NO. 28328

IN THE INTERMEDIATE COURT OF APPEALS OF THE STATE OF HAWAI`I

DASON UDAC and ALFREDO UDAC, Plaintiffs-Appellees/ Cross-Appellants, vs. TAKATA CORPORATION, Defendant-Appellant/ Cross-Appellee, HAWAII MOTORS, INC.; JOHN DOES 1-10; JANE DOES 1-10; DOE CORPORATIONS 1-10; DOE PARTNERSHIPS 1-10; DOE ENTITIES 1-10; ROE "NON-PROFIT" CORPORATIONS; and DOE GOVERNMENTAL AGENCIES 1-10, Defendants.	CIVIL NO. 02-1-0260 DEFENDANT TAKATA CORPORATION'S APPEAL FROM 1) JUDGMENT *FILED ON APRIL 19, 2006*; 2) FIRST AMENDED JUDGMENT *FILED ON MAY 31, 2006*; 3) ORDER DENYING DEFENDANT TAKATA CORPORATION'S RENEWED MOTION FOR JUDGMENT AS A MATTER OF LAW AND/OR FOR NEW TRIAL AND/OR FOR REMITTITUR, FILED APRIL 28, 2006, *FILED ON JUNE 8, 2006*; 4) COURT'S FINDINGS ON DEFENDANT TAKATA CORPORATION'S CLAIM THAT THE JURY VERDICT ON PUNITIVE DAMAGES IS UNCONSTITUTIONALLY EXCESSIVE, *FILED ON JULY 20, 2006*; AND 5) SECOND AMENDED JUDGMENT *FILED ON NOVEMBER 28, 2006* PLAINTIFFS DASON UDAC and GWENDOLYN N. UDAC, Trustee for the Alfredo Udac Revocable Living Trust's CROSS-APPEAL FROM 1) ORDER GRANTING IN PART AND DENYING IN PART PLAINTIFFS' MOTION FOR AWARD OF COSTS AND PREJUDGMENT INTEREST AND FOR FORM OF JUDGMENT FILED ON JANUARY 27, 2006, *FILED ON APRIL 19, 2006*; AND 2) SECOND AMENDED JUDGMENT *FILED ON NOVEMBER 28, 2006* THIRD CIRCUIT COURT (HILO) HONORABLE RIKI MAY AMANO HONORABLE TERENCE T. YOSHIOKA HONORABLE GLENN S. HARA HONORABLE GREG K. NAKAMURA Judges

REVISED OPENING BRIEF OF DEFENDANT-APPELLANT/ CROSS-APPELLEE TAKATA CORPORATION

APPENDICES "A" THROUGH "S"

CERTIFICATE OF SERVICE

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MISCELLANEOUS

STATEMENT OF THE CASE

On October 8, 2000, at approximately 12:30 a.m., Dason Udac and Ikaika Viernes left a gas station in Hilo, heading south on Highway 11 (Hawai`i Belt Road). Transcript of Proceedings ("TP"), 12/1/05 p.m. at 16, 20; 12/7/05 p.m. at 33–34. Udac was driving his mother's 1987 Nissan Pathfinder, which had approximately 146,000 miles on the odometer. TP, 12/20/05 p.m. at 72. Viernes had consumed a large amount of alcohol that evening and soon fell asleep. TP, 12/1/05 p.m. at 21, 29–31. Although there is no evidence that he had been drinking, Udac fell asleep as well. At about 4:00 a.m., police responded to a report of a one-car accident in Ka`u, around mile-marker 57. TP, 11/21/05 p.m. at 60, 86, 95. Neither Udac nor Viernes has any memory of the crash. TP, 12/7/05 p.m. at 34–35.

The accounts given by the accident-reconstruction experts at trial differed as to some of the details, but there was general agreement that Udac's vehicle veered off of the road at high speed and struck a lava outcropping on the right front corner. TP, 11/22/05 a.m. at 42–44; 12/12/05 a.m. at 64–65. This caused the vehicle to rotate clockwise a quarter turn and then roll over for approximately 185 feet, landing on the passenger side. *See* Exh. 5710. Both Udac and Viernes were thrown from the vehicle and Udac was rendered paraplegic. TP, 12/1/05 p.m. at 33–34; 12/7/05 p.m at 36–37.

Almost two years later, Udac and his father filed this lawsuit against Takata Corporation ("Takata"), the company that designed the seatbelts for the 1987 Pathfinder. Udac alleged that he had fastened his seatbelt before leaving Hilo, but that it became unlatched during the accident due to a design defect in the buckle. Udac raised claims based in strict liability and negligence and sought punitive damages. His father sought damages for negligent infliction of emotional distress ("NIED") and loss of consortium.

1. The TK-821 Buckle

The driver-side seatbelt in Udac's 1987 Nissan Pathfinder was a Takata TK-821-G418, which includes a TK-821 buckle ("TK-821"). Kitamura Dep., V.I at 32, 35.[1] The TK-821-G418

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[1] Mr. Kitamura, one of the Takata engineers responsible for the TK-821 design, testified at trial through designated deposition excerpts that were read to the jury but not transcribed. Plaintiffs marked the original three volumes of Mr. Kitamura's deposition with highlighted line numbers, highlighted text, handwritten changes and other notations to denote those portions to be read at trial (*see* TP, 11/23/05 a.m. at 5-9). These transcripts were filed under seal as part of the

is a typical three-point seatbelt system: The belt, or webbing, emerges from a retractor, located on the left of the driver's seat, proceeds straight up and passes through a D-ring attached to the B-pillar (a vertical column in the frame) over the driver's left shoulder, runs down across the driver's chest, passes through a metal latch-plate, or tongue (which is inserted into the buckle on the right of the driver's seat), runs back across the driver's lap, and is sewn to an anchor plate that is bolted to the floor on the left side of the driver's seat. TP, 12/13/05p.m. at 6–8.

Takata developed the TK-821 buckle, the focus of this lawsuit, in the late 1970s. Kitamura Dep., V.I at 36. The buckle is attached to the floorboard with a stalk made of two metal cables in a plastic housing. TP, 12/13/05 p.m. at 7. It is an end-release buckle, meaning that the release button is immediately adjacent to the slot into which the latch-plate is inserted. When the latch-plate is inserted into the buckle, a locking-mechanism inside the buckle engages a hole in the latch-plate. The locking-mechanism is held in place by a spring, which prevents the latch-plate from ejecting. The release button compresses that spring, causing the locking-mechanism to disengage and the latch-plate to eject. TP, 11/30/05 p.m. at 25-34, 37–39.

Over the years, the TK-821 has been subjected to an extensive battery of industry-standard tests for safe operation, described in more detail below. The buckle was tested during development and production (by Takata), after installation in the 1987 Pathfinder (by Nissan), before sale in the United States (by an independent testing laboratory), and periodically over the years (by Takata). The TK-821 consistently has passed every test administered by every entity. Kitamura Dep., V.I at 29–32, 47–49, 56–58, 69–71, 78–79, 88, 93–94, 99–100; V.2 at 150–51; Exh. 1499. And none of this testing ever has raised any concerns about safe operation.

Moreover, during its production run—from the early 1980s until the late 1990s (Kitamura Dep., V.I at 40–41)—the TK-821 was installed in millions of vehicles around the world, including the 1987 Nissan Pathfinder. Over the last two decades, those vehicles have been driven countless billions of miles and have been involved in innumerable accidents. It is remarkable, then, that this lawsuit is only the second time that someone has claimed that a restraint system equipped with a TK-821 failed in an accident. In over two decades, Takata has not received even a single failure report from the field (*i.e.*, no driver or vehicle manufacturer has ever reported that the TK-821 failed to perform properly). *Id.*, V.III at 324–27. Indeed, the only

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Record on Appeal. References to Mr. Kitamura's deposition transcripts in this brief, are to those designated portions which were read at trial.

evidence even suggesting that someone has previously claimed that the TK-821 failed is a complaint, filed in Iowa state court in 1996, alleging that the "seat belt restraint system" in a 1987 Pathfinder "failed and did not restrain" the passenger during an accident (the "*Emmert* complaint"). *See* Record on Appeal ("RA"), V.10 at 204-216 at 2. Udac admitted that there is no evidence regarding the merits of that complaint or even how the restraint system was alleged to have failed (or whether the alleged failure even involved the TK-821 buckle).[2] TP, 11/4/05 a.m. at 64. Other than that single vague, unsubstantiated legal filing, the TK-821 has a spotless 20-year history of safe operation in millions of vehicles around the world. Takata continues to manufacture the TK-821 as a replacement part for vehicles in which it originally was installed. Kitamura Dep., V.I at 40. Few automotive safety components can claim such a remarkable track record.

That history of consistent safe performance—which obviously is a more reliable indicator of an alleged defective design than any laboratory test—did not prevent Udac's seatbelt expert, Dr. Renfroe, from opining that the TK-821 is the most defective buckle he has ever encountered because "[e]very possible problem that can occur does occur in this buckle." TP, 11/30/05 a.m. at 58. In fact, Dr. Renfroe claimed that the TK-821—which never has failed in the real world—has three distinct defects. TP, 11/29/05 p.m. at 43–46. Udac never decided which of these alleged defects supposedly caused his injuries, but presented them as a set of alternatives from which the jury could pick and choose.

2. The False Latch Theory Of Defect

False latching, or partial engagement, occurs when a seat belt's latch-plate is inserted into the buckle and remains in place but is not fully engaged by the locking-mechanism so that it can be released with little force. Federal Motor Vehicle Safety Standard ("FMVSS") 209, one of two regulations governing seatbelts, states that buckles must be designed so that when false latching occurs the latch-plate will eject when pulled with not more than 5 pounds of force (ensuring that a simple tug on the belt, or occupant movement, will cause it to release). *See* 49 C.F.R. §

[2] The circuit court initially excluded the *Emmert* complaint (TP, 11/4/05 a.m at 64–66) but later reversed course (TP, 12/8/05 at 79–80) and allowed Udac to use it allegedly to impeach the testimony of Mr. Kitamura, a Takata engineer who helped design the TK-821, that there have never been any reported incidents of failure of the TK-821 (Kitamura Dep., V.III at 324–27). Given the unsubstantiated nature of the contentions in the complaint, the circuit court's opinion that it impeached Mr. Kitamura was dubious at best.

571.209 S4.3(g). The United States Testing Company ("USTC"), an independent laboratory that tested the TK-821 for compliance with United States regulatory requirements, confirmed that the TK-821 will release from a position of partial engagement with only 0.5 pounds of force, far below the 5 pound limit set by the FMVSS. *See* Exh. 1499 at 8.

During development of the TK-821, Takata conducted extensive durability and environmental tests to examine the buckle's propensity for partial engagement. In a repetitive insertion/release test, the TK-821 continued to perform properly after 20,000 cycles, far exceeding the 200 cycles required by FMVSS 209. Kitamura Dep., V.I at 27–28, 47–48. And partial engagement did not occur during extensive environmental testing (during which the buckle was exposed to salt spray, dust, high temperatures, and high humidity, and was tested for adequate performance after inserting soft drinks and carpet scraps into the buckle). *Id.* at 47–49, 58–59. Finally, as noted, Takata has not received even a single report of false latching in the more than 20 years that the TK-821 has been in use in millions of vehicles around the world. *Id.*, V.III at 324–27.

Dr. Renfroe nonetheless claimed that the TK-821 is defective because it is subject to false latching. He did not identify any design element that would lead to false latching or any testing indicating a propensity to false latch, but based his opinion on the facts that he was able to manipulate an exemplar TK-821 into a position of false latch in his laboratory (TP, 11/29/05 p.m. at 46–47) and that Mr. Otto, Udac's accident-reconstruction expert, was able to manipulate the buckle in Udac's vehicle into a position of false latch when he examined it two months after the accident (TP, 11/22/05 a.m. at 33–39). But Takata's seatbelt expert, Mr. Cooper, confirmed that almost any buckle can be manipulated to false latch (TP, 12/14/05 p.m. at 31–32), and Udac's experts did not dispute that. Moreover, neither of Udac's experts measured the amount of force required to release the latch-plate when the buckle was partially engaged—although Dr. Renfroe described it as "very—relatively little force * * * ten, fifteen pounds of force" (TP, 11/29/05 p.m. at 47)—so they could not, and did not, opine on the TK-821's compliance with FMVSS 209.

The debate over an alleged false-latch defect in the TK-821 is moot, however, because it was undisputed that false latching did not occur in Udac's accident (and thus could not have caused Udac's injuries). Indeed, not only did Takata insist that there was no false-latch defect, but the only evidence with respect to causation on this theory came from Dr. Renfroe, who

agreed that false latching did ***not*** occur in Udac's accident. *See* TP, 11/30/05 p.m. at 27 (false latching "is ruled out as far as I am concerned"). No one contradicted Dr. Renfroe or expressed the opinion that false latching occurred in this accident.

Based on the complete absence of proof that false latching caused Udac's injuries (setting aside the lack of evidence that the TK-821 has this defect), and Udac's expert's concession that it did not, Takata moved for judgment as a matter of law on this theory. *See* TP, 12/12/05 a.m. at 10–11; 12/20/05 a.m. at 42–43; RA, V.19 at 14, 20; V.19 at 65, 71. The circuit court denied Takata's motions and allowed this groundless theory to go to the jury. *See* TP, 12/12/05 a.m. at 32–33; 12/20/05 a.m. at 48–49; RA, V.21 at 131–32.

3. The Inertial Release Theory Of Defect

The inertial release theory holds that an impact to the buckle can cause the latching mechanism to disengage through inertial forces without a manual depression of the release button. The National Highway Traffic Safety Administration ("NHTSA") has studied the inertial release theory and determined that it simply does not occur in real world accidents. *See* TP, 12/13/05 a.m. at 23, 45; *see generally* Exhs. 5811 (57 Fed. Reg. 55298 (Nov. 24, 1992)), 5696 (66 Fed. Reg. 18208 (Apr. 6, 2001)). That study did not involve the TK-821, but the TK-821 performs significantly better on industry-standard tests for inertial release than many of the buckles in the study.[3]

Takata designed the TK-821 to resist inertial release through a combination of many design elements including, importantly, the strength of the spring that keeps the locking-mechanism engaged with the latch-plate. *See* Kitamura Dep., V.I at 90–93. During development, Takata conducted more than 200 sled tests on the TK-821 and concluded that the buckle would not release under inertial forces in the real world.[4] *See id*. at 75-76, 100; V.III at

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[3] For example, the study included the RCF-67 buckle installed in General Motors vehicles that has been shown to release during impacts of approximately 140 to 150 g's during shock table testing. *See* TP, 12/14/05 p.m. at 78. One "g" is equal to the force exerted by gravity on a body at rest. *See* Merriam Webster Collegiate Dictionary 475 (10th ed. 1993). As discussed below, the TK-821 releases only during impacts upwards of 598 g's during such tests. *See* TP, 12/14/05 a.m. at 20–25. In general, the NHTSA study focused on side-release buckles, which were identified as being more prone to inertial release than end-release buckles such as the TK-821. *See* Exh. 5811.

[4] In a sled test, the buckle is placed on an anthropomorphic dummy in a cut-down version of a vehicle and the "sled" is then accelerated and stopped suddenly to mimic a crash. *See* TP, 12/13/05 a.m. at 38–39.

264–67. Takata also conducted a pendulum-impact test in which the buckle was attached to a suspended weight that was then drawn back and impacted against a wall. That test, required by Nissan's design specifications for the 1987 Pathfinder, showed that the buckle would ***not*** release during a 200 g impact. *See id*., V.I 93–97. Furthermore, Nissan conducted crash tests with the TK-821 installed in the 1987 Pathfinder and determined that the buckle would not release due to inertial forces under real-world conditions. *See id*. at 78. And in 1992, after the TK-821 had been on the market for five years, Takata conducted drop-impact tests (in which the buckle was placed on a metal plate that was dropped from various heights) and determined that the buckle released only when the impact forces exceeded 400 g's, well in excess of the forces involved in a rollover accident. *See id*. at 78–86, 100. Finally, as noted, Takata has not received even a single report of inertial release in the two decades that the TK-821 has been in use in millions of vehicles around the world. *See id*., V.III at 324–27.

Nevertheless, Udac argued that the TK-821 had an inertial-release defect. To support this contention, he relied entirely on statements made in patents for two later-model Takata buckles and idiosyncratic "bench testing" conducted by his expert, Dr. Renfroe.

a. The patents

Takata filed patent applications for the TK-52 and A-95 buckles on September 7, 1984 and April 29, 1987, respectively (the patents were not issued until March 18, 1986 and March 29, 1988). *See* Exhs. 1481 and 1482, respectively. Udac offered no expert testimony on these patents. Yet, during opening arguments, his counsel claimed that these patents constituted an admission that spring-based buckles, such as the TK-821, are subject to inertial release. Specifically, he implied that the TK-52 patent "admitted" that prior-art spring-based buckles are subject to inertial release and "solved" that problem by introducing a locking bar into the buckle design. TP, 11/16/05 a.m. at 118–21. And, claiming to describe the A-95 patent, he said:

> Now, in 1987 Takata filed another patent with the U.S. Patent Office for another model seatbelt buckle, and it was called * * * A-95 * * *. And in this case in the patent application Takata claimed that this new model was a good solution to the problem of inertial release or what it called in that application 'inertial fallout in seatbelt buckles.'

TP, 11/16/05 a.m. at 120–21. During closing arguments, Udac's counsel repeated this argument. TP, 12/20/05 p.m. at 33–36.

In fact, neither patent states, or even implies, that spring-based buckles—let alone the TK-821 in particular—are defective or unsafe in any way. On the contrary, the patents state that

spring-based buckles use springs that are strong enough to ***prevent*** inertial release. The strength of those springs makes it more difficult to release the buckle manually, however, potentially causing annoyance to the user. Specifically, the TK-52 patent says:

> The spring that holds the latch plate in the latched position has to apply a force great enough to ***prevent*** the latch plate from releasing the tongue by being moved by an inertial force in a collision. Accordingly, the force required to move the release member to release the latch plate from the tongue is correspondingly large, which can cause difficulties and ***annoyance*** to the user. To alleviate ***this problem***, mechanisms are added to lock the latch plate in the latched position when the tongue is inserted.[5]

Exh.1481 (emphasis added). Similarly, the A-95 patent states that the locking bar is designed "to solve the ***problems*** of the prior art seat belt buckles ***of requiring a high releasing force*** to prevent inertial fall-out at the time of collision." Exh. 1482 (emphasis added). Thus, the improvement in these patents related to consumer convenience, not to safety, and they clearly do ***not*** concede that there is a defect in spring-based buckles, let alone in the TK-821 in particular. *Id*.; s*ee also* Kitamura Dep., V.III at 252–54, 262, 331–32.

