Ministry of Economy and Sustainable Development of Georgia.
Civil Aviation and Maritime Transport Accident /Incident Investigation Bureau.

23.01.2024 Investigation report on the incident of the collision of the Togolese-flagged steamship MV SAYEDONA with the berth while maneuvering in the new harbor of the Poti Sea Port

Tbilisi 2024

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The main purpose of marine casualty investigation is to determine all contributing factors, cause and outcome, to evaluate the actions of persons involved in such incidents and to determine and create preventive measures to eliminate such incidents in the future.

General Information

1. Factual information

1.1 Incident history

On January 23, 2024, for the purpose of mooring the cargo ship MV SAEDONA sailing under the Togo flag to the berth # 1 of the Poti Sea Port, the pilot of the Poti Port Pilotage Service at 04:45a.m. (local time here and below), together with the captain of the MV SAEDONA, began planning the ship's mooring. According to the pilot's explanation, the tugboats "PATRIOT" on the starboard side of the ship's bow and "NOAH" on the starboard side of the ship's keel were assisting the pilotage service in placing the ship at the berth.

At 05:20a.m. the ship MV SAEDONA was moored at the berth #1 the Poti Sea Port and four specialists from the Poti Port Mooring Group began mooring operations, during which the ship suddenly began to reverse. At this time, the ropes attached to the berth remained in the same fixed position, and by the decision of the ship's crew, the "springs" were released on the ship, the ship continued to reverse and collided with its aft against the concrete wall at the end of the # 1 berth.

As a result of the collision, the ship sustained some damage, the crew members of the ships were not injured, and there was no pollution of the sea.

In accordance with the requirements of the Regulation of the Investigation Bureau and the Rules for the Official Investigation of Marine Incidents/Cases, the investigation of the above-mentioned marine incident was carried out by the Bureau for the Investigation of Transport Accidents and Incidents in the Fields of Civil Aviation and Maritime Transport.

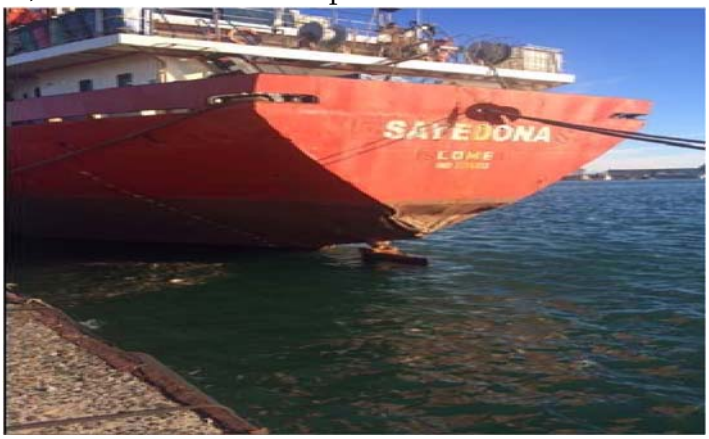
Investigation commenced: 24.01.2024
Investigation finished: 24.02.2024

1.2. Human injury

The crew members of the MV SAEDONA were not injured during the incident.

1.3. Vessel's damage

As a result of the collision, the aft of the ship MV SAEDONA was damaged, above the steering gear, in the area of the afterpeak tank.



1.4. Other damage

The concrete wall of Poti Port Pier #1 was damaged.

1.5 Technical information of the vessels and tugs involved in the Incident.

MV SAEDONA
IMO # 7726213
Call Sign 2VIB2
MMSI 357962000
Flag state TOGO
Length overall L =85,90 ∂
Breadth B =13,7 m

Drought d = 13.90m
Deadweight 7550mt
Year of Built 1999
Gross tonnage 5887
Net tonnage 2283
Main Engine characteristics-14,840PS
Mai Engine Power - 2576.00 KWT
Port of Origin - TOGO.

