

# Port towage in New Zealand



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## Introduction

During my high school years, I boarded a tugboat for the first time. The engine room in particular made a big impression on me during that visit. Unfortunately, at that time, students without 20/20 vision were not admitted to maritime education. My future followed a different path, but ever since then I have followed the towage industry and wrote about it, among other things in the monthly magazine Lekko. Fortunately, there are many towage companies and shipyards in the Netherlands. In following the many new builds, a few years ago a tugboat was delivered to a regional council in New Zealand. In this day and age of large commercial terminal operators, it is less common for a port authority or a regional council to operate its own tugs. As a result, I became curious and started to learn more about the New Zealand towage industry.

This resulted in a book about towage in the New Zealand ports. The order in which the ports are treated in this book is completely arbitrary. Due to the geographical location of New Zealand, the ports have to deal with different nautical conditions. Every regional council had to decide what was the best solution is for their port towing service. This has resulted in an interesting variety of tailor-made tugboats. However, in recent years there has been a development towards the use of more standard type of tugboats.

Furthermore, this book deals with the commercial companies that operate from these ports. These are companies in the field of marine construction, dredging, salvage and transport. The tugboats operated by those companies are also covered in this book.

At a distance of approximately 15,000 nautical miles, it is quite possible that some details in this book are incorrect or missing. Corrections and/or additions are welcome at: [PortsOfNewZealand@gmail.com](mailto:PortsOfNewZealand@gmail.com)

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# 1. Port Taranaki – New Plymouth

Port Taranaki is centrally located on the west coast of the North Island and is the only deep-water seaport on New Zealand's western seaboard.



The port was established in 1875. In 1881 work on a breakwater began to provide safe anchorage from the Tasman Sea. Port Taranaki is now well sheltered by two breakwaters which extend from either end of a naturally curved bay. Since 1881 the port has grown apace with its province and hinterlands and today handles large volumes of cargoes, principally those of the farming, engineering and petrochemical industries.

Additionally, the port is a servicing base for sea transport and related industries and has, since the beginnings of major offshore and onshore oil exploration in the 1960s, provided related maritime, support and heavy lift services. The port nowadays has nine berths for a wide variety of cargoes and vessels.



*Port of Taranaki – photo: Port Taranaki*

It is also a base for the offshore oil industry. The maximum port draft is 12,5 meters. Port Taranaki offers a full range of services, stevedoring, ship agency and government border protection services. Two berths are available for landing heavy lifts; the breakwater berth can accept almost unlimited weights and Blyde Wharf up to 600 tons distributed load. Mobile cranes capable of lifting up to 70 tons are available. The port has

experience in the handling of large heavy loads. Blyde wharf is serviced by rail, and the port is situated 4 km from the city centre.

The port operates 24 hours a day, seven days a week. The approach to the harbour is safe and easily navigable, with an open roadstead and anchorage in 18-22 meters. Inside the harbour the approach fairways provide a swinging basin up to 410 meters. Vessels can be berthed in most weathers, but draughts in excess of 9,5 meters depend on tide. An unusual feature of the port is that it has a beach within its breakwaters adjacent to its operational area. Port Taranaki is a "Green Award" port. By providing an incentive to owners and managers of Green Award vessels, the port attracts vessels operating with high standards. Towage is compulsory for all vessels; the number of tugs required depends on size of vessel and weather conditions. The tugs are provided by the harbour board.

## **Fleet list**

### ***Maui 1* 1970-2010**

The *Maui 1* was built by the Whangarei Engineering & Construction Co Ltd (WECO), Whangarei, New Zealand under yard number 121 and delivered in 6 March 1970 to the Port Taranaki Authority.



*Maui 1 – photo: Marine Services Auckland*

She was sold on 27 March 2010 to Marine Services Auckland Limited, Auckland, New Zealand. The reason for the sale was because ships at Taranaki were getting bigger and they needed to get in and out of port in all weather; and the tug just was no longer strong enough for the task. After the sale the tug was used during the salvage of the grounded container ship *Rena* in Tauranga in 2011. Main dimensions: length 17,26 meters, breadth 5,50 meters and draught 2,70 meters. GRT: 107 tons. She is powered by two main engines with a total power of 800 bhp/588 kW. They drive two Voith-Schneider propellers. She achieved a bollard pull of 7 tons and a speed of 8,9 knots.

