# METAMORFOSI EVOLUTIVE DI UN PRODOTTO TRADIZIONALE

## COME ADATTARSI ALLE NUOVE ESIGENZE DEL MERCATO

Ing. Pietro de Michieli
Chief Operating Officer
Bedeschi Spa

# THE COMPANY

## Diversification

- Heavy Clay Industry
- Bulk Materials
- Marine Logistics
- Mining

## Engineering

- Feasibility study
- Basic engineering
- Complete green field/turn key installation

## Workshop

- All manufacturing carried out in the Company state-of-the art workshop in Italy

## 100 Years Young


- Complete quality control
- Highest product reliability

# ORGANIZATION

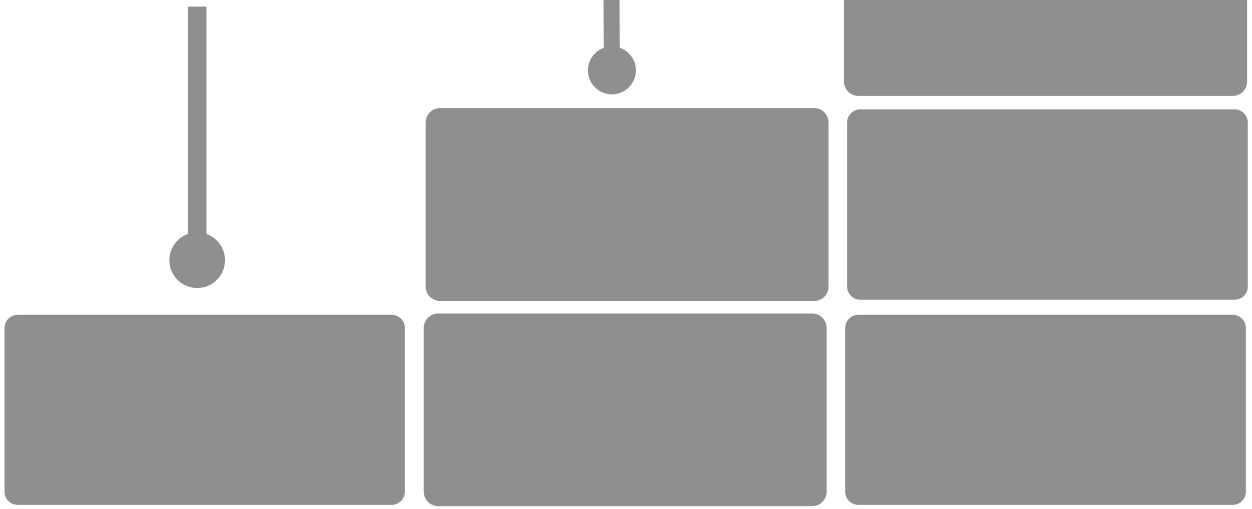

Bulk Bedeschi Logistic Liebherr Landmark Logmarin

# THE GROUP

MORE THAN 50,000 M2 OF COVERED MANUFACTURING FACILITIES

GROUP SALES: 90% SOLD IN 180 COUNTRIES

250 EMPLOYEES



# BEDESCHI WORLDWIDE ALLIANCE

# HEADQUARTER

# WORKSHOP

# WORKSHOP









# Spot the differences....

VS

# Spot the differences....


VS

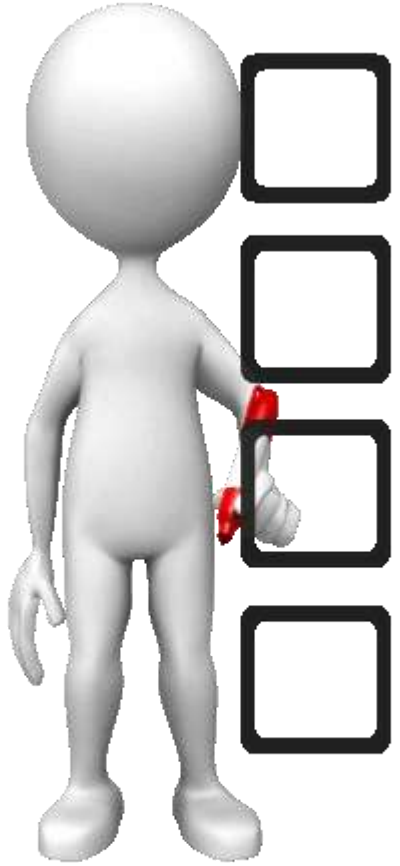
# Spot the differences….