Tug boat „PATRIOT"
Length over all =23.96∂
Breadth B =7.90∂
Draft = 4.07∂
IMO # 9412189
Call sign 4L RI
Year Built 2007
Gross Tonnage GT 186.00
Flag state - Georgia
Port of Origin – Poti
Registration Time-12.04.2018
Action Time -23.02.2023
Mine Engine Characteristics
Diesel Type
Model – 3512 BTA
Power – 1304.97(KWT)=1775(HP).
Number of Engines – 2.
Tug Boat "NOAH"
Length Overall L =32.00 m
Breadth B =10.50 m
Drought = 5,8m
Call Sign 4L XX2
Year Built 2000
Gross Tonnage 475t
Flag state - Georgia
Date of Registration 10.10.2022
Registration number # CD1969
Reg. Valid Until 04.04.2024
Port of Origin - Poti
Mine Engine Characteristics
Diesel Type
Model KROMHOUT

Force 1490.00 (KWT)=2026 (HP)
Number of Engines 2.

Information about the Pilot in port of poti and Tug boat Captains

Pilot – Citizen of Georgia
Pilot license No 051
License is issued by the Maritime transport agency of Georgia
Issue date – 17.10.2023
Expiry date – 17.10 2028
Place of Operation: Sea port of Poti.
Captain of Tug boat Patriot
Citizen - Georgia
Seaman Certificate: GE016743
Certificate of Competency No 17G01-03-004035
Issue date – 01.07.2022
Expiry date – 30.06.2027

Captain of Tug boat NOAH
Citizen of Georgia
Seaman Certificate No 12-01-000943
Competency Certificate No 15G01-03-002518
Issue date - 25.08.2020ფ
Expiry date - 19.08.2025ფ.
Licenses and certificates of Poti port pilot and tug captains are issued
In accordance with the existing requirements and is not related to the incident.
1.6. Pier/Jetty information in Sea port of Poti
Poti Harbor includes the South and North Harbors, an internal basin, South, West and New North Mall, Entrance Channel and Outer Raid.
The territory of Poti harbor consists of protected (regime) and open (open) areas. from the parts on which the corporation "Poti Sea port" is located Harbor" and "Pace Terminal".

Minimum number of the tugs to be employed depending the size of the ship

Length over all	Minimum number of tugs	Total power of tugs
50 – 100	1	1000 horse power
101 – 180	2	6000 horse power
201-and more	3	9000 horse power

Piers/Jetties in port of Poti

Number of Jetty	Length of Jetty (∂)		Project Depth (∂)
	Overall Length	Operational Length	
N1 Jetty	200	200	12,5
N2 Jetty	183	160	12,5
N3 Jetty	215	215	8,5
N4 Jetty	154	154	8,5
N5 Jetty	173	173	8,5
N6 Jetty	212	190	9,75
N7 Jetty	211	170	8,25
N8 Jetty	215	200	9,75
N9 Jetty	220	220	8,0
N10 Jetty	264	264	8,0
N11 Jetty	71	71	8,0
N12 Jetty	250	240	6,1
N13 Jetty	97	97	6,5
N14 Jetty	253	240	8,4
N15 Jetty	155	150	8,5

The data of Poti harbor and berths are in accordance with the existing requirements and what has happened It is not related to the incident.

1.7 Meteorological Information

სსიპ საქართველოს სახელმწიფო ჰიდროგრაფიული სამსახური
LEPL State Hydrographic Service Of Georgia

სინოპტიკური სამმართველო
Synoptical Division

KA990129920563024

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№ WF/269

23 / იანვარი / 2024 წ.

