

Hovercraft Buyers Guide



We hear many sad stories from people who have purchased hovercraft from other suppliers, only to discover the hard way, what works well, and what doesn't. We have created this simple guide to advise customers what to consider because, cheaper craft are often sold at greater cost!

Small hovercraft can be classified as race craft, kit-build or leisure.

1. Race craft focus on speed
2. Self-build focus on low cost
3. Leisure craft focus on safety and reliability

Buyers should consider:

Cost versus Performance, Safety and Reliability.



For **Race craft**, speed is the key objective, so weight is reduced wherever possible. For example, to reduce weight, craft have very thin GRP, so safety can be compromised. Race craft are often designed for land rather than use on sea. Thin GRP is needed for racing but not in leisure use as any impact causes expensive damage. Safety features such as the fan cage may restrict airflow, so safety is often compromised by speed. So the Hov Pod is designed for safety rather than speed.

Self-build folk favour the low cost approach; this often can affect quality, safety and performance. People spend considerable hours building hovercraft, (200 to 400 hours) only to experience major disappointment on the first outing. The Hov Pod has taken years of development to eliminate the pitfalls associated with hovercraft design and manufacture. That said, some people love a challenge, and are happy to spend hundreds of hours creating their own craft. But at what cost? Too much work and not enough play can make Jack a dull boy!



The third type of craft appeals to people who just want to have fun. **Leisure hovercraft** demand safety, reliability, and ease of use. The Hov Pod may not be the fastest craft in town, but we do like our customers to have fun in safety. We don't scrimp on quality either. Check out the build quality and many benefits such as stainless steel fittings to combat salt-water use, or the high spec electrical components, for trouble free operation. Not all leisure craft are the same, the components on some craft mean that they should not go near water let alone seawater. Some manufacturers sell new hovercraft with second-hand engines, purchased from a local salvage yard. Or craft that dig the nose into water and stop suddenly with dire consequences. Craft that do not contain enough buoyancy and sink! Craft that don't restart on water (a paddle could be useful) One-piece skirts that cost megabucks to repair. Hulls that crack and let in water, craft you can't steer without throwing your weight violently into the corners!

Engine type The Hov Pod uses highly reliable high power-to-weight Rotax engines proven by many years use in the snowmobile and microlight industries. They are located under a uniquely designed engine cover system that offers excellent protection from the elements yet is very quick and easy to remove (approx 15 seconds). The Hov Pod engines have been put through their paces for hundreds of hours in very harsh marine conditions in climates such as Africa, The Caribbean, and the Middle East. The engines are fitted with Rotax intake silencer and exhaust mufflers to give excellent noise reduction. When choosing an engine we picked the Rotax engine for its great pedigree and power-to-weight performance but also because the only other options were 'used' automobile engines. Development will soon see the introduction of 4-stroke engines to the Hov Pod range.



One engine or two? Many hovercraft use two engines, one for thrust, one for lift. Hov Pods have only one engine for lift and thrust; reason being that it is easier and far safer to coordinate one set of controls, easier to service one engine, plus you get less noise from one engine. Thrust engines are often placed in front of the driver - *yuck*, all those fumes and noise coming at you, and the first wave that hits you may swamp the engine, causing lift failure. We deliberately designed the Hov Pod without a gearbox assembly, this allows us to site the engine much lower in the craft, providing lower centre of gravity, reducing the tendency to roll (we have even seen other craft literally roll over in a simple low speed turn), and providing much greater ease of control. We also place the engine low down to ensure no airflow disturbance to the fan; clear airflow results in greater efficiency. Of course we only use new engines, whereas many new hovercraft have been sold with reconditioned engines

Stopping on land. Hovercraft should be considered as land-based vehicles as well as water-based; stopping on a small rock shouldn't cause the floor to crack, since cracks let-in water. Most hovercraft have a single skin or thin and weak double skin floor, whereas the Hov Pod has a thick double skin floor, between which runs a stiff marine grade buoyancy layer for greater safety and strength. We add Kevlar (as used in bullet proof applications) and aluminium runners and impact sheets to protect the craft from the inevitable knocks that occasionally occur.



