

## **THEORETICAL RESEARCH ON THE DYNAMICS OF THE TRACTOR-BLADE OF UNSNOWING WORKS**

**Vasile Padureanu<sup>1</sup>, Mirabela Ioana Lupu<sup>1</sup>**

<sup>1</sup>Transilvania University of Brasov-Romania, Department of Engineering and Tourism Management

Corresponding author: Vasile Padureanu, padu@unitbv.ro

**Abstract:** The techniques of unsnowing works occupy an important place between the works of municipal engineering. When it starts to snow and it becomes slippery, people have the obligation to maintain their streets clean. For this a contribution has the universal snow plough which is mounted in front of the universal tractor. The literature presents almost exclusive the traction estimation and the dynamics of the tracked bulldozers. The wheeled bulldozers obtained from universal tractors, presents important particularities which depends on the running gear. The paper presents theoretical research on dynamic and energetic qualities of the tractor equipped with bulldozer blade for unsnowing works; the variation traction force depending on the height of the snow, of the variation of real speed, of the efficiency traction and of slipping wheels in different gearbox.

**Key words:** Tractor, dynamic, unsnowing works, efficiency traction.