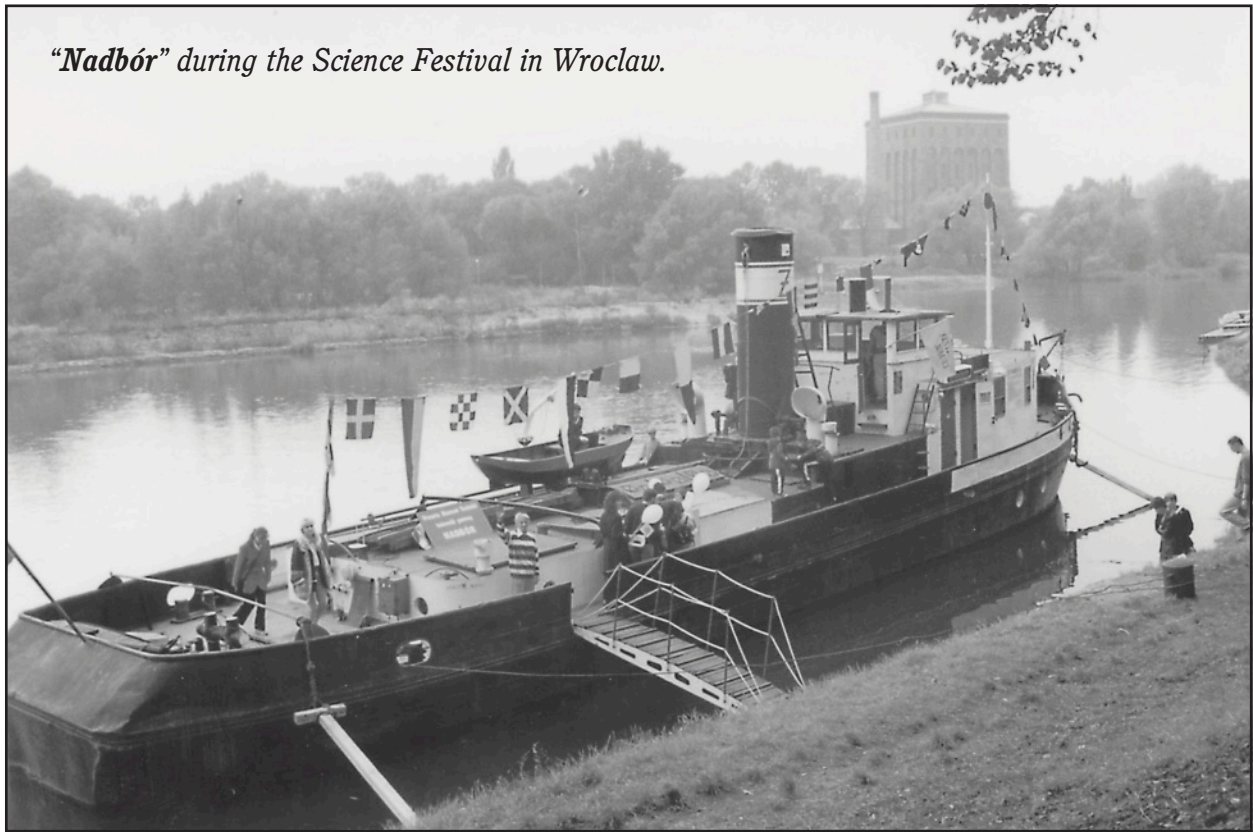


“Nadbór” during the Science Festival in Wrocław.



