



REPUBLIC OF SLOVENIA  
**MINISTRY OF INFRASTRUCTURE**

Maritime Accident and Incident Investigation Services

Langusova ulica 4, 1535 Ljubljana  
SLOVENIA

T: 01 478 82 53  
F: 01 478 82 30  
E: [mzi.maiis@gov.si](mailto:mzi.maiis@gov.si)  
[www.mzip.gov.si](http://www.mzip.gov.si)

**M/V "GRANDE COLONIA"**  
  
CONTACT WITH THE PIER  
DURING BERTHING MANOEUVRE  
IN PORT OF KOPER  
ON  
JULY 19, 2015

National occurrence no: 3/2015  
EMCIP casualty No: 2484/2015

Extract from  
The Slovene Maritime Act  
(Accident Investigations)  
Article 200.a

The purpose of the investigation of maritime accidents in accordance with this Act is not a determination of liability or blame, but determining the causes of the accident and prevents similar accidents.

For all enquiries:

Ministry of Infrastructure

Maritime Accident and Incident Investigation Services

Langusova ulica 4

1535 Ljubljana

Slovenia

Email: [mzi.maiis@gov.si](mailto:mzi.maiis@gov.si)

Telephone: +386 1 478 82 53

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## **GLOSSARY OF ABBREVIATIONS AND ACRONYMS**

AB	-	Able seaman
AIS	-	Automatic Identification System
ALB	-	All Weather Lifeboat
ARPA	-	Automated Radar Plotting Aid
BA	-	British Admiralty
BNWAS	-	Bridge Navigational Watch Alarm System
CA	-	Certifying Authority
CoC	-	Certificate of Competency
COG	-	Course over the ground
COLREGS	-	International Regulations for the Prevention of Collisions at Sea 1972 (as amended)
CoSWP	-	Code of Safe Working Practices
CPA	-	Closest Point of Approach
CPP	-	Controllable pitch propeller
DGPS	-	Differential global positioning system
DSC	-	Digital Selective Calling
ECDIS	-	Electronic Chart Display and Information System
EU	-	European Union
GMDSS	-	Global Maritime Distress and Safety System
GPS	-	Global positioning system
gt	-	Gross tonnage
IMO	-	International Maritime Organisation
ISM Code	-	International Safety Management Code
kt	-	Knot
LED	-	Light emitting diode
MMSI	-	Maritime mobile service identity
nm	-	Nautical miles
NPD	-	Nominated Departure Point
OOW	-	Officer of the watch

RAM	-	Restricted in Ability to manoeuvre
SAN	-	Surveyor Advice Note
SAR	-	Search and Rescue
SMC	-	Safety Management Certificate
SMS	-	Safety Management System
SOG	-	Speed Over Ground
SOLAS	-	International Convention for the Safety of Life at Sea 1974, as amended
STCW	-	International Convention on the Standards of Training, Certification and Watchkeeping for Seafarers 1978, as amended
t	-	Tonne
TSS	-	Traffic Separation Scheme
USB	-	Universal serial bus
UTC	-	Universal Time Co-ordinated
VDR	-	Voyage Data Recorder
VHF	-	Very High Frequency (Radio)
VTS	-	Vessel Traffic Services

**TIMES:** all times used in this report are UTC+2 unless otherwise stated

## **SYNOPSIS**

On July 19, 2015 at 7:30, m/v »GRANDE COLONIA« approaches the berth No. 11 in Basin II in Port of Koper, Slovenia.

Weather conditions were fine, with NNW wind 0,6 kts, temperature 29 degrees and very good visibility.

Berthing was assisted with two tugboats. After the berthing, tugboats were released and crew discovered, that there is a bollard in position just beneath loading ramp and ship should be moved few meters forward or backward in order to safely accommodate loading ramp for cargo operations.

Master ordered to move her backwards few meters with use of ship's mooring equipment, i.e. to slack bow lines, tighten after bow spring, pull stern lines and slack forward quarter spring.

