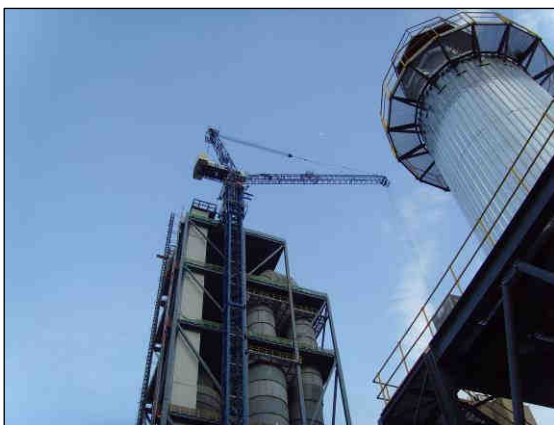


## LUFFING-JIB CRANES VS TOWER CRANES



Luffing-jib cranes are specially demanded for tall buildings on congested sites. They have a very short counterjib and a variable working radius, which permit high productivity in extremely narrow spaces.



**Most important reasons for using a luffing jib crane**



**1.-** This kind of crane is frequently the best solution when several cranes are working on the same site, avoiding any kind of crash with other cranes or the surrounding buildings. With their variable working radius, they don't interfere in the working area of the other cranes on site and they can be parked with a very reduced radius.

**2.-** Also, luffing-jib cranes can improve material handling cycles in the jobsite, using them like auxiliary cranes to the principal tower cranes, reducing the construction time.

**3.-** Normally, the maximum load bigger than a tower crane's.

**4.-** In some places, local laws make luffing-jib cranes necessary. For instance,

London doesn't allow any crane to fly over the surrounding spaces when they are working in a jobsite, and luffing jib-cranes are very demanded because you can move the jib from the horizontal position up to the total vertical position.

### Disadvantages for using a luffing jib crane

But there are some disadvantages of the 'luffers' when you compare them to a tower crane:

**1-**. The price of the luffing-jib crane is much higher than a regular tower crane. The tower frames of a 'luffer' are stronger, and the luffing mechanisms are much bigger than the hoist system of a tower crane. Of course the technology applied to move the jib, counterweights, etc is the highest.

**2-**. The cost of assembling and disassembling are much higher too. Most of the structures are heavier, and it takes longer to erect a luffing-jib crane. Once again, to erect a luffer is more difficult due to the technology applied, etc.

**3-**. The jib of a 'luffer' acts as wall to the wind, and the 'moment' is much bigger. So the restrictions of the tower are higher.

**4-**. Due to the luffers don't have trolley motor (the movement is made by the total jib), the working process are slower than in a tower crane.

