Providing Advanced Technology
to the Fastener Industry

ISSUE 1 - 2014

50 Years and Going Strong

The year 1963 was a very difficult one in the United States, with its citizens burying their 35th president, John F. Kennedy, who had been assassinated in November. The Cold War with the Soviet Union was ongoing and America's soldiers were fighting a difficult war in Viet Nam. The mood in the United States was grim; but a highly publicized event held in April 1964 helped to change the gloom and lift America's spirit - The 1964 New York World's Fair.

At the Fair, amongst other innovative inventions and ideas, was the introduction of the 1964 ½ Ford Mustang coupe, the first sports car-like coupe produced in the United States in modern times. In retrospect, it would seem fortuitous, as Americans were ready for something uplifting, new and different. The Mustang featured the first major application of Original TAPTITE® CORFLEX®-'I' fasteners - 7/16-20 UNC bolts that anchored the seat belts, designed to improve passenger safety in an accident. The Ford Motor Company had several reasons for designing in the TAPTITE® bolts; they seated easily and eliminated cross-threading, which was causing considerable rework and assembly delays; they provided vibrational resistance to loosening; and they provided a significant cost-savings for Ford. This TAPTITE® application was so successful that Ford, to this day, continues to utilize TAPTITE® seat belt bolts for its restraint system assemblies.

Since 1964, Ford has produced over 9,000,000 Mustang automobiles, all with TAPTITE® restraint system bolts, in addition to many other TAPTITE® fastener applications. Ford will soon introduce its 6th generation Mustang vehicle, which makes the Mustang coupe the longest continually produced automotive model in the United States. One can conclude that the Mustang "Pony" car and TAPTITE® fasteners have been successful partners at Ford for 50 years.

In 1964, the year of the Mustang vehicle's celebrated introduction, there were five major automobile manufacturers in the US, producing a total of about 5,000,000 units annually. The production of automobiles and light trucks in the US grew dramatically after 1964, reaching a peak of nearly 16,000,000 light vehicles in 2006 but then suddenly decreased in 2009 to about 8,800,000 vehicles. This decrease was caused by several factors, but one overriding reason was the global recession, which was more serious and prolonged than originally expected. Over the past several years, there have been many dramatic changes within the industry. *(cont. on Page 2)*

REMINC STAFF

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John Reynolds	Manager - Fastener Engineering
Dennis Boyer	Senior Project Engineer
Bill St. Angelo	Director - Marketing and Licensing
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Suzanne Lilly	Administrator - Intellectual Properties
Beth Rondeau	Director of Financial Administration
Kelli Russ	Executive Assistant
Ralph Barton	Associate

SPOTLIGHT ON PETER EGGER

Peter Egger is European Market Development Engineer at REMINC's sister company CONTI. Mr. Egger holds a Bachelor of Science Degree in Mechanical Engineering from the University of Applied Sciences in Lucerne, Switzerland. Peter has more than 40 years experience in the mechanical engineering field. Prior to joining CONTI in 2005, he worked as a project engineer for a major European fastener distributor for over 10 years. His engineering specialty is thread-forming technology in the fastener industry. Peter's assignments include licensee marketing and application-engineering support, end-user education in TRILOBULAR® technology and overall market development.

REGISTER

CHAIRMAN'S CORNER - WE LISTEN

From a young age, I was always told by my parents and teachers that when in a conversation, I should listen carefully before speaking. That lesson I have never forgotten and one that we have tried to carry over into a formal REMINC/CONTI company policy. As many of you know from experience, our staff spends a great deal of time educating licensees, end-users and prospective end-users in the benefits of utilizing our technology. In addition, we train licensees how to manufacture our products and end-users how to apply them. We do this education and training in our REMINC training facility, in our CONTI office or at remote locations, wherever is most convenient for the respective participants. All this activity is just one side of the communication equation, showing and speaking.

The other side of the equation is listening and this activity is equally important. We are always asking licensees and end-users what they are thinking and how we can improve our Program in any way. Here are just a few typical questions posed to our staff in response to our prompting. Is there any way to reduce fastener weight? What should we expect for tool life? Can we improve our roll-die life? What can be done to lower drive torque and raise failure torque? How does a TRILOBULAR® screw's clamp load compare to that of a machine/metric screw? Is there a better way to promote TRILOBULAR® technology? What is the most effective way to demonstrate cost-savings? What types of machine and equipment should we have in our application engineering laboratory?

