



M/s SKF Training in Erbil

Subject: Comprehensive Training Program on "Bearing Maintenance technology & Root Cause Failure Analysis" for Trouble Free Operation.

Dear Sir,

We are pleased to announce the 3rd event for this year of our series training at Erbil in Divan Hotel,

On this occasion we would like to invite you to our upcoming training that commence in 6th of October and will continue up to 10th of October.

The SKF Training in Erbil will contain two topics:

1. Bearing Maintenance and Technology (WE201) 3 Days.
2. Bearing Root Cause failure (WE204) 2 Days.

I have enclosed 2 brochures for each course on the topics that will be covered at the training.

Our Faculty, Mr.Samir Kalise – SKF Regional Technical Manger of ME will implement the training and the course language is Arabic.

The courses will enable you to develop a successful knowledge in rotating machine base for your staff and consequently avoiding your plant from any unplanned maintenance or costly shutdown.

A certificate will be issued to all the participants from "**SKF Reliability Maintenance Institute**" with regards to their completion of training for the 2 courses.

Therefore, we set the training fees for per participants as below:

For 5 days training from 9am to 5pm (Bearing Maintenance Technology & Root Cause Failure Analyses).

750 Euro (1,117,000 IQD) for per participant.

Our Special offer as Below:

If we have 3 participants we offering a 5% discount against the standard price.

If we have 5 participants we offering a 10% discount against the standard price.

The Training fees will cover:

- Course material, Soft and Hard copies for each participant.
- SKF Bearings General Catalogue.
- Lunch and coffee break.

Please notify either me or our authorized distributor "Babel Energy Group" whether you will attend by e-mail.
We look forward to hearing from you.

SKF Training for 2014

SKF is eager to maintain the lead in shearing knowledge with our valued customers Thus we have planned to add more subject courses for 2014 as below

- Introduction to Vibration Analysis (WI 201)
- Centrifugal Pump Maintenance (WE 211)

If you are interested in those courses we recommend you to take first the Bearing Maintenance Technology and Root Cause Failure Analysis As its essential to build a strong knowledge base.

Thanking you and assuring you of our best attention at all times, we remain,

Your's faithfully.

SKF Eurotrade AB,

Mustafa Dursun

Sales Representative - Iraq

Ph :- +964 (0) 66 2246721

Fax :- +964 (0) 66 2246720

Mobile :- +964 (0) 7704789348

Email :- mustafa.dursun@skf.com

WE 201 - Bearing Maintenance and Technology

Recommended for

Service, maintenance, machine repair, or plant/facility engineering staff of an industrial plant, OEM facility, institution, public utility or commercial building which uses rolling bearings and related equipment. Managers and technicians at industrial plants and OEM facilities responsible for rolling bearing performance and reliability. Rotating equipment engineers, reliability engineers, millwrights, mechanics, and maintenance supervisors. Those interested in rolling bearing and rotating equipment performance.

Course objective

The course objective is to provide information to improve the service life of rolling bearings, which improves the reliability of rotating equipment.

Prerequisites

Participants should have an understanding of industrial safety. A fundamental knowledge of and ability to use basic hand tools is required.

Course description

Bearing maintenance apprenticeship uses a combination of hands-on training, audiovisuals, lectures and discussion opportunities. Specific topics include:

Bearing basics

- Fundamentals of rolling bearing technology
- Care, types, nomenclature
- Bearing components, terminology
- Loads and lubrication
- Factors affecting the performance of rolling bearings
- Bearing quality, operating environment
- Installation, maintenance practices
- Understanding of why bearings fail

Mounting and dismounting

- Bearing mounting and dismounting procedures
- Careless handling, neglected maintenance and poor lubrication
- Hands-on demonstrations to correctly mount and dismount bearings

Fundamentals of lubrication

- Importance of selecting the proper lubricant for an application
- Maximize bearing life through an improved understanding of proper lubricating principles and functions

Bearing failure causes and analysis

- Identify and interpret actual bearing failures

Course length

3 days

WE 204 - Bearing Root Cause Failure Analysis

Recommended for

Service, maintenance, machine repair, or plant/facility engineering staff of an industrial plant, OEM facility, institution, public utility or commercial building which uses rolling bearings and related equipment. Managers and technicians at industrial plants and OEM facilities responsible for rolling bearing performance and reliability. Rotating equipment engineers, reliability engineers, millwrights, mechanics, and maintenance supervisors. Those interested in rolling bearing and rotating equipment performance.

Course objective

To provide inspection procedures and instructions for analyzing failed bearings (due to mounting errors, heat, vibration, etc.) and their components. Students will learn to determine the true root causes of bearing failures and its impact on service life. Furthermore key aspects of machine reliability are explored.

Course description

The Root Cause Bearing Failure Analysis course is taught to the new ISO Standard 15243. The course is complemented with audio-visuals, lectures, hands-on training, and discussion of actual failures. Workshops include failure cause studies, visual damage assessment, failure mode detection and reporting. Participants will analyze actual bearings from various applications to assess the damage and apply the ISO methodology to determine the root cause failure mechanism.

Specific topics include:

Bearing function

- Learn how bearings support loads
- Bearing types and their use

Mounting damage

- Examples of improper installation procedures

Operating environment

- Bearing reaction to moisture, contamination, and other external influences

Maintenance

- Results of poor maintenance practices

Lubrication

- Effects of marginal and excessive lubrication
- Contamination and its effect

Vibration / Impact damages

- How to identify this type of damage
- Implement corrective actions to avoid damage

Bearing failures

- Application specific - pumps, gearboxes, motors, fans, extruders, compressors etc.
- See and inspect sample bearings that have failed - identify, and interpret actual bearing failures.

Course length

2 days