

Subject

Survey Preparations for Bulk Carriers and Oil Tankers based on IMO Resolution A.744(18), as amended.

# **ClassNK**

## **Technical Information**

No. TEC-0665  
Date 5 July 2006

To whom it may concern

As you are aware, the amendments to “Guidelines on the Enhanced Programme of Inspections during Surveys of Bulk Carriers and Oil Tankers, Res. A744(18)” were adopted at the eightieth session of the Marine Safety Committee (MSC 80).

On and after 1 January 2007 with the enforcement of the amendments, applicants are to submit a SURVEY PROGRAMME using a new form as part of preparations for the Special Surveys for Bulk Carriers and Oil Tankers and for the Intermediate Surveys for Bulk Carriers and Oil Tankers over 10 years of age. In addition, applicants are to submit the SURVEY PLANNING QUESTIONNAIRE in advance of the preparation of the SURVEY PROGRAMME.

For your reference, the new forms for SURVEY PROGRAMME and SURVEY PLANNING QUESTIONNAIRE, which are included in Res. A.744(18), as amended adopted at MSC 80, are attached.

Procedures for preparation of SURVEY PROGRAMME and SURVEY PLANNING QUESTIONNAIRE will be advised by ClassNK Technical Information at a later date.

For any questions about the above, please contact:

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Attachment:

1. New forms for Bulk Carriers (ANNEX 4A and ANNEX 4B)
2. New forms for Oil Tankers (ANNEX 6A and ANNEX 6B)

NOTES:

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## “ANNEX 4A

### SURVEY PROGRAMME

#### Basic information and particulars

Name of ship :
IMO number :
Flag State :
Port of registry :
Gross tonnage :
Deadweight (metric tonnes) :
Length between perpendiculars (m) :
Shipbuilder :
Hull number :
Recognized organization (RO) :
RO ship identity :
Date of delivery of the ship :
Owner :
Thickness measurement company :

#### 1 Preamble

##### 1.1 Scope

1.1.1 The present survey programme covers the minimum extent of overall surveys, close-up surveys, thickness measurements and pressure testing within the cargo length area, cargo holds, ballast tanks, including fore and aft peak tanks, required by the Guidelines.

1.1.2 The arrangements and safety aspects of the survey should be acceptable to the attending surveyor(s).

##### 1.2 Documentation

All documents used in the development of the survey programme should be available onboard during the survey as required by section 6.

#### 2 Arrangement of cargo holds, tanks and spaces

This section of the survey programme should provide information (either in the form of plans or text) on the arrangement of cargo holds, tanks and spaces that fall within the scope of the survey.

### **3 List of cargo holds, tanks and spaces with information on their use, extent of coatings and corrosion protection system**

This section of the survey programme should indicate any changes relating to (and should update) the information on the use of the holds and tanks of the ship, the extent of coatings and the corrosion protective system provided in the Survey Planning Questionnaire.

### **4 Conditions for survey**

This section of the survey programme should provide information on the conditions for survey, e.g. information regarding cargo hold and tank cleaning, gas freeing, ventilation, lighting, etc.

### **5 Provisions and method of access to structures**

This section of the survey programme should indicate any changes relating to (and should update) the information on the provisions and methods of access to structures provided in the Survey Planning Questionnaire.

### **6 List of equipment for survey**

This section of the survey programme should identify and list the equipment that will be made available for carrying out the survey and the required thickness measurements.

### **7 Survey requirements**

#### **7.1 Overall survey**

This section of the survey programme should identify and list the spaces that should undergo an overall survey for this ship in accordance with 2.4.1 and 2.5.1.

#### **7.2 Close-up survey**

This section of the survey programme should identify and list the hull structures that should undergo a close-up survey for this ship in accordance with 2.5.2.

### **8 Identification of tanks for tank testing**

This section of the survey programme should identify and list the cargo holds and tanks that should undergo tank testing for this ship in accordance with 2.7.

### **9 Identification of areas and sections for thickness measurements**

This section of the survey programme should identify and list the areas and sections where thickness measurements should be taken in accordance with 2.6.1.

