

**THE STATE OF SOUTH CAROLINA
In The Court of Appeals**

**APPEAL FROM BAMBERG COUNTY
Court of Common Pleas**

Doyet A. Early, II, Circuit Court Judge

Case No.: 2008-CP-05-00235

**Laura Riley as the Personal Representative
of the Estate of Benjamin Riley,..... Respondent,**

v.

Ford Motor CompanyAppellant.

**RESPONDENT'S RETURN TO FORD MOTOR COMPANY'S PETITION FOR
REHEARING**

Laura Riley, as Personal Representative of the Estate of Benjamin Riley (hereinafter, the "Estate" or "Riley") submits the following Return to Ford Motor Company's Petition for Rehearing of February 20, 2014.¹ Ford petitions the Court for rehearing on the Court's affirmance of the trial court's denial of judgment notwithstanding the verdict. In this respect, the Court's Opinion should not be reconsidered or reheard, as the Court did not misapprehend applicable law or the record in arriving at its conclusion. Ford also petitions the Court regarding the award of \$20,000 setoff. The Estate is likewise filing a petition for rehearing or reconsideration concerning

¹ The Court has not requested a return brief pursuant to Rule 240(e), SCACR.

RECEIVED

MAR 07 2014

SC Court of Appeals

this ruling and by Court Order, the Estate's Petition for Rehearing is due March 7, 2014.² Though the issues at hand have been briefed and raised to the Court in underlying briefs, and while striving to avoid redundancy, the Estate submits the following memorandum in reply to those issues raised again by Ford.

I. The Court's Opinion Correctly Concluded that the Trial Court's Denial of JNOV was Appropriate Because the Court Correctly Interpreted the Record and Controlling Law.

As in its briefs below, in its Petition for Rehearing Ford continues to advance arguments that are not supported by the law of products liability in this state or the record on appeal. Ford attempts to stretch the requirements of proof of a design defect case well beyond the analyses and requirements of *Branham v. Ford Motor Co.*, 390 S.C. 203, 701 S.E.2d 5 (2010) and *Graves v. CAS Medical Systems, Inc.*, 2012 WL 6193887 (2012). Taken on their face, Ford's arguments and the agenda which underlies them are attempts to continue to confuse the law of products liability and to further increase the heavy burden already borne by plaintiffs in these cases. The burdens upon the Estate in this design defect are clear in our post-*Branham* world. This Court correctly applied the law and correctly found that the Estate presented sufficient evidence in this case. The Estate and its experts do not rely on *res ipsa loquitor*, circular or faulty logic, or unproven facts. Instead, the Estate and its experts clearly identified a defect, one which Ford itself had previously identified. The Estate used Ford's own standards and testing, and proved all elements of the design defect, in compliance with the existing law. Simply put, as to this portion of the Opinion at issues, this Court's ruling is correct.

² One subject of the Respondent's Petition for Rehearing is also this Court's Opinion on the issue of setoff. For the sake of brevity and continuity, Respondent notes here that while she opposes Ford's Petition for Rehearing on the grounds addressed in Section III of Ford's Petition for Rehearing, those issues will be addressed by the Estate's own Petition for Rehearing to be filed on March 7, 2014.

The simple facts of this case are that Ford (and in fact the greater automotive industry) had long known of the danger of unwanted door openings due to foreshortening from front, side, or rear impacts. Ford Motor Company had actual knowledge that the door latch system employed in the PN96 at issue was subject to unwanted door openings through foreshortening, and that the rod mechanism at issue would cause the door to unlatch if the rod was foreshortened in a crash by 12 millimeters. (R. p. 241, line 11 – p. 247, line 25). The Estate proved that the forces in the Riley wreck caused the rod to foreshorten by at least that threshold length and that as a result, the Riley door opened in this wreck. The Estate proved its case by use of Ford’s own documents, standards, and testing. When faced with this record, as to this section of its Opinion, this Court correctly interpreted and apprehended both the law and the record.

