

JEFFREY JOHN MASON

Curriculum Vitae (February 2025) Strange Strange & Gardner

BEng(Hons) CEng MIMechE

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Summary

I am a Chartered Mechanical Engineer with over 20 years of engineering experience across several industries including aerospace, automotive and oil and gas. In addition to gaining significant technical engineering knowledge in a wide variety of disciplines, I have extensive experience in the creation and undertaking of risk assessments in relation to equipment design and operational processes, formalised through the NEBOSH National General Certificate in Occupational Health and Safety.

I am based in the SS&G Newcastle Upon Tyne office and have undertaken investigations and prepared reports in relation to commercial disputes, work related injuries and fatalities, personal injuries, slips, trips and falls, product design and product safety and conformity. I have also provided expert advice to the police and have given evidence as an expert witness in Court.

The firm is principally involved in safety matters where litigation is or may be expected, providing professional expert opinion by way of comprehensive reports and if necessary, attending to give evidence at Court. Instructions are also received in relation to potential accidents, commercial cases such as damage to property and disputes arising from failure of equipment to perform to anticipated levels. The firm is consulted mainly by Solicitors (either unilaterally or on a Single Joint Expert basis), Insurance Companies and/or Loss Adjusters where an incident has caused death, personal injury or disease or where there has been some form of failure to plant or equipment.

Each investigation usually involves an inspection of the equipment and site concerned, followed by the preparation of a comprehensive report supported by photographs, drawings and calculations where required. The report considers the implications of any relevant statutes and published authoritative literature, including Health and Safety Executive and British Standard documentation.

Employment

Strange Strange & Gardner (Consulting Forensic Engineers) – Newcastle Upon Tyne

Period:	February 2025-present	February 2022 to February 2025
Position:	Senior Forensic Engineer	Forensic Engineer

Baker Hughes, Pipeline Inline Inspection (ILI) – Cramlington, Northumberland

Period:	August 2015 to February 2022
Position:	NPI Technical Project Manager / Lead Mechanical Engineer

Overview:	<ul style="list-style-type: none">○ Management of a global Technical Regulations and Standards (TRS) and capex programme to ensure the legacy fleets of pipeline inspection systems and handling equipment were ultimately compliant with the regulatory requirements of the global regions in which they were operated. Technical Lead for associated capex scope, with the mandate to replace the aging global fleet with new, compliant equipment designs.○ Technical responsibilities included defining equipment requirements, driving the equipment design progression, compiling the associated technical documentation, conducting regulatory conformity assessments regarding machinery safety and explosive atmospheres, and ensuring the equipment technical files were compiled in accordance with the applicable directives. Extensive experience of undertaking risk assessments in relation to equipment design and operation, definition of operational method statements and writing of equipment operational manuals in accordance with applicable regulatory requirements.○ Design responsibilities included defining equipment concepts and layouts (including innovative first-for-company equipment designs), development of detailed designs using 3D
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	<p>CAD modelling, undertaking of structural calculations to BS, EN, ISO and ASME standards, definition of weld specification and weld inspection requirements, definition of equipment testing requirements and responsibility for engineering drawing approval.</p> <ul style="list-style-type: none"> ○ Additional responsibilities and duties included undertaking of failure and problem analysis and associated resolution and the undertaking of regular work area health and safety housekeeping audits.
Red Marine Ltd (Offshore Oil & Gas Industry) – Hexham, Northumberland	
Period:	January 2012 to August 2015
Position:	Lead Design Engineer / Technical Project Manager
Overview:	<ul style="list-style-type: none"> ○ Management of a wide variety of projects through design, manufacture and delivery, ranging from complex, large-scale, hydraulically operated equipment for on-vessel applications to precision manufactured qualification test equipment. ○ Management of Suppliers regarding adherence to quality and safety procedures throughout the contract term via manufacturing quality audits (material traceability, weld procedures, welder qualifications, NDT procedures, paint procedures etc) and QMS audits. ○ Review of equipment manufacturing documentation (manufacturing records book). ○ Definition and undertaking of the equipment post-manufacture Factory Acceptance Test. ○ Overseeing of equipment client sign-off and final delivery processes.
Designmech Ltd – contracted to Cummins Diesel Engines – Darlington, Stockton-on-Tees	
Period:	January 2008 – January 2012
Position:	Mechanical Design and Project Engineering Consultant
Overview:	<ul style="list-style-type: none"> ○ Support delivery of new engine projects and product improvements for high volume production by providing robust component and sub-system designs to meet cost, reliability and performance targets established in the product Technical Profile. Ownership of overhead valvetrain, crankcase ventilation and exhaust/turbo system architecture and component design. ○ Work closely with Manufacturing, Purchasing and other functions to achieve producible, quality designs that meet all requirements. ○ Utilise key Six Sigma tools to create and execute a design & validation plan for the product (DFMEA's, DQR's, Pugh Matrix, DVA's, DVP&R's etc). ○ Undertake root cause analysis where necessary.
Terry Group Ltd – Knutsford, Cheshire	
Period:	May 2004 – December 2007
Position:	Mechanical Design Engineer
Overview:	<ul style="list-style-type: none"> ○ Design and develop specialist vertical lifting platforms providing access for persons with impaired mobility in both domestic and public arenas throughout the design, prototype, validation, evaluation and production phases. ○ Work with the R&D department to produce and test prototype parts and products. ○ Work closely with Suppliers to improve manufacturability of components and reduce costs. ○ Provide training to engineers regarding assembly, installation and operation of new products.
BAE SYSTEMS, Military Aircraft Division (UK security cleared) – Warton, Lancashire	
Period:	October 1999 - May 2004
Position:	Flight Test Engineer
Overview:	Estimate, plan, schedule, execute, analyse and report on system and hardware flight trials.

BAE SYSTEMS, Military Aircraft Division (UK security cleared) – Warton, Lancashire	
Position:	Graduate Flight Test Engineer
Period:	August 1997-July 1998
Overview:	Graduate training comprising three Flight Test based technical placements supplemented by the BAE SYSTEMS Graduate Development Programme.
Qualifications	
Academic:	BEng (Hons) Aeronautical Engineering – June 1999
Prof:	IMechE chartership – August 2015 NEBOSH National General Certificate in Occupational Health and Safety - March 2024 Forklift Truck Operation (Counterbalance B1 and Reach Truck D1) – January 2025
Other:	Private Pilot License (Single Engine Piston) – 2005
Education	
University of Salford	
Location:	Salford, UK
Period:	Oct 1995 - June 1999
Other Interests	
<p>I am the sole owner, maintainer and operator of a Group A light aircraft, requiring a broad skill base. Maintenance is required to ensure the aircraft's ongoing safety and airworthiness and involves the upkeep of the airframe, aircraft controls, brakes and engine systems.</p> <p>Major work undertaken to date includes a complete engine rebuild, propeller change and the installation of electrical equipment and associated wiring systems, in all cases successfully completing the associated ground and air tests. I have also successfully completed flight tests to increase the aircraft's certified maximum take-off weight.</p>	