

# JOURNAL OF TRANSPORT



ISSUE 1, 2024 Vol. 1  
ISSN: 2181-2438



RESEARCH, INNOVATION, RESULTS



**TOSHKENT DAVLAT  
TRANSPORT UNIVERSITETI**

Tashkent state  
transport university



**JOURNAL OF TRANSPORT**

RESEARCH, INNOVATION, RESULTS

**ISSN 2181-2438**

**VOLUME 1, ISSUE 1**

**MARCH, 2024**



[journals.tstu.uz](http://journals.tstu.uz)

# TASHKENT STATE TRANSPORT UNIVERSITY

## JOURNAL OF TRANSPORT

SCIENTIFIC-TECHNICAL AND SCIENTIFIC INNOVATION JOURNAL

VOLUME 1, ISSUE 1 MARCH, 2024

**EDITOR-IN-CHIEF**

**SAID S. SHAUMAROV**

*Professor, Doctor of Sciences in Technics, Tashkent State Transport University*

**Deputy Chief Editor**

**Miraziz M. Talipov**

*Doctor of Philosophy in Technical Sciences, Tashkent State Transport University*

---

Founder of the scientific and technical journal “Journal of Transport” – Tashkent State Transport University, 100167, Republic of Uzbekistan, Tashkent, Temiryo‘lchilar str., 1, office: 465, e-mail: publication@tstu.uz.

The “Journal of Transport” publishes the most significant results of scientific and applied research carried out in universities of transport profile, as well as other higher educational institutions, research institutes, and centers of the Republic of Uzbekistan and foreign countries.

The journal is published 4 times a year and contains publications in the following main areas:

- Business and Management;
- Economics of Transport;
- Organization of the Transportation Process and Transport Logistics;
- Rolling Stock and Train Traction;
- Infrastructure;
- Research, Design, and Construction of Railways, Highways, and Airfields;
- Technology and Organization of Construction, Management Problems;
- Water Supply, Sewerage, Construction Systems for Water Protection;
- Technosphere Safety;
- Power Supply, Electric Rolling Stock, Automation and Telemechanics, Radio Engineering and Communications, Electrical Engineering;
- Materials Science and Technology of New Materials;
- Technological Machines and Equipment;
- Geodesy and Geoinformatics;
- Car Service;
- Information Technology and Information Security;
- Air Traffic Control;
- Aircraft Maintenance;
- Traffic Organization;
- Operation of Railways and Roads;

---

Tashkent State Transport University had the opportunity to publish the scientific-technical and scientific innovation publication “Journal of Transport” based on the Certificate No. 1150 of the Information and Mass Communications Agency under the Administration of the President of the Republic of Uzbekistan. Articles in the journal are published in Uzbek, Russian and English languages.

**EDITORIAL BOARD**

**Viktor A. Sidorov**

*Professor, Doctor of Economic Sciences, Kuban State University*

**Olga I. Kopytenkova**

*Professor, Doctor of Medical Sciences, Emperor Alexander I St. Petersburg State Transport University*

**Oksana D. Pokrovskaya**

*Associate Professor, Doctor of Technical Sciences, Emperor Alexander I St. Petersburg State Transport University*

**Oleg R. Ilyasov**

*Professor, Doctor of Biological Sciences, Ural State Transport University*

**Timur T. Sultanov**

*Associate Professor, Candidate of Technical Sciences, L.N. Gumilyov Euroasian National University*

**Dmitriy V. Efanov**

*Professor, Doctor of Sciences in Technics, Russian University of Transport (MIIT)*

**Oyum T. Balabayev**

*Associate Professor, Candidate of Technical Sciences, Abylkas Saginov Karaganda Technical University*

**Anvar A. Nazarov**

*Professor, Doctor of Sciences in Technics, Tashkent State Transport University*

**Matluba A. Khadjimukhametova**

*Professor, Doctor of Sciences in Technics, Tashkent State Transport University*

**Abdusalam V. Umarov**

*Professor, Doctor of Sciences in Technics, Tashkent State Transport University*

**Shinpolat M. Suyunbaev**

*Professor, Doctor of Sciences in Technics, Tashkent State Transport University*

**Bahodir A. Mirsalixov**

*Associate Professor, Doctor of Philosophy in Physics and Mathematics, Tashkent State Transport University*

