



HEAVY TRANSPORT & LIFTING - ENGINEERING - PROJECT LOGISTICS - FORWARDING

HEAVY RAIL TRANSPORT



THE WORLD...OUR PASSION



FAGIOLI



RAIL CAPABILITIES

RAIL CAR TYPES

More than **300** axles in **30** different configurations!

One of the most extensive fleet in the World !



32-axle

Up to almost
500 tons
capacity!



24-axle

Up to almost
400 tons
capacity!



20-axle

Up to almost
300 tons
capacity!



16-axle

Up to almost
250 tons
capacity!



14-axle

Up to almost
200 tons
capacity!



12-axle

Up to almost
170 tons
capacity!

RAIL CAR TYPES

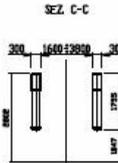
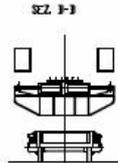
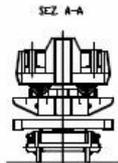
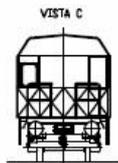
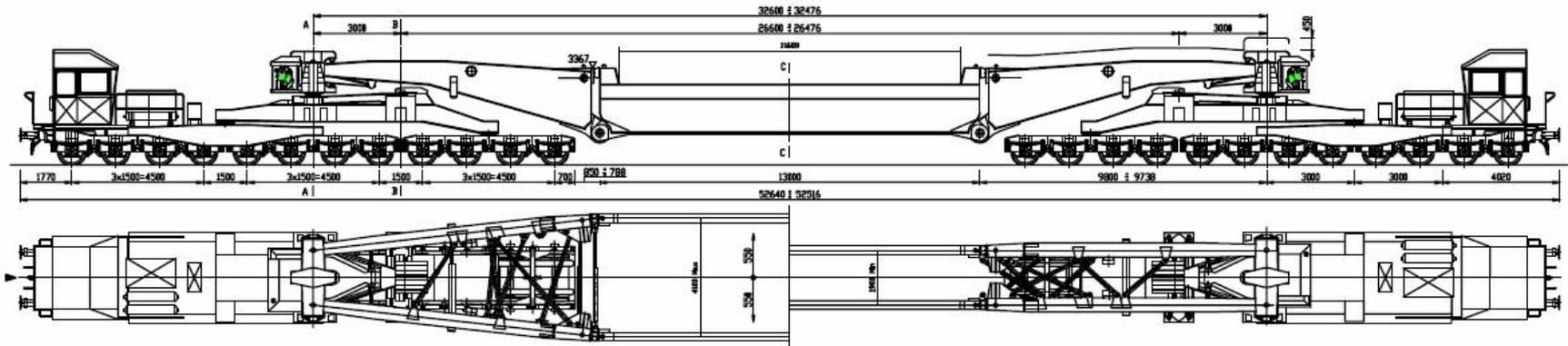
RAILCARS TESTING PROCESS FOR THE HIGH SPEED RAIL LINE



48 axles lines (24 x24) used for the test process of High Speed Rail Line, loaded with billets weighing about 1,100 ton

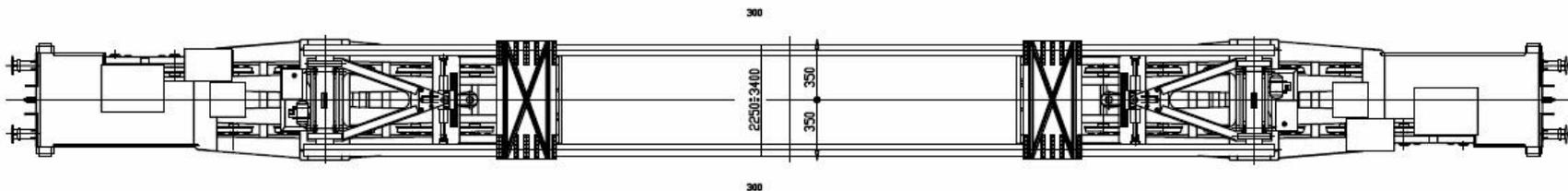
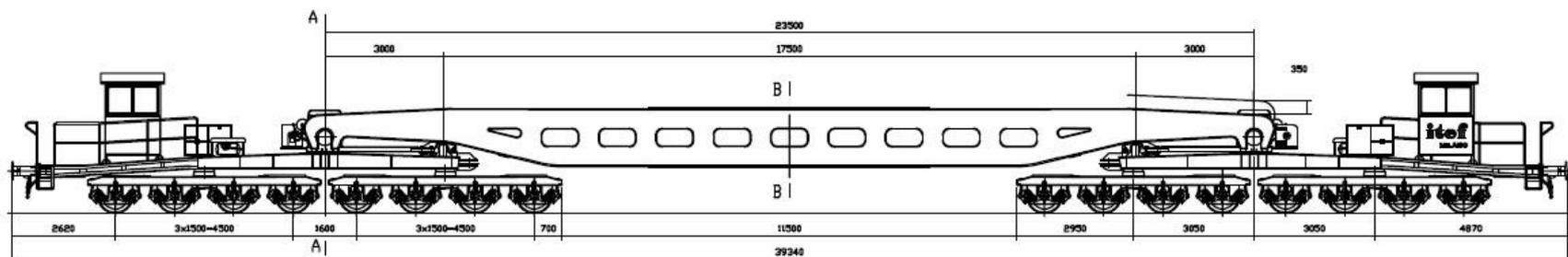
RAIL CAR TYPES

