

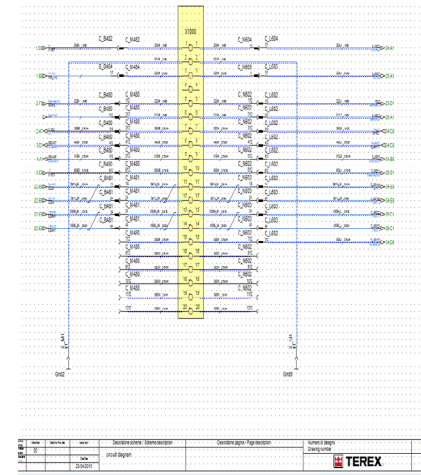
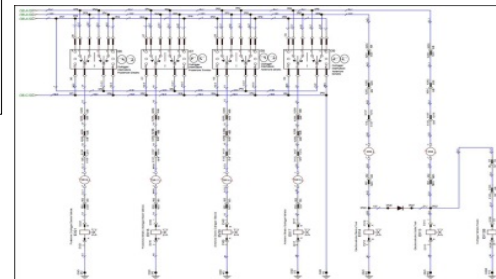
Summary

Project Name: NPD and Production Support

Scope: RT90 Global Crane with common design for European and American market

Software: E3

- Support for development of proto machine by designing schematic and gathered technical information for electrical system
- Issues resolved on proto build and support provided to harness supplier for implementation of design change
- Documentation of design for RT90
- Electrical designing is done referring the ANSI (US) and IEC (Europe) standard for global usage
- Final design released for production with ISO standard



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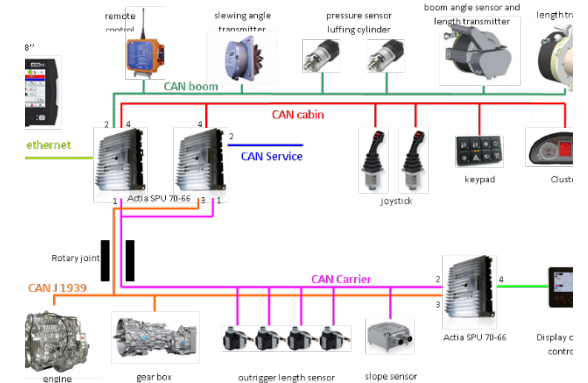
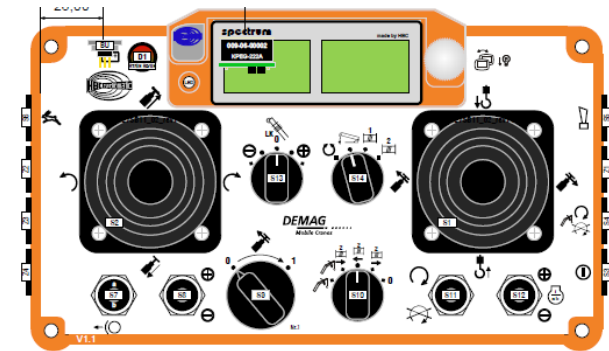
Software: E3

Challenges and concerns;

- Common cranes for European and American market
- Common ISO standard for both the market
- Managed proto support together at two different location by implementing the changes from TIRC
- TIRC engineer at onsite coordinated with site and TIRC during proto build
- New features implemented during during proto build at different sites same time

Value addition done during proto build

- Standardize the CAN structure :
- Harness manufacturer has implemented parallel connection for the BOOM CAN bus, which has affected the signal strength for long time usage , so we have suggested and modified as serial connection for better signal communication. Added Radio remote features in RT 90 crane mainly for Winch, Slew and Boom Operation



Summary

Project Name: Design Support for New Crane

Scope: Designing of electrical schematic and harnesses for New crane taking inputs from Crossover Chassis crane and Rough terrain Cabin

Software: E3

Challenges-

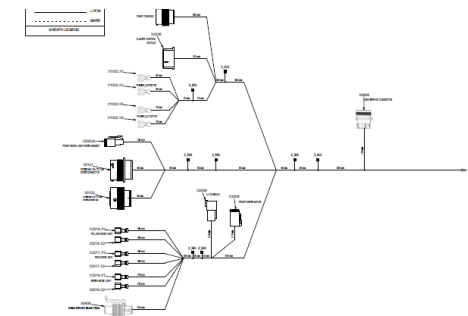
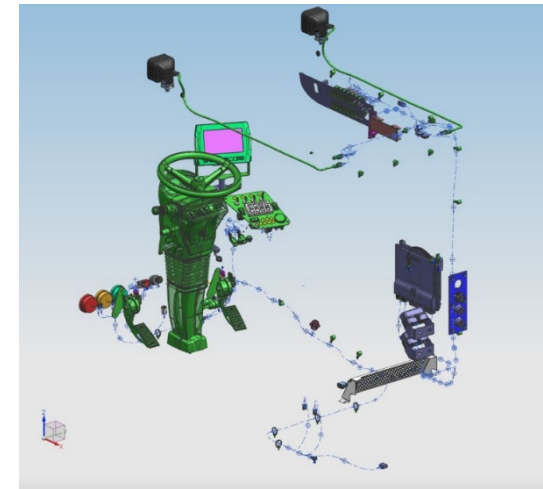
- Conversion of 12 V to 24 V system
- RCL system to be added

Solution -

- All wires to be converted as per 24 V system
- Incorporation of Control system in RT crane
- All 12 V electrical cabin control from RT 100
- New HVAC system connections incorporated
- 12 V Diesel heater to be converted to 24 V and accordingly the New Terex RCL (Controller based) used
- 3D routing of the harness created to extract the actual length of the harnesses

Achievement-

- New crane with 24 V system to be used in Waverly , IOWA and Crespellano



Summary

Project Name: Design Support for Pick and Carry Crane

Scope: Electrical Design Support for Pick and Carry Crane

Software: E3

- Support to Create electrical design for Pick n carry crane (AT40)
- Reduced wiring hardware (wiring diameter) as CAN network used
- Electrical Design released for production
- 1 HYDAC controller replaced with 2 ACTIA controller (On Rear body and Cabin)
- Controller connected CAN bus
- Relocating TCM from front side to rear side

Final design proposed with -

- Copper reduction
- Bundle diameter reduction
- Relay optimization
- CAN bus introduced



Traditional Rocker switches replaced with CAN keypad

