INNOVATIVE TECHNOLOGICA
METHODICAL RESEARCH JOURNAL
ISSN: 2776-0987 Volume 4, Issue 4 April 2023

SMALL, DRY FERTILIZER PACKAGING DEVICE

Bakhodir Ergashev
Assistant, Fergana Polytechnic Institute, Fergana, Uzbekistan

Abstract
The article describes the structure and technical characteristics of the device for loading dry fertilizers, dry mixed fodder and similar crushed masses into bags and performing similar functions, as well as the principle of its operation. This device is very different from other devices due to its compactness and mobility. It is recommended to use this type of device for businesses and small private enterprises.

Keywords: loading, spreader, shovel, camera, stub, transmission, flange, bunker, frame, detail, electric motor, technician.

Introduction

From large production enterprises to small production areas, that is, factories that produce disposable products, all finished products need to be packed in bags in order to send them to warehouses. There are many different types of loading devices available for the bagging and coating of spilt products. These include an auger, air-borne, winged, etc. All this works in different ways according to its structure, that is, according to the structure of the working part. The structure of these devices is also completely different from each other [1-4]. At the same time, their technical characteristics and parameters are fundamentally different from each other. The differences between the devices are in their structure, metal consumption, diversity of the working part and parameters of technical characteristics. Such devices are very important in industry and factories. In large enterprises, it is impossible to imagine the work of coating small scattered items without loading and coating devices. The creation of such devices eases manual labour and greatly increases labour productivity [5-9].

Design and principle of operation of the device

The structure of the device is very simple and compact. Easy to use. All the details available in the device are made from local raw materials and the

INNOVATIVE TECHNOLOGICA
METHODICAL RESEARCH JOURNAL
ISSN: 2776-0987 Volume 4, Issue 4 April 2023

details are designed in a very simple way. The structure of the device consists of the following: hopper, body, frame, frame, and electric motor. The simplicity of the details in the device facilitates the technology of their preparation.

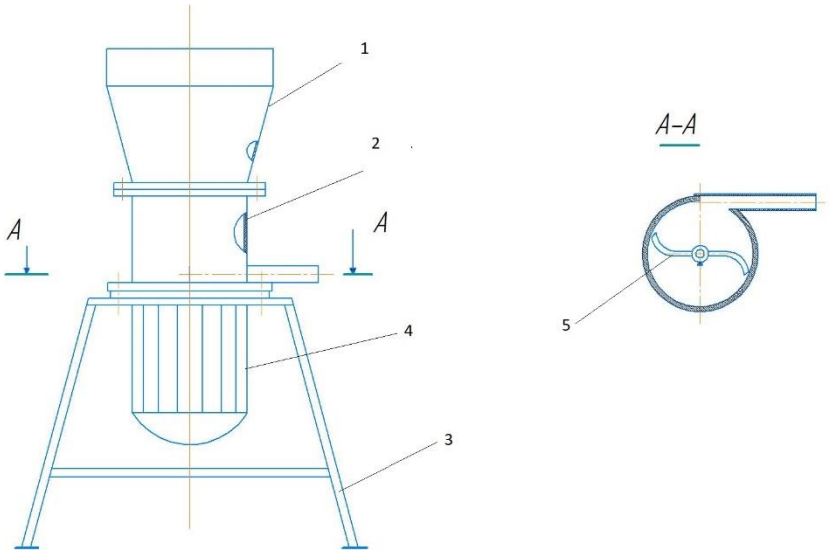

Fig. 1. The device for coating small particles.
1 - bunker; 2 - body; 3 - frame; 4 - electric motor; 5 - fan;

One of the conveniences of the device is its mobility. Due to the light construction of the device, it can be installed in any place. The difference of the device from other covering devices lies in the compactness of the device, low consumption of metal and simplicity of construction. The device works in the following order, 1 hopper is loaded with a fine powder product through a conveyor. When the plucked fine dispersable product falls into casing 2, the product is packed into the bags by centrifugal force [7-10]. There is a shaft 5 in the housing, the shaft is mounted on the shaft of the electric motor, and it rotates directly in the housing. The working part and electrical wiring of this device are attached to frame 3.

Table 1. Technical characteristics of the device

Overall dimensions: Height, h, mm Width, b, mm	 1400 1000
Diameter of the working part, D, mm	300
Electric motor: power, N, kw number of revolutions, n, rev/min	 2.2 1500

ISSN: 2776-0987 Volume 4, Issue 4 April 2023

Conclusion

In conclusion, it can be said that considering the compactness of the structure of the device for covering the crushed spray fertilizers, the ease of production, the low consumption of metal and the energy efficiency, it is appropriate if this device is produced and applied for business activities. At the same time, the fact that the device can be manufactured in our own local factories allows us to quickly and conveniently deliver the device to the customer.

References

1. Husanovich, E. B. (2022). Universal Drum Mill Throwing Somonli and Beda Presses, Grain Products. *central asian journal of theoretical & applied sciences*, *3*(5), 226-231.
2. Ergashev, B. H. (2022). Theoretical study of activity conveyor driving. *Scientific progress*, *3*(4), 1166-1170.
3. Ergashev, B., & Ruzaliyev, X. (2022). Metall listlarga ishlov beruvchi valikli qurilma. *Science and innovation*, *1*(A8), 108-112.
4. Бердиева, З. М., Жахонов, Ж., & Мирзаев, А. (2023). Анализ растительного полифенола. *Scientific aspects and trends in the field of scientific research*, *1*(8), 284-287.
5. Бердиева, З. М., & Мухамадиев, Б. Т. (2022). Безопасность функциональных пищевых продуктов (ФПП). *Безопасность*, *95*(2).
6. Axunboev, A., Muxamadsodikov, K., & Qoraboev, E. (2021). Drying sludge in the drum. *Barqarorlik va yetakchi tadqiqotlar onlayn ilmiy jurnali*, *1*(5), 149-153.
7. Koraboev, E. (2022). Reliable performance and reasonable design of drum dryer machine. *Science and innovation*, *1*(A7), 575-581.
8. Ogli, K. E. V. (2022). The most important solution for improving issues drum dryers. *International Journal of Advance Scientific Research*, *2*(11), 83-89.
9. Koraboev, E. (2022). Reliable performance and reasonable design of drum dryer machine. *Science and innovation*, *1*(A7), 575-581.
10. Axunboev, A., Muxamadsodikov, K., & Qoraboev, E. (2021). Drying sludge in the drum. *Barqarorlik va yetakchi tadqiqotlar onlayn ilmiy jurnali*, *1*(5), 149-153.