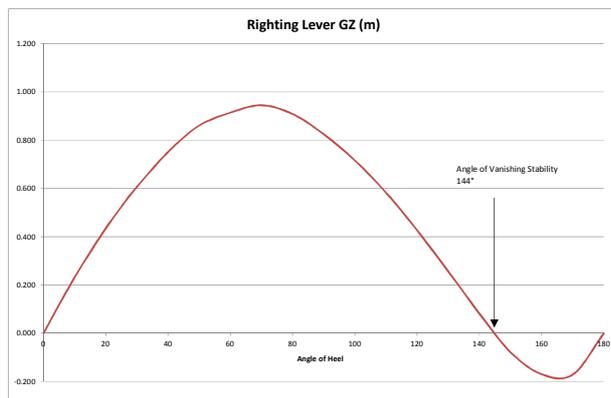




## GT35 Technical Summary – Stability and Structure

### Stability

A low centre of gravity is the ultimate goal for the naval architect when designing any floating vessel. This is especially true for a yacht carrying sail. A yacht that sails upright will always exhibit a more favourable response in terms of speed and motion than a yacht that tends to heel more underway.



However, for a comfortable cruiser that is designed to perform well, the yacht must not be overly stiff, an attribute which results in a jerky, uncomfortable ride; the yacht should be as upright as possible without being too quick in its motions. Likewise, if the yacht is allowed to heel too much, not only is this uncomfortable from the point of view of having to move about on angled surfaces, but it is well understood by discerning yachtsmen and women that a stiffer yacht is faster than a tender yacht in anything more than a moderate breeze. Sailing in deteriorating conditions, a yacht that can carry as much sail as possible, safely is one which will get you home faster.

The GT35 comes very well equipped. The flared bulb lead keel, through-bolted to stainless steel washer plates within the hull, provides superior stability and hence superior performance.

Whilst the standard GT35 comes with a 1.95 metre (6'5") draught, options include both a shoal draught at 1.6 m (5'4") and twin keels at 1.5 (4'11").

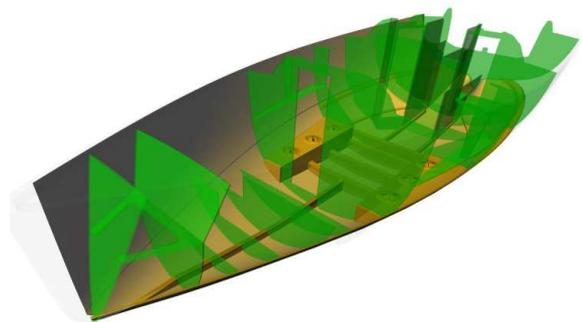
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### Structural Design

Structural design of the GT35 starts with the ocean. Throughout the design process where a compromise to the structural design is needed to benefit the overall design, it is only accepted if a robust alternative structural solution can be found. Having been through a number of iterations, the composite specification is a fully optimised engineered solution.

The materials selected have been carefully considered for their contribution to both local and global loading and by employing a sensible approach to design, the weight is kept to a manageable level without compromising the seaworthy nature of the yacht. A double thickness gel coat provides a superior finish and by utilising vinylester resin in the outer skin, the hull benefits from osmosis resistance as well as tougher outer laminates. By utilising carbon fibre in high load areas such as the keel floor, structural intrusion into the accommodation space is kept to a minimum. This approach is continued throughout the yacht, with interior designers working closely with both structural and systems engineers. Taking the rig loads of both the inner and outer shrouds out to the bulwarks ensures a safe and solid foundation for the chain plates that are bolted into the side shell.



All in all, the GT35 structural design is one which is at the cutting edge of modern composite engineering. Both the hull and deck laminate exceed the requirements of the RCD for category 'A' Ocean, in all areas.

August 2013. enquiries@gtyachts.com