

Technical Comments

Comment on “Development of Equations of State for Compressible Liquids”

G. Emanuel*

University of Oklahoma, Norman, Oklahoma 73019

KOLCIO and Helmicki¹ presented a useful analysis of the equation of state for a compressible liquid, which they apply to LH_2 . Their study assumes a constant value for the

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*Professor, School of Aerospace and Mechanical Engineering. Associate Fellow AIAA.

thermal expansion coefficient and for the isothermal compressibility, or its inverse, a bulk modulus. The same assumptions, with an equivalent theoretical analysis, can be found in the textbook by Kestin.² Still more sophisticated approaches to the modeling of the equation of state of a compressible liquid may be found in Refs. 3 and 4.

References

¹Kolcio, K., and Helmicki, A. J., “Development of Equations of State for Compressible Liquids,” *Journal of Propulsion and Power*, Vol. 12, No. 1, 1996, pp. 213–216.

²Kestin, J., *A Course in Thermodynamics*, Revised Printing, Vol. II, McGraw-Hill, New York, 1979, pp. 262–268.

³Macdonald, J. R., “Review of Some Experimental and Analytical Equations of State,” *Reviews of Modern Physics*, Vol. 41, No. 2, 1969, pp. 316–349.

⁴Boushehri, A., and Mason, E. A., “Equation of State for Compressed Liquids and Their Mixture from the Cohesive Energy Density,” *International Journal of Thermophysics*, Vol. 14, No. 4, 1993, pp. 685–697.

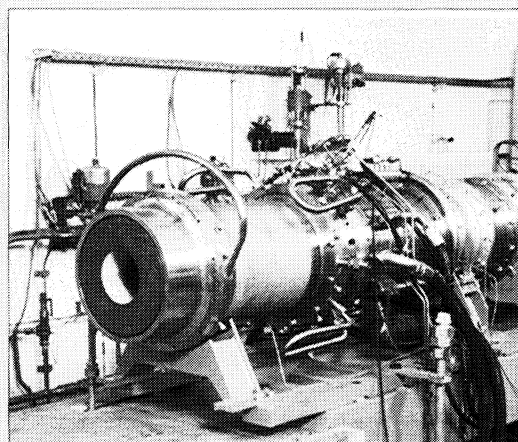
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