

*Mamadaliyev Sh.M*  
*Senior Lecturer Namangan Civil Engineering Institute*  
*Yigitaliev Kh. Kh*  
*Student Namangan Civil Engineering Institute*

## **LABOR PROTECTION DURING MECHANIZED FIELD WORK**

**Abstract:** This article provides recommendations on the requirements for safety equipment for mechanized field work. The safety of workers is ensured by carrying out the activities specified in the article.

**Keywords:** machine-tractor unit, technical safety, danger, mechanism, fire, technical service, hydraulic system, hydraulic control.

*Мамадалиев Ш.М*  
*Ст. препод. Наманганский инженерно-строительный институт*  
*Йигиталиев Х. Х*  
*Студент Наманганский инженерно-строительный институт*  
**ОХРАНА ТРУДА ПРИ МЕХАНИЗИРОВАННЫХ ПОЛЕВЫХ РАБОТАХ**

**Аннотация:** В данной статье даны рекомендации по требованиям к средствам безопасности при механизированных полевых работах. Безопасность работников обеспечивается проведением мероприятий, указанных в статье.

**Ключевые слова:** машинно-тракторный агрегат, техническая безопасность, опасность, механизм, пожар, техническая служба, гидросистема, гидропривод.

At present, in the cultivation and harvesting of cotton, new high-performance machine-tractor units, chemical means of protecting plants from diseases and pests are being introduced. Under such conditions, even a partial violation of safety regulations can create a dangerous situation and lead to accidents. One of the most important tasks of labor protection is to ensure the safety of working people.

To work with seeders for the preparation of grazing units, only persons who know the design of seeders and are guided by safety precautions are allowed.

All planter adjustment mechanisms must be closed with covers. The teeth closing the working parts of the seeder are cleaned with special cleaners during operation. When the implement is moving, the sowers must stand on a wooden

platform; when working on suspended seeders, the sower must wear belts on the seat. Seeds in the seed box should only be leveled with a wooden shovel.

The work of inter-row tillage is entrusted to machine operators with special training, who have at least three years of experience and have been instructed in safety.

If malfunctions are found in the operation of the machine, it is necessary to stop and adjust the unit. When troubleshooting, it is necessary to turn off the hydraulic drive system. After work, before eating, hands and face should be washed with hot water and soap. It is forbidden to accept and store food near the workplace. All machines and mechanisms are subject to uniform requirements for safety and industrial sanitation. According to these requirements, the main control levers of machines and mechanisms should be located under the right hand, each car should have a sound signal, a rear-view mirror, turn and stop signals.

During operation, fixed places in machines and mechanisms become loose, cracks increase, oil, water or fuel begin to flow out, etc. Therefore, poor maintenance can lead to accidents. For example, if you do not check and tighten the fixed parts of the tractor in time, it may roll over. If a defect is found during the operation of the machine that threatens the life or health of a person, it is necessary to stop work immediately. Each tractor operator, combine operator, driver must check the technical condition of the machine before its operation.

Any moving part of the car is dangerous. A rotating shaft, star, or cogwheel can trap your hand, loose hair, or clothing. Therefore, the moving parts of machines and mechanisms are covered with caps, casings, boxes, fences. But not all moving parts can be covered with protective devices. For this reason, it is necessary to work in a hazardous area. The dangerous circle exists in all machines and mechanisms. They can be external (combine knife, mower, etc.) and internal (threshing drum, cleaning fan, conveyors) machines.

Only persons familiar with the device, operating principles and safety regulations should work on agricultural machines and implements. To work on tractors and other self-propelled and complex agricultural machines, persons who have the right to drive these machines are allowed.

The tractor driver performs daily maintenance before starting work, and also checks the condition of the machines. All rotating mechanisms, universal joints, gears and other gears must have protective guards adjusted and securely fastened. If the working bodies of agricultural machines are driven by the tractor's power take-off shaft, then attention is paid to the technical condition and protection of the mechanisms. Lubrication, tightening and adjustment of bolted connections in the machine-tractor unit is carried out only with the engine turned off.

The width of the boards laid under the legs must be at least 300 mm, with supporting boards. It is not allowed to have unnecessary objects on the working platforms of the seeder. All persons working with mechanized agricultural machinery and equipment must be instructed in safe operation.

When preparing the unit for operation, the adjustment of equipment and instruments is also checked. Before starting work in the field, a tractor or combine, after receiving an order from the head of the farm or foreman, bypasses the field, taking the direction of movement of the unit before starting work. Identifies natural obstacles that are considered dangerous for the machine-tractor unit, marks them with sighting stakes, takes control furrows at ravines and mowed lands bordering the field, if necessary, divides the field into shields and marks the turning points. It is forbidden to work on an unprepared field.

Tractor driver checks the alarm system of agricultural trailers. Check whether the towing hook is connected to the tractor's towing devices: its strength must be greater than the pulling force on the tractor hook. During repair and adjustment work, special devices, cleaners and shovels used for spreading mineral fertilizers should be used. Seeders and seed tubes are cleaned with special hooks.

If planters are equipped with devices for mixing mineral fertilizers, herbicides or pesticides, then planters should receive additional safety and personal hygiene instructions and be provided with personal protective equipment.

One worker serves only one seeder. To move the unit from one place to another, the markers are fixed in the raised position. The most dangerous are the cutting device and dandruff in the combine trailer units. Clipper blades should be sharpened with goggles and gloves.

To prevent the drive wheel and caterpillar of the tractor from hitting the trailer or machine and overturning it, they must not be turned sharply. If it is necessary to perform any adjustment or strengthening work while the unit is running, it is necessary to stop it and turn off the engine.

Before starting work on tractors with suspension, semi-suspended machines and weapons, check the operation of the distribution levers, the condition of the flexible hoses of the hydraulic system, the tightness of the oil pipe fittings, the amount of oil in the tank, and the operation of the hydraulic system pump.

If the above safety requirements are observed when performing mechanized field work, the likelihood of accidents will be reduced, and the safety of workers will be ensured.

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