Name: Malcolm Lucas

Address**:** 3 Waverton Close, Northwich, Cheshire, CW9 8WD

Home Telephone 01606 270647

Mobile 07855306497

E-mail malilucas@yahoo.com

QUALIFICATIONS

3 CSE’s, 6 ‘O’ levels, ONC Mechanical Design Engineering

EXPERIENCE TO DATE

27 years Aircraft Structures & Systems Design, 8 years Automotive design

3 years general engineering, 7 years apprenticeship,

C.A.D SYSTEMS EXPERIENCE

25000 HOURS CATIA V5 (IBM Cert No.205520),FIBRESIM, COMPOSITE WORK BENCH, EWB V5, TUBING, AIRBUS PRIMES/PRIMES A350 CONVERSION & PDM TRAINED, SAP,SMART TEAM.

30000 Hours CATIA V4, surfacing, solids, VPM, 4DNAV

Other systems include CADDS5X, CADAM & ANVIL

August 2015 To Present (RUAG Space Zurich) Vulcan next generation launch vehicles.

Design of Composite Payload Fairings, Vertical & Horizontal Separation Systems,

Alu Attachment Ring Machining’s.

Design lead up to PDR for Conceptual Composite Booster Heat Shield 4.4M Dia.

This included complete Shell design from Surfacing of outer shell, Attachment Rings, Base Plate, Reinforcing Rings, Vent Ports.

Design Lead for Composite Inter-Stage Adaptor 4.4M Dia. Including Forward and Aft Attachment Rings, Composite Access Doors.

Designer on various proposals NASA-SLS-LVSA Acoustic Panel Design,

DSS-5 Conceptual design proposal for ULA

PLFA Cable Separation System Alu Structure

Also involved in various studies for investigating the use of 3D printing.

Feb 2015 To August 2015 (Folland Aerotech)

A350 – 1000 FSS. Involved in the production of installation drawings for Airbus Bremen regarding all High Lift and Flap Support Structure, also installation drawings for fixed and moveable fairings

Related to the flap support structure.

June 2014 To Jan 2015 (Airbus Broughton)

A350 – Concessions team. Answering of T100 concessions for Metallic and Composite components on A350 wing build.

Jan 2014 TO June 2014 (SAAB Sweden)

A350 -1000 FSS (Flap Support Structure) Involved in the design team for taking the FSS through from B-Scheme to C-Scheme and then through to DFM. involved in the design of the outer machined Cantilever Support Rib 4, Triangular support, and Fail Safe brackets to lower cover.

SEPT 2013 TO JAN 2014 (Sitec Filton)

Part of the A400M wing concessions team. Mainly involved in the answering of composite concessions for Stringers and Covers on A400M dealing with repairs for Delamination, fibre splintering, damaged glass plies, indentations etc.

JUNE 2012 TO AUGUST 2013 (Hyde Design Broughton)

Installation drawings for A350 wing build, Involved in the production of trailing edge & leading edge installation drawings for first wing build and subsequent test wings.Seconded to Bremen on A350 wing build, my role as a design liaison engineer included raising None Conformance reports for the initiation of the DQN & Concession process, then overseeing the wing build to incorporate these changes.

MARCH 2012 TO JUNE (Airbus Filton)

A350 Aero Wedge design and detailing for upper and lower covers along FLE. Work involved detail design of components to meet production requirements, Assembly drawings for Broughton build and FAL installation. Specification drawings for seal manufacturers.

Also involved in the production of drawings for the A380 rib repair team.

MAY 2011 TO MARCH 2012 (Hyde Design Broughton)

Installation drawings for A350 wing build, mainly involved in the Pylon fittings installation in conjunction with Airbus Wichita. Also Loaned to Filton FTI team to help with positioning of brackets/machinings to support potentiometers in the wing tip area and along the outer FLE.

FEB 2011 TO MAY 2011 (Assystem Preston)

IFLE Composite panels. Design and detailing of upper and lower composite panels and cores, using honeycomb and monolithic construction methods. Tasks include all initial modelling and ply creation using CPD on catia V5

MAR 2009 TO FEB 2011 (Airbus BREMEN A350)

Bleed Air System design. Responsible for the initial design of the bleed air system in the leading edge from fuselage to pylon including overheat detection and wing

Anti-ice. Jan 2010 moved to Filton on the same job to achieve B & C maturity with RSP’s

JAN 2009 TO MAR 2009 (Hyde Design For Airbus BREMEN A400M)

Answering of DQN’s for aircraft 1-5 fuselage sections 10,13 & 15 most of the work was moving wiring harnesses and support brackets, clipping.

