

1 I, Orris H. Johnson, BSME, have been involved in the
2 investigation of tire failures for 15 years. My curriculum vitae
3 is attached.

4 At the request of Dr. Gil N. Mileikowsky I inspected a tire
5 that had a knife blade type cut which caused the tire to go flat.
6 We met for the inspection at Service Tire Center, 5923 Van Nuys
7 Boulevard, Van Nuys, on August 8, 2000.

8 The tire was a Pirelli P4000 Super Touring, P225/55R16 94V
9 M&S. The DOT #CHT4-HX4-339 indicates it was manufactured at the
10 Pirelli Armstrong Plant at Hartford, California during the thirty-
11 third week of 1999. The tire was constructed of 1 polyester radial
12 body ply plus two steel belts plus two nylon plies.

13 The tire had a broken knife type steel blade edge showing in
14 the shoulder rib near the belt edges. The surface cut was
15 approximately one inch long on the curb side of the tire that had
16 been mounted on the left rear. The tire was in excellent condition
17 with only a small amount of wear.

18 The tire was demounted for further inspection. The inside of
19 the tire was in good condition. There was evidence that the knife
20 blade cut completely through the carcass and would cause a slow
21 leak.

22 The knife blade had penetrated at an angle in the direction
23 of rotation. There were no scuffing marks at or near the knife
24 blade. Had the knife blade penetrated from an angle opposite the
25 direction of rotation it would be typical of a road hazard with
26 scuff marks showing on the surface near the knife blade. Had this
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28


1 knife been on the road it would have penetrated the tire in the
2 opposite direction.

3 The wheel/rim was not damaged and was the original equipment
4 on the vehicle. The vehicle is a 1998 Mercedes SL500 with an
5 odometer reading of 29,937 miles.

6 At my suggestion the tire was X-rayed. Dr. Mileikowsky and
7 I viewed the X-rays together. They show the leading edge of the
8 knife penetrating into the tire at the edge of the steel belts.

9 It is my opinion that this tire was intentionally cut with a
10 knife-like instrument and the blade broke off leaving a portion of
11 the steel exposed to the surface. The penetration was deep enough
12 to cause the tire to lose air pressure and run flat.

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15 Dated: August 10, 2000


16 Orris H. Johnson, BSME
17 Declarant
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1/2000

ORRIS H. JOHNSON
Superior Court Qualified

OCCUPATION Tire Engineer and Tire Consultant

EDUCATION

1949, B.S. Mechanical Engineering, Purdue University,
West Lafayette, IN

CONSULTING EXPERIENCE

1985 to present: Identifying the cause and mechanism of tire failures; conducting tests and experiments to validate or contest claims asserted in law suits; working with attorneys on discovery, interrogatories, deposition, and preparation for trial testimony; investigating 400 or more individual tire failure cases for plaintiff and defense. Types of tires have encompassed passenger, light truck, truck-bus, farm tractor, industrial, bicycle, motorcycle, and retreads, including radial, bias, tube, and tubeless constructions. Qualified as expert witness in municipal and superior courts for both civil and criminal cases.

PROFESSIONAL EXPERIENCE

GENERAL TIRE AND RUBBER COMPANY, AKRON, OHIO

1971-1985: Manager, Manufacturing Tire Engineering, Tire Division. Coordinated the manufacture of tires in seven producing tire plants to insure highest quality, most cost-efficient tires; served on committees for tire development, plant engineering, and quality assurance, to improve radial tire building machines and reduce tolerance variations; coordinated development test tire building in plants to insure production compliance to tolerance and standard changes; served on task forces assigned by management to resolve specific problems affecting quality, efficiency, or profit improvements; planned organization and staffing of departments at staff and plant levels; developed and evaluated technical personnel, assisting in hiring and transfers; attended development meetings which reported test results of new concepts in tire design, construction, compounding, and production. Consulted with Development and

Quality Assurance Departments on returned production tires to identify causes of failure.

1963-1971: Manager, Tire Construction Akron Plant. Monitored daily all tire production to insure highest quality; investigated reasons for tire failures; supervised and trained newly hired college graduates to develop technology; supervised the issuance of engineering specifications for compliance with plant and government testing standards; developed standards for manufacturing tolerances.

1952-1954: Group Leader for Truck, Off-Road, and Airplane Tires; and 1951-1952: Group Leader for Passenger, Light Truck, and Industrial Tires. Gained experience in development of new designs and constructions for General's complete line of tires; responsible for releasing of new tire mold drawings, engineering specifications, and testing of new designs; complete inspection and analysis of all returned test and production tires to identify cause of failure.

1950-1951: Tire Engineering Technical Service. Gained practical factory experience in all lines of tires; analyzed scrap tires on a daily basis to identify cause of failure and changes needed in tire development.

1949-1950: Training Program. Formal program covering all departments in tire manufacturing and administration. Manufacturing included actual building of passenger and truck tires. Operated machinery in preparation for tire components. Administration included legal, purchasing, cost, billing, transportation, and personnel. Each department head explained responsibilities and how departments functioned.

SIEBERLING RUBBER COMPANY, BARBERTON, OHIO

1954-1958: Assistant Manager, Tire Design. Duties and responsibilities in manufacturing quality tires at lowest cost were similar to those at General Tire & Rubber Company (see above).

1958-1962: Manager, Tire Design. Duties the same as Assistant Manager plus additional responsibility within the drafting and test departments; represented Sieberling at Tire and Rim Association meetings, serving on various committees; chaired development of radial truck committees among five rubber plants at Lee, Dayton, Mansfield, Gates, and Sieberling.

LEE RUBBER COMPANY, CONSHOHOCKEN, PENNSYLVANIA

1962-1963: Started as Manager of Tire Construction, same duties as when Manager of Design, Sieberling; six months later promoted to Director of Tire Development which included the chemical departments.

MILITARY SERVICE

Pilot, U.S. Navy

PROFESSIONAL ASSOCIATIONS

Society of Automotive Engineers
Akron Rubber Group
Forensic Consultants Association
American Arbitration Association