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## JOB DESCRIPTION: ENGINEER – ANALYSIS

### 1. POSITION SUMMARY

JOB TITLE:	Engineer – Analysis
EMPLOYMENT STATUS:	Permanent
LINE MANAGER:	Principal Engineer – Analysis
LOCATION:	Shoreham-by-Sea
STANDARD WORKING HRS:	37.50 hours per week between 9:00am and 5:30pm, Monday to Friday inclusive
SALARY RANGE:	£27,000 and £35,000 DOE
HOLIDAY:	25 days per annum
BENEFITS:	Company Pension Scheme, Health Scheme (BUPA), Life Cover, EAP (employee assistance programme), Enhanced Paternity Leave, Free Beverages, Discounted Gym Membership, Discounted Eyewear and Free Eye Test, Ride to Work Scheme, Electric Car Charging, Free Parking On-site.

We are currently recruiting an Engineer to join the Analysis team within the Engineering department at our headquarters in Shoreham-By-Sea.

Over the last 13 years, Cox Powertrain have been on a mission to deliver a revolutionary new concept in ultra-lightweight diesel engines with their market revolutionising CXO300. Since 2007, Cox has successfully raised over £120 million of private investment, to bring the outboard from a dream to a reality. Having begun production in May 2020, the CXO300 is becoming hugely popular in the market and demand is on the rise.

### 2. JOB FUNCTION & RESPONSIBILITIES

#### 2.1. JOB FUNCTION

- Undertake a range of analyses to inform the design of Cox products to provide insight into their operation and provide suggestions for improvement of the design/manufacture/after-sales support and more, using some of the following techniques as appropriate:
  - CFD
  - FEA
  - 1D simulation
  - Data Science
  - HiL/XiL simulation
  - First principles calculations
- Act as the project lead on nominated projects/tasks, liaising with key stakeholders, completing requirements capture, project management, carrying out supervision and any required training as appropriate.
- Work alongside designers, systems engineers, after-sales engineers and more to produce project deliverables.
- Where required, develop and document new techniques for analysing data.
- Where necessary, work on tasks outside of the Analysis remit to help the overall delivery of the Engineering team.



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## 2.2. KEY RESPONSIBILITIES

- Peer review work and reports of engineers within the analysis team.
- Validate simulation results against test data, where it is available.
- Undertake tasks and complete to agreed standards and timescales.
- Provide reports (written and verbal) into the business of work undertaken with particular focus on how to use the conclusions to guide design decisions.

## 3. STANDARDS

### 3.1. BEHAVIORAL STANDARDS

- To deliver analysis into the business using best practise and ensuring this is the case by keeping abreast with developments in the software tools they use as part of their analytical work.
- Critically review data provided for analysis and make appropriate assumptions where required.
- To demonstrate an appropriate work ethic.
- Maintain a professional relationship with all stakeholders, external and internal at all times.
- Demonstrate Cox Powertrain Behaviours:
  - Innovation
    - Asks why current processes are used.
    - Looks for ways of improving the components/systems they are working on.
  - Expertise
    - Capable of undertaking work with some day-to-day supervision.
    - Aware of what is acceptable in both personal delivery and the performance of the part of the product they are engineering.
  - Tenacity
    - Committed to deliver to agreed CQT targets.
    - Highlights when they are going to be late to deliver in a timely manner.
    - Asks what are different methods they could use when others fail.
  - Honesty
    - Informs line management when they are aware that they will struggle to deliver.
    - Takes personal responsibility for the quality of their work.
    - Highlights when they find errors in their work and the work of their peers.
  - Respect
    - Uses the advice of peers and senior members of staff to improve their work.
    - Acknowledges the achievements of team members.
    - Where possible, works to fulfil the requests of the line management in an efficient manner.
  - Integrity
    - Conducts themselves in a professional manner.
    - Demonstrates a strong desire to push forward their personal development.
    - Informs management if they believe something in the company is not working correctly.



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## 4. SKILLS AND EXPERIENCE

### 4.1. NECESSARY

- Master's degree or higher in engineering or a relevant scientific discipline.
- Basic understanding of the function of an internal combustion engine and how the components of engine combine to deliver that function.
- At least 2 years of experience working in an analytical capacity in an engineering environment.
- Proven ability in using some of the following:
  - Converge CFD
  - OpenFOAM
  - LMS Imagine Studio (AMESim)
  - Python
  - LabVIEW
  - NX/NASTRAN

### 4.2. ADVANTAGEOUS

- Experience in developing combustion systems.
- Background in statistics, data science and machine learning.

### Why Cox Powertrain?

With a global reach of over 100 territories, you will be joining a business that puts innovation at the forefront of everything we do and aim to be leaders in our field. To achieve this, we are always on the lookout for new talent to join our team.

Join the team and be a part of revolutionising the marine industry