HATCH COVERS INSPECTION REPORT OF DRY BULK VESSELS

Vessel's Name	:	**M/V TBN**
IMO No	:	**100001**
Place of Inspection	:	**Freeport, Bahamas**
Date of Inspection		**:25, Mar. – 28, Apr. 2009**
Inspector's Name		**:Bournias Th.**

CONTENTS

Section 1: Vessel's Particulars

1.1	**General Information** Year of Built : **2000** Place of Built : **CHINA** Name of ship operator/manager : Address of ship's operator/manager : **126-128 Notara Str. Piraeus Greece**		
1.2	**Principal Dimensions (m)** LOA :133.180 LBP :121.840 Breadth (mld) :20.800 Depth (Mld) :10.400 Summer Draft : 7.800		
1.3	**International Tonnage** GT :7970 NT :3513	**Suez Canal Tonnage** GRT: NRT:	**Panama Canal Tonnage** GRT: NRT:
1.4	**Registration** Flag: **St. Vincent & Grenadines** Classification: **L.R.** P&I Club: **-**		
1.5	**Ship Type** Bulk Carrier [ ] General Cargo [X] **Covers Type** Side Rolling [ ] Folding [X] Single pull [ ] Pontoons [ ] **Cargo holds Used for ballast :** **Suitable for carriage of heavy cargoes : NO**		

Section 2: General Inspection report

2.1	Vessel inspected after instructions received from: Name: **Mr. Andridis** Date: **22 February**
2.2	Purpose of inspection Repairs and tightness of hatch Covers
2.3	Inspection was carried out By: Bournias Th. At: Freeport Bahamas Dates / Time 25/03/2010 - 28/04/2010
2.4	Owners / Company's representative: **Mr. Bournias**
2.5	Vessel's condition during inspection: Laden [ ] Ballast [ ] Loading operations [ ] Unloading operations [ ] Lay By Berth [X]
2.6	Crew members assisting during inspection Captain [ ] Chief officer [X] Hose test including Chief Engineer [ ] 2nd Engineer [ ] Other [X] Hose test including

Section 3: Hatch Covers / Coamings Inspection Form

Location : Main Deck [X] **Twin Deck** [ ] **Fore End** [ ]

HATCH No 1 - 4

Panel No (ALL)

Consider below described a general condition

AREA	Good	Fair	Poor	notes
Covers Shell Plate	[ ]	[X]	[ ]	Covers top plate found with several wasted areas. Same should be considered for replacement at next dry dock.
Covers Stiffening System	[X]	[ ]	[ ]	Found at good condition.
Drain Channels	[X]	[ ]	[ ]	Found at poor condition. Repaired at max length straitened and faired, adjusted in correct position.
Rubber Channels	[X]	[ ]	[ ]	Found at poor condition. Repaired at max length straitened and faired, adjusted in correct position. Found in incorrect position as built.
Rubber Packing	[X]	[ ]	[ ]	Found at poor condition. Same replaced at total length and adjusted.
Compression Bar	[X]	[ ]	[ ]	Is a flat compression type. Found uneven at center parts between stiffeners. New flat plates placed by various thicknesses in order to adjust compression correctly at full length. See drawing 1
Air Vents	[ ]	[ ]	[ ]	N.A.
Securing Cleats	[X]	[ ]	[ ]	Found in poor condition. Reconditioned and rubbers replaced, adjusted in place.
Snuck	[X]	[ ]	[ ]	Found in poor condition due to extreme edges wastage. In this respect all have been re-welded in order to assure cleats securing.

Track Ways	☐	X	☐	Flat compression has been readjusted as above described. Note that several pitting areas as long as mechanical damages were observed which should be taken under consideration for repairs at next docking.(Fwd and aft tracking plates).
Resting pads (bearing pads)	X	☐	☐	Found in poor condition. Due to their poor condition rubber packing were seriously damaged and over compressed. Same repaired and adjusted at correct compression limit.
Rollers	X	☐	☐	Found in good condition.
Coaming Plating	☐	X	☐	Localized pitting were observed.
Coaming Stays Vertical	X	☐	☐	Several flanges were repaired. Rest were in good structural condition.
Coaming Stays Horizontal	X	☐	☐	Several flanges were repaired. Rest were in good structural condition.
Dog Bolts	☐	☐	☐	N.A.

PHOTO REPORT

Cross joint as found

Compression flat and drain channel
In poor condition as found

Brocken rubber packing as Found

Internal view of packing in
Poor condition as found.

Cross joint rubber channel as found
Is totally wasted.

General view of channel as found
Totally wasted.

Flat compression of cross joint
With totally wasted drain channel.

Wasted and frozen over-compressed
Rubber packing

Top plating view with pitting areas.

