TRANSPORTATION AND LIFTING

VERTICAL VESSEL

C3 RECTIFIER

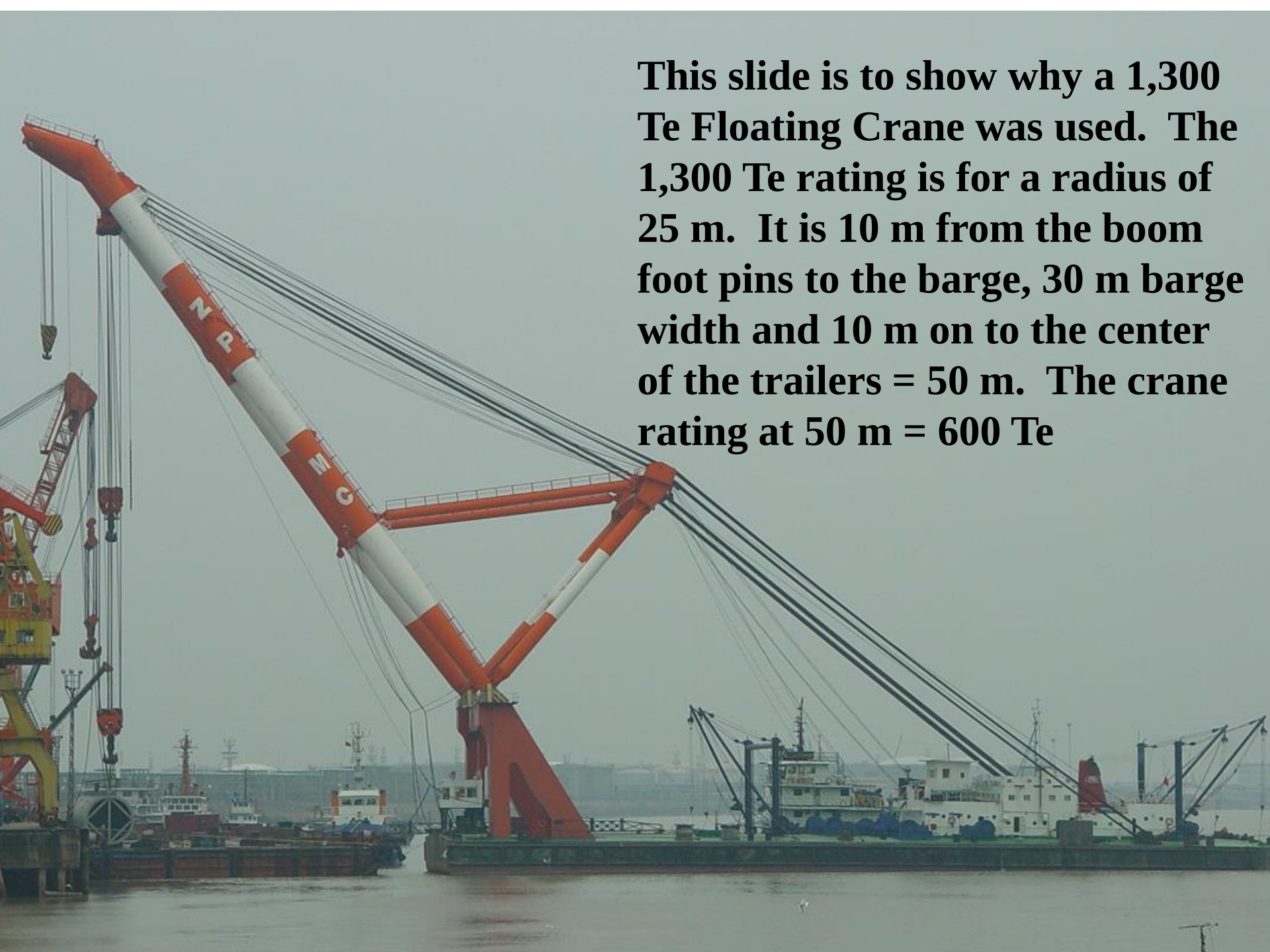
Offloading
Transportation
780 Te

Erection
850 Te

Dimensions
7m x 92m

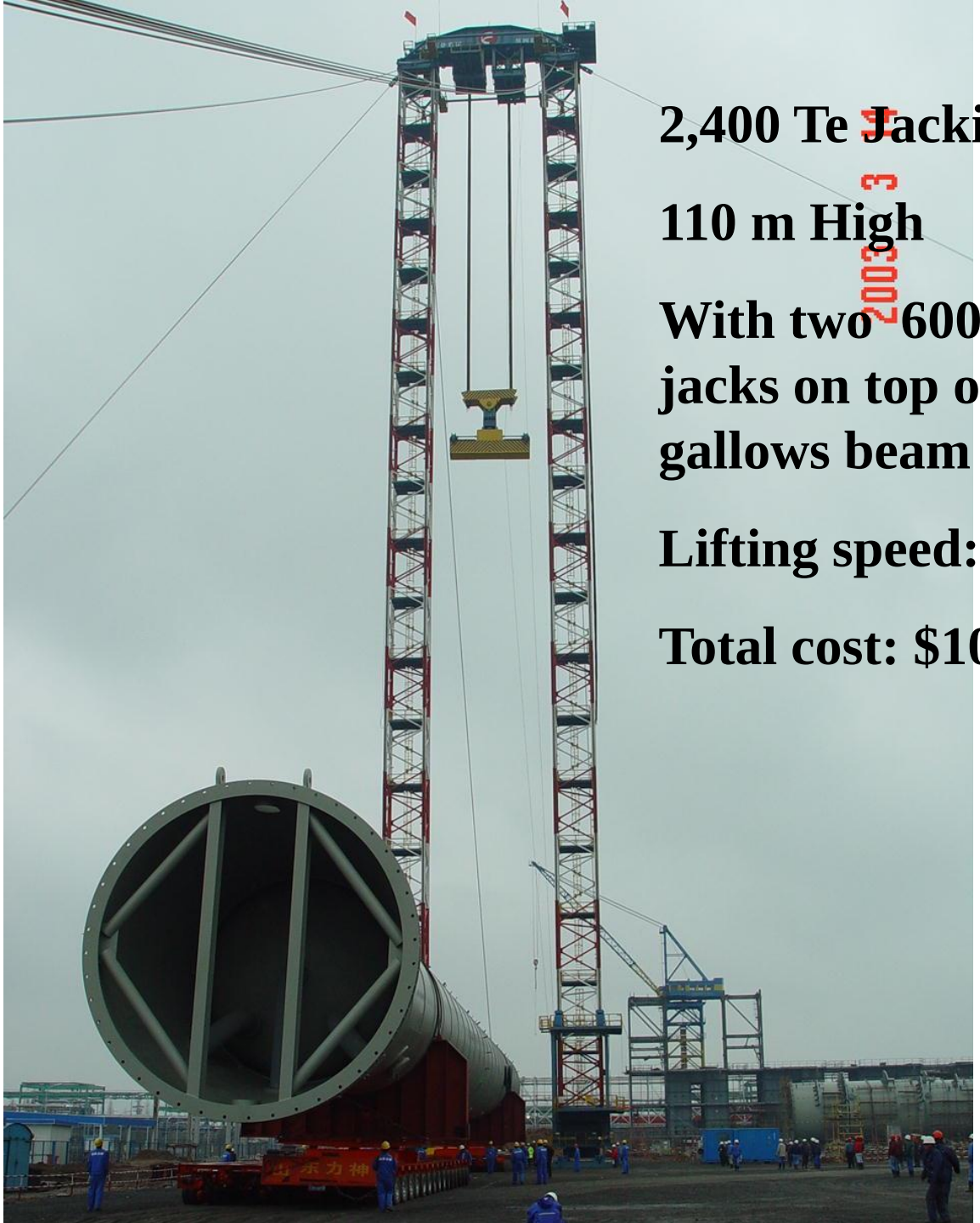
Fabrication Cost $4,500,000


1,300 Te
Barge Crane
600 Te Luffing
crane
1300T
安全第一
预防为主
2003 3 13



This slide is to show why a 1,300 Te Floating Crane was used. The 1,300 Te rating is for a radius of 25 m. It is 10 m from the boom foot pins to the barge, 30 m barge width and 10 m on to the center of the trailers = 50 m. The crane rating at 50 m = 600 Te

Nicolas Self Propelled Trailers, double wide. **15**
axles Rear, 13 axles Front,
New cost: $100,000 per axle line, **Total Cost: $2,800,000**



2,400 Te Jacking towers

110 m High

With two 600 Te strand jacks on top of the gallows beam

Lifting speed: 16 m/hr.

