we had an opportunity to open up the actual subject circuit breaker and found what we found.

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Q. All right. As of February 21<sup>st</sup>, 2008, in your professional opinion as an electrical engineer, your belief was that if the circuit breaker from the Moore motorcycle were subjected to laboratory testing, there would be no way to subsequently optically examine the contents and determine how many times it had been tripped, true?

A. That's true. That was my opinion at the time.

Q. And you are telling me today that you were wrong?

A. Yes.

CP 251.

Barovsky also confirmed that the theory and methodology employed by Cline is novel. Barovsky testified that he knows of no one else who has practiced Cline's methodology. CP 252.

**2. Harley-Davidson's Expert, Thomas Proft's Report Rebutting Cline's Novel Methodology.**

Harley-Davidson's metallurgical expert Thomas Proft attempted to recreate Cline's methodology and is apparently the only other person to do so. Mr. Proft analyzed dozens of unused circuit breakers both through a stereomicroscope and using a scanning electron microscope. Based on these examinations, Proft concluded that a majority of the circuit breakers exhibit multiple pits and other surface marks created when they are tested at the Honeywell factory where the circuit breakers are manufactured. CP 255-82. Thus, Proft concluded that "it is not possible to examine the contacts of any used or tested breaker and determine the number of times

it was “tripped” after it left the factory. . .” CP 256. Mr. Proft’s report directly contradicts Cline’s theory that somehow the marks left by the factory test are discernable from marks left by other tripping events.

### ARGUMENT

A. **The Jury’s Decision that Harley-Davidson did Not Supply a Defective Product Was Supported by Substantial Evidence.**

Appellants ask this Court to overturn the jury’s verdict that the Moore motorcycle was not defective. “Overturning a jury verdict is appropriate only when it is clearly unsupported by substantial evidence.” *Burnside v. Simpson Paper Company*, 123 Wn.2d 93, 107-8, 864 P.2d 937, 945 (1994). “Substantial evidence exists where there is sufficient evidence to persuade a rational, fair-minded person of the truth of the premise.” *Winbun v. Moore*, 143 Wn.2d 206, 213, 18 P.3d 576 (2001) (quoting *Canron, Inc. v. Fed. Ins. Co.*, 82 Wn. App. 480, 486, 918 P.2d 937 (1996)). “In reviewing the evidence, the appellate court does not reweigh the evidence, draw its own inferences, or substitute its judgment for the jury.” *Westmark Dev. Corp. v. City of Burien*, 140 Wn. App. 540, 557, 166 P.3d 813 (2007), *review denied*, 163 Wn.2d 1055 (2008).

Appellants incorrectly argue that the verdict was not supported by the evidence because appellants’ expert testified that the use of a resettable circuit-breaker was a defective design and because the Moore motorcycle was within the population of motorcycles subject to a recall. App. Brief at

p. 8. Appellants' argument ignores the evidence presented by Harley-Davidson. Contrary to appellants' argument, this Court considers not whether there was evidence that could have supported a different verdict, but whether the jury heard evidence that, if believed, supported its verdict.

Harley-Davidson offered evidence that supported a finding that the application of the 40-amp. circuit breaker did not render the Moore's motorcycle defective. Contrary to appellants' argument, the fact that the Moore motorcycle was within the recall population does not render it per se defective. The evidence showed that only .12% of all motorcycles manufactured by Harley-Davidson incorporating the 40 amp circuit breaker ever experienced a quit-while-running event. RP 661. Mr. McGowan testified that although Harley-Davidson recalled 88,000 motorcycles (a subset of all motorcycles with 40 amp breaker) because of reports of quit-while-running due to the circuit breaker, it received reports of quit-while-running events with less than ½ of one percent of that 88,000. RP 677. Even when it declared the recall, Harley-Davidson expected that more than 90% of the recalled motorcycles did not require repair. RP 677-78.

Appellants ignore this evidence and argue that this Court should overturn the jury's verdict because appellants' expert, Douglas Barovsky gave an opinion of defect. However, on cross-examination, Mr. Barovsky

admitted he knew nothing about the performance of the circuit-breaker in the field. Mr. Barovsky testified as follows:

Q. -- very briefly, you don't know how many touring model motorcycles Harley-Davidson manufactured utilizing a 40-amp main circuit breaker, do you?

