

# WE220
# Wind Turbine Shop Bearing Maintenance

## Recommended for

Wind power industry shop personnel, including: shop maintenance and repair mechanics, fitters, installers, engineering support staff, condition monitoring staff, reliability engineering and wind farm management personnel. Also, those interested in improving the reliability of wind turbines with world class maintenance and repair practices.

## Course objective

Improve the reliability of wind turbines after repair or refurbishment. Emphasis is on safe removal, repair and installation of bearings and related components in wind turbines using precision maintenance techniques.

**2009 course schedule**

On-site only

**2009 tuition**

On-site

| | |
|---|---|
| per class | $12,995 |
| # people | 16 |
| 17+ people | $395 per person |

**3 days**

*A written examination is included with this course and is conducted on the afternoon of the final day of class.*

## Course description

Improve the service life of machinery in wind turbines

- Each part contains:
  - Key concepts for shop repair personnel
  - Hands-on practical work as needed

### Blade hub

- Bearing arrangements: Slewing rings
- Slewing ring installation
- Lubricating/re-lubricating bearings with grease

### Main shaft bearings

- Bearing arrangements
- Controlling expansion: locating/non-locating concept
- Lubricating open bearings and housings with grease
- Hands-on:
  - Shaft and housing conformance measurement
  - Mounting and dismounting tapered bore bearings
  - Spherical and CARB feeler blade mounting
  - Accurate drive-up method

### Wind turbine gearboxes

- Bearing arrangements
- Static, splash, and circulating oil lubrication
- Selecting the proper and approved lubricant
- Gearbox run-in
- Contamination detection & control

### Wind turbine generators

- Bearing arrangements
- Long-life grease lubrication – large generators
- Cylindrical shaft and housing fits
- Safe dismounting and mounting, fretting control
- Problem Solving:
  - Controlling stray currents
  - Controlling fretting corrosion

### Yaw section

- Bearing arrangements
- Long-life grease lubrication
- Visual inspection



*Please note: Course description, dates, and tuition are effective as of October 2008 catalog print date.*
*Please refer to the RMI website for up-to-date schedule information. www.skfusa.com/rmi*