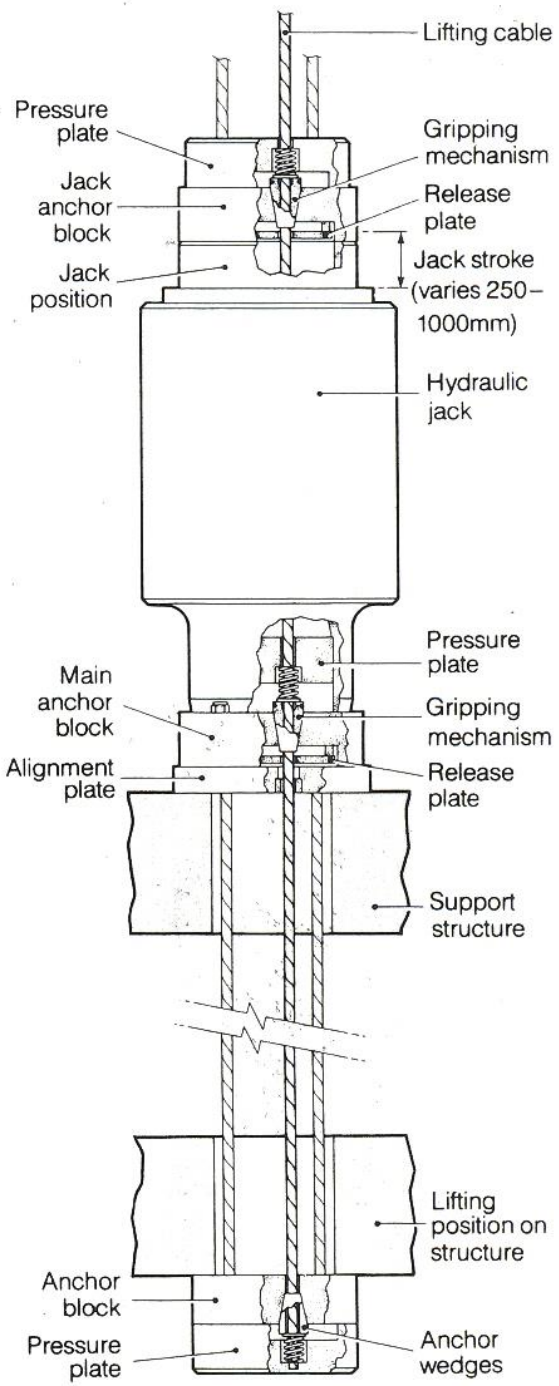
Total cost: $10,000,000

PSC

Centre-Hole Strand Jacks

PSC operates a range of jacks from 15 to 600 tonnes capacity each based upon lift cables of 1 to 37 strands of 18mm diameter, 7 wire, die-compacted, prestressing strand of guaranteed minimum breaking load of 38 tonnes per strand.

Jacks may be used singly, in pairs, or in groups to give any lifting capacity required.



PSC STRAND JACK

Note the gripping mechanisms (wedges) at the top and the bottom of the jack. To raise the load, the top wedges close and grip the strands to support the load as the ram is extended. At the same time the bottom wedges open. As the ram is being retracted, the bottom wedges close and grip the strands to hold the load and the top wedges open. This cycle is repeated over and over during the raising operation. Lowering the load is the exact opposite


1,250 Te Tail Crane
Lifting speed: 150m/hr
Cost: $15,000,000
2003 4


2003.4.5


9" (230 mm) dia. slings
2003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Gallows Beam

Question:

How was the 110 Te gallows beam removed from the top of the jacking towers?

