


Mooring problems with Very Large and Ultra Large Container Vessels



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Mooring problems with very large container vessels

Introduction :

- VLCS : > 7.500 TEU
- ULCS : > 10.000 TEU
- Worldfleet : 188 (Jan 2008) / Ordered : 322

Difficulties to remain alongside at container terminals in wind force 7 and higher

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Large Lateral Surface



ULCS 14.500

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Windage :

- > Surface : fully loaded up to 14.500m²
- > Force : at 35kn = approx. 278 tons

Eastbound trade from Europe more empty containers

- deck cargo 7-8 tiers
- draught 11m instead of 13-14m

Larger exposed area vs. Smaller under water area

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Guidelines – Recommendations :

- > OCIMF Mooring Equipment Guidelines (1997)
2nd edition. New edition spring 2008
- > IACS Requirement A2/2004 (Rev.3/2007)
"Shipboard fittings and supporting hull structures associated with towing and mooring on conventional vessels"


Typical mooring : 4+2 or 4+1+2

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Problem :

- > High sides
- > Very high bow
- > Mooring only bow/stern
- > Position bollards



Very steep mooring lines with poor angle for maximum tension

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Solutions (1): On board
(Naval architects, Ship owners, Classification)

1. Additional and/or stronger winches
2. Lower forecastle
3. Sunken poop deck




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Solutions (2): On terminals :

1. Additional bollards / sufficient strength
2. Alternative (vacuum) mooring systems



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Solutions (3):
- ? the cheapest solution ? –

1. Prolonged assistance by 1 or more tugboats

Availability tugboats !

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