პროგნოზი

23/01/2024 წ. 10:00 სთ-დან 24/01/2024 წ. 10:00 სთ-მდე	ფოთი Poti		ყულევი Kulevi	
	დღე	ღამე	დღე	ღამე
ქარი (ხიჩქარე) მ/წმ Wind (speed) m/s	5-10	6-11	5-10	6-11
შენიშვნა Note				
ქარი (მიმართულება) Wind (direction)	ცვალებადი Variable	აღმოსავლეთი Easterly	ცვალებადი Variable	აღმოსავლეთი Easterly
შენიშვნა Note				
ზღვის ღელვა (ბალი) Sea State	3/2-3	2	3/2-3	2
ტალღის სიმაღლე (სმ) Wave height (sm)	50-100/30-70	20-50	50-100/30-70	20-50
შენიშვნა Note				
ხილვადობა (მილი) Visibility (Miles)	5-10	5-10	5-10	5-10
ღრუბლიანობა Cloudness	ძირითადათ მოღრუბლული Mostly cloudy	ცვალებადი Partly cloudy	ძირითადათ მოღრუბლული Mostly cloudy	ცვალებადი Partly cloudy
ტემპერატურა (ჰაერის) °C Air Temperature °C	+6 +8	0 +2	+7 +9	-1 +1
ტემპერატურა (ზღვის) °C Sea Temperature °C	10-12	10-12	10-12	10-12
ნალექი Precipitation	უნალექოდ Without precipitation	უმნიშვნელო ნალექი Mainly dry	უნალექოდ Without precipitation	უმნიშვნელო ნალექი Mainly dry
შენიშვნა Note	დღის დასაწყისში უმნიშვნელო ნალექი At the beginning mainly dry		დღის დასაწყისში უმნიშვნელო ნალექი At the beginning mainly dry	

სინოპტიკოსი

ელექტრონული დოკუმენტია

ტატიანა ჯარასიძე

The actual weather conditions in the port of Poti are not related to the incident.

1.8 Fire

There was not fire during the maritime incident of MV SAEDONA.

1.9. Environmental Pollution

No environmental pollution was reported on MV SAEDONA during the incident.

1.10. Rescue factors

During the MV SAEDONA incident, none of the crew members of the ship involved, tug boats involved and sea port jettymens were injured.

2.Analysis

The analysis of the maritime incident that occurred in the Poti Seaport on 23.01.2024 has been made based on:

Georgian Maritime Code;

Technical Regulation “Rules for Pilotage Service Activities and Pilot Certification”;

“Rules for Official Investigation of Marine Incidents/Accidents”;

Technical Regulation “Port Rules”;

Report Card of the Head of the State Supervision and Control Service of the Poti Port - Incident Report;

Explanatory Cards of the Captain of the Ship MV SAEDONA, the Pilot of the Poti Port Pilotage Service “Poti Pilot” and the Captains of the Tugs “PATRIOT” and “NOAH”;

