

FINAL REPORT ON THE SAFETY INVESTIGATION OF A LESS SERIOUS MARINE CASUALTY ON BOARD BREB COUNTESS

**Serious occupational injury to a port worker during the loading
of packaged sawn timber at berth No. 9, Port of Koper
on 29 May 2026**



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REPUBLIKA SLOVENIJA
MINISTRSTVO ZA INFRASTRUKTURO IN
ENERGETIKO

SLUŽBA ZA PREISKOVANJE LETALSKIH,
POMORSKIH IN ŽELEZNIŠKIH NESREČ IN
INCIDENTOV

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MINISTRY OF INFRASTRUCTURE
AND ENERGY

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FINAL REPORT ON THE SAFETY INVESTIGATION OF A LESS SERIOUS MARINE CASUALTY ON BOARD BREB COUNTESS

**Serious occupational injury to a port worker during the loading of
packaged sawn timber at berth No. 9, Port of Koper
on 29 May 2026**

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MINISTRY OF INFRASTRUCTURE AND ENERGY
Air, Marine and Railway Accident and Incident
Investigation Unit

Izola, June, 24th 2026

Unofficial English translation

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LEGAL AND METHODOLOGICAL BASIS OF THE REPORT

This report was prepared by the maritime casualty investigator of the Air, Maritime and Railway Accident and Incident Investigation Unit (SPLPŽNI; hereinafter: MAIIS) and issued by the Unit in accordance with the provisions of the Maritime Code of the Republic of Slovenia (Official Gazette of the Republic of Slovenia No. 62/16 – consolidated text, 41/17, 21/18 – ZNOrg, 31/18 – ZPVZRZCEP, 18/21, 21/21 – corr., and 76/23) and the Regulation on the Investigation of Maritime Casualties (Official Gazette of the Republic of Slovenia No. 67/11), which further regulates the procedures and conditions for conducting safety investigations into maritime casualties and incidents.

In preparing this report, consideration was also given to the provisions of Directive 2009/18/EC of the European Parliament and of the Council of 23 April 2009 establishing the fundamental principles governing the investigation of accidents in the maritime transport sector, as well as IMO Resolution MSC.255(84), by which the Code of the International Standards and Recommended Practices for a Safety Investigation into a Marine Casualty or Marine Incident (Casualty Investigation Code) was adopted. Other relevant instruments of the International Maritime Organization (IMO), including applicable circulars, guidelines and recommendations relating to marine safety investigations, as well as relevant guidance issued by the European Maritime Safety Agency (EMSA), were also taken into account.

This report has been prepared solely for the purpose of determining the circumstances, safety issues, causes and contributing factors of the occurrence under investigation, with the objective of preventing similar maritime casualties and incidents in the future. The report is not intended to determine blame, liability, or any form of legal or disciplinary responsibility.

Pursuant to Article 2, paragraph 1, item 2 of the Regulation on the Investigation of Maritime Casualties, a maritime casualty means any occurrence associated with the operation of a ship in which:

- the person dies or is seriously injured in connection with the operation of the ship;
- a person falls off a ship as a result of the operation of a ship;
- the ship is lost, allegedly lost or abandoned;
- the ship is damaged;
- the ship is stranded unless it is stranded intentionally for a short period of time and is not damaged as a result;
- the ship is unseaworthy;
- the ship collides;
- material damage is caused as a result of the operation of the ship; or
- environmental pollution is caused by damage to the ship or by the operation of the ship.

In accordance with paragraph 2.18 of the IMO Casualty Investigation Code, a serious injury means an injury which renders a person incapable of performing normal routine functions for more than 72 hours, where such incapacity occurs within seven days from the date of the injury. As it was confirmed in the present case that the injured person was incapacitated for work for a period exceeding 72 hours, the occurrence is, for the purposes of the safety investigation, treated as a case of serious injury to a person.

Unless expressly stated otherwise, all times referred to in this report are local times (UTC +2).



When interpreting the provisions of international conventions and other international instruments referred to in this report, their full text, including all annexes, should be taken into consideration.

This report is published in both Slovenian and English. In the event of any inconsistency or discrepancy between the language versions, the Slovenian version shall prevail.

A safety investigation is an independent preventive process and is not intended to determine civil, criminal, disciplinary or any other form of liability, nor to apportion blame to any natural or legal person. Its findings are intended solely to improve safety and prevent similar occurrences in the future; therefore, any use of such findings for other purposes would be contrary to internationally recognized principles of safety investigation.

