



FINAL MARINE SAFETY INVESTIGATION REPORT

NAME AND TYPE

FLAG

LOCATION OF ACCIDENT

DATE OF INCIDENT

CASUALTIES

DAMAGE AND POLLUTION

: MEDSUN - Primitive Wooden Vessel : Turkey : Killebükü – Göcek / MUĞLA : 16.09.2019 / 05:00 : 1 Dead, 4 Injured

: Fire and Sinking / No Pollution

Committee Decision No: 29 / DNZ-04 / 2020

Date: 06 / 05 / 2020

The sole purpose of this research and investigation is to make recommendations for preventing similar accidents and incidents within the framework of the Transport Safety Investigation Center legislation.

This report is not a judicial and administrative investigation and does not have the purpose of identifying the crime, the offender and sharing responsibility.

BASIS

This marine accident has been examined by the provisions of the "DIRECTIVE OF INVESTIGATION of MARINE ACCIDENTS and EVENTS" published and enacted in the Official Gazette dated 27.11.2019 and numbered 30961.

International Standards for Safety Investigations into Marine Accidents or Incidents (MSC 255(84) and Resolution A.1075 (28) and International Maritime Organization Decisions on Recommended Practices (Accident Investigation Code) and Directive 2009/18/EC of the European Union have also been taken into account for the procedures and principles of the investigation.

The purpose of marine accident investigation is to make recommendations that will contribute to the development of legislation and practices for navigation, life, property and environmental safety at sea and to the prevention of similar accidents and incidents that may occur in the future by reaching the real causes that cause marine accidents.

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Picture 1: Location of Accident

Note: All hours used in the report are local time (GMT + 3)

A fire broke out on 16/09/2019 at around 05:00 on the primitive wooden vessel named MEDSUN which is anchored in Göcek Killebükü bay in Fethiye district of Muğla province and then sank. After the accident, out of a total of 4 crews and 11 passengers onboard, 4 people were rescued injured and 1 passenger's lifeless body was reached.

It is estimated that the fire originated from the electrical equipment in the kitchen part of the vessel. Recommendations have been made to the General Directorate of Maritime Affairs regarding the results of this accident.

SECTION 1 – FINDINGS

1.1 Vessel Related Information

| Flag | Turkey |
|-----------------------------|-------------------------------|
| Port of Registry | Bodrum |
| Port of Registration and No | İzmir-305 |
| Туре | Primitive Wooden Vessel |
| Call Sign | YM6635 |
| Building Place and Year | Tuzla / İstanbul - 07.07.1999 |
| Gross Tonnage/ Net Tonnage | 136 / 54 |
| Length Over All | 28.68 Meters |
| Main Engine and Power | Isuzu (2 Pcs/285 BHP) |
| | |

MEDSUN



Picture 2: MEDSUN

1.2 Vessel Navigation Related Information

MEDSUN

| Port of Departure | Muğla-Bodrum |
|--------------------------|----------------------------------|
| Port of Arrival | Muğla –Fethiye-Göcek |
| Number of Passengers | 11 |
| Number of Crew | 4 |
| Minimum Number of Seaman | 2 |
| Type of Navigation | Limited contiguous water voyager |

1.3 Accident Related Information

| Time of Accident | 16.09.2019 / 05:00 |
|----------------------|---------------------------------|
| Accident Type (IMO) | Very serious marine accident |
| Type of Accident | Fire and Sinking |
| Location of Accident | Killebükü Bay / Fethiye / Muğla |
| Injured/Dead/Missing | 1 Dead, 4 Injured |
| Damage | Sunk |
| Pollution | Partial |

1.4 Information on Environmental Conditions

| Wind | Calm |
|-------------------|-------|
| Status of the Sea | Calm |
| Vision | Good |
| Weather Condition | Clear |

SECTION 2-NARRATION OF EVENTS

The order, times and locations of the events that led to the marine accident examined are mostly based on the statements of witnesses and interviews.