Due to the lack of good communication between command bridge and crew on mooring positions (forecastle and stern), all mooring lines forward were too slacked and mooring lines on stern were tighten too much. Due to that, fore part of the ship drifted to the port side and aft part of the ship drifted to the starboard side and hit the pier with aft cargo ramp reinforcement, causing minor damage to the pier on two spots. On the ship, only small scratches to the paint occurred.

Consequently, no recommendations have been made.

## SECTION 1 – FACTUAL INFORMATION

### PARTICULARS OF “GRANDE COLONIA” AND INCIDENT

#### **SHIP PARTICULARS**

<b>Vessel's name/Call sign</b>	GRANDE COLONIA / IBXR
<b>Flag</b>	Italy
<b>Classification society</b>	Registro Italiano Navale
<b>IMO Number</b>	9318527
<b>Type</b>	Ro-ro cargo
<b>Registered owner</b>	GRIMALDI Group S.p.A., Via Marchese Campodisola 13, 80133 Napoli, Italy
<b>Manager</b>	GRIMALDI Group S.p.A., Via Marchese Campodisola 13, 80133 Napoli, Italy
<b>Construction</b>	Steel
<b>Year of build</b>	2007
<b>Length overall</b>	176,00 m
<b>Length (bp)</b>	165,00 m
<b>Gross tonnage</b>	38,651 m/t
<b>Minimum safe manning</b>	
<b>Authorised cargo</b>	Cars, Trailers, Trucks

#### **VOYAGE PARTICULARS**

<b>Port of departure</b>	Alexandria, Egypt
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<b>Port of arrival</b>	Monfalcone, Italy
<b>Type of voyage</b>	Short international
<b>Cargo information</b>	Cars, Trailers, Trucks
<b>Manning</b>	26



Picture 1: m/v "Grande Colonia" at berth no.11



## MARINE CASUALTY INFORMATION

<b>Date and Time</b>	19 July 2015 at 0800 hrs
<b>Type of marine casualty or incident</b>	Incident, contact with the pier during the berthing
<b>Location of incident</b>	Port of Koper, basin II
<b>Place on board</b>	Starboard side, stern
<b>Injuries/fatalities</b>	No
<b>Damage/Environmental impact</b>	Minor damage to the pier
<b>Ship operation</b>	On arrival
<b>Voyage segment</b>	Berthing
<b>External &amp; Internal environment</b>	Wind: NNW wind < 1 kt Sea state: calm Visibility: very good
<b>Persons on board</b>	26

Picture 2: Berth No. 11, Port of Koper



## SECTION 2 – ANALYSIS

On July 19, 2015, ro-ro vessel “GRANDE COLONIA” under pilot approached berth No. 11 in Port of Koper, assisted by two tugboats.

Once berthed and tugboats were released, crew noticed that berthing position is not good due to the position of the bollard on pier, which was situated directly beneath ship’s loading ramp. After consultation with the pilot master ordered to move the ship approximately 10 meters astern by using ship’s mooring equipment only.

Master ordered to slack bow lines, tighten after bow spring, pull stern lines and slack forward quarter spring. Due to the poor communication between fore and aft mooring posts, fore mooring ropes were slacked too much and therefore ship’s bow swing to the port side, while stern part touched the pier with the reinforcement beneath loading ramp.

