The given work is devoted to development of theoretical bases of a new vibrating diagnostics method and evaluation a current condition of the anchor. The research of the pulse response of the anchor against landslide construction is a basis of vibrating diagnostics of a tension condition an anchor, detection of feature of abatement of a tightness, and definition of character of its dependence on a changing stretching force. The elastic body with the distributed parameters (a string) is used as the diagnostic model of the tense and fixed core of an anchor. Dependences of own frequencies changing of the pulse response of an anchor on a tightness changing at deformations and displacement of a place of fastening of an anchor are defined. The discrete model of an anchor against landslide construction is developed and researched for definition of dependences between parameters of an anchor condition and vibrating characteristics of a retaining wall, which is accessible to carrying out of measurements.
Keywords: sliding processes, anchor against landslide constructions, tension of anchors, vibrating diagnostics.

Full article