



IN MEMORIAM
CARL DOCK
1924 – 2003

CONTI Fasteners AG lost a valued associate, when Carl Dock passed away peacefully on July 14th, 2003. Carl had been associated with CONTI since his retirement from Bulten AB [Sweden] in 1988.

Carl was the originator of the IPC-concept (In-Place Costs) and Technomics Philosophy and had presented this concept at numerous seminars and lectures in both the general industrial and fastener fields. While with CONTI, Carl helped our end-users and authorized manufacturers take full advantage of this cost savings philosophy.

Carl was a true gentleman who forever had a smiling face and bright eyes, which always seemed to make us strive for the best. As a result, we constantly found ourselves trying to improve our efforts, not only in business but also in our personal lives. Carl's exceptional attitude was a true gift to all of us who knew him. We will miss him greatly.

"DO YOU KNOW YOUR ASSEMBLY COSTS?" - ARTICLE 1 By Alan Pritchard

In order to fully understand the economics of 'unit assemblies', using fasteners or other like means, it becomes necessary to first have some basic knowledge as to how costs make their way into the design and production of both simple and complex assemblies. To ignore even one of the cost aspects can result in incorrect determinations being made in the name of 'assembly cost-reduction'.

In the series of articles that will appear in this and future issues of the REMINC REGISTER, there will be given 'food for thought' indicators that will lead all cost conscious design/assembly engineers and technicians toward the elimination of unnecessary built-in assembly costs.

The objective of these articles is to draw together all parties that are involved in design, purchase and manufacturing and establish how it is imperative for all parties to be considering of each other if a sound, reliable and cost effective unit assembly is to be achieved.

The first of the articles relating to Fastener Economics is, for want of a better term, given the heading, GENERAL.

Mechanical fastenings by screws, nuts and bolts are conventionally given the lowest depth of detail and technical consideration in design and development work. It is also true that most cost accounting systems do not reveal the true costs of an incorrect fastener specification once a design has been authorized for production and has reached the shop floor. Most cost systems will only develop information that is relevant to fastener piece part cost. Hence, it is often seen as an irrelevant problem to reconsider a fastener or fastener site if the cost of the 'new thinking fastener' bears a higher piece part cost than that that had been originally chosen. (Continued on pages 2 and 3)

REMINC STAFF

- Art Bancroft - Chairman / CEO
- Ralph Barton - President
- Laurie Mandly - Executive Vice President
- Ken Gomes - Vice President
- John Reynolds - Project Manager
- Bill Teixeira - Project Engineer
- Don Fosmoen - Project Engineer
- Suzanne Lilly - Special Projects Engineer
- Beth Rondeau - Director of Financial Admin.
- Muriel Boyd - Executive Secretary



PRESIDENT'S PERSPECTIVE

"REMINC – Your TRILOBULAR™ Support Team"

At REMINC we pride ourselves on the level of quality education, support and assistance we can provide our authorized manufacturers and large-volume fastener end-users. We regularly encourage companies to take advantage of our resources. Will you?

As with any technology, a good understanding of its functionality and benefits is essential to insure its market acceptance and success. Typical fastener end-users want to know how and why our TRILOBULAR™ and REMFORM® fastener technologies can provide them with better quality, yet lower-cost, assemblies. Yes, the bottom line for most end-users in today's marketplace is that they expect more for less. This request is a typical end-user demand.

Our proprietary thread-forming technology can usually meet that bottom-line requirement and our team of experts can help you prove it. All we suggest is that we be offered the opportunity to meet with your staff and educate them on the cost-savings potential of our program products. We can also help your staff with proper fastener selection and design, tooling design, manufacturing techniques, sample production, application engineering and problem solving. If your application potential is of sufficient magnitude, we will provide the basic "horsepower" to help you prove that substantial cost-savings are achievable.

Identifying and obtaining new fastener applications requires not only a comprehensive understanding of our technology, but also a high level of support. REMINC and our sister company CONTI have a staff totaling 18 people, situated primarily in North America and Europe, well positioned to provide advice, assistance and support.

We stand behind our technology and our performance claims based on our 45 years of experience and success. We say what we can do and we do what we say. Invite us to your facility and we will show you how we can lower the overall cost of assembly by using one or more of our widely accepted thread-forming fastener designs.

