

# HEAVY LIFT MAGAZINE



### TRANSPORTATION OF OVERSIZED **FACTORY MACHINES**





#### **Route:**

Shanghai (China) - Pinsk (Belarus)



#### Cargo:

Factory machines



#### **Delivery volume:**

30 tons



#### **Transport:**

Shipping from Shanghai by sea using a short 20ft Flat Rack platform and 40ft Flat Rack. By means of a low loader platform, the goods were transported from the Polish coast to Pinsk (Belarus).





- 1. Shipment coordination in China
- 2. Reservation of containers
- **3.** Transshipment in the Port of Gdansk
- 4. Customs clearance





### TRANSPORT OF A WOODWORKING LINE





#### **Route:**

Shanghai (China) - Gdansk (Poland) - Grodno (Belarus)



#### Cargo:

Wood processing line.



#### **Delivery volume:**

16 units of oversized cargo, a line 4 meters wide with a weight of 200 tons.



### **Transport:**

Parts from the factory in Shanghai to Gdansk were transported in 4 standard containers. The line was delivered from Poland to Belarus (Grodno) with standard trucks.





- 1. Sea freight
- 2. Delivery to the warehouse
- 3. Storage and monitoring of cargo
- 4. Delivery from a warehouse to Belarus





### TRANSPORT OF A GRAIN COMBINE





#### **Route:**

Poznan (Poland) - Xingang (China)



#### Cargo:

Combine harvester.



#### **Delivery volume:**

6.5 mm L \* 34 m W \* 4 m H. Total weight of 15 tons.





- 1. Delivery to the warehouse
- 2. Reloading to Flat Rack platform
- 3. Delivery to the Port of Gdansk
- 4. Sea freight to China





### TRANSPORTATION OF A TECHNOLOGICAL LINE FOR CONSTRUCTION OF A FACTORY





#### **Route:**

Lippstadt (Germany) – Gdansk (Poland) – Tianjin (China)



#### Cargo:

Technological line.



#### **Delivery volume:**

Ring with a diameter of 4 meters.





- 1. Delivery from the factory to a warehouse in Germany
- 2. Mounting on a Flat Rack platform
- 3. Sea freight from the port of Hamburg
- 4. Delivery to China





### TRANSPORT OF A WOODWORKING LINE





#### **Route:**

Luxembourg - Novovolynsk (Ukraine)



#### Cargo:

Factory machines.



#### **Delivery volume:**

8,000 tons.







### AsstrA services:

Comprehensive services included crane loading, cargo handling, and multimodal transportation. From Luxembourg, the structural elements were delivered by road to the nearest port. Then the trucks were loaded onto a ship sailing to the Port of Gdynia. From Gdynia, the products were placed on vehicles and delivered to the final recipient in Novovolynsk.

- 1. Organization of loading
- 2. Fastening the elements on vehicles
- 3. Preparation of documents for customs clearance







### TRANSPORTATION OF TRANSFORMERS AND **COMPONENT PARTS**





#### **Route:**

Ukraine - Belarus



#### Cargo:

Two transformers with a shifted center of gravity and accessories for the construction site of a solar power station.



#### **Delivery volume:**

Over 4 meters in length and 3.7 in height. Total weight of 56 tons. Each transformer was accompanied by 13-ton component parts.



#### **Transport:**

Rail transportation with subsequent transportation and delivery by road.





- 1. Delivery of 6 universal railway platforms and two conveyors
- 2. Prompt release of goods upon arrival at the destination station
- 3. Use of a unique removable load-gripping mechanism to evenly distribute the load on the crane







### TRANSPORTATION OF CHELPIPE GROUP





#### **Route:**

Chelyabinsk (Russia) - Amur (Russia)



#### Cargo:

Industrial pipes for the construction of Amur TPP production lines.

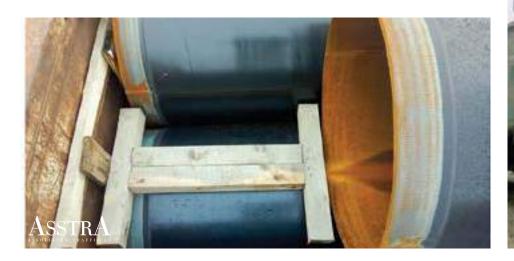


#### **Delivery volume:**

12 meter metal pipes with a diameter of 530, 720, and 1020 mm with a weight of 1,500 tons.



Delivery took place by road and rail. A total of 50 wagons were shipped. Pipe overloading on the truck was carried out using special overlays for hooks.









## TRANSPORTATION OF OVERSIZED MACHINES WITH SPECIALIZED EQUIPMENT





#### **Route:**

Italy - Nizhny Novgorod Oblast (Russia)



#### Cargo:

Oversized machines with specialized equipment.



#### **Delivery volume:**

16 oversized machines.



#### **Transport:**

In batches, the cargo was delivered in standard tents with transshipment in a warehouse in Poland.









### TRANSPORTATION OF A GRAIN **AND FORAGE HARVESTER**





#### Маршрут:

Санта Рита (Парагвай) - Дурбан (ЮАР)



#### Груз:

Зерноуборочный и кормоуборочный комбайнеры.



#### Объем доставки:

Габаритные размеры превышали 10 метров. Общий вес 25 тонн.



- 1. Organization of sea transportation on the specified route
- 2. Ordering special equipment for sending cargo from the river port of departure in Villet
- 3. Installation of additional fastenings for cargo







### TRANSPORTATION OF OVERSIZED **CARGO FROM CHINA TO RUSSIA**





#### **Route:**

Xiamen (China) - Moscow



#### Cargo:

Equipment (vacuum chamber with components)



#### **Details:**

5,800 x 3,600 x 3,700, 13 tons  $3,800 \times 1,800 \times 2,000, 3 \text{ tons}$ 



#### **Transport:**

Vehicles specially adapted to ship oversized cargo





### AsstrA Services:

- 1. Road transport in China
- 2. Transshipment and warehouse storage in Manchuria
- 3. Control weighing
- 4. Export customs clearance in China with all necessary document preparation
- **5.** Road transportation in Russia
- 6. Customs guarantee in Russia
- 7. Temporary warehouse storage warehouse in Zabaikalsk
- 8. Cargo insurance against all risks

The cargo was delivered in a record time of 25 days from the moment of receipt of the order application. The AsstrA team was able to find an appropriate car in China within only one day. After traveling 11,000 km in snowy and icy conditions, the cargo arrived in Moscow on December 17. A new delivery scheme was used for its transportation: direct road transportation with reloading at the border. Under this scheme, the cargo is delivered 1.5-2 times faster than by sea, with similar pricing conditions.







### TRANSPORTATION OF TUNNEL SHIELDING FOR THE MINSK METRO





#### **Route:**

France - Belarus



#### Cargo:

Tunnel shield in 20 pieces of oversized cargo



#### **Details:**

Weights from 30 to 60 tons, width of more than 4 meters



#### **Transportation scheme:**

20 units of AsstrA's own and borrowed "tifbet" equipment, semi-trailers with from 3 to 7 axles



### **AsstrA Services:**

- 1. Organizing the necessary transport and accompanying documents. Complex solutions for loading, placing, and securing the cargo
- 2. Supply of specialized transport for loading / unloading of equipment
- 3. Transshipment, fastening
- 4. Customs services

Preparation for the transportation of the tunnel shield took more than 3 months due to the necessity of obtaining special French permits for shipping oversized cargo. Because of the complex technical features of the cargo, AsstrA used uniquely designed rolling stock and developed a plan for fastening and positioning of the load during transport.









### TRANSPORTATION OF **WOODWORKING EQUIPMENT**





#### **Route:**

France - Hungary



#### Cargo:

Woodworking equipment



#### **Details:**

2 rings with widths of 8.5 meters



### Delivery scheme: Combined auto-river-a

Combined auto-river-auto delivery scheme using specialized AsstrA vehicles



### **AsstrA Services:**

Preparation for transport took 3 months.

- 1. Organization of transport and accompanying documents
- 2. Complex solutions for loading, placing, and securing cargo
- 3. Supply of specialized transport for loading/unloading of equipment
- 4. Transshipment, fastening
- 5. Customs processing for cargo









### TRANSPORTATION OF **SPECIAL VEHICLES**





#### **Route:**

Kremenchug, Ukraine to Laem Chabang, Thailand



#### Cargo:

7 vehicles specialized



#### **Details:**

9 x 2.75 x 3.3 m



#### Cargo weight:

13 tons



#### **Delivery scheme:**

Intermodal involving vehicles specialized for the transportation of oversized cargo and a roll-on-roll-off sea vessel





### AsstrA Services:

- 1. Development and execution of the logistics chain
- 2. Transit customs processing for cargo
- 3. Cargo insurance
- 4. Survey inspection
- **5.** Technical support
- 6. Consulting during transportation



### **Special features of the project:**

- 1. High costs associated with customs clearance
- 2. AsstrA documents incorporated into the buyer-seller contract so as to facilitate the purchase transaction
- 3. Tight delivery times







### TRANSPORTATION OF ELECTRIC **STEEL-SMELTING COMPLEX**





#### **Route:**

Germany (Lingen, Hopsten) - Belarus (Brest) - Russia (Pervouralsk)



#### Cargo:

Cargo:
Equipment for building electric steel-smelting complex



#### **Size of the largest parts:**

11,714 x 3,717 x 4,000 mm 9,900 x 3,717 x 4,000 mm 10,400 x 3,717 x 4,000 mm 4,500 x 3,600 x 3,650 mm 5,290 x 3,600 x 3,650 mm









### **TRANSPORTATION OF GRAB TRUCK**





#### **Route:**

Berlin (Germany) - Brest-Severny Station (Belarus) -Magnitogorsk-Gruzovoy Station (Russia)



#### Cargo:

Mechanical loader and grab bucket



#### **Loader details:**

2,200 x 2,200 x 2,300 mm, 1,500 kg



#### Transport:

Specialized vehicle, universal open-goods wagon, open-goods wagon







### AsstrA Services:

Branch offices of the AsstrA corporate group in Brest (Belarus) and in Poznan (Poland) worked on this project. The road part of the transportation was executed using AsstrA's own rolling stock.



