Self Erect Cranes

Used Self Erect Cranes Palmdale - The base of the tower crane is typically bolted to a large concrete pad that provides very necessary support. The base is connected to a mast or a tower and stabilizes the crane which is attached to the inside of the building's structure. Usually, this attachment point is to a concrete lift or to an elevator shaft. Generally, 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 enable the crane to rotate. Tower cranes may have a max unsupported height of eighty meters or two hundred sixty five feet, while the minimum lifting capacity of a tower crane is sixteen thousand six hundred forty two kg or 39,690 pounds with counter weights of twenty tons. Additionally, two limit switches are utilized in order to make sure that the operator does not overload the crane. There is also another safety feature referred to as a load moment switch to ensure that the operator does not surpass the ton meter load rating. Last of all, the maximum reach of a tower crane is two hundred thirty feet or 70 meters. There is definitely a science involved with erecting a tower crane, especially because of their extreme heights. At first, the stationary structure has to be transported to the construction site by using a large tractor-trailer rig setup. Then, a mobile crane is used in order to assemble the machinery portion of the jib and the crane. These parts are then connected to the mast. Next, the mobile crane adds counterweights. Crawler cranes and forklifts could be some of the other industrial machinery that is 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 could match the building's height. The crane crew uses what is referred to as a top climber or a climbing frame that 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. 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 20 feet or 6.1m. After that, the operator of the crane uses the crane to insert and bolt into position another mast part piece.