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TORT LIABILITY FOR DEFECTIVE AUTOMOBILE DESIGN

By ROBERT ZARNETT*

It has been said that "the law of products liability as related to automobiles is no different, from a theoretical or conceptual point of view, than the law of products liability as related to any other product". Although there is no obvious reason why automobile manufacturers should be treated any differently by the courts than the manufacturers of any other consumer product, there seem to have been relatively few products liability suits brought against automobile manufacturers in Canada.2

Since Lord Atkin set out the general principle of the Anglo-Canadian law of products liability in Donoghue v. Stevenson3 in 1932, courts have imposed liability on manufacturers of all types of products for negligent construction of their goods.4 If a manufacturer's negligent failure to implement his own design has caused injury to the plaintiff, a court has little difficulty in concluding that the product was defective.5 In practice, when the plaintiff has reached the point of satisfying the court of the defect and of causation, a burden of disproving negligence is placed on the manufacturer.6

A much more difficult question arises when the product is produced in accordance with the manufacturer's design but an injured plaintiff argues that the design itself was deficient. In principle, there is no reason why he should not succeed if he can persuade the court that the product fell short of a reasonable standard.7 The issue of liability for defective design has

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4 See A. M. Linden, Canadian Negligence Law (Toronto: Butterworth & Co. (Canada) Ltd., 1972) at 399-404.


7 Katz, supra, note 5 at 864 says:

... nothing in law or logic insulates manufacturers from liability for deficiencies in design any more than for defects in construction.

In Cronin v. Olson Corp., 104 Cal Rptr. 433 (S. Ct. Cal. 1972), the court said at 442:

A defect may emerge from the mind of the designer as well as from the hand of the workman.
seldom been raised in English or Canadian cases, however, in the case of *Rivtow Marine Limited v. Washington Iron Works and Walkem Machinery and Equipment Ltd.*, the Supreme Court of Canada recognized that there can be liability for negligence in design. Indeed, the fact that a defect has been incorporated into a product deliberately rather than accidentally can hardly be a defence to a products liability suit against a manufacturer.

While there has been little automobile products liability litigation in Canada, the same is not true of the United States, particularly in the area of automobile design. The purpose of this article is to examine the issue of tort liability of automobile manufacturers for defects in design and to consider what, if any, impact tort liability has on the design of automobiles today.

I. **THE DOCTRINE OF CRASHWORTHINESS — THE SECOND COLLISION**

The number of cases which have been initiated claiming defective design in cars has increased dramatically in the United States in recent years. Many of the cases have concerned the 1961 Pontiac Tempest, which is alleged to have a defective design of the front-end cross-member causing the vehicle to become suspended on railroad tracks and other uneven road surfaces, and the 1960 to 1963 Chevrolet Corvair which is alleged to have a defective rear suspension system causing handling difficulties. These cases present the courts with a difficult problem, for to evaluate the design of an automobile, the court not only must consider automotive engineering information but also must make value judgments about the extent to which the design may subordinate safety to considerations of price, style, convenience and several other factors.

The main battleground for the issue of liability for defective design has been in the area of “second collision” injuries. The “second collision” problem arises when the unsafe design feature allegedly causes or worsens the plaintiff’s injury in an accident rather than when the feature causes the accident itself. The impact of the automobile with another automobile or some other object is said to be the “first collision”; the impact of the passenger with some interior portion of the vehicle or with the road if the passenger is ejected from the vehicle is the “second collision”. Although the two events usually occur fractions of a second apart, they may be usefully distinguished. While the negligence of the driver may cause the initial impact, the issue is whether the manufacturer may be held liable for poor

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8 In *Davie v. New Merton Mills*, [1955] A.C. 604 at 626 (H.L.), Viscount Simonds said: “I agree that [a manufacturer] would [be liable] if the fault lay in the design and was due to lack of reasonable care or skill on his part.” In *Hindustan Steam Shipping Co. v. Siemens Bros.*, [1955] 1 Lloyd’s Rep. 167, Willmer J. said at 177: “I am prepared to approach this case on the basis that the principle of *Donoghue v. Stevenson* is properly applicable to a case where the only complaint made is one of faulty design.”


10 No attempt whatever will be made to deal with the important area of express and implied warranties in consumer transactions

design which causes subsequent injuries. The question that is raised in this
area is: does the manufacturer of an automobile have a legal duty to use
due care in the design of a vehicle to avoid the consequences of a potential
-crash whether caused by driver negligence or not? This question has been
answered in varied fashion by many American courts.

1. The American Jurisprudence

In Evans v. General Motors Corporation, the 7th Circuit Court upheld
the trial judge's dismissal of the plaintiff's complaint alleging that the de-
fendant had been negligent, or had breached an implied warranty or was
strictly liable in tort in designing a Chevrolet station wagon with an “X”
frame without side protection. The plaintiff's decedent was killed when the
side of the car collapsed inward upon him during a side impact collision. The
majority of the court stated:

A manufacturer is not under a duty to make his automobile accident-proof or
fool-proof; nor must he render the vehicle “more” safe where the danger to be
avoided is obvious to all . . . Perhaps it would be desirable to require manu-
facturers to construct automobiles in which it would be safe to collide, but that
would be a legislative function, not an aspect of judicial interpretation of
existing law.

