



REPUBLIC OF TURKEY
MINISTRY OF TRANSPORT, MARITIME AFFAIRS AND
COMMUNICATIONS
ACCIDENT INVESTIGATION BOARD

Accident Investigation Report On
The Collision between AKEL and SENGUL K

ISTANBUL, off the Coast of Riva
22nd of July 2015

Board Resolution No: 15/5.Dnz/2016



AKEL



SENGUL K

PURPOSE

This marine accident was investigated in accordance with the Bylaw on the Investigation of Marine Accidents and Incidents which came into force after being published at the Official Gazette No.29056 on 10th July 2014.

Investigation procedures and principles are further applied by considering Resolutions of International Maritime Organization concerning International Standards and Recommended Applications for Safety Investigations Directed to MSC 255(84) (Accident Investigation Code) and Resolution A.1075(28) Sea Accidents or Incidents, and European Union Directive 2009/18/EC.

Purpose of the Marine Accident Investigation is to provide the improvement of the legislation and applications directed to the safety of life, goods and environment by achieving the real reasons which cause the occurrence of marine accidents, and thereby, to avoid a repeat in occurrence and to provide the mitigation of negative impacts and consequences following the accident.

Marine accident investigation shall be inadmissible in any judicial and administrative proceedings whose purpose or one of whose purposes is to attribute or apportion liability or blame.

CONTENTS	PAGE
SUMMARY.....	1
1. FINDINGS	3
1.1 Factual Information.....	3
1.2 Environmental Conditions	5
1.3 Sequence of Events Regarding the Accident.....	5
1.3.1 Before the Accident.....	5
1.3.2 Accident Moment.....	7
1.3.3 Post Accident	7
1.4 The Ship “AKEL”	9
1.4.1 Other InformationRegarding the Ship.....	9
1.4.2 Key Personnel.....	10
1.5 The Ship “SENGUL K”	10
1.5.1 Other InformationRegarding the Ship.....	10
1.5.2 Key Personnel.....	10
1.6 Navigation Lights and Ships’ Lighting.....	10
1.7 Marine Pollution.....	11
1.8 Port Clearance Document.....	11
1.9 Damage Condition.....	11
1.10 Navigational Equipment on the Bridge.....	14
1.11 Sand Loading Regions.....	16
2. ANALYSIS	18
2.1. Collision.....	18
2.2. Port Clearance Document.....	21
3. CONCLUSIONS	23
4. RECOMMENDATIONS	24

LIST OF FIGURES	PAGE
Figure 1. Location of the Accident.....	1
Figure 2. Courses followed by the ships.....	6
Figure 3. Search and rescue efforts after the accident.....	8
Figure 4. Search and rescue efforts after the accident.....	9
Figure 5. Damage on SENGUL K.....	12
Figure 6. Damage on AKEL.....	13
Figure 7. Damage on AKEL.....	13
Figure 8. Radar of SENGUL K.....	14
Figure 9. AIS equipment of SENGUL K.....	15
Figure 10. Positions of the ships before the accident and the sand regions.....	19

LIST OF TABLES	PAGE
Table 1. Position information regarding SENGUL K.....	15
Table 2. Positions of sand loading regions that were assigned to companies.....	16

SUMMARY



Figure 1. Location of the accident

On 21st of July 2015, coaster SENGUL K around 21:00 local time (LT) and coaster AKEL around 22:00 left Kartal Kumcular Pier and bound for sand region off the coast of Şile/İstanbul. Both ships followed the similar course and up to off the coast Riva, SENGUL K continued to navigate ahead of AKEL. Both ships arrived off the coast of Riva around 01:00.

AKEL has the permission to load from sand region which is assigned to Rafi Altinok and the other ship SENGUL K has the permission to load from sand region which is assigned to S.S. (Limited) Istanbul Anatolian Side Kumcular Production and Marketing Cooperative. There is a distance of 2 nautical miles between both sand regions and sand region assigned to Rafi Altinok is placed at western side of sand region which is assigned to kumcular cooperative.

On 22nd of July 2015 around 02:30, while SENGUL K was carrying out loading operation out of the permitted sand region, accident occurred as a result of collision of AKEL, which was underway. After the accident, AKEL was damaged from the starboard side and foundered in a short while. SENGUL K did not take any big damage except small scratches.

AKEL crew abandoned the ship by jump out of the board. Casualties were rescued from the sea by SENGUL K and other ships that were around. One person who were onboard AKEL but not among crew, lost his life after the accident.

Marine pollution occurred as a result of fuel leakage from AKEL after the accident and pollution response was carried out by sea crafts owned by Directorate General for Coastal Safety.

It has been assessed that both masters did not utilize radar and AIS appropriately and they did not carry out proper look-out by sight and hearing and these factors affected the occurrence of the accident.

