

## APPLICATION OF MODERN SMALL MECHANISMS IN RAILWAY TRACK REPAIR

**Tadjibayev Sherzod Amirkulovich, Mustafoyev Eldor Ilhom ogli, Karakhanov Jamshidbek  
Jahongir ogli**

Tashkent State transport University

**Annotation:** small mechanisms are road tools used in small — scale work where the use of high-floor road machines is impossible or uneconomic, and are widely used in the current maintenance and maintenance of the road.

**Keywords:** small mechanisms, road tools, road machines, electroshpalaurer, hydraulic road tools, electric road Keys, Road rigging, railing machine, rails, ESHP-6, ESHP-7, ESHP-9.

Rail transport is an integral part of the economy of the Republic of Uzbekistan; planning for the development of rail transport should be carried out in connection with the development of other sectors of the economy; the advanced development of the rail network will be a guarantee of the sustainable functioning of this network in the country's economy in the future;

Attracting investments and increasing the level of localization of the product being produced should be supported and regulated by the state;

The work of harmonizing the policy in the field of railway law, technical regulation, should be carried out in cooperation with the relevant ministries and departments and supported by the state;

At the moment, the railway network should be able to complete previously planned projects, the prospect of an increase in activity to a higher pressure, and it should have intended quality progress.

The experience accumulated in the field of construction and use of railway infrastructure with extensive involvement of the society's own funds and investments of foreign and Republic of Uzbekistan made it possible to rise to the world stage in the process of construction of a new railway line Khairaton-Mazari Sharif on the territory of the Islamic Republic of Afghanistan.

The implementation of this policy and the possible increase in the participation of foreign investors should be accompanied by a clear policy on determining the term, size of repayment of loans and the conditions for their return to society.

In order to determine priorities in the project that is planned to be implemented, plans for the restoration of railway lines and the construction of new lines should take into account several main criteria, in particular the following:

Lines of strategic importance (for the formation of a single transport network in the Republic of Uzbekistan) ;

New international transport lines of geopolitical importance for the formation of corridors and the development of existing ones;

Lines intended for cargo transportation for the development and optimization of the activities of the country's new mines, industrial enterprises, equipment and their use;

Passenger lines designed to develop the tourism sector of our country, increase the comfort of movement and increase the mobility of the country's population;

Lines to be restored and modernized in order to increase the specified speed of movement, ensure the safety of train traffic;

Transports are current modernized lines designed to master forecast volumes and organize fast-moving passenger traffic.

Maintenance and repair of the railway is carried out by the railway's track yard. The trackage includes the railway track itself with all its buildings and facilities, as well as businesses, organizations and institutions that provide normal use of the railway track.

Normal use (operation) is understood as the state of the road that ensures the smooth (smooth) and safe movement of trains with specified speeds.

A powerful and long-term railway track, including a reliable monitoring of the road condition and a highly efficient maintenance system for it, which includes the information supply system of the road economy, is professionally well – trained, well-versed and thoughtful specialists with a thorough knowledge of their work-brigadiers, Masters, Road enterprises cannot operate qualitatively without leaders.

The development and improvement of such a complex as road economy is based on the modern achievements of Science and technology, the implementation of the advanced experience of the best road communities, the rational use of foreign experience.

Further development and strengthening of the network is also directly related to the level of training of road personnel.

A modern railroader-specialist must perfectly know and understand the essence, laws and rules for its maintenance and repair of the processes taking place on the trail of the railway.

The main tasks of the road economy

- General use rail transport management is handled by Uzbekistan Railways JSC. It organizes the work of Railways on the territory of the whole country. On the scale of the entire railway network, the road economy is led by The Road economy administration.
- It has the following departments: Department of technology for current maintenance of the road; Department of industrial enterprises; department of completion (bottling) and use of material resources; department of road repair; Department of economy, labor and technical safety; engineering facilities; technical department; Department of mechanization; Department of resource saving technologies. The road farm is headed by a leader appointed by AJ" OTHY".

Road tools are widely used in the current maintenance and maintenance of the road. They are used in small-scale work, when it is impossible to use high-rise road cars or not efficient at economic jifat.

The following tools are widely used when carrying out road work:

- Electric tools;
- Hydraulic road tools;
- Manual road tools.

When performing road work, the following electrical road tools are used:

- electroshpalaurger;
- relskesgich;

- rail parser;
- rails grinding machines;
- shurup hardeners;
- electric road switches;
- Electro-pneumatic Castilian knuckles.

