<u>CASE STUDY</u> The Corporate Blame Game: Firestone Tires and the Ford Explorer

MARK PHILLIPS

Abilene Christian University mhp04a@acu.edu

ABSTRACT: This case focuses on ethical decision-making during a corporate crisis. Recounting the Ford Explorer/Firestone tire case of 2001, it places students in the boardrooms of the two companies, corporate partners for close to a century who suddenly found themselves fighting for survival. The case includes extensive back-ground information on which to base a decision, questions for use in preparing the case write-up, and a detailed teaching note to simplify class preparation. In classroom testing, this case generated lively debate and convincing-ly demonstrated the difficulty of objectively interpreting data when one's corporate survival is at stake.

INTRODUCTION

The dawn of the 21st century was a glum time for the American automotive industry. In the first seven months of the new millennium, automakers were forced to undertake 70 separate product recalls affecting more than seven million vehicles (Bott, 2000), and on August 9 officials from Ford Motor Company and Bridgestone/Firestone were preparing to announce yet another recall, this one involving 6.5 million Firestone tires installed on Ford Explorer sport-utility vehicles (SUVs). While the previous recalls had generated little publicity, the August news conference would play out before a packed house of reporters (Penenberg, 2003), and its outcome would force both firms to face difficult choices.

The Press Conference

For several years, consumer safety advocates and attorneys had been compiling data which suggested that numerous Ford Explorers were rolling over during routine driving maneuvers. A National Highway Transportation Safety Administration (NHTSA) analysis found the Explorer four times more likely to overturn than comparable SUVs and pickups, and six times as likely to roll over as a typical family automobile (Kumar, 2001). Although Ford and Firestone disagreed on whether the tires or the vehicle was at fault, the two firms' century-long partnership was holding strong, and they had agreed to recall several million tires in a gesture of concern for public safety.

While the accidents under investigation had occurred in a variety of driving situations, Explorer/Wilderness AT rollovers occurred most often in hot climates while traveling at highway speeds. As the vehicle's tires gradually heated up, one tire's internal structure would fail, causing the tread to fly off and the tire to disintegrate. In a fraction of a second, the vehicle would veer sharply, turn sideways, and begin skidding before flipping multiple times. In most cases the roof of the vehicle collapsed, killing or severely injuring those inside (NHTSA, 2003).

By the day of the press conference, Ford and Firestone openly admitted that a problem existed: accident data spanning the years 1990 to 2001 projected that 1 in 2,700 Explorers on the road would eventually roll over and kill someone inside. Each company had attempted to stifle questions about its respective role in the problem, at times publicly blaming Explorer owners for driving too aggressively or for not properly maintaining their tires. But with lawsuits mounting and Congress convening hearings on the matter, the firms were finally ready to take action; the result was the day's scheduled recall announcement. Despite extensive planning, the Ford/Firestone press conference did not go well. Firestone's phased-in recall plan meant that some drivers would continue traveling on defective tires for a year or more (Crigger, 2000), despite the fact that more than 20 deaths were already blamed on the tires. Reporters also confronted Firestone with the fact that it had been quietly recalling tires overseas for some time, while only now acknowledging the problem and launching a recall in the United States.

Further clouding the issue, a Firestone spokesman suggested that Explorer owners inflate their tires to 30 pounds per square inch (psi) to improve heat dissipation and reduce the chance of tire failure. Firestone's recommendation, however, clashed with Ford's recommended pressure of 26 psi, a lower pressure specifically chosen to improve the stability of the vehicle and prevent rollover accidents. When asked about this discrepancy both firms' representatives waffled, leaving Explorer owners unsure what they should do (Bott, 2000). By the end of the news conference the press was in a feeding frenzy, consumers were confused and frightened, and both Ford and Firestone were facing a potential product liability nightmare.

History

The relationship between Ford and Firestone was one of the oldest and closest in the automotive industry, stretching back almost a century. During the 1890s, Henry Ford and Harvey Firestone were neighbors in Detroit, and in 1903 each launched a company bearing his respective family name. Five years later the first Model T rolled off Ford's assembly lines on Firestone tires, and for several decades Firestone supplied all of Ford's tires (Dickson & Hickman, 2000).

