

It is common practice to support tower crane jibs directly on the ground during assembly and before lifting up to the tower top. A recent incident demonstrates the hazards associated with this:-

*A luffing tower crane was being erected on a city centre site and the jib was being assembled in the road outside the site, which had a slight camber. The assembled jib was resting on the bottom chords at the front and the luffing cylinder attachment point at the rear (**Figure 1**). The counter jib was then pinned on to the bottom chords (**Figure 2**) and lifted up to allow the connection at the top chord to be made (**Figure 3**). Shortly after the lifting slings were removed from the counter jib the complete jib fell over. Fortunately no one was injured but the potential for serious injuries or fatalities was severe.*



Figure 1



Figure 2



Figure 3



Figure 4

NOTE: *Figures show a reconstruction of the incident*

When assembling tower crane jibs on the ground, care should be taken to ensure that the jib is supported properly with as wide a support base as possible. This will ensure that the centre of gravity of the assembled jib and its components always remains well within the support base. **Figure 4** shows this being achieved by the use of packing timbers. Some manufacturers may supply specially designed trestles for jib assembly.