Although the reasoning of the majority in Evans is not entirely clear, the
court seems to believe that the manufacturer has a duty only to design a
product for its intended use and automobiles are not intended to become
involved in crashes. This principle is found in the following statement of
the court:

The intended purpose of an automobile does not include its participation in
collisions with other objects, despite the manufacturer's ability to foresee the
possibility that such collisions may occur.

The decision in Evans can be attacked on a number of grounds. Firstly,
the controlling issue in these cases should be whether or not the risk was
unreasonable, not whether it was latent or “obvious to all”. The real ques-

\[\text{12} 359 \text{ F.2d 822 (7th Cir. 1966), cert. denied 385 U.S. 836.}\]

\[\text{13 In the Evans case, the plaintiff's decedent was driving across an intersection in a}
\text{Chevrolet station wagon when it was struck from the left side by another automobile.}
\text{The side of the station wagon, designed with an “X” frame and therefore without side}
\text{frame rails, collapsed inward upon the decedent, inflicting fatal injuries. The plaintiff's}
\text{theory was that since the collision was a foreseeable emergency, the defendant, by}
\text{omitting side frame rails, created an unreasonable risk of harm to the user of the}
\text{automobile.}\]

\[\text{14 359 F.2d at 824.}\]

\[\text{15 Id. at 825. See also Willis v. Chrysler Corp., 264 F. Supp. 1010 (S.D. Tex.}
\text{1967) where the court said at 1012:}\]

\[\text{This court is of the opinion that the defendant had no duty to design an}
\text{automobile that could withstand a high speed collision and maintain its struc-
tural integrity. . . . This court agrees with the Evans case that, ‘the intended}
\text{purpose of an automobile does not include its participation in collisions with}
\text{other objects’.}\]

\[\text{Support for the decision in Evans and Willis can be found in M. Hoenig and S. J.}
\text{Werber, Automobile “Crashworthiness”: An Untenable Doctrine (1971), 20 Clev. St.}
\text{L. Rev. 578 and in R. R. Pawlak, Manufacturer's Liability for Defective Design —}
tion is not whether the manufacturer’s duty is to provide an “accident-proof” or “fool-proof” car, or to make it “safe to collide”; rather, if accidents are foreseeable yet unavoidable by the purchaser despite careful use, whether reasonable protection must be provided.10

The plaintiff’s failure to use a seat belt may be characterized as contributory negligence in automobile accident cases.17 The seat belt and shoulder harness are safety devices designed to protect vehicle occupants against the second collision. If the courts impose upon occupants the duty to take safety measures against the foreseeable risks of the second collision, there is no logical reason why the automobile manufacturer should not be under the same obligation.

It has also been said that the weakness of the court’s reasoning in Evans is typified by an example put forth by the court itself in supposed support of its decision. One commentator formulated the argument in this way:

The court seized upon the plaintiff’s foreseeability argument in order to set up and knock down the ludicrous suggestion that an automobile manufacturer might be required to equip cars with pontoons because they may foreseeably be driven into bodies of water. Here the court indulges in refutation by means of an absurdity—a technique that is clearly out of place in judicial decision-making. Had the court dealt more honestly with the issue, it would simply have acknowledged the obvious—that a manufacturer may be required to conform to a higher but still reasonable standard of safety without incurring a duty to make products accident-proof.18

In Shumard v. General Motors Corporation,19 the plaintiff’s decedent was killed when the car in which he was driving erupted into flames as a result of a collision. The court, in denying a cause of action in either negligence or breach of implied warranty of fitness, echoed the “fool-proof”—“accident-proof” refrain and added to it “no duty to make fireproof”. The court stated:

An automobile is not made for the purpose of striking or being struck by other vehicles or objects and . . . the duty of an automobile manufacturer does not include the duty to design and construct an automobile which will insure the occupants against injury no matter how it may be misused or bludgeoned by outside forces.20

An automobile manufacturer can protect against foreseeable and easily avoided injury or enhancement of injury due to improper design and he should be under a duty to do so as are other manufacturers. The Evans line of cases seemed to foreclose the middle ground between no duty on the one hand and an absolute or insurer’s duty on the other. These decisions uniformly indicated that the “intended use” of an automobile was nothing

10 Dissent, 359 F.2d at 827.
more than travel on the highway, and a cause of action seemingly would not be found unless the defect was shown to be a causative factor in the accident itself.

In Larsen v. General Motors Corporation, the plaintiff alleged negligence in design and breach of implied warranty of merchantability. A head-on collision, with the impact occurring on the left front corner of the plaintiff's 1963 Corvair, caused a severe rearward thrust of the steering mechanism into the plaintiff's head, causing serious injury. On these facts, which are basically indistinguishable from those of the Evans group of cases, the 8th Circuit Court found a cause of action for negligent design. The court decided that a manufacturer does in fact have a duty to consider crashworthiness in the basic design of an automobile, and that the test of the duty is not the intended use of the vehicle as unilaterally articulated by the manufacturer, but rather the customary and foreseeable use which the automobile will encounter, including the well known phenomenon of automobile crashes. The court stated that it perceived no sound reason why the manufacturer should not be held to a reasonable duty of care in the design of its vehicle "consonant with the state of the art" to minimize the effect of accidents. The court proceeded on the premise that the user must accept the normal risks of driving but he need not be further penalized by being subjected unnecessarily to a risk of injury due to negligent design. In reversing the decision of the trial court which had granted summary judgment in favor of the manufacturer, the 8th Circuit Court clearly followed negligence principles and made no comment on strict liability theory.

