



TRAINING / WORKSHOP / EXAM

MLT I

LEVEL I MACHINERY LUBRICATION TECHNICIAN



Third edition in Poland !

A 3-day training conducted by top experts, based on theoretical and practical knowledge on the subject of lubricant-oil management. The course concludes with an international examination **MLT I - Machinery Lubrication Technician** or **MLA I - Machinery Lubrication Analyst** by **International Council for Machinery Lubrication**.



**RATO
ACADEMY**

Course objectives

In collaboration between **RATO Industrial Solutions** and **Des-Case Corporation**, we have created a training course to provide our participants the necessary knowledge to facilitate a successful outcome of the MLT I or MLA I exam organised by ICML. The person with the certificate possesses the necessary knowledge to manage lubricant and oil management independently and comprehensively.

Key issues

- Operation of lubricants, checking their condition
- Lubricant selection
- Modification of lubrication equipment, inspection, analysis and control of contamination
- Identification of lubricant management problems and how to solve them
- Designing a lubricant storage room for lubricant storage according to best practice (Lube Room)

REGISTRATION

I STEP: TRAINING (<https://rato.pl/mlt>)

6900 PLN net / person

The amount includes: training, course materials, lunch, coffee breaks, gala dinner on 19.06.2024

II STEP: EXAM (<https://icmlonline.com>)

275\$ / person

CONTACT PERSON: Ewa Stracewska

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tel. 533 389 124



Training programme

DAY 1

- The role of lubrication in machine reliability
- Lubrication theory and its fundamentals
- Lubrication - modes of failure
- Lubricant oil application methods

DAY 2

- Grease application methods
- Lubricant selection
- System contamination control

DAY 3

- Lubricant storage
- Oil analysis
- Oil sampling methods
- Modifications to plant equipment
- Analysis of inaccuracies occurring in the lubrication programme



**RATO
ACADEMY**

We are pioneers in organising training courses on lubrication topics on a national scale. Since 2017, RATO has been organising specialised training courses on lubrication best practices which are held several times a year all over Poland.

Thanks to our training experience and knowledge of our customers' needs, we have already managed to organise of a training course preparing for the ICML MLT I international exam twice. Both editions in 2018 and 2019 were held in Poznań at the premises of the Poznań Science and Technology Park.

Training statistics

- **35 training courses completed**
- **two editions of training with international MLT I certification**
- **more than 200 participants trained**
- **more than 50 involved companies from 13 industries**

Training dates

18-20
JUNE
2024

TRAINING SESSION
will be conducted in English.

21
JUNE
2024

EXAM
It is possible to choose another language on request of the participants.



DES-CASE
BY TINKER

Mark Barnes
lead trainer



Mark Barnes is a VP Business Development of Des-Case Corporation. He leads the company's reliability services team helping customers identify opportunities for improvements to their industrial lubrication programs. Prior to joining Des-Case, Mark Barnes was the Vice President and Director of Technology at Noria Corporation. He was responsible for all training related to lubrication and oil analysis. He has been an active consultant and educator in the field of maintenance and machine reliability for over 25 years. He has worked with clients around the world to develop and implement lubrication management improvement plans. Mark Barnes is a frequently invited speaker at technical conferences. He has won numerous awards for his ability to initiate change in the way people think and act on proper lubrication and operating in the spirit of best practice. Mark Barnes graduated from the University of Southampton in the UK and holds a PhD in analytical chemistry. He is a Certified Maintenance and Reliability Professional (CMRP Certification) issued by the Society for Maintenance & Reliability Professionals (SMRP). His client list includes companies such as: ExxonMobil, Chevron, Citgo, Cargill, International Paper, EDF, Heinz, Georgia Pacific, Coors, Southern Power, Alcoa, General Mills, Kellogg, Weyerhaeuser, Nissan and Lubrizol.

About us



We have been operating on the Polish market since 1997. We are one of the leading providers of solutions for industry and machinery. The last few years of Rato Industrial Solutions have been a period of many changes and transformations, resulting from the sustainable and conscious development of our company. An important step towards realising the changes has been the development of our mission, vision and values, which set the current objectives of Rato Industrial Solutions.

