Self Erect Cranes

Used Self Erect Cranes Berkeley - 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 tower or a mast and stabilizes the crane that is attached to the inside of the building's structure. Usually, this attachment point is to an elevator shaft or to a concrete lift. Typically, the mast is a triangulated lattice structure measuring 0.9m2 or 10 feet square. The slewing unit is attached to the very top of the mast. The slewing unit is made of a gear and a motor which allows the crane to rotate. Tower cranes may have a max unsupported height of eighty meters or 265 feet, while the tower crane's maximum lifting capacity is 16,642 kilograms or 39,690 lbs. with counter weights of twenty tons. Furthermore, two limit switches are utilized in order to ensure the driver 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 tower crane has a maximum reach of seventy meters or 230 feet. Due to their extreme heights, there is a science involved to erecting a crane. The stationary structure will at first need to be transported to the construction site by using a big tractor-trailer rig setup. Next, a mobile crane is used in order to assemble the machinery portion of the crane and the jib. These sections are then attached to the mast. Afterward, the mobile crane adds counterweights. Forklifts and crawler cranes may 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 utilizes what is referred to as a climbing frame or a top climber 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 is able to detach from the top of the mast. In the top climber, hydraulic rams are utilized to adjust the slewing unit up an extra 6.1m or twenty feet. After that, the crane driver uses the crane to insert and bolt into position one more mast section piece.