A. No, I do not.

Q. And you don't know what the performance in the field of those motorcycles was with respect to the 40-amp main circuit breaker and how reliably it performed, do you?

A. No, I do not.

Q. So you don't know if it had an exemplary performance record, do you?

A. No, I do not.

RP 618.

Harley-Davidson's testing and inspection showed that the Moore motorcycle did not demonstrate the properties (*i.e.* excessive heat near the circuit breaker) that could subject it to a quit-while-running event. RP 750, 753-54. Appellants never actually tested the Moore motorcycle. RP 924. Moreover, the accident facts do not suggest a quit-while-running event, which would not cause any loss of control of the motorcycle, but only a decrease in speed. RP 842. Instead, Mr. Moore drifting left across two lanes and striking the guardrail without making any evasive maneuver

is more consistent with Mr. Moore becoming unresponsive and ceasing to control his motorcycle.

**B. The Trial Court Properly Excluded the Testimony of Keith Cline and All Other Testimony Based on Cline's Opinions.**

Cline proposed to testify regarding a novel theory that it is possible to determine how many times a given circuit breaker has tripped by examining scanning electron microscopic images depicting markings on the circuit breaker contact points. But because there is no scientific basis or literature to support Cline's theory or the methodology he employed, the trial court properly excluded his testimony, as well as any other testimony based his opinions, under *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923).

**1. Scientific Expert Testimony is Admissible Under *Frye* Only if the Expert's Scientific Theory and Methods are Generally Accepted.**

A witness qualified as an expert may testify on the basis of "scientific, technical, or other specialized knowledge" if the testimony "will assist the trier of fact to understand the evidence or to determine a fact in issue." ER 702. However, if the expert's testimony includes novel scientific evidence, the court must first determine whether the scientific principle or theory from which the testimony is derived has garnered general acceptance in the relevant scientific community under *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923). See *State v. Riker*, 123

Wn. 2d 351, 359, 869 P.2d 43 (1994); *State v. Copeland*, 130 Wn. 2d 351, 359, 922 P.2d 1304 (1996). “The *Frye* rule is concerned only with whether the expert’s underlying theories and methods are generally accepted.” *Ruff v. Dep’t of Labor and Industries of the State of Washington*, 107 Wn. App. 289, 300, 28 P.3d 1 (2001).

Under *Frye*, the court must determine “whether the evidence being offered is based on established scientific methodology, the analysis requires both an accepted theory and a valid technique to implement that theory.” *State v. Cauthron*, 120 Wn. 2d 879, 887, 846 P.2d 502 (1993), *overruled in part by State v. Buckner*, 133 Wn. 2d 63, 941 P.2d 667 (1997). Washington courts consider whether the proposed expert’s theory, technique or methodology in practicing the theory is generally accepted. *State v. Gregory*, 158 Wn. 2d 759, 829, 147 P.3d 1201 (2006) (“Both the scientific theory underlying the evidence and the technique or methodology used to implement it must be generally accepted in the scientific community for evidence to be admissible under *Frye*.”) (citations omitted). “The rationale of the *Frye* standard, which requires general acceptance in the relevant scientific community, is that expert testimony should be presented to the trier of fact only when the scientific community has accepted the reliability of the underlying principles.” *Copland*, 130 Wn.2d at 255 (citations omitted).

According to *Frye*, “evidence deriving from a scientific theory or principle is admissible only if that theory or principle has achieved general acceptance in the relevant scientific community.” *State v. Baity*, 140 Wn. 2d 1, 10, 991 P.2d 1151, 1157 (quoting *State v. Martin*, 101 Wn. 2d 713, 719, 684 P.2d 651 (1984)). Courts have explained that it is necessary to exclude testimony not based on generally accepted theories or principles because of the persuasiveness of expert evidence based on scientific principles or theories. “Among the dangers created by such scientific evidence is its potential to mislead lay jurors awed by an aura of mystic infallibility surrounding ‘scientific’ techniques, ‘experts’ and the ‘fancy devices’ employed.” *State v. Hasan*, 534 A.2d 877, 879, 205 Conn. 485, 490 (Conn. Sup. Ct. 1987) (internal quotations omitted) (quoting *United States v. Williams*, 583 F.2d 1194, 1199 (2d Cir. 1978), *cert. denied*, 439 U.S. 1117, 99 S. Ct. 1025, 59 L. Ed. 2d 77 (1979)). It is the burden of the party offering the expert evidence to demonstrate that the evidence is based on generally accepted theories and methodology. *See, e.g., State v. Phillips*, 123 Wn. App. 761, 765, 98 P.3d 838 (2004).

