

Curriculum Vitae - Liam Bell

BEng (Hons) - IEng MIET - CMSE - CECE - FSeng

Profile

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I am an experienced machinery safety professional and trained engineer. My previous roles include:

- Machinery Safety Engineer/Technical Author - Comau
- Machinery Safety Consultant - Pilz
- Machinery Compliance Manager - Expert Technologies Group

Currently I am working as an independent consultant working through my own limited company – Neuguard.

Throughout my career, I have supported the compliance of machine building and integration projects in the following industries; Automotive, Powertrain, Steel, Paper, Food & Beverage, Medical, Material Handling, Chemical and Aviation/Aerospace.

My competencies include:

- Drafting design risk assessments in accordance with EN 12100;
- Development of safety concepts throughout the design process;
- Performing PUWER assessments for new and existing work equipment;
- Assessing the applicable Essential Health & Safety Requirements (EHSRs) and Safety Objectives of Electrical Equipment (SOEEs) of machinery to the relevant regulations/directives;
- Perform on-site assessments of mechanical, electrical, pneumatic and hydraulic installations to ensure compliance with all relevant regulations/directives and standards;
- Demonstrate compliance with the Electromagnetic Compatibility Regulations 2016 and EMC Directive '2014/30/EU' through the organisation of third party on-site radiated and conducted emissions and immunity measurements and assessment of design and installation EMC wiring practices to relevant industry standards;
- Demonstrate compliance with the Control of Noise at Work Regulations 2005 and the Machinery Directive '2006/42/EC' through the execution of on-site noise emission surveys for machinery;
- Facilitate third party electrical installation testing to demonstrate compliance with BS EN 7671 (IET 18th Edition Wiring Regulations) and EN 60204-1;
- Coordinating documentation reviews with relevant stakeholders in order to compile the necessary documentation required for product technical construction files;
- Maintain internal EU directives and standards databases with the latest documents relevant to machinery manufacturing and integration;
- Drafting instructions for use for machinery;
- Drafting Declarations of Conformity / Incorporation for completed and partly completed equipment;
- Drafting preventative maintenance schedules for equipment;
- Determine PLr through risk assessment in accordance with EN 13849-1;
- Verification and validation of safety related control systems to demonstrate compliance with EN 13948-1 and EN 13849-2 (Experience in SISTEMA & PAScal);
- Performing safety distance calculations in accordance with EN 13855 and validating with physical on-site stop time performance testing;
- Selecting appropriate conformity assessment procedures (CAPs) in accordance with EU Decision 768-2008;
- UKCA/CE marking of equipment;
- Training/mentoring apprentices and graduate engineers on machinery safety/compliance aspects.

Education

Degree: **Coventry University – Faculty of Engineering & Computing**
Bachelor of Engineering with Honours, Upper Second Class In
Motorsport Engineering (BEng).

Modules included – Mechanical Science, Thermodynamics, Electrical Science Manufacturing Technology, Metallurgy, Metrology, Advanced Design for Motorsport Performance Engineering, Motorsport Management, Engineering Development and Intermediate German Language.

The basis of my dissertation study was to determine, using hand calculations, CAD and FEA, if an ordinary road vehicle could incorporate, and benefit from, a Motorsport application side-exit exhaust system with respect to performance and economy.

Additional Courses/Qualifications (Related to the role):

- Full UK Driving License
- Certified Machinery Safety Expert CMSE (TUV NORD)
- Certified Expert In CE Marking CECE (TUV NORD)
- Functional Safety Engineer FSeng (TUV SUD)
- IOSH - Noise at Work Risk Assessment & Measuring
- Lasernet – Laser Safety Officer
- Certificate in Machinery Safety - City & Guilds
- IOSH – Managing Safely
- CCNSG Safety Passport ETICB
- TUV SUD – Principles of Electrical Safety (EN 60204-1)
- TUV SUD – Requirements for CE Marking Machinery
- Pilz - Functional Safety (EN 13849-1 & PASCAL)
- Level 2 Award in Conflict Resolution and Personal Safety (QCF)
- Level 2 Award in Risk Assessment (QCF)
- Level 2 Award in Principles of COSHH (QCF)
- Level 2 Award in Principles of Manual Handling (QCF)
- Level 2 Award in Environmental Principles and Best Practice (QCF)

Previous Experience

Hartman Marine Services LTD:

I worked at Hartman Marine Services LTD as a Mechanical Fitter in the ship building and repair industry before and during my studies at university. I also chose to spend my sandwich/placement year at Hartman.