Mission:

„To provide our customers with innovative solutions to ensure the reliability of machines and increase their profitability”

Vision:

„To be a leader in providing knowledge and solutions of best practice in enterprises”

Values:



Support



Knowledge



Inspiration



Commitment

Questions?

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Training venue

The training will take place in Gdansk - one of the most beautiful cities in Poland with excellent hotel and conference facilities. The hotel's unique location provides an opportunity to spend time after the training in an interesting way - a short walk is enough to get to the most important monuments of Gdansk.

Hotel address:

Hotel Almond Business&SPA ****

ul. Toruńska 12

80 - 747 Gdańsk

<https://www.hotelalmond.pl/>

Reception desk available 24 h.

Accommodation

Hotel Almond Business&SPA **** is the recommended hotel for the training participants. With the password: **RATO** until 21 May 2024 it is possible to book a room for 450 PLN gross. The hotel is located a stone's throw from the heart of Gdansk's Old Town. For more information on accommodation, please call: **+48 58 351 90 00**

or contact via e-mail:

repcja@hotelalmond.pl

Do not hesitate - book your stay today!

*price valid only for reservation

via e-mail or telephone

*limited number of places





ICML history

In 2001, when the International Council for Machinery Lubrication offered its first certification exam, few would have guessed that the organisation would become the world leader in the certification of oil technicians and analysts.

Over the course of 24 years of impressive growth, ICML has administered the exam to practitioners from more than 100 different countries. The exams are currently offered in English, Spanish, Portuguese, Korean, Japanese, Chinese, French, Italian, German and Russian. The organisation aims to translate the exams into additional languages as well, to ensure that specialists around the world have the opportunity to test their skills equally. Thanks to Rato Industrial Solutions, the exam will also be conducted in Polish.

In addition, the International Organisation for Standardisation (ISO) has introduced ICML certification as the basis for two international standards:

1) ISO 18436-4:

ICML's Machine Lubrication Technician (MLT) Machine Lubricant Analyst (MLA)

2) ISO 18436-5:

ICML's Laboratory Lubricant Analyst (LLA)

Over the years, ICML has continued to support the development of the oil economy. Its employees are active on various committees and groups responsible for standards on the application of best practice in lubrication and oil analysis. ICML promotes necessary standards, regularly consulting and suggesting changes on specific issues requiring standardisation.

About ICML

The International Council of Machinery Lubrication (ICML) is an independent non-profit organisation established to improve oil management standards. ICML offers certification examinations that provide a source of knowledge and skills for those involved in machinery, lubrication and oil analysis.

ICML is an independently owned organisation consisting of both of paid professional staff, as well as advisors volunteers.

Most importantly, ICML has become a global community of lubrication and oil management professionals.

It is becoming increasingly obvious to the manufacturing community how sustainable lubrication practice impacts the economy, job stability and the environment. The industry is increasingly more open towards a proactive approach to maintenance in order to increase machine reliability and productivity. None of these initiatives mean much if the person performing the task is not properly trained.

ICML's mission is to help employees understand and appreciate the crucial role of proper prevention.

Suzy Hitchcock, ICML

For more information on ICML's certification programmes, visit:

www.lubecouncil.org

Why should you get certified?

Earning the ICML certification validates your experience and knowledge gained. The document is recognised worldwide. A person holding this type of certificate is fully prepared to build lubricant and oil management in your plant. An ICML certificate informs your employer that you are a professional who can successfully apply the knowledge you have acquired. After successfully passing the exam, the candidate receives a logo and certificate to identify your status by ICML to colleagues or clients.

Benefits for employers

Benefits obtained by employers (workplaces) as a result of certification and training:

- Workplaces can quickly obtain the maximum return on investment in the analysis of and control of lubricants
- Standardised method for identifying training needs for their staff and measuring results
- A reliable benchmark for hiring, promotion and career planning
- Acquisition of staff's ability to perform the right expertise that contributes to the reliability of machinery and equipment
- Ensuring the highest level of quality for outsourced lubrication services and laboratory services for lubricant analysis



MLT I certificate Level I Machinery Lubrication Technician

To obtain the certificate, the candidate must meet the following requirements:

1) Education and/or experience

Candidates must have at least two years of education (post-secondary) or on-the-job training work in at least one of the following areas:

- Lubricant and oil management
- Engineering
- Mechanics and mechanical engineering

2) Training

The candidate must have received at least 16 hours of documented formal training in lubricant and oil management.

