

TECHNOCRANE/SCANNER & CONCORDE CRANE RISK ASSESSMENT

All Operators must be aware who the Producer /Production Manager or Floor Manager is in the Studio and take direction from them.

No unauthorised person is allowed to operate/use a Technocrane/Super Technocrane.

Only fully trained and experienced Grips/swingers & trackers to be employed by the customer to swing and track the Technocrane/Super Technocrane and Concorde crane. If Independent Grips Technician is dissatisfied he is to report to the Producer/Production Manager or Floor Manager.

Hazard Identified: Injury to all personnel by Crane swinging overhead in Studio

Severity: Medium

Likelihood: Low

At Risk: Audience, artists, members of staff

Precautions: Audience to be briefed before shows. Sponge protector is attached to bottom of head. Cameraman must be positioned to have direct sight of crane. Swingers to inform cameraman of safe swinging radius. Crane to be checked for any object left on the arm that could fall off.

Hazard Identified: Object falling from remote head i.e. Camera, Remote Focus, lens etc.

Severity: Medium

Likelihood: Low

At Risk: Contractors, Audience or anyone beneath head

Precautions: Technocrane Technician to check safety cable is in place on remote head, through camera & lens - one of main checks on Operator's Checklist.

Hazard Identified: Brakes operated when crane arm off level and/or telescope in motion

Severity: High

Likelihood: Low

At Risk: Technocrane Technician

Precautions: Due to the location of the operating handle of the tilt brake, operation of the brake must be controlled by the Technocrane Technician only and only when the telescope is not in motion. Special care should be taken if the front end of the arm is tilted above or below level. It is essential that if the arm is tilted up, the brake should only be operated from the left hand side of the yoke; if the arm is tilted down, the brake should be only operated from the right hand side of the yoke. The Technocrane Technician must be assisted by a swinger/grip who prevents a possible motion of the arm when the Technocrane Technician is releasing the tilt brake.

Hazard Identified: Removal or addition of weights, camera, remote head to unbalanced crane

Severity: High

Likelihood: Low

At Risk: All personnel around crane

Technocrane Technician must supervise all adding or subtracting of weights or equipment and the unstrapping of the crane. **TECHNOCRANE MUST NEVER BE UNSTRAPPED WITHOUT SUPERVISION OF TECHNICIAN.** All crane balancing to be performed with the tilt brake off. No weights or equipment to be removed with the tilt brake on.

Hazard Identified: Dropping of weights.

Severity: Medium

Likelihood: Low

At Risk: Technician, grips & riggers

Precautions: Wear steel capped protective boots/shoes. Ensure that the crane base and/or arm is secure before lifting weights or the camera onto or off it. Take care if there are any special risks such as low light levels, uneven surfaces or unfamiliar environments.

Hazard Identified: Bad lifting of all equipment

Severity: Low

Likelihood: Low

At Risk: Technician, grips & riggers

Precautions: Lift with knees bent and back straight. Three people must work together rigging and de-rigging Technocrane. If SuperTechnocrane has to be lifted manually onto or off column, a minimum of 10 people must assist to safely complete the task. Use mechanical aids wherever possible. Operators to wear steel capped protective shoes.

Hazard identified: Remote head falling whilst loading onto crane.

Severity: Medium

Likelihood: Low

At Risk: Technician & grips

Precautions: Technician must ensure two people carry out this task.

Hazard identified: Contact with overhead lights or wires.

Severity: Medium

Likelihood: Low

At risk: Artists, Technician, grips crew

Precautions: All crew to be aware of any overhead danger. Cranes not to be used in a location where there are overhead cables low enough to be touched by crane. Cranes not be used below overhead high voltage electricity wires

Hazard: Trip hazard on cables

Severity: Low

Likelihood: Low

At Risk: Production crew & artists

Precautions: Ensure cable runs are neat and lie flat. Cloak cables where possible. Ensure crane does not run over cables. All personnel to be made aware of risk.

Hazard: Movement of arm if crane unattended.

Severity: Medium

Likelihood: Low

Precautions: Technician must ensure that the retaining straps are in place when the arm is in an unbalanced state, during breaks and overnight. The Technician must ensure that the arm is secured when left unattended and switch off every power source. The remote head must be powered down or the controls disabled when not in operational use. The wheel base must be jacked to hold it in position when unattended.

Hazard: Movement of crane on slope or uneven ground

Severity: Low

Likelihood: Low

At Risk, Production crew & artists

Precautions: Crane not to be moved prior to correct balancing of the crane Trackers to be aware of position of the arm and changes in the arm length which is compensated by movement of the counterbalance weights. Trackers must ascertain that their path is clear before starting a move, especially when pulling the crane. Sufficient manpower to be in attendance when moving crane/dolly on slopes. Dependant on circumstances, i.e. side inclination of ground, weights should be removed prior to movement of crane.

Hazard: Mishandling of crane on track.

Severity: Medium

Likelihood: Low

At Risk: Production crew, artists and visitors

Precaution: **Technocranes are not to be used on circular track.** Where possible, the crane should be rolled onto track using run ups. Grips to make sure there is no debris on the track. Grips to be aware of where the track ends. Care must be taken when carrying foldable track as there is a risk of trapping fingers. The dolly and arm must be reduced to their lightest state when being lifted onto or off track and an adequate number of people should be employed to safely complete this operation. Arm to be balanced before going on track.

Hazard: Cameramen stepping off balanced “ride-on” crane

Severity: High

Likelihood: Low

At Risk: Cameraman/men and personnel around crane base.

Weights to be loaded and off-loaded in co-ordination with mounting and dismounting of cameraman/men with crane operator. Seat belts must be worn by all ride-on personnel who must be briefed on the safety aspects of mounting and dismounting.

Hazard: Overturning of Concorde crane.

Severity: High

Likelihood: Low

At Risk: Personnel around crane base.

An apple/camera box must be placed under the seating/foot platform and NOT under the arm section.

Unusual Risks

Should the crane be used in a situation outside the scope of this Risk Assessment, a separate risk assessment for that operation must be completed.

UNUSUAL RISK

Hazard Identified: Crane falling from Transporter

Severity: High

Likelihood: Low

Precautions: Make sure crane base is secured correctly to Transporter.
Use of crane not to be attempted in high winds.
Transporter to be driven carefully – no sudden acceleration or braking.
No severe cornering
Minimum crew that is necessary should ride on transporter.

Hazard identified: Flagstones cracking and crane tipping over

Severity: High

Likelihood: Low

Precautions: Load of Super Technocrane (1150 kgs.) is spread over 4 wheels. Each wheel supporting a load of 287.5 kgs. which is within the maximum load for the flagstones. Boards should also be laid over the flagstones if the surface is uneven, to spread the load evenly.

Hazard identified: Crane falling in strong wind

Severity: High

Likelihood: High if safety precautions not taken

Precautions: Crane must not be used in winds stronger than Beauport Scale 5.