

Self Erect Cranes

Used Self Erect Cranes Sacramento - The tower crane's base is usually bolted to a large concrete pad which provides really necessary support. The base is attached 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 usually a triangulated lattice structure which measures 0.9m² or 10 feet square. Connected to the very top of the mast is the slewing unit. The slewing unit is made of a motor and a gear that allows the crane to rotate. Tower cranes may have a max unsupported height of 80m or two hundred sixty five feet, while the tower crane's maximum lifting capacity is 16,642 kilograms or 39,690 lbs. with counter weights of twenty tons. Moreover, two limit switches are used to be able to make certain that the driver does not overload the crane. There is even another safety feature called a load moment switch to ensure that the driver does not exceed the ton meter load rating. Finally, the tower crane has a maximum reach of 230 feet or seventy meters. Because of their extreme heights, there is a science involved to erecting a crane. The stationary structure will first have to be transported to the construction site by using a huge tractor-trailer rig setup. Next, a mobile crane is utilized in order to assemble the equipment part of the jib and the crane. These sections are then connected to the mast. The mobile crane next adds counterweights. Crawler cranes and forklifts could be a few of the other industrial machines that is usually utilized to erect a crane. Mast extensions are added to the crane when the building is erected. This is how the height of the crane can match the building's height. The crane crew utilizes what is known as a top climber or a climbing frame which fits between the top of the mast and the slewing unit. A weight is hung on the jib by the work crew so as 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 additional 20 feet or 6.1m. Then, the crane operator uses the crane to insert and bolt into position one more mast part piece.