24 AXLES

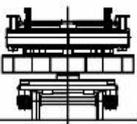


RAIL CAR TYPES

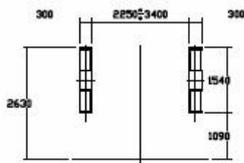
16 AXLES



SEZ. A-A

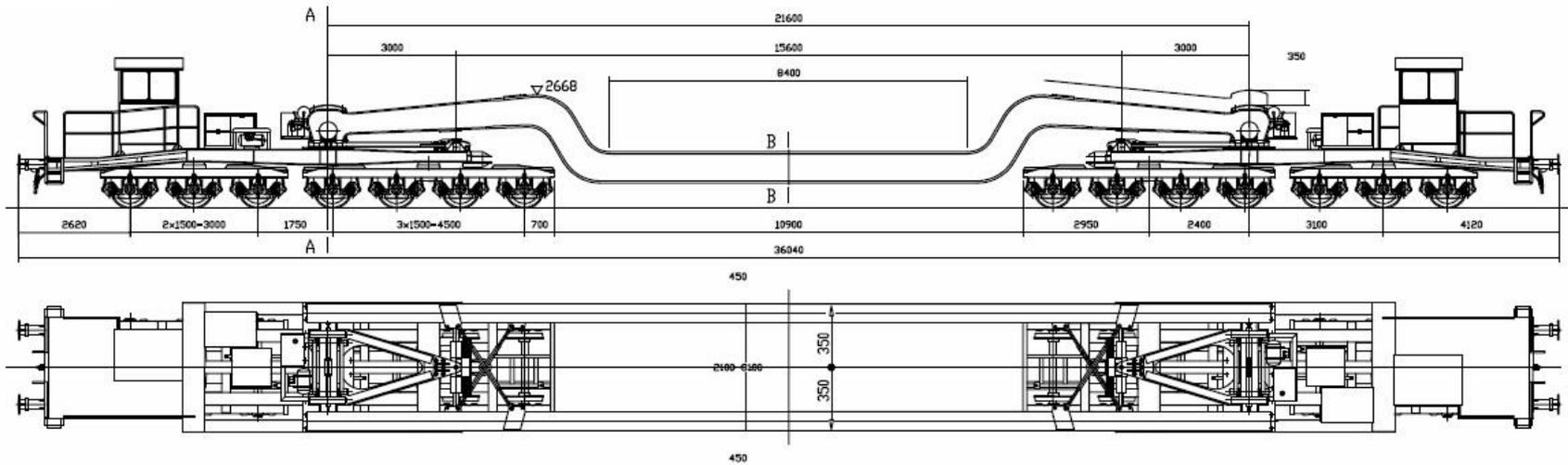


SEZ. B-B



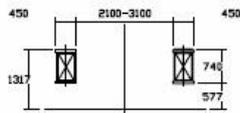
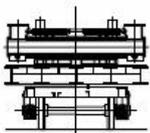
RAIL CAR TYPES

1 4 AXLES



SEZ. A-A

SEZ. B-B





LATEST PROJECTS HIGHLIGHTS

ZARNOWIEC, POLAND



Rail transport of **150 tons** transformer.

JAWORZNO III POWER PLANT, POLAND



Rail transport of **190 tons** transformer.

POLAND



Range: **230-460 tons**
Period: 2009-2011

GREECE: PTOLEMAIS PROJECT (01)



Rail transport of almost **500 tons** generator.