**Asadulla R. Azizov**

*Professor, Doctor of Sciences in Technics, Tashkent State Transport University*

**Barno Dj. Salimova**

*Professor, Candidate of Technical Sciences, Tashkent State Transport University*

**Vladimir M. Soy**

*Professor, Doctor of Sciences in Technics, Tashkent State Transport University*

**Rustam A. Narov**

*Professor, Doctor of Sciences in Technics, Tashkent State Transport University*

**Akhmadjon S. Ibadullaev**

*Professor, Doctor of Sciences in Chemistry, Tashkent State Transport University*

**Rakhima X. Khalilova**

*Professor, Doctor of Sciences in Technics, Tashkent State Transport University*

**Abdullaaziz Artikbaev**

*Professor, Doctor of Sciences in Physics and Mathematics, Tashkent State Transport University*

**Ravshanbek M. Mirsaatov**

*Professor, Doctor of Sciences in Technics, Tashkent State Transport University*

**Elmira U. Teshabaeva**

*Professor, Doctor of Sciences in Technics, Tashkent State Transport University*

**Sakijan K. Khudayberganov**

*Professor, Candidate of Technical Sciences, Tashkent State Transport University*

**Igor K. Kolesnikov**

*Professor, Doctor of Sciences in Technics, Tashkent State Transport University*

**Masud N. Masharipov**

*Associate Professor, Doctor of Philosophy in Technics, Tashkent State Transport University*

**Gulshan R. Ibragimova**

*Associate Professor, Doctor of Philosophy in Technics, Tashkent State Transport University*

**Jamshid R. Qobulov**

*Professor, Candidate of Technical Sciences, Tashkent State Transport University*

**Sunnatillo T. Boltaev**

*Associate Professor, Doctor of Philosophy in Technical Sciences, Tashkent State Transport University*

**Shukhrat U. Saidivaliev**

*Associate Professor, Doctor of Philosophy in Technics, Tashkent State Transport University*

**Dilfuza A. Makhmudova**

*Associate Professor, Doctor of Philosophy in Technical Sciences, Tashkent State Transport University*

**Ilxom A. Kodirov**

*Associate Professor, Doctor of Philosophy in Technical Sciences, Tashkent State Transport University*

**JOURNAL OF TRANSPORT**  
**SCIENTIFIC-TECHNICAL AND SCIENTIFIC INNOVATION JOURNAL**  
**VOLUME 1, ISSUE 1 MARCH, 2024**

**Nematjon R. Mukhammadiev**

*Associate Professor, Doctor of Philosophy in Technical Sciences, Tashkent State Transport University*

**Shukhrat B. Djabbarov**

*Associate Professor, Doctor of Philosophy in Technical Sciences, Tashkent State Transport University*

**Bahrom A. Abdullaev**

*Associate Professor, Doctor of Philosophy in Technical Sciences, Tashkent State Transport University*

**Usarkul Rakhmanov**

*Associate Professor, Doctor of Philosophy in Physics and Mathematics, Tashkent State Transport University*

**Lola D. Sharipova**

*Associate Professor, Doctor of Philosophy in Physics and Mathematics, Tashkent State Transport University*

**Mavjuda Yu. Mansurova**

*Associate Professor, Doctor of Philosophy in Pedagogics, Tashkent State Transport University*

**Gulnora A. Kasimova**

*Associate Professor, Doctor of Philosophy in Physics and Mathematics, Tashkent State Transport University*

**Diloram K. Sabirova**

*Associate Professor, Doctor of Philosophy in Technical Sciences, Tashkent State Transport University*

**Khasan K. Umarov**

*Associate Professor, Candidate of Technical Sciences, Tashkent State Transport University*

**Dilmurod B. Butunov**

*Associate Professor, Doctor of Philosophy in Technical Sciences, Tashkent State Transport University*

**Aleksandr A. Svetashev**

*Associate Professor, Candidate of Technical Sciences, Tashkent State Transport University*

**Sherzod B. Jumaev**

*Associate Professor, Doctor of Philosophy in Technical Sciences, Tashkent State Transport University*

