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**Norsafe AS**

**Arendal, Norway**

# Applying SOLAS on High Speed Crafts

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# History – Lifeboats



- Safety at Sea – Titanic 1912
- Conference in London 1913 – Convention for the Safety of Life at Sea (SOLAS)



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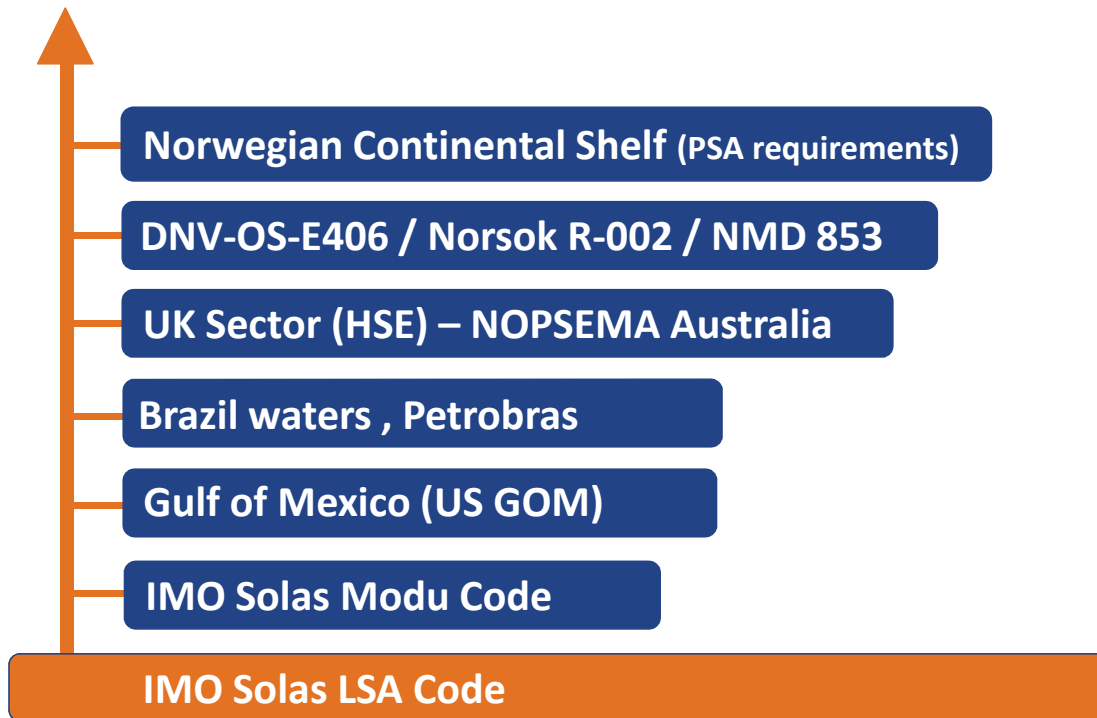
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# What is SOLAS?

- The International Convention for the Safety of Life at Sea (SOLAS)
- Ensures that ships flagged by them comply with minimum safety standards in construction, equipment and operation.
- The SOLAS international convention is administered by the International Maritime Organization (IMO)



# LSA according to different regulations



## Norsafe GES45 meets the DNV-OS-E406 standards

- GES45 tested for 9 hours
- In waves up to 11 meters
- Winds not below 30 meters pr. second



Harsh weather test of GES45

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# Some LSA features on our boats

- Single point lifting gear
- Self-righting capabilities
- Engines stop at approx. 90deg. (engines can be started after capsizing)
- Run engine for min. 5 minutes out of water (in davit)
- Buoyant in damaged condition
- Fire retardant resin
- Impact and drop test



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# Munin 1200 self-righting test





# Magnum 750 MKII fender and drop test

# Hull design

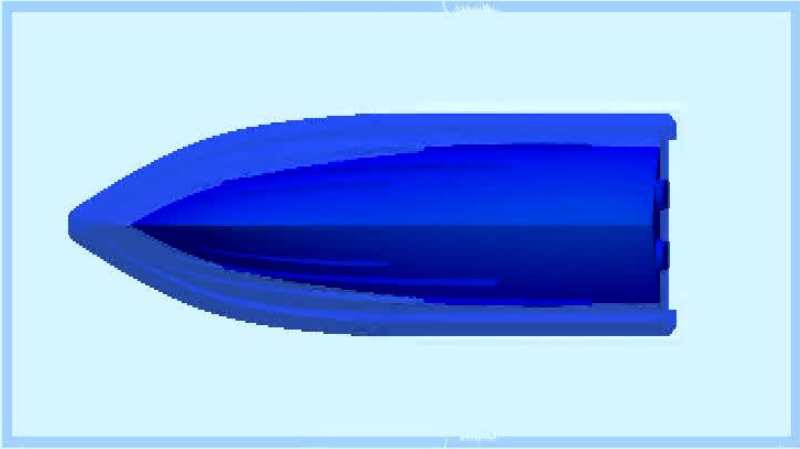
- Norsafe has a well proven deep-V hull design. Ranging from 6.5-12 meter hulls.
- Norsafe hulls are vacuum infused.
- All non stepped hulls are optimized for several different propulsion packages such as waterjet, stern drive or outboard.
- The Norsafe stepped hull technology is optimized for sterndrive, outboard and surface drive installations.
- Norsafe hull technology has evolved from year long research and development into GRP structures in freefall life boat systems.