In the recommendations part of the report, Directorate General for Regulation of Maritime and Inland Waters was recommended to develop additional measures towards ensuring seaworthiness of the ships conducting national voyage and manning the ships with the competent seafarers and shipowners were recommended towards ensuring that COLREG regulations are implemented fully and effectively on ships and in order to increase awareness. In this subject, crew to be provided training and ships are manned with competent seafarers in compliance with Circular on Manning of Ships (national legislation).

1. FINDINGS

1.1 Factual Information

Information about AKEL

Owner	: Atasoy Shipping Tour. Const.Industry & Trading Co.
Ship Manager	: Atasoy Shipping Tour. Const.Industry & Trading Co.
Flag	: Turkish
Port of Registry	: Istanbul
Type of Ship	: General Cargo Ship
Year and Place of Build	: 1968, Turkey
IMO Number	: 7946746
Call Sign	: TCBW5
Classification Society	: Not applicable
Length over all (LOA)	: 67,2 meters
Breadth	: 9 meters
Depth	: 5,25 meters
Gross Tonnage	: 953
Net Tonnage	: 540
DWT	: 1630
Main Engine Manufacturer&Power	: SKL / 853 kW
Number of Crew	: 9
Last Port of Call	: Kartal Kumcular Pier
Next Port of Call	: Sand Loading Region, Riva Coast

Information about SENGUL K

Owner	: Ergün Zafer TUZCU
Ship Manager	: Ergün Zafer TUZCU
Flag	: Turkish
Port of Registry	: Istanbul
Type of Ship	: General Cargo Ship
Year and Place of Build	: 1977, Turkey
IMO Number	: 7946863
Call Sign	: TCAG4
Classification Society	: Not applicable
Length over all (LOA)	: 59,75 meters
Breadth	: 8 meters
Depth	: 4,35 meters
Gross Tonnage	: 498
Net Tonnage	: 294
DWT	: 892
Main Engine Manufacturer&Power	: SKL / 493 BHP
Number of Crew	: 7
Last Port of Call	: Kartal Kumcular Pier
Next Port of Call	: Sand Loading Region, Off the Coast of Şile

Information about the Accident

Type of Accident	: Very serious marine accident
Date and Time of the Accident	: 22 nd of July 2015 / around 02:30
Place of the Accident	: Off the coast of Şile / Istanbul
Injured/Dead/Missing	: 1 dead
Damage	: AKEL was foundered.
Pollution	: Diesel oil leakage occurred as the result of foundering of AKEL.

1.2 Environmental Conditions

Wind scale was between 1 – 3 according to beaufort scale and there was 1 to 1,5 meters swell and visibility was good around the hours when the accident happened.

1.3 Sequence of Events Regarding the Accident

1.3.1 Before the Accident

On 21st of July 2015, coaster SENGUL K around 21:00 local time (LT) and coaster AKEL around 22:00 left Kartal Kumcular Pier and bound for sand region off the coast of Şile/İstanbul.

Both ships followed the similar course and up to off the coast Riva, SENGUL K continued to navigate ahead of AKEL.

In Figure 2, the courses followed by the ships after 00:30 are shown. When the courses of the ships are taken into account, it can be seen that SENGUL K navigated closer to shore and continuously ahead of AKEL and they continued their navigation at a distance of changing 0,4 to 1 nautical mile between each other which can be regarded as a close distance.

According to AIS recordings, last signal received from AKEL was on 22nd of July 2015 at 00:59:53 at the position of 41°14'27" N 29°16'25" E and at that time the speed of AKEL was 1,3 nautical miles. Again according to AIS recordings, SENGUL K was proceeding with a speed of 4,9 nautical miles on 22nd of July 2015 at 01:03:55 at the position of 41°13'45.38" N 29°17'22.19" E, but after that moment until 01:57:38 there was no AIS data regarding the ship.

