Sea Eagle, 39 years old, 5 detentions, Togo flag, capsized and then scrapped (cf. p.34).
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Cover photo: Sea Eagle, after capsizing at Iskenderun port. © Turkish Ministry of Transport

Thank you to all shipspotters,
In particular Pascal Bredel, Erwan Guégueniat, Marc Ottini and Vladimir Tonic.

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Robin des Bois - 2 - Shipbreaking # 69 – June 2023
The shadow fleet in the light

On the world ocean, the embargo on goods to and from certain countries (Iran, North Korea, Venezuela, Russia...) is being circumvented by stealth ghost ships that cover their tracks. When necessary, they disconnect their Automatic Identification Systems (AIS), change their names, flags and owners hidden behind shell companies, they are ageing ships.

The clandestine fleet dedicated to the transport of hydrocarbons to and from Iran, and to and from Venezuela, was limited to a few dozen tankers. "Shipbreaking" has already identified several of these ghost ships. They are usually scrapped after their traffic is revealed. Of the four tankers Pandi, Luna, Bering and Bella owned by the Greek company Palermo SA, three were broken up between August 2020 and November 2021 (see "Shipbreaking" # 61, # 62 and # 64). Their Iranian cargoes bound for Venezuela had been seized in the summer of 2020 at the request of the United States.

With the sanctions on Russian crude oil and refined products, ghost tankers are much more numerous, numbering in several hundreds.

The number of oil tankers scrapped in 2022 and being scrapped is plummeting. At the end of December 2021, they accounted for 60% of tonnage. By the end of December 2022, they represented only 14%. Big players have appeared around the oil poker table, and oil tanker beaching in the Indian subcontinent is becoming increasingly rare.

Gatik Ship Management is based in Mumbai (State of Maharashtra, India). In 16 years of quarterly bulletins, "Shipbreaking" has never heard of it. Gatik emerged in 2022, a kind of spontaneous generation. As of March 20, 2023, Gatik claimed to operate 46 tankers. All were acquired from June 2022 via Indian shell companies "care of Gatik Ship Management". The vast majority of tankers operated by Gatik originally flew the flag of Saint Kitts and Nevis (38), supplemented by flags of Gabon (6) and Palau (2). The total capacity of the Gatik fleet is around 33 million barrels (4.5 million tons).

In April 2023, Saint Kitts and Nevis withdrew the Gatik tankers from its register. They were transferred to other flags of convenience such as those of Gabon, Mongolia and Palau. To divert attention, Gatik has sold its tankers to shell companies, most of which are registered in the Marshall Islands ("care of Gatik Ship Management"). At the start of Gatik's operations, Rina, Lloyds Register of Shipping, Bureau Veritas, Det Norske Veritas and Nippon Kaiji Kyokai topped the list of classification societies.

Another company is Fractal Marine. In March 2023, it claimed to operate 24 oil tankers. Each one is owned by a "single ship company" registered in a tax haven such as the Marshall Islands "care of Fractal Marine". They were all acquired from September 2022. Most are flying the Panamanian flag. 21 of Fractal Marine tankers are between 14 and 20 years old. The overall capacity of the Fractal fleet is around 19 million barrels (2.5 million tons). Fractal tankers include the 20-year-old Plutus (IMO 9252955), the 18-year-old Priapus (IMO 9282481) and the 15-year-old Manaslu (IMO 9388027), spotted transferring cargoes in the Gulf of Laconia.

Other companies are involved in the sudden acquisition of tankers with the same profile. The Atila (IMO 9262754), the Balu (IMO 9235244), the Iona (IMO 9183271), the Limo (IMO 9185528), the Nobel (IMO 9105114), the Simba (IMO 9229374) and the Turba (IMO 9144782) were acquired between June 2022 and January 2023 by as many "single ship companies" registered at the same address in the Seychelles archipelago: Suite 10, 3rd Floor, La Ciotat, Mont Fleuri, Victoria, Mahe Island, Seychelles. Their ages range from 20 to 26. All are flying the flag of Cameroon, the worst high-risk ranked flag on the Paris Memorandum of Understanding’s blacklist.
**Turba (ex-Pelican, ex-Mera Q, ex-Omera Queen, ex-Okeanis, ex-Nissos Milos).** IMO 9144782. 26 years. Length 243 m, 106,547 t deadweight. Cameroon flag. Classification society until January 2021 Bureau Veritas; unknown or no classification society since. Built in 1997 in Tsu (Japan) par NKK. Since December 2020, her owner was the aptly-named Shadow Shiptrade SA registered in the Marshall Islands. Acquired in July 2022 by Seychelles-registered Scoot Chartering corp. As a cause for concern, she has not been inspected in a port since June 2010. In 2022 she was spotted in the Russian ports of St Petersburg, Primorsk and Ust-Luga, and in the Chinese ports of Zoushan and Tianjin. She left Ust-Luga on March 13, 2023 and was spotted at anchorage off Singapore in early May. By June 21, she was in Chinese waters.

**Nobel (ex-Neatis, ex-Nina Victory, ex-Tula).** IMO 9105114. 26 years. Length 181 m, 46,144 t deadweight. She was deflagged from Russia to Cameroon in July 2022. Classification society Russian Maritime Register of Shipping. Built in 1997 à Rijeka (Croatia) by 3 Maj Brodogradiliste. She has not been inspected since June 2020. Since February 2021, her owner was the Russian company Rusprime Export LLC. Acquired in July 2022 by Seychelles-registered Samus Shipping. In 2022 she was spotted in the ports of Novorossyisk (Russia) and Nemrut (Türkiye). She did not call at any port since departing Nemrut in November 2022. She has been at anchorage in the Mediterranean off Morocco, an area well identified for ship to ship oil transfers.

The structure of the ghost fleet is worrying. Shipowners are blurred. Tankers fly flags of convenience offering few guarantees. The name shift and flag shift make your head spin.

**Risky practices on the increase**
Ship-to-ship (STS) transshipment enables cargo to be unloaded without entering a port. These practices are relatively common, but until now they have been secure operations involving declared cargoes and legal traffic accepted and monitored by the international community.

Today, the outbreak in STS masks Russian oil exports banned by the USA, Canada, the European Union, Australia, the UK and Japan, among others. Most ghost ships are no longer covered by insurers. They refuse to cover these trades. They fear sanctions from the United States and possibly the European Union. In the event of accidents, collisions or oil spills, rescue operations will be slowed down by these imbroglios.

At its meeting of March 27-31, 2023, the IMO's Legal Committee expressed concern about the increasing number of transhipments and the conditions under which they are being carried out. A
resolution could be adopted by the end of the year. In the meantime, it is doubtful that the transshipment register, which must be updated and kept on board ships for three years, will be monitored. The European Union is moving in the same direction. Its 11th sanctions package, adopted on June 23, prohibits access to European ports to any vessels suspected with a "reasonable cause" of having been engaged in transshipment of Russian oil purchased above the G7 price cap, or of having switched off their identification systems while transporting Russian oil under sanctions.

**Ghost ship accidents**

Historic disasters and oil spills led to more stringent international regulations, and accidents involving oil tankers were on the decline. The appearance of a shadow fleet dedicated to the transport of sanctioned oil goes in the opposite direction. Opacity and lawlessness reign, this represents a major threat with regard to maritime safety, crew safety and marine ecosystems.

Several accidents have occurred in recent months involving ships suspected of transporting sanctioned oil. Three crewmen were killed in the latest, involving the *Pablo*.

- **March 20, 2022.** The *Arzoyi* was unloading Iranian oil in the port of Qingdao (China). The hawsers broke, the tanker drifted and ran aground, a loading arm broke off. A "minor oil spill" was reported. The *Arzoyi* was detained by the Chinese port authorities. She has not resumed sailing. Her status in the Equasis database is "casualty/under repair".

  October 2018, *ADS Serenade*. © Ivan Meshkov

  March 2022, the *Arzoyi*, being tugged back to terminal. © Local Port Source

|---|

- **March 22, 2022.** The *Petion* collided with *Theodoros IV* off Cienfuegos (Cuba). She was one of the ships blacklisted by the United States for transporting Venezuelan oil. The *Petion* resumed trading between Venezuela and Cuba. The *Theodoros IV* did not survive; she was beached in Alang on December 8, 2022 (see "Shipbreaking" # 68, p. 71). In March 2020, the *Petion* had already been involved in an accident at Amuay Bay anchorage (Venezuela). A crewman fell into the water and drowned. The tanker is said to have switched off her lights to load in the shadow. By June 21, 2023, she was in Cuban waters.

  *Petion*, June 2017, Willemstad, Curacao. © Cees Bustraan

| *Petion* (ex-*Nordic Lisbeth*, ex-*Dilko Lisbeth*, ex-*Penyu Pipih*). IMO 9295098. Length 228 m, 72,174 t deadweight. Cuban flag. Classification society Lloyd’s Register of Shipping until June 2020. Built in 2006 in Geoje (South Korea) by Samsung. Owned by Caroli Transport Marine Ltd (Cuba). Acquired in December 2022 by unknown interests. She continues trading Venezuelan oil between San Jose Terminal (Venezuela) and Cienfuegos (Cuba). |
the shadow fleet in the light

- October 6, 2022. The VLCC Young Yong ran aground in Singapore Strait after leaving her anchorage. She was bound for Mozambique with a cargo of 284,429 tons of oil, she had been spotted transferring cargoes from tankers from Venezuela. Her official owner was Technology Bright International Co. Ltd. (Hong Kong, China). She was operated by East Wind Ship Management Ltd (Hong Kong, China). She had just been blacklisted by the US Department of the Treasury for transporting Venezuelan and Iranian oil. The Young Yong was refloated after her cargo was transferred to the Cameroon-flagged oil tanker Simba. The Simba is operated by Lorni Marine Ltd, one of the Seychelles-registered opportunistic companies. In December 2022, the Young Yong was officially acquired by United-Kingdom registered Kayo Trading Co Ltd. She is still operated by East Wind Ship Management Ltd. She was renamed Saint Light and reflagged to Barbados. On March 30, 2023, the Saint Light left Nipah, off Malaysia under laden condition. Nipah is known to be an oil transshipment hub for cargoes bound for Zoushan (China).

![The tanker Young Yong aground in Singapore strait. © Indonesian Navy](image1)

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- October 27, 2022. The Linda I was en route from Primorsk (Gulf of Finland, Russia) to Istanbul with 80,000 tonnes of Russian oil. She suffered a failure off Algeciras on the Spanish Mediterranean coast. She did not immediately alert the authorities. She went adrift and eventually had to be towed to Algeciras. She was detained there while awaiting spare parts for a makeshift repair. The shipowner was also fined 80,000 euros for using fuel contravening sulfur limits. She left the Turkish repair yard of Yalova in April 2023. As of June 21, she was spotted in the Black Sea.

![Linda I, October 2022. © Algeciras Al Minuto](image2)

| Linda I (ex-Lin Dan, ex-Gunesli, ex-Intrepid Reliance, ex-Lita). IMO 9262924. 21 years. Length 241 m, 104,403 t deadweight. Panamanian flag. Classification society American Bureau of Shipping. Built in 2002 in Imari (Japan) par Namura. Detained in 2016 in Trieste (Italy) and in October 2022 in Algeciras (Spain). Acquired in January 2022 by Liberia-registered Spastic Oceanway Ltd care of Chanocean Management Ltd (Hong Kong, China). In 2022, the Linda I called at Novorossiysk and Primorsk (Russia) and Nemrut and Yalova (Türkiye). |
May 1, 2023. The *Pablo*, which had left the port of Zoushan (China) on April 18 on ballast, bound for Singapore, was anchored off the coast of Malaysia. In the afternoon, a fire broke out on board, followed by an explosion. The fire spread out and ravaged the *Pablo*. The crew hurried to evacuate. 23 seamen were rescued by two passing ships, 2 others by the Malaysian Navy. Satyam Tripathi, 26, and Dinesh Kumar, 34, Indian nationals, and Sabit Shenderovsky, 37, Ukrainian national, were reported missing.

The *Pablo* raises suspicions of illegal activity, given her successive changes of ownership, name and flag. The ex-*Olympic Spirit II* was even reported to be sold for scrapping in August 2018. She had been acquired by Prayati Shipping, an Indian specialist in end-of-life vessels. Deflagged to Palau and shortened to *S Spirit*, she had nevertheless escaped the blowtorch. Since then, she has changed owners and names every year, finally becoming the *Pablo* in April 2023. She has successively flown the flags of Palau, Panama, Cameroon, the Cook Islands, Tanzania and finally Gabon.

On June 21, 2023, 51 days after the fire, the stricken hull was still anchored off the coast of Malaysia, and nobody cares for it.