**Khasan M. Kamilov**

*Associate Professor, Doctor of Philosophy in Technical Sciences, Tashkent State Transport University*

**Obidjon T. Aliev**

*Associate Professor, Doctor of Philosophy in Technics, Tashkent State Transport University*

**Ravshan S. Khikmatov**

*Associate Professor, Candidate of Technical Sciences, Tashkent State Transport University*

**Saodat A. Yuldasheva**

*Associate Professor, Candidate of Economic Sciences, Tashkent State Transport University*

**Nilufar U. Babakhanova**

*Doctor of Philosophy in Economics, Tashkent State Transport University*

**Ayjan B. Djumanova**

*Professor, Doctor of Philosophy in Economics, Tashkent State Transport University*

**Abdurakhman P. Akhmedov**

*Associate Professor, Doctor of Philosophy in Physics and Mathematics, Tashkent State Transport University*

**Nagima T. Khudayberganova**

*Senior Teacher, Doctor of Philosophy in Chemical Sciences, Tashkent State Transport University*

**Khayotjon M. Qurbonov**

*Assistant, Doctor of Philosophy in Pedagogical Sciences, Tashkent State Transport University*

**Akmaljon G. Ikromov**

*Doctor of Philosophy in Technical Sciences, Tashkent State Transport University*

**Makhira N. Usmanova**

*Doctor of Philosophy in Economic Sciences, Tashkent State Transport University*

**Shakhboz U. Normurodov**

*Doctor of Philosophy in Technical Sciences, Tashkent State Transport University*

**Sayyora T. Tuychieva**

*Doctor of Philosophy in Physics and Mathematics, Tashkent State Transport University*

**Sherzodbek Sh. Ismoilov**

*Doctor of Philosophy in Physics and Mathematics, Tashkent State Transport University*

**Malika N. Tuychieva**

*Doctor of Philosophy in Technical Sciences, Tashkent State Transport University*

<b><i>F.E. Abdukadirov, T.M. Khasanov</i></b> <i>Basic requirements for road passengers and function parameters.....</i>	<b><i>8</i></b>
<b><i>U.T. Berdiyev, U.B. Sulaymonov, N.R. Amanlikova</i></b> <i>Energy-efficient composite materials for electrical engineering.....</i>	<b><i>12</i></b>
<b><i>A.P. Akhmedov, S.B. Khudoyberganov</i></b> <i>Reuse of wastewater in urban conditions for technical purposes.....</i>	<b><i>16</i></b>
<b><i>M.X. Miralimov, Sh.U. Normurodov, B.F. Anvarov</i></b> <i>Investigation of tunnel seismic resistance according to various loading schemes of the theory of seismic resistance of underground structures.....</i>	<b><i>20</i></b>
<b><i>D.I. Ilesaliev, F.K. Azimov, J.A. Shihnazarov</i></b> <i>Technical and economic indicators of grain cargo transportation in wagons and container-platform.....</i>	<b><i>30</i></b>
<b><i>S.A. Uktamov, G.D. Talipova</i></b> <i>Main approaches to strategic planning of the activities of a higher educational institution.....</i>	<b><i>33</i></b>



## Technical and economic indicators of grain cargo transportation in wagons and container-platforms

D.I. Ilesaliev<sup>1</sup>, F.K. Azimov<sup>1</sup>, J.A. Shihnazarov<sup>1</sup>

<sup>1</sup>Tashkent state transport university, Tashkent, Uzbekistan

**Abstract:** This scientific article examines the technical and economic indicators of grain cargo transportation between the consignor and the consignee on container-platforms and platform wagons. It is an effective method of cargo transportation, i.e. it is aimed at providing short delivery time, low transportation cost and high security. In the research work, the costs of transportation of goods in wagons and container-platforms depending on the distance were calculated.

