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Infra-Red & Radio
Remote Control
Crane Systems

COMMANDER™

Horizontal & Vertical
Collision Avoidance
Crane Systems



Case Study



Infra-Red (Remote Control of Coal Hoppers)

Location United Kingdom

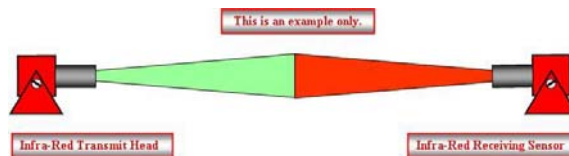
Industry Power Generation

Application Qty 5, Euclid Pick & Drop (Graders) for Coal Stock Piling with Qty 2 Coal Hopper Feeders from incoming Rail Coal Transportation.

Project To effectively control the pick up (collection) of coal from discharge hoppers into Euclid Pick & Drop Graders. An important operational requirement was for operators to be able to control either hopper with any Euclid machine using a common but secure coded signalling system that would only permit activity of the hopper commands when a single Euclid machine was safely positioned under the relevant hopper so as to eliminate hopper discharge when no Euclid machine was in place to receive the discharge (load). The **COMMANDER™** system choice for this application was quite clearly to use Infra-Red as the command and communication medium with hardware set in a define sector transmission mode. Each Euclid machine therefore was fitted with an 'in cab' controller powered from the machines 24V DC regulated electrical system. The output device was installed on the machines operator cab roof and directed in an horizontal orientation to the hopper (@ 90° to travel) where a receiving sensor was installed on the same axis and connected to a receiver decoder. The machine had to be positioned under the coal hopper and in pre-determined alignment to enable commands to be output to the hopper door controls. If a Euclid machine was driven away before discharge was complete, loss of command signal would cause the hopper doors to be closed thus to prevent spillage from the hopper to the ground requiring clean up, considerable clean up savings made.

Pictures Typical Alignment Method (Defined Sector Transmission)

These pictures are not to scale

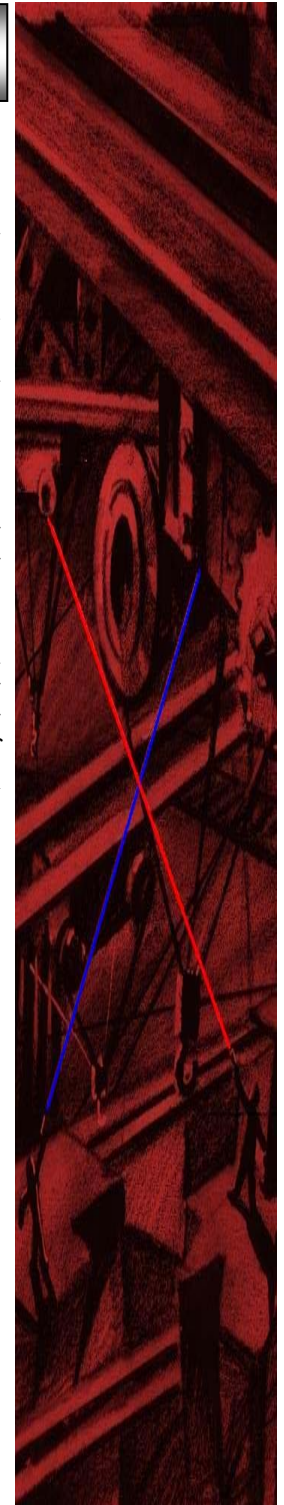


Typical Euclid type Grader



Power Station Coal Stock Location

Typical 'In-cab' Controllers



Specialist Designers & Manufacturers of Industrial **Infra-Red** & **PLL Synthesiser Radio** Remote Control; **Infra-Red, Ultrasonic & Microwave** Collision Avoidance Systems for Horizontal & Vertical (multi-level) applications; Simplex & Duplex Data Communicators; High Integrity Control Gear for High Integrity Material Handling Applications; Designers & Manufacturers of Eddy Current Brakes & Closed Loop Controllers; CE compliant: **U.K. Designed & Manufactured.**



T: +44 (0) 115-989-0100



F: +44 (0) 115-989-0200



W: www.commander.co.uk



E: sales@commander.co.uk

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Commander Controls Limited
12 High Hazels Road
Manvers Business Park, Cotgrave
Nottinghamshire, NG12 3GZ. UK