The modern automobile, despite its ease of operation, is a surprisingly complex piece of machinery. Weighing two tons, it includes thousands of parts built in a dozen or more countries, and is often the result of five or more years of research, development, and testing. Not surprisingly, such complex creations are costly to develop. During the 1990s, Ford launched a new family sedan, the Contour. Developing the vehicle from the ground up cost Ford an estimated \$7 billion over six years (Geyelin and Templin, 1993), and with typical profit margins of less than \$1,000 per car, such high costs are difficult to recoup.

To control costs, automobile designers often adapt existing hardware for new vehicles rather than starting from scratch; identical air conditioners or windshield wipers, for example, may be used on numerous models in order to reduce complexity and cut costs. Multiple vehicles often share the same frame, engine, and transmission, allowing designers to radically restyle a vehicle simply by changing the passenger cabin and exterior styling. Chrysler successfully employed this technique when designing the first minivans, building them on a car "platform" (the underlying structure including frame, wheels, and engine) rather than a traditional cargo van platform. This decision yielded a van that handled like a car, birthing a new market segment which Chrysler dominated for more than a decade. The use of an existing platform for a new automotive design can dramatically reduce both the cost and the time required to bring a new car to market, improving its chance of becoming profitable.

Past Problems at Ford

While every major automotive company has experienced product defects and recalls, Ford had endured one of the most embarrassing product defect cases in automotive history. Facing competition from small cars built by Volkswagen and other firms in the late 1960s, Ford quickly designed the Ford Pinto, a lightweight car selling for \$2,000. Introduced in 1971, the car eventually sold more than 2 million units. However the car is best remembered for a fundamental defect: Pintos involved in rear-end collisions tended to explode as the lightweight bumper collapsed, crushing the fuel tank and spraying the car's interior with gasoline (Dowie, 1977).

While the Ford Pinto was hardly the only car of its era with flammability problems, the Pinto came to symbolize all that can go wrong when profitability and safety collide. A 1977 magazine exposé revealed that Ford engineers not only knew about the Pinto's tendency to burst into flames, but had conducted a series of calculations comparing the expense of repairing Pintos with the cost of settling lawsuits from burned drivers and passengers (Ford, 1968). Based on this analysis, the firm decided not to spend the estimated \$11.00 per vehicle required to fix the defect. The Pinto was ultimately blamed for 27 known burn deaths and numerous injuries.

In 1976 the consumer automobile market consisted of two distinct categories: cars and light trucks (pickups). That year Jeep introduced the CJ-7, the first vehicle in what would become the industry's most profitable market segment, sport-utility vehicles. The SUV segment quickly became white-hot, both with consumers who loved SUVs' combination of practicality and sportiness, and with automakers, who pocketed as much as \$10,000 per vehicle in profit (compared to as little as \$500 on many cars) (Kiley & Welch, 2005). With the Jeep CJ-7's popularity soaring and General Motors poised to introduce the Chevrolet Blazer in 1982, Ford hurriedly began developing its own small SUV, the Ford Bronco II.

Facing tight deadlines and immense cost pressure, Ford engineers chose to design the new Bronco II on the platform already used for the Ford Ranger compact pickup. This choice saved months of development time and millions of dollars, but also proved to be one of the costliest mistakes in company history. Although the Bronco II was the same width as the Ranger, it weighed more and carried its weight higher, raising its center of gravity and making it less stable. In testing, Bronco II prototypes rolled over at speeds as low as 30 mph (Geyelin, 1993).

Ford eventually sold more than 800,000 Bronco IIs (Ford, 1990), but the vehicle was blamed for 42 fatalities in 1987, and one analysis put the overall fatality rate for Bronco II's at 1 death for every 500 vehicles sold. Lawsuits and falling sales led to the Bronco II's cancellation in 1989.

Previous Problems at Firestone

Like Ford, Firestone had faced its own embarrassing product recall two decades before. During the 1970s, automobile makers began equipping their cars with radial tires, a completely new design which lasted far longer than traditional bias-ply tires. Firestone, long considered one of the best managed companies in the United States, faced a difficult question: how could it phase in the new radial tires without handicapping its lucrative bias-ply tire business?

Just as Ford decided to adapt the Ranger pickup platform for the Bronco II, Firestone chose to refit existing tire factories and production equipment to produce radial tires, rather than building an entirely new factory. As a result Firestone was quick to market with its new Firestone 500, and by the mid-1970s, the tire was the best known radial in the American market.

