SVITZER

SAFETY AND SUPPORT AT SEA • 1833-2008

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Lise Astrup Frandsen

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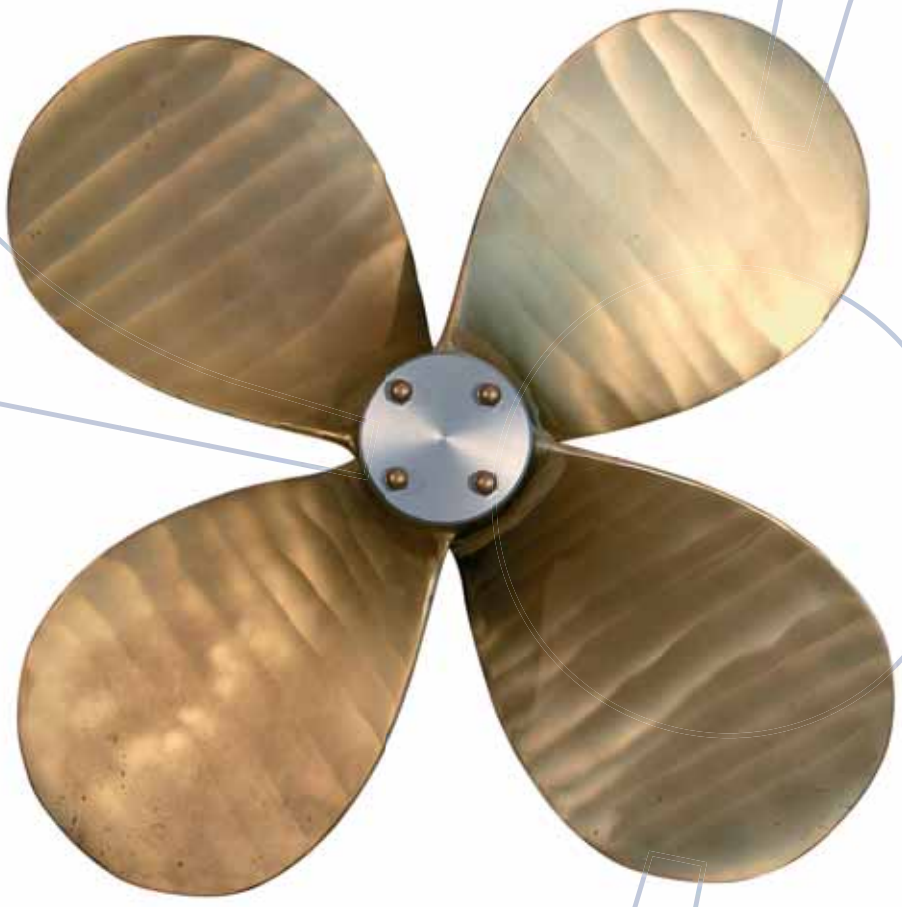

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FOREWORD

2008 marks the 175th anniversary of SVITZER. In keeping with tradition, and not least in recognition of the considerable expansion SVITZER has undergone since the latest book on SVITZER was published in 1983, we thought this an appropriate occasion to update the written history of the Company.

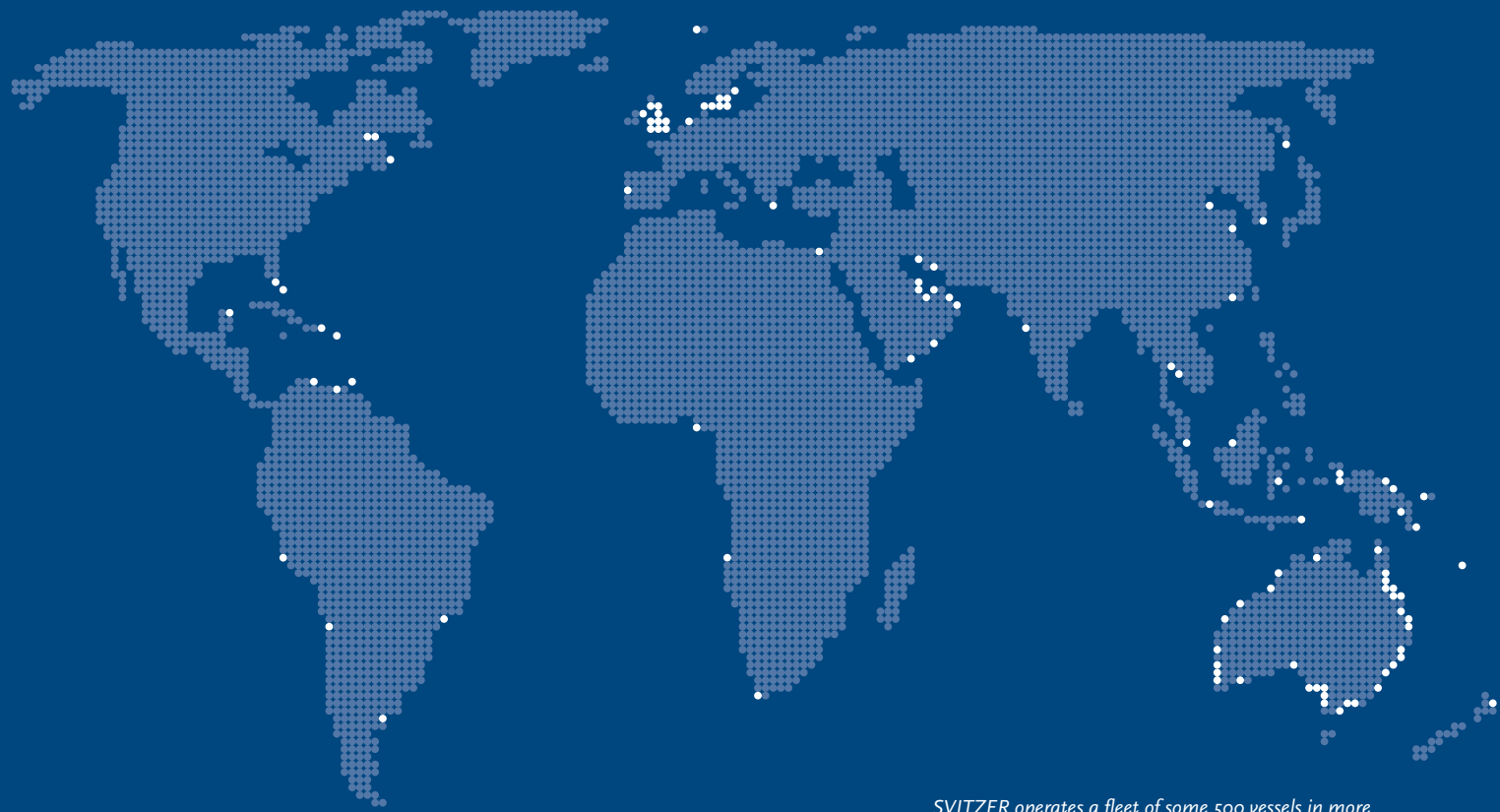
Several Companies have become part of SVITZER in the past few years and many new Colleagues have joined. By examining the strategic rationale of the major milestones of the Company, we hope to have created a better shared understanding of what has shaped SVITZER and made it possible to develop and grow.

As the book shows this has been no easy task. SVITZER has had to adapt humbly to numerous changes and challenges over the years. In many ways the only constant during those first 175 years seems to have been change.

It has not been possible to mention all the fine Companies and individuals, each with their own fascinating history and achievements, who have been integral to making SVITZER the global Company it is today.

This foreword is therefore first and foremost a tribute to the thousands of people who have contributed over the years to the many businesses that make up the SVITZER Group. Their entrepreneurship, expertise, experience, networks, dedication and determination have made all the difference.

Board and Management of SVITZER A/S



SVITZER operates a fleet of some 500 vessels in more than 35 countries. Headquartered in Copenhagen the Group has eight regional offices in Amsterdam, Cape Town, Dubai, Gothenburg, Miami, Sydney, Singapore and Teesside and three divisional offices: Esvagt in Esbjerg, Ocean Towage in Amsterdam and Salvage in IJmuiden. SVITZER's harbour towage activities cover some 80 ports in 13 countries. Terminal towage includes services at more than 30 terminals in 18 countries and the three divisions conduct their business in markets globally.

SVITZER TODAY

AUSTRALIA

It is early evening in Port Kembla but the port is buzzing. The harbour tugs SVITZER MARLOO and SVITZER KAROO have been called to assist a car carrier loaded with more than 3,000 cars from Japan to berth and moor the vessel safely and swiftly so that discharging can begin.

RUSSIA

The crew of the ice class tug SVITZER ANIVA is on standby at the Prigarodnoye Terminal in Sakhalin. On a 15 year contract SVITZER will assist LNG and crude oil tankers with manoeuvring, anchor handling and not least icebreaking at the export terminal and nearby installations. At close to -40°c the crew is only allowed outside for a few minutes at a time and only whilst wearing special protective suits.

BRAZIL

At the same time in Brazil two SVITZER ocean-going tugs LONDON and ROTTERDAM and the tug DE DA owned by the pool partner, COESS, have just reached their destination. They have towed the Petrobras P53, a Floating Production Unit, 10,500 miles from Singapore to Rio Grande do Sul. It took 70 days to tow the almost 350 meters long and 57 meters wide FPU safely to its destination.

NORWAY

The crew onboard the emergency response/rescue vessel ESVAGT CONNECTOR has just transferred at sea from their fast rescue crafts ready to start their shift. The vessel is stationed in the Norwegian sector of the North Sea assisting StatoilHydro with emergency and support services at their offshore installation.

DENMARK

In the meantime SVITZER Salvage is assisting in re-floating the 225 meter long bulk carrier CORONIS. The vessel grounded close to Copenhagen and salvage experts were immediately moved in and an on-site inspection carried out. The first step will be transferring bunkers from the double bottom tanks to tanks higher up in the vessel and discharging of ballast.

These activities are just a few 'snap shots' from SVITZER's 5 business segments in 2008 – but it all began in 1833 in Copenhagen.

1833-1850

CREATING A SALVAGE BUSINESS

The entrepreneurial story of a professional salvage business: How did SVITZER start? What challenges did the young company meet? How were they overcome?

The story of the salvage company Em. Z. Svitzers Bjergningsentreprise (SVITZER) begins in 1833. Emil Zeuthen Svitzer was then 27 years old and had just taken his first steps into the world of salvage. He grew up near Copenhagen in a rectory where his father was the vicar. At the age of 14 he got a traineeship in a trading company in Copenhagen belonging to the merchant Jacob Holm, whose business activities included shipbuilding. In 1829 Em. Z. Svitzer gained his trade licence and became a partner in the timber trading company J.A. Lange & Co. When Lange died Em. Z. Svitzer took over the business.

While in the timber trade Em. Z. Svitzer experienced the dangers of shipping. Timber was mainly shipped to Copenhagen from Norway and Sweden and some of Em. Z. Svitzer's shipments were wrecked. This gave birth to the idea of starting a professional salvage company.

SHIPPING – A RISKY BUSINESS

Shipping was a risky occupation in the early 19th century. The sea routes to and from Copenhagen via the Kattegat and the Sound were not easy to navigate with their shallow water and strong currents. There were no navigational aids warning of nearby coasts and no weather forecasts warning of heavy wind, fog, rain or snow. Charts of the Danish coastline were incomplete and those that existed were effectively unobtainable, as they were considered a matter of national security for the Kingdom well into the 19th century. Sailors had to rely on experience and many lost not only their vessels but also their lives to the sea.

The salvage vessel CAMILLA acquired by SVITZER in 1839. Drawn by Jakob Petersen.

When Em. Z. Svitzer started his salvage company, Denmark was just coming out of the long economic depression that followed the diplomatic crisis with England during the Napoleonic wars. The crisis had culminated in the English seizure of the Danish fleet and the bombing of large parts of Copenhagen in 1807.

Emil Zeuthen Svitzer 1805-1886

Wooden model of SVITZER's first salvage vessel GAMMELHOLM.

Like the rest of the Kingdom the shipping industry experienced a deep decline and had just started to get back on its feet. Denmark's main export cargo was grain headed for England where the industrial revolution was already gathering strength. In 1824 Danish ships obtained a reciprocal agreement with British ports, enjoying the same rights in British ports as British ships, and trade boomed. Apart from timber to be used as building material the main import to Denmark from England was coal. The increase in shipping activity also resulted in more vessels needing salvage assistance.

SALVAGE IN THE 19TH CENTURY

In the first half of the 19th century salvage was usually undertaken by local fishermen paid either by the King or the shipowner. The fishermen had typically formed a local salvage guild and would undertake the salvage with their own boats. Vessels grounding and wrecking were not unusual and salvage was an important extra income for these local communities, especially during times when bad weather made fishing difficult. If the vessel belonged to a declared enemy the wreck was considered the property of the Danish Kingdom.

Em. Z. Svitzer wanted to develop a professional business assisting and recovering vessels in need and their cargoes. Assistance could be to vessels that had grounded but could be re-floated, to vessels damaged but still floating, or to vessels completely wrecked at sea. At the time this was in fact an entrepreneurial idea. In 1827 a small company near Copenhagen had been founded on the same idea, but closed when the owner died just three years later. When Em. Z. Svitzer started his salvage business in 1833 there was no similar professional salvage company in Denmark and today SVITZER is amongst the oldest of its kind in the world.

Recognizing that he was a tradesman, not a sailor, Em. Z. Svitzer quickly partnered with master mariner H.C. Larsen. Practical knowledge of seamanship and relationships within the shipping industry were crucial to succeed in salvage. By allying himself with people with good practical education and talent for organisation, Em. Z. Svitzer founded a strong company, whose skills quickly earned recognition from shipowners.

The first vessels in the SVITZER fleet were a broad flat-bottomed cutter, GAMMELHOLM, bought from the Danish navy, a sprit-sail rigged boat and a large gig. They were all based at Kastrup, a small village by the Sound close to

Copenhagen. This base was strategic. Vessels to and from the Baltic Sea had to sail through the Sound in order to reach Copenhagen or continue into the Kattegat and this part of the Sound was known for its difficult waters.

