

KSSS aims to establish selfmanagement of safety. An important tool for this is the World Sailing Offshore Special Regulations, whose purpose is to establish uniform minimum equipment, accommodation and training standards for racing boats.

World Sailing Offshore Special Regulations Category 3

Examples and advice on equipment and boat, for safety during Gotland Runt.

World Sailing Offshore Special Regulations Category 3



#### **Safety – Gotland Runt**

KSSS pays great attention to the safety of our races. We make an effort to ensure that sailors and officials make the best possible effort together to implement our safety arrangements. At the same time, we must emphasize that a boat is solely responsible for its decision to take part in a race. Likewise, the person in charge is solely responsible fort the safety onboard a boat during the race.

The slideshow is an introduction to some paragraphs in the World Sailing Offshore Special Regulations Category 3 (OSR Cat 3). As a part of the preparations for the race, we recommend all to study the full version of OSR Cat 3, to explore the original text for the unmodified wording.

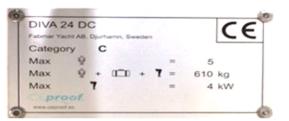
If you have any questions, please email or call us and we will support you to the best of our ability. Email: <a href="mailto:regatta@ksss.se">regatta@ksss.se</a> Tfn: + 46 8-556 166 93

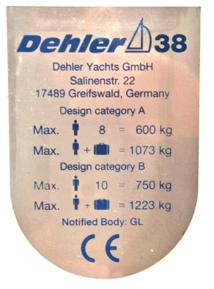




#### **Stability - Monohulls**

- Able to demonstrate compliance with ISO 12217-2\* design category B or higher, either by EC Recreational Craft Directive certification having obtained the CE mark or the designer's declaration \*
- The latest effective version of ISO 12217-2 should be used unless the boat was already designed to a previous version.
- Where compliance in accordance with 3.04.1 cannot be demonstrated, able to demonstrate either:
  - STIX value not less than 23; and Mo3 ii AVS not less than 130 0.005\*m, but always >= 95°, (where "m" is the mass of the boat in the minimum operating condition as defined by ISO 12217-2); and Mo3 iii a minimum righting energy not less than m\*AGZ>57000 (where AGZ is the positive area under the righting lever curve in the minimum operating condition, expressed in kg metre degrees from upright to AVS); or Extract Mo3
  - Stability Index in ORC Rating System of not less than 103; or Extract Mo3
  - IRC SSS Base value of not less than 15







# Hatches & Companionways

A hatch, including a hatch over a locker shall be:

- permanently attached and capable of being firmly shut immediately and remaining firmly shut in a 180° capsize.
- above the water when the boat is heeled  $90^{\circ}$ .





## **Pulpits, Stanchions, Lifelines**

- Stainless steel lifelines shall be uncoated and used without close-fitting sleeving, however, temporary sleeving may be fitted provided it is regularly removed for inspection.
- A lanyard of synthetic rope maybe used to secure lifelines provided the gap it closes does not exceed 100 mm (4"). This lanyard shall be replaced annually.
- All components of the lifeline enclosure system shall have a breaking strength no less than the lifeline.





## **Pulpits, Stanchions, Lifelines**

- Minimum heights of lifelines and pulpit rails above the working deck and vertical openings:
  - upper: 600 mm (24")
  - intermediate: 230 mm (9")
  - vertical opening: no greater than 380 mm (15") except that on a boat with a Primary Launch before 1993 where it shall be no greater than 560 mm (22")
- a boat less than 8.5 m (28') LH may use a single lifeline system with a height between 450 mm (18") and 560 mm (22")





#### **Toe Rail or Foot-Stop**

• Permanently installed toe rail of minimum height 25 mm (1"), located as close as practicable to the stanchion bases, around the foredeck from abreast the mast.





## **Cooking Facilities**

• Permanently installed cooking stove, capable of being operated safely at sea, with fuel shutoff control.



gotland offshore cont

## **Drinking Water Tanks & Drinking Water**

Drinking Water Tanks:

• Permanently installed delivery pump and water tank(s).

**Emergency Drinking Water:** 

• At least 9 l (2.4 US Gal) of drinking water for emergency use in a dedicated and sealed container or container(s).





## **Hand Holds**

• Adequate hand holds fitted below deck.