GREECE: PTOLEMAIS PROJECT (02)



CROATIA



Rail transport of No. 2 Transformers (140 ton /220 ton)

AUSTRIA : FAGIOLI DOOR-TO-DOOR CAPABILITY (01)



The item was transported from manufacturing area to the railway station by means of 11 + 11 axle lines trailers and a Schnabel structure, used to get a well-balance distribution of the weights on the ground. Once arrived there after few kilometers the trafo was transshipped onto two 10 + 10 group-owned heavy rail transport wagons. After several days the item arrived in Austria. Two specialized rail operators were on the wagons to control and reposition the Schnabel structure during the rail journey.

AUSTRIA : FAGIOLI DOOR-TO-DOOR CAPABILITY (02)



Once arrived at Arnoldstein, the support structure was removed and the trafo was skidded with the support of rollers and beams. The item was lifted with screw jacks and positioned onto 12 axle lines modular trailers. The challenge for the last leg of the journey was not the distance between the railway and the power station (almost 3 kms) but how steep was the road: a slope of 15%.

AUSTRIA : FAGIOLI DOOR-TO-DOOR CAPABILITY (03)



Once arrived at destination Fagioli lifted the trafo with the screw jacks in order to allow the trailer to be removed. The item was skidded with the rollers in order to align it to the tracks specially made on the foundations. Once in position, the trafo was hoisted with the hydraulic jacks allowing the Fagioli operators to place the wheels under the transformer (after the skidding beams removal). Eventually, the transformer was pushed onto tracks to its final position with winches

OTHER PROJECTS THROUGHOUT EUROPE





ENGINEERING AND OPERATIONS



**BUILD UP YOUR
SUCCESS ON RAIL
WITH FAGIOLI !**



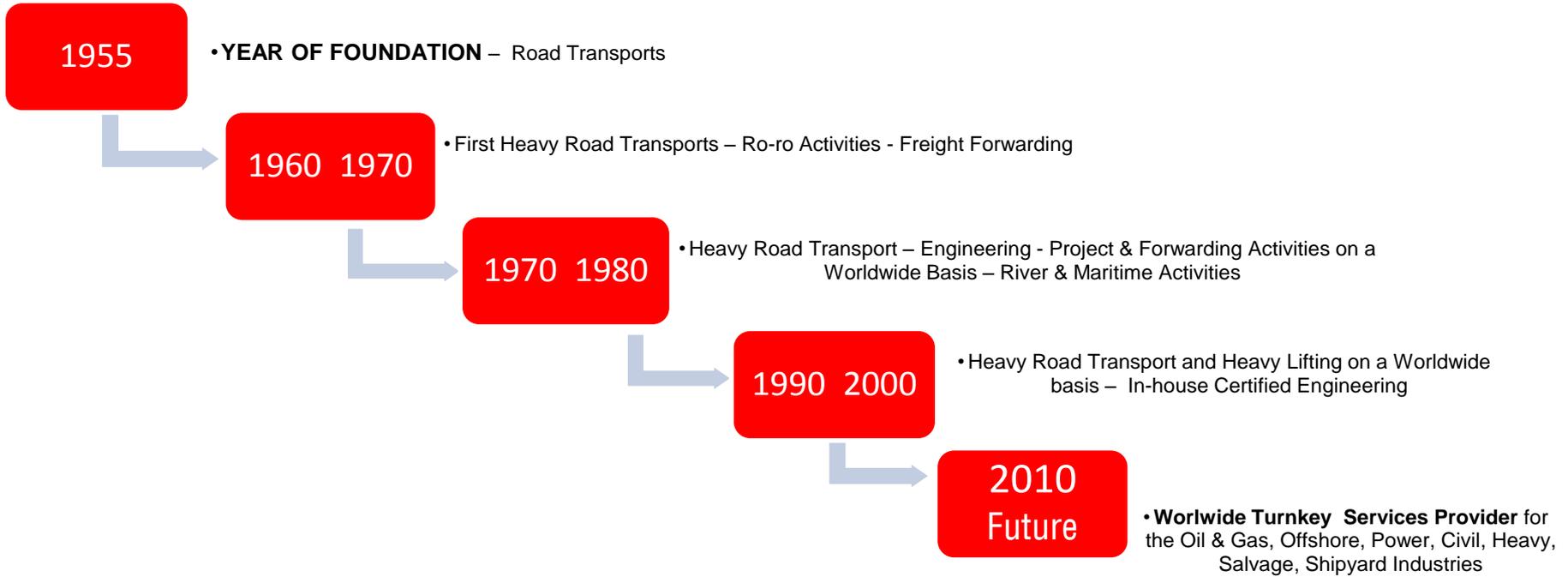
Cooperation with FAGIOLI brings real advantages:

- **Internationally recognized** heavy rail specialist
- One of the **most extensive rail cars fleet** in the world
- **Own, in house** heavy rail Engineering Dept.
- **Compliance** with local rules
- **Strong cooperation** with Rail Authorities throughout whole Europe
- **State of the art** equipment maintained in own workshop
- **Direct transhipments** on road modular trailers (by chassis replacement)
- Transhipments with **hydraulic gantries**
- More than **40 years** of experience
- Impressive **reference list**

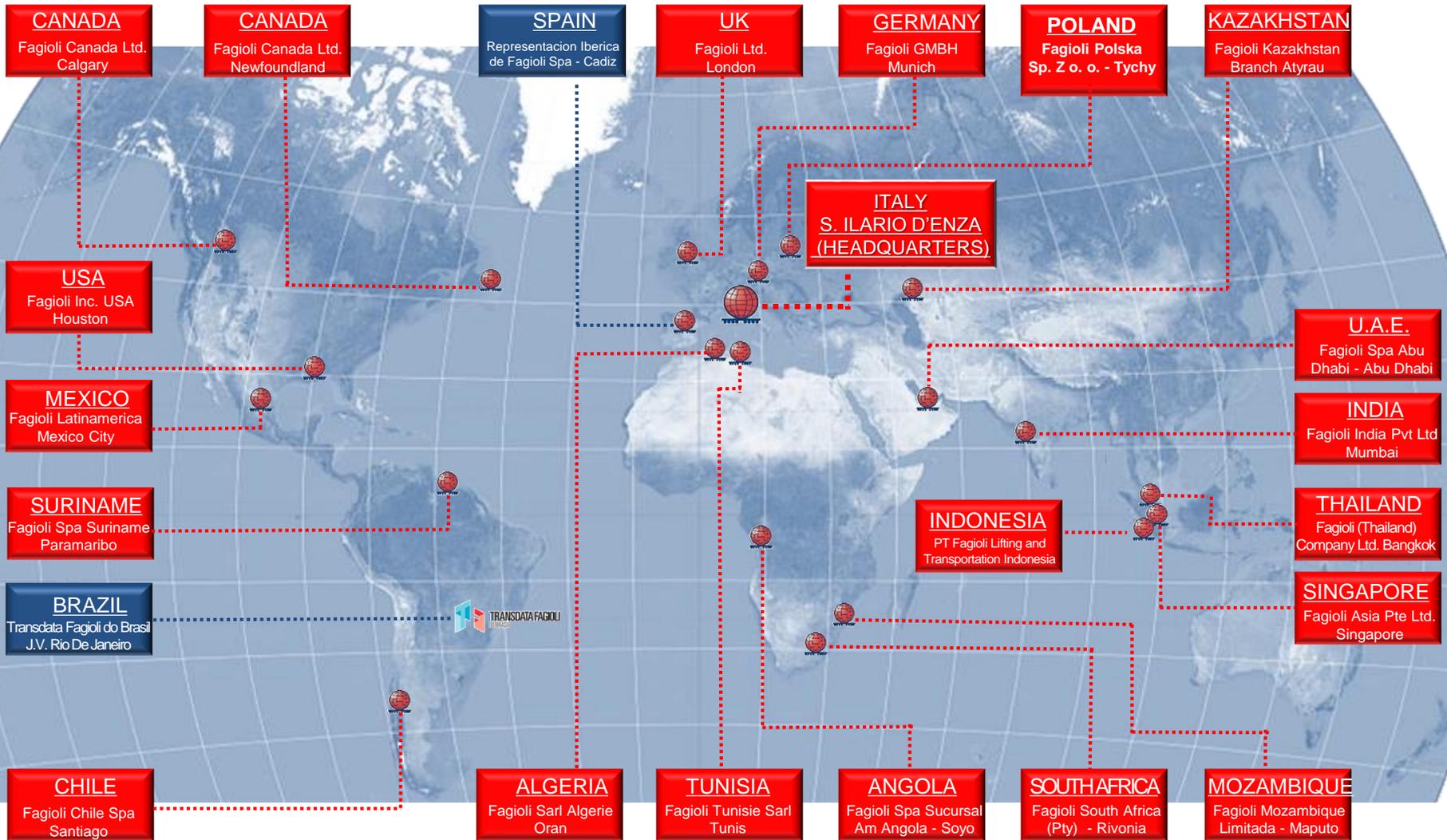


INTRODUCING THE FAGIOLI GROUP

HISTORY



GLOBAL PRESENCE



CORE BUSINESS

ENGINEERING

In-House Certified Engineering Division



HEAVY HAULAGE

Any Move...Anywhere...



