Machinery condition monitoring based on lubricant analysis

Registration
Fax this form to +49 8034-9047-747
or register online http://anmeldung.oildoc.de an.

Hereby I officially register for the 4-day course
Machinery condition monitoring based on lubricant-analysis

Training Date
First name, Name
Company
Department
Street, No.
Zip, City
Phone / Fax
E-mail
Order no.

I will proceed the registration fee (1320 € net) within 10 days after I got the training confirmation and invoice.

City, Date

Please check your address for invoice and order no. before registration. If we need to change these information after registration we have to charge a handling fee from 10,00 €. Please understand that we will charge a cancellation fee of 50% within 14 days before the start of the training and of 100% of the participation fee within 7 days. If a reported seminar participant does not appear, fee cannot be refunded. You can, of course, name a substitute participant. We are committed to run every announced training. Nevertheless, we may have to cancel a seminar, for example if a lecturer is ill or the minimum number of participants has not been reached. We will notify you as soon as possible.

Unique opportunities in this training course

• Overview of the whole field of oil and grease analysis for condition monitoring and quality control
• Holistic concept starting from the application, the lubricant and lubrication technology up to the monitoring & pro-active corrective actions
• All tasks from the sampling up to the evaluation of the test results
• Suitable as a basic course for beginners, but also as an update or extension of knowledge for practitioners
• Experienced, internationally recognized and certified speakers who have been trained through their daily practice in the world of mechanical engineering, lubrication and lubricant analysis
• Very good starting point for exam preparation of internationally recognized certification tests like OMA (STLE) or MLA-II (ICML)
• Possibility to take the MLA exam on the following day and become a certified Machinery Lubrication Analyst.

Invest:
1320.- € + VAT. for the 4-day seminar

Services included:
• Participation in the training
• Hot lunch at all days in our cafeteria
• Coffee/Tea and sweet and savoury Snacks during the breaks
• Non-alcoholic beverages during the training
• Training documents (printed and on a USB Flash drive)
• Certificate of participation

Trainer
Rüdiger Krethe, Dipl.-Ing.
Oildoc GmbH

Rüdiger Krethe is one of the managing directors of the Oildoc GmbH. After his studies of mechanical engineering and tribology he has been working in the industrial lubricant division of a mineral oil company. Afterwards Rüdiger was the head of the diagnostician team of the OELCHECK laboratory for 15 years.

He holds a trainer certificate from the German HK, the certificates CLS & OMA of the STLE and MLA-II of the ICML. Rüdiger provides national and international training courses about tribology, lubricants and lubricant analysis for more than 20 years. He is a well-known and respected speaker at conferences around the globe.

OilDoc GmbH
Kerschelweg 29 • 83098 Brannenburg • Germany
Tel. +49 8034-9047-700
Fax +49 8034-9047-701
Email info@oildoc.com • www.oildoc.com

Since 2011 the Oildoc GmbH is certified according to DIN ISO 29990.

Machinery condition monitoring based on lubricant analysis
– Certification Course MLA II –

Venue: Brannenburg (near Munich), Germany

Next date:
4-day training course
Feb. 4-7, 2019
MLA Certification (voluntary):
Feb. 8, 2019

Special Oildoc Conference Discount!
If you also join the Oildoc Conference in Rosenheim from Jan. 29-31, 2019 you will save 20% on this training course!

Special Oildoc Conference Discount!
If you also join the Oildoc Conference in Rosenheim from Jan. 29-31, 2019 you will save 20% on this training course!
Machinery condition monitoring based on lubricant analysis

Contents

Targets

- Deep understanding of the importance of professional lubrication for the reliable, safe and cost effective operation of production equipment
- Practice-oriented knowledge of lubricants in different applications as a key for professional evaluation of oil & grease analysis results
- Getting to know and apply professional methods of oil or grease analysis for oil & condition monitoring and quality control
- Latest expert knowledge in these fields, provided by experienced engineers
- Deepening the knowledge in ...
- Professionals and managers in the area of maintenance and servicing
- Technical sales consultants of lubricant and filter manufacturers and their distribution partners
- Technical procurement managers for lubricants and operating resources.
- Professionals from service and sales of machinery and component manufacturers
- Experts for damage analysis and machine failures
- Professionals and managers from oil maintenance, monitoring and other areas who want to extend or update their knowledge about oil analysis

Maintenance – availability oriented, state-dependent, proactive

- Maintenance and servicing
- Condition-based maintenance strategies (CBM)
- Reliability centered maintenance strategies (RCM)

Basics of lubrication

- Friction, lubrication and lubrication filming
- Hydrodynamics, EHD and hydrostatics
- Importance of viscosity and V-T-behavior

Basics of lubricants

- Base oils: mineral oils and synthetic oils, base oil types and their fields of application
- Additives: types, operating principle, application examples
- Greases: specifics, thickener types, selection criteria
- Terms and typical characteristics

Lubricating oils in use

- Oil aging as the sum of all operational changes
- Aging of the base oil: oxidation, nitration, hydrolysis, thermal decomposition
- Additive degradation: antioxidants, antwear, alkaline reserve, Detergents / dispersant additives
- Contaminants: sources and types, e.g. Particles, air, water, glycol, soot, fuel, oil aging products
- Typical problems due to cavitation, diesel effect, foaming

Oil care

- Filtration as a system specific concept
- Oil filters and their application areas
- Mainstream and sidestream filtration
- Operating- and commissioning-filtration
- Characteristic values and selection criteria

Sample collection, transport and labeling

- Optimal place and time
- Methods and tools for static and dynamic sample collection
- Avoid typical errors in sample collection
- Application specific requirements to sample container
- Meaningful labeling and necessary instructions for oil samples

Oil Analysis – Basic measurement methods

- Methods to monitor oil condition, wear and contamination
- Principles of professional evaluation of analytical results
- Routine and specific test methods

Storage, handling, transport and application

- Oil storage: requirements, technical possibilities
- Identification and tracking
- Technical tools for in-situ and handling
- Circulating oil lubrication, consumption or loss of lubrication
- Systems and solutions for decentralized and centralized supplying of several lubrication points and complete plant systems

Target group

- Professionals and managers in the area of maintenance and servicing
- Technical sales consultants of lubricant and filter manufacturers and their distribution partners
- Technical procurement managers for lubricants and operating resources.
- Professionals from service and sales of machinery and component manufacturers
- Experts for damage analysis and machine failures
- Professionals and managers from oil maintenance, monitoring and other areas who want to extend or update their knowledge about oil analysis

MLA Certification

Since 2013 there is the possibility to take the internationally recognized MLA certification exam at the OilDoc Academy. In the optional exam on Friday after the last day of the seminar you must answer 100 multiple choice questions. The exam will be taken over by an independent representative of ICML.

During the test, no aids are permitted. It is a timelimited setting of three hours. To pass the exam you have to answer correctly 70% of the questions out of the fields of lubricants and machine monitoring.

MLA II exam fee currently costs $275 USD.

All further information, prerequisites and registration forms for the ICML exam in Brannenburg can be found at www.lubecouncil.org.

The OilDoc team will be happy to answer your questions about the MLA certification!