SOTR FOR BOWER ANCHOR AND ANCHOR CHAIN

1 BOWER ANCHOR

(a) **Brief Description**: Anchor type AC 14, weight 3038 kgs., High Holding Type, Stockless Marine Fluked Bower Anchor.

(b) **Materials:**

i) C. S. Head --- As per specn. DGS 8081l B. S. 3100 – 592.
ii) Flukes (Fabricated) --- M. S. to DGS 1207 or BS 4360 GR. 43A
iii) F.S. Shank --- 970: 1972 080 A27
iv) F.S. Hinge Pin --- As per 40/50 T. T., E. N. 8,BS 970: 1972: 080M40(Q)
v) F.S. Shackle & Pin --- As per Admiralty specification 1100 – Class II (b) or (a) or BS 970: 1972 080A27
vi) F.S. Head rivet bolts --- Same as above

(c) **Limiting dimensions and weight:** Dimensions of Anchor to be as per suppliers Drawings. The mass of individual anchors may vary by +/-3% provided that the total mass of anchors should be not less than that would have been required for anchors of equal mass.

(d) **Performance requirement:** High Holding Anchor Duty.

(e) **Welding:** Detail of welding should be as specified in the drawing & conforming to DGS 263.

(f) **Surface Finish**: All parts are to be degreased, grit blasted and one coat of approved shop primer to be applied.

(g) **Painting:** Coal tar or Black bituminous painting should be provided.

(h) **Documentation and Certificates**:

i) The following certificates to be furnished in quadruplicate.
ii) Certificate of Test and Inspection by IACS member classification society.
iii) Certificate indicating the Net Weight of each Anchor.
iv) Material certificate from government approved test house/classification society.

(i) **Test & Trials**:

i) Drop and Proof tests are to be carried out in accordance with specification DGS/M/SW 15 IE and IS.3267.
ii) First drop with cast head.
iii) Second drop after Flukes are welded. Minimum temperature (atmospheric) when drop test is carried out should not be below 10 degrees centigrade.

(j) **Proof Load**: Anchor to be tested to a Proof Load of 60 tonnes.

(k) **General Notes**:

i) The Anchor is to conform strictly to approved drawings in respect of dimensions, materials, tolerances, finish, etc. & the specified performances.
ii) Patt. No and Proof load to be stamped on the item.

2 ANCHOR CHAIN

1. Anchor chain has to be made as per the Patternised item drawings:

Item No.	Description	Size (mm)	Length	Material	Pattern No. **	No. of Lengths
a	Chain cable assembly elec. welded stud link chain	50	7.5 FM (13.75 m)	ESFS Lloyd's Gr.U3	0221/571-5520 DGS/239 B Gr.-III NCD3909 U 3	Fourteen
*b	Chain cable assembly elec. welded stud link chain	50	15 FM (27.50 m)	ESFS Lloyd's Gr.U3	0221/571-5521 DGS/239 B Gr.-III NCD3909 U 3	Fourteen

3. General Notes

a) 121 Pattern nos. as indicated is for material grade u2; however material grade u3 is to be
used to meet the load requirement.
b) Anchor Chain Cable should be flash butt-welded type only.
c) Inspecting authority IACS member classification society.
d) All tests as specified in relevant specification NE S 172 Requirement For Forged Steel Stud Link Chain Cable to be carried out to the satisfaction of inspector. Test loads are as follows:
i) Proof Load -- 140 tonnes
ii) Breaking Load -- 200 tonnes