**2. Cline’s Theory and Methodology Are Not Generally Accepted.**

Cline’s theory is that each time a circuit breaker trips, as the contact points open, resistive heat creates an arc of molten metal that

leaves spatter marks and pits on the circuit breaker contacts. CP 224-25. Cline further theorized that each successive trip leaves spatter marks at distinctive angles. *Id.* Cline applied this novel theory to an also novel methodology whereby he would examine the spatter marks on the contact points and count the different angles of the spatter marks which he claimed related directly to the number of trips.

Because Cline is the first person to attempt his methodology and there is no support for his theory, they are inherently not accepted in the relevant scientific community and were properly excluded under *Frye*. Cline's theory and methodology are not only novel, they are unique. Cline testified that this was the first time he attempted to use this methodology or test his theory. CP 223. Cline admitted that there are no treatises, standards or any literature describing his theory or methodology, much less deeming either acceptable science. CP 223. In fact, Cline, and Barovsky both testified that as far as they know, Cline is the first person to come up with his theory or methodology. CP 226-27, 252. The only other expert to attempt Cline's methodology, Proft, found it unreliable. CP 256. This type of one-off theory designed and implemented with the sole intent of supporting appellants' case is precisely the kind of opinion *Frye* proscribes.

**3. Cline’s Theory and Methodology are Based on Scientific Principles, Albeit Faulty Ones.**

Appellants imply that *Frye* may not even apply to Cline’s opinions as his opinions are not “novel science.” (See App. Brief at 12 citing *State v. Nolite*, 57 Wn. App. 21, 27, 786 P.2d 332 (1990)). But to the extent appellants argue that *Frye* is not implicated because both scanning electron microscopy and counting are generally accepted, Washington courts have rejected this argument. See *Grant v. Boccia*, 133 Wn. App. 176, 180, 137 P.3d 20 (2006).

In *Grant*, the court upheld the exclusion of experts who proposed to opine that a plaintiff’s fibromyalgia was caused by a car accident. See *id.* The plaintiffs in *Grant* argued that applying *Frye* was error because “the experts’ opinions were derived from accepted clinical methodologies consisting of common and well-accepted evidence to support a conclusion on causation. . .” *Id.* at 179. The court rejected that argument finding that “[t]he simple assertion that their experts’ methodologies are common and well-accepted to prove causation does not take their opinions outside the ambit of *Frye*.” *Id.* at 180. The court found instead that the central question was whether the theory behind the expert opinion was generally accepted. See *id.* at 181.

A similar argument was also rejected in an out-of-state decision cited by appellants to the trial court, *Grady v. Frito-Lay, Inc.*, 839 A.2d 1038, 1047 (Penn. Sup. Ct. 2003). In *Grady*, the court held that although a proposed expert used generally accepted methodologies to calculate the downward force that it takes to break various types of Doritos, the plaintiffs failed to demonstrate that their expert's methodology was a generally accepted means to determine whether Doritos were too hard and sharp to be eaten safely. *See id.* The court upheld the exclusion of the witness, explaining its holding as follows:

While Dr. Beroes' calculations may in fact represent a standard method that scientists use to reach a conclusion about the downward force needed to break Doritos, they are not also *necessarily* a generally accepted method that scientists in the relevant field (or fields) use for reaching a conclusion as to whether Doritos remain too hard and too sharp as they are chewed and swallowed to be eaten safely.

*Id.* (emphasis in original.)

Likewise here, the fact that the use of scanning electron microscopy or counting is not novel does not mean that interpreting SEM images to determine how many times a circuit breaker has tripped is not novel. Cline's proposed testimony is derived from the scientific principles of physics and metallurgy. Verification of Cline's opinion depends on an understanding of the physical properties of metal and electricity and what actually happens to the surface of the circuit breaker contact when the

breaker trips. There is nothing to suggest that the relevant scientific community has accepted or even considered the principle underlying Cline's proposed testimony.

Ultimately, the specific issue is whether it is generally accepted that each time a circuit breaker trips, only one arcing event occurs that leaves distinct pitting and spatter marks. Appellants have failed to demonstrate that it is generally accepted that Cline's theory is correct and that his methodology is a reliable way to determine how many times a circuit breaker has tripped.