First, the Court correctly applied the law of products liability in the design defect setting, all of which stems from the *Branham* opinion. In a products liability action, the plaintiff must establish three things: (1) that he was injured by the product; (2) that the product, at the time of the accident, was in essentially the same condition as when it left the hands of the defendant; and (3) that the injury occurred because the product was in a defective condition unreasonably dangerous to the user. *Branham*, 390 S.C. at 210, 701 S.E.2d at 8-9. As addressed in detail by the Estate’s briefs below, on appeal, Ford does not contest the sufficiency of evidence related to elements one and two. As to the third element, a plaintiff who pursues a design defect claim must point “to a design flaw in the product and show how his alternative design would have prevented the product from being unreasonably dangerous.” *Id.*, 390 S.C. at 225, 701 S.E.2d at 16 (2010); *Graves v. CAS Medical Systems, Inc.*, 2012 WL 6193887 (2012).

Here, the Estate proved a design flaw in the product which was spelled out and written large by Ford Motor Company itself. The Riley Ford F-150 was defective because it was designed with a door latch system that lacked the necessary robustness to keep its doors closed in the reasonably foreseeable collision that led to Riley's death. The driver's side door on the Riley F-150 unlatched upon impact with the Carter vehicle, allowing the door to come open and Riley to be ejected during the rollover that followed.

Mr. Andrew Gilberg, one of the Estate's expert's, testified with no uncertainty that the Riley F-150 had a design defect and that design defect caused the driver's door to unlatch upon impact with the Carter vehicle. (R. p. 249, lines 10-24). Using an exemplar door Mr. Gilberg explained how the latch worked and demonstrated how the design defect allowed the door to open at impact. (R. p. 191, lines 11-23; R. p. 224, line 7-p. 227, line 15). Gilberg testified that in his opinion the Riley F-150 was defective "because a small amount of longitudinal crush endwise in the door caused it to come open and engineers have known about that as a potential danger for decades. They had many alternative designs that would not come open under the same circumstances." (R. p. 250, line 22 - p. 251, line 5). Mr. Gilberg also testified that the defect in the Riley F-150 made it unreasonably dangerous in his opinion. (R. p. 250, line 25 - p. 251, line 5). Ford's own findings are that an occupant is twenty (20) times more likely to be ejected if a door comes open in a crash. It is not subject to debate that a door opening in a crash is an unreasonably dangerous situation.

The Estate not only proved this design defect was well known to Ford, but proved that rod foreshortening caused the Riley door to open. Ford's internal documents showed that the rod mechanism would cause the door to unlatch if the rod was foreshortened in a

crash by 12 millimeters. (R. p. 241, line 11 – p. 247, line 25). The Estate’s expert measured the post-crash foreshortening in the Riley vehicle at 11.58 millimeters. (R. p. 460). The spring action (elasticity) of the metal, coupled with or independent of a factory set rod adjustment in the door, resulted in foreshortening dynamically well in excess of the 12 millimeters needed to open the latch during the crash. (R. p. 242, line 8 – p. 251, line 9; R. p. 460; R. pp. 460-469). Gilberg testified that he was 100% confident that the door foreshortened to a point that the door latch released. (R. p. 246).

Such rod deformation triggering unintended door opening is precisely the danger known by Ford Motor Company. However, the evidence shows that rather than adopt the recommendations of its own engineers who favored the cable actuated system, Ford management based its decision by documenting only one disadvantage to cables: higher costs.

As *Branham* instructs, a product is defective in design when the foreseeable risks of harm posed by the product could have been reduced or avoided by adopting a reasonable alternative design. In this analysis, the “fundamental question” is “whether [Ford’s] failure to adopt a particular design feature proposed by the plaintiff was, on balance, right or wrong.” *Id.* The Estate of Ben Riley presented overwhelming evidence that Ford’s failure to adopt cable actuated door latches was wrong and the analysis turns to the evidence of the knowledge and information available to Ford as it chose to use the rod actuated door latch system rather than cable.

The record is also abundantly clear that Ford had actual knowledge of the dangers of foreshortening and unwanted door openings when a rod door latch system was involved in a crash. Ford’s most experienced engineers recorded that foreshortening, or

the “relative movement between the release handles and the latch due to vehicle crash deformation,” could affect latch integrity in collisions. (R. p. 155, line 9–p. 158, line 15; R. p. 415). Again and again, Ford’s own engineers advocated for the use of cable systems. Ford engineers concluded that the cable system “can be designed to compensate for side intrusion, angular, frontal, and rearward impacts. Cable systems provide confidence in meeting FMVSS206 and FMVSS 214 inertia and impact advantage.” (R. p. 147, line 5 – p. 148, line 13; R. pp. 426-437). According to Ford engineers, “[c]able systems are more robust to crash” and the cable system was recommended in all “higher series” models. (R. p. 148, line 14 - p. 151, line 1; R. pp. 407-409). Ford actually did use the cable system in a number of its vehicles, including the Econoline and Ranger models, produced at the same time as the PN96.

