



Society of Tribologists & Lubrication Engineers

Mission Statement:

To advance the science of tribology and the practice of lubrication engineering in order to foster innovation, improve the performance of equipment and products, conserve resources, and protect the environment.

STLE membership supports and expands your professional abilities through:

Education: Top-rated and affordable courses are offered at the Annual Meeting, by Local Sections and through certificate programs available in the field and online.

Certification: Earn recognition and valuable credentials through three STLE-sponsored programs: Certified Lubrication Specialist (CLS), Certified Metalworking Fluids Specialist (CMFS), and Oil Monitoring Analyst (OMA).

Professional Networking: Offered at two major international conferences, local section meetings and technical committees and industry councils.

www.stle.org



Click here for details about the International Joint Tribology Conference

October 22-24, 2007
Marriott Mission Valley
San Diego, CA

August 2007

[2007 International Joint Tribology Conference on 10/22-24/07 details](#)

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2007 International Joint Tribology Conference on October 22-24, 2007

The 2007 International Joint Tribology Conference, co-sponsored by ASME and STLE, will be held at the Marriott Mission Valley Hotel, San Diego, California on October 22-24, 2007.

There are over 300 technical papers submitted. The full IJTC program can be viewed [here](#). The program promises to be an exciting combination of cutting edge research and new ways of looking at familiar topics. Some of the topics covered include Hydrodynamic Lubrication and Fluid Film Bearing, Engine Tribology, Machine Components Tribology, Lubricants and Materials in Contacts, Magnetic Storage Tribology, Nanotribology and a Special Symposium on Virtual Tribology.

The hotel is expected to fill up so make your reservations early for the best choice. See a 360 degree view of the hotel where IJTC will take place [here](#)

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Here are three new benefits just added for STLE members.

1. Tribology Letters is now online and available just by being an STLE Member.

An e-subscription to the full text peer reviewed articles in Tribology Letters is being offered to all STLE members. STLE and [Springer Publishing](#) have put the articles in the [Members Only portion of the STLE website](#). Use your current membership number to get into this password protected site on www.stle.org. The journal articles can be read in their entirety online simply by using your member number to access the members' only portion of the STLE website. [View the Table of Contents for the August 2007 journal.](#)

2. Trial Education course: CJ-4 course offered on [LubricantsUniversity.com](#) through the [STLE education partners program](#).

Whitelist our address

If you want to be sure to get all the information that STLE sends to members, it is suggested that you whitelist the STLE email addresses. Whitelisting is the opposite of blacklisting, and assures that emails sent to you are actually received.

Instructions on how to whitelist our address can be found [here](#).

If you have a different preferred email address, make sure you notify us.

Fact of the Month

To buy the Handbook of Lubrication and Tribology, Metalworking Fluids or any other publications, please go to the online [STLE publications center](#) or send an email to info@stle.org

Chapters 1 - 6 of the Handbook of Lubrication, edited by George Totten, have been highlighted in past monthly updates. Chapter Seven covers Principles of Gas Turbine Bearing Lubrication and Design and was written by Hooshang Heshmat and James F. Walton II of Mohawk Innovative Technology, Inc.

Section 7.2.2.1 Babbitts says:

The most common bearing materials are babbitts, either in tin based or lead based. The detailed properties of babbitts are given (in an included table). Babbitts can operate under conditions of boundary lubrication or dirty operation. They have

If you're not up to speed yet on the new formulation of heavy-duty engine oils introduced last fall, you can take the course on CJ-4 on www.LubricantsUniversity.com just by registering. The course "New API CJ-4 Lubricants for 2007 Low Emission Diesel Engines" discusses the new 2007 emission restriction for nitrogen oxides (NOx) and particulate - both components of air pollution and how after treatment emission control systems are designed to meet or exceed the federally mandated restrictions. This course also examines the CJ- 4 category testing and the benefits over CI-4 PLUS oils. To take the course you only need to complete the registration process. Start here to begin.

We have four education partners who offer courses at this time. That means that their courses have been peer reviewed and found valuable. The four education partners are:

[Chevron Lubricants University](#)

[Condition Monitoring International](#)

[Lubrizon K2M](#)

[Polaris Laboratories](#)



3. Read the 32-page special section on "Lubrication Fundamentals" in the August issue of TLT, STLE's monthly technical magazine. All 10 articles were authored by Dr. Robert M. Gresham, STLE's Director of Professional Development. [The titles are listed below in the section on the TLT Table of Contents.](#)

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2007 Online Student Poster Contest Deadline is Aug 24

The deadline for students to [submit a picture of their research in the field of tribology](#) for the online contest is August 24, 2007. Entries should include a picture, a title, and up to a 200 word description. STLE members will be determining the winner by voting online. A cash prize will be given to the winner.