Information:

Reports on the investigation of maritime casualties and incidents are published on the website of the Ministry of Infrastructure at the following address:

<https://www.gov.si/drzavni-organi/ministrstva/ministrstvo-za-infrastrukturo/o-ministrstvu/sluzbe-za-preiskovanje-letalskih-pomorskih-in-zelezniskih-nesrec-in-incidentov/preiskovanje-pomorskih-nesrec-in-incidentov/>

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GLOSSARY OF TERMS

Term /expression	Recommended English term	Opomba za uporabo v poročilu
EMCIP	European Marine Casualty Information Platform	EU system for recording marine casualties and incidents.
IMO	International Maritime Organization	International organization for maritime safety and standards.
EMSA	European Maritime Safety Agency	EU agency supporting maritime safety and safety investigations.
VNC	Safety and Control Centre	Port center for recording occurrences and coordinating the response.
LT	Local time	Time of the occurrence expressed in local time.
TP 20021	Technological Procedure TP 20021	Procedure for loading timber bundles using a lifting frame and belts.
VZD	Occupational safety and health	Measures, training and procedures for safe work.
PPE	Personal protective equipment	Equipment intended to reduce the risk of injury at work.
SHEL/SHELL	Human factors analysis model	Model for analyzing interfaces between human, equipment, procedures and environment.
Liveware	Human element in the work system	The people involved in the work process.
Hardware	Equipment, cargo and physical work elements	Physical elements affecting work safety.
Software	Procedures, rules, instructions and organizational framework	Procedural and organizational elements of the work.
Environment	Working environment	Environmental and spatial working conditions.
Liveware-Liveware	Interface between people in the work process	Communication, cooperation and supervision between participants.
ECFA	Event and Causal Factors Analysis	Method for displaying causal links and safety deficiencies.



Figure 1: M/I "BREB COUNTESS, vir: MarineTraffic"



SUMMARY

On 29 May 2026, the multi-purpose dry cargo vessel M/V BREB COUNTESS, IMO 9421166, was alongside Berth No. 9 in the Port of Koper. During port cargo operations, sawn timber was being loaded on board in bundles. Before the occurrence, two heights or layers of timber bundles had already been stowed, and the third cargo layer was being loaded and stowed at the time of the occurrence.

According to the explanations provided, the physical occurrence took place at approximately 18:20 local time on the hatch cover/deck space above Hold No. 2, approximately in the middle part of that area. The occurrence was recorded by the VNC at 18:30.

The injured port worker, A. C., was unhooking or releasing lifting belts after a timber bundle had landed. While releasing the third of five attached belts, he stepped with his left foot into a residual opening between previously stowed timber bundles. The original gap was approximately 40 cm wide. The next timber bundle partially covered the gap, but sufficient space remained for the worker's foot to slip into it. When he lost support, the worker held on to the belt or chain; his body rotated, and he sustained an injury or dislocation of the left shoulder.

According to the VNC/Incident Management report, the worker stated at the scene that he had fallen approximately 1 m into the space between the timber and had dislocated his left shoulder. The alcohol test was negative. The weather conditions recorded in the VNC report were clear weather, no wind, daylight and a temperature of 28.00 °C. Based on the available evidence, weather, wind, temperature and daylight were not identified as contributing factors.

After the occurrence, the injured worker initially continued working because he did not immediately feel significant pain. At approximately 18:30 the VNC was informed; security arrived at 18:34 and firefighters arrived at 18:38. Work at the location was stopped. The injured worker was lowered to the quay by means of a personnel transport/rescue basket and handed over for further medical treatment. According to the explanations provided, the incapacity for work lasted for more than 72 hours. The occurrence is therefore treated, for the purposes of the safety investigation, as a serious personal injury, namely a serious occupational injury connected with the operation of the ship.

The main safety issue concerns the control of temporary or residual openings between timber bundles during sequential cargo stowage, when workers are still required to access the working surface in order to release lifting equipment.



CHAPTER 1 – FACTUAL INFORMATION

1.1. Ship's Particulars

SHIP'S PARTICULARS	
Name of vessel	BREB COUNTESS
Type of vessel	Multi-purpose dry cargo ship
Owner	Upper Rock Shipping Company Limited, Gibraltar
Manager	Briese Shortsea GmbH & Co. KG, Cuxhaven, Germany
Flag	Portugal
Port of registry	Madeira
IMO number	9421166
Length overall	108.2 m
Breadth	18.2 m
Maximum draught	7.01 m
Gross tonnage (GT)	5,630
Net tonnage (NT)	2,883
Deadweight	7,807.22 t
Propeller	CPP
VOYAGE INFORMATION	
Previous port	Chioggia, Italy
Port of destination	Koper
Cargo	General break bulk cargo
Casualty or incident information	
Type of casualty or incident	Serious personal injury (serious occupational injury)
Location of occurrence	M/V BREB COUNTESS, Berth No. 9, Port of Koper
Part of ship / work area	Hatch cover/deck space above Hold No. 2, or working surface on the stowed cargo
Injuries / casualties	One person injured
Ship operations	Loading and stowage of sawn timber in bundles
Weather and weather effects	Clear, no wind, daylight, temperature 28.00 °C

1.2. Voyage particulars

The vessel sailed from the port of Chioggia, Italy, and arrived at the anchorage of the Port of Koper on 23 May 2026 at 20:45, where it remained at anchor until 26 May. The vessel was berthed on 26 May at 19:46 at Berth No. 9 in Basin II. At the time of the occurrence the vessel was loading bundles of sawn timber intended for the port of Misurata, Libya.



