

BEFORE

Joseph Yates

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DOB: 08/01/1989

French nationality

Driving licence

1 Briar Gate, Long Eaton,
Nottingham NG10 4BJ, UK

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Rotating Machinery Engineer

Vibration Analyst III
EUR ING Chartered Engineer MIMechE

With a strong academic background in mechanics/thermodynamics and a taste for hands-on work, my diverse experience with various operators made me an all-round machines engineer focused on adding value to the business I serve. My strong analytic and collaborative skills allow me to solve complex machinery problems, design fit-for-purpose solutions and lead effective implementation. With exposure to contract management and financial metrics, I am able to turn cost-saving opportunities into reality.

EXPERIENCE

Company UK

Gt. Yarmouth, UK

10/2016 – Present

Rotating and Static Equipment Engineer

Multi-discipline engineer responsible for Clipper platform (525 MMscf/d)

- Refreshing condition-monitoring strategy, reduced contract costs, improved effectiveness
- Solved major vibration issues (hot restart, high speed resonance) adding >0.6 M\$ in production value. Led investigations and field repairs/software changes. Ensuring plant integrity (Fitness for service analyses using API 579 & other)
- Designing fit for purpose solutions for pipe/vessel degradation, pipework vibration, production sand issues, valve selection

Company UK
(off/onshore)

Bacton, UK

03/2016 to 10/2016

Rotating Equipment Engineer – Problem Solving Team member

Increasing plant availability (900 MMscf/d gas, 8k b/d condensate capacity)

- Leading investigations, solutions design and implementation: increased gas compression availability and addressed long-standing integrity issues
- Lead position to upgrade obsolete reciprocating compressors including new safeguarding and control systems, managing complex project across organisations
- Providing support to offshore platforms (Leman Alpha and Clipper)

Company UK

Gt. Yarmouth, UK

2014 – 2016

Rotating Equipment Engineer

Responsible for Leman offshore platform machines (280 MMscf/d cap.)

- Important deferment reduction via field balancing/vibration surveys/troubleshooting using ADRE 408.
- Designed in-house performance monitoring software allowing us to extend compressor washing frequencies, saving 1.2 M\$/year.
- Justified, planned, prepared and executed field repairs and inspections.
- RCAs, troubleshooting, FATs, HAZOP, techno-economic / reliability analyses.
- Working knowledge of APIs (617, 618, 684...) and internal standards.
- Initiated and led to success cost-cutting exercises (eg maintenance insourcing)

Company UK

Assen, NL

2012 – 2014

Trainee Rotating Equipment Engineer

Team member supporting production of >120 small onshore gas/oil fields

- Managed 0.5 M€ condition-monitoring retrofit project across machine fleet.
- RCAs, field troubleshooting, maintenance optimisation and techno-economic studies, in particular on electric driven API 618 reciprocating compressors.
- Successfully completed the Graduate program including multiple detailed courses/workshops at various OEMs in Europe.

AFTER

Joseph Yates CEng MIMechE

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Professional Profile

An internationally experienced chartered engineer combining a strong academic background in mechanics and thermodynamics with proven expertise in the safe, optimal maintenance and operational support of various types of turbomachinery. Specialises in developing innovative solutions to complex problems resulting in substantial improvements in uptime and reliability whilst ensuring integrity and compliance with international API (610-619), ISO and ASME standards. An ISO certified level III vibration analyst combining hands-on technical capabilities with skills in troubleshooting, equipment selection, rerating and repairs, economic analysis and reliability studies. Integrates with ease into multi-disciplinary teams, championing high quality and value-adding delivery whilst mentoring younger staff and effectively training front line personnel.

Career Summary

Rotating & Static Equipment Engineer

Company – Clipper Platform (525 MMscf/d), Great Yarmouth, UK

10/2016-date

A multi-disciplinary, office-based engineering position with regular offshore trips providing day-to-day support to ensure the integrity and high reliability of rotating equipment (compressors, turbines, pumps, engines) and static equipment (valves, piping, vessels, heat exchangers).

