550 - MONOHULL OUTBOARDS (T)

General: The purpose is to limit this class to simple monohulls easily built by an amateur or readily available commercially, each fitted with one single homologated “stock” motor, available on standard sale.

550.01- CLASSES

JT250 cylinder capacity of the motor to 265 cc incl.

T 250 cylinder capacity of the motor to 265 cc incl.

T 400 cylinder capacity of the motor from 266 cc up to 405 cc incl.

T 550 cylinder capacity of the motor from 406 cc to 550 cc incl.

T 750 cylinder capacity of the motor from 551 cc to 750 cc incl.

T 850 cylinder capacity of the motor from 751 cc to 870 cc incl.

GT15 up to and including 15 hp as advertised

GT30 up to and including 30 hp as advertised

GT60 up to and including 60 hp as advertised

GT90 up to and including 90 hp as advertised

550.02 - HULL

Only monohull form is permitted. There shall be no additions or appendages to the hull that produce or contribute to aerodynamic lift.

The deck must be able to bear the weight of a standing person (750 N) at any point.

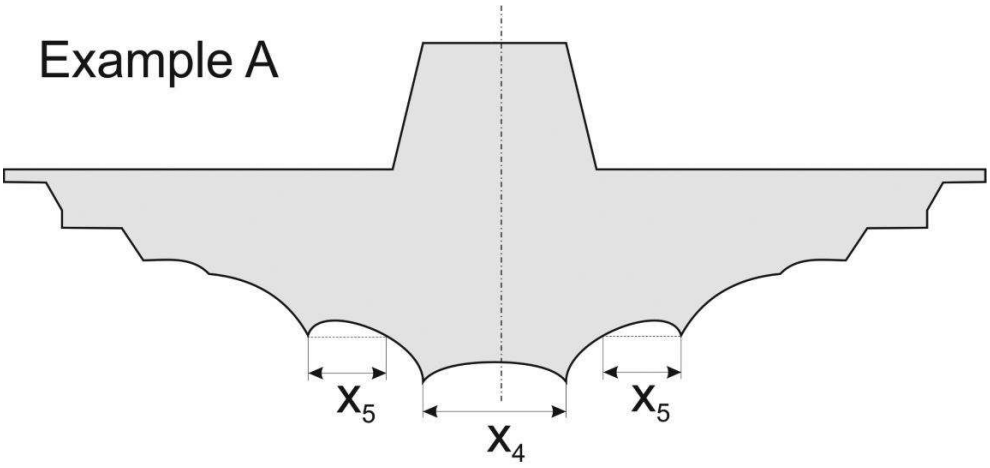
GT15/GT30 boats must have both left hand and right hand mirrors of at least 2x3 square inches (or 40 cm sq)

Transverse steps, tunnels, hydrofoils or devices which tend to add to the air pressure under the hull, are prohibited, except that protruding strips substantially parallel to the fore and aft line of the keel are permitted providing that in any channels, etc. so produced the horizontal measurements, of such openings with the boat on an even keel, do not add up to a total of more than 15 cm in any transverse section. Any divergence of such strips from a line parallel to the keel must show a minimum radius of 30 cm. If stopped short of the transom, strips must be tapered off to zero over a minimum length, viewed at 90 to the line of the keel and parallel to the surface of the hull in that area, of 15 cm. A single fixed vertical fin on the underwater body is allowed for directional stability.

