

ITOP 2-2-800(1)

TRACKED VEHICLE CENTER OF GRAVITY

SCOPE

This document describes procedures for determining the location of the center of gravity (c.g.) of tracked vehicles. The location of the center of gravity provides information relative to dynamic stability, transportability mobility models.

The suspension method is based on the fact that a vertical line through the point of suspension will pass through the mass center of a freely suspension body. The weighing method is based on the fact that when a body is in static dulum timing method is based on the fact that the vertical center --of-gravity location can be calculated using the periods of oscillation measured when the test item is suspended and swung in a pendular motion at two different pendular lengths. The center of gravity is located within an accuracy of + 25mm.