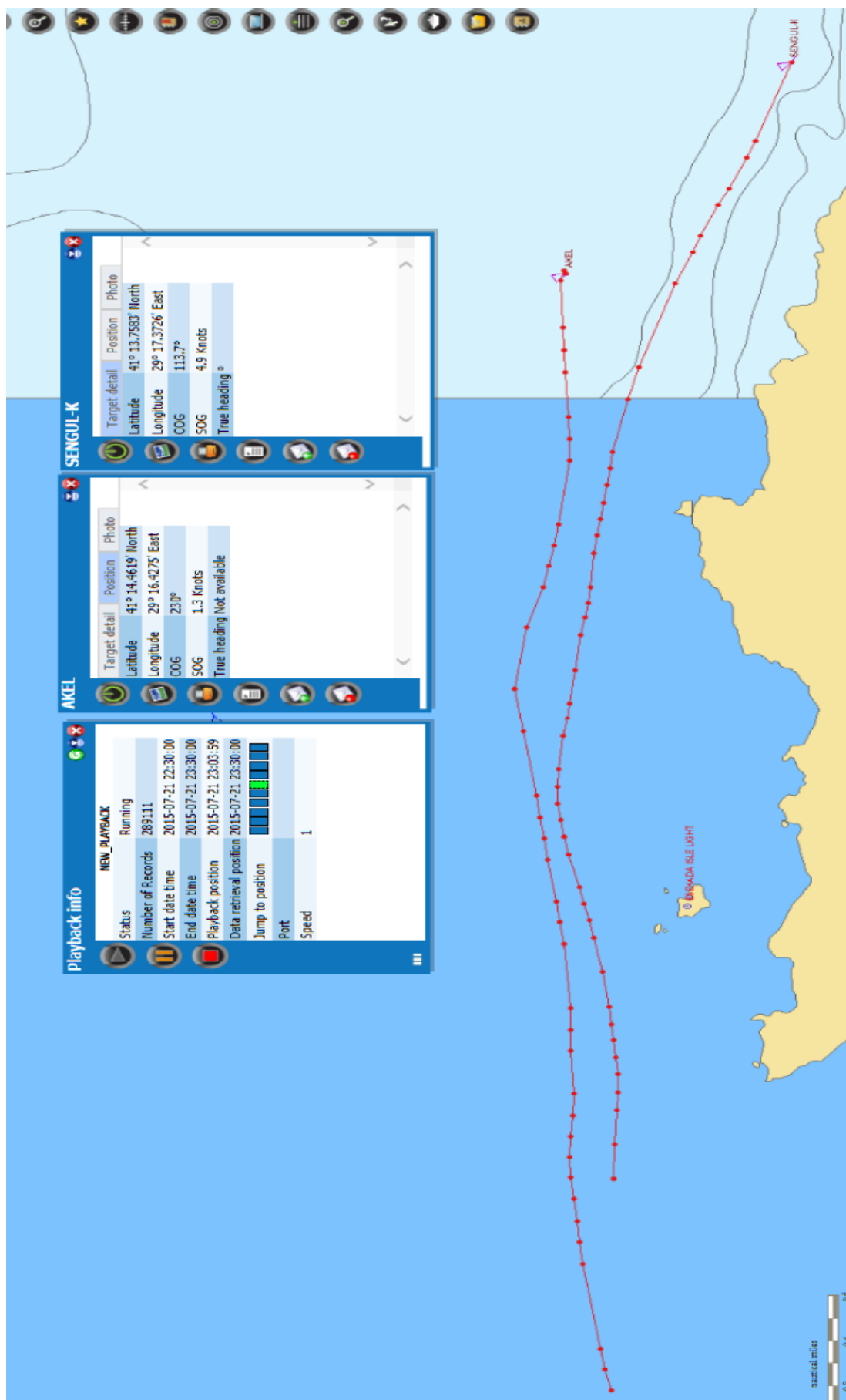


Figure 2. Courses followed by the ships

1.3.2 Accident Moment

According to interviews conducted with the crew of AKEL;

Around 02:30 master and the ordinary seaman were on the bridge and were trying to moor the ship inside borders of the sand loading region which was assigned to Rafi Altinok. Master was controlling whether the ship was inside the borders of the sand region over AIS and GPS. As the ship navigated out of the anchoring region with the effect of wind, it was proceeding with a speed of 1 nautical mile in order to return to the anchoring region again. Master ordered the ordinary seaman nearby to be prepared to drop anchor. At this moment master and the ordinary seaman realized the SENGUL K at their starboard side so close to them. They collided with the other ship from the part of starboard quarter hold that was close to the engine room without having the chance of manoeuvring.

According to interviews conducted with the crew of SENGUL K;

The ship left Kartal Kumcular Pier and after Istanbul Strait passage, around 02:00 – 02:30, it arrived to Şile sand region to be loaded with sand. Sand was being loaded from Sanders' cooperative and it was waiting on stop because the area where the sand to be loaded was narrow and it was staying on the east of KAAN SONAY, which was loading sand at that time. At the time when the anchor was not dropped and the ship was proceeding with a speed of 2,5 nautical miles with the effect of wind, parallel to the coast, it was seen that a ship was approaching from the port side. Master gave way hard to starboard but as the approaching ship was so fast, it passed by contacting forward port side and bulb of the ship. After the accident, master saw that AKEL was damaged.

1.3.3 Post accident

Immediately after the accident, the master of AKEL ordered to engine full ahead and planned to arrive to the nearest shore but because of excess flooding, the ship started to list towards starboard fastly. As a result of excess flooding from the damaged section and because of fast and heavy list towards starboard side, the master ordered to the engine stop and abandon the ship command.

As the ship listed so fast and heavily towards starboard side, the crew could not find enough time to wear the lifejackets and to lower the lifeboat so they jumped to the sea with life buoys.