Appellants' interpretation of *Frye* leads to absurd results. If appellants are correct that as long as an expert uses accepted means of gathering data, his opinion is *de facto* admissible, all kinds of unreliable opinions would be admissible. For instance, the use of telescopes to chart the position of the stars is generally accepted. It follows that under appellants' argument, astrologers' opinions regarding unknown past and future events would be admissible.

Appellants concede that there is nothing to suggest that Cline's theory or methodology are generally accepted. App. Brief at 12-13. Accordingly, appellants have failed to meet their burden that Cline's opinion meets the *Frye* general acceptance standard and the trial court correctly excluded this testimony.

**4. The “Blood Spatter” Analogy Does Not Make Cline’s Opinions Admissible Under *Frye*.**

Appellants argue that the trial court failed to consider a treatise on blood spatter evidence that Cline cited in response to Harley-Davidson’s motion to strike Cline and Barovsky’s opinion. App. Brief at 12. However, the cited blood spatter treatise was not cited in Cline’s expert report, nor did Cline bring it to his deposition. Therefore, it was not properly part of his opinion to begin with. Cline himself has never held himself out as a blood spatter expert.

Not surprisingly, the blood spatter treatise says nothing about Cline’s underlying theory – that each time a circuit breaker trips it leaves singular witness marks attributable only to that one trip. The blood spatter treatise explains how to determine a point of origin from blood spatter evidence. Appellants cite nothing to suggest that these techniques transfer to determining how many times a circuit breaker has tripped. It is doubtful that they do. There are a myriad of differences between the conditions under which a circuit breaker tripping creates molten metal on a contact surface and the creation of blood spatter at crime scenes.

But assuming for the sake of argument that the blood spatter treatise could teach something about Cline’s methodology, it suggests it is incorrectly applied. The blood spatter treatise recognizes that even when

there is a single point of origin, blood spatter can emanate in multiple directions. CP 739, 757, 760. Yet when Cline analyzed the directions of spatter on the circuit breaker contact, he concluded that each different direction of spatter must depict a unique event, *i.e.*, a separate point of origin. CP 171, 186. Cline failed to consider, as any good blood spatter analyst would, whether the different directions of spatter came from the same point. Applying the technique set forth in the blood spatter treatise at page 15 to Cline's directional spatter analysis at least some of these spatter marks identified by Cline would seem to share a common point of origin. While Harley-Davidson does not mean to suggest that the blood spatter techniques appellants cite apply to the determination of how many times a circuit breaker trips, to the extent Cline relies on these techniques, he has incorrectly applied them.

C. **The Court Properly Excluded Barovsky's Testimony to the Extent He Relied on Cline.**

Because Barovsky's ultimate conclusion that the circuit breaker in the subject motorcycle tripped on the day of the accident is based on Cline's opinion, it was also properly excluded under the *Frye* standard.

In Barovsky's deposition, he confirmed that his testimony is based on Cline's. CP 248. Moreover, Barovsky is not a metallurgist or material scientist, so he is not qualified to offer an expert opinion as to an analysis

and interpretation of the surface properties of a circuit breaker contact point. CP 199, 200. Indeed, his prior Declarations in this case asserted that it would be impossible to reliably tell how many times the breaker had tripped after Harley-Davidson's laboratory testing of the circuit breaker was conducted – yet that was precisely what Barovsky now purported to do. CP 251.

The trial court properly excluded Barovsky from testifying about the “Cline” opinions. Appellants never argued that Barovsky was independently offering these opinions or that he had an underlying scientific theory or methodology that differed from Cline's.

**D. The Trial Court Properly Allowed the Testimony of Larry Hejlik.**

Appellants assert that Larry Hejlik, an engineer who testified that the circuit breaker on Moore motorcycle did not trip on the day of accident, should have been excluded because his testimony is irrelevant and violated *Frye*. Appellants are incorrect. The temperature testing is relevant to the issues in this case and based on generally accepted science.

**1. Harley-Davidson's Temperature Testing is Relevant Evidence.**

“Relevant Evidence” means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the

evidence.” ER 401. “The threshold to admit relevant evidence is very low.” “Even minimally relevant evidence is admissible.” *State v. Darden*, 145 Wash. 2d 612, 621, 41 P.3d 1189, 1194 (2002) (citations omitted.) Evidence tending to establish a party’s theory, or to qualify or disprove the testimony of an adversary, is relevant evidence. *See Hayes v. Wieber Enterprises, Inc.*, 105 Wn. App. 611, 617, 20 P.3d 496, 499 (2001).

