# AIR, MARITIME AND RAILWAY ACCIDENT AND INCIDENT INVESTIGATION UNIT

# FINAL REPORT FOR SERIOUS CASUALTY ON **M/V G TAISHAN**

Personal injury of port worker during steel coils discharging in Port of Koper, berth 11, Basin II 18.05.2024





SLUŽBA ZA PREISKOVANJE LETALSKIH, POMORSKIH IN ŽELEZNIŠKIH NESREČ IN INCIDENTOV

Tržaška cesta 19, 1000 Ljubljana

# REPUBLIC OF SLOVENIA MINISTRY OF INFRASTRUCTURE

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# FINAL REPORT FOR SERIOUS CASUALTY ON M/V G TAISHAN

Personal injury of port worker during steel coils discharging in Port of Koper, berth 11, Basin II
18. 05. 2024

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Marine Accident and Incident Investigator

MINISTRSTRY FOR INFRASTRUCTURE
Air, Marine and Railway Accident and Incident Investigation

Unit

Izola, 26. 07. 2024

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Extract from the Maritime Code of the Republic of Slovenia (Official Journal of the Republic of Slovenia, No. 62/16 - Official Consolidated Text, 41/17, 21/18 - ZNOrg, 31/18 - ZPVZRZECEP, 18/21, 21/21 - Amended and 76/23)

#### Chapter XI - INVESTIGATION OF MARITIME ACCIDENTS

#### Article 200a

The purpose of investigation of maritime accidents under this Act is not to establish the responsibility or fault, but to determine the causes of accidents and to prevent similar accidents.

#### Article 200e

Data obtained by an investigator during the investigation of a maritime accident shall be confidential and not publicly available. These data may be publicly available only if there is prevailing public interest arising from the investigator's final report on a maritime accident.

#### Article 200g

The investigation of a maritime accident shall be independent from investigations of criminal acts or other parallel investigations the object of which is the identification of responsibility and determination of fault. These investigations shall not unduly inhibit, interrupt or defer the investigation of maritime accidents.

#### Information:

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All times mentioned in this report are local (UTC+2h) unless otherwise stated.

The provisions of the international conventions referred to in this report must be interpreted and understood in the light of the full text of those conventions, including any annexes.

In no event shall the Safety Recommendations create a presumption of liability or fault.

This report is published in identical Slovenian and English versions. In case of any disputes or disagreements, the Slovenian version of this report shall apply.

#### **TABLE OF CONTENTS**

INDEX O	F FIGURES	iv
	G OF TERMS	
	RY	
	R 1 - FACTUAL INFORMATION	
1.1.	SHIP'S INFORMATION	
1.2.	LUKA KOPER – PC GENERAL CARGOES, Dept., Health and ecology protection department	t 5
1.2.	1 PC General Cargoes department	5
1.2.	Organization, Safety, and Health at Work	6
1.2.	3 Agency workers	6
1.2.	4 Framework Agreement between Luka Koper and Workforce	6
1.3.	Workforce - kadrovske storitve d. o. o	7
1.4.	NARATIVE	8
1.4.	1 Location of the event	8
1.4.	2 An event - Incident description	. 10
1.5.	·	
1.5.		
	R 2 – ANALYSYS OF EVENTS	
2.1.	Event Overview	
2.2.	Findings and Analysis	. 14
CHAPTER	R 3 – CONCLUSIONS	. 15
CHAPTER	R 4 – ADOPTED AND IMPLEMENTED MEASURES	. 17
CHAPTER	R 5 – SAFETY RECOMMENDATIONS	. 18
Bibliogra	phy	. 19
APPENDI	ICES	. 20
INDEX	OF FIGURES	
	m/v G TAISHAN, (vir: https://www.vesseltracker.com/)	
_	General Cargo Terminal in Basins I and II (source: https://www.luka-kp.si/o-podjetju/DPN/)	
_	M/V "G Taishan", Cargo Plan	
	M/V G Taishan, Cargo hold no. 2	
_	Depiction of the hold's layout as it was before the incident	
	Movement of the injured person, M. K., before the injury	
_	probable position of the worker's arm relative to the ram and the forklift operator	

#### **APENDICES**

Appendix 01 - Hospital discharge letter M.K.

Appendix 02 - Excerpt from working guidelines TP 1006\_Rev1)

Appendix 03 - Preventive control record

Appendix 04 - Preventive controls and Preventive measures taken and implemented

Appendix 05 - Excerpt from working guidelines TP 1006\_Rev2

# **MEANING OF TERMS**

Abbr		Description
		·
CNP	-	Traffic Control Center (SMA)
GT	-	Gross Tonnage
kt, kts	-	knot, knots
kW	-	Kilowatt
LOA	-	Lenght Over All
LPP	-	Lenght Between Perpendiculars
LT	-	Local Time
LTD	-	Longshoreman, Port worker
m	-	meter
MBL	-	Minimum Breaking Load
MMSI	-	Maritime mobile service identity
oow	-	Officer Of the Watch
Т	-	Tonne (metric tone)
TRT	-	Iron Ore and Coal Terminal
URSP	-	Slovenian Maritime Administration
UTC	-	Universal Time Co-ordinated
VHF	-	Very High Frequency (Radio)
VNC	-	Port Security Center
VNT	-	Multipurpose Terminal
VTS	-	Vessel Traffic Services
VZD	-	Occupational safety and health (OSH)
VZE	-	Health protection and ecology
ZPP	_	External contractual partners



Figure 1: m/v G TAISHAN, (vir: https://www.vesseltracker.com/)

#### **SUMMARY**

The ship G TAISHAN arrived in the area of the Port of Koper and berthed on May 16, 2024. Due to rain, it waited to begin trading operations until May 17, 2024. During the unloading of cargo on May 18, a work accident occurred in the ship's hold when, during the positioning of the lifting belt into the steel coil, the forklift driver lowered the attached device "coil ram" and pinched the hand of the worker who was placing the belt. Unloading was immediately halted, and the foreman immediately notified the Luka Koper Port Security Center. Shortly thereafter, members of the professional fire service and emergency medical assistance arrived. First aid was provided to the injured worker. The injured person was disembarked to the shore with a basket and crane and was taken by emergency medical services in an ambulance for further medical care at the Izola General Hospital. In accordance with the usual procedure, statements were taken from the event witnesses, the foreman, the forklift operator, and the workers present. An alcohol test was conducted on the forklift driver. The unloading of the cargo resumed after the incident. The ship completed its trading operations of unloading and departed on May 19, 2024. Due to the serious injury to the wrist and left arm, and the several weeks' incapacity for work and absence from work for more than 72 hours, the investigator decided to initiate an investigation. During the investigation, ship documents, the event report, records, photos, and statements about the event, as well as relevant documentation from Luka Koper, the employment agency where the injured person was employed, and data from the Slovenian Maritime Administration were collected. Interviews were conducted with representatives of Luka Koper, specifically the Health protection and Ecology Department, representatives of the PC General Cargo Department, including participants and witnesses of the event, and representatives of the employment agency. An interview was also conducted with the injured worker. Based on the established facts, the investigative body issued safety recommendations.

