Self Erect Cranes

Used Self Erect Cranes Costa Mesa - Usually the base which is bolted into a huge concrete pad provides the necessary support for a tower crane. The base is connected to a tower or a mast and stabilizes the crane which is attached to the inside of the structure of the building. Often, this attachment point is to a concrete lift or to an elevator shaft. The crane's mast is usually a triangulated lattice structure that measures 10 feet square or 0.9m2. Connected to the very top of the mast is the slewing unit. The slewing unit is made of a motor and a gear which enable the crane to rotate. Tower cranes are able to have a maximum unsupported height of 80m or 265 feet. 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 20 tons. Moreover, two limit switches are utilized in order to ensure the operator does not overload the crane. There is even another safety feature called a load moment switch to ensure that the operator does not surpass the ton meter load rating. Lastly, the maximum reach of a tower crane is 230 feet or seventy meters. There is certainly a science involved with erecting a tower crane, especially due to their extreme heights. First, the stationary structure has to be brought to the construction location by using a huge tractor-trailer rig setup. After that, a mobile crane is used so as to assemble the machine portion of the jib and the crane. After that, these parts are connected to the mast. The mobile crane then adds counterweights. Forklifts and crawler cranes can be some of the other industrial machinery that is utilized to erect a crane. When the building is erected, mast extensions are added to the crane. This is how the crane's height is able to match the building's height. The crane crew uses what is called a top climber or a climbing frame that 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 is able to detach from the top of the mast. In the top climber, hydraulic rams are used to adjust the slewing unit up an extra twenty feet or 6.1m. Next, the crane driver utilizes the crane to insert and bolt into position another mast part piece.