SRSC 2021-2024

OSR Refinement Working Party

Work Party

Progress Report On

“Deck Chamfer and Stanchion Placement“

The Deck Chamfer Report

Work Party Members OSR Refinement

Chair: Johannes Christophers (GER),

Vice-Chair OSR Deck Chamfer: James Dadd (GBR); Richard Hinterhoeller (CAN),

Sally Lindsay Honey (USA), and Simon Forbes (World Sailing)

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The problem:

Developments in yacht design have produced potentially dangerous deck shapes in the bow sections that make a safe and OSR-compliant arrangement of stanchions, toe rails and lifeline spacing questionable.

Rule concerned: OSR 3.14

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Work Party procedure

1. History of the topic : Submission SR02-08 Rule 3.14.3(m)
2. Consideration to previous work on this topic (Dan Nowlan)
3. Definitions reg. “deck“ acc.to ISO15085 “Small craft - MOB prevention and recovery“
4. Consideration to 1st hand experience (??)
5. Definition of scope
6. Attempt to define wording for an OSR submission

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1. Submission SR02-08 / history

2008: Topic first submission by US Sailing, Dan Nowlan, SR02-08, deferred to Equipment Rules Sub-Committee

2009: Equipment Control Subcommittee deferred to ERS Working Party meeting in 2010

2010: Rejected due to lack of proposal for new submission

2021: Topic raised again by Johannes Christophers

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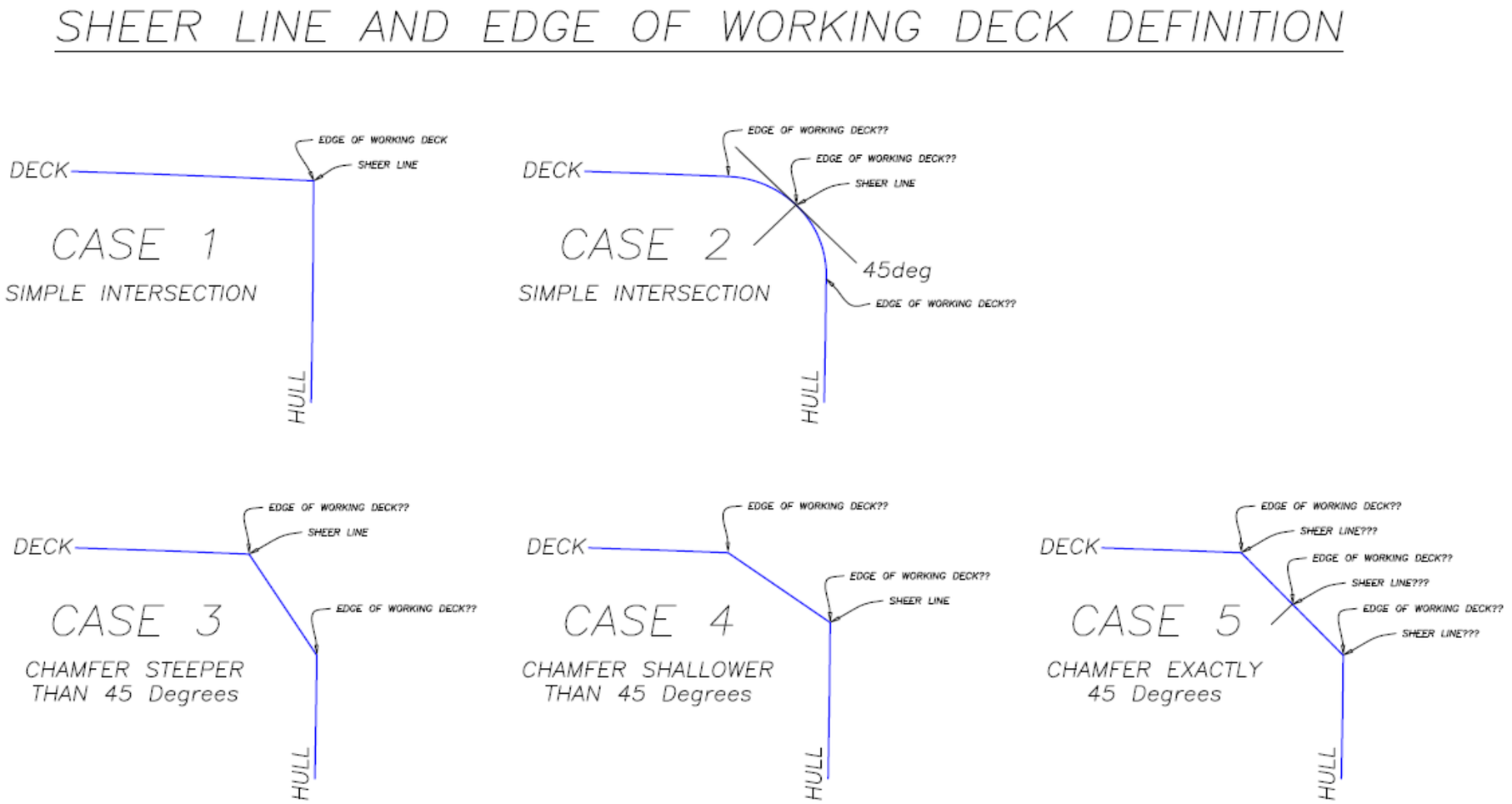
2. Consideration to Dan Nowlan`s (and other) work in previous years