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**Gulf of Laconia**

The Gulf of Laconia, 58 km long and 44 km wide, lies to the south of the Peloponnese (Greece). For several months now, it has been accommodating a fleet of oil tankers involved in a Ship to Ship ballet.

The gulf is bordered by the Greek coastline, but Greek territorial waters extend only 6 miles, or 11.1 km, from the coast. Therefore, in the middle of the Gulf of Laconia, there is a narrow strip some twenty km wide that is subject to the international waters regime. Greece has no authority there, and its coastguard and naval vessels have no police or offensive powers. Greece officially claims the right to extend its territorial waters to 12 miles or 22.2 km, as authorized by the Convention on the Law of the Sea, which came into force in 1964. Under this option, the entire Gulf of Laconia is considered part of Greek territory. But Türkiye is formally opposed to this takeover. In 1995, the Turkish parliament declared that any unilateral action by Greece to extend its control from 6 to 12 miles in the Aegean Sea would constitute an act of war.

Two mother ships operated by Gatik are at the center of the Gulf of Laconia trick. The *Nanda Devi* and the *Jumbo* both Gabonese-flagged. The *Jumbo*, a suesmax with a deadweight of 159,081 t, is 19 years old. She left the Russian port of Ust-Luga in the Baltic Sea on February 11, 2023, flying the flag of St. Kitts and Nevis. Since her arrival in the Gulf of Laconia in March, she has been engaged in a succession of transhipments, alternating loading and unloading. The *Jumbo* is a petrol station.

In April, 13 tankers came alongside the *Jumbo* to deliver or to suck in oil. Half of these tankers were owned by the Greek companies Eurotankers (Eurostrength, Nostos), Polembros Shipping (Diligent Warrior, Syros Warrior, Ithaki Warrior) or Minerva Marine (Minerva Anna), while others belong to Gatik,
such as the *Wisdoms Daughter*, which then delivered oil to Jeddah (Saudi Arabia). Fractal Marine also uses the Gulf of Laconia in European waters to deliver sanctioned oil to Singapore via the *Priapus*.

The *Thya* had departed the Russian port of Ust-Luga. After feeding the *Jumbo*, she left on ballast heading for the Moroccan coast, the other transshipment hub in the Mediterranean. The 18-year-old Panama-flagged *Thya* is owned by Marshall Islands-registered Armada Shiptrade Co, care of Winocean Management Ltd (Hong Kong, China).

The shadow fleet works under the colors and the direction of India, China, Africa and Asia, with the assistance of European countries. The shadow fleet reveals the World splitting with regard the Russian-Ukrainian conflict. And it exposes crews and the world ocean to increased risks of shipwreck and oil spills.

Other Russian oil transshipments would be carried out off the Russian enclave of Kaliningrad and in the Black Sea.

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As of June 22, the *Jumbo* and *Nanda Devi* are still there, surrounded by some twenty tankers waiting for order, flying flags from the Marshall Islands, Liberia, Cameroon, Palau, Malta, Greece and Panama.
Overview of the 1st quarter of 2023, from January 1 to March 31

**112 ships**, 804,000 tons including at least 16,000 tons of waste. An uncrease of +41% compared to quarter 4, 2022. The recovery is due to Bangladesh, with fewer but larger ships in Chattogram than in Alang. Bangladesh is the land of mastodons. New shipbreaking destinations have appeared. The Arab Shipbuilding and Repair Yard (ASRY) in Bahrain and PaxOcean in Batam (Indonesia) were delivered 7 of the 10 container ships owned by Taiwan’s Wan Hai Lines. Both of these yards boast their Statement of Compliance with the Hong Kong Convention issued by the Indian Register of Shipping or the American Bureau of Shipping (p. 14).

<table>
<thead>
<tr>
<th>Tonnage recycled</th>
<th>Ships</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 : Bangladesh, 346,000 t (43%)</td>
<td>1 : India, 44 (40%)</td>
</tr>
<tr>
<td>2 : India, 258,000 t (32%)</td>
<td>2 : Bangladesh, 38 (34%)</td>
</tr>
<tr>
<td>3 : Türkiye, 71,000 t (9%)</td>
<td>3 : Türkiye, 9 (8%)</td>
</tr>
<tr>
<td>4 : Pakistan, 24,000 t (3%)</td>
<td>4 : Pakistan 2 (2%)</td>
</tr>
</tbody>
</table>

Oil, chemical and gas tankers (30%) and bulk carriers (28%) maintain their leadership, ahead of container ships (24%), which are making a comeback. Compared with 7 for the whole of 2022, 25 container ships were scrapped in the first quarter of 2023. The largest of these container ships has a 4,437 box capacity.

In the tanker category, oil tankers have been losing ground on beaching yards since July 2022. Apart from the Sloug, that dilapidated and uncooperative floating storage unit, the eight oil tankers that have been scrapped or are to be, are “lightweight” on the traffic, with capacities ranging from 2,900 to 45,000 deadweight tons. Thanks to complex alliances involving the European Union, the “heavy ones”, often plagued with detentions in the Port States, are diverted towards the traffic of sanctioned Russian crude and refined oil.

In the tanker category, oil tankers are no longer prevailing. In 2022, they accounted for three quarters of the category's tonnage. By the first quarter of 2023, they accounted for just 42% (including 18% for the floating storage Sloug alone). Vintage tankers have been acquired for the transport of sanctioned oil.

<table>
<thead>
<tr>
<th>Tonnage recycled by category</th>
<th>Ships by category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 : tanker, 239,000 t (30%)</td>
<td>1 : container ship, 25 (23%)</td>
</tr>
<tr>
<td>2 : bulker, 223,000 t (28%)</td>
<td>2 : tanker, 16 (14%)</td>
</tr>
<tr>
<td>3 : container ship, 192,000 t (24%)</td>
<td>3 : bulker, 15 (14%)</td>
</tr>
<tr>
<td>4 : general cargo carrier, 33,000 t (4%)</td>
<td>4 : general cargo carrier and offshore service vessel, 11 (10%)</td>
</tr>
</tbody>
</table>

Purchase prices per ton of scrap are on the rise again in all shipbreaking countries. In Bangladesh, they exceed 600 US$, which explains the attractiveness of the yards. In India and Pakistan, they are around 550 US$, while in Türkiye, they are close to 350 US$.

The most profitable ships for shipowners or cash buyers are the gas carriers Adriatic Energy and Grace Energy, scrapped in Bangladesh. They were acquired for 680 US$ per ton. Aluminium tanks make the difference.
94 ships were scrapped in the Indian sub-continent (76%) and in Türkiye (8%).

86 ships (77%) had a certificate issued by an IACS (International Association of Classification Societies) member. For 8 of them (7%), the classification society is unknown.

58 years. This is the age of the veterans, the ferry Star N (p. 25), ex-Norwegian Viking III, beached in Türkiye and the research ships Aladin (p. 59), ex-Finnish Saaristo and MNG Flattery (p. 61), ex-US David Starr Jordan beached in India. In all, nine ships aged 50 or over have been scrapped. Among them are the livestock carrier Orion V (p. 18) arrested for cocaine trafficking in January 2023 (cf. "Shipbreaking" # 68, p. 17-19) and the floating storage unit Sloug (p. 54) which went adrift in December 2021 on her first trip to the scrapyard (cf. "Shipbreaking" # 65, p. 6-7).

The average age for all categories is 32 years.

The youngest are the offshore service vessels Laird Tide, 11 years old, and Boudreaux Tide, 13 years old, broken up in Louisiana (USA). In all, seven ships were less than 20 years old at the time of scrapping. Five were offshore service vessels, the two others were ships declared a total loss after a casualty, the general cargo carrier Marina which ran aground during a typhoon in 2018 and the car carrier Diamond Highway devastated by a fire in June 2019 (p. 29).

45 ships (41%) were detained prior scrapping.

44 ships (40%) were deflagged for their last voyage. Saint Kitts and Nevis (16) is still the favourite funeral flag ahead of Comoros (8), Mongolia (4) confirming its comeback, Gabon and Palau (3 each).
1st quarter 2023 overview

**28 ships** (25%) were built in the European Union, in Norway or in the United Kingdom.

**18 ships** representing 25% of the global tonnage belonged to shipowners established in the European Union, the European Free Trade Association or the United Kingdom, including 8 Greek shipowners. 13 have been heading to the Indian sub-continent yards, 3 to Danish yards, 1 to a Turkish yard, and 1 to a Scottish yard.

**16 km.** This is the length of scrapped ships. 58 ships (51%) were less than 150 m long, 34 between 150 and 200 m and 20 over 200 m. No ship was over 300 m long.

The biggest one is the ex-floating storage unit *Sloug*, 43,500 t (p. 54), operated off Libya, ahead of the two LNG carriers *Adriatic Energy*, 32,303 t, and *Grace Energy*, 30,426 t, both beached in Bangladesh (p. 49 and 50).
In Europe

Ships flying the flag of a Member State have to be directed to yards approved by the European Commission since the European regulation came into force (January 1, 2019). The list of approved yards is regularly updated to include facilities considered as compliant with the European regulation. The latest draft update of the list was published on April 2023. It proposes the inclusion of three additional Turkish scrapyards. Inspections carried out at the Anadolu Gemi Sokum Orman, BMS Gemi Geri Donusum and Kiliçlar Geri Dönüşümlü yards have concluded that they comply with EU requirements. At this stage, there are no plans to restore the two Turkish yards excluded from the list in December 2022 (see "Shipbreaking" # 68, p. 20).

The Danish yard Modern American Recycling Services (MARS) is now able to accommodate vessels of up to 400 m in length. MARS was already delivered the largest merchant ship broken up by a European yard, the 250 m long FPSO Petrojarl Foinaven (see "Shipbreaking" # 68, p. 80). In Europe, other yards are able to recycle large ships: Harland & Wolff in the UK (up to 556 m), Fayard AS in Denmark (415 m), Damen Verolme in the Netherlands (400 m), ADRS Decom Gulen in Norway (360 m) and San Giorgio del Porto in Italy (350 m). The decision by shipowners to export their vessels to Asia is not a technical one, but a financial one. End-of-life ships go where the graveyards are most profitable.

The European regulation and its implementation are currently being evaluated. Stakeholders and the public have been invited to comment on its actual implementation and global impact. In particular, the updated European regulation should clarify its position with regarding the Ban amendment to the Basel Convention prohibiting the export of all hazardous waste to non-OECD countries. To date, all yards included on the European list are located in an OECD country, but the European regulation does not exclude non-OECD yards. Many Indian facilities have applied for inclusion on the European list. Robin des Bois regrets that the possibility of bringing back to Europe hazardous waste from shipbreaking yards...
located in non-OECD countries is never taken into consideration. The NGO believes that the producer of the waste (the shipowner) should be accountable for its management until final disposal. As such, it should at the very least provide a final material balance in order to monitor waste management.

Robin des Bois notes that while revenues from the sale of end-of-life ships to the best-priced scrapyards flow with no limits to low-tax "havens", the burden of waste remains exclusively in the dismantling countries. European shipowners bypass European regulations by registering the majority of their vessels under flags of convenience and opportunity, or by deflagging them for the last voyage. This practice is becoming the rule.

In the World

The Hong Kong Convention

The European regulation is still the only international regulation in force. The Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships was submitted for ratification on May 15, 2009. It has been taking a while to come into force. Portugal's ratification on March 28, 2023 had not changed the regulatory situation. The 20 countries party to the Convention represented only 30% of the world fleet, compared with the required 40%. For the Convention to come into force, the required combination of the three criteria number of parties/share of the world fleet/ recycling capacity of the parties implies ratification by a country with a large fleet and by a shipbreaking country.

At the beginning of June, Bangladesh, which has been moving forward step by step, aware that it still has a long way to go with regard waste management and working conditions on shipbreaking yards, announced its ratification. It was followed on June 26 by Liberia, the world's 2nd largest fleet in terms of flag. The Hong Kong Convention will thus come into force in two years' time, on June 26, 2025. All shipbreaking yards in States parties to the Convention will have to comply with its standards. All ships flying the flags of these same States will have to be scrapped in a "Hong Kong yard". The question of deflagging remains unresolved.

Among the major shipbreaking countries, Pakistan is the only one not to have ratified the Convention. It has declared itself a candidate, but the road ahead is a long one. The industry and the government concede that their financial resources are limited and are slowing down the process of upgrading yards in line with the Hong Kong Convention. Yet, there is no regulation applying on all the phases of shipbreaking.

Within the European Union, Greece, Cyprus, Italy have not yet ratified the Hong Kong Convention.