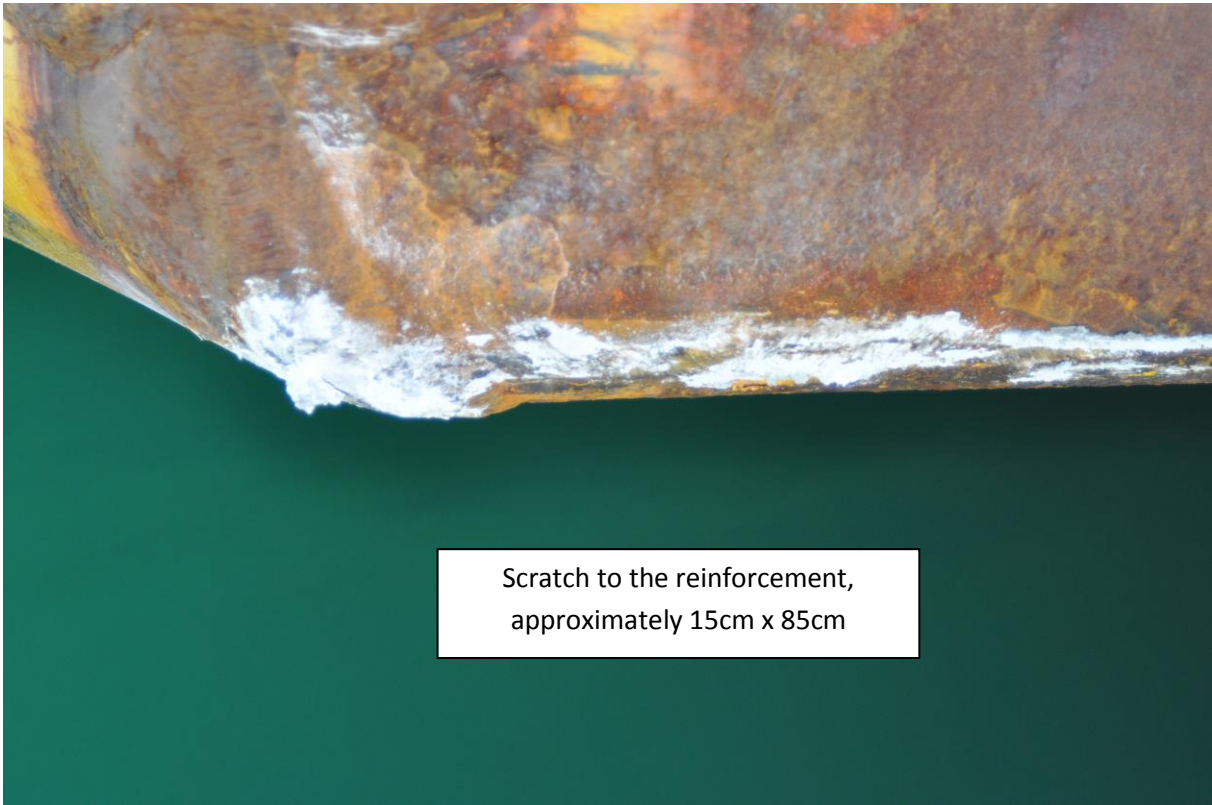
Due to the impact to concrete pier a minor damage occurred on two spots:

- Fragment of concrete, dimensions 26cm x 21cm x 10cm, and
- Fragment of concrete, dimensions 47cm x 45cm x 9cm.

Ship did not suffer any substantial damage and case was only reported to the port authority.



