Self Erect Cranes

Used Self Erect Cranes Oakland - Usually the base that is bolted into a large 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 attached to the inside of the building's structure. Often, this attachment point is to an elevator shaft or to a concrete lift. The crane's mast 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 that allows the crane to rotate. Tower cranes are able to have a maximum unsupported height of eighty meters 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 utilized to be able to make certain that the operator does not overload the crane. There is even one more safety feature known as a load moment switch to make certain that the driver does not surpass the ton meter load rating. Lastly, the tower crane has a maximum reach of 70 meters or 230 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 utilizing a large tractor-trailer rig setup. After that, a mobile crane is utilized in order to assemble the machinery part of the crane and the jib. Then, these sections are connected to the mast. Afterward, the mobile crane adds counterweights. Forklifts and crawler cranes may be some of the other industrial machinery that is commonly used to erect a crane. Mast extensions are added to the crane when the building is erected. This is how the height of the crane is able to match the building's height. The crane crew uses what is called a climbing frame or a top climber 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. 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 6.1m or 20 feet. Then, the operator of the crane uses the crane to insert and bolt into position one more mast part piece.