CURRICULUM VITAE

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Date and city of birth:	1 May 1970	Amsterdam

Education:	1982 - 1989	Lorentz Lyceum VWO, Eindhoven
	1989 - 1990	TU-Delft mechanical engineering
	1990 - 1994	HTS-Haarlem mechanical engineering
	1994 - 1997	TU-Delft mechanical engineering transportation technique
Certificates:	1989	Atheneum-B
	1994	HTS mechanical engineering 'Cum Laude'
	1997	TU mechanical engineering

Relevant working experience:

1998 – 2002	Itrec – mechanical design engineer
2002 – 2004	Itrec – lead engineer
2004 – 2006	Itrec – senior mechanical engineer
2006 – 2010	Bluewater Energy Services – senior mechanical engineer
2010 -	Minahassa Mechanical Engineering - owner; mechanical engineering consultant

Patents:

Tubular handling apparatus and a drilling rig WO2006038790
This patent describes a tubular handling apparatus for a drilling rig. Some sequential handling stages are combined in one single step. Design is simplified: lighter; less actuators and quicker operation.

Mooring assembly – application no 08160604.8 – 2422
The patent describes several solutions for FPSO main bearing replacement during operation.

Design/fabrication projects:

Marine Well Containment System for MWCC
This system was fabricated after the Deepwater Horizon accident. This system consists of two capture vessels (converted tankers) that will be employed in case of large oil spills. Scope of supply consists of external turret systems for each vessel. This external turret is fitted out with a disconnectable turret buoy that allows the capture vessel to disconnect from the capture system in case of emergency (e.g. hurricane). I was lead engineer for the mechanical scope from concept phase to fabrication.

800t around the leg crane – for various end users
For a series of 5 around the leg cranes for jack-up platforms for offshore windmill installation I have redesigned the lower block. The lower block is splittable in order to be able to choose between high speed and high lifting capacity.

Supply boat mooring buoy
For a 2500 tonne deadweight supply boat mooring buoy I have specified the mechanical items.

Design proposal for a large FPSO turret – BP
For the proposal of a large turret (>20m diameter) of an FPSO I modified the design in order to achieve full replacement of key mechanical items. Replacement of the mooring chains and the chain stoppers is possible without diver intervention. Furthermore it is possible to transfer the load of the main bearing onto a secondary bearing on the field in order to allow for bearing overhaul.

LNG tandem offloading system
Bluewater has developed a tandem offloading system for offshore LNG transfer. The system is based on utilization of a newly developed composite cryogenic hose. I made the mechanical design of the system.

Large bearings for FPSO's – in house study
I am involved in a study on the implications of further increase of FPSO main bearing diameters. Solutions for bearing replacement are being patented.

FPSO double pivoting mooring chain stoppers – BP Skarv
As part of a FEED study for BP I made the design for double pivoting chain stoppers for the FPSO intended for the SKARV field. A double pivoting mechanism was designed in order to reduce out-of-plane bending of the mooring chains, a phenomenon that in the recent past has led to several mooring chain failures. The chain stoppers were designed for 25 years uninterrupted service, with no maintenance possible. Peak load for each chain stopper is approximately 1400 tonne.

Disconnectable turret mooring system – Bluewater FPSO Munin
A feed study was carried out for Petrobras. The study was concerning a disconnectable turret mooring system for FPSO Munin. In case of a hurricane the FPSO could disconnect from the mooring and the risers and leave the field. Risers and mooring chains would remain connected to a buoy that - when disconnected – was to sink to a depth of approx. 25m. I made the design of the buoy pull in system that is to pull the buoy back into a receptacle in the turret.

LOC 250 – several clients
LOC 250 is a drilling rig built from modules that fit in standard ISO containers and can be installed in several days. I made the concept design of several modules and I invented the –patented- mechanism for the pipe loading machine which loads all tubulars (drillpipe, casing) into the tower.

Workstation Seven Oceans and PLET line up tool – Subsea 7
I made the basic design of the workstation that is placed on the pipe lay tower of Seven Oceans. The workstation has large openings on SB, on aft and on bottom side. The main purpose of the workstation is creating a sheltered working area for welding Pipe Line End Terminations to the pipe in the firing line. For this the PLETs are loaded from the side placed on dedicated pallets.

Line up tool for gimballing J-lay tower – Stolt Offshore (now: Acergy)
I made the basic design for the line up tool for the new J-lay tower for Stolt offshore. This is a very special tower, because it gimbals about two axes, which enables the vessel to remain working in head seas direction, while laying pipe in cross direction, in backward or forward direction or any direction inbetween.

Test/transport frame and hoisting provisions for line up tool for gimballing J-lay tower – Jumbo Shipping
I designed the test/transport frame for abovementioned J-lay tower. The frame was required to spread the load of the tower + test weights onto the quayside. After testing the frame served as seafastening for the tower on the heavy lift vessel for transport to Gabon. I also designed the lifting points on the tower; both in co-operation with Jumbo.