2.1 Occurrence and Post of the Accident and Search and Rescue Works

According to the statements of the crew taken by the experts of Transport Safety Invstigation Center, the primitive wooden Vessel named MEDSUN sailed for a one-week tour from Göcek port on 14.09.2019 with 11 passengers 4 seamen. A late-night entertainment was organized on 15.09.2019 onboard anchored to Killebükü Bay and a fire broke out in the kitchen around 05:00 onboard after the passenger, crew and captain went to rest. The fire was noticed by crew and passengers when it was too large to intervene in the fire.



Picture 3: Location of Accident



Picture 4: The Moment of Burning of the Vessel

The fire was first noticed by the passengers on KUZEY UYGUN named tour vessel in the same bay outside the vessel and the Coast Guard Command was first notified. The burning vessel and other vessels around it were alerted by the captain and crew of the same vessel by horn and radio. The first rescue operation was carried out by the captain of the vessel and crew with the vessel's service boat to rescue the survivors.



Picture 5: An Image of the Fire



Picture 6: Post-Fire Search and Rescue Works



Picture 7: Fire extinguishing works of the burning MEDSUN

The first response to the fire was carried out by KIYEM-5 Vessel belonging to the General Directorate of Coast Guard around 06:50. The fire was extinguished at 07:50, but the vessel sank at 08:30.

In the vessel named MEDSUN, the evacuation of passengers and crew was carried out by breaking the portholes on the side and aft of the vessel. All but one passenger of foreign nationality, 70 years old, and crew were rescued. The corpse of the passenger who could not be rescued was found as burned out on the surface of the sea near the sinking vessel at around 9: 10.

2.2 Damage Information

The vessel sank in the area where the accident occurred. Diesel and oil pollution occurred on the surface and bottom of the sea where the vessel sank. At the request of Göcek Port Authority, the vessel was taken out of the sea on 22.11.2019, but it was decided that it had become unusable and its registration was cancelled.



Pictures 8-9: Coastal and marine pollution caused by the burning of the vessel



Pictures 10-11: Images of MEDSUN after it is pulled out of the water

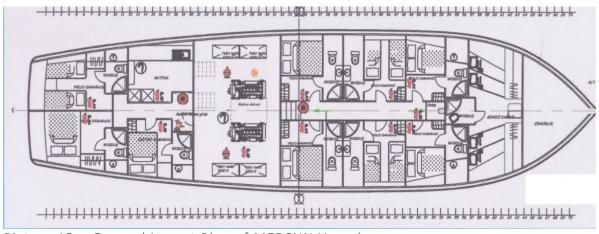
2.3 MEDSUN

The vessel named MEDSUN is registered in the form of primitive wooden vessel type, into Izmir-305 registry, Bodrum-1574 Port and Istanbul-21980 Technical Log. The vessel was built on 07.07.1999 in Tuzla, Istanbul. It has the capacity of 16 passengers at the cabotage border (limited to 100 miles) and 12 passengers at Limited contiguous water voyager. Certificate of Seaworthiness was issued by Bodrum Port Authority on 08.05.2019 for the vessel.



Picture 12: MEDSUN

As a result of the inspections carried out on 08.05.2019; 1 fire pump, 17 portable fire extinguishers and smoke sensitive fire alarm system are available concerning the fire. Besides, there are 1 service boat for 6 people, 2 life rafts for a total of 20 people, 6 lifebuoys and 20 adults 4 children life jackets for emergencies. There are two emergency exit doors, one on the fore and one on the aft, in the corridor where the vessel's cabins are located.



Picture 13: General Layout Plan of MEDSUN Vessel

As can be understood from the above layout plan, there are 8 passenger cabins, 1 captain's cabin and one kitchen on the same floor of the vessel.

2.4 Manning of MEDSUN

On the day of the accident, a total of four seamen are serving as a captain, an able seaman and two seamen on the MEDSUN Vessel. The qualifications of the crew are appropriate according to the said navigation area and the size and class of the vessel.

2.4.1 Boat Captain

Boat Captain started maritime in 1988. He has the competence of a Restricted Watchkeeping Officer as a seaman, who has worked in this company as a yacht captain for about nine years. The captain was resting in his/her cabin at the time of the accident.