Based upon Ford’s crash test showing unwanted door openings in frontal crash scenarios, Ford actually implemented a cable design on the 1992-1995 F-150 truck. In 1989, Ford’s two frontal impact crash tests on F-150’s with a rod linkage system indicated door unlatching and/or opening upon impact. (R. pp. 1103-1267; R. p.1327). Based on these two crash tests with the rod linkage systems, Ford chose to discontinue the rod system and change to a cable system in the 1992 F-Series pickups. (R. p. 201, line 23 – p. 202, line 3; R. p. 204, lines 1-22). Ford’s Ranger, F-Series and Econoline Truck Engineering Department, in March of 1990, reported that “rod type connections may cause the door to unlatch during a high speed frontal impact crash test...[and] [t]his unlatching is caused by the compression loading of the rod during excessive door deformation.” (R. p. 401).

Ford continued to crash test the F-Series pickups with the cable design and no doors opened in crash testing due foreshortening. (R. p. 201, line 23 – p. 202, line 3; R. p. 204, lines 1-22; R. pp. 847). Despite the advantages of the cable system, the program was revised “from cable to compression [rods].” (R. p. 151, lines 14-21; R. pp. 442-447). Ford management wished to revert to rods. (R. p. 152, line 2–p. 153, line 9). Ford’s argument at trial concerning cable freezing was directly contradicted by Ford’s engineer Mr. Loschiavo, as addressed above. Loschiavo confirmed that after the freezing cable issue was fixed, Ford engineers continued to advocate for the use of cables. (R. p. 149, lines 14-18). No Ford document tied the move to rods to the cable freezing issue. (R. p. 164, line 1–p. 167, line 6). Instead, Ford’s only documented disadvantage concerning the use of cables documented was higher cost. (R. p. 159, line 7–p. 161, line 16; R. pp. 407-409; R. pp. 426-437).

Ford Motor Company had actual knowledge of the safety risks of rod systems before the manufacture of Riley’s Ford PN96. The safety risks were known based on historical data, testing, and an actual crash tests. In March of 1997 Ford Crash Test 10631, performed on an F-150 with the rod linkage design, resulted in door opening. (R. pp. 551). Then, in September 10, 1997, Ford performed Crash Test 10826, using the alternative cable design and the doors remained closed and secure. (R. pp. 847-1099). Finally, Ford performed Crash Test 10828 on a production level 1997 F-150 with the rod system design where a door opened. (R. p. 474-475; R. p. 2179, lines 3-5).

Interestingly, Ford’s post-crash reporting of this crash test differs greatly from the procedure used by Ford to document crash tests. Ford’s “Test Authorization” filled out by the engineering entity requesting the test requires the following documentation: 1) test

summary; 2) test report; 3) detailed photographs; and, 4) videos from several angles. (R. p. 475). With regard to crash test 10828, instead of following Ford's procedures, instructions were given which suggest Ford sought to conceal the results of this test. Rather than producing a "crash test report," Ford's Operations Testing Section Supervisor by a letter of December 8, 1997 directed Ford's Test Development Engineer that no crash test report would be written, the test would be identified as an "Experimental crash," and only the Test Authorization and limited documents would be maintained. (R. p. 474). According to James Loschiavo's testimony about the testing protocols of Ford, any such "issue or anomaly" would trigger an investigation. (R. pp. 157-158). However, his crash test was not documented following Ford's crash test protocol and no follow up investigation was made to explore why the door opened. (Id.).

Not only did the Estate offer evidence that the Riley F-150 had a design defect that rendered the vehicle defective; the Estate presented substantial evidence that Ford was aware of the defect when the Riley F-150 was manufactured in October of 1997. Rather than adopt a readily available alternative design already implemented in other vehicles, Ford chose to conceal evidence of its knowledge of the defect. Ford made the wrong decision in manufacturing the Riley F-150 with a rod design in the door latch.