"DO YOU KNOW YOUR ASSEMBLY COSTS" (cont. from Page 1)

Further problems can be encountered, within a large manufacturing organization, due to a high probability that design, purchasing and production engineering functions become segregated and will invariably undertake their tasks in total isolation from the other disciplines.

A new product that will ultimately require assembly will first see the light of day from the drafting techniques of a product designer. Such are the facts of life that as soon as a line is drawn on a piece of paper or, using modern technology, a computer aided design system, cost starts to be incurred.

The new product takes shape from conventional considerations, from the experience of the product designer, or at the most from the experience of his/her immediate superior.

The 'final' design, after much time and cost, leaves the design office and the sight of the personnel in the drawing office.

The design will 'function on paper'. If the designer has specified a fastener for use in the assembly operation, he/she will rarely see it actually function, if it does function, and in consequence will not get an opportunity to profit from the mistakes that they might have made.

If a fastener has been designed to meet a specific need in an assembly, it is unlikely that the designer will have direct liaison with a competent representative of a fastener manufacturing company. It is even more unlikely that there will be liaison between the designer and the fastener-tooling engineer.

Thus a lack of in-depth fastener knowledge of modern, cost effective fasteners and the manufacturing constraints of these products can often lead to add-on costs being introduced at the design stage of an assembly.

DID YOU KNOW?

U.S. PATENT & TRADEMARK OFFICE

United States Patent [14] **Patent Number:** 5,168,458
Gomes [11] **Date of Patent:** Dec. 1, 1992

[14] **METHOD AND APPARATUS FOR GAGING THE DEGREE OF LOBLINATION OF BODIES SUCH AS THREADED FASTENERS**

[15] **Inventor:** Kenneth Gomes, Mansfield, Mass.

[16] **Assignee:** Research Engineering & Manufacturing, Inc., Middleboro, Mass.

[17] **Appl. No.:** 286,701

[18] **Filed:** Jul. 16, 1990

Related U.S. Application Data

[19] **Continuation-in-part of** Ser. No. 494,612, Mar. 16, 1990, abandoned.

[20] **Int. Cl.:** G01B 1/28

[21] **U.S. Cl.:** 366/340, 33/189 R, 31/246, 364/204

[22] **Field of Search:** 366/340, 363, 334, 474.37, 33/342, 343, 344, 356, 358, 189 R

[23] **References Cited**

U.S. PATENT DOCUMENTS

4,479,824 6/1975 Johnson 10/199 B
4,064,611 12/1977 Wenzler 10/200 X

4,490,800 12/1982 Froyen 366/340 X
4,625,429 12/1986 Daniels 33/189 X
4,851,428 5/1987 Butler et al. 33/189
4,842,078 5/1987 Krupp et al. 33/189 X
4,756,212 4/1988 Nakamura et al. 364/204
4,787,814 11/1988 Yagman 33/189
4,930,096 5/1990 Shimas et al. 33/189
4,964,071 10/1990 Grosvener 364/204
5,060,175 10/1991 Tsai 364/204

Primary Examiner—Kevin J. Teske
Assistant Examiner—Michael Zancilli
Attorney, Agent, or Firm—Trotter, Buehler, Gangione & Washburn, Ltd.

[57] **ABSTRACT**
A method for gaging the geometry of bodies includes providing a gage for measuring a plurality of cross-sectional diameters of a body and positioning a body in surface-to-surface contact with the gage. The method proceeds by recording information corresponding to the dimensions as measured by the gage, to form recorded data, the recording information related to the geometry of the body from this recorded data. Apparatus is also provided for carrying out this method.

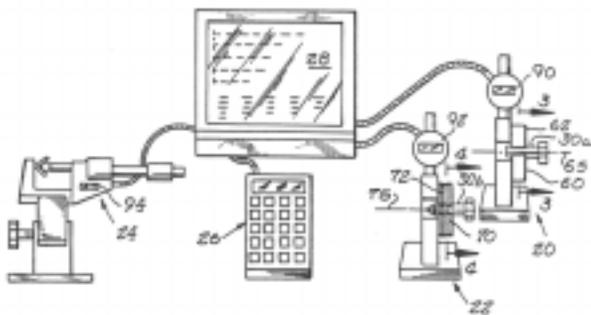
3 Claims, 2 Drawing Sheets

Did you know that TAPTITE 2000® fasteners are known as “THE CONTROLLABLE PRODUCT®”? TAPTITE 2000® fasteners and all TAPTITE® fasteners are subject to stringent quality checks with REMINC’s unique REMINC Measuring Method. Employing this patented measuring method can drastically improve the quality of our genuine TRILOBULAR™ products over standard machine screws and other competitive thread-forming fasteners.