SKIDDING AND CLIMBING THE JACKING TOWERS

1. **Push-pull jacks moved the base of the towers side ways as the guy wire lengths were computer adjusted to keep the towers plumb within 4" (100 mm).**

2. **When the gallows beam was clear of the vertical vessel, six meter tower sections were removed through the blue climbing frames located at the base of the towers.**

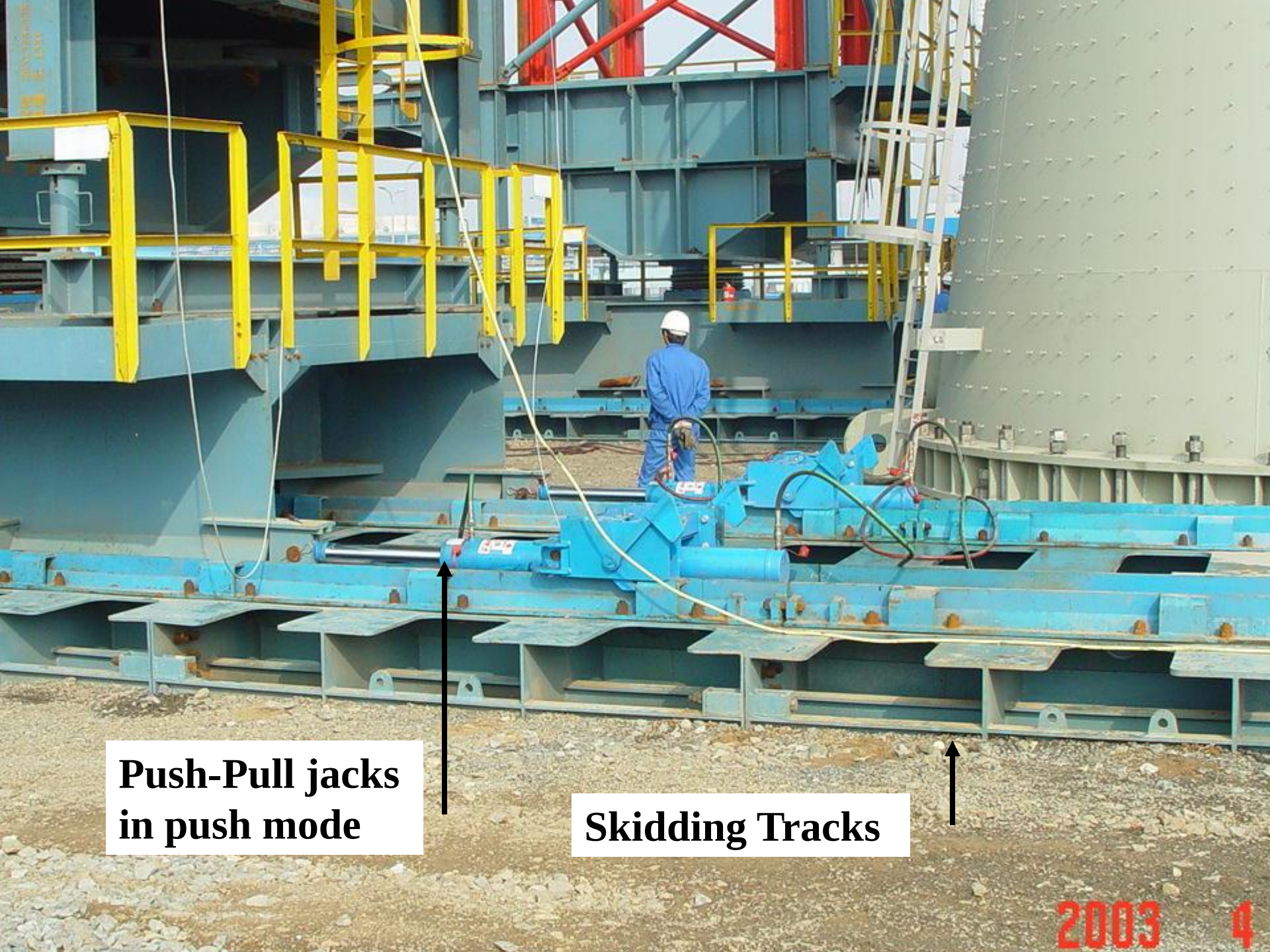
3. **Note that there are two 60 Te gripper jacks located at each corner of the jacking towers. They grip the 4" (100 mm) brown square bar welded to each corner. These jacks raise the towers, the six meter tower sections are removed thru the blue climbing frames, and then the jacks lower the towers down 6 meters.**

4. **Note that the white six meter tower sections extend down into the blue climbing frames about 2' (610 mm) so that the towers are stable at all times.**