3. Definitions reg. “deck“ acc.to ISO15085 “Small craft - MOB prevention and recovery“

3.8 working deck
external deck areas defined by the manufacturer for people to stand or walk during *normal operation* (3.25) of the craft, divided in different *deck zones* (3.9)

3.9 deck zone
working deck areas of the craft exposed to the risk of falling overboard, that may be occupied by a person during *normal operation* (3.25) of the craft

3.27 outer deck edge
outboard deck edge at the periphery of the craft
Note 1 to entry: Example: gunwale

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3. Definitions reg. “deck“ acc.to ISO15085 “Small craft - MOB prevention and recovery“

4.2 deck risk zones

(…)risk zones (on) deck areas of the craft.

(→ fwd deck is risk zone Z1 = highest risk)

Resulting ISO-requirements relevant in this context:

- Foot-stops, Hooking Points, Non-skid, Jack-lines, handholds
- Low Falling overboard barriers (=lower/intermediate lifelines)
- High Falling overboard barriers, (=upper wire of lifelines)

4.2 Deck zones

Table 2 assigns zones to deck areas of the craft.

Table 1 — Deck zones

Deck zones Z1 to Z4			
Z1 Deck areas that require access at any time, including at least the following	**Z2** Deck areas that require access at aspeed of4 knots and below, including at least the following	**Z3** Deck areas that require access when nearly stationary including at least the following	**Z4** Deck areas not belonging to deck zone 1 or 2 or 3
— Helm position — Emergency steering position — Emergency controls [a] — Manual bilge pump(s) — Sail handling equipment [b] — Sail hoist areas if primary controls are not in the cockpit — Main companionway(s) — Occupancy areas and seats located in	— Engine space — Emergency steering installation — Means of accepting a tow — Sail hoist areas if primary controls are in the cockpit — Occupancy areas and seats located in — Liferaft stowage	— Mooring strong points — Means of reboarding — Boarding — Occupancy areas and seats located in	- Occupancy areas and seats located in

[a] Examples of emergency controls: fuel shut-off release, fire extinguisher release.

[b] Examples of sail handling equipment: main sail and genoa winches.

3. Definitions reg. “deck“ acc.to ISO15085 “Small craft - MOB prevention and recovery“

4.4.2 Deck risk zones 1 and 2

In order to enable a safe foot treading, the deck risk zones 1 and 2 areas adjacent to the outer deck edge, whether lateral or longitudinal, shall both
– be free, continuous and not angled transversally more than 15° from the horizontal, when the craft is upright
– have a width of at least 100 mm for design category D, 120 mm for category C, and 150 mm for category A or B

NOTE The above requirements imply that deck areas having a width less than required above cannot be considered as part of the deck risk zones, and that adjacent wide side or aft cockpit coamings need to fulfil the requirement of lateral deck, like, for example, the ones on guard-rail height of clause 10, if relevant.

But where is that “deck area“ ?

4. Consideration to 1st hand experience (ongoing)

We are still collecting data and information from 1st hand experience.

However, it can be said, that such arrangement doesn’t make the job on the bow safer.

5. Definition of scope of WP:

“It is the goal of the WP to produce a proposal for a redefinition of the OSR rules wrt. stanchions and toe rails in order to avoid future dangerous design and deck fit out, this will be done with involvement and consideration of applicable ISO standards”.