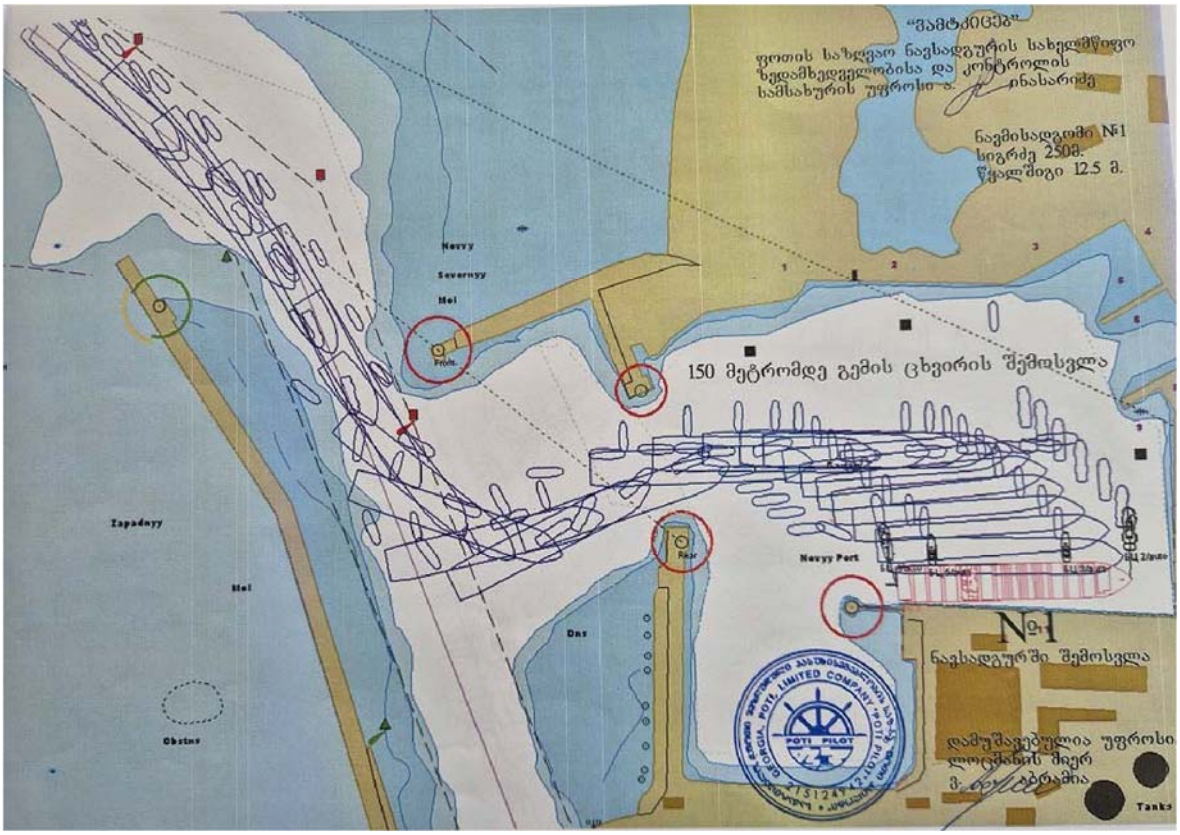
“Vessel Traffic Regulation Service (VTS) and Automatic Identification System (AIS) Records; Extracts of weather forecasts and actual weather conditions issued by the LEPL Georgian State Hydrographic Service;

Sailors' diplomas and certificates;

Based on video surveillance recordings taken from the perimeter of the Poti terminal;

Explanations received by the Investigation Bureau directly at the scene of the incident

in the Poti port from the captain and crew of the vessel MV SAEDONA, the Poti port towing company “Svitzer Georgia”, the pilotage service “Poti Pilot” and the managers and technical personnel of the port’s State Supervision and Control Service, as well as a study of international best practices implemented in the field of maritime transport. The study and analysis of the working material submitted for the investigation of the incident showed that on January 23. 2024 in order to enter the # 1 berth of the Poti port, the Togolese-flagged ship MV SAEDONA called the pilot of the Poti port pilotage service “Poti Pilot”, who at 04:45 a.m. embarked the cargo ship MV SAEDONA and, together with the captain of the said ship, began to enter the ship into the berth according to the plan previously approved by the Poti port pilotage service.



According to the pilot's explanation, the pilotage service was assisted for moored positioning the ship at the berth by the tugboat MV SAEDONA tied to the bow on

the starboard side of the ship and the tugboat "NOAH" tied to the stern on the starboard side of the ship.

Remark 1. Due to the fact that the vessel MV SAEDONA is not designed to have an objective control recorder (VDR) reflecting the operation of the vessel and the engine, the investigation bureau used only the video control recordings taken from the perimeter of the Poti terminal and the explanations received from the captains of the vessel and tugboats involved in the incident, as well as the pilot and the group of mooring personnel at the port of Poti.

Remark 2. The electronic timestamp on the video surveillance footage taken from the perimeter of the Poti terminal is 10 minutes off the time recorded in the above explanations. 05:20a.m. = 05:10a.m. Therefore, for the analysis below, only the time recorded on the electronic timestamp on the video surveillance footage taken from the perimeter of the Poti terminal will be used as evidence.

05:09:34a.m. The ship MV SAEDONA is standing parallel to Berth # 1 and tugs are pulling up to berth;

05:10:01a.m. The ship MV SAEDONA is being towed to Berth # 1;

05:10:22a.m. Four specialists from the Poti Port towing team appear in the frame, who begin tying the ropes provided from the ship MV SAEDONA to the berth's pier;

05:12:40a.m. Smoke from the engine chimney of the ship MV SAEDONA stops (presumably the engine has either turned off or has switched to a low operating mode) and the white trace of water movement that had been present at the steering wheel (presumably from the engine propeller) stops;

Remark 3. The explanation of the captain and chief engineer of the vessel MV SAEDONA regarding the engine shutdown is confirmed.

