



AN INNOVATIVE TRACKED VEHICLE FOR SERVICING GUY ROPES AND SPECIALISED CABLE TRANSPORT

Ideas on utilisation

The subject of the technological offer is technical documentation, tested prototype and knowledge of a team of scientists regarding an innovative tracked vehicle for servicing guy ropes and specialised cable transport.

Potential adopters of technology

The developed vehicle can be used for, among others: servicing guy ropes of radio and television masts, ropes stabilising other high constructions (chimneys, bridges, etc.), power lines, transport organisation in difficult field conditions (fruit plantations, forests, canyons, fiords etc.) or transport conducted by specialist services (army, police, fire department).

The tracked vehicle described has the ability to climb on various undamaged steel and synthetic ropes with a fixed diameter, being able to transport simultaneously two control and service devices such as: magnetic head, TV cameras, devices for removing and applying preservative grease. Thanks to the original, innovative solution of the drive unit with special elastomer tracks, coupling with the rope was obtained several times higher than in the case of other known solutions in this field

Advantages of technology

The main element of innovativeness of the invention lies in the possibility of using the vehicle that moves itself (controlled remotely by an operator) on rope rods of various thickness, inclined at various angles and made of various materials, to carry out various works.

The main competitive advantages can be determined as follows:

- Significant improvement in the service of guy ropes compared to currently used methods. There is no need to enter the structure to install the retraction system of the service devices. The vehicle is mounted on the ground, directly on the rope.
- The vehicle is autonomous, i.e. controlled remotely by the operator who does not participate in the work directly. Thanks to this, the work comfort and safety of the service staff is increased.
- The vehicle can in take part in tasks where life and health of the service staff could be at risk of damage (high buildings, power lines, difficult field conditions).
- Modularity of the vehicle, which allows to attach to it various devices that at the moment may be necessary for performing, for example, service or transport works (magnetic heads, lubrication heads, inspection cameras, transport trolleys, etc.).
- Facilitating or even allowing transport in difficult field conditions



Market and context of technology

The developed tracked vehicle can be used in a number of issues related in general with transport and provision of maintenance services, both on steel and synthetic ropes.

Potential areas of application include among others:

- servicing guy ropes of telecommunication masts,
- servicing guy ropes of other high objects, e.g. chimneys,
- servicing guy ropes of bridges,
- servicing power lines,
- servicing other steel and synthetic ropes used among others in rock mining, shipbuilding, cable cars,
- implementation of tasks of the specialised cable transport in difficult field conditions, e.g. on fruit plantations, forests, canyons, fiords,
- implementation of cable transport tasks by specialist services (army, police, fire department).

Preconditions in adopting enterprises