In an attempt to expand the scope of the "intended use" of an automobile to include collisions, the court states:

While automobiles are not made for the purpose of colliding with each other, a frequent and inevitable contingency of normal automobile use will result in collisions and injury-producing impacts.

The Larsen decision has drawn much criticism: some argue that it has gone too far; others say that it has not gone far enough. One commentator suggests that the Larsen case may go beyond strict liability in two areas. Under strict liability doctrine, the product must be proved to be defective for its intended use and the defect must bear some relationship to the injury consistent with traditional principles of proximate cause. The court, it is said, is pressing for absolute liability, i.e., liability without fault, defect or casual relationship for all injuries and death to all persons riding in or driving automobiles on the ground that the manufacturer failed to protect such persons from their own, or other's, acts of violence. Secondly, product development could be discouraged because manufacturers might be held liable for failure to install newly-developed safety devices in their older cars when they were produced.

21 391 F.2d 495 (8th Cir. 1968).
22 Id. at 503.
23 Id. at 502.
24 Pawlak, supra, note 15.
The argument that the *Larsen* decision is too narrow has been summarized as follows:

The case's rationale might have been more compelling had the court rested its decision entirely on the general common law duty of a manufacturer to eliminate any unreasonable risk of foreseeable harm from his product. . . . In both *Evans* and *Larsen* the court stated the duty in terms of 'fitness for intended use' and then resolved the case by adjudging that a collision was or was not an intended use. It seems, however, that the critical question was not whether a collision was an intended use — obviously a collision is not a use, much less an intended use — but rather whether an automobile could realistically be considered fit for normal use if the jolt from a collision would render it a death-trap.25

Obviously there can be no resolution of the issue of whether or not a collision comes within the "intended use" of an automobile without the courts considering the policy to be promoted by a finding one way or the other. *Evans* and *Larsen* appear to be irreconcilable, although there is increasing evidence that the *Larsen* view will ultimately prevail.26

The *Larsen* case was followed by the 1969 decision of the Supreme Court of South Carolina in *Mickle v. Blackman*.27 In this case, the plaintiff, a passenger in a 1949 Ford, was thrown during a collision against the gear shift lever knob which shattered upon impact, causing her to be impaled upon the lever. The court recognized a cause of action against the defendant Ford Motor Company for negligent design. Although relying heavily on *Larsen*, the Supreme Court avoided the "intended use" quagmire and grounded its decision solidly upon the traditional common law duty to use reasonable care to avoid foreseeable harm. The court stated:

> By ordinary negligence standards, a known risk of harm raises a duty of commensurate care. We perceive no reason in logic or law why an automobile manufacturer should be exempt from this duty.28

The court effectively bridged the gap between the common law negligence principle of "reasonable foreseeability" and the "intended use" test used repeatedly in products liability cases. The court quoted from *Spruill v. Boyle-Midway Inc.*26 as follows:

>'Intended use' is but a convenient adaptation of the basic test of 'reasonable foreseeability' framed to more specifically fit the factual situations out of which

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26 Goodman, *supra*, note 1 at 7. The Federal District Court for the Eastern District of Pennsylvania followed the trend begun by *Larsen* in the case of *Dyson v. General Motors Corporation*, (298 F. Supp. 1064 (E.D.Pa. 1969)), and held that the defendant manufacturer had a duty to provide an automobile of reasonably safe design to protect auto occupants. The plaintiff was a passenger in a Buick Electra two-door hardtop which left the roadway and overturned. The roof on the plaintiff's side of the car collapsed, increasing the severity of her injuries. The court denied the defendant's motion for judgment on the pleadings and stated at 1073, that although the law does not impose an obligation on the manufacturer to produce a "crash-proof" car, an automobile must nevertheless provide "more than merely a moveable platform capable of transporting passengers from one point to another. The passenger must be provided with a reasonably safe container within which to make the journey."
28 *Id.* at 185.
29 308 F.2d 79 (4th Cir. 1962).
arise questions of manufacturers’ liability for negligence . . . Normally a seller or manufacturer is entitled to anticipate that the product he deals in will be used only for the purposes for which it is manufactured and sold; thus he is expected to reasonably foresee only injuries arising in the course of such use.

However, he must also be expected to anticipate the environment which is normal for the use of his product and . . . he must anticipate the reasonably foreseeable risks of the use of his product in such environment. These are risks which are inherent in the proper use for which his product is manufactured.\textsuperscript{30}

Thus, the \textit{Mickle} decision represents a step forward from \textit{Larsen} in that the decision was based on a general common law duty and in that an attempt was made to sort out the “intended use” issue that left the \textit{Evans} and \textit{Larsen} cases in conflict.

In \textit{Badorek v. General Motors Corporation},\textsuperscript{31} a decision of the Supreme Court of California, two occupants of a 1965 Corvette were fatally burned and a third occupant was injured seriously when the Corvette in which they were riding was involved in a rear-end collision with a second automobile operated by an intoxicated driver. The initial impact was not forceful enough to cause injury to the occupants of the Corvette; however, upon the impact, the Corvette’s gasoline tank, located only seven and one-half inches from the rear of the car, ruptured. Gasoline spewed into the cockpit and ignited, fatally burning the driver and a passenger and severely burning a second passenger. The occupants’ injuries resulted not from the initial collision, but from the “second collision” — the rupture of the gasoline tank and the subsequent fire. In other words, the second accident enhanced the injuries of the occupants who otherwise would have suffered only minor injuries.