### **Special features of the project:**

Transhipment of cargo at the Brest-North station on an open-goods wagon and onward delivery to the final receiver via railway.







### TRANSPORTATION OF **A MILL FOUNDATION**





#### **Route:**

Radomir (Bulgaria) - Brest-Severny Station (Belarus) -Chaglinka Station (Kazakhstan)



#### **Details:**

4 positions: 7,390 x 3,695 x 3,015 mm, 24,300 kg 8 positions: 7,230 x 3,615 x 3,015 mm, 20,700 kg 4 positions: 7,680 x 3,840 x 3,015 mm, 25,400 kg





16 vehicles specialized, 8 universal open-goods wagons, 8 4-axis areal-type conveyors. AsstrA corporate group branch offices in Brest (Belarus) and in Poznan (Poland) worked on this project. The whole project was completed quickly







- 1. The road part of the transportation was carried out using AsstrA's own rolling
- 2. Transhipment of cargo at the Brest-North Station on rolling stock and delivery to the final receiver by rail
- 3. Coordination of oversized transportation by rail and transportation by suppliers
- 4. Sending empty conveyors belonging KZH for loading in Brest







### TRANSPORTATION OF **TRAVELING CRANES**





#### **Route:**

Germany - Belarus



#### Cargo:

**Traveling cranes** 



#### **Details:**

**Details.**27,700 x 3,550 x 3000 mm, 41,000 kg 27,700 x 3,550 x 3,000 mm, 43,000 kg

#### **Transport:**



For the project, low-frame high-capacity extendible semitrailers were used







- 1. Organization and execution of fastening of the loads on rolling stock
- 2. Registration of special permits for the entire transport route during a short period of seasonal weight restrictions in Belarus
- 3. Organization of car support and the police escort





### TRANSPORTATION FOR THE **PULP AND PAPER INDUSTRY**





#### **Route:**

Port of Gdynia (Poland) - Port of Świecie (Poland)



#### Cargo:

Equipment for the pulp and paper industry





1 x 1,850 x 300 x 300 cm, 100 tons

1 x 1,650 x 300 x 300 cm, 70 tons

1 x 1,570 x 300 x 300 cm, 65 tons

1 x 1,450 x 300 x 300 cm, 59 tons

2 x 1,350 x 300 x 300 cm, 52 tons



#### **Transport:**

Specialized trailers loaded on pontoons







### AsstrA Services:

- 1. Organization of roll-on-roll-off berths at departure and destination points.
- 2. River transportation by pontoons



### **Special features of the project:**

- 1. Non-standard, heavy cargo
- 2. In view of the difficulties of loading and unloading of goods of such weight, transportation was organized without transshipment of the cranes
- 3. Changing water levels created considerable difficulties for stabilizing the pontoons and the use of the special transport's off-ramp







### TRANSPORTATION FOR THE **OIL-REFINING INDUSTRY**





#### **Route:**

Krefeld (Germany) - Mozyr (Belarus)



#### Cargo:

2 barrels of equipment for the oil refining industry



#### **Loader details:**

2 x 1,250 x 440 x 430 cm, 30.0 tons



#### **Transport:**

AsstrA group's own transport











- 1. Route inspection
- **2.** Issuance of special permits
- 3. Road transportation by the AsstrA corporate group's own transport
- 4. Organization of car support (pilot) and a police escort











### TRANSPORTATION OF **EOLIC GENERATORS**





#### **Route:**

Germany/ Holland - Brest, Belarus - Azerbaijan



#### Cargo:

**Eolic generators** 



#### **Loader details:**

	Length, mm	Width, mm	Height, mm	Weight gross, kg
4 units	4,110	4,100	2,390	6,600
4 units	13,700	3,920	4,020	26,300
4 units	19,900	3,240	3,520	25,500
4 units	23,100	2,690	2,790	19,200
4 units	9,170	3,500	3,710	36,400
4 units	27,500	2,540	3,200	13,300
4 units	3,250	2,900	2,260	3,500
4 units	3,250	2,900	2,260	3,500



#### **Transport:**

- 25 vehicles specialized
- 11 universal railway platforms
- 4 specialized 80' well wagons
- 4 long-wheelbase container platforms
- 4 4-axis platform-type conveyors
- 2 4-axle soaking-pit type conveyers



- 1. Route inspection
- 2. Issuance of special permits
- 3. Road transportation by the AsstrA corporate group's own transport
- 4. Organization of car support (pilot) and a police escort











### TRANSPORTATION OF LIFT INSTALLATION PARTS





#### **Route:**

Czech Republic/Poland - Brest - Russia



#### **Details:**

13,580 x 2,400 x 1,900 mm, 75,104 kg 6,000 x 3,030 x 2,600 mm, 24,698 kg 6,000 x 3,030 x 2,600 mm, 24,698 kg 8,300 x 1,700 x 1,500 mm, 37,000 kg



#### **Transport:**

- 1. Shipping to Brest was executed with 4 of AsstrA's own trucks
- 2. Cargo was loaded onto railway rolling stock with 160-ton hoisting cranes at the Brest-North Station
- 3. For railway transportation, 8-axle platform type transporters and 2 universal platforms were used







### **AsstrA Services:**

- 1. Transportation
- 2. Cargo customs services
- 3. Consolidation
- 4. Transshipment of cargo
- 5. Transit declaration
- **6.** Fastening, coordination, and dispatch of oversized cargo by railway

Branch offices of the the AsstrA corporate group in Brest (Belarus) and in Poznan (Poland) worked on this project.







### TRANSPORTATION OF **INDUSTRIAL CARGO**





#### **Route:**

From France and Germany to Russia



#### Cargo:

Industrial cargo



#### **Loader details:**

3,500 x 2,300 x 3,400 mm, 3,000 kg 8,600 x 2,990 x 4,300 mm, 9,800 kg 8,600 x 2,990 x 4,300 mm, 9,800 kg 8,000 x 2,990 x 4,100 mm, 8,050 kg 6,120 x 4,350 × 2 920 mm, 14,300 kg 5,280 x 2,250 x 3,700 mm, 2,900 kg 5,280 x 2 250 x 3,700 mm, 2,900 kg 5,280 x 2,250 x 3,700 mm, 2,900 kg



#### **Transport:**

- 1. Delivery to the Port of Luebeck from France and Germany was carried out by road trains specialized
- 2. In the Port of Luebeck, cargo was transshipped on MAFI-trailers and delivered by ferry line to the Port of St. Petersburg
- 3. In the Port of Sant Petersburg, the cargo was transshipped on specialized rolling stock and delivered to the recipient's door



### **AsstrA Services:**

- 1. Transportation
- 2. Cargo export customs processing
- 3. Cargo consolidation of cargo in the Port of Luebeck
- 4. Organization of car support (pilot) and police escort
- 5. Arranging the route in places of road repair in Germany
- 6. Transit declaration in Russia
- 7. VTT design in the Port of St. Petersburg



### **Special features of the project:**

Cargo consolidation in the Port of Luebeck made it possible to achieve optimal placement of goods on MAFI-trailers and rolling stock in Russia, regardless of the fact that the goods were originally loaded at different times and in different places.







### **TRANSPORTATION OF A DRILLER**





#### **Route:**

Koshekhabl (Republic of Adygea) - Libucha (Poland)



#### Cargo:

Driller



#### **Details:**

11,650 x 2,650 x 3,000, 13,450 kg 8,300 x 3,200 x 3,300, 22,200 kg 12,200 x 3,050 x 2,900, 10,100 kg 14,530 x 3,250 x 3,050, 45,500 kg 8,500 x 2,800 x 2,700, 5,300 kg 11,600 x 2 500 x 300, 7,700 kg 11,650 x 3,000 x 3,450, 17,490 kg 12,050 x 2,600 x 2,970, 8,600 kg 11,650 x 3,000 x 3,000,18,650 kg 21,500 x 3,450 x 2,160, 29,300 kg 11,650 x 3,000 x 3,100, 18,980 kg 8,130 x4,050 x 3,300, 3,690 kg 11,600 x 3,100 x 32,500, 20,300 kg 8,130 x 4,050 x 3,300, 33,690 kg

11,000 x 2,950 x 1,250, 12,350 kg 7,150 x 2,200 x 3,500, 16,300 kg 11,600 x 3,100 x 32,500, 21,150 kg 11,650 x 2,500 x 1,160, 8,500 kg 11,600 x 2,700 x 2,750, 19,540 kg 4,650 x 2,500 x 2,650, 8,500 kg 6,150 x 3,000 x 2,600, 6,200 kg



### **AsstrA Services:**

- 1. Planning all stages of transportation
- 2. The implementation of transportation
- 3. Cargo export customs processing
- 4. Organization of car support (Russia, Poland) and police escort (Ukraine)



### Special features of the project:

Although all the equipment components shared the same places of loading and unloading, not all of the components traveled along the same route. Four road trains with the heaviest cargo could not pass over a bridge located 50 km from the place of customs clearance. Since alternative routes would add to costs and delivery time of delivery, AsstrA specialists arranged that customs officers be present at the route's end point. 20 transport units specially equipped for oversized cargo were used.



#### **Transport:**

20 transport units specially equipped for oversized cargo







### TRANSPORTATION OF ROPEWAY **CARRIAGE PULLEYS**





#### **Route:**

France - Russia



#### Cargo:

6 ropeway pulleys



#### **Details:**

5,220 x 3,500 x 4,204 mm, 4,610 kg



#### **Transport:**

A road train consisting of a specialized 0.4 meter high "Tifbet" semitrailer before transshipment locations in Poland, and a road train consisting of a 0.9 meter high "tieflader" semiltrailer from transshipment locations in **Poland** 



### AsstrA Services:

Shipping, special permits, organization of car support, transshipment of cargo, movement of the pulleys between the fastenings on the vehicle frame for rolling stock changes.



