

Choosing a SMALL Outboard


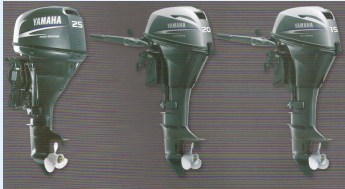

The choice of which outboard best suits any individual user is very much a personal one however there are often common questions that are asked over and over again. It is these questions we have tried to cover here.

As of January 2007 no more TWO STROKE ENGINES for leisure use were allowed to be imported in to the EEC this means in effect they are now discontinued for leisure use. HOWEVER NEW two strokes are still available ONLY FOR COMMERCIAL USE , to discuss this please contact us, 2 strokes are NOT covered in this document.

Four Strokes are getting lighter, there is now PARITY of weight from 2.5-10 hp four stroke compared to the old two strokes.

For motors greater than 40 hp please [CONTACT US](#) direct as the facts here that determine choice of motor are to complex to outline. There are DI two strokes that are emission compliant at 40 hp and larger.

For OUR BEST CURRENT DEALS ON MOTORS CONTACT US OR VISIT THE NEW MOTOR SECTION OF OUR E BAY SHOP [\[LINK\]](#)

Motors 2-6 hp		Motors 8-20hp		Motors 25-40 hp	
					
Guide to main Features;		Guide to main Features;		Guide to main Features;	
Carry in boot of car	YES	Carry in boot of car	YES	Carry in boot of car	Estates YES
Carried by 1 person	YES	Carried by 1 person	YES, Just!	Carried by 1 person	NO
Weight	13-28 Kgs	Weight	38-55 Kgs	Weight	50-100Kgs
Suitable for Tiller Steer	YES	Suitable for Tiller Steer	YES	Suitable for Tiller Steer	YES
Suitable for Remote Control	2-3.5 NO 4-6 YES	Suitable for Remote Control	YES	Suitable for Remote Control	YES

Questions Common to all HP Motors

How do I tell if I need a long shaft or a short shaft?



Measure the transom of your boat, From the top of the transom to the bottom of the hull. It will be 15"/16" for short or standard shaft. 20"/21" for long shaft.

On some sailing boats an Ultra Long Shaft is required this will mean a 25" transom. Though there are VERY FEW models of motor at this shaft length under 40 hp.

Not ALL makes of 2.5 are available in Long Shaft. 3 hp and above all come in either short or long shaft.

Most inflatables are short shaft as are many small sailing dinghies.

Fishing / row boats and yacht auxiliary motors are often long shaft. You always need to check though!!

Will the wrong shaft length work on my boat ?



NO! Short shaft on a long transom may not even reach the water, water flow and cooling will be affected and performance will be dreadful if the boat moves at all !

Long shaft on a short transom is dangerous. The point of thrust is way to low in the water and if the throttle were to be opened very quickly the bow of the craft would rear up and an unsuspecting helmsman could easily turn a small boat over.

There is a 5" difference in the depth of the prop in the water between a short shaft and a long shaft.

Can I add controls to a tiller steer motor at a later date ?



Remote controls are very expensive, it costs as much to add controls to a 4 hp as 40 hp. So if you NEED a remote control motor buy one from new and you will find that the cost of a new ELECTRIC start remote control engine is not far different from buying a manual start motor and adding all the extras.

There is a lot to a kit to make a motor remote controlled, the box itself, either pattern or original, steering drag links, fitting kits for cable attachment to the motor as well as steering adaptors.

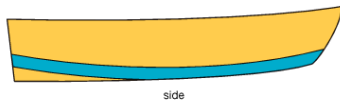
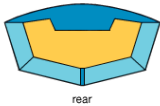
Are there any options to Petrol ?

Not really. Thruster Electric engines, even the MOST POWERFUL @ 100 Lbs thrust + are not 0.5 hp. There are proper electric outboards from Torqeedo at upto 10 hp BUT they are 2-3 times the price of a petrol motor.

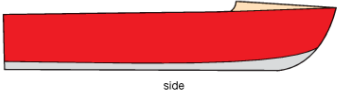
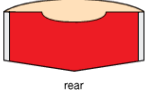
There are diesel outboards and no factory supported LPG engines

How Fast do outboards push the boat ?

Two types of hulls
displacement hull



planing hull



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This of course will depend on the boat it is on. Boats are of 2 types, PLANNING or DISPLACEMENT hull. Displacement boats are typically sailing craft, traditional fishing / rowing boats as well as most river cruisers and canal boats.

Planing hulls are MOST inflatables, Sports Boats, modern ally and fibreglass dinghies.

To go faster than a brisk walking speed (8 mph) you really HAVE to get the boat on the plane, when planing the boat rides on top of the water, where as "displacement" literally pushes the water out the way and the boat stays "in the water"

IF a boat can plane most craft will need to get over 8-10 mph to get on the plane depending on size and weight of the craft A Displacement boat will not really go much above 8 - 12 MPH almost regardless of the power you put on it.

Light Children may plane a 2 - 2.6 m dinghy with a F 2.5 – F 3.5 (Weight 13-18 Kgs) on but NO ADULT will get such a craft on the Plane.

Single Cylinder F 4 – 5 – 6 (Weight 26 – 28 Kgs) motors MAY plane 1 adult in a light craft, ally boats up to 3.5 m, Inflatables upto 3 m however larger adults or more than 2 adults are UNLIKELY to get on the plane in any craft with a single cylinder motor.

Twin Cylinder engines F8 – F 9.9 (Weight 38 – 40 kgs) Will plane MOST craft upto 4 m and less than 100 Kgs with 2 or 3 adults

To be assured of planing 4 + Adults and obviously still depending on your boat you need a F 15 – 20 (Weight 48 – 53 kgs) and larger.