- Captain's quote - (We give order finish with engine)
- Engineer's quote - (We received order for stop engine and finish with engine) 11 At the same time, it is seen that the tugs continue the operations of tying the vessel to the shore, and both tugs remain tied on board the vessel MV SAEDONA on site;

Remark 4. The ship's captain could not explain why he made the decision to shut down the engine when the ship's mooring to the berth was not yet complete.

05:14:10a.m. The ship MV SAEDONA begins to reverse and a white trace of water movement appears in the area of the ship's middle (presumably a trace of water flowing from the engine propeller);

Remark 5. During the reverse movement of the ship MV SAEDONA, the presence of white traces of water movement in the area of the ship's steering wheel and the operation of the ship's engine propeller in reverse are recorded by the captain of the tugboat "NOAH" tied to the stern.

Remark 6. The captain of the ship MV SAEDONA considers the cause of the ship's reverse movement to be either the water current or the effect of the tug's push. - Version a) There is no water current in the Poti port in general and specifically at berth # 1, and for this reason, the movement of a ship that has been stopped and half tied for more than 5 minutes is excluded.

- Version b) Theoretically, the tug's push at the wrong angle could have caused the ship "SAEDONA" to move from its place, but such a fact is not confirmed by the existing records, therefore, we cannot say in the form of evidence that the ship's reverse movement began due to the tug's push at the wrong angle.

Although, taking into account the current practice, on ships with CPP(Control Pitch Propeller), as a result of a so-called hydraulic failure, even after the ship's engine is turned off, when the engine speed (RPM) = 0, it is possible for the ship's engine propeller to arbitrarily switch to reverse, in this specific case, even if a similar fact had occurred, due to the lack of physical evidence, we cannot say in the form of evidence that the ship's reverse began due to a so-called hydraulic failure.

05:14:30a.m. The position of the tugboat "NOAH" at an angle to the bow of the ship MV SAEDONA, tied to the ship with a taut rope and a white trace of water movement below the tugboat is also visible, as is the position of the tugboat "PATRIOT" tied to the bow of the ship MV SAEDONA almost parallel to the ship MV SAEDONA, which

indicates that from this moment until the collision of the ship MV SAEDONA with the berth 12

the tugboats were working to push the ship MV SAEDONA forward in order to prevent a collision;

Remark 7. The pilot's execution of the order issued to the tug captains, as mentioned in the explanation, to move ahead of the ship MV SAEDONA in order to prevent a collision is confirmed. the tugboats were working to push the ship “SAEDONA” forward in order to prevent a collision.

Remark 8. The explanations of the vessel MV SAEDONA and the pilot state that during the same period, in order to stop the ship from moving backwards, upon the pilot’s recommendation and the decision of the ship’s captain, the crew drop starboard anchor, but the ship’s movement backwards failed to be stopped. 05:15:02a.m. Smoke appears from the engine chimney of the vessel MV SAEDONA (it is likely that the engine was started or its power increased);

05:15:15a.m. An increase in white water movement appears in the area of the middle of the vessel MV SAEDONA

Remark 9. The explanation of the captain and chief engineer of the ship “SAEDONA” regarding the inclusion of the engine ahead is confirmed.

- Captain's quote - (I run engine again to ahead condition but ship touched the other berth)
- Engineer's quote - (We received urgent order from bridge for running engine max ahead)

05:15:24a.m. The ship MV SAEDONA collides with the berth. After the collision with the ship MV SAEDONA the ship returned and was tied up at berth # 1.

The Poti Port State Supervision and Control Service, together with the crew of the ship MV SAEDONA, conducted an initial inspection of the damaged part of the ship’s keel, as a result of which damage to the ship’s keel was found below the so-called “waterline”, above the ship’s steering gear, a crack was observed in the area of the “aft- peak” tank and water was leaking from the tank.