KEY ACHIEVEMENTS

- Increased production value by £0.6 million by resolving complex turbomachinery issues with limited repair costs, including cases of hot restart and high-speed resonance vibration
- Revitalised the condition-monitoring strategy resulting in annual contracting cost savings as well as improvements in overall programme effectiveness and plant uptime
- Ensured overall plant integrity performing fitness for service analysis using engineering calculations and industry codes, also assessing potential consequences, defining time for resolution and designing in-house innovative fit-for-purpose solutions

Rotating Equipment Engineer

Company – Bacton gas processing plant (900 MMscf/d, 8kb/d condensate), UK

03/2016-10/2016

Member of a multi-disciplinary problem-solving team tasked with investigating long-standing reliability issues and designing cost-effective solutions.

KEY ACHIEVEMENTS

- Took a leading role in investigations that lead to increased gas compression availability through the design and implementation of innovative solutions
- Solved reciprocating compressor scrubber blockage that had costed £2.7M in deferment
- Managed a complex project across organisations to upgrade obsolete reciprocating compressors, including introducing new safeguarding and control systems (budget £1.2M)

Rotating Equipment Engineer

Company – Leman offshore platform machines (280MMscf/d cap), Great Yarmouth, UK

2014-2016

Responsible for entire rotating fleet providing day-to-day support, performing RCA investigations, managing equipment repairs and FATs. Optimised maintenance regimes and spare parts, prepared and undertook field repairs and inspections. Produced valuable reliability analyses, made input to HAZOPs and SIF studies.

KEY ACHIEVEMENTS

- Achieved annual savings of £1.2M through the design of in-house performance monitoring software that enabled extended compressor washing frequencies
- Delivered significant deferment reductions through the completion of field balancing (without vendor support) and turbine control system modifications following vibration surveys and troubleshooting using ADRE 408
- Successfully delivered numerous cost reduction initiatives, including insourcing gas engine maintenance resulting in £100k per annum savings

BEFORE

TOTAL

Pau, France
2011

Placement in Rotating Machinery department (Front End Projects)

- **Objective:** create software to assist project engineers in evaluating centrifugal compressors from different manufacturers.
- Application of the tool **achieved significant savings** by allowing Total to challenge OEMs' conservative requirements and develop optimised designs.
- **Developed centrifugal compressors sizing software:** thermodynamics computation from specifications, rotor model generation, rotor-dynamics analysis (Transfer Matrix Method), wrote associated manuals, presented tool to engineers.
- Use of API 684 and 617

Company

Witry, France
2010

Placement in aeronautics industry

- Repairs to fighter plane fuel tanks (*Rafale, Mirage*)
- Production of oil tanks for aircraft hydraulic systems (*Airbus*) including exposure to multiple NDTs

EDUCATION

University

2011-2012 (UK)

MSc Thermal Power – Rotating Machinery, Engineering and Management

Gas turbines (performance, simulation & diagnostic), materials, rotating electrical equipment, steam turbines, pumps, compressors, piston engines, CFD, fuels & combustion, management for technology.

Thesis: **sponsored by BP**, "on-line compressor washing optimisation"

Awarded Course Director's Prize in recognition of academic achievement

University

2010-2011 (France)

Master's Degree from Paris University

Mechanical design, mechanics, fluid mechanics, turbomachinery.

Design of a glass scratching machine for research purposes. Led to an original design that was being patented.

Received "Gold Medal" reward upon completion, ranking 2nd out of 1126 students

University

2009-2010

Bachelor's degree in Mechanical and Industrial Engineering (Honours)

Ranked 4th out of 1107 Paris University

Oehmichen

2007-2009

2-year preparation course for engineering school, core subject: Mechanics

Final year project about accelerometers in submarine robots

Secondary school
< 2007

Scientific French "baccalauréat" passed with Honours (High school leaving diploma)

Core subject Engineering Sciences

REFERENCES

Senior Rotating Equipment Engineer, Technical Authority level 1 for The Netherlands, Southern North Sea UK/NL and Germany

Head of *Total E&P* Rotating Machinery Department, *ETN* President (*European Turbines Network*)

Senior rotating machines engineer (*Total E&P* Rotating Machinery Dept.)
Vibration specialist

Head of Power and Propulsion Department at *City University*

AFTER

Trainee Rotating Equipment Engineer

2012-2014

Company - 120 small onshore gas / oil fields, Assen, Netherlands

Gained experience in RCAs, field troubleshooting, maintenance optimisation and techno-economic studies, on API 618 reciprocating compressors, magnetic bearing compressors and pumps. Successfully completed Company Graduate Programme, with months of in-depth courses at various OEMs in Europe.

