
No.44 Survey Guidelines for tanks in which soft coatings have been applied

(1996)
(Corr.1
Dec 2007)

- 1 General Information on Soft Coatings
 - 1.1 General

Soft Coatings always remain soft and can be removed or damaged by walking, touching, erosion etc..

It is important to note that soft coating products are very diverse and can vary by:

 - Chemistry
 - Method of Protection
 - Thickness
 - Opacity
 - Application method
 - 1.2 Chemistry

Products can be one or a combination of the following:

 - Lanolin/wool grease-based
 - Petroleum-based
 - Vegetable oil-based
 - Organic/inorganic

Each type has its own unique characteristics and corrosion protection capabilities.
 - 1.3 Method of Protection

Products can be classed by one or a combination of the following:

 - Corrosion inhibitor (interact with oxides to prevent further oxidation)
 - Corrosion barrier (prevents oxygen from reaching metal surface)

It should be noted that a pure corrosion barrier product will still allow a corrosion cell to be active underneath the product, while a corrosion inhibitor stops this activity.
 - 1.4 Thickness

Product film thickness can vary from a thin film of 3 mils up to a thick film of 80 mils. This is an important feature to consider when inspecting a tank, since a thicker product may be safety hazard and require spot removal in order to see the steel surface underneath.
 - 1.5 Opacity

The products are either:

 - Opaque
 - Transparent

Again, this feature will have an impact on the inspection of the tank. The opaque products will require spot removal to see the steel surface underneath, whereas the transparent products could allow the inspector to see most of the steel surface.
 - 1.6 Application method

Products can be applied by either of the following methods:

 - Spray
 - Float

In fact some products can be applied by both methods. It should be noted that the float method will require more product, but no staging, and may cause risk of water pollution when applied.



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2.0 Survey Guidelines

2.1 General

Application of soft coatings does not allow relaxation of the requirements for annual examination of salt water ballast tanks.

Soft coating always remain soft and, as such, present a hazard to the Surveyor during structural inspection of tanks.

These guidelines are intended to provide guidance for both access and survey of tanks in which soft coatings have been applied.

2.2 Access

Surveyors are to exercise extreme caution in the survey of tanks in which soft coatings have been applied. The soft coating by their very nature will make the footing very hazardous.

Generally, areas in way of access openings and ladders, walkways where provided and other areas, either identified prior to the start of the survey or subsequent to initial entry, are to be cleaned free of soft coating. Areas are to be cleaned for a distance of 1.2 meters (4 feet) in each direction of the Surveyor's route, including all railings and other hand grabs in way.

Note: These guidelines do not cover the normal hazard associated with confined space entry for which additional precautions pointed out in Recommendation 72 shall be adhered to.

2.3 Overall Survey

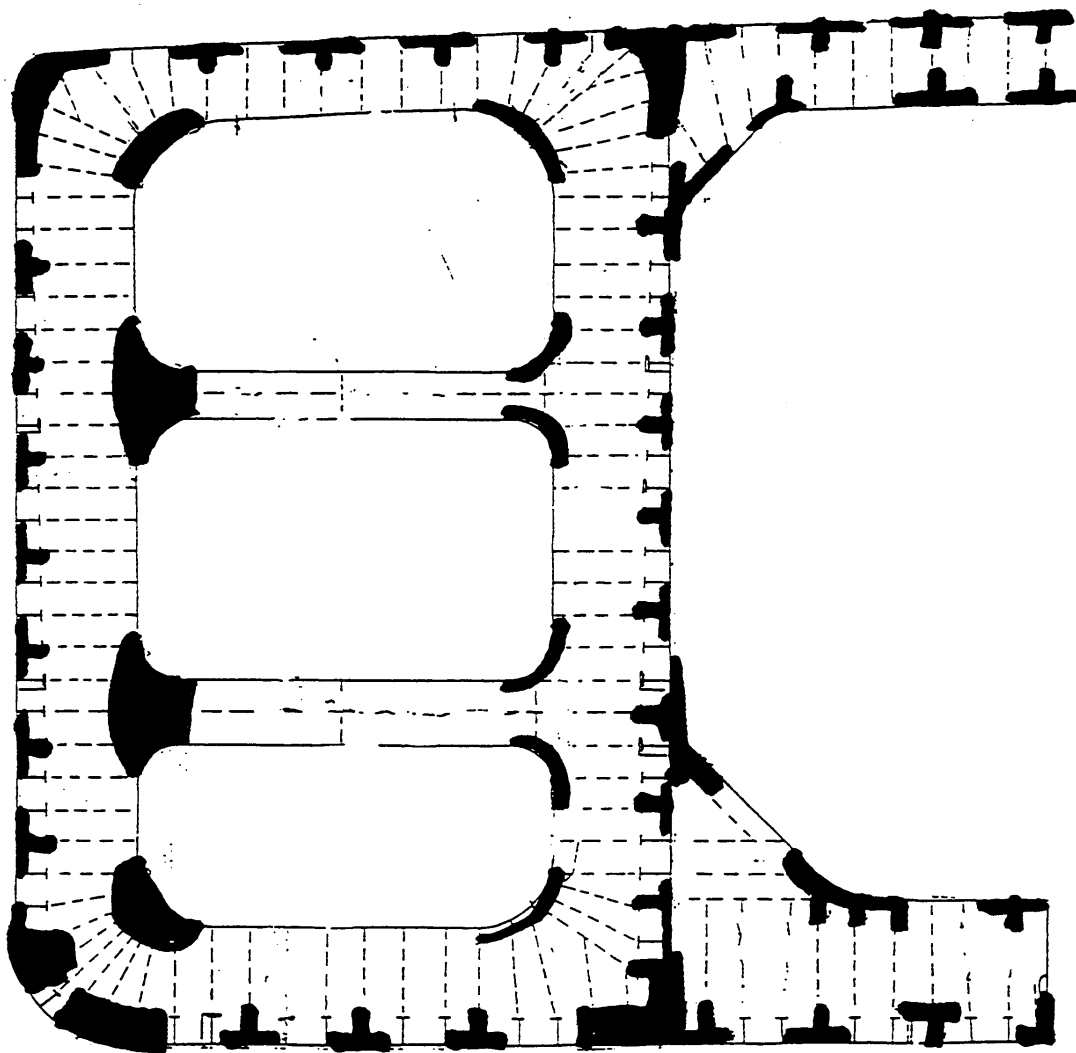
Representative areas resembling close-up survey requirements are to be cleaned for survey including access requirements above. Alternatively, soft coatings could be removed as in attached guidance sketches, provided safe access could also be provided.