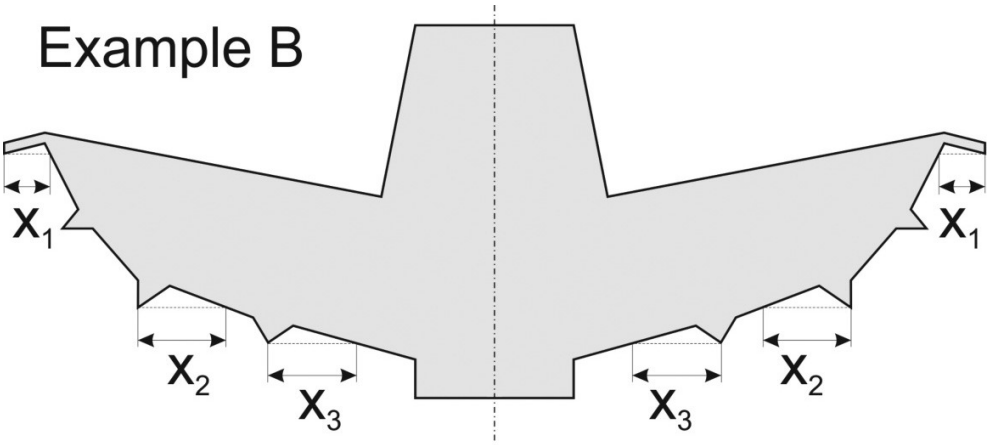
The maximum length of the fin is 250 mm.

For classes GT15 and GT30, such a fin is not allowed.

Ballasting is allowed inside the hull but liquid ballasting is not permitted to be pumped in from the sea or pumped overboard during race or time trials.



$x_4+2x_5<=150$ mm



$2x_1+2x_2+2x_3 <=150$ mm

550.03

Full seats must be fitted in JT250, GT15, GT30, GT60, T550, T750 & T850 classes.

"Full" means a complete seat including back support up to shoulder blades.

Construction to be stiff and strong enough so that it's attachment to the hull is fully secured.

550.04

Any device to produce a sudden braking effect, causing excessive water spray, reducing visibility, is prohibited.

550.05- MINIMUM DIMENSIONS

Class	Weight	Length	Width	Boat depth
GT15	225 kg	3.10 m	1.35 m	0.35 m
GT30	265 kg	3.50 m	1.35 m	0.40 m
GT60*	350 kg	4.00 m	1.40 m	0.40 m
GT90*	425 kg	4.50 m	1.50 m	0.40 m
JT250	160 kg	3.10 m	1.25 m	0.35 m
T 250	180 kg	3.10 m	1.25 m	0.35 m
T 400	240 kg	3.50 m	1.30 m	0.35 m
T 550	265 kg	3.75 m	1.30 m	0.40 m
T 750	270 kg	4.00 m	1.35 m	0.40 m
T 850 boat only	250 kg	4.25 m	1.40 m	0.40 m
T850 boat+driver	330 kg			

* plus powertrim as manufactured

1. The minimum weights mentioned here above are the weight of a complete rig weighed directly after the race including driver, personal safety equipment, residual fuel but without residual water

2. Measurements are taken while the boat is ashore.

   The length must be measured as the overall length of the hull between perpendiculars at the foremost and aftmost rigid part of the hull.

