Transporta nelaimes gadījumu un incidentu izmeklēšanas birojs

Transport Accident and Incident Investigation Bureau of the Republic of Latvia

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Simplified report Nr. 1-2019

Heavy contact of Madeira flagged vessel Lyra with pier 51 A in Port of Liepaja port on 26th October 2019

Marine Investigation department

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GLOSSARY OF ABBREVIATIONS AND ACRONYMS

Appr – approximately

BRM- Bridge Resource Management

ECDIS - Electronic Chart Display and Information System

iaw-in according with

VTS -Vessels Traffic Services

TAIIB - Transport Accident and incident Investigation Bureau

1. Preamble

1.1. The sole objective of the investigation of an accident shall be the prevention of future accidents through the ascertainment of its causes and circumstances. It shall not be the purpose of an investigation to determine liability nor to apportion blame.

1.2. Latvian TAIIB has received an initial notification about heavy contact of mv Lyra from Liepaja port VTS operator by phone call at 08:30 local time on 26 October 2019.

2. Narrative

On 25 October 2019 (from 15.00) Liepaja Port was closed due to heavy winds iaw local rules and procedures, when wind blasts force has exceeded 18 meters per second randomly. Several vessels have been scheduled for entry into port of Liepaja, expecting an opportunity, but heavily delaying. One of the vessels was Madeira flagged mv LYRA, scheduled to arrive at pier number 51A on 25 October at 19.00. On 26 of October from appr 04.00 weather conditions gradually improved and local VTS operator has opened port of Liepaja for entry, using "window of opportunity" regarding weather conditions. There were 5 vessels outside on arrival, LYRA was last one in the entry queue. LYRA has concluded standard formalities and started transit to port at around 06.00. Just after entry in Port's Central gate Pilot has embarked at 06.45 LT. Normally pilot embarkation point is outside of port basin, but exemption has been made due to heavy winds and safety procedures. Under the pilotage LYRA has proceeded to pier 51A and started berthing operations (wind blasts up to 17 m/s) by her starboard side. The transit since pilot embarkation to berthing operation to be commenced has lasted 15 minutes. Lyra almost finalized berthing (with 2 lines already being put on bollards) when Master has issued command to helmsman "hard to starboard" in order to compensate vessel's aft drift toward pier, while having main engine working in mode "slow astern". This command has amplified aft drift toward berth, combined with wind pressure, resulting vessel's heavy contact with berth bollard, piercing of Lyra starboard side and daily service tank (capacity of 900 litres) resulting pollution of around 150 litres (iaw vessel Master report) of heavy fuel into water. There were no casualties/injuries during the accident. Alcohol was not the factor during the accident. Pilot has reported Liepaja port authority about

the accident at 07.15 by phone. Port authorities has launched oilspill combating procedures immediately.

3. Facts

Ships' particulars:

Vessel's name	LYRA
IMO Number	9155432
Call sign	CQIE6
Type of ship	Bulk carrier
Flag	Madeira
Port of registry	Funchal
Registered owner	Hermione three Maritime Ltd.
Registered operator	Hermione three Maritime Ltd
Classification Society	DNV.GL
Gross Tonnage	4115 t
Net Tonnage	2005 t
Registered length	94 m
Registered width	16,5
Draft	6 m
Place and year of building	China, 1998
Hull material	Steel
Engine Power	4000 kW
Crew	12

Weather conditions:

Weather forecast for Port of Liepaja in accordance with the data from "Latvian Environment, Geology and Meteorology Centre":

At time period from 07.00 till 20.00, 26 October 2019; South-West direction wind 11- 18 m/s, Visibility less than 10 kilometres, rain.
In accordance with vessel’s Master’s report, the factual weather conditions were; South-West (190) wind 17 m/s, air temperature: +5^{0}C.

4. Description

In accordance with collated VDR data, Liepaja port VTS radar playback records, written statements of crew and Pilot, bridge audio records from VDR (all times local):

On 26 October 2019 at 06.02 vessel has acquired permission from Liepaja port for entry starting transit immediately. One radar X bands, one ECDIS units were fully operational. Bridge manning: Master, OOW (Chief officer), helmsman. All radio and navigational equipment, engine control consoles in good working order and tested according vessel’s (ISM) check lists.

Events in chronological order:

1. At 04.00 wind force has decreased to 10 m/s and Liepaja port VTS operators has allowed entry for 5 vessels scheduled for entry and expecting permission outside. Four vessels has entered port consequently before the LYRA.
2. At 06.00 LYRA has received approval for entry thru the Central gate and commenced the manoeuvre.
3. At 06.15 LYRA entered Central gate
4. At 06.45. Pilot had embarked LYRA from pilot boat in port’s inner basin. Lyra has started berthing operation by pier 51A.
5. At 07.00 LYRA has been partially connected to pier (2 lines out) berthing course: 347, wind direction: 190, wind force: 15 m/s (iaw Master statement) Master is fully in charge of vessel control/commands
6. At 07.10 aft is drifting toward pier, main engine working “slow astern”. Master tries to compensate drift giving command “hard to starboard”. Vessel facilitates drift to pier and heavily contacts pier’s bollard, resulting piercing of hull and consequent piercing of fuel tank. Fuel discharges in water and onto pier surface.
7. At 07.15. Pilot reports VTS about vessel damage.

