Self Erect Cranes

Used Self Erect Cranes Santa Clara - The base of the tower crane is typically bolted to a big concrete pad which provides very crucial support. The base is connected to a mast or a tower and stabilizes the crane that 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. 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 motor and a gear which enable the crane to rotate. Tower cranes are able to have a maximum unsupported height of 80m 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. Additionally, two limit switches are used in order to ensure the operator does not overload the crane. There is even one more safety feature known as a load moment switch to ensure that the operator does not exceed the ton meter load rating. Finally, the maximum reach of a tower crane is two hundred thirty feet or 70 meters. There is certainly a science involved with erecting a tower crane, particularly due to their extreme heights. First, the stationary structure has to be transported to the construction site by utilizing a big tractor-trailer rig setup. Next, a mobile crane is utilized so as to assemble the machinery part of the jib and the crane. Afterwards, these parts are connected to the mast. Then, the mobile crane adds counterweights. Crawler cranes and forklifts may be a few of the other industrial equipment that is commonly 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 uses what is called 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. When 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 additional 6.1m or twenty feet. After that, the crane driver utilizes the crane to insert and bolt into place one more mast part piece.