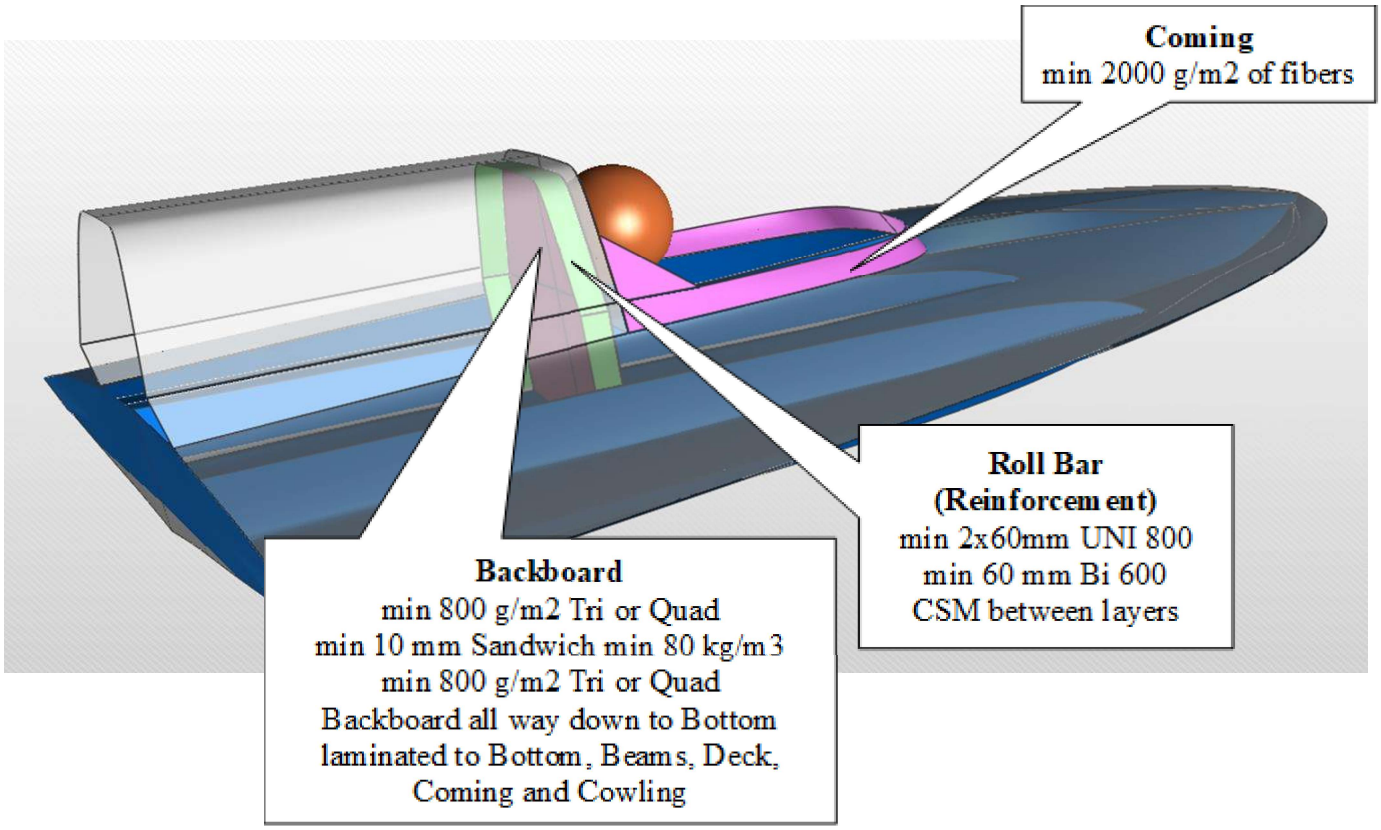
   Any extending parts, rubbing starches, fenders, stabilising and trim tabs and rudder are not to be included.

   The width of the boat is measured at the widest part of the hull.