The plaintiff sued General Motors for wrongful death and personal injuries alleging strict liability for the defects in the design of the Corvette. The Court of Appeal upheld the trial court’s finding that General Motors was strictly liable to the occupants of the Corvette for the enhanced injuries\textsuperscript{32} caused by the dangerously defective design and construction of the gasoline tank.\textsuperscript{33}

\textsuperscript{30} Id. at 83-84. Quoted at 166 S.E.2d 187.


\textsuperscript{32} Any design defect not causing the accident would not subject the manufacturer to liability for the entire damage but the manufacturer would be liable for that portion of the damage or injury caused by the defective design over and above the damage or injury that probably would have occurred as a result of the impact or collision absent the defective design. See D. W. Noel, \textit{Manufacturer's Negligence of Design or Directions for Use of a Product} (1962), 71 Yale L. J. 816.

\textsuperscript{33} See Hoenig and Werber, \textit{supra}, note 15 at 587, note 35 where the authors make the following observation:

Subsequent procedural events in the \textit{Badorek} case negate the decision both as a judgment and a precedent under California law. The Supreme Court of California granted a hearing in \textit{Badorek} on January 14, 1971. See 90 Cal. Rptr. at 305. Under California law, the grant of a hearing by the Supreme Court abrogates the Court of Appeals decision as judgment or precedent. E.g., \textit{Ponce v. Marr}, 47 Cal. 2d 159, 161, 301 F.2d 837, 839 (1956). After retransfer to the intermediate appellate court for reconsideration before Supreme Court consideration, the \textit{Badorek} case was dismissed by agreement of the parties.

If this is indeed the status of the case, it is curious that none of the other commentators who have discussed the case have pointed this important fact out.
The Larsen reasoning has now been adopted in eleven states in the United States as well as in the District of Columbia. These states are California, Georgia, Iowa, New York, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas and Wisconsin.\(^\text{34}\)

Although the preceding cases may seem to indicate that the trend has been to move towards the Larsen reasoning in all the states that have considered the issue, that is hardly the true situation. There have been many recent cases in which, on facts apparently similar to those discussed above, the courts have found in favour of the manufacturer. Biavaschi v. Frost\(^\text{35}\) dealt with injuries caused by a Corvette gas tank exploding due to a rear-end collision and the New Jersey Superior Court followed Evans and Shumard, denying liability. In the recent case of Frericks v. General Motors Corpora-

\(^{34}\) State Appellate Courts, or Federal District and Circuit Courts of Appeal declaring state law in the following states have followed the Larsen case:

California

- Badorek v. General Motors Corp., 90 Cal. Rptr. 305 (Court of Appeal 3d Dist. 1970)

Georgia

- Passwaters v. General Motors Corp., 454 F.2d 1270 (CCA 8 1972)

Iowa


New York

- Ellithorpe v. Ford Motor Co., 503 S.W.2d 516 (Tenn. 1973)

Texas


tion, the Maryland courts rejected the reasoning in Larsen and chose to follows Evans. The court stated:

We find the basic assumption of Larsen was that liability should be co-extensive with foreseeability and regard that assumption as totally fallacious.

The case involved the collapse of the roof of a car. The plaintiff’s skull was crushed when his 1969 Opel Kadett rolled over, causing the roof to collapse and the seat anchors to give way. The Court recognized the conflict between Evans and Larsen, stating that “so complex and universal a problem should be left to legislative decision”.

The Evans case has now been followed in ten states in the United States: Illinois, Indiana, Maryland, Mississippi, Montana, New Jersey, New York, North Carolina, Ohio and West Virginia.

36 317 A.2d 494 (Md. App. 1974). The decision was 2:1.
37 Id. at 501. See Hoenig and Werber, supra, note 15 where the writers suggest that Larsen is wrong because the court confuses the duty issue with foreseeability. If foreseeability were the sole test of duty, any person cut by a knife would have an action against the knife manufacturer.
38 Id. at 500. See also at 504.
39 State Appellate Courts, or Federal District and Circuit Courts of Appeal declaring state law in the following states have followed the Evans case:

Illinois
Mieher v. Brown, 54 Ill. 2d 539, 301 N.E.2d 307 (1973)

Indiana
Schemel v. General Motors Corp., 384 F.2d 802 (CCA 7, 1967)

Mississippi
Walton v. Chrysler Corp., 229 So.2d 568 (Miss. 1969)
Ford Motor Co. v. Simpson, 233, So.2d 797 (Miss. 1970)
General Motors Corp. v. Howard, 244 So.2d 726 (Miss. 1970)

Montana

New Jersey

New York

North Carolina
Bullinger v. General Motors Corp., 54 F.R.D. 479 (D.C.E.D. N.C. 1971)

Ohio

West Virginia
472 F.2d 240 (CCA 4 1973)

The Evans decision had been followed in Texas prior to the 1974 Turner case, supra, note 34, in the following cases:
General Motors Corp. v. Muncy, 367 F.2d 493 (CCA 5 1966)
It may be possible to rationalize the Evans case and some of the other cases that have reached similar conclusions with the Larsen and Badorek decisions. It is very difficult from the facts of Evans to say that the automobiles were clearly defective in design or construction. In Evans, it is not certain whether the occupant would have survived if the car had been built with a perimeter frame. In Mickle, however, the shattering of the gear shift knob was an obvious injury-producing defect. Similarly, the thrust of the steering wheel into the driver's face in Larsen clearly resulted from defective design. The facts in Badorek are more analogous to the Larsen and Mickle second collisions in that a clear sequence of events was present. It is also clear that Evans applies the "intended use" test while Badorek and Larsen, apply the "reasonable use" test.