**Keywords:** wagon, container-platform, cost, distance, safety, cargo, logistics, transport.

## Donali yuklarni vagon va konteyner-platformalarda tashishning texnik-iqtisodiy ko'rsatkichlari

Ilesaliev D.I. <sup>1</sup>, Azimov F.K. <sup>1</sup>, Shixnazarov J.A. <sup>1</sup>

<sup>1</sup>Toshkent davlat transport universiteti, Toshkent, O'zbekiston

**Annotatsiya** Ushbu ilmiy maqolada yuk jo'natuvchi va yuk qabul qiluvchi orasida tashishga taqdim etilgan donali yuklarni konteyner-platformalarda va platformada tashishning texnik-iqtisodiy ko'rsatkichlari ko'rib chiqilgan. Yuklarni tashishning samarali usuli, ya'ni yuklarni yetkazib berish muddatining qisqaligi, tashish xarajatining kamligi va yuqori havfsizlining ta'minlashga qaratilgan. Tadqiqot ishida yuklarni vagon va konteyner-platformalarda tashishni masofaga bog'liq holda tashish xarajatlari hisoblangan.

**Keywords:** vagon, konteyner-platforma, xarajat, masofa, xavfsizlik, yuk, logistika, transport.

### 1. Kirish

Zamonaviy dunyoda logistika jarayonlarining samaradorligi, tashishni optimallashtirish sanoat va savdoni rivojlantirishda asosiy rol o'ynaydi. Bu, ayniqsa, ta'minat zanjirining har bir elementi umumiy unumdorlikka va mahsulotning yakuniy tannarxiga ta'sir qiladigan birliklarni tashish sharoitida juda muhimdir [1, 2]. Tovarlarini vagon va konteyner-platformalarida tashish o'rtasidagi masofani inobatga olgan holda tanlovning texnik-iqtisodiy taqqoslash ko'plab transport korxonalar uchun asos hisoblanadi. Yuklarni tashishda transport xarajatlari, yetkazib berish tezligi, yuklarni butligini saqlash darajasi va xalqaro logistika tizimlariga integratsiyalashuv imkoniyati kabi iqtisodiy omillar keltiriladi [4]. Ushbu maqolada biz ikkala muqobil variantning texnik-iqtisodiy jihatlarini, logistika tizimlarining samaradorligi va raqobatbardoshligiga tashish masofasining ta'siri tahlil qilingan [3, 5, 6]. Bunday tahlil yuk jo'natuvchi transport korxonalar o'z yuklarini vagonlar va konteyner-platformalarda donali yuklarni tashishning afzalliklari va kamchiliklarini aniqlash hamda tashishning optimal yechimni aniqlashga imkon beradi.

### 2. Tadqiqot metodikasi


Quyida keltirilgan tadqiqot metodikasi yuk jo'natuvchilar o'z yuklarini tashishga taqdim etishda masofaga qarab yuklarni temir yo'l transportining oddiy platformasida va konteyner-platformada tashishning texnik-iqtisodiy ko'rsatkichlarini aniqlashga imkon beradi. Tashish jarayoni uchun maqsad funksiya sifatida  $F$  va bog'liq parametrlar yuk massasi ( $m$ ), tashish masofasi ( $L$ ), ortish-tushirish xarajatlari ( $q$ ), platforma va konteyner-platformaning turi, inventar va shaxsiy transport birligini inobatga olgan holda hisoblanadi [7-9].

$$F = f(m, L, q) \rightarrow \min \quad (1.1)$$

Bortli va bortsiz temir yo'l platformalarda turli nomenklaturadagi yuklarni tashishga mo'ljallangan, konteyner-platformalarda, asosan, donali yuklarni tashishga mo'ljallangan. Konteyner-platformalar yuk bilan birgaligida temir yo'l platformalarga ortiladi [11, 13, 14].

Platformaning afzalligi sifatida yuk ko'tarish qobiliyatining yuqoriligi bo'lsa, yuklarni konteyner-platformalarda tashishda eshikdan eshikkacha yetkazib

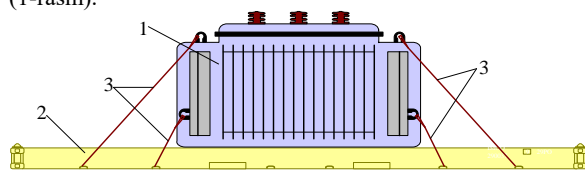
<sup>a</sup> <https://orcid.org/0000-0002-1664-2003>

<sup>b</sup> <https://orcid.org/0000-0001-7701-4492>

<sup>c</sup> <https://orcid.org/0000-0002-4519-3382>

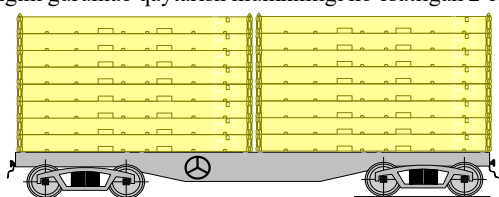


berish imkoni mavjud, bunda konteyner-platformadagi yuk birligini tushurmasdan bir transportdan boshqa transport turiga qayta ortish mumkin [10,12]. Taqdiqot metodikasida na'munaviy ortilgan va mahkamlangan yuk birligi keltirilgan (1-rasm).