Based on the above, by the decision of the Head of the Poti Port State Supervision and Control Service, the ship was prohibited from carrying out planned cargo operations until a summary of the relevant inspections and class examinations was submitted, and a conclusion on the suitability of the ship was presented.

The vessel MV SAEDONA was inspected in accordance with the requirements of the Black Sea Memorandum. As a result of the inspection, it was determined that the ship's logbook on board the vessel MV SAEDONA does not contain 13 records of the incident; the minimum specified in the document on safe manning of the ship is incomplete; the certificates of the chief officer (STCW) are not original; there is no engine rating (STCW III-4 and III-5); the medical certificates of 3 members of the ship's crew are not original; there is no cook on board.

During the analysis, all possible scenarios that could have caused the ship to move and collide with the berth were considered. The analysis showed that in this specific case, if the ship's management from the bridge, so-called (Bridge team management), had been implemented accordingly, and with a correct assessment of the expected risks, the incident could have been avoided.

3. Conclusion

The investigation of this incident and the study and analysis of the submitted working materials revealed:

- There is no record of the incident in the ship's logbook on board the vessel MV SAEDONA.
- The minimum specified in the document on the safe manning of the ship is incomplete;
- The certificates of the chief officer (STCW) are not original;
- There is no engine rating (STCW III-4 and III-5);
- The medical certificates of 3 members of the ship's crew are not original;
- There is no cook on board the ship;

- The captain of the vessel MV SAEDONA could not explain why he made the decision to turn off the engine when the ship's mooring at the berth was not completed.
- The captain of the vessel MV SAEDONA did not make any remarks or complaints about the quality of the pilotage service of the Poti Port Pilotage Service “Poti Pilot” in the pilotage receipt. 14
- The licenses and certificates of the pilot and tug captains of the Poti Port Pilotage Service “Poti Pilot” have been issued in accordance with the existing requirements.
- The technical data of the tug involved in the incident are not related to the incident;
- The data of the Poti Port and the berths comply with the existing requirements;
- The actual weather conditions in the Poti Port were good and are not related to the incident;

The maritime incident that occurred is classified as a maritime incident - collision in accordance with the "Table of Categories of Maritime Incidents/Incidents" in Annex 1 of the "Rules for the Official Investigation of Maritime Incidents/Incidents" -category **“**CONTACT(CT)” .

4. Safety Recommendations

1. In order to improve the level of navigation safety and prevent similar maritime incidents, the investigation report of this maritime incident shall be sent for further response to:

a) LEPL Maritime Transport Agency;

b) Heads of State Supervision and Control Services of Poti, Batumi and Kulevi Ports;

c) Heads of Pilotage and Towing Services of Poti, Batumi and Kulevi Ports;

2. The following recommendations shall be given to the Heads of Pilotage and Towing Services of Poti, Batumi and Kulevi Ports:

a) In the event of a subsequent incident, the captain of the damaged vessel, as well as the crew members, if necessary, shall be urgently requested to describe and record the incident in detail in explanatory notes. Make an entry in the ship's logbook and, in case of a claim with the pilot or tugs, make a corresponding entry in the pilot's receipt;

b) In order to preserve evidence, the heads of the pilot and tug services should consider equipping their personnel with body-worn video recorders, which, if necessary, will objectively explain what happened.

c) In the near future, ensure:

- A detailed discussion of the investigation report with the personnel of the relevant technical services subordinate to them;
- Conduct additional theoretical training sessions on the topics:
- Bringing ships to berths using towing in the port - towing technology, methodology and insurance of expected risks;
- When towing ships, as well as during towing operations, due consideration of the effect of towing work, angle of contact and power, coordinated action-management (Bridge team management);

3. The Ministry of Economy and Sustainable Development of Georgia, Civil Aviation and Maritime Transport Accident /Incident Investigation Bureau.

Civil Aviation and Maritime Transport

Accident /Incident Investigation Bureau