1. Environmental Data

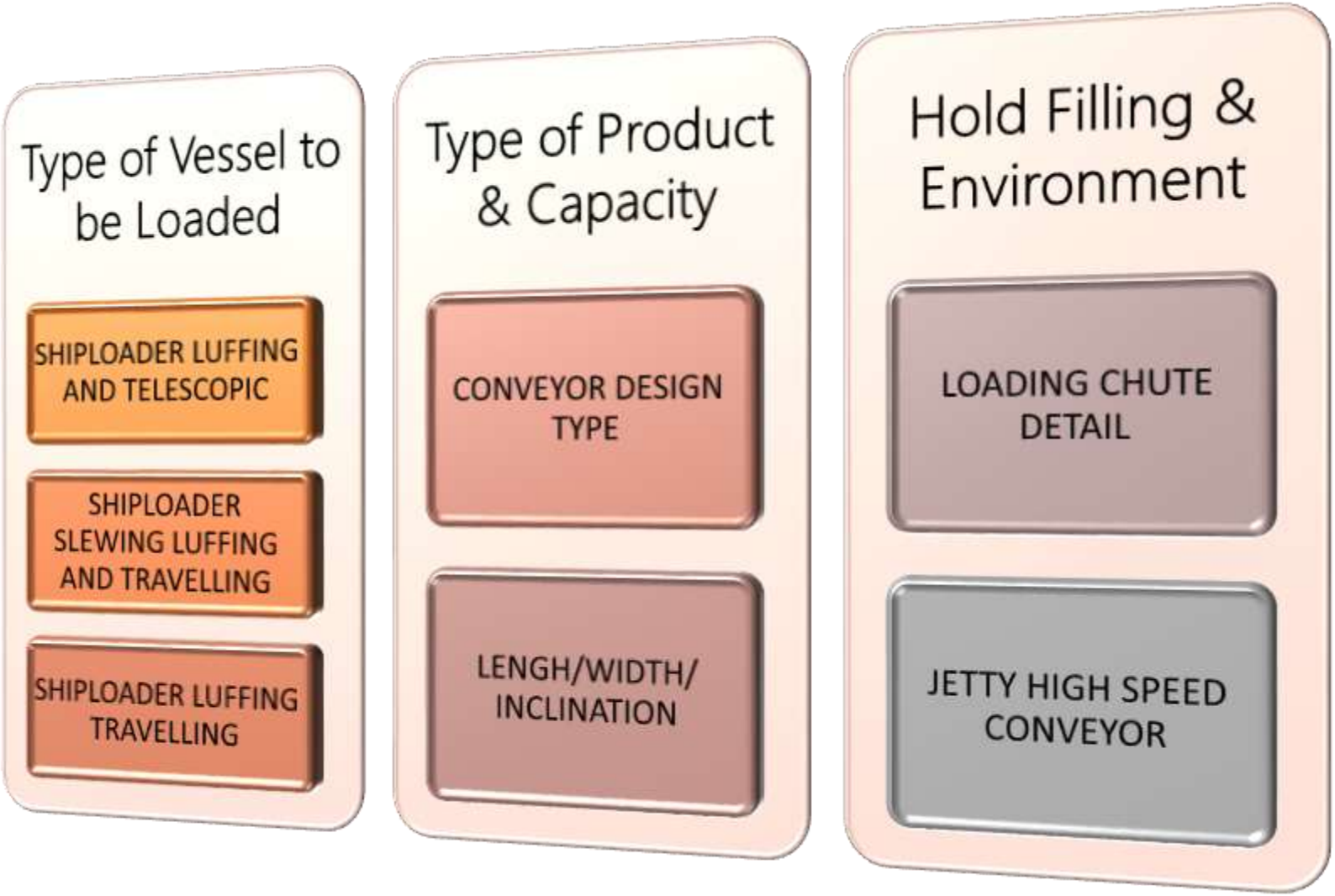
2. Mechanical Components

3. Geometrical Dimensions

4. Painting Cycles



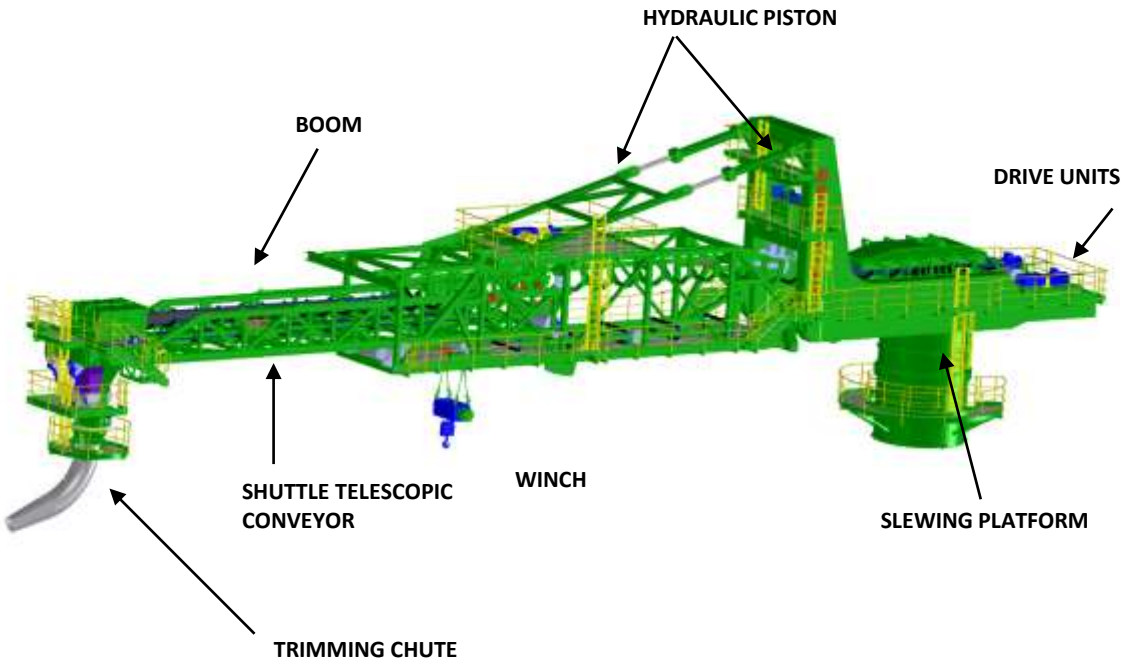
# General Overview



# Shiploader Slewing Luffing and Telescopic