### ***Kupe*** 1970 - 2018

The *Kupe* (IMO 7107194) was built at Whangarei Engineering & Construction Co Ltd, Whangarei, New Zealand under yard number 121 and delivered in 1970 to Wellington Harbour Board, Wellington as *Kupe*. On 8 May 2008 she was transferred to Port Taranaki Ltd, New Plymouth. With the arrival of the *Kinaki* in 2018 she became surplus and put up for sale. In August 2022 she was sold to ABC Diving, Port Vila, Vanuatu. They previously owned the *Waitangi* from Marsden Point.



*Kupe* – photo: Port Taranaki

The *Kupe* has a two-deck superstructure with a flying bridge above the wheelhouse. The flying bridge contains a full set of duplicate controls. Main dimensions: length 31,93 meters, breadth 9,15 meters and draught 5,00 meters. GRT: 304 tons. Displacement: 547 tons at full load. Deadweight: 106 tons. She is powered by two Ruston Paxman 6RK3CM main engines with a total power of 2.750 bhp/2.014 kW. They drive two

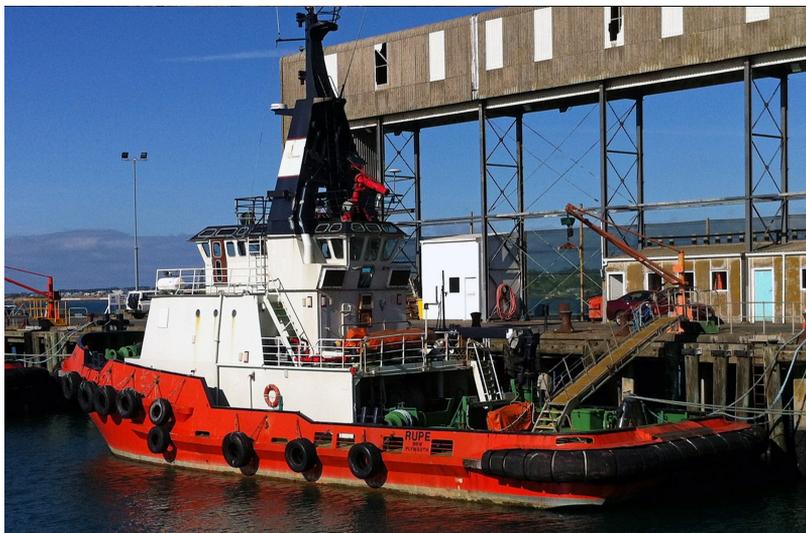
Voith-Schneider 28GII 185 propellers. She achieved a bollard pull of 28 tons and a speed of 12 knots. Electrical power is provided by two Caterpillar D343 50HZ, 3 Phase, 150kVA generator sets. The tug is classed Lloyd Register of Shipping 100A1 Tug LMC UMS. On the after deck a Rapp Hydema double drum hydraulic towing winch is fitted. The winch is of the double drum type, suitable for 180 meters of 88mm SSR1200 Main Line with 15 meters of 41mm Amsteel Blue pennant wire and 550 meters of 42 mm wire, 60 meters nylon stretcher and various 42 mm pennants. Further a 3 tons tugger winch, a Thomas Reid electric windlass, a towing hook with a 30 tons capacity and remote quick release and a fixed staple. A Hiab 1165/1 deck crane, with a max load of 1.000 kg at 6,5 meters, is fitted on the starboard side of the towing winch. A Merryweather Fifi pump of 135m<sup>3</sup>/hr is fitted on the starboard main engine. Water is fed to 2 x manual operated monitors with a total capacity of 13.500 liters/min. Tank Capacities are as follows: fuel oil 133,0 m<sup>3</sup>, fresh water 15,1 m<sup>3</sup>, waste oil and bilge water 1,79 m<sup>3</sup>. The fully air-conditioned accommodation for 12 persons, which comprises of three single berth cabins and 3 x four berth cabins, all with ensuite facilities, separate galley and mess/TV room. The navigation equipment comprises of a Furuno 1942 Mk2 Radar, a Seiwa Tiger GPS to NAVNet Plotter, a Koden CVS 821 echo sounder, Comnav autopilot, SSB and VHF radio.