Note: ICML does not recommend any specific training as formal preparation for the examination. It is the responsibility of each candidate to check the scope of the available training and decide on the training provider of their choice. ICML recommends that the outline of the chosen course is comparable to the scope of the exam. The science and knowledge resource of the ICML organisation is in the public domain and can be used by companies in course development.

The exam consists of 100 multiple-choice questions, which assesses the candidate's knowledge on a given topic. Candidates have three hours to complete the closed examination.

In order to pass the exam and obtain the certificate, a minimum score of 70% is required.



Zakres wiedzy MLT I

The following are the range of terms you need to know in order to successfully pass the exam. The final examination will be conducted accordingly.

I. Maintenance Strategy (5%)

- Why machines fail?
- The impact of poor maintenance on company profitability
- The role of effective lubrication in failure avoidance

II. Lubrication Theory (10%)

- Fundamentals of tribology
- Functions of a lubricant
- Hydrodynamic lubrication (sliding friction)
- Elasto-hydrodynamic lubrication (rolling friction)
- Mixed-film lubrication

III. Lubricants (15%)

- Base-oils
- Additives and their functions
- Oil lubricant physical, chemical and performance properties and classifications
- Grease lubrication:
 - How grease is made?
 - Thickener types
 - Thickener compatibility
 - Grease lubricant physical, chemical and performance properties and classifications

IV. Lubricant Selection (15%)

- Viscosity selection
- Base-oil type selection
- Additive system selection
- Machine specific lubricant requirements
 - Hydraulic systems
 - Rolling element bearings
 - Journal bearings
 - Reciprocating engines
 - Gearing and gearboxes
 - Application and environment related adjustments

V. Lubricant Application (25%)

- Basic calculations for determining required lubricant volume
- Basic calculations to determine re-lube and change frequencies
- When to select oil; when to select grease

- Effective use of manual delivery techniques
- Automatic delivery systems
 - Automated deliver options
 - Automated grease systems
 - Oil mist systems
 - Drip and wick lubricators
 - Deciding when to employ automated lubricators
 - Maintenance of automated lubrication systems

VI. Preventive and Predictive Maintenance (10%)

- Lube routes and scheduling
- Oil analysis and technologies to assure lubrication effectiveness
- Equipment tagging and identification

VII. Lube Condition Control (10%)

- Filtration and separation technologies
- Filter rating
- Filtration system design and filter selection

VIII. Lube Storage and Management (10%)

- Lubricant receiving procedures
- Proper storage and inventory management
- Lube storage containers
- Proper storage of grease-guns and other lube application devices
- Maintenance of automatic grease systems
- Health and safety assurance