### **Special features of the project:**

For cost optimization and transit country compliance, 2 types of rolling stock were used for each consignment: 0.4 meter high "Tifbet" semitrailer in France and Germany and 0.9 meter high "tieflader" semitrailer in other countries. To change the rolling stock over to the semitrailer with more loading height, the pulleys were re-fastened on the transport frame with a change of the slope angle.









### TRANSPORTATION OF EQUIPMENT FOR **ROCK WOOL PRODUCTION**





#### **Route:**

Slovenia - Russia



#### Cargo:

Equipment for the production of rock wool



#### **Details:**

10,200 x 2,600 x 3,800 mm, 22,000 kg



#### **Transport:**

Road train within a specialized 0.4 meter high "Tifbet" semitrailer





### **AsstrA Services:**

Delivery, registration of special permits, organization of a simultaneous arrival with a standard road train.







### **TRANSPORTATION OF PRESS PARTS**





#### **Route:**

Czech Republic - Brest, Belarus - Russia



#### Cargo:

**Press parts** 



#### **Details:**

3,840 x 3,600 x 1,850 mm, 40,000 kg 4,720 x 2,940 x 3,480 mm, 50,000 kg



#### **Transport:**

Transportation to Brest in 2 vehicles specialized, transshipment in Brest and onward rail transport on 1 universal railway platform







### **AsstrA Services:**

AsstrA corporte group branch offices in Brest (Belarus) and in Poznan (Poland) worked on this project.

- 1. Road transportation
- 2. Transshipment of cargo
- 3. Fastening, coordination, and rail transport of oversized cargo







### **TRANSPORTATION OF BOILERS**





#### **Route:**

Italy - Brest, Belarus - Kazakhstan



#### Cargo:

Boilers



#### **Details:**

7,700 x 3,200 x 3,630 mm, 30,000 kg 6,200 x 2,740 x 3,200 mm, 21,000 kg







### **AsstrA Services:**

The branch office in Brest (Belarus) worked on this project.

- 1. Road transportation
- 2. Transshipment of cargo
- 3. Fastening, coordination, and rail transport of oversized cargo





### TRANSPORTATION OF CYLINDER-CONIVAL TANKS FOR A BREWERY COMPANY





#### **Route:**

Randers (Denmark) - Klaipeda (Lithuania) - Minsk (Belarus)



#### Cargo:

Cylindrical-conical tanks, each weighing 20.0 tons and with a volume of 240 cubic meters



#### **Transport:**

- 1. Sea transportation from the Port of Randers to the Port of Klaipeda
- 2. Trucking from the Port of Klaipeda to Minsk







### **AsstrA Services:**

- 1. Development of the transportation scheme
- 2. Transshipment and securing of the cargo on the ship
- 3. Sea transportation
- 4. Comprehensive support for cargo loading / unloading
- 5. Inspection of the Lithuania Belarus route
- **6.** Obtaining the necessary permits for large cargo transportation
- 7. Organization of a police escort
- 8. Cargo customs processing



### **Special features of the project:**

Because the loaded car was about 6 meters high, it was necessar to involve public authorities who could lift power wires during transport so as not to come into contact with the tanks. The load itself touched the bottom of the trailer in only two points and, so as to avoid damage, required a car extension and various other special measures such as placement of special gaskets and pneumatic and hydraulic adjustments. An mportant requirement was to maintain - especially during loading - was full controllability of the vehicle axles so as to allow for the necessary maneuvering on turns and at the relatively tight entrance to the plant for a 28.5 meter loaded car with a trailer.



### TRANSPORTATION OF **RESERVOIRS FOR WINERY**





#### **Route:**

The Port of Ortona, Italy - the Port of Sevastopol, Ukraine



#### Cargo:

19 winery reservoirs



#### **Details for each reservoir:**

13,500 mm x 5,100 mm x 5,200 mm, 13,500 kg



#### Transport:

- Section 1. The Port of Ortona, Italy the Port of Sevastopol, Ukraine: 1 sea vessel
- Phase 2. Port of Sevastopol, Ukraine: road trains specialized for oversized cargo: 4 units for 5 consecutive transshipments in Poland







### **AsstrA Services:**

Ten days before the execution of the ground leg of the project, technical obstacles appeared that made it impossible to raise the contact trolleybus cable network above one of the streets on the previously arranged route through Sevastopol. An alternate route was found that allowed the quickest available shipment without compromising service quality.

- 1. Transportation by sea from the Port of Orton to the Port of Sevastopol
- 2. Releasing of cargo and transshipment from the vessel to the automotive platform in the Port of Sevastopol via an indirect ship-shore-trailer route.
- 3. Road transport from the Port of Sevastopol, Ukraine



### **Special features of the project:**

- Route inspection at the Port of Sevastopo
- Disconnection of power lines and lifting of power lines by the tower
- Disconnection and lifting of the trolleybus power line network by the overhead wiring tower
- Disconnection of high-voltage power lines (due to the 5.8 meter height of the road trains, there was a risk of discharge under the high-voltage power lines)
- Convoy of 4 road trains with an escort of 3 traffic police patrol cars
- Pilot support to ensure the safety of the cargo
- Routing traffic under three bridges to free up the oncoming traffic lane so as to ensure sufficient ground clearance for the road trains
- Because of a cement divider, traffic in the convoy's lane could not easily be diverted to the other side of the street and then back again. Therefore traffic on Sevastapol's ring road flowed in the opposite lane for 8 km amd required the involvement of GAI thanks to many intersections and lights



### TRANSPORTATION OF METALLURGICAL **EQUIPMENT**





#### **Route:**

Germany - Russia



#### Cargo:

Metallurgical equipment



#### **Details:**

7,400 x 3,110 x 1,100 mm, 21,000 kg 7,400 x 3,110 x 1,100 mm,21,000 kg 7,400 x 3,110 x 1,100 mm, 21,000 kg 7,400 x 3,110 x 1,100 mm, 21,000 kg 13,000 x 2,000 x 1,200 mm, 40,000 kg 13,000 x 2,000 x 2,000 mm, 46,500 kg



#### **Transport:**

- 1. Delivery to the Port of Kiel was carried out by vehicles specialized
- 2. Delivery from the Port of Kiel to the Port of St. Petersburg was carried out by regular ferry line
- **3.** Delivery from the Port of Sant Petersburg to the recipient was carried out by vehicles specialized



### AsstrA Services:

- 1. Road transportation
- 2. Organization of transportation support
- 3. Cargo transshipment at the Ports of Kiel and St. Petersburg



### **Special features of the project:**

Thanks to teamwork, the time required to complete all stages of delivery was minimized. The AsstrA branch in Brest (Belarus) worked on the project.









### TRANSPORTATION OF MACHINE TOOLS





#### **Route:**

France - Russia



#### Cargo:

Machine tools for machine-building plant



#### **Details:**

415 x 300 x 370 cm, 4,000 kg 355 x 215 x 160 cm, 950 kg 415 x 300 x 370 cm, 5,300 kg 185 x 70 x 240 cm, 550 kg 415 x 300 x 370 cm, 4,000 kg 255 x 205 x 312 cm, 2,250 kg 205 x 125 x 240 cm, 1,200 kg 480 x 240 x 315 cm, 20,000 kg 400 x 160 x 150 cm, 3,000 kg 430 x 170 x 315 cm, 14,500 kg 293 x 108 x 157 cm, 1,100 kg 118 x 118 x 135 cm, 520 kg 118 x 118 x 135 cm, 520 kg 276 x 156 x 122 cm, 1,100 kg



#### **Transport:**

- 1. Delivery to the Port of Antwerp was carried out by vehicles specialized
- 2. Delivery from the Port of Antwerp to the Port of Sant Petersburg was carried out by regular ferry line
- **3.** Delivery from the Port of St. Petersburg to the recipient was carried out by vehicles specialized



### AsstrA Services:

- 1. Road transportation
- 2. Cargo packing
- **3.** Cargo storage in an open warehouse
- 4. Cargo transshipment at the ports of Antwerp and St. Petersburg



### **Special features of the project:**

AsstrA provided storage of cargo in an open warehouse for more than a month. The AsstrA branch office in Brest (Belarus) worked on the project.











### TRANSPORTATION OF VAPORIZERS FOR A TOBACCO PLANT





#### **Route:**

Germany - Russia



#### Cargo:

Vaporizers for a tobacco plant



#### **Loader details:**

18,000 x 1,300 x 1,700 mm, 5,140 kg 18,000 x 1,400 x 1,800 mm, 5,480 kg 18,000 x 1,400 x 1,800 mm, 5,480 kg 18,000 x 1,700 x 2,100 mm, 7,100 kg 18,000 x 1,350 x 1,750 mm, 5,570 kg 18,000 x 1,400 x 1,800 mm, 5,480 kg 18,000 x 1,500 x 1,900 mm, 7,160 kg



#### **Transport:**

Delivery was carried out using 7 telescopic road trains





### AsstrA Services:

- 1. Road transportation
- 2. Organization support
- 3. Development of technology for loading and securing of cargo on rolling stock



### **Special features of the project:**

This technically difficult project was handled smoothly, and the cargo arrived on time. The AsstrA branch office in Brest (Belarus) worked on the project.





### TRANSPORTATION OF **FACTORY PARTS**





#### **Route:**

Road leg: Wuhan (Hubei, China) - Shanghai (China) Sea leg: Port of Shanghai (China) - South Port TIS (Odessa region, Ukraine)



#### Cargo:

Oversized and heavy parts for a vegetable oil production plant



#### **Details:**

12 units with a total weight about 200 tons, including 19-meter long air conditioning equipment weighing 80 tons



#### Transport:

7 road trains specialized for transportation of oversized cargo and a heavy lifter ship



### **AsstrA Services:**

- 1. Organization of loading on vehicles
- 2. Transportation by road to the Port of Shanghai
- 3. In-port forwarding and reloading to the ship in Shanghai
- 4. Delivery by sea from the Shanghai Port to South Port TIS



### Special features of the project:

The search for the carrier was complicated because of the need to accommodate the entire cargo in holds without the possibility of stacking or fastening on the hold covers. Due to long holidays in China and warehouse storage conditions, it was necessary to charter a ship and remove the cargo from the warehouse in Wuhan in only 3 days. At the same time, the cargo did not constitute a full cargo lot, and no direct transportation was available heavy cargo to the South Port of TIS. Nevertheless, all stages of transportation were implemented in the required time. The AsstrA branch office in Kiev (Ukraine) worked on this project.