The master of SENGUL K saw that AKEL was damaged and immediately he ordered to launch the lifeboat. In the meantime he reported the accident to the İstanbul Vessel Traffic Service (VTS). The crew of KAAN SONAY, which was at the accident scene, moved with the life boat to help the casualties. The master of KUMDAS, who heard the accident from the talks between the master of SENGUL K and the VTS, immediately moved from the anchored area to the accident scene and joined search and rescue efforts. The lifeboat of SENGUL K took 6 of the casualties and the lifeboat of KAAN SONAY took 2 of the casualties. Because the rudder of the lifeboat of SENGUL K failed, casualties were towed by the lifeboat of KAAN SONAY and were embarked to SENGUL K. In the meantime, Coast Guard Command and Directorate General for Coastal Safety boats reached to the accident scene. As one of the casualties swallowed excess water, he was transported to shore with the boat belonging to Directorate General for Coastal Safety.



Figure 3. Search and rescue efforts after the accident



Figure 4. Search and rescue efforts after the accident

On the other hand, it was realized that there was another person who was on duty as watchman but was not among casualties recovered from the sea. Search and rescue efforts was concluded around 07:00 when the Coast Guard Boat Command reported that the missing person was found.

1.4 The Ship “AKEL”

1.4.1 Other Information Regarding the Ship

AKEL was constructed in 1978 in Turkey and it is a double hold general cargo ship, having a cargo carrying capacity of 1630 DWT. There is a one SKL brand 1160 BHP power engine onboard. Certificate of Seaworthiness was issued on 25th of March 2015 to the ship. Permitted voyage range in the Certificate of Seaworthiness is Cabotage Voyage and according to Minimum Safe Manning Document (inland waters), the ship is manned with the competencies of 1 master (II/3), 1 chief engineer (III/3), 1 deck rating, 1 engine rating and 1 radio officer, totally 5 personnel.

1.4.2 Key Personnel

Ships' master has a restricted master competency. Master stated that he had 32 years of sea experience and worked as a master on AKEL for 2,5 months in 2015 and in total had approximately 3,5 years of working background as a master.

Ordinary seaman, who was stated as present on the bridge at the time of the accident, stated that he had 26 years of sea experience and had been working on AKEL for 16 months.

1.5 The Ship "SENGUL K"

1.5.1 Other Information Regarding the Ship

SENGUL K was constructed in 1977 in Turkey and it is a double hold general cargo ship, having a cargo carrying capacity of 892 DWT. There is a one SKL brand 493 BHP power engine onboard. Certificate of Seaworthiness was issued on 20th of June 2014 to the ship. Permitted voyage range in the Certificate of Seaworthiness is Cabotage Voyage and according to Minimum Safe Manning Document, the ship is manned with the competencies of 1 master (II/3), 1 chief engineer (III/2), 1 watchkeeping officer (II/3), 1 watchkeeping engineer (III/2), 1 radio officer (IV/2), 2 deck rating and 1 engine rating, totally 8 personnel.

1.5.2 Key Personnel

Ships' master has a restricted master competency. Master stated that he had 40 years of sea experience and had been working as a master for 16 months on SENGUL K.

1.6 Navigation Lights and Ships' Lighting

During the interviews, the crew of AKEL stated that, the lights and navigation lights of SENGUL was off and navigation lights and lights of AKEL was on. On the other hand, the crew of SENGUL K stated that navigation lights were on but deck lights were off on SENGUL K.

1.7 Marine Pollution

Diesel oil leakage occurred after the foundering of AKEL. The shipowner was ordered to take measure in order to prevent the leakage by the Harbour Master of Sile (Istanbul). In addition it was reported to Directorate General for Coastal Safety and Environment and Urbanization City Directorate by the Harbour Master that the leakage resulted in a layer of approximately 400x30 meters on the sea surface. Thereupon Directorate General for Coastal Safety responded the pollution. In addition to this, it was reported to Harbour Master by the Directorate General for Coastal Safety that the remaining fuel on the ship had to be discharged because of the possibility of resulting in marine pollution. Afterwards it was reported to Harbour Master by the shipowner that, at the inspections carried out by the divers, there was no diesel oil and leakage inside the tanks.

1.8 Port Clearance Document

It is seen that the number of crew onboard AKEL is 7 according to crew list annexed to the port clearance document dated 21st of July 2015 and numbered as 2015-92-2041, which was issued by the Harbour Master of Tuzla (Istanbul) prior to leaving Kartal Kumcular Pier. However, 8 persons were rescued from the sea after the accident and the person who was declared as missing was found dead. Accordingly, there are 9 persons onboard in contrast to the number of people mentioned on the port clearance document. Again, although there were one crew having a restricted chief engineer competency on the crew list that were declared to Harbour Master, actually this crew was not onboard and instead there was another person having an engineer officer competency.