<u>Should be taken under consideration</u>
<u>For next docking repairs</u>

Flat compression area uneven
And wasted

Bracket of cover side totally wasted.

Several brackets of sides replaced.

Side rubber channel area.
Typical wastage as found.

Tower staging at Covers with
Safety railing on top of covers

Another view of tower staging.

Consider same for all hatch covers

Reconditioned cleat.

See fabricated crutch same
Fabrication for 12 pcs installed
And adjusted in correct position.

Reconditioned cleat with
Fabricated onboard crutch

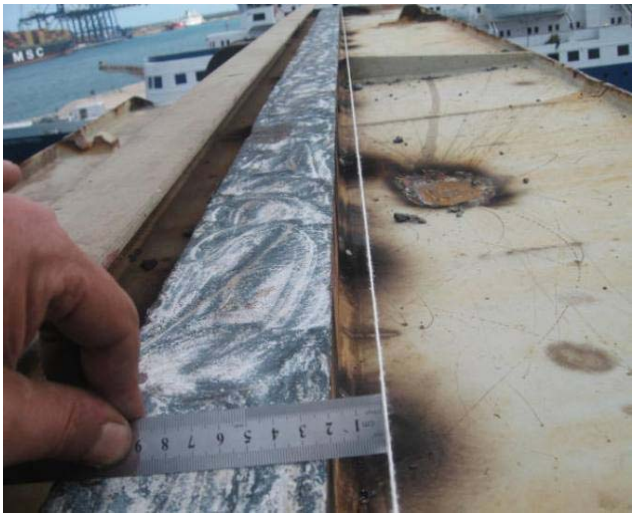
Cross joint as found with big gap
Between packing and flat
Compression.

Flat compression as placed and
Adjusted.

Print mark of rubber packing on
The edge of flat compression.

Looks that actual compression
Is just on the limit.

Flat compression with deep pits.
Same is causing miss compression



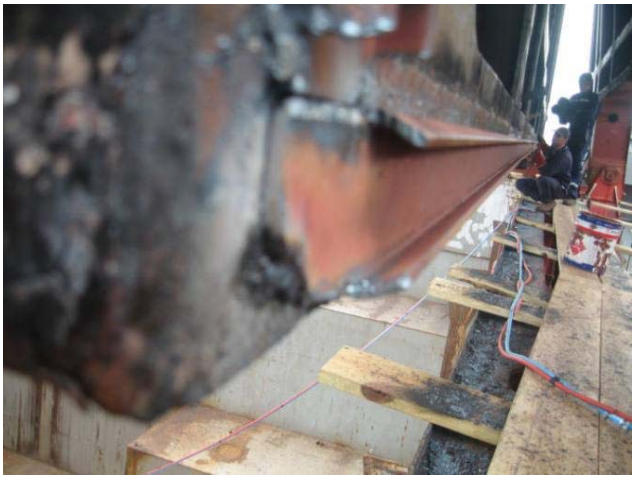
After inspection it is obvious that flat
Cross joint compression is
Misaligned and about 20mm
Of deflection.

Flat compression
At another cover with deep pitting
And uneven. In this respect consider
Same as a general defect.

Replaced flat compression on cross
Joint and re aligned

Another part of cross joint covers
With replacement as above

Rubber channel at aft part removed



Rubber channel fitted and adjusted

At ends.

Rubber channel fitted and adjusted.

Rubber channel replaced at
Cross joint.
Similar is repair at all covers.

Replaced side rubber channel
And installation of packing.

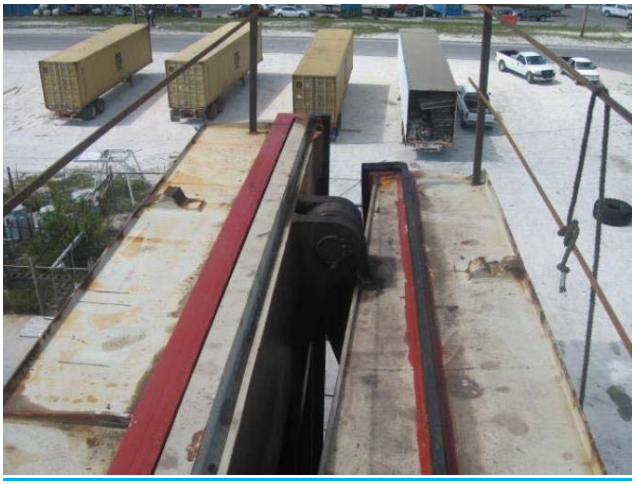
Similar for all hatch covers

Installation of corner packing.

Rubber packing replacement at side

Corner packing replacement

End packing replacement.

