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ОСОБЛИВОСТІ ВИКОРИСТАННЯ СИСТЕМИ ГЛОБАЛЬНОГО ПОЗИЦІЮВАННЯ НА СІЛЬСЬКОГОСПОДАРСЬКІЙ ТЕХНІЦІ

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FEATURES OF USING THE GLOBAL POSITIONING SYSTEM ON AGRICULTURAL MACHINERY

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Modern agricultural enterprises use agricultural machinery at all stages of production. It is probably already impossible to imagine soil cultivation and preparation without cultivators, sowing – without planting machines, and harvesting without harvesters [1-3]. Currently, there is a very wide range of agricultural machinery used for the mechanization and automation of technological processes in agriculture. Our today allows us to manage all stages of farming remotely, and the use of the Global Positioning System (hereinafter referred to as GPS) on agricultural machinery is a guarantee of this.

This technology combines harvest data from the row sensor with satellite position data from the receiver, resulting in even higher levels of productivity and significantly reducing the burden on the operator [4-5].

Equipment equipped with GPS will be able to update data on its location on the map in a few seconds, and this will allow you to monitor whether your vehicle is working, idle [6] or being transported [7].

Remote monitoring tools can help keep in touch with equipment and fields even when we are not close to the farm.

Great the advantage is that at any moment it will be possible to see such data of the vehicle as performance and fuel volume. With the help of the fuel sensor in the GPS system, it will be possible to observe the amount of fuel in the tank at the moment of time, fuel consumption for a certain period of time, average fuel consumption and places, time and volume of refuelling and draining fuel [8]. The principle of operation of fuel sensors is the same – they register minimal changes in the volume in the tank, which, together with data on movement and speed, give an accurate figure of consumption.

It is also important that the data on the equipment will be able to collect information about idle time, transportation and other data both during the working day and during a certain specified period [9-10]. Also, thanks to additional sensors, it will be possible to collect information about

warning machines about their malfunctions. All this data will prevent equipment downtime and greatly speed up the work of the logistics department.

Currently, some enterprises use GPS monitoring systems, and all statistical data prove that this system should be implemented in agriculture.

In general, the operation of this system is simple and convenient and does not require special training. On the portable monitor, which is installed in the driver's cabin, the lines of movement of the machine are automatically calculated and projected based on data on the width of the machine. This monitoring system is a very promising and progressive solution for logistics operations. These technologies, keeping pace with progress, will lead to stable growth and development of agricultural enterprises.

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IMPROVING THE EFFICIENCY OF THE TRANSPORT AND LOGISTICS SYSTEM WHEN DELIVERING GRAIN CROPS FROM THE FIELD

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