## **Bilge Pumps and Buckets**

- Two strong buckets, each with a lanyard and of at least 9 l (2.4 US Gal) capacity.
- One permanently installed manual bilge pump.
- All required permanently installed bilge pumps shall be operable with all cockpit seats, hatches and companionways shut and with permanently installed discharge pipe(s) of sufficient capacity.
- Bilge pumps shall not be connected to cockpit drains and shall not discharge into a Closed Cockpit.
- Bilge pumps shall be readily accessible for maintenance and for clearing out debris.
- All removable bilge pump handles retained by a lanyard.







#### Compass

- Marine magnetic compass capable of being used as a steering compass: Permanently installed marine magnetic steering compass, independent of any power supply, correctly adjusted with deviation card.
- A second compass which may be hand-held and/or electronic.





#### Halyards

- A minimum of two halyards, each capable of hoisting a sail, on each mast.
- No halyard shall be locked, lashed or otherwise secured to the mast in a way that requires a person to go aloft in order to lower a sail in a controlled manner, except for a headsail in use with a furling device.





## **Navigation Lights**

- Mounted above sheerline and so that they will not be masked by sails or the heeling of the boat.
- Having light intensity meeting the International Regulations for Preventing Collisions at Sea (COLREGS).
- When incandescent bulbs are used the minimum power rating shall be:
  - For LH less than 12 m (39'-4"), 10 W-
  - For LH 12 m (39'-4") and above, 25 W.
- Reserve lights having the same specifications as above, and that can be powered independently, spare bulbs (not required for LED).





#### **Engines, Fuel**

- a) Engines and associated systems installed in accordance with their manufacturers' guidelines and suitable for the size and intended use of the boat.
- b) An engine which provides a minimum speed in knots of (1.8 x  $\int$ LWL in metres) or ( $\int$  LWL in feet),
- c) inboard engine, however if less than 12.0 m (39'-4") LH either an inboard engine, or an outboard engine together with permanently installed power supply systems,
- c) either an inboard or outboard engine, with associated tanks and fuel supply systems, all securely fastened,





#### **Engines, Fuel**

- d) An inboard combustion engine shall have a permanently installed exhaust, cooling system, fuel supply, fuel tank(s) and shall have adequate heavy weather protection
- e) An inboard electrical engine, when fitted, shall be provided with a permanently installed power supply, adequate heavy weather protection and have an engine control system.





#### **Fuel Systems**

- All fuel tanks for storage of liquid fuels shall be rigid (but may have permanently installed flexible linings) and shall have a shutoff valve.
- At the start a boat with a combustion engine shall carry sufficient fuel to meet charging requirements for the duration of the race and to motor at the above minimum speed for at least 5 hours.



OSR 3.28



#### **Generator and battery**

- If an optional generator separate from the propulsion engine is carried, it shall be installed in accordance with the manufacturer's guidelines.
- Batteries
  - a) A dedicated engine/generator starting battery when an electric starter is the only method for starting the engine and/or separate generator
  - b) Batteries installed after 2011 shall be of the sealed type from which liquid electrolyte cannot escape
  - c) At the start a boat with an electric engine shall carry sufficient capacity to meet electrical requirements for the duration of the race and to motor at the above minimum speed for at least 5 hours.







## VHF

- A VHF transceiver with a minimum rated output power of 25 W with an emergency antenna when the regular antenna depends upon the mast.
- A masthead antenna and co-axial feeder cable with not more than 40% power loss, be DSC capable if installed after 2015.
- DSC capable VHF transceivers shall be programmed with an assigned MMSI (unique to the boat), be connected to a GPS receiver and be capable of making distress alert calls as well as sending and receiving a DSC position report with another DSC equipped station.





#### VHF

• A hand-held VHF transceiver, watertight or with waterproof cover. When not in use to be stoved in a grab bag or emergency container (see OSR 4.21)





## AIS

An AIS Transponder which either:

a) shares the masthead VHF antenna via a low loss AIS antenna splitter

Or:

a) has a dedicated AIS antenna not less than 38 cm (15") in length mounted with its base not less than 3 m (10') above the Waterline and co-axial feeder cable with not more than 40% power loss.







#### **Sail Letters & Numbers**

- Identification on sails should comply with RRS 77 and RRS Appendix G.
- An alternative means of displaying identification as required under RRS Appendix G for a mainsail, to be displayed when none of the numbered sails are set.



**gotland** 

## **Soft Wood Plugs**

• A tapered soft wood plug stowed adjacent to every through-hull opening.





## **Jackstays and Clipping Points**

Permanently installed fittings for jackstay ends and clipping points.

