



## NEED FOR JIP CRANES

The construction of big building sites require more products to be transmitted all over the construction site. It is impossible to move all the construction materials with the aid of man power in big building sites and also time taken for the process will be more. For overcoming the above said problems, the jib crane is used in constructional sites for lifting the materials and transport it from one place to another.

## JIP CRANES

A crane is a type of machine, generally equipped with a hoist rope, wire ropes or chains, and sheaves, that can be used both to lift and lower materials and to move them horizontally. It is mainly used for lifting heavy things and transporting them to other places. The device uses one or more simple machines to create mechanical advantage and thus move loads beyond the normal capability of a human. Cranes are commonly employed in the transport industry for the loading and unloading of freight, in the construction industry for the movement of materials, and in the manufacturing industry for the assembling of heavy equipment.

## MAIN COMPONENTS

- Revolving frame
- Lifting frame
- Mast
- Wire
- Operating room
- Electric motor
- Jib
- Hook

## CONSTRUCTIONAL DETAILS

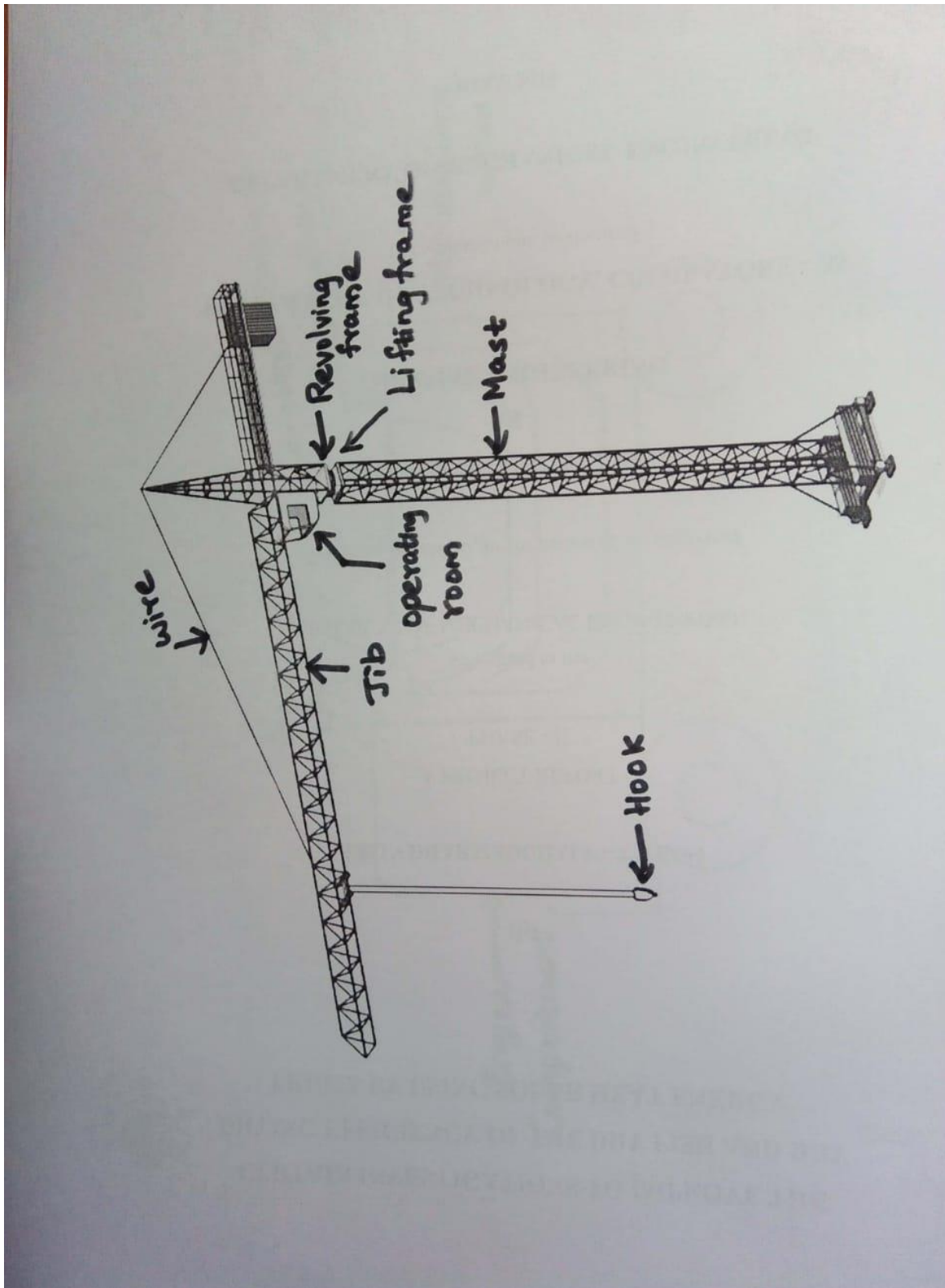
Mast is the main supporting tower of the crane. It is made of steel trussed sections that are connected together during installation. Slewing unit sits at the top of the mast. This is the



## JIP CRANES



engine that enables the crane to rotate. On most tower cranes the operating cabin sits just above the slewing unit. It contains the operating controls, load-movement indicator system (LMI),



Scale, anemometer, etc. The jib, or operating arm, extends horizontally from the crane. A "luffing" jib is able to move up and down; a fixed jib has a rolling trolley that runs along the



## JIP CRANES



underside to move goods horizontally. Counter jib holds counterweights, hoist motor, hoist drum and the electronics. The hoist winch assembly consists of the hoist winch itself (motor, gearbox, hoist drum, hoist rope, and brakes), the hoist motor controller, and supporting components such as the platform. Many tower cranes have transmissions with two or more speeds. The hook (or hooks) is used to connect the material to the crane. It is suspended from the hoist rope either at the tip, for luffing jib cranes, or in the hoist rope belly underneath the trolley for hammerhead cranes. Large concrete counterweights are mounted toward the rear of the counter deck, to compensate for the weight of the goods lifted.

The hook is moved down to the place where the material needed to be lifted. Then the hook is connected to the material that needed to be lift. Then the material is lifted up with the help of rope mechanism, then the material is moved to the required destination. With the aid of revolving frame it is possible to move and transfer the materials in 360° angle.

### APPLICATION

- Used in Big constructions like Shopping mall, Apartment, Big Companies.
- Used for transporting the goods with in the construction site.

### MANUFACTURING COMPANIES

- Wolffkran
- Yongmao
- Raimondi
- Zoom Lion