CCS Rule Change Notice For:

GUIDELINES FOR CONSTRUCTION MONITORING OF HULL STRUCTURES

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Beijing

Contents

CHAPTER 3 MONITORING DURING CONSTRUCTION

3.1 Pre-assembly

3.1.1 The pre-assembly of each critical structural component is to be monitored in accordance with the approved CMP. The workmanship employed and material preparation during the pre-assembly stage is to conform to the relevant requirements defined in the CMP. ~~weld grooves and gaps~~ Positioning/assembly/gaps of critical structural components required to be preassembled are to be inspected for compliance with CMS by the site Surveyor. Non-compliance, if any, is to be rectified.

3.1.2 In the process of assembly of critical structural components, appropriate methods are to be applied to ensure alignment of the components at joints. In general, two alignment verification methods may be used, i.e., profile gauge and offset marking. The method for inspection of alignment is to be to the satisfaction of the site Surveyor. The site Surveyor ~~The shipyard's quality personnel are~~is to inspect the alignment of the critical structural components for compliance with CMS~~,~~ using the agreed method. ~~agreed by the site Surveyor~~r. Non-compliance, if any, is to be rectified.

3.1.3 Upon completion of the above 3.1.1 and 3.1.2, ~~the shipyard is to notify~~ the site Surveyor is to ~~re~~check the records for monitoring the pre-assembly tolerances of each critical structural component submitted by the shipyard.

3.2 Assembly of units and block assembly

3.2.2 The site Surveyor may use the agreed method as mentioned in 3.1.2 to inspect the alignment of each critical structural component~~s~~. If the alignment cannot comply with the specified tolerances, it is to be rectified and then re-inspected. For each critical structural component, the inspection of alignment, rectification of non-compliance and re-inspection are to be recorded, and to be reviewed to the satisfaction of the site Surveyor.

3.2.3 After the positions of critical structural components have been fixed and satisfactorily inspected by the yard's quality control personnel and before welding is undertaken, the yard is to notify the site Surveyor. The Surveyor is to check ~~inspect~~ the records of construction monitoring inspection results provided by the yard's quality control department and ~~do sample re~~check the positioning/assembly/gaps of each critical structural component by means of witness and review.

3.3 Inspection after welding

3.3.1 Upon completion of the welding of critical structural components, a visual inspection is to be carried out by the site Surveyor. Prior to the inspection, all rust, weld slag and coatings that may impair the inspection are to be removed. The inspection is to ensure that:

(1) all welds are in good shape, homogeneous and reasonably smooth, which are to comply with class B of ISO 5817, and grinding is applied when necessary;

(2) all weld sizes meet the design requirements over their entire length;

(3) double continuous round welding is applied at the ends of structural components (e.g. brackets) or openings in way of their ends. The round welds are not less than 75 mm in length and the size of the weld leg may be increased as appropriate, thus avoiding cracks at points of stress concentration; and

(4) if repair welding has been undertaken, the repair welds are not to be less than 50 mm in length.