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## On Transfennica's ConRos to Antwerp





## RoPax on board report by Hans Herbert Dünow

Hans Herbert Dünow an experienced naval architect joined a round trip at Transfennicas popular ConRos and describes his impressions and the performance of these vessels:

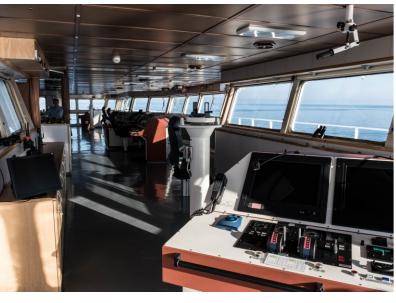
Transfennica invited Hans Herbert on two of their vessels of the ConRo class for a roundtrip from Lübeck to Hanko and from there to Antwerp and back to Lübeck.

Lehmannkai 2 in the Port of Lübeck









Currently Transfennica operates eight vessels to and from the ports Hanko, Rauma and Kotka (Finland), Paldiski (Estonia), Gdynia (Poland), Rostock and Lübeck (Germany) and Antwerp (Belgium) and Tilbury (UK). This fleet comprises five ConRos plus the "Hafnia Sea", "Corona Sea" and the "Bore Sea".

Spliethoff ordered the ConRos in the early 2000s from Stocznia Szczecinska Nowa in Poland. The "Timca" was the first in the series delivered in 2006 and then followed by "Kraftca", "Genca", "Trica", "Pulpca" and "Plyca". Once delivered, they were among the largest RoRos in the Baltic.

The deadweight is 17600 t and cargo carrying capacity is abt. 15500 t. A capacity of 2963 lm is provided for all types of RoRo cargo and a total of 640 TEU can be carried in the open-top hatchless container hold forward in the bow section and on the weather deck. In the aft of the superstructure there are removable cell guides as well. Three 6000-m³/h air dryers are installed in the holds to keep forest products dry. A pair of 9 m² fin stabilisers limits damage to the cargo by ship movement. Heeling during cargo operations is controlled by an air-actuated 3000 m³ anti-heeling system.

The ships are built for speed. The twin-screw arrangement with a pair of Wärtsilä 12V46C engines of 12,600 kW at 500 rpm each, driving a propeller of 5.4 m at 121 rpm gives a service speed of 22.7 kts. The propellers run in conjunction with efficiency flap rudders. Two bow thrusters of each 1250 kW are installed in connection with an anti-suction tunnel. Electric power is provided by two shaft generators of 1700 kW each and two Wärtsilä 8L20C auxiliary engines of 1300 kW. All engines burn HFO.

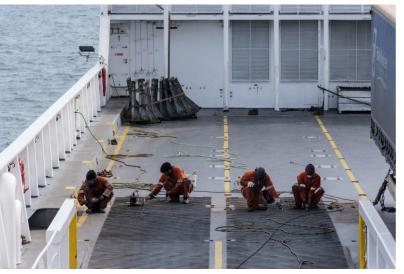
The basic design wisdom is the three Fs: FFF – Form Follows Function. The outcome of such design effort then pleases the eye. This is certainly the case with these beautiful ConRos. They are the white swans of the Baltic. While this may sound a bit too poetic, it nevertheless is appropriate. Since the demise of the elegant reefer vessels of the 50s and 60s you hardly see a cargo ship nowadays in a white colour scheme. A white ship comes with the commitment to keep it white and the owner Spliethoff lives up to it in an impressive way.



On Sunday morning, July 21<sup>st</sup> I checked in at the Transfennica's office in Lübeck. I went on board "Genca" at 9:00 and had some time to watch cargo operations. With me there were five truck drivers on board. At 12:30 engines were started and we sailed down the Trave with nice sunny weather. This kind of weather we would enjoy for the rest of the roundtrip with only one rain shower in the North Sea. Travemünde beach was quite crowded and the "Travemünde Sailing Week" added to the number of people enjoying themselves along the promenade. It looked just like Lübeck's Copacabana.

We departed Lübeck with 2900 t of cargo on a draft of 7 m. At a speed of 14.5 kts we sailed in combinatory mode with the engine speed reduced to 370 rpm. Electric power in this case is supplied by one gen set.

