



THE AWARD WINNING BRUCE ANCHOR

ANCHOR OPERATION

The Bruce anchor self-orientates to an upright attitude because of the action of the curved side extensions of the single fluke while engaging the sea bed soil. It rolls upright, irrespective of initial drag attitude, within two shank lengths after engaging the sea bed. This rolling action occurs at zero cable angle at the anchor shackle (long scope), or at any cable angle up to 30° (ultra short scope), whereupon complete burial proceeds in the usual manner.

The anchor has **ABSOLUTE ROLL STABILITY**, for the first time in the history of anchor design, due to the presence of stabilizing forces produced by the curved shape of the fluke while interacting with the sea bed soil. Any disturbance of the anchor from the upright attitude causes a differential imbalance of these stabilizing forces which acts in opposition to the disturbance. **FULL VEERING CAPABILITY** through 360° is obtained as a consequence of the absolute roll stability: the anchor banks in the sea bed without breaking out and maintains its hold while veering. **HIGH HOLDING POWER** is obtained by the highly efficient fluke and shank design which combines maximum fluke area, optimum shank to fluke separation, minimum shank penetration resistance, and optimum fluke angle.

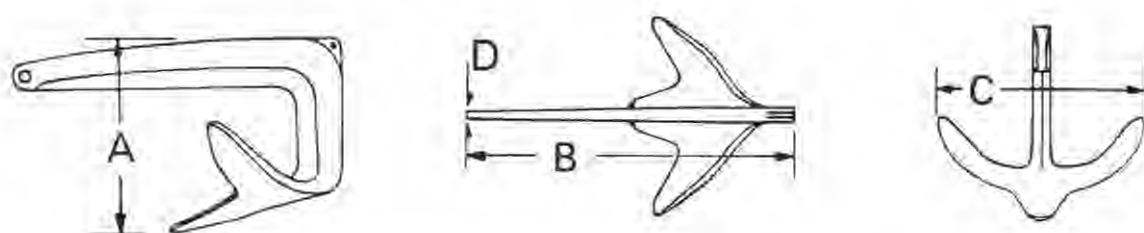
LOW BREAKOUT FORCE results from the short broad single fluke giving rise to small shear moments in the sea bed soil when the anchor is rotating upwards during weighing. Breakout force for the Bruce anchor is generally 20 per cent of the prior holding pull.

ULTRA SHORT SCOPE CAPABILITY is obtained due to the centre of area of the fluke being located much nearer to the fore-point of the fluke than is possible in other designs of anchor. The Bruce anchor will bury into the sea bed with the cable at an angle of up to 30° at the anchor shackle compared with a maximum of between 10° and 15° for other anchors.

HIGH ROCK HOOKING CAPABILITY is furnished by the three points of the fluke which enable the anchor to nip as well as the Cammell or Fisher's type anchor on rocky beds. The advantage of **NO MOVING PARTS** to clog or jam arises from the one-piece construction of heat-treated cast steel which gives the Bruce anchor strength in excess of any other patent anchor of similar weight. Finally, **EASE OF STOWAGE** and handling arises due to the anchor being both **STOCKLESS** (by virtue of its inherent absolute roll stability rendering a stock unnecessary) and very compact for a given weight and performance.

SUGGESTED ANCHOR AND ROPE SIZES

Maximum Boat Dimensions						Anchor Weight		Recommended Rope			Alloy Steel Shackle		
Length O.A.		Beam						Nylon Rope Dia.	Chain Dia.	Chafing Chain Length	Pin Dia.	Body Dia.	
m	ft	m	ft	m	ft	kg	lb	mm	ins	m	ft	mm	ins
2.8	9	1.3	4.3	1.4	4.6	1	2.2	6	0.24	5	0.20	6	0.24
4.6	15	2.0	6.6	2.2	7.2	2	4.4	9	0.31	5	0.20	8	0.31
7.0	23	2.7	8.9	2.9	9.5	5	11	10	0.39	6	0.24	10	0.39
9.2	30	3.2	10.5	3.4	11.2	7.5	16.5	12	0.47	7	0.28	10	0.39
10.6	35	3.5	11.5	3.9	12.8	10	22	14	0.55	8	0.31	13	0.51
12.2	40	3.8	12.5	4.2	13.8	15	33	16	0.63	9	0.35	13	0.51
14.3	47	4.2	13.8	4.7	15.4	20	44	18	0.71	10	0.39	16	0.63
19.2	63	5.1	16.7	5.6	18.4	30	66	22	0.87	12	0.47	16	0.63
28	92	6.1	20.0	7.3	24	50	110	26	1.02	16	0.63	19	0.75



Manufactured of Heat-Treated Cast Steel to B.S. 3100A6

Type approved by Classification Societies as a general purpose high holding power anchor

NOMINAL DIMENSIONS

Nominal Weight		A		B		C		D	
kg	lb	mm	ins	mm	ins	mm	ins	mm	ins
1	2.2	148	5.8	296	11.7	199	7.8	5.9	0.23
2	4.4	183	7.2	362	14.3	246	9.7	7.8	0.31
5	11	240	9.4	469	18.4	315	12.4	10.8	0.43
7.5	16.5	273	10.8	531	20.9	361	14.2	12	0.47
10	22	292	11.5	583	23.0	385	15.2	12	0.47
15	33	342	13.5	655	25.8	433	17.0	13.4	0.53
20	44	372	14.6	701	27.6	458	18.0	18.6	0.73
30	66	415	16.3	790	31.1	520	20.5	18.6	0.73
50	110	510	20.1	948	37.3	596	23.5	22	0.87