



STLE Update

WHERE SCIENCE MEETS THE BOTTOM LINE



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 live at a variety of locations or through the new [LubeLearn on-line education program](#).

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 or one of 23 technical committees and industry councils.

AUGUST 2005

WELCOME

STLE Update provides our 4,000 members worldwide with news about STLE and practical content useful to technical professionals. Here's what's happening this month.

Register for WTC III by Aug. 26 and save \$100

You have less than a month to save money by registering for the third World Tribology Congress, Sept. 12-16, at the Washington Hilton in Washington, D.C. After Aug. 26, registrants pay a \$100 surcharge.

WTC III organizers recently announced a stellar technical program that spotlights cutting-edge technology. Among the highlights are sessions focusing on nanotribology, the influence of adhesion and stiction in MEMS devices and a special K.L. Johnson Symposium paying tribute to a pioneer in the field of contact mechanics.

The technical program also covers such vital technologies as lubricants, wear, tribochemistry, additives, bearings, engines, materials, surface engineering and aerospace. Advances in health and safety topics also will be highlighted with an emphasis on the impact of tribology on biomaterials and biomedical devices.

Also on the agenda as one of four plenary speakers is STLE-member Dr. James A. Spearot, director of the Chemical and Environmental Sciences Laboratory for GM's Research and Development Center.

For more information and to register for WTC III, log on to www.conferencetoolbox.org/WTC05/index.cfm.

Calgary paper-solicitation process underway with Oct. 1 deadline

With this year's highly successful Annual Meeting in Las Vegas behind us, STLE's Annual Meeting Program Committee (AMPC), chaired by Michael T. Dugger with Sandia National Laboratories, is hard at work on the 2006 program. Next year's meeting is May 7-11 in the Telus Convention Center in Calgary, Alberta, Canada, site of STLE's 1993 Annual Meeting.

The AMPC is soliciting content for the technical program. This year more than 300 papers were presented in Las Vegas, and the committee hopes to equal or exceed that mark in Calgary. Deadline to submit your abstract is Oct. 1.

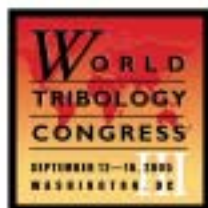
The easiest way to submit your proposal is via the Internet. Log on to www.stle.org and click on the Meetings button. Abstracts are limited to 150 words.

For more information on submitting papers for either the 2006 annual meeting or STLE's quarterly peer-reviewed journal, Tribology Transactions, contact Bill Spilman at bspilman@stle.org. Another source for submitting papers for the annual meeting is Cindy Tomala, whom you can reach at ctomala@bacon-hedland.com.

451 tribologists can't be wrong

For the 2004-2005 STLE fiscal year that ended June 30, 451 new members joined the society. That represents an increase of 67 from the 384 members who joined in the 2003-2004 fiscal year.

Upcoming Meetings:



When a member joins STLE, he or she is automatically assigned to one of nearly three dozen national and international sections. Among the local sections with the most new members last year were Chicago (39 new members), Houston (29), Atlanta (28), Philadelphia (27) Alberta (20) and New York (14).

When the new members are organized by company type, manufacturers of lubricants led the way with 127 new members, followed by end-users with 54, additive companies with 43 and academic institutions with 36.

By joining STLE, you affiliate yourself with the premier technical society representing the science of tribology and best practices in lubrication engineering. You also avail yourself of such benefits and services as publishing, certification, TLT magazine, world-class education, technical information and professional networking. If you know someone whom you think would benefit from STLE membership, direct them to the society's Web site at www.stle.org. He or she will find a wealth of information and also can complete an online membership application.

Expanded Web benefits for 'Members Only'

The redesign of STLE's Web site goes far beyond a graphic upgrade. A suite of new benefits have been added to the Members Only section of the site. To enter that section, enter your name and member ID number on the STLE home page and click Go.

Once inside you'll have access to:

- **Free education.** LubeLearn courses are available at no charge simply by registering. The courses cover Basic Lubrication, Basics of Wear and Basics of Rheology.
- **Glossary of lubrication terms.** From absolute viscosity to ZDDP, the lubricant industry's technical language is presented with definitions and examples.
- **TLT articles.** Nearly 30 articles can be accessed in their original printed form, including photos, charts and technical information. Topics include Lubrication Fundamentals, Q&As with leading lubrication professionals, Feature Stories, Case Studies and Practical Applications. New TLT articles will be added to the Web site regularly.
- **Tribology Transactions.** Access top technical papers from STLE's quarterly peer-reviewed journal.

