

PECULIARITIES OF TRANSPORTING OF PETROCHEMICAL CARGOES

TRANSPORTING OF DANGEROUS GOODS, INCLUDING OIL AND PETROCHEMICAL CARGOES, REQUIRES THE MAXIMUM QUALIFICATION OF A TRANSPORT AND LOGISTICS COMPANY. THERE IS A NEED IN THE HIGH-QUALITY AND RELIABLE SERVICE, COUPLED WITH THE USE OF MODERN LOGISTICS SCHEMES AND TECHNICAL CAPABILITIES. OLEG YATSENKO, A MEMBER OF THE BOARD OF ISR TRANS, TOLD ABOUT THE MAIN LOGISTICS SCHEMES, TECHNOLOGIES FOR LOADING/UNLOADING OF LIQUID CARGOES IN RUSSIA AND ABROAD, THE SPECIFICS OF THE WORK AND PLANS FOR THE NEAR FUTURE

KEYWORDS: *ISR Trans, transporting of petroleum products, logistics, loading and unloading of petrochemical cargoes, tank containers, rail tank cars.*



Oleg Yatsenko,
member of the
Board of Directors of
LLC ISR Trans

– What are the requirements to transporting of petrochemical cargoes today?

– As a matter of fact, these requirements are very high, and the main one is safety. The services for transporting of petrochemical cargoes offered by ISR Trans Company meet all modern standards. We are professionals in transporting liquid chemical cargoes, including nitrilacrylic acid and acetonitrile from the Saratovorgsintez plant, which is included into the group of enterprises of Lukoil PJSC. We prepare and maintain chemical tank containers used for transportation in strict accordance with the standards. Inner tanks of such tank containers should be made of high-quality stainless steel resistant to exposure of chemicals. In addition, they pass the cleaning system before being supplied to the loading site, which guarantees safety and quality of transportation.

– Tell us about your equipment fleet. How often is it renovated? What should the tank containers be equipped with?

– For today, ISR Trans has an extensive fleet of 550 chemical tank

containers, which ensure complete transportation of all liquid products from the Saratovorgsintez plant, which is about 170 thousand tons per year.

The chemical tank container consists of a movable tank, placed inside the frame of a standard 20-foot dry container. This design allows transporting by any type of transport: by sea, river, railway and road. Tank container is not self-propelled: for example, when transported by rail it is placed on a fitting platform. Unlike rail tank cars, tank containers do not have any restrictions on the period of use.

Every 2.5 years, tank containers are inspected by a competent supervisory authority – the Russian Sea Register of Navigation. That is, tank containers do not require constant refurbishment, which is their undoubted advantage. For today, the basis of the fleet of ISR Trans is comprised of tank containers manufactured in 2011 and 2013.

Our tank containers were built at the CIMC factory (China) – the largest manufacturer of tank containers in the world. They have vandal-proof equipment: The pallets of tank containers

ADS



with shut-off valves and valves are closed with a cover. The top surface of the tank container is fully equipped with metal tracks, which keeps the container itself from damage and provides convenient loading and moving around the container. Tank containers are equipped with pressure gauges (pressure sensors) and pressure relief valves.

– What logistics solutions do you offer for the oil refining industry?

– ISR Trans offers a full range of logistics solutions necessary for our clients. This is the classic way to transport tank containers on a 40-foot platform by rail: tank containers staying on the platform are delivered to the factory, loaded and passed to the customer, then at the point of shipping, they can be unloaded also without being removed from the platform. Moreover, ISR Trans provides logistic services for transporting of petroleum products to the port



of departure, where the tank container is reloaded to the sea line and delivered to the port of destination. There we use container yards for storage, from where the tank containers are shipped onto trucks with further delivery of products to the end consumer.

– How is the cargo forwarded in your company? Tell us about the specifics of working with the customer at all stages of transportation.