Indian and Bangladeshi shipbreaking yards show their green credentials

The Convention is currently an argument for shipbreaking yards wishing to put forward the improvement of their practices. Compliance with the Hong Kong criteria is a kind of quality label.

Indian yards are leading the game. The adoption of the Convention by India in 2019 is forcing them to upgrade their protocols and processes. With the support of some shipowners and the Japanese public and private sectors, Indian yards have improved their worker safety management and pollution prevention plans. According to the classification societies Nippon Kaiji Kyokai, RINA and the Indian Register of Shipping, 96 of them are now compliant with the Hong Kong Convention. According to the Ship Recyclers Association of India (SRIA), all Indian yards could get this type of certification by 2024-2025.

On its side, Bangladesh gets assistance from the IMO as part of the SENSREC program, which, step by step, aims to diagnose needs and define improvement scopes with regard the future implementation of the Hong Kong Convention. SENSREC also provides technical assistance in bringing shipbreaking yards into compliance.

On October 10, 2017, the yard PHP Ship Breaking and Recycling Industries Limited was the first to be delivered a Statement of Compliance with the Hong Kong Convention from RINA. In January 2020, it was also delivered a SoC by Nippon Kaiji Kyokai.
In March 2023, two other Bangladeshi yards, SN Corporation and Kabir Steel, were certified compliant by Nippon Kaiji Kyokai. Both companies had in the past been negatively rated for safety failures leading to fatal accidents. At SN Corp yard, one worker was killed by an explosion on June 19, 2021 while three others were seriously burned; one worker fell to his death on September 18, 2021 (see "Shipbreaking" # 64, p. 17). At the Kabir Steel yard, a worker died after falling from a ship being scrapped on July 23, 2019. The yard was suspended for three months and faced a permanent closure if it still does not meet the requirements after its suspension time (see "Shipbreaking" # 57, p. 2).

SN Corp and Kabir Steel have invested in the impermeabilization of floors in the cutting and storage areas and in lifting equipment.

The credibility of this "label" is occasionally questioned. In the absence of a binding framework, the effective implementation of the Hong Kong Convention criteria remains uncertain, including for the IMO. In the meantime, some shipowners are putting forward clauses in sales contracts pointing out that the chosen shipbreaking yard must have been delivered a Statement of Compliance with the Hong Kong Convention. Others are calling for Nippon Kayji Kyokai certification, with more stringent criteria.

New stakeholders
The Statement of Compliance (SOC) with the Hong Kong Convention is a selling argument. It enables shipowners to boast about their practices, highlighting the quality of the yards they have chosen. It enables yards to improve their image and win new markets.

Yards dedicated to shipbuilding and ship repair are following this trend and are supplementing their offer with shipbreaking services which are of course compliant with the Hong Kong Convention standards.

In this issue of "Shipbreaking", two yards are featuring, the Arab Shipbuilding and Repair Yard (ASRY) in Bahrain and PaxOcean yard in Batam (Indonesia) on the Singapore Strait. They have been awarded the demolition of container ships by Taiwanese shipowner Wan Hai Lines. In its sales contracts, Wan Hai Lines required from the yards a Statement of Compliance with the Hong Kong Convention or with European regulations. Until now, Wan Hai Lines had favored a shortlist of Indian yards.

Both yards have have been delivered Statements of Compliance with both the Hong Kong Convention and European regulations. ASRY applied for inclusion on the European list, but has not yet been inspected. The dismantling of the Wan Hai container ship will be carried out in partnership with the Netherlands-based Elegant Exit Company, the ship's buyer and promoter of "innovative solutions".

This competition can contribute to improvements at the shipbreaking yards. However, it is problematic to see a label "compliant" with an unimplemented Convention flourish. The "European regulation-compliant" nature of shipbreaking yards that have not yet been approved or did not even apply for inclusion on the European list is similarly questionable.

In any case, over the next 10 to 20 years, the Hong Kong Convention, European regulations and shipbreaking yards will have to take into account the emergence of new propulsion systems such as hydrogen, liquid ammonia, lithium battery packs and liquefied natural gas, with all the associated risks during dismantling.
The **FSO Safer** and **OS 35** cases

**Red Sea.** The **FSO Safer** had been operated as floating oil storage off the Yemeni terminal of Ras Isa, 9 km off the coast, since 1987. She has been discarded since the Houthis took control of the area in March 2015. The cargo is estimated at 1.14 million barrels of oil (150,000 tons). The dilapidated tanker represents a threat of oil spill. In May 2018, the NGO Conflict and Environment Observatory warned of the risk of environmental disaster for the region and its marine biodiversity.

The UN and its agencies are mobilizing to reach an agreement with the parties. Negotiations with the Yemeni government and the rebels are stalled. Each side wants to make the most of the situation, and tries to outbid the other. Diagnostic and safety missions were announced but suspended. In March 2022, an agreement was signed. It plans the temporary transfer of the cargo to another tanker, the towing of the **FSO Safer** to a shipbreaking yard and, in a second phase, the setting of another permanent storage vessel. The fate of the cargo remains unresolved. The imminent risk of an oil spill would be temporarily prevented. The total estimated budget is 113 million US$, financed by an international call for donations. The cost of clean-up operations in the event of an oil spill in the Red Sea is estimated worth 20 billion US$. The value of the cargo is estimated worth 88 million US$. The sale of the bare hull to an Indian subcontinent shipbreaking yard worth 27 million US$. The amounts paid to each of the warring parties are unknown.

UN officials had hoped to complete the 1st phase of the ship-to-ship transfer before autumn 2022 and to avoid adverse weather conditions. Once again, operations are behind schedule. Every decision has to be agreed: which company will conduct the operations, on which tanker will the cargo be offloaded. In addition to these constraints comes the war in Ukraine which is affecting world shipping, and oil transport in particular: fewer ships are available, tanker chartering and purchase costs are rising, and the initial budget needs to be extended.

In March 2023, UN announced to have acquired the VLCC **Nautica** (IMO 9323948, ex-**Nautic**, ex-**Maersk Nautica**), from the Belgian shipowner Euronav for 55 million US$. The **Nautica**, 15 years of age, Marshall Islands-flagged, 333 m in length, 307,284 tons deadweight, was built in 2008 in Dalian (China) by Dalian Shipyard. After a drydock inspection and maintenance work were carried out, the **Nautica** left Zoushan on April 6. She arrived at Djibouti in early May. She is waiting for the green light.

The salvage company Smit Salvage/Boskalis was awarded the transshipment contract. On April 21, the offshore support vessel **Ndeavor** (IMO 9650212) left Rotterdam. On May 30, she arrived at the FSO **Safer** anchorage. The crew's mission is to secure the site. After analysis of the toxic fumes on and around the ship, access was declared safe. Inspections of the hull, pipes and other equipment and of the cargo have started. After the tanks would be inerted, transshipment could begin. Once unloaded, the tanks of the FSO **Safer** will be cleaned, the cleaning water will also be transferred to the **Nautica**.

It will then be time for the FSO **Safer** to be scrapped. The Elegant Exit Company has expressed its interest in breaking up the ex-tanker at the ASRY yard in Bahrain (see p. 14).

See also about the **FSO Safer**: "Shipbreaking" # 59, 106 derelict ships, p. 33 and "Notices of oil spills on the World ocean", September 10, 2020.
**Gibraltar.** August 29, 2022. The bulker *OS 35* (IMO 9172399) left the Bay of Gibraltar bound for Vlissingen (Netherlands). She belonged to the Greek shipowner Oldstone Management Ltd and flew the flag of Tuvalu. She was carrying a cargo of steel rebars. She collided with the gas carrier *Adam LNG* (IMO 9501186). The LNG carrier was on ballast. She was repaired at Crinavis yard and resumed trading. The Gibraltar Port Authorities ordered the *OS 35* to come as close as possible to the eastern shore. She was voluntarily grounded off Catalan Bay to avoid a shipwreck in the high seas.

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The hull of the *OS 35* suffered cracks. she was carrying 183 t of heavy fuel oil, 250 t of marine diesel and 27 t of lubricant. The anti-pollution booms set up around the wreck were unable to contain the fuel, which escaped through the tank vents and reached the coast and beaches. In the days that followed, response teams were busy pumping out the fuel tanks, recovering the fuel that had spilled into the sea and sealing the breaches. Means of the port of Gibraltar were mobilized on the *OS 35* episode. Port traffic was interrupted for nine days. In mid-September, the forepart of the wreck was flooded and sunk to stabilize the *OS 35* in anticipation of winter gales and prevent her from dislocating.

The shipowner has been ordered to removed the wreck, cargo and any loose debris. The Gibraltar authorities have set May 30, 2023 as deadline, prior the summer season. At the end of November 2022, Gibraltar accepted the removal plan from the shipowner and his insurers. It is to be carried out by Koole Contractors, a Vijfhuizen-(Netherlands) company specialized in wreck removal, industrial demolition and pollution clean-up. Pending deployment of the Dutch company's fleet, Resolve Marine, a marine services provider specializing in emergency response, which was in charge of the initial salvage operation, continued to remove equipment, furniture and other materials from the accommodation block and navigation bridge.

The Koole vessels arrived in Gibraltar in early January 2023. The removal of the cargo was completed at the end of April.

Throughout the operation, sporadic oil leaks continued to spill and reach the shoreline, especially as the anti-pollution booms were regularly removed in advance of bad weather. In March, following strong winds, the original crack extended further and the *OS 35* went deeper into the sandy seabed. In April, after another storm, larger quantities of fuel oil were reported on the beaches, which were closed for several days. The fuel had remained trapped in ducts.
The two parts of the wreck are still to be removed. They have to be extracted from the sandbed, lifted and deposited on a barge and then on the semi-submersible vessel *Fjord* for final evacuation. Preparatory work is behind schedule. On June 9, the Rock Authority announced the start of operations for the following day. On June 15, the stern section was extracted and moved; it now needs to be stabilized before the process can begin on the bow section. The new deadline of June 16 will be passed. The removal of the forepart has started on June 27.

Ultimately, the *OS 35* wrecks will be transported by the *Fjord* to an EU-approved ship recycling yard in the Netherlands.
Livestock carrier

In August 2021, the Elbeik was ravaged by a fire in the port of Tarragona (Spain), where she was to load livestock. She was declared a total loss. Since then, Robin des Bois has been concerned about her possible export to Türkiye (see “Shipbreaking” # 64, p. 21-22). Prior to this episode, the Elbeik, a substandard ship approved by the European Union for the transport of livestock (see Robin des Bois report “78 EU-approved maritime livestock carriers”), had proved infamous for her 81-day erratic sailing in the Mediterranean between December 18, 2020 and March 8, 2021 (see “EU cattle in hot water”).

On September 28, 2022, Tarragona Port Authority declared the vessel abandoned. The Elbeik was put up for sale. A first attempt failed on March 21, 2023, with a reserve price of 330,000 €. A second attempt was scheduled for April 25, with a price down to 247,500 €. Once again, no bids were received. The Port of Tarragona now hopes to find a buyer directly without going through the auction process, and finally get rid of the discarded ship. To be continued.

Orion V (F.M. Spiridon ex-Vera Mukhina). IMO 7300992. Ex-general cargo carrier converted in 2009 at the age of 36. Length 98 m, 2,482 t. Togolese flag. No classification society according to the latest Port State Control on December 22, 2022 in Cartagena (Colombia); previously International Naval Surveys Bureau. Built in 1973 in Rauma (Finland) by Hollming. The Orion V regularly called at European ports as the F.M. Spiridon. She belonged to the EU-approved livestock career fleet. She was owned by Honduras-registered Murr Shipping SA, her ship manager was Murr Management established in Lebanon. 6 detentions: in 2000 in Saint-Malo (France), in 2005 in Varna (Bulgaria), in 2006 in Bordeaux (France), in 2008 in Vasteras (Sweden), in 2009 in Kerch (Ukraine) and in 2014 in Chalkis (Greece).

On September 3, 2021, in the port of Beirut, three Syrian seamen were poisoned by gases emitted by cattle feed. The hay, soaked by water ingress, had fermented. One of the three seamen died of asphyxiation, while the other two lost consciousness but survived. The ship was officially sold a year later to the obscure Florida-based domestic for profit company Sakai Global Inc. and became the Orion V. The Orion V was no longer EU-approved. She was operated for the transport livestock from South America to North Africa and the Middle East. At the same time, she was also involved in cocaine...
trafficking, until she was arrested by Spanish customs (see "Shipbreaking" # 68, p.17-19, "On the livestock carrier front").

The trading life of the *Orion V*, ex-*F.M. Spiridon* came to an end on March 9, 2023 when she was beached in an Aliaga scrapyard.

See the report by Robin des Bois "78 EU-approved livestock carriers".

