

SHOE BRAKE DAMPER

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Basic characteristics, essence of the development – the spring-mechanical damper is mounted on the electrohydraulic pusher of the shoe brake of TKTG type to reduce dynamic loads on the drive of the travel mechanism and metal structures of hoisting cranes by ensuring guaranteed smooth braking. The effect is achieved by smooth increase in braking torque due to counteraction of the damper to effort of the shoe brake spring.

Patentable and competitive results – application for an invention of the design of the shoe brake damper was filed to Ukrpatent. Application of the development will reduce dynamic loads on metal structures of hoisting cranes by 25%, improve operating safety and efficiency of cranes, improve operating efficiency of hoisting cranes.

Comparison with world analogues – the design of the shoe brake damper meets international standards and exceeds existing analogues by technical and operational parameters.

Economic attractiveness of the development for market promotion, implementation, parameters, price – the development has relatively low cost (2,500-4,000 UAH per unit, depending on typical size of the shoe brake), payback period is 6 months.

Branches, ministries, departments, enterprises and organizations where the development results are going to be implemented – enterprises of industrial engineering, crane-building enterprises.

Development readiness level – prototype – 100%, design documentation – 100%.

Implementation results – Implemented into the educational process.