### TRANSPORTATION OF VEGETABLE **OIL PRODUCTION EQUIPMENT**





#### **Route:**

Road leg 1: Calencano / Bergamo / Treviso(Italy) - Port of Ravenna (Italy)

Sea leg: Port of Ravenna (Italy) to Novorossiysk Port

Road leg 2: Port of Novorossiysk (Russia) to Balakovo (Russia)



#### Cargo:

Outsized and heavy parts of the plant for the production of vegetable oils



#### **Details:**

A total amount of 23 units with a total weight about 300 tons, including some 5-meter wide cargo



#### Transport:

18 road trains specialized for transportation of oversized cargo and a liner ship







### **AsstrA Services:**

- 1. Road transportation
- 2. Intra-port forwarding and reloading to the vessel,
- 3. Sea shipping
- 4. Registration of transit, customs guarantees, and loading of road trains



### Special features of the project:

Competent time-management allowed the quick organization of this project. The short notice periods complicated the arrival of all cargo for simultaneous shipment at the Port of Ravenna, but coordinated efforts to obtain special permits, along with good planning for rolling stock, allowed the delivery process to begin and end on time. The AsstrA branch office in Brest (Belarus) worked on the project.







### **TRANSPORTATION OF DRILL RIGS**





#### **Route:**

Czech Republic - Brest, Belarus - Russia



#### Cargo:

Drill rigs, 2 units



#### **Dimensions:**

2,837 x 2,837 x 810 mm



#### Unit weight of cargo:



#### **Transport:**

Transportation to Brest in 2 vehicles specialized for transportation of oversized and heavy cargo with the possibility of self-arrival of wheeled and tracked vehicles. Transshipment in Brest via and end-ramp and onward rail shipment with a specialized platform with a length of 24 meters







### **AsstrA Services:**

The branch office in Brest (Belarus) worked on the project.

- 1. Road transportation
- 2. Transshipment
- 3. Fastening, coordination, and rail transport of oversized cargo







## TRANSPORTATION OF **FOUNDRY MOLDS**





### **Route:**

Czech Republic - Brest, Belarus - Russia



## Cargo:

2 foundry molds



## **Loader details:**

2,837 x 2,837 x 810 mm



## Unit weight of cargo:

31,810 kg



### **Transport:**

- 1. Transportation to Brest via 2 vehicles specialized for transportation of oversized and heavy cargo
- 2. Transshipment in Brest and shipment by rail using 1 universal platform







## **AsstrA Services:**

AsstrA branch offices in Brest (Belarus) and Poznan (Poland) worked on the project.

- 1. Road transport
- 2. Transshipment, fastening
- 3. Railway transportation









## TRANSPORTATION OF **CYLINDER-CONICAL TANKS**





### **Route:**

Rechytsa (Belarus) - Bobruisk (Belarus)



### Cargo:

4 cylindrical-conical tanks



## **Loader details:**

17,100 x 4,453 x 4,453 mm



## **Cargo unit weight:**

15,000 kg



#### **Transport:**

Transportation was carried out in 2 stages with 2 vehicles specialized for transportation of oversized and heavy cargo



## AsstrA Services:

The AsstrA branch office in Brest worked on the project. Transportation was carried out with AsstrA rolling stock.

- 1. Manufacture of supports for CCT transport
- 2. The preparation of permits and overall project
- 3. The preparation of the crane use plan
- 4. Loading of CCT on cars from vertical position
- 5. Load fastening
- **6.** Road transportation
- 7. Support vehicles cover and traffic police escort
- 8. Raising wires throughout the travel route
- **9.** Unloading of cargo from cars and installation in a vertical position







## **Special features of the project:**

For this CCT transportation AsstrA made a stand in Brest and delivered it to Rechytsa. For loading on the CCT machine it was necessary to transfer from the vertical to horizontal position. This was done with 2 cranes, around which the project was specifically designed. The CCTs were unloaded in vertical position directly from the machines.



## FREIGHT FOR AN OIL **PROCESSING PLANT**





### **Route:**

Chernivtsi (Ukraine) - Achinsk (Krasnoyarsk region, Russia)



### **Details:**

T 1 001 - 39,900 x 2,800 x 2,380, 38,000 kg T 3 202 - 36,130 x 4,590 x 4 130, 61,930 kg T 3 105 - 19,200 x 4,450 x 410, 45,000 kg





### **Transport:**

Transportation was carried out with vehicles specialized for transportation of oversized and heavy cargoes





## **AsstrA Services:**

- 1. The preparation of permits and project for transportation in Ukraine and Russia
- 2. Fastening of the cargo on the platform
- 3. Road transportation
- 4. Support car cover and traffic police escort along the route



## **Special features of the project:**

Transportation of the equipment was carried out according to a plan specially developed in collaboration with the traffic police and with the use of open and telescopic platforms that are able to transport cargo with a length up to 40 meters and weighing up to 110 tons, with 1 back-up. Fan overhead crane with a lift capacity of 100 tons was used for loading. Loading one piece of equipment on a vehicle took an average of 1.5-2 hours.







## TRANSPORTATION OF WOOD PROCESSING EQUIPMENT





#### **Route:**

Brasov - Braila - Rostov-on-don - Kolomna - Egorevsk



### **Details:**

2 units: 856 x 856 x 100. 45 tonnes each 2 units: 714 x 714 x 200, 35 tonnes each 14 units: 700 x 360 x 303, 12 tonnes each



#### Transport:

Road trains with low-frame trailers of various capacities, mobile cranes with lift capacities of 50 and 350 tonnes. a "Konak" river-sea ship, an "Oka-25" self-propelled river cargo ship, a crane with a lifting capacity of 250 tons, car escort and cover







## AsstrA Services:

- 1. ΠRoute planning in RO and RU
- 2. Obtaining all permits, inspection of bridges
- 3. Shipping along route
- 4. Traffic police support, partial clearing of the route to allow passage of trucks with a width of 8.5 m.
- **5.** Paperwork in the port, transshipment on the ship, fastening
- 6. Transportation by the vessel with transshipment on a barge
- 7. Organization of acceptance of the vessel in the Port of Kolomna
- 8. Organization of cargo unloading from the vessel to the berth with further loading on vehicles by floating crane and mobile cranes
- 9. Organization of temporary storage of cargo at the port
- 10. Delivery of cargo to the final recipient by road transportation



## **Special features of the project:**

Transportation was carried out according to a combined scheme, which included 3 different modes of transport. AsstrA specialists needed not only to develop a route scheme, make a preliminary survey, and obtain all necessary permits, but also to coordinate the work of all contractors. Transportation involved road trains with semi-trailers for the transportation of oversized cargo, cranes of various capacities, traffic police cars to accompany the ship, and self-propelled dry cargo.



# TRANSPORTATION OF A ROAD ROLLER





### **Route:**

Italy - Kazakhstan



## Cargo:

**Road-rollers** 



### **Details:**

680 cm x 255 cm x 305 cm, 21,000 kg 495 cm x 174 cm x 335 cm, 9,100 kg



### **Transport:**

A combined scheme using car and rail transport

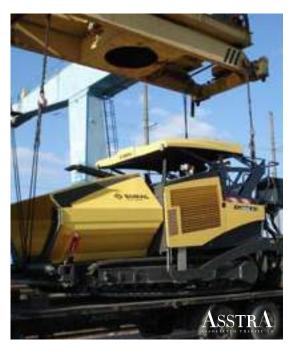






## **Special features of the project:**

Due to the short delivery time, AsstrA specialists developed a clear schedule for the supply of vehicles for loading, obtaining special permits, and the movement of vehicles in transit. In Brest, consolidation of all cargo was carried out. Taking into account the dimensions and weight of the cargo, the AsstrA specialists developed two specific schemes of loading and fastening the cargo on railway platforms.







# TRANSPORTATION OF FOOD INDUSTRY EQUIPMENT





### **Route:**

Parma (Italy) - Moscow (Russia)



## Cargo:

Food industry equipment



## **Cargo dimensions:**

Width of 6 m



### **Transport:**

Road vehicles with special platforms for oversized cargo



## **Special features of the project:**

Due to the large width of the cargo, the preparation of the entire project took almost 5 weeks. Transportation required a special escort along the route. In Ukraine and Russia, the cargo was convoyed by traffic police. As transportation took place in the midst of the political events in February in Ukraine, it was necessary to pass through barricades along the way.