1.3. Weather and environmental conditions

The VNC/Incident Management report for occurrence No. 29/5/2026 IM 2527 records the weather conditions as clear, no wind, daylight and a temperature of 28.00 °C. Based on the available information, the weather conditions, wind, temperature and daylight were not identified as contributing factors to the occurrence.

1.4. Involvement of Shore-Based and Port Services

The occurrence was recorded in the VNC/Incident Management system as occurrence No. 29/5/2026 IM 2527. The reported location was Berth No. 9 and the description of the occurrence was an injury to a worker on board the vessel. The VNC recorded the occurrence at 18:30. Security arrived at the scene at 18:34 and left at 19:10. Firefighters were dispatched by the VNC and arrived at the scene at 18:38. The injured worker was lowered from the work area by means of a personnel transport or rescue basket, after which further medical treatment was provided.

The VNC/Incident Management report lists D. V. as the work-process leader, B. L. as the eyewitness or witness, and A. C. as the injured person or participant. The report also states that an alcohol test was performed on the injured worker and that the result was negative.

1.5. Consequences and Implications

The occurrence resulted in an injury or dislocation of the left shoulder of the port worker. According to additional explanations, the incapacity for work lasted for more than 72 hours; therefore, the occurrence is treated for the purposes of the safety investigation as a serious personal injury. The documents submitted contained no confirmed information on damage to the vessel, damage to the cargo, pollution or other material consequences.

1.6. Human Factors

Assignment, Training, Working hours, Interview/statement

The injured worker was identified in the documents submitted as a port worker who had been working for Luka Koper through an agency for approximately 3.5 years and had performed similar work on several previous occasions. The training documentation shows that he successfully completed general training, fire-safety training and the specific part of occupational safety and health training in October 2024. The internal record also indicates that, before the injury, he had performed approximately four hours of work.

Additional explanations indicate that the worker was aware of the existence of the gap between the bundles, but during the release or unhooking of the lifting equipment he overlooked the residual opening that had remained after the original gap was partially covered by the next timber bundle. After the occurrence he initially continued working because he did not immediately feel significant pain and believed that the injury was not serious. This circumstance is relevant for the analysis of risk perception, task-focused attention and self-assessment of the worker's condition after the occurrence.

The alcohol test carried out after the occurrence was negative. Based on the available information, alcohol impairment did not contribute to the occurrence.

Table 1: Overview of working hours before the occurrence

date	day	recorded hours	date	day	recorded hours
22.05.2026	Friday	7.92	26.05.2026	Tuesday	7.78
23.05.2026	Saturday	7.87	27.05.2026	Wednesday	8.07
24.05.2026	Sunday	0.00	28.05.2026	Thursday	7.72
25.05.2026	Monday	8.02	29.05.2026	Friday	6.75

1.7. Organizational Factors and Technological Procedure

The relevant procedure for the work in question is technological procedure TP 20021, which governs the loading of timber bundles from storage into a vessel using 20 t and 30 t lifting frames and lifting belts. The procedure addresses the use of the lifting frame and lifting belts, the composition of the work team, the use of personal protective equipment, safe movement of workers and requirements concerning cargo stowage and the control of openings or gaps between bundles.

TP 20021 requires, among other things, that the ship's hold or stowage area be filled evenly so that dangerous openings between bundles do not arise. Where this is not possible, such openings must be secured. In the occurrence under investigation, the original gap was approximately 40 cm wide. The next timber bundle partially covered the gap, but the residual opening still allowed a foot to slip into it. The additional explanations state that the sequence of landing and unhooking was carried out in accordance with the prescribed sequence; however, the key issue for the analysis remains whether the temporary or residual local conditions on the working surface were adequately controlled.

The work team was supervised by the disponent or person responsible for the work process. According to the additional explanations, owing to the nature of the loading operation it is not always possible to perceive the entire situation on the working surface. This is relevant for assessing the practical effectiveness of supervision, the allocation of responsibility for identifying local hazards and the use of additional measures such as marking, covering or temporarily prohibiting access to the area of the gap or residual opening.

1.8. Previous and Subsequent Similar Occurrences

The material submitted and the available collection of investigated occurrences contained no information on previous similar occurrences.

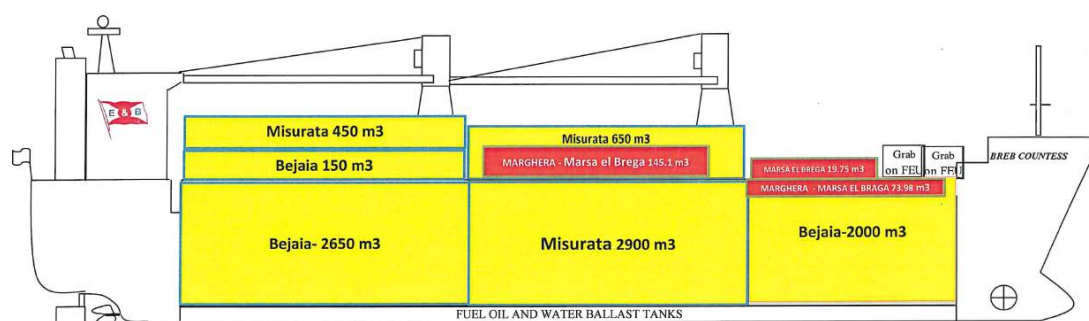


Figure 2: BREB COUNTESS Cargo Plan

CHAPTER 2 – NARRATIVE OF EVENTS

On 29 May 2026, M/V BREB COUNTESS was carrying out port cargo operations at Berth No. 9 in the Port of Koper. Bundles of sawn timber were being loaded on board. Before the occurrence, two layers of cargo had already been stowed, and the third layer was being loaded and stowed on the hatch cover/deck space above Hold No. 2.

