



KÖZLEKEDÉSBIZTONSÁGI  
SZERVEZET  
TRANSPORTATION SAFETY  
BUREAU

# **FINAL REPORT**

**2006-009-6  
SERIOUS MARINE CASUALTY**

**Mindszent-Baks  
3<sup>rd</sup> June 2006**

**40-tonne ferry: DK 1135**

The sole objective of the technical investigation is to reveal the causes and circumstances of marine casualties, serious and very serious casualties as well as marine incidents, and to initiate the necessary technical measures and make recommendations in order to prevent similar cases in the future. It is not the purpose of this activity to apportion blame or liability.

## **This present investigation was conducted on the basis of**

- Act XLII of 1995 on marine transport,
- SOLAS 1974/1978 and Act XI of 2001 on its proclamation,
- Act CLXXXIV of 2005 on the technical investigation of aviation, rail and marine accidents and incidents (hereinafter referred to as Kbv.),
- Decree 9/2006 (II.27.) of Minister of Economy and Transport (MET) on the detailed rules regarding technical investigation of serious marine casualties and incidents.
- In absence of other related regulation of the Kbv., the Transportation Safety Bureau of Hungary conducted the investigation in accordance with Act CXL of 2004 on the general rules of administrative authority procedure and service,
- The competence of the Transportation Safety Bureau of Hungary is based on the Kbv. until 31<sup>st</sup> December 2006 and on Government Decree 278/2006 (XII. 23.) from 1<sup>st</sup> January 2007 respectively.

## **This present final report**

was prepared on the basis of the on-site investigation and on the accounts of the witnesses.

Incompatibility did not stand against the members of the IC.

The members of the IC performed their tasks under the control of the IC Head.

Persons participating in the technical investigation did not act as experts in other procedures concerning the same case and shall not do so in the future.

The IC is obliged to keep all documents and information obtained in the course of the investigation and it may withhold them from other authorities in occurrences when the owner of the information would have had the right to do so.

## **In the course of the procedure, the IC**

- conducted the necessary investigations and took measures in order to fulfil the objectives of the technical investigation within reasonable time:
- examined the site of the occurrence, the maritime infrastructure, the vessels and their accessories, and the damages,
- interviewed the persons in possession of relevant information.

## **During the technical investigation**

- the IC received all relevant information and records which were in possession of the owner and the operator of the vessels, the crews, the operator of the port and the marine transport authority.
- The following bodies cooperated in carrying out the technical investigation: bodies responsible for issuing licence, conducting the water-worthiness examination of the vessels, issuing the water-worthiness certificate, operating, maintaining and repairing the vessels, the operator of the port as well as the marine transport authority.
  1. Marine incidents and casualties involving marine vehicles are investigated by TSB as the competent national authority.
  2. Should a separate legal procedure (concerning criminal activity or petty offence) be initiated, the accompanying investigations shall not affect the technical investigation conducted by TSB.

---

## Abbreviations

SOLAS	Safety of Life at Sea
MET (GKM) TSB	Ministry of Economy and Transport (Gazdasági és Közlekedési Minisztérium) Transportation Safety Bureau
kN	kilo Newton
IC	Investigating Committee
MTW (KHVM) Kbvt	Ministry of Transportation, Telecommunication and Water (Közlekedési, Hírközlési és Vízügyi Minisztérium) Act CLXXXIV of 2005 on the technical investigation of aviation, rail and marine accidents and incidents
NTA	National Transport Authority

## Summary

<b>Event category</b>	Serious marine casualty
<b>Manufacturer</b>	Pest Country Ferry Company (Pestmegyei Révhajózási Vállalat)
<b>Type</b>	40 tonne rope-driven ferry
<b>Registration</b>	DK 1135
<b>Owner</b>	Local Government of Mindszent town
<b>Date and time of the event (UTC)</b>	3 <sup>rd</sup> June 2006. approximately 13 hours 05 minutes
<b>Location</b>	Mindszent-Baks crossing point
<b>Number of fatally or seriously injured</b>	None
<b>Damage to ship</b>	None
<b>Country of registry</b>	Hungary
<b>Registration authority</b>	National Transport Authority - Marine Operational Safety and Registry Department
<b>Competent investigating authority</b>	Transportation Safety Bureau (TSB)

## Synopsis

### Direct cause of the casualty

Breakage of the rope of the ferry.

### Data of the investigation

The occurrence was reported to the duty services personnel of TSB by the officer on duty at Szolnok Water Police at 14 hours 08 minutes.