## **SHIPPING JUICE PRODUCTION CONTAINERS**





## **Route:**

Germany - Ukraine (Nikolaev)



## Cargo:

Juice production containers



## **Loader details:**

17.3 x 3.6 x 3.45 m, 9 tons



## **Transport:**

2 specialized low loaders

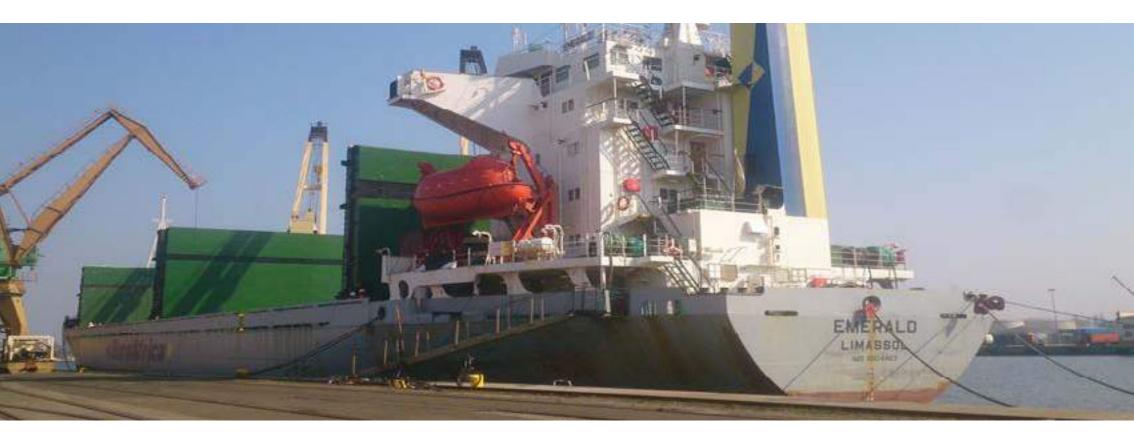


- 1. The development of the transportation scheme
- 2. Organization of car support
- 3. Carriage
- 4. Storage of cargo after customs clearance





## TRANSPORTATION OF A MANUFACTURING PLANT TO AFRICA





#### **Route:**

Poznan (Poland) - Abidjan (Cote D'Ivoire)



### Cargo:

Asphalt production plant



### **Details:**

17 oversized vehicles with a maximum height of 4.62 m



#### **Transport:**

Specialized road transport and sea vessel





## **AsstrA Services:**

- 1. The development of the transportation scheme
- 2. The preparation of all necessary documents
- **3.** Preparation of schemes for fastening the cargo on the ship
- 4. Delivery to port
- 5. Control over transshipment from road transport to ship
- **6.** Unloading at the Port of Abidjan
- 7. Customs support in Abidjan



## **Special features of the project:**

Shipment time was one month. The most difficult part of this project was clearing customs in Abidjan as it required electronic registration of all goods in the internal customs system for the ports of Cote D'Ivoire. AsstrA specialists nevertheless successfully completed the shipment and gained invaluable experience working with this delivery destination.









### **Route:**

Poland - Belgium



## Cargo:

Helicopter



## **Transport:**

AsstrA's own specialized auto transport







## **AsstrA Services:**

- 1. The development of the transportation scheme
- 2. Execution of all necessary documents
- 3. The preparation of cargo fastening schemes



## **Special features of the project:**

Transportation of specialized equipment must accommodate the cargo's weight and non-standard dimensions. Railway transport is mainly used for transportation. Due to the cargo's significant mass and difficulties associated with fastening it, road transport is rarely possible.

AsstrA specialists developed a special scheme for fastening the helicopter, so the cargo was quickly delivered to the destination in one piece.







## TRANSPORTATION OF EDIBLE **OIL PRODUCTION EQUIPMENT**





#### **Route:**

Italy - Kazan (Russia)



### Cargo:

Equipment for the production of edible oils and fats



### **Details:**

Maximum width of 5 meters, maximum height of 4 meters 18 total cargo spaces



### Transport:

Transportation was carried out according to a combined road-sea scheme. In the process of transportation, a sea vessel was involved, as well as 15 units of special land transport cargo equipment







## **AsstrA Services:**

- 1. The development of a transportation scheme
- 2. Registration of all necessary documents
- 3. Preparation of cargo fastening schemes on the vessel
- 4. Delivery to port
- 5. Monitoring transshipment from road transport to vessel
- 6. Unloading at the Port of Klaipeda
- 7. Organizing a police escort along the entire route



## **Special features of the project:**

Given the unfavorable situation in Ukraine, during project preparation it was urgently necessary to redirect transportation through the Port of Klaipeda. In addition, there were strict requirements concerning the preparation of documents. Given these circumstances, delivery to the destination took about three months. Almost all land transportation was accompanied by a police car according to a strict schedule, with coordination of oncoming traffic in problem areas.



## TRANSPORTATION OF **STEAM BOILERS**





#### **Route:**

Italy - Uzbekistan



### Cargo:

Steam boilers



### **Details:**

3 unit: 8,467 x 3,232 x 3,670 mm, 40,000 kg each 1 unit: 10,100 x 3,350 x 3,820 mm, 51,000 kg



## **Transport:**

Specialized vehicles, among them parts of AsstrA's own fleet. Rail transshipment was carried out for in Brest using a 4 four-axle transporter belonging to the Russian and Belarusian Railways







## **AsstrA Services:**

- 1. The development of a transportation scheme
- 2. Execution of all necessary documents
- 3. Preparation of cargo securing schemes on railway transport
- 4. Road transportation to the railway station in Brest
- **5.** Monitoring transshipment from road transport to railway
- **6.** Organizing a police escort along the entire route



## **Special features of the project:**

The route was difficult. The cargo was divided into two parts: the first was transported from Italy to Brest, the second from Italy to Poland, where it was transshipped for further transportation to Brest. Almost all land transportation was accompanied by a police car according to a strict schedule with coordination of oncoming traffic in problem areas.

The cargo was then shipped in full by rail from Brest to its destination in Uzbekistan.



## **TRANSPORTATION OF PRESS PARTS**





### **Route:**

Czech Republic - Russia



## Cargo:

**Press parts** 



## **Details:**

700 x 3 350 x 1 950 mm, 49,000 kg 5 900 x 2 750 x 2 900 mm, 69,000 kg



### **Transport:**

Transportation was carried out on a hybrid car-train. From the Czech Republic cargo was transported to Brest, where it was transshipped onto rail and sent to the place of unloading in Russia. Transportation was carried out using AsstrA's own vehicles specialized for the transportation of oversized and heavy cargo, as well as on universal railway platforms







- 1. The development of the transportation scheme
- 2. Execution of all necessary documents
- 3. Preparation of schemes for securing the cargo on railway transport
- 4. Road transportation to the railway station in Brest
- **5.** Control of transshipment from road transport to railway
- **6.** Organizing a police escort along the entire route







## TRANSPORT OF INDUSTRIAL **EQUIPMENT**





### **Route:**

Germany - Czech Republic - Ufa (Russia)



### Cargo:

24 units of industrial equipment



### **Loader details:**

Maximum cargo width 8.20 m, with each unit weighing up to 45,000 kg



#### **Transport:**

Combined auto-sea-river-auto scheme











## **AsstrA Services:**

- **1.** The development of the transportation scheme
- 2. Cargo customs processing
- 3. Specialized transport for loading / unloading of equipment in ports
- 4. Development of a system for securing the cargo
- 5. Construction of special substrates for securing loads properly



## **Special features of the project:**

Transportation lasted 2 months. It started simultaneously from Germany and the Czech Republic. The German part of the cargo was transported to the Port of Hamm, from where the barge was sent to the Port of Szczecin (Poland). The second part of the cargo came from the Czech Republic and was delivered to Szczecin by road. After the arrival of both parts, the cargo was transshipped onto a vessel which took it to the Port of Sant Petersburg and then along the Volga river to the river port in Togliatti. From Togliatti transportation was carried out by specialized vehicles.

The impressive width of the cargo complicated the transportation process. The original delivery plan had to be revised repeatedly. Repair of roads and unexpected changes in the conditions of permits required immediate responses from department specialists. Eventually the goods were delivered to the destination.

An unlikely event occurred in Germany, where it was necessary to cover the lawn at the port entrance in a city center with metal plates and subsequently replant the lawn – complete with flowers. Therefore, heavy transportation did not affect the greenery of the city.



# TRANSPORTATION OF WIND TURBINES





#### **Route:**

Germany - Belarus



## Cargo:

Wind generator



### **Details:**

3 wind turbines with a maximum height of 4.2 meters, maximum width of 4 meters, and maximum length of 34 meters



## **Transport:**

AsstrA's own and rented "tifbet" semi-trailers with between 3 and 6 axles



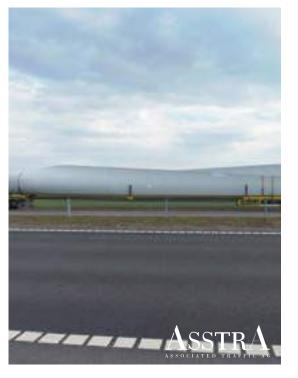




## **Special features of the project:**

Preparation for the transportation of generators was carried out in the shortest possible time of only 1.5 weeks.

This project involved 17 cargo platforms that needed to be loaded, unloaded, and undergo customs clearance as a unit.







## TRANSPORT OF PRESSURE **EQUIPMENT**





### **Route:**

China - India - Italy - Germany - Russia



### Cargo:

Pressure equipment



### **Details:**

The total weight of the cargo was more than 1,000 tons, with a volume of 2,600 m<sup>3</sup>. The weight of one unit of cargo reached 135 tons at a height of 4.55 m



#### **Transport:**

Sea vessels, river barges, containers, modular semi-trailers, standard machines



## **AsstrA Services:**

Taking into account the cargo's weight and size parameters, a route through Russia was carefully chosen to ensure on-time delivery. Approvals were obtained for the transportation of tall and heavy cargo. Delivery also involved specialized equipment for lifting power lines.

As heavy-duty cranes were required for unloading, it was important for the vehicles carrying the heavy cargo to arrive punctually. The bulk of the cargo was divided into 2 lots so as not to accumulate a large consignment at the installation site. At the same time, there could be no delays, and intermediate storage was organized in the ports of transshipment.

All essential conditions of transportation were fulfilled by AsstrA holding in full and in compliance with the delivery terms stipulated in the contract.











## THE CARRIAGE OF A WOOD **PROCESSING PLANT**





### **Route:**

Solson (Spain) - Novovolynsk (Ukraine)



### Cargo:

Woodworking plant for the production of MDF boards



### **Details:**

The maximum width of the cargo was 4.50 m, weight of 60 tons, and total amount about 50 units of cargo



### **Transport:**

Combined scheme using car and ferry



- 1. Development of the necessary transport project and accompanying documents. Preparation of all necessary documentation took about 1 month
- 2. Complete solutions for loading, placement and fastening of the cargo on the platforms
- 3. Customs clearance
- 4. Supply of specialized transport for loading / unloading of equipment
- 5. AsstrA specialists managed to transport the cargo in just 3 weeks, once again demonstrating a high level of competence and focus on customer











## TRANSPORTATION OF **A MOBILE CRANE**





### **Route:**

Port of Saint Petersburg - Soligorsk



#### **Details:**

Crane - 14,690 x 2,800 x 3,800, 54,600 kg + components. Total weight 73,400 kg



## **Transport:**

A coupling of two universal railway platforms





## AsstrA Services:

- 1. Port forwarding
- 2. Development of loading and fastening schemes, coordination of oversized transportation
- 3. Loading on platforms, fastening
- 4. Railway transportation

AsstrA branch offices in Brest and Saint-Petersburg worked on the project.