The student may also have presented the same research at either the last Annual Meeting or at the upcoming [International Joint Tribology Conference](#) in October. Student attendance at a meeting is not required however, for this online contest. If previously published or scheduled for publication, please get permission from the publisher.

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Oct. 1 Deadline for Presentation Submissions for 2008 STLE Annual Meeting

Over 1,500 members of the tribology and lubrication engineering communities are expected in Cleveland for next year's Annual Meeting. In addition to 400 technical presentations, the 2008 STLE event features education courses, an 80-exhibitor trade show, the popular Commercial Marketing Forum and an unparalleled opportunity to network with peers from around the globe.

STLE is accepting submissions for presentations at its 2008 Annual Meeting & Exhibition, May 18-22 at the Cleveland Convention Center in Cleveland, Ohio (USA). This is the place to hear about the latest research and developments in the field of lubrication. We are expecting another well attended meeting. The Annual Meeting theme of how best lubrication practices can help save energy and money is a concept pioneered over 25 years ago within this Society.

excellent compatibility and nonscoring characteristics and are outstanding in tolerating errors in construction and operation. Their deficiencies with regard to fatigue strength can be improved by using an intermediate layer of high-strength material between a steel backing and a thin babbitt layer. Many of these, known under the name of trimedal bearings, use the following construction (1) a low-carbon-steel back, (2) an intermediate layer of copper or bronze, and (3) an overlay of lead-base babbitt from 0.001 to 0.020 in. thick. The intermediate layers increase the mechanical strength of the babbitt bearing and also provide reasonable good bearing surfaces in cases where the thin babbitt surface layer is destroyed in operation.

The deadline for technical submissions is Oct. 1. Interested authors can submit their abstracts through the society's improved online process. Go to www.stle.org and click on the Cleveland logo. To learn more about the process and topic areas, click on the link that says **Call for Presentations**. To submit your abstract, click on the link that says **Submit Your 2008 Abstract**. You'll access a set of instructions that direct you on how to create your own account.

For questions on technical aspects of the 2008 STLE Annual Meeting & Exhibition, contact Cindy Tomala at ctomala@stle.org or 630-323-7212. For general questions, contact info@stle.org or 847-825-5536.

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To exhibit at the 2008 Annual Meeting & Exhibition, May 18-22 at the Cleveland Convention Center, Cleveland, Ohio (USA).

The society is taking orders now from companies that want to exhibit in the trade show. Exhibit dates are May 19-21. For more information, contact Tracy Nicholas VanEe at (630) 922-3459 or tnicholas@stle.org. We have sold many booths already, so now is the time to make plans to exhibit in Cleveland in 2008.

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Certification continues to grow.

The [directories](#) are updated as of June 26, 2007. Certifications are higher than ever before with 859 certified as CLS, 115 certified as OMA I and 15 as OMA II. CMFS, the newest program, has certified 73.

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Website Career Center

There are 14 jobs and 108 resumes listed on the [STLE CAREER CENTER](#). This is the place to look for someone with experience in the lubrication industry.

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Features

Letters to the Editor: TLT readers provide comments on two recent articles on synthetic lubricants and the future of condition monitoring.

Tech Beat: This month TLT explores revolutionary reverse osmosis. Also: Catalyst eliminates diesel NOx emissions and wettability gradient on a surface.
By Dr. Neil Canter

Peer-Reviewed Paper (Editor's Choice): Study of Surface Films of ZDDP and MoDTC with Crystalline and *Amorphous Overbased Calcium Sulfonates* by XPS By *Michael T. Costello and Roberto A. Urrego*

FEATURE ARTICLE: Lubrication Fundamentals:

A 32-page special section from STLE

- What's Tribology?
- Viscosity: The Resistance to Flow
- Lubricant Base Oils

- The Basics of Metalworking Fluids
- What's So Special About Gears?
- There's Something Synthetic About Synthetics
- 'Didn't Ya Just Look at It?'
- When Bad Things Happen to Good Bearings
- Hydraulics: An Inside Look at Pumps
- Who Says Tribologists Can't Make a Difference?

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Departments

Around the Industry: This month's newsmakers include Lubrizol, Rhein Chemie, Sea-Land Chemical and others.

Sounding Board: Readers discuss energy-savings strategies.

New Products: Filtration system for high viscosity fluids; lubricant bearing grease; advanced synthetic technology for MWF applications and more!

Test Your Knowledge What instrument is normally found in very large reservoirs to determine the oil level in the reservoir?

Resources: New tribology journal begins publishing.

Columns

President's Report: No tribologist left behind

From the Editor: A life-saving lesson

Selling Points: The Rule of Three

Shop Floor: Developing a good strategy

Cutting Edge: Fenders and stents

And more including: **Headquarters Report, Industry Calendar and Advertisers Index**

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To [join](#), [renew or update](#) information use these links or send a fax to 847-825-1456.

The Society of Tribologists and Lubrication Engineers

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