

Joseph Armand Bombardier

Inventor A visionary inventor by the name of Armand Bombardier identified the need for a dependable machine that could travel great distances over snow and rough terrain to replace horse drawn carriers.

Armand realized that three main elements were necessary for all terrain machines to perform properly. The machine must be light weight with proper balance kept in mind, have a reliable drive train and utilize a suspension system to maximize traction and minimize forces that could transfer up through the vehicle as it rolled over uneven ground. While testing various concept machines, Armand focused on the importance of a reliable track system that would offer; low ground pressure, reasonable traction while maintaining the ability to resist clogging while traveling over various soil and snow types. This goal was reached with the introduction of a rubber covered drive sprocket driving an endless rubber belt with metal cross bars attached. Years of relentless research and development allowed Armand to be in a position to produce a line of off road machines commonly called Bombardier. This series of machine evolved on a constant basis from 1935 through to 1979. Many of these fine track machines are still in daily use through the North. With the manufacturing and marketing of the Bombardier line well in hand Armand plowed on to research new opportunities in the all terrain transport markets. All season all terrain designs would be the next phase of accomplishments. Starting in 1950, Bombardier introduced track kits made to adapt to agriculture tractors which increased utilization due to much increased traction and floatation. By 1952 Armand had perfected a technology to manufacture drive sprockets and endless belts made of rubber and fabric. The Muskeg Tractor was introduced the next year, featuring a differential steering system. Reliable drive train and a long and wide rubber track system which had the ability to cross the softest ground comfortably. This low ground pressure utility all terrain vehicle was a great success selling around the world for uses such as forestry, utility, mining and oil exploration. Muskeg Tractors are still in production today and the basic design is fundamentally the same as it was in 1953. In 1954 the smaller J5 all terrain machine was brought to the market mainly to satisfy needs in logging, snow plowing and light utility work. Joseph Armand Bombardier was truly the father of the all terrain all season rubber track utility vehicle design. His legacy is as unrivalled as his patent list. Prior to his death, Armand registered over 43 patents. Which many of these designs and innovations brought the all terrain transportations capability and reliability to a new level in North America. References: Lacasse, Roger. Joseph-Armand Bombardier An Inventors Dream Come True.