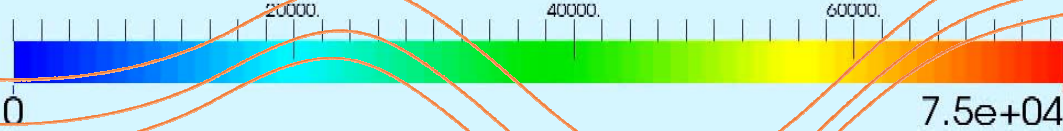
# GES 52 world record drop from 66,8 meters



# CFD analysis



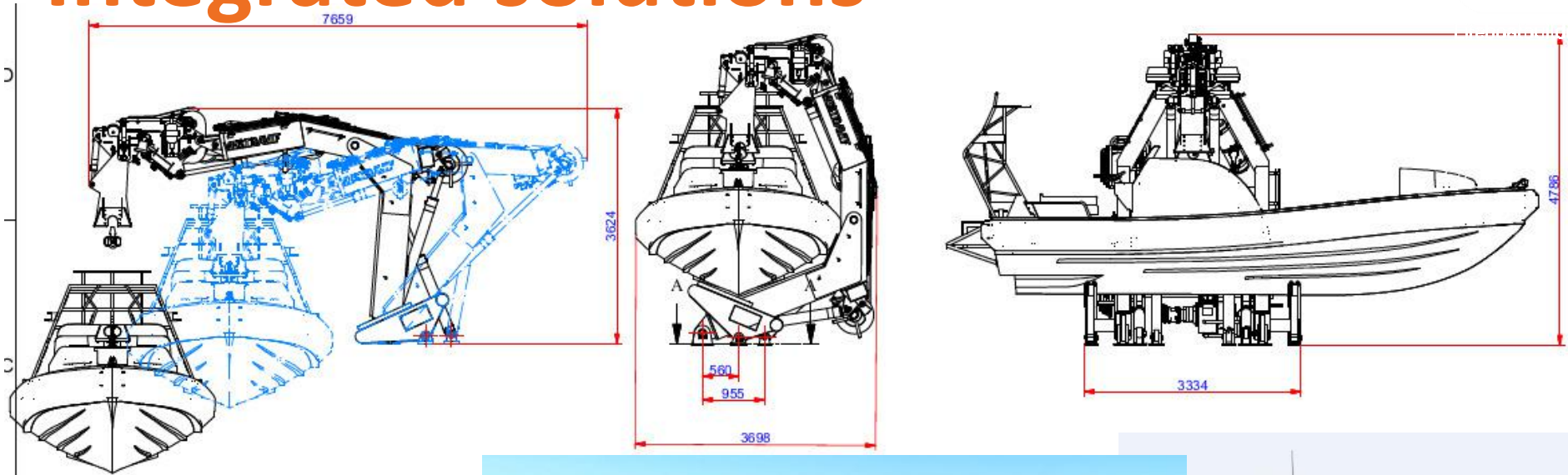
Pressure (Pa)



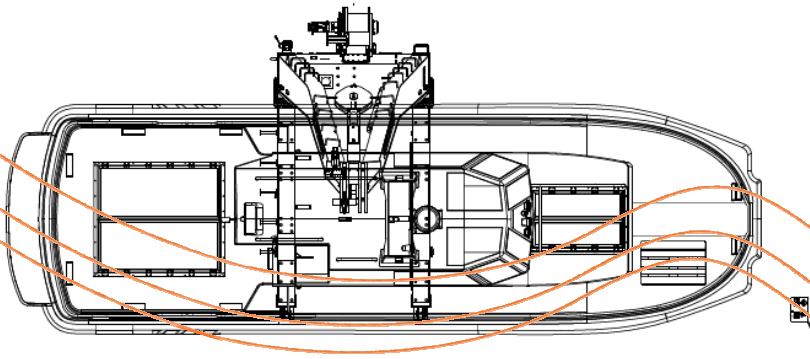
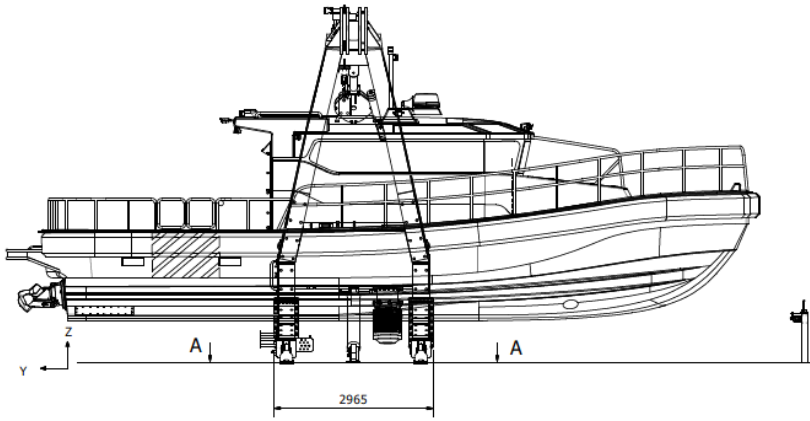
# Mission Specific Projects



# Integrated solutions



# Integrated solutions







# Thank you for your attention

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