Stopping on water? During demonstrations, a number of customers have panicked when we stop the Hov Pod on water, because other manufacturers have told them to avoid doing this as they take on water, even in calm conditions try moving to the back end of the craft and see what happens! Many hovercraft have a problem with starting on water, and you will sometimes hear the expression "getting over the hump", that describes the problem in getting back up onto the cushion of air to start moving again. The Hov Pod is designed to lift a payload of 225 kilos (HP52) or 285 Kilos (HP65) on water starts. Other craft also have a very severe tendency to spin and throw occupants when stopped quickly on water; the Hov Pod has been designed to quickly yet safely and smoothly stop in a controlled straight line.

Buoyancy. Many hovercraft have poor buoyancy characteristics and can actually sink if swamped, whereas the Hov Pod has full buoyancy sandwiched between a rigid, double skin floor. Not only will the Hov Pod stop quite happily on water but it has also been independently tested for flooded buoyancy approval. Buying a professional designed and manufactured craft helps to overcome regulatory restrictions, where they apply.





Skirts! Occasionally, hovercraft skirts may get damaged so you need to know how to replace a skirt, and how difficult the job will be. The Hov Pod has 65 different segments, (for damage limitation) so rather than having to replace the whole skirt if damaged, at great cost, you just replace the damaged segment. Naturally you will wish to go exploring with your hovercraft, but need to get home safely, so having a few spare skirt segments handy is a good idea, only takes a minute to change each segment; far easier than trying to recover a hovercraft with a damaged one-piece skirt. Hov Pods use a Hypalon/Nylon material (as used on all RIB's) for excellent wear, UV and salt-water protection. The Hov pod in tests has operated with up to 25% of the skirts missing. The careful design of the skirts also means that in normal use unlike nearly every other hovercraft the Hov Pod generates virtually no spray and the driver and passenger can stay virtually dry.



Hov Pods are designed to **withstand accidents** when they occur, protected by an aluminium plus rubber bumper strip to minimise damage to the craft. Vehicles not fitted with bumper bars suffer far greater damage during impact, reason why autos have them fitted as standard. Very few hovercraft have such protection, despite the fact that cracked GRP damage can be difficult and quite costly to repair. We also fit aluminium and Kevlar impact sheets, and aluminium runners on the underside of the Hov Pod for durability whilst coming to rest on firm ground. The design approach to incorporate a thick and rigid double skin hull and extensive impact protection is important because we have seen other craft where the hull has literally fallen part after hitting a wave or taking a very minor knock.

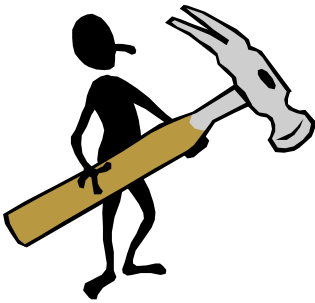
'Ploughing in' is a term to describe a problem where a hovercraft suddenly stops, due to the nose of the craft dipping into water - as anyone knows, sudden stopping or deceleration will cause passengers and driver to part company with a vehicle, so we have designed the Hov Pod to overcome this problem. The Hov Pod has never ploughed in, though we continue to hear of incidents where many other people have suffered this problem, sometimes with quite serious consequences.



Transporting the Hov Pod. The Hov Pod can be supplied with a fully galvanised custom designed trailer made by an approved trailer manufacturer. For safety this trailer is designed for single person operation. Many cheaper trailers are available but require either two three or four people to back breakingly lift the craft off and on the trailer. The Hov Pod trailer utilises 4 rubber coated rollers (to protect the hull and stop that annoying banging when trailering) and a simple winch mechanism to gently unload or reload the Hov Pod in about a minute.