“Nadbór” - a steam tug, a museum, a laboratory and a school

In July 1998, Dr. Stanislaw Januszewski took over the historic steam tug **“Nadbór”** from its former owner “ODRATRANS” S.A., on behalf of his enterprise, the Technical Monument Study & Documentation Office. Renovation and reconstruction has now started to convert it for use as:

A workroom for ‘The Technical Monument Study & Documentation Office’ (TMSDO), a business undertaking the recording of technical monuments, teaching historical & conservatory studies and involved with all aspects of industrial & technical heritage. It has its own computer data base covering over 7,000 industrial & technical monuments in Poland, including some 50,000 photos and about 10,000 drawings. There are 4 full-time and 6 part-time staff and, since acquiring the steam tug, a boatswain Stanislaw Krocak (who is also a well-known Polish plane and boatbuilding patternmaker), has also been employed.

A lecture hall and exhibition space for the Foundation for the Open Museum of Technology (FOMT) Club.

A museum-ship with all her facilities restored, including the engine and boiler rooms, complete with original machinery.

We are also planning to start an exhibition on the embankment alongside displaying a variety of historical equipment connected with the Oder River such as items used in harbours, shipyards and on boats, as well as flood prevention controls, and environmental equipment concerned with water quality etc. We also hope to open a small café here.

Thanks to the money donated by the TMSDO, ODRATRANS - the local shipping company, TANSA - a hydro-engineering company, and the founders of FOMT, the Wrocław shipyards quickly completed the basic renovation work in 8 months. These included modernisation of the electricity system, shell-plating restoration, anticorrosion and painting work on the hull, deck and superstructures, new thermal insulation, new equipment in cabins and other rooms, audio-visual and anti-burglar equipment.

By the end of May, 1999 the ship has been moored in the outer harbour of the Szczytniki Lock, opposite the Technical University of Wroclaw. Her mooring has been prepared - some works have been done to improve the embankment and mooring posts and to provide the ship with an electricity supply and telephone line. Much of this work could not have been carried out without considerable help from the Water Administration Regional Headquarters in Wroclaw. The final stage of this work was the installation of computers and this was completed on the 1st of March, 1999 when the Technical Monuments Study & Documentation Office (TMSDO) moved aboard the vessel.

Further renovation work will be undertaken. At the same time the tug will be on display and used for various cultural events such as poetry music and drama performances, concerts etc. Restoration work in 1999 will include painting the deck and superstructure, renovation of the wheelhouse and some other works on and under the deck, for instance conservation of the steam engine and boilers, and reconstruction of the ship's auxiliary equipment.

The steam tug "*Nadbór*" is, today, the only fully preserved steam tug in Poland with original steam engine, boiler room, control system, wheelhouse, hull and equipment. After completion of the renovation works it is expected that she will receive her "sailing condition certificate".

A brief history

Part of the 30 million Dutch guilders provided by the Polish-Dutch commercial treaty signed on December 18, 1946 was intended for the purchase of tugs, an essential transport facility

Inside the engine room on "Nadbór"



Renovation works in the Wroclaw River Shipyard.

The steam tug “Nadbór” in the Odra River in 1957; photo: Mieczyslaw Wróblewski.



required for the Oder River at that time. The contract for delivery of these tugs was signed on April 30, 1947. The whole contract had been completed by the Dutch in 1949. Nine tugs of 500 HP and thirteen tugs of 250 HP had been built and they entered service on the canalised section of the Oder River: Gliwice - Kozle - Wrocław. The tug “**Nadbór**” belongs to this second group. Equipment provided for towage comprises:

Slip towing hook, with shock absorbing spring, capable of swinging through 180° and installed amidships, Tow rail across the aft deck.

Sister-ships of the “**Nadbór**” were: “**Swiatopelk**” (The first to be completed. Its name was used to identify the whole class - “Swiatopelk”), “**Bozydar**”, “**Bozymir**”, “**Bronisz**”, “**Chwalislaw**”, “**Jurand**”, “**Mestwin**”, “**Msciwój**”, “**Nadbór**”, “**Radoslaw**”, “**Scibor**”, “**Zbyszko**”, “**Sedziwój**”. Many companies connected with the Dutch shipbuilding industry were involved with the construction of the tugs. Hull and superstructure (1949) were fabricated at the BIJKERS MAATSCHAPIJ shipyard in Gorinchem (build No. 19 / 266 / 115). Main engines and auxiliary machinery (1949) were built by N.V. BOEL’ES SCHEERSWERVEN MASCHINENFABRIEK (build No. 120). Steam boilers (1948) were supplied by J & K SMIT’S KINDERDIJK (build No. 719). The main dimensions of the tug are as follows: length - 28.0 m., breadth - 6.60 m., depth - 2.10, minimum headroom - 3.90 m., draught - 1.10 m., maximum draught with 14 t coal - 1.30 m., displacement: 162.62 m³.