## **CARRIAGE OF PISTON PUMPS**





### **Route:**

Italy - Belarus - Russia



## **Details:**

5 wooden boxes:

910 x 340 x 270 cm, 34,000 kg

260 x 210 x 200 cm, 1,570 kg

250 x 160 x 250 cm, 3,600 kg

430 x 180 x 280 cm, 6,530 kg

320 x 200 x 145 cm, 1,778 kg

Total weight: 47,478 kg



### **Transport:**

- 1. Transportation to Brest by 1 motor vehicle specialized for oversized and heavy cargoes and 1 standard motor vehicle
- 2. Transshipment in Brest and shipment by rail by 1 specialized 24-meter platform



## **AsstrA Services:**

- 1. Road transportation
- 2. Transshipment, fastening
- 3. Railway transportation

AsstrA branch offices in Brest (Belarus), Poznan (Poland), Yekaterinburg (Russia) worked on the project.











## TRANSPORTATION OF **MINING LOADER**





### **Route:**

Poland - Brest, Belarus - Russia



### **Details:**

11,650 x 3,300 x 2,350 mm, 45,255 kg



### **Transport:**

- Transportation to Brest by vehicles specialized for oversized and heavy cargo
- Transshipment in Brest via an end ramp and onward by rail on a universal platform







## AsstrA Services:

- 1. Road transportation
- 2. Transshipment, fastening
- 3. Railway transportation

AsstrA branch offices in Brest (Belarus), Poznan (Poland) and Yekaterinburg (Russia) worked on the project.







## **TRANSPORTATION OF REACTORS**





### **Route:**

Barcelona - Klaipeda - Mogilev



## Cargo:

2 reactors



### **Details:**

1,000 x 600 x 600 mm



## **Unit weight:**

60 tons



### **Transport:**

Combined auto-sea-auto delivery scheme



## **AsstrA Services:**

- 1. The design of the necessary transport project and accompanying documents. Comprehensive solutions for loading, placement and fastening of cargo
- 2. Supply of specialized transport for loading / unloading of equipment
- 3. Transshipment, fastening
- 4. Customs clearance

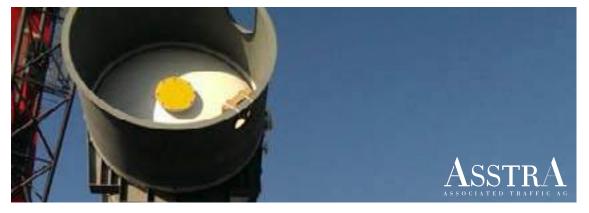


## **Special features of the project:**

During delivery, all electric network lines along the entire route had to be disconnected.









## TRANSPORTATION OF WOOD **PROCESSING EQUIPMENT**





#### **Route:**

Leixoes, Portugal - Mogilev, Belarus



### Cargo:

Equipment for the chemical treatment of wood



### **Details:**

45 m x 5 m x 5 m, 100 tons



## **Transport:**

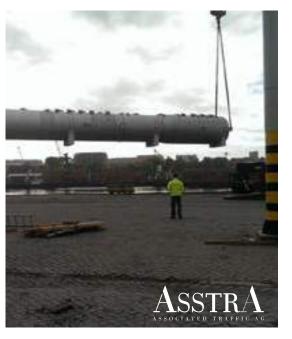
A combined scheme via the Port of Leixoes (auto) – the Port of Klaipeda (sea) - Mogilev (auto)

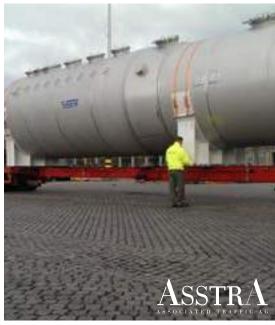






- 1. The design of the necessary transport project and accompanying documents. Comprehensive solutions for loading, placement and fastening of cargo.
- 2. Supply of specialized transport for loading / unloading of equipment
- 3. Transshipment, fastening
- 4. Customs clearance







## TRANSPORTATION OF METALL **PROCESSING EQUIPMENT**





#### **Route:**

Belaya Kalitva (Russia) - Novorossiysk port (Russia) - Port of Altamira (Mexico)



### Cargo:

- An "OTTO JINKER" hardening line 120 wheel rim/hour
- "Positech" G-78 wanipulator with working body for 20" forgings
- Electronic automatic equipment to testing metals' hardness by Brinell NEWAGE



#### **Details:**

Shipboard party with 74 unit of cargo, with a total weight of 530 tons

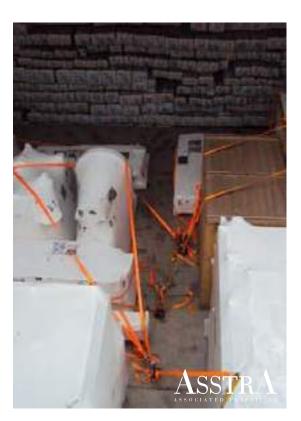




## **AsstrA Services:**

The cargo was delivered to the Port of Novorossiysk with specialized vehicles. Further, the terminal was used for consolidation of the ship's cargo with subsequent loading on the ship and securing the cargo in the hold. Freight to port of discharge.







## TRANSPORTATION OF LOCOMOTIVE





### **Route:**

Almaty (Kazakhstan) - Hrubieszow (Poland) - Astana (Kazakhstan)



### Cargo:

TE33A series locomotive



### **Details:**

21.89 x 3.11 x 5.25 m



### **Transport:**

Transported on its axes



- 1. YShipper service
- 2. Making SMGS
- 3. Submission of transportation plan
- 4. Cargo insurance (CASCO W/d)
- 5. Payment of railway tariffs for all territories along the route
- **6.** Organization of escort by a brigade of conductors
- 7. Covering parts of the locomotive, which may have been damaged on the way, daily updates on the location of the goods









## TRANSPORTATION OF **HEAVY EQUIPMENT**





#### **Route:**

Ostrava, Czech Republic, - Kamensk-Uralsky, Russia



### Cargo:

Equipment for the metallurgical industry



### **Details:**

300 tons



## **Delivery scheme:**

Combined auto-river-sea-railway-cars scheme



#### **Transport:**

Multi-axle modular semitrailers, as well as four-axle ballast tractors, barge, ship, railway conveyor







- 1. The design of the necessary transport project and accompanying documents. Comprehensive solutions for loading, placement and securing of cargo
- 2. Supply of specialized transport for loading / unloading of equipment
- 3. Transshipment, fastening
- 4. Customs clearance







## TRANSPORTATION OF **CENTRIFUGAL PUMPS**





#### **Route:**

Italy - Belarus - Turkmenistan



### **Loader details:**

6 wooden boxes:

5,670 x 2,610 x 2,830 mm, 12,451 kg 5,670 x 2,610 x 2,830 mm, 12,451 kg 5,670 x 2,610 x 2,830 mm, 12,451 kg 5,670 x 2,810 x 2,930 mm, 17,452 kg 5,670 x 2,810 x 2,930 mm, 17,452 kg 5,670 x 2,810 x 2,930 mm, 17,452 kg Total weight 89,709 kg



### **Transport:**

- Transportation to Brest by 6 units of vehicles specialized for oversized cargo
- Transshipment in Brest and shipment by rail on 2 fitting 18.4-meter platforms







## AsstrA Services:

- 1. Road transportation
- 2. Transhipment, fastening
- 3. Railway transportation using the Baku Turkmenbashi ferry

AsstrA branch offices in Brest (Belarus), Poznan (Poland), and Kiev (Ukraine) worked on the project.





## TRANSPORTATION OF RAW MATERIALS





### **Route:**

Turkey - Ukraine



## Cargo:

Raw materials



## Cargo volume: 2,500 tons



Delivery scheme:

A combined sea-railway scheme using a vessel and specialized gondola cars. The cargo was loaded in the Port of Turkey, sent to the port in Ukraine, and then was overloaded in the railway cars and delivered to the point of unloading.







- 1. Preparation of delivery scheme
- 2. Chartering of a vessel
- 3. Storage and transshipment at the port
- 4. Delivery from the port by rail in gondola cars







## TRANSPORTATION OF **MINING LOADER**





#### **Route:**

Poland - Russia



### Cargo:

Mountain loader KGHM Zanam LKP-1601M



## Cargo weight:

46 tons



## **Details:**

Details: 11.70 m x 3.05 m x 2.70 m



Delivery scheme:
A combined car-railway scheme. The cargo was transported by road in Poland to the railway station in Brest (Belarus). Then the cargo was transshipped into railway cars and delivered to the final destination in Guy (Orenburg region, Russia).





- 1. Preparation of a combined delivery scheme
- 2. Loading of cargo on vehicles specialized
- 3. Control of transshipment of cargo on railway stations and the development of schemes for cargo fastening in the car
- **4.** Examination of bridges along the whole transport route
- 5. Organization of customs clearance in Poland







## TRANSPORTATION OF A SELF-PROPELLED **CRANE AND EQUIPMENT**





#### **Route:**

Poland - Port Klang, Malaysia



### Cargo:

Self-propelled crane and equipment



## Cargo weight:

346 tons (crane - 96 tons, related equipment - 250 tons)



### **Transport:**

Combined delivery scheme. In order to minimize transportation costs and to offer the best trade-lane solution, we used different types of transport: Ro-Ro, containers, cargo trailers, and trucks. Several loading ports were involved: Gdynia, Bremerhaven and Southampton.

This project is a good example of fast and successful cooperation between different departments within AsstrA working with road transport, maritime transport, and container transport.