***Rupe* 1984 -**

The *Rupe* (IMO 8207472) was built at Sims Engineering, Dunedin, New Zealand and was delivered to Port Taranaki in 1984. The tug is registered at New Plymouth.

Main dimensions: length 28,80 meters, breadth 9,00 meters and draught 5,45 meters. GRT: 283 tons. Displacement: 480 tons at full load. Deadweight: 95 tons. She is powered by two Caterpillar 3512 main engines with a total power of 2.350 bhp/1.720 kW. They drive two Liaen (Rolls Royce) azimuth controllable pitch thrusters in a tractor configuration. She achieved a bollard pull of 29 tons and a speed of 10 knots. Electrical power is provided by two Caterpillar 3306 50HZ, 3 Phase, 138kVA generator sets. The tug is classed Lloyd Register of Shipping 100A1 Tug LMC UMS. As well as her primary role supporting operations at Port Taranaki, the *Rupe* has as an FPSO Hose handling vessel since 1997. She has also carried out several coastal towing contracts and provided assistance to disable vessels on the west coast. With her thrusters placed well forward and a large open working deck aft, the *Rupe* is well suited for handling equipment over the

stern, while her precise directional control allows her to work safely close in to a moving vessel.



*Rupe – photo: Port Taranaki*

On the after deck a Sims double drum hydraulic towing winch is fitted with a brake holding power of 55 tons, 15 tons haul at 75m/min line speed. The winch is of the double drum type, suitable for 180 meters of 88mm SSR1200 Main Line with 15 meters of 41mm Amsteel Blue pennant wire and 550 meters of 42 mm wire, 60 meters nylon stretcher and various 42 mm pennants. Further a Sims 2 tons tugger winch, a Sims 3 tons hydraulic windlass, a towing hook with a 30 tons capacity and remote quick release and a fixed staple with a stainless-steel lining. A Unic A500 deck crane, with a max load of 2900 kg at 2 meters or 700 kg at 9 meters, is fitted on the starboard side of the towing winch. Both main engines drive a Mather & Platt Fifi pump of 630m<sup>3</sup>/hr. Water and foam is fed to 2 x manual operated monitors and one hydraulic remote operated monitor with a total capacity of 22.000 liters/min. Tank Capacities are as follows: fuel oil 56,4 m<sup>3</sup>, fresh water 29,2 m<sup>3</sup>, firefighting foam 14,0 m<sup>3</sup>, waste oil and bilge water 2,2 m<sup>3</sup>. The fully air-conditioned accommodation for 9 persons, which comprises of one single berth cabin and four twin berth cabins, all with ensuite facilities, separate galley and mess/TV room. The navigation equipment comprises of a Furuno NAVNet VX2 Radar/Plotter, a Seiwa Tiger GPS to NAVNet Plotter, a Furuno FE400 echo sounder, Wagner Mk4 autopilot, SSB and VHF radio.

**Tuakana** 1996 -

The *Tuakana* (IMO 9134529) was built at Marine Steel, Whangarei, New Zealand with yard number 512276 and was delivered to Port Taranaki in 1996. The tug is registered at New Plymouth.



*Tuakana – photo: Port Taranaki*

Main dimensions: length 30,50 meters, breadth 11,00 meters and draught 4,83 meters. GRT: 347 tons. Displacement: 543 tons at full load. Deadweight: 98,7 tons. She is powered by two Wartsila 9L20 main engines with a total power of 3.950 bhp/2.900 kW. They drive two Voith-Schneider 28GII 185 propellers. She achieved a bollard pull of 40 tons and a speed of 12 knots. Electrical power is provided by two Caterpillar 3306B 50HZ, 3 Phase, 180kVA generator sets. The tug is classed Lloyd Register of Shipping 100A1 Tug LMC UMS. On the after deck a Jaden double drum hydraulic towing winch is fitted with a brake holding power of 80 tons, 10 tons haul at 50m/min line speed. The winch is of the double drum type, suitable for 180 meters of 88mm SSR1200 Main Line with 15 meters of 41mm Amsteel Blue pennant wire and 550 meters of 42 mm wire, 60 meters nylon stretcher and various 42 mm pennants. Further a Jaden 3 tons tugging winch, a towing hook with a 40 tons capacity and remote quick release and a removable staple with a stainless-steel lining. A Palfinger PK8000 deck crane, with a max load of 4300 kg at 2 meters or 750 kg at 9 meters, is fitted on the starboard side of the towing winch. Both main engines drive a Super Titan 630 Fifi pump of 630m<sup>3</sup>/hr. Water and foam is fed to 2 x hydraulic remote operated monitors with a total