Harley-Davidson’s temperature testing is relevant because it puts the data it obtained in ride-testing the Moore motorcycle into context. Together the ride-test and temperature test data show that it is unlikely that the Moores’ circuit breaker tripped on the day of the accident. Without the temperature testing, the jury would have been left to speculate as to the temperature at which the subject circuit breaker could trip, and thus would have had to merely guess as to whether the circuit breaker could have tripped on the day of the accident. Although appellants questioned whether Harley-Davidson’s testing considered all of the necessary variables, that does not affect the testing’s relevance to the central issue in this case, especially given that appellants have offered no testing or data to refute Harley-Davidson’s results.

The temperature testing showed that with a constant current of 30-amps, the subject circuit breaker did not trip until heated to a temperature of at least 210°F. RP 771-78; Ex. 123. The undisputed temperature on the

day of the accident was 80°F. Ride testing established a temperature differential between the outside temperature and temperature near the circuit breaker of 35°F to 50°F. RP 766-69. Thus, the temperature proximate to the circuit breaker on the day of the accident was between 115°F and 130°F. Combining the ride testing and temperature testing, there is at least an 80°F difference between the temperature the circuit breaker experienced on the day of the accident and the temperature at which the subject circuit breaker trips. Harley-Davidson's testing was thus relevant to show the jury that the circuit breaker did not trip on the day of the accident.

**2. Harley-Davidson's testing satisfies the *Frye* standard.**

Neither the methodology Harley-Davidson employed in performing its testing nor the theories underlying the testing are novel. Harley-Davidson followed generally accepted testing methodologies for determining the temperature and current levels at which the subject circuit breaker will trip. Mr. Hejlik's theory that circuit breakers trip when exposed to sufficient temperature and/or current is the subject of a Society of Automotive Engineers ("SAE") standard. RP 815-816.

The temperature testing at GT Engineering was based on testing procedures set forth in SAE, Surface Vehicle Standard J553. RP 815-16; April 15, 2009 Declaration of Larry Hejlik, Appendix Exh. C. That

standard “defines the test conditions, procedures and performance requirements for circuit breakers in ratings up to and including 50 A.” Hejlik Decl. at ¶ 6, Appendix Exh. C. Standard J553 recognizes that circuit breakers are “overcurrent protective devices, responsive to electric current and to temperature.” Hejlik Decl. at ¶ 7, Appendix Exh. C. The temperature testing generally followed a testing procedure entitled “No Current Trip and Reset Temperature Test Procedure.” However, rather than testing the circuit breaker without any current, Harley-Davidson applied a current level above the average current observed in ride-testing the motorcycle under conditions approximating those on the day of the Moores’ accident. Hejlik Decl. at ¶ 8, Appendix Exh. C.

Perhaps the clearest demonstration of the fact that Harley-Davidson’s temperature testing is generally accepted is the fact that the manufacturer of the circuit breaker uses similar, if not identical, testing to establish specifications for the circuit breaker. Harley-Davidson sought to introduce at trial a graph prepared by the manufacturer of the circuit breaker establishing specifications for the conditions under which a 40-amp. circuit breaker would trip. The x axis of the graph represented increasing amounts of current, the y axis represented increasing temperature. Plaintiffs objected to the authenticity of the graph and moved, in limine, to exclude it. In response to that motion, Harley-

Davidson noticed the deposition of Gregory Spangler, an employee of the entity that manufactured the 40 amp circuit breaker and the custodian of the graph. Plaintiffs' motion in limine was never decided and Harley-Davidson chose not to introduce the graph at trial. Nevertheless, in his deposition, Mr. Spangler described the procedure the manufacturer of the 40 amp circuit breaker used to create the graph. The procedure is similar, if not identical, to that used in Harley-Davidson's temperature testing. In his deposition, Mr. Spangler described the procedure as follows:

Q. And when they -- when the -- I'm going to make sort of an assumption here, but when -- as the data is collected, you're -- you're somehow tripping the breaker; is that correct?