- Jackstays which shall:
  - be independent on each side of the deck, enable for a crewmember to move readily between the working areas on deck and the cockpit(s) with the minimum of clipping and unclipping operations,
  - have a breaking strength of 2040 kg (4500#) and be uncoated and non sleeved stainless steel 1 x 19 wire of minimum diameter 5 mm (3/16"), webbing or HMPE rope.
- Clipping points which shall:
  - be adjacent to stations such as the helm, sheet winches and masts, where crewmembers work,
  - enable for a crewmember to clip on before coming on deck and unclip after going below,
  - enable two-thirds of the crew to be simultaneously clipped on without depending on jackstays.





# **Fire Fighting Equipment**

- A fire blanket adjacent to every cooking device with an open flame.
- 2 fire extinguishers, each with 2 kg each of dry powder or equivalent, in different parts of the boat.
- One fire extinguisher must be accessible from the cockpit (*Gotland Runt requirement*).





#### Anchors

- 2 un-modified anchors that meet the anchor manufacturer's recommendation based on the boat's dimensions.
- Suitable combination of chain and rope, ready for immediate assembly, and ready for deployment within 5 minutes.
- Note: 1 anchor meeting the same criteria for a boat less than 8.5 m (28') LH.





# Flashlights and Searchlights

- Watertight lights with spare batteries and bulbs as follows:
  - A searchlight, suitable for searching for a person overboard at night and for collision avoidance.
  - A flashlight.





# First Aid Manual and First Aid Kit

- A First Aid Manual and First Aid Kit.
- The contents and storage of the First Aid Kit shall reflect the likely conditions and duration of the passage, and the number of crew.



OSR 4.09



## Foghorn

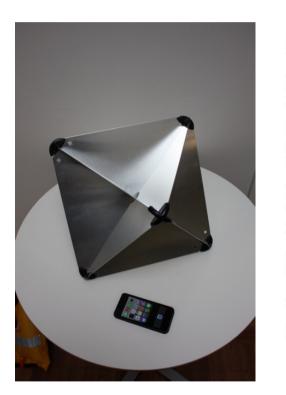
• A foghorn shall be available.





#### **Radar Reflector**

- A passive radar reflector with: Octahedral circular plates of minimum diameter 30 cm (12").
- Or, octahedral rectangular plates of minimum diagonal dimension 40 cm (16").
- Or a non-octahedral reflector with a documented Root Mean Square minimum Radar Cross Section (RCS) area of 2 m<sup>2</sup> (22 ft<sup>2</sup>) from 0-360° of azimuth and ±20° of heel.







## **Navigation Equipment**

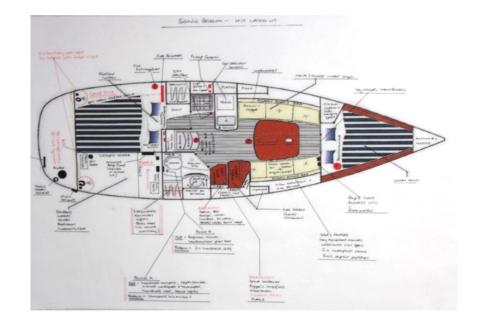
• Navigational charts (not solely electronic), light list and chart plotting equipment.





## Safety Equipment Location Chart

• A safety equipment location diagram in durable waterproof material, clearly displayed in the main accommodation, marked with the location of principal items of safety equipment.



OSR 4.13



# Depth, Speed and Distance Instruments

- A knotmeter or distance measuring instrument (log).
- A depth sounder.





#### **Emergency Steering**

- An emergency tiller capable of being fitted to the rudder stock except when the principal method of steering is by means of an unbreakable metal tiller.
- A proven method of emergency steering with the rudder disabled.





#### **Tools and Spare Parts**

- Tools and spare parts, suitable for the duration and nature of the passage.
- An effective means to quickly disconnect or sever the standing rigging from the boat, i.g. a hacksaw for a rod shroud rig or a cutting device (a large wire cutter) for a wire shroud rig.







#### **Boat's name**

• The boat's name on miscellaneous buoyant equipment, such as lifejackets, cushions, lifebuoys, recovery slings, grab bags etc.









#### **Retro-reflective material**

• Marine grade retro-reflective material on lifebuoys, recovery slings, liferafts and lifejackets.



gotland offshore RACE

#### **Grab Bag**

Either a watertight compartment or a grab bag, readily accessible even if the boat is inverted, with the following minimum contents:

- a watertight hand-held marine VHF transceiver with spare batteries.
- a watertight flashlight with spare batteries and bulb.
- 3 red hand flares.
- a watertight strobe light with spare batteries.
- a knife.
- If a grab bag is provided it shall have inherent flotation, at least 0.1 m<sup>3</sup> (1 ft<sup>3</sup>), area of fluorescent orange colour on the outside, marked with the name of the boat and a lanyard and clip.







