

# Kelvin J. Sawyer

## **Personal Details**

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### **Australia**

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## **Career History**

### **January 2016-June 2016**

- **Contract Biomedical Technician**
- **Dental Equipment Support**
- **Joinery work**

### **September 2015-December 2015**

**Biomedical Consultant for Sali international Hospital, Dar es Salaam, Tanzania.**

- Assess, diagnose and procure multiple quote for part for repair of all medical gas and medical diagnostic equipment, including, 200ltr autoclave, bone densitometer, CR radiology system, GE and Mindray Ultrasound machines, Philips, Mindray and Aeonmed patient monitors, Aeonmed ventilators, Aeonmed anesthesia machines, Beacon Medaes medical gas manifolds, hemodialysis water unit, 600kVA Caterpillar genset, and Mercedes Benz ambulance.

### **August 2008 to August 2015**

**Biomedical Technician and special projects coordinator, Blantyre Adventist Hospital, Malawi**

**for Adventist Health International. (continuation of 2001-2006). Drove from London to Malawi to resume these duties.**

Install recently acquired Siemens 16 slice CT scanner including design of power, signal, data, water and A/C layout on CAD. Actually do all the above. Install and commission CT unit and chiller. Design and fabricate all needed bracketry and stainless steel trunking and covers.

- Day to day repairs, maintenance and installation of hospital medical equipment including Toshiba CT scanner, Zeihm 8000 C-arm x-ray unit, harmonic scalpel, argon plasma scalpel, electro surgical units, anesthesia machines, Zeiss keyhole surgery set, Olympus endoscopy set, patient monitors, cryogenic OBGYN unit, Ultrasounds, Colposcopes and x-ray machines, including calibration, x-ray film processors, wet and dry, digital x-ray film developer.
- Perform commissioning of all purchased medical equipment for the hospital, including functional testing, electrical safety testing, entering into hospital asset list and biomedical maintenance database program.
- Installation and repairs of dental chairs (Adec), oil free air supplies, rebuilding high speed hand pieces (drills).

- Installation, maintenance and repair of autoclaves with a range from benchtop units to 2ftx2ftx4ft units, wood fired and electric boilered, Including manual and automatic PLC driven units, to ETO.
- Design, specify and supervise building of dental clinics.
- Design, specify, B of Q and build new 6 bed Intensive care unit with HEPA air filtration, in wall medical gas supply, self sterilizing stainless steel shelving, digital dimmable fluorescent lighting. World Bank rated it as best ICU in Eastern Africa. Malawi Government also acknowledges it as best in country.
- Design and install medical gas system and on-site oxygen producing plant to UK NHS HTM0201 standard. This included, Beacon Medaes (Atlas Copco) GA11 Z screw compressor (4), BM MedVac 550 vacuum unit, BM medical air filter. Installation of the above and installation of medical gas pipeline system including purge brazing during installation.
- Design plant room for above including bottle filling station and safe storage and handling of same.
- Design and build new Cardiac clinic.
- Training of medical staff in the use of all of the above including in service training in handling of medical gas cylinders, (pre plant commissioning), use and operation of infant incubators, operation and use of IV and syringe pumps, safe use of portable X-ray and C arm.
- Consult and advise on the feasibility of moving to a PACS system.
- Perform clearing of imports and liaise with Malawi Revenue Authority for proper classification of medical equipment.
- Advise the strategic planning committee on technical matters and purchase of new equipment.
- Design and build covered walkways.
- Upgrade laundry with new Miele 16kg washer extractor, dryer and ironer. The washer includes a water saving option.
- Supervise rebuilding of electrical distribution panels.
- Repair, maintenance and automation of 200 kVA F.G.Wilson genset.
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#### **May 2006 Year to August 2008**

**IN the UK. Self employed carpenter, mechanical fitter, maintenance engineer, stainless steel fabricator/TIG welder and design technician. Biomedical Engineer.**

