TABLE OF CONTENTS

GLOBAL STANDARD COMPONENTS
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Assembly 06/17/11

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METRICATION AND STANDARDIZATION BACKGROUND

GLOBAL STANDARD COMPONENTS
NAAMS™
Assembly 06/17/11

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 in attendance from Chrysler LLC, Ford Motor Company, and General Motors Company 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 assembly and stamping 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 had exhibited 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 endpoint. The participants in this initial meeting concluded that:

1. A mutually satisfactory end point could be reached and
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 assembly and stamping tooling.

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

The Mechanical Components Project Team and the North American Automotive Metric Standards Project Team were organized within the Assembly Tooling Standardization Group. The latter team completed its charter and disbanded. Chrysler, Ford and General Motors have adopted a substantial portion of these standards for use in assembly tooling design, specification and construction.

In December 2009, the A/SP discontinued its sponsorship of both NAAMS Assembly and NAAMS Stamping. The decision was based on the realization that the steel companies, who jointly funded the projects, were receiving no direct benefits from them. Sponsorship was transferred to the United States Council for Automotive Research (USCAR) effective January 1, 2010.

Both USCAR and the A/SP recognize that the true NAAMS success belongs to the representatives of the supplier and automotive companies who dedicated significant time and effort to this activity. Many representatives contributed countless hours researching, designing and verifying the information contained in these standards. These same people, plus many others, have participated in regular meetings since 1992.

The NAAMS Assembly standards were released as a printed book in March 1996. In 1997 they were placed on the NAAMS website providing worldwide access.

PREFACE

This set of standards is a companion to the NAAMS Global Standard Components – Stamping. The products described herein are applicable to, or components of, body assembly tools designed and built for the North American automotive companies, i.e. Chrysler LLC, Ford Motor Company and General Motors Company 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 assembly tools used by the North American automotive companies.

Dimensions and other parameters are normally given in hard metric dimensions versus soft conversion of U.S. customary dimensions to metric. There are two exceptions, for which inch dimensions are still used:

1. Construction and flat steel stock. This material specified may be either in inch or metric dimensions due to commercial considerations.
2. Components with features that receive fasteners such as screws and dowels. Components with full metric specifications are the standard. Optional components are listed with identical dimensions except that inch units are applied to the fastening features. The optional components are distinguished by different NAAMS Code numbers.

The participating Project Teams were responsible for determining the dimensions and characteristics for each component and for organizing the standards in their final form. The only exception is Section F, Fasteners, which was developed jointly with the NAAMS Stamping Project Team. Items within this standard reflect a balanced representation of the various designers, 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., currently rests with the United States Council for Automotive Research. All communication related to the participating Project Team, or standards, should be made through the NAAMS Project Manager, Telephone (248) 860-2717, or email: nickjcoccia@aol.com.

Nicholas J. Coccia
NAAMS Project Manager