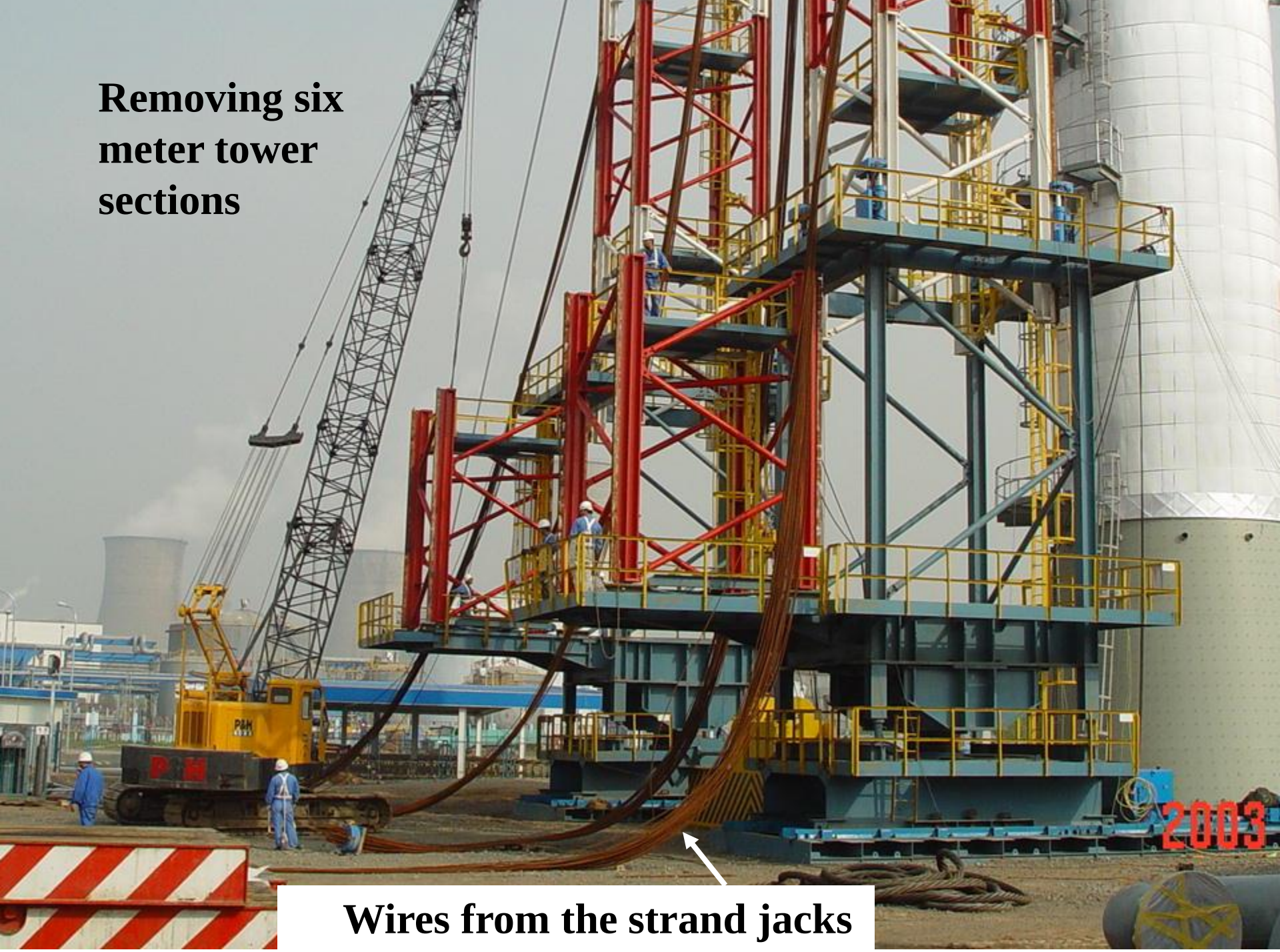
5. **The rusty looking wires in the photos are the jacking strands.**


Photo of skidding tracks before erection of the vessel
2003 4 5


Skidding
the towers
side ways


Push-Pull jacks
in push mode
Skidding Tracks
2003 4

Gallows beam clear of the erected vertical vessel


Removing six meter tower sections
Wires from the strand jacks
2003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