

ABSTRACT

Wheel loader is the heavy equipments used to handle and transport the bulk material which cannot be direct brought to appliance transport such as dump truck, dump wagon, etc. Others wheel loader also applicable to dig the deepness limited.

This machine use the tire wheel to hold the body as well as to make a movement. The advantages of wheel-mounted compare to crawler-mounted are the velocity achieved bigger and to transport further.

Material loaded constructively addition equipments named by the attachment. This attachment consist of the bucket, 2 lift arm, bucket cylinder, 2 lift cylinder, tilt arm and rod connection. The capacities of the bucket designed equal to 1,5 m³.

Entire system of this loader use the diesel engine as source of energy. Power train of wheel loader use the torque converter as functioning especial coupling remove the engine power to other in hydrodynamics by change kinetic energy of fluid. This power train consist of engine, torque converter, transmission, transfer gear, differential and final drive. This machine designed to travel with maximum velocity equal to 27 km/h.