It must be kept in mind that, by their very nature, the effective life of soft coating systems is usually restricted to only about two to four years, before further maintenance and touch-up is required. Visual assessment of their existing condition can also be very difficult and somewhat misleading, especially if these have been used to cover-up already severely corroded areas of the structure.



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OIL CARRIER

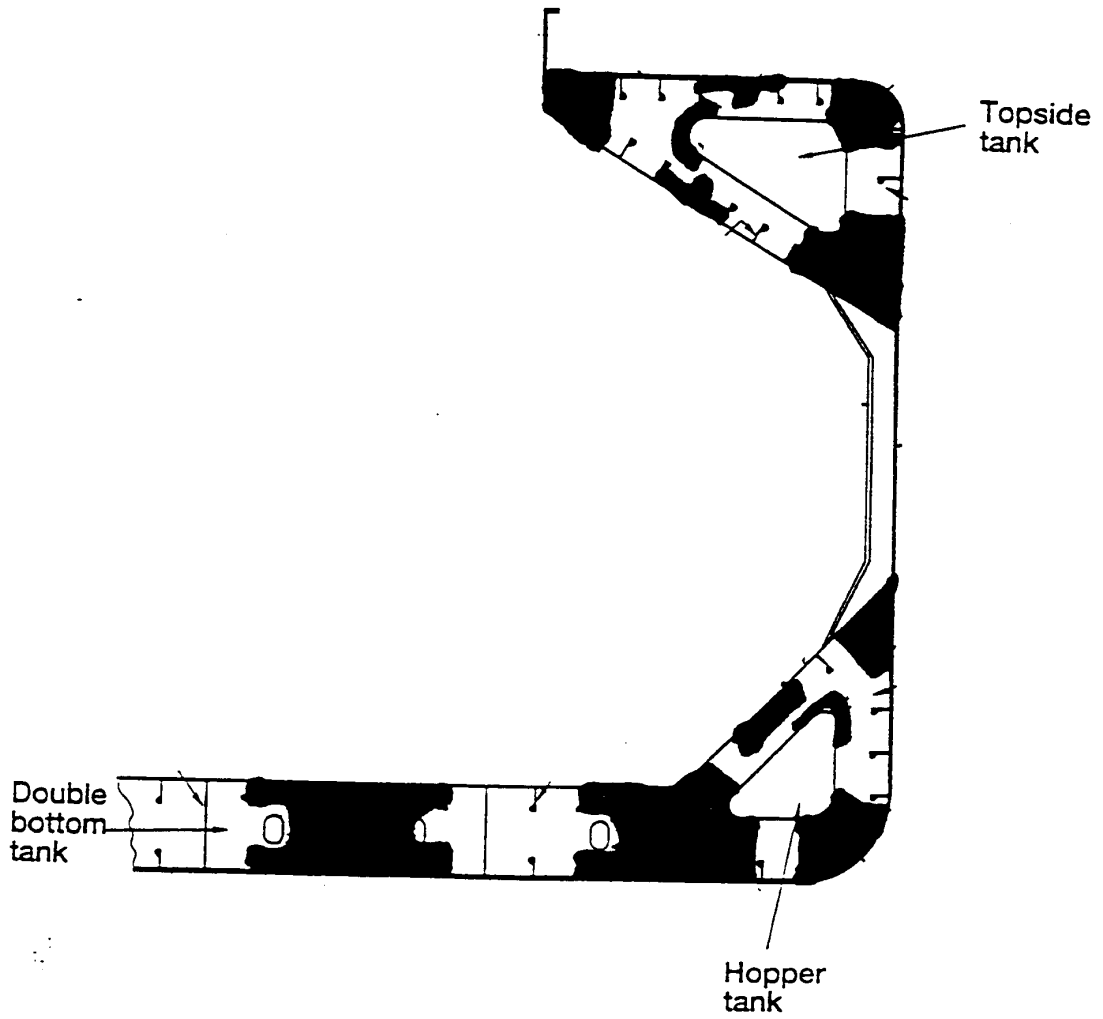


Shaded areas indicate guidance for the removal of soft coatings at one transverse ring frame in each tank requiring overall survey.



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Bulk Carrier



Shaded areas indicate guidance for the removal of soft coatings at one transverse ring frame in each tank requiring overall survey.