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5. Definition of scope of WP: Technical req. / current rule 3.14

- the upper wire must be parallel to the sheer line and not lower than applicable OSR heights.

  If stanchions need to be longer, then
  - a) not longer than structurally safe and/or with support legs,
  - b) the horizontal spacing between the lower line and the chamfer cannot be greater than defined in OSR
- Stanchions may only be placed on the inboard edge of the chamfer
- Sudden changes of lifeline direction could be acceptable (tbc)
- The toe rail needs to be within a certain value x from lifelines (stan. bases)
- Toe rails to be in line with the lifelines.
- It is considered to define the lifeline and stanchions arrangement by use of a few fixed measurements in order to give inspectors room and tools for argumentation

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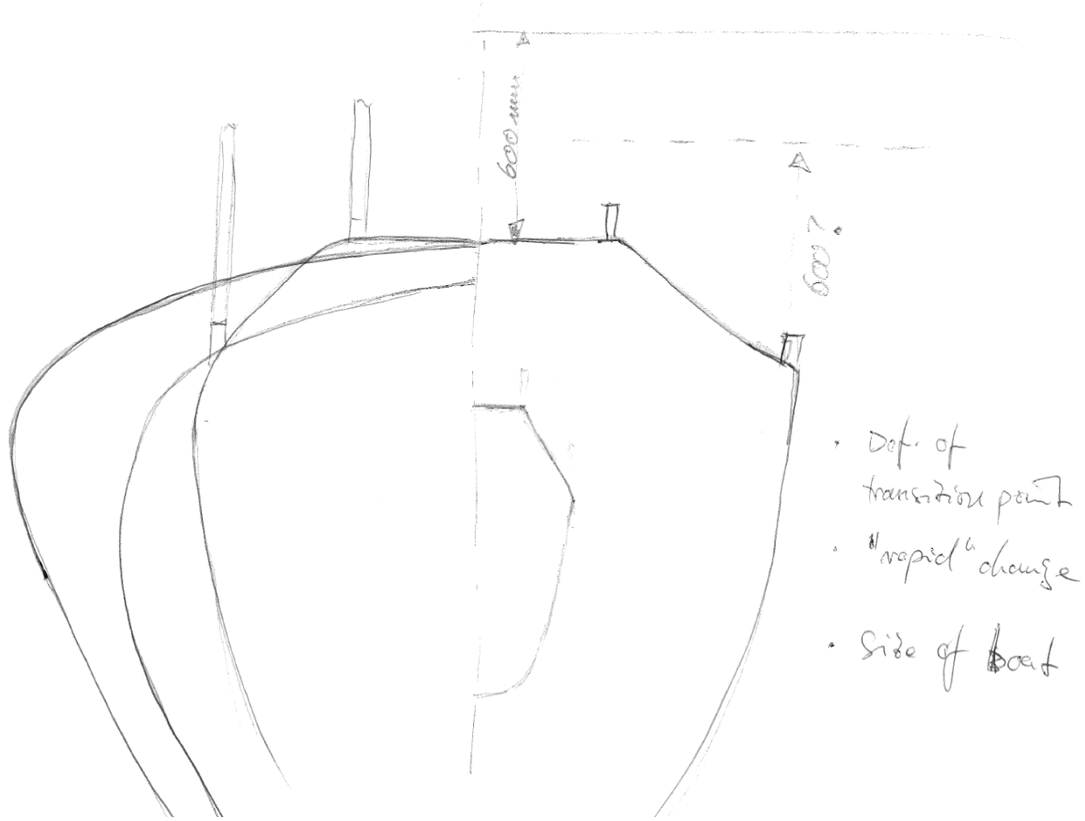
6. Attempt to define wording for an OSR rule :

- for discussion

Lifeline and toe rails shall be placed at a point, where at any transverse section fwd of the mast, the transition from flat (or cambered) working areas decrease in radius rapidly as the section extends further outboard.

This transition point shall be considered the outboard location where lifelines and toe rails should be located, while stanchion height above (effective) working deck according to rule OSR 3.14.1 shall be maintained.

Where this results in any step or discontinuity in plan view of the stanchion placement along the hull, such a step (or discontinuity) shall be completed aft of the mast, not forward of it.
or the highest point of the deck camber?



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Thank you for your attention.