KEY ACHIEVEMENTS

- Played a pivotal role in managing a €0.5 million condition-monitoring retrofit project across the machine fleet after initiating its combination with safeguarding improvements.

Placement – Rotating Machinery Department (Front End Project)

2011

Total, Pau, France

Acquired skills in compressor design, thermodynamics and rotordynamics. Responsible for creating software to assist project engineers in evaluating bids from manufacturers

KEY ACHIEVEMENTS

- Created an innovative software generating physical rotor from process specifications and then assessing vibration stability over predicted speed range, the tool achieved significant savings by enabling Total to challenge OEM requirements and optimise designs

Education

MSc Thermal Power – Rotating Machinery, Engineering & Management

2011-2012

Cranfield University, UK

Awarded Course Director's Prize for Academic Achievement

Thesis (Sponsored by BP): "On-line compressor washing optimisation"

Master's Degree

2010-2011

Arts et Métiers ParisTech, France

Gold Medal Award; ranked 2nd out of 1126 students

Bachelor's Degree (Honours) Mechanical & Industrial Engineering

2009-2010

Arts et Métiers ParisTech, France

Ranked 4th out of 1107 students

CERTIFICATION

Chartered Engineer (CEng MIMechE) | EUR ING (European Engineer)

ISO 18436 CAT III Vibration Analysis (Mobius) & CAT II Vibration Analysis (BINDT)

Offshore Certificates (BOSIET and MIST), Dutch H2S and VCA (safety) certifications

Competencies

IT Skills

Word, Excel, PowerPoint, Access, SAP BluePrint, Mathematica, MathCAD, Mathlab
Bently Rack Configuration Software, Adre 5xP, Catia, Solidworks, Icem, Turbogrid, Fluent, CFX
Simulink, LabView, HTML, Visual Basic, VBA, Fortran 90, SQL and LaTeX

Languages

Native French, Fluent English (TOEIC: 990) and Basic Dutch, Spanish and Arabic

Interests

Indoor football, jogging, rowing, technology and antiques

Volunteering

Registered STEM Ambassador – participating in various science and technology related events and engaging children in STEM subjects via interactive talks, workshops and competitions

BEFORE

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SKILLS

Languages

French: native language
English: fluent (TOEIC: 990)
Dutch: basic
Spanish: basic
Arabic dialect: basic
Written Arabic: basic

Certifications

Chartered engineer CEng MIMechE
EUR ING (European Engineer)
ISO 18436 CAT III Vibration Analyst (Mobius)
ISO 18436 CAT II Vibration Analyst (BINDT)
Full VCA (Veiligheids Checklist Aannemers) (Dutch HSE course)
H2S certification
Offshore certificates (BOSIET and MIST)

I.T. skills

Office suite
CMMS
Rotordynamics
Bently Nevada software
CAD
CFD
Computation
Simulation
Languages

Word, Excel, Power Point, Access
SAP BluePrint (Computerised Maintenance Management Software)
RotorInsa
Bently rack configuration software, Adre SxP
Catia, Solidworks
Icem, Turbogrid, Fluent, CFX
Mathematica, Mathcad, Mathlab
Simulink, LabView
HTML, Visual Basic, VBA, Fortran 90, SQL, LaTeX

Personal

Curious
Team player, open-minded and sociable
Not afraid to get my hands dirty
Problems solver

LEISURES

Indoor football, jogging, rowing
Technology
Antiques

VOLUNTARY

STEMNET: As a registered STEM ambassador, I take part in various science and technology related events. By way of interactive talks, workshops and competitions, I engage with children to encourage them to enjoy STEM subjects.

**THE ORIGINAL DOCUMENT HAS BEEN CONDENSED TO A
RECOMMENDED LENGTH AND AS A RESULT IS
CLEARER AND MORE SUCCINCT.**