



SWEDISH YACHTING ASSOCIATION

The national organisation for Sweden's yacht clubs

Criteria for the Environmental Boat of the Year award

Minimum requirements

- CE labelling
- Environmental issues must be taken into account during the technical design and construction process, production, function description, handling, marketing and recycling. This should be well documented.
- The craft must be available to buy brand new on the open market in Sweden.
- Individual custom-built concept boats may not be nominated.

Desirable criteria

- Actively documented innovative thinking
- Life Cycle Analysis, LCA
- Production certification to ISO 9000 and 14001
- Producer responsibility for recycling/scraping

Environmental Declaration for:

- Production and Materials
- Fuel/energy use
- Backwash
- Noise
- Chain of custody for wood and other natural materials, FSC
- Standardised equipment

Assessment criteria

Applicable to all boat types. Particular assessment for sailing boats are marked (S).

- Instruction manual outlining the best use, handling and care from an environmental perspective
- Environmental consideration in technical design and production
- Hull
- Rig and sailing equipment (S)
- Engine
- Electrical systems
- Instrumentation
- Waste management
- Furnishing materials
- Other energy-consuming systems
- Any other aspects you would like to highlight



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Assessment criteria for Environmental Boat of the Year

Applicable to all boat types. Particular assessment for sailing boats are marked (S).

1. Instruction manual

Is there a comprehensive, easy-to-read, Swedish, indexed, educational instruction manual and a boat handbook covering technical aspects, use, handling and care regarding all the boat's functions and accessories?

Are they available also in digital form?

How are environmental qualities, best driving practice and ecodriving described? How are backwash and noise aspects covered? How is energy use minimised? How is e.g. the rig angle set? Advice on winter storage.

Describe the delivery demonstration, test drive and follow-up procedures.

2. Environmental consideration in technical design and production

Hull

What materials are used?

- Plastic, wood, steel, aluminium, rubber, others?
- How do the materials impact on the environment and climate, LCA?

Plastic materials (composite materials) containing fibreglass are harder to recycle on scrapping. Composites containing only epoxy, polyester, carbon fibre, kevlar and other organic fibres are easier to recover energy from than those containing glass.

Cellular plastics in sandwich constructions can be used for energy recovery but tend to contain PVC, which is a minus bearing in mind dioxin formation on combustion.

Urethane cellular plastic is common in flotation materials and can be used for energy recovery, but like sandwich materials it does require particular care on combustion.

Steel and aluminium are excellent from a recycling point of view.

Rubber with normal fibre reinforcement is suitable for energy recycling.

Wood is easy to recycle.

- Chain of custody in line with FSC. Locally produced wood?

Keel/ballast

- What material is used for the craft's keel and ballast?
- How is any lead material set up?

Environmentally sustainable production

- How are emissions of environmentally hazardous substances minimised in the production?

Easily driven silent hulls.

- Describe

Clean hull/hull fouling protection

- Is the hull designed to allow easy removal of biofouling?



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- Is any hull paint on delivery adapted to the primary geographic area of use in line with prevailing regulations?

Scrapping

- Does the instruction manual state how the boat may be scrapped/recycled?
- How easy is it to dismantle and separate constituent materials for future recycling?

3. Rig and sailing equipment (S)

If a yacht is easy to sail, an engine – if one exists – will need to be used less.

- How is the craft equipped to make sailing easy?

4. Engine

Engine with the right capacity

Driving engines are most efficient at a certain rpm and power.

Every craft achieves speed depending on the amount of power used, and has one or more speeds that may be particularly favourable.

- Are there recommendations for driving the craft in an environmentally sound, energy-efficient way for the primary area of use?
- How is fuel consumption at different loads, speeds and rpm shown in diagrams or tables?
- Is there instrumentation that shows fuel consumption per nautical mile?
- What precautions has been taken to eliminate noise from the engine?

Cooling system

- Are winter storage procedures described?
- Are the cooling systems designed so that no anti-freeze has to be used, or at least so it is very easy to empty before launching, and also designed so that anti-freeze will not spill?

Fuel system

- Are the fuel tanks easily accessible for inspection and maintenance?
- Is there a distinct, accessible, user-friendly emptying point and inspection hatch?
- Is there overflow protection?
- How is confusion between the fuel and water filling points prevented?
- How easy is it to change filters without spillage?

Oil and filter replacement

- How easy is it to drain, collect the old engine oil and deal with filters without spillage?
- How is the contamination of any bilge-water prevented?
- How is bilge-water dealt with?

Electric motor or hybrid operation

Combustion engines have the lowest efficiency while idling or driving slowly and therefore cause relatively high emissions.

- Alternative operation methods

5. Electrical systems

Battery charging

- How can batteries be charged from land?
- How can batteries be charged from solar panels, a wind generator or a propeller shaft generator?
How is this system installed or prepared for?
- Are there instructions for how and where to install and connect e.g. solar panels and a wind generator?
- Are there separate electrical systems?



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Batteries

- For how many days normal use is the battery capacity dimensioned?
- Is the craft fitted with batteries that do not contain lead or other heavy metals?
- Are the batteries installed in a ventilated compartment?
- Is the battery bank's weight used as favourable ballast?

Light sources

- How energy efficient are the craft's light sources?
- What type of light sources are used?

6. Waste management

Toilet

- What type?
- How easy is it to use when sailing on rough seas?
- Is there a large enough storage tank for the craft's primary use?
- Are there instructions for suction emptying of the storage tank?

Waste

- Are there spaces for source-separated waste?
- Are these drained and ventilated?

7. Furnishing materials

Textile materials

- Are the used materials specified?
- What environmental considerations are taken when choosing materials?

Wood

- Are the used wood types specified?
- Are the wood materials FSC approved?
- Are they locally produced?

8. Other energy-using

Many modern boats have heaters, defrosters, fridges, freezers, laundry equipment and dehumidifiers.

It may be beneficial for e.g. the heater, cooker and propulsion system to use the same type of fuel to minimise installations and transport of fuel.

- How is energy use minimised?

9. Any other aspects you would like to highlight