- 1. Collection of goods from the supplier (pre-carriage)
- 2. Fastening of cargo
- 3. Sea transportation
- 4. Insurance service











## TRANSPORT OF CONVEYING **BELTS IN ROLLS**





### **Route:**

Gdynia (Poland) - Laem Chabang (Thailand)



### Cargo:

Conveyoring belts in rolls



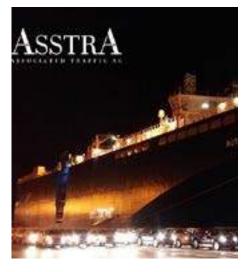
## Cargo weight:

30 tons, height: 3.5 m



## **Transport:**

MAFI-trailers with a Ro-Ro type vessel





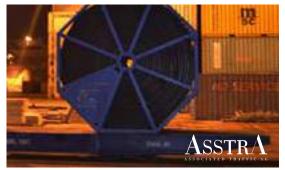


## AsstrA Services:

We chose to use MAFI trailers with a capacity of 100 tons. To optimize the use of the MAFI trailers, each semi-trailer was loaded with about 70 tons of cargo.

The main difficulty was the short delivery deadline. It was necessary to use empty MAFI trailers with subsequent loading, but thanks to close cooperation with the shipping line and port, the project was completed on time.











## CARRIAGE OF COMPOSITE STEEL **DECK MANUFACTURING PLANT**





#### **Route:**

Germany - Italy - Estonia - Holland - Russia



### Cargo:

Automated plant for the production of composite steel deck from cement fibrolite filled with polystyrene, polyurethane foam, mineral wool, or other insulating material



### Scope of delivery:

51 units of both standard and oversized rolling stock







## **AsstrA Services:**

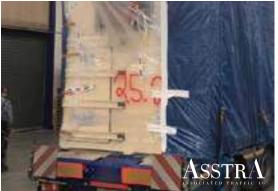
- 1. Delivery of cargo in batches to customs in Russia and for unloading of 4-10 units of rolling stock
- 2. Customs services in EU countries
- 3. Translation of export declarations into English and Russian
- 4. Full control over the execution of documents in accordance with the requirements of the customer's bank



## **Special features of the project:**

Delivery by letter of credit within a strict timeframe. The last deliveries took place in December during the holidays season. Thanks to the competent planning and cohesive work of the AsstrA team, all parts of the production line were delivered on time.







## TRANSPORTATION OF A TANK





### **Route:**

Remshalden (Germany) - Ufa (Russia)



## Cargo:

Tank



### **Details:**

11,500 x 4,000 x 4,200 mm



## Cargo weight:

50,000 kg





- 1. Road transport: Remshalden (Germany) Port of Kiel (Germany), including organizing all necessary permits
- 2. Maritime transport: the Port of Kiel (Germany) Port of Saint Petersburg (Russia) with the publication and approval of the fastening scheme of the cargo on roll-trailers
- 3. Loading and unloading operations at transshipment points, completion of all port and documentation formalities.
- 4. Road transportation on the route: the Port of Saint Petersburg (Russia) Ufa (Russia), the location of the customer's plant





## TRANSPORTATION OF **COMPONENTS FOR HPS**





#### **Route:**

Metallostroy, Staint Petersburg (Russia) - Balakovo (Russia)



### Cargo:

rotor frame and components for HPS



#### **Details:**

7,320 x 7,320 x 1,920 mm, 53,046 kg 7,500 x 3,070 x 3,140 mm, 56,436 kg + components





- 1. Road transportation from Metallostroy (PJSC "Power Machines") to the Port of Bronka (Russia)
- 2. River transportation from the Port of Bronka (Russia) to berth in Balakovo (Russia) with the release and approval of the scheme of psoitioning and fastening the cargo, as well as the river transport project
- 3. Loading and unloading operations at transshipment points, including on the basis of the PPWc with the involvement of mobile crane equipment at the unloading berth, including coordination of work with municipal administrations and city services
- 4. Car transportation from berth in the city Balakovo (Russian Federation) to the location of the Saratovskaya HPS in Balakovo (Russian Federation)







## TRANSPORTATION OF A WOOD-CHIP **PRODUCTION PLANT**





### **Route:**

Villabrazarro, Spain - Veliko Tarnovo, Bulgaria



## Cargo:

100 oversized parts of the production line. Some of the oversized parts and structures reached 5 m in height and 5.5 m in width.



## **Transportation:**

Combined delivery scheme. Trucking to the port of Leixoix, Portugal, then "under deck" shipping via a special "twindecker" vessel with a double loading deck before delivery by truck to the final recipient.





- 1. Preliminary inspecton work
- 2. Development of a delivery scheme
- 3. Order authorization and vessel charter
- 4. Direct transportation consisting of 3 stages





## **CARRIAGE OF A TOWER CRANE**





### **Route:**

Belarus - Austria and Germany



### Cargo:

Tower crane for the construction of high buildings in urban areas with difficult access.



### **Transportation:**

9 transport units to Austria and 2 to Germany.



### **Volume:**

More than 70 meters in height and 50 tons in weight. The crane was divided into 11 parts.





- 1. Preparing a clear schedule for contractors and organizing an uninterrupted loading process
- 2. Loading in awnings and fastening it for safety
- 3. Customs services













### **Route:**

Belarus - Germany



### Cargo:

Passenger rail car.

## **Transportation:**



Low-loader semi-trailer with trolley on pendulum axles. Hydraulic suspension was installed on the semi-trailer and the axles were engineered to rotate together.



#### Volume:

26 m L  $^{\ast}$  3.3 m W  $^{\ast}$  4.45 m H with a weight of 15 tons.





- 1. Proposal of options and routes
- 2. Development of the scheme of loading and securing cargo
- 3. Preparation of a detailed report describing the passage of each section of the road, turn, and bridge
- 4. Design and manufacturing of the stand to which the car was attached
- 5. Personal monitoring by AsstrA specialists of the car's loading and unloading
- 6. Customs clearance





## TRANSPORTATION OF RAILWAY CARS





### **Route:**

Switzerland - Austria



## Cargo:



## **Transportation:**

35-meter low loader semi-trailer.



## **Delivery volume:**

26 m L \* 3 m W \* 3.6 m H with a weight of 15 tons





- 1. Proposal of optons and routes
- 2. Development of the scheme of loading and securing cargo
- 3. Preparation of a detailed report describing the passage of each section of the road, turn, and bridge
- 4. Dismantling signage
- 5. Design and manufacture of the stand to which the car was attached
- 6. Personal monitoring by AsstrA specialists of the cars' loading and unloading the car, ensuring an adequate number of fasteners, metal channels and wooden linings to ensure the safety of the cargo
- 7. Customs clearance





### TRANSPORTATION FOR MAMMUT RUS





### **Transportation route:**

Omsk, Russia - Gazprom's Amur Gas Processing Plant; Tobolsk, Russia - Gazprom's Amur Gas Processing Plant; Moscow - Gazprom's Amur Gas Processing Plant



### Cargo:

Crane balances, wood and metal mats, self-propelled modular conveyors, oversized and heavy parts of the Mammoet CC6800 model crane. The total weight of all cargo was 4,000 tons.



### **Transport:**

At each stage, both road and rail transport were involved, a total of 75 rides were made during the project.

- 1. The equipment was delivered by road to the Kombinats-kaya railway station. There it was overloaded in 22 gondola cars and sent to the Blagoveshchensk station. From there, the machines were transported onboard to Mammut Rus warehouse at Gazprom's Amur Gas Processing Plant.
- **2.** The cargo was delivered by road to the Tobolsk staton, from where it went in 4 gondola cars to the Blagovesh-chensk staton. The crane counterweights were delivered to their final destination by car. Due to the workload of the client's warehouse, Gazprom's Amur Gas Processing Plant facilities could not immediately take over the crane balances. The equipment was temporarily placed in a warehouse in Blagoveshchensk, from where the goods were gradually shipped to the city of Svobodny.

**3.** As part of the third stage of the project transportation, the corporate group shipped 8 four-axle and 16 six-axle self-propelled modular transporters from

Moscow. AsstrA specialists transported the cargo to the Lyubertsy-1 staton using trawls. It was then sent in 10 gondola cars to the staton of Blagoveshchensk and again loaded onto the trawls and delivered to Gazprom's Amur Gas Processing Plant.



- 1. Elaboration of optons and routes
- 2. Development of the scheme of loading and securing cargo
- **3.** Packaging into shrink wrap
- 4. Control by AsstrA specialists of loading and unloading





## TRANSPORT OF A VIBRATING ROLLER





### **Transportation route:**

Boppard, Germany - Ust-Kamenogorsk, Kazakhstan



#### Cargo:

BOMAG BW 226 DI-5 ground vibrating roller.



### Transport:

On the European part of the route from Germany - Belarus, the cargo traveled on a low-bed car platform. In Belarus, in Brest, under the supervision of representatives of AsstrA, the vibrating roller was overloaded to a railway platform. In order to comply with the requirements of rail transportaton, all easily removable parts of the equipment were dismantled.





- 1. Proposal of optons and routes
- 2. Development of cargo loading and securing scheme
- 3. Personal supervision of loading and unloading by AsstrA specialists
- 4. Dismantling equipment parts





### SHIPPING FOR LAKHTA CENTER





### **Transportation route:**

Antwerp, Belgium - St. Petersburg, Russia



#### Cargo:

HD beams for the construction of the second stage of Lakhta Center facilities. The total weight of the cargo amounted to 5.5 thousand tons. The project was completed with cargo sent 7 batches. Such a breakdown was necessary because of phased production at the beam plant.



### **Transportation:**

Sea freight and road transportation to the final recipient.







- 1. Supervision of the accumulation of the lot on the quay in the port of Antwerp
- 2. Sea transportation to the port of St. Petersburg
- 3. Unloading
- 4. Customs clearance
- 5. Loading onto a truck for delivery to the final recipient











#### **Route:**

Japan - Belarus



### Cargo:

Grinding line for a woodworking enterprise. The batch consisted of both standard and oversized parts.