The terms of a salvage contract were negotiated between the captain of the ship and the salvage master. It was therefore crucial for the salvage company to be at the right location at the right time and for the salvage master to be able to make a quick and realistic assessment of the job to be done. This included estimating the value of the vessel and cargo and of course the work, equipment and manpower required to get the vessel safely to port.

The gig was generally used to reach people quickly and transport the salvors between the shore and the casualty. The sprit-sailed rigged boat was used for drains or kedges while the cutter was used to lift, transfer cargo and tow. With its flat bottom, the cutter was ideal for salvage as it was possible to get close to the grounded vessels. The cutter also carried the necessary salvage equipment which mainly consisted of lifting gear, winches and later steam pumps.

A painting of the bridge Toldbodsbroen in Copenhagen showing the busy port entrance in the background. The painting is from around 1820 by H.G.F. Holm. In the 1820s Denmark saw an increase in shipping, particularly export of grain to England. In 1823 just 28 ships arrived in Britain under the Danish flag, in 1824 the number was 265 and in 1826 it had risen to 736.

Lithograph by Martinus Rørby (1803-1842) of a grounding at Gl. Skagen, 1834. Not until 1852 was a government service established to rescue the crews of wrecked ships. By 1858, 24 life saving stations were established on the Danish west coast – the same year no less than 117 vessels were reported to have been wrecked in Danish waters.
Museum of Art Brundlund Slot

Chart from 1840 with detailed information on the depth of the waters in the shallow Sound between Denmark and Sweden. Charts like these were not publicly available at the time as they were considered a matter of national security.

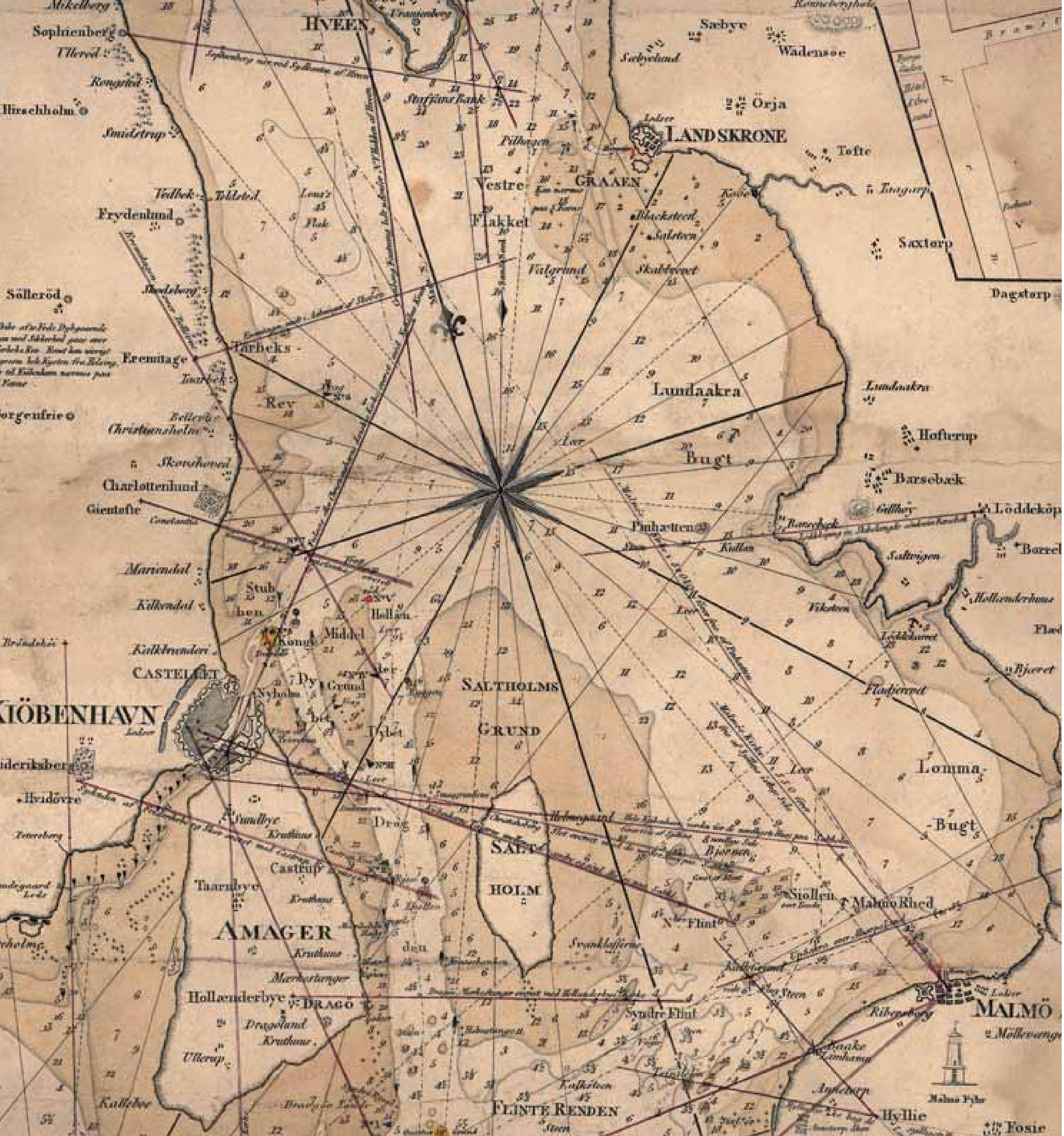

HVEEN
Uranienborg
Søphienberg
Ullerød
Rungsted
Hirschholm
Smidstrup
Sæbye
Wadensøe
Sæbyeland
Örja
Steffans Bank
LANDSKRONE
Tofte
Taagarp
Saxtorp
Pilhagen
Vestre
Flakket
GRAAEN
Blacksteed
Salsten
Skabbenet
Valgrund
Vedbek
Frydenlund
Søllerød
Dagstorp
Eremitage
Tarbeks
Taarbek
Rev
Lundaakra
Bugt
Høsterup
Barsebæk
Christiansholm
Skovshoved
Charlottenlund
Gientofte
Pinhætten
Kullan
Saltvigen
Løddeköp
Mariendal
Kilkendal
Stub
Middel
Hollænderhuus
Kalkbrænderi
CASTELLET
SALTHOLMS
GRUND
Bjerret
Fladjernet
KIÖBENHAVN
Dybet
Lomma
Bugt
Hvidövre
Sundbye
Drag
Holmegaard
SALT
HOLM
Bjørnen
Castrup
Taarnbye
Kruthuus
Sjollen
Malmö Rhed
Flint
AMAGER
Svanklasserne
Hollænderbye
DRAGÖ
Syndre Flint
MALMÖ
Dragøeland
Ullerup
Limhamn
Kallebøe
Anneberg
Kalksteen
FLINTE RENDEN
Hyllie
Fosie
Malmø Fyhr

Photo of the SVITZER diver J. Danielsen taken in 1895 when divers examined and repaired INTERNATIONAL OF NEWCASTLE. J. Danielsen is ready for a dive on board the salvage vessel HERTHA, built by SVITZER in 1877. The closed diving suit was invented by the English engineer Augustus Siebe in 1837 and consisted of a watertight canvas suit, a detachable helmet weighing up to 20 kilos and heavy lead boots that enabled the diver to walk on the seabed or the wreck. The diving helmet was connected to an airhose through which the crew on board a vessel could pump air to the diver. The divers used gas lamps underwater when inspecting and working on the wrecks.

SVITZER acquired Denmark's first diving equipment in 1842. This equipment quickly became important salvage gear. In 1907 SVITZER diver Peter Hansen Hessing took out a patent on the Two Bolt Helmet.

Practical knowledge of sailing and handling ships in rough weather was crucial for salvors and the use of divers important to many salvage operations. Divers assisted in locating, assessing and repairing damage to vessels, securing ropes and wires and so on. In 1842 SVITZER bought a closed diving suit enabling deeper and longer dives. Diving expertise was gained by experience and it was not unusual to suffer from symptoms of diver's disease. Knowledge of this disease was not well developed at the time and symptoms were hard to avoid. Decompression tanks and timetables for diving in deeper water were not available until the beginning of the 20th century.

To succeed in salvage, operational experience and technical expertise had to go hand in hand with business acumen. Salvage contracts were made on a 'no cure – no pay' basis and salvage awards determined by the maritime courts once the ship was safely in port, based on valuations of both ship and cargo by the insurance company. Typically the salvage award was settled as a certain percentage of the rescued values taking into account the salvors' work and the risk undertaken.

Em. Z. Svitzer had a good eye for valuing wrecks based on his experience in the timber trade and he often bought salvaged goods cheaply at auction to sell on. The timber business offered a stable platform to undertake the more unpredictable salvage business, which carried high economic risks and uncertain income.

THE BEGINNING OF A NEW ERA

Em. Z. Svitzer had succeeded in his attempt to create a professional salvage business from scratch and the company quickly gained recognition in Danish waters. As the business started to grow, SVITZER acquired new cutters and expanded. From a base at Trekroner – a fort just at the entrance to the port of Copenhagen – salvage cutters assisted vessels in and beyond Copenhagen.

By 1850 SVITZER was becoming recognised as a competent salvage company and was well placed to adapt to the challenges of the industrial and technological revolution to come.

Custom House of the Sound around 1840. Ships had to pay a special tax to pass the Sound. This was unpopular due not only to the costs but also the delay that the time-consuming tax system caused. Tax collectors had to board the vessel and register all the cargo to estimate the tax. In 1832 more than 12,000 ships passed the Sound. In 1857 the Sound tax was stopped as a consequence of pressure from the international shipping community.

Left: Copenhagen roadstead painted by H.G.F. Holm around 1835. In the background the fort of Trekroner can be seen, where SVITZER placed the salvage cutter, CAMILLA, in 1839. When Em. Z. Svitzer started his salvage company he was not really taken seriously by the navy and the fact that he started his business with an old navy cutter did not help matters. However, shortly after the founding of the salvage company, the navy needed assistance with a grounded ship. Instead of demanding the usual security for payment if the salvage was successful, SVITZER offered the navy a guarantee for the value of the ship. This was a bold move, but the salvage operation went smoothly and proved to be the beginning of long-term cooperation with the navy.
Museum of Copenhagen

The inner roadstead of Copenhagen painted around 1850 by Carl Bille. The painting shows some of the characteristic types of vessels used at the time.

1850-1914

EXPANSION AND COMPETITION

The period between 1850 and 1914 was characterized by the breakthrough of the industrial revolution throughout Europe. Vessels generally became larger, steam engines found their way into shipping and competition grew more intense. How did SVITZER meet these changing circumstances?

In the 1850s the impact of the Danish free constitution signed in 1849 was evolving quickly. The city gates of Copenhagen were opened and it was now allowed to build outside the ramparts. Trading and crafts, which had until now been controlled by guilds and restricted to larger cities, were in the following years opened to all. Copenhagen became a city buzzing with trade and industrial growth following the general European development at the time and businesses quickly emerged in the provinces as well.

The shipping industry was essential to industrial development and shipping conditions had high priority. In 1858 the Port Authorities were established in Copenhagen to modernise the harbour facilities and create a better and more efficient infrastructure for shipping. Until the Kieler Canal was completed in 1895, connecting the North Sea and the Baltic through Northern Germany, all vessels coming from the Baltics had to go through the Sound and the port of Copenhagen was a busy crossing point. To avoid decline as an outcome of the new German canal and the establishment of a free port in Hamburg the Copenhagen free port was consecrated in 1894.

The salvage vessel EM. Z. SVITZER with crew. The vessel was built at the shipyard Burmeister & Wain in 1885. It was one of SVITZER's first steamships.

Development of navigational aids received much more attention at this time. In previous years lighthouses had slowly emerged and now continued to develop. Charts were no longer considered a security risk for the state and it was becoming more and more common to use pilots when navigating.

Another important change in this period was vessels becoming bigger and more powerful. Steamships made of iron and later steel became common. Being a company rooted in the timber trade SVITZER had to adapt to this change. This was not least a challenge for salvors as ships grew much heavier. Salvage was developing slowly towards fewer but larger operations demanding more pulling power and new technology.

EXPANSION BEYOND COPENHAGEN

SVITZER met the changing circumstances at the beginning of the 1850s by expanding its activity geographically. The provincial areas had developed a high shipping activity both coastal and overseas and by 1850 just as much cargo was shipped to and from provincial ports as Copenhagen. The cutter NANCY, bought in 1853, was stationed in Frederikshavn in north-east Jutland and assisted vessels in the Kattegat, where there was a steady trade between Jutland and Norway.

By the middle of the 19th century SVITZER was a name well-known nationally and also outside Denmark. In 1850 SVITZER had assisted a Russian vessel grounded at Bornholm. This salvage operation was unsuccessful due to a big storm, but nevertheless SVITZER's salvage attempt gained international recognition. The salvage master of the vessel IDA received a Russian order of recognition for his efforts at the operation.

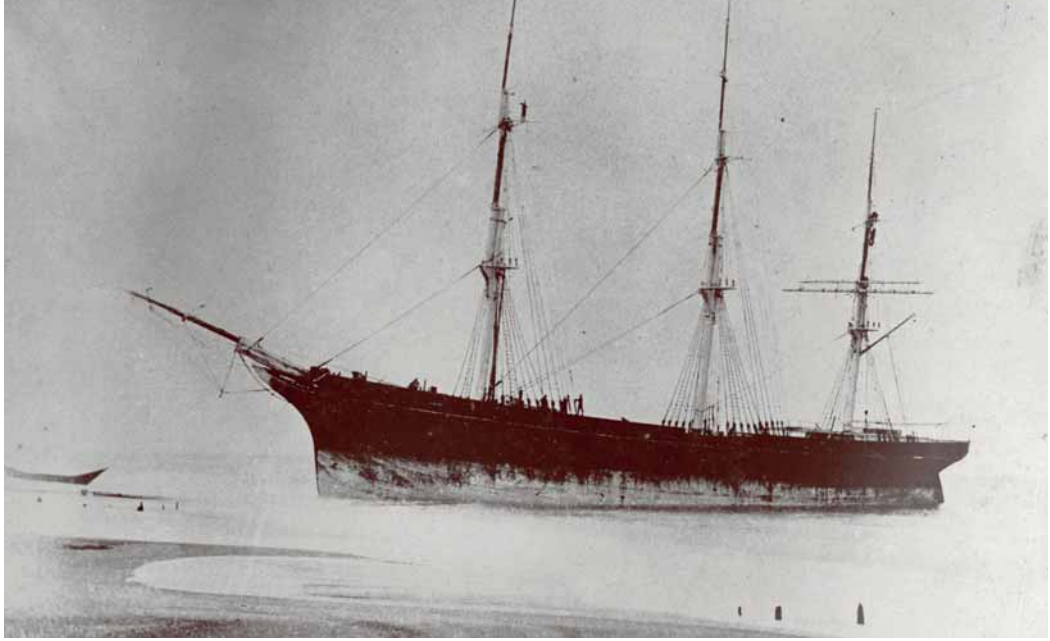
By the end of the 1850s SVITZER had salvage stations at several strategic locations along the Danish coastline and was ready to move to assist at any time. Still, this was not enough to meet the new demands of salvage.