Problems with the 500 soon became evident, and industry observers blamed these defects on the decision to adapt existing production equipment rather than procuring new factory tooling. An internal memo written in 1972 described tests in which the outer surface peeled cleanly off a Firestone 500 tire; such failures, known as tread separation, became so frequent that Chevrolet considered ending its use of Firestone 500s. Despite extensive engineering and public relations efforts, mounting pressure eventually forced Firestone to recall and replace more than 14 million tires in 1978, the largest tire recall up to that time. Firestone 500s were blamed for more than 40 deaths, and the Firestone 500 recall remained a bitter memory as the firm planned a new recall of tires mounted on Ford Explorers.

THE FORD EXPLORER AND THE FIRESTONE WILDERNESS AT

When the Bronco II was cancelled in 1989, Ford had an attractive follow-up vehicle ready, the Ford Explorer, which was introduced in 1990 and soon began flying out of Ford dealerships. Built on the same platform as the Bronco II, the Explorer was larger and heavier, and Explorer prototypes soon began tipping up on two wheels in testing (Ford, 1987).

Realizing they could not afford to sell vehicles which were less stable than the Bronco II, Ford executives commissioned a study to explore solutions to the Explorer's instability. Of the options presented, all but one involved significant changes, high costs, and lengthy delays (Levin, 2000). Ford engineers ultimately adopted the simplest, cheapest solution available: rather than redesigning the vehicle they simply reduced the pressure in the Explorer's tires, improving stability and allowing the Explorer to ship on schedule. By 1991 the Ford Explorer was the nation's best-selling sport-utility vehicle, a title it held for a decade. Even more impressive, the Explorer boasted a staggering profit margin of 38%, earning Ford more than half a billion dollars in 1991 alone (Levin, 2000), a year in which Ford lost a record \$2.3 billion.

The tire Firestone designed for the Ford Explorer was, like the vehicle itself, a compromise. To match the Explorer's rugged image, Ford specified a tire that looked sporty and oversized, but that also provided a comfortable highway ride like a passenger car tire. Ford also demanded that the tire be produced less expensively than previous models, and since Firestone could not afford to alienate its largest customer it complied. The result was a tire which appeared to meet everybody's needs, the Wilderness AT.

Wilderness AT tires mirrored the Explorer's rugged image, boasting a high profile and a deep tread pattern reminiscent of a truck tire. Firestone also met Ford's weight and cost objectives, shaving materials to reduce the tire's weight by 10%. As a result Ford got a lightweight car tire disguised as a rugged truck tire, while Firestone got to keep Ford's business, which accounted for almost one-third of Firestone's sales (Penenberg, 2003). But these design compromises were not without a price, and government testing revealed that the lightweight tires tended to heat up prematurely, increasing the risk of tire failure. Underinflating the tires, as Ford had chosen to do in order to improve stability, simply exacerbated the problem of heat buildup. Soon thousands of new Explorers were rolling down America's highways on Wilderness AT tires and as the fleet grew larger, reports of disastrous accidents began to trickle in. The trickle soon became a torrent.

DECISIONS TO MAKE

By the day of the ill-fated news conference, both Ford and Firestone recognized that they faced potential disaster. For Ford, a loss of public confidence in its most profitable vehicle could plunge the company even deeper into the red. Firestone faced a double threat, both with its largest customer (Ford) and with the public, who bought millions of Firestone replacement tires each year. A Harris Poll conducted as the crisis spiraled upward found that public confidence in both Ford and Firestone was shaky, and when asked whether the two firms had acted responsibly a majority of respondents said "no" (Power & Ansberry, 2000). Federal accident statistics backed up public opinion: by the date of the news conference, 16,000 Explorers had rolled over, causing more than 600 deaths (Gustafson, Devening, Wehking, et al. v. Bridgestone/Firestone, Inc., 2000). While the press conference was intended to relieve pressure on the two firms, it appeared to have simply thrown fuel on the fire. Both firms immediately went into crisis management mode, each deeply concerned that an already costly problem might explode. Action was needed, but what was the proper response?