# **CHAPTER 1 - FACTUAL INFORMATION**

## 1.1. SHIP'S INFORMATION

PODATKI O LADJI	
Name of ship	G TAISHAN
Type of ship	BULKCARRIER
Owner	G TAISHAN SHIPPING CO., LTD
Operator	SHANGHAI XIN HAI SHIPPING CO., LTD
Year of construction	2008
Classification Society	NKK
Flag	PANAMA
Port of entry	PANAMA
IMO number	9440992
MMSI number	371238000
Call sign	3FTS4
Length	189,99
Width	32,26
Maximum draft	12,828
Gross tonnage (GT)	32.415
Net tonnage (NT)	19.353
Displacement (D)	
Deadweight (DWT)	58.780
Engine	MITSUI-MAN B&W 6S50 MC-C
Engine power	8400 kW at 113 RPM
Thrusters	
Propeller	
VOYAGE INFORMATION	
Previous port	Vung Tau via Suez
Port of arrival	Koper
Type of voyage	International
Cargo	Steel coils
Number of crew	22
CASUALTY INFORMATION	
Date and Time	18. 05. 2024 at 07:47 LT
Type of accident or incident	Work accident / personnel injury
Location of the event	Bert 11 Port of Koper
Part of ship	-/-
Human injuries / casualties	1
Damage / Environmental impact	-/-
Ship's operation	Discharging

Travel segment	Alongside
Weather and effects	Clear weather, slight wind
Draft at time of accident	8,30 / 9,80

In accordance with the provisions of Article 2(2)(1) of the Regulation on the investigation of marine casualties (Official Journal of the Republic of Slovenia No 67/11), a marine casualty is any occurrence on board or in connection with a ship where:

- a person dies or suffers serious injury in connection with the operation of the ship:
- a person falls from the ship due to the operation of the ship,
- the ship is lost, presumed lost, or abandoned,
- the ship is damaged,
- the boat runs aground, unless she runs aground for a short period of time on purpose and is not damaged as a result,
- the ship is unseaworthy,
- the ship collides,
- property damage caused by the operation of the ship, or
- the environment is polluted as a result of damage to the ship or the operation of the ship.

In accordance with Chapter 2, point 2.18 Res. MSC.255 (84) of the Annex of Casualty Investigation Code "Serious injury" means an injury sustained by a person resulting in incapacitation that renders the person unable to function normally for more than 72 hours commencing within seven days from the day on which the injury was sustained. For this reason, the investigating authority has decided to carry out an investigation into a marine casualty - a shipboard working accident that has occurred in connection with a ship or ship operations.

# 1.2. LUKA KOPER – PC GENERAL CARGOES, Dept., Health and ecology protection department

#### 1.2.1 PC General Cargoes department

In the Figure 2 bellow, the upper rectangle indicates berth number 11, where the ship "G Taishan" was moored at the time of the accident.



Figure 2: General Cargo Terminal in Basins I and II (source: https://www.luka-kp.si/o-podjetju/DPN/)

The General Cargo Terminal uses six berths in Basins I and II, with a total length of 840 meters of operational quay, with depths ranging from 7 to 10 meters. The terminal's storage capacity is approximately 183,000 m². It is equipped to handle and store a variety of cargoes: coffee, sugar, rice, paper, cellulose, magnesite, aluminum, profiles, coils, pipes, rails, white goods, project cargoes, and many others, differing in weight, volume, shape, and other characteristics.

Each day, the terminal manages approximately one hundred types of goods, packaged or partially packaged in different handling units. The goods can be in bags, boxes, cartons, bales, bundles, coils, ties, barrels, on pallets, in "jumbo bags," and similar units.

For efficient, fast, and safe handling of cargo, its storage, and packaging (in ships, warehouses, containers, and land transport), the terminal is equipped with specialized machinery, modern equipment, grippers, tools, and appropriate warehouses, and services are provided by professional and qualified staff [4].

For the correct and safe handling of steel coils, as one of the cargo types, the General Cargo Department issued an internal document titled "Technology for Handling Steel Coils (coils)" (TP: 10006, Rev. 1, 2019/02) (slo. Tehnologija manipulacije jeklenih kolutov (koilsi) TP 10006 Rev. 1) [5], which addresses cargo data, tools and equipment, describes handling operations, cargo transportation, storage, and additional work on the cargo, and provides instructions for quality and safe work (Appendix 02).

#### 1.2.2 Organization, Safety, and Health at Work

The establishment, implementation, maintenance, and improvement of the health and safety system at the highest level is ensured by a board member - the workers' director. For coordinating activities in the field of safety and health at work, monitoring legal requirements, and transferring or coordinating internal documentation with necessary changes, a central service for occupational safety and health has been established within the Health and Ecology Department. Individual professional workers, authorized for occupational safety and health (OSH), are allocated across different terminals, departments, and areas to perform professional tasks related to ensuring safety and health at work. The safety and health system includes all workers. Since 2020, Luka Koper d. d. has implemented a three-pillar model – employees at Luka Koper, staffing agencies, and external contractual partners (ZPP).

Work tasks with various work equipment and tools in the General Cargo Division are addressed by the internal document "Safe Work Study in the General Cargo Division" (*slo. Elaborat o varnem delu v PC Generalni tovori*) [6], which serves as a guide for work and must be adhered to by all participants in work processes. In addition to prescribed work technologies for specific cargo and the safe work study, all employees are obliged to comply with the current legislation on occupational safety and health and the valid regulations of Luka Koper d. d. These include "OP 08 Rules on Ensuring Occupational Safety and Health in the Port of Koper" (*slo OP 08 Pravilnik o zagotavljanju varnosti in zdravja pri delu v koprskem prostanišču*) [7] and the work instructions "DN 127 General Safety Measures at Work" (*slo. DN 127 Splošni ukrepi za varstvo pri delu*). The consumption of alcohol and prohibited psychoactive substances, as well as working or being present under their influence, is not allowed in the Luka Koper area. This area is regulated by the "Rules on Determining Alcohol Intoxication and the Presence of Other Prohibited Psychoactive Substances in the Luka Koper Area" (*slo. Pristaniški red*) [9].

To ensure the smooth operation of the Koper cargo port from an operational perspective, and to ensure port security, occupational safety and health, environmental protection, and defense tasks, whereby the concessionaire performs all its duties within the framework of managing the port as a whole in accordance with the provisions of the concession agreement, the document "Port Regulations" [9] is in use. This applies to all persons entering the area of the Koper cargo port, regardless of the purpose of their entry.

#### 1.2.3 Agency workers

Agency workers are employees hired by Luka Koper d. d. through an employer or employment agency that provides labor to another employer. Agency workers have equal rights and obligations as regularly employed workers based on the provisions of the Luka Koper d. d. Collective Agreement, except for those rights and obligations explicitly specified differently in internal regulations, provided that such different arrangements are permitted by applicable law. Luka Koper d. d. engages agency workers in its work processes in cases of increased labor demand, which particularly occurs when there is an increase in cargo handling at the Port of Koper. [10] In this context, Luka Koper d. d., as the service client, concludes a Framework Agreement with the service provider upon the successful completion of a public procurement procedure.

#### 1.2.4 Framework Agreement between Luka Koper and Workforce

Due to the needs and processes of increased labor demand, on October 13, 2022, Luka Koper d. d., as the client, concluded a valid Framework Agreement with the provider Workforce d. o. o. for Lot 4, the job position of "Port Transport Worker" (PTW) (slo. Luško Transportni Delavec – LTD), for a specified number of workers adapted to the client's needs.

