

## The Nodwell 110

[http://www.wayback.archive-it.org/2217/20101208170135/http://www.abheritage.ca/abinvents/inventions/inv\\_tr\\_nodwell.htm#](http://www.wayback.archive-it.org/2217/20101208170135/http://www.abheritage.ca/abinvents/inventions/inv_tr_nodwell.htm#)

Alberta **muskeg**—it's deep, squishy and hard to travel through. Especially if you are transporting a ten-tonne geophysical drilling rig, which oil companies do, given the rich deposits of oil that often sit under the undrained, boggy land in the province.

In the 1950s, Imperial Oil asked Bruce Nodwell, who had experience building trailers, to solve this problem and construct a tracked vehicle that could travel through muskeg. Nodwell agreed, and reluctantly built two unsuccessful models based on the oil company's design. Nodwell decided to design his own.

The success of Nodwell's first tracked vehicle was unconvincing. He sold over a dozen, but customers found the vehicle mechanically weak and lacking in mobility. Nodwell reworked the design enough for Imperial Oil to purchase 30. It was difficult to operate, however, and only the most experienced operators could handle it.

Nodwell remained at the drawing board. Working on off-road vehicles, he refined the track and suspension systems and developed a two-axle vehicle named the Nodwell Scout, followed by a three-axle version, called the Tracked Truck. Finally, he made an even larger version with four-axles. This vehicle, the Nodwell 110, was named for its load capacity, able to handle 11,000 pounds, or, about 5.5 imperial tonnes.

Available on the market in 1957, the first model Nodwell 110 featured a combination of innovations that made the vehicle highly effective: a flexible, 32-inch wide track that moved the vehicle forward and fitted with high-strength steel bars that provided traction; a system of four axles that were not powered on their own, creating front-wheel-drive power; a load-bearing suspension and wheels, and an unique drive sprocket that increased the vehicles power to move.

No part of the Nodwell 110 was ever patented—Nodwell had neither the time nor the money for the patenting process. The vehicle, nevertheless, was used in difficult terrain and throughout the world. Key to the widespread success of the invention was its flexibility. There were, in fact, many versions of the 110 as they could be custom built, altered and repaired according to an individual set of conditions.

Nodwell tracked vehicles were widely used by civilians and the military. By the 1970s, they were exported from their manufacturing plant in Calgary to Russia, South America, Iran and China. In recognition of his achievement Bruce Nodwell received the Order of Canada and the Nodwell was featured on a Canadian stamp.

