



MIXING MACHINE



NEED FOR MIXING MACHINE

The concrete mixture is one of the important material used in the construction of buildings. The concrete mixing is normally done with the help of a man power and it consumes more time and also the proper mixing is not ensured. The manual concrete mixing will not be suitable for the construction of big buildings. So for overcoming this problems, the Mixing machine is used in the construction sites for preparing the concrete mixture.

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A **concrete mixer** (often called a **cement mixer**) is a device that homogeneously combines cement, aggregate such as sand or gravel, and water to form concrete. A typical concrete mixer uses a revolving drum to mix the components. For smaller volume works, portable concrete mixers are often used so that the concrete can be made at the construction site, giving the workers ample time to use the concrete before it hardens.

MAIN COMPONENTS

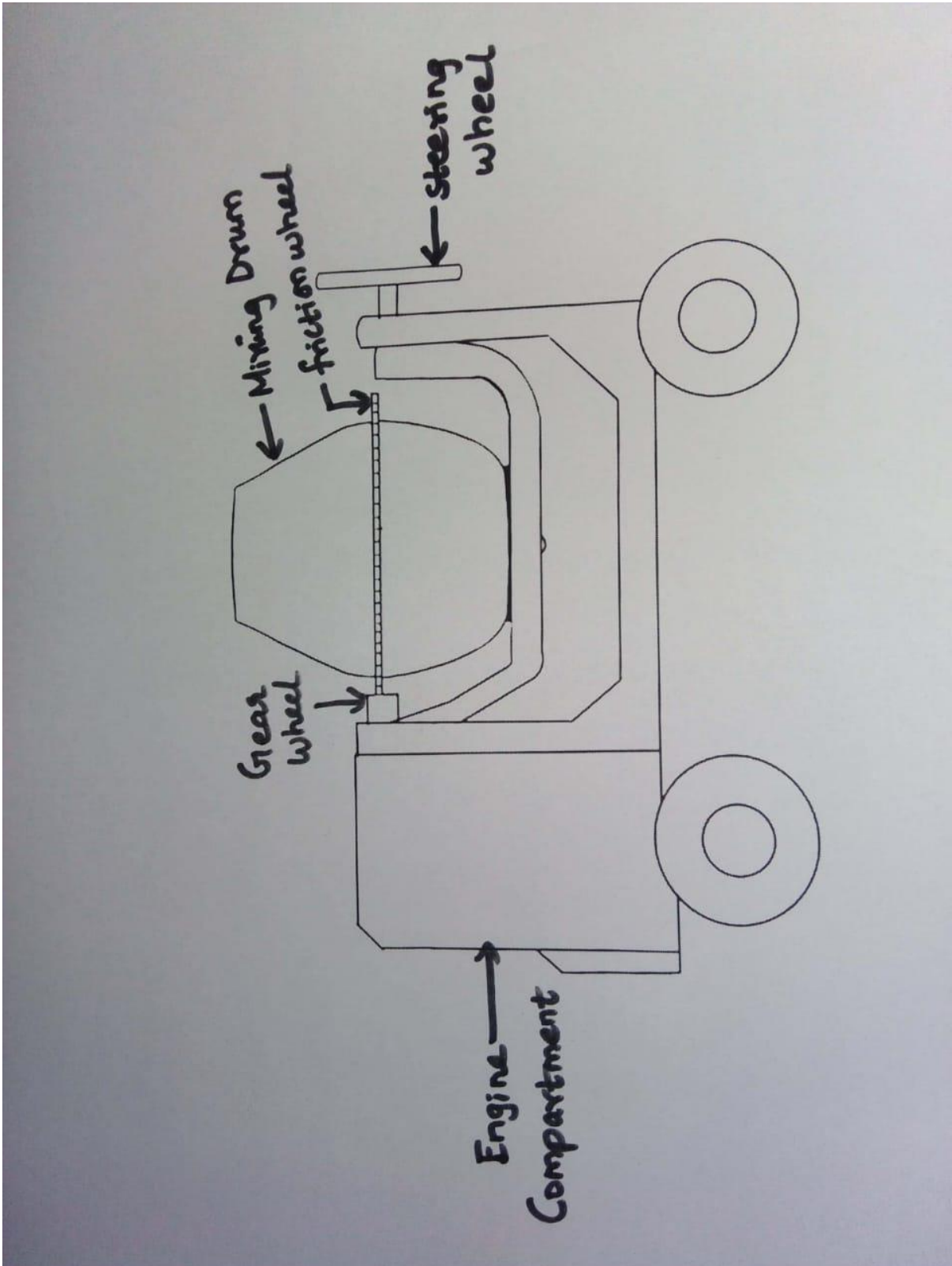
- Engine or electric motor
- Mixing Drum
- Steering Wheel
- Friction wheel
- Manual Control device

CONSTRUCTIONAL DETAILS

The mixing machine is operated by means of either an engine or an electric motor. The engine used mostly is a diesel engine. The next component is the mixing drum which serves as the important component for mixing the sand, gravel, water to form concrete. The steering wheel is used for moving the mixing drum up for uploading the sand, gravel, sand and for moving the drum down for discharging the concrete. The drum outer layer comprises of the friction wheel for receiving the power from an engine. The manual control device is used for controlling the throttle of an engine. The engine's final drive is the gear wheel, which is placed in contact with the friction wheel in the drum. The other end of the drum setup is connected to a steering wheel for moving the drum up and down.



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The engine is cranked by means of a rope, the engine throttling is controlled in the manual control device. The power from the engine is transmitted to the rotating drum through the gear wheel. With the help of a steering wheel the drum is moved up, then the sand, gravel and water at appropriate ratio is feeded into the mixing drum, then the mixing is done continuously until the perfect concrete mixture is obtained. After the formation of concrete, with the help of a steering wheel the mixing drum is moved down for discharging the mixed concrete. Then the mixed concrete is taken and used for the construction purpose

APPLICATION

- Used in Building construction
- Used in Road construction
- Used for filling concrete or asphalt in the damaged road.