Self Erect Cranes

Used Self Erect Cranes Alabama - Generally the base that is bolted into a big concrete pad provides the essential support for a tower crane. The base is attached to a mast or a tower and stabilizes the crane which is connected to the inside of the structure of the building. Often, this attachment point is to a concrete lift or to an elevator shaft. Usually, 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 motor and a gear that enable the crane to rotate. Tower cranes are able to have a maximum unsupported height of eighty meters or two hundred sixty five feet. The maximum lifting capacity of a tower crane is 16,642 kilograms or thirty nine thousand six hundred ninety lbs. with counter weights of twenty tons. Moreover, two limit switches are utilized to be able to ensure the driver does not overload the crane. There is even one more safety feature called a load moment switch to ensure that the driver does not exceed the ton meter load rating. Finally, the maximum reach of a tower crane is 70 meters or 230 feet. There is definitely a science involved with erecting a tower crane, especially because of their extreme heights. At first, the stationary structure needs to be transported to the construction site by using a large tractor-trailer rig setup. Next, a mobile crane is utilized so as to assemble the machine portion of the jib and the crane. These sections are then attached to the mast. After that, the mobile crane adds counterweights. Crawler cranes and forklifts may be a few of the other industrial machinery that is used to erect a crane. When the building is erected, mast extensions are added to the crane. This is how the crane's height could match the building's height. The crane crew uses what is known as a top climber or a climbing frame which fits between the top of the mast and the slewing unit. A weight is hung on the jib by the work crew in order to balance the counterweight. When 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 place another mast section piece.