At approximately 18:20 local time, the injured port worker was releasing or unhooking lifting belts or chains from a timber bundle that had already been landed on the working surface. While releasing the third of five attached belts or chains, he stepped with his left foot into a residual gap between previously stowed timber bundles. The original gap was approximately 40 cm wide. The next timber bundle had partially covered it, but sufficient space remained for the foot to slip into it.

When the worker lost support, he held on to the attached belt or chain. His body rotated by approximately 45 degrees, causing an injury or dislocation of the left shoulder. The VNC/Incident Management report states that the injured worker said at the scene that he had fallen approximately 1 m into the space between the timber and dislocated his left shoulder. The co-worker or eyewitness confirmed the injured worker's account in a written statement.

The injured worker initially continued working because he did not immediately feel significant pain and believed that the injury was not serious. At approximately 18:30 the occurrence was reported to or recorded by the VNC. The weather conditions were clear, with no wind, daylight and a temperature of 28.00 °C.

Following notification to the VNC, security was dispatched to the scene and arrived at 18:34. Firefighters arrived at 18:38. Work at the location was stopped. A personnel transport or rescue basket was used to lower the injured worker safely from the work area to the quay. The injured worker was then provided with medical assistance and further care. According to additional explanations, the incapacity for work lasted for more than 72 hours.

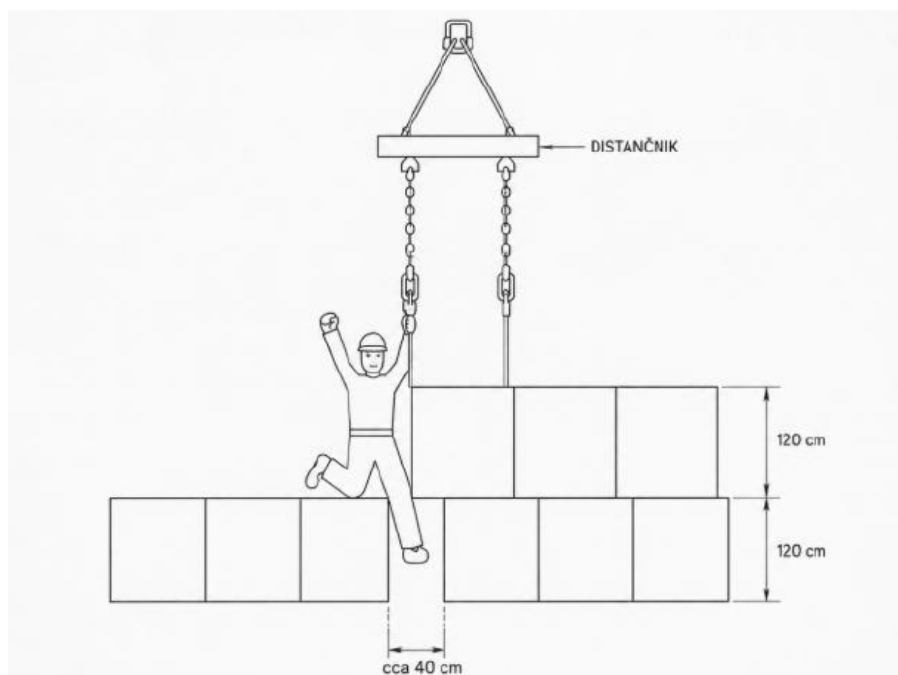


Figure 3: Sketch of the occurrence, source: LK, Event Investigation Record, p. 3/3



Table 2: Timeline of the occurrence

Time / phase	Event	Note
Before 18:20 LT	Loading of sawn timber bundles was in progress; two layers had already been stowed, and the third layer was being formed.	According to the description of the occurrence and the explanations provided.
Approx. 18:20 LT	While releasing the third of five belts/chains, the injured worker stepped into the residual gap between the bundles.	The time is based on additional explanations using the ship's time record.
Immediately after the occurrence	The worker held on to the belt/chain, his body rotated, and an injury or dislocation of the left shoulder occurred.	The VNC report records a fall of approximately 1 m into the space between the timber.
After the occurrence until approx. 18:30 LT	The worker initially continued working because he did not feel significant pain.	Relevant to the analysis of injury recognition and reporting.
18:30 LT	VNC/Incident Management recorded the occurrence; the location was Berth No. 9.	Time of recording/notification.
18:34 LT	Security arrived at the scene.	VNC/Incident Management report.
18:38 LT	Firefighters arrived at the scene.	VNC/Incident Management report.
After notification	Work was stopped; the injured worker was lowered from the work area by personnel transport basket and transferred for further medical treatment.	Post-occurrence response.