In brief, Luka Koper d. d., as the user (client), undertakes, among other things, to:

- Inform the employer (provider) of all conditions for performing the work that the assigned worker must meet and provide a risk assessment for the positions to which the workers will be assigned;
- Train each assigned worker for independent, safe, and healthy work performance and familiarize them with all safety measures and rules to be observed in the Port of Koper area;
- Provide each assigned worker with personal protective equipment that must be used while working;
- Comply with all provisions prescribed by the applicable legal legislation, the Occupational Safety and Health Act (slo. Zakon o varnosti in zdravju pri delu ter predpisi in akti glede varstva pri delu), regulations, and acts regarding occupational safety, the Fire Protection Act (slo. Zakon o varstvu pred požarom), ensuring the organization, implementation, and supervision of the prescribed measures of these laws and the Environmental Protection Act (slo. Zakon o varstvu okolja), as well as other laws, bylaws, and internal regulations governing these areas.

The obligations of the user (client) are detailed in the chapter "Obligations of the User (Client)" in Article 8 of the Framework Agreement. [11]

#### 1.3. Workforce - kadrovske storitve d. o. o.

Due to the needs and processes of increased labor demand, on October 13, 2022, Luka Koper d. d., as the client, concluded a valid (ongoing) Framework Agreement with the provider Workforce d. o. o. for Lot 4, the job position of "Port Transport Worker" (PTW), for a specified number of workers adapted to the client's needs.

In brief, the provider undertakes, among other things, to:

- Ensure the provision of assigned, confirmed workers throughout the entire duration of the framework agreement,
- Conduct work implementation following the client's (user's) work plan and internal regulations,
- In case the individuals employed by the provider violate the rules in the Port of Koper, the provider is obliged to rectify the violations as soon as possible,
- Etc.

The obligations of the provider (employer) are detailed in the chapter "Obligations of the Employer (Provider)" in Article 7 of the Framework Agreement.

#### 1.4. NARATIVE

On May 16, 2024, at 12:46 PM, the ship "G Taishan" was moored in Basin II, at berth No. 11 of the Koper cargo port. The ship arrived from the port of Kwangyang in South Korea, carrying 1,323 pieces of steel coils, with a total weight of 11,374.7 tons.

#### 1.4.1 Location of the event

The cargo for Koper was stored in three warehouses, namely CH 2, CH 3, and CH 4, as shown in the Cargo Plan [12] depicted in Figure 3. The remaining cargo was destined for the ports of Marghera and Salerno.

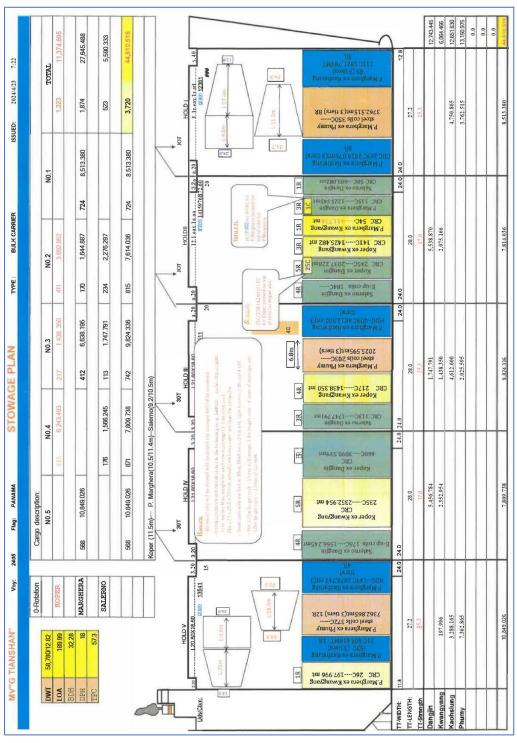


Figure 3: M/V "G Taishan", Cargo Plan



Figure 4: M/V G Taishan, Cargo hold no. 2

Unloading of the cargo on the ship "G Taishan" began on May 17, 2025, at 0600 hours. The commercial unloading operations were conducted in two shifts from 6 AM to 9 PM.

On May 18, 2024, before the start of work at around 0545 hours, a group of workers gathered in front of the General Cargo building and around 0550, they drove to the work site, berth 11, in a van. Upon arrival, the "ship crew," consisting of a foreman, a signalman, and four PTWs, was lowered into cargo hold No. 2 by the ship's crane using a basket. Figure 4 shows that the cargo for Koper in hold No. 2 was mostly unloaded during previous shifts.

In the part of the cargo hold marked with letter C on the port (shore) side of the ship, about 12 coils remained from the previous day's unloading, and approximately the same number on the starboard (sea) side of the hold. At the beginning of the work, cargo handling started with unloading the remaining steel coils in the middle of the hold, directly onto the shore. During this time, about 45 minutes after the work began, a 16-ton forklift with a special attachment for handling steel coils, known as a "coil ram," was loaded into the hold to move the coils to the center of the hold from where

they would be unloaded onto the shore using the shore crane. In the part of the hold marked with letter B, there were two PTWs, a foreman, and a signalman. The worker injury occurred on the sea (starboard) side of the cargo hold, marked with letter A.

The handling of the steel coils continued from the shore side of the hold through the hold opening (wing). The steel coils stacked at the far edge of the hold were strapped using synthetic slings and attached to the ram attachment on the forklift. The forklift then moved the coils to the open part of the hold from where the shore crane transferred them onto the shore. There were approximately twelve coils in this batch (Figure 5).



Figure 5: Depiction of Handling in the Ship's Hold and Transfer of Coils to the Shore with a Crane

#### 1.4.2 An event - Incident description



Figure 6: Depiction of the hold's layout as it was before the incident

Once the remaining cargo from the portside (shore) side of the hold was unloaded, work began on unloading the remaining steel coils from the starboard (sea) side of the hold. Prior to the incident, three pieces of steel coils were manipulated and prepared in the center of the hold for lifting onto the shore (see Figure 6). Before starting the manipulation of the next steel coil, the first one in the second row from the bow, PTW M. K. moved to the left side of the



Figure 7: Movement of the injured person, M. K., before the injury

forklift to check the spacing between the next two coils, i.e., between the first and second coils (viewed from the bow of the ship), in the second row. The forklift's left door was open. During this time, the machine, which was positioned slightly further back as shown in Figure 7, moved forward towards the coils. One end of a synthetic sling was attached to the ram attachment on the forklift. At the same time, another PTW M. B., walked parallel to the forklift, holding the other end of the synthetic sling. When the forklift stopped, M. B. inserted the end of the sling into the coil's opening, as shown in Figure 7.

While unloading the remaining cargo from the right (sea) side of the hold, PTW M. K. climbed onto the first row of coils and proceeded to the space between two coils (see Figure 7, yellow line). After confirming that there was enough space between the two coils for the synthetic sling to move freely and that no additional equipment (steel wire) was needed, M. K. returned to the left side of the coil (towards the bow) to prepare the sling for securing the coil (see Figure 7, red line).

To prevent slipping off the coil in the first row, M. K. slightly leaned forward towards the bow while in a crouched position and supported himself with his left hand on a coil in the second row. Shortly thereafter, he experienced severe pain in his left hand because the forklift operator had lowered the ram attachment onto the coil, pinching M. K.'s hand.

At this moment, LTD M. B., who was nearby, began shouting and signaling the forklift operator with his hands to lift the ram.