NEW TECHNOLOGY BRINGS NEW CHALLENGES

The development of steamships had already begun in the early 19th century, but steamers did not become a major factor in the shipping industry until the last decades of the century. The first steamer in Denmark was used as a postal boat carrying both mail and passengers. The main shipping vessels used in the period around the 1850s were big schooners or barks with two or three masts. According to records only 32 steamers were based in Denmark in 1857 of which 14 were in Copenhagen. Steamers visiting Danish ports that year numbered 2,547 whereas the number of sailing ships was 23,945, however the size of the steamers enabled them to carry up to ten times as much cargo as the sailing ships.

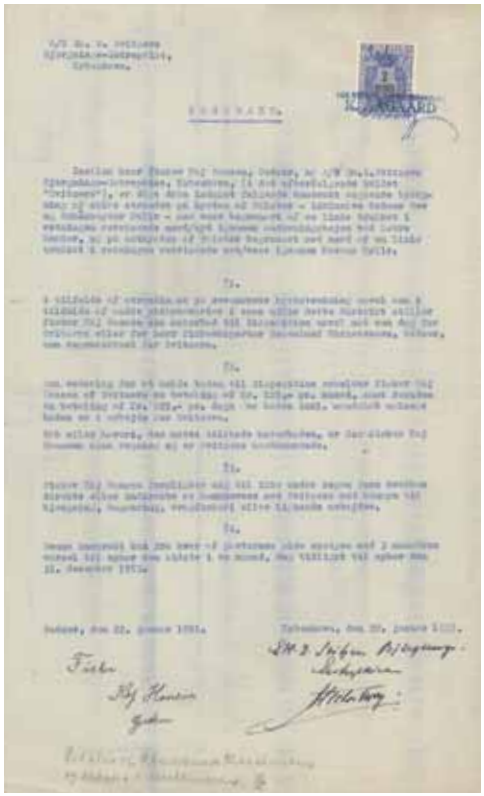
SVITZER acquired its first steamship SKANDINAVIEN in 1860 after salvaging it from the bottom of a deep lake in Sweden.

Even though the steamship was still not the dominant vessel in shipping in Europe the size and weight of the steamers were challenging for salvors. The need for more pulling power was imperative for the salvage company to undertake bigger operations. In 1860 SVITZER salvaged the steamer F.H. OF CHAPMAN, which had sunk to the bottom of the Swedish lake Väneren and was considered a total loss. SVITZER recovered the vessel using all their force with seven sailing vessels and two pontoons. The mission was successful and the wreck was later bought by SVITZER at auction. The wrecked steamer was then rebuilt as a specialist salvage vessel and named SKANDINAVIEN. With an engine power of 55 hp it was a powerful vessel at the time. As the name hinted, SVITZER had plans to expand its market into Scandinavia and later that year a



Large barks were commonly used for shipping in the latter part of the 18th century. This photograph shows GITANA OF LIVERPOOL stranded at Agger, Denmark in December 1883 and salvaged by SVITZER's FREDERIKSHAVN in April the following year. FREDERIKSHAVN was built in 1876.

ALBERT EHRENSVÄRD OF GOTHENBURG stranded at Christiania Fjord in Norway on 22 nd June 1891. At the end of the 19th century SVITZER carried out several salvage operations in Norwegian waters and in 1903 decided to station a vessel, ØRESUND, built in 1865, in Christianssund.



The idea of cooperation with local guilds and fishermen through salvage contracts established in 1877 was used to the end of the 20th century. In this salvage contract from 1951 the fisherman Kaj Hansen agrees to put his boat and crew at SVITZER's disposal whenever needed in a specific coastal area in Denmark. Kaj Hansen would receive a monthly rate as well as a day rate when assisting SVITZER. When contracts were made with salvage guilds each member of the guild would sign the contract.

cutter was placed in Kjalmar in Sweden. Further salvage vessels were acquired in the late 1860s – ØRESUND and HELSINGØR built for SVITZER in 1865 and 1868 and the paddle steamer HERTHA bought in 1869.

The development of the steam engine soon presented SVITZER with another challenge. Steam tug boats started to emerge and were strong enough to pull grounded but otherwise undamaged vessels free without using special equipment or extensive salvage expertise – and often at a more competitive price than a specialized salvage company. The introduction of ballasting systems intensified this trend as grounded vessels were often able to re-float merely with the aid of pulling power and deballasting.

Smaller salvage jobs had historically provided a steady income and enabled SVITZER to take economic risks on the bigger jobs. Being the first on the spot offering assistance to vessels in need was becoming increasingly difficult. With more intense competition a new strategy was needed for the company to survive.

THE IMPORTANCE OF LOCAL RELATIONSHIPS

SVITZER had from its early beginning developed an information network of fishermen, pilots, shipbrokers etc. to ensure that they would have a good chance of being the first salvor on the spot. This network was extremely important in the 19th century, when communication generally was expensive and slow, relying on boat connections and horse carriages. A telegraph line between Helsingør, København, Nyborg, Fredericia and Flensburg was opened only in 1853 and telephone lines were rare until the beginning of the 1880s.

In 1877 SVITZER decided to meet the intensified competition by expanding cooperation with local fishermen and salvage guilds through agreements and contracts. In return for a share of the salvage award they would contact and cooperate with SVITZER every time a vessel was found in distress. This cooperation supplied SVITZER with manpower and the ability to respond quickly.

The contracts also proved valuable to counter historical differences between the local communities and guilds and the salvage company. The work that SVITZER had turned into a profession had taken important extra earnings from the people living on the coast. The strategy of cooperation enabled SVITZER to keep and expand the business in Denmark and benefited the local

communities who, at a time when salvage required more pulling power and technical knowledge, needed SVITZER's capabilities and professional expertise.

FROM FAMILY BUSINESS TO LIMITED COMPANY

The growth in competition had created a need for more capital in order to expand the business and in 1872 SVITZER allied itself with C.F. Tietgen to achieve this. Tietgen was the leading business man of the time in Denmark and wielded significant political influence. He was known for modernising businesses and raising capital by establishing limited companies. He was the founder and chairman of the board of several of the biggest limited companies in Denmark at the time – among others the telegraph company Store Nordiske Telegrafselskab, the shipping company DFDS, the shipyard and engine manufacturer Burmeister & Wain and the brewery Tuborg. As chairman of the board of SVITZER, Tietgen raised capital by turning the old family business into a limited company. It was also during Tiegen's tenure that SVITZER introduced the Maltese cross as the company's trade and funnel-mark.

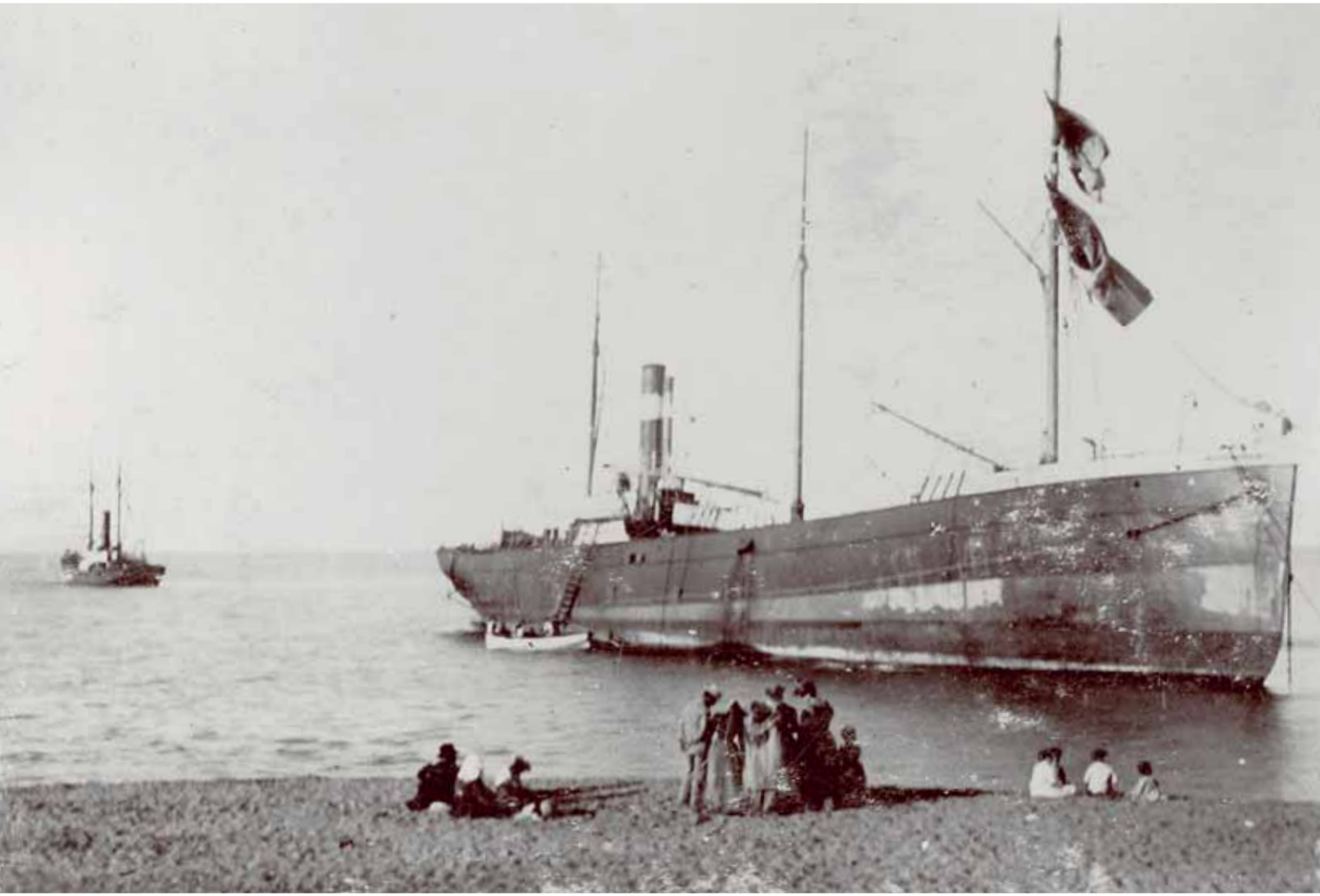
The transition to a limited company was not as drastic a change for SVITZER as might have been expected. There were to be only a few named shareholders and their shares could not be sold without the acceptance of the general assembly. Furthermore it was decided that leading people in the company were to have shares so that they – together with Em. Z. Svitzer and the board members – would own the majority of the shares in the company.

On 1st January 1872 the entire salvage equipment of SVITZER was sold to the limited company Em. Z. Svitzers Bjergningsentreprise A/S for 220,000 rix-dollars – a price below the estimated value of the equipment of the company assessed at 227,000 rix-dollars. The share holding was divided into 80 shares each of 5,000 rix-dollars. Em. Z. Svitzer himself had seven shares, his staff had 26 and the board 11, in total 44 shares giving them the majority interest in the company. Em. Z. Svitzer remained the managing director and the company continued to be led by him and a close circle of trusted friends and colleagues.

The capital raised was used for new equipment and four salvage vessels – KATTEGAT, DROGDEN, FREDERIKSHAVN and HERTHA. This expansion of the fleet enabled vessels to be stationed at Esbjerg, Thyborøn, Korsør, and

Horn from Dragør salvage guild. The horn was used to call the members of the salvage guild to work when a vessel was grounded in the area.

The Svitzer family gathered on the porch at the family plantation Little Princess, St. Croix 1895 or 1896. At this time the company was still family led.



The French steamer ATLANTIQUE grounded and later rescued by the salvage vessel EM. Z. SVITZER – the company's first vessel stationed in the Mediterranean. The vessel operated from its base in Marseille during the period 1889 to 1898.

Lolland. The funds raised also paved the way for SVITZER's entry into towage through a stake acquired in the Danish harbour towage company Det Forenede Bugserselskab in recognition of the increasing interdependence of towage and salvage. SVITZER furthermore cemented its position in the salvage industry by acquiring Oscar Petersens Bjergningsentreprise in Kastrup in 1879.

INTERNATIONAL STRUGGLE AND EXPANSION

Competition in salvage kept intensifying. There were fewer salvage operations, partly due to the development of the Lights and Buoys Service and salvage in Denmark was no longer limited to Danish operators.

Rival companies included the German salvage company Nordischer Bergungs Verein based in Hamburg who in the 1880s had stationed three steamers in southern Danish waters and started cooperation with the local communities. Contrary to what might be acceptable today SVITZER acquired shares in the German company and entered into a cooperation agreement for common operational fields. This contract lasted until 1904. A similar agreement was made in the 1880s with the Swedish salvage and diving company Bergings- och Dykeri Aktiebolaget Neptun, who had entered into operations in the Sound.

With these same companies SVITZER also entered into an agreement to jointly station and operate a salvage fleet in the Mediterranean. In 1889 the steamship EM. Z. SVITZER arrived in Marseille and from this base undertook many salvage operations in the Mediterranean. In a similar alliance, the salvage vessel PROTECTOR built in 1905 was stationed as far away as China in 1906.