Because these patents were utterly irrelevant to the question whether the TK-821 is defective, Takata moved to exclude them, but the circuit court allowed Udac to introduce them and to argue that they constituted an admission of a defect in the TK-821. Furthermore, the patents were one of only three pieces of evidence that the circuit court cited as support for the punitive damages award, claiming that they demonstrated that Takata knew that the TK-821 was defective. *See* Appendix ("App.") D at 2–3.

b. Dr. Renfroe's "bench test"

Dr. Renfroe conducted what he called a "bench test" on exemplar TK-821 buckles. In this "bench test," the buckle was held stationary in a vertical or horizontal position at the end of a bench. At the other end of the bench was a slider-ram (a hard rubber mallet on ball bearings) which was propelled across the bench by firing a pressurized air cylinder into it. Instruments measured the acceleration of the slider-ram, from which Dr. Renfroe claimed to calculate the force with which the ram impacted the buckle. TP, 11/29/05 p.m. at 69. Dr. Renfroe concluded that the TK-821 buckle released when impacted laterally (*i.e.*, on the back of the buckle) at 146

[5] In these patents, the locking-mechanism inside the buckle is called a "latch-plate" and the metal device inserted into the buckle is called a "tongue." The witnesses and experts at trial used "latch-plate" to refer to the tongue and used various terms for the locking-mechanism inside the buckle. We follow that second convention here, but note the different terminology in the patents.

g's and vertically (*i.e.*, on the end of the buckle attached to the stalk) at 112 g's. TP, 11/29/05 p.m. at 74–75. Based on these results, Dr. Renfroe concluded "[t]hat under conditions that have been shown to be in actual rollover collisions, where you have accelerations on the order of 150 g's, that the buckle does release."[6] TP, 11/29/05/05 p.m. at 78. According to Dr. Renfroe, inertial release could have occurred in Udac's accident when the buckle was impacted laterally by Udac's hip or vertically through the buckle stalk when the vehicle landed on its wheels during the rollover. TP, 11/30/05 a.m. at 19; 11/30/05 p.m. at 11-12.

Takata's seatbelt expert, Mr. Cooper, tested the TK-821 on a shock table, the industry-standard methodology to test for inertial release. The shock table consists of a vertical structure with a carrier that can be raised upwards. The buckle is attached to the carrier which is then dropped from a measured height, impacting a pad designed to produce a known shock pulse. An accelerometer measures the acceleration of the carrier, and a load-cell assembly adjusts and measures the tension on the latched belt during the experiment. TP, 12/13/05 p.m. at 70. Mr. Cooper concluded that the TK-821 released only when a 598 g force was applied vertically, and did not release even when a 700 g force was applied laterally, which was the highest force the shock table could generate. TP, 12/14/05 a.m. at 20–25. According to Mr. Cooper, real world collisions do not generate such forces, as evidenced by numerous crash tests conducted by car manufacturers and the 1992 NHTSA investigation. TP, 12/13/05 a.m. at 23, 45. This was consistent with Dr. Renfroe's testimony that rollover accidents involve forces of up to approximately 150 g's (TP, 11/29/05 p.m. at 78) and that the highest force ever detected in a rollover was 450 g's (TP, 11/29/05 p.m. at 78–79).[7]

Dr. Renfroe had no explanation for the remarkable disparity between the test results using his Rube Goldberg method and those from the industry-standard shock table (112 versus 598 g's vertically and 146 versus more than 700 g's laterally). He did not produce any studies demonstrating that his "bench test" methodology correlates to real-world performance of buckles in accidents. And he conceded that ***no*** other engineers use his "bench test" (which he had

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[6] Dr. Renfroe also testified that the maximum force ever recorded in a rollover was 450 g's. TP, 11/29/05 p.m. at 78–79.

[7] Udac's experts did not calculate the actual forces generated during Udac's rollover but simply opined about the maximum forces in typical rollovers. Mr. Otto, who did perform some calculations, testified that those calculations were limited to the forces generated by the vehicle's frontal and side impact with the lava wall. *See* TP, 11/22/05 p.m. at 17.

developed recently for purposes of litigation) and that shock-table testing like Mr. Cooper's is reliable and is the industry standard used by other engineers. TP, 11/30/05 p.m. at 65–66. Dr. Renfroe also admitted that higher impact forces are required for inertial release to occur if there is loading tension on the seatbelt (*i.e.*, if there is a force pulling the latch-plate away from the buckle, as when an occupant is loading the belt) but that his testing equipment uses only zero belt tension. TP, 11/30/05 p.m. at 60–61.

Furthermore, Mr. Cooper showed that Dr. Renfroe's data filter (a Class 180 filter) understates the forces that were experienced by the buckle in his testing as compared with the industry-standard Class 600 filter. TP, 12/14/05 a.m. at 44–45. But worse than that, use of the appropriate filter revealed abnormalities in Dr. Renfroe's data that indicated that there was a fundamental problem with his instrumentation, test technique, or testing equipment (TP, 12/14/05 a.m. at 46). That conclusion is unsurprising given the discrepancy between the results on his novel "bench test" and those on the industry-standard shock table apparatus (not to mention the results of all other testing performed during development of the TK-821 and the safety record of the buckle over the years).

4. The Inadvertent Release Theory Of Defect

Inadvertent release is the theory that a body part or an object in the vehicle can strike the release button during an accident, causing the buckle to unlatch. Inadvertent release is theoretically possible with any buckle because all buckles must have a readily accessible release button. The applicable federal regulations, FMVSS 208 and 209, require designers to both ensure ease of use and "minimize" inadvertent release.[8] *See* TP, 12/14/05 a.m. at 54–57; App. F. The regulations provide specific standards related to ease of use—requiring the release button to have a minimum exposed area of 452 mm^2—but provide no specific standards related to minimizing inadvertent release. 49 C.F.R. § 571.209 S4.3(d)(2). The TK-821's release button has an exposed surface area of 480 mm^2, surpassing the legal minimum required for ease of use by only 28 mm^2 or 6 percent. *See* TP, 12/13/05 a.m. at 57; Exh. 1499 at 8.

[8] FMVSS 208 requires a buckle to be accessible and to have a latch mechanism that "releases at a single point" "by a pushbutton action." 49 C.F.R. § 571.208 S7.2(c), (d). FMVSS 209 requires the release button to be "readily accessible to the occupant to permit his easy and rapid removal from the assembly," while at the same time mandating that the buckle's design "minimize the possibility of accidental release." 49 C.F.R. § 571.209 S4.1(e).

The TK-821 was tested for inadvertent release both independently and as installed in the 1987 Pathfinder. During development, Takata conducted over 200 dynamic sled tests, in which the TK-821 was placed on an anthropomorphic dummy in a crash situation, and found no instances of inadvertent release. Kitamura Dep., V.I at 71–72. Nissan conducted rollover crash tests of the 1987 Pathfinder with the TK-821 installed and also found no evidence of inadvertent release. *Id.* at 71. And it is undisputed that Takata has not received even a single report of inadvertent release in the 20+ years that the TK-821 has been in use in millions of vehicles around the world. *Id.*, V.III at 324-27.

Disregarding regulatory compliance, historical testing, and decades of real-world experience, Dr. Renfroe claimed that the TK-821 is defective because it releases when pressed with a 40-mm diameter ball.[9] Dr. Renfroe admitted that no regulator imposes such a test and that there are no scientific studies or reports demonstrating a correlation between his 40-mm ball test and the propensity of buckles to release inadvertently in real-world crash situations. TP, 11/30/05 p.m. at 37–38; *see also* TP, 12/14/05 a.m. at 64 (similar testimony from Mr. Cooper). Dr. Renfroe also failed to identify any regulatory statements, peer-reviewed articles, or other relevant sources adopting his 40-mm ball test as a standard for buckle defect. Instead, he argued that this test is proof of a defect in the TK-821 because in 1992 (five years after the buckle in Udac's Pathfinder was installed) Nissan issued a new Nissan Design Specification ("NDS") for the Pathfinder that stated that "[t]he buckle shall not be unlatched when a 40 mm diameter * * * spherical object is pressed against it."[10] Exh. 1490 at 4; TP, 12/20/05 p.m. at 9.

It was undisputed that the 1981 NDS—the NDS that applied to the 1987 Pathfinder and thus to the TK-821—did ***not*** include a ball-press test requirement. *See* Exh. 1587. There also

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[9] It is undisputed that the TK-821 will release if pressed by a 40-mm ball. *See* Kitamura Dep., V.II at 211. Both Mr. Kitamura and Mr. Cooper testified that the 40-mm ball "test" is used in the European Community as a method for classifying a buckle as "enclosed" or "non-enclosed," but not as a safety standard (*i.e.*, both types of buckles are installed in vehicles). *See Id.*, V.II at 210–11; , 12/14/05 a.m. at 63. Thus, during development, Takata determined that the TK-821 is a "non-enclosed" buckle for purposes of sales in Europe, but never considered that fact to be evidence of a defect in the buckle. Kitamura Dep., V.II at 211–17.

[10] Dr. Renfroe also testified that some other car manufacturers currently require buckles to meet similar ball-press tests, using diameters that vary from 28-mm to 40-mm, but he did not produce any evidence of these requirements, when they were adopted, or whether any manufacturer ever issued a warning or conducted a recall related to older vehicles based on the adoption of these tests. TP, 11/29/05 p.m. at 54–55.

was no evidence that, after issuing the 1992 NDS, Nissan conducted a recall of pre-1992 buckles or even asked Takata to begin designing replacement parts for prior model years according to the 1992 NDS. Nevertheless, Udac implied that Takata should have decided on its own to issue a warning or engage in a recall once the 1992 NDS were issued (TP, 12/20/05 p.m. at 34), notwithstanding that there are no studies showing that the ball-press standard is necessary to ensure safety and that, at that point, the TK-821 had been in use for over a decade—and had been in use in the 1987 Pathfinder for over five years—without a single report of inadvertent release. Kitamura Dep., V.III at 324–27.

Not only is there no evidence establishing a correlation between ball-press testing and safety, there is good reason to think that there is none. Mr. Cooper emphasized that testing for inadvertent release must take into account many aspects of the "as-installed" environment. In particular, factors such as the location and positioning of the buckle in relation to the seat and the center console strongly affect the possibility of an inadvertent release. TP, 12/14/05 a.m. at 69–70. Ball-press testing does not take any of those factors into account. Moreover, because the "as-installed" environment is so critical, it cannot be assumed that a design standard for the 1992 Pathfinder has any relevance with respect to the occupant compartment of the 1987 Pathfinder. Dr. Renfroe made no effort to compare the two model years.

Because the 1992 NDS are irrelevant to the TK-821 as installed in the 1987 Pathfinder, Takata moved to exclude the 1992 NDS (RA, V.10 at 191–239; TP, 11/28/05 a.m. at 37–38), but the circuit court denied the motion and allowed Udac to cite the 1992 NDS as evidence of a defect in the TK-821 (TP, 11/28/05 a.m. at 38; 12/6/05 p.m. at 4–5). Furthermore, the 1992 NDS was one of only three pieces of evidence that the circuit court cited as support for the punitive damages award, finding that it demonstrated that Takata knew that the TK-821 was defective. *See* App. D at 2–3.

5. Whether Udac Was Wearing His Seatbelt

These disputes over alleged defects in the TK-821 obviously would be irrelevant if Udac was not ***wearing*** his seatbelt during the accident. At trial, the question whether Udac was wearing his seatbelt was hotly contested on several fronts.

a. Udac's and Viernes's account

Both Udac (TP, 12/7/05 p.m. at 34) and his passenger Viernes (TP, 12/1/05 p.m. at 20, 32–33) testified to vivid recollections of Udac putting on his seatbelt before leaving Hilo,

including memories of hearing the latch-plate click in the buckle. Both men remembered almost no other details of the events leading up to the accident and Viernes admitted to having drunk four 40-ounce bottles of beer between 9 pm and midnight before falling asleep in the vehicle shortly after leaving Hilo. TP, 12/1/05 p.m. at 29–31.

b. Marks on the seatbelt

Dr. Renfroe examined the webbing, D-ring, and latch-plate of Udac's seatbelt for signs that Udac had been wearing his seatbelt during the accident. He opined that there were marks indicating that the seatbelt had been loaded by an occupant in a collision (*i.e.*, that the seatbelt had been engaged).[11] TP, 11/29/05 p.m. at 14–42. He also testified that the location of the marks he found on the webbing was consistent with the position of marks that would be caused by loading from a person of Udac's height and weight. TP, 11/29/05 p.m. at 14–15. Based on these loading marks, Dr. Renfroe concluded that Udac was wearing his seatbelt during the accident.

Mr. Otto, Udac's accident-reconstruction expert, and Mr. Cooper, Takata's seatbelt expert, both disagreed. They both concluded that the marks Dr. Renfroe identified were not caused by loading during an accident, but were simply normal wear-and-tear marks for a 15-year old vehicle. *See* TP, 11/22/05 p.m. at 71; 12/13/05 p.m. at 14–33. Mr. Cooper also showed the jury that the D-ring from a 1987 Pathfinder with mileage similar to Udac's vehicle that had not been in an accident exhibited the same type of markings as the D-ring from Udac's vehicle. TP, 12/13/05 p.m. at 40–41.

Dr. Banks, Takata's biomechanical expert, conducted a surrogate study which proved that the ***locations*** of the marks that Dr. Renfroe identified were inconsistent with loading by someone of Udac's height and weight (*i.e.*, even if they were loading marks, they could not have been caused by ***Udac*** loading the seatbelt).[12] *See* RA, V.9 at 11–16; Banks Dep. at 69–72, 75–78,

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[11] "Loading" is the force exerted by an occupant onto the seatbelt during an accident and is measured by the occupant's body weight times the amount of g forces experienced by the occupant. For example, an occupant weighing 150 pounds experiencing 3 g's would exert a loading force equal to 450 pounds. Loading forces in the magnitude of "a couple hundred pounds" are required to create loading marks on the seatbelt's components. TP, 11/29/05 p.m. at 48. The forces in this accident would have caused loading marks if Udac were wearing his seatbelt.

[12] In a "surrogate study," a human subject who matches the plaintiff's height and weight is placed in an exemplar vehicle to determine how the person's body would have interacted with

107–08. Astoundingly, the circuit court excluded that evidence because it concluded that Dr. Banks, an engineer and physician, was not qualified to conduct a surrogate study and that the results somehow were cumulative of the testimony from Messrs. Otto and Cooper on the ***cause*** of the markings identified by Dr. Renfroe. TP, 12/15/05 at 123. Because Dr. Banks's surrogate study would have shown that there were no loading marks from Udac, and because it was undisputed that Udac's accident involved sufficient force to create loading marks, the excluded evidence would have proved that Udac was not wearing his seatbelt.

c. Udac's bruising

Although Udac presented the testimony of five physicians who treated him after the accident, none of them testified to observing bruises or marks consistent with seatbelt use during the accident. Indeed, the only treating physician who gave any relevant testimony indicated that he could not recall seeing any markings. Budde Dep. at 11.[13] Nevertheless, Udac was allowed to introduce photographs of bruising and scars on his body that were taken ***five weeks after the accident***. TP, 12/1/05 p.m. at 56–57. Dr. Renfroe, who has no medical training and had not reviewed Udac's medical records, opined that a bruise on Udac's left shoulder in these photographs indicated that Udac was wearing his seatbelt. TP, 11/30/05 a.m. at 6–7. Udac's brother, who also has no medical training, said that black marks on Udac's left shoulder, left hip, and stomach were caused by the seatbelt. TP, 12/1/05 p.m. at 56–57.

Dr. Banks, who ***is*** a physician, reviewed Udac's medical records and testified that the marks on Udac's left shoulder were ***not*** a bruise from a seatbelt but were caused by the insertion of a subclavian catheter during Udac's hospitalization. TP, 12/15/05 at 110–11. He discussed photographs showing suture marks from insertion of the catheter and produced an x-ray showing the catheter's insertion at that position. *See* TP, 12/15/05 at 112–16; Exhs. 5784, 5831. The circuit court prevented Dr. Banks from responding to Paul Udac's testimony regarding bruises and marks on Udac's hip and stomach, however, because Dr. Banks's pre-trial report did not include a response. TP, 12/15/05 at 116–18. This was unsurprising, because there had been no pre-trial disclosure of Paul Udac's lay-witness opinion testimony about the marks. Dr. Banks

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components of the vehicle. On cross-examination, Dr. Renfroe admitted that he had conducted surrogate studies in other cases, but had not done so in this case. TP, 11/30/05 p.m. at 17–18.

[13] Dr. Budde, the emergency room physician who attended to Udac, testified through designated deposition excerpts that were read to the jury (denoted by highlighted line numbers in his original transcript), but not transcribed.

was only allowed to testify generally that he did not find bruises or other injuries from a seatbelt around Udac's waist. TP, 12/15/05 at 119. Dr. Banks's opinion was the only medical testimony regarding Udac's alleged bruises.

d. Lack of damage to the steering wheel

Udac argued that the absence of damage to the steering wheel indicated that he was wearing his seatbelt because he would have hit the steering wheel during the initial impact if he was not wearing his seatbelt. *See* TP, 12/20/05 p.m. at 19. Dr. Banks explained that if Udac was not belted he would have been slumped over the center console and not behind the steering wheel because he had fallen asleep at the time of the crash and so would not have hit the wheel. TP, 12/15/05 at 183–84. Thus, the lack of damage to the steering wheel was consistent with Udac being either belted or unbelted at the time of the accident. *See id.*

6. The Verdict

Answering questions on a special verdict form, the jury found that the TK-821 was defective and that this defect caused Udac's injuries.[14] The jury also found that Takata was negligent in designing the TK-821 and that this negligence caused Udac's injuries. The jury further determined that Udac was 35 percent at fault. It awarded Udac special damages of $3,700,000 and general damages of $2,500,000. The jury also found in favor of Udac's father on his NIED claim, awarding him general damages of $650,000. Finally, the jury awarded Udac $12,500,000 in punitive damages. RA, V.20 at 76–79. In the final judgment, the compensatory damages were reduced by Udac's comparative fault, resulting in awards of $2,405,000 in special damages, $1,625,000 in general damages, and $422,500 for NIED. App. E.

