



When reviewing engine choices for a vessel, many people naturally are quick to focus on horsepower ratings. While horsepower is definitely important, it is not a complete representation of the amount of power your vessel will deliver in the water. You should also be aware of the amount of torque each engine offers, along with the horsepower at various rpms.

Understanding Power Curves

On a traditional power curve chart, there is a line representing the engine crankshaft power, which the operator perceives as throttle response. However, on a marine engine power curve chart, there is an additional line representing propeller power. The propeller curve illustrates how much

For those vessel owners who aren't engine experts, picture this: you're sitting in your car at a red light. At this point, your car is at idle. When the light turns green, you press on the accelerator to give your car the gas and you expect your car to accelerate. As you begin to accelerate, the engine delivers as much horsepower as needed to overcome the resistance.

On your vessel, the power curve line representing engine crankshaft power would move upward from left to right. As you throttle forward, the engine is delivering horsepower to overcome the resistance of the water and load. Once the vessel achieves momentum, the amount of power demanded from the engine decreases.

More Power in the Water

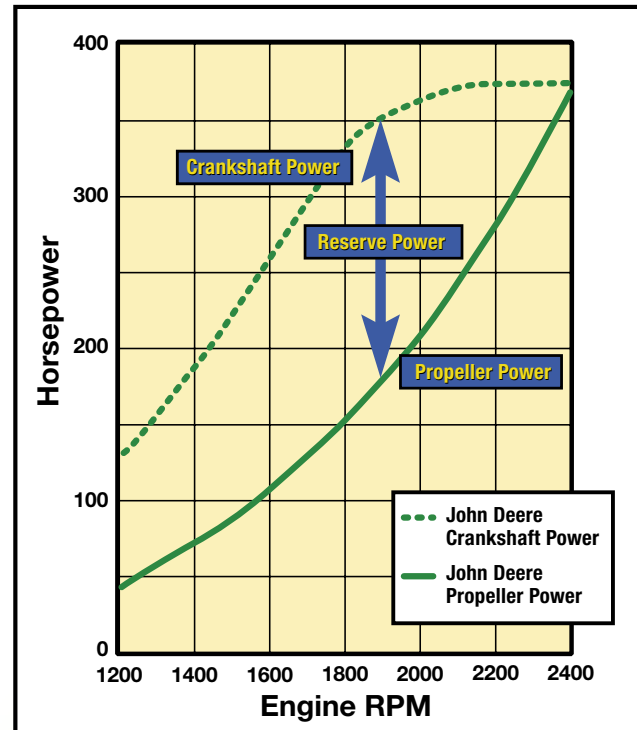


calculated power the propeller demands at various rpm ratings – or “power in the water.”

The difference between the two power curves is referred to as reserve power.

The power that is needed is then represented by the propeller curve. John Deere engines typically have more reserve power so your vessel can accelerate quickly. You will achieve your desired cruising speed faster and at a lower rpm.

Engine Acceleration Capabilities



JOHN DEERE



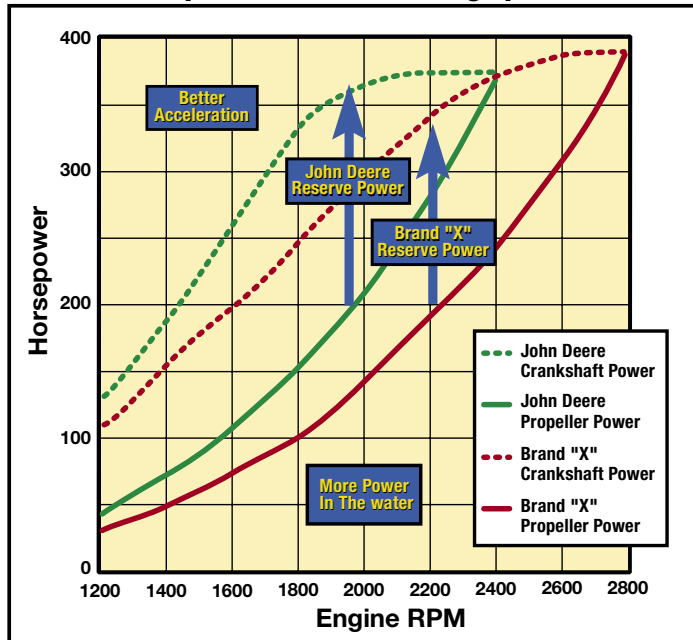


As you examine the chart, you will notice the John Deere marine engine produces more crankshaft horsepower and more propeller horsepower than the brand "X" engine. At any given engine speed, the John Deere engine produces more "power in the water." For any given propeller horsepower demanded by the hull, the John Deere engine will produce the same horsepower as the brand "X" engine, but at a *significantly* lower engine speed.

Whenever a vessel experiences increased resistance, whether it be a head current, increased passenger or cargo load, the reserve power is what allows the vessel to maintain its speed. John Deere marine engines have a higher torque rating than most competitive models, and therefore offer more reserve power. So how does that benefit you? It gives your vessel the ability to maintain speed regardless of load. Competitive engines with lower torque ratings have less reserve power to utilize during times of increased resistance, and tend to lose speed. Bottomline – the reserve power John Deere marine engines offer gives you more power in the water.

John Deere 6081AFM vs Brand "X"

RPM Level Required to Reach Cruising Speed



The John Deere engine develops its power more quickly and is able to cruise faster at a lower rpm than the brand "X" engine.

The John Deere marine engine delivers more crankshaft power along the rpm band as compared to the brand "X" engine. This translates into quicker acceleration, an ability that can be attributed to the higher torque rating of John Deere marine engines. Eventually, the brand "X" engine will reach the same speed; it will just take more time, fuel and engine wear to achieve it.

The brand "X" engine may have more horsepower, but it develops that level of horsepower later and at a much higher rpm. When operating your vessel, you typically accelerate to the point at which you reach your desired cruising speed, and then you pull the throttle back. When the engines are throttled back, the John Deere engine develops more power in the water and is able to cruise faster at a lower rpm. That ability translates into lower fuel consumption, lower vibration, lower noise and longer engine life.

With John Deere marine engines, you can improve your boating experience with better acceleration, high reserve power and more power in the water – and usually at a lower rpm.



JOHN DEERE

4.5L 6.8L 8.1L 12.5L