

Hawkins

Leaders in forensic investigation



ROAD TRAFFIC COLLISIONS & VEHICLE FIRES

Providing forensic engineering, scene and vehicle examination services to identify the causes of a collision or thermal event.

www.hawkins.biz

3D Laser Scanning | CCTV Analysis | Collision Reconstruction
Component Failure | Computer Modelling | Helmet Usage
Highway Engineering | Human Factors Analysis | Photogrammetry
Seatbelt Analysis | Scene Examination | Vehicle Examination
Vehicle Fires | Visibility Analysis

ABOUT HAWKINS

Hawkins, established in 1980, provides specialist forensic root cause analysis and expert witness services to insurance, risk management and legal professions, on behalf of both claimants and defendants. We also work with Government agencies, the Ministry of Defence, local authorities, Police authorities, and vehicle/component manufacturers.

The company has 8 offices in the United Kingdom as well as offices in Dubai, Hong Kong and Singapore. All offices are staffed by highly experienced forensic scientists and engineers from a wide range of disciplines, including mechanical, electrical, civil, structural and highway engineering.

Our detailed engineering knowledge of how vehicles operate and behave is invaluable when understanding how a collision occurred.

Hawkins has the largest group of Road Traffic Collision investigators in the UK, including some forensic engineers with over 30 years' experience. Our investigators can carry out a desktop analysis, as well as a full reconstruction, enabling an accurate assessment of liability.

Hawkins excels in providing high quality reports to assist our clients in understanding the technical issues of a case, enabling them to assess liability. Our reporting is flexible, ranging from consultation, to letters providing a brief overview, to full analysis and CPR Part 35 compliant reports, in order to best suit our clients' needs.

Our investigators are all trained to present evidence in Court.



WHY APPOINT A FORENSIC INVESTIGATOR?

COLLISION RECONSTRUCTION

Collisions are invariably multi-factor events. Witness accounts may conflict or be inaccurate. Hawkins' investigators analyse the scene data and the physical constraints of the collision location, as well as the incident vehicle, to form conclusions based on physical evidence.

SCENE ANALYSIS

Scene analysis, if undertaken very soon after the collision, can result in the identification of important physical evidence. This can lead to an early understanding of the circumstances surrounding a collision. In addition, scene attendance provides the investigator with the opportunity to: consider the limits of sightlines, make measurements, and take photographs to assist both clients and Courts with understanding the location.

VEHICLE EXAMINATIONS

Whether the case involves a car, bus, heavy goods vehicle, motorcycle, farming equipment, or a bicycle, Hawkins' engineers consider various vehicle attributes during an examination, such as: tyre performance, vehicle stability, vehicle defects, vehicle condition/damage, and a vehicle's service history.

CCTV ANALYSIS

Through digital frame analyses of collision footage from closed circuit television, an investigator can more accurately pinpoint the timings associated with the collision, as well as the precise point of impact, in order to determine the cause of the collision.

COMPUTER MODELLING

Simulation of the collision is undertaken by calculations performed both manually and by computer. Hawkins uses specialised computer software to analyse the pre and post impact trajectories of vehicles, to reconstruct the visibility available to the driver and witnesses, to prepare plans from photographs of the scene, and to carry out any other analyses that assist in the understanding of an incident.

HIGHWAYS ENGINEERING

Road traffic collisions can result from poor road layout, construction, signage or condition. Hawkins has the expertise to consider these factors and how they might have caused or affected a collision.



TYPICAL STAGES IN AN INVESTIGATION

PRELIMINARY EXAMINATION

If Hawkins is instructed early enough, we always prefer to examine damaged vehicles as soon as possible. Generally, this means whilst still under Police retention. Only a visual examination is permitted at that stage, but it can be very important to see a vehicle before there is a risk of physical evidence deteriorating.

We can also make a preliminary examination of a scene, hopefully before changes are made, or whilst some physical evidence can still be seen. Once the Police plans, photographs, laser scans, and other information become available, we can move on to a detailed analysis.

In many cases we are instructed months, or even years, after a collision has occurred. By that time, it is unlikely (but not unknown) that the vehicles will still be available. The scene might also have been altered. The starting point, in such cases, is usually to use and analyse the physical evidence gathered by the Police.

QUESTIONS WE ARE FREQUENTLY ASKED

Whilst every investigation is different, there are a number of questions that investigators of road traffic collisions are often asked:

- What was the speed of a vehicle before a collision?
- What lights were illuminated?
- Was a person wearing a seatbelt?
- Did the supplemental restraint systems function properly?
- How deep was the water on a road in heavy rainfall?
- Could something (or someone) have been seen in time to avoid a collision?

If you wish to make an enquiry or instruct us, please contact the office closest to the incident location and you will be put in touch with the relevant expert (see contact details on back cover). Alternatively, you can contact any of our experts directly – their details are on the following pages, arranged by location.



OUR EXPERTS

BIRMINGHAM



James Kingham

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James is a Chartered Mechanical Engineer with over 12 years experience. Since joining Hawkins in 2017, he has investigated a wide range of cases including multi-vehicle and pedestrian collisions, as well as mechanical and tyre failures. James specialises in incidents involving large goods vehicles and agricultural equipment, and has extensive knowledge of hydraulic and pneumatic systems. James is experienced in analysing CCTV footage, conducting scene surveys, and examining vehicles. He has given evidence as an expert witness in Court proceedings.



Robert Taylor

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Robert is a Chartered Mechanical Engineer who joined Hawkins in 2020. He previously conducted track based whole vehicle test, development, and certification programmes on a wide range of automotive systems at Millbrook Proving Ground. He developed a specialisation in Advanced Driver Assistance Systems (ADAS), and completed a variety of programmes for Autonomous Emergency Braking (AEB), Lane Support Systems, and other active safety features.