capacity of 22.000 liters/min. Tank Capacities are as follows: fuel oil 83,7 m<sup>3</sup>, fresh water 101,2 m<sup>3</sup>, firefighting foam 14,1 m<sup>3</sup>, firefighting foam pyro cool 1,2 m<sup>3</sup>, waste oil and bilge water 2,4 m<sup>3</sup>. The fully air-conditioned accommodation for 6 persons, which comprises three twin berth cabins, all with ensuite facilities, separate galley and mess/TV room. The navigation equipment comprises of a Furuno NAVNet VX2 Radar/Plotter, a Seiwa Tiger GPS to NAVNet Plotter, a JRC JFV850 echo sounder, Comnav autopilot, SSB and VHF radio.

***Tamaki*** 2007-2008 (chartered)

The *Tamaki* (IMO 7226550) was built at Whangarei Engineering & Construction Co Ltd, Whangarei, New Zealand under yard number 130 and delivered on 12-8-1972 to Auckland Harbour Board, Wellington as *Tamaki*.



*Tamaki* – photo: Chris Howell

In 2007 she was chartered by the Port Taranaki Ltd, New Plymouth as a result of the growth of port activities. After the purchase of the *Kupe* in 2008 the tug has been returned to the Auckland Harbour Board. Main dimensions: length 29,67 meters, breadth 8,97 meters and draught 5,15 meters. GRT: 221 tons. Displacement: 547 tons at full load. Deadweight: 340 tons.

She is powered by two English Electric 6 CSRKM main engines with a total power of 1.840 bhp/1.372 kW. They drive two Voith-Schneider 24E/150 six bladed propellers. She has a bollard pull of 20,9 tons and a speed of 12 knots.

***Kinaki*** 2018 -

The *Kinaki* (IMO 9822798) is the first of the Sanmar Delicay tug series and the tug was transported by a heavy lift ship to New Zealand from the builder's yard. Built by Sanmar to the TRAKtor-Z 2500 SX (Sanmar eXclusive) design by Robert Allan Limited, the tug also has considerable technical input from the builder. However, unlike the more common ASD configuration, this series has forward mounted Z-drives in tractor format designed for maximum efficiency in both harbour, ship-handling and towing duties. Built to ABS certification and New Zealand flag requirements.



*Kinaki* – photo: Sanmar

Main dimensions: length 25,3 meters, beam 12 meters and maximum draught 6,1 meters. She is the first of a new series and powered by two Caterpillar 3512CTier II engines, each developing 1.902 kW. These turn Rolls Royce 205 CP Z-drive azimuthing thrusters with 2,500 mm diameter controllable pitch propellers to give a bollard pull of 62 tons ahead and a

free-running speed of 11 knots. A main engine driven Fi-Fi system from FFS of 1400m<sup>3</sup>/hr. is installed. Water and foam are fed to a single FFS remote operated monitor with a capacity of 22.000 liters/min. Electrical power is provided by two Caterpillar C4.4 86 ekW generator sets. The fully air-conditioned accommodation which comprises three twin berth cabins, all with ensuite facilities, separate galley and mess/TV room. Attention to detail is obvious in the wheelhouse where most components can be raised and lowered to suit the operator's convenience. This applies to the Furuno radar screens, engine control consoles and CCTV monitors. Adjustable 'sliders' enable the position of the controls to be positioned for operational comfort. The *Kinaki* has a deck machinery fit-out comprising an aft towing winch by DMT with a 187 tons brake load. Each drum carries 150 meters of 60mm Dyneema rope along with a 15-meter pennant. There are two vertical capstans by Data Hidrolic and a Palfinger boom type deck crane is also fitted. The tug is registered at New Plymouth and her operating limits are restricted to 75nm radius from port Taranaki.