



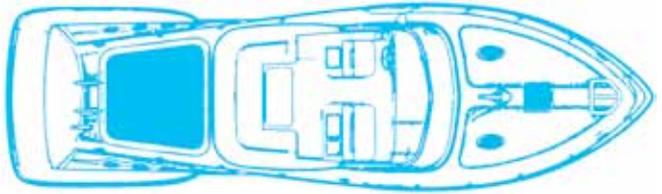
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# Tender Talk



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**When deciding upon a new tender it is easy to underestimate the pitfalls of replacing your current boat. Making the wrong decision can mean you are burdened with the mistake for years to come. In the first of a new series, a tender consultant considers engine and drive unit options, a major consideration in the specification of a tender.**

## What type of drive unit is the best for my tender?

The five most common types of drive are propellers and shafts, stern drives, jet drives, outboards, and surface drives. People often make their choice due to experience or personal preference. However, this usually results in the boat being specified without the optimum set-up for its most common use. Here are some important points to consider for the five common categories.

Props and shafts are traditional and often offer a more comfortable and efficient transmission system. This layout allows the engine to be mid-mounted and therefore offers freedom of internal space and better balance. However, the system limits the practicality of the boat to a larger degree. Both the props and rudders protrude from the bottom of the boat and cannot be adjusted for trim, therefore beach landings and operating in shallow waters are not recommended due to the potential for serious damage.

Stern drives offer a solution to the impractical downside of shafts in that they can be raised or lowered according to the depth of water. They also integrate the drive and steering units into one compact package. The downside to this system is the legs themselves can be damaged easily as a result of shallow-water operation. If the leg is knocked on rocks there is the potential for prop, gearbox and engine damage as a result.

Jets are often viewed as the answer for shallow-water operation due to there being no moving parts outside the boat. Jet boats are extremely manoeuvrable and in some cases can operate in extremely shallow waters. The negative for this system is that the jet is always running if the engine is on and therefore there tends to be more vibration and noise. In a lot of cases, jets are less efficient and therefore more fuel consumption is normally experienced, and overall performance is generally slightly less than the equivalent propeller driven boat.

Outboard engines have been around for a long time and are considered by many as the best all-rounder. They are reasonably compact, produce a large amount of power for their weight and are generally very high performance engines. There is a strong case for outboard motors on tenders, especially where weight saving and space are concerns. Outboards are easy to work on compared with many inboard diesel engines and can be removed from the tender relatively easily providing a practical option in most applications. The major problem these days with outboard motors is the fact that they necessitate the mother ship to carry petrol onboard, which is increasingly frowned upon due to the inherent fire risk. Legislation also requires yachts to comply with stringent safety requirements for the safe storage of petrol containers. Outboard engines can also cause problems in simple areas such as access for swimmers.

Surface drives are a fairly specialist application and not as common as the other types of drive mentioned above. However, these are becoming more and more popular with the increasing demand for high performance tenders.

Surface drives do, without doubt, provide enhanced performance and greater top speeds from the boats they are fitted to. If it is solely performance you are looking for then surface drives should be at the top of your list. However, if you need to use the tender for other applications, such as transporting guests or using for watersports, then it would be wise to consider an alternative.

These drives are the least practical of the five and are not versatile: manoeuvring at low speed can be very difficult, remember the drives extend past the transom and so are not the best idea if you are recovering swimmers, and these drives can be damaged easily. ■

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