

Curriculum Vitae

Russell Cort

Date of Birth: 20th September, 1963

Personal Profile

I am a self-motivated, creative and practical engineer with over 27 years experience in the automotive industry. 17 of those years spent in design and the last 10 years working on specialist military vehicle design and conversion. I am experienced in establishing, building and maintaining customer relations at all levels from workshop personnel to company directors. I have the ability to instill a confidence and trust in quality of service with my customers, from outset to completion.

Experience

GH Automotive Limited. Coventry.

May 2007 to Present

Military & SV Manager

Responsible for design development and test of winterised variants of 2 JCB vehicles, followed by series build of 36 vehicles.

This task involved integration of a Webasto fuel-burning heater to the standard vehicle's electrical and coolant systems. Packaging of second battery within a heated battery compartment and addition of snow shrouds and blinds. I was personally responsible for all concept designs and implementation.

The biggest issue on this vehicle was packaging space for the second battery, I overcame this by designing a self-contained twin battery box with integral heater which utilised the engine coolant. To enable the fitment of the battery box the engine cowl was modified and a new GRP moulding manufactured according to my specifications. I wrote the test specification, personally oversaw confirmatory trials and attended the witnessed validation test as the technical expert. All confirmatory trials and the validation test were carried out at the MIRA facility in Nuneaton and were in-line with DefStan 00 35 and 23-08 Issue 2.

2005 to Present

Business Development

Personally responsible for researching and securing new business opportunities, including customer liaison, quotation and quality of service.

Designed jigs, fixtures and tooling to ease production of pressed parts and welded fabrications.

2005 to Present

CAB Automotive Limited. Tipton.

Design Engineer

Responsible for design, prototype build and test of 2nd. and 3rd. row seats for the 07MY Land Rover Defender.

SBA and head rest Moment Testing carried out at MIRA, Nuneaton.

Sled/Dynamic Testing carried out at Ford's, Dunton test facility.

Following initial test failures due to lack of frame rigidity, I was responsible for root-cause analysis and instigation of the design solution. After installation of the solution parts, the vehicle passed EC14 test regulations.

Project Manager

Responsible for re-design and re-build of 13, 136" Land Rover Defender Special Vehicles for Busch Gardens Theme Park, Tampa, USA. Including production of chassis jig for modification of new strengthened chassis', replacement vehicle wiring system and new design fascia.

Specific problems with the original vehicle were caused by the customer utilizing a COTS (Commercial Off-The-Shelf) vehicle which had been heavily modified to carry 16 passengers on an off-road track in a caustic environment consisting of saline and chlorinated water. I incorporated several chassis modifications to increase rigidity and to allow fitment of heavy-duty suspension and stiffer body mounts. A new vehicle harness with reduced functionality, was designed by my SV Team and all ECUs repackaged within a new design stainless steel fascia.

Throughout the project I was in personal contact with the Customer's Park Project Director in the USA and supervised the secondment of one of my senior engineers to Tampa for on-site evaluation and troubleshooting.

1999 to 2005

RDS Automotive Limited. Southam.

Military & SV Manager

Personally responsible for sourcing new contacts, developing the department, quotation, design, project management and budget control.

Projects included:

1997 – 1999 Land Rover Wolf Winter Water – Design Consultant to Land Rover

I was initially contracted to support 2 Land Rover engineers and to liaise with suppliers during the design phase of the programme. My involvement grew over the first few weeks as it was proven that whilst ATTURM (Amphibious Trials and Training Unit, Royal Marines) were experts in their field of waterproofing vehicles for the MOD, they had never had to operate within the confines of a production facility or to production build rates.

It was during this project, that I demonstrated how versatile I could be. I acted as Project Co-Ordinator stepping up our team to include 2 vehicle build technicians and 3 CAD engineers and as the full time Project Co-ordinator I liaised between Land Rover Engineers, their suppliers and ATTURM. Working with all parties our engineers took the knowledge that ATTURM had gained and combined with our experience of automotive production constraints, produced fully engineered solutions (to production line quality) to some of ATTURMS most challenging problems. These solutions included a manifold system to breathe multiple powertrain components, waterproof enclosures for main electrical power distribution and windscreen wiper motors.

The design and development of the Wolf vehicle brought me into close contact with ATTURM, with whom I had regular reviews and to whom I provided engineering support at the time of the sea trials. I also liaised and held regular reviews with the DPA and the end user (Royal Marines), where we discussed proposed engineering issues and constraints that may have had an effect on the vehicles ability to carry out its role. The final stage of the Design and Development Programme was the release of the Detail Drawings and CAD models of all new design components into the Land Rover system.

Toward the last stages of the design phase it had become apparent that the vehicle was becoming too complex to build fully on the production line at Solihull. Therefore, a small number of engineering changes were made to allow an amount of off track conversion work to be carried out by a third party converter, as yet un-named. The decision was taken by Land Rover to put this process out to competitive tender to get the best package of work at the most cost effective rate.

I attended the bidders conference, along with a number of other interested parties, where information attaining to the conversion content was shared with all. On behalf of RDS I compiled and submitted a bid to carry out the conversion work. This combined with my knowledge of the Programme, the base vehicle and our proven track record of vehicle off-line builds (ie: 5000 Limited Edition Frontera's for Vauxhall at a unit converted specifically for the task & numerous SV builds for Land Rover at our own workshops in Southam); I successfully secured the contract worth 1.5 million GBP.