Picture 3: Point of contact, ship’s stern starboard side

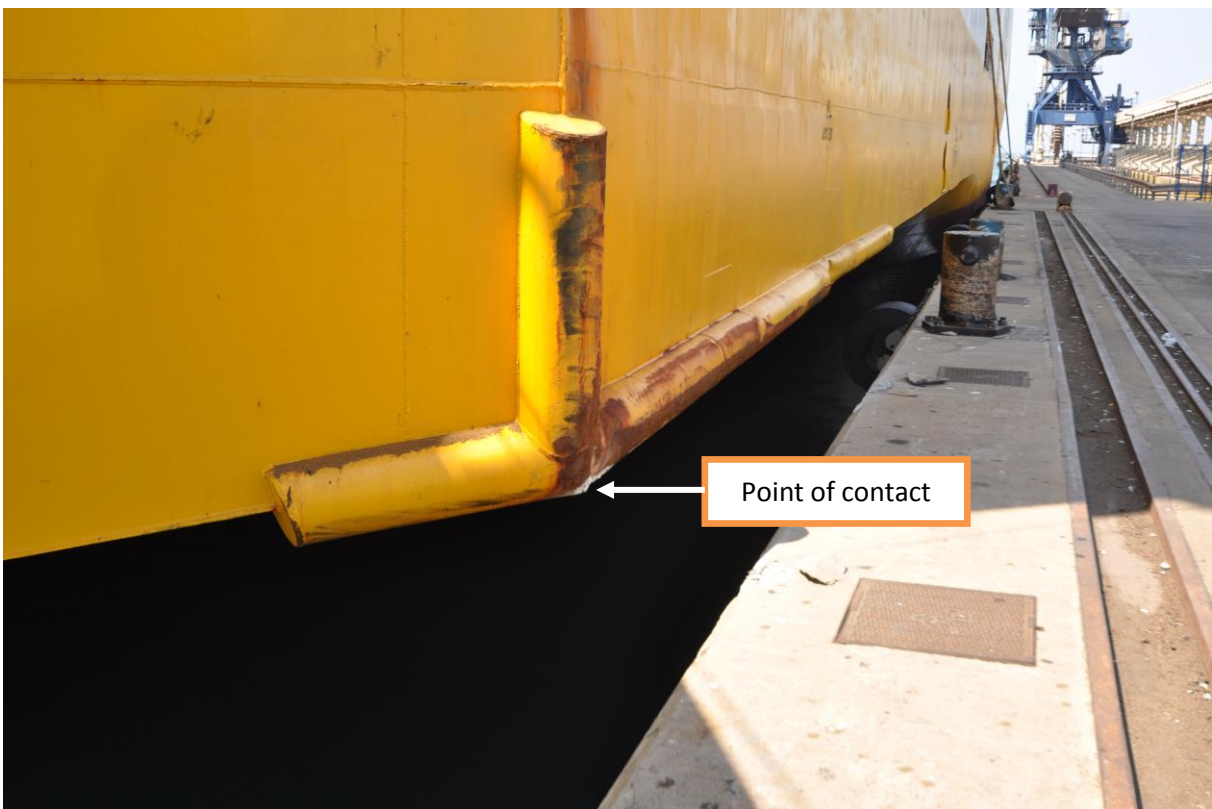


Picture 4: Damage to the reinforcement





Picture 5: Damage to the reinforcement



Picture 6: Point of contact, ship's stern starboard side





Picture 7: Damage to the pier



Picture 8: Damage to the pier

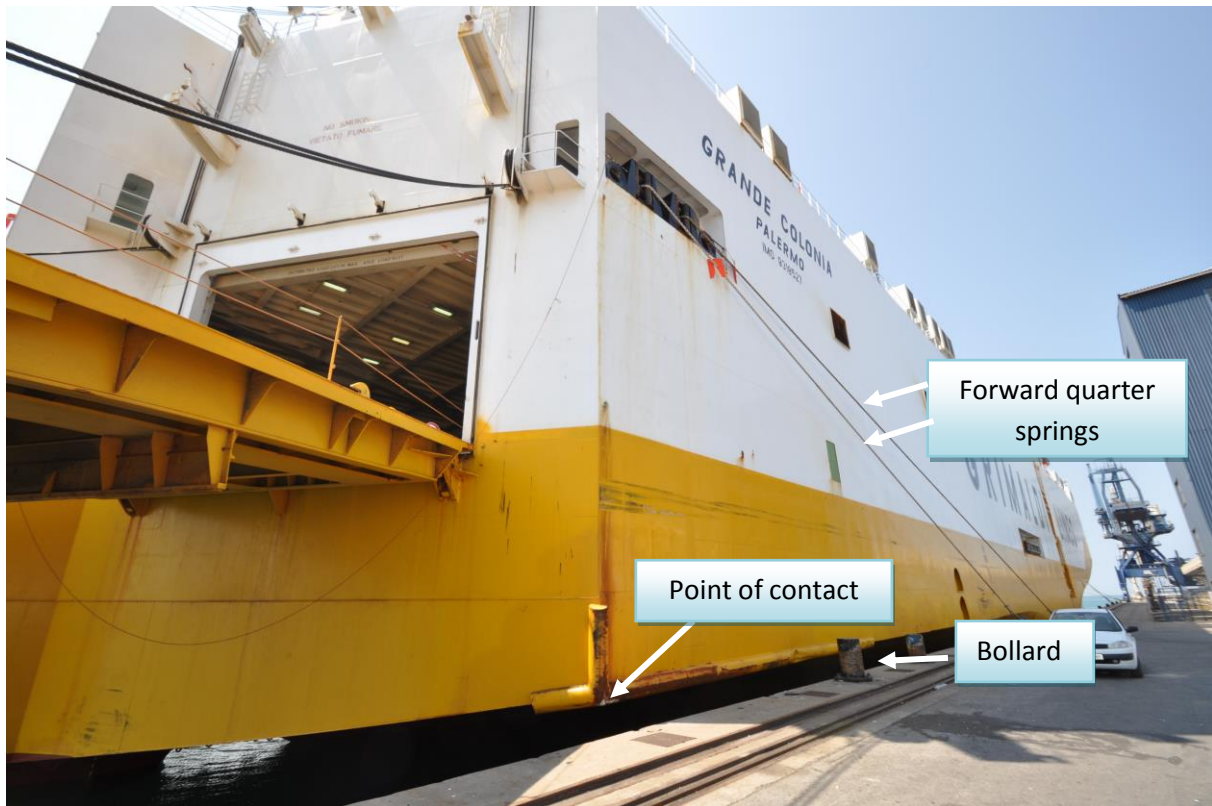


Picture 9: Ship's bow mooring lines





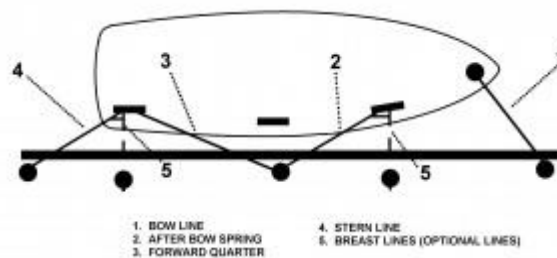
Picture 10: Ship's forward quarter springs



Picture 11: Ship's stern mooring lines

Before using mooring lines to help manoeuvre at the dock, crewmembers need to first know their names and what they do:

- The bow line (#1) and stern line (#4) are used to keep the vessel secured to the dock.
- The after bows spring (#2) and forward quarter spring (#3) are used to keep the vessel from surging forward or aft at the dock.



Normally, only these four lines are required when mooring. During times of foul weather, breast lines (#5) may be used to provide additional holding strength. Fenders should be used at strategic points along the hull to prevent chafing against the dock or float.



If it becomes necessary to hold position alongside a dock, but swing the bow or stern out in order to clear another vessel or obstacle, using a spring line can help to accomplish this.

The forward quarter spring, or stern spring (#3) should be used to "spring out" or move the bow away from the dock. By backing down on a boat's engine with just the forward quarter spring attached to the dock, the bow will move away from the dock.

The after bow spring, or bow spring (#2) should be used to "spring out" or move the stern away from the dock. The stern will move away with the rudder full toward the dock and the engines ahead. With the rudder turned the other direction or away from the dock, the stern will move towards the dock or "spring in".