CHAPTER 3 - ANALYSIS

3.1. Methodological Framework

The analysis was conducted in accordance with the principles of safety investigation, using a comparison between the prescribed working method and the actual work practice, the SHEL/SHELL model, the Diamond-process approach for the assessment of human factors, and barrier analysis.

The primary purpose of the analysis is not to determine blame, but rather to identify the safety-related factors due to which safety barriers were absent, ineffective, or not implemented.

3.2. Prescribed Working Method and Actual Work Practice

Table 3: Comparison between work-as-prescribed and work-as-done

Element	Prescribed / expected method of work	Work-as-done / finding
Stowage of timber bundles	The cargo is to be stowed evenly so as to prevent cargo collapse and the formation of dangerous openings.	An original gap of approximately 40 cm remained between previously stowed bundles and was later only partially covered by the next bundle.
Control of openings	Dangerous openings between bundles are to be filled or, if this is not possible, secured.	The residual opening was not specifically marked or physically secured, although it allowed a foot to slip into it.
Release of lifting equipment	After the cargo is landed, lifting belts or chains are released taking into account safe distance, cargo stability and a safe working surface.	The worker was releasing the third of five belts/chains while moving on a surface where a known or partially covered gap was present.
Safe working position	The worker must have a safe working surface and must not be exposed to the risk of falling into a void or slipping/losing support.	A specific safe access route or working position was not clearly defined or verified.
Supervision	The work is directed and supervised by the person responsible for the work process.	The disponent or work-process leader supervised the team; however, owing to the nature of the loading operation, he could not always perceive the entire local situation on the working surface.

The analysis does not necessarily indicate a deviation from the basic sequence of landing and unhooking the cargo. The safety-relevant question is whether the temporary or residual hazardous condition on the working surface - the gap between the bundles - was controlled in such a way that the worker was not required to work in an area where he could lose support while releasing the lifting equipment



3.3. SHEL/SHELL Analysis

Table 4: SHEL/SHELL Analysis

SHEL/SHELL element	Finding	Safety significance
Liveware - injured worker	The worker had experience in similar work and was trained. He was aware of the existence of the gap, but during the task he overlooked the residual opening.	Attention focused on unhooking belts/chains may have reduced active perception of the local hazard.
Hardware - cargo and equipment	The cargo consisted of timber bundles approximately 1.20 m high. An original gap of approximately 40 cm remained between the bundles and was partially covered by the next bundle. Lifting belts/chains and a lifting frame were used.	The physical geometry of the cargo created a working surface with an opening into which a worker could step during the task.
Software - procedures and instructions	TP 20021 requires even stowage and control of dangerous openings. The gap was treated as temporary, but after partial covering it did not cease to exist as a hazard.	The practical conversion of the procedural requirement into a local control measure was not sufficient or was not clearly evident.
Environment - working environment	The work took place above Hold No. 2, on or near the stowed cargo, during active loading of the third layer. The weather was clear, with no wind, daylight and a temperature of 28.00 °C.	Sequential cargo stowage created a changing working environment. Weather-related environmental factors were not identified as contributing.
Liveware-Liveware	The co-worker or witness confirmed the injured worker's account. The work-process leader and/or disponent was involved in the work process. It was explained that, owing to the nature of the work, supervision does not allow continuous visibility of the entire situation.	Supervision and team communication were relevant but did not prevent short-term exposure to a known local hazard.

3.4. Diamond-Process Human Factors Analysis ¹

The Diamond-process was used as a supporting analytical framework. It is based on divergent and convergent structuring of evidence. In the first phase, it allows broader collection, review and verification of available information; in the subsequent phase, the analysis is progressively narrowed to those safety issues, contributing factors and systemic deficiencies that are supported by evidence.

¹ "Diamond Process" – Approach of Divergent and Convergent Structuring of Evidence

As a supporting analytical framework, the investigation applied the so-called Diamond Process approach, which enables the initial broad collection and verification of evidence, followed by the gradual narrowing of the analysis towards evidence-based safety issues, contributing factors and systemic deficiencies. The approach was used as a complementary method alongside the SHELL/SHEL methodology, ECFA analysis, barrier analysis, and the comparison between prescribed work practice and actual work practice (work-as-prescribed vs work-as-done)..



This approach was used as a complement to the SHEL/SHELL and ECFA methods, barrier analysis and the comparison between work-as-prescribed and work-as-done.