SENGUL K did not get port clearance document from Harbour Master of Tuzla when she left Kartal Kumcular Pier and bound for off the coast of Sile on 21st of July 2015 and the last port clearance document issued for the ship had the date of 26th of June 2015. However, in this period the ship continued its' service without receiving port clearance document.

1.9 Damage Condition

After the accident there was no serious damage on the SENGUL K. Scratches occurred on the bulb and port bow of the ship.



Figure 5. Damage on SENGUL K

But AKEL suffered serious damage, rupture occurred on the starboard side on the region of aft hold side close to the engine room bulkhead and on the double bottom and consequently the ship flooded and foundered.

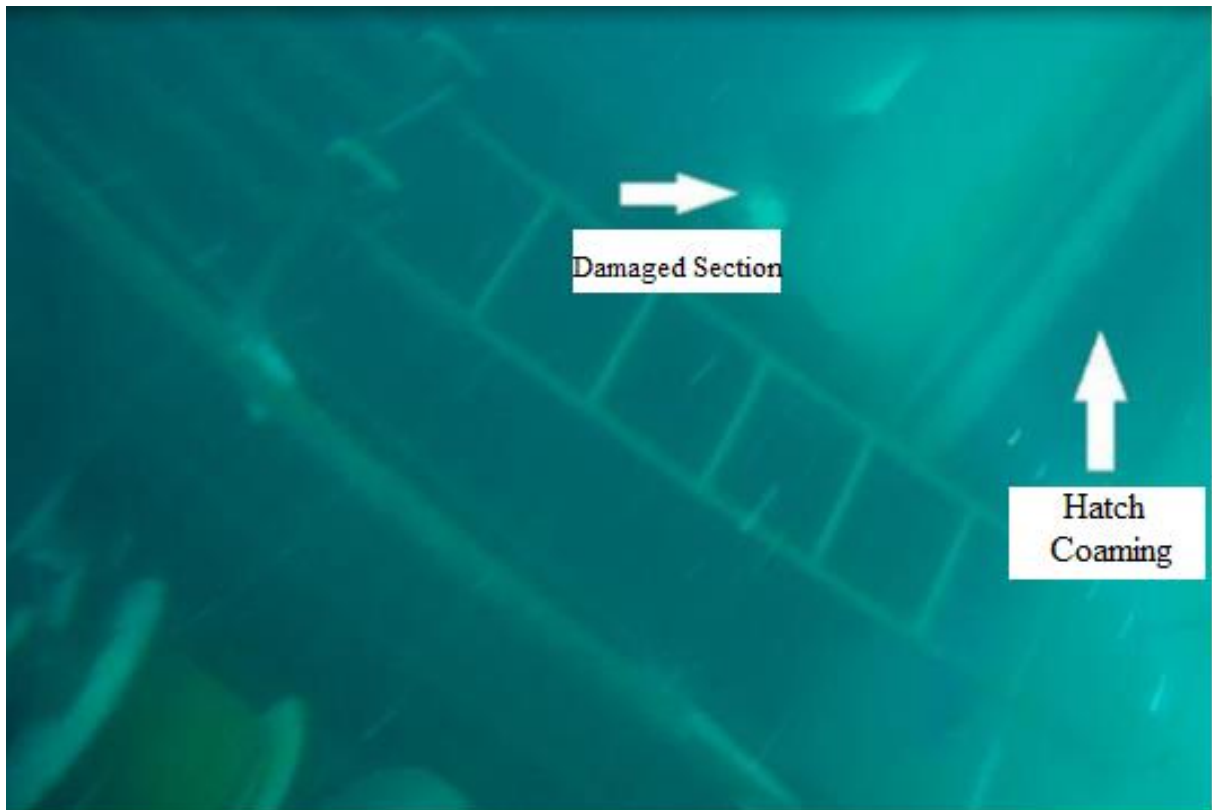


Figure 6. Damage on AKEL

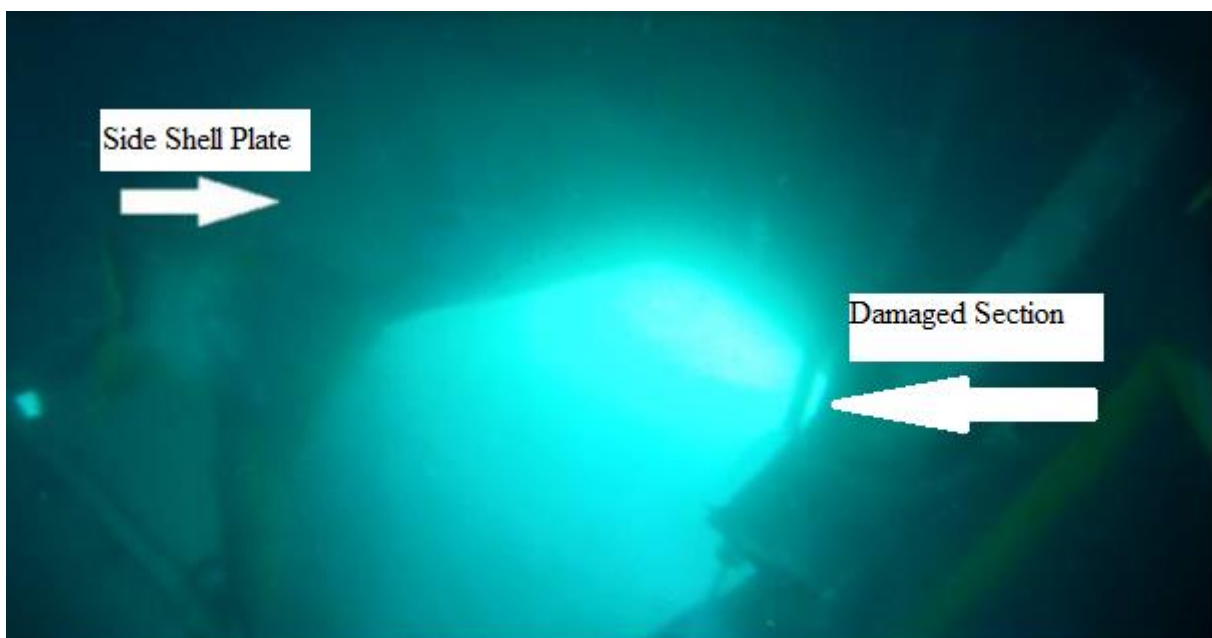


Figure 7. Damage on AKEL

1.10 Navigational Equipment on the Bridge

Ships are equipped with radar and AIS equipment. The master of AKEL stated that he had set the radar to the value of 0,7 cable before the accident and added that while he was looking to the plotted the position over AIS, the accident happened. The master of SENGUL K stated that he had seen AKEL on 0,5 cable on the radar and he had communicated with the master of AKEL via mobile phone 45 minutes before the accident.



Figure 8. Radar of SENGUL K



Figure 9. AIS equipment of SENGUL K

Table 1. Position information regarding SENGUL K

Latitude	Longitude	Speed (knot)	Time
41°13'45.0"	29°16'56.0"	0,2	01:57:38
41°13'46.4"	29°16'55.9"	0,4	02:15:35
41°13'46.7"	29°16'55.3"	0,1	02:39:34
41°13'46.7"	29°16'55.3"	0	03:00:37