The boat operator and crew should never attempt to fend a boat off a pier, float, etc., by hand or by foot, but should always use a fender. The proper sized fenders should be kept at hand.

When mooring with an off-dock wind, the approach should be made at a sharp angle – 45° or more and the approach should be made parallel with the intended berth and the fender should be rigged in appropriate positions. The boat operator should ensure that the boat has no fore and aft movement when contacting the dock.

Except for using the forward quarter spring, the stern of a boat should never be tied down while manoeuvring beside a dock. This restricts manoeuvrability.

The pivot point of a boat is approximately one-third of the way aft of the bow when the boat is underway at standard speed. This point moves forward as speed is increased and aft as speed is decreased.

The greatest amount of control over the boat is gained by manoeuvring into the prevailing face of the wind or sea. Boats turn more slowly into the wind and sea than away from them. A single-screw boat will generally back into the wind when the boat has more "sail" area forward of the boat's pivot point than aft.

## **SECTION 3 – CONCLUSIONS**

“Grande Colonia” struck the pier because of the poor communication between command bridge and mooring stations. This resulted in contact between ship and pier, causing a minor damage to the pier on two spots.

In the time of contact, engines were stopped and tugboats released.

Ship did not suffer any damage, only minor scratches of the painting on the stern ramp reinforcement occurred.

## **SECTION 4 – ACTION TAKEN**

No further action was taken.

## **SECTION 5 – RECOMMENDATIONS**

No recommendations have been made.