2.4.2 Able Seaman

Able Seaman has been working in the company and MEDSUN Vessel for about four years. As a seaman, he/she has the skill of an Able Seaman. He/she was resting in the crew cabin at the time of the accident. He/she is the last person to rest onboard.

2.4.3 Seafarer

Seafarer has been working at sea for four years and in the same company for three years. As a seaman, he/she has the competence of a deck cadet. He/she was resting in the crew cabin with the able seaman at the time of the accident.

2.4.4 Cook

He/she has been working at sea for nine years and in the same company for five months. As a Seaman, he/she has the skill of a cook. At the time of the accident, the seafarer was resting in his/her cabin at the head of the Vessel. He/she went to rest on 00:30.

SECTION 3-ANALYZES

When evaluating the marine casualty examined, it is aimed to determine the factors causing the accident formation to reach useful conclusions leading to safety recommendations on the root causes of the accident by taking into account the data obtained during the sequence of events and the investigation.

3.1 **Possible Cause of Fire on MEDSUN Vessel**

MEDSUN Vessel is a primitive wooden Vessel. The materials used are easily combustible materials such as wood, paint and glue. Most of the vessel was burned and eventually sunk in the accident. Despite being pulled out of the sea after the vessel sank, the damage was too great for it to be floated again. Therefore, the evidence necessary to understand the exact cause of the accident could not be reached since the vessel was completely burned and sunk.



Picture 14: Images of The MEDSUN after it is pulled out of the water

There are five refrigerators in total, three in the kitchen section, one in the bar and one in the wheelhouse, as the equipment that will cause fire onboard. One cabinet in the kitchen has a deep freeze feature. There is also an electric water heater in the kitchen. However, there are three tubes in the kitchen, one gas cooker operated by tube, two of which are full and one of which is empty. On the night of the fire, the generators¹ were switched off because crew and passengers were resting, and the battery electricity requirement was met for refrigerators and emergency lights.

As it is known, all equipment, especially the cable required for energy flow in electrical systems, is designed according to a certain current carrying capacity. A cable or connector exposed to current on current-carrying capacity may catch fire by heating over time. The overloaded electrical equipment draws excessive current. The cable overheats in direct proportion to the square of the current. Cable insulation may be deformed from excessive temperature. For this reason, insulation can lead to a short circuit by losing its property.

However, according to witnesses, the fact that the fire was initially seen as black smoke in the kitchen suggests that the fire may have originated from the electrical equipment in the kitchen. Only refrigerators operate during the hours of the fire and they are supplied from the batteries onboard.

Again, the occurrence of explosions in the future suggests that it may have been caused by the tube in the kitchen. Considering that the kitchen onboard is in front of the captain's cabin, the captain waking up with the sound of an explosion reinforces this claim. It has been evaluated that the explosions occurred in the later period may have been caused by the spare tubes stored under the wheel.

¹¹

¹ The vessel has two generators with a capacity of 40 kW 1500 rpm.



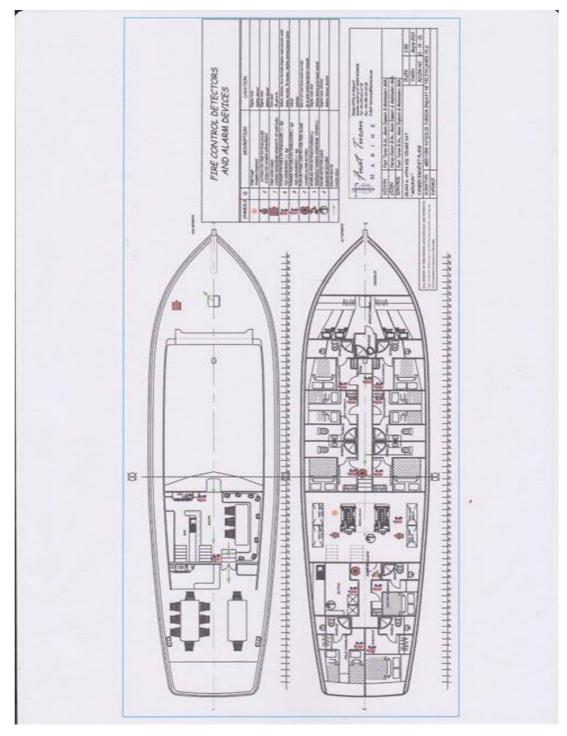
Picture 15: A kitchen tube that washes ashore from the MEDSUN