## 10 Minimum thickness of hull structures

This section of the survey programme should specify the minimum thickness for hull structures of this ship that are subject to survey, according to (a) or (b):

- (a)  Determined from the attached wastage allowance table and the original thickness to the hull structure plans of the ship;
- (b)  Given in the following table(s):

Area or location	Original as-built thickness (mm)	Minimum thickness (mm)	Substantial corrosion thickness (mm)
<b>Deck</b>			
Plating			
Longitudinals			
Longitudinal girders			
Cross deck plating			
Cross deck stiffeners			
<b>Bottom</b>			
Plating			
Longitudinals			
Longitudinal girders			
<b>Inner bottom</b>			
Plating			
Longitudinals			
Longitudinal girders			
Floors			
<b>Ship side in way of topside tanks</b>			
Plating			
Longitudinals			
<b>Ship side in way of hopper side tanks</b>			
Plating			
Longitudinals			
<b>Ship side in way of tanks (if applicable)</b>			
Plating			
Longitudinals			
Longitudinal stringers			
<b>Ship side in way of cargo holds</b>			
Plating			
Side frames webs			
Side frames flanges			
Upper brackets webs			
Upper brackets flanges			
Lower brackets webs			
Lower brackets flanges			

<b>Longitudinal bulkhead if applicable</b>			
Plating			
<b>Longitudinals if applicable</b>			
Longitudinal girders			
<b>Transverse bulkheads</b>			
Plating			
<b>Stiffeners if applicable</b>			
Upper stool plating			
Upper stool stiffeners			
Lower stool plating			
Lower stool stiffeners			
<b>Transverse web frames in topside tanks</b>			
Plating			
Flanges			
Stiffeners			
<b>Transverse web frames in hopper tanks</b>			
Plating			
Flanges			
Stiffeners			
<b>Hatch covers</b>			
Plating			
Stiffeners			
<b>Hatch coamings</b>			
Plating			
Stiffeners			

Note: The wastage allowance tables should be attached to the survey programme.

## 11 Thickness measurement company

This section of the survey programme should identify changes, if any, relating to the information on the thickness measurement company provided in the Survey Planning Questionnaire.

## 12 Damage experience related to the ship

This section of the survey programme should, using the tables provided below, provide details of the hull damages for at least the last three years in way of the cargo holds, ballast tanks and void spaces within the cargo length area. These damages are subject to survey.

**Hull damages sorted by location for this ship**

<b>Cargo hold, tank or space number or area</b>	<b>Possible cause, if known</b>	<b>Description of the damages</b>	<b>Location</b>	<b>Repair</b>	<b>Date of repair</b>

**Hull damages for sister or similar ships (if available)  
in the case of design related damage**

<b>Cargo hold, tank or space number or area</b>	<b>Possible cause, if known</b>	<b>Description of the damages</b>	<b>Location</b>	<b>Repair</b>	<b>Date of repair</b>

**13 Areas identified with substantial corrosion from previous surveys**

This section of the survey programme should identify and list the areas of substantial corrosion from previous surveys.

**14 Critical structural areas and suspect areas**

This section of the survey programme should identify and list the critical structural areas and the suspect areas, when such information is available.

**15 Other relevant comments and information**

This section of the survey programme should provide any other comments and information relevant to the survey.

## **Appendices**

### **Appendix 1 – List of plans**

Paragraph 5.1.3.2 requires that main structural plans of cargo holds and ballast tanks (scantling drawings), including information on regarding use of high tensile steel (HTS) should be available. This Appendix of the survey programme should identify and list the main structural plans which form part of the survey programme.

### **Appendix 2 – Survey Planning Questionnaire**

The Survey Planning Questionnaire (annex 4B), which has been submitted by the owner, should be appended to the survey programme.

### **Appendix 3 – Other documentation**

This part of the survey programme should identify and list any other documentation that forms part of the plan.

Prepared by the owner in co-operation with the Administration for compliance with 5.1.3:

Date:..... (name and signature of authorized owner's representative)

Date:..... (name and signature of authorized representative of the Administration)"

## **“ANNEX 4B**

### **SURVEY PLANNING QUESTIONNAIRE**

1 The following information will enable the owner in co-operation with the Administration to develop a Survey Plan complying with the requirements of the Guidelines. It is essential that the owner provides, when completing the present questionnaire, up-to-date information. The present questionnaire, when completed, should provide all information and material required by the Guidelines.

#### **Particulars**

Ship's name:

IMO number:

Flag State:

Port of registry:

Owner:

Recognized organization:

Gross tonnage:

Deadweight (metric tonnes):

Date of delivery:

## Information on access provision for close-up surveys and thickness measurement

2 The owner should indicate, in the table below, the means of access to the structures subject to close-up survey and thickness measurement. A close-up survey is an examination where the details of structural components are within the close visual inspection range of the attending surveyor, i.e. preferably within reach of hand.

