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PRACTICAL ROTORDYNAMICS FOR REAL MACHINERY
Winter 2020 (February 10-13)
Sarasota, Florida
Cost = \$2750

Dear Clients, Friends, & Associates:

As a result of the highly favorable reviews we received for its first dozen offerings in 2012 through 2019, I am pleased to announce that we will be repeating our week-long rotordynamics training course this coming February. The course, entitled “Practical Rotordynamics for Real Machinery” will be presented the week of 10 February, 2020 in Sarasota, Florida (anybody like beaches, golf, or tennis?). Since the course focuses on three major topics, we have three expert instructors participating, as follows:

1. Lateral Rotordynamics – Malcolm Leader, P.E. (President - Applied Machinery Dynamics) – Malcolm has long been known as one of the best rotordynamicists in the world and is also well-known for his keen troubleshooting abilities. He has written several dozen papers on these topics.
2. Bearings – Dr. Erik Swanson, P.E. (President - Xdot Engineering and Analysis) – In addition to traditional fluid-film bearings, Erik is well-known for his expertise in foil and magnetic bearings. Additionally, Erik is a wizard at using the DYROBES rotor/bearing computer code, which all of the presented case studies have been done in.
3. Torsional Vibration – Mark A. Corbo, P.E. (President - No Bull Engineering) – In addition to having authored some of the most well-known and best-received papers on the subject, I am currently serving as the Chair for the Torsional section of the API 684 rotordynamics tutorial.

Although the syllabus from this spring’s course is probably going to be “tweaked” a bit, some of the topics that will be addressed in depth include the following:

1. Fundamentals/Basics
2. Relevance of the various topics (i.e., why do we even care about this?)
3. Modeling tips
4. Undamped critical speed maps
5. Unbalance response analysis
6. Rotordynamic instability
7. High pressure compressor stability analysis
8. Pump rotordynamic considerations
9. Fluid-film bearing types
10. Tilting-pad bearings
11. Specialized bearings (i.e., magnetic bearings, foil bearings, etc.)
12. Seals
13. Undamped torsional analysis
14. Torsional Campbell diagrams
15. Variable frequency drives

16. Torsional response analysis
17. Synchronous motor start-up analysis
18. Reciprocating machine torsionals
19. Machinery specific considerations
20. API specifications and compliance
21. Case studies
22. Testing

The course, which will cover all of the above topics, will run from Monday through Thursday (10 through 13 February) and cost \$2750 (plus \$95 fee if using credit card) per participant. In addition to the formal sessions, all attendees will be treated to dinner at a local restaurant on Monday evening, which always serves as an excellent “ice-breaker.” There will also be plenty of time for informal interaction with all three instructors, including breaks and lunches.

Some of the benefits you would receive from taking this course include the following:

1. A greater familiarity with lateral and torsional rotordynamics which would allow you to communicate more effectively with experts in the field.
2. A better understanding of the meaning and validity of rotordynamic results obtained from consultants and/or in-house rotordynamic codes.
3. A better understanding of the rotordynamic causes of common rotating equipment problems which would assist you when trying to troubleshoot field and test-stand problems.
4. A better feel for which system elements play an important role in rotordynamic behavior and which ones have little impact. This would be valuable when evaluating potential design changes.
5. An appreciation that rotordynamic analysis can be performed in a practical and timely manner and does not require a “research project.”
6. An appreciation for the large role that rotordynamic behavior plays in the reliability of rotating equipment and for the importance of evaluating that behavior in the design stage.

To learn more about the course, please either respond directly to this message or call me personally at (802) 558-0116. If you are interested in this subject but are not able to personally attend the course, I would be happy to provide you with reprints of the technical papers that my portion of the course is partially based on.

Hope to see you there!

Best Regards,

Mark

Mark A. Corbo, P.E.
President & Chief Engineer