

ABSTRACT

A COMPUTER AIDED DESIGN SMALL SCALE ELECTRIC DRIVEN SELF PROPELLED FEED/MIXER

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Animal husbandaries in Turkey. Livestock enterprises in our country as the average number of animals per farm animal examined as 3.9 and it is seen that most of the business of either no or 1 that does not have any tractor. Taking both the cost of energy and physical situation of animal-breeding in our country into consideration; as an alternative to current feed mixer and disturbing machine which needs both a tractor and external motion, a self-propelled feed mixer and delivery machine has been designed in this study for low-capacity industries. Inside front wheel rims for walking movement can be mounted brushless type 1.5 kW , two electric motors , a 1.3 m³ is designed gearbox with an electric motor and 1/28 reduction ratio of 3 kW for tank feed mix. Electrical power required to feed tank and walk mixed in accordance with the calculations of the power of 24 V to 125 Ah will be covered with gel batteries . Chasis strength analysis, engine force calculation, battery capacity calculation and inverter calculation has been done. For the chasis related elements, strength analysis tension analysis and displacement analysis It was performed through computer-based design program and the results were given in detail.

Keywords: Design, Electric, Feed Mixer, Self-Propelled