Your Assignment

Following the unsuccessful news conference your firm's executives met for several hours to discuss their options; they will meet again in 24 hours to make a final decision on the company's position and what actions it should take. As a company analyst, you have been assigned to assess the data in the case, consider your firm's alternatives, and make a recommendation to your firm's top executives. As you consider your recommendation, keep in mind that the final course of action must consider the needs of the driving public, your firm's shareholders, and the other firm, which has been a reliable partner for close to a century. As you conduct your analysis you should use any relevant data included in the case, as well as the following information.

General Information:

- A new car warranty typically covers all parts and accessories except tires, which are warranted by their manufacturer.
- All tires sold in the United States are NHTSA rated for traction, tread wear, and temperature (how well they dissipate heat). Wilderness AT tires were rated C (the lowest rating) for temperature.
- Heavier vehicles normally require higher tire pressures; higher pressures reduce traction.

Research and Testing:

- A 1996 study of crash-related auto insurance settlements found that of 1,800 accident claims involving Firestone tires, 1,400 occurred on Explorers.
- NHTSA conducted routine high speed testing of ATX (a variation of the Wilderness AT) tires. When tires were spun up to 112 miles per hour, almost 10% of the tires disintegrated.
- NHTSA testing of the Ford Explorer was conducted at a pressure of 32 psi, despite Ford's recommendation that tire pressure not exceed 26 psi (Federal News Service, 2000).
- A 2000 Harris Poll asked Americans about their impression of the Ford/Firestone situation: Was the tire recall broad enough? (60% said no). Did Ford act responsibly in the Explorer case? (26% said yes) Did Firestone act responsibly? (14% said yes)
- A Ford dealer in Saudi Arabia, after reporting tire failures on Explorers, was instructed by Firestone to direct customers to check tire pressure every two weeks and before long trips.
- An analysis by Ford found that some Firestone lines had double the historic levels of problems. Tires from Firestone's Decatur plant had damage rates up to 100 times normal.
- Firestone analyzed the same 1997 data and concluded that the root cause of Explorer rollover accidents was the vehicle's high center of gravity and poor stability, noting that Explorers tended to roll over regardless of which manufacturer's tires were installed.

History:

- Ford dealers first reported tread separation problems in Saudi Arabia. Firestone examined the tires and blamed poor maintenance and road hazards. Ford eventually replaced the tires with Goodyear tires and reprogrammed vehicle computers (without informing owners) to limit the vehicles' maximum speed (Pearl, 2000).
- In Venezuela, Firestone quietly replaced its tires with Goodyear tires. Firestone also installed new shock absorbers and an accessory bar to hold them in place at no cost to customers.
- In 2002 Ford introduced a newly redesigned Explorer which had much lower rollover rates. The company's CEO said the changes were unrelated to alleged vehicle safety issues.

TEACHING NOTE

This case emphasizes decision-making, with a particular focus on weighing ethical considerations against financial objectives. It is appropriate for courses dealing with general management and business ethics at the undergraduate level. The case wording is not company-specific; as a result you may produce identical copies of the case for all your students. In previous use students were assigned to one of three groups: Ford, Firestone, or an independent analyst. This division produced extensive discussion regarding how individual perspective colors decision-making.

Questions & Suggested Answers

1. Based on the available data, which of the two firms is responsible for the death toll in Explorers equipped with Firestone tires? If the responsibility is shared, what percentage of the blame may be fairly assigned to each side? Be sure to support your response with case facts.

Answer: The data in this case is ambiguous at best. Ford supported its case by pointing to the exceptionally high failure and defect rates in tires produced at the Decatur facility, a problem Firestone seemingly acknowledge when it later closed that plant. Ford also argued that Firestone remained ultimately responsible for the safety of its tires, and that if it could not produce a safe tire to Ford's specifications it should have declined the contract. Firestone countered that it had designed a tire that met Ford's specifications, but that Ford's decision to reduce the pressure in the tires was causing tire failure. Firestone further contended that Explorers experienced excessive rollover rates regardless of which tires were installed, suggesting design problems with the vehicle. Finally Firestone cited the 1996 study which found that 78% of all accident claims involving Firestone tires had occurred on Explorers. Objectively it appears that Ford's use of the narrow Bronco II platform traded stability for quicker time-to-market. Firestone also appears to have made too many compromises on the Wilderness AT.