## Type of Vessel to be Loaded

- SHIPLOADER SLEWING LUFFING AND TELESCOPIC
- SHIPLOADER SLEWING LUFFING AND TRAVELLING
- SHIPLOADER LUFFING TRAVELLING



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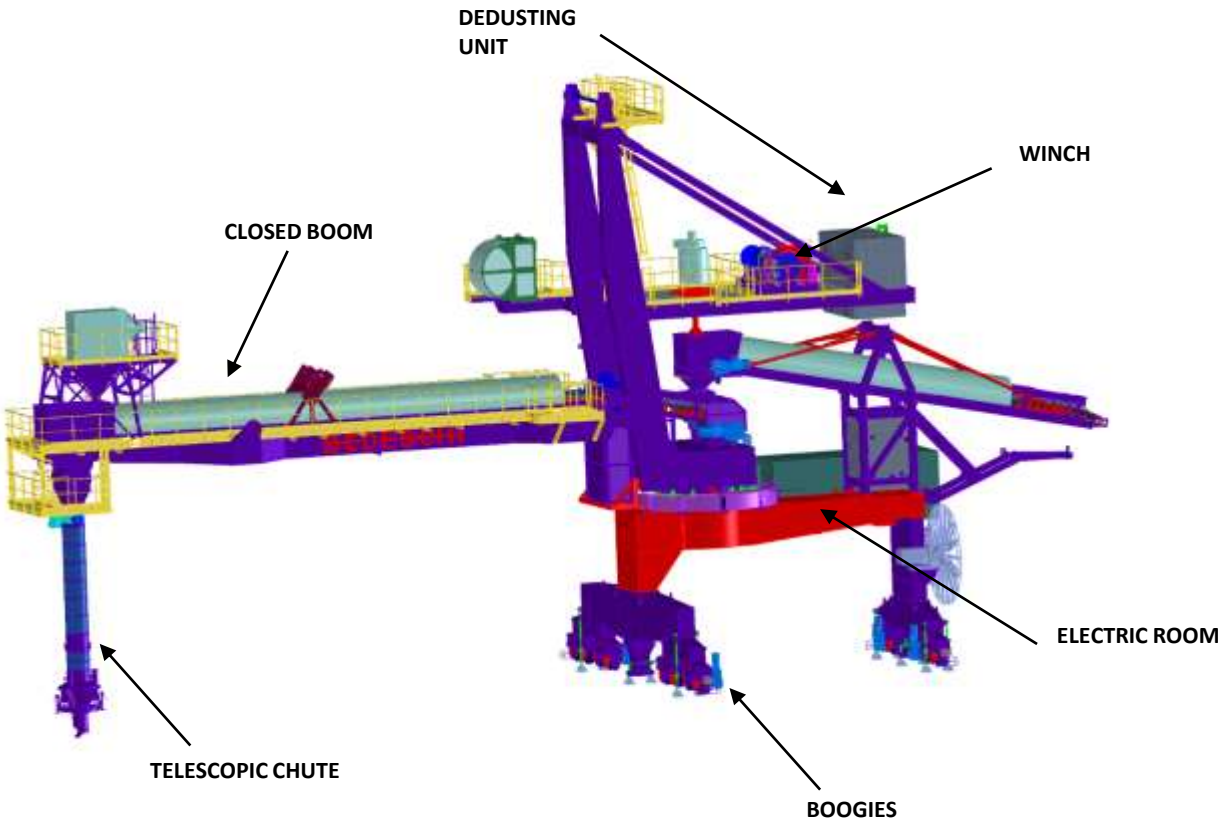