- Carpenter performing high end joinery, kitchen installation, staircase design and installation in luxury homes.
- Mechanical fitter for Bokomo Foods (previously Grain Health Foods UK, aka Sanitarium Health Foods, Australia). Tasks included repairs to Weetbix and Weetabix mills, changing mill rolls etc.
- Maintenance engineer for same company. Tasks included, steam supply supervision and repair, mill cooling system, Rotary oven servicing and repair, BISPAK servicing, repair, packet changing etc.
- Expansion and supervision of the Allen Bradley network to include IP processors.
- Monitoring and diagnosis of all PLC equipment via the network.
- Assembly, installation and calibration of new collator.
- Designing and building food machinery and modification to food machinery, in particular installation of plexiglass guards and safety circuits.
- Design and build a muesli ingredient adder for toasted muesli. Design was to be based on Loss in weight feeder system used for Weetbix. This unit involved a real time weigher, 3 feeder/weigher/ hoppers, 2 conveyors and a vibrating conveyor.
- Biomedical Engineer. July 2007 in Kabul Afghanistan for medical equipment repairs at Wazir Akbar Khan Hospital for Loma Linda University as part of a USAID funded project.

**October 2001 to May 2006.**

**Biomedical Engineer for Adventist Health international.**

- Field biomedical technician servicing, installing and repairing all manner of medical equipment at Seventh-day Adventist Mission hospitals in Zambia, Malawi, Rwanda and Ethiopia. All travel done by road on my own, except from June 2005 to Mar 2006 when my new wife joined in. All vehicle maintenance done by me.

**May 1998-October 2001**

**Mechanical fitter, stainless steel fabricator and maintenance engineer.**

- Worked for Sanitarium Health Foods UK
- Modified, built and increased the capacity of gas fired rotary ovens.
- Installation of SHF flaking mills including hand making all stainless steel bracketry for attachment of cooling and products services.
- Installation and commissioning of infeed conveyors, biscuit collator, SIG flow wrapper and BISPAK machine.
- Single handed design, manufacture and installation of organic wheat hoppers including blower storage hopper transport system, purge welding 100mm stainless steel pipework for grain transport, design of electrical switching and control for rotary seals and interface with PLC network.
- Labourer for electricians. Tasks includes mounting Rittal S/steel electrical panels and associated duct work. Assisting with building electrical panels with Allen Bradley PLC's, VSD drives, soft start units (18kW).
- Start up of factory each week.
- Supervision and maintenance of 78kW Rolls Royce boiler for steam supply.
- Maintenance of all factory plant, electrical and pneumatic systems.
- Fault finding, repair and all systems above.

**November 1996-May 1998**

**Carpentry.**

- Worked for Paul Cherry and Avondale College on the refurbishment of the old original chapel building. Duties included laying tongue and groove flooring, building fire rated internal fire escapes, external stairways and refurbishing the bell tower.

**September 1996-November 1996**

**Pre departure course with MSF Belgium, Brussels.**

- Two week in house training course for pre-departure to MSF projects.

**May 1996-September 1996**

**Carpentry.**

**October 1995-May 1996**

**ADRA International, Goma, Zaire.**

- Logistics officer with ADRA operations in Goma, Zaire.
- Responsibilities includes maintenance of ADRA vehicles, security, HF radio communications,
- and sourcing supplies in Nairobi.

**Jan 1990-Dec 1990**

**Student, Hornsby TAFE college.**

- Adult course for Higher School Certificate.
- Accepted for Mechanical Engineering Degree course. Newcastle University

**Jan 1989-Jan 1990**

**Self employed carpenter contracting to Spinners Team of Tradesmen, Carlingford, Sydney.**

**Jan 1987-Dec 1988**

**Sydney Adventist Hospital**

- 1987. Maintenance carpenter.
- 1988. Plant mechanic. Duties included heating and ventilation systems, Medical air compressors and vacuum systems, Laundry equipment, kitchen and catering equipment, metal hospital bed maintenance.

## **Qualifications**

- 1999: Rockwell technicians course in Allen Bradley PLC programming.
- 1999. SMC pneumatics 3 day course.
- 1997. Medicines Sans Frontier (MSF) pre-departure course. Brussels, Belgium.
- 1992: Associate member by exam Of Institute of Automotive Engineers (IAME)
- 1985. Carpentry and joinery certificate.

## **Memberships**

- 2013: Associate Member of Institute of Hospital Engineers Australia.
- 2013: Society For Medical and Biological Engineering (NSW)
- 1988: Institute of Automotive Mechanical Engineers.

## **Education**

- 2001: 6 months onsite training with Clinical Engineering Dept, Loma Linda University.
- 1991-1992: 1 1/2 years B.mechEng at Newcastle University
- 1990: HSC, Hornsby TAFE College.

## **Interests**

- My faith, Seventh-day Adventist.
- My Family.
- My work.

## **References**