The contract was split between 3 variants:

686 Winter Water Defenders - Split between 90"/ 110" GS and FFR

12 Winterised only Defenders - Split between 90"/ 110" GS and FFR

36 Winterised Defender Ambulance

All 734 vehicles passed through RDS' Southam workshops where my team of technicians carried out an average of 16 hours of conversion work to each.

I was personally responsible for design of the raised air inlet system. The cyclonic separator initially proposed by ATTURM had a catch chamber which flooded the engine with water when more than half a litre of water entered the inlet system. Working in conjunction with Donaldson, a light-weight separator was installed, which allowed unlimited evacuation of airborne contaminants.

Volvo Truck & Bus – Project Manager

Employed as technical specialist for winterization and waterproofing of a prototype 8X8 Close Support Tanker. Concept design and package of EMC compliant Webasto heating system; heated battery box; raised air inlet system; powertrain ventilation and snow blinds

Liaison and regular reviews with third-party suppliers – Heile Tankers and Timoney Research.

Build of one-off prototype vehicle. Although this vehicle did not reach production due to Volvo withdrawing from the PFI bid, I gained experience in fuel handling vehicles and all-wheel drive vehicles.

JCB – Project Manager

Responsible for the design and build of prototype 4CXM Backhoe Loader –winter water variant.

Project included packaging of EMC compliant Webasto heating system; heated battery box; raised air inlet system; powertrain ventilation and snow blinds.

A particular issue on this vehicle was its angle of departure. To enable the vehicle to negotiate the landing craft ramp, a simple method of raising the rear of the vehicle with axle packers was devised by myself and implemented by my team. This component had to be easily fitted and removed to allow the vehicle height to be lowered for air transport.

Full trial and validation at ATTURM, Devon and JCB's own cold chamber.

Production conversion of 4 machines.

JCB – Project Manager

Responsible for design and build of 2 winterised, compact tele-handle vehicles for RAF munitions handling.

Project included packaging of EMC compliant Webasto heating system; heated battery box and snow blinds.

Foden Trucks – Project Manager

Responsible for design and build of prototype 6X6 MDT.

Project included packaging of EMC compliant Webasto heating system; heated battery box; raised air inlet system, powertrain ventilation, snow blinds and roof mounted escape hatch.

The installation of a sealed, raised air inlet system that still allowed for the cab to be tilted, presented a particular challenge. We designed a rigid mounting system for a cyclonic particle separator.

Full trial and validation at ATTURM, Devon and at the Qinetiq Boscom Down cold chamber facility.

Production conversion of 6 machines.

Santana Motors SA. – Project Manager

Responsible for the design and development of the right-hand drive variant for the PS10. (Spanish Defender-type vehicle).

Production of 160 vehicle conversion kits, to be fitted at the production facility in Spain.

Liaison and training of Spanish Engineers and Production Operatives.

Management of our 2 on-site technicians in Spain during the initial build phase.

Due to the low volumes and limited funding it was impractical to develop a new steering box and system to suit the right-hand drive variant. With this in mind, I devised means of repositioning the left-hand drive steering box to the right hand side of the vehicle to allow minimal chassis modification whilst maximizing carry-over components – simultaneously solving a steering system clash.

Santana Motors SA. – Project Manager

Responsible for Project Management of Face-Lift Programme for the Santana 413 vehicle.

Project included styling changes to front and rear bumpers, grille and vehicle lighting system. As Project Manager I was responsible for liaising with Spanish engineers and the UK moulding company.

I was also in control of sourcing new lighting components and generating fully detailed bill of materials including cost, weight and lead-time breakdowns. I was also directly involved in the design of the injection mould tools and production of concept show vehicles.

Vauxhall Motors, Luton. (IBC Vehicles) – Prototype Workshop Supervisor.

Responsible for the day-to-day running of a busy prototype workshop with up to 12 staff at any one time. I also had control of the Buck Development Area.

Various Frontera based projects over a 5 year period, included installation of 3 new powertrains (2 x diesel, 1 x petrol); installation of new ABS system; revised closures and installation of first coil spring rear suspension system for the Frontera range of vehicles.

The above is a sample of the many relevant projects I have worked on in the last 18 years. Other interesting projects have included a complete ground-up rebuild of an Aston Martin DB5 to full Goldfinger specification, including bullet proof screen and machine guns. Currently housed at the ‘Cars of the Stars’ museum in Cumbria and as featured on ITV’s ‘My Life With James Bond’ feature presented by David Walliams. Also build of six, 4 wheel drive Bentley’s for a Head of State.

Qualifications

- O’Levels in Maths, English, Geography, Design & Technology, Graphics
- City & Guilds qualified Commercial Vehicle Technician (Distinctions & Credits).
- Apprenticeship served with Mercedes Benz UK Limited.
- Experience working within company hierarchy, from team members to department managers.
- Ability to find simple solutions to complex design issues.
- Experience managing design programmes covering one-of prototype builds through to series conversions.
- Specific experience in winterisation and waterproofing of vehicles ranging from Land Rover Defender through to 8X8 concept vehicles.
- Specific chassis and powertrain development experience

Hobbies & Interests

Motorcycling – recently touring Spain with my fiancée. Ongoing rebuild of fiancée’s Honda CBR600
DIY, Cinema & reading