

Affirmed and Opinion filed May 11, 2000.



In The

Fourteenth Court of Appeals

NO. 14-97-01226-CV

WAYNE O. HENDERSON, JR. AND MICHAEL L. HENDERSON, Appellants

V.

AUTOZONE, INC., AND NSK CORPORATION, Appellees

**On Appeal from the 113th District Court
Harris County, Texas
Trial Court Cause No. 94-36644**

OPINION

This is an appeal from a take nothing judgment in appellants' products liability suit against Autozone, Inc. and NSK Corporation. Appellants bring two points of error, challenging the grant of appellees' joint motion for judgment notwithstanding the verdict and challenging the grant of a directed verdict against appellant Michael Henderson. Appellees raise two cross-points challenging the sufficiency of the evidence supporting the jury's answers to two questions. We affirm the trial court's judgment.

Background

In 1992, appellant Wayne O. Henderson, Jr., who lives near Beebe, Arkansas, purchased a 1978 Ford truck. Wayne replaced the engine on this truck with an engine he rebuilt from another 1978 Ford truck. In rebuilding this engine, Wayne reassembled the fan blade assembly on the water pump. Wayne changed the engine's water pump and obtained a replacement pump at the Autozone store in Searcy, Arkansas. Wayne showed the store personnel the old water pump and told them he needed a water pump for a 1978 Ford truck with a 302 engine. Wayne installed the new pump. Sometime later, Wayne examined the engine because it was "running hot." His brother, Michael, also an appellant, was standing nearby. While standing in front of the truck, Wayne reached across the engine and revved it twice. The fan flew off the engine, severely injuring Wayne's arm. Although no part of the truck's engine hit Michael, he was struck by Wayne's blood and muscle tissue. Wayne was hospitalized for his injury.

Appellants filed suit against Autozone and the manufacturer of the pump, NSK Corporation, for personal injuries suffered by Wayne and for mental anguish suffered by Michael. At trial, appellants put on one expert regarding liability, Wilson G. Dobson, a mechanical and materials engineer and metallurgist. Dobson testified he has experience in failure analysis of metal products, including the failure of drive shafts and car axles. He presently is self-employed as a consultant. Dobson visually examined the water pump in this case and viewed the fractured surfaces under a microscope. Upon further examination and testing of the fractured surfaces under a scanning electron microscope, Dobson made the following determinations: (1) there was no manufacturing defect because the shaft was manufactured in accordance with the specifications used by NSK, was carburized according to specifications, and met the 5120 hardness values; but, (2) there was a design defect in that the heat treatment method used to harden the metal, a two-step process, resulted in a brittle shaft that would fail without warning. Dobson suggested that a different heat treatment method would have resulted in a more ductile shaft that would bend or stretch before breaking, which would give warnings such as vibrations or belt slippage and possible contact with other engine parts. To obtain this more ductile quality, Dobson suggested a three step heat treatment

process, involving heating of the metal, then slow cooling to near room temperature, and finally reheating for an hour or so, followed by tempering. Dobson also suggested alternative designs for the shaft that, in his opinion, could have prevented the accident. Appellees also presented expert testimony.

At the conclusion of the plaintiffs' evidence, the trial court granted a directed verdict against Michael Henderson on the ground that any mental anguish suffered by Michael was not produced by a physical injury as required by Arkansas law. Wayne Henderson's claims were submitted to a jury. The jury found there was a design defect that was a proximate cause of the accident and that Wayne Henderson's negligence was also a cause of the accident. The jury assessed responsibility at 40% to Wayne Henderson and 60% to Autozone and awarded Wayne past damages of \$490,000 and future damages of \$430,000.

Appellees then filed a joint motion for judgment notwithstanding the verdict on the ground that there was no evidence of a design defect which would render the water pump bearing shaft unreasonably dangerous for its foreseeable uses, no evidence that the injuries were proximately caused by a design defect, and no evidence to support the jury's allocation of negligence or damages. The trial court granted this motion and entered judgment that appellants, Wayne and Michael Henderson, take nothing on their claims.

