Self Erect Cranes

Used Self Erect Cranes Kansas - Typically the base that is bolted into a huge concrete pad provides the essential support for a tower crane. The base is connected to a mast or a tower and stabilizes the crane which is connected to the inside of the structure of the building. Normally, this attachment point is to an elevator shaft or to a concrete lift. The mast of the crane is normally a triangulated lattice structure which 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 gear and a motor which allows the crane to rotate. Tower cranes are able to have a maximum unsupported height of 80m or two hundred sixty five feet. The tower crane's maximum lifting capacity is 16,642 kg or 39,690 lbs. with counter weights of twenty tons. In addition, two limit switches are used in order to make sure that the operator does not overload the crane. There is even another safety feature known as a load moment switch to ensure that the driver does not surpass the ton meter load rating. Last of all, the maximum reach of a tower crane is seventy meters or two hundred thirty feet. Because of their extreme heights, there is a science involved to erecting a crane. The stationary structure would at first need to be transported to the construction site by using a big tractor-trailer rig setup. After that, a mobile crane is utilized in order to assemble the equipment part of the crane and the jib. Then, these parts are connected to the mast. The mobile crane next adds counterweights. Forklifts and crawler cranes can be a few of the other industrial machines which is used 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 known as a top climber or a climbing frame 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 can 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 20 feet. After that, the driver of the crane uses the crane to insert and bolt into position another mast part piece.