

FREE ENGINEERING WORKBOOK

Plan the crane before you price the crane

A practical briefing pack for new overhead cranes, gantry systems, upgrades, servicing and statutory inspection.

CAPACITY / SPAN / HOOK HEIGHT / DUTY / ACCESS / HANDOVER

Prepared by CraneCert Limited

Overhead crane design, installation, servicing and LOLER inspection

1. Define the lifting task

Start with what must move, where it starts, where it finishes and how often the lift happens. A reliable crane specification is built around the process, not a catalogue capacity alone.

Company and site	
Project owner and contact	
What is being lifted?	
Maximum load and typical load	
Load dimensions and centre of gravity	
Lifts per hour / shifts per day	
Start point and destination	
Target installation date	

Useful evidence to collect

	Wide photographs of the complete bay, not just the current lifting equipment
	Building or equipment layout drawings with usable dimensions
	Existing crane manuals, reports, safe working loads and serial numbers
	A short video of the current handling process, if it is safe to record

2. Measure the working envelope

Do not worry if some dimensions are unknown. Mark them clearly for the site survey rather than estimating. Dimensions should be checked by the responsible designer before manufacture.

Required safe working load	
Clear crane span	
Required runway travel	
Floor to underside of roof steel	
Required top hook position	
Required side hook approaches	
Lowest obstruction or service	
Power supply available	

Building and access checks

	Has a structural engineer confirmed the building or runway can accept crane loads?
	Is a freestanding runway or portal structure likely to be needed?
	Can delivery vehicles and mobile lifting equipment reach the installation area?
	Are roof, lighting, heating, sprinklers or process services inside the crane envelope?
	Can production isolate the bay for survey, installation, testing and handover?

3. Choose controls and operating features

Select features because they improve safety, handling or maintainability. More equipment is not automatically a better crane.

	Pendant control with a clearly planned operator position
	Radio remote control for improved operator visibility
	Variable-speed travel or lifting for smoother positioning
	Anti-collision controls for cranes sharing a runway
	Twin hoists or synchronised lifting for long or awkward loads
	Load display, warning devices or process interlocks
	Walkway or maintenance platform where safe access requires it
	Outdoor protection, heating, drainage or corrosion-resistant finishes

Questions for the supplier

	What duty and utilisation has the crane been designed for?
	What is included for runway, electrification, access equipment and builders work?
	How will the crane be tested, commissioned and documented?
	Which components are serviceable locally and which are manufacturer-specific?

4. Maintenance and LOLER planner

Servicing and thorough examination are different activities. Servicing maintains the equipment. A LOLER thorough examination is a competent assessment of safety. Plan both, and record exceptional events or repairs that may require further examination.

Asset / ID	Service due	LOLER due	Known defects / action

Before the visit

	Confirm safe access, isolation and any permit requirements
	Make previous reports, repair records and examination schemes available
	Identify equipment that has changed location, duty or configuration
	Tell the examiner about overloads, collisions, damage or exceptional events

5. Compare quotations on the same scope

A low headline price can conceal excluded steelwork, access, electrification, testing or downtime. Ask each supplier to respond to the same brief and make exclusions explicit.

	Crane structure, hoist, controls and electrification are clearly identified
	Runway steelwork, foundations and structural responsibilities are explicit
	Delivery, offloading, access equipment and installation labour are included or excluded
	Testing, proof load, commissioning and handover documentation are defined
	Training, maintenance access and recommended spares are covered
	Programme, shutdown requirement and work by others are clear
	Warranty and ongoing service response are stated
	The proposal addresses duty, environment and future operating needs

Ready for an engineering review?

Send the completed pack with photographs or drawings to info@cranecert.co.uk, or call 0800 043 1990. CraneCert can survey, design, manufacture, install, service and inspect overhead lifting equipment across Yorkshire, the Midlands and the North.

cranecert.co.uk/contactus

Important: This workbook supports early project planning. It is not a structural assessment, examination scheme, risk assessment or substitute for a competent site survey.