– For today, ISR Trans is the exclusive cargo carrier that delivers the products of Saratovorgsintez throughout Russia and abroad. This service has been provided as part of the implementation of the strategic partnership program between ISR Trans and Lukoil PJSC since 2011. We signed an agreement on the transportation of acetonitrile and nitrilacrylic acid with Lukoil. The company had at that time a fleet of 300 chemical tanks designed to carry nitrilacrylic acid. These tanks were to be decommissioned within 3-5 years due to the expiry of their service life. ISR Trans purchased these tanks at their residual cost. Some tanks were decommissioned, and as for the rest, they were refurbished to extend their service life. At the same time, ISR Trans placed orders for the construction of tank containers and platforms. Thus, within two years ISR Trans took chemical tanks out of operation by replacing them with modern tank containers without stopping to transport 100% of volume of Lukoil PJSC products.

– In what areas does the company carry out logistics?

– ISR Trans transport both in Russia and abroad, with delivering goods to the final consumers of the Russian Federation and for export via overland passages and seaports. So, for today there are three core areas – export transporting to the port of Ventspils with further transshipment and transporting by sea, transporting to the final consumer to Hungary through the territory of Ukraine to the city of Nyergesujfalu, where the raw materials delivered by us are used to produce carbon fibers for the production of blades for wind power generators. In addition, ISR Trans provides transportation to a number of consignees in Russia.

– What about the infrastructure and additional equipment?

– At the moment, there is a difference in the approach of unloading-loading of liquid cargoes at enterprises in Russia and abroad. In Russia it is allowed to load/unload tank containers by use of flange connection: on both sides of fastening there are two flanges connected by a gasket and bolts for a sealed connection. In Europe, they use "dry break" fitting "Todo Matic", which is attached to the tank by analogy with fire hoses: it is inserted, rotated, and at the moment of complete slamming of outside locking connections, valves open inside on both sides and allow an access to the product. At the slightest signs of leaking in the locking connection, the valves close.

The Todo fittings are fully automatic and help avoid spills. The second part of the protection is the key in fastening of the Todo fittings, which is necessary if there are several types of chemical products in the warehouse. It excludes the so-called "human factor", because it is suitable only for specific product, for example, nitrile of acrylic acid. When connected to the fittings to load-unload other substances, the connection will fail. In the very beginning, we faced the problem that loading at the factory in Russia was carried out with the help of a flange connection, and unloading in Europe – with the help of the "Todo" fittings. Therefore first we began to use the adapter to the flange of the tank container for connection to "Todo". And afterwards ISR Trans jointly with CIMC developed and built unique tank containers with double fittings: flanged and "Todo".

– What are the main risks associated with?

– Saratovorgsintez has a small tank farm for storage of finished products. And the main risk that ISR Trans may face is the delay of tank containers when unloading. As with the long return of empty tank containers, there is a risk of filling the company's tank farm and, as a consequence, a partial or complete shut-down of the plant. But for today we are proud to say that since 2011 ISR Trans provides stable transporting of all the products from the enterprise.

– What areas are you planning to develop in this field in the near future?

– ISR Trans is planning to develop the transportation of liquefied hydrocarbon gases (LHG) in tank containers. At the moment, we are considering the possibility of acquiring 10 trial 40-foot gas tank containers. This will be the first 40-foot gas tank containers that will be used on the Russian market. ●



EVENT CALENDAR

May 8

Iranian Oil and Gas Summit

Sharing Experience and Technologies

Tehran

May 15

International Conference

Natural Gas Motor Fuel: infrastructure 2018

Moscow

May 16 – May 18

2nd International Exhibition of Equipment and Technologies of Chemical, Oil and Gas Industry

AktobeNefteKhim 2018

Aktobe

May 22 – May 24

6th Annual Conference

Base Oils and Lubricants in the CIS

Moscow

MAY

S	6	13	20	27	
M	7	14	21	28	
T	1	8	15	22	29
W	2	9	16	23	30
T	3	10	17	24	31
F	4	11	18	25	
S	5	12	19	26	

May 18

XV International Conference

Shelf Development in Russia and the CIS - 2018

Москва

May 23 – May 25

The XXVI International Exhibition

Gas. Oil. Technologies

Ufa

May 29 – June 1

25th International Exhibition and Conference

Caspian Oil and Gas

Baku