However, cooperation in the Mediterranean with the Swedish company was short-lived and just a year later the Swedish company once again challenged SVITZER operations in the Sound. SVITZER reacted promptly and without hesitation by placing vessels in southern Sweden and spending a significant amount of money establishing a private phone line to swiftly gather intelligence on vessels in distress in that area.

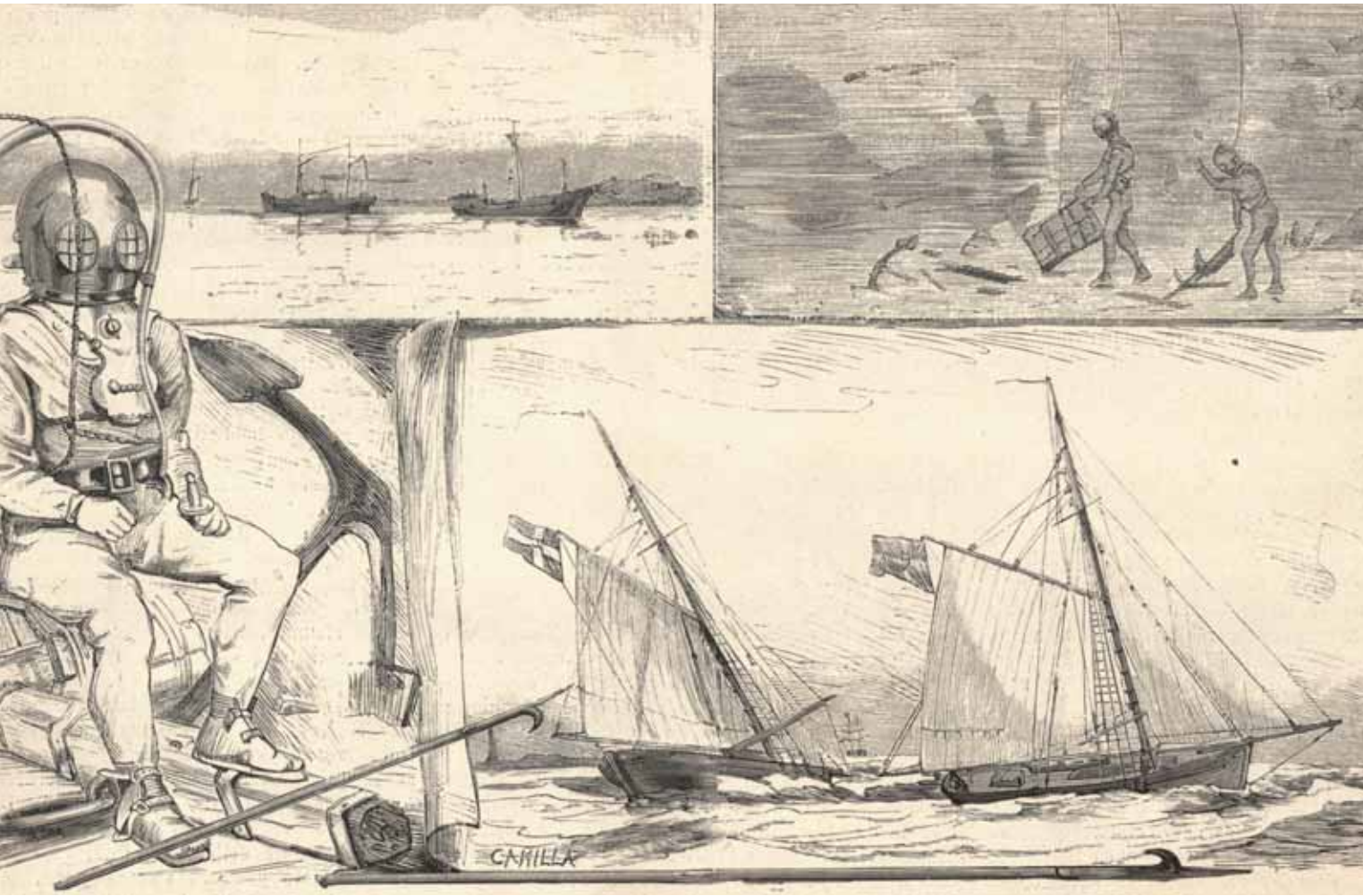
By the end of the 19th century SVITZER had expanded its operational field into Norwegian waters. As competition intensified SVITZER stationed a vessel at Christianssund in 1903 and a few years later another vessel to work from strategic stations along the Norwegian coast – Ålesund, Kristianssund, Rørvik, Sandnessjøen, Bodø, Sandtorg, Gibostad and Tromsø. Competing companies made similar moves to beat SVITZER to the jobs. Just as SVITZER had done in Denmark some 30 years earlier the company allied itself with the local fishermen and salvage guilds to gain an edge on competition.

The Norwegian competitors reacted by pursuing foreign representation with an arbitration panel, which had been established in Copenhagen at the beginning of the 1890s to reduce time spent on lengthy maritime court procedures. SVITZER was represented on the panel as one of three members and in 1905 a representative of foreign interests was added. Using the then common public notion of extraordinary

EMIL stranded at Calatabiano in Sicily. Presumably salvaged by the salvage vessel EM. Z. SVITZER stationed in Marseille. The crowd on the beach clearly shows how salvage operations attracted the attention of the local community.

The SVITZER tug URD in icy water in an unknown port, presumably in Norway or Iceland.

Right: JOHAN SIEM capsized in the Kieler Canal on 5th October 1896. SVITZER had help from German salvage vessels at this operation – presumably from the German partner Nordischer Bergungs Verein, based in Hamburg.



Drawing with different scenarios of SVITZER's activities presumably drawn in connection with SVITZER's 50th anniversary.

returns in the salvage industry this representative tried to put financial pressure on SVITZER. Failing to do so the representative opted to resign, which effectively broke up the arbitration. In the end SVITZER and a number of Norwegian salvage companies merged their Norwegian activities in the limited company, Norsk Bjergningskompagni A/S, in 1912.

Emotions such as those adding to the dispute between SVITZER and the Norwegian competitors could at times run high, as witnessed by the article below from the left-wing newspaper Socialdemokraten:

"The Danish state spends millions every year ensuring safe navigation... but when a ship is grounded, the state steps back and leaves the ship to the monopolized plunder of a bunch of capitalists. Svitzer's salvage vessels hurry to the site, latch onto the hull and suck out the last drop without the world knowing anything, since the shipping companies pay without a murmur. Now and then a shipping company gasps and quietly breaks down. Svitzer has drained the blood from its heart! There is only one way to prevent this robbery, this monopolized ruthless exploitation: the state must take over the salvage business. The piracy of Svitzer does not belong to civilization and is a disgrace to the country."

SOCIALDEMOKRATEN, 1911

However, the right-wing newspaper Berlingske Tidende expressed a somewhat different view of the work performed by SVITZER and the salvage industry:

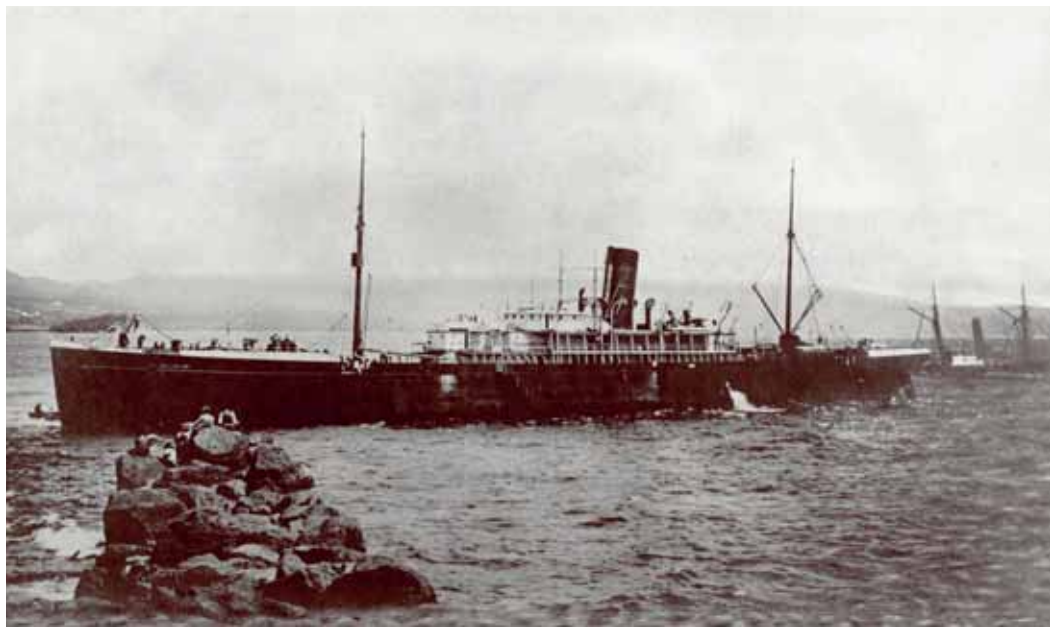
"For 82 years now the company has run its business in honour of the Danish flag and to the most undisputed benefit of the nation and the people. Its name is known all over the globe: it has brought and still is bringing large amounts of foreign capital into the country and it provides jobs for many Danish citizens, while at the same time securing a good income for poor fishermen living on our coasts. Its activity contributes considerably to providing work for Danish shipyards and shipbuilders with repairs on wrecked ships and so on. In the artificially created agitation there is not stated one truthful or even fairly reliable example that a grounded ship was left without opportune help due to the existing contract relations between the business and the people living on the coast."

BERLINGSKE TIDENDE, 1911

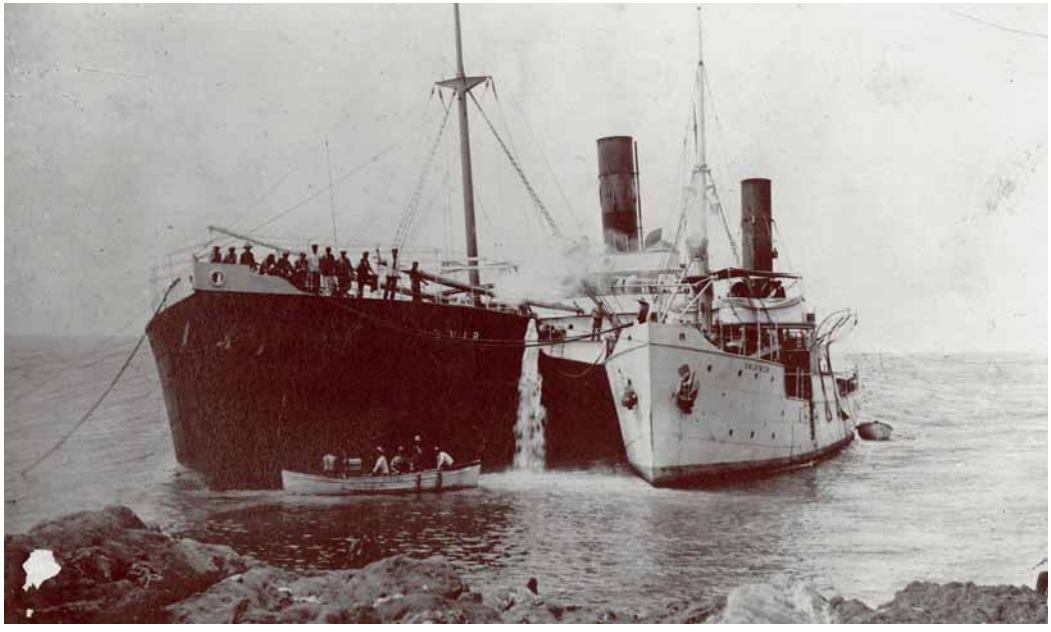
Compass binnacle made by Iver Weilbach & Co, instrument makers of Copenhagen. A non magnetic stand houses the compass and is mounted on gimbals. The balls on each side are correction balls which are moved in or out to correct the compass direction by counteracting the ship's magnetic field. The two canisters at the top contain lights to allow the compass to be used at night.

DIONE OF BORDEAUX grounded at Kap Spartell in Africa on 30th November 1895 and salvaged by SVITZER. The ship was loaded with 5,000 empty wine barrels and 80 tons of railway material.

In 1906 SVITZER assisted BROOKLYN grounded at the Azores – a Portuguese group of islands in the Atlantic Ocean. Exactly a hundred years later SVITZER removed CP VALOUR from these pristine islands.



The lightship VYEL at Nymindegab in Denmark, December 1909. The anchors broke during a storm and the vessel was washed ashore. SVITZER salvaged the vessel in May 1910.



ZVIR OF FIUME stranded at the Porqeurolles islands by Toulon, France 1912. The repair made by a SVITZER diver during the salvage was so effective that the vessel could carry on to Marseille without further repairs. Alongside the grounded vessel the salvage vessel VALKYRIEN, built in 1907, is seen in action.

THE END OF FAMILY MANAGEMENT

Hans Peter Johan Lyngbye had officially taken over the management of the company in 1886 upon Em. Z. Svitzer's death, after having effectively managed the company for the past 14 years. Lyngbye was the son of the first marriage of Em. Z. Svitzer's second wife and had later married Em. Z. Svitzer's daughter from his first marriage. In this way the company essentially remained a family managed business.

In 1898 Tietgen retired as Chairman of the board, which brought about some fundamental changes. The board started focusing on clear segregation of businesses, in effect challenging the Svitzer-Lyngbye family's involvement in both timber trade and salvage. Another bone of contention between Lyngbye and the board had been the cooperation agreements with local communities. The board had ignored Lyngbye's advice by gradually reducing the share of the local parties in the salvage award – for example in Kalundborg, where the share was reduced from 50% in the late 1870s to 33% by 1884. Lyngbye insisted that further reductions risked jeopardizing the good relations which were a precondition for obtaining salvage jobs and a matter to be dealt with delicately.

Lyngbye was relieved of his managing responsibilities the same year and rejected an offer of a board position. In his parting speech Lyngbye pointed out that the family back in 1872 had been paid merely the value of the equipment and not for giving up management of the company itself.