15" pipe aligner and straightener system for pipe with piggy back pipe – Torch offshore (now Helix Express)
My design team designed the aligner and straightener system for the reel lay vessel from Torch. This system straightens the rigid pipe before it is lowered to the seabed.

160t hang off module – Torch offshore
My design team designed the hang off module for a reel lay pipe laying vessel for Torch offshore. This hang off module skids over a rail on the tower in order to work in two firing lines. It has a side opening over the entire length that enables side loading around the sea pipe. The pipe is caught by means of friction pads that are pressed to the pipe with hydraulic cylinders.

400t heave compensation system for offshore crane – Sealion
For a 400t offshore crane built for Sealion, my design team designed a passive and active heave compensation system. The system consists of a large hydraulic cylinder mounted on the bottom of the traction winch, combined with a medium separator and a nitrogen tank and a hydraulic pump for the active heave control. I also supervised making of the shopdrawings and gave support during commissioning.

Line up tool for J-lay system for DCV "Balder" – Heerema
This system lines up hex pipes (72m length) to the sea pipe that hangs in the hang off module, in order to enable welding the sections together. In some configurations of the J-lay tower, the transverse loading occurring during line up may be up to 100t for each actuator set.

Riser handling crane - Petrodrill
The Riser Handling is a dedicated gantry crane that can handle marine risers on a semisubmersible drillship. The risers are picked up from their storage position in the leg of the semi, and laid horizontally onto the crane. Then the crane travels to the centerline of the ship where it hands over the risers to the derrick. For this crane I designed several subsystems, I supervised production of shopdrawings and I attended the installation on a rig at Daewoo shipyard in Korea.

Design validation testing projects:

LNG hose qualification programme
For the qualification of the Composite Cryogenic Hose some 25 qualification tests are being carried out. I am defining the required test protocols and supervising the tests. I have made the concept design of the dedicated fatigue test rig and supervised the detail design. Currently pressure tests have been carried out at the fabrication site of Dantec in Wirral, UK. Also flow tests have been carried out at Deltares in Delft, The Netherlands. I assisted in qualification of the key suppliers.

Large scale sliding bearing testing at Labo Soete, University of Gent, Belgium
For the chain stoppers of the BP-Skarv FPSO mentioned above a qualification programme was set up for the sliding bearings. The purpose was to select the best bearing material and to obtain friction and wear data. For Bluewater I supervised the first two phases (out of 3) of this project.

Polyurethane tensioner squeeze pads for Ormen Lange (Skandi Neptune) – Subsea 7
On request of Subsea 7 Huisman has fitted out tensioner squeeze pads for umbilicals with PU coating. The first batches did not function satisfactory. Together with Subsea 7 and the suppliers an improvement programme was carried out, including re-design and testing at Bodycote laboratory in Daventry, UK. For Huisman I took care of the technical part of this project.

Fatigue test rig for hoisting wire – Huisman
Huisman has delivered the Multi Purpose Tower on the Q4000, now owned by Helix Energy Solutions. In order to validate the calculated fatigue life of the hoising wire I have designed a test rig. The rig is capable of simulating bending, counter bending and side lead of the wire. In this test rig the wire was successfully tested.

Large scale bearing testing at Orkot, Rotherham, UK
For the main bearings of the gimballing J-lay tower for Stolt (Acergy) a test programme was carried out at Orkot in order to validate bearing integrity under dynamic and thermal load. For Huisman I supervised the tests.

Repair/overhaul projects

Utility swivel overhaul FPSO Triton
Together with a colleague I overhauled the utility swivels of FPSO Triton. The swivel stack was disassembled. Then one module was changed out; two modules were overhauled on board. Finally the stack was built up again and pressure tested.

Utility swivel overhaul FPSO Bleo Holm
I assisted in the overhaul of the utility swivels of FPSO Bleo Holm, an operation similar to overhaul of the Triton utility swivels.

Crude oil offloading buoy main bearing exchange, Pointe Noire, Congo
This job consisted of: jacking up of the buoy turntable, lifting off the bearing, lifting on the new bearing, alignment of the turntable and tightening of the bearing. All work was carried out with a local crew.

Repair of damaged crane, Daewoo Shipyard, South Korea
For this project I investigated the damage on the –just installed- Riser Handling Crane caused by a collapsing harbour crane. In a later stage I returned in order to start up the repairs programme.

Various projects

Package Responsible Engineer for Aasta Hansteen topside project - Statoil
For this project – a new build gas production platform to be installed in 1300m water depth – I have been responsible for several mechanical packages. Main foceus was on:
2 * 60t @ 23m pedestal cranes
1 * 300t Riser Pull in Winch fitted on gantry crane

Design reviews for mechanical components
For several clients I have performed design reviews of mechanical components, such as reels, winches, large drive systems.