

Frequently Asked Questions About Jet Drives In The Coastal Flyer

<p>1. Who is UltraJet and Ultra Dynamics?</p>	<p>Ultra Dynamics, and the predecessor company, Dowty, have been in the marine jet business since the 1950's (about the same time as Hamilton). Ultra has been primarily involved with military applications for 30 years until the late 1980s, in commercial vessels in the 90's and now on quality pleasure boats. UltraJet drives are still used in commercial and military vessels.</p>
<p>1. Why did Santa Cruz select an UltraJet drive for the Coastal Flyer?</p>	<p>The UltraJet 305 jet drives used on the Coastal Flyer are the best units for this boat. Like boats, jet drives have features and attributes that suite certain applications. The UltraJet drives have the right combination of features to suit the Coastal Flyer.</p>
<p>3. Why is the Coastal Flyer performance different from other jet-powered express cruisers?</p>	<p>The Coastal Flyer hull makes the difference. The Coastal Flyer was designed from the outset as a jet boat, therefore the hull is optimized for jet propulsion. The Flyer's Vee hull provides handling and sea-keeping capabilities not possible with other express cruisers.</p>
<p>4. How do the UltraJet drives compare with other jet drives?</p>	<p>In terms of quality, performance, and efficiency, UltraJet drives are one of a group of the three best jets in this size range available worldwide.</p>
<p>5. How fast will the Coastal Flyer go?</p>	<p>Depending on equipment and engine options, the maximum speed of the Coastal Flyer can be more than 30 knots. Engine power and boat weight will govern the top speed of any boat.</p>
<p>6. Are jet boats faster than propeller boats?</p>	<p>Some are, however, the maximum speed of a jet boat is determined by the power, the weight of the boat, and the hull shape, regardless of the propulsion method. As a general rule, maximum boat speed is determined by the power to weight ratio, regardless if propelled by jet or propeller</p>
<p>7. How efficient are the UltraJet drives?</p>	<p>The efficiency of the UltraJet 305 is close to that of propeller drives. When you include the improved hull efficiency with a jet drive (no underwater shaft, struts, propellers, and rudders) the overall efficiency of a boat with UltraJet drives is better than a propeller boat above 25 knots.</p>
<p>8. How do jet drives compare with underwater propellers for efficiency?</p>	<p>Jet drives are overall more efficient above 25 knots in hulls optimized for jets. Propellers are generally more efficient than jets in boats designed to operate at less than 20 knots.</p>
<p>9. I have heard that jet boats are less efficient and have poor performance?</p>	<p>It is true that there have been unsuccessful jet boats. The poor performance of these boats can usually be identified as:</p> <ol style="list-style-type: none"> a. The jet was selected on price rather than selecting a model with the thrust needed to carry weight of the boat, owner's gear, and equipment. b. The selection was initially correct but the boat was overweight and/or the boat was not well balanced c. The jets were fitted to hulls not suitable for jet drives. d. Jet drives with relatively low efficiency & quality were used on some boats.