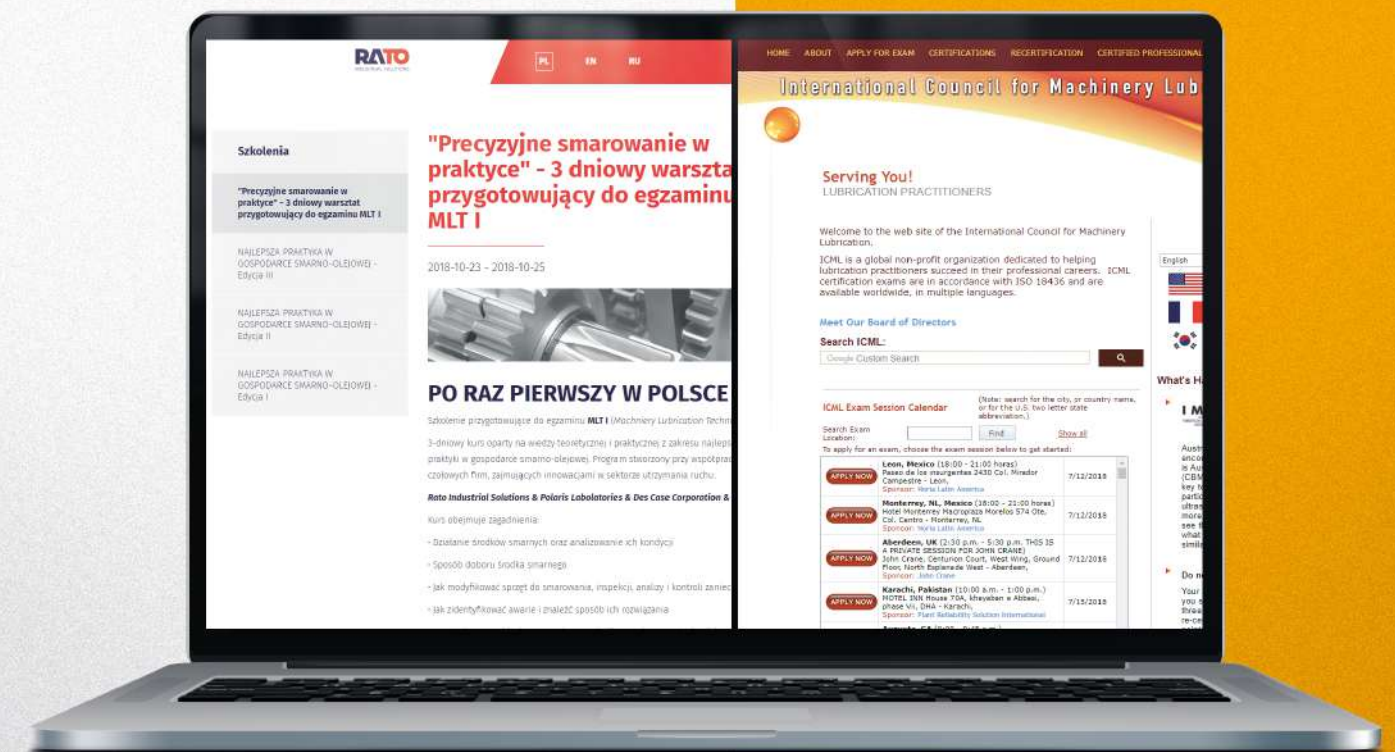
RATO
INDUSTRIAL SOLUTIONS



RATO
ACADEMY

Training session 18-20.06.2024

REGISTRATION
<https://rato.pl/mlt>



TRAINING FEE
6900 PLN net / PERSON

MLT I exam
MLA I exam
21.06.2024

REGISTRATION
<https://www.icmlonline.com/apply/>



Questions?
Talk to our
project supervisor

Ewa Stracewska
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Choice of packages

PACKAGE I

18-20.06.2024

3 day training
training materials

lunch

coffee breaks

official dinner for
participants on 19.06.2024

6900 PLN

(net price)

PACKAGE II

18-21.06.2024

3 day training
training materials

lunch

coffee breaks

official dinner for
participants on 19.06.2024

International MLT I
(Machniery
Lubrication Technician)
exam

**6900 PLN
+ 275\$**

(net price, exchange rate on the day
of invoice)

Trained with us

VITERRA THE AGRICULTURE NETWORK

INTERNATIONAL  PAPER


ORLEN


ArcelorMittal

 **BOGDANKA**


FritoLay

 **Shell**


GRUPA
AZOTY


Kellogg's

 **JSW KOKS SA**


Cargill™

 **LAFARGE**


B A M E X
Ł A C Z Y P R Z E M Y S Ł


KRUSZWICA
A BUNGE COMPANY


I-care™


CMC

 **ROCKFIN**®
TRUSTED BY INDUSTRIES



Training registration

<https://rato.pl/mlt>



- Enter participant data
- Fill in your company details and current job title
- Confirm your e-mail address and contact number
- Select your package
- After completing the registration form, tick the box *I agree
- You will receive a confirmation of your registration by e-mail
- The invoice for the training and exam will be issued by Rato Industrial Solutions Tomczyk Sp.j. upon receipt of the training order.

Exam registration

<https://www.icmlonline.com/apply/>

- Select type of examination (MLT I/MLA I)
- Fill in your training details
- Submission of a training certificate is not required
- Fill in your examination details (venue, language preference)
- Fill in your personal details

ICML - 24 years of industry success



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