3.2 Fire Warning System and Fire Response Equipment

There is one fire pump connected to the portside engine onboard. The control panel is supplied from the engine room and output from the deck. When the fire in the vessel was noticed, the engine room could not be reached due to the fire, so it could not be operated. Failure to operate the fire pump eliminated the possibility of intervening the fire earlier. This is thought to be one of the factors that cause the fire to grow.

However, there are two fire alarm buttons onboard. These are located at the end of the front and rear cabin corridors. Since the fire covered the corridor, these buttons could not be reached. Therefore, the Captain, who was the first to notice the fire, was unable to activate the alarm and had to use other methods to warn crew and passengers.

According to the fire plan, the smoke detectors are available in the kitchen and engine room, but they did not work in the fire. According to the Captain's statement, the batteries of the smoke detectors were checked and even some of them were changed during the marine survey performed while the Certificate of Seaworthiness was issued. The fact that the smoke detectors onboard do not work during the fire suggests that the fuses on the electric panel may have been switched off beforehand. However, during the examination of this situation, sufficient evidence could not be reached. However, the failure of fire alarm systems caused the fire not to be noticed by the crew at an early stage and it grew. This is thought to be one of the factors causing the accident that resulted in death.



Picture 16: Fire Layout Plan of MEDSUN

3.3 Emergency Procedures

The fire occurred on the MEDSUN Vessel was first noticed by the Boat captain among the crew. The captain climbed aboard and tried to warn crew and passengers to evict the vessel with a loud voice and stomping on the ground. The captain and crew stated that they could not even activate the fire alarm when they noticed the fire. Some of the passengers onboard tried to escape with their means, and the survivors were taken to the beach with the help of the vessels' service boat around them by jumping into the sea. Only two passengers who were in the aft were rescued by breaking the porthole.

Training requirements onboard according to vessel types are specified in the "Technical Regulation of Vessels". According to the table specified in Annex/23 of the said regulation, Primitive Wooden Vessels with more than 12 people over 15 meters of size are obliged to carry out fire and abandonment drills once every 3 months. However, no documents were found as to whether these training were carried out regularly. According to the statements of the crew onboard, fire drills were carried out only during the issuance of the Certificate of Seaworthiness.

However, passengers are not provided with any orientation training on what to do in case of fire or emergency during sailing. Emergency exits onboard, areas where fire extinguishers are located, emergency assembly areas, etc. "We do the same thing all the time, nothing will happen" logic prevents both crew and passengers from being prepared for such accidents.

Considering the above-mentioned considerations, it was evaluated that when the fire was detected, the crew was late in responding to the fire, and crew and passengers were unable to implement the disembarkation procedures correctly and effectively.

3.4 Fire Response Works

When the vessel density in the area where the fire occurred is examined, it is seen that there is intensive boat tourism in Göcek bays. The first response to the fire was carried out by KIYEM-5 Vessel belonging to the General Directorate of Coast Guard located in the port of Fethiye around 06:50. Considering that the time of the fire was 05:00, crew and passengers noticed the fire in the late period because they were asleep at the time and then jumped into the sea and abandoned the vessel.

Vessels in the vicinity who realized that the vessel was on fire requested help by reaching the emergency number of the Coast Guard Command and by calling from the Turkish radio emergency call channels. KIYEM-5 boat, which is located in the port of Fethiye, moved as soon as it received the call and reached Killebükü where the fire was located at 06.50 and started its firefighting activity. The KIYEM-5 was able to respond to the fire about 2 hours after the fire, although it set off at the time as soon as possible after receiving the fire call. The fire on the MEDSUN was extinguished only around 07:50 and the vessel sank around 08:30.