Display of a Walkers 'Cherub III' Patent log. A rope was attached to the back of it and a vaned rotor (impeller) to the other end, which was then dropped over the side of the ship and as the rotor turned it measured the distance travelled. By timing this, the speed of the ship was determined. Before the introduction of such logs a piece of wood was dropped over the bow of the ship and by measuring the time it took the log to travel the length of the ship, speed was determined, hence the use of the word 'log'.

A PERIOD OF CHANGE AND ADAPTATION

The period from 1850 to 1914 was a time of major change. New technology brought significant change and competition intensified. SVITZER adapted by forging a strong network of cooperation with local fishermen and salvage guilds and expanding operations – firstly within Denmark, then further into Scandinavia and then as far away as the Mediterranean and China. Doing so required capital injection. SVITZER became a limited company and ultimately the old family firm was run by businessmen outside the Svitzer family.

Combining its financial and technical muscle with strong networks assisted SVITZER in its expansion and led SVITZER into the 20th century as a salvage company without equal in Scandinavia. SVITZER's strategy had created a solid foundation from which it was ready to meet the looming challenges of economic crisis and political uncertainty.

SVITZER had until 1898 shared office premises with the Em. Z. Svitzer timber trade activities. In the years following Lyngbye's departure from SVITZER the company moved to new premises in central Copenhagen, Nyhavn.

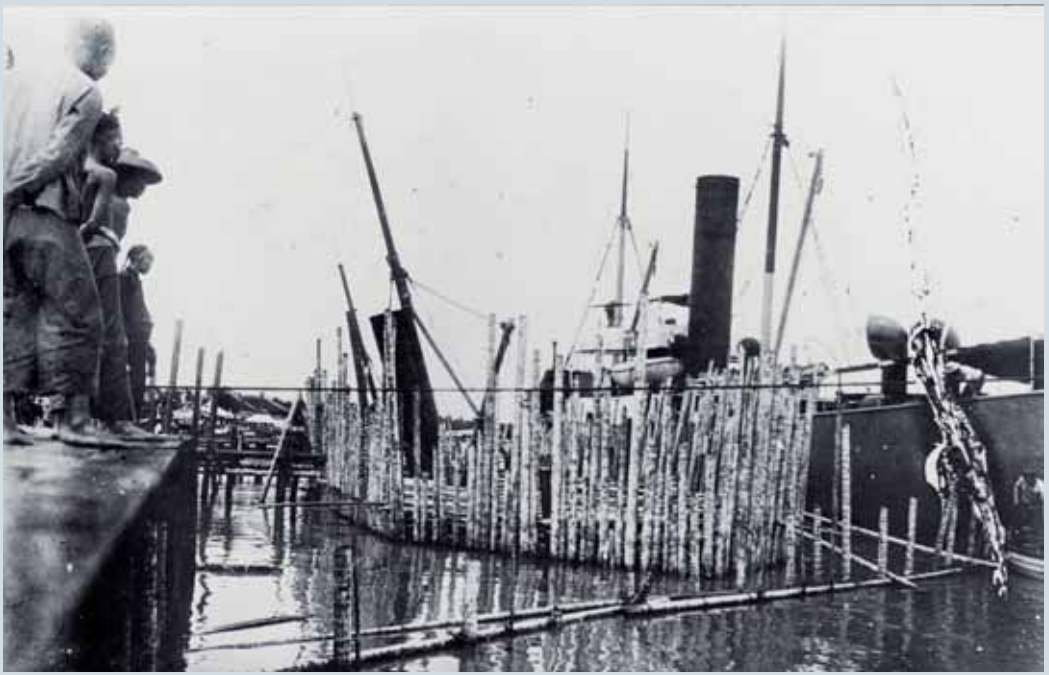
The open type helmet at the entrance of SVITZER's former office at Kvæsthusgade in Copenhagen is the very first diving helmet used and one of only two open helmets left in Denmark.

LOCAL ADAPTION IN MALAYSIA

Salvage operation on a Malaysian steamer sunk on the River Mnar in Malaysia 1908. Before SVITZER took on the salvage operation a Chinese salvage company was hired to rescue the vessel. Their plan was to place bamboo sticks around the vessel, cover the enclosure with canvas and pump away the water. This plan failed and SVITZER was hired to take over the operation. SVITZER retained the bamboo sticks at the site as they constituted a fence protecting the salvors from the crocodiles in the river. The salvage divers and the vessel PROTECTOR were mobilised and the vessel was successfully re-floated.

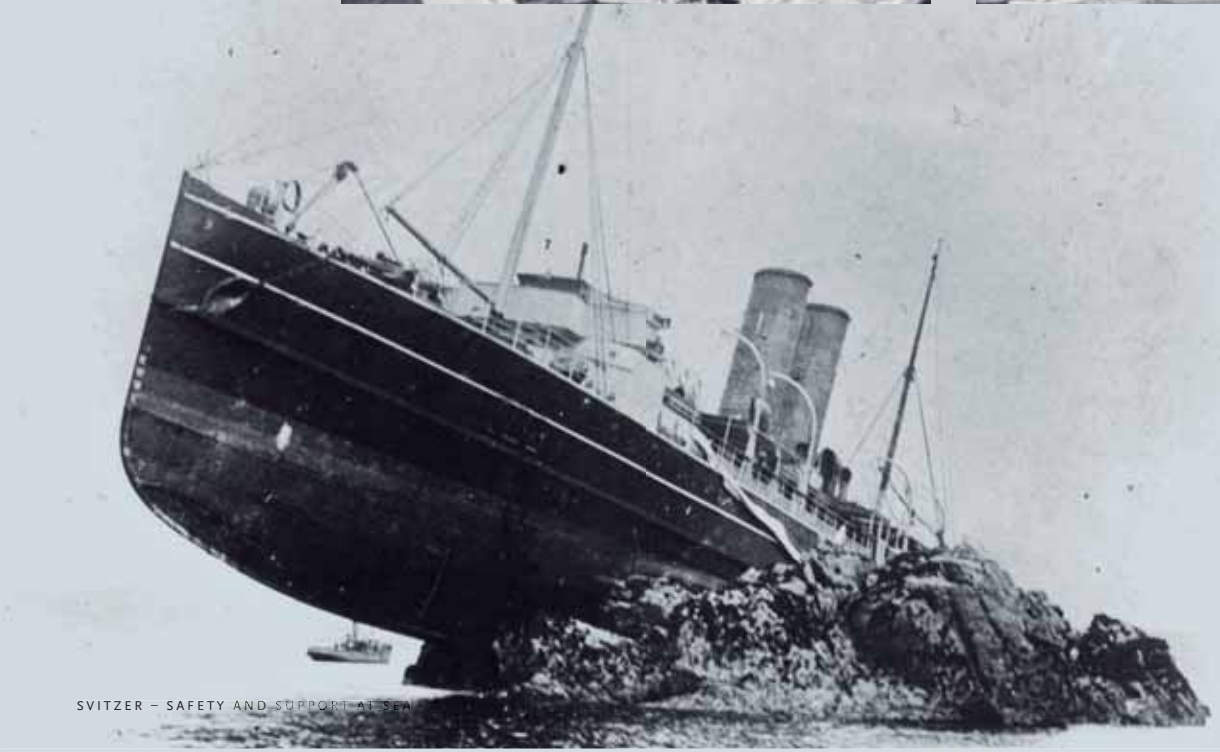
During the operation the locals had bets on whether the foreign salvors would succeed or not. The amount of the bets ended up exceeding the salvage award – a fine example of how the thrill of unpredictable and challenging operations was felt among local people. In 1904, the managing director of SVITZER, Otto Hecksher, expressed the excitement of working in salvage:

"It's an exciting business. You have to get used to seeing all your work, all your efforts completely destroyed, to start over again and then maybe not even achieve anything! It takes nerves! If you cannot watch when it all goes wrong... you are no good at it."



SALVAGE OF ROEBUCK AT JERSEY

The English ROEBUCK during salvage by SVITZER in July 1911 off Jersey. The salvage vessel EM. Z. SVITZER participated in the operation. After the salvage the vessel was taken to land and repaired at St. Brelades Bay. The vessel was built for the Great Western Railway Co. in 1897.




VIKING

1914-1970

NAVIGATING IN WAR AND CRISIS

The decades that followed the outbreak of the First World War generally became characterized by political conflict and economic crisis. How did SVITZER navigate these difficult waters to keep the strong position achieved since 1833?

The period between 1914 and 1970 was marked by the two world wars 1914-1918 and 1939-1945 and economic recession in between. Old ideologies and political systems were breaking down and new ones emerging. The Russian Revolution, growing nationalism and fascism were examples of these new political movements.

After the Second World War the United States supported an economic uplift in Western Europe through the Marshall Plan. Led by the Soviet Union, Communism was on the rise and the Iron Curtain divided Europe. New conflicts arose during and as a result of the Cold War, among these the Suez crisis in 1956. Economic recovery culminated in the 1960s but the conflict of political ideologies dominated world politics for more than 30 years.

This period of conflict and crisis created both challenges and opportunities for SVITZER's salvage and growing towage activities. SVITZER had not only to survive economically but also to navigate through the political conflicts that prevailed, while maintaining the goodwill earned throughout the world for almost a century.

STAYING STRONG DURING THE FIRST WORLD WAR

The salvage vessel VIKING, built in 1904. VIKING was wrecked in Piraeus during the Second World War.

Though economic circumstances during the First World War were strained, SVITZER managed to maintain a strong financial position. The general decrease in shipping during the war naturally meant fewer salvage operations with higher risk. However, a rise in the value of cargoes and vessels resulted in higher salvage awards.

Due to the political situation the German partner dropped out of the Mediterranean partnership and their five vessels were added to the SVITZER fleet. SVITZER's other partners eventually withdrew from the

venture in 1928 and 1932. However, SVITZER refused to give up its position in the Mediterranean – keeping active in the territory already established in the previous decades was a greater priority than making a profit here and now.

Only one vessel was lost during the war. The salvage vessel DANMARK stationed in Constantinople was confiscated by the Turkish government in 1915. The vessel was never returned to SVITZER but later used to compete against its former owner.

New Year card from 1918 showing PEKING OF GOTHENBURG which, loaded with copra, caught fire and capsized in Port Said in April 1917. In September the vessel was salvaged by PROTECTOR, which served SVITZER for 55 years and the coalition during both World Wars. After delivery in 1905 she was stationed in Hong Kong and from 1911 in the Red Sea. During her long and active life she only returned to European waters four times.

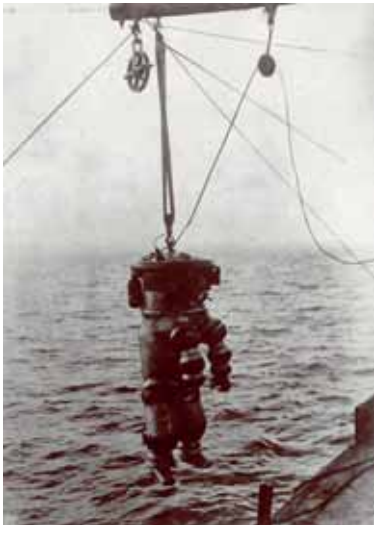
EXPANSION IN TOWAGE

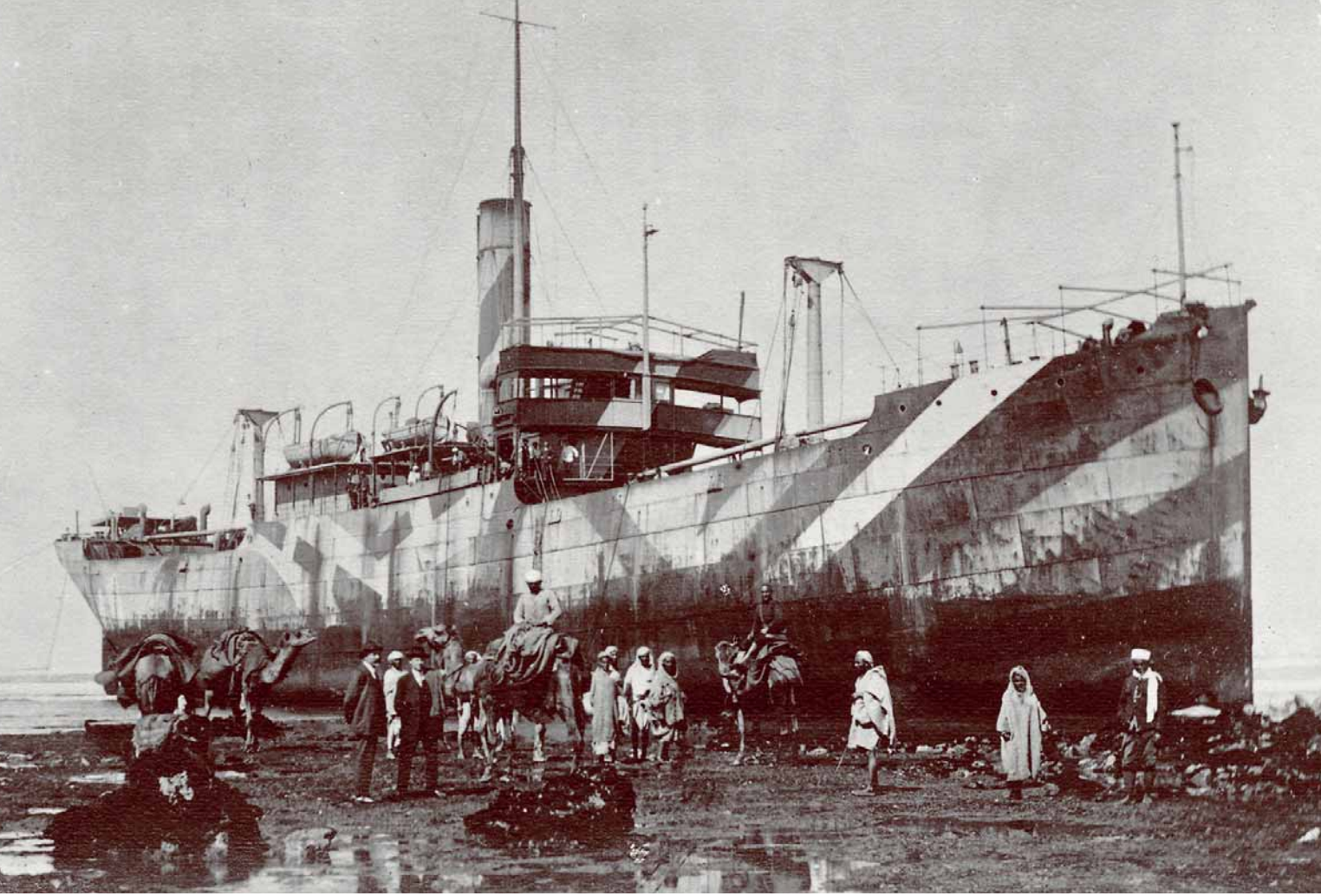
SVITZER's entry into towage originated in the 1870s, when it acquired a stake in the towage company Det Forenede Bugserselskab. At the time this was largely a defensive move to protect its salvage business. SVITZER's next move into towage was likewise to be motivated in defence of its salvage activities.