POINTS OF ERROR

1. The circuit court erroneously excluded critical evidence proving that Udac was not wearing his seatbelt. First, it excluded a study that would have affirmatively proved that Udac was not wearing his seatbelt at the time of the accident. The circuit court concluded that the expert who conducted the study was not qualified, even though he has both an engineering and a medical degree, and that the study was cumulative, even though there was no other similar evidence. TP, 12/15/05 at 119–23 (App. Q). Second, it excluded expert testimony intended to

[14] Even though it was a critical threshold issue in the case, the circuit court refused Takata's request that the verdict form include a question on whether Udac was wearing his seatbelt. *See* TP, 12/19/05 p.m. at 67-68; 12/20/05 a.m. at 54.

rebut a lay-witness's opinion that certain bruises and marks on Udac were caused by his seatbelt. The circuit court concluded that the testimony was outside the scope of the expert's pre-trial report, but Takata had no reason to anticipate the opinions from Paul Udac that the testimony was offered to rebut. TP, 12/15/05 at 116–17 (App. Q).

2. The circuit court erroneously admitted two patents for seatbelt buckles that have nothing to do with the issues in this case. Takata filed a motion in limine to exclude the TK-52 and A-95 patents as irrelevant and prejudicial (RA, V.10 at 191–239; TP, 11/4/05 at 63–67 (App. J)) and renewed that objection at trial (TP, 11/21/05 a.m. at 25–26 (App. K); 12/1/05 a.m. at 23 (App. M); 12/6/05 a.m. at 35–36 (App. N)). The circuit court admitted them based on the false insinuation by Udac's counsel that they contained admissions of a defect in the TK-821. TP, 12/1/05 a.m. at 23 (App. M); 12/6/05 a.m. at 36 (App. N).

3. The circuit court erroneously admitted design specifications for the 1992 Nissan Pathfinder, even though this case involved a 1987 Pathfinder. Takata filed a motion in limine to exclude the 1992 NDS as irrelevant and prejudicial (RA, V.10 at 191–239) and renewed that objection at trial (TP, 11/28/05 a.m. at 37–38 (App. L); 12/6/05 p.m. at 4–5 (App. O)). The circuit court admitted them, but never clearly explained its reasoning. *See* TP, 11/28/05 a.m. at 38 (App. L); 12/6/05 p.m. at 4–5 (App. O).

4. The circuit court erroneously instructed the jury on both negligent failure to warn and the "latent danger" theory of product defect even though there was no evidence that a warning could have prevented Udac's injuries. The instruction for the latent danger test stated:

> [Y]ou may find the product defective if Plaintiffs prove the following:
>
> 1. Even if faultlessly made, the use of the product in a manner that is intended or reasonably foreseeable, involves a substantial danger;
> 2. The manufacturer knew about the danger;
> 3. The danger would not be readily recognized by the ordinary user or consumer of the product; and
> 4. The manufacturer failed to give adequate warnings of the danger or adequate instructions for safe use.

TP, 12/20/05 a.m. at 81–82 (Plaintiffs' Instruction #6). The instruction for negligent failure to warn stated:

> It is the duty of manufacturers to exercise reasonable care in the design of its [sic] products to protect against foreseeable danger. A manufacturer must give appropriate warning of any known dangers which the user of its products would not ordinarily discover.

TP, 12/20/05 a.m. at 82 (Court's Instruction #12).

Takata objected to these instructions, pointing out that the latent-danger instruction "fails to follow the Hawai`i law set forth in *Tabieros* [*v. Clark Equip. Co.*, 85 Hawai`i 336, 350, 944 P.2d 1279, 1293 (1997)]" (TP, 12/20/05 a.m. at 10) and that the negligent-failure-to-warn instruction was inappropriate because "warnings [are] not an issue in this case" and "there's no evidence introduced to the jury" that would justify such an instruction (TP, 12/20/05 a.m. at 39). The court gave the instructions over Takata's objections.

5. The circuit court erroneously refused to grant judgment on Udac's "false latch" theory of defect. Before trial, the circuit court denied (TP, 11/4/05 at 82 (App. J)) Takata's motion in limine (RA, V.11 at 30-55; TP, 11/4/05 at 79–82 (App. J)) to exclude evidence related to a hypothetical "false latch" defect in the TK-821. At the close of Udac's case (TP, 12/12/05 a.m. at 10–11 (App. P)) and again at the close of evidence (TP, 12/20/05 a.m. at 42–43 (App. R)), Takata moved for judgment because, *inter alia*, there was no evidence that Udac's buckle false latched in this accident or that Udac's injuries were caused by the purported false-latch defect (indeed, Udac's expert admitted that there was no false latch in this accident). *See also* RA, V.19 at 14, 20 (App. G); V.19 at 65, 71 (App. H). The circuit court nevertheless allowed this theory to go to the jury. TP, 12/12/05 a.m. at 32–33 (App. P); 12/20/05 a.m. at 48–49 (App. R).

6. The circuit court erroneously refused to enter judgment for Takata on punitive damages. At the close of Udac's case (TP, 12/12/05 a.m. at 12 (App. P)), at the close of evidence (TP, 12/20/05 a.m. at 44–46 (App. R)), and again in its post-trial motion (TP, 5/31/06 at 21–22, 26–27 (App. S)), Takata moved for judgment on punitive liability because there was no evidence—let alone clear and convincing evidence—that it was guilty of conscious wrongdoing in designing and marketing the TK-821. The circuit court refused to enter judgment (TP, 12/12/05 a.m. at 32–33 (App. P); 12/20/05 a.m. at 48–49 (App. R)) and upheld the jury's punitive verdict (TP, 5/31/06 at 29–30 (App. S)), citing three pieces of evidence, none of which provide any evidence of conscious wrongdoing by Takata (*see* App. D).

7. The $12,500,000 punitive award is wildly excessive under Hawai`i law and the federal Due Process Clause. In its post-trial motion, Takata argued that the punitive award must be reduced to a more reasonable amount (RA, V.22 at 367–73 (App. I)), but the circuit court affirmed the award based on several misinterpretations of law and evidence and without conducting the constitutionally required *de novo* review (*see* App. D).

STANDARDS OF REVIEW

Although the trial court's decision to qualify a witness as an expert under HRE 702 is reviewed for abuse of discretion, "the trial court's discretion to qualify a witness is wider than its discretion not to do so." *State v. Cababag*, 9 Haw. App. 496, 504, 850 P.2d 716, 721 (1993). Appellate courts review the exclusion of expert testimony because of a problem with the HRCP 26 disclosures under an abuse of discretion standard. *See Aga v. Hundahl*, 78 Hawai`i 230, 246, 891 P.2d 1022, 1038 (1995). These standards apply to the first point of error.

Challenges to a trial court's relevancy decisions under HRE 401 and 402 are reviewed under the right/wrong standard. *See Kealoha v. County of Haw.*, 74 Haw. 308, 319, 844 P.2d 670, 676 (1993). Under this standard, a reviewing court "examines the facts and answers the question without being required to give any weight to the trial court's answer to it." *Schmidt v. Pac. Benefit Servs., Inc.*, 113 Hawai`i 161, 166, 150 P.3d 810, 815 (2006). Evidentiary decisions based on HRE 403 are reviewed for an abuse of discretion. *In re Estate of Herbert*, 90 Hawai`i 443, 460, 979 P.2d 39, 56 (1999). Both of these standards apply to points of error 2 and 3.

"When jury instructions * * * are at issue on appeal, the standard of review is whether, when read and considered as a whole, the instructions given are prejudicially insufficient, erroneous, inconsistent, or misleading." *Tabieros*, 85 Hawai`i at 350, 944 P.2d at 1293. This standard applies to the fourth point of error.

Appellate courts review the denial of a motion for judgment as a matter law *de novo*, taking the evidence in the light most favorable to the non-moving party. *Miyamoto v. Lum*, 104 Hawai`i 1, 7, 84 P.3d 509, 515 (2004). This standard applies to points of error 5 and 6.

The United States Supreme Court has "mandated appellate courts to conduct *de novo* review" of the excessiveness of a punitive damages award and has emphasized that "[e]xacting appellate review" is required to "[e]nsure[] that an award of punitive damages is based upon an application of law, rather than a decisionmaker's caprice." *State Farm Mut. Auto. Ins. Co. v. Campbell*, 538 U.S. 408, 418 (2003) (internal quotation marks omitted). This standard applies to the final point of error.

SUMMARY OF THE ARGUMENT

Twenty-five years ago Takata designed a remarkably safe seatbelt buckle. The buckle was independently certified to far exceed all government safety standards. It passed rigorous internal testing by Takata and rigorous testing by automobile manufacturers as installed in

various vehicles, including the 1987 Nissan Pathfinder. Throughout the 1980's and 1990's, the buckle was installed in millions of vehicles around the world. It has performed safely ever since, saving untold lives and preventing countless injuries. Takata has never received even a single consumer complaint regarding the buckle. And over the last two decades, this is only the second time that someone has even arguably claimed that the buckle failed.

Despite this remarkable record of exemplary testing and safe operation, Udac argued that the TK-821 actually had three separate design defects that had gone undetected (by Takata, Nissan, the federal government, and millions of consumers) for over 20 years. Astonishingly, the jury agreed with him and found not only that the TK-821 is defective, but also that Takata acted reprehensibly when it designed this remarkably safe buckle. The jury proceeded to extract an eye-popping and record-setting $12,500,000 punitive award.

That result is shocking, but it is not surprising. This trial went off track from the beginning with a series of evidentiary rulings that took the focus off of the design, testing, and performance of the TK-821 and instead allowed Udac to distract the jury with irrelevant technical language found in patents for two other buckles and design specifications for a vehicle other than the 1987 Pathfinder involved in this accident. Worse, the circuit court excluded evidence that could have put an end to this case before it began by proving that Udac was not even wearing his seatbelt at the time of the accident. Given the distorted evidentiary picture confronting the jury, it is no wonder the jury became confused.

The confusion created by these evidentiary errors was compounded when the circuit court allowed the jury to consider an alleged defect in the TK-821 that even Udac's own expert admitted did not cause Udac's injuries. And that was not the most prejudicial of the instructional errors. The circuit court also instructed the jury on two theories of liability based on an alleged failure to warn even though there is no evidence that a warning could have prevented Udac's injuries (even assuming that the TK-821 were defective). These instructional errors created the very real possibility that the jury based its verdict on an unsupported theory of defect or an unsupportable "failure to warn" theory of liability.

Even with these profound evidentiary and instructional errors, however, Udac still failed to put on clear and convincing evidence to support punitive damages. In fact, there is ***no*** evidence in this case establishing that Takata knew of a defect in the TK-821 and thus no

evidence that its conduct related to the TK-821 amounted to the type of wilful, wanton, or malicious wrongdoing required for the extraordinary remedy of punitive damages.

Finally, even if the punitive verdict somehow is allowed to stand, the amount of the award clearly is wildly excessive. In light of the low (indeed nonexistent) reprehensibility of Takata's conduct and the substantial compensatory damages awarded to Udac (a large portion of which already contain a strong punitive element), any punitive award of more than a nominal amount would violate Hawai`i law and would be unconstitutional.

The verdict in this case is not the result of evidence of a defect in the TK-821—none of the so-called evidence introduced by Udac had any merit, especially when contrasted with the TK-821's undisputed track record. Instead, this verdict is the result of a jury that: was not allowed to see determinative evidence; understandably was confused and distracted by highly prejudicial evidence that had nothing to do with the safety of the TK-821 buckle; was allowed to consider an alleged defect that no one thought could have caused Udac's injuries; and was instructed on theories of liability that were utterly unsupportable on this record. This result is a gross miscarriage of justice.

ARGUMENT

I. SERIOUS EVIDENTIARY ERRORS NECESSITATE A NEW TRIAL.

The $20 million verdict in this case was the product of a trial rife with evidentiary errors, consistently slanted in Udac's favor. This appeal raises only the four most egregious of those errors. Each of the errors discussed below is sufficient to require reversing the judgment against Takata. The cumulative effect of the errors, moreover, was a trial that violated basic precepts of fairness and due process, in which Udac was allowed to rely on patently irrelevant but highly prejudicial evidence while Takata was prevented from introducing competent evidence on a critical issue that easily could have changed the outcome of the trial.

A. The circuit court erroneously excluded studies and testimony proving that Udac was not wearing his seatbelt.

A plaintiff cannot recover on a design defect claim unless he can prove that the alleged defect was a "***legal cause*** of [his] injury." *See Tabieros*, 85 Hawai`i at 354, 944 P.2d at 1297; *Wagatsuma v. Patch*, 10 Haw. App. 547, 563, 879 P.2d 572, 582, *cert. denied*, 77 Hawai`i 373, 884 P.2d 1149 (1994). Here, regardless whether the TK-821 was or was not defective, it could not have caused Udac's injuries if he was not wearing his seatbelt at the time of the accident. Accordingly, the parties hotly disputed whether Udac was wearing his seatbelt. Takata argued

that he was not and that this fact rendered Udac's contentions regarding various alleged defects in the TK-821 not only false, but irrelevant. The circuit court essentially hamstrung Takata's defense, however, by erroneously excluding critical evidence proving that Udac was not wearing his seatbelt.

1. The erroneous exclusion of Dr. Banks's surrogate study

When a driver involved in an accident is wearing a seatbelt, any frontal impact or rollover will cause him or her to load into the seatbelt. This places a great deal of stress on the belt webbing, particularly at the contact points where the belt passes through the D-ring attached to the B-pillar over the driver's left shoulder and the latch-plate that is inserted into the buckle at the driver's right hip. When the accident involves sufficient force, this stress on the webbing will cause abrasions and other markings where the webbing makes contact with the latch-plate and D-ring. In this case, it is undisputed that Udac's accident involved more than sufficient force to cause such marks ***if*** he were wearing his seatbelt.

As described above (at 12), Udac's seatbelt expert, Dr. Renfroe, claimed to have found abrasions on Udac's seatbelt consistent with loading from Udac during the accident. Both Takata's seatbelt expert, Mr. Cooper, and Udac's accident-reconstruction expert, Mr. Otto, looked at the same marks and disagreed with Dr. Renfroe's assessment: They thought that the marks he had identified were from normal wear and tear. TP, 11/22/05 p.m. at 71; 12/13/05 p.m. at 14–33.

Takata's biomechanical expert, Dr. Banks, did not offer an opinion whether those marks were caused by loading or normal wear and tear, but he conducted a surrogate study to determine ***where*** loading marks should have been found on the webbing had Udac been wearing his seatbelt during the accident. He put a person of height and weight similar to Udac's in the driver's seat of an exemplar 1987 Pathfinder, placed the seatbelt on the surrogate, and calculated the location where loading marks would be found if that person wore the seatbelt during an accident. His results showed that, if Udac had been wearing his seatbelt, the loading marks would have been found at a different location than the marks identified by Dr. Renfroe. In other words, Dr. Banks's surrogate study proved conclusively that whether Dr. Renfroe's marks were caused by loading or wear and tear, they were ***not*** caused by ***Udac*** loading the belt because they were in the wrong location on the webbing. *See* TP, 12/15/05 at 123; Banks Dep. at 70–72, 76–79, 108–09. Furthermore, because no one had even claimed to find marks where there should

have been marks if Udac had been wearing his seatbelt, Dr. Banks's surrogate study affirmatively proved that Udac was not wearing his seatbelt.

Udac objected to Dr. Banks's study on two grounds: (1) that the evidence was cumulative of Mr. Cooper's opinion that Dr. Renfroe's marks were caused by wear and tear; and (2) that Dr. Banks—although he is a physician with an engineering degree and already had been qualified as a biomechanical expert—was not qualified to conduct the surrogate study. TP, 12/15/05 at 120–23. Astoundingly, the circuit court agreed. TP, 12/15/05 at 123. The exclusion of this critical evidence on either of these grounds was an abuse of the court's discretion and was extremely prejudicial to Takata's case.

a. Dr. Banks's study was not cumulative

Under HRE 403, a court can exclude relevant evidence "if its probative value is substantially outweighed * * * by considerations of undue delay, waste of time, or needless presentation of cumulative evidence." There was no question that Dr. Banks's study was highly relevant to the issues in this case: Udac argued only that it was cumulative. Contrary to Udac's contention and the circuit court's ruling, however, Dr. Banks's study was not cumulative of Mr. Cooper's testimony on the cause of the markings identified by Dr. Renfroe.

As noted, Mr. Cooper examined the appearance and physical properties of the marks identified by Dr. Renfroe, along with the rest of the belt webbing, and determined that all of the marks on the belt were caused by normal wear and tear. He did not offer an opinion on where he would expect to find loading marks if Udac had been wearing the seatbelt. Dr. Banks's surrogate study, on the other hand, did not implicate the question whether Dr. Renfroe's marks were caused by loading or wear and tear, but focused exclusively on the ***location*** where loading marks should have been found if Udac had been wearing his seatbelt. Dr. Banks would have testified that whether Dr. Renfroe's marks were caused by wear and tear or loading, they were not caused by ***Udac*** loading the belt because they were in the wrong locations.

The difference between Dr. Banks's surrogate study and Mr. Cooper's testimony also is apparent in its accessibility to the jurors. Mr. Cooper's testimony was based on an analysis of subtle abrasions and deformations in the seatbelt webbing. He and Mr. Otto thought that those marks were consistent with normal wear and tear whereas Dr. Renfroe thought that they were consistent with loading in an accident. The jury was in no position to judge the plausibility or relative merits of those competing positions. On the other hand, Dr. Banks's testimony would

have identified a section of the seatbelt webbing where there should have been marks if Udac had been wearing the belt. The jurors easily could have looked at the belt themselves and seen that there were no marks in those locations, affirmatively proving that Udac had not been wearing his seatbelt. Dr. Banks's surrogate study was not at all duplicative of Mr. Cooper's testimony or any other evidence in the case.

b. Dr. Banks was qualified to conduct the surrogate study

"A witness may qualify as an expert if he or she possesses a background in any one of the five areas listed under HRE Rule 702: knowledge, skill, experience, training, *or* education." *Nielsen v. Am. Honda Motor Co.*, 92 Hawai`i 180, 188, 989 P.2d 264, 272 (App. 1999). "Once the basic requisite qualifications are established, the extent of an expert's knowledge of the subject matter goes to the weight rather than the admissibility of the testimony," because "[i]t is not necessary that the expert witness have the highest possible qualifications to testify about a particular matter." *Larsen v. State Sav. & Loan Ass'n*, 64 Haw. 302, 304, 640 P.2d 286, 288 (1982). Accordingly, the "[e]xclusion of admissible expert testimony * * * is disfavored." *Nielsen*, 92 Hawai`i at 189, 989 P.2d at 273.

