

## Self Erect Cranes

Used Self Erect Cranes Santa Ana - The tower crane's base is usually bolted to a large concrete pad that provides very crucial support. The base is attached to a mast or a tower and stabilizes the crane that is connected to the inside of the structure of the building. Usually, this attachment point is to an elevator shaft or to a concrete lift. Usually, the mast is a triangulated lattice structure measuring 10 feet square or 0.9m<sup>2</sup>. The slewing unit is attached to the very top of the mast. The slewing unit is made of a gear and a motor that enable the crane to rotate. Tower cranes may have a max unsupported height of 80m or 265 feet, while the tower crane's maximum lifting capacity is sixteen thousand six hundred forty two kg or thirty nine thousand six hundred ninety pounds with counter weights of twenty tons. In addition, two limit switches are used in order to make sure that the driver does not overload the crane. There is even one more safety feature known as a load moment switch to make sure that the driver does not exceed the ton meter load rating. Last of all, the maximum reach of a tower crane is 70 meters or two hundred thirty feet. There is certainly a science involved with erecting a tower crane, especially because of their extreme heights. First, the stationary structure needs to be brought to the construction site by using a huge tractor-trailer rig setup. Then, a mobile crane is utilized so as to assemble the equipment portion of the crane and the jib. These sections are then connected to the mast. After that, the mobile crane adds counterweights. Crawler cranes and forklifts can be some of the other industrial machinery that is used to erect a crane. Mast extensions are added to the crane as the building is erected. This is how the height of the crane could match the building's height. The crane crew utilizes what is called a top climber or a climbing frame which fits between the slewing unit and the top of the mast. A weight is hung on the jib by the work crew so as to balance the counterweight. Once complete, the slewing unit could detach from the top of the mast. In the top climber, hydraulic rams are used to adjust the slewing unit up an additional 20 feet or 6.1m. After that, the crane driver utilizes the crane to insert and bolt into position another mast section piece.