In 1923 Det Forenede Bugserselskab acquired tugs and salvage equipment, which had belonged to its competitor Union, and tried to sell it on to SVITZER. SVITZER considered the price too high and did not need more equipment at a time of weak market conditions. Having acquired the equipment Det Forenede Bugserselskab then decided to compete in salvage operations, often on lump sum terms, instead of invoking the usual Lloyd's Open Form contract. SVITZER met this move the following year by buying four tug boats and competing in towage. A classical tug war resulted, which lasted four years and had an immense effect on the economy of both companies. In 1927 the struggle ended with the two companies resuming focus on their historic specialities – SVITZER on salvage and Det Forenede Bugserselskab on harbour towage. SVITZER, however remained a shareholder in Det Forenede Bugserselskab and included its four tugs in the operation of the venture.

The 1920s saw a range of other competitive struggles, among them one with the German company Bugsier. Bugsier had bought SVITZER's partner Nordischer Bergungs Verein and dissolved the agreements of cooperation. In 1925 SVITZER decided to pre-empt competition by building the tug GARM and stationing it in Frederikshavn. Once again competition was met head on.

During the world wars salvage operations were particularly risky due to the many mines in the water. This series of photos shows a diver testing an armoured diving suit presumably during the First World War.





PETWORTH OF LONDON stranded at Mazagan in Morocco. The vessel had been washed far ashore and could not be pulled off. SVITZER blew a canal in the rocky ground alongside the vessel allowing high winds to blow the vessel into the canal. Unfortunately the wind became so strong that the vessel was blown across the canal instead of into it. The salvors started again and five months later the vessel finally slid through the canal back into the sea.

FENNIA OF VASA grounded in the Sound near Malmø, Sweden. The grounding happened during the icy winter of 1924. The ice was so bad that the salvage operation could not begin immediately and ice surrounded the vessel. After three weeks the vessel was re-floated and brought to the port of Copenhagen.

Two of SVITZER's vessels URD and FREJA covered with ice in front of the SVITZER headoffice in Nyhavn.

Wooden model of the large salvage vessel VIKING, which served SVITZER for 36 years. During the Second World War the vessel was requisitioned by the Greek authorities and wrecked in the port of Piraeus in 1941.

SVITZER DURING THE SECOND WORLD WAR

SVITZER's salvage operations largely continued during the German occupation of Denmark. Many vessels in distress – mainly Danish, Norwegian, Swedish and German – needed assistance because of damage caused by mines at sea. The German forces allowed SVITZER to help these vessels as long as it got clearance for its vessels to leave port each time. SVITZER had ten salvage vessels and two lifting pontoons at work in Danish waters. Several SVITZER vessels were damaged by mines, but only one, BJØRN, was tragically lost with the entire crew of seven.

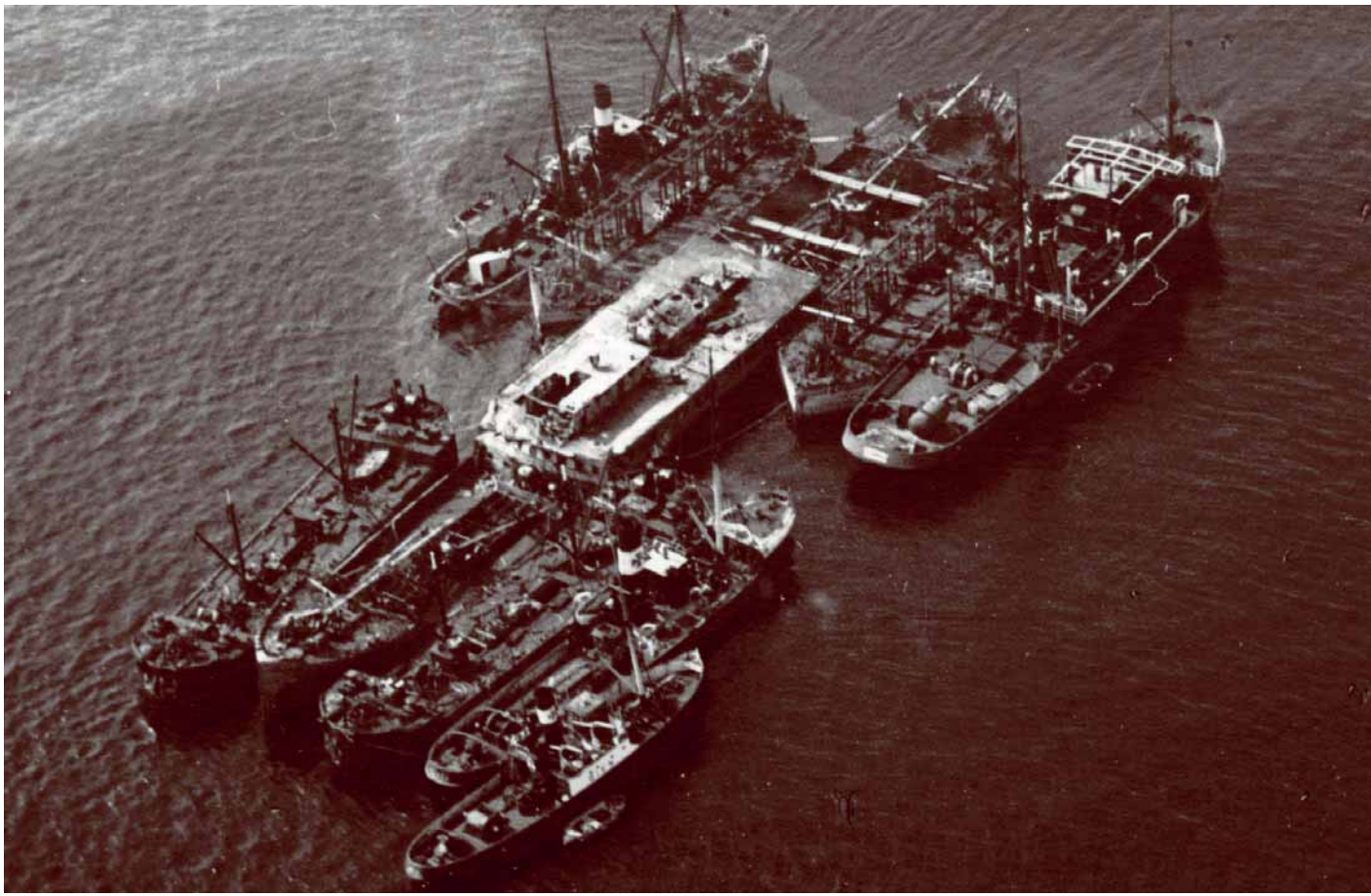
When war broke out SVITZER had another five vessels stationed abroad. All were seized for use by allied forces. PROTECTOR, stationed in the Red Sea, was quickly put to work for the allied forces. VALKYRIEN was in Lisbon at the time of the German occupation of Denmark and the Captain of the vessel decided to leave the harbour and surrender it voluntarily to the British service.

The remaining three SVITZER vessels abroad did not survive the war. The Greeks had taken control of the vessel VIKING. She was unharmed by the German bombing of the port of Piraeus on 6th April 1941. The following day, however, VIKING hit a mine. Shortly after a vessel carrying ammunition blew up nearby causing further damage to the already wrecked vessel. She was considered a total loss and later had to be blasted to clear passage. GEIR was captured by the French when stationed near Gilbraltar and hit a mine and sank in 1943 outside Casablanca. PRESERVER, owned by one of SVITZER's agents

in London, was stationed in Aden when war began and quickly taken over by the British. PRESERVER was wrecked in the Bristol Channel in 1942.

By continuing operations in Denmark during the German occupation whilst in other areas surrendering to coalition forces, SVITZER maintained a neutral position during politically complex times. This political neutrality lasted until the end of the war when a firm stand was taken against the German forces by preventing their use of SVITZER vessels in Denmark for military purposes.

Salvage of the vessel ESBJERG which had struck a mine and sunk in the Baltics in July 1945 while commanded by the German forces. The vessel was salvaged in August the following year in cooperation with the Swedish salvage company Röda Bolaget, which later was to become part of SVITZER. Two lifting pontoons and four salvage vessels were used for the salvage operation, which lasted four months.



THE ESCAPE TO SWEDEN

By the spring of 1945 Russia had seized Warsaw and Krakow and the Americans reached Cologne. Danish shipowners were generally concerned about confiscation of vessels by the German forces. Various precautions had been taken to avoid this, including sinking vessels deliberately and blowing up the bridge of Langebro to trap vessels in the southern port of Copenhagen, Sydhavnen.

In order to avoid German confiscation of its vessels, an escape to Sweden was carefully planned by SVITZER together with the Danish resistance movement BOPA and the Danish Freedom Council. As many SVITZER vessels as possible were to sail into Swedish waters on 9th April 1945 – exactly five years from the day Germany occupied Denmark.

Some of the vessels could do this easily from their operating positions at sea. Others were allowed out of port on fictitious operations. Getting the tug boats operating in the port of Copenhagen out was the biggest challenge, as they rarely left the inner harbour. In a carefully orchestrated operation the Danish vessel, RØSNÆS, was captured by members of the resistance movement and grounded with the crew held at gun point. With the salvage vessels all busy on other operations this manoeuvre enabled the harbour tugs to leave the port to assist the grounded vessel. The following morning RØSNÆS was easily pulled free and the vessels of SVITZER and Det Forenede Bugserselskab continued to Landskrona in Sweden. The management of SVITZER had also fled to Sweden to avoid being taken into German custody.

The German forces responded promptly to the flight of vessels by seizing control of the two companies' remaining vessels in the provinces of Denmark

Underwater cutting machine. In 1940 SVITZER invested in new modern equipment including echo sounders, direction finders and motor driven centrifugal pumps. Furthermore, 10 underwater cutting machines were purchased allowing divers to work with a blowtorch below water. The cutting machines put an air casing around the flame enabling it to cut iron. SVITZER also acquired more diving suits, which then numbered more than 20.

MULAN OF ROTTERDAM grounded at Thy, Denmark. The captain of the ship is in the middle of the group and the SVITZER captain P. Underlien on the right. The vessel was lifted by hydraulic jacks 20 metres into the sea to a platform from which it slid into the sea.

– JUNO stationed in Århus, PAN in Aalborg and MJØLNER and ODIN both stationed in Frederikshavn. The vessels that had escaped to Sweden remained there until the end of the occupation in May and then assisted with the return of the Danish Brigade. After the war SVITZER cleared ship wrecks from ports in Denmark, Poland and North Germany.

NAVIGATING DIFFICULT WATERS

The period from 1914 to 1970 saw several political and economic challenges for SVITZER and the number of salvage operations varied greatly. Adapting to change and navigating difficult political waters was essential for the company not to be wrecked during these turbulent times.

SVITZER had operated throughout Europe and even as far away as China for decades. This benefited the company in times of war and crisis as it was known internationally and recognised for its special expertise.

SVITZER

STORIES

CLEARING THE SUEZ CANAL

The international recognition gained from years of working abroad and the fact that SVITZER had been able to remain neutral to a high degree in times of political conflict resulted in a high profile contract in 1956. SVITZER together with the Dutch salvage company L. Smit & Co's Internationale Sleepdienst was appointed by the United Nations to clear the Suez Canal of wrecks from the Suez crisis.

The Suez crisis resulted from a conflict between England and France, who were the legal owners of the canal at the time, and Egypt, who wanted to nationalize it. England and France had allied themselves with Israel in military attacks against Egypt. In response Egypt blocked the canal by sinking numerous objects including tug boats, ferries, excavators, cranes, a landing craft full of concrete and a railway bridge.

The United Nations decided that the canal should be cleared by salvage companies, who not only had the necessary skill and technical facilities, but were also neutral with regard to the political conflict that had caused the situation. SVITZER and Smit met these requirements and worked together with an American general also appointed by the United Nations.

It was a significant task undertaken by 32 salvage vessels and more than 450 people. The operation started on 31st December 1956 and was concluded in May 1957.

Cranes were used to lift the sunken obstacles in the Suez Canal.

This picture, taken on 10th January, shows the salvage vessels working on the wreck of the sunken Egyptian landing craft AKKA. It had been sunk with a cargo of cement and was one of the most serious obstacles facing the salvors in the canal. A SVITZER vessel was used along with other vessels for placing small cables under the sunken ship.

THE AL KUWAIT OPERATION

Salvage operations often pose unpredictable challenges and each operation requires individual planning. Technical skills, creative thinking and innovative solutions are all in play. The vessel AL KUWAIT, which sank in the port of Kuwait in 1964, is an example of an operation in which unusual methods were used to meet the success criteria – rescuing the vessel and minimizing environmental impact.

The 100 metres long vessel weighing 4,000 tons was specially built for shipping livestock. On 14th September 1964 she had just berthed in Kuwait and started to unload 5,500 sheep. When just 500 sheep were safe on land the vessel started to list to port and within minutes had capsized in 14 metres of water. Some 5,000 sheep drowned.

The Kuwaiti authorities wanted the vessel removed as quickly as possible, not least due to the environmental impact of the dead livestock. A salvage solution was needed which would minimize both the risk of sheep floating out of the vessel and structural damage to the almost new vessel. Using air pressure for re-floatation risked tearing the vessel apart and there was not enough space to place lifting pontoons alongside the vessel. A month later the authorities lost patience and gave the insurance company an ultimatum – if the wreck were not removed within a relatively short time they would arrange removal on behalf of the shipowner.

