

Curriculum Vitae - Wayne Jayes

Contact Data

Postal address	PO Box 670402 Mazabuka Zambia
Telephone number	+260 966 393 072
Cellular phone number	+260 975 066 947
E-mail	wayne@jays.org or wjays@sugartech.co.za
Website	www.sugartech.co.za
Home address	5 Tanderra Mazabuka Zambia

Personal Data

Surname	Jayes
First names	Wayne Edward George
Date of Birth	4 February 1963
Sex	Male
Marital Status	Married One son (born 1996)
Nationality	South African
Home language	English
Other languages	Afrikaans
Educational Qualifications	BSc Eng (Mech)

Current Employment

I am a self employed free lance engineering and project management consultant. I have in excess of 20 years of engineering and project management experience in the sugar industry in Southern Africa. I have worked on numerous sugar projects including

- Nakambala Sugar Factory Expansion, Zambia
- Simunye Distillery Expansion, Swaziland
- Oman Sugar Refinery - design of greenfield sugar refinery
- Komati Mill, South Africa - expansion design and commissioning of equipment
- Ubombo Sugar, Swaziland - pipe stress analysis of high pressure and exhaust steam lines
- Maragra Sugar, Mozambique - project close out
- Marromeu Sugar factory, Mozambique – Acting as Lenders' representative
- Sugar Beet RSA, South Africa - design and detailed capital cost estimate
- Busia Raw Syrup and Co-gen Factory - basic design and capital cost estimate
- GPM, SIL, ILP: Indonesia - expansion study and basic design
- ACP, Peru Design and cost estimate of green field sugar factory

Employment History

Name of firm	SiVEST (SA) Pty Ltd
Address of firm	PO Box 1899 Umhlanga Rocks 4320 South Africa
Service period	1 June 2007 to 31 May 2009

Job Function

I worked as the Project Manager and as the Technical and Contracts Manager for the Factory part of the Zambia Sugar Expansion Project. This project was executed under an EPCM style of contract. The Factory project was executed in two phases and comprised

- A new cane handling plant
- A new mill
- A new diffuser
- A new boiler and power house
- New process equipment including, evaporators, continuous vacuum pans centrifugals and sugar dryers

- New warehousing and sugar handling and packing buildings and equipment

This brown-field expansion project has a value of just over USD100 million, and was executed over two years.

Name of firm	Booker-Tate Limited
Address of firm	Masters Court Church Road Thame Oxon OX 93 FA England
Service period	1 July 2002 to 31 May 2007

Job Function

While working for Booker Tate Limited I was seconded to the Royal Swaziland Sugar Corporation's two sugar factories namely Mhlume and Simunye.

I was the Client's project manager for the expansion of the attached distillery at Simunye, this project has successfully completed.

The project value was USD17.3 million and was executed under a FIDIC Plant and Design Build Contract, with loan finance from [Rand Merchant Bank](#) and others.

My role started as the engineering manager of the project, I led a team of process designers and engineers to produce the process design tender documents and the construction tender documents. I led the negotiations with the tenderers, adjudicated the tenders and made the recommendation of the successful contractor

After this phase was completed I took over the negotiation of the finance of the project and took the financing phase to completion. This involved in depth negotiations with [Rand Merchant Bank](#) [First National Bank](#) as well as the [Export Credit Insurance Corporation](#), while working closely with our legal counsel.

I was also responsible for the management of the completion of the banks' Conditions Precedent for the first loan Advance, this included

- Ensuring the Contractor's Performance Bond was in order
- Getting Insurance of the Works in place
- Dealing with Reserve Bank compliance issues
- Arranging Forward Cover for loan
- Co-ordination the Security Sharing Agreement
- Organising the cancellation of Deeds of Hypothecation

- Arranging the registration of General Notarial Covering Bonds
- Opening various foreign currency bank accounts

I also redeveloped and updated the financial model for the project as required during the financing phase. I drew up the project budget and am currently managing the cost control aspects of the project.

I looked after the engineering and project management aspects of the project, as the contractually defined Engineer in the FIDIC contract agreement, so I was responsible for protecting all of the employer's interests during the design, construction and commissioning phases of the project

Projects for Booker-Tate

At Mhlume I was responsible for the design and cost estimate of the expansion of the Mhlume factory. I have also produced studies for the phased de-bottlenecking/expansion of both the Mhlume and Simunye factories.