41°13'46.5"	29°16'55.5"	0,1	03:09:35
41°13'46.8"	29°16'55.3"	0	03:15:34
41°13'46.9"	29°16'55.3"	0	03:24:36
41°13'46.9"	29°16'55.3"	0	03:36:34
41°13'46.9"	29°16'55.3"	0	03:45:34
41°13'46.7"	29°16'55.4"	0	03:57:36
41°13'46.7"	29°16'55.5"	0	04:00:34

According to AIS records the last signal received from AKEL was on 22nd of July 2015 at 00:59:53 and on 41°14'27" N 29°16'25" E and at that moment the speed of AKEL was 1,3 nautical miles. Again according to AIS records, SENGUL K was proceeding

with a speed of 4,9 nautical miles on 22nd of July 2015 at 01:03:55 and on 41°13'45.38"N 29°17'22.19"E but there was no AIS data from that moment until 01:57:38. According to the data received at 01:57:38, the ship was approximately on 41°13'45"N 29°16'56"E and the speed was given as 0,2 nautical miles.

1.11 Sand Loading Regions

On the Law on Minerals, law nr. 3213, it is stipulated on the Minerals headed 2nd article “(Amended: 26th of May 2004 – article 5177/1) that: All kinds of materials except oil, natural gas, geothermal and water resources, which have an economical and trade value, found naturally on earth’s crust and water resources, are regarded as mineral according to this Law. Minerals are licensed according to groups as follows:

1st Group minerals

a) Sand and gravel which are found naturally on the nature and used for construction and road making,

and in article 16:

“..... Sand and gravel in the sea, notwithstanding of its’ SiO₂ composition ratio, are regarded as mineral in the context of 1st Group clause (a).

provisions are placed as above and sea sand and gravel regions are generally licensed in this context.

