Self Erect Cranes

Used Self Erect Cranes San Diego - Typically the base which is bolted into a large concrete pad provides the necessary support for a tower crane. The base is connected to a mast or a tower and stabilizes the crane that is connected to the inside of the building's structure. Usually, this attachment point is to an elevator shaft or to a concrete lift. The crane's mast is usually a triangulated lattice structure that measures 10 feet square or 0.9m2. Attached to the very top of the mast is the slewing unit. The slewing unit is made of a gear and a motor which enable the crane to rotate. Tower cranes are able to have a maximum unsupported height of eighty meters or 265 feet. The tower crane's maximum lifting capacity is 16,642 kilograms or 39,690 pounds with counter weights of twenty tons. Furthermore, 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 referred to as a load moment switch to make sure that the driver does not surpass the ton meter load rating. Lastly, the tower crane has a maximum reach of seventy meters or 230 feet. There is certainly a science involved with erecting a tower crane, particularly because of their extreme heights. At first, the stationary structure needs to be brought to the construction location by using a large tractor-trailer rig setup. Then, a mobile crane is utilized so as to assemble the machine part of the crane and the jib. These parts are then connected to the mast. The mobile crane next adds counterweights. Forklifts and crawler cranes may be a few of the other industrial machinery which 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 utilizes what is called a climbing frame or a top climber that fits between the slewing unit and the top of the mast. A weight is hung on the jib by the work crew in order to balance the counterweight. Once complete, the slewing unit can detach from the top of the mast. In the top climber, hydraulic rams are used to adjust the slewing unit up an extra 20 feet or 6.1m. Then, the operator of the crane utilizes the crane to insert and bolt into position another mast part piece.