HEAVY LIFTING & SKIDDING

Limitless Tonnage Capacity



PROJECT & FORWARDING

Worldwide Door-to-Door Service



HEAVY ROAD TRANSPORT

State-of-the-Art Equipment



RIVER & MARITIME

Providing River and Sea Services



BUSINESS AREAS

OIL & GAS

Stick-Built & Modular Construction Plants



OFFSHORE

Jacket Decks, Platforms and Offshore Structures



POWER & NUCLEAR INDUSTRY

Providing Reliable Services for the Energy Industry



CIVIL

Main Players in Construction Activity



HEAVY INDUSTRY & AUTOMOTIVE

Big Loads, Big Moves



SALVAGE & SHIPYARD

Wreck Recovering Operations / Mobilization and Launching of Ships



MAIN EQUIPMENT LIST

SPMTs **1,300 AXLE LINES**



Dedicated trailers for the heavy transport. 4-5-6 axle lines modular trailers with capacity up to 60 ton per axle line

SPTs **520 AXLE LINES**



Adaptable to any exceeding load to be used either on normal roads or on sites. Modules of 3-4-5-6 axle lines can be indifferently coupled

CRAWLER CRANES - **7 UNITS**



Crawler cranes with capacity up to 1350 ton provided with «wheeled» counterweights and onboard computerized control system

TOWER LIFT SYSTEM **> 1,000 MTs**



Fagioli own one of the biggest fleet of Tower lift System for the hoisting and installation of heavy items weighing several thousand tons.

ELEVATOR SYSTEM **10,000 TON CAPACITY**



The Elevator System is a specially designed system able to lift and skid items up to several thousand tons

STRAND JACKS (UP TO 750 TON) **> 1,000 UNITS**



From 15 to 750 ton each, strand jacks are used in conjunction with tower lift system for hoisting, lowering and skidding operations

SKID SYSTEM (UP TO 84,000 TON) **84 UNITS**



The Skid System is composed of Skid shoes (2,000 ton capacity each) operating on skid tracks and controlled by a computer system

PUSH - UP SYSTEM **25,000 TON**



Fagioli patented Push-up System has been designed to provide impressive hoisting operations such as offshore decks and platform

MAIN EQUIPMENT LIST

GANTRY CRANES 15 UNITS



Hydraulic track operating system (800 ton capacity) is mobile and self-propelled. Specially used in restricted areas

SCREW JACKS 20 UNITS



Heavy duty Screw Jacks able to lift items up to 800 ton (4 units). Generally used to lift at a comfortable height for assembly operations

RAIL CARS- 20 UNITS



Rail Wagons for heavy rail transports with capacity up to 500 ton. Different possible configurations with rail cars up to 32 axle lines

BARGES 10 UNITS



Fagioli own a range of specialized river and sea barges which include river pushers for heavy transports on the main Italian river and seas.

PRESSURE GAUGES WEIGHING SYSTEM



Fagioli calibrated digital pressure gauges could be installed onto SPMTs and Skid Shoes for accurate weighing operations

INTEGRATED LOAD CELLS WEIGHING SYSTEM



In addition to standard hydraulic jacks Fagioli provide integrated load cells in combination with strand jacks and skid shoes equipment

CLIMBING JACKS 24 UNITS



Climbing jacks are used to raise and lower heavy loads. Range from 200 to 600 ton. This kind of raising and lowering operations is carried out in steps of 10 cm

PUMPS FOR BALLAST 600 M³/H



Fagioli vacuum assisted self-priming centrifugal pump units are suitable for sump pumping during ballast operations

HEAVY TRANSPORT & LIFTING - ENGINEERING :
PROJECT LOGISTICS : FORWARDING



THANK YOU FOR YOUR
ATTENTION

WWW.FAGIOLI.COM

THE WORLD...OUR PASSION



FAGIOLI

HSE & QUALITY