Table 5: Human factors analysis

Observed behaviour / condition	Classification	Possible performance-shaping factors	Analysis result
The worker stepped into a known or partially remaining gap between the bundles.	Perception / attention / situational awareness	Task focus on unhooking belts/chains; changing working surface; routine in a familiar task.	Contributed to the loss of support, but does not exclude the role of the working environment and procedural controls.
The gap was only partially covered by the next bundle.	Work system / local task organisation	Expectation that the next layer would cover the opening; dynamic cargo stowage; differences in bundle dimensions.	The temporary hazard remained active while workers still had to access the area.
Supervision could not continuously perceive all local conditions.	Supervision / organisational interface	Wide work area; nature of loading; several simultaneous tasks.	Supervision did not replace the need for local control of the specific opening.
The worker initially continued working.	Self-assessment of injury / reporting	Absence of immediate pain; subjective assessment that the injury was not serious.	Explains the approximately 10-minute delay in notifying the VNC; not material to the occurrence of the injury, but relevant to the response.
The alcohol test was negative.	Exclusion of possible influence	Post-occurrence test.	Alcohol impairment was not identified as a contributing factor.
The weather was clear, with no wind and daylight.	Environmental conditions	28.00 °C; no wind; daylight.	Weather and lighting were not identified as contributing factors.

3.5. Safety Barriers Aanalysis

Table 6: Safety Barriers Aanalysis

Barrier	Intended function	Status	Assessment
Even stowage and filling of openings between bundles	Prevent dangerous openings and unstable surfaces.	Partly effective	The gap remained in the lower layer; after the next bundle was landed, it was only partially covered.
Temporary securing / marking of the opening	Prevent access or an unintended step into the opening until it is safely covered or eliminated.	Not confirmed as implemented	Key missing or ineffective barrier in the occurrence under investigation.



Barrier	Intended function	Status	Assessment
Safe route and working position for unhooking	Ensure that the worker stands on a safe surface while releasing the equipment.	Unclear / incomplete	A specific route or position was not clearly defined in the explanations submitted.
Worker attention and perception	Recognize the known local hazard and avoid it.	Failed at the critical moment	The worker was aware of the opening but overlooked it during the task.
Field supervision	Identify hazards and, where necessary, stop or adjust the work.	Limited effectiveness	Due to the nature of the loading operation, supervision could not continuously cover the entire local situation.
Weather and lighting conditions	Provide acceptable external conditions for safe work.	Effective / no identified influence	Clear, no wind, daylight, 28.00 °C; no weather contribution identified.
Alcohol test	Exclude the influence of alcohol as a performance-shaping factor.	Effective	The alcohol test was negative.
Rescue and medical assistance	Limit consequences after injury.	Effective after injury recognition	Work was stopped, the worker was lowered by rescue basket and medical assistance was provided.

3.6. Analysis of a Similar Occurrence

The material submitted and the available collection of investigated occurrences contained no information on a comparable previous occurrence during the same or similar loading of timber bundles. Therefore, a similar case analysis was not carried out at this stage.

3.7. Limitations of the Analysis

- A complete photograph or measured sketch of the full stowage plan in the area of Hold No. 2 at the time of the occurrence was not submitted.
- No medical certificate was submitted; the analysis uses the explanation that the incapacity lasted for more than 72 hours.
- Statements of all directly involved people and supervisory personnel were not submitted in a form that would allow a complete temporal and spatial reconstruction of the occurrence.
- At this stage it is not possible to determine definitively whether the level of control of temporary or residual openings was systemically inadequate or limited to the specific local situation. Although a photograph of the loading area, a statement by an eyewitness/participant and the vessel's pre-stowage plan were submitted, these documents do not allow a complete measured reconstruction of the actual condition of the cargo stowed 2 at the time of the occurrence. Similarly, statements of all directly involved persons and supervisory personnel, as well as a medical certificate definitively documenting the diagnosis and duration of incapacity for work, were not submitted. It is therefore not possible at this stage to determine definitively whether the level of control of temporary or residual openings was systemically inadequate or limited to the specific local situation.



CHAPTER 4 – FINDINGS

4.1. Accident Event

The accident happened to a port worker during the loading and stowage of sawn timber bundles on board M/V BREB COUNTESS on 29 May 2026 at approximately 18:20 local time in the area above Hold No. 2. The occurrence took place during the release or unhooking of lifting belts or chains from a landed timber bundle. The VNC/Incident Management system recorded the occurrence at 18:30.

4.2. Direct (Immediate) Cause

The direct cause of the injury was the loss of support when the injured worker stepped with his left foot into a residual opening between previously stowed timber bundles. The original gap was approximately 40 cm wide and was only partially covered by the next timber bundle. When he lost support, the worker held on to the attached belt or chain, his body rotated and this caused an injury or dislocation of the left shoulder.

4.3. Contributing Factors

- A gap between timber bundles remained in the lower cargo layer during the sequential stowage of the third layer.
- The next timber bundle only partially covered the original gap, leaving a residual opening large enough for a foot to slip into it.
- The residual opening was not specifically marked, covered or physically secured before the worker accessed the area.
- The injured worker was aware of the existence of the gap, but during the task of releasing or unhooking the lifting equipment he overlooked the residual opening.
- No specific safe working position or movement route was clearly defined or verified to exclude contact with the area of the gap during the task.
- Because of the nature of the loading operation, field supervision was limited in its ability to continuously identify all local hazards on the working surface.
- After the occurrence, the worker initially continued working because he did not immediately feel significant pain, which affected the timeline of notification and response.