At 0737, dispatcher M. S. immediately notified the Port Security Center (VNC). VNC informed the professional fire brigade (PGE), which arrived at the scene at 0740. The Regional Emergency Call Center was also notified shortly thereafter.

At the berth, two PGE members and a VNC representative were lowered into the ship's hold with a crane and basket, where they promptly attended to M. K., treating his injured left hand. The injured worker was then evacuated from the hold to the shore with the basket and, upon the arrival of an Emergency Medical Service (EMS) vehicle, was transported to the General Hospital Izola for further treatment and care.

The VNC representative, along with a commission, conducted interviews with the injured worker M. K., the foreman D. S., who was present in the hold at the time of the incident, and the eyewitness M. B. An interview was also conducted with the forklift operator P. V. Records of the interviews were compiled. The VNC representative and the commission performed an alcohol test on the forklift operator, and a report was prepared.

Meanwhile, the VNC informed other services and individuals: the Regional Emergency Call Center, the Occupational Safety Dispatcher, the Slovenian Maritime Administration, the Shift Leader of the Operational Area, and the Worker Director of LK. The employment agency representative who had assigned the worker to LK was notified at 1557. The marine accident investigator was informed by the URSP at 0810 and arrived at the scene at approximately 0915.

After the incident, commercial unloading operations resumed at 1100. The ship completed unloading cargo on May 19, 2024, at 0835 and departed for the Italian port of Marghera at 1140 on the same day.

#### 1.5. Consequences and Injuries

#### 1.5.1 Physical Injuries

Upon immediate examination at the scene, there was a suspicion of a wrist fracture. Prior to the arrival of the Emergency Medical Service (EMS), members of the Fire Brigade (PGE) provided first aid and immobilized the arm with a vacuum splint. The injured worker was transported to the General Hospital Izola.

A medical examination by the Emergency Department at the General Hospital Izola revealed the following:

Diagnosis:

S52.50 Fracture of the distal radius, left

S41.7 Contusion of the left forearm

S54.8 Partial tear of the flexor digitorum muscle, left

S54.1 Injury to the median nerve, left

An urgent surgery was performed, which included osteosynthesis of the radius fracture and decompression of the median nerve. Due to significant edema, the wound was covered with a VAC (vacuum-assisted closure) system. The injured worker, M. K., was discharged from the hospital for home care on May 22. At discharge, the VAC system was removed, and the wound was sutured. Removal of the stitches was planned for ten days later. A follow-up appointment with a specialist in traumatology was scheduled for June 26 (see Appendix 01).

#### CHAPTER 2 – ANALYSYS OF EVENTS

Based on the "Incident Report 20240306Q / 8", statements from participants and witnesses, interviews with responsible representatives of General Cargo and Health Protection and Environmental Departments, available documentation, and discussions with the injured PTW M. K., witness foeman D. S., PTW M. B., dispatcher M. S., and forklift operator P. V., the following facts have been analyzed:

#### 2.1. Event Overview

Date and Time: On May 18, 2024, at 06:00, the morning shift continued unloading steel coils. This involved directly lifting the coils from the hold and then maneuvering them with a forklift from the left side of the hold to the center, from where they were lifted and unloaded onto the quay using a shore crane.

**Personnel Present:** During the unloading process and at the time of the incident, the following personnel were present: a foreman, qualified PTW (signalman), and four PTWs workers. After the forklift was brought in, the forklift operator was also present.

**Procedure**: After completing the unloading on the portside (shore) side, the process continued similarly on the starboard (sea) side. Steel coils were clamped through the hold's opening using a synthetic strap attached to the forklift's coil ram. The forklift then moved the coils to the center of the hold. Prior to the incident, three steel coils from the right side of the hold were prepared for lifting onto the quay.

Incident Details: Before the incident, M. K. moved from the center of the hold towards the stacked coils on the right side, bypassing the forklift on the left. He climbed onto the first row of coils and moved to the space between two coils (see Figure 7, yellow line). After ensuring there was enough space for the synthetic strap and that no additional equipment (steel wire) was needed, he returned to the left side of the coil (towards the bow) to prepare the strap for the coil (see Figure 7, red line). M. K. mentioned that due to the height of the coils, approximately 2.5 meters, he could not see M. B. (who is shorter) near the coil's opening. M. K. leaned forward in a bent position towards the coil's opening. To prevent slipping from the first row of coils, he supported himself with his left hand on the coil intended for manipulation (second row). Despite M. B.'s proximity, M. K. intended to push the strap into the coil's opening himself. Shortly after, he felt intense pain in his left hand due to the ram being lowered onto the coil and onto his hand. From that moment until the arrival of the fire brigade, the injured worker could not recall anything.

Witness Statements: PTW M. B. stated that he had already inserted the strap into the coil's opening, which M. K. was supposed to pull from the other side and then attach to the ram's attachment.

**Forklift Operation**: The forklift operator lowered the ram onto the coil, which compressed M. K.'s left wrist and forearm. According to standard procedures, the ram should be lowered slightly and stopped above the coil to prevent damage to the cargo. On this occasion, the driver lowered the ram onto the coil for an unknown reason.

**Emergency Response**: Immediately after the incident, the dispatcher notified the safety center, which activated the fire brigade. They arrived and provided first aid at the scene. Upon the arrival of the EMS, the injured worker was transported to General Hospital Izola for further treatment. Urgent surgery was performed upon arrival.

**Post-Incident Interviews**: Interviews were conducted with witness M. B. and supervisor D. S., and records were made. These records did not provide additional information relevant to the investigation.

**Forklift Operator's Statement**: Forklift operator P. V. mentioned that the injured worker was in the "dead angle" and was not visible to him. Figure 8 below shows a probable position of the injured worker's arm. If the ram was raised (as shown in the figure), the arm would be visible to the operator. If the ram was somewhat lowered, it is questionable whether the operator could have seen the injured worker or his hand on the coil.

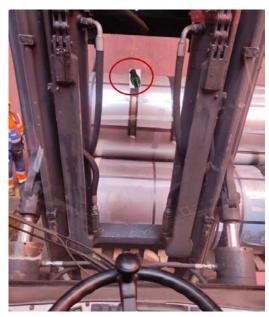


Figure 8: probable position of the worker's arm relative to the ram and the forklift operator.

#### 2.2. Findings and Analysis

**Visibility Issue**: The forklift operator's statement and Figure 8 suggest that if the ram was lowered, it could have obstructed the operator's view of the injured worker. This could explain why the operator did not see the worker's hand and did not stop the lowering process.

**Alcohol Testing:** The forklift operator's alcohol test result showed 0.69 mg/L of alcohol in the breath. According to the regulations, this level of alcohol exceeds the permissible limit. However, interviews with the injured worker, supervisor, dispatcher, and witness did not indicate visible signs of alcohol influence in the operator's behavior.

**Preventive Measures:** Prior to the incident, four preventive alcohol checks were conducted in 2024 at various terminal locations, excluding the terminal where the incident occurred. This suggests a proactive approach to safety, but the effectiveness of these checks in preventing incidents remains questionable.

**Safety Procedures**: The incident raises concerns about adherence to safety procedures, especially regarding the operation of the forklift. The ram should have been stopped above the coil to prevent damage. The deviation from this procedure contributed to the incident.

**Documentation Review:** The documentation provides guidance on the number of workers for securing cargo but lacks specific details on the minimum number of workers needed for preparation and handling tasks. This omission can lead to scenarios where tasks are performed with fewer workers than recommended, potentially increasing the risk of incidents and accidents.