2. What is the best overall resolution to the problem? In other words which action would provide the best outcome for all parties involved? Your options include the following:

a. Firestone can stand by its recall announcement, replacing defective tires with new Firestone tires. This plan will take several months due to capacity constraints. Some observers might interpret this as an admission that the tires were at fault.

b. Firestone can recall the tires and replace them with competitor's tires, which could be accomplished much more

quickly than building new Firestone tires for the replacements. This alternative would be both embarrassing and expensive, but would put customers on new tires more quickly.

c. Ford can recall the tires and replace them with a competitor's tires at Ford's expense. This alternative is costly to Ford, but allows it to place the blame largely on Firestone.

d. Ford can install additional equipment on all Explorers to reduce the vehicle's tendency to roll over. This solution was adopted on a small scale in Saudi Arabia, but its effectiveness is largely unknown. This choice could be seen as a tacit admission that the vehicle has design problems and might hurt Ford's litigation position.

e. Ford can recall the Explorers, buying them back from consumers at current market value. This choice would be devastating to Ford's bottom line and reputation, but would allow it to take the high ground by putting customer safety first.

f. Both Ford and Firestone have the option to blame the other company and demand action, while doing nothing themselves.

g. Your firm can claim that the recall already in place is adequate and declare the matter closed.

h. Any other option you feel is appropriate. If you choose another option, you must state explicitly what it would be and how you would carry it out.

Answer: In the actual events of the case, option A was initially chosen; capacity constraints forced Firestone to phase-in the recall as it worked overtime to build enough replacement tires. The slow pace of this response led to harsh criticism of both firms. Following the dissolution of Ford and Firestone's partnership, Ford announced that it would adopt option C, a costly choice which allowed Ford to win the public relations war in the short term but which hurt quarterly earnings. In selecting an option students should justify their choice with case data.

3. Explain to the public (in a press conference) why your solution is appropriate. Then explain to shareholders why your decision makes sense. Finally explain the ethical reasons for your choice. Explain clearly why your choice is the moral one.

Answer: One of the challenges in a case such as this one is managing the communication process effectively. Ford and Firestone each have extensive data to support their actions, however the choice of which data to use will impact the ultimate outcome. In responding to this question one must consider how to assign blame without unnecessarily harming the partner firm. This question requires an ethical justification of the choice made. If the decision was made on the basis of safety concerns this item should be relatively straightforward. If the choice was driven largely by efforts to minimize financial losses, this item will become an exercise in rationalization. Students should be able to present concise ethical principles underlying the choice they made; good responses to this item will balance their ethical obligation to customers with the fiduciary obligation to properly manage the assets of shareholders.

4. Your recommendation in question two may have placed the burden on your partner firm. If so, now assume that they receive your recommendation but reject it and choose to do nothing. Given this new development re-answer questions two and three.

Answer: This item introduces the type of complication which often separates real-world business encounters from simplistic in-class exercises. Every business decision is made in the context of changing and frequently unfavorable environmental forces. This item recognizes that in some situations the "most responsible" party is unwilling to address the problem, and as an ethical organization our firm may be required to take action even though we are convinced the responsibility lies elsewhere.

In responding to this item, students must re-examine the underlying reasons for their previous decisions. If profit maximization was their primary goal and they demanded that their partner firm take steps, they are forced to decide whether they should now put safety first instead. In this scenario the student is confronted with a business partner who has his own set of goals and priorities and who may expect the student's firm to take action. As so often happens, the original plan comes up short, and the decision-maker is forced to re-evaluate what his true objective is and how much he is willing to spend to achieve it.

5. What responsibility does a corporation have when its products or services injure people? What biblical principles define the duty of a company in such a case?

Answer: When seeking scriptural guidance for business transactions we begin by noting that general scriptural guidelines dealing with honesty and seeking the good of others apply in commerce just as they do in other aspects of life; therefore business transactions should be carried out in a spirit of agape love, with concern for the other party as well as for one's own interests. Although it was written long before modern corporations were conceived, the Bible is no stranger to commerce, containing numerous teachings on conducting business and dealing with customers and employees. For example, both the Old and New Testaments condemn the practice of withholding or delaying payment to workers, describing these practices as sinful (Deuteronomy 24:15, James 5:4).