The Estate then clearly proved its feasible alternative design by use of Ford's very own standards, tests, protocols, and procedures that were used by the company in deciding to employ one design over another. According to *Branham*, the "very nature of feasible alternative design evidence entails the manufacturer's decision to employ one design over another." *Id.* 390 S.C. at 224, 701 S.E.2d at 16. This weighing of costs and

benefits attendant to that decision is the essence of the risk-utility test. *Id.* *Branham* further states:

A product... is defective in design when the foreseeable risks of harm posed by the product could have been reduced or avoided by the adoption of a reasonable alternative design..., and the omission of the alternative design renders the product not reasonably safe.

Id., citing RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2(b) (1998). The *Branham* Court suggested further:

The basic issue involves the following fundamental... question: whether the manufacturer's failure to adopt a particular design feature proposed by the plaintiff was, on balance, right or wrong. A congruence between this central issue and the liability test requires that the test focus squarely on the issue of what, in particular, allegedly was wrong with the manufacturer's design decision. More specifically, this inquiry asks whether the increased costs (lost dollars, lost utility, and lost safety) of altering the design—in the particular manner the plaintiff claims was reasonably necessary to the product's safety—would have been worth the resulting safety benefits.

Id., quoting, David G. Owen, *Toward a Proper Test for Design Defectiveness: "Micro-Balancing" Costs and Benefits*, 75 TEX.L.REV. 1661, 1687 (1997).

The Estate's case, as noted by this Court in its Opinion, is not one founded on the weak, uncertain, and impermissible grounds of *res ipsa loquitor*. The The Estate's expert's alternative design was also Ford's own engineering department's favored design, one implemented in some Ford vehicles. The cable system design, if used, reduces the likelihood and potential seriousness of injury for the obvious danger of occupant ejection in wrecks.

After *Branham*, "the exclusive test in a products liability design case is the risk-utility test with its requirement of showing a feasible alternative design." 390 S.C. at 220, 701 S.E.2d at 14. Central to the risk-utility analysis is the question of whether "the

danger associated with the use of the product outweighs the utility of the product." *Id.* at 218, 701 S.E.2d at 13. "[N]umerous factors must be considered [when determining whether a product is unreasonably dangerous], including the usefulness and desirability of the product, the cost for added safety, the likelihood and potential seriousness of injury, and the obviousness of danger." *Id.*, 390 S.C. at 218-19, 701 S.E.2d at 13. Furthermore, alternative feasible design analysis must include "consideration of the costs, safety and functionality associated with the alternative design." *Id.*, 390 S.C. at 225, 701 S.E.2d at 16.

Here, all such factors have been met. The Estate presented evidence that was based primarily upon the engineering positions, documents, and design standards of Ford Motor Company itself.

As addressed above, at the time the Riley vehicle was manufactured in October of 1997, the alternative cable design system which prevents foreshortening was available to Ford and used in other vehicles. *Furthermore, Ford documents stated that the 1998 F-150 Ben Riley drove actually was supposed to be equipped with a cable as opposed to rod door latch system.* (R. p. 255, line 21 – p. 263, line 19; R. pp. 500-550; R. p. 497; R. pp. 442-448; R. pp. 498-499). Ford's Product Direction Letter of March 1997 directs the use of cables in the 1998 PN96, (R. p. 497), as did a Program Letter from May of 1995. (R. pp. 498-499). It was therefore feasible to use the cable system in the PN96 model driven by Ben Riley. (R. p. 266, lines 3-24). During the development of the PN96, the cable system was available to Ford. In fact, Ford was manufacturing other vehicles with cable systems at the very same time it manufactured 1998 model year pick-ups with rods. Plaintiff's engineering expert Andrew Gilberg testified "that there were many alternative

designs but Ford was already using one... [t]hat was the cable release system.” (R. p. 250, lines 7-14). The cable system is superior because unlike the rod system that is subject to compression under foreseeable forces in a wreck, a cable system cannot be pushed and cause a latch to unlock. (R. p. 252, lines 4-8). Ford’s own documents recognize the safety advantages of the cable system over the rod system, although the cable system was more expensive by Forty Cents (\$.40) per door. (R. pp. 410-414; R. pp. 461-469; R. p. 252, line 9 – p. 255, line 1).