#### **CHAPTER 3 – CONCLUSIONS**

#### 3.1

- The foreman D. S. and PTW M. B. stated that the placement of the strap or securing of the steel coil is done in pairs. The injured party, M. K., stated that sometimes only one PTW performs the work (preparation for manipulation).
- The document Technology of Manipulation on page 19 states that for cargo securing in the "ship" group, 3-4 PTWs are envisaged. In no part of the specific instructions regarding the manipulation process is there a mention of the minimum number of workers needed for securing or preparing for manipulation.

Point 3.4 leads to the Action Taken No. **MAIIS-AT001-2024** (instead of Safety Recommendation SI-MAIIS-SR025-2024).

#### **3.2**.

In a conversation with LTD M. B., it was found that after one manipulation of a coil is completed, one end of the strap is unhooked, pulled out, and the forklift returns for the next coil. During this time, the strap with one end attached hangs on the hook of the spindle, while the other end is usually carried by one of the PTWs to the next coil intended for manipulation, as also mentioned in the event description.

Point 3.4 leads to the Action Taken No. **MAIIS-AT001-2024** (instead of Safety Recommendation SI-MAIIS-SR025-2024).

#### **3.3**.

The injured party and the present PTW M. B. stated that neither of them gave any signal to the forklift operator to lower the coil ram before the straps were secured. At that time, the strap was not even pulled out on the other end of the coil's opening. The document "Technology of Manipulation" states:

- On page 6, in the subsection "2.8 Fork Attachment for Work in the Ship's Warehouse," it only mentions that the operator must adjust their driving.
- On page 11, in the subsection "3.2 L-S or vice versa," it mentions that "When lifting cargo, the appropriate load-bearing capacity of the lifting equipment, all safety measures during the securing or releasing of the cargo, and caution in securing/loosening the cargo (risk of cuts, crushing, and limb injuries) must be observed; lifting should only start on the signal of the signaler." From this text, it can be concluded that this refers only to lifting cargo from the ship's hold to the quay or vice versa, for which a signaler is also designated.
- On page 12, in the subsection "3.2.1 Procedure for Unloading/Loading Cargo (L-S or vice versa) (P4)," it states: "The forklift then transports the cargo to a designated location, where the manipulation takes place only from that location. When securing cargo in the hoist, workers must position the equipment so that the cargo is balanced, ensuring safe transfer from the ship. After positioning the lifting equipment, workers move to a safe place away from the cargo, and on the signal from the signaler, the crane operator lifts the cargo. When in the ship's hold, the forklift operator transports the cargo from the storage area to a designated place in the ship's warehouse, where workers secure the cargo in the same manner as previously described. When removing cargo from the hold, a specially adapted fork attachment can be used (described in section 2.8)."

The context of the entire text indicates that, as in the above case, it refers to ship/quay manipulation with a crane.

Point 3.4 leads to the Taken No. **MAIIS-AT001-2024** (instead of Safety Recommendation SI-MAIIS-SR025-2024).

#### 3.4

The data from the VZE Department shows that four preventive alcohol checks were carried out in the period 01/01/2024 to 18/05/2025. Four persons were tested in the last control. At the end of the year, 1 757 workers were employed at the Port of Koper [13]. The number of participants in preventive controls was very low, around 0.9%.

The action taken and implemented, MAIIS-AT002-2024 followed the point 3.4.

#### CHAPTER 4 – ADOPTED AND IMPLEMENTED MEASURES

#### SI-MAIIS-AT001-2024

In the process of preparing the draft Report, Safety Recommendations for points 3.1, 3.2, and 3.3 of Chapter 3 – Findings were prepared. The responsible person in PC GT promptly and responsibly prepared measures to address the identified discrepancies. The recommendations for safe working procedures for handling iron coils provided in the draft Report were accepted and resulted in the update of the internal document TP 1006 (Rev. 2, 2024/7), specifically for:

- The safe organization and course of the work process for handling coils;
- The required number of two workers for attaching coils;
- The procedure for the safe use of a forklift during handling, including the requirement for mandatory signaling;
- Following the publication of the updated instructions for the workers involved in the handling of iron coils, additional training was conducted.

All accepted and implemented measures for the recommendations, based on the findings, are satisfactory and appropriate. The update of the instructions is evident from the extract in Appendix 5. Therefore, no additional safety recommendations regarding Section 3.1, 3,2 and 3.3 are necessary.

#### SI-MAIIS-AT001-2024

During a discussion with representatives from PC General Cargoes and the Health Protection and Environmental Department on July 3, 2024, information was provided on the adopted and implemented measures concerning Section 3.3 of Chapter 3 - Safety Recommendations. In an official statement dated July 4, 2024 (Appendix 4), the representative of the Health and Environmental Protection Department clarified the measures taken regarding occasional preventive alcohol testing as follows:

"The management of Luka Koper, during the R 25/2024 session on May 22, 2024, adopted a resolution for additional measures to limit the abuse of alcohol and prohibited psychoactive substances within the company, specifically:

Resolution: From June 1 to August 1, 2024, an accelerated and targeted implementation of alcohol and psychoactive substance abuse checks in the port area.

Resolution: By September 1, 2024, process managers are to be trained on the effects of alcohol and prohibited psychoactive substances on individuals and informed about the procedures to follow in case of suspected abuse of these substances.

Between June 3 and June 30, 2024, 131 alcohol checks were conducted among employees and agency workers. In June, training sessions for process managers were held. The training was conducted by a psychiatrist specializing in addiction treatment, who is a long-time head of the Center for Addiction Treatment. Four training sessions were held on June 6, 20, 26, and 27, 2024, with 165 process managers in attendance. Due to the vacation period and compensation leave at the end of the accounting period, two additional training sessions are planned for the fall."

The maritime accident and incident investigator's opinion is that the adopted measures are adequate. Therefore, no additional safety recommendations regarding Section 3.4 are necessary.

#### CHAPTER 5 – SAFETY RECOMMENDATIONS

A safety recommendation is a proposal by an investigating authority based on information obtained during an investigation, with the aim of preventing similar accidents or incidents in the future. Safety recommendations shall in no case create a presumption of liability or fault.

#### 1. LUKA KOPER d. d. – PC GENERAL CARGOES

Safety recommendations were prepared in the draft Report sent to the involved parties. Before the publication of the Final Report, the proposed measures were implemented, and instead of recommendations, the implemented measures were included in the Report, as mentioned in Chapter 4.

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# **APPENDICES**

Appendix 01 - Hospital discharge letter M.K.

Appendix 02 - Excerpt from working guidelines TP 1006\_Rev1)

Appendix 03 - Preventive control record

Appendix 04 - Preventive controls and Preventive measures taken and implemented

Appendix 05 - Excerpt from working guidelines TP 1006\_Rev2

3

SPLOŠNA BOLNIŠNICA 1ZOLA

OSPEDALE GENERALE 150 LA



Slovenija

Vodja dejavnosti: PEROŠA DUILIO, dr.med.,

zpiscr-o 23.05.2024 Vezja: 1

Splošna bolnišnica Izola

T +386 S 660 60 00 F +386 S 660 63 2L

Re ... SI-631 Obnota

E uprava@sbizdas W www.sbizda si

KZZ: 053285358 roj.03.09.1982 mat.index: 322326 Zap.št:Kl2402234

Nap.zdravnik: KOVAČIČ MORENA (08841)

Napotnica št., pooblastila:,

veljavnost: Dod.zavar:

Slovenija

Predstojnik: doc. dr. GASPARINI MLADEN, dr. med., Sprejem: 18.05.2024 Odpust: 22.05.2024

ODPUSTNO PISMO

#### ODDELEK ZA KIRURGIJO

Diagnoze:

S52.50 Fractura radii distalis sin

S41.7 Conquasatio antebrachii sin.