Good **safety** design is no accident; extensive development has gone into designing the Hov Pod. Safety is a very important aspect of design for the leisure market, and our designers have considered many factors not found on other craft. For example, we fit a front and rear guard to the fan assembly - who in their right mind wouldn't? (Actually, the majority of hovercraft don't). Consider sealed batteries and ventilated fuel tank spaces for example. Some craft put the electrics and fuel in same compartment! some have even fitted their own fuel tank without any official safety approval! We utilise CAD design and CNC billet manufacture to ensure parts are of a high quality and strong in use. Again the Hov Pod has gone through full independent governmental engineering, safety and operation certification.





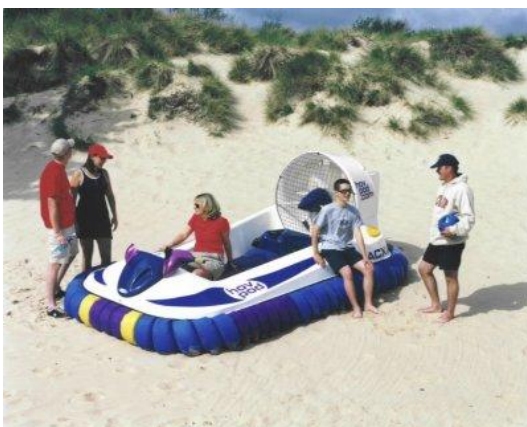
Other Considerations Check craft quality, is the craft constructed of GRP, has GRP chop strand mat been used or as in the construction of the Hov Pod, quadraxial mat? A whack with a mallet shouldn't offend. GRP when new nearly always looks great but if not made by experts in a controlled environment it will soon suffer from many hidden problems. Ask to see an older model to check the quality of the GRP, which can crack and delaminate after 6 months. An immaculate looking craft on day one can, after 6 months, can look very forlorn. GRP repairs are costly. Does the craft have a really solid bumper protection system? Can you give the impact areas on the side and bottom of the craft good hard whacks with a mallet? Can you sit on the side quite happily without breaking it?

Ease of use. On Water - can the craft be used in the conditions you intend to use? On water, sit on the side, climb in, climb out, will it topple over? Does it plough in? Will it float? What weight can it lift in on water-starts? Has any government provided safety certification? Do an emergency stop; can you keep control? Does the craft travel in a straight line? The Hov Pod only requires fingertip control, do you have to throw your weight when cornering? Many craft will not turn unless you move your weight to the side of the craft? Is driving instinctive to use, with handlebars and throttle? Many craft incorporate complex joysticks and elevator controls and/or reversing mechanisms that takes away the fun element and makes safe operation far more confusing. Our design philosophy was to keep it as simple as possible for operators to use the craft. By paying particular attention to the design, operation, feel and responsiveness of the Hov Pod, these extra controls are not needed. In terms of manoeuvring the Hov Pod it can be used to undertake long graceful turns or make tight turns in confined waterways or marinas. The balance and set up of the Hov Pod means that you can turn it on the spot on both land and water?

We have deliberately focused on product quality, and to understand our marketing approach, please read the Hov Pod [Design Philosophy Document](#).



Value for money. Stretching the dollar, pound or euro is important for everyone, but so too is value for money, no one wants to spend thousands on a vehicle that is unsafe or difficult to repair.



Hov Pods are extremely easy to drive, similar to a motorcycle, and fantastic fun. In demonstrations, we can usually hand over the controls to a person after 15 minutes tuition. Hov Pods were specifically designed for marine leisure and commercial use, and have many features that you will not find on other hovercraft. Hov Pods are designed to be easy to use, easy to service, safe to operate, reliable, durable and fun. We hope you will soon arrange a demo so that we can show you the superior features of the Hov Pod so that you can see for yourself, why it remains probably the best leisure hovercraft available anywhere in the world today.

Contact us via our [Contact Page](#)

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