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Solodov V.G. Numerical model of compressible viscous turbulent flow in the intake channels and piston cylinder engines. Part I. Numerical method / V.G. Solodov, A.A.

Khandrimailov // Internal combustion engines. – 2009. –№1.

– P. 37-41.

The numerical model for calculating the compressible

viscous turbulent gas flow in the moving boundaries domains

with regard to the intake system elements, cylinders, and combustion

chambers of internal combustion engines using the

developed author’s MTFS software has been presented. The

final volume calculation method has been developed based on

approximate factorization algorithm at approximating a solution

of the 2nd order of time accuracy. The compressibility correction

technique has been embedded into this algorithm for

low speed flows with ENO reconstruction of cell parameters.

The LDA data-based solver testing is given in part II. Bibliogr.

9 names.