

Cal Equipment:

We perform custom upgrades on older cranes using the latest electronics and software. These upgrades can bring substantial performance and profit improvements at minimal cost to your older port facility.

Performance improvements for container and clam bucket cranes are:

- Reduced cycle times
- Anti sway
- High speed velocity profiles
- Automated positioning
- Reduced spillage
- Simplified maintenance
- reduced downtime
- reduced operator dependence
- Safety and operational redundancy

You?

Every crane and situation is different and requires its own customized upgrade program. Consider the following questions and then consider us for your upgrade needs.

Do you have accurate and up to date documentation?

- How important is cycle time?
- Reliability now and needed?
- Downtime possible during upgrade?

Some history:

We have recently completed a complete control system upgrade on a 40 year old all electric LeTourneau SHU-60 straddle hoist. The unit had not functioned for more than ten years from badly done modifications to the wiring.

We had to remove all the existing control wiring since the existing wiring had little correlation to any existing documentation. Several hundred pounds of old wiring were removed and replaced by distributing the control over a modern day computer network using six Idec programmable logic controllers. The six PLC's were engineered into control unit sub-assemblies that were then wired locally to motor controls, contactors, switches, and potentiometers.

Four potentiometers were installed, one on each wheel for position input to the PLC's. The potentiometer inputs were used to control wheel position in several steering modes that coordinated all four wheels and were controlled by a dashboard pot/steering wheel.

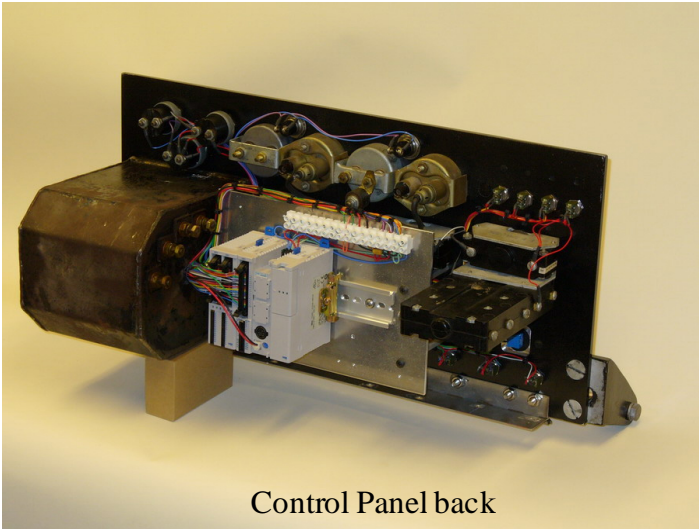
A complete documentation package was developed and provided to the owner upon completion of the project.



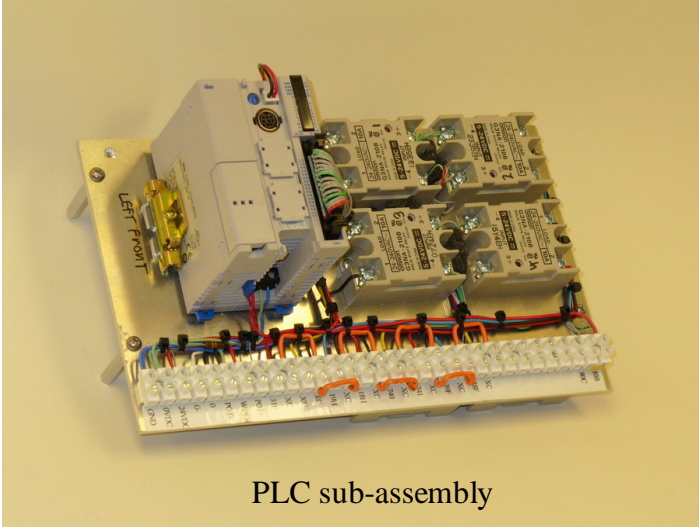
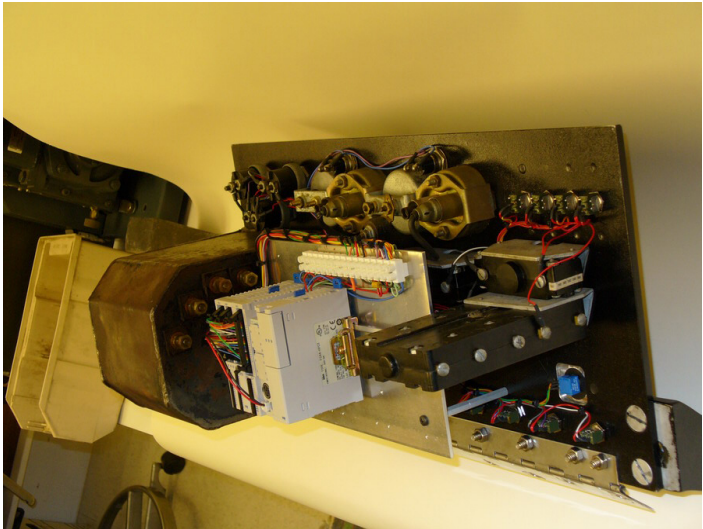
LeTourneau SHU-60 strad-L-hoist



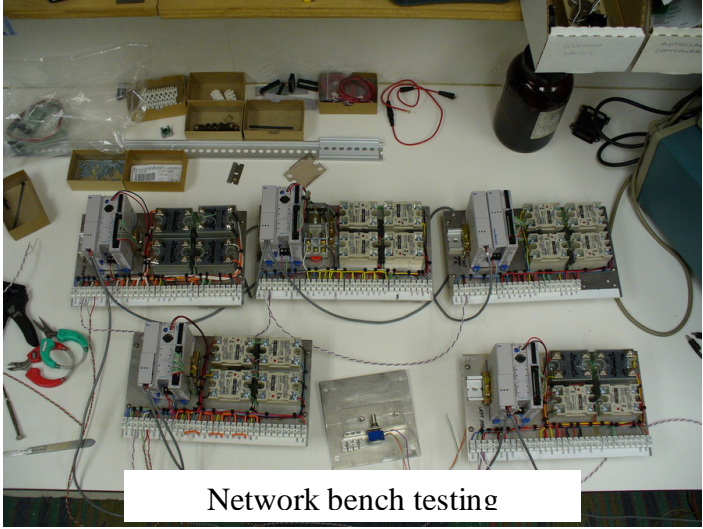
Control Panel front



Control Panel back



PLC sub-assembly



Network bench testing