On Monday morning the 3<sup>rd</sup> mate gave me an extensive tour of the ship, including the lifeboat, room with FiFi equipment, CO2 room, mooring stations, forecastle up to the scrubber room. Scrubbers were installed some years after the ships' delivery; on "Genca" it was in 2013. The scrubbers can be run either as open loop or as closed loop systems, which allows burning HFO throughout. Finland and the Netherlands still allow the open loop systems and in German and Belgian ports the closed loop mode must be used. Two tanks of total 56 m<sup>3</sup> are provided to collect the scrubber sludge. Since the closed loop system is used only for short times the tank capacity suffices for several months. The closed loop system is more complex and should stricter regulations require permanent operation, this would mean increased maintenance work for the engine crew. So the engineers are happy with the status quo.



## Transfennica offers relaxed schedule

During coffee break at 10:00 on the bridge, the captain and the officers discussed the scenario for the planned FiFi drill at 10:20, which was performed without surprises. Captain and officers seemed satisfied with the training level of the crew.

When schedules allow, Transfernica chooses to sail at eco speed to reduce fuel consumption and CO2 emissions. To quote Transfernica's website: "An environmentally friendly approach is to a great extent based on efficient use of resources."









Spending many hours on the bridge offered a good opportunity to listen to the seafarers' stories e.g. "Genca's" captain Arie Walraven told me that he started as a young man with Spliethoff and has never worked for any other company. This is now 42 years ago. Spliethoff's versatile and worldwide trading fleet offered all opportunities he could ask for as a sailor. He mentioned that he is not a special case in the company, where also some Filipino sailors have worked for 30 years. Ever increasing paperwork and stricter regulations do not make life any easier for a captain, but that is just part of the job. To manoeuvre a large vessel is his passion. Transfennica's service with various port calls will give him some more satisfying years. Hanko was the port for the chief mate to train his manoeuvring skills.

On Tuesday 23<sup>rd</sup> we were scheduled in Hanko with ramp down at 6:00 and this goal we achieved exactly. Engines were restarted at 9:30 and we left with 1900 t of cargo for Paldiski. At a light draft of 6.7 m we ran full ahead with 21-22 kts. We reached Paldiski on time, ramp down at 12:40. Engines were started again at 15:00 and back to Hanko at full speed with 1600 t of cargo. Scheduled arrival was 18:00 and ramp was down at 18:05.

I left "Genca" for a night in Hanko, which allowed me some sightseeing in this lovely little town.

Wednesday, 24<sup>th</sup> – After some confusion regarding my whereabouts, "Timca's" Captain Sergei Kozyrev apparently worried I might have got lost in Hanko (in Hanko!), I came on board at 15:00. Chief mate Kalev and the captain gave me a very friendly welcome, so that I felt comfortable on board right away. We were 6 passengers and the service by the cook and his crew was excellent.

We left Hanko at 15:30 with 9200 t of cargo, 3000 t were paper as STORO and on cassettes, on a draft of 7.5 m at the bow and 7.9 m aft. We carried 1600 t of ballast water. To make the 1200 nm to Antwerp from quay to quay with the scheduled arrival of 6:00 ramp down we had to run full ahead. With only one lock operating in Brunsbüttel the passage of the Kiel Canal with waiting times of 2-12 hours clearly would put the ETA at risk. Therefore it was decided to sail around Skagen via the Drogden Channel passing Copenhagen airport. The channel is rather narrow and shallow and max speed is only 7-8 kts.









The chief engineer had still to play with ballast and trim to achieve the acceptable draft for the channel.

As mentioned before, the ships were built for speed and now we needed it, the schedule did not give any slack. A performance monitoring system is installed with a screen on the bridge. Target curves are presenting the ideal values for the six ConRos for daily fuel consumption and fuel consumption per nautical mile over speed. Both, "Genca" and "Timca", were very close or even better than the target curve, depending on wave height and draft. Measured values are transmitted to the Amsterdam office. The hull is regularly inspected and when green growth shows, inwater cleaning is arranged at a Finnish port, which occurs once a year.

Summer season is painting season. "Timca" at her tender age of 18 looks like coming fresh out of the yard, the same is true for "Genca" and I am sure also for the other ConRos. Normally she sails with a crew of 20, but now one additional AB is on board to support maintenance work and prepare the ship for the winter. Additionally, one electrician is on board for 8 weeks to check and maintain all electric equipment. He will then be transferred to another vessel. The company provides a cherry picker at regular intervals for maintenance at spots high above the deck.

## **Drogden Channel - Copenhagen**

Thursday, 25<sup>th</sup> – When I came to the bridge after breakfast, Captain Sergei asked me how I slept and we came to discuss vibrations. According to him at constant speed of 500 rpm "Timca" is the quietest of the six. In this context he explained that the last two ships "Pulpca" and "Plyca" were fitted with twisted flap rudders instead of the original efficiency flap rudders. According to him they provide a clearly higher manoeuvring force.