The fire was noticed quite late since the crew and passengers were asleep and the fire alarm systems were not working. After the fire was noticed by the crew, crew and passengers had only enough time to leave the vessel. During this period, the crew could neither operate the fire pump nor use portable fire extinguishers. Since the surrounding vessels cannot intervene in this type of fire, a fire fighting vessel was waited for. Therefore, the presence of a rescue vessel with fire extinguishing capability deployed by the General Directorate of Coast Guard in the Gulf of Fethiye has been effective in terms of fire response.



Picture 17: Location of Accident and port where KIYEM-5 is located



Picture 18: Appearance of MEDSUN after extinguishing

3.5 Inspection and Electrical Equipment on MEDSUN

As is known, all commercial vessels are surveyed annually according to the Technical Regulation of Vessels published on 17.11.2009. The annual survey shall be carried out between 3 months before and 3 months after the anniversary date of the current document for the continuity of the Certificate of Seaworthiness and the suitability of the vessel for the service to which it is assigned. Annual Surveys are sea and submerged survey or only marine survey for the compliance of the issues written in the vessel's document such as vessel, machinery, general equipment, lifesaving, fire protection and fire extinguishing status, navigational equipment and communication system, health conditions, cargo and passenger carrying capacities, marine pollution prevention equipment and other navigational safety. Submerged survey and marine survey are done at certain intervals. Marine-survey for annual surveys on the other vessels other than passenger vessels may be carried out annually and underwater survey may be carried out every 2 years. Two submerged survey intervals on these vessels shall not exceed 36 months.³ MEDSUN were surveyed on 12.04.2019, the marine survey on 08.05.2019 and Certificate of Seaworthiness was issued on 08.05.2019. (*Annex: 1-2-3*)

When the marine survey carried out on 08.05.2019 is examined, the number and capacity of the batteries onboard are not clearly stated. As it is known, batteries supply a certain amount of energy flow. Cables cause overheating when the electrical current is too high. This paves the way for the fire. The materials commonly used in vessels such as wood and fibre are easily combustible. Besides, when the materials used in the building of the vessel such as glue and varnish are considered, their flammability increases.

Considering the fire on the MEDSUN, the very rapid progress of the fire was since the construction material of the vessel was very fast burning material.

However, it is thought that the current used by the electrical appliances (5 refrigerators and electric water heaters) operating onboard at the time may be above acceptable values and therefore fire may occur due to overheating of the electrical cables. Besides, electrical installation insulation cables may be worn out and maybe another factor causing the fire.

¹⁷

² Technical Regulation of Vessel 5th Article 3, paragraphs b and c.

SECTION 4 – CONCLUSIONS

- **4.1** It is thought that the fire in the primitive wooden vessel named MEDSUN electrically originated from the kitchen.
- **4.2** While the vessel was anchored, the generator onboard was switched off during the rest of the passengers and crew and the electrical needs of the vessel were provided from the batteries.
- **4.3** The automatic and manual fire alarm systems onboard did not work or could not be operated.
- **4.4** The control system of the fire pump located from the engine room in the vessel could not be reached due to the fire reached the corridor and therefore could not be operated.
- **4.5** When the fire was detected, the crew were unable to respond to the fire, and crew and passengers had to leave the vessel anyhow without being able to implement the disembarkation procedures correctly and effectively.
- **4.6** There is no record of fire and other drills being carried out in a timely and effective manner.
- **4.7** Passengers have not been fully briefed on what to do in emergencies before the cruise.
- **4.8** The first response to the fire was carried out by KIYEM-5 boat located in the port of Fethiye 1 hour away from the accident.
- **4.9** No evaluation could be made because the electrical installation onboard was not inspected in terms of acceptable standards for the current drawn by the coolers, freezers and heaters operating simultaneously.