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<p>10. How well does the Coastal Flyer accelerate?</p>	<p>The UltraJet drives permit full power acceleration from a standing start without cavitation. UltraJet drives permit utilization of full power, if required, at any boat speed.</p>
<p>11. Why haven't jets been used on more pleasure boats?</p>	<p>Mostly fear of the unknown by boat builders other than Santa Cruz Yachts and a few other manufacturers. This caused some builders to quote very high prices for the jet option to cover their first time costs. These high prices discouraged many potential buyers.</p>
<p>12. Will the jet pick up seaweed?</p>	<p>They can, however, the risk is lower than for an underwater propeller. Keep the power low when at low boat speed over areas of seaweed. The risk is very low at cruise speed. Small and floating grass will go through the jet without concern.</p>
<p>13. How will I know if the intake is blocked with seaweed or other debris?</p>	<p>The engine rpm will increase for the effected jet and boat speed will drop slightly. This indicates the jet is not pumping as much water due to a partial blockage of the intake.</p>
<p>14. How can the seaweed, or other debris, be cleared from the jet intake?</p>	<p>There are several methods and the Coastal Flyer is fitted with the best method - Backflushing the jets. Backflushing is accomplished by putting the marine gear in reverse and running the jet counterclockwise. This pumps water out of the intake to blow off debris caught on the intake grill.</p>
<p>15. Can the jets handle sand and gravel?</p>	<p>Yes, the occasional gulp of sand or gravel is not detrimental to the jet drive and the jet is much less susceptible to damage than an underwater propeller. Continuous operation in sandy or silted water will accelerate wear of the impeller. Remember to keep the power low when crossing sandy shoals so that there is a lower tendency to draw sand or gravel into the jet.</p>
<p>17. What if the boat runs aground?</p>	<p>The Coastal Flyer's draft is not as great as the keels on most propeller boats and there are no other underwater appendages. Therefore, if grounded at low speed on a shoal, the high reversing thrust of the UltraJet drives will usually allow self-recovery by reversing the boat out of trouble.</p>
<p>18. What about lobster and crab pots?</p>	<p>Not a problem. Drive right over them as there is no underwater machinery to foul the float lines.</p>
<p>19. Is the Coastal Flyer Manatee-safe?</p>	<p>Yes, manatees will never be injured or cut by a Coastal Flyer in No Wake or Manatee Zones. Direct contact at cruise speeds may cause bruising but no serious injury to the mammal.</p>
<p>20. Can I beach the Coastal Flyer for a picnic?</p>	<p>Absolutely. Drop a bow anchor and reverse into the beach. Place a stern anchor on shore. You can then walk off the stern of the Coastal Flyer to the beach. (Be aware of tidal depth variations during the time at the beach).</p>
<p>21. Can I expect improved service life from the diesel engine and marine transmission?</p>	<p>Yes, absolutely! Jet drives are universally recognized for being much easier on engine and transmissions. With jet drives, cyclic loads such as powering into waves are not transmitted to the transmissions or engines. Overloading the boat has no effect on the transmissions or engines. Also, the transmissions are engaged and disengaged far less frequently compared to underwater propeller drives.</p>

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<p>22. If I do not engage and disengage the transmissions, how can I maneuver the boat?</p>	<p>Maneuvering the Coastal Flyer is accomplished using the reversing and steering deflectors on the jets. By using the joystick control the operator has proportional and directional control of the thrust. The engine throttle can be set to provide the thrust required for the maneuver.</p>
<p>23. What is the key to maneuvering a Coastal Flyer?</p>	<p>Keep the engine rpm at 1000-1200 rpm and make small adjustments to the reversing deflectors and steering.</p>
<p>24. How often will I need to change the impellers?</p>	<p>Owners should expect five or more years of normal use from the stainless steel impellers. Minor damage to the impeller can typically be repaired by any propeller shop experienced with stainless steel propellers.</p>
<p>25. What routine service is required for the jet drives in the Coastal Flyer?</p>	<p>Jet drives are probably the lowest maintenance item on the boat. Routine maintenance can be summarized as:</p> <p>Before each use:</p> <ul style="list-style-type: none"> a. Check oil level in hydraulic power unit (Visual check with the transparent plastic oil reservoir). b. With marine transmissions in neutral and engine not running, check that the jet drive rotates freely. <p>Once a month</p> <ul style="list-style-type: none"> a. Check condition of the impeller by feel through the inspection cover. b. Inspect the condition of the anodes (zincs) on jet and hull. c. Check security of electrical connections in the bonding system and to the hydraulic power unit. <p>Annually or when hauling the boat for bottom paint or other maintenance.</p> <ul style="list-style-type: none"> a. Inspect the intake grills and general condition of the underwater components of the jet drive.
<p>26. Where can I get service for the UltraJet drives?</p>	<p>Parts and service from the basic jet drive and hydraulic power unit is available direct from the manufacturer in Columbus, Ohio or from other Ultra locations worldwide. The control systems utilize standard Kobelt components available from Kobelt distributors worldwide.</p>