II. THE DESIGN ISSUE IN CANADA: PHILLIPS v. FORD MOTOR CO.

The Canadian courts have imposed liability for negligence in design in some products liability cases. With respect to automobiles, however, the issue of the second collision seems not to have been raised or argued in any reported case in any Canadian jurisdiction. The reason is not readily apparent. The automobiles sold in the two countries are identical, the conditions under which they are operated are analogous and the possibility of a defectively designed component aggravating injuries sustained in a collision would seem to be no less real in Canada than in the United States. Perhaps plaintiffs' counsel in Canada have not been made aware of the fact that liability is being imposed on automobile manufacturers in some American jurisdictions on principles of negligence that are applied by Canadian courts. The cost of joining the auto manufacturer as a defendant may be regarded as prohibitive since expert evidence and a great deal of research, testing and preparation is required to prove that an automobile has been defectively designed. Damage awards made by Canadian courts may not be high enough to justify the expense involved in the litigation. Other explanations may be offered based on the fact that some American jurisdictions adhere to strict liability theory or that trials in the United States are held before a jury whereas in Canada they would probably be held before a judge alone, but such explanations do not seem to be convincing.

One case has arisen in Ontario in which an injured plaintiff alleged that a collision was caused by the defective design of his automobile. While not a "second collision" case, the case of Phillips v. Ford Motor Company of Canada and Elgin Motors Ltd. represents a step forward in automobile products liability actions in Canada. The former mayor of the City of Toronto, Nathan Phillips, while driving with his wife in their 1965 Lincoln Continental, attempted to apply the brakes as he approached a red traffic

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40 Rivtow Marine Limited v. Washington Iron Works and Walkem Machinery and Equipment Ltd., [1973] 6 W.W.R. 692; 40 D.L.R. (3d) 530 (S.C.C.). It has been suggested that cases involving inadequate labelling of products are generally cases where the label appears as it was designed to appear, but the design is held by the courts to be inadequate. See Waddams, supra, note 5 at 38. See also, supra, note 8.

light. The car was equipped with power brakes. When the plaintiff applied pressure to the brake pedal, the pedal allegedly remained rigid with the result that the brakes did not activate. The car then veered off the roadway and collided with a utility pole. Phillips and his wife were both severely injured.

The plaintiffs sued the Ford Motor Company as manufacturer of the automobile and Elgin Motors Ltd. as the dealer and also as the repairer of the car since that company had done repair work on the brake system. The suit was framed in contract and alternatively in tort.

At trial, the plaintiffs alleged that the car was equipped with an inadequate fail-safe system and that both defendants negligently failed to warn them that this was the case. When the power brakes were working properly, twenty five pounds of force applied to the brake pedal could lock the rear wheels and bring the vehicle to a stop from thirty miles per hour but when the vacuum booster was not operating, 250 pounds of force were required. Haines, J. found as a fact that the fail-safe braking feature was inadequate on Mr. Phillips' car and that it was designed without proper regard to the situations which a motorist must be expected to encounter on power brake failure in traffic. The manufacturer raised the defence that if there was any negligence in design or manufacture of the Lincoln automobile in question, it was the responsibility of Ford of the United States and not Ford of Canada because the car was designed and built in the United States. Haines, J., in holding that the defence must fail, said:

If the Canadian consumer is to receive any degree of protection from negligently designed products, Ford of Canada must be held liable, not only for importing, distributing and supplying such vehicle, but must also share in the responsibility for the design of such vehicle.

With respect to the dealer, Elgin Motors, Haines, J. said:

It is my opinion, therefore, that the defendant, Elgin Motors, owed a duty as vendor of the Lincoln automobile in question to ensure that the product sold was not defective in its design. Elgin Motors failed in that respect.

The court also held that both defendants had a duty to warn the plaintiffs of the danger in the event of power brake failure and that they had breached this duty. In the result, Mr. Justice Haines awarded judgment against the defendants in the amount of $44,587 in favour of Nathan Phillips and in the amount of $35,000 in favour of his wife and co-plaintiff in respect of injuries sustained by them.

On appeal to the Ontario Court of Appeal, the majority of the court

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43 The "fail-safe" system is the means whereby the car can be effectively stopped when the power brake booster becomes inoperative, by purely mechanical braking action.
45 Id. at 741.
46 Id.
set aside the trial judge’s decision on procedural grounds\textsuperscript{48} and ordered a new trial. Schroeder, J. A. found that on the evidence, the plaintiff should have been able to bring the car to a stop easily within the distance which was available to him even without the power assist in operation. He held that the plaintiffs had not proved negligence on the part of either defendant and therefore, the action should have been dismissed. MacKay, J. A. concurred but added the following:

The collective effect of the findings of the experts that they could find no defect in the braking system except for the damage caused by the collision, no defect in the brake light system which required a depression of the brake pedal of one-sixteenth of an inch to activate, and the findings of the independent witnesses who were following the Phillips’ car that it accelerated between the point Phillips said he attempted to apply the brakes and the point of collision lead to the inescapable conclusion that whatever Phillips pressed his foot on, it was not the brake pedal and that he was mistaken in thinking that he had done so.\textsuperscript{49}

Phillips launched an appeal, but eventually the case was settled with Phillips paying the defendants $5,000 in costs.\textsuperscript{50}

The Phillips case indicates that at least some Canadian trial judges may be willing to impose liability on automobile manufacturers for negligent design of their products. The judgment of Haines, J. illustrates that both the manufacturer and the dealer may be held liable for injuries resulting from a collision caused by negligent automotive design. Two questions arise, however, that cast some doubt on the usefulness of the case for the future. First, although the Court of Appeal did not expressly comment on the trial judge’s formulation of the substantive law, one must ask whether the fact that the trial judgment was set aside and a new trial ordered negates or impairs its authority as a precedent in this type of case. It would seem that the case remains a valid authority on those points which the appellate court did not deal with and overrule.\textsuperscript{51} The case will probably not be accorded the weight that it might have been given if no appeal had been taken, and it certainly will not be as persuasive as it would have been if the Court of Appeal had expressly or impliedly approved of the trial judgment. The judgments of Schroeder, J. A. and MacKay, J. A. do not impugn the statements of law made by the trial judge because they reached the conclusion that the action should have been dismissed by holding that Haines, J. had not correctly found the facts upon which he based his decision. The opinion of Mr. Justice Evans, which was concurred in by Kelly and Brooke, JJ. A., fails to mention negligence principles at all, and deals only with the procedural errors made at the trial.

The second question is whether Canadian courts will be willing to

\textsuperscript{48} The Court of Appeal found that the trial judge had conducted more of a scientific exploration than an impartial hearing. He had intervened constantly, put forward theories of his own, ordered scientific tests and examined witnesses in an attempt to provide support for his theories. He had also made a fundamental error in appointing an expert under Rule 267(1) and delegating to him a judicial function. The majority of the court consisted of Evans, Kelly and Brooke JJ.A.

\textsuperscript{49} \textit{Supra}, note 47 at 638.


\textsuperscript{51} See 6 C.E.D. (Ont. 3d), Title 38.
follow the course taken by the American courts in “second collision” cases and whether the Phillips case is any authority for doing so. American decisions, of course, are not binding on Canadian courts but it has been held that they are entitled to high respect. The Phillips case is probably not an authority for such an extension of the law. Phillips represents the more traditional products liability case where the defect in the product directly causes the collision which in turn causes the plaintiff’s injury, as opposed to the case where an accident is caused by the plaintiff’s, the defendant’s or a third party’s negligence and the injury is only aggravated by the defect. The step to imposing liability in “second collision” cases in Canada seems to be as large after the Phillips case as it was before it. Regardless of its technical legal authority, the case does foreshadow a move by Canadian courts towards the imposition of liability on automobile manufacturers for defective design and this, it is submitted, will bring with it the imposition of liability in “second collision” cases when they arise.

III. AUTOMOBILE DESIGN: IS THERE A ROLE FOR TORT LAW?

The issue of automobile design is only one component of the larger subject of highway traffic safety. Indeed, three elements contribute to all traffic crashes, the automobile, the driver and the road. No attempt will be made here to deal with the latter two factors; however, the significance of poor driver education, driver error and negligent road design to the traffic safety problem cannot be overestimated.

Some experts in the field of traffic safety suggest that “traffic accidents should come to be looked upon as the inevitable result of putting the power of hundreds of horses into frail human hands for use in a crowded and intractible world of snow or darkness or glare.” Ralph Nader and Joseph Page suggest that of the three primary elements, the key one is the automobile:

Focusing on the design and performance of the vehicle seems to be the most effective and economically practical way of attacking the traffic safety problem. It is easier to change the design of future vehicles than to redesign and rebuild the thousands of miles of poor existing highways or to alter the habits of millions of individual drivers.

Thus, it seems that the most serious deficiency in the safety chain is the automobile and more specifically, the failure by automobile manufacturers in the past to consider the safety of the occupants in the event of sudden deceleration and/or collision.

If the automobile manufacturers will not act voluntarily to produce safe and crashworthy cars, how can they be spurred on to do so? Some believe


64 Quinn v. Leathem, [1901] A.C. 495 (H.L.); R. v. Deur, [1944] S.C.R. 435; 6 C.E.D. (Ont. 3d), 38-169. A case is an authority only for what it actually decides; it cannot be relied on as authority for a proposition that may seem to flow logically from it.

that fear of tort liability can act as an incentive. Others say that the judicial process is an effective instrument for shifting to the automobile industry the cost of accidents caused by unsafe design. The practical effect of such a policy of recognizing the manufacturer as a preferred bearer of the risk by placing upon him rather than upon the injured consumer the economic burden of harm resulting from defective products, is to encourage safer design. A brief discussion of some of the problems that are encountered in the prosecution of a design liability action will shed some light on the efficacy of such a remedy in this type of case.

