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FOREWORD

The Auto/Steel Partnership (A/SP) is a North American industrial innovation. Formed in 1987, it is a unique international consortium and the first to include Chrysler LLC, Ford, General Motors and their suppliers. Although the principal Partnership role is sponsoring and directing applied research and validation, followed by communication of the results and conclusions, the most important role may be that of the forum for discussing matters of mutual interest and concern to the automotive, steel and related industries. This open communication channel fosters improved understanding, cooperation and resource leveraging that benefits all participants and optimizes automotive body designs, processes and tooling.

The Auto/Steel Partnership members are:

AK Steel Corporation
Chrysler LLC
ArcelorMittal Dofasco
Ford Motor Company
General Motors Corporation
ArcelorMittal
Newcore Corporation
Severstal North America, Inc.
United States Steel Corporation

In addition to the NAAMS Stamping standardization and the Assembly standardization projects, the Auto/ Steel Partnership sponsors efforts in other areas, such as:

- Design manuals for mild steels, high strength steels, manufacturability, tailored blanks, etc.
- Production sheet steel mechanical property, surface texture and coating weight studies
- Stamping and assembly tooling cost and lead time optimization
- Dimensional management and process control options for the automotive body-in-white
- Development of standardized permanent deformation, resistance welding and corrosion tests
- Research projects to optimize resistance welding electrode wear and stamping lubricants.

The Partnership is continually evaluating other endeavors that may offer strategic opportunities for future advancement. Several examples are:

1. Increased utilization of various national and international applied research activities
2. Alternate joining technology assessment
3. Potential benefits of a center of expertise for metal fabrication coupled with improved technical training and education.

The potential benefits for commonized or standardized tooling within the auto industry have been recognized for several decades; however, progress had been virtually nil. At the December, 1991 annual meeting of the Michigan Tooling Association (MTA), the MTA members proposed to the automotive representatives from Chrysler LLC, Ford, and General Motors in attendance that the auto industry consider the challenge of commonization or standardization one more time. The intent of this type of endeavor would be to:

- Reduce overall stamping and assembly tooling cost
- Provide standardized metric convention for tooling
- Provide standardized metric componentry for tooling
- Reduce the variety of functionally similar items.

The automotive representatives suggested that the Auto/Steel Partnership (A/SP) could provide an appropriate avenue for pursuing this activity since the A/SP has an excellent success rate for efforts and projects of this nature. Subsequent to the MTA meeting, the A/SP and the Industrial Development Division of the University of Michigan hosted an “ad hoc” group of representatives from the three automotive companies and the Michigan Tooling Association in January, 1992 to determine if they felt further standardization discussions could lead to a mutually satisfactory end point. The participants in this initial meeting did conclude that:

1. A mutually satisfactory end point could be reached
2. The Auto/Steel Partnership could provide the appropriate avenue for this effort. In February, 1992 the A/SP Joint Policy Board agreed to sponsor and fund commonization/ standardization activities related to automotive stamping and assembly tooling.

After several meetings with the tooling and automotive communities, singularly and collectively, these communities agreed to form the Stamping Tooling Standardization Group (STSG) in May, 1992 to address potential development and adoption of common stamping tooling standards. A similar group, the Assembly Tooling Standardization Group was also formed at the same time to address potential development and adoption of common assembly tooling standards.

The NAAMS Global Standard Components Team, which was originally chartered as the North American Automotive Metric Standards Project Team (NAAMS) is one of several Project Teams organized within the Stamping Tooling Standardization Group. The result of the NAAMS effort is a compendium of recommended automotive tooling practices related to metric convention as well as several thousand standardized hard metric components. Chrysler LLC, Ford Motor Company and General Motors Corporation have adopted a substantial portion of these standards for use in stamping die design, specification and construction.

The Auto/Steel Partnership recognizes that the true NAAMS success belongs to the representatives of the supplier and automotive companies who dedicated significant time and effort to this activity. They have participated in numerous meetings (average five to seven hours per meeting) since 1992. Each meeting was attended by:

- Three to five consistent Chrysler LLC, Ford and General Motors representatives
- Five consistent tooling company representatives
- Varying numbers of suppliers representing specific topical areas.

PREFACE

This set of standards is a companion to the NAAMS Global Standard Components – Assembly. The products described herein are applicable to, or components of, steel stamping tools designed and built for the North American automotive companies, i.e., Chrysler LLC, Ford Motor Company and General Motors Corporation and their supplier/support companies. The standards have been developed to establish metric measurements for envelope dimensions and operational characteristics for the various components specified for stamping tools used by the North American automotive companies.

The NAAMS Global Standard Components Project Team was responsible for determining the dimensions and characteristics for each component and organizing the standards in their final form. The only exception is Section F, Fasteners, which was developed jointly with the NAAMS Assembly Teams. Items within this standard reflect a balanced representation of the various manufacturers and users of the products. All agreements and concessions made by the individual participants were for the general good of the standardization process.

Approval and control for these standards, and authority to add, delete, modify, etc., rests with the Auto/Steel Partnership. All communication related to the NAAMS Project Team, or standards, should be made through the NAAMS Administrator, telephone (248) 945-4779, fax (248) 356-8511, or e-mail gene@a-sp.org.

Roger A. Heimbuch
Executive Director
Auto/Steel Partnership

REQUEST FOR CHANGE

GLOBAL STANDARD COMPONENTS
NAAMS™
Stamping 12/17/98

This form is provided for the convenience of those who wish to request changes, additions or deletions to those standards. Please use this page as a duplication master and submit one request for each change.

To: AUTO/STEEL PARTNERSHIP
2000 Town Center, Suite 320
Southfield, MI 48075-1123
Attn.: NAAMS Team
fax (248) 356-8511

Submitted by: _____

Company: _____

Address: _____

_____

Phone Number: _____ Fax Number: _____

Section and Page Number: _____ Item Number: _____

Type of Change:

❑ Text ❑ Add Item

❑ Graphics ❑ Delete Item

Details of requested change: _____

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