There is no question that Dr. Banks was qualified to opine on the expected location of marks caused by Udac loading the seatbelt during an accident. Dr. Banks is both a physician, with an MD from the University of Toronto, and an engineer, with a degree in Civil Engineering from the Royal Military College of Canada. TP, 12/14/05 p.m. at 92–93. He completed a residency in aerospace medicine with the United States Navy, which is the only medical specialty that regularly practices biomechanics, the study of the interactions between the human body and, among other objects, vehicles. TP, 12/14/05 p.m. at 93, 96. Dr. Banks has been qualified by numerous courts as a medical doctor, an engineer, and a biomechanical expert. TP, 12/14/05 p.m. at 94–96. He has consulted on approximately one thousand motor vehicle cases and teaches courses in biomechanical engineering and injury causation analysis. TP, 12/14/05 p.m. at 99–100, 103–104. The idea that Dr. Banks does not have the expertise required to place a surrogate in an exemplar vehicle and calculate the expected position of loading marks on the seatbelt is simply ludicrous. He has the requisite "knowledge, skill, experience, training," ***and*** "education" to conduct such testing and render an expert opinion based on the results.

Courts have recognized that "injury causation and engineering are inexorably intertwined." *Dorsett v. Am. Isuzu Motors, Inc.*, 805 F. Supp. 1212, 1226 (E.D. Pa. 1992). The

five-step procedure for injury-causation analysis regularly employed by biomechanical engineers—including Dr. Banks in this case—requires an analysis of damage to a vehicle to determine how the occupant and vehicle interacted.[15] *See, e.g., Sport v. Cont'l W. Ins. Co.*, No. 04-1386-KMH, 2006 WL 618271 at *3 (D. Kan. Mar. 10, 2006). Dr. Banks appropriately was admitted as a biomechanical expert and allowed to opine on his injury-causation analysis of this accident without objection. His analysis included opinions based on damage to both the interior and exterior of Udac's vehicle and the correlation between that damage and Udac's injuries. For example, he testified that deformations on the roof rail and outward bowing of the roof were caused by Udac's contact with the interior of the roof during his ejection. TP, 12/15/05 at 100. This correlated with certain bruises and abrasions on Udac's left side as he passed through the sunroof. TP, 12/15/05 at 108–09. He also testified that the rubber gasket found encircling Udac's waist after the accident was from the sunroof, which he verified through comparison with a gasket from an exemplar 1987 Pathfinder. TP, 12/15/05 at 84–88, 102–04. Even more telling, on cross-examination Udac asked Dr. Banks whether he could draw certain inferences about Udac's injuries based on specific types of damage to the interior of the vehicle. TP, 12/15/05 at 151, 166, 168. If Dr. Banks was qualified to give this testimony—and he surely was—he also was qualified to testify about how the interaction between Udac and the seatbelt would have "damaged" the seatbelt webbing (by causing certain types of abrasions and deformations) if Udac had been wearing the seatbelt. It was a clear abuse of discretion to exclude the critical surrogate study based on a supposed lack of expertise in this extremely well qualified witness. *See*, *e.g.*, *Cababag*, 9 Haw. App. at 504, 850 P.2d at 721 ("the trial court's discretion to qualify a witness as an expert is wider than its discretion not to do so").

c. The exclusion of Dr. Banks's study was highly prejudicial

The exclusion of the highly probative surrogate study could not have been more prejudicial. Udac's claim that he was wearing a seatbelt rested in large part on Dr. Renfroe's opinion that there were marks on the webbing consistent with loading caused by Udac during the

[15] This five-step analysis includes: (1) vehicle dynamics (the motion of the vehicle during the crash); (2) occupant kinematics (the motion of the occupants inside the vehicle); (3) biomechanics (what happens to the body as a result of the motion within and outside of the vehicle); (4) determination of injury potential (the type of injuries expected from the motion of the vehicle and the occupant's interaction with the interior of the vehicle); and (5) comparison with the medical records. TP, 12/15/05 at 19–22.

accident. *See* page 12, *supra*. Dr. Renfroe admitted that in other cases he has conducted surrogate studies to confirm that the locations of marks on the seatbelt correspond with the occupant who allegedly was wearing the belt. But, without any explanation and quite suspiciously, he failed to conduct such a study here and instead simply hypothesized that the marks were in the right location based on his visual inspection. TP, 11/30/05 p.m. at 17–18. Dr. Banks would have exposed Dr. Renfroe's strategic decision not to conduct a surrogate study in this case by proving that an appropriate scientific measurement contradicted Dr. Renfroe's visual guesstimate. Moreover, by proving that there were no loading marks from Udac on Udac's seatbelt, the study would have provided reliable, affirmative evidence that Udac was not wearing his seatbelt during the accident. It is no exaggeration to say that Dr. Banks's surrogate study alone could have resulted in a verdict for Takata. Accordingly, the erroneous exclusion of that evidence requires that the judgment be vacated.

2. The erroneous exclusion of Dr. Banks's rebuttal testimony on Udac's bruising

Udac's brother, Paul Udac, testified at his deposition that he did not remember seeing any bruises on Udac when he visited Udac at the hospital. *See* Paul Udac Dep. at 38. At trial he offered a completely different story, introducing photographs of markings on Udac taken during Udac's hospital stay and opining, even though he had no medical expertise, that certain marks on Udac's left shoulder, left hip, and stomach were caused by the seatbelt. TP, 12/1/05 p.m. at 56–74. In response to this unexpected medical opinion from a lay witness, Takata sought to elicit rebuttal testimony from Dr. Banks, a physician and biomechanical expert, that, based on his expertise and an examination of Udac's medical records, these bruises and marks were ***not*** caused by a seatbelt but by Udac's ejection from the vehicle through the sunroof.

Notwithstanding that Paul Udac's in-court testimony was completely unexpected, the court upheld Udac's objection to Dr. Banks's rebuttal testimony and excluded it on the ground that Dr. Banks had not addressed these individual marks and bruises in his pre-trial expert report. TP, 12/15/05 at 116–17.[16]

But the premise of the circuit court's ruling is false. Dr. Banks's pre-trial report opined: "[t]here is no objective evidence that Mr. Udac was wearing the available lap/shoulder restraint

[16] Dr. Banks was permitted to testify that the marks on Udac's left shoulder were caused by the insertion of a catheter during Udac's hospitalization. *See* TP, 12/15/05 at 112–16.

assembly during this crash," "Mr. Udac's thoracic injuries occurred during ejection through the sun roof opening and on contact with the terrain following ejection from the sun roof," and the "reported left-sided scrapes, abrasions, and other injuries likely related to contact with the sun roof frame during ejection."[17] RA, V.9 at 15. Those opinions plainly encompass the rebuttal testimony that he would have given on the causes of the specific bruises and marks identified by Paul Udac for the first time at trial. Accordingly, the circuit court's ruling was in error.

But even if the proffered rebuttal testimony technically would have exceeded the scope of Dr. Banks's pre-trial report, its exclusion still was an abuse of the court's discretion under HRCP 26 and 37 because Takata clearly had "substantial justification" for not supplementing Dr. Banks's report with such opinions prior to trial. Hawai`i's rules of civil procedure require a party to disclose expert opinions prior to trial, subject to limitations imposed by court order, and to seasonably supplement these disclosures. *See* HRCP 26(b)(1)–(2), (5)(A); 26(e)(1)(B). "A party that ***without substantial justification*** fails to amend a prior response to discovery as required by Rule 26" is not "permitted to use as evidence * * * any witness or information not so disclosed" unless "such failure is harmless." HRCP 37(c)(1) (emphasis added). Given the undisclosed and unexpected nature of Paul Udac's testimony, Takata would have had to be clairvoyant to have appropriately supplemented Dr. Banks's report prior to trial. Accordingly, the circuit court should have allowed Dr. Banks to rebut Paul Udac's opinions even if the exact testimony he would have offered in rebuttal was not contained in his report.

The circuit court's ruling is directly contrary to the holding of the Hawai`i Supreme Court in *Monlux v. General Motors Corp.*, 68 Haw. 358, 362-64, 714 P.2d 930, 932-34 (1986). In *Monlux*, as here, the parties disputed whether the accident could have happened as the plaintiff described it. At trial, the plaintiff's expert suggested that a certain factor made the plaintiff's account possible even though he "had not emphasized the significance of this factor during discovery." *Id.* at 362, 714 P.2d at 933. Here, Paul Udac opined that certain bruises and marks showed that Udac had been wearing his seatbelt even though he specifically disavowed any such

[17] Moreover, Dr. Banks testified at his deposition that Udac's medical records did not show any of the marks or injuries that would be present if he had been wearing his seatbelt, *e.g.*, marks on the clavicle, the right hip, "across the waist, the lap, across the two bony areas of the pelvis in front." Banks Dep. at 88–91; *see also id.* at 34–37; 82–84. The circuit court's pretrial order specified that "[t]he opinions of all experts shall be considered final at the conclusion of their respective depositions." RA, V.5 at 202.

opinion during discovery. In *Monlux*, the defendant "unsuccessfully sought to introduce rebuttal testimony on what it felt was a new theory" and "sought permission to demonstrate how [the product] operated under conditions described by the [plaintiff's expert]." *Id.* Here, Takata unsuccessfully sought to introduce rebuttal testimony on whether the bruises and marks identified by Paul Udac really were caused by a seatbelt as he claimed. In *Monlux*, the Supreme Court held that the exclusion of evidence offered to rebut unexpected testimony at trial was error and, accordingly, vacated the judgment and remanded for retrial. *Id.* at 360, 714 P.2d at 931. The same result is required here.

Furthermore, in construing Federal Rule of Civil Procedure ("FRCP") 26 and 37, the federal counterparts of HRCP 26 and 37, courts have held that the "rules are not designed to prohibit a witness from testifying about anything not explicitly mentioned in his Rule 26 disclosure, but rather to protect one party from being blindsided by another party with new opinions never before discussed."[18] *Cary Oil Co. v. MG Ref. & Mktg., Inc.*, No. 99 Civ. 1827(M), 2003 WL 1878246, at *4 (S.D.N.Y. Apr. 11, 2003); *see also Dorsett*, 805 F. Supp. at 1223 ("[T]he court has never required that ***everything*** an expert testifies to be contained in the report."). Thus, courts have allowed experts to testify to facts and opinions ***related to*** an opinion in their report if the party objecting to the testimony cannot demonstrate significant surprise or prejudice. *See, e.g.*, *Nalder v. West Park Hosp.*, 254 F.3d 1168, 1178 (10th Cir. 2001); *Cary Oil Co.*, 2003 WL 1878246, at *4; *Dorsett*, 805 F. Supp. at 1223. Here, the excluded testimony clearly relates directly to the substance of Dr. Banks's report and thus falls within this exception.

Furthermore, because Dr. Banks's report (i) rendered an opinion on the causes of Udac's injuries and (ii) opined that there were ***no*** injuries suggesting seatbelt use, plaintiffs were well aware of his opinion that none of Udac's injuries were caused by a seatbelt, which necessarily meant that the bruises and marks identified by Paul Udac were not caused by a seatbelt. Thus, Udac could not legitimately claim to be prejudiced by the admission of Dr. Banks's rebuttal

[18] Because the HRCP are patterned after the FRCP, federal court interpretations of FRCP 26 should be considered "highly persuasive" in construing HRCP 26. *See Ellis v. Crockett*, 51 Haw. 45, 60, 451 P.2d 814, 824 (1969); *see also Nelson v. Univ. of Haw.*, 97 Hawai`i 376, 393 n.14, 38 P.3d 95, 112 n.14 (2001) ("[w]here we have patterned a rule of procedure after an equivalent rule within the FRCP, interpretations of the rule of the federal courts are deemed to be highly persuasive in the reasoning of this court").

testimony. *See Lee v. Elbaum*, 77 Hawai`i 446, 454, 887 P.2d 656, 664 (App. 1993) (noting that HRCP 26 was designed in part to eliminate surprises at trial); *Dorsett*, 805 F. Supp. at 1223 ("So long as the report is sufficient to put the opposing party on notice as to what the expert would say, the court will allow the expert to say it.").

By excluding Dr. Banks's rebuttal testimony, the court deprived Takata of the opportunity to mitigate the harm caused by Paul Udac's surprise lay-witness testimony on the cause of certain marks and bruises.[19] As a result, the jury was left with only the unchallenged opinion of Paul Udac, a man with no medical training or experience, regarding the cause of the specific marks that he identified on Udac's hip and stomach. This severely prejudiced Takata's ability to demonstrate that Udac was not wearing his seatbelt, giving the jury the false impression that Takata had no response to Paul Udac's opinion. *See, e.g.*, *Moyer v. United Dominion Indus., Inc.*, 473 F.3d 532, 545 (3d Cir. 2007) ("A party is severely impaired when it is prohibited from presenting its theory of a case in a comprehensive and organized manner at trial, even if it has managed to slip a few references into the record.").

The prejudice from this ruling obviously was compounded by the court's exclusion of Dr. Banks's surrogate study, which would have provided affirmative proof that Udac was not wearing a seatbelt during the accident. Individually, these errors were highly prejudicial; together they effectively undermined Takata's "front-line" defense that Udac was not even wearing his seatbelt so that any dispute about hypothetical defects in the TK-821 was irrelevant. Accordingly, these errors, both individually and together, require that the judgment be vacated.

B. The circuit court erroneously admitted irrelevant patents for other seatbelt buckles.

The patents that Takata filed in 1984 and 1987 for the TK-52 and A-95 buckles (Exhs.1481, 1482, respectively), have nothing to do with the TK-821 buckle at issue in this case. Nevertheless, those patents played a central role here: They were the foundation for Udac's

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[19] Because the circuit court excluded Dr. Banks's testimony on the cause of the individual bruises and marks identified by Paul Udac, Takata sought to elicit more general testimony from Dr. Banks regarding the "normal procedure * * * in noting bruises related to seat belt use in the medical record." TP, 12/15/05 at 118. Although Dr. Banks is a medical doctor and was offered as an expert in biomechanics and injury causation, the court nonetheless excluded that testimony as well on the grounds that it was outside of the area for which Dr. Banks was offered as an expert. TP, 12/15/05 at 118. On the contrary, as noted above, Dr. Banks's pre-trial report specifically opined on the absence of any bruises or marks consistent with seatbelt use. *See* RA, V.9 at 15.

"inertial release" theory of defect and provided one of only three pieces of evidence allegedly supporting the punitive award. Takata objected to the admission of the patents because they involve later-developed buckles from a different product line than the TK-821 and do not include any statements or claims that in any way relate to the safety of the TK-821. The circuit court overruled Takata's objection, finding that the patents were "relevant to [Takata's] knowledge of the inertial release condition." TP, 12/6/05 a.m. at 36. Under HRE 401 and 402, the court's ruling was erroneous because the patents do not in any way tend to show that there is a defect in the TK-821—let alone that Takata knew of such a defect—and they are not evidence of an alternative design that could have "solved" a hypothetical inertial-release defect in the TK-821.

Evidence is relevant only if it has a "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." HRE 401. The patents admitted by the circuit court fail that test. Neither of the disputed patents states, or even implies, that the TK-821 buckle at issue in this case is defective or unsafe in any way. On the contrary, the patents say exactly the opposite. They expressly state that spring-based buckles use springs that are strong enough to ***prevent*** inertial release. They further explain that the strength of those springs makes it more difficult to release the buckle manually, which may cause annoyance to the user. *See* pages 6-7, *supra*; Exhs.1481, 1482. The novel design elements in the TK-52 and A-95 patents did not address a safety issue with prior-art buckles—there was no safety issue—but allowed the buckles to be manually released with less force, providing a design that is more ***convenient*** for users. *Id.*; *see also* Kitamura Dep., V.III at 252-54, 262, 331-32. Indeed, Takata continued to sell the TK-821 for installation in new vehicles until the late 1990s and still manufactures it today as a replacement part for vehicles in which it originally was installed. *See* Kitamura Dep., V.I at 40–41. Because neither of these patents says ***anything*** about the safety of the TK-821 or spring-based buckles generally, they cannot rationally be interpreted as "admitting" that the TK-821 buckle is unsafe or defective in any way.

Not only are the patents silent on the relative safety of the TK-52 and A-95 buckles as compared to the TK-821, so too was Udac. He did not offer any evidence that the designs used in these patents resulted in a safer buckle (let alone that the designs would have prevented his injuries). He did not produce testing showing that the TK-52 or A-95 buckles release only at higher inertial forces than the TK-821 or statistics showing that those buckles have a better track

record in the real world, which is unsurprising given the TK-821's spotless record. Indeed, the only testimony in any way related to the relative safety of these buckles was Dr. Renfroe's opinion that the TK-52 buckle is susceptible to inertial release. TP, 12/6/05 a.m. at 35–36.

Finally, it was undisputed that the statements about spring-based buckles in these patents (regardless of their content) do not refer to the TK-821. Mr. Kitamura, a co-inventor of all three buckles, testified that the TK-821 is not from the same product line as the TK-52 and A-95 buckles and that the "prior-art" referenced in the TK-52 and A-95 patents thus does ***not*** include the TK-821. *See* Kitamura Dep., V.II at 222; V.III at 273, 321–22, 331-32. The fact that these patents are from a different product line than the TK-821 buckle should have been enough, by itself, to warrant their exclusion. The Hawai`i Supreme Court has held that evidence related to a different product line than the product at issue should be excluded as "structurally different" (unless the party offering it can prove otherwise). *See Tabieros*, 85 Hawai`i at 380-81, 383, 944 P.2d at 1324 (holding that report on operational, engineering, structural and ergonomic characteristics of a different model-series of straddle carriers by the same manufacturer lacked substantial similarity and was properly excluded).

In sum, these patents did not in any way tend to prove that the TK-821 is defective, that Takata knew of a defect in the TK-821, or that there was a safer alternative design available to Takata. Because they did not tend to prove any fact at issue in this case, they should never have been admitted. Once the patents were admitted, however, they were severely prejudicial. The patents—or, more accurately, Udac's twisted interpretation of the patents—was an indispensable element of Udac's "inertial release" theory of defect and punitive damages claim.