#### **Crew Overboard Identification** and **Recovery**

- A lifebuoy with a self-igniting light, a whistle and a drogue within reach of the helmsman and ready for immediate use.
- Each inflatable lifebuoy and any automatic device shall be tested and serviced at intervals in accordance with its manufacturer's instructions.
- A heaving line, no less than 6 mm (1/4") diameter, 15 25 m (50 75') long, readily accessible to cockpit.





gotland offshore Cont

#### **Recovery sling** (Lifesling)

A recovery sling which includes:

- a buoyant line of length no less than the shorter of 4 times LH or 36m (120'),
- buoyancy section (horseshoe) with no less than 90 N (20#) buoyancy, minimum strength capable to hoist a crewmember aboard.







## **Pyrotechnic and Light Signals**

- Pyrotechnic signals shall be provided conforming to SOLAS LSA Code Chapter III Visual Signals.
- Not older than the stamped expiry date (if any) or if no expiry date stamped, not older than 4 years.





#### **Cockpit Knife**

• A strong, sharp knife, sheathed and securely restrained shall be provided readily accessible from the deck or a cockpit.





#### **Storm & Heavy Weather Sails**

- The material of the body of a storm sail purchased after 2013 shall have a highly-visible colour (e.g. dayglo pink, orange or yellow).
- Aromatic polyamides, carbon and similar fibers shall not be used in a trysail or storm jib but HMPE and similar materials are permitted.
- Sheeting positions on deck for each storm and heavy-weather sail.
- Sheeting positions for the trysail independent of the boom.

Storm jib hanked on to an inner forestay or a spare halyard

Note the special Gotland Runt requirements in the Notice of Race





#### **Storm & Heavy Weather Sails**

- The maximum area of storm sails shall be lesser of the areas below or as specified by the boat designer or sailmaker.
- A heavy-weather jib (or heavy-weather sail in a boat with no forestay) with: area of 13.5% height of the foretriangle (IG) squared.
- Readily available means, independent of a luff groove, to attach to the stay.
- For sails made after 2011: Storm and heavy weather jib areas calculated as: (0.255 x luff length x (luff perpendicular + 2 x half width).
- Either a storm trysail as defined in OSR 4.26.2 d), or mainsail reefing to reduce the luff by at least 40%.

Note the special Gotland Runt requirements in the Notice of Race







## Lifejacket 150N

- The person in charge shall personally check each lifejacket at least once annually.
- A lifejacket which shall:
  - **if manufactured before 2012**, comply with ISO 12402 3 (Level 150) or equivalent, including EN 396 or UL 1180 and:
  - if inflatable have a gas inflation system have crotch/thigh straps (ride up prevention system (RUPS))
- A boat shall carry at least one gas inflatable lifejacket spare cylinder and, if appropriate, spare activation head for each type of lifejacket on board.





## Lifejacket 150N

- If manufactured after 2011 comply with ISO 12402-3 (Level 150) and be fitted with
  - a whistle, lifting loop, reflective material automatic/manual gas inflation system.
  - have crotch/thigh straps (ride up prevention system (RUPS)
  - have an emergency position indicating light in accordance with either ISO 12402-8 or SOLAS LSA code,
  - be clearly marked with the boat's or wearer's name
  - have a sprayhood in accordance with ISO 12402-8.











OSR 5.01



# Safety Harness and Tethers

- A harness that complies with ISO 12401 or equivalent.
- A tether that shall: comply with ISO 12401 or equivalent, not exceed 2 m (6'-6") including the length of the hooks.
- Have self-closing hooks and have overload indicator flag embedded in the stitching and be manufactured after 2000.
- All of the crew shall have either:
  - a tether not exceeding 1 m (3'3") including the length of the hooks,
  - or an intermediate self-closing hook on a 2 m (6'-6") tether. The self-closing hooks must be of the type shown on the picture on this page!
- A tether which has been overloaded shall be replaced.





## **Routine Training On-Board**

KSSS recommend the crews to annually practice the drills for:

- Crew-Overboard Recovery
- Rigging the emergency steering
- Rigging the emergency rudder
- First Aid treatment
- Fire fighting
- Abandonment of vessel



# **Thank You and Happy Sailing**