Three scriptural principles appear relevant to the case of Ford and Firestone:

First: Merchants are to deal honestly with their customers.

Ancient merchants who weighed out goods using a balance often owned two different sets of weights, one for buying and the other for selling, in order to shortchange customers and suppliers; this widely accepted practice is repeatedly condemned in scripture.

The LORD abhors dishonest scales, but accurate weights are his delight. (Proverbs 11:1)

Honest scales and balances are from the LORD; all the weights in the bag are of his making. (Proverbs 16:11)

In the case of Ford and Firestone, several questions related to honesty can be raised. Did Ford know the Explorer was unstable before it went on sale? Did Firestone know the tires it designed were inadequate and that defective tires were being produced? Did Ford and Firestone try to conceal these problems when they first became evident? And did the two firms try to cover up evidence during legal proceedings brought by injured drivers and passengers?

Second: Individuals are to take reasonable precautions to protect others and are responsible for damage caused when they do not.

Exodus 21 offers two examples of this principle in use. The first case involves a man whose bull attacks and kills another person, in which case the bull was to be destroyed. However if the bull had a known history of aggressive behavior and the owner had failed to restrain the bull, both the bull and its owner were to be killed. In this case the man's negligence in allowing his property to endanger others appears to be the key differentiating factor.

The second example in Exodus 21 describes a construction project in which a man digs a pit but fails to cover it at the end of the day. If another man's animal falls into the pit and dies, the first man is required to replace the dead livestock.

In the case of Ford and Firestone this principle defines the responsibility that Ford and Firestone, have to compensate those injured or killed by their product. A reasonable application of this principle would make Ford and Firestone, responsible for the financial support of those injured by their product; such costs should be considered the normal consequence of selling a dangerous product, and the ethical duty of the seller. Third: The strong are charged by God to defend the rights of the weak and not to take advantage of them.

Scripture repeatedly reminds those who follow Jehovah that they are to defend the rights of the widow, the orphan, the foreigner, the poor, and others who are without standing in society. The New Testament notes that the practice of shepherds "lording over" their underlings is inappropriate.

The righteous care about justice for the poor, but the wicked have no such concern. (Proverbs 29:7)

...so that the Levites (who have no allotment or inheritance of their own) and the aliens, the fatherless and the widows who live in your towns may come and eat and be satisfied, and so that the LORD your God may bless you in all the work of your hands. (Deuteronomy 14:29)

Cursed is the man who withholds justice from the alien, the fatherless, or the widow. (Deuteronomy 27:19)

In a modern legal setting, the individual bringing suit against a corporation is clearly the weaker, poorer party, facing an adversary with an army of lawyers, very deep pockets, and a willingness to drag out the proceedings for many years. In cases of catastrophic injury, the use of such delays sometimes allows a corporation to postpone an actual court hearing until after the defendant has died, a truly cold-blooded approach. At least one paralyzed Explorer rollover victim faced the daunting task of paying for round-the-clock medical care (she was paralyzed from the neck down) while also pursuing her case against Ford. While corporations should defend themselves in court, the use of their extensive wealth and power to tilt the playing field in their favor and deny justice to the injured violates scriptural teaching against exploiting the weak and the poor.

EPILOGUE

The Ford Explorer/Firestone Wilderness AT debacle quickly degenerated from a civil discussion of options into a high-stakes exercise in finger-pointing. For Firestone, conceding that it had produced and sold an unsafe tire would prove embarrassing and costly, reviving the bitter memory of the Firestone 500 debacle of the 1970s. For Ford, already struggling financially, an admission that the top-selling Explorer was fundamentally unsafe might lead to bankruptcy.

As the game played out, each side maneuvered to cast itself in the best possible light while simultaneously deflecting criticism toward the other firm. In May of 2001, Firestone beat Ford to the punch and formally ended their decades-long partnership, citing a lack of trust between the two partners as well as data it claimed placed the blame for Explorer rollovers on the vehicle's design.

