



BLN Training and Consultancy Division

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www.blentechnology.co.uk

REGISTERED IN ENGLAND NO. 5290336

Lubrication courses

The following lubrication courses are designed to transfer best practice to delegates from a business-to-business environment. The courses are delivered via an interactive workshop, question and answer sessions with some formal presentation material and exercises.

The following overview is representative of those courses within the portfolio. Bespoke courses covering additional subjects such as industrial chains, couplings, air compression and refrigeration are available, along with specialist lubrication areas such as food lubricants, lubrication with synthetic oils used in harsh and demanding environments.

Course: Lubrication fundamentals

Modern lubricants are very sophisticated products designed to perform to extremely high standards under a wide range of operating conditions. The bewildering array of oils available in the market place can often confuse the inexperienced user.

The course is directed towards those members of staff who have a responsibility for the specification, maintenance and management of good lubrication practice. Also for design engineers who wish to understand the role modern that lubricants have to play in improving performance.

These courses explore the basic reasons why mechanical plant is lubricated and identifying the different lubrication regimes. Modern lubricants are discussed and their function explained. Methods of specifying a lubricant's performance and characteristics are detailed. The safe application of a lubricant is discussed. Best cleanliness practices designed to achieve extended service life and monitor oil condition are reviewed.

Course: Grease its structure and application

Modern greases are very sophisticated lubricants designed to perform to extremely high standards. They differ from older greases in their structure and method of manufacture. As a result they perform beyond previously expected performance limits.

The course is directed towards those members of staff who have a responsibility for the specification, maintenance and management of lubrication practice with specific reference to greased systems. Also, a must for design engineers who wish to understand the role modern greases have to play to improving performance.

The course explores the basic reasons why mechanical plant is lubricated by identifying the different lubrication regimes. Modern greases are discussed and their function explained. Methods of specifying grease performance and characteristics are detailed. The safe application of grease is discussed along with remote and central systems. Best cleanliness practices designed to achieve extended service life and monitor grease condition is reviewed.



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Course: Hydraulic system Lubrication

Hydraulic systems are one of today's most widely used items of mechanical plant. A hydraulic machine uses a fluid under pressure as the means of converting mechanical energy to fluid power; this fluid power is transmitted to a point of use where it is converted into work. Central to the efficient performance of a hydraulic system is the oil.

The course is directed towards those members of staff who have a responsibility for the lubrication, specification, maintenance and management of hydraulic systems and their fluids. Also, hydraulic engineers who wish to understand the role that hydraulic lubricants have to play to improving performance.

This course identifies the basic components of a hydraulic system and discusses their lubrication needs. Lubricants performance features are matched with system requirements and international specifications are discussed. The safe application of fluids to hydraulic systems and the importance of cleanliness to continued high performance is examined and reviewed. Current best practices are evaluated and their roles in achieving extended service life are discussed. Methods of monitoring an oil's condition are also evaluated.

Course: Industrial gear systems lubrication

Failure of any mechanical equipment can lead to costly replacements and downtime. Gearbox lubricants are designed to reduce wear and extend service life, this is particularly important when the component is a prime mover such as a gearbox. Developed over many years gear oils now form part of a sophisticated range of lubricants.

The course is directed towards those members of staff who have a responsibility for the lubrication, specification, maintenance and management of gear systems and their fluids. Also design engineers who wish to understand the role that lubricants have to play to improving performance.

This course is intended to help the user get the maximum benefit from today's modern gear oils. It identifies the basic components and types of gears in daily use and discusses their differing lubrication needs. Lubricants performance features are matched with system requirements and international specifications are discussed. The safe application of fluids to gear systems and the importance of cleanliness to continued high performance is examined and reviewed. Best practice designed to achieve extended service life and methods to monitor oil condition are evaluated.



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Course: Rolling element and plain bearings lubrication

Countless billions of bearings are used in mechanical plant to support, locate and guide rotating shafts with operating criteria of low friction, accurate movement, minimum wear and long service life. Bearings are used in almost all items of plant and are a key to successful operation. The failure of a bearing in an industrial gearbox for example may result in extensive damage to not only the bearings but also the gears.

The course is directed towards those members of staff who have a responsibility for the lubrication, specification, maintenance and management of bearing systems and their fluids. Also design engineers who wish to understand the role lubricants have to play to improving performance.

The course identifies the basic types of both plain and rolling element bearings and discusses their lubrication needs. The respective merits of oil and grease lubrication are discussed. Lubricants performance features are matched with bearing requirements and international specifications are evaluated. The safe application of lubricants and the importance of cleanliness to continued high performance are discussed and appraised. Best practice designed to achieve extended service life and monitor oil condition is also reviewed.

Course: Sample analysis and condition monitoring.

Oil analysis has long been recognised by engineers as an accurate diagnostic tool used to record the physical condition of both mechanical equipment and its lubricant. Additional services have evolved to provide support and assistance to the plant owner in reaching operating decisions.

The course is directed towards those members of staff who have a responsibility for the continued high performance of mechanical equipment and also design engineers who wish to understand the role oil analysis and condition monitoring have to play in modern plant operation.

The course identifies the differing types of analysis available and where each is used. The elements that compose a condition-monitoring programme are debated. Safe practices when drawing a sample are reviewed and the importance of cleanliness and repeatability to consistent results are reinforced. The interpretation of analysis results is discussed at length.