**Fishing ship**


Factory ship

113 *Pulkovskiy Meridian*-type factory ships, or project 1288, were built in Mykolaïv South by the Ukrainian yard Chornomorskiy SZ between 1974 and 1991 in USSR times (Union of the Soviet Socialist Republics) and until 2011, 20 years after the independence of Ukraine. They were equipped for pelagic and ground fishing and freezing (60 tons/day) and for the production of fish meal (35 tons/ day of raw fish), fish liver oil (2.4 tons/day of raw fish) and canned fish livers (6000 cans/day).

*Dmitriy Pashenko*. IMO 8628145. Length 104 m, 3,816 t. Deflagged from Palau to Cameroon in March 2022. Classification society Russian Maritime Register of Shipping. Built in 1988, she was Nr 67 in the *Pulkovskiy Meridian* series. Owned since 2021 by Delta Link Pte Ltd (Singapore). She was towed and beached for demolition in India on February 17, 2023.

*Dmitri Pashchenko*, Nakhodka Bay, July 2016. © Andy.ru73

*Pioner Nikolaeva*. IMO 7942180. Length 104 m, 3,899 t. Russian flag, Guyana since December 2022 but this registration is usurped. Classification society Russian Maritime Register of Shipping. Built in 1981, she was Nr 19 in the *Pulkovskiy Meridian* series. Owned by Turnif JSC (Russia). Sold for demolition in India. 650 US$ per ton.


*At Vladivostok (Russia)*, December 2011. © Igor Gl

*Triton* (ex-*Vladimir Girenko*). IMO 9159945. Length 55 m, 820 t. Russian flag. Classification society Russian Maritime Register of Shipping. Built in 1996 in Kiev (Ukraine) by Leninskaya Kuznitsa. she was Nr 341 in the *Vasily Yakovenko*-type ou projet 302-EM series. 347 factory ships of this type were built by the Ukrainian yard from 1971 onward. They were equipped for pelagic and ground fishing, for freezing (22 tons/day) and for the transport of fish to the port (cargo capacity 207 t). Owned by Dionysus OOO (Russia). Being broken up in Busan (South Korea) by OS Shipbuilding yard.

*Triton*, port of Busan, May 2020 then at OS Shipbuilding yard, January 2023. © Vladimir Tonic
Reefers

**Akashiya** (ex-Akashia, ex-Akashia Maru). IMO 7908562. Length 70 m, 872 t. Deflagged from Russia to Saint Kitts and Nevis for her last voyage shortened to Kash. Classification society Russian Maritime Register of Shipping. Built in 1979 in Saiki (Japan) by Honda. 5 detentions, in 2002 in Kesennuma (Japan), in 2006 in Singapore, in 2009 in Sendaishiogama (Japan) and in 2016 and 2018 in Busan (South Korea). Owned by Marine Alliance Co Ltd (Russia). Acquired by Resurgence Ship Management Pvt Ltd (India) prior to her departure for demolition in Bangladesh.

![Akashiya Vladivostok](image)

© Sergei Skriabin

**Evgeniy Zotov.** IMO 9076595. Length 55 m, 734 t. Deflagged from Russia to Mongolia in December 2022. Classification society Russian Maritime Register of Shipping. Built in 1992 in Khabarovsk (Russia) by S.M.Kirova. She was Nr 89 in the Raduzhnyy-type or project 1350 series. 100 fish carriers of this type were built by the Russian Far East yard between 1972 and 1996. They had a 310 ton-frozen fish cargo capacity. Her homeport was Nakhodka. Owned by Dalryba JSC (Russia). Acquired by Trade Bridge Inc Ltd (Hong Kong, China) prior to her departure for demolition. She left Vladivostok on December 18 and was beached in Alang on January 24, 2023.

![Evgueni Zotov](image)

© IgorGl

**Shun Hang** (ex-Vila Moosun, ex-Eastern Star I, ex-Eastern Star, ex-Anchorage, ex-Adventure, ex-Anchorage, ex-Miyoshima Maru). IMO 8214645. Length 102 m, 2,213 t. Deflagged from Panama to Saint Kitts and Nevis in November 2022 for her last voyage shortened to Han. Classification society Panama Shipping Registrar Inc. Built in 1982 in Kinoe (Japan) by Kishimoto Zosen. Detained in 2008 in Bangkok (Thailand) and in 2018 in Fuzhou (China). Owned by Shunhang International Shipping Co (Hong Kong, China). Sold as is in Zoushan (China) for demolition in Bangladesh. 400 US$ per ton.

![Shun Hang in Kaohsiung](image)

© Ye Chia-Wei
Shun Hang Leng 1 (ex-Hai Feng 648, ex-Kaifu). IMO 8710132. Length 125 m, 3,230 t. Deflagged in November 2022 from Panama to Saint Kitts and Nevis for her last voyage shortened to Glen. Classification society China Classification Society. Built in 1988 in Hakodate (Japan) by Hakodate Dock. Detained in 2001 in Algeciras (Spain). Owned by Zhongyu Globalseafood Corp (China). Acquired in August 2022 by Shunhang International Shipping Co (Hong Kong, China) and renamed Shun Hang Leng 1. Sold as is in Zoushan in March 2023. 400 US$ per ton. She was again renamed and deflagged. She left China on March 28 bound for Chattogram.

Hai Feng 648, April 2010. © MarineTraffic
Hai Feng 648 © Zhejiang Exchange

Xin Rui (ex-Fong Kuo No,807). IMO 9065534. Length 97 m, 1,885 t. Kiribati flag. Classification society International Ship Classification. Built in 1992 in Kaohsiung (Taiwan) by Fong Kuo. 3 detentions, in 2006 in Singapore, in 2008 in Bangkok (Thailand) and in 2019 in Majuro (Marshall Islands). Owned by Fengrun Shipping Co Ltd (China). Sold as is in Zoushan (China). 400 US$ per ton. She became the Saint Kitts and Nevis-flagged Neru. She left Xiushan Island (China), off Zoushan, on April 19, bound for Alang.

Yong Hang 3 (ex-Fortuna Bay, ex-Fortune Bay, ex-Uruguayan Reefer). IMO 9067128. Length 144 m, 5,701 t. Deflagged from Panama to Saint Kitts and Nevis for her last voyage renamed Long. Classification society Panama Shipping Registrar Inc. Built in 1993 in Akitsu (Japan) by Shin Kurushima. Owned by Yonghang International Shipping. Sold for demolition in India.

Fong Kuo NO,807, Singapore, November 2004. © Martin Klingsick

Yung Da Fa 102 (ex-Ishikari, ex-Ishikari Maru). IMO 8323599. Length 94 m, 1,736 t. Deflagged from Panama to Mongolia for her last voyage. Classification society Panama Maritime Documentation Services. Built in 1984 in Kochi (Japan) by Kochi Jyuko K.K. 4 detentions, in 2010 in Ho Chi Minh City (Vietnam), in 2017 in Busan (South Korea) and in 2019 and 2021 in Xiamen (China). Owned by Long Capital International Ltd (China). Acquired by Wantong International Group (Hong Kong, China) prior to her departure for demolition in Bangladesh.
Ferry

Ho Fu Express (ex-Ferry Kuniga). IMO 8613932. Length 79 m, 1,820 t. Deflagged from Taiwan to Comoros for her last voyage shortened to Express 1. Unknown classification society. Built in 1987 in Nagasaki (Japan) by Hayashikane. Owned by Ho Fu Marine Co Ltd (Taiwan). Sold for demolition in Bangladesh.

Ho Fu Express Keelung, Taiwan, April 27, 2018. © Gordon Dalzell


Kato Kisen postcards

Konpira 2, 20 February 2023, Chattogram. © Arif Budi Santoso

Pride of Burgundy (ex-PO Burgundy, ex-P&OSL Burgundy, ex-Pride of Burgundy, ex-European Causeway). IMO 9015254. Length 179 m, 11,488 t. Cyprus flag. Classification society Lloyd's Register of Shipping. Built in 1993 in Bremerhaven (Germany) by Schichau Seebeck for P&O European Ferries. Her last official owner was P&O Ferries Cyprus Ltd care of P&O Ferries France SASU.

Pride of Burgundy, under construction in Bremerhaven. © Andreas Worteler
Originally launched as a ro-ro freighter, she should have been named *European Causeway*, but the shipowner changed its plans following the increase in the Channel passenger traffic. The ship was delivered as the ferry *Pride of Burgundy*. She could carry 1,420 passengers and 600 cars. She spent her entire career working for British shipowner P&O or its subsidiaries and almost exclusively on the Calais-Dover route.

In 2020, the *Pride of Burgundy* suffered from Covid-19. In May, she left Dover and was laid-up in Leith (Scotland, United Kingdom).

In 2023, P&O Ferries begins to take delivery of its new ferries planned to operate on the cross-Channel route. The *P&O Pioneer*, built by Guangzhou Shipyard International, left China on March 3, to be followed by the *P&O Liberte*. After 30 years of service connecting Calais and Dover, the *Pride of Burgundy* was sold for demolition to a EU-approved Turkish yard. 320 US$ per ton.
Star N (ex-Red Star 1, ex-Red Star I, ex-Gabriel Scott, ex-Sagafjord, ex-Sandefjord, ex-Fenno Star, ex-Scandinavia, ex-Terje Vigen, ex-Viking III), IMO 6511128. Length 100 m, 3,172 t. Palau flag since May 2021. Unknown classification society. Built in 1965 in Lübeck (Germany) by Orenstein & Koppel for the Norwegian shipowner Otto Thoresen. She was able to accommodate 940 passengers and 180 cars. She had two older sisters, the Viking I and Viking II.

Until 2005, as charters and owners changed, she operated on a number of routes, serving English, French, German, Danish, Swedish, Finnish, Norwegian and Polish ports. She remained the property of Norwegian shipowners until 2007, and was laid-up in Kristiansand (Norway) pending a buyer would show up.

In 2007, the ferry was 42 years old and set sail for the Mediterranean. After refitting work at Perama shipyard in Greece, she resumed operation on the route connecting Brindisi (Italy) and Vlore (Albania). In 2011, she was chartered by the International Office for Migration to evacuate foreigners during the war in Libya, and later was back to her Adriatic service between Puglia and Albania.

In November 2019, the Red Star 1 was laid up Piraeus then in Salamina yard, one more time waiting for a buyer.
In May 2021, she was acquired by the Ukrainian company Sea Star Ferries care of Odessa-based LLC Neytas Marine and was renamed *Star N* to operate between Poti (Georgia) and Chornomorsk (Ukraine). The war in Ukraine put an end to this Black Sea service.

The *Star N* reaches Tripoli (Libya) at the end of December 2022. On February 12, 2023, she started a twice-weekly service between Tripoli (Libya) and Zarzis (Tunisia), in southern Tunisia near the island of Djerba. Departures from Tripoli are on Sundays and Thursdays. If successful, the route could be extended to Sfax, north of the Gulf of Gabès.

Despite big sale offers on the first two crossings, the *Star N* did not find her target. Apart from the numerous officials, only 25 passengers and 5 cars embarked on the first voyage. The second was barely better, with 51 passengers and 13 cars, far from her capacity. Rotations were soon cancelled. On March 17, the *Star N* left Tripoli bound for Aliaga scrapyards.

*Tramola-1* (ex-*Lale Unaldi*, ex-*Monte Rotondo*). IMO 7224461. Length 109 m, 2,500 t. Turkish flag. Classification society Türk Loydu. Built in 1973 in La Rochelle-La Pallice (France) by Chantiers de La Rochelle-La Pallice for Compagnie Générale TransMéditerranéenne (CGTM) from the hull of a fishing ship of which the ferry retained the gantry. She was named *Monte Rotondo*, after the second highest summit in Corsica (2,622 m). Her initial 32 passenger-capacity was later increased to 73. Her main duty was to transport cargoes between the mainland and the island. In 1976, CGTM passed under State control and became the Société Nationale Corse Méditerrané (SNCM). Passenger traffic grew rapidly and the SNCM ordered larger ships to replace the *Monte Rotondo*. During the summer months, she doubled up the car ferries for vehicle transport; the rest of the year, she was used to serve secondary ports (L’Île-Rousse, Porto-Vecchio...). She continued to operate between Corsica and the Continent until
the end of 2001. She remained laid-up in Marseille. In August 2002, she left for the Eastern Mediterranean after being acquired by the Turkish company Orsa Deniz Hizmetleri. Her last owner, Tramola Tasimacilikve Ticaret (Turkey), operated her alternately with the *Tramola II* to connect the ports of Bandirma and Ambarli on the two shores of the Sea of Marmara. She was beached in Aliaga on January 19.