Stuart Whitehead

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Stuart worked as a Mechanical Engineer in the Automotive manufacturing industry for 8 years before joining Hawkins' in 2003. He has investigated hundreds of collisions involving pedestrians, cyclists and all types of vehicles. Stuart has experience examining both cars and large goods vehicles. He regularly surveys collision scenes and analyses CCTV recordings. Stuart has also given evidence as an expert witness in Coroners, Magistrates, Crown and County Court proceedings.



Richard Woodward

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Richard is a Mechanical and Materials Engineer who previously worked within the automotive industry. He is experienced in the design, assembly, and repair of multi-material vehicle structures. Richard also has a wealth of experience relating to the design, maintenance and repair of agricultural equipment. Over many years he has developed a practical understanding of the challenges faced by operators of agricultural equipment, such as avoiding fires and mechanical failures.



BRISTOL



Luke Collins
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Luke Collins started his career investigating vehicle fires, and had completed over 300 investigations by the time he joined Hawkins in 2014. Luke has also expanded into investigating fires and explosions in both domestic and commercial properties, as well as on ships.

CAMBRIDGE



John Horsfall
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John is a Chartered Engineer and Chartered Physicist, who started Hawkins' work in road traffic collision analysis in the 1980s. John has undertaken many investigations and presented expert evidence in the Courts of England, Scotland, Wales and also in arbitration hearings. His work is concerned with catastrophic injury cases on the instructions of solicitors, acting for both Defendants and Claimants, in UK litigation arising out of road traffic collisions in the UK as well as overseas.

GLASGOW



Gavin Dunn
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Gavin is a Chartered Mechanical Engineer and has worked in the field of road traffic collision reconstruction since 2010, joining Hawkins in 2022. He has experience of examining collision scenes, vehicles and vehicle components, as well as experience in the analysis and interpretation of digital data such as video recordings or onboard vehicle data. Gavin has investigated a range of collision types and has given evidence as an expert witness in court numerous times.



John Holland
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John is a Chartered Mechanical Engineer with over 20 years' experience. Before joining Hawkins in 2007, John worked as an automotive design engineer in the military and offroad specialty vehicles industry. He has specialist experience in incidents involving all-terrain vehicles, as well as incidents involving load loss from, or the rollover of, large goods vehicles. John also investigates mechanical failures and incidents involving vehicle-mounted lifting equipment. He has given expert evidence in Court.



LEEDS



John Camplin
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John is a physicist by training and comes from a materials science background in the defence industry. Since he joined Hawkins in 2005, he has had comprehensive experience of road traffic collision reconstruction and associated engineering failures. He has particular expertise in incidents involving head impact forces, head protection (helmets) and passenger biomechanics. John has given expert evidence in both Criminal and Civil Court.



Ross Clarke
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Ross is a Chartered Mechanical Engineer who joined Hawkins in 2019. Prior to joining Hawkins, Ross had his own company which provided crash safety consultancy services to OEM's, developing their new and existing vehicles crash safety performance. Ross has over 6 years of experience conducting and investigating vehicle collisions across the world. He also has experience in investigating the causes of various mechanical failures through component tests, and in vehicle homologation programmes.

LONDON



Charles Murdoch
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Before joining Hawkins in 2014, Charles worked in failure investigation for Rolls Royce. Charles has expertise in road traffic collision reconstruction, particularly where the analysis of CCTV is required. As a keen motorcyclist, a large proportion of Charles' work includes protective headgear cases and two-wheeled vehicles, whether working on behalf of a claimant or defendant.

MANCHESTER



Mike Hopwood
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Mike is a Fellow of the Institute of Highway Engineers and is able to assess and comment on numerous aspects relating to the highway environment, including drainage and gritting. Before joining Hawkins in 2007, Mike's local authority role was to assess if, and how, aspects of the highway layout or road conditions might have caused or contributed to a collision. Mike has given evidence in Court throughout the UK in both criminal and civil matters.



REIGATE



Richard Baker
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Richard's background is in engineering consultancy, where he designed and analysed structural and mechanical systems using both computer simulation and real-world data-logging. Having also a keen interest in motorsport and classic cars, and a level 4 qualification in collision investigation, Richard's experience in data interrogation has led him to specialise in investigations involving complex data analysis and CCTV. He joined Hawkins in early 2017.



Inigo Beckett
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Inigo joined Hawkins in 2020 after graduating with a First-Class Masters Degree in Mathematics from the University of Warwick the same year. Inigo works alongside both the Digital Forensics and Road Traffic Collision Investigation teams, providing assistance with: data acquisition and analysis ('black-box', telemetry, mobile devices, crash data); forensic photogrammetry; video analysis; 3-D modelling; and the use of GIS software.



Damian Mutch
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Damian has a background in physics and forensic science and has been attending and investigating collisions for over 30 years. Prior to joining Hawkins, he was a Police officer in Kent, based mainly in emergency response and traffic roles. His last 6 years of Police work were as a Forensic Collision Investigator. Since joining Hawkins in 2007, Damian has continued to investigate all aspects of road traffic collisions. He has given evidence as a Police witness and expert witness at Inquests, Magistrates, County, Crown and High Courts.



James Wade
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James has a background in automotive engineering and vehicle design. In 2010 James set up his own practice, specialising in the maintenance, modification, and restoration of classic cars. In 2014 James joined Hawkins, and he has investigated numerous road traffic collisions using both traditional reconstruction methods as well as more modern techniques, such as CCTV analysis, vehicle crash data and the use of 3D laser scanners.



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