

PREFACE

The Automotive Steel Design Manual (ASDM) is a living document, with periodic revisions and expansions as dictated by breadth of coverage, experience in application, and the needs of the automotive and steel industries. The first edition was issued in October 1986. This edition is the ninth in a series of updates.

The ASDM brings together materials properties, product design information and manufacturing information to make the most effective use of steel as an engineering material. It has been prepared and updated for the particular interests and needs of the product designer and design engineer. The major emphasis is on structural design, fatigue, crash energy management and corrosion protection. The primary applications are the body-in-white, attached frame members, and attached assemblies such as hoods, deck lids, doors and fenders. Information on materials and manufacturing processes is provided to enable the product design members of the engineering team to function more effectively.

The Computerized Application and Reference System (AISI/CARS) is an updated software program, with revisions and expansions that reflect the needs of the automotive and steel industries. The current version is CARS 2002. Based on the ASDM, it brings together the materials, design and manufacturing information in the ASDM for ready reference or automatic application of the design process by using database and equation solving techniques.

AISI/CARS automates the design process for the designer and engineer by:

- Eliminating the time-consuming search for design equations and criteria,
- Performing required calculations while eliminating potential errors, and
- Permitting unlimited, effortless parametric studies.

Users of the ASDM and AISI/CARS are encouraged to offer their comments and suggestions as an invaluable part of keeping these tools useful and up-to-date for the product designer and design engineer.

Development of the ASDM and AISI/CARS was sponsored by the American Iron and Steel Institute, Washington D.C., in cooperation with the Auto/Steel Partnership. The A/SP consists of DaimlerChrysler AG, Ford Motor Company, General Motors Corporation and the Automotive Applications Committee of the AISI. For further information, contact automotive applications engineers at any of the companies represented on the Automotive Applications Committee of the American Iron and Steel Institute.

Automotive Applications Committee
American Iron and Steel Institute
2000 Town Center Suite 320
Southfield, MI 48075-1123

Bethlehem Steel Corporation
Dofasco Inc.
Ispat Inland Inc.

National Steel Corporation
Rouge Steel Company
United States Steel Corporation

AISI/CARS was developed and is supported and distributed by Desktop Engineering Int'l Inc. Woodcliff Lake, New Jersey. For further information or technical support, contact:

AISI/CARS
Desktop Engineering Int'l Inc.
172 Broadway
Woodcliff Lake, NJ 07677

Hotline: (800) 888-8680
Tel: (201) 505-9200
Fax: (201) 505-1566
e-mail: techsupport@deiusa.com
web: www.deiusa.com

Engineering consultation will also be available upon request to assist in solving complex problems and to develop customized user-defined modules.