

Self Erect Cranes

Used Self Erect Cranes Daly City - Typically the base that is bolted into a huge concrete pad provides the necessary support for a tower crane. The base is attached to a tower or a mast 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. The crane's mast is normally a triangulated lattice structure that measures 0.9m² or 10 feet square. Attached to the very top of the mast is the slewing unit. 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 265 feet. The maximum lifting capacity of a tower crane is sixteen thousand six hundred forty two kilograms or 39,690 pounds with counter weights of 20 tons. Additionally, two limit switches are utilized to be able to ensure the operator does not overload the crane. There is even another safety feature known as a load moment switch to make sure that the operator does not exceed the ton meter load rating. Finally, the maximum reach of a tower crane is seventy meters or 230 feet. Due to 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 large tractor-trailer rig setup. After that, a mobile crane is used so as to assemble the equipment portion of the jib and the crane. These sections are then connected to the mast. Then, the mobile crane adds counterweights. Forklifts and crawler cranes could be a few of the other industrial machines that is commonly used to erect a crane. As 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 called a top climber or a climbing frame that fits between the slewing unit and the top of the mast. 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 6.1m or twenty feet. Then, the driver of the crane uses the crane to insert and bolt into position one more mast part piece.