



On the Flow of a Compressible Fluid by the Hodograph Method: II Fundamental Set of Particular Flow Solutions of the Chaplygin Differential Equation

NASA Technical Reports Server (NTRS), I. E. Garrick, Carl Kaplan

DOWNLOAD



On the Flow of a Compressible Fluid by the Hodograph Method: II Fundamental Set of Particular Flow Solutions of the Chaplygin Differential Equation

By Carl Kaplan

BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 24 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. The differential equation of Chaplygin's jet problem is utilized to give a systematic development of particular solutions of the hodograph flow equations, which extends the treatment of Chaplygin into the supersonic range and completes the set of particular solutions. The particular solutions serve to place on a reasonable basis the use of velocity correction formulas for the comparison of incompressible and compressible flows. It is shown that the geometric-mean type of velocity correction formula introduced in part I has significance as an over-all type of approximation in the subsonic range. A brief review of general conditions limiting the potential flow of an adiabatic compressible fluid is given and application is made to the particular solutions, yielding conditions for the existence of singular loci in the supersonic range. The combining of particular solutions in accordance with prescribed boundary flow conditions is not treated in the present paper. This item ships from La Vergne, TN. Paperback.



READ ONLINE

[2.58 MB]

Reviews

Most of these publications is the perfect ebook accessible. It is amongst the most awesome publications I have got read through. You won't truly feel monotony at whenever you want of the time (that's what catalogs are for regarding in the event you request me).

-- Prof. Edgar Kshlerin

It is easy in study safer to comprehend. It can be written in basic phrases and never confusing. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- Emmitt Harber