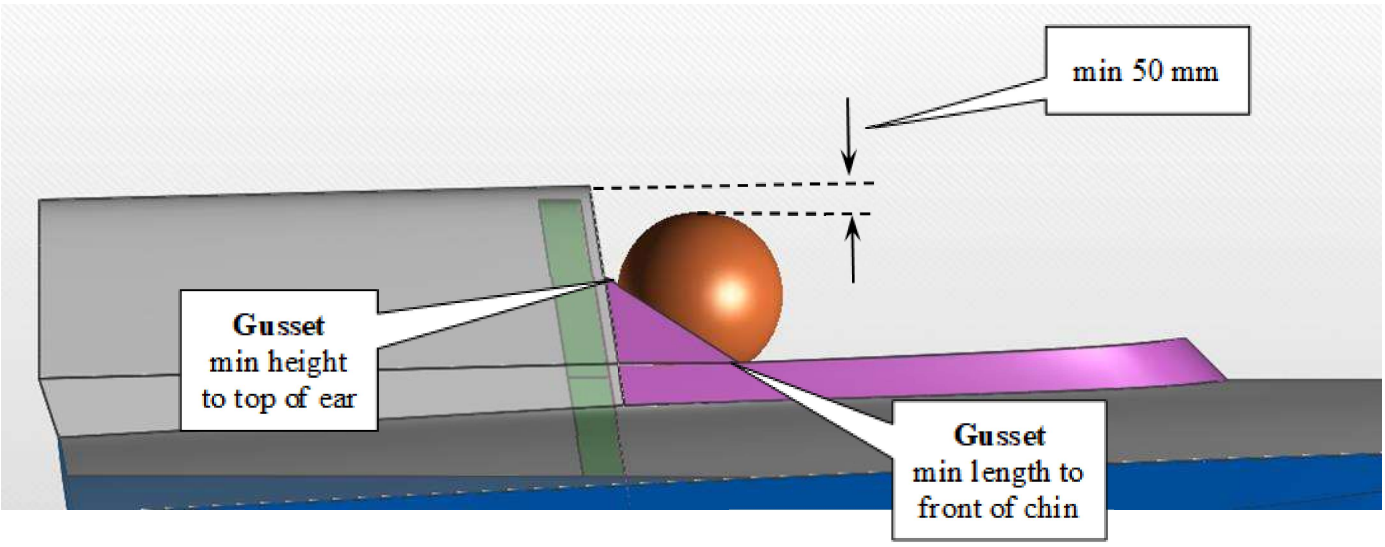
3. The GT15 and GT 30 cockpits shall also have structural means to provide head/helmet protection such as a roll bar framework or “halo” design. The protective structure shall not inhibit driver egress from the boat.