S54.8 Discissio partialis flexor ♦:..11, man sin-

S54.1 Laesio n.mediani carpi sin

Poseg

Datum izvedbe: 18.05.2024

47366-02- Odprta naravnava zloma Člistalnega dela koželjnice z osteosintezo (notranjo učvrstitvijo)

39331-01 - Sprostitev medianega Živca v karpalnem kanalu Operater: KOVAČIČ MORENA, dr.med., specialist kirurg

Repositio aperta, OS radii distalis cum Aptus, lamina et clavi, decompressio n. mediani, VAC\_..

Asistent:TUŠAR SANDRA, dr. med. Special\_ist splošne kirurgije

Anesteziolog: REJC LUCIJA, dr. med .

Datum izvedbe: 22.05.2024 90375-02 - Odstranitev VAC-a

Operater: RAžEM ANEJ, d\_ med. spec. yavmatologije

Odstranitev VAC preveze.šiv rane

Anesteziolog:SPASOVICTSIMONA, dr.med. specialist nesteziolog

no/tm/or

Anamneza in status ob sprejemu:Danes v službi v Luki mu je stisnil stroj - hidravlika levo roko, stisnilo mu jo je iz dorzalne strani leve podlahti distalno dorzalno ter nato je tudi poškodovalo 11. prst leve roke. Ostale prste ni stisnilo. Mravljinčita mu 1 -111. prst..

...-.

Zdravi se zaradi astmne, jemlje Symbicort in Ventolin.

Alergičen ni.

Neprizadet, orientiran, na dorzumu desne podlahti distalno vidna kont zijska značka ter oteklina iz dorzalne strani, v tem predelu boleč. Il. prst leve roke je otečen, prst drži v fleksiji PIP in DIP sklepa,

Stran: 1od2

#### ODDELEK ZA KIRURGIJO Pacient

aktivna ekstenzija ni možna, poskus pasivne je boleč. Ostali prsti so neboleči. Dorzalno dotik čuti normalno, iz volarne strani pa slabši občutek v l. do III. prstu ter mravljinci po\_teh prstih, IV. in V. prst čuti normalno. Komolec na palpaqijo neboleč, gibljivost v zapestju zavrta.

Odrgnine tudi z volarne strani: levega zapestja. Tudi v mirovanju ima mravljince v\_prstih.

RTG leva podlaht, zapestje in prsti leve roke, pokažejo v diagnozi opisan zlom zapestja.

Lab. izvidi.K-Lkci: 8,2 10^9/L (4,0 - 10,0) K-Erci: 4,69 10^12/L (4,50 - 5,50) K-Hb: 138 g/L (130 - 170) K-Ht: 0,405 UL (0,400- 0,500) MCV: 86,4 fl (83 - 101) MCH: 29,4 pg (27,0- 32,0) MCHC: 341 g/L (315 -345) RDW: 11,9%(11.6-14.0) K-Trombociti:29510^9/L (150 - 410) MPV:11,2fl(7.8-11.0) NRBC %: 0,0 /100 Lkci (0,0) NRBC #: 0,00 10^9/L (0,00) S-Glukoza: 6,2 mmol/L (3.6 - 6.1) S-Sečnina: 5,0 mmol/L (2.8 - 7.5) S-Kreatinin: 83 μmol/L (74 - 110) GFR (ocena po MDRD): >90 ml/min/P (nad 60) S-Kalij: 3,90 mmol/L (3.80 - 5.50) S-Natrij: 135 mmol/L (135-145) S-Kloridi: 103 mmol/L (101 - 109) S-CRP: 3,0 mg/L (0.0 - 8.0)

. Pristopimo k urgentni operaciji pred katero prejme Ceframezin 2 g i.v.

Ob posegu naredimo osteosintezo zloma koželnice in dekompresijo medianega živca. Zaradi izrazitega edema rano pokrijemo zVAC sistemom.

Na oddelku prejema sprva i.v., nato per os analgezijo, po nekaj dneh prejema Lekadol in Naklofen.

22.5.2024 VAC odstranimo, rano zašijemo. Tega dne pacient odpučen domov,.

Ob odpustu prejme Brufen 600mg, pet tablet, po eno lahko vzame vsakih 8 ur, dodatno lahko proti bolečinam jemlje Lekadol.

Preveze rane in odstranitev šivov čez 10 dni v ZD.

Krg. kontrola kot naročeno z novo napotnico izbranega osebnega zdravnika.

Naslednji pregled dne 26.06.2024ob 10:20 uri, v enoti TRAVMATOLOŠKAAMB., <u>z veljavno napotnico osebnega</u> <u>zdravnika</u> ter izvidi opravljenih pregledov n preiskav. Preverite veljavnost napotnice (datum veljavnosti je izpisan na izvidu). Brez veljavne napotnice boste obravnavani kot samoplačniki.

Za nadaljnje preglede morate predložiti napotnico, ki vam jo izda vaš izbrani zdravnik, v kolikor že nimate veljavne napotnice. Napotnico nam morate dostaviti v roku 5 delovnih dni (šteje se od današnjega dne dalje), na naslov: ?Služba naročanja: Splošna bolnišnica izola, Polje 40, 6310 izola. V primeru, da v 5 delovnih dnevih napotnice ne pridobimo, vas po Pravilniku o najdaljiših dopustnih čakalnih dobah za posamezne zdravstvene storitve n o načinu vođenja čakalnih seznamov črtamo iz čakalnega seznama.

Ob prihodu se registrirate z zdravstveno kartico na vrstomatu. S seboj prinesite to vabilo in morebitne dosedanje izvide.

Odpustni zdravnik: RAVNIKAR GREGOR, dr. med., spec. splošne kirurgije in travmatologije

> SPLOŚNA BOLNIŠNICA IZOLA Oddelek za kinirgijo

Stran: 2 ad 2

# APPENDIX 02 – TEHNOLOGIJA MANIPULACIJE JEKLENIH KOLTOV (KOILSI)

# Excerpt from working guideliness TP:1006/Rev1

SLUKA KOPER Port of Koper	TEHNOLOGIJA	List 01	
	MANIPULACIJE JEKLENIH KOLUTOV (KOILSI)	TP: 10	0006
Lastnik:	Generalni tovori	Revizija 1	2019/02



Izdelal	Tehnolog (VPD):	Podpis: Og	Datum: 1.4.2019
Overil	Tehnični vodja:	Podpis: Port	Datum: 5.4.2019
Overil	Vodja PC GT:	Podpis: Man	Datum: 12. 4.2019

TEHNOLOGIJA-manipulacije jeklenih kolutov (kolisi)