In 1954, the Polish shipyard in Kozle built two additional tugs to the Dutch drawings. They were named “**Bogumil**” and “**Boguslaw**”. They differed from the Dutch tugs in some aspects e.g. a rounded stern was built instead of the angular stern of the Dutch tugs.

After delivery to Poland (Spring 1949), “**Nadbór**” was engaged on the towage service provided for cargo barges on the Odra between Kozle (and Gliwice) and Wrocław, as were the other tugs of this series. This service continued until 1965. In that year, the first push-trains and “combi” type motor barges were brought into service on this route. In a short time these new systems had forced out all the steam vessels.

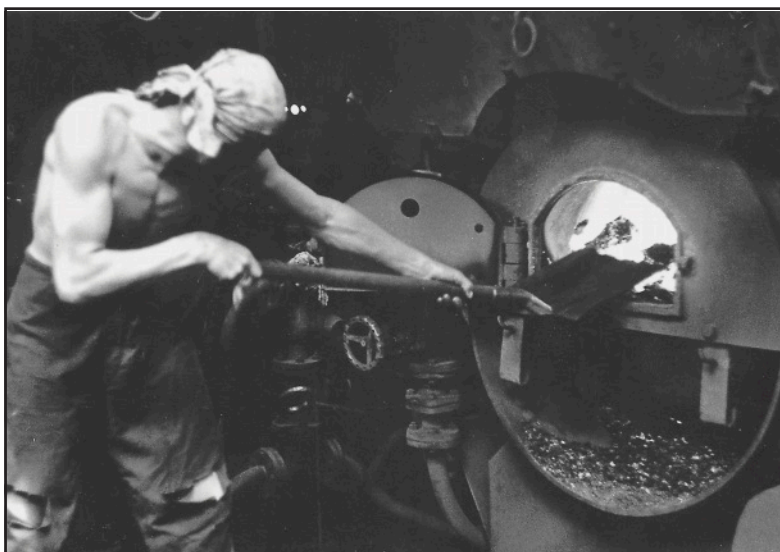
The ST “**Nadbór**”, after withdrawal from commercial service, was used as a floating boiler room in the Repair Base of the Odra Steamship Company from 1968 till 1975. Later (in late 1970s), the tug was used as a power station at a hydro-engineering site in the former Czechoslovakia (on the Elbe). For this purpose, a generating set and electric power distribution station were installed in aft crew compartments.

After returning home in 1982 a trial was undertaken using the tug as an ice-breaker in region of the Wrocław Waterway Authority. Its conversion to an ice-breaker was completed on December