*Monte Rotondo*, L’Ile-Rousse. © Luciardi

*Tramola 1*, July 11, 2008. © Marc Ottini


*Clipper Cayenne*, at Le Havre (France). December 18, 1998. © Pascal Bredel

*Tramola-2*, July 10, 2008. © Marc Ottini

*Tramola 2* beaching at Aliaga. © Kamil Arslan
Ro Ro

Ro-Ro vessels load or unload through ramps or doors wheeled cargoes including trucks or trailers but also crates and loads transferred with trolleys and stored on a garage deck. Handling is said to be horizontal by opposition to traditional vertical handling using cranes or gantries. This type of vessel is known as Ro-Ro (Roll On/Roll Off).

Super Shuttle Ro Ro 8 (ex-Cimbria, ex-Cimbria Seaways, ex-Aquae, ex-Tor Cimbria, ex-Dana Cimbria, ex-Mercadian Express II), IMO 8413992. Length 145 m, 5,982 t. Saint Kitts and Nevis flag. Classification society Lloyd's Register of Shipping. Built in 1986 in Frederikshavn (Denmark) by Frederikshavns Verft. Owned by Asian Marine Transport Corp (Philippines). Acquired by United Arab Emirates-based GSPL DMCC prior to her departure for demolition in India.

May 2004, Tor Cimbria, sailing down the Seine River. © Pascal Bredel

January 2013, Super Shuttle Ro Ro 8, in the Philippines. © Irvine Kinea

February 2023, beached in Alang. © Anshul Gupta
Car carrier


2019. The car carrier Diamond Highway had left Singapore bound for Batangas, south of Manila (Philippines). She belonged to the Japanese shipowner K-Line and flew the flag Panama. She was carrying 6300 vehicles. She was manned by a crew of 25.

On the evening of June 15, a fire broke out. The flames spread to the decks and the navigation bridge. The crew had to evacuate the ship. They were picked up by another car carrier, the Canopus Leader, which was en route to Thailand. All sailors were safe and disembarked at Laem Chabang.

The Diamond Highway was halfway between the Spratly Islands and Batangas. She was abandoned and drifting northeast of the archipelago. The shipowner, K-Line, alerted the Filipino authorities. They sent the patrol vessel Cabra and fire-fighting vessels.

The fire raged for several days. There was still smoke when towing operations started. The convoy of the tug Mimosa and the Diamond Highway, in the company of several service vessels tasked with cooling the hull, reached Batangas on June 23. Another tug, the Zhengli, took over from the Mimosa to tow the Diamond Highway to the Keppel yard in Subic Bay, north of Batangas. She was to be “repaired” and strengthened. Eventually, the ship was towed to Cebu Island. She was declared a total loss. It smells like death. She was awaiting a buyer for demolition. It has been a long wait.
2021. On December 16, 2021, Typhoon Rai, locally known as Odette, swept across the Philippines. It was classified as a Category 5 typhoon. It destroyed or damaged 1.5 million homes and killed hundreds of Filipinos. The island of Cebu was hard hit. The Diamond Highway went adrift and ran aground at Punta Engano on the island of Mactan, on the other side of Magellan Bay, named after the navigator Fernando Magellan who was mortally wounded there. In 1521, the battle of Mactan opposed Spanish troops and warriors led by Lord Lapu-Lapu.

2023. The Diamond Highway was being scrapped. On April 28, workers were cutting plates in the forepart of the ship. Early in the afternoon, a fire broke out. It took firefighters and rescue vessels ten hours to put it under control. All those working on the site were evacuated.
The fire would have been caused by the improper use of acetylene cutting torches. Shipbreaking is a dangerous activity that cannot be improvised. Will the environmental damage be taken into account and assessed? The toxic smoke plume and the polluted fire-fighting water spread out into the bay. Mactan Island is surrounded by coral reefs.
**General cargo carrier**

General cargo carriers, or multipurpose freighter, transport products or waste in bags, crates, drums, cardboard boxes usually palletized or bare loads, rolling crafts and logs. Some can also transport containers as additional cargoes.


**Hakuryu Maru.** IMO 9018488. Length 115 m, 3,954 t. Deflagged from Japan to Saint Kitts and Nevis for her last voyage shortened to Hakuru. Classification society Nippon Kaiji Kyokai. Built in 1991 in Tsurumi (Japan) by Nippon Kokan. Owned by JFE Logistics (Japan). Acquired by Resurgence Ship Management Pvt Ltd (India) prior to her departure for demolition in India.

general cargo carrier

Kamo. IMO 9166833. Length 120 m, 4,426 t. Panamanian flag. Classification society Nippon Kaiji Kyokai. Built in 1998 in Nagasaki (Japan) by Mitsubishi. Detained in 2015 in Mumbai (India) and in 2017 in Tanjung Priok (Indonesia). Owned by Hachiuma Steamship Co Ltd (Japan). Sold for demolition in Bangladesh. The terms of sale include a clause requiring the selected shipbreaking yard to have been delivered a statement of compliance with the standards of the Hong Kong Convention.


Marina (ex-Ja Zenfuku, ex- Yellow Crane). IMO 9369784. Length 74 m. Belize flag. Classification society Universal Maritime Bureau. Built in 2006 in Qingdao (China) by Qingdao Heshun SY Co. 3 detentions, in 2011 in Yokkaichi (Japan) and in 2012 twice in Qingdao (China). Owned by Credit Ocean Shipping Co Ltd (Hong Kong, China). On October 1, 2018, the Marina was blown away by typhoon Trami, went adrift and ran aground on a breakwater in the port of Kawasaki (Japan). She was declared a total loss. She is being scrapped at the OS Shipbuilding yard in Busan (South Korea).

Sea Eagle (ex-Stella Di Mare, ex-Navi Wind, ex-Lady Remington III, ex-Lugela, ex-Thor Sofia, ex-Monika, ex-Zim Saigon, ex-Saigon Empress, ex-Frauke, ex-Scott Albatros, ex-Frauke, ex-Amonitas, ex-Albatros I, ex-Tequila Moonshine, ex-Albatros). IMO 8410380. Length 89 m, 1,645 t. Togolese flag. Classification society Veritas Register of Shipping. Built in 1984 in Neuenfelde (Germany) by JJ Sietas. 5 detentions, in 2013 in Argentia (Canada), in 2017 in Novorossiysk (Russia), in 2018 in Novorossiysk again then in Thessaloniki (Greece) and in 2019 in Asaluyeh (Iran).

Owned by Marshall Islands-registered IBN Battuta Maritime Ltd care of Sea Scanner Logistics for Shipping (Egypt). On September 18, 2022, the Sea Eagle was docked at Iskenderun to unload containers. During the operation, the Sea Eagle developed a list to starboard and then to port, and eventually capsized. According to Turkish Maritime Affairs, “the weight distribution of the load was unbalanced”. The crew were able to evacuate the vessel unharmed. The Sea Eagle was refloated in January 2023 and towed for demolition to Aliaga.

Shang Hang 68 (ex-Yong Zhou Huan Hai, ex-Bei He, ex-Le Sheng). IMO 9177519. Length 169 m, 7,379 t. Deflagged from China to Sierra Leone for her last voyage. Classification society China Classification Society. Built in 1998 in Dalian (China) by Dalian Shipyard. Detained in 2014 in Algeciras (Spain) after a collision with the bulker Cape Med (9316828) on May 30. Owned by Ruitong Shipping Pingtan Co (China). Sold for demolition in Bangladesh. 600 US$ per ton.
Tian Long (ex-Rich Bright, ex-Pioneer C, ex-Mustang). IMO 9225500. Length 100 m, 2,163 t. Sierra Leone flag. Unknown classification society. Built in 2000 in Hakata (Japan) by Hakata Zosen. Detained in 2012 in Nhatrang (Vietnam). Owned by Forward Marine Ltd (Hong Kong, China). On July 2, 2022 the Tian Long was blown away by typhoon Chava and ran aground near Yangjiang (China). She was declared a total loss. Acquired by Friend Ship Management Co Ltd (Hong Kong, China) prior to her departure for demolition in Bangladesh.

Keelung, Taiwan, February 2015. © Chun-Hsi

Zh Star (ex-Shang Hang 98, ex-De Shang Fu, ex-Rui Kang 36, ex-Le Tai). IMO 9177521. Length 169 m, 6,537 t. Deflagged from China to Gabon for her last voyage shortened to Z Star. Classification society China Classification Society until January 2019 then no classification according to the latest Port State Control inspection in November 2022 in Zoushan (China). Built in 1999 in Dalian (China) by Dalian Shipyard. Pingtian Shanghang Shipping Co (China). Acquired by Marshall Islands-registered Future Projects Inc prior to her departure for demolition in Bangladesh.

Zh Star, December 30, 2022, Vanino (Khabarovsk Krai, Russia). © Andy.ru73
Container ship

25 demolitions, 192,000 tonnes to recycle. The return of container ships to the scrapyards is not yet a tidal wave. It is only a wavelet. The largest one is the 4,537 teu-capacity MSC Veronique. All the others are smaller vessels, carrying between 256 and 2452 containers. Their 4.4 km convoy could carry 39,000 boxes, less than two recent mega-container ships (the MSC Irina, which entered service in March 2023, can carry 24,346 teu).

12 container ships were beached in India, 6 in Bangladesh. Shipowner Wan Hai Lines opens competition between scrapyards. Of the 10 vessels sold for scrapping by the Taiwanese company, 3 were beached in India. 1 was sent to the Arab Shipbuilding and Repair Yard in Bahrain, while 6 others arrived at PaxOcean yard in Batam (Indonesia) or are expected to do so. 6 container ships belonged to European Union shipowners. 5 were bound for India. The Greek-owned Amalia C was beached in Bangladesh.

The average age of container ships at the time of demolition was 28 years. The detention rate in this category is 56%. Out of 25 vessels, 10 (40%) were deflagged for their last voyage.


Bunga Mas Enam. IMO 9121687. Container ship with a 739 teu capacity used as an auxiliary ship by the Malaysian Navy. Length 133 m, 4,751 t. Malaysian flag. Classification society American Bureau of Shipping. Built in 1997 in Pasir Gudang (Malaysia) by Malaysia Shipyards pour MISC (Malaysia International Shipping Corp). She was acquired in September 2011 and converted to support aux the anti piracy operations along with her sistership Bunga Mas Lima. Detained in 2001 in Hong Kong (China). Sold for demolition. 320 US$ per ton. The terms of sale include a clause requiring the selected shipbreaking yard to have been delivered a statement of compliance with the standards of the Hong Kong Convention. She was deflagged to Saint Kitts and Nevis, shortened to Enam and beached in Alang.

Maersk Aberdeen. IMO 9175793. 1092 teu. Length 155 m, 5,914 t. Deflagged from Hong Kong to Gabon for her last voyage. Classification society Lloyd's Register of Shipping. Built in 1999 in Keelung (Taiwan) by China Shipbuilding Corp. Detained in 2011 in Melbourne (Victoria, Australia) and in 2022 in Venice (Italy). Owned by Maersk Shipping Hong Kong Ltd, a Hong Kong subsidiary of AP Moller Mersk (Denmark). Acquired in January 2023 as is in Jebel Ali (United Arab Emirates) by Accurate International Ltd (Malaysia) prior to her departure for demolition in India.

MSC Floriana (ex-Princess, ex-Norasia Princess). IMO 8521397. 1879 teu. Length 187 m, 8,773 t. Panamanian flag. Classification society Det Norske Veritas. Built in 1986 in Kiel (Germany) by Howaldtswerke-Deutsche Werft. Detained in 2007 in Las Palmas (Canary Islands, Spain). Owned by Liberia-registered Floriana Oceanway Ltd care of MSC Shipmanagement Ltd (Cyprus), subsidiary of the Swiss Italian Mediterranean Shipping Co. Sold for demolition in India. The terms of sale include a clause requiring the selected shipbreaking yard to have been delivered a statement of compliance with the standards of the Hong Kong Convention.
MSC Giovanna (ex-MSC Provence, ex-Dubrovnik Express, ex-Koper Express). IMO 8505836. 1762 teu. Length 178 m, 11,197 t. Panamanian flag. Classification society Bureau Veritas. Built in 1987 in Pula (Croatia) by Uljanik. Detained in 2005 in Baltimore (USA), in 2006 in Marsaxlokk (Malta), in 2014 in Gioia Tauro (Italy) and in 2018 in Tekirdag (Türkiye). Owned by Liberia-registered Giovanna Oceanway Ltd care of MSC Shipmanagement Ltd (Cyprus), subsidiary of the Swiss Italian Mediterranean Shipping Co. Sold for demolition in India. 500 US$ per ton. The terms of sale include a clause requiring the selected shipbreaking yard to have been delivered a statement of compliance with the standards of the Hong Kong Convention.