During opening and closing arguments, Udac's counsel contended that the TK-52 and A-95 patents contain damaging admissions that prior-art spring-based buckles, including the TK-821, are subject to inertial release. TP, 11/16/05 a.m. at 118-21; 12/20/05 p.m. at 34; *see also* RA, V.7 at 258–62 (making same argument in plaintiffs' opposition to Takata's motion for summary judgment on the punitive damages claim). He claimed that the designs in the patents were intended to "solve" an inertial-release defect by introducing a locking bar into the buckle design. TP, 11/16/05 a.m. at 118–21. Udac did not offer an expert to interpret the technical language in the patents—an expert never would have interpreted them as he did—but his counsel simply took language from the patents out of context, suggesting that because the patents refer to

inertial release and purport to solve a problem with spring-based buckles, they must be "solving" an acknowledged inertial-release defect in spring-based buckles.

As described above (at 6-7), that suggestion finds no support in the patents. The patents do not purport to solve a safety-related inertial-release defect in existing buckles, but rather address an issue of user convenience. Because the patents are written in technical language and are not drafted with clarity for the lay-person in mind, however, Takata was unable to refute Udac's misleading interpretation of the patent-claim language. Indeed, the circuit court itself appears to have embraced Udac's misreading of the patents.[20] *See* App. D at 2.

Other than the patents, the only evidence allegedly supporting Udac's "inertial release" theory was Dr. Renfroe's thoroughly discredited "bench-test." *See* pages 7-9, *supra*. The results of that test alone were woefully inadequate to support the verdict. Dr. Renfroe conceded that he is the inventor and sole practitioner of the "bench test" methodology. He said that he created the test recently for purposes of litigation and did not have any experiments, studies, or articles validating his methodology or demonstrating that it in any way correlates to real-world performance of buckles in accidents. The fact that Dr. Renfroe could offer no foundation for his idiosyncratic testing methodology is particularly remarkable because he conceded that the industry-standard shock-table testing is perfectly reliable and is the test regularly and legitimately used by other engineers. TP, 11/30/05 p.m. at 65–66. He had no explanation for refusing to use shock-table testing (other than that the results of his "bench test" were more favorable for his client) and made no effort to justify the enormous disparity between his results and those from the shock-table method that he conceded is reliable (*i.e.*, 112 g's versus 598 g's for a vertical impact and 146 g's versus more-than-700 g's for a lateral impact).[21] TP, 11/30/05 p.m. at 65–66.

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[20] The fact that patents are written to highlight the novel claims of an invention in the peculiar language of intellectual property, and not to communicate effectively with lay-people, is one more reason that the circuit court should have been more circumspect before admitting these patents as evidence of an "admission" by Takata.

[21] There are numerous other deficiencies in Dr. Renfroe's results. Dr. Renfroe admitted that his "bench test" does not account for loading tension on the belt, which can affect the force required to cause inertial release. TP, 11/30/05 p.m. at 60–61. He also used a non-standard data filter that caused his results to understate the actual g forces experienced by the buckle in his experiment. Use of the appropriate filter, unsurprisingly, revealed not only higher actual forces but also serious abnormalities in Dr. Renfroe's data, indicating that there was a fundamental

To put the disparity between these results in perspective, according to the industry-standard testing methodology (which all experts agreed is reliable), the TK-821 will not release even when exposed to the maximum force ever measured in a rollover accident according to Dr. Renfroe (TP, 12/14/05 a.m. at 20-25; 11/30/05 p.m. at 78–79). It was only by using a novel testing method that (i) was invented for purposes of litigation, (ii) is practiced by only one person, (iii) takes no account of important variables, (iv) incorporates a distortive data filter, (v) never has been verified or shown to correlate with actual performance, and (vi) never has been subjected to peer review, that Dr. Renfroe was able to obtain results more favorable for his client, indicating that the TK-821 will release when exposed to forces that are slightly less than the maximum forces experienced in a typical rollover accident (TP, 11/30/05 p.m. at 60–61, 65–66; 12/14/05 a.m. at 44–46).

No jury would have been convinced by this sort of "junk science" if it had not been distracted by false claims that Takata already had admitted to the defect that Dr. Renfroe claimed to have discovered with his "bench test." At the very least, Takata is entitled to a new trial in which the jury is allowed to evaluate the industry-standard shock-table results (along with the TK-821's testing history and 20-year record of safe operation) and the transparently contrived "bench test" on their merits, without a misleading focus on supposed "admissions" in irrelevant patents.[22]

The patents also played a central role in Udac's punitive damage claim. Because the TK-821 met every government safety standard, passed every test ever administered (until Dr. Renfroe's "bench test"), and has never failed to operate safely in over 20 years of operation in millions of vehicles around the world, Udac was compelled to overcome a very high—we submit, insurmountable—hurdle to justify an award of punitive damages. The patents were one

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problem with his instrumentation, test technique, or testing equipment. TP, 12/14/05 a.m. at 45–46.

[22] Udac argued for the first time in closing argument that the patents also showed that Takata knew of "inadvertent release before 1987 when it supplied the TK-821 to Nissan to be put in the Pathfinder." TP, 12/20/05 p.m. at 34. There is nothing at all in the patents to support that outrageous assertion: The patents are silent on inadvertent release and Udac did not present any evidence that they addressed a problem related to inadvertent release. It is indicative of the circuit court's approach to this case that, despite the complete absence of any evidence, it cited the TK-52 patent in its findings on punitive excessiveness as evidence that "[p]rior to 1987, Takata knew that the TK-821 was susceptible to inertial ***and inadvertent*** release." App. D at 2.

of only three pieces of evidence identified by the circuit court as supporting the punitive verdict. *See generally* Part IV, *infra*. Indeed, the patents, supposedly containing an admission that the TK-821 is defective, were the linchpin of Udac's punitive damages case: They were the only piece of evidence that Udac claimed showed that Takata knew of a defect before the TK-821 was installed in Udac's 1987 Pathfinder. Although the evidence at trial, even with the patents, is inadequate to justify an award of punitive damages (*see* Part IV, *infra*), there is no doubt that the exclusion of the patents would have dramatically weakened if not completely undermined Udac's argument for punitive damages.

The erroneous admission of these irrelevant patents requires that the judgment, or at least the punitive component, be vacated.

C. The circuit court erroneously admitted irrelevant Nissan Design Specifications for a later model year vehicle.

When Nissan selected the TK-821 for installation in the 1987 Pathfinder, it required the buckle to meet certain design requirements, set out in the 1981 Nissan Design Specifications ("NDS"). TP, 11/28/05 a.m. at 37–38; Kitamura Dep., V.I at 108. The 1981 NDS were admitted in this case (*see* Exh. 1587), and it is undisputed that the TK-821 met all of those specifications.

Five years later, Nissan issued new design specifications for the 1992 model-year Pathfinder. The 1992 NDS added several specifications that had not been included in the 1981 NDS, including a requirement that the seatbelt buckle should not release when pressed with a 40-mm diameter ball. Because it did not meet some of the new specifications in the 1992 NDS, including the 40-mm ball-press requirement, Takata did not offer the TK-821 for installation in the 1992 Pathfinder. But the specifications in the 1992 NDS related only to new vehicles; they did not apply to parts (even replacement parts) for older vehicles such as the 1987 Pathfinder in which the TK-821 had been installed.

Udac sought to introduce the 1992 NDS as evidence that the TK-821 was defective because it did not satisfy the 40-mm ball-press requirement. TP, 11/28/05 a.m. at 37–38. Takata objected, pointing out that the 1992 NDS are irrelevant to the issues in this case but, because they include specifications that the TK-821 does not meet, would be extremely prejudicial. TP, 11/28/05 a.m. at 37–38; 12/6/05 p.m. at 4–5. The circuit court overruled Takata's objections and admitted the 1992 NDS, purportedly because the 1992 NDS contain "specifications which existed prior to 1992" (*i.e.*, some of the individual specifications in the 1992 NDS were the same as specifications in the 1981 NDS). TP, 12/6/05 p.m. at 4–5; 11/28/05 a.m. at 38. At trial, the

1992 NDS—in particular, the new 40-mm ball-press requirement—became the central piece of evidence supporting Udac's "inadvertent release" theory of defect and one of only three pieces of evidence supposedly supporting the punitive award.

The circuit court's failure to exclude this irrelevant and highly prejudicial evidence was reversible error under HRE 401 and 402. Furthermore, the court's stated justification for admitting the 1992 NDS—because they included some of the same specifications as the 1981 NDS—was an abuse of discretion under HRE 403 because the applicable 1981 NDS was already admitted in evidence.

1. The 1992 NDS and their 40-mm ball-press test are irrelevant here

To be relevant to the issues in this case, the 1992 NDS must tend to prove either that the TK-821 has an inadvertent-release defect because it does not meet the 40-mm ball-press requirement or that Takata "learned" that the TK-821 was defective when Nissan issued the 1992 NDS. It does not tend to prove either of these propositions.

This much is undisputed: (i) the 1981 NDS were the specifications that applied to the TK-821 and did not include a ball-press test requirement; (ii) Nissan introduced the 40-mm ball-press test for the first time in the 1992 NDS; and (iii) Nissan has never recalled parts for older model-year vehicles because they did not comply with the 1992 NDS and has not even required that replacement parts for older model-year vehicles comply with the 1992 NDS. (In other words, Nissan still considers the 1981 NDS to be the relevant standard for, *inter alia*, the 1987 Pathfinder.) *Compare* Exh. 1587 (1981 NDS) *with* Exh. 1490 (1992 NDS). On its face, then, the 1992 NDS represents nothing more than the design-specification choices of a single automobile manufacturer for a particular later-model-year vehicle. As such, they have nothing to do with the safety of theTK-821, particularly as installed in a different and earlier-model-year vehicle.

Consistent with the NDS themselves, one of the Takata engineers who designed the TK-821, Mr. Kitamura, testified that the 1992 NDS, including its 40-mm ball-press test, did not apply to the TK-821 and was never considered to be evidence that there was a problem with the TK-821 (which, by that point, had been installed in the 1987 Pathfinder for five years). *See* Exh.1490; Kitamura Dep., V.I at 107-08. Indeed, there was no reason for Takata to interpret Nissan's new design specifications for the 1992 model-year as reflecting a judgment that past model-years contained defective parts. It was Nissan that designed the occupant compartments

of its vehicles and decided what specifications were necessary to result in a safe vehicle. And, as noted, Udac did not show that Nissan issued a recall of seatbelts in pre-1992 vehicles or even required that the replacement parts for pre-1992 vehicles meet the new specifications.[23]

Udac also failed to produce any evidence that Nissan's 1992 NDS embodied an acknowledged industry standard and therefore should have put Takata on notice that the TK-821 was defective. Udac admitted that there are no studies establishing a connection between ball-press testing and the propensity of buckles to inadvertently release in the real world. TP, 11/30/05 p.m. at 37–38. Nor did Udac present any evidence that other buckles have been recalled or found to be defective because of ball-press testing results. Indeed, there was no evidence regarding the actual frequency of inadvertent release in real-world accidents, let alone evidence that inadvertent release is correlated with ball-press testing results.

On the contrary, the evidence at trial was inconsistent with the hypothesis that ball-press testing—and the 40-mm ball test in particular—represent an industry-wide safety standard for buckles in all vehicles. As noted, Nissan did not treat the test as if it were evidence of a safety defect in pre-1992 vehicles. It was undisputed that federal safety standards for seatbelt components—which have been in existence for over 40 years—do not include (and never have included) a ball-press requirement.[24] *See* 49 C.F.R. §§ 571.208–.209. And in Europe, current safety regulations explicitly ***allow*** automobiles to use buckles that release when pressed with a 40-mm ball. Kitamura Dep., V.II at 210–11; TP, 12/14/05 a.m. at 63. Moreover, Mr. Kitamura and Mr. Cooper gave unchallenged testimony that the risk of inadvertent release depends not only on the buckle, but also on various aspects of the specific vehicle in which a seatbelt is installed. Kitamura Dep., V.I at 71; TP, 12/14/05 a.m. at 69–70. Even Dr. Renfroe, Udac's expert, admitted that those car manufacturers who currently require buckles to satisfy a ball-press requirement use different diameter ball tests. TP, 11/29/05 p.m. at 54–55. Thus, even if there

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[23] Federal law places the responsibility for identifying and recalling defective original equipment on the vehicle manufacturer, not the component manufacturer. *See* 49 U.S.C. §§ 30102(b)(1)(C) and (b)(1)(F); 49 C.F.R. § 573.5.

[24] In fact, the National Highway Traffic Safety Administrator has explicitly rejected the 40-mm ball test as a safety standard, insisting that compliance with FMVSS 209—which includes no such test—is to be assessed using only those measures mentioned in the regulation. *See* Letter from Stephen P. Wood, Assistant Chief Counsel, NHTSA to Robert E. Norton II, Senior Staff Counsel, DaimlerChrysler Corp., re: interpretation of FMVSS 209 (May 22, 2003), *available at* http://isearch.nhtsa.gov/files/001688cmc_DC_acc%20release.html.

had been some evidence that ball-press testing correlates with inadvertent release—which there was not—Udac still would have failed to prove that the 40-mm ball, as opposed to a larger diameter ball, was the appropriate measure of safety in the 1987 Pathfinder. *See, e.g., Quacchia v. DaimlerChrysler Corp.*, 122 Cal. App. 4th 1442, 1450 (Cal. Ct. App. 2004) (to determine whether a seat belt buckle is defective in different vehicles one must "look separately at the buckle's installation and operation in each vehicle"); *see generally Daly v. Gen. Motors Corp.*, 575 P.2d 1162, 1174-75 (Cal. 1978) (when determining whether there is a defect, courts must "consider the product as an integrated whole").

Finally, by the time Nissan issued the 1992 NDS, the TK-821 had been in use in millions of vehicles around the world for almost ten years and had been in use in the 1987 Pathfinder for five years. It was undisputed that, during that time, Takata had not received even a single report of any type of failure, including inadvertent release. Kitamura Dep., V.II at 217.[25] The TK-821's proven track record of safe operation in the real world undermines any relevance that a new technical design specification from a car manufacturer (lacking any demonstrated connection to real-world operation or safety concerns) might otherwise have had. The 1992 NDS simply do not tend to prove or disprove any issue involved in this case.

2. To the extent it contained relevant information, the 1992 NDS was cumulative of the 1981 NDS

Although this is not how he actually used the 1992 NDS at trial, in opposing Takata's motion to exclude the specifications Udac claimed that he would offer them as evidence that certain specifications in the 1992 NDS were "still applicable to the TK-821 [buckle] that was in fact manufactured and installed in [Udac's] vehicle."[26] TP, 11/28/05 a.m. at 38. The circuit court accepted that argument and admitted the 1992 NDS because they contain "specifications which existed prior to 1992." TP, 12/6/05 p.m. at 4–5; 11/28/05 a.m. at 38.

That too was an erroneous basis to admit the 1992 NDS, because the 1981 NDS that contained all of the applicable specifications for the TK-821 already were in evidence. To the

[25] Indeed, this case is the only report of alleged inadvertent release in the TK-821 that Takata has received in the 15 years since the 1992 NDS. Kitamura Dep., V.III at 324–27.

[26] In fact, none of the specifications in the 1992 NDS were applicable, let alone "still applicable," to parts installed in pre-1992 vehicles. Certain specifications in the 1992 NDS happened to be the same as specifications in the 1981 NDS, but that does not make the 1992 NDS themselves (even those duplicative specifications) applicable to pre-1992 parts such as the TK-821.

extent that the 1992 NDS contained some of the same specifications, they were purely duplicative and "[their] probative value [was] substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence." HRE 403. "Unfair prejudice means an undue tendency to suggest decision on an improper basis." Advisory Committee's Commentary to HRE 403. "When the need for the evidence is low and when alternative means to present the evidence exist, then prejudice to an opponent can be said to be unfair when the proponent could prove the fact by other non-prejudicial evidence." *Lau v. Allied Wholesale, Inc.*, 82 Hawai`i 428, 436, 922 P.2d 1041, 1049 (App. 1996) (internal quotation marks omitted). That rule is dispositive here.

The need for the 1992 NDS was low, in fact non-existent, because the 1981 NDS that applied to the TK-821 provided an alternative non-prejudicial means to present any relevant information contained in 1992 NDS. The 1992 NDS added nothing new to the issues in this case because whatever 1992 specifications that were not duplicated in the 1981 NDS, including the 40-mm ball-press requirement, did not apply to the TK-821.

In contrast to the non-existent probative value of the 1992 NDS, their prejudicial effect was extremely high. Takata acknowledged that the TK-821 would release if pressed by a 40-mm ball, but pointed out that there was no ball-press requirement for the 1987 Pathfinder and no reason to think that ball-press testing results were evidence of a defect in the TK-821. *See* pages 10-11, *supra*. But because the 1992 NDS applied to "Pathfinders" (albeit only those produced after 1992), they gave the jury the false impression that the TK-821 in Udac's 1987 Pathfinder somehow failed to meet an applicable safety standard.

Moreover, the 1992 NDS were the only evidence that could even be misconstrued to support Dr. Renfroe's opinion that the 40-mm ball-press test demonstrated an inadvertent-release defect in the TK-821. Setting aside his misleading reliance on the 1992 NDS, his opinion that the 40-mm ball-press test is a general safety standard was contradicted by (i) the federal regulations for seatbelts, which do not contain a ball-press requirement; (ii) European regulation, which explicitly rejects his position; (iii) the 1981 NDS that applied to the TK-821, which contain no ball-press requirement; and (iv) the acknowledged lack of a uniform standard among even those automobile manufacturers that currently require buckles to satisfy some ball-press requirement. *See* pages 33-35, *supra*. Without the 1992 NDS, Udac's inadvertent-release theory

would have ***no*** support other than Dr. Renfroe's *ipse dixit*. The jury very well could have decided that the unsubstantiated opinion of a single paid expert was not enough to overcome all the contrary evidence, including the undisputed fact that there were no other reports of inadvertent release involving the TK-821 during the two decades in which it had been installed in millions of vehicles around the world.

