Algorithmization of a Vehicle Mathematical Model With Several Tractors

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key words

group use of tractors, tractor, semi-trailer, indivisible cargo

Transportation of bulky indivisible cargoes of great weight is carried out by road trains consisting of a tractor and a trailer or semi-trailer. An increase in the weight of transported goods causes an increase in the weight of the road train and the power of the power plant of the tractor. Using tractors with high power and high traction characteristics, it is possible to ensure the movement of a vehicle (VH) on roads with crushed stone and gravel at an average speed of about 15 km/h with a total weight of a road train of 110-150 tons. The weight of modern vehicles reaches 200–300 tons.
Due to the small volume of heavy cargo transportation, the creation and mass production of high-capacity tractors for the automotive industry is unprofitable. Specialized enterprises involved in the transportation of heavy loads do not have sufficient experience and production capabilities to create such tractors. This circumstance has led to the fact that road trains with two, three or more tractors are used for one-time transportation of unique heavy loads.

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