

Power Defined

Engines and motors are designed to do work. The faster the work is done, the greater the power of the engine or motor. Power is the amount of work done in a certain time period. The formula is power equals work divided by the time to finish it. Engines are often labeled to indicate their power. This lawnmower says 3 and 1/2 HP which stands for 3 and 1/2 horsepower. In the English system of measurement, horsepower is the unit of power. It was developed by James Watt, who perfected the steam engine. Mr. Watt wanted to compare his engine with the work a horse could do because horses were the common work animal of the time. James Watt found that an average horse could lift 550 pounds, one foot in one second. This is what one horsepower represents. Many electric motors and power tools are rated in horsepower. This mixer has a 1/4 horsepower motor. This hand drill has a 1/2 horsepower motor. The higher the horsepower, the more powerful the engine or motor. This motorcycle has a horsepower of about 20. Today's cars have horsepower ratings that range from 70 to over 200 horsepower. These go-karts use 5 horsepower engines to zip through riders around the track. But whatever the motor or engine, remember that friction cuts down greatly on efficiency and performance.