At Simunye I specified and managed the contracts for the installation of

- cooling towers
- conveyor belt for mud disposal
- detailed design of a boiler flue gas scrubber installation

Name of firm	Murray & Roberts Engineering Solutions
Address of firm	Murray and Roberts Engineering Solutions 27 Jan Hofmeyer Road Westville Durban South Africa
Service period	1 August 1998 to 31 June 2002

Job Function

At [Murray and Roberts Engineering Solutions](#) (formerly Engineering Management Services (Pty) Ltd) I was involved in all aspects of sugar engineering for example

- Design of sugar equipment
- Development of mass and energy balances as well as
- integrated engineering document system (automatic generation of PFDs and data sheets)
- Drawing up specifications and data sheets for sugar equipment for example
 - Cane shredders and knives
 - Sugar cane mills
 - Juice heaters
 - Evaporators
 - Vacuum pans

- Crystallisers
- Centrifugal machines both batch and continuous
- Preparing engineering requisitions
- Checking drawings
- Management of a team of draughtsmen
- Adjudication of tenders
- Commissioning of plant

Projects at Murray and Roberts (formerly EMS)

- Oman Sugar Refinery - design of greenfield sugar refinery
- Komati Mill, South Africa - expansion design and commissioning of equipment
- Ubombo Sugar, Swaziland - pipe stress analysis of high pressure and exhaust steam lines
- Maragra Sugar, Mozambique - project close out
- Marromeu Sugar factory, Mozambique – Acting as Lenders’ representative
- Sugar Beet RSA, South Africa - design and detailed capital cost estimate
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Name of firm [Tongaat-Hulett Sugar](#)
 Address of firm 1001 Umhlanga Rock Drive
 La Lucia
 Durban
 South Africa

Service period 1 February 1988 to 31 July 1998

Positions held

Development Engineer at Technical Management Dept, Head Office	1 Feb 94 to 31 July 1998
Plant engineer at Maidstone Mill	7 May 90 to 31 Jan 94
Assistant engineer at Darnall Mill	1 Feb 88 to 6 May 90

Job Functions

At Tongaat-Hulett’s TMD my job was essentially that of an internal consulting and design engineer. I was involved in all aspects of mechanical engineering, I have had some exposure in the electrical engineering field. Problems I dealt with were wide ranging; examples of the tasks I have performed are:

- Design of pressure vessels
- Designing boiler fans
- Design of machine support structures

- Steam pipe analysis and design
- Design of sugar dryers
- Design of flue gas scrubbers
- Design of vertical crystallisers
- Design of vacuum pans both batch and continuous
- Design and commissioning of cane diffusers

At Maidstone I was responsible for production and maintenance in the front-end (comprised of a milling train and a diffuser), the powerhouse (six turbo-alternator sets, 25 MW installed power), and the compressor station. The fabrication department, the machine shop, and the condition-monitoring department were service departments which I managed in addition to my production responsibilities.

I had five men reporting directly to me, and was responsible for a total of 92 people. I was also mentor to an assistant engineer and to engineering technicians.

At Darnall Mill I was an assistant engineer. This was essentially an engineer-in-training position, which lasted two years. During this period I worked in all the various sections of the sugar mill.

Special Skills

- Project planning, specifically based on the Project Management Body of Knowledge (PMBOK™), preparation of Work Breakdown Structures (WBS), Capital Cost Estimating and Capital Cost Budgeting. Risk Management Planning.
- Good knowledge of all of the FIDIC contracts
- Good understanding of contract law as applied to construction projects
- Good at preparing contract documents and engineering specifications
- Excellent MS Excel skills for preparation of financial models for capital projects
- Good understanding of working in a foreign country
- All round knowledge of sugar processing technology and engineering
- Expert knowledge of pipe stress analysis as applied to sugar factories
- AutoCad draughting (not expert)
- Computer programming in a variety of languages (Delphi/Pascal, PHP, VisualBasic)
- Internet web page design

Pipe Stress Analysis

I have been doing pipe stress analysis on various projects for about 15 years. Plants on which I have done high pressure and exhaust pipe stress analysis include

- Mhlume Sugar Factory, Swaziland.
- Huletts Sugar Refinery, Durban.
- Simunye Distillery, Swaziland.
- Triangle Sugar Factory, Zimbabwe.
- Ubombo sugar Factory, Swaziland.
- Xinavane Sugar Factory, Mozambique.
- Undisclosed Textile Factory in Durban.

Other

Professional Societies	Member - South African Sugar Technologists' Association .
Papers published	<p><i>The prediction of vibration forces from measured structural response</i>, read at Noise and Vibration 93 in Pretoria.</p> <p><i>Investigation into the Performance of a Diffuser Dewatering Mill</i>, read at SASTA Congress 1994 in Durban</p> <p><i>Application of finite element methods to sugar industry equipment</i> read at SASTA Congress 1998 in Durban</p> <p><i>Optimum Distribution of Heating Surface in a Multiple Effect Evaporator Train</i> read at SASTA Congress 2004 in Durban</p>
Hobbies	Designing, running and writing the Sugar Engineers' Library website