Objection to Reliability of Expert Testimony

In their motion for judgment notwithstanding the verdict and in their brief, appellees argue that the testimony of appellants' expert was unreliable under *E.I. Du Pont de Nemours & Co. v. Robinson*, 923 S.W.2d 549 (Tex. 1995). Since the *Robinson* case was decided, the supreme court has held that, to raise an appellate challenge to an expert on the ground of unreliability, a party must have objected in the trial court. See *Maritime Overseas Corp. v. Ellis*, 971 S.W.2d 402, 409-10 (Tex. 1998). Appellees argue they have not waived this complaint because they raised it in their motion for directed verdict at the close of plaintiffs'

evidence and again by motion for directed verdict and objections to the charge before submission to the jury.¹

Appellees did not specifically object to Dobson’s testimony as unreliable during their argument concerning their motions for directed verdict. The motions for directed verdict merely involved allegations of no evidence of a design defect, without specific reference to the unreliability of Dobson’s testimony. *Ellis* requires an objection to evidence on the ground of unreliability before or at the time the challenged evidence is offered. *See id.* *See also General Motors Corp. v. Sanchez*, 997 S.W.2d 584, 591 (Tex. 1999). “Without requiring a timely objection to the reliability of scientific evidence, the offering party is not given an opportunity to cure any defect that may exist and will be subject to trial and appeal by ambush.” *Ellis*, 971 S.W.2d at 409. Because appellees did not object to the reliability of the expert’s testimony before or when the testimony was offered, we hold that the challenge in the motion for judgment notwithstanding the verdict was untimely and thus may not be raised on appeal.

Grant of Judgment Notwithstanding the Verdict

In his first point of error, appellant Wayne Henderson challenges the trial court’s grant of appellees’ joint motion for judgment notwithstanding the verdict. A trial court may grant a judgment notwithstanding the verdict if there is no evidence to support one or more of the jury findings on issues necessary to liability. *See Brown v. Bank of Galveston*, 963 S.W.2d 511 (Tex. 1998).²

Appellees’ motion for judgment notwithstanding the verdict asserted five grounds: (1) there was no evidence the water pump bearing shaft was defectively designed; (2) the evidence

¹ The pleadings also include a motion to exclude Dobson’s testimony on the ground of unreliability, but a review of the record reveals no ruling. When the court entertained pretrial motions, appellees mentioned the motion to exclude, but the judge indicated it would be taken up later. The motion was not re-urged before or during Dobson’s testimony; therefore, it does not preserve their complaint.

² Although the trial court applied the substantive law of Arkansas, we apply the procedural law of Texas, including Texas standards of review, on appeal. *See Billman v. Missouri Pac. R. Co.*, 825 S.W.2d 525, 526 (Tex. App.–Fort Worth 1992, writ denied); *Texaco, Inc. v. Pennzoil Co.*, 729 S.W.2d 768, 787 (Tex. App.–Houston [1st Dist.] 1987, writ ref’d n.r.e.).

conclusively established the water pump bearing shaft was not defectively designed; (3) there was no evidence Wayne Henderson's injuries were proximately caused by a defect in the design of the water pump bearing shaft; (4) the evidence conclusively established Wayne Henderson's injuries were not proximately caused by a defect in the design of the water pump bearing shaft; and (5) there was no evidence to support the jury's answers to questions 3 and 4 of the charge (regarding percentage allocations of negligence and damages). Wayne contends there was evidence of defective design, proximate cause, and damages.

1. Defective Design

As to defective design, appellees contended that no evidence supported the jury's finding and, alternatively, the evidence conclusively established there was no defective design. In determining whether there is evidence supporting the jury verdict, we must consider the evidence in the light most favorable to the verdict and those reasonable inferences tending to support it. *See Brown*, 963 S.W.2d at 513. If more than a scintilla of evidence supports the jury's finding, we must reverse the judgment. *See Mancorp, Inc. v. Culpepper*, 802 S.W.2d 226, 228 (Tex.1990). A scintilla of evidence exists when the evidence is "so weak as to do no more than create a mere surmise or suspicion of its existence." *Kindred v. Con/Chem, Inc.*, 650 S.W.2d 61, 63 (Tex. 1983).

