Staging areas for concrete pumps and boom trucks

Concrete pumps and hoisting devices such as boom trucks are a common sight on most residential construction sites. But if these large machines are not set up properly, the result can be serious and even deadly. Recent incidents involving concrete pumps led to the formation of an IHSA sub-committee to study the problem and make recommendations to the homebuilding industry.

One solution was to plan the jobsite properly and create staging areas for concrete pumps and boom trucks. A staging area is a designated place to set up vehicles, supplies, and construction equipment for convenient use. Although there are no standards for staging areas, here are some things to consider when setting up concrete pumps and boom trucks.

### Access to jobsite
Manoeuvring large equipment like concrete pumps and boom trucks through tight spaces on a busy jobsite can be dangerous. It also wastes valuable time. With proper planning, the jobsite can be more accessible and equipment can be put into place quickly and safely.

### Space for setup
If concrete pumps and boom trucks have enough space to set up, they can properly deploy their outriggers, which prevent them from tipping over and causing injuries or death. If boom trucks have enough setup space, they will be able to get close enough to the work area to offload safely. When workers have to move the material manually, it increases their risk of developing a musculoskeletal injury.

### Access for emergency vehicles
When planning a staging area, make sure to leave enough room for emergency vehicles to get through. If an injury happens, you want emergency services to get to the injured person as quickly as possible.

According to the Regulations for Construction Projects, the constructor is legally required to have emergency procedures in place and to provide access for emergency vehicles on a jobsite.
**Regulations for Construction Projects**

17. (1) A constructor shall establish for a project written procedures to be followed in the event of an emergency and shall ensure that the procedures are followed at the project. O. Reg. 213/91.

71. Adequate means of egress shall be provided from a work area to permit the evacuation of workers during an emergency. O. Reg. 213/91.

**Housekeeping**

Keeping the jobsite clean and well organized helps ensure that concrete pumps and boom trucks have enough space to move around and set up.

**Soil stability and compaction**

Outriggers must be set on soil that is sufficiently stable and compact to support the weight of the machine. Spoil or excavated material is soft and loose, so avoid piling it near the setup area. Spoil piles can also block the pumping or offloading areas and prevent outriggers from being fully deployed.

**Overhead powerlines**

Contact with overhead powerlines is a common hazard for concrete pumps and boom trucks. But if the jobsite is planned properly and staging areas are set up, operations that occur near overhead powerlines can be reduced or eliminated.

**Underground utilities**

Don’t forget about hidden hazards such as catch basins, electrical vaults, and utility trenches. They can break if outriggers are set on top of them, and the machine may tip over.

**Jobsite planning**

Having large equipment on a jobsite can be disruptive. Constant adjustments have to be made to accommodate this equipment (e.g., having to double-handle spoil and other materials). If workers fall behind schedule and have to rush, there is a greater chance of accidents. A well-planned jobsite can prevent these problems.

**Benefits of a well-planned jobsite**

- The jobsite is safer for all trades.
- The general public is safer.
- The jobsite is more efficient, meaning that more foundations will be poured and setup time will decrease. And with fewer setups there is less chance of accidents.
- Costs are lower because delays are minimized.
- Workplace parties will receive fewer MOL orders.

Proper jobsite planning, which includes setting up staging areas for concrete pumps and boom trucks, can prevent most—if not all—of the hazards caused by large machines and equipment. People often think planning takes more work, but putting together an effective course of action can help simplify a lot of tasks, save time, and improve safety.

For more info, visit the Heavy Equipment topic page on our website or download our “Safe Setup of Heavy Equipment” safety talk.