In our periodic REMINC Register and CONTI Courier newsletters, we usually have a Q&A section where we deal with the more commonly asked questions. But to deal with more specific questions and comments, ten members of our staff regularly travel to licensee and end-user sites in order to have face-to-face discussions. This physical travel is perhaps the most effective technique to have good communication, but other methods, such as phone, email, fax, product announcements, manual updates and our website www.taptite.com are others we regularly employ.

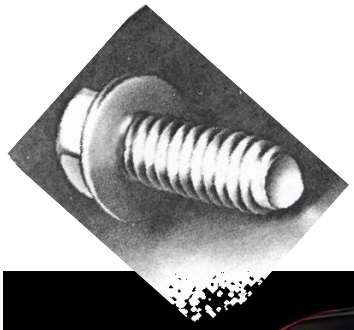
We are anxious and interested to hear your questions, listen to your suggestions, proposals and ideas. We can only improve our Program, its support and service, if we know where we need to focus. So contact us and let us know what's on your mind. We'll be listening! Only then can we respond.

50 Years and Going Strong *(cont. from Page 1)*

For example, today there are ten major manufacturers of automobiles in the US, seven of which are foreign-owned. In 2013, the US automobile industry built about 15,600,000 vehicles, just about equal to the number achieved in 2006.

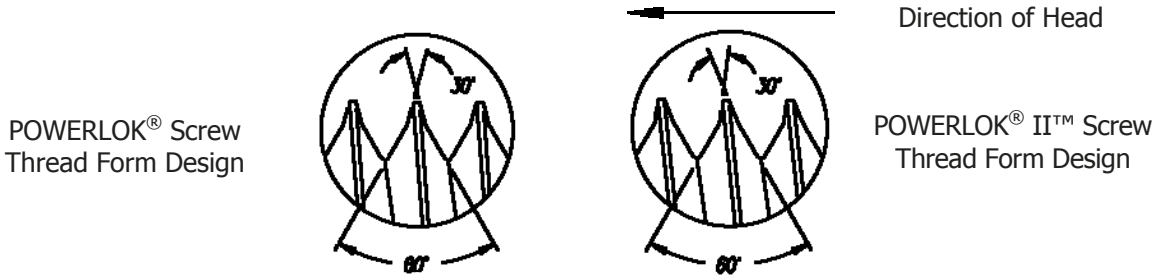
In recent years, automobile manufacturers have worked diligently to add numerous useful features and user-friendly options to improve safety, increase efficiency and enhance the driving experience. These improvements, combined with upcoming innovations, provide considerable challenges to, and opportunities for, automotive component producers, assemblers, and REMINC/CONTI. Therefore, we continue to actively develop new value-added products which will assist our licensees in overcoming present and future challenges in assembling automotive components composed of new materials. As US automobile production has increased, we have broadened our licensee base of fastener and tooling manufacturers to meet the growing demand for TAPTITE® and REMFORM® fasteners. It is forecast that 2014 automobile production in the US will be near or exceed 16,000,000 units, a three-fold increase from 1964, in a very different and demanding global market environment. To some, we suspect, the automotive industry may seem old and boring, but we at REMINC find it very much alive and vibrant. At REMINC, we invite the challenges generated by this continuous automotive innovation, because we have the confidence that, along with our licensee partners, we will meet them head on and provide technical and cost-savings solutions.

The 1964 ½ Mustang car seat belt bolt application was the successful result of the persistence of REMINC's founder, Art Bancroft. That initial success motivated Art's successors at REMINC, and our licensees, to search for more application opportunities, because the cost-savings generated by TAPTITE® and REMFORM® fasteners cannot be ignored.

