Self Erect Cranes

Used Self Erect Cranes El Cajon - The base of the tower crane is typically bolted to a huge concrete pad which provides very necessary support. The base is attached to a mast or a tower and stabilizes the crane that is affixed to the inside of the structure of the building. 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 0.9m2 or 10 feet square. Connected to the very top of the mast is the slewing unit. The slewing unit is made of a motor and a gear that allows the crane to rotate. Tower cranes are able to have a maximum unsupported height of eighty meters or 265 feet. The maximum lifting capacity of a tower crane is sixteen thousand six hundred forty two kilograms or thirty nine thousand six hundred ninety pounds with counter weights of twenty tons. In addition, two limit switches are utilized in order to make sure that the driver does not overload the crane. There is even one more safety feature called a load moment switch to make sure that the operator does not exceed the ton meter load rating. Last of all, the maximum reach of a tower crane is seventy meters or two hundred thirty feet. Due to their extreme heights, there is a science involved to erecting a crane. The stationary structure would first have to be transported to the construction location by utilizing a big tractor-trailer rig setup. Next, a mobile crane is utilized so as to assemble the equipment part of the jib and the crane. After that, these sections are attached to the mast. The mobile crane next adds counterweights. Forklifts and crawler cranes can be some of the other industrial machinery that is usually utilized to erect a crane. Mast extensions are added to the crane as the building is erected. This is how the height of the crane can match the building's height. The crane crew utilizes what is called 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 in order to balance the counterweight. When 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 extra 6.1m or 20 feet. After that, the crane operator utilizes the crane to insert and bolt into place another mast part piece.