

Qualification Unit

This unit forms part of a regulated qualification.

Unit Title: Stability for Marine Engineers

Unit Reference Number: L/618/4047

Level: Three (3)

Credit Value: Four (4)

Minimum Guided Learning Hours: 35

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Be able to describe the effect of a fluid at rest	1.1 Describe Archimedes principle
	1.2 Apply Archimedes principle to floating bodies of simple geometrical form
2. Be able to describe stability terms and definitions	2.1 Describe the following: <ul style="list-style-type: none"> • Centre of gravity • Centre of buoyancy • Metacentric height (box shape only) • List • Loll • Free Surface Effect and effect on GM • Righting Level GZ • Permeability
	3.1 Describe the factors that affect a vessel's ability to stay afloat
	3.2 Identify and read assigned load-line markings
	3.3 Describe the effect of movement on vessel stability
	3.4 Describe the factors that adversely affect vessel stability
	3.5 State the existence and purpose of on-board vessel stability information
	3. Understand vessel stability and flotation

4. Be able to complete basic transverse stability calculations	4.1 Calculate the change in stability when a mass is added to a vessel
	4.2 Calculate the change in stability when a mass is moved transversely across the deck of a vessel

Barring: If this unit is being delivered within the Level 3 Certificate in Maritime Studies qualification it cannot be combined with:

F/616/9142 Maths and Stability at Sea