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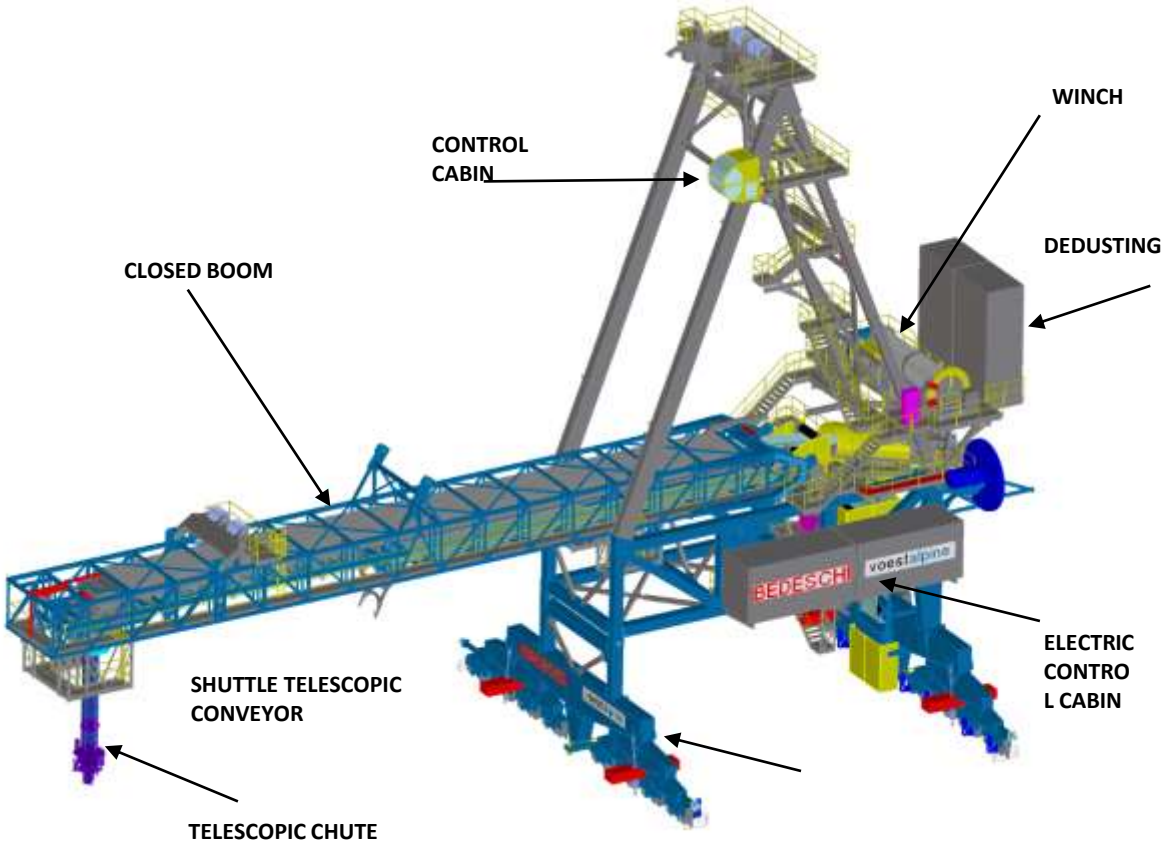