SECTION 5 - RECOMMENDATIONS

Considering the analysis and results obtained from the accident investigation, the following recommendations were made.

General Directorate of Maritime Affairs are recommended

- **13/04-20** To develop a procedure for effective inspection of the seaworthiness and adequacy of portable electrical devices and electrical equipment used in vessels without class society's approval,
- **14/04-20** To take effective measures in order to check the periodic emergency drills are carried out and recorded, including informing passengers about emergencies, throughout the certification of such vessels, in particular.
- **15/04-20** To make a regulation in order to operate fixed fire pumps remotely, in such vessels.

ANNEXES:

Annex/1

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4- 300 GT a kadar ve 12-36 arası yolcu tapıyanı gemilerde 1 adot bulunacaktır. 300 GT ve üzerindeki gemilerde taşıdığı yolcu sayısına bakılmakuzın 2 adot 15 arası yolcu tapıyanı gemilerde i adot bulunacaktır. 300 GT ve üzerindeki gemilerde taşıdığı yolcu sayısına bakılmakuzın 2 adot 15. Tam boyu 15 mater ve Datirindi kü gemiler le 13-36 arası yolcu tapıyanlar işindir.
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Annex/2

| | SAM: Çeli | k dışında malzeme ile li | nşa edilmiş tûm ge | miler. (ahşa | ıp, fiber v.s. |) | |
|----------|---|--|---|--------------------------|----------------|---------------|--|
| | Gemi Adı | Gemi Cinsi | Gros Tonu | Sõrv | ey Yeri | Sörvey Tarihi | |
| m | EDSUN | MAG | 126 | Ape | pt | 12.4.20 | |
| NO | KONTROL EDILE | CEK HUSUSLAR VE BIL | Gİ NOTLARI | | DOŞÛNCE | LER VE NOTLAR | |
| 01 | OM-I: GENEL BILO | HLER et varsa tadilat tarihi ve ta | Albert of a start based of a | | | 1000 | |
| 102 | Dış kaplama, enine | kesit ye boyuna kesit nrol | label massest mix 2 | | 01.2 | .1998 | |
| <u> </u> | Oç bayıt kuralı ile ölçür | n yapılan tekneler haricinde 13 | m üzerindeki teknelerdi | m latenir | M | and | |
| BÖL | OM-II: TEKNE YAI | PISI | | _ | - | | |
| 01 | Ahsap gemilerde eğ | er civatalar, dış kaplama v eri uygun bir malzeme ile | veya omurgayı deliy | orsa, başları | SE | pan | |
| 02 | Ahşap gemilerdeki j | güverte kaplamaları bakın | nlı, sağlam ve yaralı | nmiş mi7 nmalara | 0 | je ' | |
| 03 | engel olacak şekilde Ahşap gemilerdeki l | kaplamalarda kullanilan n | ormal celikten yapıl | an percin. | - 20 | jen | |
| | civata ve vidalar yet | terli kalitede midir ? 11 elemanları gözle kontrol | | | SF | oton | |
| 04 | incelme, kirik, çatlal | k ve yapının bozulduğu al | anlar varsa belirtini | E. | | - | |
| 05 | Güverte ve makined irgat, makine, vb) bu | e tekneye monte edilmiş e ığlantı noktalarında herha | tkipman ve donanın ngi bir deformasyon | ilarin(direk, var m/? | S | Jalan | |
| 06 | | lafatlamanın yapıldıktan ı sknelerde dış kaplama tes | | ası veya | SEC | | |
| | Terminicanesi, molecu | exitence of apparing the | startigi yapitus mir | | -29 | Flan | |
| ÖLÜ | M-IV: PERVANE V | COLUMN TO PROPERTY. | | | | | |
| 01 | Şaft ve kovan kontro Şaftlar 5 yılda bir çekiler | olü yapıldı mı?. Şaft çekin vk kontrol edilir. | n tarihini belirtiniz | | 12.4 | .2019 | |
| 02 | Pervane ve kanatlaru Pervane kanatlarunda dei | n kontrolü yapıldı mi ? formayon, Azvitayon çatlaklar | in Annual Annual In | bouldinds. | DI | 1 | |
| - | Anna yuvati ve somunuri | da ezilme kontrolii yapılır. urç ve yatakların kontrolü | 1.0. | reselves | Bab | men | |
| 03 | | aklık, şəff ve yatak kontrolü yap | | | Bake | ula 1 | |
| 10 | | | | | | | |
| | 1.0 | | | | | | |
| arar | - | | | | | | |