If you have difficulty accessing the Members Only section of STLE's Web site, contact Myrna Scott at mscott@stle.org.

Dates added for MWF certification exam

STLE officially launched its newest certification program, Certified Metalworking Fluid Specialist (CMFS), at the 2005 Annual Meeting where 17 people took the three-hour, 150-question exam. Creating the requirements for the CMFS and developing the test was a massive undertaking that took STLE's Metalworking Fluids Committee more than 15 months. But the results are well worth it.

Earning the CMFS certification demonstrates your expertise and knowledge in this highly specialized field and separates you from the many self-proclaimed industry experts. As more and more companies, particularly manufacturing concerns, are requiring certification from their employees and vendors, attaining CMFS status is a smart move for individuals looking to advance their careers. STLE-certified professionals bring greater value to both their employers and customers.

Because metalworking is such an important discipline, the requirements to attain the new certification are rigorous. To be eligible for the exam, applicants must have both knowledge and experience in metalworking fluid technology, application, maintenance methods, health and safety, government regulations, recycling and treatment.

The CMFS joins STLE's two other well-established certification programs: Certified Lubrication Specialist and Oil Monitoring Analyst.

Test Your Knowledge

Questions:

1. Under normal circumstances, when the Total Acid Number (TAN) of an oil increases, it means that the oil is becoming acidic in nature? {True or False}

2. What are some examples of automatic adjusting packaging seals?

3. What are the five basic steps for refining crude oil to a finished base stock?

4. The biggest difference between oils of the same viscosity is price? {True or False}

5. What kinds of lubricants are lubricating solid materials with inherent lubricating properties?

Answers:

1. True.
2. Lip seals and O-rings.
3. Distillation, cracking, extraction, dewaxing and finishing.
4. False.
5. Solid lubricants.



Metalworking Fluid
Certified Specialist

One of the best ways to prepare for the CMFS exam is by taking the Metalworking Fluid certificate course co-sponsored by STLE and the Society of Manufacturing Engineers (SME). Offered last fall for the first time, the course is being conducted again Nov. 3 at SME's headquarters in Dearborn, Mich. At the end of the course, attendees can earn a course certificate. Note, however, that the course certificate is not to be confused with the CMFS certification, the latter being a much more rigorous standard. The CMFS, OMA and CLS exams also will be offered in Dearborn Nov. 3, following the Metalworking Fluids course.

In addition, all three STLE certification exams will be offered Sept. 23 in St. John's, Newfoundland; Oct. 21 in Mississauga, Ontario, Canada; and Nov. 10 in Kuala Lumpur, Malaysia.

For more information on the CMFS certification and exam, contact Bob Gresham at rgresham@stle.org or Barbara Rapacz at brapacz@stle.org.

The History Channel airs lube documentary Aug. 10

Remember to set your VCR or Tivo to The History Channel (THC) on Wednesday, Aug. 10, at 9 p.m. ET. That's when the cable network is broadcasting "Modern Marvels: Lube Job," a one-hour documentary examining the history of lubricants.

STLE and TLT magazine played a small role in helping THC research the topic. Producers contacted STLE early this year when beginning their research and learned that the society coincidentally was planning a cover story for the June issue of TLT about the 10 greatest achievements in tribology history. The producers requested, and TLT supplied, a copy of the magazine. TLT also helped THC obtain art that will be used in the program.

Like the TLT article, the program examines the dynamics of friction and traces the history of lubricants from the ancient Egyptians through to machines used in space exploration.

On its Web site, the THC program description is:

"From chariot wheels of ancient Egypt to hard disks in a computer to the wheels on a Mars rover, machinery can't function without lubricants. And in today's technology, there are a mind-boggling number of friction points that must be lubed and a staggering number of lubricants—petroleum motor oils that keep car engines from burning up, synthetic greases that stay put in the zero gravity of space and solid coatings that prevent eggs from sticking to a pan.

"We'll see how this marvel of chemistry works and how it's used. Peering into the future, we'll behold a power generator that employs air as a lubricant, trains using magnetic levitation (which eliminates any need for lubrication) and bio-engineered vegetable oils that promise to take humanity back to one of its very first lubricants.

"From helping medieval windmills spin, to allowing robotic arms on planetary rovers to move, lubricants are crucial to the advance of technology and literally keep the wheels of progress turning."

The Lube Job program will be available after its broadcast on videotape and DVD and can be ordered at www.thehistorychannel.com.

The Society of Tribologists and Lubrication Engineers

840 Busse Highway • Park Ridge, IL 60068-2376 • Phone: (847) 825-5536 • Fax: (847) 825-1456

[Click here](#) to unsubscribe