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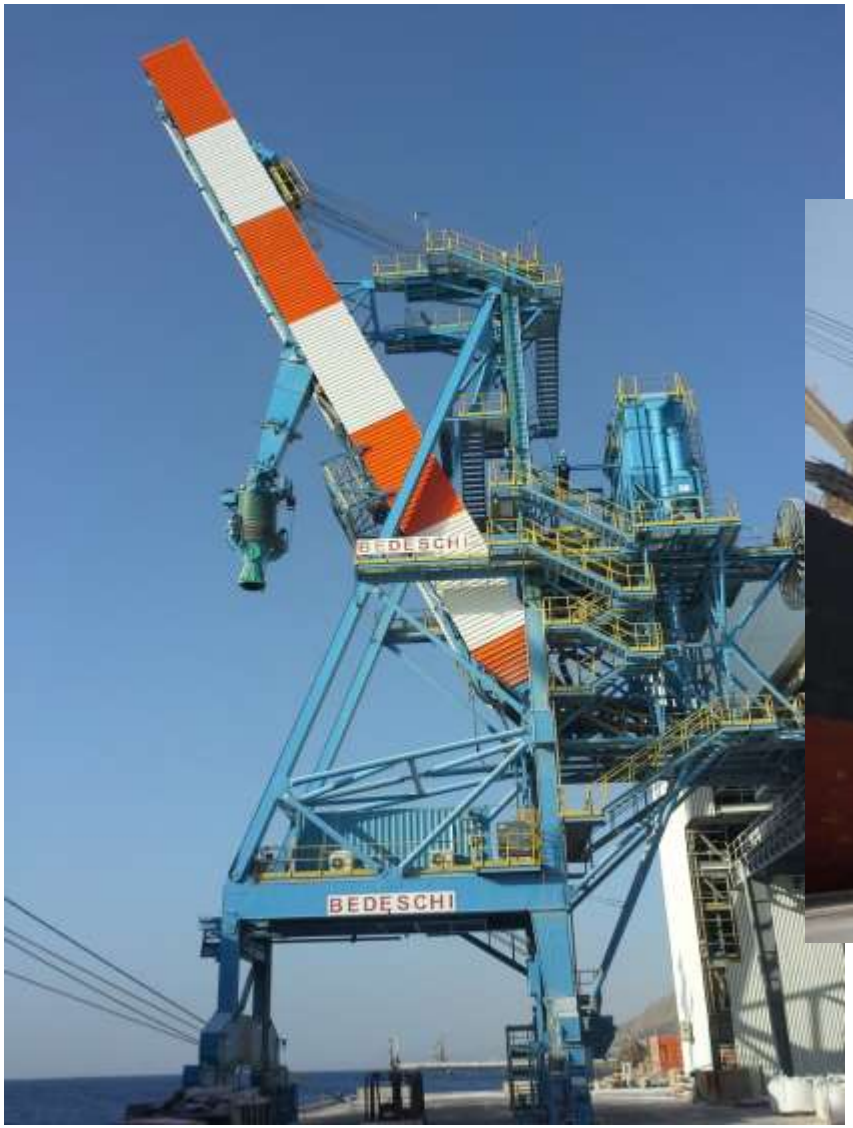
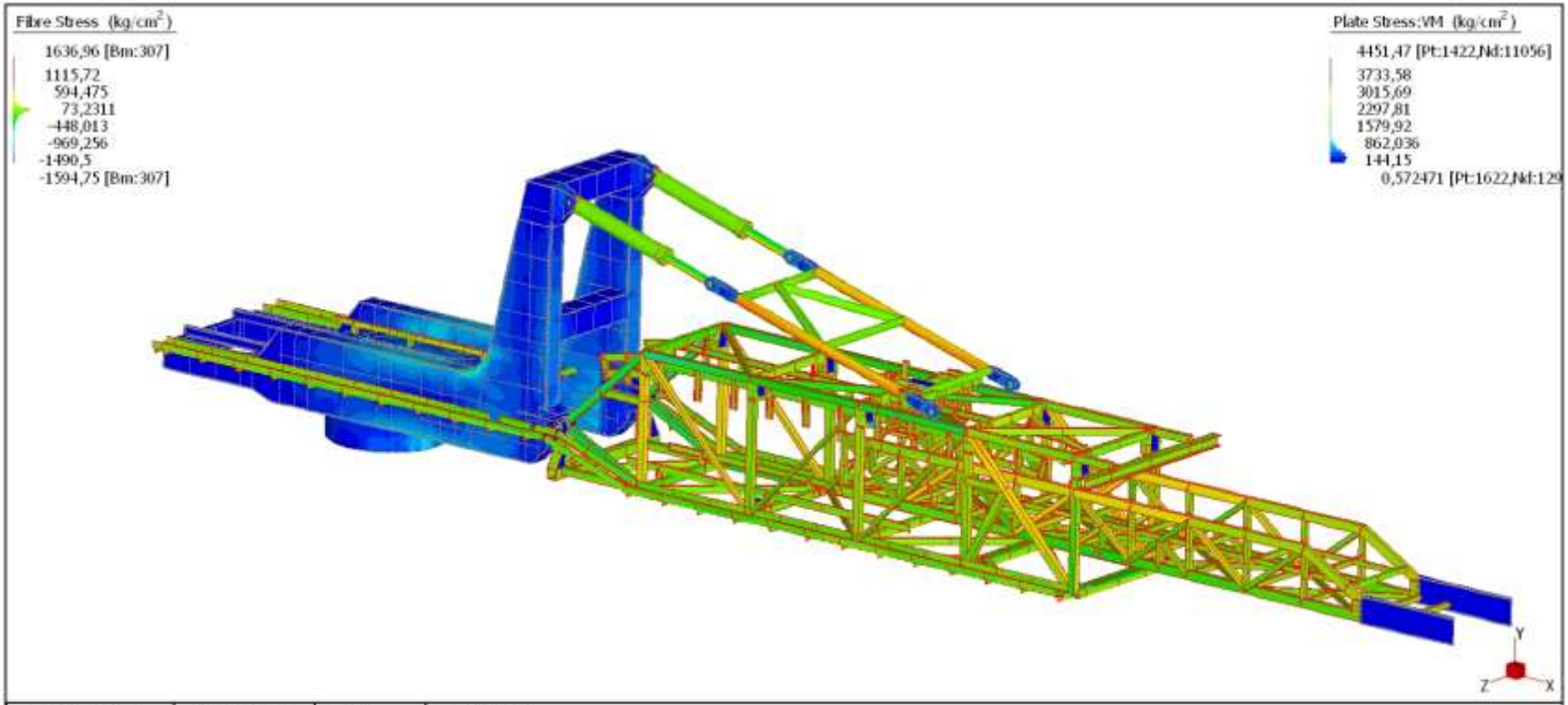