· · · · ·

Annex/3

| | [Non-SOLAS Ship (Woode | DEN | MENT OF THE REPU IZE ELVERIŞLILI RTIFICATE OF SEAW Primitive Build and n | K BELGESI | | Form No:DEI Sira No : 20 tion Certificates) | B Rev.02 017 -6515 |
|---|---------------------------------------|-----------------------|---|--|---|--|-----------------------------|
| Gemini Name C | n Adı | Та | anınma İşareti istinctive Number of Letters | Geminin Cinsi | | | IMO No. IMO Nr. |
| MEDS | | Y | M6635 | İLKEL YAPILI AHŞ WOODEN SHIP OF PRIMITI | | i – | |
| Omurgasının Konulduğu Tarih - Yer 01.02.1998-TUZLA Date on Which Keel was Laid - Place | | | şanın bitiş tarih ve yeri 07.07 ate and Place of Built | | Son Tadilat Tarihi ve Nevi - Dates of Last Modif. and Kind | | |
| Tescil Limanı iZMİR-305 | | | ağlama Limanı BO | DRUM-1574 | | Teknik Kütük Limanı İSTANBUL-21980 Port of Technical Reg. | |
| Port of I Donata | MEDTÜRK YATÇILIK TUR | | ne Port of Registry AT VE TICARET ITHALA | T İHRACAT LİMİTED | | | 27649) |
| Owner İşleten Manage | DONATAN | | | | | | |
| wanaye | 1 (5) | G | EMİNİN ANA NİT | | | | |
| | | | Ship's Principal Par Gros Tonilatosu | rticulars | | Fribord (Yaz) (mm) | 1600 |
| ~ | Tam Boy (m) 28,68 Lenght Over All | | G.T. | 100 | | Freeboard (Summer) | |
| BOYUTLAR | Kütük Boyu (m) 25,46 | ď | Net Tonilatosu | 54 | RD | Fribord (Kış) (mm) Freeboard (Winter) | 1647 |
| /UT | Register Lenght Kütük Eni (m) 7,55 | TONAJ | N.T. Dwt (yaz) | 0 | Freeboard | (resource) | |
| Nin Sol | Register Breadth | TOP | Dwt (summer) | | Fre | | |
| | Kütük derinliği (m) 3,36 | | | | | | |
| | Register Depth | | | | | | |
| | | | ANA MAKİNE Main Engine | | | | |
| No | Yapımcı | | Tipi | | Ma ¹ 'n | e No | Gücü |
| Nr. | Maker | | Туре | | Engine Nr. E120504030 | | Power 285 BHP |
| 1 | ISUZU | | E-350 E-350 | | | 04030 | 285 BHP |
| 2 | ISUZU | | | | | | |
| | | | JENERATÖR Generators | | | | |
| No | Үарітсі | | Tipi | | Mak | ine No | Gücü |
| No. | Maker | | Туре | 99 | Engii 7504 | ne Nr. | 43 BHP |
| 1 | JOHN DEERE MITSUBISHI | | X | | 7469 | | 43 BHP |
| 4 | | | YAI IT | 0 ² | | | |
| Cinsi | | | 1. plam Kapasite (m³) | | | Günlük Sarfiyat (ı | |
| Kind | of | | Tote: Capacity (m ³) | | | Daily consumption | (m ³) |
| | 4 | 8 m | 4 | | | 0,2 | |
| Moto | YOL | UT, SIN | IA KAPASITESI Carrying Capacity of | (Gemi Personeli Ship (Crew exclude | Hariç led) |) | |
| Moto | | 1 A A | KA | BOTAJ SEFERI | YAKIN Coastal | CONTRACTOR OF CONTRACTOR | UZAK SEFER Ocean - going |
| Moto | LİMAN SF' ZRİ . tra-port | | e sınırlı | meane | Coasidi | | |
| Moto | İdari | 100 mille | o 100 miles | | | | 0 |
| Moto KIŞ | | 1405-30103700495 | | | 12 | | |
| KIŞ | İdari | Limited 1 | o 100 miles | | 12 12 | | 0 |
| KIŞ | (Winter) 1 (Summer) 16 | Limited I 16 16 | o 100 miles 16 | | | | |