The Estate’s engineering expert Mr. Gilberg testified at length concerning the risk-utility analysis factors required by South Carolina law. Gilberg concluded -- as Ford engineers did -- that the cable design system was far superior as an alternative design for foreseeable crashes such as Riley’s involving frontal impacts (or side, or rear). Also, the Estate presented direct evidence of the risk utility balancing test which had been undertaken by Ford. The Estate introduced Ford’s report entitled “PN96 Tension Vs. Compression Rod Study Recommendations,” where engineers indicated that a cable design latch system “has inherent advantages which would lessen the effects of both deformation and inertia.” (R. p. 442-448). Despite these advantages, Ford engineering recommended revising the PN96 “program from cable to compression [rods].” Ford management wished to revert to rods. (R. p. 152, line 2 – p. 153, line 9; R. p. 151, lines 14-21; R. pp. 442-448). The only disadvantage of the use of cables documented by Ford was higher cost. (R. p. 159, line 7–p. 161, line 16; R. pp. 407-409; R. pp. 426-437). Such evidence is proof under the risk-utility analysis in its most simple and direct form.

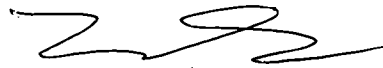
The utility of the vehicle would not have been compromised by the cable system. (R. p. 267, lines 4-18). In weighing and balancing the considerations of rod versus cable

design, Ford's engineers consistently advocated the use of cable, as addressed throughout this brief. Importantly, the only disadvantage of cable documented by Ford, whether in testing, development, or production of door latch systems, was the higher cost, being \$.40 more expensive per door.

The inherent legal and logical fallacy in Ford's arguments is where Ford seeks to push the standard for alternative feasible design – Ford's argument would require a plaintiff to test vehicles beyond even the testing required of Ford. Ford's arguments would seek a ruling that an expert must testify that the alternative design is impervious to every type of failure, under all circumstances. This is not the test, nor is it even the standard Ford is held to. In fact, the evidence of Ford crash testing of vehicles equipped with cables was the very same testing used by Ford to verify that its designs are safe. To require a plaintiff in a products liability case to present proof beyond what a manufacturer is required to do in testing its products is nonsensical. The injured plaintiff is not required to test his alternative design for every possible failure mode; the very manufacturer is not required to test for every possible failure mode prior to putting its products into the marketplace. If Ford's position were adopted, the law of products liability for products with design flaws would cease to exist as we, the Bench and bar, have known it. This Opinion is correct in its analysis and on the issue of JNOV should not be reheard or reconsidered.

SIGNATURE PAGE OF COUNSEL FOLLOWS

Respectfully submitted,



Ronnie L. Crosby
Daniel E. Henderson
Matthew V. Creech
PETERS, MURDAUGH, PARKER,
ELTZROTH & DETRICK, P.A.
Post Office Box 2500
Ridgeland, SC 29936
Phone: 843-726-6131
Fax: 843-726-6057

ATTORNEYS FOR THE RESPONDENT

March 3, 2014
Ridgeland, S.C.

In The Court of Appeals

APPEAL FROM BAMBERG COUNTY
Court of Common Pleas

Doyet A. Early, II, Circuit Court Judge

Case No.: 2008-CP-05-00235

Laura Riley as the Personal Representative
of the Estate of Benjamin Riley,.....Respondent,

v.

Ford Motor Company,..... Appellant.

PROOF OF SERVICE

I certify that I have served the Respondent's Return To Ford Motor Company's Petition For Rehearing by depositing a copy of it in the United States Mail, postage prepaid, on March 3, 2014, addressed to the respective attorneys of record and the Court as follows:

The Honorable Jenny Abbott Kitchings
Clerk of Court
P.O. Box 11629
Columbia, SC 29211

Curtis L. Ott, Esq.
Laura W. Jordan, Esq.
GALLIVAN, WHITE & BOYD, P.A.
P. O. Box 7368
Columbia, SC 29202

J. Kenneth Carter, Esq.
David C. Marshall, Esq.
Carmelo B. Sammaturo, Esq.
TURNER, PADGET, GRAHAM & LANEY, P.A.
1901 Main Street, 17th Floor

RECEIVED

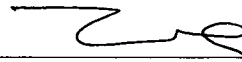
MAR 07 2014

SC Court of Appeals

Columbia, SC 29201

PETERS, MURDAUGH, PARKER, ELTZROTH
& DETRICK, P. A.

BY: _____



Matthew V. Creech
Post Office Box 2500
Ridgeland, SC 29936
Phone: 843-726-6131
Fax: 843-726-6057

February 14, 2014
Ridgeland, South Carolina

ATTORNEYS FOR RESPONDENT