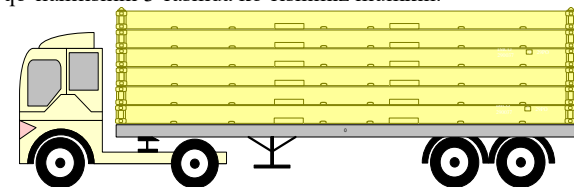
1 -rasm. Konteyner-platformada yuklarni joylashtirish va mahkamlash: 1 – yuk birligi; 2 – konteyner-platforma; 3 – tortuv trosslari

Konteyner-platformalarini temir yo‘l orqali qaytarish namunasi keltirilgan, rasmda ko‘rish mumkinki, konteyner-platformalari va fitting platformaning parametrlariga qarab, vagon tarkibida intermodal transport birligini guruhlab qaytarish mumkinligi ko‘rsatilgan 2-rasm.



2-rasm. Bo‘sh holatdagi konteyner-platformani temir yo‘l transporti orqali qaytarish

Avtomobil transportida turli xil konteyner va konteyner-platformalarni tashish mumkin. Bir nechta bo‘sh holatdagi konteyner-platformani avtomobil transportida ham qo‘llanilishini 3-rasmda ko‘rishimiz mumkin.



3-rasm. Bo‘sh holatdagi konteyner-platformani avtomobil transporti orqali qaytarish

Tashish usullarining texnik-iqtisodiy taqqoslash. Temir yo‘l transportida yuk tashishda (na‘munaviy 25t) yukni 40futli konteyner-platforma va inventar 13-401 modeli platformada tashishning iqtisodiy ko‘rsatkichlari masofaga qarab hisoblangan (1-jadval).

Tashish xarajatlarni aniqlashda mahalliy ta‘rif siyosatidan foydalanilgan.

1-jadval

№/k	10	20	30	50	80	10	12	15	20
m	0	0	0	0	0	00	00	00	00
	k	k	k	k	k	k	k	km	km
	m	m	m	m	m	m	m		
40 fut konteyner, mln.	3,573	4,044	4,526	5,502	6,861	7,815	8,746	10,095	12,473

so‘m									
Platforma 13-401, mln. so‘m	1,573	1,983	2,389	3,189	4,351	5,151	5,962	7,168	9,075

Yuqoridagi 1-jadvalda temir yo‘l transportiga taqdim qilingan yuklarni tashish xarajatlari mahalliy ta‘rif siyosatidan foydalanilgan holda hisoblangan.

### 3. Xulosa

Keltirilgan izlanishlarda temir yo‘l transporti orqali tashilayotgan yuklarni samarali tashish usulini tashish masofasiga bog‘liq holda tanlash va texnik-iqtisodiy ko‘rsatkichlarni asoslashdan iborat. 1-jadval orqali yuklarni 40 futli konteynerlarda va temir yo‘l platformalarda tashish narxlarini hisoblangan. Hisob-kitoblarni natijasida yuklarni mahalliy tashishlarda temir yo‘l platformalarda tashish samarali ekanligi aniqlangan.

### Foydalanilgan adabiyotlar / References

[1] “Темир йўл транспортада юкларни етказиб бериш жараёнидаги вагонлардан самарали фойдаланишни таҳлил қилиш”// Бобоев Д.Ш., Шихназаров Ж.А.// Academic Research in Educational Sciences. 210-216 бет. 2021 йил май.

