ELECTRONIC SYSTEM CUTS CRANE FUEL CONSUMPTION BY 20%

CUSTOMER PROFILE
Control Techniques’ innovative electronic system has cut fuel costs on diesel-electric cranes by as much as 50% during standby, giving operators an overall fuel saving of around 20%.

THE CHALLENGE
Diesel generators on Rubber Tyre Gantry (RTG) and Mobile Harbour Cranes (MHC) are usually run at a constant speed to supply the drive system and auxiliaries, whether the crane is in operation or in standby mode. This means that during standby the system is highly inefficient with a high fuel to power ratio, resulting in high costs and an unnecessary environmental impact.

The search for a more efficient method of running crane generators was focused on the ability to run generators at a slower speed during standby, saving fuel, lowering costs and helping the environment.

THE SOLUTION
Control Techniques RIS.GA is a compact static electronic system that can be easily installed or retrofitted to new or existing RTG and MH cranes. The system monitors the crane’s operation and reduces the speed of the diesel generator during standby mode to cut fuel consumption dramatically.

The system has been successfully installed in ports around the world and is used, for example, on RTG cranes manufactured by ZPMC, Kalmar, MGM-OMG, Doosan and Fantuzzi Reggiane.

THE BENEFITS
As well as reducing fuel costs, crane productivity is increased, as fewer fuel stoppages are required and the wear and stress on the diesel engine, generator and auxiliaries is also reduced, cutting maintenance costs and extending their life.

In addition, emissions are lower, reducing the environmental impact.

Field tests carried out on six RTG cranes for one month showed that the terminal operator can save 20% or more on fuel consumption with RIS.GA – cutting fuel consumption by 50% during standby. Fuel consumption was cut from 20 litres per hour to 15 litres per hour, and from 15 litres per hour to 7 litres per hour during standby mode. Thus, operators can expect to recoup their investment after one to two years depending on fuel prices.

Furthermore, space within both RTG and MH cranes is limited and the size of the RIS.GA solution is very compact, allowing easy integration and connection into the control system of both new and existing cranes.

KEY BENEFITS
- FUEL SAVING OF 20%
- PRODUCTIVITY INCREASED
- LOWER MAINTENANCE COSTS