



Robert C. Christy

ROBERT C. STEMPEL

1933–2011

Elected in 1990

“For outstanding contributions to automotive emission control, fuel economy, and safety engineering, and leading the integration of such developments.”

BY BETSY ANCKER-JOHNSON AND BRUCE MACDONALD

ROBERT C. STEMPEL, a brilliant engineer, a compassionate leader, and an innovative team builder who led General Motors Corporation through the tumultuous years of the 1970s, 1980s, and early 1990s, died May 7, 2011, at the age of 77. He was the first engineer to lead General Motors when he succeeded Roger Smith as chairman and chief executive officer in 1990.

Bob, as he was generally called, was born in Trenton, New Jersey, on July 15, 1933. His interest in automobiles went back to his high school days, when he began work as a mechanic in an automotive repair garage. While continuing to repair cars and trucks to help pay for his engineering training, he earned a B.S. in mechanical engineering from Wooster Polytechnic Institute in Massachusetts. Fifteen years later, while working full time, he received an M.B.A. from Michigan State University. Upon graduating with his mechanical engineering degree, Bob was employed by the General Electric Corporation in its Wire & Cable Division. In January 1956 he began active service with the U.S. Army as a lieutenant in the Corps of Engineers at Fort Belvoir, Virginia. He was part of the team that developed a mobile liquid oxygen generating unit to fuel liquid rockets.

Bob decided to become involved in the design and manufacture of vehicles—hence his decision in 1958 to join the Oldsmobile Division in Lansing, Michigan, in an entry-level engineering job. He was given increasing responsibilities as

senior designer, transmission design engineer, motor engineer, and assistant chief engineer. These jobs resulted in “automotive firsts” that we all expect now in our new cars and trucks, such as improvements in fuel storage systems that resulted in safer and more crashworthy designs and the first actions to reduce emissions from automobiles, such as the positive crankcase valve system that reduced unburned hydrocarbons by 30 percent. He was a member of the team that introduced the first modern front-wheel-drive car, the 1966 Oldsmobile Toronado, which established the practicality and durability of this vehicle drive system. He designed the front and rear suspensions and developed a unique application of an automatic transmission through a chain-link drive. His foresight in recognizing the value of “simultaneous” engineering by bringing tooling, manufacturing, assembly, and engineering together on this project was prophetic. This work contributed significantly to the impetus for fuel-efficient front-wheel-drive vehicles.

Bob’s engineering leadership flourished when he was named a special assistant to GM President Ed Cole in 1973. He led the team that developed, manufactured, and introduced into production the catalytic converter system (CCS) installed on all GM cars in 1975 and used by virtually all car manufacturers today. The CCS provided major reductions in exhaust emissions and significant gains in fuel economy.

Bob was always interested in improving automotive safety. He guided the design and location of fuel tanks in rear-wheel-drive cars. His insistence on superior safety performance on this project left no doubt as to his commitment to safety. He engaged in the development and installation of rear-seat safety belts and fostered antilock brakes as standard equipment on GM cars and trucks in the late 1980s.

He was assigned to the engineering department of the Chevrolet Division, first as chief engineer for engines and components and in 1975 as director of engineering. During this time he participated in the development of the fuel-efficient, transverse, front-wheel-drive powertrain configuration introduced in 1980 and used by most manufacturers of front-wheel-drive cars today. He also encouraged the development of

electronic computer-controlled fuel and ignition systems that minimize engine emissions while maximizing fuel efficiency.

Bob was a visionary engineer who enjoyed leading-edge technologies. He helped develop the world-record-setting solar power car "Sunraycer," which won the race across Australia (1,950 miles) in 1987. This General Motors experimental project led to the development of the very efficient electric car known as the Impact.

Bob rose swiftly as a manager at GM: general manager and vice president in charge of the Pontiac Motor Division; managing director of Adam Opel and head of GM's European operations; general manager and vice president in charge of Chevrolet; and GM executive vice president. He continued to be heavily involved in advanced battery technology that eventually led to the Chevrolet Volt electric car, currently the fuel economy leader as noted by the U.S. Environmental Protection Agency.

