

GENERAL SECURITY PLAN FOR ERECTING OF LIEBHERR CRANES WITH NECESSARY MEASURES FOR COVID-19



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FORM D-039

1. INTENTION

The security of each employee is of vital importance for every company. The objective is to improve the security of all employees operating on the workplace and thereby prevent any accidents at work, material damage and environmental damage. This plan does not detract the obligations in the ARAB (General Regulations for Labour), the Codex (well-being of workers), the environment policy, the AREI (General Rules on the electric), ministerial decree, royal decree, norms and collective agreements.

2. INFO

The composition of the erecting / dismantling team is defined on the basis of the experience and the situation on the yard. Minimum are one chief-assemblers with 3 or 4 assemblers provided by (dis)assembly. For fast-erecting cranes maximum 1 till 2 experienced assemblers are provided.

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000-0932564-78

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IDEWE ☎ 0032 9 264 12 30

Médecin du travail: **Dr. Olga Gerbosch**

Emergency: ☎ 100 of ☎ 112

In this security plan the frequently occurring safety requirements are quoted. Possible additional demands can be added. All subcontractors are well informed about this security plan.

3. ENTRANCE STABILITY

The yard responsible must always be present on the site. When he isn't present the (dis)assembly can't be started.

The contractor is fully responsible for the foundation and the soil resistance. The foundation must be fully horizontal and has to be inspected at regular times.

The composition of the crane is in accordance with the builders' requirements. When the crane is erected a specific technical data sheet must be provided. A general inspection of the tower sections must be applied before erection of the crane (ruptures, deformation must be noticed before erecting).

4. INDIVIDUAL PROTECTION

Each employee will wear adequate clothing (health and safety legislation). The employees are obliged to use the available personal protective equipment (PPE) and keep it in a good state.

The following protective equipment is required (imperative) :

- safety helmet (2 types available: standard helmet or bump helmet)
- safety shoes
- gloves (standard gloves / waterproof)
- body protection (reflecting working clothes, rainsuit)
- safety harness with double lanyard

The following protective equipment can be relevant :

- eye protection (when the nature of the activities requires it).
- hearing protection (when the noise intensity level on the workplace surpasses 80 dB(A)).

Only the working clothes and the personal protective equipment

provided by N.V. Van Der Spek are accepted.

These are really intended for the nature and the requirements of the job and permit a large freedom of movement.

Only by the constructor provided and inspected ladders, platforms and other non-moving structures will be used to climb on metal frameworks. Lifting persons by means of the lifting hook is forbidden. A man basket can be used in very exceptional situations (only after risk analyses). A special work method must be followed.

Wearing a safety belt is obligatory under every circumstances for personnel at altitude.

Concerning the presence of the lifeguard rope (jib) the directives of Van Der Spek N.V. must be followed.

5. COLLECTIVE PROTECTION

Tracing of the erecting / dismantling zone is provided by the yard. The entering of non-competent persons in the erecting zone is the yard's responsibility.

Only when collective protection (such as balustrades) are not applicable individual protection can be used (such as fall protection). In case of upcoming thunderstorms the activities must be stopped. Lightning and gusts of wind can at that time cause great danger.

When erecting / dismantling the max. wind speed allowed is 45 km per hour. When problems the crane driver and the chef mechanic decide to stop the activities.

When gusts of wind above 72 km per hour are reported the crane must be out of service and the jib should turn with the direction of the wind.

6. ORDER AND TIDINESS

The accommodations of the yard as dining area, dressing area, sanitary installation, yard office are available for our employees.

On the yard each employee cares for the elementary security. When labour is finished and before dinner time hands are washed.

The working clothes are always in a good condition.

The envisaged passages are always free.

When, due to activities the mentioned places are temporarily unusable, these will be reported at the yard direction.

Electric cables, pipes, tubes, are placed in that way there is no danger of tripping. The yard ensures that the working area is clean and that there is no danger of tripping or falling.

7. ELECTRICITY

All equipment must be in accordance with the AREI (General Rules on the electric).

All electric cabinets must be inspected by a certification organization before the connection by our people. Place extension cables in such way that they can't be damaged or cause danger (tripping).

Don't place cables on sharp borders, in water or passages.

Only people having a BA4 / BA5 can bring into service or solve damages on an electrical installation or machinery.

The electrical hand tools must be double insulated according the ARAB / AREI.

When working on the electrical installation of the tower crane the power supply must be cut off, it is clear that the required measurements to trace an eventual failure occur under tension.

Earthing measures must be taken by the contractor. The earthing must be in accordance with the applied legislation.

8. ENGINES, TOOLS AND EQUIPMENT

Every employed engines, tools and equipment must be in accordance with the ARAB and CE standard.

Each equipment must be suitable for good and safe work. It is forbidden to work with broken engines with missing parts, as a result of which the safety of the user or third party become in danger. Special interest to:

- Lifting equipment
- Powered hand tools
- ladder
- Welding equipment

The operator of the lifting equipment and powered hand tools have degrees to work with the equipment (know the language's) and has to be medically fit.

