

***Engineering and supply of parts for extraordinary maintenance with replacement of drives and remaking of the bridge control system of the Ceretti & Tanfani CT157 crane at Terminal Molo B MARGHERA VENICE.***



Purchaser: **SIEMENS S.P.A. I&S department MILAN.**

Order: 14/12/2000.

Time required: About 6 months.

**Mechanism data:**

Feeding: 3 kV average voltage network with cable reel.

Principal transformer: 3/0.4 kV 1600 KVA ONAN.

Bucket manoeuvre and lifting: 2 300 kW DC current engines.

Wagon translation: 2 50 kW DC current engines.

Jib movement on sea side: 1 75 kW asynchronous engine.

Bridge translation: 12 12,5 kW engines with rotary control.

Maximum ropes' capacity: 45t.

**Description:**

The grabbing crane on tracks needed a renewal in the control system in order to increasing the reliability. A recent SIEMENS S7 control device, with the possibility of communication on data bus and CPU with floating point calculation, has been then proposed instead of the central PLC type S5 (year 1984).

The power part, realised with Thyristors bridges controlled by analogue logic, has been replaced with totally digital conversion groups, maintaining the existing engines.

All the system is monitored on board by PCs with diagnostic process and report of the alarm signals.

The hardware engineering has engineered the system "ex novo" maintaining only small parts of the existing one and applying the newest technology for safety and control functions.