

Vol. 4, Issue 5
February 2006

Meet some of our scheduled speakers for the 9th annual TCRA seminar

Frank H. Slocum, Jr. Raybestos Powertrain

Frank has been in the transmission service industry for the past 30 years. After a tour in the Air Force as a pilot, Frank joined the TRW Automotive Division in Cleveland as a service engineer, responsible for application and quality audits. Recruited by AAMCO Transmissions in 1976, he ran the engineering and product development dept. of its part division. In 1981, Frank moved to the corporate staff, where he supported dealer technical activities and the technical operations associated with the AAMCO franchise business.

In 1984, Frank was asked to become aftermarket sales manager for Raybestos and later formed the independent distribution operation, Raybestos Aftermarket Products Company.

Frank Slocum has presented numerous programs on various transmission subjects. He is a member of the Society of Automotive Engineers and served on the transmission committee for over 20 years. He has an undergraduate degree from Clemson University and a masters degree from Central Michigan University.



Fred Gerometta Ford Motor Company

Fred has 14 years' experience with torque converters and is an expert in design, manufacture, and program management of torque converters and components. Fred was the first in the industry to use warm formed PM and Aurum plastic. His Ford firsts include molded anti-spillage seal and transmission mounted heat shield. He developed the converter stamping rapid prototype on 5R110W and the race truck 10.25" 5R100 torque converter, and more. He also resolved the E40D torque converter cover wear and torque converter piston cracking. Fred has received technical recognition from Ford Motor Company including 5 Customer Driven Quality Awards: 1997 PM part of the year Award; 1997 Powertrain CDQA winner; 1998 PT CDQA winner and finalist for 1999 "Most Innovative use of Plastic Award". Fred was appointed the torque converter senior engineer in 2003 and is a mentor for the department.



John Parmenter Precision International

Beyond his work with Precision International's Technical Advisory Committee, John is a Master Transmission builder and an ASE Certified shop owner with a large dealer-based clientele. He brings real world issues to light and will be addressing numerous issues for builders, installers and the relationship with the torque converter technician.

John has been involved in the industry for over 20 years as a shop owner and rebuilder. His real world approach to repairs has made his seminars in-demand worldwide.



Angela L. Petroski Raybestos Powertrain

Angela obtained her B.S. in Chemical Engineering in 1996 from Michigan State University. Upon graduation, she began her work as a process engineer, first for International Paper, and then in 1997 for Raybestos Products Company. As process engineer at Raybestos, Angela was key to product and process implementation and ongoing process improvements. In 1999, Angela accepted a position as product and process development engineer at the Raybestos Technical Center. As development engineer, Angela successfully implemented new product and process parameters, innovative product formulations, and assured product manufacturability. She was instrumental in the development of a semi-conductor polishing pad and its method of manufacture. As a Six Sigma Black Belt, she has also identified and implemented product and process cost reduction and reduced product variation in a number of product lines.

Angela is currently Manager of R & D at Raybestos Products Company. Her responsibilities focus on identifying market needs and ensuring that these needs either meet or exceed customer expectations.



A LD pilot clarification for pesky repairs

In response to continued incorrect pilot identification and misuse among the family of A4LD/4R55 converters, we will try to clarify the differences causing these issues.

First of all, Ford Motors has manufactured these converters with four common converter pilots. Application and engine size must be known prior to determining which is the correct pilot to use. Dacco Converters outlines and identifies each pilot in the latest Dacco catalog, volume 14, page 18. In this article, the three most commonly used are highlighted.

Photo A shows representation of the latest pilot version. It is approximately 1.250 inches long. Photo B represents the most common style pilot, with a length of 1.450 inches. Photo C shows a less common pilot, with a length of 1.300 inches. This pilot is most commonly found in '01-'03 Ford Rangers, with an IL code stamped on the converter.

The most uncommon pilot is found on the Ford Merkur with a pilot length of less than one inch. It is important to understand the differences between pilots, which is best learned through observation. Never substitute a converter using a different style of pilot.

As an important note to rebuilders and installers alike, the pilot protrudes into the crank shift adaptor less than .200 inches. Adaptor examination for wear and breakage is a must.

We hope this helps in identifying which pilot is the correct piece to use, and will correct any misuse and improve installations.



Photo A



Photo B



Photo C

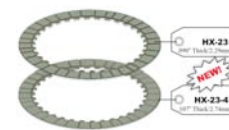
Tri Component releases new additions to Mercedes line

After 40 years of creating quality converter components, Tri Component has included additions to its vast line of Mercedes converter components.

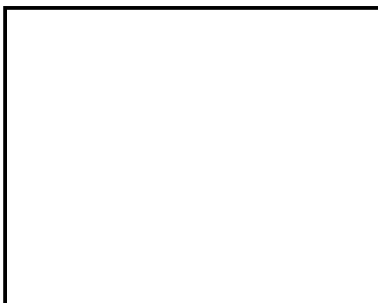
A new clutch plate, designed with the Mercedes

772.6 transmission in mind, may be used in either four or six cylinder engines. Since transmission fluids common among Mercedes tend to be a bit aggressive, Tri Component relies on "the most acceptable" friction material,

Tri Kevlar® formula. Look in our next issue for additional releases for the ZF line.



A4LD/4R55 converter



Most commonly used in...

...Ford light-duty passenger cars and trucks

Common failures include...

...front bearing and turbine hub

Suggested replacement parts...

...include bearings, turbine hubs and clutch liners

TCRA

Upcoming Events

What?

TCRA's 2006 Annual Seminar

When?

May 10th-13th, 2006

Where?

Indianapolis, IN

Contact?

Any board member for more information or e-mail the TCRA. Register at www.tcraonline.com

Items For Sale

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Help needed! Can you confirm the identification of the converter below?

Recently a TCRA member requested the help and knowledge of his fellow members. Located to the right, an unidentified converter appears. Additional photos of the unit appear below.

Some response has indicated the converter may fit the Saturn Vue and Saturn Ion, with a 2.2L, 4-cylinder engine and CVT transmission. If anyone can confirm this identification, please e-mail the TCRA at tcra2002@aol.com or e-mail any board member with confirmation.



The numbers stamped on the unit read 600498404, shown in the far left photos

Deciding when to replace a bearing has become a trivial topic. Each rebuilder has his own idea of how to determine when the bearing's life has expired. In reality, many standard factors determine when the bearing is in need of replacement. We hope you have found more acceptable ways in establishing when a bearing needs replacement than the ones listed to the right. If you do use a method listed, be assured less than acceptable results are returned.



The Spin & Listen Test

Clean the bearing and spin the unit in the palm of your hand, testing for roughness on the bearing's surface.



Magnifying glass

Inspecting the unit under a magnifying glass may expose wear and scoring.



SO Replace the Bearings

No scientific test has determined when a bearing is good or needs replacement; so, when available, replace the bearings with new.

For SALE



- Cabinet type spray wash machine
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TCRA membership expands worldwide

Thanks to the popularity of the TCRA web site, we have added new faces to the TCRA, including members from Thailand, Bulgaria, Russia, China, the Netherlands and Japan. New members from Germany and London also have signed on. This organization has grown, and it is exciting to see the worldwide interest in torque converter rebuilding!



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