4.4. Contributing Systemic Factors

- The practical implementation of the technological procedure did not sufficiently ensure that a temporary or residual opening between bundles would not remain an active hazard while workers were working on the cargo surface.
- The explanations submitted do not clearly show a standardized method for marking, covering or temporarily excluding access to gaps between bundles during loading phases.
- The role of supervision in identifying local and rapidly changing hazards in the cargo-stowage area was practically limited.
- There was a gap between the general procedural requirement to prevent or secure dangerous openings and the specific operational practice during sequential stowage of timber bundles.

4.5. Safety Issue

The central safety issue is how, during the loading and stowage of timber bundles, to ensure effective control of temporary or residual gaps between bundles when workers remain exposed to the working surface on or near the cargo in order to release lifting belts or chains. The safety issue includes the stowage sequence, temporary marking or covering of openings, the definition of safe routes and working



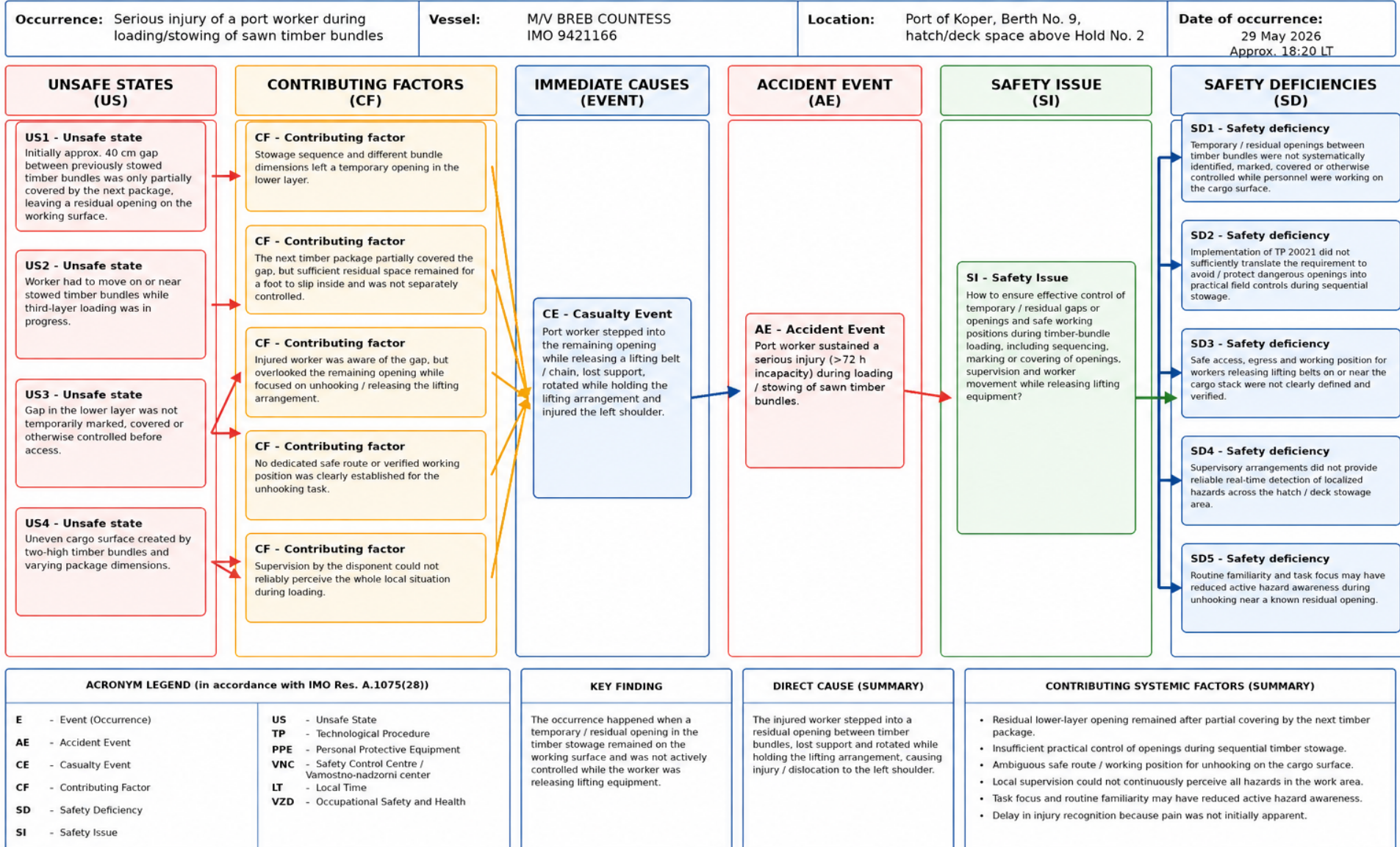
positions, practicable supervision and ongoing verification of local conditions before workers access the area.