There has to be an inspection certificate off all the lifters and hoisting material at the construction site.

Only adequate tools with strongly attached handles may be used(like hammers)

9. FIRST AID- ACCIDENTS

The chief mechanic has his own first aid kit at his disposal for small injuries.

For injuries that need specific care the victim is requested to go to the first aid post or the nearest hospital. The First AID procedure on the construction site or the factory needs to be followed when there is an accident or alarm.

Every accident or incident needs to be reported immediately at the foreman, chief mechanic and the safety officer of Van Der Spek.

Every injury has to be taken care of immediately even if it looks unimportant. Like this you avoid possible infections.

10. HANDLING OF HEAVY AND LARGE OBJECTS

Heavy pieces will be handled and transported with proper equipment to prevent dangerous situations. Only hoisting material that was inspected by an official accredited organization may be used.

Only de assembly staff is allowed access in the immediate vicinity of fixed or mobile metal constructions.

They will be forced to stay on a safe distance in order that they are not in danger if a load falls down or materials fall over.

Escorting the Jib or counter-jib will be executed with one, or if the load is to long with two ropes.

11. MOUNTING CRANE

The mounting cranes that are used by the assembly staff need to have necessary inspection reports of an accredited company available

The mounting cranes can only be operated by an experienced operator
The type of mounting crane is chosen in function of the type of tower crane and construction site.

The contractor is responsible for controlling the soil resistance. The angle pressures can be requested at the concerning sub-contractors.

The sub-contractors have to be informed if there are protection plates being used for gas pipes, pavements,...

12. TRANSPORTATION OF CRANE PARTS

The transportation of crane parts always happens by an experienced company. The shipments have to be positioned according to the instructions of the manufacturer. Lose parts have to be tied up. There is always an experienced driver requested.

It's the responsibility of the transporter or construction site if there is any damage to pavements, building,...

The trailer has to be in good condition. There can't be any holes in the bottom plate of the trailer. No risk to stumble. There has to be a fixed

ladder on the trailer to prevent jumping of the trailer, this can cause injuries. The amount of trucks and trailers depend on of the type of crane.

13. INSPECTION MOUNTING AND DISMANTLING

Instructions of the manufacturer need to be followed when (dis)mantling the tower crane. Those instructions can be found in the manual of the concerning tower crane. This manual has to be available for the assembly staff at every (dis)mantling.

The safety officer of Van Der Spek N.V. has the authority to surveillance the mounting/dismantling at any time if he finds it necessarily.

14. INSPECTION

With every mounting there has to be an inspection by an accredited company. Van Der Spek N.V. orders an inspection by an accredited company if it's a tower crane of the rental park of Van Der Spek N.V. The renter is responsible, at his expense, for an inspection every three months by an accredited company.

The renter also provides enough time to execute the inspection during the working hours.

Comments shall be fixed, in consultation, as soon as possible.

Forbidden zones will be noted in the inspection report of the accredited company.

The lifting equipment must be mentioned separately if this was requested.

The harness of the employees from NV Van Der Spek is inspected annually by an accredited company.

The lifting equipment from NV Van Der Spek is inspected quarterly. Also a color code and numbering of the material is provided. Inspection reports can be inquired by the chief mechanic or the prevention service.

15. TRAINING EMPLOYEES

NV Van Der Spek organizes a 6 months lasting training for each beginning mechanic. He co-operates as an additional mechanic and is in straight contact with the chief mechanic. The chief mechanic accompanies the assist mechanic. The technicians receive a training in Germany in the production plant and a long internal accompaniment.

For the specific position harnesses (only used by the technicians) a special external training is foreseen.

16. EXCEPTIONAL MEASURES

When (dis)mantling the tower crane or fast erecting crane near a power line the contractor must submit the admission and/or official document of the network administrator. The secure distance and the to be taken measures must be noticed in this document.

When (dis)mantling the tower crane or fast erecting crane near the railway line or tramway the contractor must submit the admission and/or official document from the operator (for instance NMBS,...). These official documents must be sent to us in advance as well as the positioning plan of the crane relative to the obstacles.

It is forbidden to start the activities if NV Van Der Spek doesn't possess those documents.

The contractor is responsible for the measuring of the distances between the crane and the power line and the placement of the cranes. The establishing of the forbidden work areas of the tower crane / fast erecting crane will be executed by a senior technician. These forbidden work areas must be noticed on the examination report from the accredited company.

17. GENERAL

The negligence of the elementary security measures described in this security plan will be considered as a severe mistake, the QEHS from NV Van Der Spek (in his absence his replacement or the foreman) can at any moment stop the activities and/or deny access to the yard at anyone who doesn't respect the elementary security measures.

Control of the steel ropes must happen at the exit side of the rope pulley.

Equipment, additional at the mounting, are not the responsibility of NV Van Der Spek (as publicity panels, lighting on the tower,).

The yard commits itself to solve all comments from the site visit before the commencement of the activities (for instance moving containers, fix distributor plates, ...)

When streets or squares must be closed, the contractor will apply for the police authorization and will have taken all required measures in order to liberate the working area preparatory to the activities.