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Harley Davidson V-rod Design Process

The initial problem Harley-Davidson had was that bikes were made for speed, but Harley-Davidson was always about style. They decided the best way to deal with this problem was to build a bike from scratch. The issue was that the frame of a traditional Harley-Davidson motorcycle didn't support bigger engines and designers wanted to keep the style of the frame similar to past Harleys. They started out wanting a specific engine (VR-1000), but the frame wouldn't support the bigger engine. The team then started designing a frame that would fit the engine, but later realized they didn't want that engine anymore. Porsche then made an engine for the bike, which fit the frame better and also lasted longer.

Harley had another problem with the engine. The new engine from Porsche needed a bigger exhaust, which wasn't their style. They then had to figure out how they were going to design an exhaust pipe that would work with the engine and also had the Harley-Davidson style. The new exhaust pipes were the biggest exhaust pipes yet.

The next problem Harley had to work on to build the bike was with the radiator. The bigger engine needed a substantial radiator, which Harley's bikes usually did not have. The designers had to figure out a creative place to put the radiator that worked with the bike. They decided to put it behind the wheel, which caused another problem. This caused air not to go in

the radiator, but to be deflected by the wheel. This made the engine become too hot. To fix this they tested the radiator in the air tunnel and modified it to be wider.

Harley-Davidson designed their new bike from scratch, and this required a lot of time and effort to get it right. To design this new bike, they had to go through the engineering design process to get every part to work properly. They redesigned each part over and over again until it was perfect. It was difficult because they had to create a bike that looked like a Harley and also ran like a Harley. It took a collaborative effort between the designers and the engineers over many years to design the product. Problems like this are what engineers work on all the time.