10, 1982. However, it soon became obvious that the tug was not suitable for icebreaking because of its stem shape. Finally, in 1983, the tug was put into storage at "Osobowice I". In 1986 / 87, through the initiative of Mr Marian Szwarc, the PP "Zegluga na Odrze" (Odra Steamship Company) decided to preserve the tug and submit it to legal protection. In 1992, PP "Zegluga na Odrze" was transformed into the ODRATRANS S.A. company which has given the tug, with specific agreements, into the care of the Foundation of Open Museum of Technology. The Foundation has hired out the tug to various people trying to develop it as a small café and museum-vessel on the Oder River in Wrocław. In 1992 - 1993, the tug was displayed at the Hala Targowa quay and then at the inland navigation passenger harbour belonging to the company A.Rysiew & T.Hardejnk. In 1996, the vessel was under the control of the Sea League. Until July 1997, the vessel was kept in the lower outer harbour of the Rózanka lock. Taking into consideration a growing risk of flood, the vessel was moved into storage at "Osobowice I" and effectively protected against damage from flood. On July 16, 1998, the tug was taken over by the BSiDZT, and on July 18, 1998, it was moved to the "Zacisze" shipyard, in a canal harbour belonging to the ODRATRANS company, in order to carry out a survey and necessary repairs. On September 25-26, 1998, the tug was opened to the public on the occasion of a Garden Party organised by a scientific circle of Wrocław and after that it underwent further repair works on the slipway of the Wrocław River Shipyard.

For the sister ships of the "Nadbór", their history was as follows:

- In late 50s, two vessels, "**Mestwin**" and "**Bronisz**", were given to the Zegluga Szczecińska shipping company for transferring barges to and from larger tugs in Wiruchowa and Gryfin and for taking empty barges from Szczecin harbour and forming trains of them in order to tow them up the Oder River.



Inside the boiler room in the 1950s.

of construction. The longitudinal seams of shell plating were riveted and butt joints and the tubular bulwark handrails welded. The deck was also made using composite construction and its upper surface was covered with welded chequer-plate making a non-slip surface. Frames, bottom girders and beams were from the standard steel profiles used in shipbuilding. The steel superstructure was also of composite construction. The upper part of the wheelhouse is fitted with windows and can be folded down after dismantling the roof. The tug funnel is fitted with a counterweight enabling to fold down easily.

Main propulsion. The main propulsion consists of a steam engine of 250 HP output driving a four - blade screw propeller with clockwise rotation. Superheated steam of 16 at. is produced by a Lancashire boiler with 83 m³ heating surface. The screw propeller is of 1500 mm diameter and works in a Kort nozzle at 230 rpm.

- After being retired from use, five tugs of the "Swiatopelk" type were sold to Vietnam for service on the Mekong river. They were delivered in the holds of sea-going vessels.

- Two vessels of this type were probably sold to India but there are no reliable sources confirming this.

- Between the 1970s and 90s all tugs of the "Swiatopelk" type, also called the "Small Dutchmen", were scrapped except for the ST "**Nadbór**".

Construction of the vessel. The hull was made of shipbuilding steel using the composite system

Steering gear. The tug was fitted with hand-operated steering gear. The steering wheel drives a rudder quadrant installed under a grating on the aft deck by means of a shaft and angle gearbox system. Two rudder blades working in parallel are mounted behind and on either side of the Kort nozzle.

Anchor arrangement. The tug is fitted with a second-hand manually-operated rope windlass taken from a towed barge. It was installed on the fore deck. A four-claw anchor of 250 kg mass is kept suspended on a davit. At present, the arrangement is not in an operational condition. Originally, the tug had a steam windlass of chain type and two two-claw anchors. In the Osobowice I base station there is stored and preserved a windlass of the same type, but bigger, taken from a steam tug equipped with a 500 HP engine. This windlass may also be operated manually. At present, it is installed on the tug "**Jarowid**" but it has been decided to remove it from this tug and to display it with the ST "**Nadbór**" on the Wybrzeze Wyspianskiego quay.

Crew. According to the last Navigation Ability Certificate No. 3790 dated February 15, 1983 and valid until October 30, 1985, the crew should include the following persons: skipper having a 2nd class master's certificate, chief engineer having a certificate for operation of steam engines, one deck hand and two stokers. The following persons were the last crew of the tug: skippers - Mr Witold Sobieraj and Mr Wladyslaw Polikowski, chief engineer - Mr Tadeusz Wiewióra, boatswains - Mr Bogumil; Skrzypecki and Mr Janusz Sobieraj and stokers - Mr Stanislaw Chomicz and Mr Józef Kiciak.