CAN KURTARMA TECHİZATI Life - saving appliances

| Canal Ziger | Adedi Quantity | Taylam Kapasile (hiji) Tenal Capacity (person) | | |
|--|-------------------|---|--|--|
| Mutorla açık can filikası Oyun wité angese âfeboore | | | | |
| Muturuut syk can filikau Open with ears lifeboats | | | | |
| Hamethervis bols Sorvice host | 1 | • | | |
| Kortarma bata Jerena haat | | 0 20 0 | | |
| Can sals Lifeoglis | 2 | | | |
| Kepali Can Filikası Ençlisted Afrikası | | | | |
| Serbest Digmeli Can Filikars Free Fall | | | | |

Adedi Cimi Topy Quantity Can simidi 4 Lifeburys Can yeleği 29 Life - jackste Cocuk can yelegi 4

Certificate No: DMDEB1973B2424023

Page 2 of 2

| Y | ANGIN SÖNDÜRMI Fire - fighting app | E TERTIBATI |
|-----|---------------------------------------|-------------|
| nty | | Cissi /7)pv |
| | | |

| Cissi / Ipr | Adedi /Qumity |
|---|---------------|
| Yangon pompata Fire pump | 31 |
| Portalif yangan pompasa Portable fire pump | |

| п | - |
|--|-----------|
| Ciesi //Dpv | An Questi |
| labit yangu sluddruu tertiholi Yood for exception | 1 |
| Partatif yanges similar or citars fuenable for extinution | 0 |

Life - jackon för children

SÖRVEYLER DURUMU

| | Surveya | |
|--|---|---|
| Başlangıç danla sörvey tarihi Date of millel sor survey | Baştangış susits sörvey tarihi Date of issued depoliciting | Saft silevey tasiki Date of shaft sarvey |
| 08.05.2019 | 12.64.2017 | 12.04.2013 |

| Belge No: Cempleane Nr. | DMDK8197382434923 | Dise sees Tarit | 05.05.2015 | |
|----------------------------|-------------------|-----------------|------------|--|
|----------------------------|-------------------|-----------------|------------|--|

Aphlama- EN VAKIN KIYIDAN 20 MILDEN FAZLA ACII AMJ 1. (not proceed 20 NM from nearest land). GECE SEYEL VAPAMAZ, (can not the coverse a set

1



VILLIK DENETÎMLER ÎÇÎN ONAV

| ſ | Strvey Tiré Tjys of Servey | Yer Place Part | Tarih /Juni | Steveytetin Ads Soyads Full score of inspector | Lanza Signature |
|--|---|-------------------|----------------|---|--------------------|
| Lyddinimi Id Aminoraary Baarga 1 - Bra 1. 12.01 2020 - 12.07 2020 | Dunia silevoyi Saa Sievoyi | | | | |
| | Su alls sörveyi (kars / kamers) Johoorgod Sorvey (in land concept | | | | |
| 2.yddiadmi Jad /datricerary Balenge 1 - 849 1 12.01.2021 - 12.07.2021 | Dunia sileveyi Seu Sarvey | | | | |
| | Sie alts ollevoyi (kara / kamera) Sichneyjed Sievoy (in kanlisanenji | | | | |
| 3.yddiadmit Jol Anniversary Bujesge 1 - 201 1 | Denia sileveyi Soo Sarvey | | | | |
| | Su altı sörveyi (kara / kamera) | | | | |