Hold/Tank No.	Structure	Temporary staging	Rafts	Ladders	Direct access	Other means (please specify)
F.P.	Fore Peak					
A.P.	Aft Peak					
Cargo Holds	Hatch side coamings					
	Topside sloping plate					
	Upper stool plating					
	Cross deck					
	Side shell, frames and brackets					
	Transverse bulkhead					
	Hopper tank plating					
	Lower stool					
	Tank top					
Topside Tanks	Underdeck structure					
	Side shell and structure					
	Sloping plate and structure					
	Webs and bulkheads					
Hopper Tanks	Hopper sloping plate and structure					
	Side shell and structure					
	Bottom structure					
	Webs and bulkheads					
	Double bottom structure					
	Upper stool internal structure					
	Lower stool internal structure					
Wing tanks of double Ore Carriers	Underdeck and structure					
	Side shell and structure					
	Side shell vertical web and structure					
	Longitudinal bulkhead and structure					
	Longitudinal bulkhead web and structure					
	Bottom plating and structure					
	Cross ties/stringers					



<b>History of bulk cargoes of a corrosive nature (e.g. high sulphur content)</b>

### Owner's inspections

3 Using a format similar to that of the table below (which is given as an example), the owner should provide details of the results of their inspections, for the last 3 years - in accordance with the Guidelines - on all CARGO holds and BALLAST tanks and VOID spaces within the cargo area.

<b>Tank/Hold No.</b>	<b>Corrosion protection (1)</b>	<b>Coating extent (2)</b>	<b>Coating condition (3)</b>	<b>Structural deterioration (4)</b>	<b>Hold and tank history (5)</b>
Cargo holds					
Topside tanks					
Hopper tanks					
Double side skin tanks					
Double bottom tanks					
Upper stools					
Lower stools					
Wing tanks (ore tankers)					
Fore peak					
Aft peak					
Miscellaneous other spaces:					

Note: Indicate tanks which are used for oil/ballast

- 1) HC=hard coating; SC=soft coating; A=anodes; NP=no protection
- 2) U=upper part; M=middle part; L=lower part; C=complete
- 3) G=good; F=fair; P=poor; RC=recoated (during the last 3 years)
- 4) N=no findings recorded; Y=findings recorded, description of findings should be attached to this questionnaire
- 5) DR=Damage & Repair; L=Leakages; CV= Conversion (Description to be attached to this questionnaire)

Name of owner's representative: ..... Signature: ..... Date: .....
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**Reports of Port State Control inspections**

List the reports of Port State Control inspections containing hull structural related deficiencies, relevant information on rectification of the deficiencies:

**Safety Management System**

List non-conformities related to hull maintenance, including the associated corrective actions:

**Name and address of the approved thickness measurement company:**


## ANNEX 6A

### SURVEY PROGRAMME

#### Basic information and particulars

Name of ship :
IMO number :
Flag State :
Port of registry :
Gross tonnage :
Deadweight (metric tonnes) :
Length between perpendiculars (m) :
Shipbuilder :
Hull number :
Recognized organization (RO) :
RO ship identity :
Date of delivery of the ship :
Owner :
Thickness measurement company :

#### 1 Preamble

##### 1.1 Scope

1.1.1 The present survey programme covers the minimum extent of overall surveys, close-up surveys, thickness measurements and pressure testing within the cargo area, ballast tanks, including fore and aft peak tanks, required by the Guidelines.

1.1.2 The arrangements and safety aspects of the survey should be acceptable to the attending surveyor(s).

##### 1.2 Documentation

All documents used in the development of the survey programme should be available onboard during the survey as required by section 6.

#### 2 Arrangement of tanks and spaces

This section of the survey programme should provide information (either in the form of plans or text) on the arrangement of tanks and spaces that fall within the scope of the survey.

### **3 List of tanks and spaces with information on their use, extent of coatings and corrosion protection system**

This section of the survey programme should indicate any changes relating to (and should update) the information on the use of the tanks of the ship, the extent of coatings and the corrosion protective system provided in the Survey Planning Questionnaire.

### **4 Conditions for survey**

This section of the survey programme should provide information on the conditions for survey, e.g. information regarding cargo hold and tank cleaning, gas freeing, ventilation, lighting, etc.

### **5 Provisions and method of access to structures**

This section of the survey programme should indicate any changes relating to (and should update) the information on the provisions and methods of access to structures provided in the Survey Planning Questionnaire.

### **6 List of equipment for survey**

This section of the survey programme should identify and list the equipment that will be made available for carrying out the survey and the required thickness measurements.