Members of the IC: Gábor Wimmer, László Gréz

The IC left for the site at approximately 15 hours and 30 minutes and arrived at 17 hours 30 minutes.

They finished the field investigation at approximately 19.00.

The ferrymen and two people from the Operator were interviewed on the site after taking their particulars. The minutes of the interviews was completed by the IC. The interviewed persons unanimously stated that 5 minutes after the ferry had disembarked, they heard a sharp thud and the ferry started to drift downstream. The ferry stopped after casting the anchor. At the same time they reported the occurrence to the operational manager of Deviskomp Kft. who sent a small motor ship (H-20575-30) which afterwards towed the ferry to the Baks side of the river. Here, the passengers and the transported cars left the ferry.

At the time of the field investigation, the broken rope was not visible as it was still in the riverbed. The IC could only observe the end of the rope tied on the Baks side of the river. According to the certificate of the ferry-rope, its length was 310 metres, 28 millimetres in diameter, with a tensile strength of 496 Kn.

The rope was lifted to the surface at the order of Szolnok Water Police and samples were taken, of which TSB received.

On the basis of the samples, it can be stated that the rope had worn away, its staple fibres had lost their stretchiness and therefore they broke easily even when bending only slightly.

## 1. Factual information

### 1.1. Injuries to persons

No one was injured among the 11 people on board.

Injuries	Crew	Passengers	Others
Fatal	0	0	0
Serious	0	0	0
Minor/None	0	0	0

### 1.2. Damage to ship

The ferry was not damaged in the course of the casualty.

### 1.3. Other damage

The 7 cars and one trailer on the ferry were not damaged.

### 1.4. Ship information

Type	40-tonne rope-driven ferry
Registration	DK 1135
Year and place of manufacturing	1977 / Horány
Ferry certificate	75/5102/2004
Certificate valid	9 <sup>th</sup> November 2006.

### 1.5. Meteorological information

Visibility	good
Temperature	17° C
Precipitation	drizzle
Wind	light

## 2. Analysis

The rope of the ferry was probably fitted after 31<sup>st</sup> October 2002 at the crossing point – according to the interviews, it was fitted during the spring of 2003 – and it is certain that it has not been changed since then. The change of the rope was ordained by the Transportation Supervisory Authority of Csongrád County on 9<sup>th</sup> February 2005. According to the documents, the rope had neither been changed nor checked until the occurrence of the casualty. The interviewed persons were not able to tell the approximate time of the last inspection. Thus, the casualty happened due to the fact that the rope had worn away. The high water-level of Tisza River at that time also contributed to the occurrence of the casualty. The higher rate of flow exerted stronger force on the rope which, as a consequence, broke. It was found that the owner had not been in possession of the documentation regarding the establishment of the crossing point. The documents would have provided information on what tensile strength rope was required at the given crossing point. In the course of the investigation, the IC found that neither the owner nor the operator had insurance concerning the shipping activity. According to their account, they had a general insurance whose contents were unknown to them.



Ferry-rope



Anchor



Rope driving rollers



Ferry-rope, chain

### 3. Conclusions

It can be ascertained that the experience and composure of the ferrymen saved the passengers and cars on board as well as the ferry itself from suffering serious injuries and damages by casting the anchor (which stopped the ferry) in time.

**The cause of the casualty:** the neglect of check and maintenance of the rope, the rope having been worn away, and finally, its breakage.

#### 4. Safety recommendations

**BA2006-009-6\_01:** The IC recommends the NTA to elaborate a simple chart method based on which ferry operators would know what kind of rope (in diameters) they shall use according to the definitions, and until what water level they can operate the ferries safely.

**BA2006-009-6\_02:** The IC recommends the NTA to settle the question of identifiability of ropes as it is already solved in the case of hosting ropes. It is advisable to keep the documents on the ferry.

**BA2006-009-6\_03:** The IC recommends the NTA to ordain that the owners and operators of ferries shall be in possession of the documentation, drawing and technical description of ferries and crossing points, as this way it is easier to comply with the rules.

**BA2006-009-6\_04:** The IC recommends the NTA to elaborate a “mandatory liability insurance” system which would be equally binding for all shipping companies, shipping activities and ships.

**BA2006-009-6\_05:** The IC recommends the NTA to ordain that the ropes of ferries shall be inspected by a level specialist as well at fixed intervals. The inspection should be entered on record and be kept on the ferry. Furthermore, the up-to-dateness and professional contents of regulations regarding the checking of ropes should be reviewed.

Budapest, 3<sup>rd</sup> January 2008.

---

Gábor Wimmer  
Head of IC

---

László Gréz  
Member of IC