Meanwhile the chief engineer prepared "Timca" for the Drogden channel. By pumping 600 t of ballast over board and pumping more into the forepeak draft aft now is 7.6 m, which is sufficient for the water level reported for the day at the channel and which shall not change significantly over the next hours. On a draft of 7.5 m and a speed of 7 kts the ship has a squat of 0.7 m in shallow waters. Squat is the effect that due to the low-pressure area of higher flow velocity of the water at the stern and propeller the ship is sucked down increasing the draft aft.

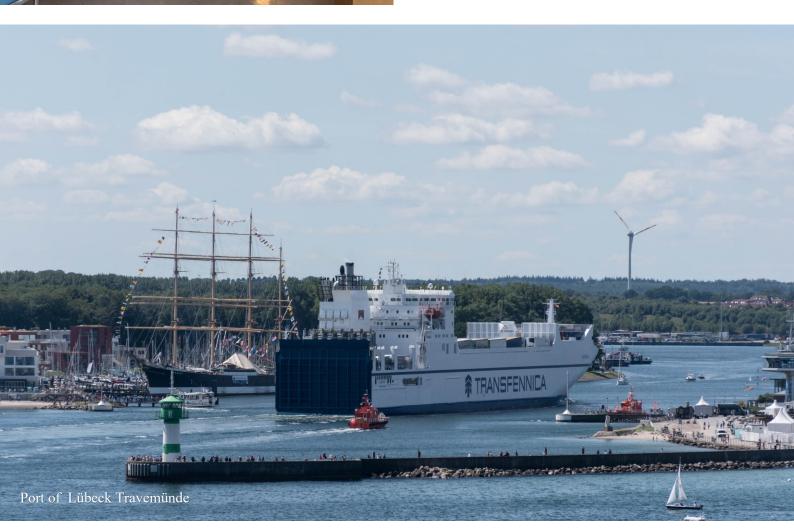




After breakfast a FiFi drill was carried out, which was a fresh-up course on the RoRo deck. A few new Filipino crew came on board and the captain wanted to make sure that all of them were up to the same level of training. Captain Sergei is another example of loyal Spliethoff sailor with 20 years, chief mate Alev, a young man, started in the company as a cadet 9 years ago and has not left since. Bosun Michael from the Philippines has sailed on "Timca" for 8 years and knows the ship in and out under all possible operating conditions.

Friday, 26<sup>th</sup>, started out with some rain but then turned into a nice sunny day in the North Sea. At 22:00 the Scheldt sea pilot came on board and before midnight the river pilot at Flushing replaced him.

Saturday,  $27^{th}$  – The night I stayed on the bridge enjoying the river with the impressive sights of illuminated industries and ports. We moored at 5:00, ramp down, ready for cargo operations to start at 6:00. The bunker barge came alongside for the delivery of 960 t of fuel. Already at 13:30 we left with 3600 t of cargo and 2900 t of ballast on a draft of 6.9 m. Scheduled arrival in Lübeck was Monday 15:00.











The quiet Sunday, 28th, at sea was celebrated with drinks and nice snacks before lunch prepared by the cook. In Germany we call that "Frühschoppen". The cook prepared nice snacks to go with the German beer. The beer time is an old Spliethoff tradition for Sundays at sea. Nowadays with the crew retiring to their cabins and entertaining themselves with mobile or tablet, such tradition appears particularly important. The Filipino crew enjoyed their karaoke the evening before. A perfectly prepared steak topped up the beer time. In the afternoon the wind freshened up to a westerly Bf 6 with wave height increasing to 2 m so that the stabilisers were rigged out. Captain explained that the route around Skagen means to burn more fuel than going through the Kiel Canal. The costs for the fuel should be about the same as the costs for the canal passage including canal charges, one tug in Brunsbüttel, pilots and canal helmsmen. With a delay of several hours in the canal, higher speed would be required to maintain the schedule and would probably burn even more fuel

Monday, 29<sup>th</sup>, we entered the bay of Lübeck with the "Genca" following us closely coming from Rostock. Lübeck is Captain Kozyrev's favourite port, because the Transfennica's office staff manages extremely well to fill up the available space on the ships.

My very interesting trip ended here, and I enjoyed every hour, thanks to the friendly crew. Both ships "Genca" and "Timca" were on time with every port call. This may not appear so impressive in the summer lull with less cargo and continuous nice weather. It would be interesting to experience the service under harsh fall and winter conditions with more cargo, ice and rough sea. Nevertheless, with the ships in immaculate condition, experienced crew and office staff, Transfennica probably could not be better prepared to deal with such challenges.

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