

## Choosing The Right Engine

Choosing the engine (or propulsion system) for your boat is very important. Both the weight and the horsepower will have a major impact on the performance of your boat. If you have a boat that's underpowered, the engine will work twice as hard, giving you poor performance.

Now, we will take a look at the motors available for boats and vessels:

### Outboard motor

An outboard motor is very popular and very useful on small boats. These motors are very light, powerful, and extremely quiet. Normally mounted on the transom of a boat, there are boats available that offer a motor well or even a bracket to mount the motor to.

The entire motor will swivel about, providing easy steering as the turning propeller pushes the stern about. Outboard motors come in many different sizes and the horsepower can use different types of fuel.

### Stern drive

These motors are also known as I/O engines, and normally heavier than outboard motors. Consisting of an engine mounted inboard and a lower unit attached to the transom, these motors offer power and versatility. You can also tilt the motor up and down to help provide boat trim while you cruise.

### Inboards

On boats that are over 26 feet in length, these motors are very popular. Similar to the stern drive motor, the inboard motor is mounted inside the boat towards the center, giving you good weight proportion.

Inboards connect directly to the transmission, then on through the hull of the boat. Then, the shaft is attached to a propeller which will turn and propel the boat. The shaft is fixed and doesn't swivel around. Therefore, a rudder is mounted

behind the shaft and propeller to help deflect the flow of water which provides your steering direction.

Jet drive

Jet drive propulsion systems have a big advantage - no propeller to cause damage or injury to those in the water, including marine life. Normally, they are inboard engines that will take in water that flows through a pump, powered by an impeller.

Then, the water is discharged at a very high pressure through a nozzle that will propel the boat. To provide steering for the boat, the nozzle will swivel. For personal watercraft, a jet drive is the way to go.

Keep in mind that when power isn't being applied, jet driven boats will lose steering, as the stream of water that propels the boat won't be there. Therefore, always keep any part of your body away from the pump intake - and never operate these types of boats in shallow water.

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