

# HOLDING CAPACITY OF ANCHOR

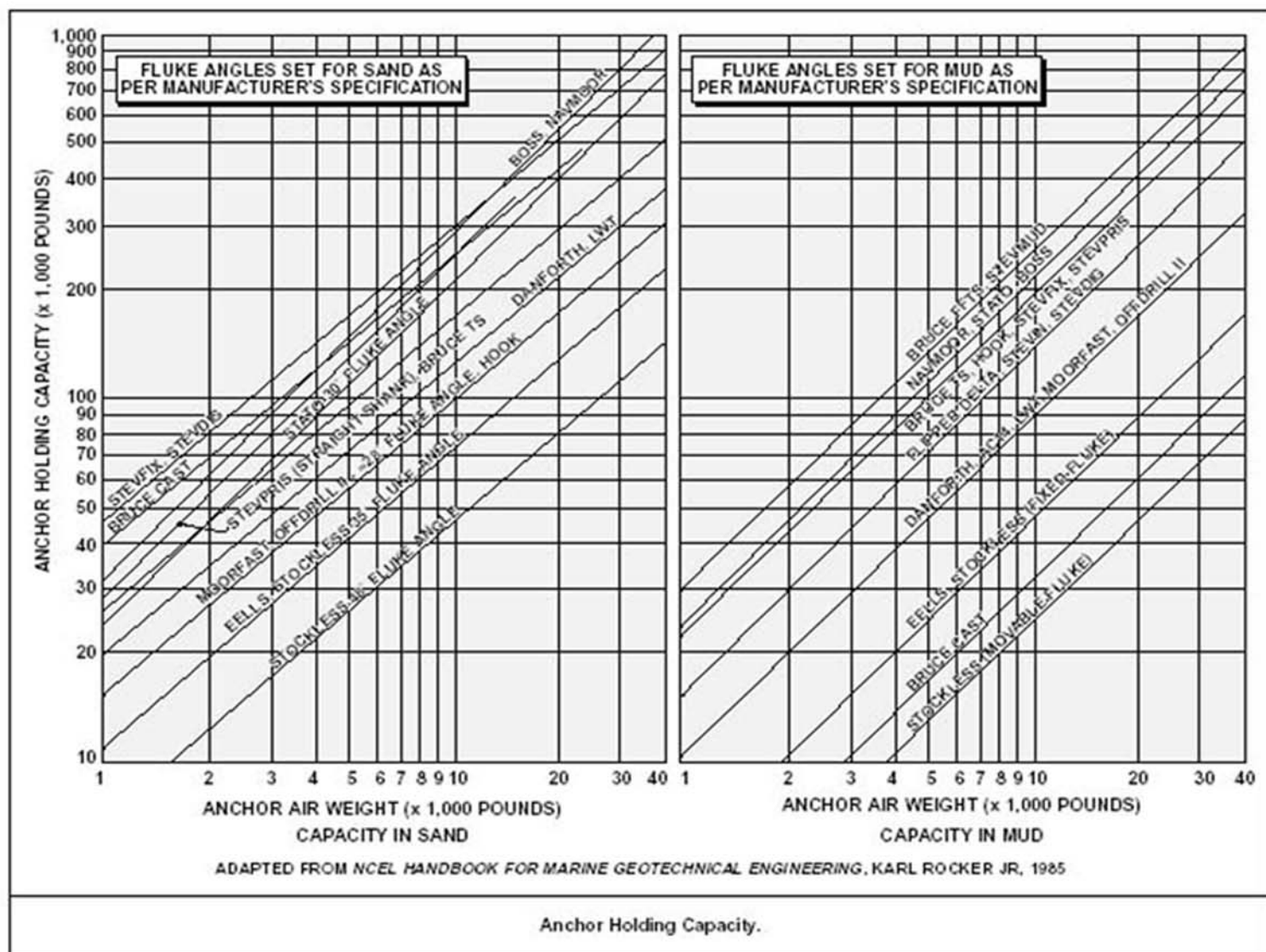


Table G-4. Anchor Selection.

Anchor	Soil Type				Anchor	Soil Type			
	Sands	Muds	Stiff Clays	Heterogeneous		Sands	Muds	Stiff Clays	Heterogeneous
<b>Multipurpose Anchors</b>					<b>Specific Anchors</b>				
Improved Stockless	+	0	++	++	Delta Triple	++	0	+	+
High-performance Stockless	++	+	+	+	Doris mud	0	++	0	0
Stock	++	0	+	++	Hook	++	++	0	0
Stevin	++	+	0	0	Stevshark	+	0	++	++
Stockless	+	0	+	+	Bruce	++	0	+	+
					Flipper Delta	++	++	0	0

++ Functions well  
 + Functions, but not the best choice  
 0 Does not function well

From *The Use of Anchors in Offshore Petroleum Operations*, A. Puech, 1984

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Table G-5. Rating of Drag-embedment Anchor Types.

Anchor Type	Reliability					
	Cohesive Soils (clays and plastic silts)			Cohesionless Soils (sands) <sup>a</sup>		
	Tripping/Dig-In	Stability	Holding Capacity	Tripping/Dig-In	Stability	Holding Capacity
Stockless <sup>b</sup> (movable fluke)	Low	Medium	Low	High	Medium	Low
Stockless <sup>b</sup> (fixed fluke)	High	Medium	Low	High	High	Low
G.S. (AC 14)	— <sup>c</sup>	— <sup>c</sup>	Medium	High	Medium	Medium
Danforth	Medium	Low	Medium	High	Medium	Medium
Lightweight (LWT)	Low	Low	Low	High	Medium	Medium
STATO/NAVMOOR <sup>d</sup>	High	Medium	High	High	High	High
Moorfast	Medium	Medium	Medium	Medium	Medium	Medium
Offdrill II	Medium	Medium	Medium	Medium	Medium	Medium
Flipper Della	— <sup>e</sup>	— <sup>e</sup>	Medium	— <sup>c</sup>	— <sup>e</sup>	Medium
STEVIN	— <sup>e</sup>	— <sup>e</sup>	Medium	— <sup>c</sup>	— <sup>e</sup>	Medium
STEVFIX	Low	Low	High	High	Medium	High
STEVPRIS	— <sup>e</sup>	— <sup>e</sup>	— <sup>c</sup>	High	High	High
STEVDIG	— <sup>e</sup>	— <sup>e</sup>	— <sup>c</sup>	High	Medium	High
STEVMUD	High	— <sup>e</sup>	High	— <sup>e</sup>	— <sup>e</sup>	— <sup>e</sup>
BOSS	High	Medium	High	High	— <sup>e</sup>	High
Hook	High	High	Medium	Medium	High	Medium
BRUCE Cast	High	High	Low	High	High	High
Bruce Twin-shank	High	High	High	— <sup>c</sup>	High	High

<sup>a</sup> Fluke angle set at manufacturer's recommendation for sand  
<sup>b</sup> With stabilizers (ratings not as high without stabilizers)  
<sup>c</sup> Insufficient data available for rating  
<sup>d</sup> Fluke angle set at 30 degrees for sand  
<sup>e</sup> Anchor not normally used in this seafloor

From NCEL Handbook for Marine Geotechnical Engineering, 1985