Electroshpalaurers are used for the current maintenance and repair of the road for the shibbling of ballast under the sleepers. Principle of operation: Electroshpalaurers are widely used in the elimination of perturbations on the prosadka, perekos and uroven of existing defects on the road. The spot where the defect is detected is raised through the domkrat. A layer of ballast is screwed under the sleeper using an electrospalator. Electroshapers such as ESHP-6, ESHP-7 and ESHP-9 are used in road maintenance.

A railing machine is a tool designed for transverse cutting of a rail. When assembling new and old stretch conductors, when replacing the rail-sleeper grid, when preparing rail rubbers, etc.k. keg is used in the works.

When cutting a spot where a defect is detected on Capricorn roads, the machine gun is installed directly on the road. The workplace is blocked by stop signals. Cutting circular discs with a diameter of 400mm are used to cut all types of polished rails. The rotating disc is connected to the electrodivigatel by a special belt.

Rail Parmesan bench. After cutting, when connecting the rails with mutual naklades, fixing countertops in the threaded conductors and drilling bolt holes in the neck of the rails when installing base bolts, railing machines are used. These levers are designed to Parma rails of the R75, R65, R50 and lighter type.

Road cars are designed to carry out all kinds of work in the process of construction and reconstruction of the railway track, laying the upper structure of the road, as well as in the current repair of the railway. Road cars are used in ground polotno maintenance, road ballasting, ballast layer cleaning, road and arrow conductor element replacement, road straightening, and ballast layer shibbling.

In road farming today, the right-of-way is the right-of-way-of-the-beater (VPR), road planner (SSP), road shibbler, rail Welder are widely used.

It is used in welding and grinding road rails, and in snow removal for loading and unloading materials. According to the method of work, it is divided into heavy-duty and light-duty machines. According to the movement of working organs and road machines, it is divided into the following types: from an internal combustion engine with hydraulic pneumatic, electric mechanical transmission

Depending on the type of movement, road cars are divided into chain-driven, tire-driven, and mixed-type cars that move on a railway track.

Road cars are classed as follows:

1. Pathfinder (rotating VPR)
2. Gravel layer cleaner (RM)
3. Snow cleaner (Snega ubor.)
4. Road laying (UK)

5. Pathfinder (SSP)
6. Track ballasting (d
7. Road welder (ARG).

In the process of current maintenance of the road, the need for corrective work is determined according to the results of the passage of a road meter wagon (izmeritelny wagon), as well as the inspection of the road by a brigadier, Road Master and other officials.

Road rigging is said to be pushed left or right along its axis in a straight path, while in curvature the axis exceeds the norm of bending stress.

Determination of track rigging on the tape of the track gauge wagon is carried out by taxing a graph of axial tilt, or by examining the track position in the plan in natural conditions, the deviation of the track from the normative position is determined.

### Literature

1. Kadirova, E. (2021, March). USING OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN INFORMATICS LESSONS. In E-Conference Globe (pp. 28-33).
2. Mamurova, F. I., Khodzhaeva, N. S., & Kadirova, E. V. (2023). Pedagogy of Technology and its University. Innovative Science in Modern Research, 22-24.
3. Kadirova, E. V., & Mamurova, F. I. (2023). Modern Methods of Teaching Information Technologies at the Lesson of Computer Science. Pioneer: Journal of Advanced Research and Scientific Progress, 2(3), 86-89.
4. Mamurova, F. I., Khadjaeva, N. S., & Kadirova, E. V. (2023). ROLE AND APPLICATION OF COMPUTER GRAPHICS. Innovative Society: Problems, Analysis and Development Prospects, 1-3.
5. Mamurova, F. I. (2022, December). IMPROVING THE PROFESSIONAL COMPETENCE OF FUTURE ENGINEERS AND BUILDERS. In "INTERNATIONAL SCIENTIFIC CONFERENCE" INNOVATIVE TRENDS IN SCIENCE, PRACTICE AND EDUCATION" (Vol. 1, No. 4, pp. 97-101).
6. Mamurova, F. I. (2021). PROBLEMS OF THEORETICAL STUDY OF PROFESSIONAL COMPETENCE OF CONSTRUCTION ENGINEERS. Таълим ва инновацион тадқиқотлар, (4), 104-108.
7. Mamurova, F. I., & Alimov, F. H. (2022). Surface Formation and its Assignment on the Monge Plot. Web of Scholars: Multidimensional Research Journal, 1(8), 28-31.
8. Odilbekovich, S. K., & Islomovna, M. F. (2023). Technology of Work on the Replacement of Contaminated Ballast below the Sole of Sleepers. New Scientific Trends and Challenges, 1, 21-24.
9. Odilbekovich, S. K., & Islomovna, M. F. (2023, January). Facilities and Devices of the Yale Farm. In Interdisciplinary Conference of Young Scholars in Social Sciences (pp. 21-23).
10. MAMUROVA, FERUZA ISLOMOVNA. "FACTORS OF FORMATION OF PROFESSIONAL COMPETENCE IN THE CONTEXT OF INFORMATION EDUCATION." THEORETICAL & APPLIED SCIENCE Учредители: Теоретическая и прикладная наука 9 (2021): 538-541.
11. Mamurova, F., & Yuldashev, J. (2020). METHODS OF FORMING STUDENTS'INTELLECTUAL CAPACITY. Экономика и социум, (4), 66-68.