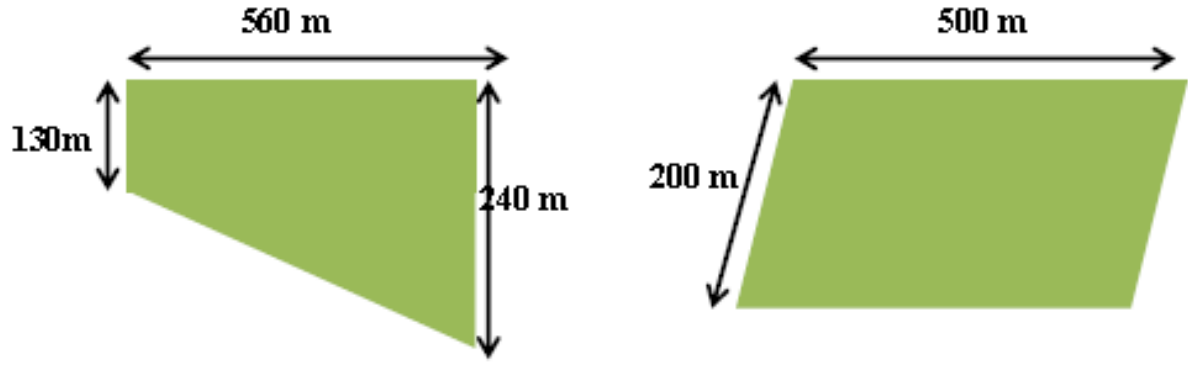
Table 2. Positions of sand loading regions that were assigned to companies

S.S. Istanbul Anatolian Side Sand Cooperative

41°13'40.29"N 29°19'43.39"E
41°13'33.93"N 29°19'42.30"E
41°13'31.23"N 29°20'3.25"E
41°13'37.69"N 29°20'4.77"E

Rafi Altınok

41°14'19.08"N 29°16'39.84"E
41°14'14.94"N 29°16'39.70"E
41°14'10.91"N 29°17'2.97"E
41°14'18.62"N 29°17'3.24"E



Both ships got dispatch ticket called as “Ormaniye” from the said companies in order to load sand from the region, AKEL, which foundered after the accident, from the region which was assigned to Rafi ALTINOK until 2nd of February 2017 and placed between the coordinates mentioned in table 2 and SENGUL K again mentioned in table 2, from the region which was assigned to S.S. Istanbul Anatolian Side Kumcular Production and Marketing Cooperative until 15th of June 2016.

2. ANALYSIS

2.1 Collision

Both ships, after departure from Kartal Kumcular Pier, followed each other at a distance which can be regarded as close and reached to the region where the accident happened. On the other hand, although there was no VHF communication between ships, the masters of the ships communicated with each other via mobile phone 45 minutes before the accident. Accordingly it is obvious that the ships were aware of each other and realized that they were in the same region.

The master of AKEL states that, he was controlling whether they were inside the sand region over AIS and GPS and they were proceeding with a speed of 1 nautical miles in order to return to anchorage area when the ship stays out the anchorage area because of the effect of wind and he told the ordinary seaman nearby to get ready to drop anchor, meanwhile they realized SENGUL K at the starboard side so close to their ship and they collided with other ship from the starboard side aft hold close to engine room without having the chance to manoeuvre.

On the other hand, the master of SENGUL K stated that, they were loading sand from Kumcular cooperative's region, they were waiting as stopped as the area to load sand was narrow, while the anchor was not dropped and ship was proceeding with a speed of 2,5 nautical miles with a course parallel to the shore with the effect of wind, he saw that another ship was approaching from port side and gave way hard to starboard but as the approaching ship was so fast compared to them, it passed grazing against forward port side and bulb and the accident happened in this way.

When AIS records are taken into account, AKEL was on 41°14'27" N 29°16'25" E on 22nd of July 2015 at 00:59:53 and at that moment its' speed was 1,3 nautical miles. After this moment there was no AIS data regarding AKEL. Again according to AIS records, SENGUL K was proceeding with a speed of 4,9 nautical miles on 22nd of July 2015 at 01:03:55 on the 41°13'45.38"N 29°17'22.19"E but from this moment until 01:57:38, there was no AIS data regarding the ship. According to the data received at 01:57:38, ship was approximately on 41°13'45"N 29°16'56"E and the speed was 0,2 nautical miles. After this moment involving the time accident happened, there was no change regarding the coordinates of the ship.



Figure 10. Position of the ships before the accident and the sand regions

Collision occurred approximately on $41^{\circ}13'N$ $29^{\circ}16'E$. This point is located approximately 0,4 nautical miles south of sand loading region assigned to Rafî Altınok and 2 nautical miles east of sand loading region assigned to Kumcular cooperative. Although both ships were around the sand loading regions that they got dispatch ticket approximately 1,5 hours before the accident, instead of carrying out loading operation at the sand regions, AKEL was under way towards south and SENGÜL K was loading sand 2 miles east of its' permitted region. Accordingly, it is thought that, the accident happened like while SENGÜL K was

stationary to load sand approximately 2 miles east of its' permitted region and AKEL was under way approximately 0,4 nautical miles south of its' permitted sand loading region, AKEL collided with SENGUL K.

