

## 3-Directional Rotating Trolley

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**Abstract:** Trailer has lots of applications in today's world. In industrial and domestic considerations, tippers can pull a variety of products including gravel, grain, sand, fertilizer, heavy rocks, etc. By considering wide scope of the topic, it is necessary to do study and research on the topic of tipper mechanism in order to make it more economical and efficient. In existing system, tipper can unload only in one side by using pneumatic jack or conveyor mechanism. By this research it is easy for the driver to unload the trailer and also it reduces time and fuel consumption. For making tipper mechanism with such above conditions hydraulic jack mechanism can be used. This paper has mainly focused on above difficulty. Hence a prototype of suitable arrangement has been designed. The vehicles can be unloaded from the trailer in three axes without application of any impact force. The Direction control valves which activate the ram of the hydraulic cylinder which lifting the trailer cabin in require side. By this research it is easy for the driver to unload the trailer and it reduces the time.

**Keywords:** Trailer, Tipper, Cylinder Piston, Pneumatic, Conveyor

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