The following day Ford announced it would spend \$2 billion to replace 13 million Firestone tires with tires from other manufacturers. Ford justified the action, which resulted in a quarterly loss of 35 cents per share, with data it claimed placed the blame for Explorer accidents squarely on Firestone. While Ford portrayed its actions as motivated by a concern for customer safety, some analysts observed that Ford's \$2 billion expenditure painted the firm as both concerned for customer safety and innocent in the entire affair. Considering the potential cost of recalling Explorers, Ford's decision was cynically viewed by some as a relatively inexpensive solution to a potentially disastrous problem.

Many of the tires which failed on Explorers were produced at Firestone's Decatur, Illinois, factory, the same plant responsible for producing the ill-fated Firestone 500 radials in the 1970's. In 2001 Bridgestone closed the facility, laying off 1,500 workers. The firm also announced it was spending almost \$30 million to recall an additional 3.5 million tires. It then completed its overhaul by firing Chairman Yoichiro Kaizaki.

Ford Motor Company lost more than \$6 billion in 2001 and 2002, while its market value shrank by twothirds. Ford's 2002 Explorer was redesigned with a wider frame and an improved rear suspension, easily passing the Consumer Reports stability test failed by the original Explorer and the Bronco II. In October 2001, Ford fired CEO Jacques Nasser.

Ford Explorers with Firestone tires were ultimately implicated in almost 300 rollover deaths. In 2003 Firestone settled a class-action suit brought by tire owners for a total amount of less than \$30 million. The firm admitted no defect in the tires, and each plaintiff received a settlement worth less than \$100.

Accident data supported Firestone's contention that Explorers rolled over at an alarming rate, regardless of which tires they were riding on, while other data supported Ford's position that Firestone tires failed at an alarmingly high rate. In summing up the debacle, one plaintiff's attorney spread the blame between the firms: "A bad tire on a bad vehicle."

In mid-2006 Firestone launched a renewed effort to track down and replace the estimated 200,000 Wilderness AT tires still in use, most as spare tires on aging Explorers and Rangers. Three recent accidents involving tread separation and multiple deaths prompted the new campaign. Two of the vehicle owners have launched new lawsuits against Firestone.

REFERENCES

Bott, J. (2000, October 5). Blowout: The Way Bridgestone/Firestone and Ford Handled Tire Recall May Have Made a Bad Situation Worse. *Detroit Free Press: A6.*

Crigger, G. (2000). Firestone Press Release.

- Dickson, P., & Hickman, W. (2000). Firestone: A Legend. A Century. A Celebration. New York: Forbes Custom Publishing.
- Dowie, M. (1977, September/October). Pinto Madness. *Mother Jones*. Retrieved October 28, 2006 from http://www.motherjones.com/news/feature/1977/09/do wie.html

Federal News Service. (2000). Testimony of John Lamp.

Ford Motor Company. (1968). Benefits and Costs Relating to Fuel Leakage Associated with the Static Rollover Test Portion of FMVSS208. Internal Report.

Ford Motor Company. (1987). Ford Testing. Internal Report.

Ford Motor Company. (1990). U.S. and Canada Sales Figures. Internal Report.

Geyelin, M., and Templin, N. (1993, January 5). Legal Maneuvers: Ford Attorneys Played Unusually Large Role in Bronco II's Launch. *The Wall Street Journal, 229 (1):* A1. Gustafson, Devening, Wehking, et al. v. Bridgestone/Firestone, Inc. U.S. District Court for Southern Illinois. (2000).

- Kiley, D., & Welch, D. (2006, June 15). Detroit's Midsize SUV Problem. *Business Week Online*. Retrieved November 1, 2006 from http://www.businessweek.com/autos/content/jun2006/b w20060615_158318.htm?chan=search
- Kumar, A. (2001, June 17). Attention shifts from Firestone to Ford Explorer. St. Petersburg Times: A1.
- Levin, M. (2000, September 18). Ford Passed Up Chance to Boost Explorer's Stability. *Los Angeles Times:* A1.
- NHTSA. (2003). *National Highway Safety Statistics*. Washington, D.C.: National Highway Transportation Safety Administration.
- Pearl, D. (2000, September 12). Saudi Accident Presaged Tire Crisis. *Wall Street Journal*, 236(49): A8.
- Penenberg, A. L. (2003). *Tragic Indifference*. New York: HarperCollins.
- Power, S., & Ansberry, C. (2000, September 13). Bridgestone/Firestone Says it Made 'Bad Tires'. Wall Street Journal, 236 (51):A3.