Classes GT15 and GT30

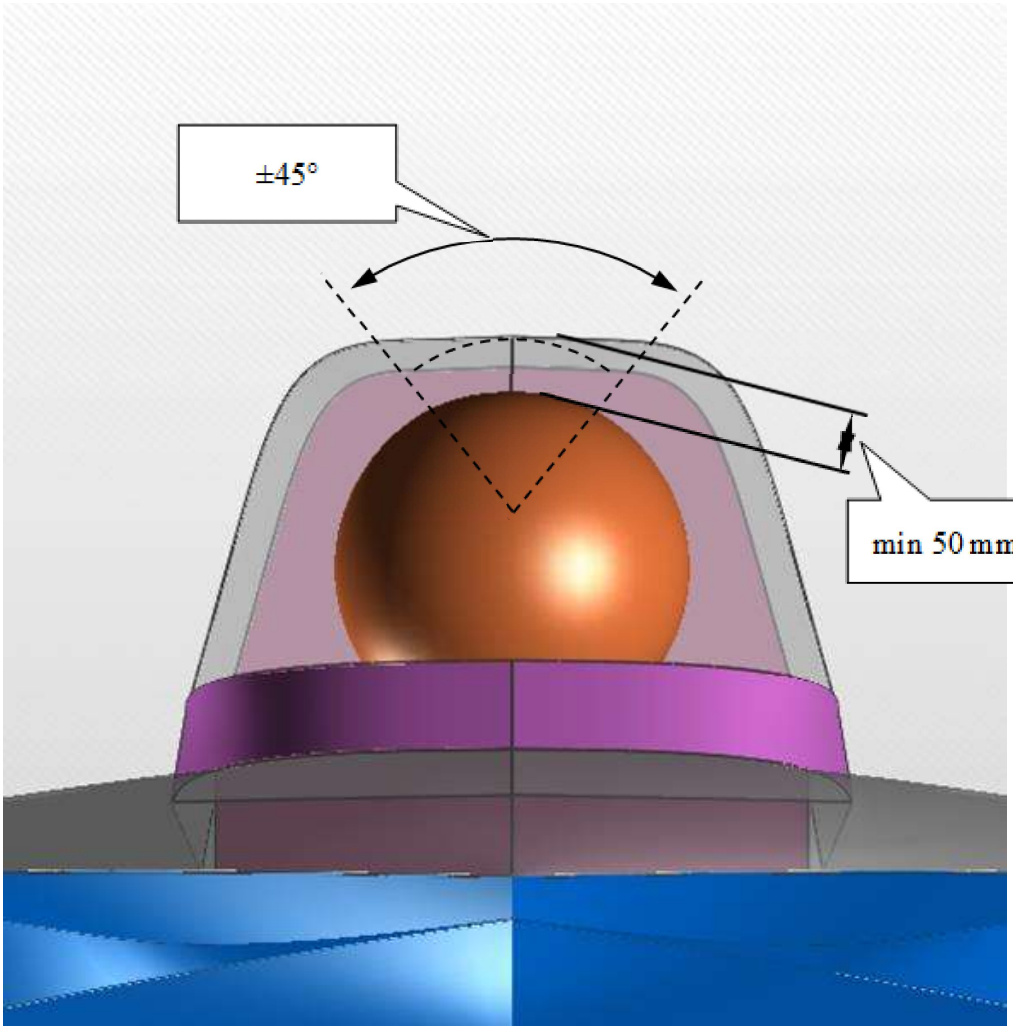
Concept drawing



Classes GT15 and GT30



Classes GT15 and GT30



550.06 - MACHINERY

550.06.01

An outboard motor is a mechanical propulsion assembly which can be removed from the boat in a single unit, complete with its transmission and which does not transmit its power through the hull at any point.

The motor thus removed and placed ashore must be capable of being started, fed by its fuel tank.

The GT15 and GT 30 boats shall have an external power shut off switch to kill the engine installed on the port side of the cockpit cowling.

The mounting supports fixed to the boat, the control levers, the tachometer with its connections, the battery with its conductors and the fuel tank and fuel lines do not form part of the motor.

The attachment angle and the height of the motor must remain fixed while the boat is under way. But it is allowed to change the attachment angle between a heat and another.

The use of powertrim is allowed for monohull boats provided with safety reinforced cockpit, per rule 509.

For all T classes, the centre of the propeller shaft (measured at the centre point of the rear end of the propeller shaft) must be at least 20 mm below the bottom of the boat measured at the lowest point of the bottom. No design of the hull, by fins, keels or convex shaped bottom to obtain a higher engine position is allowed. For boats with the power trim this height will be measured with the propeller shaft set parallel with the bottom of the boat.

This dimension will be checked in the “as raced” condition.

This dimension is affected by the attachment angle. In GT-15, GT-30, JT.250, T 250, T.400 and T. 550, it is not allowed to change the attachment angle by other means than pulling out and resetting tilt pin or by adjusting a thrust block on the outside of the transom for which adjustment tools must be required. It is only allowed to change the attachment angle when the boat is on land. After any change of the attachment angle the propeller shaft depth must be rechecked.

550.06.02

To be homologated as stock motor, an outboard motor must be sold and advertised by an industrial firm as being manufactured in standard production series (that is to say with all parts interchangeable and with identical dimensions, weights and materials) for the propulsion of boats.

To be eligible for homologation, a minimum of 1000 units must have been built and assembled, certified by the manufacturer to the National Authority of the country of origin.

550.06.03

The motor must be able to function at reduced speed.

550.06.04

When the motor is in the water, the cooling must be effected by the homologated water circulation pump.

550.06.05

An efficient gear changing system giving forward, neutral and astern movement is compulsory.

The control handle for the reverse gear, ready for use, must be within easy hand reach of the driver, when he/she is in the normal driving position. Manoeuvring of the boat astern, must be possible by selecting reverse gear.

550.06.06

An electric or manual starter must assure a quick and easy start without external aids. It must be used as it was supplied by the manufacturer, no adjustment or alteration being allowed.

550.06.07 - SOLE MODIFICATIONS ALLOWED

Only the following modifications are allowed:

1. All studs, screws, nuts, bolts and their washers are free as well as the method of locking them.
2. The original propeller may be replaced by another in accordance with 504.13. In classes T.750 and T.850 4 blades maximum.
3. The trim tab may be altered or removed to accommodate a propeller, except in classes T.750 and T.850.
4. The cooling system must be provided by the water pump.
5. Thermostats and pressure valves of the cooling system may be removed.
6. The steering mechanism may be altered. If the original steering bar is removed or new ones are installed, any openings created must be sealed to prevent the motor from pulling in additional air.
7. The dampers (shock absorbers) may be altered or removed.
8. The rubber mounts of the motor may be altered, removed or replaced.
9. Revolution counters, water temperature gauges, water pressure gauges and similar instruments can be installed.
10. Revolution limiters may be removed.
11. The gear interlock device on the starter may be removed.
12. Spark plugs are free.
13. Original carburettor jets may be replaced for another size.
14. Springs may be added to the throttle lever of the carburettors.
15. Re-boring is allowed, but only piston assemblies supplied by the manufacturer of the motor may be used within the cc-limit of the class. When ports in cylinders are adjusted to the dimensions specified in the homologation sheet, material may only be removed in the specified opening to a depth of 10 mm, to match the shape of the original adjacent connecting passage (channel) outside the adjusted port opening. This also applies to other openings in the motor for which the dimensions are specified in the homologation sheet.
16. A part which is dimensioned in the homologation sheet may be machined for the purpose of reaching that specific measure;
17. A part may be machined to attain the weight quoted in the homologation sheet without altering other criteria given for the part in question. It is not allowed to change the flywheel but balancing machining is allowed if the dimensions and weights provided for on the homologation sheet are respected;
18. Measurements not quoted in the homologation sheet shall only be checked by visual comparison with standard parts. As the actual manufacturing tolerances are not published, small differences between the inspected part and the reference part must be accepted.
19. The fuel connector in the lower cover may be removed and the fuel hose from the fuel tank connected directly to the fuel pump. If this is done the opening left after the connector and around the fuel hose must be sealed to prevent extra air entering inside of cover.
20. Electric fuel pumps may be added provided the fuel still runs through the original fuel system and no parts are removed or blocked off.
21. No parts may be added to the motor unless specified in this rule.
22. It is allowed to extend the starter cord of a rewind starter so that the starting handle can be reached from the cockpit

550.06.08 – LOW EMISSION ENGINES (GT)

Only low emission engines complying with 2006 EPA Regulations will be allowed in GT15, GT30, GT60, and GT90. Integral powertrim is allowed only for GT60 and GT90 (as supplied and fitted by the same engine manufacturer).

1. Only one battery is allowed to be fitted in the boat. Only a battery with the original standard voltage (12 Volt) is admitted for the start of the Engine (in respect of the rule) Batteries with a measured voltage higher than 15 Volt when the engine is not running are not allowed and will lead to disqualification.
2. The Pin Plug connection wire and cover of the ECU (Electronic control units) of the Engine is an integral part of the Engine; only original standard from manufacturer is allowed (in respect of the rules).

MODIFICATIONS NOT ALLOWED

- Alteration or modification of any powerhead components
- Removal of material from the powerhead for any reason except for allowed reboring (damaged parts have to be replaced by new ones).
- Blue printing" of engine parts is not allowed. It must be in race condition "as manufactured". All inside surfaces of the intake manifold, intake ports, combustion chamber, and exhaust ports must be consistent in appearance with the images shown in the engine homologation document. Surfaces that are indicated to be "as cast" must show no signs of polishing, grinding, and/or sandblasting.
- ECU/PCMs equipped with race data memory, must not have the memory erased or modified without the prior permission of the technical inspector.
- Any information sourced by the technical inspector from the ECU/PCM's race data memory which does not correspond with the technical data declared by the manufacturer in the homologation file will be viewed as reason for disqualification.

MODIFICATION ALLOWED

To repair a damaged Cylinder block, GT15 engines may have one cylinder bored to manufacturer-supplied oversize. GT30 may have two cylinders bored to manufacturer-supplied oversize. The remaining cylinders must remain at OEM size.

It is allowed to disable/remove the neutral switch and in gear starting protection wire.

The trim tab may be altered or removed to accommodate a propeller.

The rubber mounts of the engine may be replaced.

Power trim may be removed. The use of thrust block to adjust the trim angle is allowed.

Spark plug may be replaced with a non-modified standard spark plug with the same thread length.

Propeller nut is free.

Springs may be added to the throttle lever of the carburetors.

The original propeller may be replaced by another in accordance with 504.13.

For GT15 and GT30: Decompression devices fitted to the camshaft to assist in starting of the engine may be removed.

The following modifications from 550.6.7 are NOT applicable to low emission engine (sections): 1, 5, 10, 11, 12, 13, 15, 16, 17, 20 and 22.

From 503.04.2 section 3 and from section 2 last two sentences are not valid.

550.07 - FUEL

See 508.01, 508.02, 508.06, 508.07, 508.08, 508.09, 508.10, 508.11.