UR W30 “Normal and higher strength corrosion resistant steels for cargo oil tanks”

Part A. Revision History

Version no.	Approval date	Implementation date when applicable
New (Feb 2013)	18 February 2013	01 January 2014

• New (Feb 2013)

.1 Origin for Change:

☒ Suggestion by IACS members

.2 Main Reason for Change:

None - new document.

.3 List of non-IACS Member Classification Societies contributing through the TC Forum and/or participating in IACS Working Group:

Nippon Steel Corporation, Kobe Steel Ltd, JFE Steel Corporation and Sumitomo Metal industries Ltd.

.4 History of Decisions Made:

See technical background.

.5 Other Resolutions Changes

None

.6 Dates:

Original Proposal: *07 March 2012 (By PT59)*
Panel Approval: *13 November 2012 (By Hull Panel)*
GPG Approval: *18 February 2013 (10105_IGk)*

Part B. Technical Background

Annex 1. **TB for New (Feb 2013)**

See separate TB document in Annex 1.

Technical Background document for UR W30 (New, Feb 2013)

1. Scope and objectives

The Performance Standard for Alternative Means of Corrosion Protection for Cargo Oil Tanks of Crude Oil Tankers (IMO Resolution MSC.289 (87)) allows for the use of "*Corrosion Resistant Steel*". This steel is modified ship steel with micro additions of certain chemical elements that have been found to have a beneficial effect by retarding the corrosion rate in the environments found in cargo tanks of crude oil carriers.

Many issues arise because Corrosion resistant Steels are newly developed materials. It has therefore been necessary to produce a new IACS UR W30, to explain the manufacture, testing and certification of these steels.

2. Engineering background for technical basis and rationale

Several issues were highlighted that IACS needed to address:

a) The materials need to comply with strength and toughness in accordance with UR W11.

b) There is no IACS unified approach to the approval, manufacture, certification and shipyard application of these steels. Their application has no effect on fabrication in shipbuilding, but there are no requirements in the IMO resolution addressing approval, manufacture and certification and these processes need to be addressed.

c) The steel must be approved to confirm the corrosion resistance.

d) No practicable production release test is available for these steels. Although a type approval test method has been developed in the IMO PSPC it is noted that this test method allows variation in the composition of the test medium, such as concentration of H_2S. This creates uncertainty in the assessment of the corrosion resistance of the steel.

Taking the above into account a project team PT59 was asked to draft a new IACS UR W30, to explain the manufacture, testing and certification of these steels.

3. Source / derivation of the proposed IACS Resolution

The IMO Performance Standard comes into effect on 1 January 2013 for new building contracts. It was aimed to have a UI in place by 1 June 2012 to allow time for designs to be considered before contracts are signed.

4. Summary of Changes intended for the revised Resolution:

Not applicable

5. Points of discussions or possible discussions

None

6. Attachments if any

None