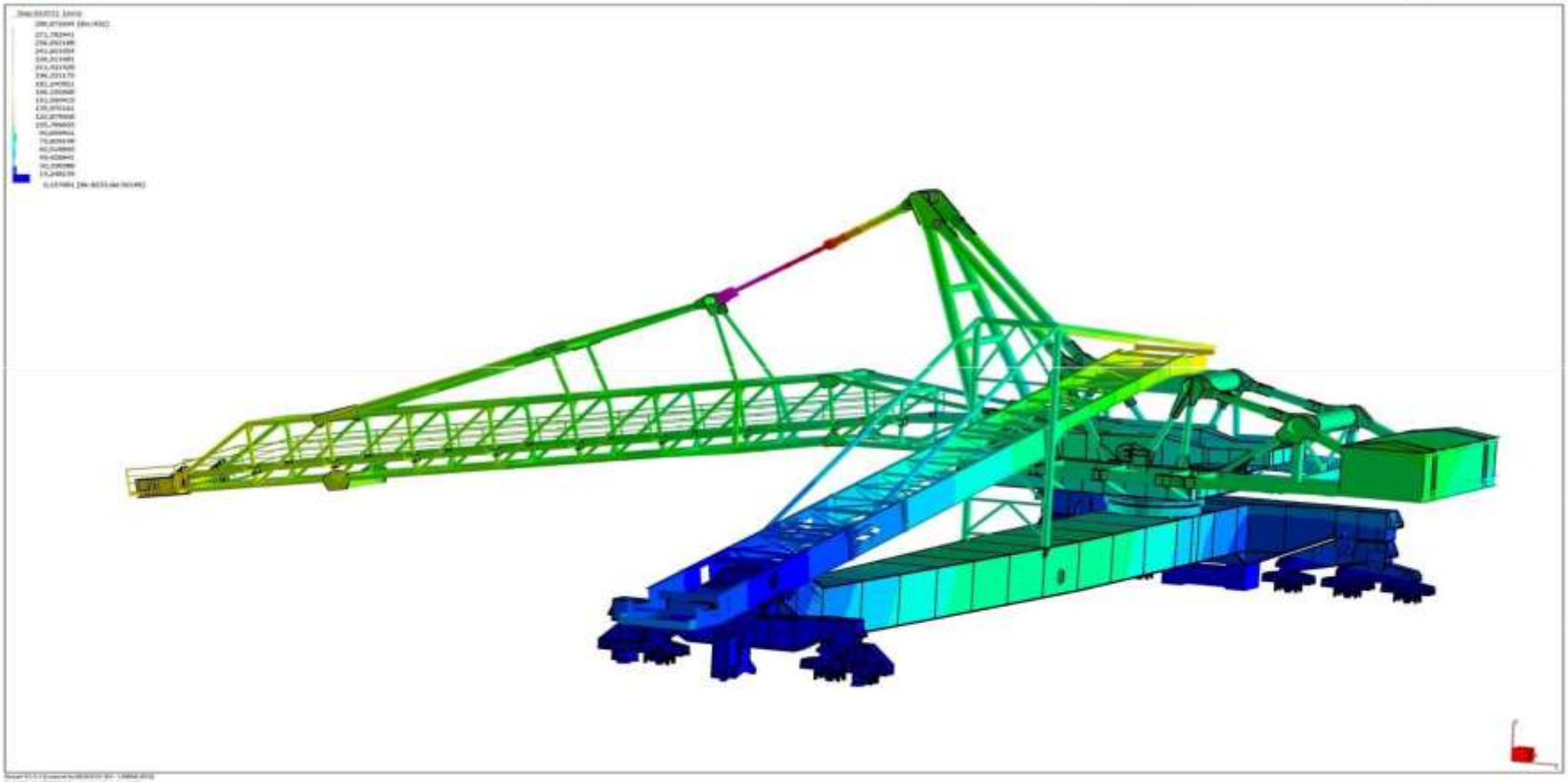

| | | | |
|---|---|---|---|
| 15151 Nodes | 0 Vertices | View | 1: dead loads |
| 973 Beams | 0 Edges | RX: 14,7 | 1: Freedom Case 1 |
| 16019 Plates | 0 Loops | RY: -37,6 | Scale: 1,000000 A |
| 0 Bricks | 0 Faces | RZ: -1,7 | |
| 623 Links | 0 Surfaces | | |
| 0 Paths | | | |

Straus7 R2 4.3 [Licenced to BEDESCHI SPA - LIMENA (PD)]
Model file: H:\STUDI\PRINCESS CHLOE\SHL 40_1600\CARICATORE_studio_definitivo.st7
Result file: H:\STUDI\PRINCESS CHLOE\SHL 40_1600\CARICATORE_studio_definitivo.LSA
16 settembre 2010 3:22 pm