It is stipulated in Rule 5 Look-out and in the following Rules below, of the International Regulations for Preventing Collisions at Sea (COLREG) that: *“Every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.”*

And in Rule 7 Risk of Collision *“Every vessel shall use all available means appropriate to the prevailing circumstances and conditions to determine if risk of collision exists. If there is any doubt such risk shall be deemed to exist.”*

And in Rule 8 Action to avoid Collision *“Any action to avoid collision shall be taken in accordance with the Rules of this Part and shall, if the circumstances of the case admit, be positive, made in ample time and with due regard to the observance of good seamanship, any alteration of course and/or speed to avoid collision, shall, if the circumstances of the case admit, be large enough to be readily apparent to another vessel observing visually or by radar; a succession of small alterations of course and/or speed should be avoided, if there is sufficient sea room, alteration of course alone may be the most effective action to avoid a close-quarters situation provided that it is made in good time, is substantial and does not result in another close-quarters situation, if necessary to avoid collision or allow more to assess the situation, a vessel shall slacken her speed or take all way off by stopping or reversing her means of propulsion.”*

As it is also stated in 2.1 Collision title of analysis section, it is assessed that SENGUL K was stationary and AKEL was underway. In this respect, it is anticipated that the master of AKEL, which was underway, primarily acts in compliance with the above mentioned provisions of COLREG. However, either aids to navigation such as radar and AIS onboard were not utilized appropriately, or a proper look-out by sight and hearing was not carried out. In the same way, even if the ship was not underway, the master of SENGUL K would normally have to carry out a proper look-out by sight and hearing with appropriate utilization of aids to navigation such as radar and AIS. As a consequence, it is understood that both masters did not

comply with the provisions explained above and failure of carrying out an effective look-out arises as a main reason for the accident to happen.

As it is also stated above, either not properly utilizing aids to navigation such as radar and AIS or not carrying out a proper look-out by sight and hearing, resulted in AKEL colliding with SENGUL K, while AKEL was unaware and not expecting the existence of SENGUL K at the point of accident.

2.2 Port Clearance Document

On Circular regarding Manning of Ships, at table 3, titled Manning of Cargo and Passenger Ships with Chief Engineers and Engineer Officers it is stipulated that: “Ships/ferries, in the cabotage voyage region and not exceeding 10 miles from the coast, navigating in a distance of 100 nautical miles from the departure port are manned as inside waters.” and “Within the Inside Waters Region, chief engineering duty can be carried out by a seafarer having a Restricted Chief Engineer competency on ships having an engine power of 370 – 3000 kW (including 370 kW, excluding 3000 kW).

Although there seems to be one seafarer having a restricted chief engineer license on the crew list that was declared to Harbour Master onboard AKEL, having a main engine power of 865 kW, actually this person was not onboard, instead there was another person having an engineer officer competency.

Again it is observed that, according to the crew list of AKEL that is annexed to the port clearance document and received from the Harbour Master of Tuzla, prior to leaving Kartal Kumcular Pier and having a date of 21st of July 2015 and numbered as 2015-92-2041, there are 7 persons onboard. However, 8 persons were recovered from the sea and the other person mentioned as missing, was found dead. Consequently, there were 9 persons onboard in contrast to the number of people mentioned on the port clearance document.

SENGUL K continued its' voyages without receiving port clearance document from 26th of June 2015 including departure from the port, before the accident.

Accordingly, although there is not a direct effect towards the accident, both ships did not fully comply with the legislation provisions with regard to seaworthiness.

3. CONCLUSIONS

- AKEL flooded and foundered afterwards the damage it suffered from starboard hold side section. [2.1]
- One person lost his life who was onboard AKEL but was not listed in the crew list that was declared to Harbour Master. [2.1]
- Both masters did not utilize properly aids to navigation such as radar and AIS. [2.1]
- Both masters did not carry out a proper look-out by sight and hearing. [2.1]
- SENGUL K was waiting at the region outside of its' permitted sand loading region in order to load sand without dropping anchor and at the drift. [2.1]
- There was no AIS data for SENGUL K between various hours. [2.1]
- There was no AIS data for AKEL on 22nd of July 2015 after 00:59:53. [2.1]
- Both ships did not comply fully with the provisions of legislation with regard to seaworthiness. [2.2]

4. RECOMMENDATIONS

Directorate General for Regulation of Maritime and Inland Waters is recommended to:

1. Develop additional measures in order to ensure that ships comply with the requirements for seaworthiness that make national voyage and ships are manned with seafarers having appropriate competencies.

Atasoy Shipping Tourism Const. Industry and Trade Ltd. Co. is recommended to:

1. Supply training to ship crew in order to ensure full and effective implementation of COLREG regulations and raise awareness in this matter,
2. Man the ships with seafarers having appropriate competencies in compliance with the provisions of Circular on Manning of Ships with Seafarers,

Shipowner of SENGUL K Ergün Zafer TUZCU is recommended to:

1. Supply training to ship crew in order to ensure full and effective implementation of COLREG regulations and raise awareness in this matter,