On the basis of the differential equations of power and

mass balance the design procedure of parameters of a working

body in the cylinder of the four-cycle petrol engine is

offered. Modelling of valid cycle ICE differs from wellknown

in the next way. There is the account of kinematics of

the power mechanism, a variable degree of compression on

partial modes and regulation of loading in the ways of Miller

and Atkinsona. Thus the effect of influence of efficiency

factors and parameters of a running cycle is considered. The

method of calculation of a combustion procedure in the gasoline

engine, based on the I.I. Vibe approach is described.

However in the work the dismissed work of temperature is

replaced by calculation of the exact differential equation with

appliance of method Runge-Kutt of 4-th order. The model

has the raised accuracy of calculation and speed. Il.2. Bibliogr.

17 names.