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LETTER TO THE EDITOR

IN SEC. 3 of my paper "Collision-free compression of a barotropic gas" (*Prikl. Mat. Mekh.* **55,** 5, 769–779, 1991), there is a mistake in the calculations. In formula (3.5), the letter μ should be replaced by the degree of compression s. The formula for μ in (3.6) is not needed. As a result, (3.7) becomes $\eta \sim 1$ and the power index $2(\gamma-1)$ in (3.8) should be replaced by $\gamma-1$. This correction affects the conclusion of a large gain in energy expenditure for a low degree of compression. For the optimum method of control the gain for low degrees of compression is insignificant. The result for high degrees of compression remains unchanged, but the estimate for η will be lower. Thus, when $\gamma = 3$ we have $\eta \sim 2$, and, as $\gamma \to \infty$, $\eta \to \frac{1}{3}e^2$. The graphs in Fig. 3 are, of course, incorrect. No other results in the paper are affected by the error.

I wish to thank Ya. M. Kazhdan for finding and informing me of this mistake. I wish to take the opportunity of mentioning his paper "The adiabatic compression of a gas by a spherical piston" (*Prikl. Mat. Teor. Fiz.* **1,** 23–30, 1977), in which his self-similar solution for the collision-free compression of a gas sphere bears a direct relation to the problem considered in my paper, but which was omitted from the list of references.

A. F. SIDOROV
2 April 1992

Translated by R.L.

† *Prikl. Mat. Mekh.* Vol. 56, No. 4, p. 698, 1992.