### **Transportation:**

Delivery times allowed the use of any type of transport. The client chose the option of a combined scheme by sea to the port in Lithuania with subsequent road delivery to Belarus. At the final stage of delivery to the final recipient, several types of transport were used: trucks for standard containers and railway platforms for container trucks.







- 1. Delivery of an empty container to the sender's factory
- 2. Loading and shipping of containers to the port of Nagoya under the supervision of a shipping line agent
- **3.** Transshipment in port from 40' flat rack containers to railway platforms
- 4. Transit clearance
- 5. Cargo insurance





### TRANSPORTATION OF A CRANE





#### **Route:**

Kwidzyn, Poland - Taiwan



### Cargo:

Oversized crane, 30 tons.



### **Transportation:**

Transportation was carried out using 4 types of transport: containers, low-loader heavy truck trailer, conventional awning and container frame. The crane was loaded onto a flat rack type container, its counterweights were placed in a standard 20-foot container, and the crane boom was placed in a 40HC sea container.





- 1. Carriage of goods from Kwidzyn to the port of Gdansk in Poland
- 2. Handling and fastening of the crane in containers
- 3. Sea freight from Gdansk to Taiwan





### TRANSPORTATION OF A PULP AND PAPER





### **Transportation route:**

Krapkowice, Poland - Volgograd, Russia



### Cargo:

Cylinder for the pulp and paper industry.



### **Delivery volume:**

7,000 mm L \* 4,000 mm W \* 4,000 mm H with a weight 58,000 kg.





# AsstrA transport and services:

- 1. Car transportation from Krapkowice, Poland the port of Gdynia, Poland, including the obtainment of all necessary permits
- **2.** Sea transportation with the official notification and approval of the scheme for securing the cargo on a roll trailer
- 3. Loading and unloading operations at transshipment points along with port and documentation formalities
- 4. Automobile transportation from the port of St. Petersburg, Russia Volgograd, Russia





## TRANSPORTATION OF BOILER EQUIPMENT





#### **Route:**

Volgograd, Russia - Tilburg, Netherlands



#### Cargo:

Boiler Equipment.



### **Delivery volume:**

6,530 mm L x 2,480 mm W x 3,030 mm H with a weight of 8,000 kg. 11,470 mm L \* 3,650 mm W 3,800 mm H with a weight of 52,000 kg.





## AsstrA transport and services:

- 1. Organization of cargo loading on vehicles at the shipping point with mobilization of crane equipment
- 2. Automobile transportation to the port of St. Petersburg, including obtainment of all necessary permits and vehicle escorts by car
- **3.** Sea transportation from the port of St. Petersburg, Russia the port of Antwerp, Belgium
- **4.** Road transport port of Antwerp, Belgium Tilburg, the Netherlands





## **TRANSPORT OF ENERGY EQUIPMENT**





#### **Route:**

Buzuluk, Orenburg Region, Russian Federation - Novy Urengoy District, YNAO, Russian Federation



### Cargo:

5 sets of GTU Titan-130 power equipment.



### **Transport:**

44 vehicles, including 20 low-frame trawls for KTG with parameters of individual positons up to 9,200 mm L \* 3,680 mm W \* 4,450 mm H with a weight up to 48 tons.



- 1. Organization of loading on vehicles at the shipping point with the mobilization of crane equipment as well as the provision of a traverse for part of the cargo
- 2. Automobile transportation adequate for winter weather in the Far North
- 3. Accompanying carriage of vehicles along the entre route
- **4.** Unloading at destination, including mobilization / demobilization of crane equipment







## **CARRIAGE OF A STEAM BOILER**





### **Transportation route:**

Chelyabinsk, Russia - Khirdalan, Azerbaijan



### Cargo:

Steam boiler for the brewing industry.



### **Delivery volume:**

6,140 mm L \* 3,000 mm W \* 3,400 mm H with a weight of 21,210 kg.





# AsstrA transport and services:

- 1. Automobile transportation Chelyabinsk, Russia the port of Aktau, Kazakhstan, including obtainment of all necessary permits
- 2. Sea transportation from the port of Aktau, Kazakhstan port of Baku, Azerbai-
- 3. Automobile transportation from the port of Baku, Azerbaijan Khirdalan, Azerbaijan





## **CARRIAGE OF A CHIPPER-BREAKER**





#### **Route:**

Yelabuga, Russia - Gorno Sahrane, Bulgaria



### Cargo:

Chopper



### **Delivery volume:**

10,215 mm L \* 2,500 W \* 3,700 mm H with a weight of 25,000 kg.



### **Transport:**

Multimodal transportation.





- 1. Automobile transportation from Elabuga, Russia Novorossiysk port, Russia, including obtainment of all necessary permits
- 2. Sea transportation of the port of Novorossiysk, Russia the port of Burgas, Bulgaria
- 3. Road transport from the port of Burgas, Bulgaria Gorno Sahrane, Bulgaria





### TRANSPORTATION OF COMPRESSOR UNITS





### **Transportation route:**

Leipzig, Germany - Lübeck, Germany - St. Petersburg, Russia - Omsk, Russia



#### Cargo:

2 batches of compressor units and components.



#### **Delivery volume:**

7,870 mm L x 4,840 mm W x 4,200 mm H with a weight of 48,600 kg.



### **Transport:**

- Road transport in Germany to the port of Lubeck;
- Sea transportation on a RO-RO shipping line with overload on a MAFI trailer;
- Automobile transportation in Russia from the port of St. Petersburg.





- 1. Route survey
- 2. Removal / installation of road signs
- 3. Organizing a police traffic escort
- 4. Reorganization of the passage via the repaired section of the road at the entrance to the city of Lubeck for the passage of cargo with a certain width
- 5. Transshipment
- 6. Storage
- 7. Insurance
- 8. Registration of special permits
- 9. Shipping



### CARRIAGE OF THE OUTSIDE PART OF A CYLINDER





### **Transportation route:**

Plzen (Czech Republic) - St. Petersburg (Russia)



### Cargo:

The outer part of the high pressure cylinder.



### Delivery volume (L \* W \* H):

 $6\,000$  \*  $3\,960$  \*  $1\,600$  mm. Weight  $48\,500$  kg.



- 1. Obtainment of all necessary permits
- 2. Sea transportation with the official notification and approval of the scheme for securing cargo on a roll trailer
- 3. Loading and unloading operations at transshipment points, including all port and documentation formalities
- 4. Automobile transportation to the port of St. Petersburg, Russia PJSC Power Machines' LMZ plant workshop 201









## TRANSPORT OF A FURNACE





### **Route:**

Podolsk, Russia - Várpalota, Hungary



### Cargo:

Single-chamber SUG mixer reverberatory furnace



### **Delivery volume:**

7,600 mm L \* 3,700 mm W \* 3,800 mm H with a weight of 25,000 kg.



# AsstrA services:

Automobile transportation including obtainment of all necessary permits.







## TRANSPORTATION OF A HYDRO TURBINE **WORKING WHEEL**





### **Route:**

St. Petersburg, Russia - the port of Haiphong, Vietnam



#### Cargo:

Working wheel of a hydro turbine.



### **Delivery volume:**

5,760 mm L \* 5,760 mm W \* 3,110 mm H with a weight of 84,060 kg + accessories.





- 1. Automobile transportation, including obtainment of all necessary permits
- **2.** Sea transportation with the official notification and approval of the scheme for securing cargo on a roll trailer
- 3. Ocean transportation by a charter crane vessel
- **4.** Loading and unloading operations at transfer points
- 5. Port and documentation formalities



### TRANSPORT OF ECCENTRIC RINGS





### **Route:**

Arese, Italy - Kurchatov, Russia



### Cargo:

Eccentric rings.



### **Delivery volume:**

2,910 mm L  $^{\ast}$  2,910 mm W  $^{\ast}$  420 mm H with a weight of 16,820 kg.





- 1. Automobile transportation from Arese, Italy port of Kiel, Germany, including obtainment of all necessary permits
- **2.** Sea transportation with the official notification and approval of the scheme for securing cargo on a roll trailer
- 3. Loading and unloading operations at transshipment points, port and documentation formalities
- 4. Import customs clearance
- **5.** Automobile transportation from port of St. Petersburg, Russia Kurchatov, Russia



### TRANSPORT OF A CRANKSHAFT





### **Route:**

Ust-Ilimsk (Russia) - St. Petersburg (Russia)



### Cargo:

Haulotte HA41PX articulated boom.



### **Delivery volume:**

11,000 mm L x 2,530 mm W x 3,050 mm H with a weight of 22,500 kg.





# AsstrA services:

Automobile transportation more over than 5800 km from the Ust-Ilimsk Pulp and Paper Mill in the Irkutsk Region, Russia, to St. Petersburg, Russia, including obtainment of all necessary permits.





### **CARRIAGE OF A CRYOGENIC TANK**





### **Transportation route:**

Ornago, Italy - Volgograd, Russia



#### Cargo:

Storage tank for liquefied cryogenic air separation products.



### **Delivery volume:**

27,000 mm L \* 4,810 mm W \* 4,990 mm H with a weight of 84,000 kg.







- **1.** Preliminary inspection of the shipping and delivery areas
- 2. 3 crane overloads
- 3. Strengthening and retrofitting the berth for the subsequent safe unloading ofcargo from a barge
- 4. Rolling out from a barge using the RO-RO method
- 5. Repair and expansion of the road, for which 14 dump trucks with rubble and construction equipment were involved
- **6.** Uncasing and arranging the cargo before final delivery to the recipient's plant





## TRANSPORT OF A RAIL CARRIAGE





### **Route:**

Fanipol, Belarus - Berlin, Germany



### Cargo:

Electric train car.



### **Delivery volume:**

 $2,910 \text{ mm L} \times 2,910 \text{ W} \times 420 \text{ mm H}$  with a weight of 16,820





- 1. Development and inspection of the door-to-door route
- 2. Installation of special road signs, the transfer of traffic lights, signs, pillars, and railway shelter
- **3.** Organizing pilot escorts and road services