### **7 Survey requirements**

#### **7.1 Overall survey**

This section of the survey programme should identify and list the spaces that should undergo an overall survey for the ship in accordance with 2.4.1.

#### **7.2 Close-up survey**

This section of the survey programme should identify and list the hull structures that should undergo a close-up survey for the ship in accordance with 2.4.2.

### **8 Identification of tanks for tank testing**

This section of the survey programme should identify and list the tanks that should undergo tank testing for the ship in accordance with 2.6.

### **9 Identification of areas and sections for thickness measurements**

This section of the survey programme should identify and list the areas and sections where thickness measurements should be taken in accordance with 2.5.1.

## 10 Minimum thickness of hull structures

This section of the survey programme should specify the minimum thickness for hull structures of the ship that are subject to the Guidelines (indicate either (a) or preferably (b), if such information is available):

- (a)  Determined from the attached wastage allowance table and the original thickness to the hull structure plans of the ship;
- (b)  Given in the following table(s):

Area or location	Original as-built thickness (mm)	Minimum thickness (mm)	Substantial corrosion thickness (mm)
<b>Deck</b>			
Plating			
Longitudinals			
Longitudinal girders			
<b>Bottom</b>			
Plating			
Longitudinals			
Longitudinal girders			
<b>Ship side</b>			
Plating			
Longitudinals			
Longitudinal girders			
<b>Longitudinal bulkhead</b>			
Plating			
Longitudinals			
Longitudinal girders			
<b>Inner bottom</b>			
Plating			
Longitudinals			
Longitudinal girders			
<b>Transverse bulkheads</b>			
Plating			
Stiffeners			
<b>Transverse web frames, floors and stringers</b>			
Plating			
Flanges			
Stiffeners			
Cross ties			
Flanges			
Webs			

Note: The wastage allowance tables should be attached to the survey programme.



### **13 Areas identified with substantial corrosion from previous surveys**

This section of the survey programme should identify and list the areas of substantial corrosion from previous surveys.

### **14 Critical structural areas and suspect areas**

This section of the survey programme should identify and list the critical structural areas and the suspect areas, if such information is available.

### **15 Other relevant comments and information**

This section of the survey programme should provide any other comments and information relevant to the survey.

## **Appendices**

### **Appendix 1 – List of plans**

Paragraph 5.1.3.2 requires that main structural plans of cargo and ballast tanks (scantling drawings), including information on regarding use of high tensile steel (HTS), to be available. This appendix of the survey programme should identify and list the main structural plans which form part of the survey programme.

### **Appendix 2 – Survey Planning Questionnaire**

The Survey Planning Questionnaire (annex 6B), which has been submitted by the owner, should be appended to the survey programme.

### **Appendix 3 – Other documentation**

This part of the survey programme should identify and list any other documentation that forms part of the Plan.

Prepared by the owner in co-operation with the Administration for compliance with 5.1.3.

Date: ..... (name and signature of authorized owner's representative)

Date: ..... (name and signature of authorized representative of the Administration)

## ANNEX 6B

### SURVEY PLANNING QUESTIONNAIRE

The following information will enable the owner in co-operation with the Administration to develop a survey programme complying with the requirements of the Guidelines. It is essential that the owner provides, when completing the present questionnaire, up-to-date information. The present questionnaire, when completed, should provide all information and material required by the resolution.

#### Particulars

Ship's name:  
 IMO number:  
 Flag State:  
 Port of registry:  
 Owner:  
 Recognized organization (RO):  
 Gross tonnage:  
 Deadweight (metric tonnes):  
 Date of delivery:

#### Information on access provision for close-up surveys and thickness measurement:

The owner should indicate, in the table below, the means of access to the structures subject to close-up survey and thickness measurement. A close-up survey is an examination where the details of structural components are within the close visual inspection range of the attending surveyor, i.e. preferably within reach of hand.

Tank No.	Structure	C (Cargo)/ B (Ballast)	Temporary staging	Rafts	Ladders	Direct access	Other means (please specify)
F.P.	Fore peak						
A.P.	Aft peak						
<b>Wing Tanks</b>	Under deck						
	Side shell						
	Bottom transverse						
	Longitudinal						
	Transverse						
<b>Centre Tanks</b>	Under deck						
	Bottom transverse						
	Transverse						







**Safety Management System**

List non-conformities related to hull maintenance, including the associated corrective actions:

**Name and address of the approved thickness measurement company:**