Appellees claim that the testimony of appellants' expert, Wilson Dobson, constituted no evidence of a design defect. In the jury charge, the trial court defined design defect in accordance with the Arkansas Product Liability Act as "a condition of a product as designed that renders it unreasonably dangerous for foreseeable use and consumption." ARK. CODE ANN. § 16-116-102(4) (Michie 1987). A supplier of a product is liable in damages for harm to a person if (1) the supplier is engaged in the process of selling, leasing, or otherwise distributing the product; (2) the product was supplied in a defective condition which rendered it unreasonably dangerous; and (3) the defective condition was a proximate cause of the harm to the person. ARK. CODE ANN. § 4-86-102 (Michie 1987). Arkansas law defines "unreasonably dangerous" products in the following way:

“Unreasonably dangerous” means that a product is dangerous to an extent beyond that which would be contemplated by the ordinary and reasonable buyer, consumer, or user who acquires or uses the product, assuming the ordinary knowledge of the community or of similar buyers, users, or consumers as to its characteristics, propensities, risks, dangers, and proper and improper uses, as well as any special knowledge, training, or experience possessed by the particular buyer, user, or consumer or which he or she was required to possess.

ARK. CODE ANN. § 16-116-102(7) (Michie 1987). In addition to showing the product was in a defective condition rendering it unreasonably dangerous, a plaintiff must show the defect was a proximate cause of his injury. *See Nationwide Rentals Co. v. Carter*, 765 S.W.2d 931, 935 (Ark. 1989).

To establish their claim of products liability, appellants had to provide evidence of an unreasonable danger “beyond that contemplated by the ordinary and reasonable buyer, taking into account any special knowledge of the buyer concerning the characteristics, propensities, risks, dangers, and proper and improper uses of the product.” *See Berkeley Pump Co. v. Reed-Joseph Land Co.*, 279 Ark. 384, 653 S.W.2d 128, 133 (1983). Because the evidence offered in this case concerned alternative design, and we have located no Arkansas authority regarding alternative design, we look to other jurisdictions, including Texas, for guidance.

A majority of states do not *require* a showing of a reasonable alternative design in product liability actions, but many jurisdictions do *consider* alternative designs. *See, e.g., Delaney v. Deere and Co.*, No. 82,630, 2000 WL 263240 (Kan. 2000). *Contra* M. Stuart Madden, 1 Products Liability § 8.3, at 299 (2d ed. 1988) (stating that a majority of jurisdictions do require proof of an alternative design). Texas has a statutory provision regarding defective design and this statute requires a showing of a safer alternative design. *See* TEX. CIV. PRAC. & REM. CODE ANN. § 82.005(a) (Vernon 1997). The statute defines a “safer alternative design” as one that in reasonable probability:

(1) would have prevented or significantly reduced the risk of the claimant’s personal injury, property damage, or death without substantially impairing the product’s utility; and

(2) was economically and technologically feasible at the time the product left the control of the manufacturer or seller by the application of existing or reasonably achievable scientific knowledge.

Id. at (b). *See also Sanchez*, 997 S.W.2d at 588.

To determine whether a reasonable alternative design exists, and if so whether its omission renders the product unreasonably dangerous, the finder of fact may weigh various factors bearing on the risk and utility of the product. *See Uniroyal Goodrich Tire Co. v. Martinez*, 977 S.W.2d 328, 335 (Tex. 1998). These factors include: (1) the magnitude and probability of foreseeable risks of harm; (2) the instructions and warnings accompanying the product, (3) the nature and strength of consumer expectations regarding the product; and (4) the relative advantages and disadvantages of the product as designed and as it could have alternatively been designed. *See id.* (quoting RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 cmt. f). In reviewing the advantages and disadvantages of the alternative design, the finder of fact may consider the effect of the alternative design on production costs, product longevity, maintenance, repair, esthetics, and the range of consumer choice among products. *See Uniroyal*, 977 S.W.2d at 335.