The 1992 NDS also played a significant role in Udac's punitive damages claim, serving as one of only three pieces of evidence that supposedly justified the $12.5 million award. *See generally* Part IV, *infra*. Even though the 1992 NDS were not issued until five years after the TK-821 had been installed in Udac's 1987 Pathfinder, and thus cannot demonstrate Takata's "conscious wrongdoing" at the time that the TK-821 was designed and installed in Udac's vehicle, Udac argued that Takata acted with "conscious wrongdoing" by failing to recall millions of buckles around the world based on the 1992 NDS. TP, 12/20/05 p.m. at 34-35; 48. Although that contention has no merit, the circuit court accepted it (*see* App. D at 2); as a result, there can be no doubt that the erroneous admission of the misleading 1992 NDS was highly prejudicial to Takata and requires reversal.

II. THE CIRCUIT COURT ERRONEOUSLY INSTRUCTED THE JURY ON BOTH THE "LATENT DANGER" THEORY OF PRODUCT DEFECT AND NEGLIGENT FAILURE TO WARN.

Not only did the circuit court commit a series of highly prejudicial evidentiary errors, it also instructed the jury on misleading theories of liability that find no support in the record. Specifically, the circuit court instructed the jury on two theories of liability premised on Takata's alleged failure to warn of a known danger even though any warning regarding the defects that Udac claimed Takata knew about clearly would have been futile.

At Udac's request, the circuit court instructed the jury on three separate tests for finding a product to be defective: the consumer expectation test, the risk/utility test, and the latent danger test. TP, 12/20/05 a.m. at 79. The instruction for the latent danger test stated:

> [Y]ou may find the product defective if Plaintiffs prove the following:
>
> 1. Even if faultlessly made, the use of the product in a manner that is intended or reasonably foreseeable, involves a substantial danger;
> 2. The manufacturer knew about the danger;
> 3. The danger would not be readily recognized by the ordinary user or consumer of the product; and
> 4. The manufacturer failed to give adequate warnings of the danger or adequate instructions for safe use.

TP, 12/20/05 a.m. at 81–82 (Plaintiffs' Instruction #6). This instruction is based on Hawai`i Civil Jury Instruction No. 11.15, which reflects the "latent danger" test for a design defect that was first recognized by the Hawai`i Supreme Court in *Masaki v. General Motors Corp.*, 71 Haw. 1, 22 n.10, 780 P.2d 566, 578 n.10 (1989), and reaffirmed by the Court in *Tabieros*, 85 Hawai`i at 370-71, 944 P.2d at 1313-14.

The circuit court, on its own initiative, also proposed and gave the following instruction:

> It is the duty of manufacturers to exercise reasonable care in the design of its [sic] products to protect against foreseeable danger. A manufacturer must give appropriate warning of any known dangers which the user of its products would not ordinarily discover.

TP, 12/20/05 a.m. at 82 (Court's Instruction #12).

Takata objected to these instructions, pointing out that the latent-danger instruction "fails to follow the Hawai`i law set forth in *Tabieros*" (TP, 12/20/05 a.m. at 10) and that the negligent-failure-to-warn instruction was inappropriate because "warnings [are] not an issue in this case" and "there's no evidence introduced to the jury" that would justify such an instruction (TP, 12/20/05 a.m. at 39). The court gave the instructions over Takata's objections.

That was clear error. In *Tabieros*, the Supreme Court recognized two fundamental limitations on failure-to-warn theories of liability (whether based in strict liability or negligence). First, "in order for a manufacturer to be liable for failing to provide an appropriate warning * * * the failure to give an adequate warning[] must have been the ***legal cause*** of the plaintiff's injuries." *Tabieros*, 85 Hawai`i at 370, 944 P.2d at 1313 (emphasis added). Second, "a manufacturer's duty to warn only extends to known dangers." *Id*. (emphasis added). In light of these limitations, no failure-to-warn instruction should have been given in this case.[27]

A. The absence of a "warning" with respect to an alleged inertial-release or inadvertent-release defect could not have caused Udac's injuries.

It is well settled that giving an instruction on a "warning" theory of liability is reversible error if the alleged failure to warn could not have caused the plaintiff's injuries. The contrasting results in *Masaki* and *Tabieros* exemplify this point.

In *Masaki*, the defendant argued that it was error to give the "latent danger" instruction because "there was no evidence that a warning would have prevented the accident." 71 Haw. at

[27] Notably, the circuit court previously had entered partial summary judgment on all warning claims. *See* RA, V.20 at 168-69; TP, 10/21/05 at 43.

26, 780 P.2d at 579. The Supreme Court disagreed, noting that the evidence "indicated that GM could have installed a warning device that would cause an alarm to go off in the event of a misshift. It was a question for the jury to decide whether a blaring horn and flashing light would have caused Masaki to discover the danger and ***thereby have prevented the accident***." *Id.* at 27, 780 P.2d at 580 (emphasis added). In *Tabieros*, on the other hand, the Supreme Court overturned the judgment based on an analogous argument. The Court noted that the plaintiffs in Tabieros "were aware of the blind spot caused by the design of the [product]" and "were familiar with the dangers that the [product] posed to employees in their vicinity." 85 Hawai`i at 371, 944 P.2d at 1314. Therefore, the Court concluded, the defendant "could not be liable to the plaintiffs in this case by virtue of having failed to warn Tabieros of a danger of which he was already aware because ***such a breach could not have been a legal cause of Tabieros's accident***." *Id*. (emphasis added).

Here too, Takata cannot be liable to Udac by virtue of having failed to warn of the alleged inadvertent-release and inertial-release defects because "such a breach could not have been a legal cause of [his] injuries." Udac did not testify that he would have behaved differently if he had seen a warning on inertial or inadvertent release and he did not offer any evidence that such a warning could have prevented his injuries. Indeed, even if Takata had somehow incorporated into the TK-821 a "warning" stating that it could release due to inertial forces in an accident, there would have been nothing that Udac could have done as a result of that "warning" that might have prevented his injuries in this accident. Similarly, even if Takata had incorporated a "warning" that the TK-821 could inadvertently release if the release button were struck during an accident, there would have been nothing that Udac could have done to avoid inadvertently hitting the release button during the accident (particularly because it was undisputed that Udac was unconscious). Because Udac failed to produce any evidence showing that a "warning" regarding either inertial-release or inadvertent-release could have "prevented the accident" (*Masaki*, 71 Haw. At 27, 780 P.2d at 580), "the failure to give an adequate warning[]" with respect to these alleged theories of defect could not have been "the legal cause of [Udac's] injuries" (*Tabieros*, 85 Hawai`i at 370, 944 P.2d at 1313). Accordingly, it was error to instruct the jury on both the latent-danger and negligent-failure-to-warn theories of liability.

B. A failure-to-warn instruction was inappropriate with respect to the alleged false-latch theory of defect.

Udac might respond that a warning instruction was justified for his false-latch theory because the jury could have found that a warning would have caused him to tug on his seat belt to make sure that it was fully latched. That argument cannot justify the instructions given in this case for several reasons.

First, "a manufacturer's duty to warn only extends to ***known*** dangers." *Id.* at 370, 944 P.2d at 1313 (emphasis added). Udac argued that Takata knew about the alleged inadvertent-release defect because of the 1992 NDS and knew about the alleged inertial-release defect because of the TK-52 and A-95 patents. TP, 12/20/05 a.m. at 111; 12/20/05 p.m. at 8-9. As we have shown (*see* parts I.B and I.C, *supra*), both of those arguments are mistaken. But Udac never even suggested that Takata knew about the alleged false-latch defect. As noted above (at 4-5), the only evidence he offered on this theory of defect were the anecdotal accounts of his two experts. He produced no evidence or testimony that the alleged danger of false-latching in the TK-821 was known to Takata at any point prior to Udac's accident. Indeed, as indicated (*see* pages 2-4), the TK-821 passed extensive internal testing for false latching, was certified by an independent testing laboratory as being in compliance with the federal regulations regarding false latching, and never has been reported to false latch in over 20 years of operation in millions of vehicles around the world. Because there was no evidence that false latching was a "known danger[]," Takata would have had no duty to warn even if Udac had shown that the TK-821 has a false-latch defect (which he did not).

Second, even if there were some evidence that Takata knew of, and therefore should have warned of, a false-latch defect in the TK-821, there was no evidence that false latching was the legal cause of Udac's injuries. *See* Part III, *infra*. Indeed, Udac's own expert, Dr. Renfroe, testified that false latching did not occur in this accident (TP, 11/29/05 p.m. at 46–47; 11/30/05 p.m. at 27), and there was no evidence or testimony to the contrary.[28] Because there is no evidence that false latching occurred in this accident, there is no evidence that a warning on false

[28] Indeed, both Viernes (TP, 12/1/05 p.m. at 32–33) and Udac (TP, 12/7/05 p.m. at 58) testified that Udac pulled on his seatbelt after latching it. This testimony constitutes an admission that Udac already did the very thing that a warning presumably would have prompted him to do. This is yet another reason why the failure to give a warning about false latching cannot be the legal cause of Udac's injuries.

latching could have prevented Udac's injuries (*i.e.*, there is no evidence that "the failure to give an adequate warning[]" with respect to false latching was "the legal cause of [Udac's] injuries" (*Tabieros*, 85 Hawai`i at 370, 944 P.2d at 1313).

C. The circuit court's instructional errors necessitate a new trial.

"Erroneous instructions are presumptively harmful and are a ground for reversal unless it affirmatively appears from the record as a whole that the error was not prejudicial." *State v. Arceo*, 84 Hawai`i 1, 11, 928 P.2d 843, 853 (1996) (internal quotation marks omitted). In *Tabieros*, the Supreme Court overturned the judgment based, *inter alia*, on jury instructions that were not supported by the record—including the latent-danger instruction given in this case—because it could not "say that the jury's finding of liability was not premised on either the [inappropriately given] 'consumer expectation' or 'latent danger' tests. Accordingly, it does not affirmatively appear from the record that the jury instructions were not fatally prejudicial on the issue of [the defendant's] liability." 85 Hawai`i at 374, 944 P.2d at 1317.

That result is dispositive here. By giving the latent-danger and negligent-failure-to-warn instructions, the circuit court misleadingly instructed the jury on theories of liability that find no support in the record. As in *Tabieros*, this Court "cannot say that the jury's finding of liability was not premised on" the inappropriate instructions given by the circuit court. Indeed, despite failing to put on any evidence that a warning could have prevented Udac's injuries, his counsel argued these failure-to-warn theories of liability to the jury during closing arguments. *See* TP, 12/20/05 p.m. at 12, 35, 47. Accordingly, as in *Tabieros*, a new trial is required.

III. THE CIRCUIT COURT ERRONEOUSLY ALLOWED UDAC'S "FALSE LATCH" THEORY TO GO TO THE JURY EVEN THOUGH THERE WAS NO EVIDENCE OF A FALSE LATCH IN THIS CASE.

Udac argued that the TK-821 had three independent defects: inertial release, inadvertent release, and false latch. *See* pages 3-11, *supra*. In order to recover on any of these theories, he was required to prove not only that the TK-821 was defective but also that the alleged defect was a "***legal cause*** of [his] injury." *Tabieros*, 85 Hawai`i at 354, 944 P.2d at 1297 (internal quotation and alteration marks omitted); *see also Wagatsuma*, 10 Haw. App. at 563, 879 P.2d at 582 (under either negligence or strict liability, plaintiff must prove that the alleged defect caused his injuries). Specifically, the alleged false-latch defect in the TK-821 could be a "legal cause" of Udac's injuries only if it was "a substantial factor in bringing about the harm" (*Aga*, 78 Hawai`i

at 236, 891 P.2d at 1028), which means that Udac was required to put on evidence that his seatbelt buckle released because of a false latch during his accident. He did not.

There was a real—if lopsided—debate about the abstract question whether the TK-821 has a false-latch defect. Takata pointed out that (i) the TK-821 consistently has passed every industry-standard test for false latching, (ii) the TK-821 was independently certified as being in compliance with federal safety standards regarding false latching, and (iii) the TK-821 has a 20-year history of safe operation without any confirmed instances of false latching. Udac, on the other hand, offered the anecdotal accounts of his two experts who said that they were able to partially engage the TK-821 (*i.e.*, they were able to make the latch-plate stick in the buckle without fully engaging). Of course, it is possible to partially engage almost any buckle and neither of Udac's experts measured the force required to release the latch-plate from a position of partial engagement (which is the relevant question). *See* page 4, *supra*.

This debate ultimately was irrelevant, however, because all of the experts who testified on the issue agreed that Udac's seatbelt had ***not*** false latched in this accident and Udac failed to offer any other evidence that his injuries were caused by false latching. Notably, Udac's own seatbelt expert, Dr. Renfroe, admitted that false latching in this accident "is ruled out as far as I am concerned."[29] TP, 11/30/05 p.m. at 27. Thus, there was simply nothing for the jury to decide with respect to the alleged false-latch theory of defect: Even if the jury thought that the TK-821 had a false-latch defect, it was undisputed that false latching was not the "legal cause" of Udac's injuries.

A motion for judgment as a matter of law ("JMOL") should be granted "when after disregarding conflicting evidence, giving to the non-moving party's evidence all the value to which it is legally entitled, and indulging every legitimate inference which may be drawn from the evidence in the non-moving party's favor, it can be said that there is no evidence to support a jury verdict in his or her favor." *Miyamoto*, 104 Hawai`i at 7, 84 P.3d at 515; *see also* HRCP 50(a)(1). Here, even giving Udac's evidence "all the value to which it is legally entitled," and "indulging every legitimate inference which may be drawn from the evidence" in Udac's favor, there still is no evidence that Udac's injuries were caused by a purported false-latch defect in the

[29] Udac's other expert, Mr. Otto, said that he had no opinion, and had not conducted the testing necessary to offer one, whether false latching occurred in this accident. TP, 11/22/05 p.m. at 42–44.

TK-821. Accordingly, the circuit court erred by allowing that issue to go to the jury rather than entering judgment in Takata's favor.

That error is ground for reversal. Because the verdict form did not identify which theory of defect the jury accepted (RA, V.20 at 75–79), there is no way to know whether the jury based its verdict on the unsupportable false-latch theory. In such situations, the appropriate remedy is a new trial on the remaining theories. The Hawai`i Supreme Court repeatedly has held that when multiple theories are submitted to the jury and only a general verdict is returned, an error that renders the verdict unsupportable under one theory is reversible error unless it affirmatively appears from the record that the jury did not rely on the unsupportable theory in reaching its verdict. *See, e.g.*, *Tabieros*, 85 Hawai`i at 374, 944 P.2d at 1317; *Honolulu v. Bennett*, 57 Haw. 195, 206, 552 P.2d 1380, 1389 (1976); *Burrows v. Hawaiian Trust Co.*, 49 Haw. 351, 356, 417 P.2d 816, 819 (1966).

Tabieros, which involved a situation just like this, governs here. In *Tabieros*, the circuit court allowed the jury to consider three alternative tests for determining whether a product is defective. The Hawai`i Supreme Court determined that the facts of the case were insufficient to support two of these theories of liability. 85 Hawai`i at 374, 944 P.2d at 1317. Because the general verdict did not specify which test the jury had adopted, the Court reversed the judgment on liability and remanded for a new trial on the remaining theory. *Id.* In reaching that result, the Court noted that "it [did] not affirmatively appear from the record that the [error was] not fatally prejudicial on the issue of [defendant's] liability" because the Court could "[]not say that the jury's finding of liability was not premised on either [of the two inapplicable tests]."[30] *Id.*

Here too, the circuit court allowed the jury to consider a theory of liability that could not be supported on the record. And here too, it is impossible to know whether the jurors relied on that theory in reaching their verdict. Indeed, despite Dr. Renfroe's admission that false latching did not cause Udac's injuries, that was the first theory of defect raised by Udac's counsel during his closing argument. TP, 12/20/05 a.m. at 108–112. Accordingly, because the verdict could

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[30] Similarly, in *Bennett*, the Supreme Court reversed a general verdict that could have been supported by either of two theories, one of which should not have been submitted to the jury, "[b]ecause it is impossible to know whether or not the jurors relied on [the unsupportable theory] in reaching their verdict." 57 Haw. at 206, 552 P.2d at 1388; *see also Burrows*, 49 Haw. at 356, 417 P.2d at 819 (same).

have been based on the unsupportable false-latch theory of defect, *Tabieros* requires that this Court vacate the judgment and remand for a new trial on the remaining theories of liability.

IV. TAKATA IS ENTITLED TO JMOL ON PUNITIVE DAMAGES.

In Hawai`i, "'something more' than mere commission of a tort is required to justify the imposition of punitive damages." *Masaki*, 71 Haw. at 12, 780 P.2d at 573. Rather, because punitive damages "can stigmatize the defendant in much the same way as a criminal conviction" and "can be onerous when loosely assessed," a plaintiff seeking punitive damages must "prove by ***clear and convincing evidence*** that the defendant has acted wantonly or oppressively or with such malice as implies a spirit of mischief or criminal indifference to civil obligations or [that] there has been some wilful misconduct or that entire want of care which would raise the presumption of a conscious indifference to consequences." *Id*. at 16-17, 780 P.2d at 575 (emphasis added; internal quotation marks omitted). "[T]o justify an award of punitive damages, ***a positive element of conscious wrongdoing*** is always required." *Id*. at 7, 780 P.2d at 571 (emphasis added; internal quotation marks omitted).

In order to establish "a positive element of conscious wrongdoing" in this case, Udac had to prove with "clear and convincing evidence" that Takata either knew that the TK-821 was defective or was consciously indifferent to whether it was safe. He did not come close to doing so. The undisputed evidence showed that Takata designed the TK-821 to resist known dangers and repeatedly tested the TK-821 over the years to ensure safe operation (with the buckle passing every test). *See* pages 2–3, *supra*. The TK-821 was certified as being in compliance with all government safety standards by an independent testing laboratory. *See* Exh. 1499. And it is undisputed that this case (decided by a jury of laypeople) represents the ***first and only*** time that the TK-821 was found to have failed during an accident even though the buckle has been installed in millions of vehicles around the world for over two decades. The TK-821 is a proven, safe, and reliable buckle, and Takata consistently has had good reason to be confident of that.

The circuit court's "findings of fact"—prepared by Udac and adopted by the court without modification (*compare* RA, V.24 at 72-78 *with* App. D)—nonetheless attempt to justify an award of punitive damages by relying on three pieces of evidence that purport to show that Takata knew that the TK-821 was defective: the patents for the TK-52 and A-95 buckles, the design specifications for the 1992 Nissan Pathfinder, and the single prior legal complaint alleging that the restraint system in a 1987 Pathfinder failed in an accident. *See* App. D at 2–3.