JULY 2008 TO DECEMBER (Airbus Hamburg)

Part of 12 man team to help with the wiring installation for the A380 launch aircraft for Singapore Airlines, task included re-routing various harnesses through main section of fuselage on both decks.

APRIL 2007 TO JULY 2008 (Hyde Design For Airbus Filton A400M )

Responsible for the design of machined components for the leading edge pressure barriers for first 5 aircraft, And then redesign for entry into service aircraft. . Also involved in the installation of various FTI harnesses in the FLE along with design of brackets and clipping.

APRIL 2005 TO APRIL 2007 (Airbus Bremen A400M composite wing covers team)

Assigned to engine doublers team, involved in the design of the upper and lower engine doublers for first 5 aircraft, from initial scheme to design for manufacture.

Moved to next phase of design for Entry into service aircraft, responsible for design of engine doublers being integrated into wing lay-up. Also all other wing doublers, Fuel pump/fuel dispense/AAR pod came under my supervision.

JAN 2004 TO MARCH 2005 (Airbus Filton)

A380 wing mods/trailing edge ribs, updating ribs for new bracketry along rear spar.

Moved to A400M assigned to wing fuel systems, responsible for the design of the transfer tank vent system Up to C-scheme level. Transferred to wing leading edge design team responsible for Fuel Vapour Barrier design along l/edge, and Bleed air system attachment brackets to composite front spar

APRIL 2003 TO DEC 2003 (Aermacchi Italy)

Assigned to A380/Trent thrust reverser team, Tasked with designing transcowl sealing for production units, And responsible for producing repair schemes for prototype units. Also involved in changes to acoustic panel and outer panel (composite FIBRESIM) to customer requirements. Design of intermediate composite frame and flow path fairings (composite FIBRESIM)

APRIL 2002 TO APRIL 2003 (BMW Motors Munich)

Working on the instrument panel for the new 3 series, Responsible for the centre stack area for all models, This entailed the design of a functional carrier to hold radio/sat nav/cd/heater controls suitable for all levels of trim that may be available.

Also worked on the main instrument panel carrier and glove box housing and glove box, These parts designed in conjunction with toolmakers for the first prototype cars. Other work included initial door layout for new mini for 2006. Body reinforcing panels for clean enrgy vehicle (modified 7 series).

JAN 2001 TO MARCH 2002 (Rolls Royce and Bentley motor cars)

Design of one piece aluminium cant rail to incorporate side air curtain, Re-design of A and B post covers to incorporate new cant rail design. Design for new boot lid trim panel (plastic moulding). Design of instrument panel end caps and HVAC duct for new project. Design of A post upper/middle and lower including inner and outer tread plates. Design of headliner and headliner console for new MSB Bentley.

APRIL 2000 TO JANUARY 2001 (Dornier)

Transfer from Israel to Germany to work on 728 project. Working on floor and under floor structure design, through to detailing of parts.

JAN 2000 TO APRIL 2000 (Israeli Aircraft Industries:- Dornier 428 project:)

Conceptual design of primary structure around service door and emergency exit.

Responsible for design of chemical etched skins, machined frames, sheet metal frames and all machined door surround structure and doublers,

APRIL 99 TO DEC 99 (Rolls Royce and Bentley motor cars)

Part of the conceptual design team supporting the design studio & clay modellers and also working in conjunction with toolmakers to determine latest material specs and methods of tooling.

APRIL 98 TO APRIL 99 (A.S & T)

Nimrod MR4A project (Nimrod 2000). Involved in the conceptual scheming of inboard and outboard flaps and aileron. This entailed design of machined and pressed ribs, chemi-etched skins main hinge fittings and actuator brackets. Lead man on project to design flap and aileron shrouds, flap closing ribs and nacelle fairings in way of flaps.