There are practical limitations on the use of the damage suit as a means of securing a public judgment on automobile design. First, since the remedy is private in nature, only the individual who has been injured may initiate the suit. Insurance companies, which would provide a more concerted pattern of litigation, have failed to attempt to procure indemnity or contribution from automobile manufacturers when injury, death or property damage results from the unsafe design of motor vehicles. There may be several reasons for this omission. The insurance industry might hesitate to attack another industry in fear of reprisals directed at its own questionable practices. If provoked, the automobile industry might conceivably compete in the liability insurance field. Finally, it also has available as leverage its position as a substantial consumer of general indemnity insurance for its large plants and equipment.

Secondly, failure to consider the possibility of a design suit may result in the loss of evidence when the damaged automobile is repaired or junked after the crash. The injured party then loses forever the evidence which is the sine qua non of an automobile products liability suit.

Thirdly, lawyers in Canada have paid little attention to the potential damage remedy against the automobile manufacturer for unsafe design. The reason for the inaction in this area can only be a subject for speculation.

In the United States, however, a factor that has inhibited plaintiffs' lawyers in the past has been the cost of litigation. The cost stems from the two principle elements of a design case. These are: (1) the plaintiff must prove what actually happened. The vehicle must be preserved, the accident must be reconstructed and the plaintiff must procure medical testimony linking his injuries with the allegedly unsafe design feature. (2) The plaintiff must establish that the design feature was unsafe and this will require expert engineering evidence.

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56 See Katz, supra, note 5.
57 Nader and Page, supra, note 55.
60 A good example of the type of evidence required is seen in Turner v. General Motors Corp., supra, note 26.
The need for competent expert engineering witnesses may produce a complication more serious than the expense of securing such testimony. Employees of the auto companies will naturally not appear in court on behalf of injured plaintiffs in design cases. The nature of the industry is such that few automotive engineers can find employment outside of its confines, especially in Canada. A plaintiff's principle source of witnesses is therefore the academic community. The industry practice of making research grants to the few universities in North America already involved in automobile safety studies may inhibit even these potential witnesses. Finally, tactics of delay and obstruction used by the manufacturer may add both expense and time to the prosecution of a design suit.

Any assessment of the role of the judicial process as a public mechanism to control automobile design must confront the questions of whether damage suits have had and can have any impact upon the private decisions which result in the American motor vehicle. "There is simply no data available from the manufacturers from which to ascertain the financial impact which design suits have made on the industry."62

Despite the formidable hurdles present in automotive design litigation and despite the lack of any evidence that such litigation has any impact on automotive design, it is likely that some positive purpose has been served by tort law in this field. Design suits affect the manufacturers through the publicity afforded them in the media. The Corvair cases that were brought in the 1960's and that led to the termination of production of the car in 1969, resulted, at least in part, from the publicity that surrounded Ralph Nader's book Unsafe at Any Speed.63 The naming of brand names in newspapers, on radio and on television has stimulated public awareness as has the publicity of both the results of design cases and the mere filing of actions alleging unsafe design. Greater public awareness of design litigation heightens the possibility that potentially actionable design suits will be pursued, thus increasing the overall efficacy of product liability suits.

These considerations have led to the conclusion that "damage suits have created some pressure for the safer design of motor vehicles".64 The impact of products liability actions on automobile design is a controversy second only to the Evans versus Larsen dispute. On the other side of the issue, there are many who believe that the aims of products liability with its emphasis on payment for loss fall short of what the aims of society should be in prevent-

61 Nader and Page, supra, note 55 at 667.
62 Id. at 673.
63 R. Nader, supra, note 58.
64 See Nader and Page, supra, note 55 at 674, Automobile Manufacturers Liability for Defective Design That Enhanced Injury After Initial Accident (1971), 24 Vanderbilt Law Rev. 862 at 869:

The judicial branch, therefore, has adequate power to determine reasonable standards of automotive design and to impose liability for injuries enhanced by defects. This imposition of liability for design defects should produce greater emphasis on safety in automobile design and should shift the cost of these injuries to the manufacturer, whose insurance expense can then be distributed among the public as a cost of doing business.
ing loss.\textsuperscript{65} It is said that judicially induced reform would of necessity be episodic and disorganized because it would be dependent on the fortuitous circumstances of individual law suits. The arguments against leaving the issue of automobile design to judges and juries have been put as follows:

Plainly, questions of this character are not appropriate for decision by a jury. A legislative body is equipped to evaluate all the pertinent considerations and lay down objective standards for prospective application. A jury whose verdict operates only retrospectively cannot do either.\textsuperscript{66}

and further

\ldots the imposition of safety standards on the automobile can most likely be achieved better by a consistent application of regulatory standards drawn up by experts and kept current by research, rather than by ad hoc decisions of inexpert judges and juries.\textsuperscript{67}

These arguments have considerable substance in suggesting that government regulation is required because experience has proven that manufacturers are reluctant to make safety improvements in the absence of compulsion.

Legislation on motor vehicle safety exists in both the United States and Canada. The United States enacted \textit{The Traffic and Motor Vehicle Safety Act}\textsuperscript{68} in 1966. The statute in effect established four categories of motor vehicle safety for which standards were to be issued: (a) engineering design which reduces the risk of accidents; (b) engineering design which reduces the risk of injury when accidents occur; (c) engineering design which provides greater tolerance for pedestrians on impact; and (d) engineering design which protects persons from injury while the vehicle is not in operation.\textsuperscript{69} The Act is intended to be supplementary of and in addition to the common law of negligence and products liability; it is not an exemption from common law liability.\textsuperscript{70} While compliance with the standards will not be dispositive of the question of common law liability, violation of the standards set under the Act will be strong evidence of failure to use due care, if not negligence \textit{per se} under American law.