As demonstrated above (*see* Parts I.B and I.C), the patents and 1992 NDS are irrelevant here and should not have been admitted at all. Even taking that evidence into account, however, there was ***no*** evidence—let alone clear and convincing evidence—that Takata either knew of a defect in the TK-821 or was consciously indifferent to whether the TK-821 was safe.[31]

A. The patents cannot support the punitive verdict.

In its findings of fact (App. D at 2), the circuit court cited the TK-52 and A-95 patents as evidence that Takata knew of an inertial-release defect in the TK-821. But neither of those patents says that the TK-821 or spring-based buckles generally are defective in any way. *See* Part I.B, *supra*. On the contrary, both patents state that spring-based buckles use springs that are sufficiently strong to ***prevent*** inertial release, which is why they might be inconvenient for users. *See* pages 6-7, *supra*. It is that concern about convenience, not any issues with safety, that the patents address. Indeed, the interpretation of the patents adopted by the circuit court makes no sense: Why would Takata state in these patents that the TK-821 was defective when it is undisputed that it had not received even a single failure report and had no other reason to think that the TK-821 was defective? And why would a major corporation continue to sell a product to this day after "admitting" that the product was defective in public documents filed with the United States government?

Although there was no evidence or argument at trial on this point, the circuit court also stated that the patents demonstrate Takata's knowledge of an *inadvertent-release* defect in the TK-821. *See* App. D at 2. As discussed above (at 27-30), that is a completely baseless proposition that the circuit court appears to have adopted without question simply because Udac slipped it into his proposed findings of fact.

In sum, even if it was not reversible error to admit these irrelevant patents, they do not provide any evidence—let alone clear and convincing evidence—that Takata acted with the type of conscious wrongdoing required for punitive damages.

B. The 1992 NDS cannot support the punitive verdict.

The second piece of evidence cited by the circuit court was the 1992 NDS in which Nissan adopted a 40-mm-ball press-test requirement. The circuit court stated that the 1992 NDS proved that Takata knew of an inadvertent-release defect in the TK-821 that was installed in

[31] Takata moved for JMOL on punitive damages at the close of Udac's case (TP, 12/12/05 a.m. at 12) and the close of evidence (TP, 12/20/05 p.m. at 44–46).

Udac's 1987 Pathfinder. *See* App. D at 2. But the 1992 NDS cannot support the necessary finding of conscious wrongdoing for three independent reasons.

First, there is no evidence that a buckle is actually unsafe if it releases when pressed with a ball of any particular diameter (40-mm or otherwise). Udac did not present even a single study correlating ball-press testing to real-world inadvertent release (and, indeed, admitted that there are no such studies), nor did he adduce any evidence that there has ever been a recall or even a defect investigation prompted by ball-press testing. Udac also did not put on any evidence that Takata—or Nissan, or any other seatbelt designer, or any other automobile manufacturer, or any regulator—has ever concluded that ball-press testing represents a general safety standard for seatbelt buckles.[32] In other words, there is no evidence that Takata interpreted (or should have interpreted) ball-press testing as proof of a defect. Accordingly, Takata cannot be charged with "knowledge" that the TK-821 is defective simply because Nissan added a ball-press requirement in its 1992 design specifications.

Second, even if it had been shown that there is some correlation between ball-press testing and real-world safety, there was no evidence that a 40-mm ball, as opposed to some larger-diameter ball, marks the limit of safety for a buckle installed in the 1987 Pathfinder. It is undisputed that the probability of an inadvertent release during an accident depends on many aspects of the vehicle's design including where and how the buckle is positioned in relation to other design elements such as the seat and the center console. TP, 12/14/05 a.m. at 68-70. It also was undisputed that those manufacturers who currently impose a ball-press requirement use a variety of diameters and that buckles that release when pressed with a 40-mm ball still are used in current model-year vehicles in Europe and as replacement parts in the United States. TP, 11/29/05 p.m. at 54-55; 12/14/05 a.m. at 63-64; Kitamura Dep. V.2 at 210-14. (There was no evidence either way as to whether they still are used in current model-year vehicles in the United States.) In other words, even if ball-press testing had been shown to correlate with safety, it was

[32] As noted above (at page 34 n.24), the National Highway Traffic Safety Administrator has explicitly rejected the 40-mm ball test as a safety standard, insisting that compliance with FMVSS 209—which includes no such test—is to be assessed using only those measures mentioned in the regulation.

undisputed that it is a vehicle-specific test, and there was no evidence tending to show what diameter ball marks the limit of safety in the 1987 Pathfinder.[33]

Finally, when Nissan issued its design specifications for the 1992 model-year Pathfinder, it did ***not*** issue a recall of past buckles and did not even recommend that replacement buckles for older vehicles meet the new design specifications. This is not surprising given that at that point the TK-821 had been installed in the 1987 Pathfinder for five years without a single complaint or failure report. Nevertheless, the circuit court apparently concluded that Takata was guilty of "conscious wrongdoing" because it did not decide on its own to recall millions of buckles around the world as a result of Nissan's design specifications for the 1992 Pathfinder. *See* App. D. There is simply no support for that bizarre conclusion.

In any event, at the time of trial the TK-821 had been installed in the 1987 Pathfinder (and many other vehicles) for over two decades without a single confirmed instance of inadvertent release and only one possible alleged failure. Regardless of any design specifications adopted by Nissan for later model-year vehicles, it was undisputed that the TK-821 complied with the applicable 1981 NDS and that Takata consistently had had very good reason to believe that the TK-821 was a safe buckle as installed in the 1987 Pathfinder (and many other vehicles). For all of these reasons, even if it was not reversible error to admit the 1992 NDS, these NDS do not provide clear and convincing evidence that Takata knew of a defect in the TK-821.

C. The *Emmert* complaint cannot support the punitive verdict.

The final piece of evidence supposedly justifying an award of punitive damages is the *Emmert* complaint, filed in Iowa in 1996. *See* RA, V.10 at 204–16. Although the circuit court originally excluded the *Emmert* complaint as irrelevant (TP, 11/4/05 at 66), it later not only changed its mind about admissibility, but cited that single complaint as proof that "Takata continued to receive information after the TK-821's installation that confirmed that its product was defective." App. D at 2–3. Far from supporting an award of punitive damages, however, the fact that only one person has even arguably alleged that the TK-821 failed to operate properly in the last 20+ years—during which the TK-821 has been installed in millions of vehicles around the world—is powerful evidence that the seat belt is ***not*** defective. Indeed, the uniqueness of the

[33] For example, Udac did not offer any evidence that the 1987 and 1992 Pathfinders were configured similarly in relevant respects.

Emmert complaint confirms that over the years Takata has had very good reason to believe, correctly, that the TK-821 is perfectly safe.

The only "evidence" with respect to the *Emmert* case is the complaint, which simply makes a general allegation that the "seat belt restraint system" in a 1987 Pathfinder "failed and did not restrain" the passenger during an accident. RA, V.10 at 207. Moreover, there is no evidence at all regarding whether the allegation in the complaint had any merit, or the outcome of the case. In other words, the *Emmert* complaint did not "confirm[] that [the TK-821] is defective" because there is no evidence that the TK-821 actually failed to operate properly in that accident. The circuit court's reasoning implies that Takata was guilty of conscious wrongdoing because it did not recall the millions of TK-821 buckles in use after it received a single allegation that a restraint system incorporating its product had failed on one occasion. That conclusion is self-evidently misguided. Courts around the country have recognized that even ***verified*** failure reports in much larger quantities are insufficient to prove the type of indifference to safety required to support the imposition of punitive damages.[34] One unsubstantiated legal complaint

[34] *See, e.g.*, *Dudley v. Bungee Int'l Mfg. Corp.*, 76 F.3d 372 (4th Cir. 1996) (reversing punitive award because two lawsuits raising similar complaints out of millions of products sold were insufficient to put manufacturer on notice of a defect in its product); *Richards v. Michelin Tire Corp.*, 21 F.3d 1048, 1058 (11th Cir. 1994) (holding that punitive damages were unwarranted and observing that four prior similar incidents out of millions of tires sold did not establish that manufacturer knew of a defect); *West v. Goodyear Tire & Rubber Co.*, 973 F. Supp. 385, 390 (S.D.N.Y. 1997) (granting defendant summary judgment on plaintiff's punitive damages claim and noting that 167 incidents of tire explosions over 25-year period must be placed in context of the tens of millions of uneventful tire mountings); *Loitz v. Remington Arms Co.*, 563 N.E.2d 397, 403-05 (Ill. 1990) (evidence of 94 prior shotgun-barrel explosions was insufficient to demonstrate manufacturer's knowledge of defect, especially because manufacturer had concluded that those incidents were caused by improper shells); *Bachman v. Gen. Motors Corp.*, 776 N.E.2d 262, 302 (Ill. App. Ct. 2002) (manufacturer's knowledge of 31 prior incidents of inadvertent deployment of airbag was insufficient to put manufacturer on notice of a defect and thus could not support a claim for punitive damages); *Kopczick v. Hobart Corp.*, 721 N.E.2d 769, 776, 779 (Ill. App. Ct. 1999) (reversing denial of manufacturer's JNOV motion on punitive damages because thirty prior substantially similar incidents involving manufacturer's meat saw amounted to only 0.5% of the 5,000+ saws sold and thus were insufficient to put manufacturer on notice that the saw was unreasonably dangerous); *Camillo v. Geer*, 185 A.D.2d 192, 194 (N.Y. App. Div. 1992) (vacating $3.5 million punitive award against crane manufacturer for injuries sustained by pedestrian injured when aluminum sheave failed because three prior incidents of broken aluminum sheaves did not put manufacturer on notice of a systematic defect); *Ehrhardt v. Brunswick, Inc.*, 186 Cal. App. 3d 734, 741-42 (Cal. Ct. App. 1986) (upholding directed verdict on punitive damages in part because "Brunswick was unaware of any

out of millions of buckles installed over the course of two decades is actually affirmative evidence that the TK-821 is working safely: It would turn logic and the law on its head to treat the failure to recall millions of buckles because of the filing of a single legal complaint as clear and convincing evidence of conscious wrongdoing.

D. The punitive verdict violates due process.

"[B]ecause we assume that man is free to steer between lawful and unlawful conduct, we insist that laws give the person of ordinary intelligence a reasonable opportunity to know what is prohibited, so that he may act accordingly." *Grayned v. City of Rockford*, 408 U.S. 104, 108 (1972). The Due Process Clause thus bars the enforcement of a law that "either forbids or requires the doing of an act in terms so vague that men of common intelligence must necessarily guess at its meaning and differ as to its application." *United States v. Lainer*, 520 U.S. 259, 266 (1997). It follows that the Due Process Clause bars the imposition of punitive liability without "fair notice" of the conduct that will subject the defendant to punishment, just as it bars the imposition of an overly large punitive award without fair notice. *See BMW of N. Am. v. Gore*, 517 U.S. 559, 574 (1996) ("[e]lementary notions of fairness enshrined in our constitutional jurisprudence dictate that a person receive fair notice * * * of the conduct that will subject him to punishment"); *see also Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1, 47 (1991) (O'Connor, J., dissenting) (noting that vagueness doctrine applies to both civil and criminal punitive laws).

These principles preclude punishing Takata for designing and marketing a seatbelt buckle that far exceeded all government safety standards, passed extensive industry-standard testing for safe operation, and operated safely for decades (and continues to operate today) without incident. No manufacturer could have anticipated being punished for designing such a product. Accordingly, if Hawai`i law allows the imposition of punitive damages for Takata's conduct related to the TK-821, then that law is unconstitutionally vague as applied to the facts of this case and cannot be enforced.

In sum, none of the evidence upon which the circuit court relied supports the necessary finding of conscious wrongdoing. Especially when this evidence is contrasted with the undisputed fact that the TK-821 has a remarkable history of successful testing and safe operation

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claimed failures in the 2 million control cables it manufactured since 1962 other than the one involved in this case").

over the years, the result is unavoidable: Takata is entitled to JMOL on Udac's claim for punitive damages. If Hawai`i law allows a manufacturer to be punished for such conduct, then that law is unconstitutional as applied.

V. THE PUNITIVE AWARD IS EXCESSIVE.

The $12.5 million punitive award in this case was not only wholly unwarranted on the facts but also wildly excessive, in violation of both Hawai`i law and the United States Constitution.[35]

A. The punitive award is excessive under Hawai`i law.

Under Hawai`i law, "[t]he proper measurement of punitive damages should be [t]he degree of malice, oppression, or gross negligence which forms the basis for the award and the amount of money required to punish the defendant. * * * Further, in determining that degree, the analysis is limited to an examination of defendant's state of mind at the time of the act." *Kang v. Harrington*, 59 Haw. 652, 663, 587 P.2d 285, 293 (1978) (internal quotation marks and citations omitted). Here, at the time that the TK-821 was installed in the 1987 Pathfinder—and even at the time of Udac's accident—Takata had no reason to think that there was any defect in the remarkably safe TK-821 buckle.

To determine whether a punitive award is excessive, Hawai`i appellate courts look to whether the award is "so excessive and outrageous when considered with the circumstances of the case as to demonstrate that the jury in assessing damages acted against rules of law or suffered their passions or prejudices to mislead them." *Id.* at 663, 587 P.2d at 292. Hawai`i courts also are informed by other jurisdictions, which have held that "an award is excessive if it shocks the conscience of the appellate court." *Ditto v. McCurdy*, 86 Hawai`i 93, 105, 947 P.2d 961, 973 (App.), *rev'd in part on other grounds*, 86 Hawai`i 84, 947 P.2d 952 (1997); *see also* 86 Hawai`i at 106, 947 P.2d at 974 ("the [$600,000 punitive] award, which is sixty percent of the compensatory damages awarded, does not shock this court's conscience and is thus not excessive").

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[35] Assuming for present purposes that the Court allows the punitive liability verdict to stand, it should take into account any residual doubt about liability when determining whether the near-recording breaking amount imposed by the jury is appropriate. As the Seventh Circuit has recognized, "[t]he heavier the sanction, the more confidence there should be that it is justified * * * [s]o if there is doubt about justification, but not enough to warrant reversal, a sensible response is to cut down the sanction." *Ampat/Midwest, Inc. v. Ill. Tool Works Inc.*, 896 F.2d 1035, 1044 (7th Cir. 1990) (citations omitted).

Even if this Court allows the punitive verdict to stand, the size of the award is so excessive in light of the paltry (indeed, nonexistent) evidence of reprehensibility put on by Udac and the powerful countervailing evidence put on by Takata showing that its design for the TK-821 was admirably safe that the only possible conclusion is that this jury was misled by their passions or prejudices or by the circuit court's evidentiary and instructional errors. To our knowledge, there are only three published opinions in Hawai`i history involving a punitive award of $1 million or more, one of which was vacated due to instructional errors at trial. *See Kawamata Farms, Inc. v. United Agri Prods.*, 86 Hawai`i 214, 227, 948 P.2d 1055, 1068 (1997) ($12.5 million to one plaintiff and $1.77 million to another); *Romero v. Hariri*, 80 Hawai`i 450, 453, 911 P.2d 85, 88 (App. 1996) ($1 million); *Masaki*, 71 Haw. at 30-35, 780 P.2d at 569-70 ($11.25 million; vacated on appeal). The rarity of gargantuan punitive awards such as this one—which ties the record for an award to a single plaintiff in a published Hawai`i case—confirms what already is obvious, that the size of this award should shock the Court's conscience.

B. The punitive award is unconstitutionally excessive.

Even if the punitive award is not excessive under Hawai`i law, it clearly does not pass muster under the constitutional limitations on punitive damages recognized by the United States Supreme Court.

In order to prevent the improper imposition of such massive punishments and counteract "the imprecise manner in which punitive damages systems are administered" (*State Farm*, 538 U.S. at 417), the United States Supreme Court has instructed lower courts to consider three "guideposts" when determining whether a punitive award is unconstitutionally excessive: (1) the degree of reprehensibility of the defendant's conduct; (2) the ratio of punitive to compensatory damages; and (3) the civil penalties applicable to comparable conduct. *BMW*, 517 U.S. at 575-76. The Court repeatedly has "reiterated the importance of these three guideposts" and has indicated that *de novo* and "[e]xacting" judicial review employing these guideposts is necessary to "ensure[] that an award of punitive damages is based upon an application of law, rather than a decisionmaker's caprice." *State Farm*, 538 U.S. at 418 (internal quotation marks omitted).

Under the required exacting application of the three *BMW* guideposts, the $12,500,000 award here is wildly excessive.[36]

[36] After Takata had filed its first notice of appeal, the circuit court entered findings of fact to support its prior determination that the jury's punitive award comports with due process. App.

1. Reprehensibility

"The most important indicium of the reasonableness of a punitive damages award is the degree of reprehensibility of the defendant's conduct." *State Farm*, 538 U.S. at 419 (internal quotation marks and alterations omitted). Takata's conduct relating to the TK-821 buckle was far from reprehensible. Takata designed the TK-821 to operate safely, and time has proved that it succeeded. As detailed above (at 2-3), the TK-821 exceeded all government safety standards (as certified by an independent testing laboratory), passed extensive industry-standard testing for safe operation, passed further tests administered by Nissan, and—most important—has a 20-year history of actual safe operation unmarred by any confirmed reports of failure. If designing and marketing such a product is treated as highly reprehensible, it is hard to imagine any punitive damages case in which the conduct would not be.

To assist courts in placing conduct on the reprehensibility spectrum, the Supreme Court has identified five non-exclusive factors that bear on the degree of reprehensibility of a defendant's conduct: whether "the harm caused was physical as opposed to economic; the tortious conduct evinced an indifference to or a reckless disregard of the health or safety of others; the target of the conduct had financial vulnerability; the conduct involved repeated action or was an isolated incident; and the harm was the result of intentional malice, trickery, or deceit, or mere accident." *State Farm*, 538 U.S. at 419. Although, as explained in more detail below, these factors are not particularly helpful guides in the context of a product liability claim (because they were framed with economic torts in mind, such as the insurance bad faith claim before the Supreme Court in *State Farm*), they nonetheless demonstrate the excessiveness of this $12.5 million award.