# APPENDIX 02 – TEHNOLOGIJA MANIPULACIJE JEKLENIH KOLTOV (KOILSI)

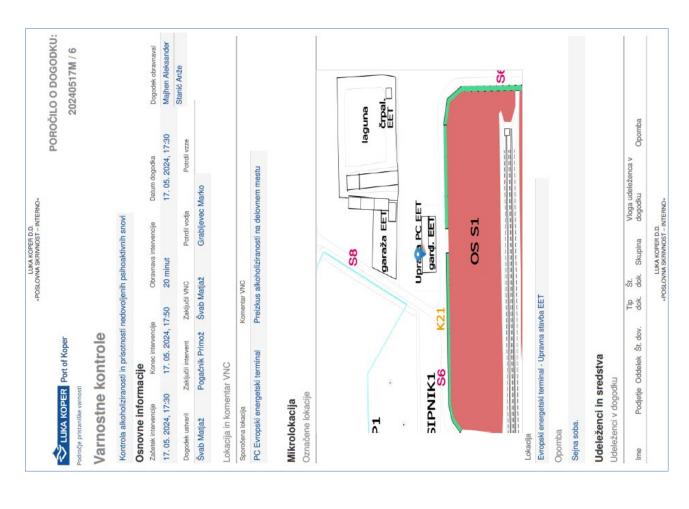
# Excerpt from working guideliness TP:1006/Rev1

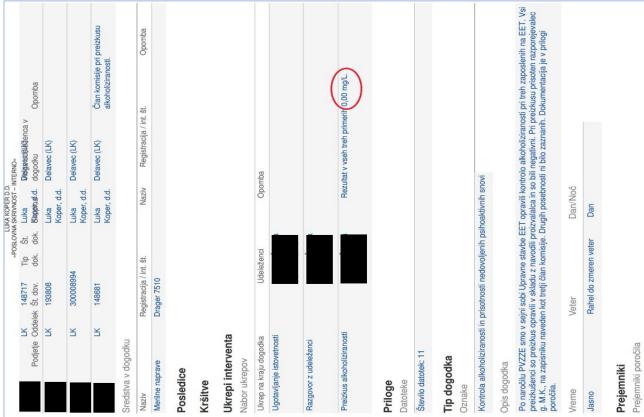
SLUKA KOPER Port of Koper	TEHNOLOGIJA	List 02	
Port of Koper	MANIPULACIJE JEKLENIH KOLUTOV (KOILSI)	TP: 10	0006
Lastnik:	Generalni tovori	Revizija 1	2019/02

## Vsebina

1. PODATKI O TOVORU	
2. ORODJA IN PRIPOMOČKI	4
3. PRETOVORNE MANIPULACIJE	8
3.1. V-S oz. obratno	10
3.1.1 Potek manipulacije (raba viličarja-tovor leže) (P1,P2)	10
3.1.2. Potek manipulacije (uporaba dvigala in obračalne mize-tovor stoje) (P3)	11
3.2. L-S oz. obratno	11
3.2.1 Postopek manipulacije razkladanja/nakladanja tovora (L-S oz. obratno) (P4)	12
3.2.2. Nameščanje podložnega lesa pod/ob tovor v ladijskem skladišču	13
3.2.3. V-L oz. obratno	15
3.3. <b>S-K oz. obratno</b> (P5)	
3.4. KT-S oz. obratno (pretovor kontejnerjev) (P6)	16
3.4.1 Postopek razkladanja kontejnerja	17
3.4.2 Postopek nakladanja kontejnerja	17
3.5. Običajna sestava delovnih skupin pri manipulacijah:	18
4. PREVOZ TOVORA	25
5. SKLADIŠČENJE	25
6. DODATNA DELA NA TOVORU	26
7. NAPOTKI ZA KVALITETNO DELO	29
8. NAPOTKI ZA VARNO DELO	30

TEHNOLOGIJA-manipulacije jeklenih kolutov (koilsi)





# APPENDIX 04 - PREVENTIVE CONTROLS AND PREVENTIVE MEASURES TAKEN AND

#### **IMPIEMENTED**



Zaprošene informacije Belac Elvis za:

za:

vladimir.vladovic@gov.si 04. 07. 2024 11:52

Skrij podrobnosti

Skrij podrobnosti

Od: Belac Elvis <Elvis.Belac@luka-kp.si>

Za: "vladimir.vladovic@gov.si" <Vladimir.Vladovic@gov.si>,

Zgodovina: Sporočilo že ima odgovor.

#### 1 Attachment



20240517M\_Varnostne\_kontrole.pdf

#### Pozdravljeni,

V zvezi z včerajšnjim nadzorom posredujem zaprošene informacije. V letu 2024 pred 18.5. je Področje VZE naročilo in Področje PPV izvedlo naslednje preventivne nadzore prisotnosti alkohola:

30.1.2024 na PC Kontejnerski terminal

14.2.2024 na PC Terminal za avtomobile

28.2.2024 na PC Terminal za razsute in tekoče tovore

17.5.2024 na PC Terminal za razsute in tekoče tovore

V priponki poročilo za 17.5.2024.

Uprava Luke Koper je na seji R 25/2024 z dne 22.5.2024 sprejela sklep za dodatne ukrepe za zamejitev zlorabe alkohola in prepovedanih psihoaktivnih snovi v družbi in sicer:

- 1. sklep: v obdobju od 1.6. do 1.8.2024 pospešeno in ciljno izvajanje preverjanja zlorabe alkohola in psihoaktivnih snovi na območju pristanišča;
- 2. sklep: do 1.9.2024 vodje delovnih procesov usposobiti o vplivih alkohola in prepovedanih psihoaktivnih snovi na posameznika ter se jih seznani s postopkom ukrepanja v primeru suma zlorabe alkohola in prepovedanih psihoaktivnih snovi.

V obdobju od 3. do 30. 6. 2024 je bilo med zaposlenimi in napotenimi agencijskimi delavci opravljenih 131 preverjanj dela pod vplivom alkohola.

V mesecu juniju smo izvedli usposabljanja za vodje delovnih procesov. Usposabljanje je izvajal specialist psihiater, dolgoletni predstojnik Centra za zdravljenje odvisnosti. Zagotovljeni so bili 4 termini, ki so potekali 6., 20., 26. in 27. junija 2024. Usposabljanja se je udeležilo 165 vodij procesov dela. Zaradi obdobja dopustov in koriščenja kompenzacij ob zaključku obračunskega obdobja načrtujemo še dva termina usposabljanja v jesenskem obdobju.

Za dodatna vprašanja in informacije sem na voljo.