Image1: Hole in LYRA hull (appr 20x10 cm) with residues of polluted fuel

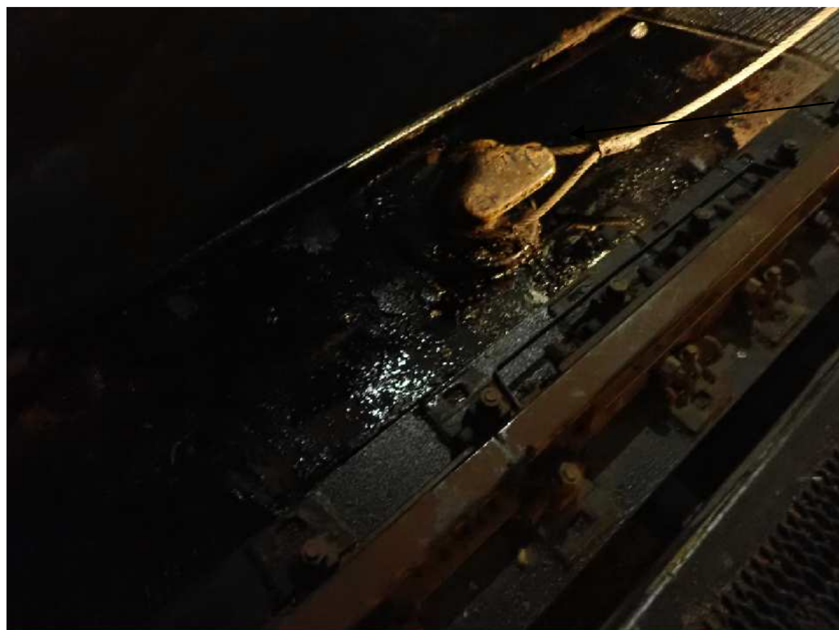

Image 2: Bollard and surroundings just after LYRA berthing (image taken in 15 minutes after the accident)

5. Analysis

5.1 Activities on the vessel's bridge prior the accident.

Master-Pilot exchange: The pilot has embarked vessel 15 minutes prior berthing operation. The detailed analysis of VDR audio files (voice records on the LYRA bridge) do not provides neither outline nor content of navigation/manoeuvring related discussions between crew and Pilot prior the berthing ops. If dialogs been presented, they have been held well beyond the effective reach of inbuilt VDR bridge microphones.

Vessel's voyage plan: There was ready and Master's approved voyage plan written on paper as well as within the ECDIS.

Image 3: Snapshot of LYRA arrival voyage plan in ECDIS

Performance of Pilot: Within those 15 minutes of actual work from embarkation to berthing Pilot has provided consultancy to Master, without direct taking over of the command, as per vessel's VDR audio records.

5.2. Human erroneous actions and omissions

Omissions before and during the accident:

5.2.1. absence of effective Master-Pilot exchange prior the berthing ops, however this omission has not direct impact on accident

Erroneous actions:

5.2.6. Master's command to helmsman "hard to starboard" instead of "hard to port" while engine working in "slow astern mode" resulting amplifying and facilitating of vessel aft drift toward pier with consequent lean on bollard and hull piercing.

5.3. Hazardous material involvement

NIL

5.4. Environmental impact

Considerable pollution of heavy oil from daily usage fuel tank : around 150 litres. Liepaja port authorities has launched oilspill combating operation iaw port instructions and standards.

5.5. Equipment failures

Vessel's hull is damaged. Pierce app 20x10 cm in fuel tank

5.6. External factors

Wind was being most important factor in accident. Other meteorological elements were neglectable as factors.

5.7. Contributing factors of the accident involving human performance, shipboard operations, shore management or regulatory procedures:

Factors as c**rew fatigue, lack of competence or shortages on shipboard operations** could not be clearly articulated as the contributory factors of the accident. All vessel's conventionally required and presented paperwork like checklists, working-rest lists, plans, graphs etc. have been held according to standards (regarding to conventional standards).

6. Conclusions

6.1. The accident happened due to Master's command on helm "hard to starboard" instead of "hard to port". VDR audio records provides evidence, that Master has understood the consequences of his command immediately after vessel's leaning on bollard.

7. SAFETY RECCOMENDATIONS

None. All evidences and accident-related data have been transferred to LYRA flag state authorities for their further considerations.