He retired from GM in 1992 and was named chairman of Energy Conversion Devices (ECD) in 1995. At ECD he led the development of renewable energy technologies such as lightweight flexible solar panels, nickel metal hydride batteries, hydrogen storage systems, and fuel cells. In 1999, Bob led the partnership with Intel Corporation to produce the joint venture Ovonyx, Inc. The company then developed a nonsilicon-based memory for electronic devices used by Intel, Samsung Electronics, and BAE Systems. A year later ECD formed three more joint ventures with Texaco Energy Systems, GE Plastics, and Belgium-based N. V. Bekaert S.A. He retired from ECD in December 2007 but continued to work as a consultant on new technologies and product development around the world.

Bob was well liked and respected within the auto industry and in the press corps for his deep knowledge of engineering and his genial, low-key manner. He had the great ability to reach out to people and make them feel important. He was at home in business councils and with the leadership of GM's Board of Directors, comfortable hosting dignitaries such as President Bush on new solar technology, at ease with fellow

engineers on the test track, and comfortable with his dealers, and he always looked for new solutions with the academic community through such programs as the Sunrayce global competition.

Throughout his career, Bob continued to support many engineering associations and at the time of his death was a fellow of the American Society of Mechanical Engineers, a fellow of the Society of Automotive Engineers, and a fellow and past president of the Engineering Society of Detroit. Also, he was chairman of the Great Lakes Council of Industries, whose mission is to provide industry with the water it needs while improving water quality in the Great Lakes basin. Also, at his death he was a member of the Electric Drive Transportation Association's Board of Directors. He worked closely with the American Society for Quality Control, helping provide a national, long-range focus on quality, including emphasis on applied research and education. As a longtime student of Dr. W. Edwards Deming, Bob was committed to quality in every aspect of business activities and the concept of teamwork in the workplace.

Bob was also active in community educational and charitable organizations. He held such positions as trustee of the Detroit Country Day School, advisory council member of Junior Achievement of Detroit and Southeastern Michigan, director of the Michigan State University Business Alumni Association, advisory board member of the university's International Business Development, and trustee of the university Research Association. Bob was also director of the Economic Club of Detroit and received the Leadership Award from the Engineering Society of Detroit. In 2001 he was awarded the Soichiro Honda Medal for technical and business leadership in the automotive industry and for his role in the development of the catalytic converter and nickel metal hydride battery. In 2002 he received the Golden Omega Award for leadership in the automotive industry.

Despite the demands of his engineering leadership in such areas as the catalytic converter, Bob always had time for a journalist, a car enthusiast, or a GM owner who happened to

meet him. He was known to be one of the rare auto executives who maintained a “double-booked” schedule but never shunned a visitor. Bob was known as the “driver,” but he never sought the limelight. He always deferred to the team, to his fellow engineers, to manufacturing engineers, or to sales executives to be the center of attention.

When GM introduced the X car in the 1980s in Phoenix, Bob was tapped to be the lead GM vice president to introduce the vehicle as the general manager of Pontiac. The media plan was to have journalists drive cross-country in the new vehicles. Much to the surprise of the GM public relations team, Bob invited himself to go on the ride, something no vice president had done in the past. The journalists were impressed, and Bob’s personal touch paid off because Pontiac received top reviews on the new Phoenix.

When Pontiac introduced the revolutionary Fiero, a two-seat sports car, GM decided to showcase the actual assembly process by having a simulated assembly line at the Detroit Auto Show. The “stars” of the Pontiac exhibit were actual hourly employees, and the schedule called for a number of GM officers to shake hands together and then reach out to the hourly team. Not Bob. He bypassed the officer group and went directly to the hourly team first; the assembly build was the highest-quality launch in recent memory.

Bob was always in tune with the needs of GM’s people and was one of the most loved and respected members of GM’s management. Bruce MacDonald, Bob’s vice president of communications, noted that Bob’s brilliance was tempered with a kind, gentle leadership style that was always engaging. When Desert Storm started, MacDonald, who was the ranking reserve U.S. Army General at GM, was summoned to Bob’s office and told: “You and your soldiers take care of the war. We will take care of your jobs and your families.” He is greatly missed by all who knew him.

Bob survived by his wife Pat (nee Patricia Bachman), daughter Barbara, and sons Timothy and Peter.