Physical harm. Assuming that a defect in the TK-821 caused Udac's injuries, the first reprehensibility factor—physical harm—is established here. But that is true in every product liability case. It does not follow that all product liability cases involve particularly reprehensible conduct. This factor, obviously tailored to distinguishing more from less reprehensible conduct

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D; *see also* RA, V.24 at 79–87, 136–49 Normally, such findings are reviewed for clear error rather than *de novo*. However, because the circuit court indicated that it was "review[ing] the record ***in the light most favorable to the Plaintiffs***" (App. D at 2) rather than conducting the constitutionally required *de novo* review, such deference is not appropriate here. *See, e.g.*, *Simon v. San Paolo U.S. Holding Co.*, 113 P.3d 63, 70 (Cal. 2005) (when the jury has not made an "express finding" on an issue, "to infer one from the size of the award would be inconsistent with de novo review, for the award's size would thereby indirectly justify itself").

in the realm of economic torts, is not particularly helpful in analyzing the reprehensibility of product-design decisions.

Indifference to health or safety. The TK-821's extensive history of satisfactory industry-standard testing and remarkable record of safe operation over the years prove that Takata was not acting with "indifference or reckless disregard" for health or safety by designing and marketing this product. On the contrary, Takata exerted great efforts to ensure that the TK-821 was safe and had every reason to believe that it had succeeded in those efforts. As noted above, there is no merit to the circuit court's conclusion that Takata was indifferent to a inertial release defect supposedly revealed in the TK-52 and A-95 patents, an inadvertent release defect supposedly revealed in the 1992 NDS, and an unknown defect supposedly revealed in the *Emmert* complaint. *See* Part IV, *supra*. Regardless, even when "the evidence [of a design defect] is sufficient to support the jury's decision to award punitive damages," that evidence will not support a finding of indifference to health or safety for purposes of assessing the defendant's reprehensibility unless the plaintiff proves that an alternative design would have prevented his injuries. *Clark v. Chrysler Corp.*, 436 F.3d 594, 602 (6th Cir. 2006). Here, Udac made no effort to test alternative buckle designs and show that they would have prevented the injury that the TK-821 buckle allegedly caused. For that reason as well, this factor is not established here.

Targeting the financially vulnerable. Takata's design of the TK-821 did not target the financially vulnerable. In its findings, the circuit court misunderstood this point by stating that this factor was present because "Dason Udac was vulnerable to the risk that he was relying on a defective seatbelt to protect him in the event of an accident." App. D at 3. But the Supreme Court has made clear that this factor is limited to cases involving "infliction of ***economic*** injury." *BMW*, 517 U.S. at 576 (emphasis added); *see also Clark*, 436 F.3d at 604. Moreover, as the Ninth Circuit recently has observed, "there must be some kind of intentional aiming or targeting of the vulnerable" to satisfy this factor. *In re Exxon Valdez*, 472 F.3d 600, 616-17 (9th Cir. 2006) (citing *BMW*, 517 U.S. at 575). Selling a socially beneficial product such as a seatbelt to the general public obviously does not involve "intentional aiming or targeting of the vulnerable." If simply placing a product on the market established this factor, it would be established in every product liability case and would be useless as a method of distinguishing between more and less reprehensible conduct.

Repeat misconduct. This factor also strongly supports Takata, because there are no prior confirmed instances of a TK-821 failing and only one prior vague and unsubstantiated allegation that a restraint system with a TK-821 buckle has failed in over 20 years. The circuit court, rubber-stamping Udac's findings of fact, found that this factor was established because Takata has "distributed millions of TK-821 seatbelts." App. D at 3. But the liability verdict in this case—whatever its merit—does not make it reprehensible for Takata to have sold millions of buckles that have operated ***safely*** for the last two decades. *See, e.g.*, *Clark*, 436 F.3d at 604-05 (rejecting argument that this factor was established because other consumers had been exposed to the defective product; instead finding that this factor was not established because "there is no evidence of similar earlier accidents that might have alerted [the defendant] to the problem"). Again, if this reprehensibility factor is to have any meaning in the product liability context it cannot be established simply by the mass-marketing of a product.

Malice, trickery, or deceit. Udac did not allege or offer any evidence that Takata intended to harm consumers or concealed or misrepresented information about the safety of the TK-821. Nevertheless, the circuit court found that this factor was established because "Takata intentionally distributed a safety belt that it knew to be defective and intentionally failed to take any action to warn or protect consumers after it developed new products that it considered safer." App. D at 3. But this "finding" is not backed up by any credible evidence. As shown above (at 45-49), neither the patents nor the 1992 NDS nor the *Emmert* complaint demonstrate that Takata knew of a defect. In this sense, the present case is indistinguishable from *BMW*, in which the Supreme Court held that "the record in this case discloses no deliberate false statements, acts of affirmative misconduct, or concealment of evidence of improper motive" notwithstanding the jury's finding of a "gross, oppressive or malicious" fraud. 517 U.S. at 565, 579.

Other factors. As the Ninth Circuit has recognized, a tort committed while performing a "socially valuable task" is less reprehensible than racial harassment or other conduct that lacks "some legitimate purpose." *Bains, LLC v. ARCO Prods. Co.*, 405 F.3d 764, 775 (9th Cir. 2005). Here, even if Takata committed a tort, it did so while performing the "socially valuable task" of designing a seatbelt buckle that has operated safely in millions of vehicles around the world for more than two decades, saving countless lives.

Other factors that bear on reprehensibility in the product liability context include whether the design at issue complied with applicable government safety standards and the frequency or

infrequency of prior accidents involving its design. *See generally BMW*, 517 U.S. at 565, 577-78 (noting that defendant automobile manufacturer's nondisclosure of pre-sale repairs was less reprehensible because defendant had complied with state disclosure requirements and "a corporate executive could reasonably interpret the disclosure requirements as establishing safe harbors"). Both of these factors further mitigate any finding of reprehensibility here because it is undisputed that the TK-821 far exceeded all applicable government safety standards and has an unblemished 20-year history of safe operation. As indicated above (at page 49), the imposition of ***any*** punitive damages for the design of such a product violates "[e]lementary notions of fairness enshrined in our constitutional jurisprudence," which "dictate that a person receive fair notice * * * of the conduct that will subject him to punishment" (*BMW*, 517 U.S. at 574). At the least, however, these factors indicate that the current eight-figure punitive award is outrageously excessive.

In sum, Takata's conduct is on the far low end of the reprehensibility spectrum, if it is on the spectrum at all.

2. Ratio

The current ratio of punitive to compensatory damages in this case is either approximately 3:1—$12,500,000 to $4,030,000—or approximately 2:1—$12,500,000 to $6,200,000—depending on whether the denominator is reduced by Udac's comparative fault. Takata submits that, when applying *BMW*'s ratio guidepost, the Court should use the compensatory damages as reduced by Udac's comparative fault. *See*, *e.g.*, *Clark*, 436 F.3d at 606 n.16. But even if the Court employs the higher figure, the ratio is excessive.

In *State Farm*, the Supreme Court undertook to provide lower courts with more detailed guidance regarding the ratio guidepost than it had supplied in previous cases. Specifically, the Court reiterated its prior statement that a punitive award of four times the compensatory damages is generally "close to the line of constitutional impropriety" and indicated that, though "not binding," the 700-year-long history of double, treble, and quadruple damages remedies (*i.e.*, ratios of 1:1 to 3:1) is "instructive." 538 U.S. at 425. More important for present purposes, however, *State Farm* "emphasizes and supplements" *BMW* "by holding that '[w]hen compensatory damages are substantial, then a lesser ratio, perhaps only equal to compensatory damages, can reach the outermost limit of the due process guarantee.'" *Bains*, 405 F.3d at 776 (quoting *State Farm*, 538 U.S. at 425).

To be sure, these principles do not establish a rigid mathematical formula for calculating punitive damages, but instead create a rough framework under which the maximum permissible ratio depends principally on two variables: the degree of reprehensibility of the conduct and the magnitude of the harm caused by the conduct (here, as in most cases, the amount of the compensatory damages). The maximum permissible ratio is directly related to the former and inversely related to the latter. In other words, for any particular amount of compensatory damages, the lower on the reprehensibility spectrum the conduct falls, the lower the constitutionally permissible ratio. And for any particular degree of reprehensibility, as the compensatory damages increase, the maximum permissible ratio decreases.

Takata's conduct, if punishable at all, falls on the lowest end of the reprehensibility spectrum. *See* pages 52-55, *supra*. Moreover, as in *State Farm*, Udac's compensatory award "was substantial," constitutes "complete compensation" for his alleged harm, and almost certainly contains "a component which was duplicated in the punitive award" because it includes a large award for non-economic damages (*see* page 14, *supra*). 538 U.S. at 426. Accordingly, a 1:1 ratio "reach[es] the outermost limit of the due process guarantee" here. *Id.* at 425; *see also id.* at 429 (in view of "the substantial compensatory damages," State Farm's conduct "likely would justify a punitive damages award at or near the amount of compensatory damages").

Notably, the Eighth Circuit drew the line at a 1:1 ratio in *Boerner v. Brown & Williamson Tobacco Co.*, 394 F.3d 594 (8th Cir. 2005), even while concluding that the defendant's deceptive marketing of cigarettes "was highly reprehensible":

> [T]he sale of this defective product occurred repeatedly over the course of many years despite [the defendant's] knowledge that the product was dangerous to the user's health; and [the defendant] actively misled consumers about the health risks associated with smoking. Moreover, the reprehensible conduct was shown to relate directly to the harm suffered by [the plaintiff]: a most painful, lingering death following extensive surgery.

Id. at 602-03. Despite that severe assessment of the defendant's conduct, the court held that "a ratio of approximately 1:1 would comport with the requirements of due process" because of the substantial compensatory award and because "[f]actors that justify a higher ratio, such as the presence of an 'injury that is hard to detect' or a 'particularly egregious act [that] has resulted in only a small amount of economic damages,' are absent here." *Id*. at 603 (quoting *BMW*, 517 U.S. at 582) (second alteration in original).

If a ratio of 1:1 is the constitutional maximum for intentionally deceiving the plaintiff about the dangers of cigarettes, thereby causing his "painful, lingering death," it clearly is the constitutional maximum for the design and sale of a seatbelt buckle that consistently has operated safely and has saved untold lives in the process.

Boerner is not alone in reducing huge punitive awards to the amount of the plaintiff's compensatory damages. The Eighth Circuit reached that same result in a case in which the plaintiff, a victim of the defendant's racial harassment, was awarded $600,000 in compensatory damages and over $6,000,000 in punitive damages. *Williams v. ConAgra Poultry Co.*, 378 F.3d 790 (8th Cir. 2004). The defendants' conduct in *Williams* was despicable: The plaintiff's supervisor "regularly swore at him and berated him in front of other employees" and "treated [the plaintiff] and other black employees with special scorn"; the supervisor and other employees "regularly used racially demeaning language around [the plaintiff]"; "there was a pervasive practice of using a double standard for evaluating and disciplining white and black employees"; "white managers were extended privileges, like travel at company expense, unavailable to black employees"; and "black employees were given shorter breaks than white employees." *Id*. at 795, 798. Nevertheless, the Eighth Circuit held that a 1:1 ratio was the most that was permitted under *State Farm*, explaining:

> [The plaintiff's] large compensatory award * * * militates against departing from the heartland of permissible exemplary damages. The Supreme Court has stated that "[w]hen compensatory damages are substantial, then a lesser ratio, perhaps only equal to compensatory damages, can reach the outermost limit of the due process guarantee." [The plaintiff] received $600,000 to compensate him for his harassment. Six hundred thousand dollars is a lot of money. Accordingly, we find that due process requires that the punitive damages award on [his] harassment claim be remitted to $600,000.

Id. at 799 (citation omitted).

Other cases drawing the line at 1:1 or lower include *Jet Source Charter, Inc. v. Doherty*, 148 Cal. App. 4th 1, 11 (Cal. Ct. App. 2007) (reducing a 4:1 ratio to 1:1 because the compensatory damages were "substantial," even though "the defendants' fraudulent scheme, repeated over a number of transactions, 'merits no praise'"); *Kent v. United of Omaha Life Ins. Co.*, 430 F. Supp. 2d 946, 957-60 (D.S.D. 2006) (reducing 3:1 ratio to 1:1 in insurance bad-faith case in which compensatory damages were $2,400,000); *Casumpang v. Int'l Longshore & Warehouse Union*, 411 F. Supp. 2d 1201, 1219-21 (D. Haw. 2005) (reducing ratio from 4.2:1 to 1:1 where compensatory damages were $240,000 and conduct entailed "a moderate degree of

reprehensibility"); *Watson v. E.S. Sutton, Inc.*, No. 02 Civ. 2739(KMW), 2005 WL 2170659, at *19 (S.D.N.Y. Sept. 6, 2005) (suggesting that 1:1 was the constitutional maximum in employment discrimination case where compensatory damages were $1,554,000, but ordering a remittitur to less than half of the compensatory damages under Rule 59); *Czarnik v. Illumina, Inc.*, No. D041034, 2004 WL 2757571, at *11 (Cal. Ct. App. Dec. 3, 2004) (reducing $5,000,000 punitive award to $2,200,000 because "the $2.2 million compensatory damage award was without question 'substantial' and, in light of the fact that [the defendant's] conduct was not highly reprehensible … a 1:1 ratio of punitive to compensatory damages is the maximum award that is sustainable against a due process challenge").

The decisions in these cases are compelling here. To paraphrase the Eighth Circuit, $4,030,000 (Udac's compensatory award reduced by his comparative fault) "is a lot of money" (*Williams*, 378 F.3d at 799). And with respect to reprehensibility, the design and sale of the remarkably safe TK-821 was not in the same league as intentionally and fraudulently concealing the health risks of cigarettes, engaging in repeated acts of racial harassment, and an agent's repeated acts of fraud against its principal. Accordingly, if 1:1 is the highest constitutionally permissible ratio for the conduct in *Boerner*, *Williams*, and *Jet Source*, then 1:1 ***exceeds*** the highest constitutionally permissible ratio here.

That is all the more so because Udac's compensatory award contains a significant amount for non-economic damages such as pain and suffering and emotional distress. In *State Farm*, the Supreme Court recognized that compensatory damages have a deterrent effect in their own right, admonishing that "punitive damages should only be awarded if the defendant's culpability, after having paid compensatory damages, is so reprehensible as to warrant the imposition of further sanctions to achieve punishment or deterrence." 538 U.S. at 419; *see also Memphis Cmty. Sch. Dist. v. Stachura*, 477 U.S. 299, 307 (1986) ("[d]eterrence * * * operates through the mechanism of damages that are *compensatory*"). And when those compensatory damages include a large amount for non-economic harms, "'there is no clear line of demarcation between punishment and compensation and a verdict for a specified amount frequently includes elements of both.'" *Id*. at 426 (quoting Restatement (Second) of Torts § 908, cmt. c (1977)). Udac's compensatory award, which includes a substantial amount—$1,625,000—as general damages for such non-economic harms, necessarily contains a strong punitive element in its own right.

Given the high amount of non-economic damages, the low reprehensibility of Takata's conduct, and what surely must be substantial residual doubt about whether punitive damages are warranted at all, the punitive damages here should be reduced to a nominal sum or, at the very most, $780,000—an amount that, when added to the general damages, would bear a 1:1 ratio to Udac's special damages.

3. Comparable civil penalties

The most relevant civil penalty at the time of Takata's design of the TK-821 was the then-applicable federal fine for violating the National Traffic and Motor Vehicle Safety Act of 1966 ("Safety Act"): $1,000 per "item of motor vehicle equipment," up to a maximum penalty of $800,000. 49 U.S.C. § 30165(a) (1997). The punitive damages here are ***12,500*** times the $1,000 maximum fine that could have been imposed against Takata had it actually violated the Safety Act when it sold the TK-821 for installation in Udac's vehicle. In its findings of fact, the circuit court decided that the comparable civil penalty was "the $800,000 maximum federal civil penalty under the National Traffic and Motor Vehicle Safety Act for selling millions of defective items of motor vehicle equipment." App. D at 4. But because the jury in this case was not entitled to punish Takata for anything other than the injury incurred by Udac (*Philip Morris USA v. Williams*, 127 S. Ct. 1057, 1063 (2007) ("the Constitution's Due Process Clause forbids a State to use a punitive damages award to punish a defendant for injury that it inflicts upon nonparties")), the $800,000 penalty "for selling millions of defective items of motor vehicle equipment" is not a permissible analogous penalty. Even if it were, the punitive damages still would be more than 15 times that amount, which still would be indicative of an excessive award. *See, e.g.*, *Clark*, 436 F.3d at 608 (in an automotive design-defect case, concluding that "a comparison of the punitive damage award to the civil penalties that could be imposed for comparable conduct does not support the award and may indicate that ***$3 million is excessive***") (emphasis added).

In sum, this punitive award is outrageous. Not only is Takata being punished for designing a product that has operated safely (saving countless lives) for over two decades, it is being singled out with one of the largest punitive awards in the history of Hawai`i. The shocking result in this case exemplifies the Supreme Court's concern that punitive awards too often are based on "a decisionmaker's caprice" rather than "an application of law." *State Farm*, 538 U.S.

at 418. After conducting the required *de novo* and "[e]xacting" review (*id.*), this Court should reduce the punitive award to a nominal sum if it allows the punitive verdict to stand at all.

RELEVANT STATUTES, REGULATIONS, AND RULES

The relevant provisions of the following regulations are set forth in Appendix F:

49 U.S.C. §§ 30102(b)(1)(C) & (b)(1)(F)

49 U.S.C. § 30165(a)

49 C.F.R. § 571.208 S7.2(c)–(d)

49 C.F.R. §§ 571.209 S4.1(e), S4.3(d)(2), (g)

49 C.F.R. § 573.5

CONCLUSION

The Court should order a new trial in which (i) Takata is allowed to present competent evidence proving that Udac was not wearing his seatbelt, (ii) Udac is not allowed to present the jury with unsupported theories of defect, (iii) Udac is not allowed to introduce irrelevant and prejudicial evidence in the form of patents for other buckles and design specifications for other vehicles, and (iv) the jury is not instructed on unsupported legal theories of defect and negligence. The Court also should grant Takata judgment as a matter of law on Udac's punitive damages claim. If the Court does not order a new trial and does not grant JMOL on punitive damages, it should reduce the punitive award to a nominal sum.

Date: Honolulu, Hawai`i, May 1, 2007.

Respectfully submitted,

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STATEMENT OF RELATED CASES

Defendant-Appellant/Cross-Appellee TAKATA CORPORATION is not aware of any cases in Hawai`i courts or agencies that are related within the meaning of Haw. R. App. P. 28(b)(11).