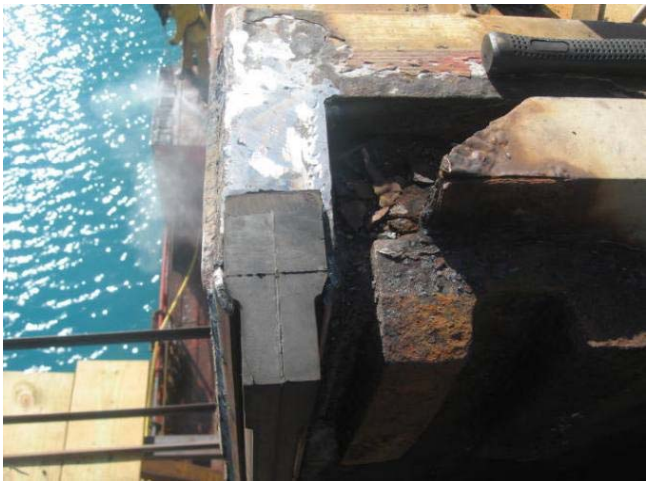


Cross packing with flat compression
New installation.

End corner piece mistaken spare
Part.

Modification of end corner area in
Order spare part to be fitted

Same applies to all corner pcs
Of all panels.



Final fitting of end corner pc

Another view of fitting with Modification on channel too.

Final arrangement.

Closing of covers for adjustment.

Closing position of covers shows
Approx. 30mm of over compression
Since aft bearing pad is not touching
Bearing plate on coaming.
So that it is obvious that further
Adjustment is requirement.

Means of compression checking
Since side bearing pads are internal
And cannot be seen but from hold
Side.

Bearing pad (resting pad) of cover
Internally as above described.

Guide with bearing pad internal
Of covers.

Wasted part of internal area
Guide and resting wastage.

At resting point of cover it is
Obvious that there is no steel to steel
Contact with resting pad and
Enhanced hatch rim. (side area)
This is caused from wastage as
Described above, further is causing
Also over compression of packing
And eventually packing distortion.

Additional adjusting internal pads
Install at all panels in order to
Avoid over compression and
Packing distortion.

Another cover with additional pc
For same reasons of adjusting
Resting position.

Closed position of covers.
Adjusted resting pad with
Packing correct compression.

Packing compression at closed
Position after repairs and
adjustment.

Cross joint view in closed position.

At cover No 4 panel 1observed
Problems at operation during
Open/closing. Same repaired

Additional pc adjusting resting
Position of cover in order
To avoid distortion of packing
During operation of covers.

Pressure testing of fire hose
Prior commencing hose test.

Hose test of covers

Cross joint areas.

Sides

Destroyed platforms of crane no2.

Crane No1 with destroyed platforms

New platform

Rest of platforms.

Staging on cranes in order to
Reach highest part to install
Platform.

New stay bars at sideways and
Container fittings of same position

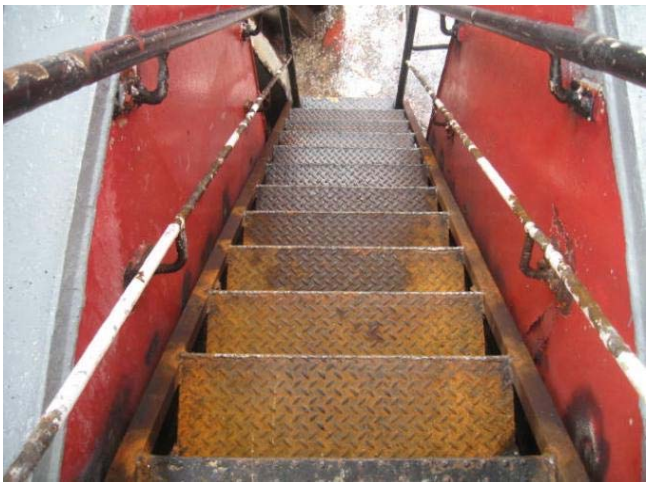
Container fittings with same
Adjusting for correct fitting.

Lashing eyes have been de-frozen
In order to achieve their
Functioning. Same at all covers.
Several container fittings (approx 30
Pcs) have been reformed fro single
To double fitting.

Top area of pillar.

Above repaired and container fittings Adjusting and installed

Covers fittings adjustment.



New steps installed at port
External accommodation ladder

Safety pin fabricated and installed at
Provision cranes port/stbd.

New brackets installed at
Accommodation deck.

ANNEX

1. **Steel Work Analysis**

2. **Repair Drawings**

Notes:

- Covers delivered to owners fully water tight and operational.
- Hatch covers top plates as described, were noticed with extensive pitting at several locations. Should be considered as a suspect area for forthcoming survey.