JUNE 97 TO APRIL 98 (IVM Engineering Germany)

Working for Audi on new B6 project, (A4 replacement) Tasks included being responsible for conceptual design of B-post cover with seat belt slides, roof lining with and without sunroof, grab handles and sun visors. Side airbag run over B-post / roof lining area.

APRIL 95 TO JUNE 97 (Bertrandt Engineering Germany)

Working for Audi on A3, A4, A6 & A4-s4 projects. Tasks included design and detailing of front and rear bumpers for A4-S4 saloon and estate. Other work included design of interior finishing panels and parcel shelf. During this period I was also loaned out to Seeber Design to work on conceptual design for the A3 five door projects. This included design of all door trim from concept to final tooling.

JAN 95 TO APRIL 95 (Black & Decker Power Tools)

Involved in production of surface models for injection mouldings and castings for various power tools.

JAN 94 TO DEC94 (Rolls Royce GTE Canada)

Work on the industrial Trent engine, involved in the design and detailing of variable inlet guide vanes and their operating mechanisms. Also detailing of blades, castings and forging.

MAY 93 TO DEC 93 (Shorts Brothers Belfast)

Systems design on Lear 45, Responsible for concept scheming of emergency oxygen system for flight deck and cabin. Also conceptual scheming of nose landing gear doors, hinges and linkages for the Global Express using carbon fibre and honeycomb construction methods (FIBRESIM).

JUNE 92 TO MAY 93 (Rohr Industries at Hurel Dubois U.K)

Design/Liaison engineer on MD90/V2500-D5 translating sleeve type thrust reverser. Responsible for design of SPF titanium heat shields around actuators. Redesign of deflector doors and their hinges. Also responsible for the overseeing of build of mock-up and certification units, rectifying all build problems.

OCT 91 TO JUNE 92 (British Aerospace Prestwick)

Liaison engineer to jetstream 41 aircraft. Involved in running the final assembly line liaison office covering installation of all systems and flying controls responsible for all repair schemes, queries and concessions.

OCT 90 TO OCT 91 (British Aerospace Brough)

Design engineer on Hawk Mk200, Mk203 and T45A. Production of drawings for stripping and re-installation of vent tank and vent tank piping. Also involved in design of slats for T45A slatted wing.

DEC 89 TO OCT 90 (British Aerospace Prestwick)

Basic scheming for dorsal fin and flying controls for JS41 aircraft. Design of centre console for JS41 including trim control, thrust levers, flap indicators. Moved to prototype hanger to set up liaison department for JS41 cockpit mock-up. Responsible for trouble shooting mock-up and prototype aircraft.

APRIL 89 TO DEC 89 (Shorts Brothers Belfast)

Basic schemes for introduction of area navigation to Super Sherpa aircraft. Responsible for complete structural involvement for installing avionics equipment and antennae, all production drawings and lofts. Move to liaison office to supervise installation of equipment.

JULY 88 TO APRIL 89 (Shorts Brothers Belfast)

Mods to Shorts Tucano after acceptance from RAF. Design of avionic cooling fans for Tucano. Design of ditching panel on Super Sherpa aircraft.

SEPT 87 TO JULY 88 (British Aerospace Chester)

Structural design on HS125 C Fin project, design of doublers and butt straps for fuselage.

JAN 86 TO SEPT 87 (Israeli Aircraft Industries)

Structural design on Lavi front fuselage work on machine frames, beams, and brackets. Also involved in strengthening of joints between frames and beams for production aircraft. Design of canopy lower longerons and access panels to glazing bolts. Initial scheming and design of avionic bay doors. Systems design: avionic bay installation, responsible for support structure for avionic equipment and routing of all systems.

JAN 85 TO DEC 85 (Shorts Brothers Belfast)

Structural design on SD3-30, SD3-60, EDSA. Changes to structure to accommodate customer requirements. Preliminary cockpit layouts for new RAF trainer Tucano.

JAN 80 TO JAN 85 (British Aerospace Woodford)structural design of sections of front spar and leading edge. Installation of ILS and glide slope aerials, pitot static and vent plates. Systems installation of full pitot static and vent plate system. Pneumatic de-icing to wings tail plane and fin. Nacelle fire detection system.

1970 TO 1980 Full industrial training board approved apprenticeship.