S spoštovanjem

#### Elvis Belac

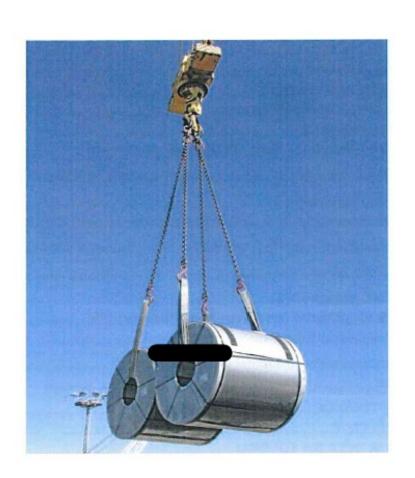
Področje varovanja zdravja in ekologije | Health safety and Ecology Department

Luka Koper, d. d. | Vojkovo nabrežje 38 | SI – 6501 Koper T: +386 5 66 56 951 | M: +386 31 388 693



1

S LUKA KOPER	TEHNOLOGIJA	List 01	
Port of Koper	MANIPULACIJE JEKLENIH KOLUTOV (KOILSI)	TP: 10	0006
Lastnik:	Generalni tovori	Revizija 2	2024/07



Izdelal	Vodja teh. in transp.:	Podpis!	Datum: 15.7.2024
Overil	Tehnični vodja:	Podpis:	Datum: 15.7.2024
Overil	Strokovni delavec VPD:	Podpis:	Datum: 15.7.2024
Overil	Vodja PC GT:	Podpis:	Datum: 15.7.2024

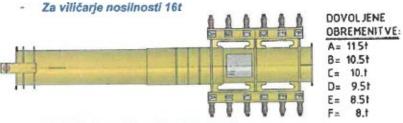
TEHNOLOGIJA-manipulacije jeklenih kolutov (koilsi)

MANIPULACIJE JEKLENIH KOLUTOV (KOILSI) TP: 10006	
mik: Generalni tovori Revizija 2 2024/	astnik: Generalni tovori Revizija 2 2024/

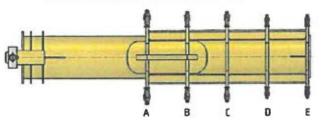
Port of Koper	TEHNOLOGIJA	List 07	
	MANIPULACIJE JEKLENIH KOLUTOV (KOILSI)	TP: 10	0006
Lastnik:	Generalni tovori	Revizija 2	2024/07



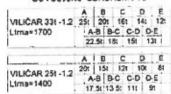
#### Razpolagamo z dvema tipoma nastavkov:



#### Za viličarje nosilnosti od 24t do 33t



#### DOVOLJENE OBREMENITVE



Delovodja in disponent sta odgovorna za izbiro ustrezne opreme oz. ustrezen viličar, glede na specifikacijo jeklenih kolutov v ladijskem skladišču. V ladijsko skladišče se nastavek prenese že montiran na viličar, torej skupaj z viličarjem. Opremljen pa je tudi z namenskimi vpenjalnimi mesti, da je po potrebi možen prenos samega nastavka z dvigalom. Ob montaži nastavka na trn viličarja se obvezno zahteva zavarovanje le-tega z zaklepom, da je onemogočen izpad nastavka med uporabo in med prenosom viličarja z dvigalom, ko je nastavek montiran na viličar. Zaklep tudi preprečuje, da se nastavek ne obrne na trnu.



Nosilnosti posameznih vpenjalnih mest so označene na samem nastavku. V primeru, da kolute vpenjamo na različnih kavljih (oz. diagonalno), moramo upoštevati nosilnost najbolj oddaljenega kavlja od teleskopa viličarja. Diagonalno vpenjanje je namreč potrebno v primerih, ko viličar ne more dostopiti pravokotno na jekleni kolut, da ob dvigu koluta preprečimo zasuk le-tega in s tem preprečimo nevarnost za poškodbe oseb ali tovora.

EUKA KOPER Port of Koper	TEHNOLOGIJA	List 08	
	MANIPULACIJE JEKLENIH KOLUTOV (KOILSI)	TP: 10006	
Lastnik:	Generalni tovori	Revizija 2	2024/07

Enostransko vpenjanje tovora na nastavek je strogo prepovedano! Prav tako je strogo prepovedano vpenjanje več kot en kolut! Za vpenjanje na nastavek se uporabi sintetični pas. Za izbiro ustrezne nosilnosti in dolžine pasu je odgovoren delovodja glede na tip nastavka ter težo in dimenzijo koluta.

#### Proces razkladanja

Najprej se na klasični način razloži vse kolute v osrednjem delu ladijskega skladišča. Pri »vkopavanju« poteka razkladanje neposredno z dvigalom, ko se v ladijskem skladišču naredi prostor pa poteka razkladanje s pomočjo viličarja in uporabo klasičnega trna. Šele nato se pristopi k razkladanju kolutov z bokov ladijskega skladišča z uporabo nastavkov za trn.

Na boku so koluti praviloma zloženi v dveh višinah, zato poteka delo na podoben način kot pri »vkopavanju«. To pomeni, da delavci stojijo na samem tovoru z namenom vpenjanja tovora. Ob tem se morajo povzpeti iz nižjega na višji nivo, sestopiti iz višjega na nižji nivo in hoditi po tovoru.

Ob pričetku razkladanja kolutov z boka ladje se najprej dva delavca povzpneta na 1. višino kolutov, katera bosta izvajala postavitev pasov in vpenjanje kolutov. Delavec vedno signalizira upravljalcu viličarja kdaj lahko pripelje do mesta vpenjanja, do kje zapelje in koliko spusti nastavek. Ko je viličar oz. nastavek na želenem mestu, pristopita do koluta, ga vpneta ter se ponovno



odmakneta od manipulacije v vidno polje upravljalca viličarja. Nato se upravljalcu viličarja signalizira, da ustrezno dvigne kolut ter ga prenese na mesto, katero je predvideno za dvig z dvigalom.

Upravljalec viličarja mora z vpetim tovorom voziti previdno, počasi in brez hitrega oziroma sunkovitega zavljanja, zavlranja ali pospeševanja zaradi nevarnosti prevmitve viličarja s tovorom naprej. Težišče je namreč precej odmaknjeno od viličarja in hkrati obstaja efekt nihala.

Ko upravljalec viličarja odloži kolut in se vrača do mesta vpenjanja mora počakati signal delavca, da sta pripravljena na izvedbo manipulacije. Ko dobi signal zapelje do naslednjega koluta in postopek se na ta način ponavlja, dokler se ne razloži vseh kolutov z boka ladje.





Glede uporabe pasov za vpenjanje obstajata dva načina. Delo lahko poteka z dvema pasovoma. To pomeni, da ko upravljalec viličarja prenaša kolut na predvideno mesto, delavca drugi pas že prevlečeta skozi \*oko\* naslednjega koluta. Prvi pas ostane enostransko vpet na nastavku dokler se viličar ne vrne do mesta vpenjanja, nakar ga eden izmed delavcev odpne in vpne že prevlečen pas.

Port of Koper	TEHNOLOGIJA	List 09 TP: 10006	
	MANIPULACIJE JEKLENIH KOLUTOV (KOILSI)		
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Lahko pa delo poteka z enim pasom. Na ta način delavca vedno prevlečeta pas skozi »oko« koluta šele, ko se viličar z vpetim pasom na nastavku vrne na mesto vpenjanja koluta. Pri tem sta oba delavca v vidnem polju upravljalca viličarja, delavec signalizira pozicijo viličarja in nastavka. Ko je viličar na položaju delavca začneta z vpenjanjem koluta. V obeh načinih dela je komunikacija oz. signaliziranje bistvenega pomena za varno delo.

Če so koluti na boku ladje enakih oz. podobnih dimenzij in tež, je potrebno najprej prenesti vse kolute iz 2. višine. Šele zatem se prenese še vse kolute iz 1. višine, kjer delavcem ni potrebno več stati na tovoru ampak se pripravo pasu in vpenjanje izvede s tal ladijskega skladišča. Če pa so koluti glede na posamezne vrste različnih dimenzij in tež, se lahko prenaša kolute tudi vrsto po vrsto, vendar je ob tem potrebno nameniti večjo pozornost varnosti pri vpenjanju kolutov. Dvigovanje z dvigalom med seboj zelo različnih dimenzij kolutov zaradi možnosti poškodbe le-teh namreč ni dovoljeno.