MSC Veronique (ex-Maersk Merritt, ex-MSC Sweden, ex-Maersk Merritt, ex-Mette Maersk). IMO 8618293. 4437 teu. Length 294 m, 23,190 t. Panamanian flag. Classification society Det Norske Veritas-GL. Built in 1989 in Lindo (Denmark) by Odense Staalskibs. Owned by Liberia-registered Veronique Oceanway Ltd care of MSC Shipmanagement Ltd, a Cyprus subsidiary of the Swiss Italian MSC Mediterranean Shipping Co. Sold for demolition in India. 550 US$ per ton. The terms of sale include a clause requiring the selected shipbreaking yard to have been delivered a statement of compliance with the standards of the Hong Kong Convention.


SSL Kochi (ex-Oel Kochi, ex-Bunga Teratai Dua). IMO 9157674. 1725 teu. Length 184 m, 8,361 t. Delflagged from India to Saint Kitts and Nevis for her last voyage renamed Kochi Express. Classification society Indian Register of Shipping. Built in 1994 in Okpo (South Korea) by Daewoo. Owned by Shreyas Shipping & Logistics (India). Sold as is in Colombo (Sri Lanka) for demolition in India. 580 US$ per ton.
SSL Kutch (ex-Oel Kutch, ex-Bunga Teratai, ex-Bunga Teratai Satu). IMO 9157662. 1725 teu. Length 184 m, 8,303 t. Deflagged from Panama to Comoros for her last voyage shortened to Hutch. Classification society Indian Register of Shipping. Built in 1998 in Okpo (South Korea) by Daewoo. Owned by Shreyas Shipping & Logistics (India). Sold as is in Colombo (Sri Lanka) for demolition in Bangladesh. 585 US$ per ton and enough bunkers for the voyage.

SSL Kutch © TW Shipmanagement

Hutch in Chattogram. © Mohammad Islam Meah


Tanto Sentosa departing Surabaya (Indonesia), October 10, 2006. © Ivan Meshkov


Vasi Star, Sahathai Terminal (Thailand) © sek.stt

Robin des Bois - 40 - Shipbreaking # 69 – June 2023
Vladivostok. IMO 9130145. 1730 teu. Length 185 m, 7,420 t. Deflagged from Cyprus to Liberia for her last voyage. Classification society Russian Maritime Register of Shipping. Built in 1998 in Szczecin (Poland) by Szczecinska. Detained in 2005 in Seattle (Washington, USA) and in 2010 in Vostochny (Russia). Owned by Cyprus-registered Bodyguard Shipping care of Far-Eastern Shipping Company (Russia). Sold for demolition in India. On March 18, 2023, she was spotted in Zoushan (China).

On its website, Taiwanese shipowner Wan Hai Lines, established in 1965, claims to own 119 vessels. In January 2023, the company announced the sale for scrapping of ten container ships. They were built between 1994 and 1998, and have a capacity of 1,088 and 1,368 boxes. The value of the transaction exceeds 32 million US$, or 510 US$ per ton.

According to the bidding announcement published in December 2022, the purchaser will have to choose a shipbreaking yard ste according to two options. Option A: the yard, located outside the Indian subcontinent, is holding a Statement of Compliance with the standards of the Hong Kong Convention and/or the European regulations, and can provide an ESM (environmentally sound management of hazardous and other wastes) meeting the Basel Convention regulation. Option B: the shipyard is included in the list of 10 Indian yards selected by Wan Hai Lines and holds a valid Statement of Compliance with the Hong Kong Convention by a classification society.

The "Shipbreaking" archives report that in the 10 years between 2012 and 2022, 9 Wan Hai Lines container ships were scrapped in Alang. The company is now diversifying the final destination of its ships, choosing a yard in the United Arab Emirates and another in Indonesia, both of which are considered compliant with the Hong Kong Convention. It seems that other yards in Indonesia, such as Marco Polo Shipyard, are willing to enter the "green" demolition market.

The Wan Hai 221, Wan Hai 222 and Wan Hai 225 have been beached in Alang. Wan Hai 165 arrived in Bahrain at the end of January at the Arab Shipbuilding and Repair Yard (ASRY), certified by Indian Register of Shipping. The Wan Hai 215 and Wan Hai 223 were sent to the PaxOcean yard in Batam (Indonesia), which is certified by American Bureau of Shipping. The other four Wan Hai vessels, the 161, 162, 163 and 216, are also scheduled for delivery to the Indonesian yard.

The shipowner is being taking delivery of new container ships. Further sales for demolition are expected. A call for tenders has been published for the sale of the Wan Hai 261 and Wan Hai 281 for further trading or for scrapping under the same conditions as above.

1088 teu. Built in Kochi (Japan) by Shin Kochi Jyuko:

Wan Hai 215, December 18, 2018, Hong Kong. Wan Hai 216, arrival at Hong Kong, June 4, 2008.

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1088 teu. Built in Kochi (Japan) by Shin Kochi Jyuko:


*Wan Hai 221.* IMO 9074432. 1368 teu. Length 172 m, 6,998 t. Deflagged from Singapore to Comoros for her last voyage renamed *Wan Chai 5.* Classification society Bureau Veritas. Built in 1994. Acquired by Liberia-registered Libra Seaway Ltd prior to her departure for demolition in India.


Xiumei Shanghai (ex-Fabian Schulte, ex-CMA CGM Iroko, ex-Fabian Schulte, ex-Maersk Cabello, ex-Fabian Schulte), IMO 9138264. 1608 teu. Length 168 m, 7,393 t. South Korean flag. Classification society Korean Register of Shipping. Built in 1997 in Wismar (Germany) by Mathias Thesen Werft. Owned by Sinokor Merchant Marine Co Ltd (South Korea). Sold for demolition in Bangladesh. 640 US$ per ton including 640 t of bunkers.
Bulker

Bulkers carry non-liquid cargoes in bulk: grain, coal, ore such as iron or bauxite ore. Medium-size bulk carriers are often equipped with cranes that allow them to service poorly equipped secondary ports.

15 demolitions. 14% of the number of scrapped ships, 28% of the global tonnage.

After the December boom (13 bulkers scrapped), this category is now slightly scarcer in the scrapyards. Their average age is 26 years. All ended up in the Indian sub-continent. 13 were beached in Bangladesh, 1 in India and 1 in Pakistan. The detention rate of bulkers prior scrapping is 59%.


Silver Road, November 19, 2017. © June Young Oh

Fu Hai 616 (ex-Ji Li Xiang, ex-Xue Hai). IMO 7525451. Length 216 m, 11,350 t. Deflagged from China to Sierra Leone for her last voyage renamed Ning Feng 316. Classification society China Classification Society. Built in 1977 in Rijeka (Croatia) by Brodogradiliste 3 Maj. Owned by Fuhai Shipping Co (China). Acquired by Wantong International Group (Hong Kong, China) prior to her departure for demolition in Bangladesh.

Hai Chang (ex-Meghna Princess, ex-Maritime Diamond). IMO 9050292. Length 190 m, 7,585 t. Panamanian flag. Classification society Registro Italiano Navale. Built in 1995 in Oshima (Japan) by Oshima Shipbuilding. Detained in 2017 in Teluk Bayur (Indonesia). Owned by Haichang Shipping Ltd (Hong Kong, China). Sold for demolition in Bangladesh. 530 US$ per ton. She left Shuaiba (Kuwait) on February 22, called at Sohar (Oman) then in Yangon (Burma) and was finally beached in Chattogram on May 18.

Hai Chang, South China Sea, June 2020. © Bengt Rune Inberg
**HL Richards Bay (ex-Hanjin Richards Bay).** IMO 9141338. Length 269 m, 18,109 t. Deflagged from South Korea to Liberia for her last voyage shortened to Richards Bay-1. Classification society Korean Register of Shipping. Built in 1997 in Ulsan (South Korea) by Hyundai. Owned by H-Line Shipping Co (South Korea). Acquired in June 2022 by Liberia-registered Lexi Shipping Ltd care of Arka Global Marine Services LLC (United Arab Emirates). She was beached for demolition in India.


**Lily Breeze (ex-Qatar Sea, ex-Samjohn Amity).** IMO 9149017. Length 225 m, 9,898 t. Panamanian flag. Classification society Lloyd's Register of Shipping. Built in 1998 in Tsu (Japan) by NKK. Detained in 2012 in Paradip (India) and in 2021 in Aqaba (Jordan). Owned by Panama-registered New Prosperity Shipping SA care of Allied Marine Services LLC (United Arab Emirates). Sold for demolition in Bangladesh.
Mahavir (ex-Jun Jie, ex-Inter Pride, ex-Willi Salamon, ex-Far Eastern Harvest). IMO 9209491. Length 225 m, 10,540 t. Deflagged from India to Saint Kitts and Nevis for her last voyage shortened to Vir. Classification society Indian Register of Shipping. Built in 2000 in Marugame (Japan) by Imabari Zosen. 3 detentions, in 2014 in Ventanas (Chile) and Cape Cuvier (Australia) and in 2017 in Ningbo (China). Owned by ACS Marine Services. Sold as is in Colombo (Sri Lanka) for demolition in Bangladesh. 515 US$ per ton.

February 2012, the Inter Pride docked in Ogden Point, Victoria (British Columbia, Canada). © Andrew Lester


In Sattelite Channel (British Columbia, Canada), February 2011. © Don Armitage

Witty, beached in Gadani, plot 122. © Gadani Ship Breaking Yard


Rio Balsas, docked at Ciaboga terminal in Guaymas (Mexico), April 2011. © Ray J. Ordano

Rio Balsas, beached in Chattogram, March 2023. © Hizbul Alam
 Samar Responsibility (ex-China Steel Responsibility), IMO 9220237. Length 289 m, 24,181 t. Deflagged from Liberia to Saint Kitts and Nevis for her last voyage shortened to Sam. Classification society American Bureau of Shipping. Built in 2003 in Kaohsiung (Taiwan) by China Shipbuilding Corp. Detained in 2012 in Port Hedland (Western Australia, Australia). Owned by SAMC Shipping Asset Management (Hong Kong, China). Sold as is in Singapore for demolition in India. She was eventually beached in Bangladesh. 520 US$ per ton including enough bunkers for the voyage.

China Steel Responsibility, sailing down the Seine River, on February 6, 2009. © Pascal Bredel

March 2023, Chattogram, Bangladesh. © Hizbul Alam


On Saigon River (Vietnam), July 2021. © Helge Röhrs
Sunlight (ex-Onoe, ex-Shin Onoe), IMO 9217759. Length 289 m, 21,215 t. Deflagged from Marshall Islands to Comoros for her last voyage renamed Sunny 1. Classification society Lloyd's Register of Shipping. Built in 2000 in Tsu (Japan) by NKK Corp. Owned by Marshall Islands-registered Nereus Ventures Corp care of NGM Energy SA (Greece). She was already reported sold for demolition in India in August 2022. 547 US$ per ton. She remained docked in Dangjin port (South Korea). In March 2023, she was reported sold again, as is in Singapore. This time the selling price reached 575 US$ per ton including 400 tons of bunkers and a 30-ton spare propeller. She left Caofeidian (China) on March 9 and was beached in Chattogram.


Wadi Alarish. IMO 9077898. Length 225 m, 10,248 t. Deflagged from Egypt to Mongolia in August 2022. Unknown classification society. Built in 1994 in Okpo (South Korea) by Daewoo. 9 detentions, in 2004 in Kagoshima (Japan) and Porto Torres (Italy), in 2005 in Yokohama (Japan), in 2007 in Portland (Oregon, USA), in 2010 in Amsterdam (Netherlands), in 2011 in Vlissingen (Netherlands), in 2012 in Baltimore (USA), in 2021 in Castellon de la Plana (Spain) and in 2023 in Singapore. Owned by Malak Ship-Trader Co (Egypt). Sold for demolition in Bangladesh where she was beached on March 10 as Vadi. 575 US$ per ton including 300 t of bunkers and a spare bronze propeller.
Tanker

16 demolitions from January 1 to March 31, 2023, 239,000 tons. The share of tankers has stabilised at 30% after falling down in 2022, from 59% in the first semester to 31% in the second second. The average age at the time of demolition is 32 years. The detention rate of tankers prior to scrapping is 40% : 22% for oiltankers, 50% for gas carriers and 100% for chemical tankers.

The tanker market is the almost exclusive domaine of the Indian subcontinent (78% of tonnage). Bangladesh and India keep pace with 36% each. The 2 gas carriers belonging to shipowners from the European Union (Greece) or the United Kingdom were beached in India.