[2] Шихназаров Ж.А., Бобоев Д.Ш., Дехқонов М.М. Юкларни маҳкамлашда кўп марталик фойдаланиладиган занжирли тросларнинг самарали айланмасини ташкил қилиш технологияси, научные труды республиканской научно-технической конференции с участием зарубежных ученых // Ресурсосберегающие технологии на транспорте, Ташкент-2021, 61-63 б.

[3] Рузметов Я., Молчанова О., Шихназаров Ж., Calculation of solid-state cargo fastener under the influence of longitudinal forces, E3S Web of Conferences, 2020, 10-16 б.

[4] Y. Ruzmetov, J. Shihnazarov., About fastening cargo on the wagon under the influence of transverse forces // Journal of Tashkent Institute of Railway Engineers, 2020, 16 (2), 28-38.

[5] K.Turanov, Y.Ruzmetov, J.Shihnazarov., To the calculation of solid-state cargo attachment under the influence of longitudinal forces // Journal of Tashkent Institute of Railway Engineers 2019, 15 (4), 24-35

[6] Коровяковский Е.К, Илесалиев Д.И, Анализ существующих методов перегрузки тарно-штучных грузов на железнодорожном транспорте // Современные проблемы транспортного комплекса России. 2015. №1(6)

[7] Кобулов Ж. Р., Баротов Ж. С., Ташматова М. С. К вопросу о комплексном решении задачи совершенствования срока доставки грузов на





железнодорожном транспорте //Universum: технические науки. – 2021. – №. 5-3 (86). – С. 13-19.

[8] Арипов Н.М., Ибрагимова Г.Р., Илесалиев Д.И., Светашева Н.Ф., Шихназаров Ж.А. Особенности функционирования зерноэлеваторов в цепях поставок //Логистические системы в глобальной экономике. – 2021. – №. 11. – С. 52-56.

[9] Turanov, K., Ruzmetov, Y., & Shihnazarov, J. (2019). To the calculation of solid-state cargo attachment under the influence of longitudinal forces. Journal of Tashkent Institute of Railway Engineers, 15(4), 24-35.

[10] Dehkonov, M. M., Abdurakhimov, O. U., Nasullayev, A. X., & Sadirov, I. R. (2024). Loads container-platform at a transport technical and technological recommendations on. scholar, 2(1), 20-24.

[11] Илесалиев, Д.И. (2015). Определение оптимальных параметров погрузочно-разгрузочного участка с помощью математических методов. In Транспорт: проблемы, идеи, перспективы (pp. 227-233).

[12] Shihnazarov, J., Boboev, D., Dehkonov, M., & Ikramova, D. (2023). Choice of an efficient mode of transport on the basis of comparison of technical and economic indicators of types of transport. In E3S Web of Conferences (Vol. 389, p. 05032). EDP Sciences.

[13] Илесалиев, Д. (2018). Рекомендации по организации и управлению складом от А до Z. Логистика, (1), 18-20.

[14] Светашев, А. А., Шихназаров, Ж. А., & Светашева, Н. Ф. (2021). О возможности развития железнодорожного направления китай-кыргызстан-узбекистан on the possibility of developing the railway direction China-Kyrgyzstan-Uzbekistan Транспорт, 30.

## Mualliflar bo'yicha ma'lumot/ Information about the authors

Ilesaliyev Daurenbek  
Ixtiyarovich

Toshkent davlat transport universiteti, yuk transport tizimlari kafedrası professori, texnika fanlari doktori, professor,  
[ilesaliev@mail.ru](mailto:ilesaliev@mail.ru),  
[+998998064199](tel:+998998064199),  
<https://orcid.org/0000-0002-1664-2003>

Shihnazarov Jamol  
Alisherovich

Toshkent davlat transport universiteti, yuk transport tizimlari kafedrası dotsenti v.b., texnika fanlari nomzodi,  
[jamol.alisherovich@mail.ru](mailto:jamol.alisherovich@mail.ru),  
[+998977806133](tel:+998977806133)  
<https://orcid.org/0000-0001-7701-4492>

Azimov Farrux  
Kaxramonovich

Toshkent davlat transport universiteti, yuk transport tizimlari kafedrası mustaqil tadqiqotchisi  
[+998909789295](tel:+998909789295)  
[farruxa@mail.ru](mailto:farruxa@mail.ru),  
<https://orcid.org/0000-0002-4519-3382>