Appellants' expert, Wilson Dobson, testified that, although the water pump shaft was manufactured according to NSK specifications, it was his opinion the design was defective. The basis for this opinion was Dobson's understanding of the heat treatment method used to harden the metal. According to Dobson, the water pump shaft fractured in a brittle fashion, which is not a desirable failure mode, but foreseeable, according to Dobson, given the type of metal used to make the shaft and the heat treatment of the metal. Dobson testified that NSK used a two-step process to harden the metal, which involved heating the metal to 1700 degrees, and then placing it into an oil bath to quickly lower the temperature. Dobson testified that a three-step process would be better because it would allow the metal to deform before failure,

and this bending would warn a user that failure was imminent.³ Although Dobson admitted no manufacturers currently use a three-step process, he cited a published article about the three-step process and its effect on the hardness of metal.

Dobson agreed that the fracture surface of the shaft in this case was characteristic of an overload event that could occur if the shaft was unbalanced and there was excessive acceleration. Dobson admitted he did not attempt to determine how the shaft became overloaded. Dobson agreed that use of improper parts attached to the shaft, misshapen fan blades, and imbalances, could cause excessive loading that, when combined with revving the engine, could lead to failure of the shaft. Dobson also agreed that sudden acceleration is a normal, foreseeable event that the shaft should be designed to accommodate. Although Dobson admitted the three-step process of heat treatment is rarely used, he theorized it would result in a safer product in that it would cause deformation before failure and would warn the user of imminent failure. We do not find this testimony to be legally sufficient to support the jury's finding.

Absent any investigation or understanding of the cause of the failure of the pump shaft, Dobson's testimony that the design of the shaft is defective amounts to mere speculation. Furthermore, no evidence showed that the three-step process had ever been attempted in the manufacture of a water pump shaft for use in a vehicle. Consequently, there was no evidence concerning the type of bending that would occur during revving of the engine or the time period involved between the anticipated bending and the ultimate fracturing of the shaft. Dobson testified that sudden acceleration, such as occurred in this case, is a foreseeable occurrence that the pump shaft should have been designed to accommodate. Dobson also testified that it

³ Dobson also suggested other alternative designs that could have prevented the accident: (1) masking off sections of the shaft to prevent carburization of the entire shaft; (2) changing the shape of the shaft; and (3) no carburization of the shaft. Regarding these alternatives, Dobson merely stated his opinion that these alternatives could prevent injury. Dobson did not testify how these would have prevented injury or how these designs were superior to the design in question. Thus, the testimony about these alternative designs is mere speculation. *See Kindred*, 650 S.W.2d at 63.

was foreseeable, given the design of the shaft, that it would fail. Nevertheless, Dobson's testimony about the three-step design included a concession that it, too, would fail.

Aside from Dobson's bare opinion that a user might observe deformity of the shaft before fracture occurred, and might have time to avoid injury, there is no evidence that the recommended alternative design using a three-step heating process would have prevented the injury. Based on our review of the record, the finding that the pump shaft was defective and unreasonably dangerous was based on Dobson's conclusion that the two-step heating process failed to warn the user of impending failure, and that the alternative design might warn of imminent failure. Because no evidence showed that the alternative design would not have failed under the circumstances and no evidence showed the user would have received sufficient warning to escape injury, Dobson's testimony amounted to no more than mere speculation that the proposed alternative design would have prevented the injuries. Because we find no evidence supporting the jury's finding of defective design, we find no error in the trial court's grant of judgment notwithstanding the verdict. Having found no evidence supporting the jury's finding of defective design, we need not address the evidence supporting the jury's finding of causation.

2. Percentage Allocations of Responsibility and Damages

The Hendersons also challenge the trial court's grant of appellees' motion for judgment notwithstanding the verdict with respect to jury questions three and four regarding percentage allocation of responsibility and damages. In their motion, appellees claimed there was no evidence to support the jury's answers to these questions because there was no evidence supporting the finding of defective design and proximate cause under jury question one. Because we have upheld the trial court's grant of judgment notwithstanding the verdict with respect to jury question one regarding liability, we need not consider the trial court's ruling regarding allocation of percentages of liability and damages.

