

Lifting Operation: Safe System of Work

R7M-HSM-FRM-002
Rev C3 20230608



Date	30/04/2025	Project	A494 River Dee Bridge		
Description of lift					
Description of load:	Max Lift – Leg, spudcan and jacking tower combined lift				
Other Documentation Reference:		Relevant DWG ref:	R7M-522027-SKH-015		
Load lifted from:	River Dee site				
Load lifted to:	River dee – where reconfigured Seaseven barge will be waiting for installation				
Maximum radius:	24.0m				
Capacity at maximum required radius:	116.5t				
Details of Crane & its configuration					
Crane	Serial number	Boom length	No. of falls		
TBC					
Crane location	East Bank – A494 River Dee Site				
Lifting equipment & accessories to be used (specify Type, SWL & Colour Code)					
Type:	ID. no.:	SWL	Colour code	Checked by Slinger/Signaler	
To be decided upon awarded works					
All lifting operations require the following to be considered – this list is NOT exhaustive					
- Is the lifting equipment designed for the task? Weight, size, shape and centre of gravity of load Method of slinging/attaching/detaching the load Availability of approved lifting points on load - Pre-use equipment checks by operator Proximity hazards, obstructions, path of load Conflicting tasks in area		- Is the SWL marked on all lifting equipment/accessories? - Working under suspended loads - Overturning/load integrity/need for tag lines - Favourable environmental conditions including weather - Authorised, competent and trained personnel - Adequate number of personnel required for task - Communications requirements			

Document Approved By			
Name	Ryan Deakin-Hough	Position	Appointed Person
Signature		Date	30/04/2025

Details of Crane & Configuration

Crane Supplier:	Mammoet		
Manufacturer and Model:	Demag/Terex CC2400-1		
Crane Type:	Crawler Crane w/ Suspended Counterweight	Track / Outrigger Configuration:	1m wide @
Main Boom Type & Length:	SSL 48.0m		
Fly Jib Length & Angle:	Not Used / Installed	"Boom Stored" Fly Weight:	Not installed
Main Block Size:	100t	Main Block Weight:	3.5t
Main Block No. of Parts:	3 sheaves/7 lines	Block Max Rigged Capacity:	100t
Aux Block Size:	-	Aux Block Weight:	-
Aux Block No. of Parts:	-	Aux Max Rigged Capacity:	-
Main Counterweight:	160.0t	Aux Counterweight:	Centre Cwt = 40.0t SL-Cwt = 80.0t @15m
Max Allowable Slope / Heel for this lift:	0.5°	Max Actual Ground Bearing Pressure (By Calculation):	21.8t/m ²
Certification Viewed:	☐ Yes / ☒ No	Valid Until:	TBC
Certification Ref & Details:	Certification to be viewed and detailed on site prior to cranes use.		

Weather Considerations

If weather exceeds the below specified values the lift is to be halted and reassessed, where it is possible and safe to do so.

The wind speed at which the Crane must cease operation is clearly stated in the manufacturer's manual and must not be exceeded. It is the combined decision of the Crane Operator and the Crane Supervisor if work should be stopped below this limit due to local circumstances.

The guidance provided in the manufacturer's manual must be followed for high winds. This may include lowering the boom if wind speeds are expected to exceed the allowable criteria or where this is not possible anchor weights may be employed. The Crane Operator is to be make themselves familiar with the manufacturers specific recommendations and advise the lift supervisor of requirements.

No work may continue when there is a lightning storm in the vicinity. Any storm in the distance must be monitored to decide if it may pose a threat within the time frame of the lifting operation. If there is any risk of lightning in the vicinity, the operator must leave the crane after applying the conditions detailed above in Unattended Cranes. All personnel are to remain a safe distance from the crane during the storm and the crane is to be thoroughly checked for damage before its next use.

Manufacturers Max Operating Wind Speed	10 m/s - (22.5mph)
Maximum recommended Wind Speed (Normal)	10 m/s - (22.5mph)
Maximum recommended Wind Speed (Man Rider)	7.0 m/s
Maximum recommended Swell Height (if Applicable)	N/A
Other Weather Considerations	Lift to occur in good visibility

Details of Examined Worst Case Load

Description of Load:	Jacking Tower, Leg and Spudcan		
Net Weight of Item:	92.6t	☒ Assessed / ☐ Actual	
Load Dimensions (L x B x H)	18.26m x 3.02m x 9.21m	☒ Assessed / ☐ Actual	
Wind Area Presented by Load:	92.98m ²	☒ Assessed / ☐ Actual	
Centre of Gravity (CoG) of Load:	Central to load	☒ Assessed / ☐ Actual	
Loose Items Contained or Removed:	☒ Yes / ☐ No	Details:	
Suitable Lifting Points:	☒ Yes / ☐ No	Details:	Lifting points on the pontoon
Tag Lines Required:	☒ Yes / ☐ No	Details:	
Packing Required & Supplied:	☐ Yes / ☒ No	Details:	
Additional Comments:			