ABSTRACT

FABRICATION OF SUGARCANE HARVESTER USING SAW CHAIN (SOLAR OPERATED)

Mechanical harvesting uses a combine, or sugarcane harvester. The Austoft 7000 series, the original modern harvester design, has now been copied by other companies, including Cameco / John Deere. The machine cuts the cane at the base of the stalk, strips the leaves, chops the cane into consistent lengths and deposits it into a transporter following alongside. The harvester then blows the trash back onto the field. Such machines can harvest 100 long tons (100 t) each hour; however, harvested cane must be rapidly processed. Once cut, sugarcane begins to lose its sugar content, and damage to the cane during mechanical harvesting accelerates this decline.

Chassis frame is the main base of the vehicle on which body is mounted with wheels and machinery. As per the design, marking has been done on each angle. As per the marking, angles are cut by cutting machine and holes are drilled on angles by using drilling machine for fixing saw chain assembly and DC motor. L-angles have been weld as per marking and finally the chassis is fabricated as per the required dimensions. Two wheels are attached to each other through the pipe and connected to the frame for the movement of the harvester in the field. L-angle is weld to pipe to make handle and welded to the chassis for pushing the vehicle in the field. At handle l-shape angle plate is weld to place the solar panel.

L-angle is cut to the required dimension and DC motor is fitted to it; and then it is welded to the front portion of the frame. A shaft from the DC motor is connected to drive sprocket. Guide bar is mounted in front part of the chassis by using nuts and bolts and weld as per the requirement.

#2232, 16TH B CROSS, SECTOR B, YELAHANKA NEW TOWN, BANGALORE-560064 Ph: +91 7892151234 Proper alignment is made between the drive sprocket and guide bar for the rotation of the saw chain properly. Distance between the guide bar and ground is done as per the requirement. DC motor is connected to the battery through switch and solar panel is connected to the battery for power generation.



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