1908
BEDESCHI
PADOVA

1908 - 2008

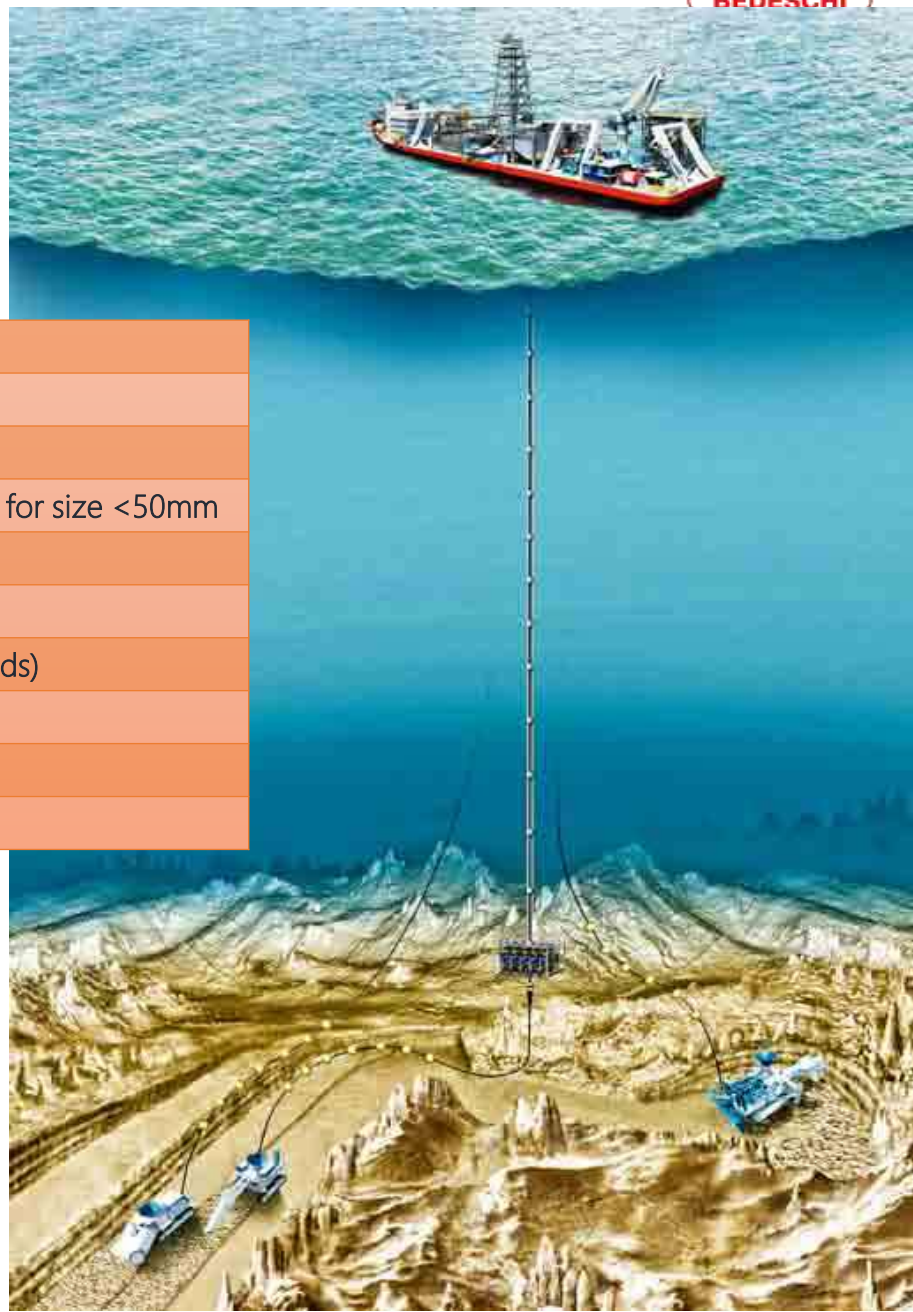
| | |
|---|---|
| NEW DION ORE TRANSHIPMENT AND CONVEYOR SYSTEM | |
| VALE project | |
| Ing. Andrea Barbato | DM80 |



# Case Study Nautilus

# Case Study Nautilus

| | | |
|---|---|---|
| Material | : | ORE |
| Bulk density | : t/m$^3$ | 1,8 - 2,6 |
| Material size | : mm | 0 to 50 mm |
| Percentage size | : % | 80% for size <25mm; 100% for size <50mm |
| Moisture content | : % | 10 |
| Angle of repose | : ° | 38 – 40 |
| Total stored volume | : m$^3$ | Approx. 5150 x 4 (no. of holds) |
| Stacking capacity | : t/h | 400 dry |
| Reclaiming capacity | : t/h | 800 dry |
| Ship loading capacity | : t/h | 1600 dry |



# Case Study Nautilus

# Case Study Vale

# Case Study Vale

## ORE FABRICA: THINKING BIGGER

Location: Philippines

Commissioned: February 2012

The challenge: Chinese authorities prevented Valemax (largest ore carrier ever built) to enter their ports.

How to discharge such giant vessels at delivery stage?

