

24. The Swat Team

****Chapter 24: The SWAT Team - Tesla, 2006–2008****

From 2006 to 2008, Tesla, under Elon Musk's lead, grappled with escalating costs and manufacturing hurdles for the Roadster. Initially projected at \$50,000, the cost per unit shot up to \$83,000 by late 2006, driven by Musk's design modifications and transmission issues. This predicament deepened by mid-2007, with production expenses reaching \$110,000 per vehicle, pushing Tesla to the brink of financial collapse.

In an unorthodox move for a board chair, Musk visited Lotus in England, the Roadster's chassis provider, without informing Tesla CEO Martin Eberhard. There, he learned of significant delays and confronted over 800 production issues. For instance, a British firm tasked with creating customized carbon fiber components failed to meet expectations, prompting Musk's direct intervention. This visit was reflective of the myriad challenges Tesla faced, highlighting the formidable task of transitioning from prototype to mass production.

Amid these quandaries, Musk enlisted the help of Antonio Gracias, a venture capitalist known for his unique entrepreneurial ventures and problem-solving abilities. Gracias had a history of turning around struggling businesses by focusing on efficiency in production - a principle he shared with Musk. Called in the summer of 2007, Gracias was tasked with dissecting and addressing Tesla's production woes.

Gracias then brought in Tim Watkins, a British engineering wizard specializing in manufacturing efficiency, to tackle Tesla's supply chain issues. Their collaborative efforts aimed to rectify the supply chain, starting with sourcing issues for the Roadster's carbon fiber components. After a failed partnership with their initial British supplier, Musk and Watkins transitioned the component fabrication to Sotira Composites in France, overseeing a crucial aspect of production firsthand.

Watkins' broader mission involved overhauling Tesla's convoluted supply chain. This chain commenced in Japan with lithium-ion cell production and wound through multiple countries, including a stop in Thailand for battery pack assembly, before the components reached Tesla's assembly facility in Palo Alto. This intricate process exemplified the global complexity of manufacturing a groundbreaking electric vehicle.

For Musk and Tesla, navigating the turbulent waters of the Roadster's production crystallized a key lesson: the success of a product is as much about the efficiency and innovation in its manufacturing as it is about the product itself. This early chapter in Tesla's history underscored the capabilities of visionary leadership paired with unconventional problem-solving to overcome daunting obstacles.