This proven and highly successful REMINC Measuring Method (US Patent # 5,168,548) was invented by Ken Gomes, REMINC’s Vice-President, and has been utilized for many years. The patent was issued and assigned to REMINC on December 1, 1992.

The REMINC Measuring Method allows the manufacturer to increase the control and reduce variation of the fastener’s critical TRILOBULAR™ dimension by 50% when compared to any other method of measurement. Thus, this measuring method combined with REMINC Confidential Technical Know-How Manuals provides for the highest quality thread-forming fastener ever used by the industry.

SO, for ****THE CONTROLLABLE PRODUCT®**** USE **** TAPTITE 2000® fasteners **** as your product of choice for all thread-forming fastener applications.



“DO YOU KNOW YOUR ASSEMBLY COSTS” (cont. from Page 2)

If problems have been built-in to the design, it is unlikely that they will come to light until the assembly supervisor discovers that he doesn’t have the means to correctly drive the fastener and has to conduct “ad hoc” methods to ensure that a unit assembly can be made.

If initial assembly uses inadequate methods, how can the unit be serviced and maintained at reasonable cost?

This initial preamble may seem to be a little bit over the top, in respect of the designer who works in isolation being responsible for the high costs that are incurred in many unit assemblies that are in operation, even today.

However, it is the designer’s responsibility to be sure that there are no hidden costs associated with his design. To reduce costs by introducing modified fasteners and/or assembly techniques can be viewed as costly by many of those that are in the business of producing economical assemblies.

Consultation between UNIT DESIGN ENGINEERS and COMPETENT FASTENER DESIGN ENGINEERS can be the first stage toward ensuring that in-place assembly costs are kept at their lowest level and in keeping with the functional requirements of the assembled unit.

The REMINC/CONTI team of fastener design experts, who also have vast experience in the application and engineering of cost effective fasteners, are always available for consultation.

(The second article in this series will be under the heading of “DESIGN CONSIDERATIONS FOR IN-PLACE COST EFFECTIVE FASTENERS”).

REMINC Training / Brochure Request Form

Please Check:

Name: _____

Company: _____

Address: _____

Telephone: _____

Fax: _____

E-mail: _____

- Contact me regarding a training visit
- REMINC General Products Catalog
- TAPTITE 2000® Products Application Guide
- TAPTITE 2000® Product Brochure
- REMFORM® Product Brochure
- TRU-START® Product Brochure
- FASTITE® 2000™ Product Brochure
- "54 Ways TAPTITE 2000® Fasteners Lower the Cost of Assembly" Request Form

Mail this form to REMINC at 25 Enterprise Center, Middletown, RI 02842 USA or fax it to fax #: (401) 841-5008

The following are patented products and/or trademarks licensed by REMINC:
TAPTITE®, TAPTITE II®, TYPE-TT®, DUO-TAPTITE®, CORFLEX®, PLASTITE®, POWERLOK®, TRILOBULAR™,
KLEERTITE®, REMFORM®, THE CONTROLLABLE PRODUCT®, ENGINEERED FASTENINGS®,
EXTRUDE-TITE®, KLEERLOK®, TAPTITE 2000®, TAPTITE 2K®, TYPE TT 2000®, TYPE TT 2K®, TAPTITE 2000 & DESIGN®

COPYRIGHT 2003, RESEARCH ENGINEERING & MANUFACTURING INC.
ALL RIGHTS RESERVED

No part or contents of this newsletter may be reproduced without the expressed written consent of
Research Engineering & Manufacturing Inc.



Research Engineering &
Manufacturing Inc.
25 Enterprise Center
Middletown, RI 02842, U.S.A.
Tel: (401) 841-8880
Fax: (401) 841-5008
E-mail: reminc@reminc.net

*For more information on our
products, visit us at taptite.com*

1958 - 2003
Celebrating 45 Years Lowering
the Cost of Assembly