A. That is correct.

Q. The procedure for tripping that -- for doing the trip of the breaker, do you know what that procedure is?

A. I'm somewhat familiar with that, yes. The breakers would be in a temperature chamber where you can control the temperature, and they would be subjected to a controlled amount -- a measured amount of current, and the breaker would be monitored with equipment to know when the breaker had tripped and then the temperature at which the breaker tripped would have been recorded.

Transcript of April 8, 2009 Deposition of Gregory J. Spangler at p. 31,  
Appendix Exh. D.

Although appellants' appellate brief does not cite to any evidence contesting the temperature testing in the trial court, appellants opposed

Harley-Davidson's testing based on a declaration submitted by their expert, Gerald Schaefer. CP 818-21. Schaefer is not an electrical engineer and has never worked in motorcycle design or manufacturing. Schaefer Dep. at p. 6-8, Appendix Exh. E. Schaefer opposed the temperature testing because Harley-Davidson did not introduce vibration into the temperature testing. Appellants make the same argument on appeal, but with no citation. App. Brief at p. 16. However, in investigating reports of circuit breakers tripping, Harley-Davidson considered this variable and performed testing that determined that vibration had no affect on the temperature at which the tested circuit breakers tripped. RP 776-777.

Appellants also argue, again without citation, that the testing is not representative of the conditions at the time of the Moores' accident because there were variations in both the current level and the temperature experienced by the subject motorcycle. App. Brief p. 16. However, the tested 30 amp current level is higher than the current ever recorded to cross the circuit breaker during testing of the subject motorcycle, except when the motorcycle was started, and that current level only barely exceeded 30 amps. April 15, 2009 Hejlik Decl. at ¶ 9, Appendix Exh. C.. It makes sense that the current draw would be highest when the motorcycle is started because electricity is causing the engine to turn. April 15, 2009 Hejlik Decl. at ¶ 10, Appendix Exh. C. That brief higher

level of current cannot cause a quit while running event because at that point the motorcycle is not yet running. April 15, 2009 Hejlik Decl. at ¶ 11, Appendix Exh. C. Likewise, the variation in temperature recorded when ride-testing the motorcycle is not significant because the temperature recorded near the circuit breaker never approaches the 200°F necessary to cause the circuit breaker to trip. April 15, 2009 Hejlik Decl. at ¶ 12, Appendix Exh. C.

Moreover, appellants' argument ignores that Harley-Davidson not only conducted laboratory testing of the subject circuit breaker, but also conducted ride-testing of the subject motorcycle on conditions similar to those of the accident. The ride-testing was performed on the subject motorcycle with the subject circuit breaker in place. The laboratory testing was necessary to put the data recorded during the ride-testing into context.

**E. Request for attorneys' fees and costs on appeal.**

Pursuant to RAP 18.1 and RCW 4.84.010, Harley-Davidson requests all recoverable fees and costs on appeal.

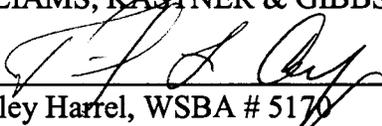
**CONCLUSION**

There is no dispute that the death of Johnny Moore and the injuries to Karen Moore were the result of a motorcycle accident on April 25, 2004. But this accident was not due to any defective part nor any

negligence on the part of Harley-Davidson. The jury's defense verdict is more than amply supported by the evidence in this case. Likewise, the trial court correctly determined that the Cline testimony and opinions based on Cline were not admissible under *Frye*, while Harley-Davidson's testing was both relevant and satisfied the *Frye* requirements. The jury's verdict and the decisions of the trial court should be affirmed.

DATED: 3/5/10

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CERTIFICATE OF SERVICE

I hereby certify under penalty of perjury that under the laws of the State of Washington that on the 5th day of March, 2010, I caused a true and correct copy of the foregoing document, "RESPONDENTS' BRIEF," to be delivered by electronic mail and Legal Messenger to the following counsel of record:

Counsel for Appellant(s):

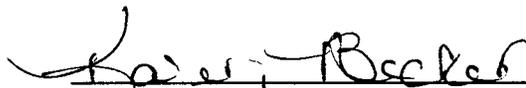
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STATE OF WASHINGTON  
BY \_\_\_\_\_  
DEPUTY

DATED this 5<sup>th</sup> day of March, 2010, at Tacoma,

Washington.

  
\_\_\_\_\_  
Karen Becker, Legal Assistant to  
TIMOTHY L. ASHCRAFT