In 1970, the Government of Canada enacted the \textit{Motor Vehicle Safety Act}\textsuperscript{71} and the Act was proclaimed in force on July 15, 1971. This was the first major attempt by the federal government to assert itself on a comprehensive basis in the field of automobile manufacturing and safety in direct relation to the consumer. The Act creates a "national safety mark" which each new car sold in Canada must bear. In order to get this mark of approval, the automobile must meet the safety requirements laid down in the regulations. The Act provides penalties for breach of its provisions or of the regulations. It is significant that the safety standards set under this statute

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\item[65] O'Connell, supra, note 54.
\item[66] Hoenig and Werber, supra, note 15 at 592.
\item[67] O'Connell, supra, note 54 at 375.
\item[70] Larsen \textit{v. General Motors Corp.}, supra, note 21.
\item[71] R.S.C. 1970, c. 26 (1st Supp.).
\end{enumerate}
\end{footnotesize}
closely resemble those set under the American statute. This indicates the economic necessity for the automobile industry in North America that the standards in both the United States and Canada be relatively uniform; most Canadian automobile manufacturers are subsidiaries of the American manufacturers and ship a large percentage of their units to the United States under an international agreement.\textsuperscript{7} It is also probably safe to say that Canadians would have been the beneficiaries of the safety standards set in the United States even if the \textit{Motor Vehicle Safety Act} had not been enacted because the automobile manufacturers would not have omitted all the safety features required in the United States from cars destined for sale in Canada. As is the case in the United States, compliance with requirements set by the Act or its regulations will not be determinative of the issue of due care in the circumstances.\textsuperscript{73} Breach of a statutory provision, however, imposes \textit{prima facie} liability on the automobile manufacturer or distributor.\textsuperscript{74}

There are serious objections to removing the question of defective automobile design from the courts totally and placing it in the hands of the legislatures. Regulations rarely purport to be comprehensive of all the manufacturer's duties; they may regulate certain aspects of design and leave others completely untouched. In some cases, the statutory standard may clearly be a minimum and fall short of what may be required in the particular circumstances. While many standards of automobile design could usefully be imposed by legislation, the courts must be left with the power to determine whether a design is unreasonably dangerous in some particular detail with which the legislation or regulations have not dealt. This power is also vitally necessary in any case that involves an automobile designed and built before the statutory design standards were enacted.

There is no doubt, of course, that legislative requirements can be expected to have an immediate impact on the design of automobiles. The installation of seat and shoulder belts, headrests, four-way hazard flashers and safety glass are but a few examples of recent automotive safety improvements that were the result of legislative action. It is submitted that the most effective manner of bringing about significant changes in automobile design in the future is by means of legislation. This, however, does not mean that there is not a role for tort law in the field of automotive design.

IV. CONCLUSION

In an age of rapidly changing technology, the basic form and mechanics of the motor car have shown an amazing resistance to change in funda-


\textsuperscript{73} \textit{Wintle v. Bristol Tramways} (1917), 86 L.J.K.B. 240 at 242; Waddams, \textit{supra}, note 5 at 113-14.

mental respects. Any consideration of the automobile as a dangerous product must focus on the engineering profession's responsibility for its technology. The governing feature of automobile technology is that it is geared to the production line and to mass uniform markets. This has enormous consequences for the engineering and design philosophies underlying it.

It is submitted that the automobile manufacturer's highest objectives should be based on a fundamental principle of safety engineering. These objectives must include anticipation of all types of accidents which can result from machine or human failure and then minimization of both the risk of failure and the injuries which may be sustained when failure occurs. Implicit in this principle is the goal of designing the machine to adapt to human capacities, limitations and failures.

It is clear that, left to their own devices, automobile manufacturers will place style, comfort and convenience before safety. In order to place these considerations in proper perspective from a public policy standpoint, legislation must be enacted that compels the manufacturers to produce not a "crashproof", but a "crashworthy" automobile. A "crashworthy" car is one that is able to withstand the normal hazard conditions that statistics indicate a significant proportion of automobiles may be expected to encounter in their lifetimes. The areas of concern are the structural integrity of the car's shell, elimination of sharp or protruding objects in the interior, passenger restraint devices, and elimination of post-crash fire.

Tort law still has a role to play in the field of automobile design in both Canada and the United States. It is submitted that the time has come for Canadian courts to adopt a principle of strict liability in tort of business suppliers for damage caused by defective goods. This would enable consumers to succeed in products liability suits without the necessity of proving fault on the part of the manufacturer. It would also clarify and remove some anomalies from the law. Finally, it is also to be hoped that, when the proper case arises, Canadian courts will see fit to follow the reasoning in Larsen v. General Motors Corporation in "second collision" injury cases.

76 American statistics indicate that at least one-quarter of all automobiles during their use are eventually involved in an accident producing injury or death: O'Connell, supra, note 54 at 348.
78 Waddams, supra, note 5 at 232 agrees.
79 See A.M. Linden, "Tort Law As Protector Against Unsafe Products", W.A.W. Neilson, ed., The Consumer and The Law in Canada (Toronto: Osgoode Hall Law School, 1970) at 349. It is time for the Canadian law of products liability to relieve our injured consumers from the onerous burden of proving fault and to require our manufacturers to stand behind their defective products whether or not they were negligently produced.