



PRECISION
BEARING INSTALLATION
LUBRICATION

PRECISION MAINTENANCE SKILLS 2

Precision Bearing Installation & Maintenance for Longer Equipment Life (4 Days)

COURSE DESCRIPTION

Our precision O.E.M. trained and real-world, facility experienced instructors will show participants How to easily Double or Triple Bearing Life. Using real plant size bearings, shafts, housings, participants will learn how to use the proper tools to: eliminate the pain of common bearing installation errors, how to properly mount with proper clearances, pre-loads, critical fit & tolerances that most craft don't know. They will practice Hands On using the most common types of bearings used in 95% of plant equipment in chemical, power, steel, aluminum, paper, auto, food, and other industrial manufacturing plants.

Participants will learn simple Bearing failure analysis that doesn't require a metallurgist and all the correct mounting methods used by Bearing OEM's including: turning angle, pressure w/hydraulic nut, how to make a "poor man's hydraulic nut" in your shop, how to find & interpret vital bearing nomenclature, how to avoid common lube mistakes made every day that kill most bearings prematurely.

RECOMMENDED AUDIENCE: Maintenance and Construction Craftspeople, Front-line Supervisors, Maintenance Managers and Superintendents, Reliability and Maintenance Engineers supervising contractors doing machinery installation, repairs and reliability improvement.

TOPICS COVERED

- Bearing Field Failure Analysis
- Removal Tools and Methods
- Bearing Nomenclature
- Housing and Shaft Preparation
- Precision Fits and Tolerances
- Ball Bearings (several types & all the little known correct mounting/setting methods for ext. life NOT practiced by most mechanics and they DON'T teach it to engineers. We Do!)
- Angular Contact Bearings (hsgs & brgs w/machined in windows to see what most "miss" when installing) Participants do many Hands On combinations of 2, 3 and 4 using real equip drawings
- Spherical Roller Bearings (all the correct ways to mount/set/adjust are practiced and Why Nots)
- Pillow Block Bearing
- Timken Tapered Roller Bearings
- Lubrication (How to avoid the Most common bearing killing lube mistakes we see being made almost every plant we work in.
- Precision Grade (ABEC) Bearings
- Needle Bearing little known Secret practiced on Hands On Simulator.
- Proper Cooper, FAG, Split Bearing Installation for saving time on large inboard Fans & Agitators
- Using a Sine Bar most have never seen on 13" Tapered Journal, Proper Bluing of Shafts for Fit
- Measuring Tapered Roller Bearings for grinding spacer on Dual Bearings
- Proper Bearing Heating
- Cylindrical Roller Bearing Specifics most often overlooked



“The sad truth is 99% of Industrial Maintenance Craftsmen, Supervisors, and Engineers have never been taught the CORRECT ways to install bearings for long life”

As a result most bearings that should run 5 Times L 10 never even make it to L 10 per bearing mfrs. We know because we to use to kill them prematurely before we learned better!