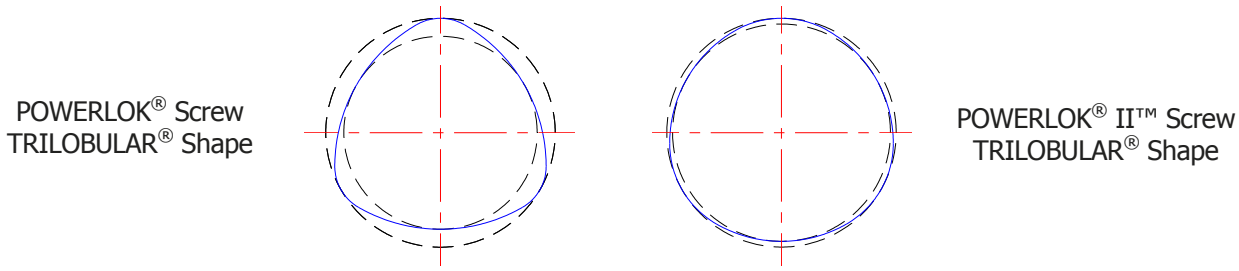


POWERLOK® II™ FASTENER COMPARED TO POWERLOK® FASTENER (cont. from Page 1)

Thread Profile: The POWERLOK® II™ fastener 30º thread tip addendum is angled towards the head of the screw, as opposed to being symmetrical, situated on top of the standard 60º thread form. The thread tip actually deflects when the fastener is tightened. The innovative Dual-Angle™ thread form provides "live-action" locking. With the POWERLOK® II™ thread, when the addendum is deflected, it aligns more evenly with the 60º thread below it. See below:



Major difference from the standard POWERLOK® screw design



The aim of the newly patented POWERLOK® II™ screw design was to create pressure at the tip of the thread and provide a consistent locking action within the joint with a new and unique thread shape. These features allow the new POWERLOK® II™ screw to resist vibration, while maintaining joint integrity and remaining locked in place during application.

Fastener Body: With POWERLOK® screws, the out-of-round (amount of TRILOBULAR® shape) is the same as that for TAPTITE II® thread-rolling fasteners. Since POWERLOK® II™ fasteners are not thread-rolling fasteners, the high out-of-round, used for thread forming efficiency, is unnecessary. The amount of the TRILOBULAR® shape was greatly reduced, matching the out-of-round of the body of larger diameter TAPTITE 2000® fasteners for excellent load capability.

Stress Area: The thread form below the 30º thread tip addendum on POWERLOK® and POWERLOK® II™ fasteners is a standard thread form, 6g for metric screws. The stress area is less than the standard machine screw values, due to the TRILOBULAR® shape. The average reduction is 7.3% less for metric POWERLOK® fasteners, but only 4% less for POWERLOK® II™ fasteners.

Tensile Strength: The stress area directly affects the tensile strength of the fasteners. Therefore, tensile strength is increased for POWERLOK® II™ fasteners compared to POWERLOK® fasteners by the same margin as the stress area. Torsional strength would also be increased.

POWERLOK® II™ Fastener Improvements

Increased stress area provides higher tensile strength than the original POWERLOK® fastener. Greater spring action as the 30° tip is deflected toward the head. This deflection of the thread tip creates classic "stored energy" locking.

POWERLOK® II™ Fastener Advantages?

- No need for patches, adhesives or assembly line applied locking compounds.
- Locking action is over the entire length of the screw thread.
- No adhesive curing time - instantaneous locking action.
- Locking action is not affected by temperature.
- No need for under head locking elements.
- No need for costly lock washers.
- Works with all finishes.
- Easily hand started.

REMINC Training / Brochure Request Form

Name: _____

Company: _____

Address: _____

_____

_____

Telephone: _____

Fax: _____

E-mail: _____

Please Check:

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

Mail this form to REMINC at 55 Hammarlund Way, Tech II, Middletown, RI 02842 USA or fax it to (401) 841-5008

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TAPTITE®, TAPTITE II®, TYPE-TT®, DUO-TAPTITE®, CORFLEX®, PLASTITE®, POWERLOK®, TRILOBULAR®, KLEERTITE®, REMFORM®, THE CONTROLLABLE PRODUCT®, ENGINEERED FASTENINGS®, EXTRUDE-TITE®, KLEERLOK®, MAGTITE®, TAPTITE 2000®, FASTITE® 2000™, TAPTITE 2K®, TYPE TT 2000®, TYPE TT 2K®, TAPTITE 2000 & DESIGN®

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1958 - 2014
Celebrating 56 Years Lowering the *Cost* of Assembly