The urgency led the insurance company to seek new ways. The Danish inventor Karl Krøyer was asked to find a solution that would satisfy all parties. Two weeks later he presented his solution. Krøyer proposed pumping small air filled polystyrene balls into the vessel to re-float it. The method proved successful in a test and 50 tons of polystyrene, pumps and further equipment were transported to Kuwait.

SVITZER supplied divers for the operation. The divers had to volunteer to do the job because of the health risk constituted by a wreck holding 5,000 putrefying sheep. Before the divers went to Kuwait they inspected the sister of the AL KUWAIT to familiarize themselves with the vessel's lay out. Two months had passed and the stench of the dead sheep was by now hanging over Kuwait City as a constant reminder of the accident.

The salvage operation could now begin. The vessel would be brought to an upright position by welding cantilevers onto its side and using sand bags in steel nets adding up to 100 tons to create turning momentum. The lower decks were then closed off by a diver wearing a heavy diving suit. A few days later the vessel was watertight and heavy objects were lifted off by crane.

It was now time for Krøyer's invention to prove its merits. The polystyrene would re-float the vessel and the sand bags force her into an upright position. High water was important for the mission to succeed and the salvors worked hard to be ready for the spring tide due in late December. However, the tide was not as high as expected due to a strong north-westerly wind. On the night of the New Year the vessel still had a 20 degrees list but was floating. More polystyrene balls were pumped into the lower decks and the tanks were emptied by the divers using air pressure. When 65 tons of polystyrene balls had been pumped into the vessel she was upright and re-floated. Now all that remained was to clear away the

polystyrene balls and the dead sheep – which would be burned in the desert outside Kuwait City. By the end of February 1965 the vessel was back at sea.

This unusual method of salvage was costly and known to be used only once. Krøyer applied for, but was refused, a patent on the method. The official reason for rejecting the application was that the same method had already been used by Donald Duck and his three nephews Huey, Dewey and Louie, who in a magazine back in 1949 had re-floated a boat by pumping it full of table tennis balls.

1970-2008

GLOBAL DEVELOPMENT AND LOCAL ADAPTATION

The years from 1970 to the present day are marked by significant changes in the market as the growing demand for energy and not least globalization has had a significant impact on the business. How did SVITZER adopt and explore new opportunities in the wake of these changes?

The economic bubble of the 1960s soon burst and two oil crises dominated the economic agenda of the 1970s. Deregulation and open markets were the political focus of the 1980s, led by Margaret Thatcher and Ronald Reagan. The European Economic Community (from 1992 the European Union) evolved and with it came increased focus on business opportunities across borders. The 1990s saw a further focus on environmental issues – a focus that is intensifying at the beginning of the 21st century.

An increasing demand for energy and sharp growth in world trade created new business opportunities which SVITZER explored in several ways – initially by developing new business sectors but later by focusing on expanding core activities globally.

RESTRUCTURING AND REFOCUSING

The salvage market continued to change as vessels grew increasingly larger and more advanced navigation systems were developed. New communication systems further affected salvage operations. Knowledge of casualties was now quickly available to anyone and contracting of salvors had moved from the vessel in distress to offices.

SVITZER recognized the need to restructure its business activities. Instead of keeping salvage tugs stationed on speculation at strategic places, salvage experts were now concentrated on shore and the vessels and crews used for towage, while remaining ready to respond to an emergency whenever and wherever needed.

Focus increased on harbour towage and investments were made in new tug boats. Harbour towage in Copenhagen was operated through the joint venture Det Forenede Bugserselskab until 1981 when SVITZER assumed full ownership. SVITZER continued to expand its towage activities, also acquiring the

Photo from a SVITZER salvage operation.

remaining shares in the towage company Goliath the following year. Just a year later the towage company A/S Claus Jørgensens Bugserbåde was taken over. SVITZER had in effect consolidated the Danish towage market – a global trend in the towage industry. By 1983 SVITZER's assets included 53 vessels and 350 employees.

Looking for related opportunities to expand its towage activities, SVITZER had invested in specially built coal barges in the 1970s. The concept was that tug boats could be used more effectively. By shuttling between loading and discharge operations three tug boats could transport five barges. The barges were pushed in Danish waters as well as between England, Holland and the Baltics. The barges, however, were a short-lived success financially and served the Baltic trades until divested in 2006.

A model of the vessel SVITZER GARM, built in 1978. With a capacity of 11.000 hp and a bollard pull of 110 tons she was among the most powerful anchor handling tugs at the time and specially equipped for offshore work. Upon delivery SVITZER GARM was put to work assisting the Danish electricity company Elsam in running electricity cables 1 metre below the seabed between Denmark and Norway. The cables were dug into the ground by a machine working on the seabed and operated from SVITZER GARM by remote control. Other jobs included assisting in running gas pipes and cables between Bornholm and Sweden and telephone cables in the North Sea. Some of this work was done in water-depths up to 650 metres.

DEVELOPING OPPORTUNITIES OFFSHORE

With the growing demand for energy, exploration activities expanded worldwide and increasingly moved offshore – an advantage to SVITZER with special expertise in working offshore and in rough weather. On the back of investments made in offshore tonnage in the late 1970s, SVITZER found new opportunities. SVITZER JARL and SVITZER GARM engaged in ocean towage and assisted in the laying of pipes and cables on the seabed as well as providing offshore marine support services as far away as Brazil and West Africa.

Diving services were also expanded to encompass services to the offshore industry. SVITZER Global Diving Services was founded in 1981 in cooperation with Global Diving Services Ltd. of Aberdeen. The services offered included inspection and installation work and on the back of these activities survey activities were eventually offered.

In 1982 the company also engaged in a different and new kind of offshore operation. Due to the cold and rough water in the North Sea, active oil installations had by law to have emergency response/rescue vessels on standby in case of an emergency. A year earlier ESVAGT had started emergency response/rescue services using converted fishing trawlers. Cooperation quickly proved necessary and from 1983 joint operation was established. In 1991 SVITZER acquired 50% of the ESVAGT shares and in 1998 a further 25%.

In 1993 ESVAGT moved into its present offices in Esbjerg, Denmark. The building dating back to 1903 functioned until 1974 as a Home for Seafarers and Fishermen.

In August 1990 the oil rig West Gamma hit an unexpected storm while being towed in the North Sea. The towline parted and the storm knocked a hole in the rig which began to take in water. Due to the strong winds and the legs of the rig swaying from side to side evacuation of the people on board the rig by helicopter was impossible. ESVAGT OMEGA and SVITZER PROTECTOR launched their Fast Rescue Crafts and managed to save 46 people. The remaining five people from the rig were rescued by two other vessels in the area. ESVAGT and SVITZER were later presented with the Leith International Conference Offshore Safety Award for this achievement.

A CHANGE OF OWNERSHIP

During the late 1940s the A.P. Moller-Maersk Group had bought shares in SVITZER to prevent it being acquired and broken up by financial investors. In the 1970s the A.P. Moller-Maersk Group became the majority shareholder with an 80% holding. Since 1979 SVITZER has been a part of the A.P. Moller-Maersk Group.

The change of ownership created only minor changes to SVITZER in the first years. Management remained the same and SVITZER continued its existing activities and financing investments from the company's own capital.

The most immediate change was that offshore expansion within the A.P. Moller-Maersk Group rested with Maersk Supply Services. SVITZER therefore did not pursue further development of its offshore activities beyond those already initiated.

Tow-out of Maersk Line's new 11,000 TEU containership EDITH MAERSK from Odense Steel Shipyard in Denmark. The SVITZER tugs NANA, MARS, MJØLNER, FREJA, FENJA, MENJA and NJORD assist in manoeuvring the large vessel in the narrow waters surrounding the shipyard.
Since 1979 SVITZER has been a part of the A.P. Moller-Maersk Group, which engages in a variety of shipping activities as well as oil and gas exploration and production. Other activities include shipbuilding and retailing. The A.P. Moller-Maersk Group is a world-wide organization with 110,000 employees and offices in 130 countries. Its headquarters are in Copenhagen, Denmark.

REGIONAL AND GLOBAL EXPANSION

In the mid 1990s the A.P. Moller-Maersk Group undertook a review of its portfolio of businesses in an effort to determine which could and should be developed further. It was determined that the core activities of SVITZER held opportunity for growth and had an attractive risk profile relative to other activities of the Group. It was consequently decided that SVITZER should focus on geographic expansion of its core activities.

Growth in salvage and emergency response/rescue services continued organically whereas towage activities realistically had to grow through acquisition. The A.P. Moller-Maersk Group was ready to back SVITZER financially to support expansion.

The first move was made in 1999. SVITZER became a regional towage operator when it acquired the Swedish towage company Röda Bolaget from the Norwegian company Buksér og Berging AS.

The acquisition of Wijsmuller in 2001 added harbour and terminal towage operations around the world. Wijsmuller was also a global salvage operator making SVITZER a leading operator in salvage once again. Ocean towage activities, operated in joint venture with Smit, were also part of the acquisition. The acquisition of Wijsmuller, which was roughly twice the size of SVITZER, was a major undertaking and a clear sign of the A.P. Moller-Maersk Group's commitment to SVITZER – now a truly global towage and response operator.

Ocean-going tug SMITWIJS ROTTERDAM in action.

FOCUS ON DEVELOPING CORE BUSINESSES

The acquisition and integration of Wijsmuller brought changes on several fronts. SVITZER decided to focus on towage and response services. These included harbour, terminal and ocean towage as well as emergency response/rescue and salvage services. Survey activities as well as coal barges and crew boats were divested in 2003, 2006 and 2007 respectively. At the same time salvage expertise was anchored at Wijsmuller's historic salvage facilities in IJmuiden, Holland to ensure a solid foundation for expansion.

With the structure and activities now aligned, SVITZER was ready for the next step. In 2007 SVITZER acquired Adsteam, cementing its position in the UK and expanding into Australia. This was the single biggest investment ever undertaken by SVITZER. In 2007 Smit's shares in the ocean towage joint venture were also acquired by SVITZER.

During the same period SVITZER successfully expanded its terminal towage and emergency response/rescue services organically. Building on the expertise in emergency response SVITZER Salvage entered the wreck removal market.

BECOMING TRULY GLOBAL

Becoming part of the A.P. Moller-Maersk Group offered opportunities to undertake a different business strategy. Having focused on its existing operations in Denmark and pursuing opportunities mainly in the emerging offshore sector SVITZER turned initially to consolidating the Danish harbour towage and emergency response/rescue industries and then expanding its core businesses first regionally and then globally.

Acquisitions cemented SVITZER as a leader world-wide in two core activities – towage including harbour, terminal and ocean towage and response covering salvage and emergency response/rescue services. In its 175th year of operation SVITZER has the largest and most ambitious vessel investment programme ever and has grown to be the largest company in its industry.

Harbour tugs at work in Australia.

ESVAGT

Esbjerg Vagtskibsselskab A/S, better known as ESVAGT, was established in 1981 with the objective of offering emergency response/rescue services for the oil and gas industry in the North Sea. The presence of emergency response/rescue vessels had become a legal requirement for offshore drilling operations with the aim of preventing collisions and assisting in the event of a blow-out, man overboard, capsizing accidents or similar at platforms and rigs.

The company's first two vessels, ESVAGT ALPHA and ESVAGT BRAVO, were converted fishing trawlers and entered into operations in 1982. In 1983 ESVAGT joined with SVITZER, who had started similar operations a year earlier. This joint operation lasted until 1991 when the activities were merged and SVITZER took a 50% ownership. SVITZER shareholding was increased to 75% in 1998.

ESVAGT differentiates itself by making crew changes at sea with the ESVAGT developed Fast Rescue Craft. Over the years ESVAGT's fleet has increased and today counts 25 vessels with another eight vessels on order. ESVAGT's latest built vessels also offer supply, towing and anchor handling capabilities. Since its inception, ESVAGT has rescued a total of 114 persons at sea.

WIJSMULLER

N.V. Bureau Wijsmuller was established in 1906 by Johannes Franciscus Wijsmuller and initially provided ship delivery services. The business grew and in 1913 the company entered ocean towage. As these vessels were also suitable for salvage operations Wijsmuller moved into salvage in 1915.

With the purchase of Amsterdam Tug & Salvage Co in 1918, at the time the oldest Dutch towage company incorporated in 1814, Wijsmuller added harbour towage to its ocean towage and salvage activities.

Following difficult years after the death of Jan Wijsmuller in 1923, Bureau Wijsmuller was taken over by Goedkoop in 1936. Goedkoop also performed harbour towage in Amsterdam, but inside the locks. History was to repeat itself in 1948, when the sons of Jan Wijsmuller founded a ship delivery company under the name Rederij Gebr. Wijsmuller NV. In 1961 Bureau Wijsmuller was bought back by the Wijsmuller family and Goedkoop was acquired in 1979.

In the 1970s and 1980s Wijsmuller was amongst the pioneers in developing the semi-submersible heavy-lift industry. These cyclical activities were eventually sold to Heerema and are today known as Dockwise. In 1991 an ocean towage joint venture was established with Smit.

In 2000 Wijsmuller acquired Cory Towage, further cementing its position as a global towage and salvage operator. In addition, Wijsmuller had over the years emerged as the leading tug operator at LNG terminals world-wide. At the time of SVITZER's acquisition in 2001 Wijsmuller's operation counted some 140 vessels in more than 20 countries worldwide.

RÖDA BOLAGET

Röda Bolaget was incorporated in 1872 as a towage company under the name Göteborgs Bogserings AB providing towage services in the port of Gothenburg, Sweden, and soon expanded into salvage.

Röda Bolaget acquired Göteborgs Gamla Bogserings AB in 1891, Malmö Bogser AB in 1938 and Bergnings- och Dykeri AB Neptun in 1942 thereby expanding its position as a national towage and salvage operator in Sweden.

During its history Röda Bolaget operated under different ownerships until in 1999 it was acquired by SVITZER from the Norwegian towage company Buksér og Berging AS. At the time of the acquisition in 1999 Röda Bolaget operated 16 tugs.