Contact us for specific advice relating to your craft and what motor you need to achieve what you want out of the boat.

Inflatable planing above right, and at displacement speed left, note where the water is on the tubes.
BELOW: Displacement boat



F 2.5 – 6 Hp Motors

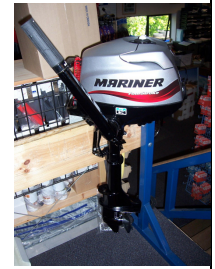
What features do these motors have?



Yamaha F 5

All motors in the 2-6 hp will be manual start with a tiller arm. They will all have an inboard tank with motors of 4 hp and larger having a fuel pump so remote tanks can be fitted as an extra. 2-3.5 hp CAN NOT take remote tanks.

All motors will have some kind of twist grip throttle, 2-3.5 hp will have forward and neutral gear shift, and 4 hp and larger will have reverse as well.



Mariner F 2.5 – F 3.5

What do motors like this weigh?

There is obviously a range, all motors of 6 hp and less are single cylinder. F 2-3.5 will weigh 13-18 Kgs and F 4-5-6 hp will weigh 26-29 Kgs

What sort of fuel burn and therefore range will I have ?

The amount of fuel they actually use is tiny and there are no real differences in economy across the makes. The inboard 0.8-1 l tank that most of the motors have will last less than hour if run flat out and 2-3 hours used at tick over.

Where a remote tank can be used (12.5 L) you will get a days use out of a motor.

Can children operate it?



Obviously depends on the child ! Most children under 8 struggle to start them. The steering and gear shift as well as throttle operation are not "normal" actions so they will need to be supervised well till they get the hang of it. There is also the whole issue of petrol and a hot motor so refuelling is not advisable.

Can I fit remote controls ?

Yes to SOME makes of 4 hp + NO to F 2-3.5 But it is VERY costly to do so.

What is Sail Drive ?

Sail Drive is used to describe a motor aimed at a larger heavier craft. NORMALLY they have battery charging and a special dual thrust low pitch prop fitted as standard. You can fit just the prop to any motor. The prop has a different shaped blade that offers equal efficiency in reverse as well as forward, Normal props are "quicker" in forward but a LOT less efficient in reverse.

Battery charging is normally @ 80 W so not a lot !!

F 8 – 20 Hp Motors

Can I really carry a motor of this size ?

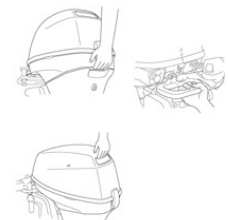


Safety Lanyards are fitted to all motors

There are 2 groups of motor in this HP class, they are ALL twin cylinder:

F8 – F9.9: Will weigh 38 – 40 Kgs

F 15 – F 20: Will weigh 45 – 55 Kgs



It is not so much the weight rather the awkward shape of the engines, whilst they have handles they are not easy to grip and of course motors have most of the weight all at one end. If you are carrying it a lot you will need to look carefully at the handles as some are better designed than others.

Can I have electric start ?



Remote Control F 20 Yamaha

Yes all motors in this class will have the option of electric start models.. You CAN NOT economically add electric start to a manual start motor so if you want electric start buy it from new. There are VERY FEW tiller steer electric start or short shaft electric start options but some makers do have them. Most will be remote control.

Often the cost on an electric start remote control motor is not much more than adding remotes to a tiller steer motor.

All electric start motors need a 12 V car battery to start them and they all have an alternator and charge the battery as they go !

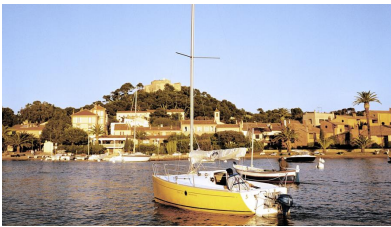
Can I water ski with a 15 - 20 hp?

Not really, children can just about "play" behind a 15hp and a small boat but skiing is out. Inflatable toys of one kind or another are fine. You have to be at 25-30 hp minimum depending on the boat to achieve skiing even on an inflatable.

Can children operate this size of motor?

Yes but they need to be 12 + really. Starting the motor is quite hard for a child and hanging on to a 15 hp at full chat the absolute limit of what most children of this age can cope with. Obviously individual maturity and physical size is very important !

I need a motor for a Yacht / River Boat are all motors suitable ?



Obviously a lot depends on the boat you have. It will PROBABLY need to be long shaft and remote control. If the boat is heavy then you may need to change the prop to a dual thrust / sail drive type. These have a blade shape that gives as much thrust in reverse as in forward, they will not be as "fast" as a normal prop going forward but give a lot more thrust and therefore control in reverse.

All remote control motors will need you to buy in addition to the motor a pair of control cables for gear shift and throttle and a battery if the motor is electric start.

F 25 – 40 Hp Motors

Can I carry a motor of this size ?

Not really, with a weight starting at 70 Kgs and upto 100 Kgs + for a 40 hp you need some kind of mechanical handling. ALL Electric Start motors will be BOLT ON ONLY, no thumbscrews.

Can I tiller steer a this sort of hp motor?

Yes if you have to but remotes on motors of this size are much more common though they make taking the motor off much more complicated.

Do I need a motor this big for my yacht / River Boat?

Extremely unlikely. The only sail boats that use outboards of this size are large catamarans and some of the "multi purpose" sail boats like the Macgregor. Something like a 15 hp high thrust four stroke will deliver enough power for most yachts and river / canal boats that need an outboard.

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