



The South African Institution of Mechanical Engineering

Practical lubrication and lubricants workshop

This one-day workshop is suitable for SAIMechE Groups 0, 1, 2 & 3a

SAIMechE Group Classification

0 = Non-technical,
e.g. HR, Finance

1 = Candidate (incl. GCC)
with <5 years experience

2 = Professional (incl. GCC)
with <15 years experience

3a = Professional
with >15 years experience

3b = Senior Management
with >15 years experience

This workshop will earn professional engineers 1 credit in Category 1
CPD Validation Number is available at request

Overview

For most machines, over 80% of the wear and failures could be avoided if managers provided proper training, tools, and support to their maintenance staff and supervisors. People responsible for production need the basic knowledge of lubrication in order to make decisions that could be crucial for the company. The managers need it, too. This could also significantly increase production.

(Noria: Why should managers care about oil?)

There are many components to a world-class lubrication program – contamination control, oil analysis, PM optimization, lubricant selection and education, just to name a few. Of all of these, the one piece that affects every aspect of the program is education. Without proper knowledge of lubrication theory, application techniques, oil sampling methods, etc, it is very difficult to be successful in all areas. (DES-CASE)

To ensure the greatest measure of success, it is essential that all individuals involved with the maintenance or operation of lubricated equipment be educated to some extent on the theory and practice of world-class lubrication techniques. Adopting training standards that outline the minimum education requirements for each job function affecting lubrication as well as identifying or creating skills assessment standards will ensure minimum competence levels for each role. (DES-CASE)

Contents

- Understanding essential characteristics of lubricants and how they affect the lubricants' performance.
- Synthetics and when to use them.
- Understanding engine oils, gear and transmission oils, ATFs, greases, compressor oils, hydraulic and fire-resistant fluids, turbine oils, machine tool oils and cutting fluids.
- Oil cleanliness, storage and handling, shelf life of lubricants, etc.

Who should attend

- **Decision makers** and plant personnel who could be involved in selecting lubricant suppliers or lubricants, or will discuss lubricants with the suppliers, or who could be faced with lubricant-related problems.
- **Supervisors and their managers** responsible for maintenance of vehicles and industrial machinery (e.g. compressors, grease and oil lubricated bearings, gearboxes, hydraulic systems or machine tools).
- **Selected plant personnel** involved in lubrication and maintenance.

Note

It is highly recommended that you attend the second day as well: **'Lubricants and oil monitoring'**

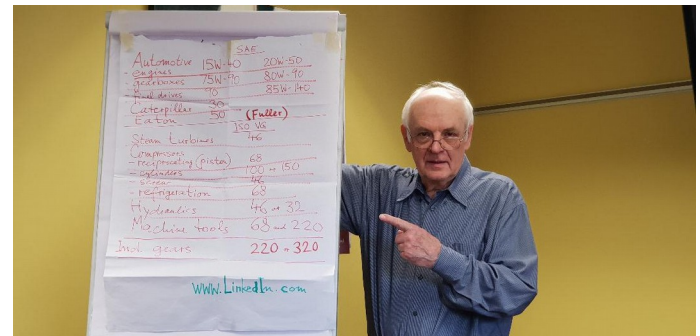
Duration: 1 day

08h30–16h30 (Registration at 08h00)

Due to a reorganization at SAIMechE, there are no more courses scheduled at present.

But you can speak to Linda, cell phone 083 778 7136, email linda@saimech.org.za, or speak to [Petr Vavruch](#), telephone 021-712 0935.

Workshop developer



Petr Vavruch, Pr Eng, Ing.(Prague), spent most of his working life with Mobil Oil and Engen.

He is a member of SAIMechE and ICMEESA.

He is now retired, has written a textbook for FET colleges and edited a number of 'Technology' textbooks for high schools.

He also lectures for SAIT.

At Mobil, Petr was a Field Engineer (Fuels & Lubricants) and a Planning Engineer for automotive engine oils and other lubricants.

During the last 10 years at Engen, he was in charge of specifications of base oils and specifications and formulations of industrial lubricating oils - also helping to solve production and field problems with these lubricants.

Petr participated in or was in charge of number of projects, e.g. air compressor oils, synthetic lubricants, the universal diesel engine oil, new engine oils, new hydraulic fluids, industrial gear oils, turbine oils, metalworking fluids, open gear oils, rolling oils, refrigeration oils, and marine engine oils.