Above, we have mentioned the tug "**Jarowid**", one of the "Big Dutchmen" originally equipped with a 500 HP steam engine. They were used on the route Wrocław - Szczecin. The first tugs of this series were delivered to Poland in 1949 and were called:

"**Jarowid**", "**Perkun**" and "**Lada**". The next were: "**Dzoboh**", "**Kupala**", "**Radgost**", "**Tryglaw**", "**Swarozyc**" and "**Zywija**". They were fitted with main propulsion sets originally intended for use on board minesweepers of the British Navy. Therefore, these tugs were the only inland waterway vessels equipped with naval engine room machinery. In 1968/1969, these tugs were withdrawn from service and scrapped. Now, only the hulls of tugs "**Jarowid**" and "**Lada**" exist, together with that of a tug of unknown original name, presently called "**Barka**".

The "**Jarowid**" was experimentally fitted with boilers fired by mazout but this idea was not used on other vessels of this class. In 1972 / 1973, the "**Jarowid**" was converted into a technical service base for pushed barges (a floating workshop) used at first in the Town Harbour and later in Osobowice, part of Wrocław. The "**Lada**" tug was converted into a divers' base and is now located in Szczecin. In Opole, on the Ulga Channel, there is moored an unknown "Big Dutchman" (it may be the former "**Perkun**") now named "**Barka**" and used as a water sport base by scouts. In 1994 / 1995, in the "Odra" shipyard in Wrocław, the last vessels of this class named "**Dzoboh**" and "**Kupala**" were scrapped.

In Wrocław, there is another historic vessel, presently known under the name "**Złota Kaczka**". It is a schooner-rigged cargo sailing barge of the "Groninger" type, built in 1903 at Zwarshuis (Holland). It was originally owned (and used) by Mr Wicher ter Steeg from Meppel and its skipper was Mr Deru Zelf. Documents obtained from Holland show that in 1926 Mr Wicher ter Steeg was its skipper and owner. In the Zwartshuis register, the vessel was recorded as number 161 with the name "**De Drie Gebroeders**" (Three Brothers). There was also a twin-ship named "**De Drie Sisters**" (Three Sisters) and she is still in use as a luxury pleasure boat in Holland. It is known that in 1942 the "**De Drie Gebroeders**" was sailing on Dutch waters. Later, it was employed as a



"Jarowid" in the 1950s; photo: Mieczyslaw Wróblewski.

towed barge by an unknown person and probably used to deliver a cargo to Poland via the German waterways, the Odra, Warta and Notec rivers and thus to the Wisla river where it was finally left. In the 1960s and 70s its was used for an ethnographic exhibition (located in its cargo hold) about the Wisla River and the culture of its drainage-basin. As a floating exhibition hall, the vessel was towed from Warszawa to Gdansk. It has been impossible to find out when and how it arrived in Wroc[ł]aw. It is only known that it was owned for a time by several Wroclaw schools. Finally, it was moored in a bay on the left bank of the Odra river near the Sport Club "Sleza" where it settled on the muddy river bed. In early 1980s, the Polish Scouting Union become the owner of this barge and later, after reorganisation, it became the property of the Polish Republic Scouts Union. Scouts have refurbished the vessel and today use it as their base. Now, they are planning to carry out works aimed at returning the boat almost to its original form (by reconstruction of its rigging and deck equipment.).



On November 12, 1998, the vessel was entered on the administration register of Polish inland waterways vessels under the number III-1229.

We hope to protect the "*Złota Kaczka*" and that, with the "*Nadbór*" tug now being accessible, it will bring to the attention of authorities the importance of this and other Oder River vessels, to their forgotten archives, and to the iconography and cartography of the Oder River in order to present them as permanent elements of the cultural landscape of Wroclaw and as objects belonging to the Open Museum of Technology and to the Spatial Museum of the Oder river.



The office on "*Nadbór*".