The tanker distribution: 1 chemical tanker, 6 gas carriers, 9 crude oil or product tankers.

The chemical tanker Song Hau PN was beached in India on January 20, 2023. She was reportedly sold for demolition in November 2022 and was due to trade furthermore as SPM Agility. The deferment was short. 6 gas carriers. Bangladesh was delivered the two biggest Liquid Natural Gas carriers (LNG) Adriatic Energy and Grace Energy, India the third LNG carrier and 3 smaller Liquid Petroleum Gas carriers.

9 oil tankers. The FSO Sloug is 251,502 t deadweight. The 8 others are "small" units of less than 80,000 t deadweight. The lone Sloug, towed to Türkiye, represents 44% of the tonnage of scrapped oil tankers.

Chemical tanker

Song Hau PN (ex-Pvt Eagle, ex-Chem Tulip, ex-Atlantic Ambassador, ex-Langepas, ex-Nordamerika). IMO 9145425. Length 182 m, 10,933 t. Vietnam flag. Classification society Bureau Veritas, Vietnam Register of Shipping since December 2022. Built in 1998 in Kherson (Ukraine) by Khersonskyi SZ. Detained in 2013 in Quanzhou (China) and in Khark Island (Iran). Owned by PV Trans Petro (Vietnam). In November 2022, she was sold as is in Khor Fakkan (United Arab Emirates) to Marshall Islands-registered SPM Strength Inc, renamed SPM Agility and deflagged to Panama. She was reported sold for demolition but her status was again in service on December 27. She actually did not resume trading, left the Khor Fakkan Anchorage (United Arab Emirates) on January 4, 2023 and was finally beached in Alang on January 20.

Gas carrier


Gas Spirit 1, February 2023. © Samir Rasul


June 2012, LNG Swift in Gibraltar. © William Jardim

Seapeak Arctic (ex-Arctic Spirit, ex-Arctic Sun). IMO 9001784. Length 239 m, 23,667 t. Deflagged from the Bahamas to Saint Kitts and Nevis for her last voyage renamed Arctica. Classification society American Bureau of Shipping. Built in 1993 in Chita (Japan) by Ishikawajima-Harima. Detained in 2013 in Humen (China). Owned by Seapeak Maritime (United Kingdom). Acquired as is in Malaysia by Resurgence Ship Management Pvt Ltd (India) for demolition in India. 643 US$ per ton including 3600 tons of aluminium. The terms of sale include a clause requiring the selected shipbreaking yard to have been delivered a statement of compliance with the standards of the Hong Kong Convention.

Viet Dragon 68 (ex-Gas Beauty I, ex-BW Strand, ex-Berge Strand). IMO 7420089. Length 225 m, 20,300 t. Panamanian flag. Classification society Korean Register of Shipping. Built in 1982 in Perno (Finland) by Wartsila. Detained in 2003 in Aomori (Japan). Owned by Petro Vietnam Technical Services Corp (Vietnam). Sold as is in Fujairah. 600 US$ per ton. She is awaited in India but has not been beached yet. Her last known location dates back to August 2022.
Oil tanker

*Benichitose* (ex-*Kohshinmaru*). IMO 9172492. Length 100 m, 1,959 t. Deflagged from Liberia to Saint Kitts and Nevis for her last voyage shortened to *Rose*. Classification society Nippon Kaiji Kyokai. Built in 1998 in Kochi (Japan) by Shin Kochi Jyuko. Owned by Nagai Kaiun Kaisha LTD (Japan). Acquired by Saint Kitts and Nevis-registered Ruyek Maritime Inc prior to her departure for demolition in Bangladesh.

*Da Qing 439*. IMO 9205794. Length 180 m, 9,828 t. Deflagged from China to Palau for her last voyage renamed *Ida*. Classification society China Classification Society. Built in 1999 in Huludao (China) by Liaoning Bohai. Owned by Nanjing Tanker Corp (China). Sold for demolition as is in China. 500 US$ per ton. She left Nanjing on March 13 bound for Singapore and was beached in Chattogram.


On July 16, 2011, the *Jubba XX* owned by Jubba General Trading Co (United Arab Emirates) was attacked by 9 Somali pirates while she was sailing from Umm Al Quaiwain to Berbera (Somaliland) with a 3,500-ton oil cargo. The tanker and her 16 crewmembers from Sri Lanka (1), India (5), Somalia (4), Bangladesh (3), Sudan, Burma and Kenya (1 each) were released a few days later after a 200,000 US$
ransom was paid. The *Jubba XX* was renamed *Madina I* in December 20011 buy did not seem to have changed owner. She resumed trading between the Emirates, Yemen and Somalia. Her latest known location dates back to June 23, 2018. She was then spotted in Bosaso (Somalia). On March 3, 2023, she was beached for demolition in Gadani.

*Madina I*, September 2017, Sharjah (United Arab Emirates). © Manuel Mendoza

*Madina I* (ex-*Damalis*, ex-*Kastelorizo*). IMO 8909472. Double hull. Length 183 m, 9,920 t. Togolese flag until February 2019, unknown since. Classification society Lloyd's Register of Shipping. Built in 1991 in Maizuru (Japan) by Hitachi Zosen. Detained in 2011 in Bandar Abbas (Iran). Owned by Profit Element Investments Ltd (Hong Kong, China). Her ship manager was the Iranian company Omid Darya Ship Management. Her official status was laid-up since 2017 According to her latest AIS data, she was spotted in February 2022 in Bandar Abbas. Sold for demolition. Her destination of demolition is to date unknown. Unless she would be chartered for further trading.

*Nautica Muar* (ex-*Coromandel*, ex-*Tomis North*, ex-*Arges*). IMO 8601848. Product tanker converted in 2013 into a Floating Storage and Ofloading unit (FSO). Length 190 m, 12,164 t. Malaysian flag. Classification society Bureau Veritas. Built as *Arges* in 1992 in Galati (Romania) by Galati SN for the Romanian State-owned company CNM Petromin. She should have flown the Romanian flag but is renamed *Tomis North* and registered in the Bahamas as soon as she was delivered in November 1992. She is officially owned by Minerva Shipping, a joint venture of CNM Petromin and the Greek owner Ermis Shipping. She was sold in 2000 to a Hong Kong-based owner then in 2008 to EA Technique M Bh (Malaysia) which operated her as an oil tanker until 2012. She was converted to a floating storage by MMHE yards in Pasir Gudang (Malaysia). She had been operated on Bentara oilfield, off Sarawak (Borneo Islands, Malaysia). Sold for demolition as is in Malaysia. 426 US$ per ton. She will have to be towed to the scrapyard.
Pagas (ex-Aspasis, ex-Salamina). IMO 8909460. Double hull. Length 183 m, 9,920 t. Tanzanian flag. Classification society Lloyd's Register of Shipping. Built in 1991 in Maizuru (Japan) by Hitachi. Detained in 2017 in Bandar Abbas (Iran). In 2022, the Iranian-flagged Pagas owned by the Iranian Mosakhar Darya Shipping Co and managed by Rahbaran Omid Darya Ship Management was sold twice. First in July to Marshall Islands-registered Tyron Shipping Ltd then in September to Deed General Trading LLC (United Arab Emirates). She was renamed Ocean Lady V then Augusta II. She was deflagged to Tanzania. She left Sharjah (United Arab Emirates) on March 5, 2023, she was beached for demolition in India on April 21.


Sloug (ex-Agip Sardegna). IMO 7236191. Registered by the OMI as a FSO tanker since 1989 and operated on Bouri oilfield, 120 km northwest of Tripoli (Libya). Length 348.90 m, 43,500 t. Libyan flag. Classification society Lloyd's Register of Shipping until November 2018. Built in 1973 in Monfalcone (Italy) by Italcantieri. Owned by National Oil Corp (Libya).

The Sloug was to be scrapped after she was replaced by a new unit, the Gaza Marine Terminal (IMO 9673135), in 2017. Due to the Covid pandemic, her departure was postponed. In November 2021, preliminary work prior the voyage turned out bad: six workers died while carrying on the disconnection from the oil field, a number of others were wounded. In December 2021, the towage also went wrong. The towline broke, the Sloug went adrift and was caught up before running aground on the coast of Cyrenaica, at the last moment (cf. "Shipbreaking" # 65, p. 6-7, "Wanted, the Sloug")
She was towed to the port of Tobruk in January 2022. Satelite photos show her docked in January 2022 but in May 2022, she had vanished. There was no news about the ship since then.

The official status of the Sloug became “to be broken up” on February 24, 2023. In March, she was beached in Aliaga.

© Kamil Arslan
Offshore service vessel

Bayu Martin (ex-Lewek Martin). IMO 9432725. Length 65 m. Malaysian flag. Classification society Lloyd's Register of Shipping. Built in 2007 in Batam (Indonesia) by Pan United. Owned by Emas Offshore Labuan BHD, Malaysian subsidiary of Singapore-based Emas Offshore. Her official status is still "in service" but Lloyd's Register of Shipping reports she was sold for demolition in September 2022. Her final destination is to date unknown. She was spotted in Singapore.

Bayu Martin in Kemaman (Malaysia), April 2016. © Foggy

Bienville. IMO 9285287. Length 64 m. Mexican flag. Classification society American Bureau of Shipping. Built in 2005 in Mobile (USA) by Bender. Owned by Gulf Mark de Mexico, Mexican subsidiary of the US-based Tidewater. Sold for demolition. Her official status according to the Equasis database is "to be broken up" since January 12, 2023. According to her last known location, she was spotted in Amelia (Louisiana, USA).


Boudreaux Tide, Singapore, May 2010. © Mick Prendergast


Katun. © The U.S. National Archives. Collection Gena Anfimov

The Diavlos Force towing the cable-layer Leonardo da Vinci in the Bosphorus. Screenshot Cavit Ege Tulça

In September 2020, the Diavlos Force delivered the hull of the new built cable-layer Leonardo da Vinci, towed from Tulcea (Romania) to a Norwegian shipyard in Brattvag. She was awaited by Norwegian maritime authorities and ITF inspectors who had been alerted by the families of the Greek, Indian, Indonesian, Filipino and Russian seamen. They have not been paid for 6 months, and some have been on board for 15 months, with wage arrears amounting to 238,036 US$. The Greek shipowner offered to repatriate them if they renounce all claims. The seamen refused. The
ship was abandoned by the owner. Four weeks after their arrival in Norway, the crew received 4 months' back wages and were repatriated. The *Diavlos Force* was seized pending payment of the remainder. If not, she will be sold. On March 9, 2023, the *Diavlos Force* arrived under tow of tug *Trond Fox* at Esbjerg (Denmark). She will be broken up by Smedegaarden AS yard.


*Halul 20*. IMO 9252589. Length 61 m, 1,327 t. Deflagged from Qatar to Palau for her last voyage. Classification society Lloyd's Register of Shipping. Built in 2002 in Surat (India) by ABG. Owned by Halul Offshore Services Co (Qatar). Sold for demolition in India.

*Halul 21*. IMO 9252591. Length 61 m, 1,327 t. Deflagged from Qatar to Palau for her last voyage. Classification society International Register of Shipping. Built in 2003 in Surat (India) by ABG. Owned by Halul Offshore Services Co (Qatar). Sold for demolition in India.

*Halul 22*. IMO 9252606. Length 61 m, 1,404 t. Qatar flag. Classification society Lloyd's Register of Shipping. Built in 2003 in Surat (India) by ABG. Owned by Halul Offshore Services Co (Qatar). Remorqué for demolition in India.
**Halul 27.** IMO 9351957. Length 64 m, 1,937 t. Qatar flag. Classification society Lloyd's Register of Shipping. Built in 2008 in Mesaieed (Qatar) by Qatar Sg Co. Owned by Halul Offshore Services Co (Qatar). Remorqué for demolition in India.

**Laird Tide.** IMO 9533660. Length 87 m, 2,550 t. Vanuatu flag until June 2022. Classification society American Bureau of Shipping. Built in 2012 in Fuzhou (China) by Fujian Mawei SB Co. Owned by Tidewater Marine International Inc (USA). Worldwide Tug & OSV News reports her sale for demolition to a Morgan City yard (Louisiana, USA).

**Putford Provider (ex-Star Vega, ex-Stirling Vega).** IMO 8119170. Length 68 m. United Kingdom flag. Classification society Lloyd's Register of Shipping. Built in 1983 in Troon (Scotland, United Kingdom) by Ailsa Shipbuilders. Owned by Stirling Offshore Ltd care of Boston Putford Offshore Safety (United Kingdom). Born in Scotland, broken up in Leith (Scotland, United Kingdom).

