Submission: SR29-07

Offshore Special Regulations – 3.28

Interpretation on Inboard Engines

A submission from the Chairman of Offshore Committee
(on behalf of the working party)

Proposal:

3.28	**Propulsion** Engines, Generators, Fuel, **Batteries**	
3.28.1	**Propulsion Engines**	
	a) **Engines and associated systems shall be installed in accordance with their manufacturers' guidelines and shall be of a type, strength, capacity, and installation suitable for the size and intended use of the yacht.**	**
	b) An inboard propulsion engine when fitted shall: be provided with a permanently installed exhaust, coolant, and fuel supply systems and fuel tank(s); be securely covered; and have adequate protection from the effects of heavy weather	**
	c) A propulsion engine required by Special Regulations shall provide a minimum speed in knots of (1.8 x square root of LWL in metres) or (square root of LWL in feet)	MoMu0,1,2,3
	d) A propulsion engine shall be provided either as an inboard propulsive engine or as an outboard engine with associated tanks and fuel supply systems, all securely fastened.	Mo3
	e) A inboard propulsion engine shall be provided for yachts	Mo0,1,2 **Mu0**
	f) Boats of less than 12.0 m hull length may be provided with an inboard propulsion engine, or an outboard engine together with permanently installed fuel supply systems and fuel tank(s) may be used as an alternative.	Mu1,2,3
3.28.2	**Generator**	
	A separate generator for electricity is optional. However, when a separate generator is carried it shall be permanently installed, securely covered, and shall have permanently installed exhaust**,** **cooling** and fuel supply systems and fuel tank(s)**, and have adequate protection from the effects of**	~~MoMu0,1,2,3~~ **

heavy weather

3.28.3 Fuel Systems

a) Each fuel tank provided with a shutoff valve. Except for permanently installed linings or liners, a flexible tank is not permitted as a fuel tank. — MoMu0,1,2,3

b) The **propulsive engine shall** have a minimum amount of fuel which may be specified in the Notice of Race but if not, shall be sufficient to be able to meet charging requirements for the duration of the race and to motor at the above minimum speed for at least 8 hours — MoMu0,1,2,3

3.28.4 Batteries Systems

a) When an electric starter is the only method for starting the engine, **the yacht shall have** a separate battery, the primary purpose of which is to start the engine — MoMu0,1,2,3

b) All rechargeable batteries on board shall be of the sealed type from which liquid electrolyte cannot escape. Other types of battery installed on board at 1/06 may continue in use for the remainder of their service **lives, although** it is *strongly recommended that they be changed for sealed batteries as soon as possible.* — MoMu0

c) It is recommended that consideration be given to the installation of sealed batteries, noting however that a special charging device may be specified by the battery manufacturers — MoMu1,2,3

Current Position:

~~INTERPRETATION No 3/2004 - Inboard Engines~~

~~Question 1~~

~~What is an *inboard propulsion engine* (Offshore Special Regulation 3.28.2)?~~

~~Answer 1~~

~~For the purpose of OSRs an *inboard propulsion engine* is an engine which is permanently installed within a hull.~~

~~Question 2~~

~~Is it permitted by OSRs for an *inboard propulsion engine* to drive the yacht by means of a "Z-drive" or strut emerging from the hull?~~

~~Answer 2~~

Yes, provided the arrangement does not infringe any Special Regulation. See A3 below.

Question 3

To comply with OSRs, must an *inboard propulsion engine* be mounted on conventional fore-and-aft bearers?

Answer 3

Not necessarily. However, an *inboard propulsion engine* shall have a type, size, capacity and installation suitable and adequate for the intended use and size of the yacht. ISAF recommends that an engine should be installed in accordance with the manufacturer's specifications.

Question 4

Is a water-jet engine acceptable in OSRs as an *inboard propulsion engine?*

Answer 4

Yes, provided the arrangement does not infringe any Special Regulation. See A3 above.

Alan Green Chairman ISAF Special Regulations sub-committee 21 May 2004

3.28	**Engines, Generators, Fuel**	
3.28.1	A securely covered inboard propulsion engine shall be provided together with permanently installed exhaust and fuel supply systems and fuel tank(s)	Mo0,1,2, Mu0
3.28.1.1	A propulsion engine shall be provided, either in accordance with OSR 3.28.1, or as an outboard engine with associated tanks and fuel supply systems, all securely fastened.	Mo3
3.28.2	A propulsion engine shall be provided, either in accordance with OSR 3.28.1 or in a multihull of less than 12.0m (39.4ft) LOA an outboard engine together with permanently installed fuel supply systems and fuel tank(s).	Mu0,1,2,3
—	a) A separate generator for electricity is optional. However, when a separate generator is carried it shall be permanently installed, securely covered, and shall have permanently installed exhaust and fuel supply systems and fuel tank(s). A separate generator shall comply with OSR 3.28.3 (c) and (e)	MoMu0,1,2,3
3.28.3	A propulsion engine required by Special Regulations shall:-	
—	a) provide a minimum speed in knots of (1.8 x square root of LWL in metres) or (square root of LWL in feet)	MoMu0,1,2,3

~~b) have a minimum amount of fuel which may be specified in the Notice of Race but if not, shall be sufficient to be able to meet charging requirements for the duration of the race and to motor at the above minimum speed for at least 8 hours~~ ~~MoMu0,1,2,3~~

~~c) have adequate protection from the effects of heavy weather~~ ~~MoMu0,1,2,3~~

~~d) when an electric starter is the only method for starting the engine, have a separate battery, the primary purpose of which is to start the engine~~ ~~MoMu0,1,2,3~~

~~e) have each fuel tank provided with a shutoff valve. Except for permanently installed linings or liners, a flexible tank is not permitted as a fuel tank.~~ ~~MoMu0,1,2,3~~

~~3.28.4 Batteries~~

~~a) All rechargeable batteries on board shall be of the sealed type from which liquid electrolyte cannot escape. Other types of battery installed on board at 1/06 may continue in use for the remainder of their service life though it is strongly recommended that they be changed for sealed batteries as soon as possible.~~ ~~MoMu0~~

~~*b) It is recommended that consideration be given to the installation of sealed batteries, noting however that a special charging device may be specified by the battery manufacturers*~~ ~~MoMu1,2,3~~

Reason:

To promote discussion on the interpretation issued by the chairman and to incorporate it into the current offshore special regulations.

The proposal incorporates the interpretation and improves the presentation. Together with requiring all inboard engines to be installed properly with cooling systems.

A general committee discussion on category 4's lack of powering requirements is also encouraged.

Secretariat Notes

The minutes of the 2007 Offshore Committee / Special Regulations SC state the following:

6(c) OSR Interpretation 3 - Engines

Submission SR30-07 was received from the Chairman of the Offshore Committee
Recommendation to the Offshore Committee: Reject
Offshore Committee Decision: Defer

The submission of above is a redrafted version of the original after consultation with the chairman and various committee members. The only change substancially change is to make the regulations clear that a multihull in category 0 must have an inboard engine.