## **03. TECHNICAL SPECIFICATIONS**

## 3.1 SPECIFICATIONS OF THE ACCESSORIES FOR BUOY ANCHORING SYSTEM OF SPM

The bidder shall indicate whether the required specifications are met by them by marking (Yes) if it meets the requirements/comply and (No) if it is not, in front of each requirement/specification in the right-hand corner of each item. Variations and/or deviations from specification, if any, shall be illustrated clearly in detail. Complete technical specification details shall also provide together with following.

Item No.	Qty	Unit	Description	Specification	Compliance Yes/No
1	04	No.	90mm (3 ½" approx.) dia. length 55m (180ft) studless link off shore mooring chain, All common links,	<ul> <li>Material: Grade R3</li> <li>Wire Diameter: (90mm or3 ½")</li> <li>Finish: Black Tarred</li> <li>Chains to be manufactured in accordance with the latest version of W22 IACS requirements.</li> <li>Minimum Proof load - 4412kn</li> <li>Minimum Breaking load - 6647kn</li> </ul>	
2	04	No.	76mm (3") dia. length 180ft studless link offshore mooring chain, All common links,	<ul> <li>Material: Grade R3</li> <li>Wire Diameter: (76mm or 3")</li> <li>Finish: Black Tarred</li> <li>Chains to be manufactured in accordance with the latest version of W22- IACS requirements</li> <li>Minimum Proof load - 3242kn</li> <li>Minimum Breaking load - 4884kn</li> </ul>	
3	06	No	"Kentor" Joining Shackle (76 mm or 3")	<ul> <li>For joining 76mm or 3" (dia.) stud link chain</li> <li>Material - Grade U3/R3</li> </ul>	
4	06	No.	"Kentor" Joining Shackle (90mm or 3½)	<ul> <li>For joining 90mm or 3½" (dia.) stud link chain</li> <li>Material - Grade U3 /R3</li> </ul>	
5	03	No.	76mm (3") dia. Stud Link Chain (Tanker End) - Chafe Chain	<ul> <li>24 Nos. common links</li> <li>01 No. enlarged link</li> <li>01 No. special end link with a pad eye respectively (Detail of special end link is attached herewith</li> <li>Material - Grade R3/U3</li> <li>Minimum Proof load - 3242kn</li> <li>Minimum Breaking load - 4884kn</li> <li>Chafe Chains to be manufactured in accordance with the latest version of W22 (Appendix-A)-IACS requirements to comply OCIMF requirements.</li> </ul>	

6	03	No.	76mm (3") dia. Stud Link Chain (SPM Buoy End) - Chafe Chain	<ul> <li>01 No. end link</li> <li>01 No. enlarge link</li> <li>04 Nos. common links</li> <li>01 No. enlarged link</li> <li>01 No. end link</li> <li>Material - Grade R3/U3</li> <li>Minimum Proof load - 3242kg (for-76mm dia.)</li> <li>Minimum Breaking load - 4884kn (for 76mm dia.)</li> <li>Chafe Chains to be manufactured in accordance with the latest version of W22 (Appendix-A)-IACS requirements to comply OCIMF requirements.</li> </ul>	
7	08	No.	85 Tons Safety D type shackle, 2 nuts with cotter pins, As FED Spec RR- C-271D	<ul> <li>85 Ton forged &amp; galvanized Anchor Shackle with safety pin (2 Nut &amp; Cotter pin) for mooring hawser system and 76mm chafe chain</li> <li>In accordance with OCIMF standards</li> <li>Dimensions/material and proof load - As per attached sheet</li> </ul>	
8	02	No.	55 Ton Safety Bow shackle, As FED Spec RR-C-271D	<ul> <li>55 Ton forged &amp; galvanized Bow-Shackle with safety pin (Nut &amp; Cotter pin)</li> <li>Material - ASTM A 153</li> <li>Pin Material - High Strength Alloy steel</li> <li>Standard - Fed Spec. RR-C-271D or equivalent</li> <li>Minimum Breaking load = 5xSWL</li> </ul>	

## **General Conditions**

**01.**Recognized third party inspection certificates for Material, Mill test certificate (in accordance with W22 IACS requirements and/or Standard - Fed Spec. RR-C-271D or equivalent), Dimension of links, quality, quantity, packaging & Marking requirements and load testing shall be sent before shipment.

**02.** 3<sup>rd</sup> party pre-shipment inspectors should be one of the following institutions.

- a. Lloyds
- **b.** ABS
- **c.** API
- **d.** DNV
- **e.** BV
- **03.**Country of origin/manufacturer shall be of USA, Europe South Africa and Japan and shall be mentioned clearly.

- **04.**Warranty shall be 10 years for material and manufacturing defects. (to be specified by a covering letter).
- **05.**Corrosion/Wear & Tear shall be within threshold limit (10% metal loss of stud link diameter) during warranty period.
- **06.** The Past Performance (supply) records of the brand offered for the last 5 years to the USA, European countries, South Africa & Japan together with details of clients should be submitted.
- **07.**Following information to be clearly indicated on each item by steel dye stamping or by water resistant paint.
  - a. Heat number & load
  - **b.** CPSTL order & Tender Number
  - c. Manufacturer's name & Country of Manufacturing

**08.** Rejection of item will be done as per the criteria given in the W22 document.

Signature of the Bidder: ..... Date:.....

(Common Company Seal)

3.2 DRAWINGS Drawing for Item 05



Drawing for Item 06



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## Drawing for Item 07