**Laird Tide, Chaguaramas, Trinidad, August 2012.** © Joel Lee Assan

**Putford Provider, Great Yarmouth (United Kingdom), March 2020 © Ian Greenwood**

**Rimthan 2.** IMO 7715939. Length 74 m, 2,113 t. Deflagged from Saudi Arabia to Tanzania in August 2022. Classification society American Bureau of Shipping. Built in 1979 in Tokyo (Japan) by Ishikawajima Ship & Chemical Plant. Owned by Saudi Aramco (Saudi Arabia). Acquired in August 2022 by SAS Middle East General (United Arab Emirates), deflagged and renamed. She was beached for demolition in India as SAS 1.

**Rimthan 2, Juaymah terminal (Saudi Arabia), June 2016. © Capt. Tony Powell**

**Pipe-layer**

**Hyundai 289 (ex-OHI 289, ex-BAR 289, ex-LB 289).** IMO 8758237. Length 107 m. Vanuatu flag. Classification society American Bureau of Shipping. Built in 1969 in Orange (Texas, USA) by Levingston Shipbuilding Co. Owned by Hyundai Heavy Industries (South Korea). Sold for demolition. Her last known location was Batam (Indonesia).
Research vessel

Aladin (ex-Saaristo). IMO 6524230. Length 40 m, 507 t. Deflagged from Mongolia to Saint Kitts and Nevis in June 2022. Classification society Sing Class International. Built in 1965 in Reposaari (Finland) by Reposaaren Konepaja. Owned by Sinbad Navigation Co (United Arab Emirates), a maritime security service provider which used her as a floating armoury (See also MNG Maritime, p. 61). Acquired in June 2022 by Excel International FZC (United Arab Emirates) specialized in the supply of equipment, engines, and second hand spare parts of all brands for ships. She was beached for demolition in India.

Saaristo, Mariehamn (Finland), September 2007. © Mikel

Aladin, March 2017. © Assistant Sinbad


April 1988, the cargo ship Sofie Bravo in Horsens (Denmark) © Frafo

December 2018, the research vessel Denar 2, Kandili (Türkiye). © Cengiz Tokgöz

Denar 2, arrival and beaching in Aliaga. © Selim San

The Wohnschiff Havelland of the Volksmarine. © Jens Staedler

September 1993, the accommodation vessel Odin, Krefeld (Germany). © Michael Neidig

She was sold in 1991 to the Norwegian company U. Hampel which used her as an accommodation vessel on the offshore worksites and renamed her Odin. She has been registered as a research vessel since 1993 though there has been no records of any research activity. In 2003 she was sold again to another Norwegian owner, Georg Eide Rederi AS. In 2008, she was reportedly sold for demolition by the Danish yard Smedegaarden in Esbjerg.

On Halsnoy coast. © Olav Røli / NRK

Actually, she remained abandoned in a fjord in southern Norway, on the north coast of Halsnoy Island. For years, local residents and associations have been mobilizing and asking the wreck to be removed. In February 2021, the municipality of Kvinnherad imposed a daily fine of 2,000 NOK (180 US$) on the owner until the ex-ship left the water area of the municipality. In July 2022, the Maritime Albatross was towed to a shipyard in Lovraiedet, in the nearby Lovrafjord fjord. She is not to be scrapped locally. On February 28, 2023, the Maritime Albatross finally arrived at Esbjerg, to be broken up 15 years late at the Smedegaarden yard.

In transit at Maritex yard in Lovraiedet. © Per Emil Skjelbred

Smedegaarden shipbreaking yard. © Manfred
After the *MNG Capt James Cook* ("Shipbreaking" # 66, p. 70) and *MNG Pembroke* ("Shipbreaking" # 67, p. 52), two more ships owned by MNG Maritime Ltd were beached for demolition in Alang. They belonged to the fleet of "floating armories" of the London-based maritime security company. MNG Maritime Ltd used to pride itself for the professionalism of its crews led by Royal Navy veterans. Its merging in December 2021 with Sinbad Navigation, another specialist in maritime armed security, did not achieve the expected result. There is currently no ship in its fleet. The *MNG Flattery* and *MNG Grenville* were still registered as research vessels.

*MNG Flattery* (ex-*Ocean Starr*, ex-*David Starr Jordan*). IMO 7333195. Length 52 m, 782 t. Saint Kitts and Nevis flag. Classification society American Bureau of Shipping. Built in 1965 in Sturgeon Bay (USA) by Christy Corp for the US Fish and Wildlife Service. She was a fisheries research vessel designed to operate in the tropical and temperate waters of the west coast of the United States and the eastern Pacific. She was transferred to the National Oceanic & Atmospheric Administration (NOAA) in 1970.

For 40 years, scientists aboard this floating laboratory studied the marine environment and collected samples and hydrographic and biological data. Until 2010 and the end of her service for the NOAA, the *David Starr Jordan* spent an average of 240 days per year at sea. Auctioned in May 2011 to Stabbert Marine, Seattle. She continued to be operated by Ocean Services Inc. as a research vessel. She was occasionally chartered by NOAA or government agencies. She was put up for sale in 2017. Her owner asked for 1.65 million US$. She was finally acquired in October 2020 by MNG Maritime Ltd and abandoned the US flag she has been flying for 55 years. In May 2021, after some conversion work, she sailed to the Indian Ocean. Her career as a floating armory under the Saint Kitts and Nevis flag was brief. In May 2022, she was sold to second hand spare parts dealer Excel International FZC (United Arab Emirates). She was shortened to *Latte*, towed and beached in Alang on January 17, 2023.

*MNG Grenville* (ex-*Sea Trident*, ex-*Anvil Scout*, ex-*Western Trident*, ex-*Kirsten Bravo*). IMO 7393169. Length 58 m, 976 t. Saint Kitts and Nevis flag since September 2020. Classification society Det Norske Veritas. Built in 1974 in Leer (Germany) by Martin Jansen Schiffswerft. Originally ordered as a Ro Ro ship, she was converted to a seismic research vessel prior completion and delivered to Western Geophysical (USA). In 1991 she was acquired by Gardline Shipping Ltd (United Kingdom) and carried on oil exploration.

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In September 2020, she was acquired by MNG Maritime Ltd. She was supposed to be operated as a supply ship for the floating armouries of the company. She was beached in Állang on January 19, 2023.

**Tug**


Cement carrier

Dredger

*Hang Jun 12*, Tha Chin River, Samutsakorn (Thailand), December 2018. © Trakul Pumsnoh


*Jin Hang Jun 215*, November 2020, Adabiya (Egypt). © foggy

Aggregate carrier
*Dae Yang No 107* (ex-*Saikai*, ex-*Koyo Maru No.8*, ex-*Yoko Maru No.8*). IMO 9079688. Length 94 m, 2,598 t. Deflagged from South Korea to Gabon for her last voyage shortened to *Yang 07*. Classification society Korean Register of Shipping. Built in 1993 in Takuma (Japan) by Sakumi. Owned by Dae Yang Shipping Co Ltd (South Korea). Acquired by Marshall Islands-registered Trade Shipping Inc care of BBN Shipmanagement Pvt Ltd (India) prior to her departure for demolition in Bangladesh.

*Dae Yang No 107*, Mokpo (South Korea), May 2019. © Vladimir Tonic
The END: The *Borodine* no longer answers

"Collaboration between the USSR's State Committee for the Use of Atomic Energy and France's Commissariat à l'Energie Atomique (CEA) has been successful for many years."

"In 1971, the two parties signed a contract under which the USSR provided France with uranium enrichment services, essential for the preparation of fuel used in nuclear power stations. These uranium enrichment contracts were signed for a period up to 1990." (Source: *Current issues of nuclear science and technology in the USSR*, A.M. Petrossiants, third edition, revised and supplemented, French version, CEA, 1977).

It was to honour this contract between two countries embroiled in the Cold War and separated by the Iron Curtain that a ro-ro ship, a kind of garage without compartments vulnerable to fire and collision, was built by Ateliers et Chantiers du Havre and named after the immortal composer of the symphonic poem "In the Steppes of Central Asia". The *Borodine*, operated by the Compagnie Générale TransBaltique, a subsidiary of the Compagnie Générale Maritime, and powered by her two German-made Pielstick engines, maintained the Franco-Soviet link by transporting uranium hexafluoride (UF6) in various forms between Le Havre and Riga (Latvia) and Riga and Le Havre.

One of the crew paid with his life for this regular and botched traffic. Yves Francis Ange Léauté began to develop leukaemia in 1980. On the orders of the seafarers' doctor, Mr Léauté was from then permanently set aside from the *Borodine*. The Compagnie Générale Maritime transferred him to the painters' series, the roll-on/roll-off ships *Cézanne*, *Renoir*, *Gauguin* and *Degas*, but this safeguard measure was not enough. He completed his last assignment in June 1983 and died at the age of 47 from a long and painful illness classified by the occupational health department as a "maritime accident at work", a classification which meant that his widow was only paid a small pension equal to 25% of her husband's salary. Two other sailors on the *Borodine* are said to have suffered from pathologies induced by the radioactivity of the shipments. But Robin des Bois has no proof of this. The *Borodine* was in Riga during the early days of the Chernobyl disaster.

At the end of the 1980s, the Franco-Russian contract was renewed. It is still in force, with transport taking place exclusively under the Soviet flag and continuing under the Russian flag.

When a ship is jinxed, she is jinxed. The ro-ro *Zanoobia*, which transported toxic waste in the Mediterranean, was later used as the *Cosette* to traffic dilapidated cars between Florida and Haiti before being seized in Martinique and scuttled in the Caribbean Sea in November 2014 (cf. *Shipbreaking* # 35, p. 1-2 et # 38, p. 70-73).

The *Borodine* may not have ended up at the bottom of the Atlantic Ocean like the aircraft carrier *Foch*, but her fate was not a glorious one and remains mysterious. After being stripped of her uranium trade, the *Borodine* was sold by the CGM to its German subsidiary Horn-Linie, for rotations between Rouen and Turku (Finland). The business plan was based on cars on the outward journey and paper reels on the return, and on a very cheap Burmese flag, home port Rangoon. The *Borodine* was replaced in March 1991 by a Finnish ro-ro.
After a few months of idleness in Rouen next to a road bridge and a lonely quay, she went back up to Le Havre to be bought a few months later with a few starving Burmese still on board by Bill Ravel, a businessman and extravagant shipowner caught by the law and now president of the brand new and short-lived Translink Navigation Ltd registered in Vanuatu. Ravel's Rolls-Royce on the Quai de la Réunion in Le Havre contrasted with the state of the crew when they came to check on the progress of the renovation work on the ex-Borodine, renamed Pacific Link and re-flagged from Burma to St Vincent and the Grenadines, from Rangoon to Kingstown. In August 1994, the Pacific Link left Le Havre and Europe for the Pacific Ocean and, ô surprise, ô mystery in Ravel's style, we find her in Montreal in October 1995, seized upstream of a lock, with no way of escape, and bought a year later by Kimco Panama International which operates her in the Caribbean Sea and South America under the Panama flag for the traffic of cars and other vehicles on wheels (or tracks). In 2004, under the banner of the Argos Navegação de Rio de Janeiro, she became the Borodine once again and dived into the events sector. Between 31 December 2004 and 13 February 2005, she was chartered by Siemens as a mobile phone manufacturer and Claro, the Brazilian operator. The Borodine, which after being withdrawn from the Russian campaign did not undergo a radiological diagnosis by the Central Service for Protection against Ionising Radiation (SCPRI), was transformed into a nightclub, a massage therapy room, a swimming pool, mini football and basketball courts sponsored by Nike, a bar sponsored by Pepsi-Cola, Japanese and Italian restaurants, a climbing wall and travelled from port to port in the States of Bahia, São Paulo and Rio de Janeiro. 30,000 visitors, a triumph. Claro Siemens wins the grand prize at the 17th Brazilian Advertising Festival, 3 gold medals, 2 silver.

After all this excitement, the Borodine was placed on the picket line next to the gas carrier Metaltanque II in the cemetery of Guanabara Bay (or Rio de Janeiro Bay). Guanabara is a cesspool of derelict boats taking root in the mud and ship-repair workshops churning out oil and paint residues. It used to be a haven for seahorses, hawksbill turtles and Guiana dolphins (Sotalia guianensis), of which there are now fewer than 30, compared with 1,000 in 2000.

The Borodine's AIS (Automatic Identification System) is no longer responding and she has disappeared from view and from satellite photos.
Guanabara Bay in Rio de Janeiro is a cemetery. Hundreds of discarded ships of all types rust there, polluting the aquatic ecosystem and eventually sinking. There is no shipbreaking industry in Brazil.
Sources

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