ADSTEAM

The Adelaide Steamship Company Limited was incorporated in 1875 and initially engaged in operating a steamship service between Adelaide and Melbourne, Australia. Conventional shipping on the Australian coast, primarily products, consumer cargoes and extensive passenger services, was to remain the main activity for the company during its first 100 years of operation.

The company started towage activities in Australia in the 1890s. Gradually, towage operations extended over a number of ports, but were still clearly overshadowed by the other shipping operations. By the 1960s towage assumed more importance and represented a significant part of the company's total activities.

In the 1970s and 1980s the Adelaide Steamship Company diversified significantly. Through investments in retail, property, wine production, optical goods manufacturing, engineering, etc. the company became one of Australia's major conglomerates. At one stage, the company was Australia's fourth highest capitalized company. However, following the stock market crash in 1987 the company experienced some difficult years and in 1997 it was decided to float the towage operation under the name of Adsteam Marine Limited.

Over the next decade Adsteam continued to expand its operations and cemented its position as one of the world's leading towage operators when in 2001 it acquired the towage interests of Howard Smith. Adsteam and Howard Smith, founded in 1854, shared similar backgrounds in coastal shipping and operated multiple joint venture towage operations in Australia. The acquisition effectively doubled the size of Adsteam. At the time of SVITZER's acquisition of Adsteam in 2007, Adsteam operated some 150 tugs plus barges, workboats and launches predominantly in Australasia and the UK.

SVITZER SALVAGE WORKING ON REPUBBLICA DE GENOVA

During spring 2007 the 216 metre long vessel REPUBBLICA DE GENOVA capsized in Antwerp while loading cars. It took the salvors more than two months to prepare for the pull that put the vessel back into an upright position. Initially, all oil was removed from the vessel. Then 15 big cantilevers were welded to the side of the vessel and connected to pulling anchors piled 15 metres into the seabed. Pulling machines were attached to each cantilever producing a total pulling power of 7,500 tons – the power of 150 tug boats. Once the vessel was upright cars were removed, the tanks and the ramp were closed off by divers and water eventually drained from the vessel with big pumps. The vessel was successfully re-floated in September 2007.

Diving operations are still a key part of SVITZER Salvage. Decompression tanks are usually on the site where divers operate wearing modern suits and helmets. Air is provided through an airhose connected to a bank of high-pressure cylinders on the diving boat. The helmet is radio connected and has a camera attached enabling the diving coordinator to follow actions from the boat. There is always a stand by diver ready to go into the water in case of an emergency. A diver explains why he loves his job:

"Salvage work is never the same. Often there is no visibility when you are diving and you have to find immediate solutions to the problems you encounter. You are of course mainly by yourself when under the water, but there is always someone there watching and it is teamwork."

SALVOR


SHOWA
NO 360
CE 9/1


NO SMOKING

SVITZER 2008

What is it like to be a part of SVITZER in 2008? What challenges does the work offer? Testimonies from SVITZER employees provide insight into the current operations of the 175 year old global company.

In the previous chapters, the history of SVITZER from the beginning in 1833 has been summed up with focus on major milestones, the challenges the company has faced and how these have been dealt with strategically.

But how does it feel to be a part of SVITZER, behind the official scene of strategic business decisions? By visiting SVITZER locations you gain a more practical and inside understanding not only of some of the operations but also of the craftmanship and people performing it. SVITZER employees around the world are living testimony that SVITZER still has the fiery soul of the company born back in 1833. Moreover, the focus is still the same – safety and support at sea.

THE ART OF CRAFTSMANSHIP

"It has been a part of my life for 28 years now and it has been my hobby. I just love manoeuvring these tugs out there and in narrow places where you have to get it just right. And I never know which exact challenges the next assignment may present."

TUG CAPTAIN

SVITZER's towage activities in 2008 consist of harbour towage in some 80 ports in 13 countries, terminal towage operations at more than 30 terminals in 18 countries and world-wide ocean towage. The people working with towage consider it a life style. Long shifts, for some crews weeks at a time, structure everyday life and the mentality of a seaman is required. Crews work on tugs in diverse places all over the globe on tugs often purpose designed and equipped.

SVITZER tugs assisting a tanker.

The tug crews consider towage to be a special craft. Extensive experience and knowledge of seamanship and the specific tugs are needed, as well as a general flair for the work. Tugs are manoeuvred in all

kinds of weather in both open waters and narrow port areas. Whereas technological solutions maximize the capabilities of the tugs and enable them to perform different tasks, it all boils down to the expertise of the people operating them.

"You cannot just jump to it; it's a hard craft to learn. It's difficult to pinpoint what it is – it's a skill you acquire and if it doesn't come naturally to you, you will struggle. You have got to have a feel for it and an eye for it. And you need to get it in your blood, it grows on you and you end up being tug-happy."

TUG CAPTAIN

This sense of craftsmanship is also shared by the response teams. SVITZER salvors operate world-wide under diverse and ever changing conditions. They stress that working with response requires not only solid technological knowledge but also practical know-how as well as a certain feel and mentality.

"You need the right kind of spirit to do this job – to have an eye for it and the team spirit – and sometimes be a little bit like a horse, narrow-minded, so that you can focus on one problem at a time and continue, just forget about the rest for a while, because sometimes the circumstances are very harsh. But when you right or re-float a ship it just gives you a kick and you forget all the bad things! It's so much fun... and it keeps you young."

SALVOR

An ESVAGT Fast Rescue Craft in the North Sea.

Crews working on the ESVAGT emergency response/rescue vessels also work shifts of weeks at a time while on standby at offshore oil and gas installations. Crews were traditionally fishermen used to the challenging waters of the North Sea. Crew changes take place at sea using a Fast Rescue Craft and the actual emergency response/rescue vessels are ideally only in port for surveys every 3-5 years. Changing at sea provides regular and real life practice of using the Fast Rescue Craft even in rough weather. A captain explains the procedure:

"We coordinate the crew shifts with colleagues on board the crew change vessel, ESVAGT ALPHA, which brings us from shore to the site. The emergency vessel launches the Fast Rescue Craft and crew wearing protective suits shuttle between the vessels. It doesn't take long and we do it in almost all kinds of weather. It is a good practice."

CAPTAIN OF AN ESVAGT EMERGENCY RESPONSE/RESCUE VESSEL

Salvage operation on a container vessel on fire – not an unusual situation for salvors.

SVITZER tugs by an oil terminal in Trinidad. SVITZER serves both offshore and landside terminals on contracts that typically run for 10-15 years. Tugs, often custom built for the specific conditions of the operation, typically assist tankers when discharging or loading oil or gas.

IT IS ALL ABOUT PEOPLE

On-going communication not only internally but also externally with the local authorities, captains, pilots, shipping agents and other cooperators is very important for the SVITZER crews whether they work with towage or response. Assisting customers depends on the coordination and interaction of many parties. A tug crew member explains:

"It is extremely important to have a good relationship not only with the pilots but also with the shipyards, shipowners and other people we work with on an everyday level. We are the ones they know and they tell us if a problem arises or there is something else we should be aware of or can improve."

TUG CREW MEMBER

Ultimately, the task for SVITZER is to ensure that customers get the assistance they need in a safe and effective manner. Misunderstandings can prove expensive and risk wasting valuable time. Another tug crew member reflects:

"I really enjoy the interaction with the pilots and the harbour offices. They know us personally and I pride myself on providing a good service to them. I feel good when people come to me and say that I have done a really good job and I think our tugs are highly regarded by the pilots. They have faith that the tug crews will assist to 100% of their ability."

TUG CAPTAIN

Safety is given the highest priority in SVITZER and this is felt throughout the organization. ISM (International Safety Management) system, procedures, manuals and quality surveys are all part of the day to day operations on all vessels. A regional manager explains:

"We prioritize safety highly – we take it seriously and spend resources on it. We train, train, train and are all measured on our safety records. And our safety record is good. Customers value this today because of the focus on oil spills, accidents and pollution – it is essential that they can trust us."

REGIONAL MANAGER

Towage of TIMELESS in the United Kingdom.

The SVITZER marine support vessel, UNIWISE RAYONG, in action offshore in the Gulf of Thailand.

SVITZER MENJA assisting a tanker in Scandinavia.

Right: CP VALOUR taken off the Island of Horta, in the Azores, in September 2005. The vessel ran aground on a voyage from Canada to Europe. Due to winter weather she was soon declared a constructive total loss. SVITZER mobilized an 86 man salvage team along with tugs, barges and a jack-up. After four months on location – during which the cargo was recovered and re-delivered to Lisbon – the ship was successfully re-floated.

Crews are equipped with modern safety equipment and regularly attend courses on safety training. A safety mindset is essential to protect people, customers' assets and investments and not least the environment – a concern to communities globally. The safety focus of SVITZER offers a sense of purpose and credibility that the employees are proud of:

"I do spend a lot of time on paper work now compared with what I used to. But it is very nice to be able to show the customers our actual records, so they know for sure that we do what we say we do."

TUG CAPTAIN

The safety profile is also valued highly by the crews working on the emergency response/rescue vessels, as they recognize that safety is the core service they provide. A captain of an emergency response/rescue vessel working in the North Sea explains that concern for safety is integral to both the technological facilities and the practices of the crews:

"We practise extensively with the Fast Rescue Crafts and we practise saving 80 kilo dummies in cold water wearing protective suits. It is really important that the crews of the rigs can see from our drills that if they fall in the water, we will be able to rescue them within three minutes. If we had not practised to the extent that we do, we would never have achieved what we have so far, and we are always in the front with new equipment – based both on our own specific experience of rescuing people at sea and new technology – and all solutions are thoroughly tested. The rescue vessels are specially fitted with a gym so the crew can keep fit and with an emergency room, first aid equipment and room for up to 300 people in case of a big accident. There is AIS (Automatic Identification System), a Davit-system for the Fast Rescue Crafts and a low freeboard."

CAPTAIN, ESVAGT


CP VALOUR

SVITZER TOWAGE

SVITZER ocean-going tugs in action. The ocean-going tugs tow large objects all over the world, typically FPSOs (floating production storage and off-loading), semi-submersible rigs and offshore barges. Ocean towage is a spot market and the crew often do not know when or where they are going next. An ocean-going tug can be at sea for approximately 45 days without refuelling and often the refuelling takes place at sea. The ocean-going tugs are manned to be fully operational at all times and carry stores sufficient for four months.

The harbour tug SVITZER MENJA. Harbour towage operations in Denmark are part of the Scandinavian Region and managed from Gothenburg in Sweden. Most of the ports in Denmark are not big enough for dedicated deployment of tugs and SVITZER tugs therefore rotate between ports as and when required. Besides undertaking harbour towage some of the tugs tow large objects over longer distances. This work includes towing ship sections some 320 nautical miles from shipyards in the Baltic to the Odense Steel Shipyard in Denmark for assembly. During the summer one or two tugs are stationed at a terminal in the most northern part of Norway, Svalbard.

SVITZER terminal tugs berthing a LNG tanker at the ELNG Terminal in Idku, Egypt. The four 65 tonnes Bollard Pull ASD tugs routinely assist such tankers with berthing and unberthing at the Mediterranean facing terminal. The focus is constantly on safety and precision in order to maintain the tankers' voyage schedules without delay. In addition to towage, SVITZER also provides pilotage as well as mooring and line handling services at the terminal.

SVITZER RESPONSE

The rescue services of ESVAGT have increased substantially since the operations started in 1981. Most of the work is done more than 50 nautical miles from the coast on long-term contracts. The modern vessels are equipped for other offshore assignments as well, such as anchor handling, towing, running supplies and anti-pollution response. Demand for these services continues to increase. The below is a computer generated image of the new generation of Area Rescue Vessels that ESVAGT have on order.

Several of the salvage techniques used today remain fundamentally the same as in 1833. Solutions are often crafted on site – equipment is purpose fitted for the specific situation and subcontractors hired for special tasks. The M.V. KIPEROUSA was on a voyage from West Africa to China in 2005 when she ran aground off the East Coast of South Africa. An initial salvage operator failed to remove her from the reef. SVIZTER Salvage was then awarded the contract to recover and redeliver the cargo of logs ashore. The operation required a joint South African/Dutch response team, with the use of barges and tugs to transport the recovered logs. Bad winter storms slowly destroyed the structural integrity of the ship and the salvors eventually had to abandon her – just a few hours before this photo was taken. Later, a demolition was carried out to further weaken the wreck.

175 YEARS OF SAFETY AND SUPPORT AT SEA

In 1833 Em. Z. Svitzer built his salvage business on a careful blend of well suited vessels, skilful employees, comprehensive relationships and information networks, cooperation with the local communities and operations at strategically important locations.

Combining this focus with an ability to recognize the need to adjust and change, SVITZER has overcome tough competitive circumstances, economic recessions, world crises and fundamental technological and market changes for more than 175 years.

Engaged mainly with salvage during its first hundred years, SVITZER expanded into towage, offshore and the emergency response/rescue sector. Becoming part of the A.P. Moller-Maersk Group enabled SVITZER to position itself among the largest towage and response operators in the world.

The strength of the company has been intensified by a portfolio of business sectors, which complement each other well and enable SVITZER to develop new markets through valuable relationships with customers, authorities and business associates around the world – in many ways a strategy not unlike the founding and historical principles.

Today, more than 4,000 SVITZER employees operate some 500 vessels in more than 35 countries, placing SVITZER in a global position as strong as ever.


EGIL

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Furthermore a line of interviews has been made with key persons at SVITZER in the autumn 2007.

Author: Lise Astrup Frandsen, Museum of Copenhagen

Graphics: Lars Møller Nielsen, Studio 8

Photos:
Black and white photos are from the Maritime Museum at Kronborg unless otherwise indicated.
Recent photos provided by SVITZER unless otherwise indicated.
Photos of objects by Museum of Copenhagen.

Print: P.J. Schmidt

7,000 copies

ISBN: 978-87-87137-05-8

For 175 years SVITZER has provided safety and support at sea. Beginning in 1833 with salvage operations in Scandinavian waters the company has expanded its business activities. In 2008 SVITZER is not only amongst the oldest of its kind but one of the leading companies in towage and response with operations all around the globe.

SVITZER