Grant of Directed Verdict

In their second point of error, appellants argue the trial court erred in granting appellees' motion for a directed verdict on Michael Henderson's cause of action of mental anguish. In plaintiffs' original petition, Michael Henderson alleged that he had suffered mental anguish by witnessing the injury inflicted on his brother and had sustained loss of consortium damages. Appellees claim that Arkansas law does not allow recovery for mental anguish unless accompanied by a physical injury. Appellants, on the other hand, contend that Arkansas law allows recovery of damages for mental anguish if there is a constructive injury and appellees claim that a constructive injury occurred when Michael was hit with blood and tissue at the time of the physical injury to Wayne.

A directed verdict is proper under the following circumstances:

- (1) when a defect in the opponent's pleadings makes them insufficient to support a judgment;
- (2) when the evidence conclusively proves a fact that establishes a party's right to judgment as a matter of law; or
- (3) when the evidence offered on a cause of action is insufficient to raise an issue of fact.

Kline v. O'Quinn, 874 S.W.2d 776, 785 (Tex. App.--Houston [14th Dist.] 1994, writ denied). In reviewing a directed verdict, we must examine the evidence in the light most favorable to the party suffering an adverse judgment. *See S.V. v. R.V.*, 933 S.W.2d 1, 8 (Tex. 1996).

In years past, Arkansas courts permitted recovery of mental anguish damages even in the absence of a physical injury, if there were a constructive physical injury. *See, e.g., Arkansas Motor Coaches v. Whitlock*, 199 Ark. 820, 136 S.W.2d 184, 186-87 (1940). In 1980, the Arkansas Supreme Court recognized that past case law allowing recovery of mental anguish damages in the absence of physical injury was, as Professor Prosser suggested, part of the trend across the country to create the new tort of intentional infliction of emotional distress. *See M.B.M. Co., Inc. v. Counce*, 268 Ark. 269, 596 S.W.2d 681, 685-87 (1980). In *Counce*, the court held that Arkansas would recognize the tort of intentional infliction of

emotional distress rather than continue the strained reasoning of the past to allow mental anguish damages where no physical injury was present. *See id.* at 687.

Appellee claims that Michael's cause of action is essentially a claim for bystander recovery and that no Arkansas statute or case law recognizes such a cause of action. Even if we were to conclude that Arkansas does recognize recovery of mental anguish damages, appellant, Michael Henderson, would not prevail in light of our ruling that the evidence did not support a finding of defective design.

Similarly, Michael would not prevail if we viewed Michael's claim of mental anguish to state a cause of action for intentional infliction of emotional distress. Arkansas law recognizes that "one who by extreme and outrageous conduct wilfully or wantonly causes severe emotional distress to another is subject to liability for such emotional distress and for bodily harm resulting from the distress." *Counce*, 596 S.W.2d at 687. Extreme and outrageous conduct means "conduct that is so outrageous in character, and so extreme in degree, as to go beyond all possible bounds of decency, and to be regarded as atrocious, and utterly intolerable in a civilized society." *Id.*

No evidence indicates that appellees' conduct in designing the pump shaft using a two-step process was so extreme and outrageous as to go beyond all possible bounds of decency. Thus, if Michael's claim for mental anguish were viewed as a claim for intentional infliction of emotional distress, which is allowed by Arkansas where no physical injury is involved, the trial court correctly granted the motion for directed verdict on Michael's claim because the evidence did not raise an issue of fact that supported submission of this cause of action to the jury.

Cross-Points Regarding Sufficiency of the Evidence Supporting Liability and Damages Findings

Appellees raise two cross-points for consideration only in the event this court finds that the judgment notwithstanding the verdict was improvidently granted. Because we have upheld the trial court's ruling, we need not address these cross-points.

Conclusion

Because we find there is legally insufficient evidence to support the jury's findings of defective design and proximate cause, the trial court properly granted judgment notwithstanding the verdict on Wayne's Henderson's claims. We further find the trial court properly granted a directed verdict as to Michael Henderson's claim for bystander damages, because appellants did not raise an issue of fact regarding one of the elements of this claim. Accordingly, we affirm the trial court's judgment.

/s/ Leslie Brock Yates
Justice

Judgment rendered and Opinion filed May 11, 2000.

Panel consists of Justices Yates, Fowler and Frost.

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