The solution: Ore Fabrica

- One year only from concept to operation
- 5 MPG cranes
- 5,000 tph trans-loading capacity
- 284,000 tons buffer storage
- 9,700 kW installed power

# Case Study Vale

## NEW IRON ORE TRANSHIPMENT AND CONVEYOR SYSTEM

The cargo handling system of the OFT is sized and designed for the main purpose to transfer Iron Ore by means of heavy duty cranes and conveyor belt system, from large ore carriers up to 400.000 DWT to bulk carrier up to cape size.

- ✓ Conveyor system to be designed for continuous heavy duty operations.
- ✓ Reference drawing for the offer is our ref.: VP-200.959 rev. 3
- ✓ The metric system will be used as measuring unit, standard such as ISO FEM DIN and VDE will be observed for Cargo Handling plant.

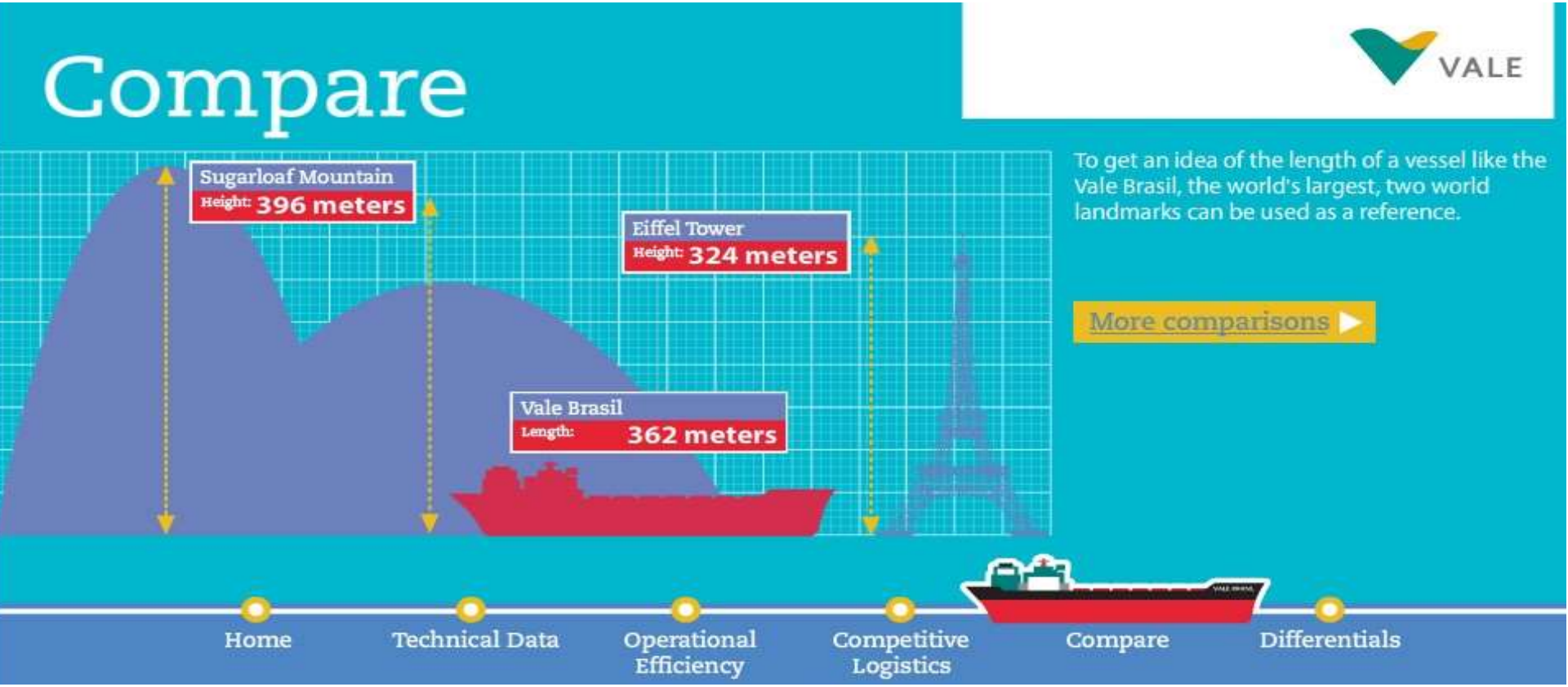
Nominal convey capacity used for design criteria is:

| | |
|---|---|
| ✓ Fixed conveyors, related machinery and Ship-loader: | 5000 t/h |
| ✓ Will be calculated for iron ore handling, with specific density | 1,8-2,4 t/m3 |
| ✓ Hoppers, belt feeders | 1500 t/h |

The value of 1,8 t/m3 will be used for volumetric design of conveyors, while the value of 2,4 t/m3 will be considered for power calculation and max stress design parametres.

| | |
|---|---|
| ✓ Design capacity | 6000 t/h |

# Case Study Vale



# Case Study Vale

## Which are the differences?

Side Tripper

1 single travelling luffing and rotating shiploader 6000 t/ph

2 luffing and rotating shiploader 3000 t/ph each

Adjustable flow deviator

Optimized transfer point design
Full set belt cleaners
Standardized belt motors
Antiwearing plates on tranfer point

# Questions?