4.6. Safety Deficiencies

- Temporary or residual openings between timber bundles were not systematically identified, marked, covered or otherwise controlled while workers were present on the working surface.
- The implementation of TP 20021 was not sufficiently translated into a practical field measure for controlling temporary dangerous openings during sequential cargo stowage.
- The safe route, access and working position for workers releasing lifting belts or chains on or near the stowed cargo were not sufficiently clearly defined and verified.
- The supervisory system at the location did not ensure reliable real-time detection of all local hazards in the area of the hatch cover/deck space above Hold No. 2.
- Routine familiarity with the task and focus on unhooking the lifting equipment may have contributed to reduced active perception of a known hazard at the critical moment.



ECFA - EVENT AND CAUSAL FACTORS ANALYSIS



Note: ECFA shows the most probable causal links based on information available at this stage of the safety investigation. Weather was clear, wind calm, daylight, temperature 28.00 °C, and alcohol test was negative; these are not indicated as causal factors. The purpose of the investigation is to improve safety and prevent similar occurrences. All times local ship time or liable to corrections.



CAPTER 5 – SAFETY ACTION TAKEN

Safety Action Taken and Evidence of Implementation

No safety actions had been adopted by the time the draft Final Report was submitted.

Investigating Authority Comment

N/A

CHAPTER 5 – SAFETY RECOMMENDATIONS

Note:

In exceptional cases where an immediate safety risk exists, an interim preliminary safety recommendation may be issued even if the formal safety investigation has not yet been completed.

Based on the analysis of the occurrence, the investigating authority proposes a safety recommendation aimed at preventing the recurrence of similar occurrences. As the Container Terminal has already implemented certain safety measures following the occurrence, the recommendation is primarily focused on the verified implementation and documented effectiveness of the measures adopted.

Safety Recommendation SI-MAIIS-SR002-2026

The investigating body recommends that Luka Koper d.d. / General Cargo Business Unit review the implementation of technological procedure TP 20021 for the loading and stowage of timber bundles and ensure practical, field-feasible measures for controlling temporary or residual openings between timber bundles when workers are still required to access the cargo or working surface in order to release lifting belts, chains or other lifting equipment.

The measures should be aimed at the systematic identification, marking, securing or temporary exclusion of such openings before workers are allowed access, as well as at the clear definition of safe access routes, working positions, responsibilities for implementing the measures, and documented verification of their effectiveness in practice.



ANNEXES

- Annex 1 – Extract from TP 20021 (Rev. 1, 2019/02), p. 10



4.7. Annex 1 – Extract from TP 20021 (Rev. 1, 2019/02), p. 10

	TEHNOLOGIJA NAKLADANJA PAKETOV LESA IZ SKLADIŠČA V LADJO Z 20T IN 30T BREMENSKI OKVIRJEM IN UPORABO BREMENSKIH PASOV	List 010	
		TP: 20021	
Lastnik:	Generalni tovari	Revizija 1	2019/02

Zlaganje-skladiščenje paketov v ladijskem skladišču se mora izvajati tako, da pri tem ne nastajajo nevarne odprtine med paketi. V kolikor pa je to neizbežno, se mora take odprtine zavarovati.

V primeru nihanja tovora upravljavec dvigala umiri tovor tako, da ga spusti na tla in šele nato se pristopi k namestitvi tovora na izbrano mesto.

Nevarnost udarca obesnih elementov na bremenskem okvirju .V primeru nihanja bremenskega okvirja kot tudi obesnih verig je potrebno pred pričetkom pripenjanja pasov na obali umiriti nihanje.

To opravi delavca z pridržanjem obesnih verig na okvirju istočasno-usklajeno in obojestransko.

Tudi dolžnost žerjavista je, da čimbolj umirjeno spušča okvir!

Pri vpenjanju in odpenjanju bremenskih pasov na **20t ali 30t bremenski okvir**, mora upravljavec dvigala upoštevati varnostno višino. Okvir mora biti najmanj 1m nad glavami delavcev. Pri delu z manj kot 4 ali 6 paketi lesa na enkrat, je potrebno obešala prostih vpenjalnih mest pritrditi na obremenjena v bližini, ker se s tem prepreči poškodbe, ki bi jih povzročilo prosto nihanje obešal. V primeru manjšega števila vpetih paketov na bremenski okvir je potrebno upoštevati da so vpeti simetrično glede na simetralo okvirja (uravnotežen tovor na okvirju).

Obvezna je stalna prisotnost signalista, ki vodi delo, spremlja varen prenos tovora in opozarja delavce na odmik iz nevarnega območja dela.

Obremenitev tovora na en priključek/ vpetje ne sme presegati 2500 kg.

Za nakladanje paketov lesa, se uporablja brezkončne, sintetične in pasove nosilnosti 3000kg. Ob upoštevanju kota 45 stopinj na kavlju obešala, ki visi pod okvirjem, imajo ti pasovi nosilnost 2100 kg po pasu, oziroma 4200 kg po paru pasov. Pasovi so dolžine 5,5-6 m – obseg pasu.



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