12. Islomovna, M. F., Islom, M., & Absolomovich, K. X. (2023). Projections of a Straight Line, the Actual Size of the Segment and the Angles of its Inclination to the Planes of Projections. *Miasto Przyszłości*, 31, 140-143.
13. Mamurova, F. I. (2022, December). IMPROVING THE PROFESSIONAL COMPETENCE OF FUTURE ENGINEERS AND BUILDERS. In "INTERNATIONAL SCIENTIFIC CONFERENCE" INNOVATIVE TRENDS IN SCIENCE, PRACTICE AND EDUCATION" (Vol. 1, No. 4, pp. 97-101).
14. Islomovna, M. F. (2022). Success in Mastering the Subjects of Future Professional Competence. *EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION*, 2(5), 224-226.
15. Shaumarov, S., Kandakhorov, S., & Mamurova, F. (2022, June). Optimization of the effect of absolute humidity on the thermal properties of non-autoclaved aerated concrete based on industrial waste. In *AIP Conference Proceedings* (Vol. 2432, No. 1, p. 030086). AIP Publishing LLC.
16. Pirnazarov, G. F., Mamurova, F. I., & Mamurova, D. I. (2022). Calculation of Flat Ram by the Method of Displacement. *EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION*, 2(4), 35-39.
17. Mamurova, F. I. (2021). The Concept of Education in the Training of Future Engineers. *International Journal on Orange Technologies*, 3(3), 140-142.
18. Islomovna, M. F. (2023). Methods of Fastening the Elements of the Node. *EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION*, 3(3), 40-44.
19. Islomovna, M. F. (2023). Engineering Computer Graphics Drawing Up and Reading Plot Drawings. *New Scientific Trends and Challenges*, 120-122.
20. Khodjayeva, N., & Sodikov, S. (2023). Methods and Advantages of Using Cloud Technologies in Practical Lessons. *Pioneer: Journal of Advanced Research and Scientific Progress*, 2(3), 77-82.
21. Pirnazarov, G. F., Mamurova, F. I., & Mamurova, D. I. (2022). Calculation of Flat Ram by the Method of Displacement. *EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION*, 2(4), 35-39.
22. Begali o'g'li, A. E., & Ilhom o'g'li, M. E. (2022). TEMIR YO'LLAR QURILISHIDA BETON VA TEMIRBETON VAZIFALARI. In "ONLINE-CONFERENCES" PLATFORM (pp. 246-249).
23. Фарходович, П. Ф. (2023, January). Вант Билан Кучайтирилган Шарнирсиз Арка. In "ONLINE-CONFERENCES" PLATFORM (pp. 16-19).
24. Pirnazarov, G. F., & ugli Azimjonov, X. Q. (2022). Determine the Coefficients of the System of Canonical Equations of the Displacement Method and the Free Bounds, Solve the System. *Kresna Social Science and Humanities Research*, 4, 9-13.
25. Torayeva, N. (2021). Physics-Mechanical Properties Of Irrigated Meadow Soils In Bukhara Region. *ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz)*, 3(3).
26. Torayeva, N. (2021). Шўрланган Ерларда Тупроқ Унумдорлигини Ошириш Тадбирлари. *ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz)*, 3(3).